

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL091025\
 Data File : VL042925.D
 Acq On : 10 Sep 2025 12:41
 Operator : SY/MD
 Sample : Q3052-02DL 40X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV2DL

Quant Time: Sep 11 01:12:31 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL081325AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Tue Sep 09 00:52:26 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.780	49	147188	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.949	114	371484	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.875	117	320718	10.000	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.370	95	247690	10.298	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.000%

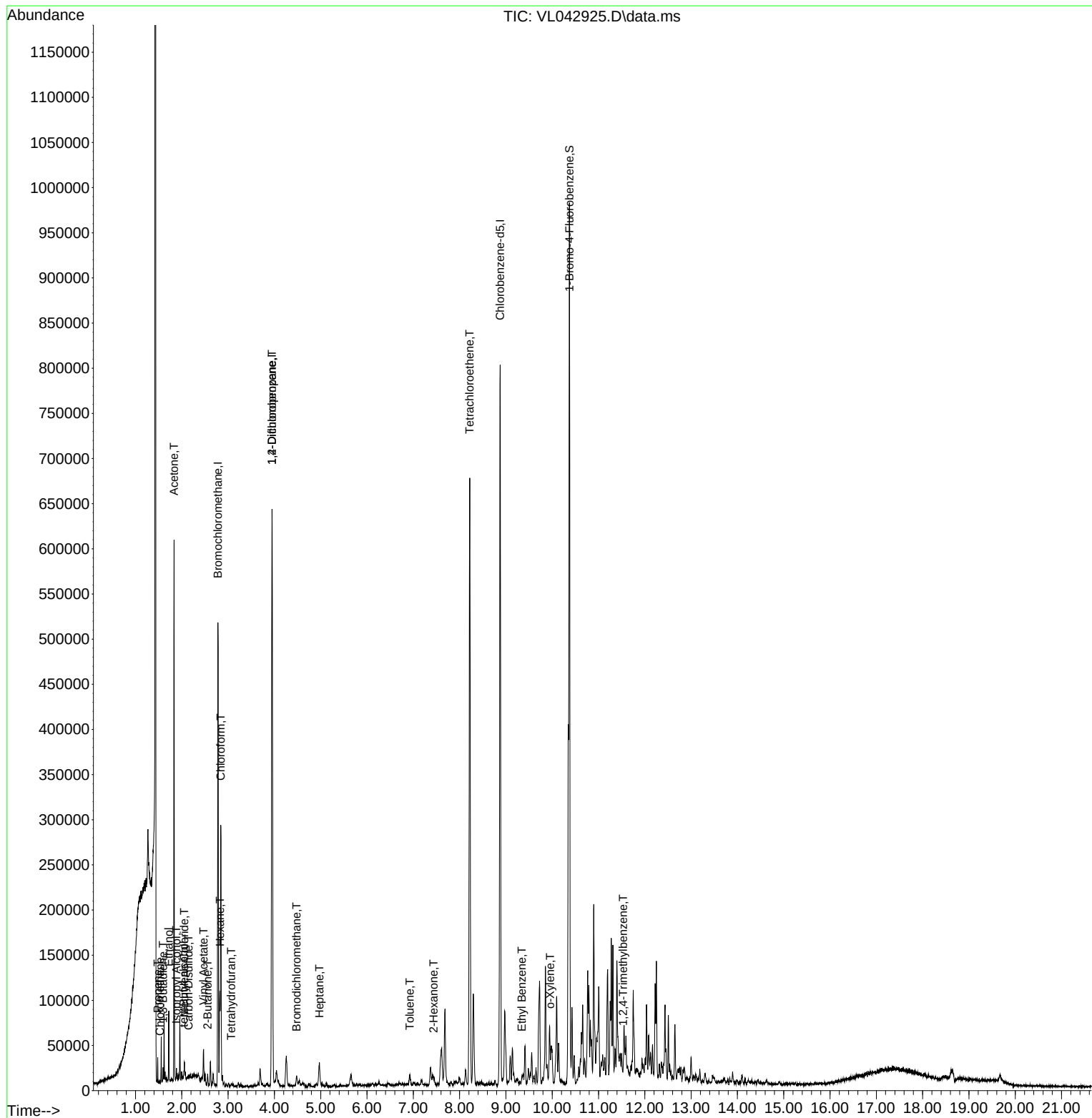
Target Compounds						Qvalue
4) Chloromethane	1.528	50	348	0.040	ppbv #	66
9) Propene	1.479	41	4056	0.394	ppbv	94
10) Heptane	4.972	43	6113	0.222	ppbv #	60
13) Ethanol	1.719	45	26272	27.903	ppbv	92
15) Acetone	1.832	43	249221	12.800	ppbv	99
16) 1,3-Butadiene	1.596	39	1914	0.217	ppbv #	48
17) tert-Butyl alcohol	2.043	59	2041	0.088	ppbv #	68
19) Isopropyl Alcohol	1.884	45	5437	0.468	ppbv #	1
20) Methylene Chloride	2.055	84	2549	0.313	ppbv #	76
23) Vinyl Acetate	2.470	43	10299	0.385	ppbv #	38
26) Hexane	2.823	57	21869	1.005	ppbv #	41
27) Carbon Disulfide	2.143	76	1910	0.090	ppbv #	63
29) Chloroform	2.842	83	113659	3.660	ppbv	98
34) 2-Butanone	2.557	43	7244	0.289	ppbv	96
39) 1,2-Dichloropropane	3.949	63	96296	7.412	ppbv #	26
41) Tetrahydrofuran	3.069	42	611	0.044	ppbv #	67
42) Bromodichloromethane	4.480	83	7183	0.259	ppbv #	87
51) 2-Hexanone	7.438	43	2853	0.107	ppbv #	27
52) Tetrachloroethene	8.218	164	113887	8.850	ppbv	96
53) Toluene	6.923	91	5650	0.134	ppbv #	64
58) Ethyl Benzene	9.344	91	1959	0.035	ppbv	92
60) o-Xylene	9.956	91	4745	0.106	ppbv	92
74) 1,2,4-Trimethylbenzene	11.529	105	2134	0.042	ppbv #	53

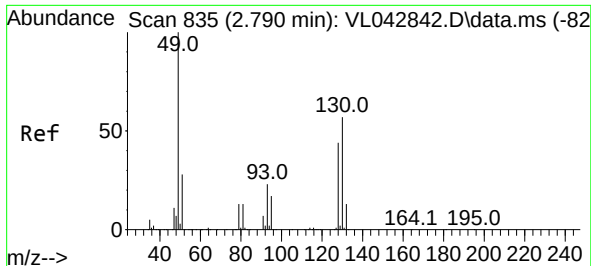
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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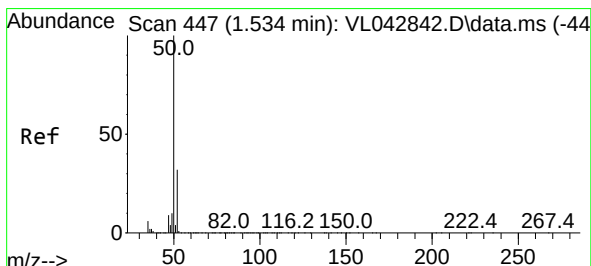
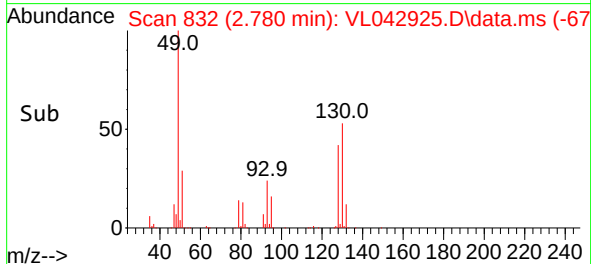
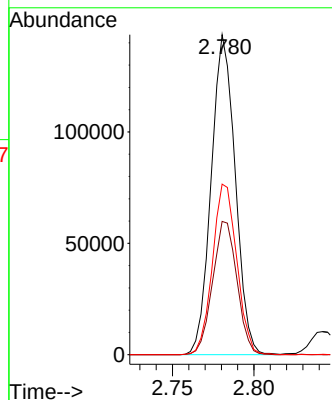
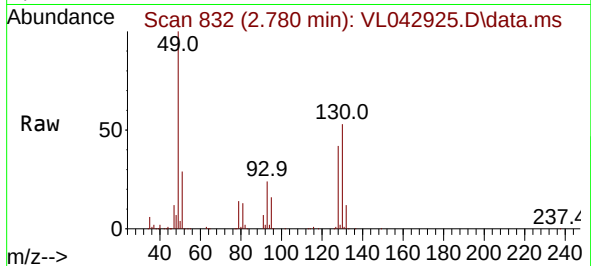




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.780 min Scan# 81
Delta R.T. 0.003 min
Lab File: VL042925.D
Acq: 10 Sep 2025 12:41

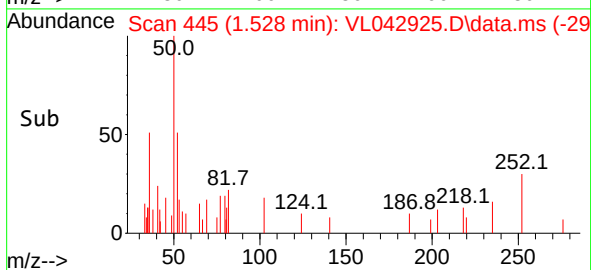
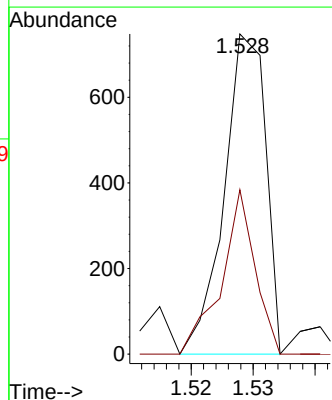
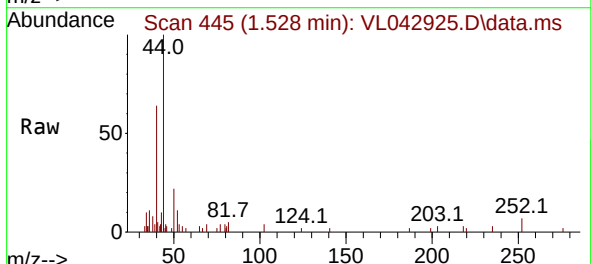
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

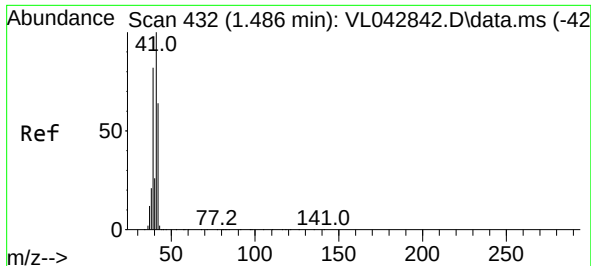
Tgt Ion: 49 Resp: 147188
Ion Ratio Lower Upper
49 100
128 42.2 23.7 71.1
130 53.9 30.6 91.6



#4
Chloromethane
Concen: 0.040 ppbv
RT: 1.528 min Scan# 445
Delta R.T. -0.000 min
Lab File: VL042925.D
Acq: 10 Sep 2025 12:41

Tgt Ion: 50 Resp: 348
Ion Ratio Lower Upper
50 100
52 51.3 25.9 38.9#





#9

Propene

Concen: 0.394 ppbv

RT: 1.479 min Scan# 41

Delta R.T. 0.003 min

Lab File: VL042925.D

Acq: 10 Sep 2025 12:41

Instrument :

MSVOA_L

ClientSampleId :

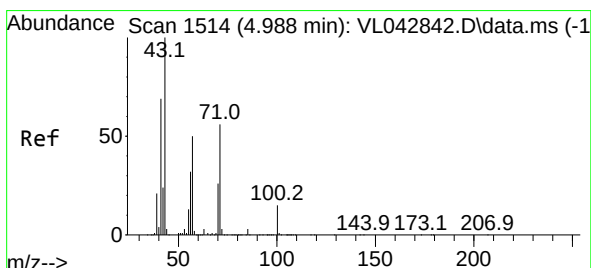
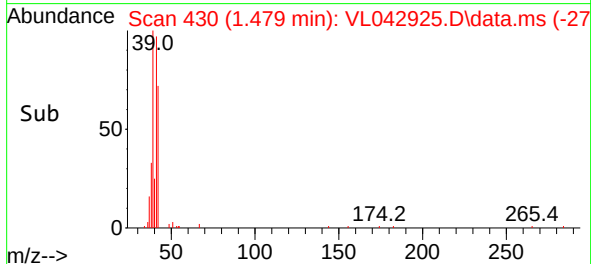
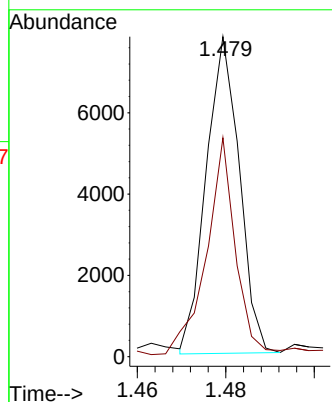
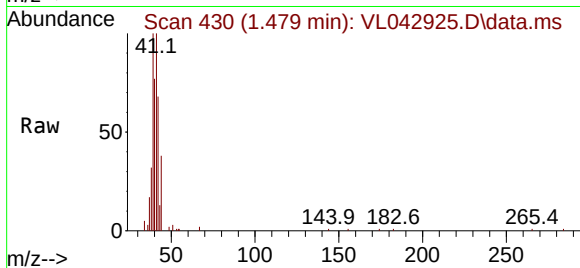
SV2DL

Tgt Ion: 41 Resp: 4056

Ion Ratio Lower Upper

41 100

42 61.5 53.0 79.4



#10

Heptane

Concen: 0.222 ppbv

RT: 4.972 min Scan# 1509

Delta R.T. 0.013 min

Lab File: VL042925.D

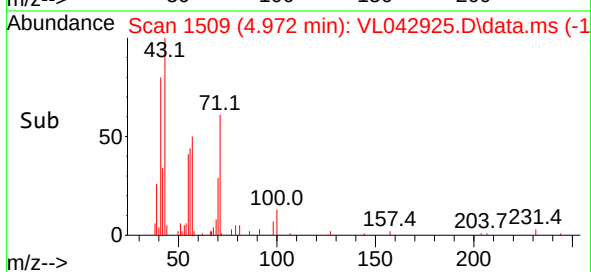
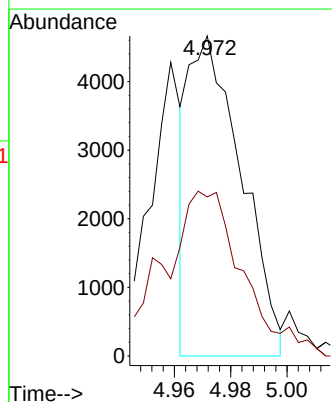
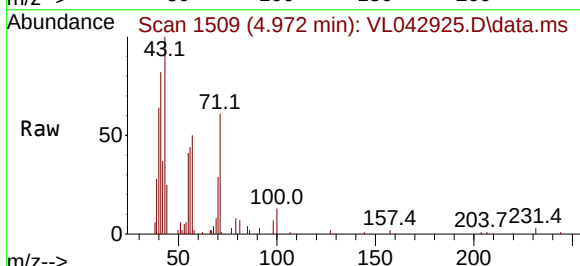
Acq: 10 Sep 2025 12:41

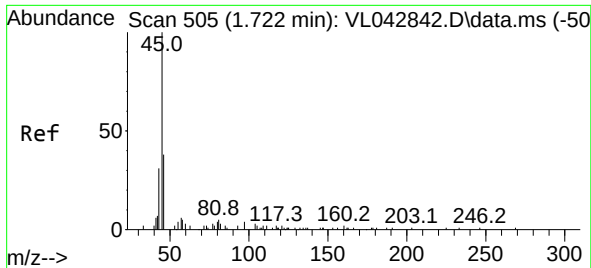
Tgt Ion: 43 Resp: 6113

Ion Ratio Lower Upper

43 100

57 79.8 41.4 62.0#

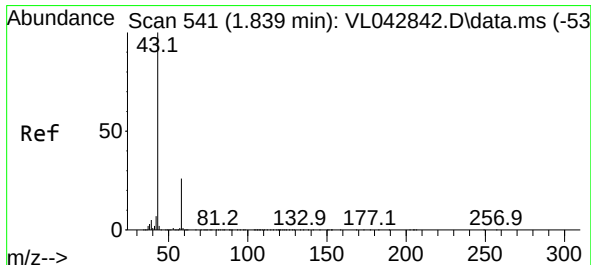
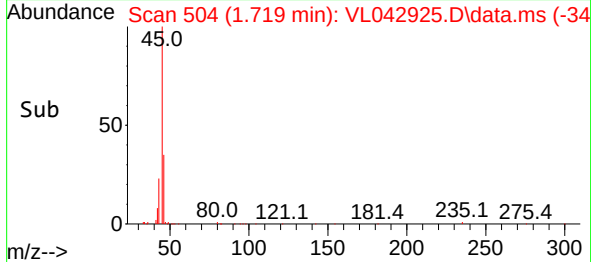
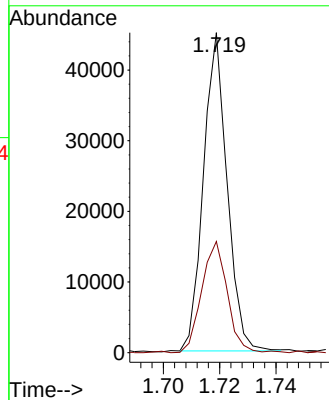
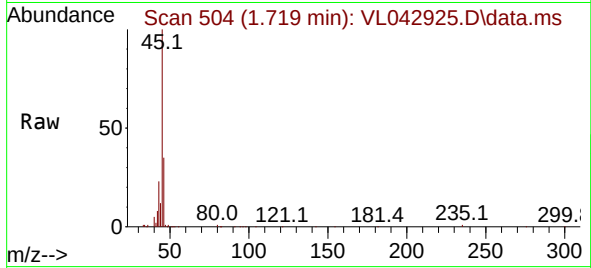




#13
Ethanol
Concen: 27.903 ppbv
RT: 1.719 min Scan# 505
Delta R.T. 0.003 min
Lab File: VL042925.D
Acq: 10 Sep 2025 12:41

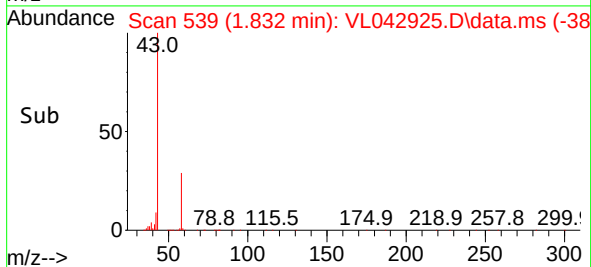
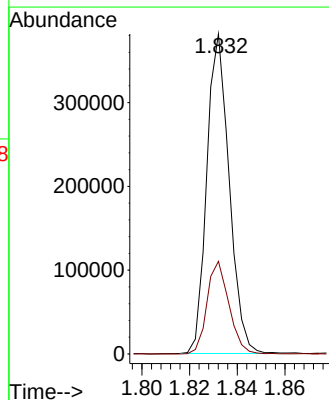
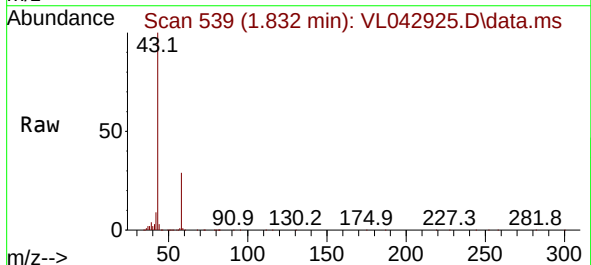
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

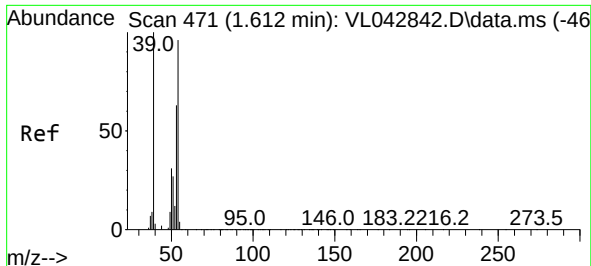
Tgt Ion: 45 Resp: 26272
Ion Ratio Lower Upper
45 100
46 38.7 17.5 69.9



#15
Acetone
Concen: 12.800 ppbv
RT: 1.832 min Scan# 539
Delta R.T. 0.003 min
Lab File: VL042925.D
Acq: 10 Sep 2025 12:41

Tgt Ion: 43 Resp: 249221
Ion Ratio Lower Upper
43 100
58 28.6 22.4 33.6

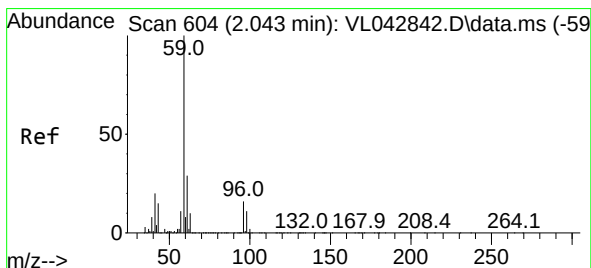
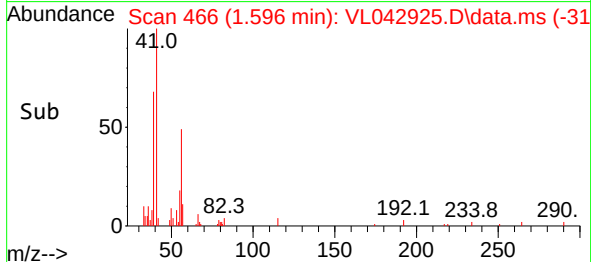
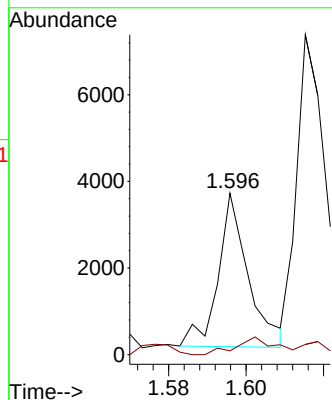
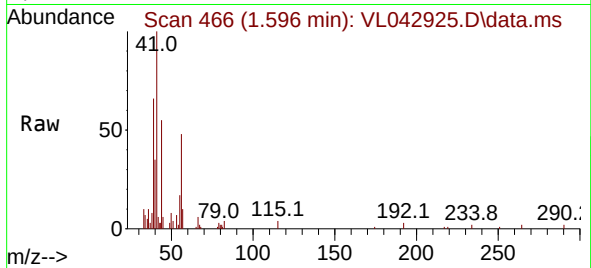




#16
1,3-Butadiene
Concen: 0.217 ppbv
RT: 1.596 min Scan# 466
Delta R.T. -0.007 min
Lab File: VL042925.D
Acq: 10 Sep 2025 12:41

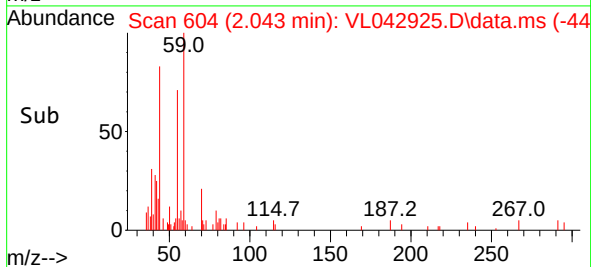
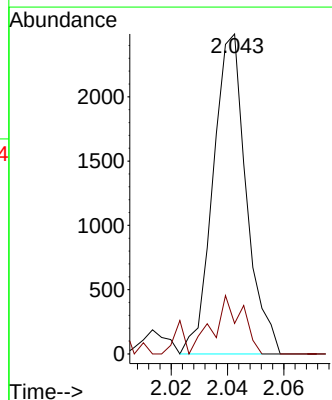
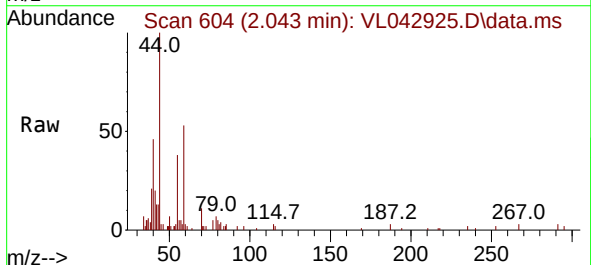
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

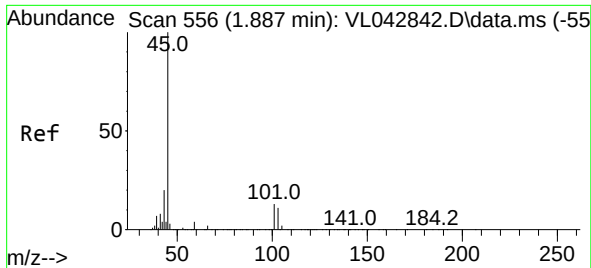
Tgt Ion: 39 Resp: 1914
Ion Ratio Lower Upper
39 100
54 33.6 63.6 95.4#



#17
tert-Butyl alcohol
Concen: 0.088 ppbv
RT: 2.043 min Scan# 604
Delta R.T. 0.010 min
Lab File: VL042925.D
Acq: 10 Sep 2025 12:41

Tgt Ion: 59 Resp: 2041
Ion Ratio Lower Upper
59 100
57 23.3 9.0 13.4#

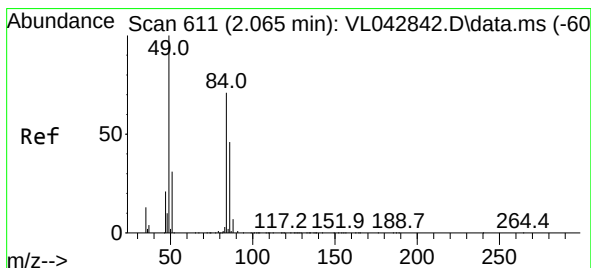
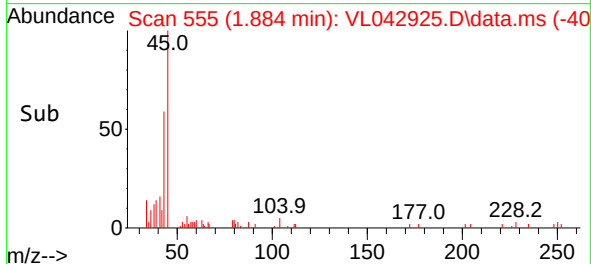
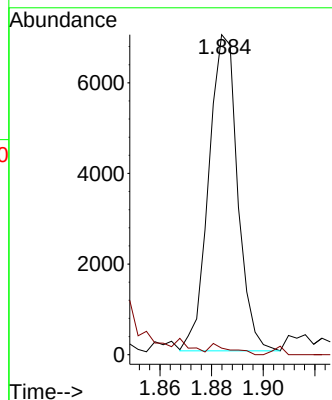
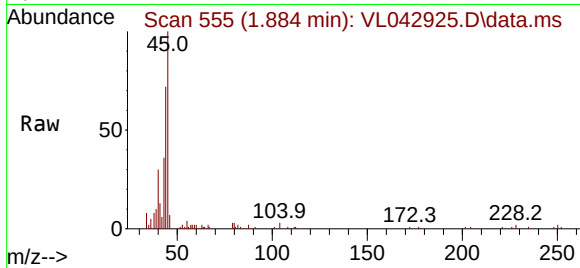




#19
Isopropyl Alcohol
Concen: 0.468 ppbv
RT: 1.884 min Scan# 511
Delta R.T. 0.003 min
Lab File: VL042925.D
Acq: 10 Sep 2025 12:41

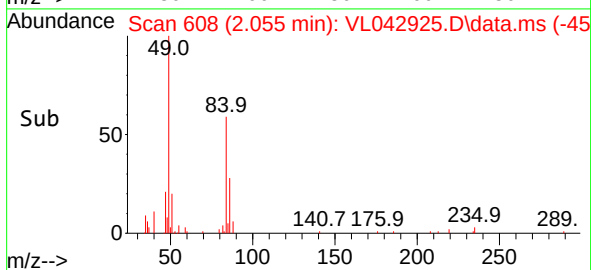
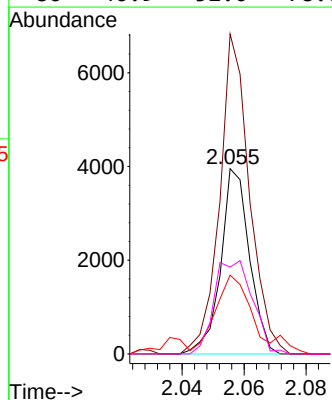
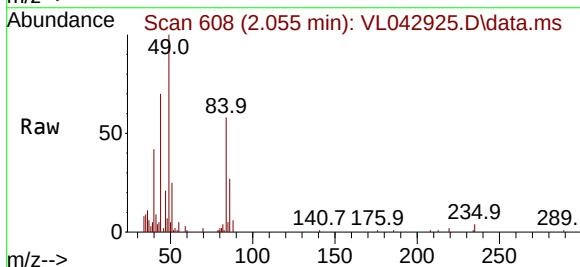
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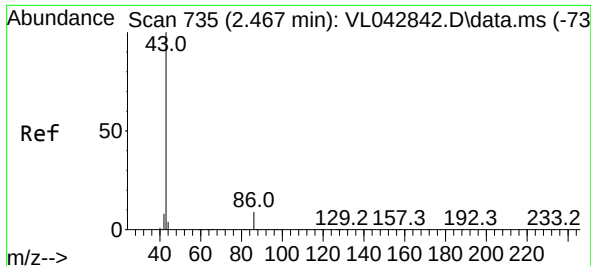
Tgt Ion: 45 Resp: 5437
Ion Ratio Lower Upper
45 100
58 1308.1 32.7 49.1#



#20
Methylene Chloride
Concen: 0.313 ppbv
RT: 2.055 min Scan# 608
Delta R.T. -0.000 min
Lab File: VL042925.D
Acq: 10 Sep 2025 12:41

Tgt Ion: 84 Resp: 2549
Ion Ratio Lower Upper
84 100
49 172.7 112.3 168.5#
51 34.7 36.0 54.0#
86 46.9 52.0 78.0#



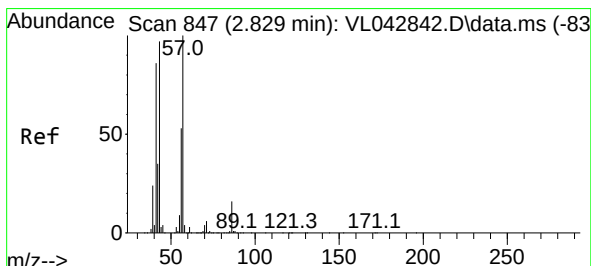
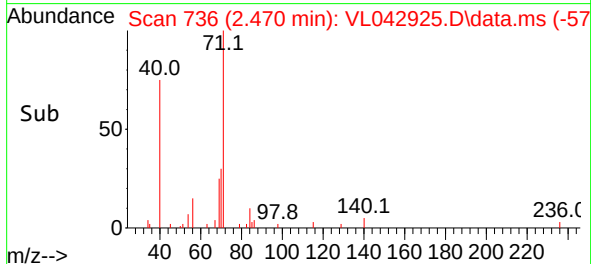
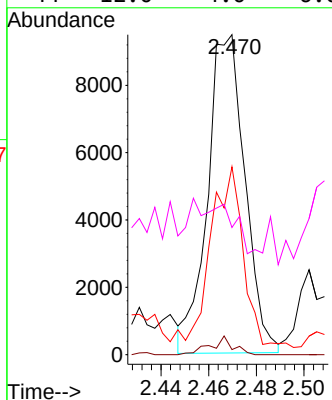
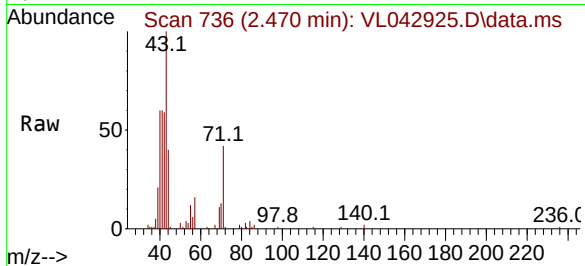


#23
 Vinyl Acetate
 Concen: 0.385 ppbv
 RT: 2.470 min Scan# 71
 Delta R.T. 0.016 min
 Lab File: VL042925.D
 Acq: 10 Sep 2025 12:41

Instrument :
 MSVOA_L
 ClientSampleId :
 SV2DL

Tgt Ion: 43 Resp: 10299

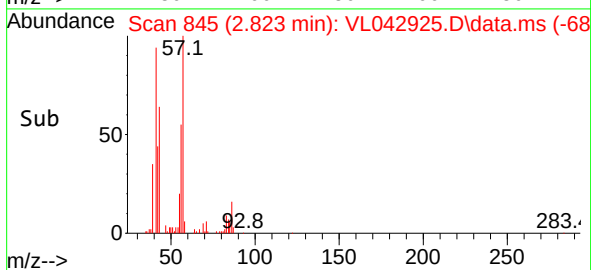
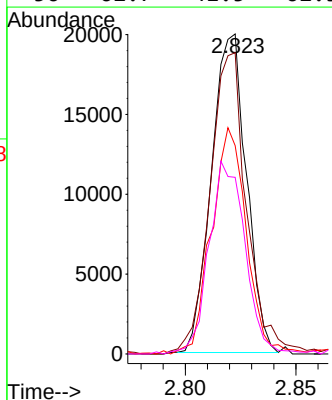
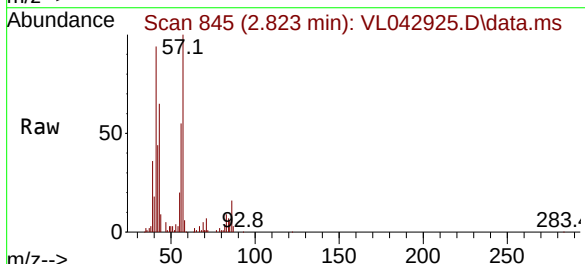
Ion	Ratio	Lower	Upper
43	100		
86	1.7	6.6	9.8#
42	53.8	7.0	10.6#
44	12.0	4.0	6.0#

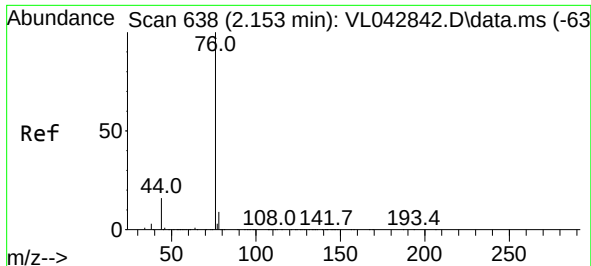


#26
 Hexane
 Concen: 1.005 ppbv
 RT: 2.823 min Scan# 845
 Delta R.T. 0.006 min
 Lab File: VL042925.D
 Acq: 10 Sep 2025 12:41

Tgt Ion: 57 Resp: 21869

Ion	Ratio	Lower	Upper
57	100		
41	100.4	68.6	103.0
43	73.8	168.5	252.7#
56	62.7	41.5	62.3#





#27

Carbon Disulfide

Concen: 0.090 ppbv

RT: 2.143 min Scan# 61

Delta R.T. -0.000 min

Lab File: VL042925.D

Acq: 10 Sep 2025 12:41

Instrument :

MSVOA_L

ClientSampleId :

SV2DL

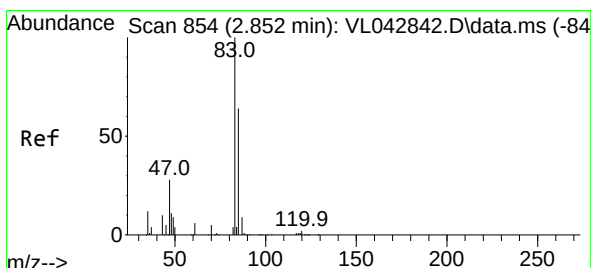
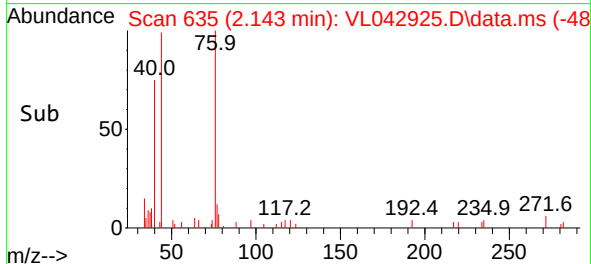
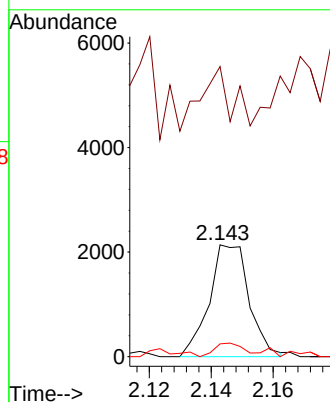
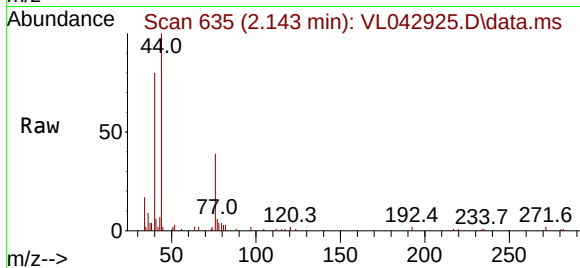
Tgt Ion: 76 Resp: 1910

Ion Ratio Lower Upper

76 100

44 0.0 15.9 23.9#

78 22.5 9.5 14.3#



#29

Chloroform

Concen: 3.660 ppbv

RT: 2.842 min Scan# 851

Delta R.T. 0.003 min

Lab File: VL042925.D

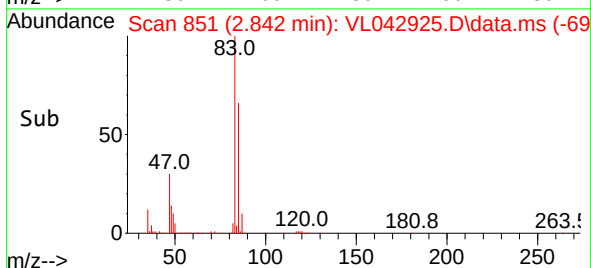
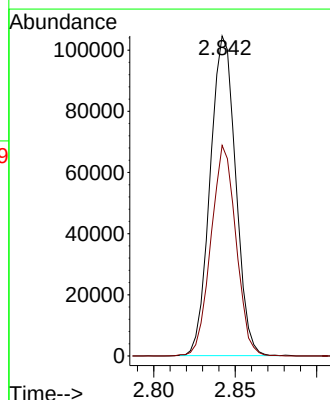
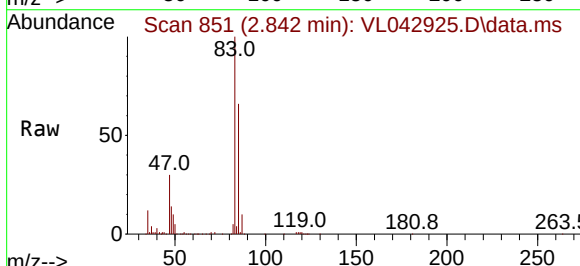
Acq: 10 Sep 2025 12:41

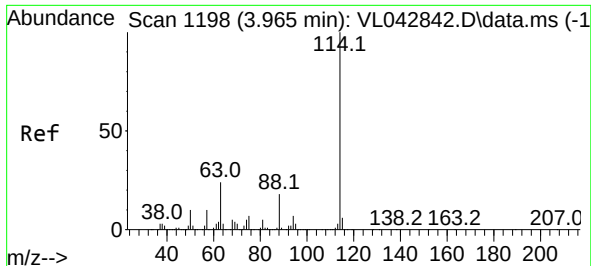
Tgt Ion: 83 Resp: 113659

Ion Ratio Lower Upper

83 100

85 65.8 51.1 76.7





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.949 min Scan# 1198

Delta R.T. 0.006 min

Lab File: VL042925.D

Acq: 10 Sep 2025 12:41

Instrument :

MSVOA_L

ClientSampleId :

SV2DL

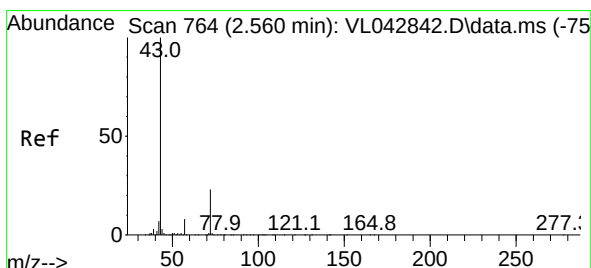
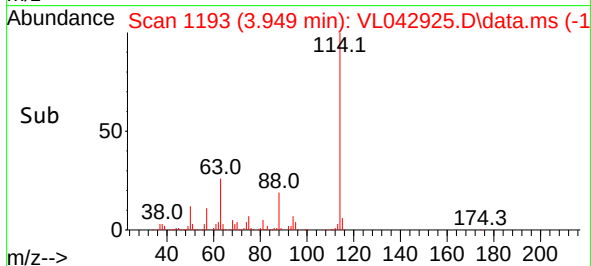
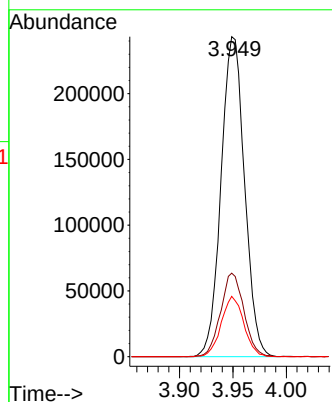
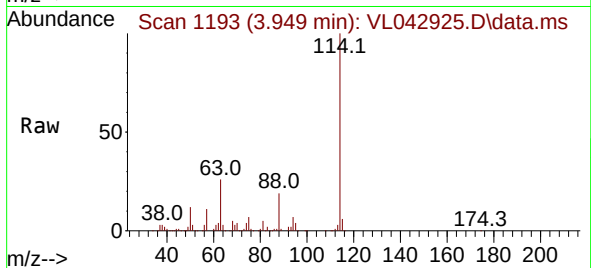
Tgt Ion:114 Resp: 371484

Ion Ratio Lower Upper

114 100

63 25.9 19.7 29.5

88 18.1 14.4 21.6



#34

2-Butanone

Concen: 0.289 ppbv

RT: 2.557 min Scan# 763

Delta R.T. 0.010 min

Lab File: VL042925.D

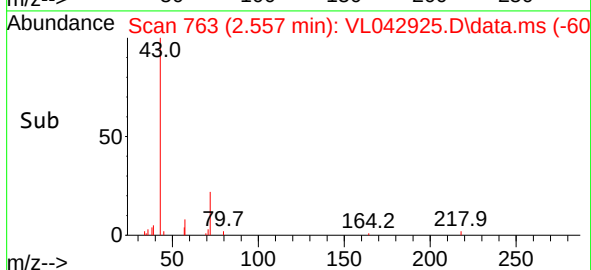
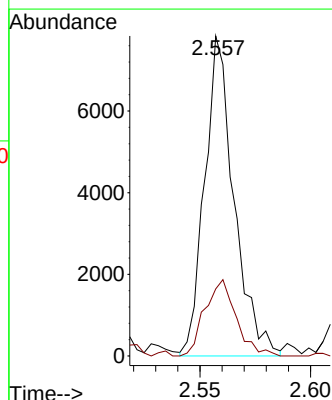
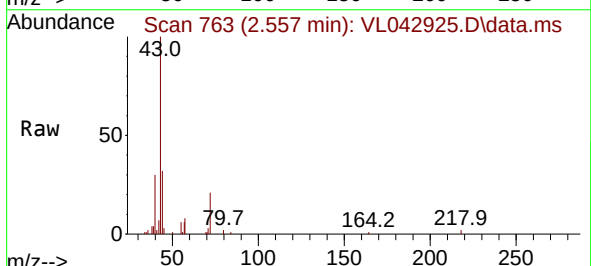
Acq: 10 Sep 2025 12:41

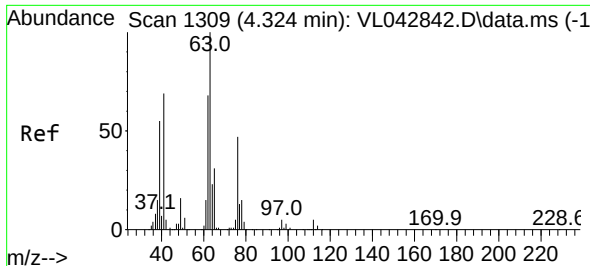
Tgt Ion: 43 Resp: 7244

Ion Ratio Lower Upper

43 100

72 25.4 18.6 28.0





#39

1,2-Dichloropropane

Concen: 7.412 ppbv

RT: 3.949 min Scan# 1193

Delta R.T. -0.350 min

Lab File: VL042925.D

Acq: 10 Sep 2025 12:41

Instrument :

MSVOA_L

ClientSampleId :

SV2DL

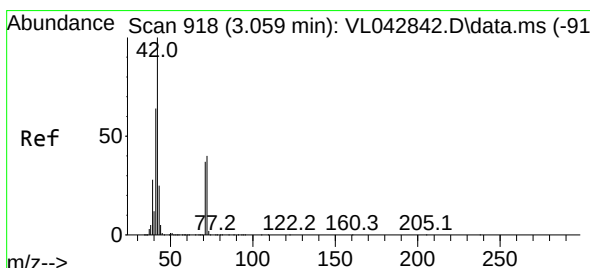
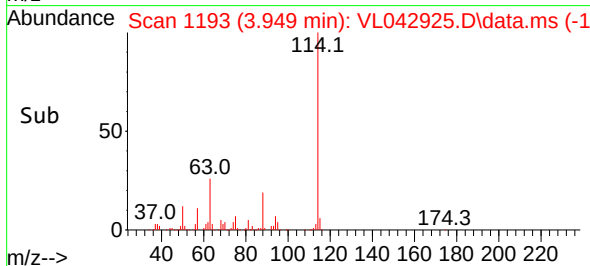
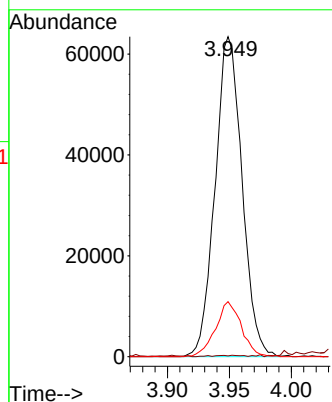
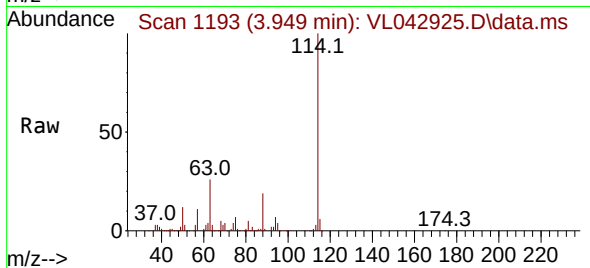
Tgt Ion: 63 Resp: 96296

Ion Ratio Lower Upper

63 100

41 0.0 55.0 82.4#

62 17.2 54.4 81.6#



#41

Tetrahydrofuran

Concen: 0.044 ppbv

RT: 3.069 min Scan# 921

Delta R.T. 0.026 min

Lab File: VL042925.D

Acq: 10 Sep 2025 12:41

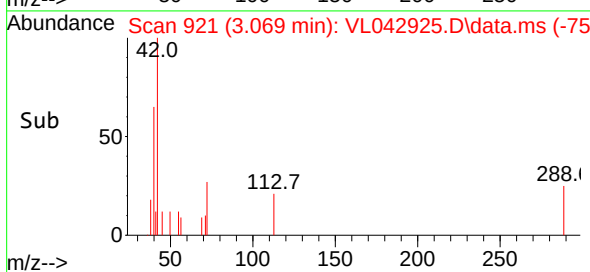
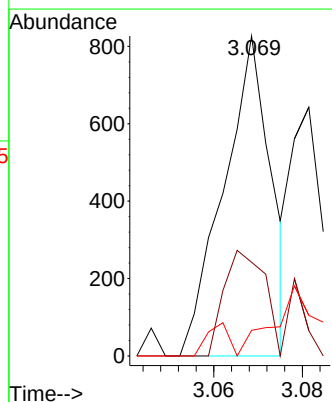
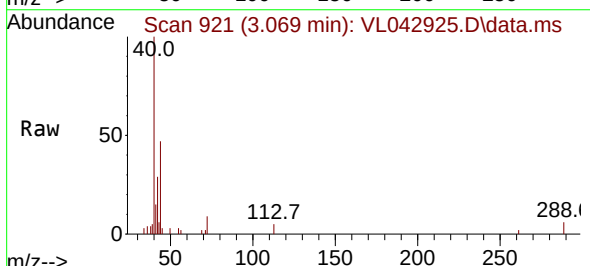
Tgt Ion: 42 Resp: 611

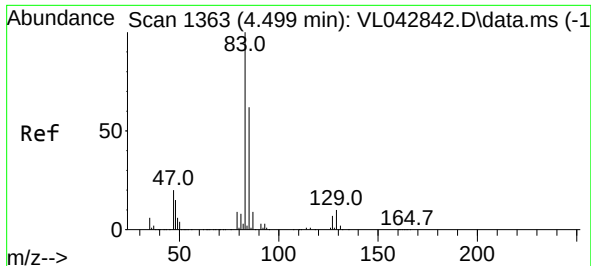
Ion Ratio Lower Upper

42 100

72 36.8 32.6 48.8

71 0.0 30.0 45.0#

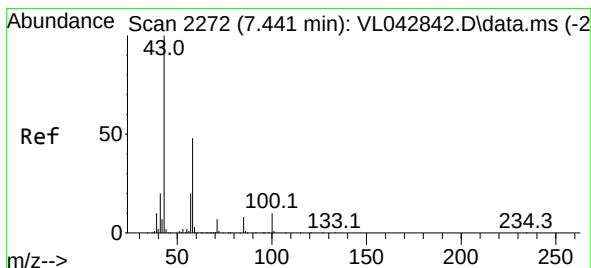
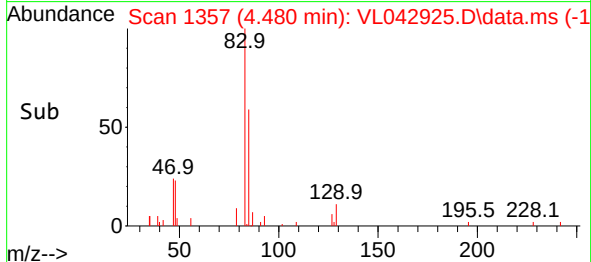
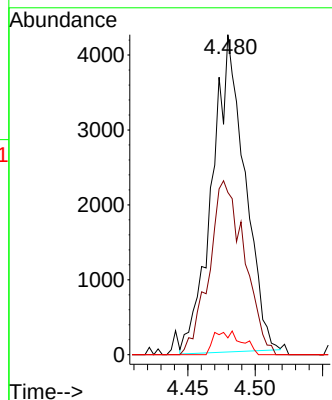
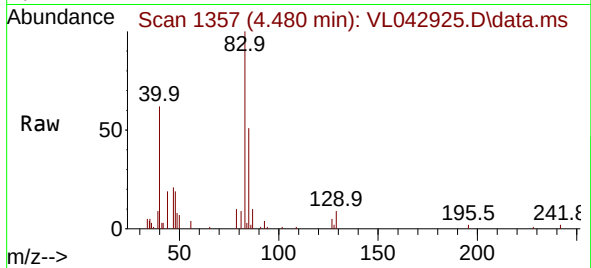




#42
Bromodichloromethane
Concen: 0.259 ppbv
RT: 4.480 min Scan# 11
Delta R.T. 0.006 min
Lab File: VL042925.D
Acq: 10 Sep 2025 12:41

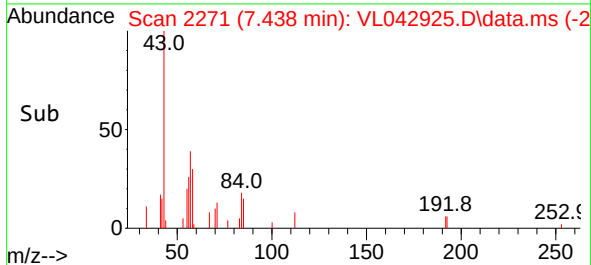
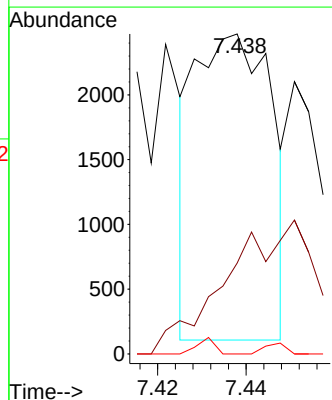
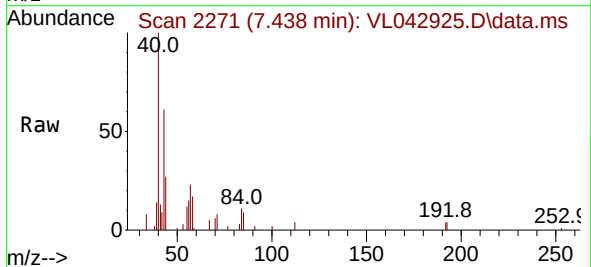
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

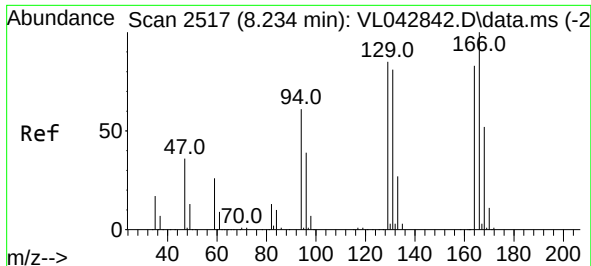
Tgt Ion: 83 Resp: 7183
Ion Ratio Lower Upper
83 100
85 51.5 49.8 74.8
127 5.3 5.8 8.6#



#51
2-Hexanone
Concen: 0.107 ppbv
RT: 7.438 min Scan# 2271
Delta R.T. 0.019 min
Lab File: VL042925.D
Acq: 10 Sep 2025 12:41

Tgt Ion: 43 Resp: 2853
Ion Ratio Lower Upper
43 100
58 0.0 41.0 61.6#
98 2.2 0.1 0.1#

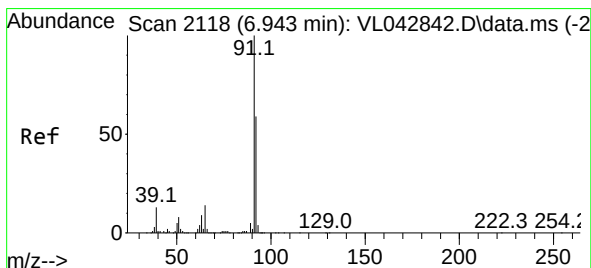
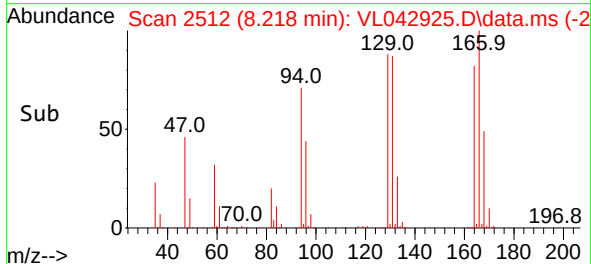
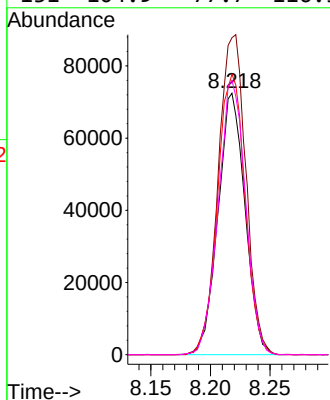
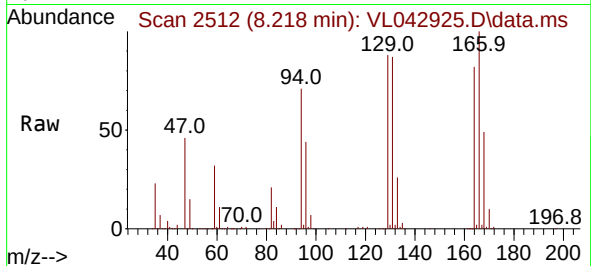




#52
Tetrachloroethene
Concen: 8.850 ppbv
RT: 8.218 min Scan# 2112
Delta R.T. 0.006 min
Lab File: VL042925.D
Acq: 10 Sep 2025 12:41

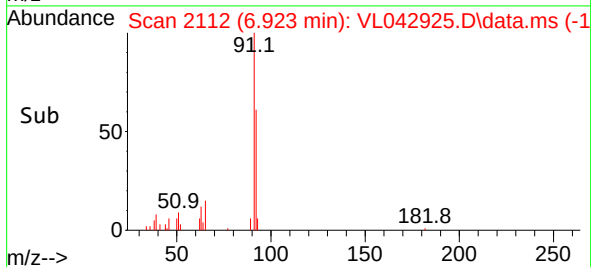
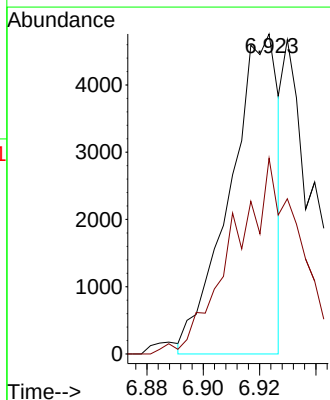
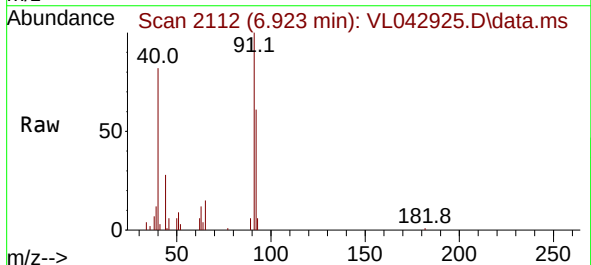
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

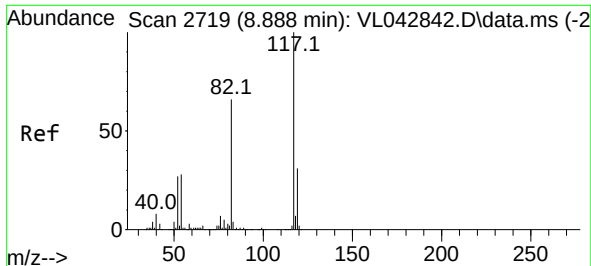
Tgt Ion:164 Resp: 113887
Ion Ratio Lower Upper
164 100
166 121.1 96.5 144.7
129 107.3 81.8 122.6
131 104.9 77.7 116.5



#53
Toluene
Concen: 0.134 ppbv
RT: 6.923 min Scan# 2112
Delta R.T. 0.010 min
Lab File: VL042925.D
Acq: 10 Sep 2025 12:41

Tgt Ion: 91 Resp: 5650
Ion Ratio Lower Upper
91 100
92 87.2 47.8 71.6#

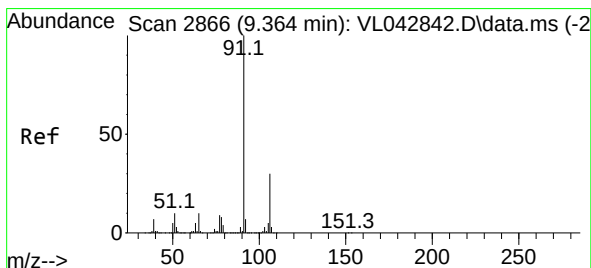
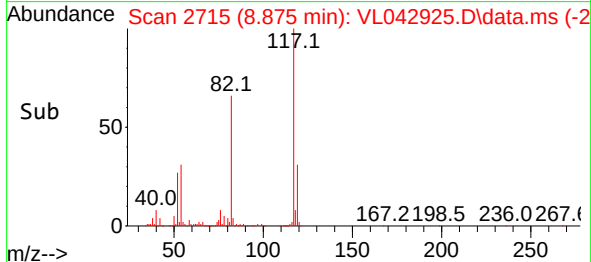
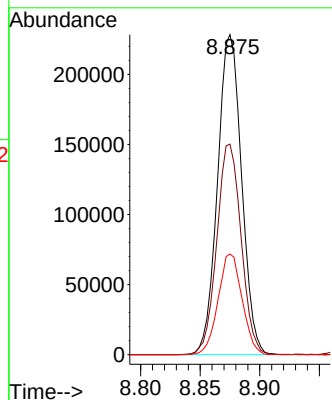
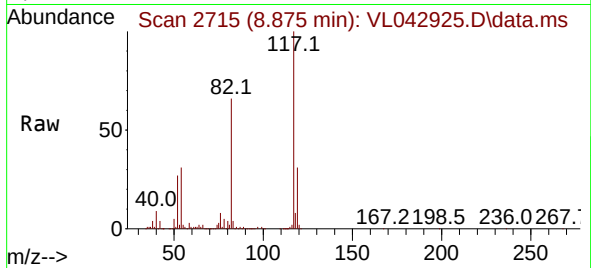




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.875 min Scan# 21
Delta R.T. 0.006 min
Lab File: VL042925.D
Acq: 10 Sep 2025 12:41

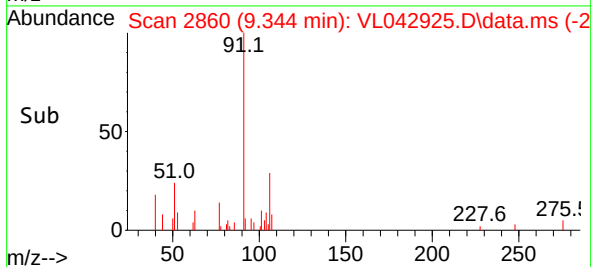
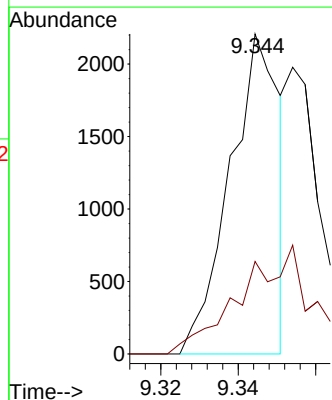
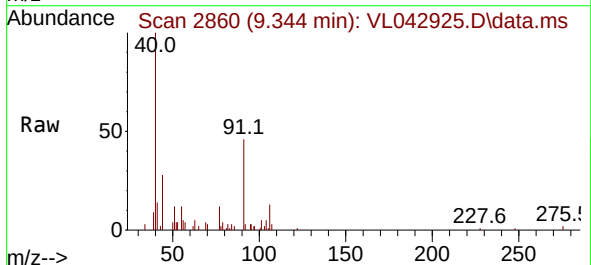
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

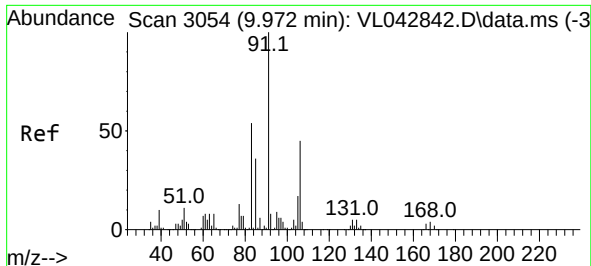
Tgt Ion:117 Resp: 320718
Ion Ratio Lower Upper
117 100
82 66.6 54.6 81.8
119 31.4 25.9 38.9



#58
Ethyl Benzene
Concen: 0.035 ppbv
RT: 9.344 min Scan# 2860
Delta R.T. -0.000 min
Lab File: VL042925.D
Acq: 10 Sep 2025 12:41

Tgt Ion: 91 Resp: 1959
Ion Ratio Lower Upper
91 100
106 25.7 23.9 35.9

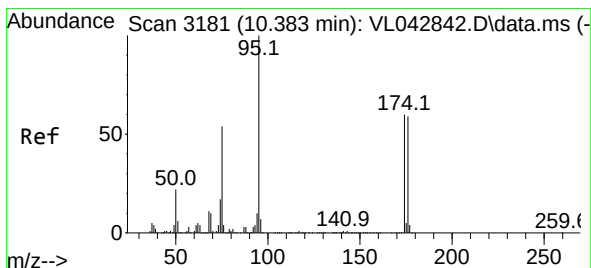
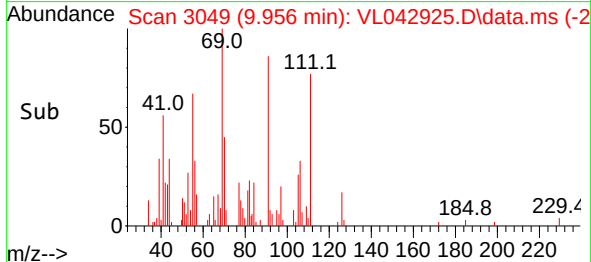
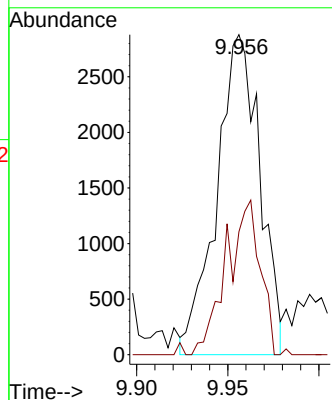
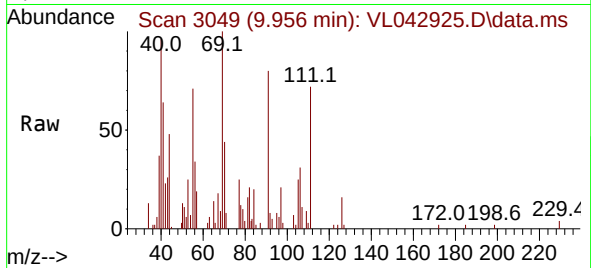




#60
o-Xylene
Concen: 0.106 ppbv
RT: 9.956 min Scan# 3054
Delta R.T. 0.003 min
Lab File: VL042925.D
Acq: 10 Sep 2025 12:41

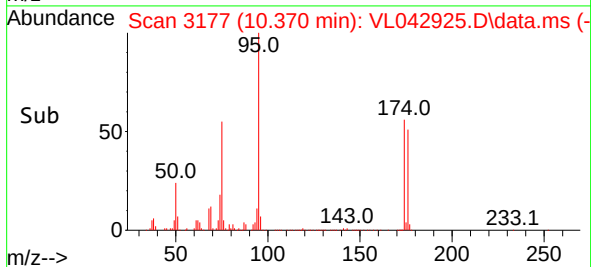
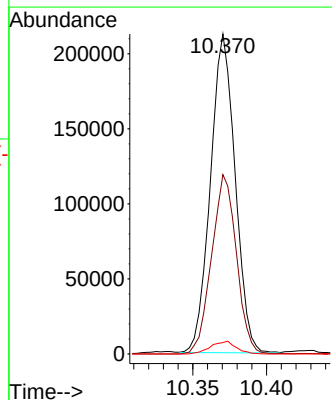
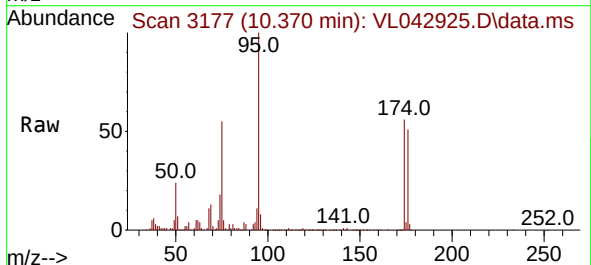
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

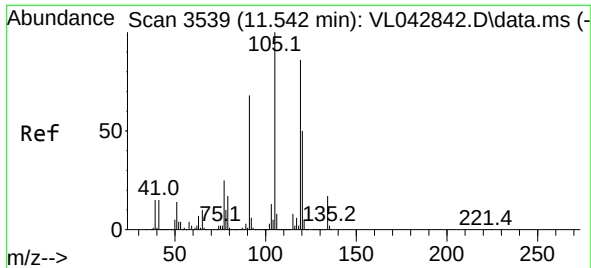
Tgt Ion: 91 Resp: 4745
Ion Ratio Lower Upper
91 100
106 38.4 21.8 65.4



#68
1-Bromo-4-Fluorobenzene
Concen: 10.298 ppbv
RT: 10.370 min Scan# 3177
Delta R.T. 0.006 min
Lab File: VL042925.D
Acq: 10 Sep 2025 12:41

Tgt Ion: 95 Resp: 247690
Ion Ratio Lower Upper
95 100
174 56.5 48.4 72.6
175 4.1 3.8 5.8





#74
 1,2,4-Trimethylbenzene
 Concen: 0.042 ppbv
 RT: 11.529 min Scan# 31
 Delta R.T. -0.000 min
 Lab File: VL042925.D
 Acq: 10 Sep 2025 12:41

Instrument :
 MSVOA_L
 ClientSampleId :
 SV2DL

Tgt Ion:	105	Resp:	2134
Ion	Ratio	Lower	Upper
105	100		
120	58.2	39.8	59.6
91	0.0	54.2	81.4#
77	17.1	19.8	29.6#

