

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL100925\
 Data File : VL043093.D
 Acq On : 09 Oct 2025 18:20
 Operator : SY/MD
 Sample : Q3320-04DL 40X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV2DL

Quant Time: Oct 09 22:19:05 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL100225AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Oct 03 08:23:34 2025
 Response via : Initial Calibration

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

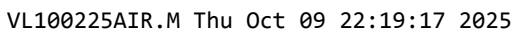
Internal Standards						
1) Bromochloromethane	2.777	49	169568	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.942	114	455409	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.865	117	411145	10.000	ppbv	0.00

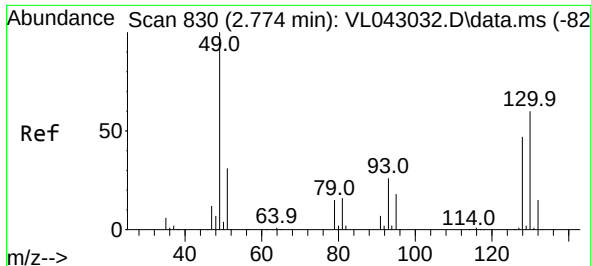
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.361	95	349829	11.811	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	118.100%

Target Compounds						Qvalue
9) Propene	1.434	41	508	0.046	ppbv	87
11) Trichlorofluoromethane	1.871	101	8693	0.296	ppbv	94
12) 1,1,2-Trichlorotrifluo...	1.871	101	8693	0.376	ppbv #	13
13) Ethanol	1.428	45	179785	443.787	ppbv	95
15) Acetone	1.829	43	41689	1.756	ppbv	93
16) 1,3-Butadiene	1.596	39	567	0.058	ppbv #	43
19) Isopropyl Alcohol	1.428	45	179785	15.805	ppbv #	25
20) Methylene Chloride	2.055	84	2511	0.242	ppbv	93
23) Vinyl Acetate	2.457	43	204	0.040	ppbv #	1
25) Ethyl Acetate	2.813	43	3527	0.059	ppbv #	76
26) Hexane	2.816	57	5091	0.222	ppbv #	30
27) Carbon Disulfide	2.143	76	941	0.035	ppbv #	1
32) 1,1,1-Trichloroethane	3.353	97	1586	0.042	ppbv	94
34) 2-Butanone	2.551	43	2591	0.084	ppbv	99
38) Trichloroethene	4.528	130	12930	0.713	ppbv	96
39) 1,2-Dichloropropane	3.942	63	115871	7.185	ppbv #	22
52) Tetrachloroethene	8.208	164	119406	7.412	ppbv	96
53) Toluene	6.914	91	3393	0.077	ppbv	98
60) o-Xylene	9.943	91	1916	0.036	ppbv	85
79) Naphthalene	13.500	128	25	0.235	ppbv #	69
80) Naphthalene,2-methyl-	14.458	142	71	0.665	ppbv #	16

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

Quant Time: Oct 09 22:19:05 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL100225AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Fri Oct 03 08:23:34 2025
Response via : Initial Calibration

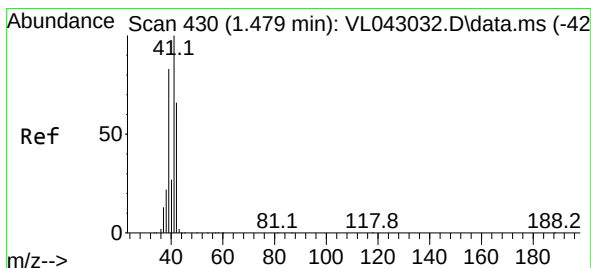
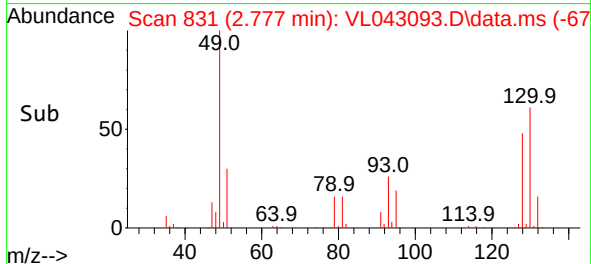
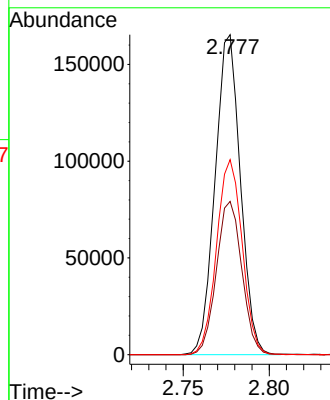
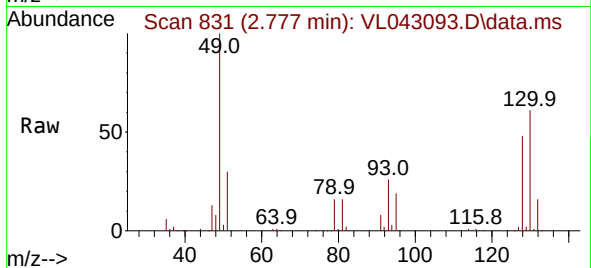




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.777 min Scan# 81
Delta R.T. 0.003 min
Lab File: VL043093.D
Acq: 09 Oct 2025 18:20

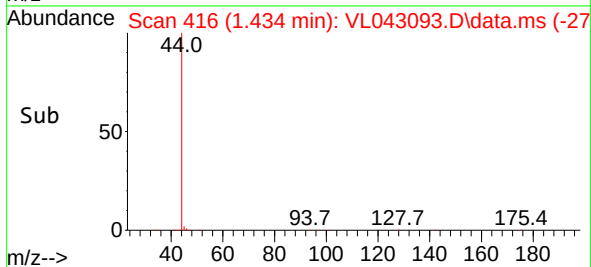
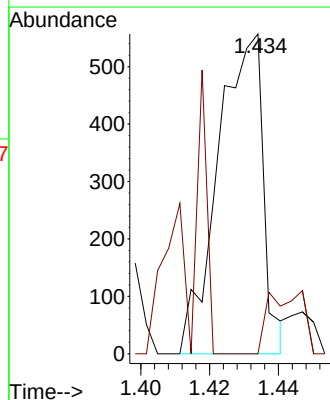
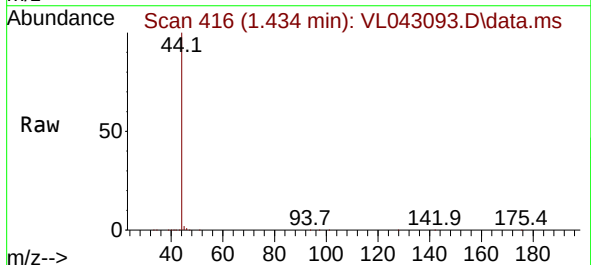
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

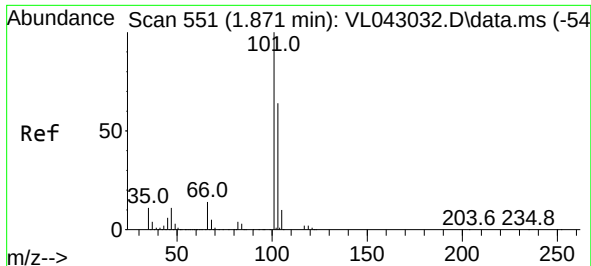
Tgt Ion: 49 Resp: 169568
Ion Ratio Lower Upper
49 100
128 48.2 24.1 72.2
130 61.6 31.4 94.3



#9
Propene
Concen: 0.046 ppbv
RT: 1.434 min Scan# 416
Delta R.T. -0.045 min
Lab File: VL043093.D
Acq: 09 Oct 2025 18:20

Tgt Ion: 41 Resp: 508
Ion Ratio Lower Upper
41 100
42 56.5 53.3 79.9

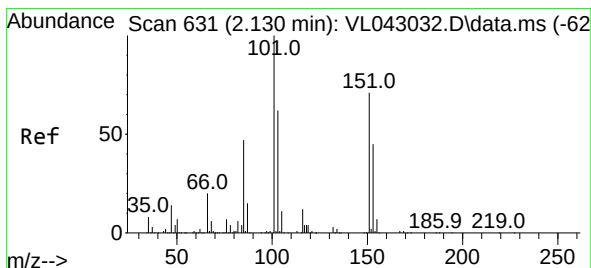
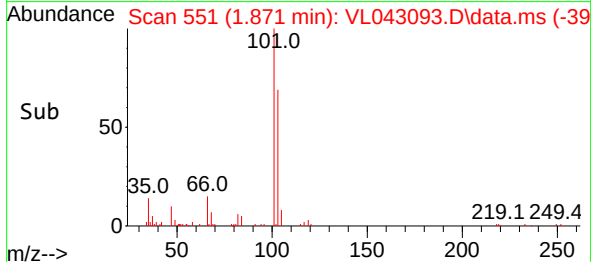
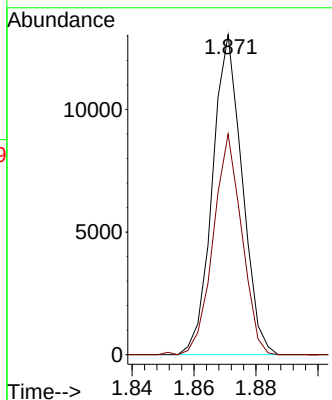
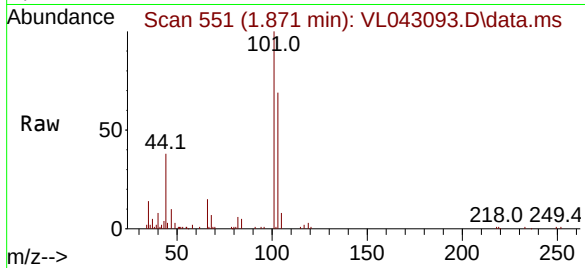




#11
 Trichlorofluoromethane
 Concen: 0.296 ppbv
 RT: 1.871 min Scan# 511
 Delta R.T. -0.000 min
 Lab File: VL043093.D
 Acq: 09 Oct 2025 18:20

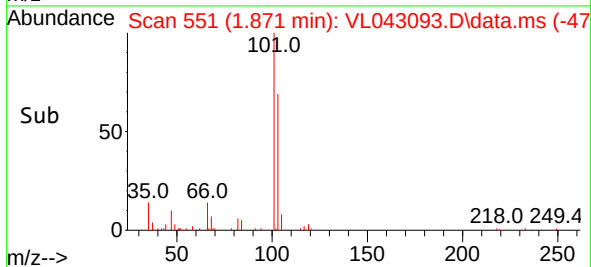
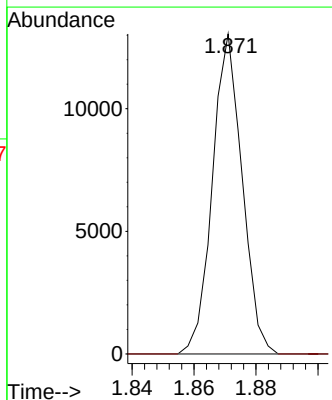
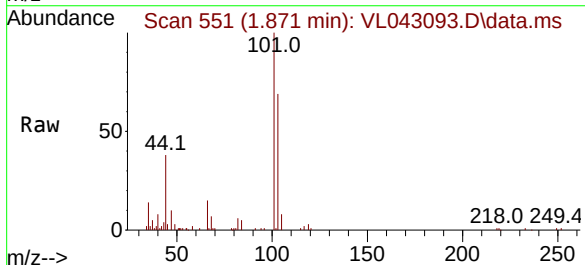
Instrument :
 MSVOA_L
 ClientSampleId :
 SV2DL

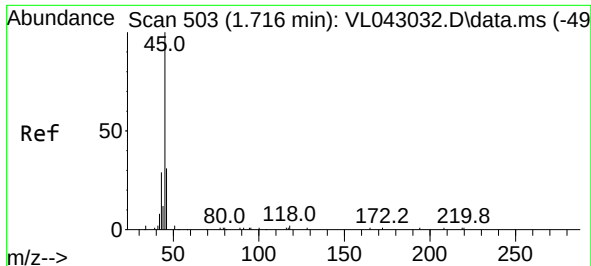
Tgt Ion:101 Resp: 8693
 Ion Ratio Lower Upper
 101 100
 103 69.0 51.1 76.7



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.376 ppbv
 RT: 1.871 min Scan# 551
 Delta R.T. -0.259 min
 Lab File: VL043093.D
 Acq: 09 Oct 2025 18:20

Tgt Ion:101 Resp: 8693
 Ion Ratio Lower Upper
 101 100
 151 0.0 58.1 87.1#

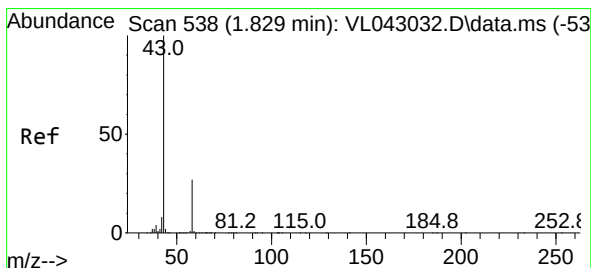
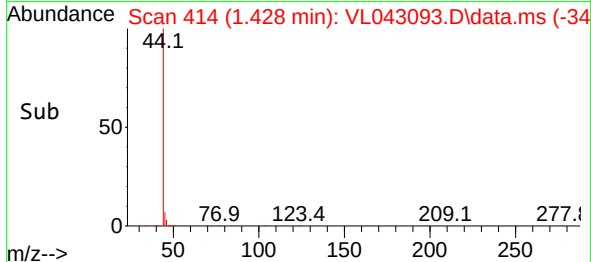
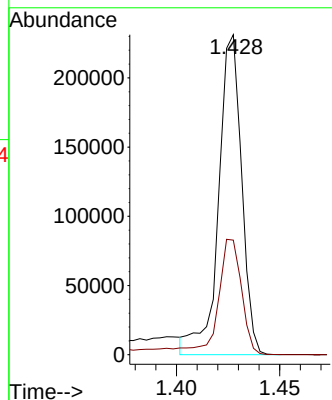
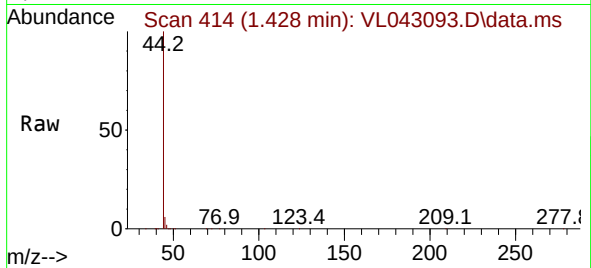




#13
Ethanol
Concen: 443.787 ppbv
RT: 1.428 min Scan# 41
Delta R.T. -0.288 min
Lab File: VL043093.D
Acq: 09 Oct 2025 18:20

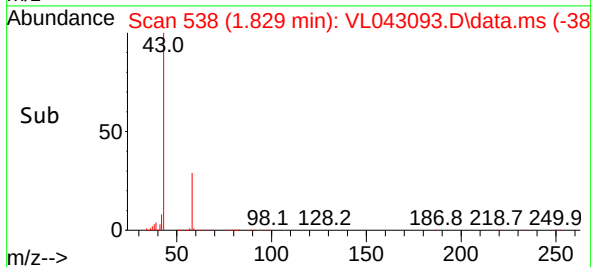
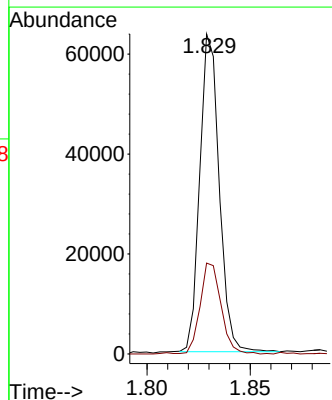
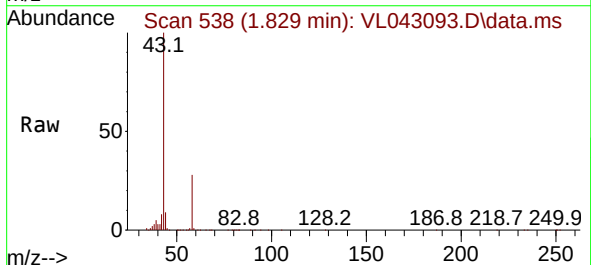
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

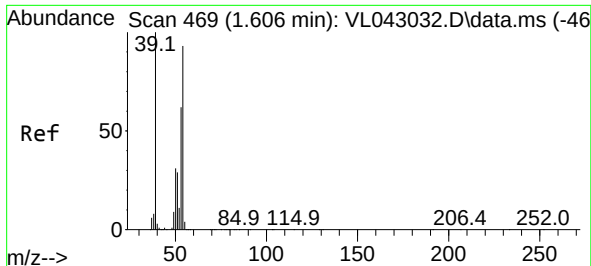
Tgt Ion: 45 Resp: 179785
Ion Ratio Lower Upper
45 100
46 41.2 17.8 71.4



#15
Acetone
Concen: 1.756 ppbv
RT: 1.829 min Scan# 538
Delta R.T. -0.000 min
Lab File: VL043093.D
Acq: 09 Oct 2025 18:20

Tgt Ion: 43 Resp: 41689
Ion Ratio Lower Upper
43 100
58 31.7 22.2 33.4

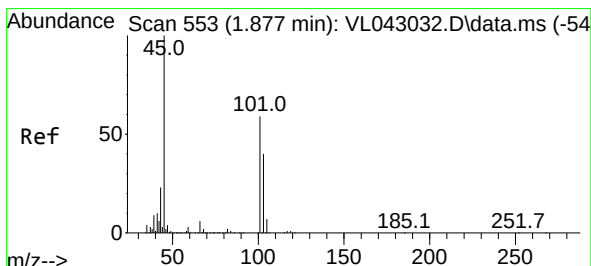
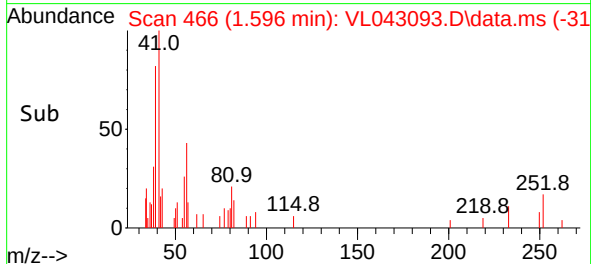
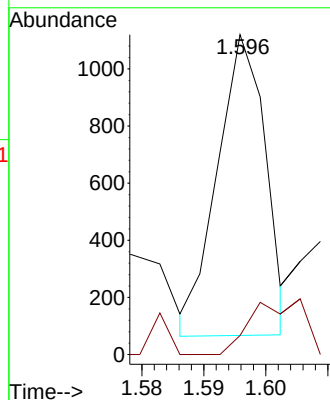
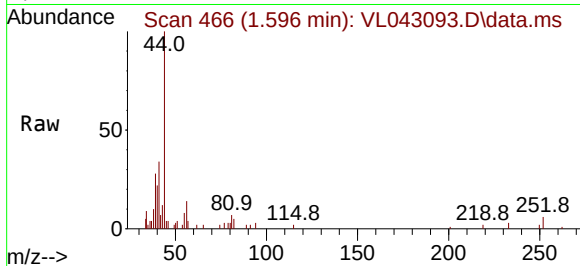




#16
1,3-Butadiene
Concen: 0.058 ppbv
RT: 1.596 min Scan# 414
Delta R.T. -0.010 min
Lab File: VL043093.D
Acq: 09 Oct 2025 18:20

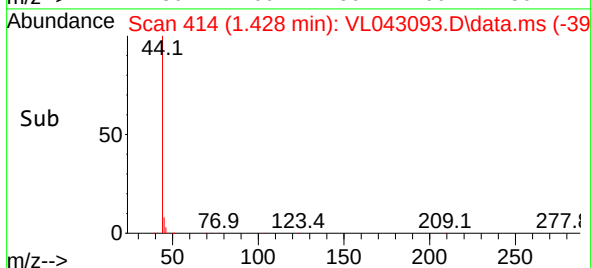
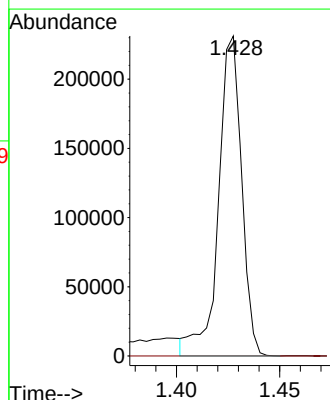
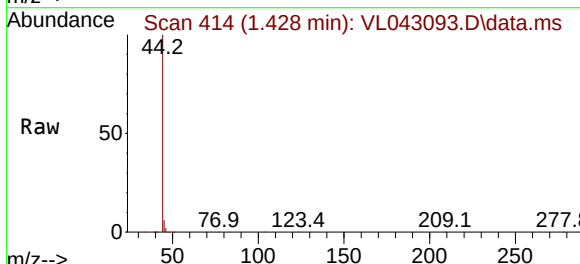
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

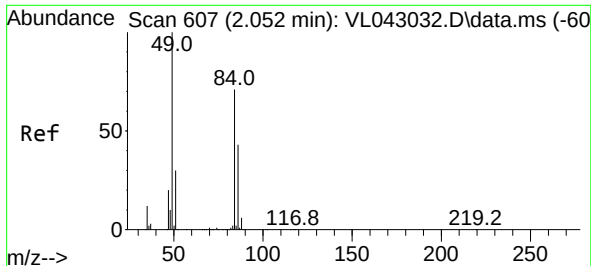
Tgt Ion: 39 Resp: 567
Ion Ratio Lower Upper
39 100
54 27.9 61.4 92.2#



#19
Isopropyl Alcohol
Concen: 15.805 ppbv
RT: 1.428 min Scan# 414
Delta R.T. -0.450 min
Lab File: VL043093.D
Acq: 09 Oct 2025 18:20

Tgt Ion: 45 Resp: 179785
Ion Ratio Lower Upper
45 100
58 0.0 42.3 63.5#





#20

Methylene Chloride

Concen: 0.242 ppbv

RT: 2.055 min Scan# 607

Delta R.T. 0.003 min

Lab File: VL043093.D

Acq: 09 Oct 2025 18:20

Instrument :

MSVOA_L

ClientSampleId :

SV2DL

Tgt Ion: 84 Resp: 2511

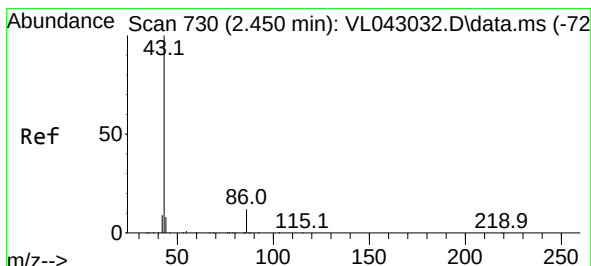
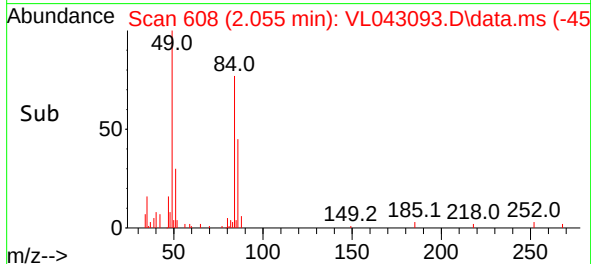
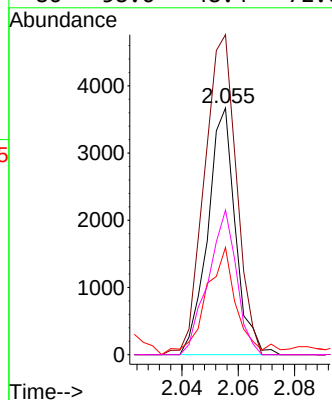
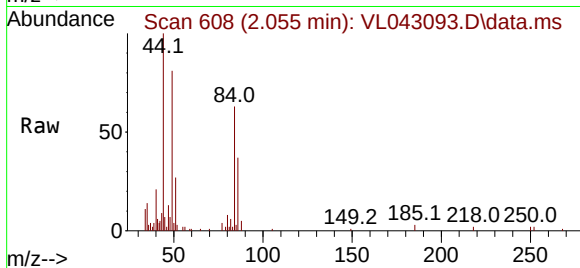
Ion Ratio Lower Upper

84 100

49 129.7 112.5 168.7

51 47.0 34.2 51.2

86 58.6 48.4 72.6



#23

Vinyl Acetate

Concen: 0.040 ppbv

RT: 2.457 min Scan# 732

Delta R.T. 0.006 min

Lab File: VL043093.D

Acq: 09 Oct 2025 18:20

Tgt Ion: 43 Resp: 204

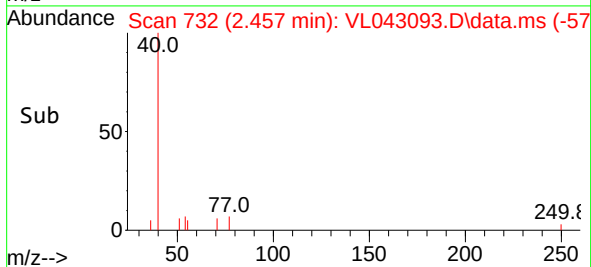
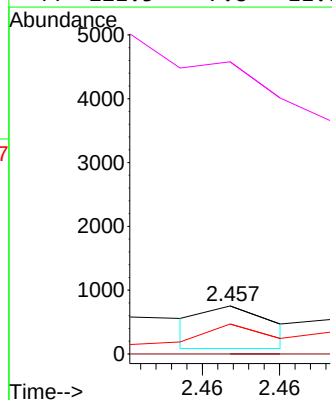
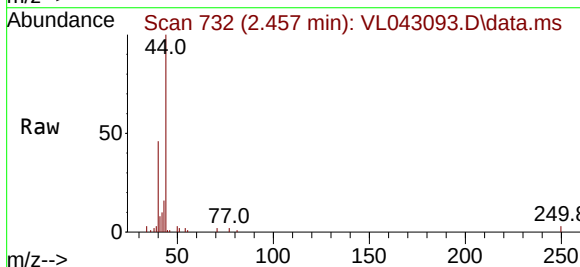
Ion Ratio Lower Upper

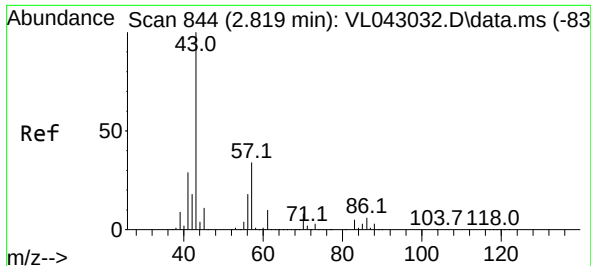
43 100

86 0.0 7.5 11.3#

42 99.3 8.4 12.6#

44 221.5 7.8 11.8#

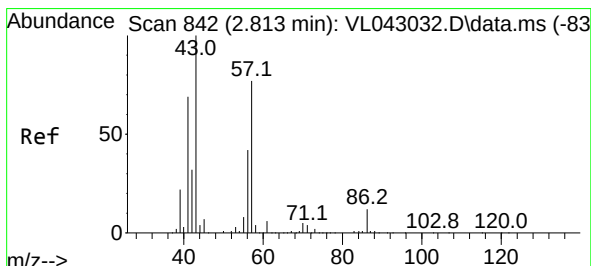
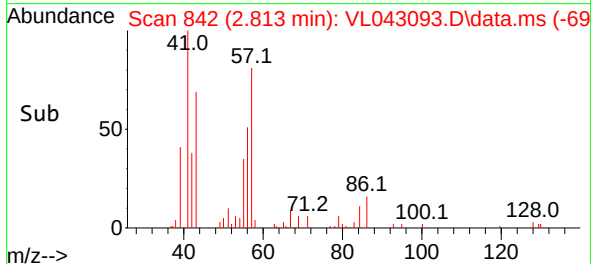
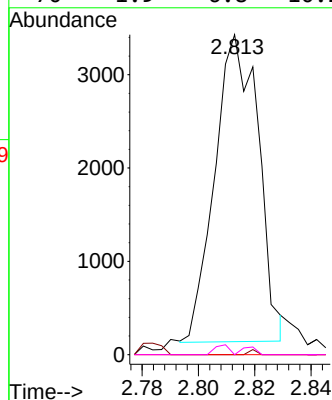
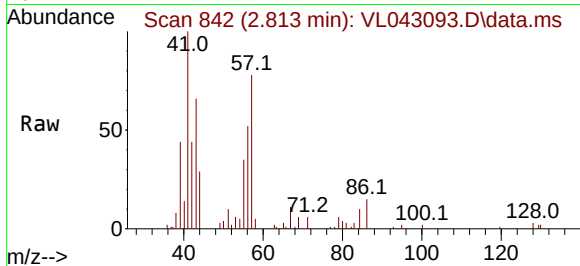




#25
Ethyl Acetate
Concen: 0.059 ppbv
RT: 2.813 min Scan# 842
Delta R.T. -0.007 min
Lab File: VL043093.D
Acq: 09 Oct 2025 18:20

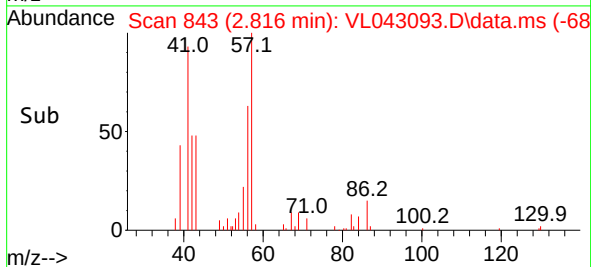
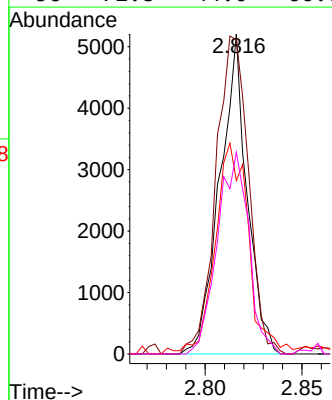
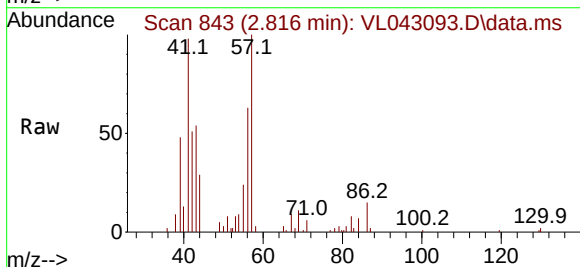
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

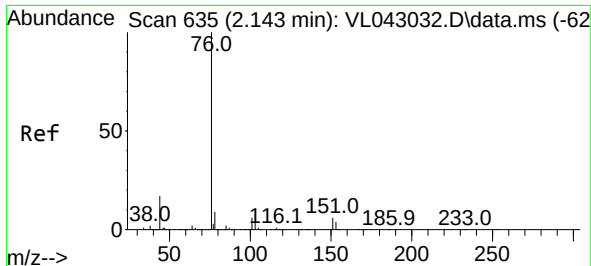
Tgt Ion: 43	Resp: 3527
Ion Ratio	Lower Upper
43 100	
45 0.0	8.3 12.5#
61 0.0	7.5 11.3#
70 1.9	6.8 10.2#



#26
Hexane
Concen: 0.222 ppbv
RT: 2.816 min Scan# 843
Delta R.T. 0.003 min
Lab File: VL043093.D
Acq: 09 Oct 2025 18:20

Tgt	Ion: 57	Resp:	5091
Ion	Ratio	Lower	Upper
57	100		
41	121.6	76.1	114.1#
43	83.5	201.4	302.0#
56	72.8	44.0	66.0#





#27

Carbon Disulfide

Concen: 0.035 ppbv

RT: 2.143 min Scan# 61

Delta R.T. -0.000 min

Lab File: VL043093.D

Acq: 09 Oct 2025 18:20

Instrument :

MSVOA_L

ClientSampleId :

SV2DL

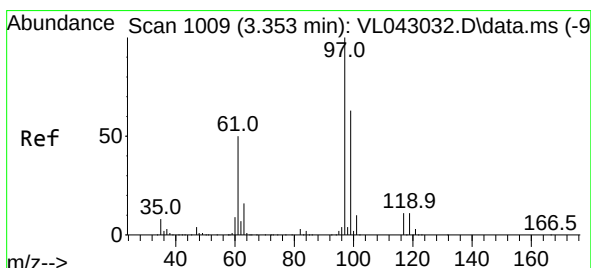
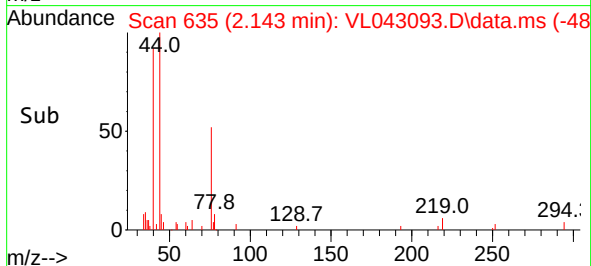
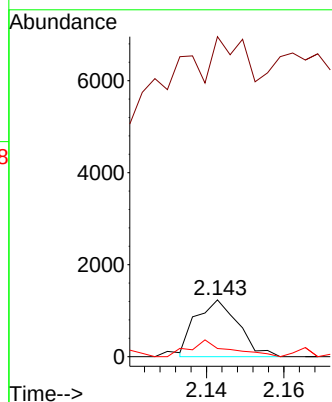
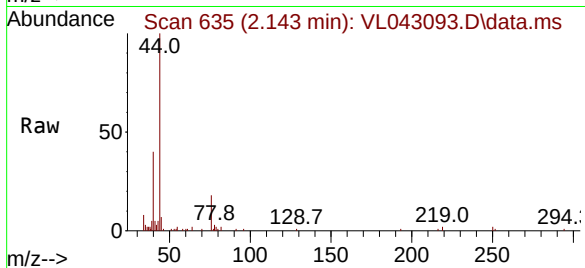
Tgt Ion: 76 Resp: 941

Ion Ratio Lower Upper

76 100

44 1490.9 14.0 21.0#

78 37.2 9.4 14.0#



#32

1,1,1-Trichloroethane

Concen: 0.042 ppbv

RT: 3.353 min Scan# 1009

Delta R.T. -0.000 min

Lab File: VL043093.D

Acq: 09 Oct 2025 18:20

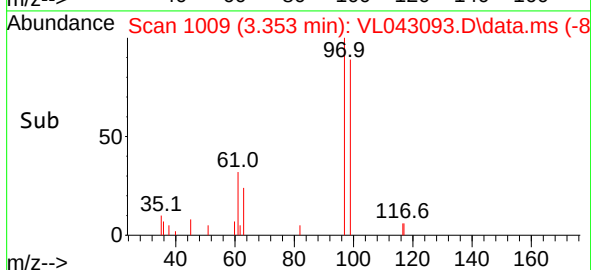
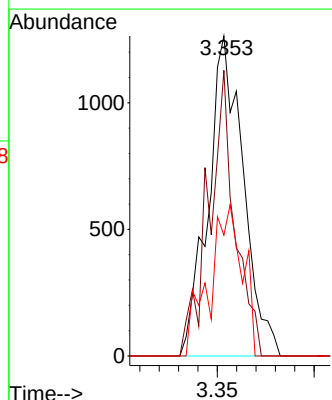
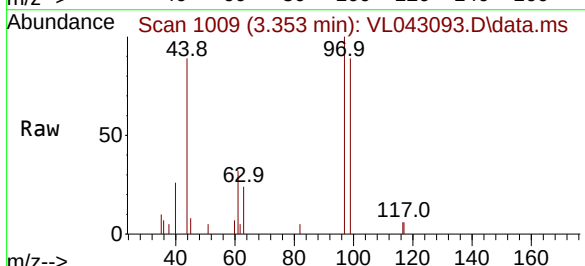
Tgt Ion: 97 Resp: 1586

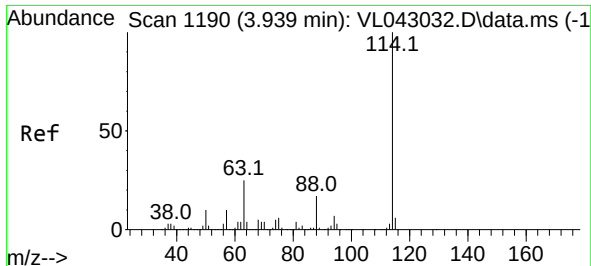
Ion Ratio Lower Upper

97 100

99 67.1 51.2 76.8

61 44.7 40.1 60.1





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.942 min Scan# 1191

Delta R.T. 0.003 min

Lab File: VL043093.D

Acq: 09 Oct 2025 18:20

Instrument :

MSVOA_L

ClientSampleId :

SV2DL

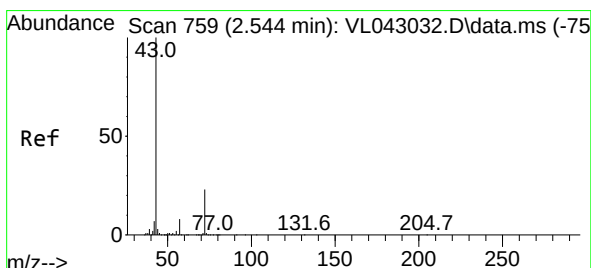
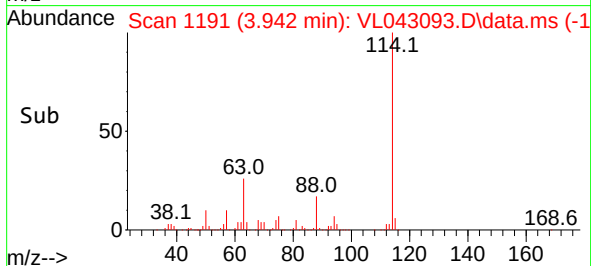
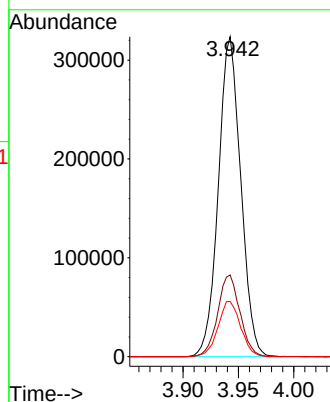
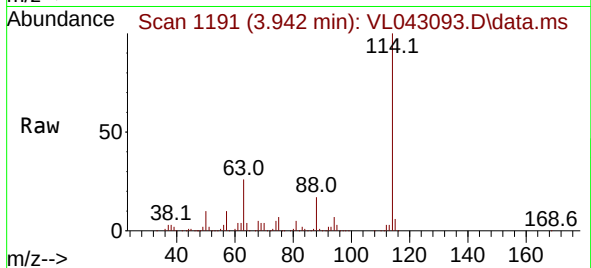
Tgt Ion:114 Resp: 455409

Ion Ratio Lower Upper

114 100

63 25.5 19.4 29.2

88 17.5 13.9 20.9



#34

2-Butanone

Concen: 0.084 ppbv

RT: 2.551 min Scan# 761

Delta R.T. 0.006 min

Lab File: VL043093.D

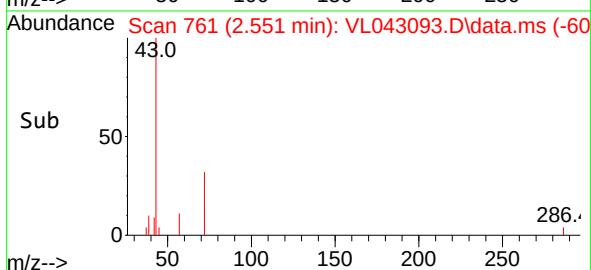
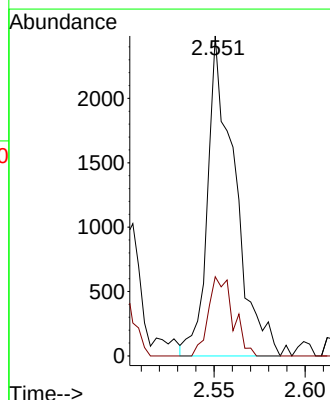
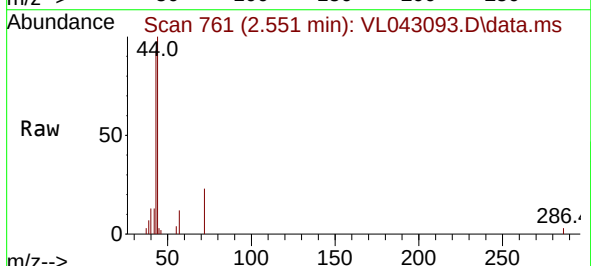
Acq: 09 Oct 2025 18:20

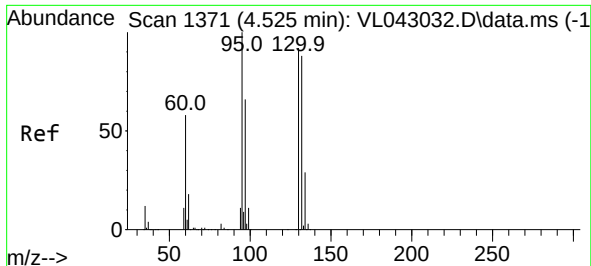
Tgt Ion: 43 Resp: 2591

Ion Ratio Lower Upper

43 100

72 22.4 18.4 27.6

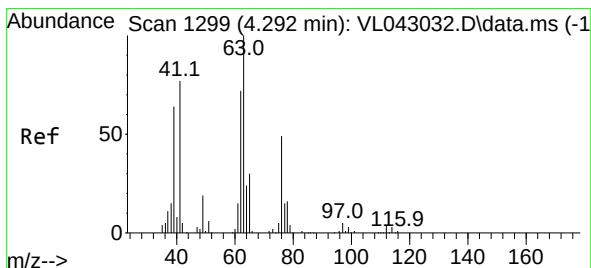
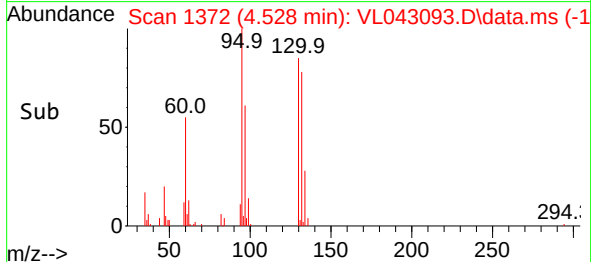
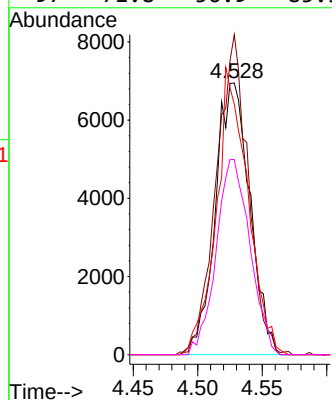
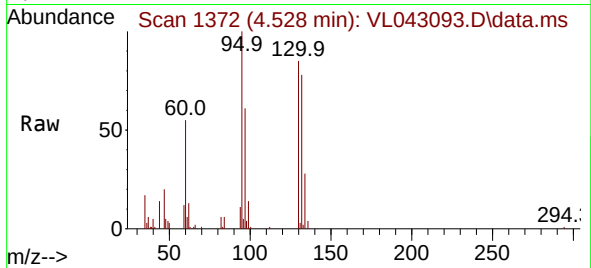




#38
 Trichloroethene
 Concen: 0.713 ppbv
 RT: 4.528 min Scan# 1191
 Delta R.T. 0.003 min
 Lab File: VL043093.D
 Acq: 09 Oct 2025 18:20

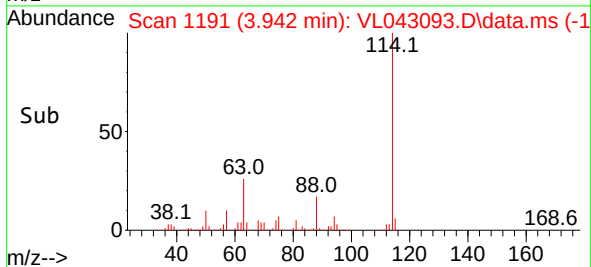
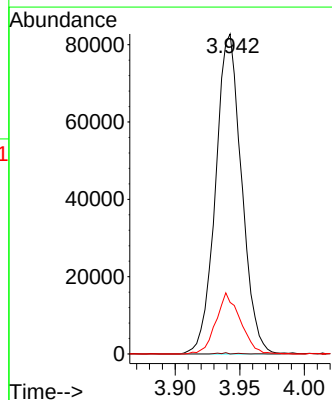
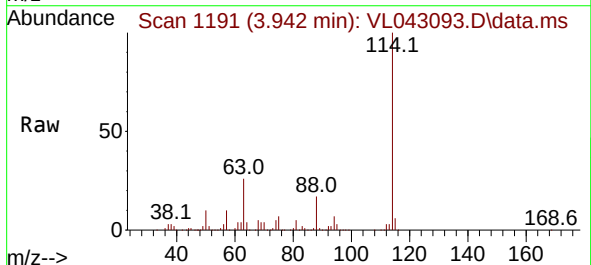
Instrument :
 MSVOA_L
 ClientSampleId :
 SV2DL

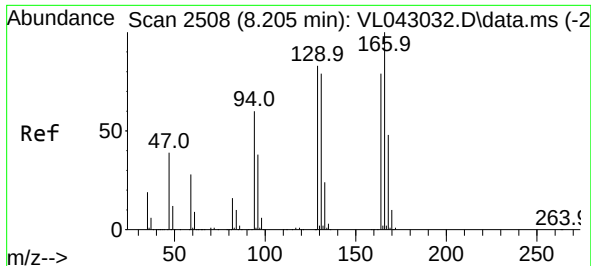
Tgt Ion:	130	Resp:	12930
Ion	Ratio	Lower	Upper
130	100		
95	117.0	86.4	129.6
132	92.2	75.7	113.5
97	71.8	56.9	85.3



#39
 1,2-Dichloropropane
 Concen: 7.185 ppbv
 RT: 3.942 min Scan# 1191
 Delta R.T. -0.350 min
 Lab File: VL043093.D
 Acq: 09 Oct 2025 18:20

Tgt Ion:	63	Resp:	115871
Ion	Ratio	Lower	Upper
63	100		
41	0.3	61.6	92.4#
62	16.1	58.1	87.1#

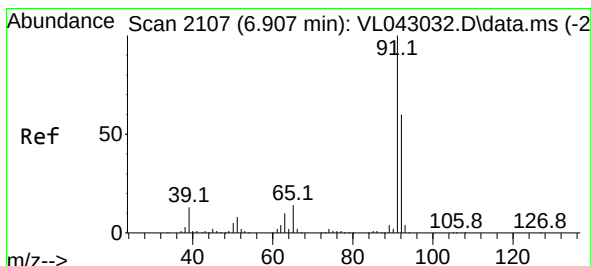
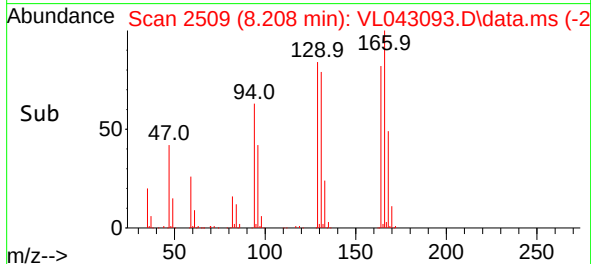
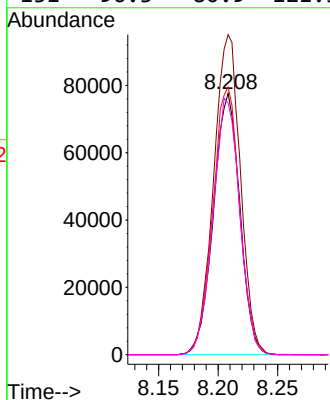
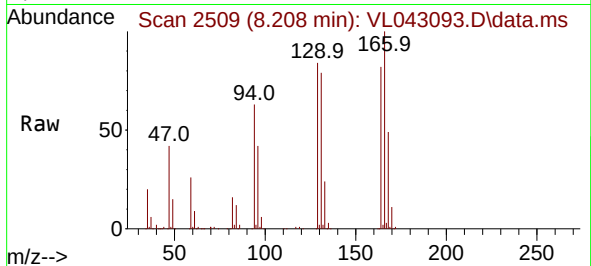




#52
Tetrachloroethene
Concen: 7.412 ppbv
RT: 8.208 min Scan# 2109
Delta R.T. 0.003 min
Lab File: VL043093.D
Acq: 09 Oct 2025 18:20

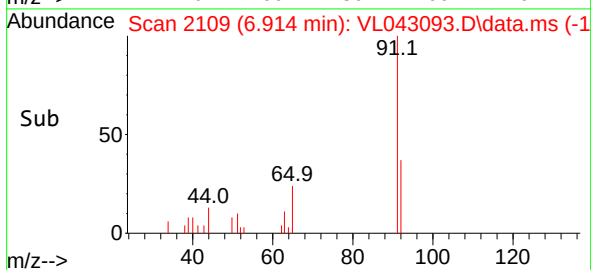
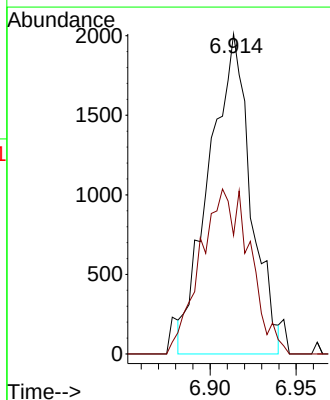
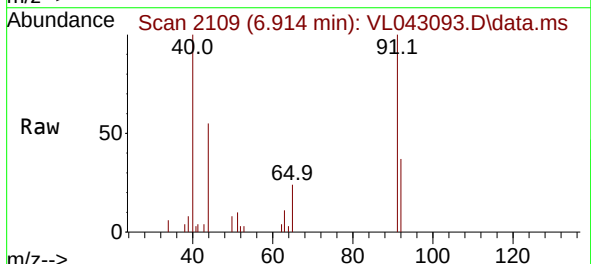
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

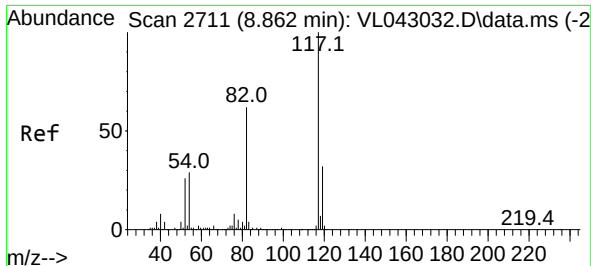
Tgt Ion:164 Resp: 119406
Ion Ratio Lower Upper
164 100
166 122.5 101.8 152.8
129 102.5 84.5 126.7
131 96.3 80.9 121.3



#53
Toluene
Concen: 0.077 ppbv
RT: 6.914 min Scan# 2109
Delta R.T. 0.006 min
Lab File: VL043093.D
Acq: 09 Oct 2025 18:20

Tgt Ion: 91 Resp: 3393
Ion Ratio Lower Upper
91 100
92 61.0 47.8 71.6

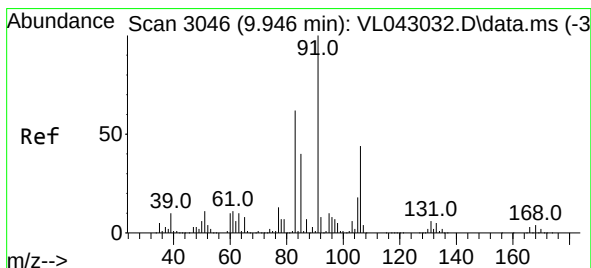
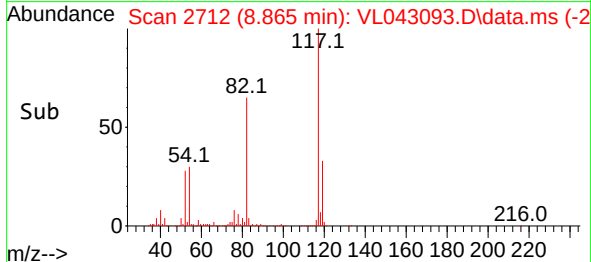
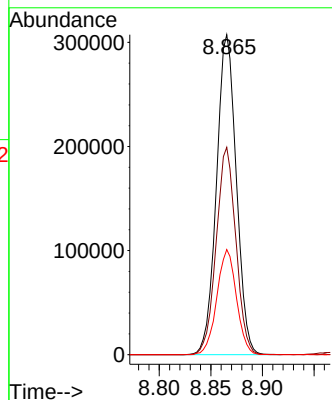
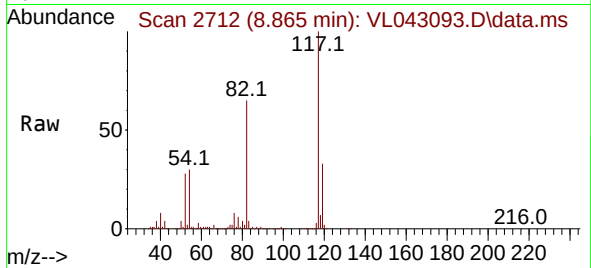




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.865 min Scan# 21
Delta R.T. 0.003 min
Lab File: VL043093.D
Acq: 09 Oct 2025 18:20

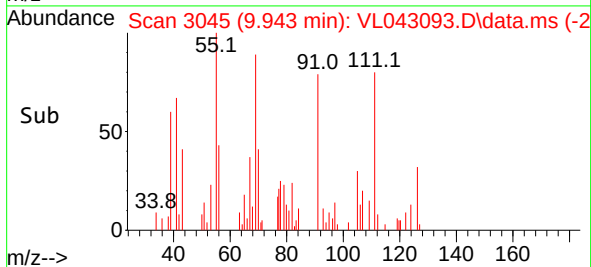
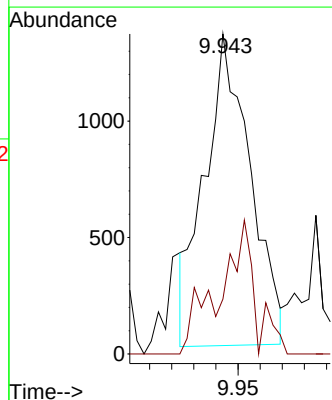
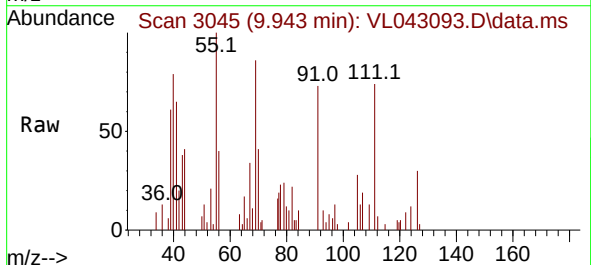
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

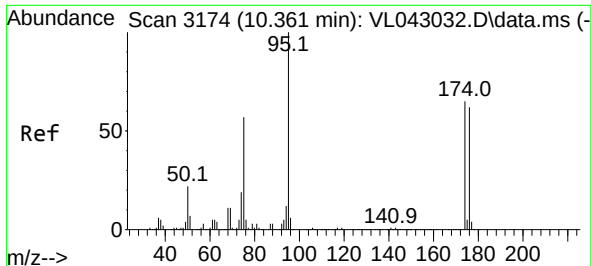
Tgt Ion:117 Resp: 411145
Ion Ratio Lower Upper
117 100
82 64.3 53.0 79.6
119 32.5 25.4 38.2



#60
o-Xylene
Concen: 0.036 ppbv
RT: 9.943 min Scan# 3045
Delta R.T. -0.003 min
Lab File: VL043093.D
Acq: 09 Oct 2025 18:20

Tgt Ion: 91 Resp: 1916
Ion Ratio Lower Upper
91 100
106 34.3 21.9 65.5

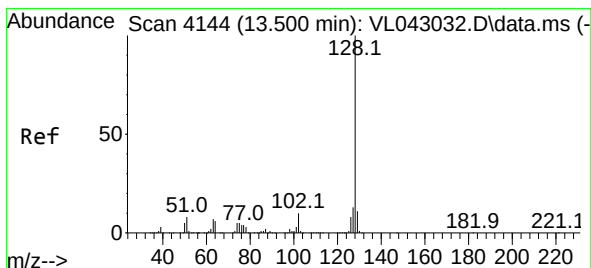
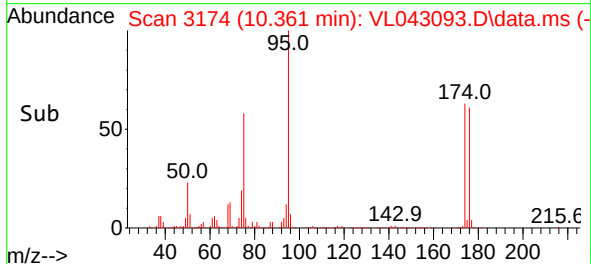
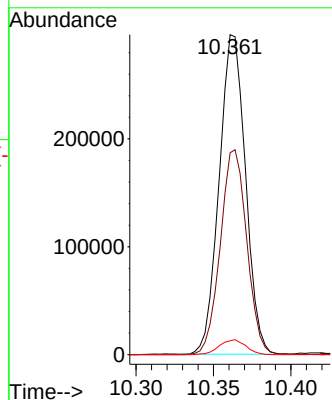
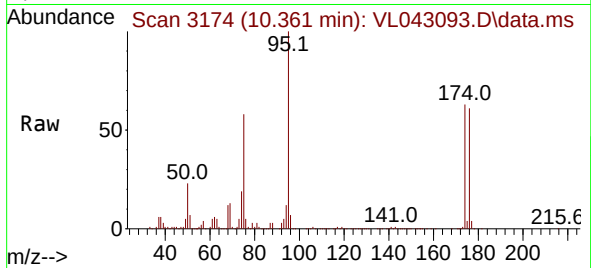




#68
1-Bromo-4-Fluorobenzene
Concen: 11.811 ppbv
RT: 10.361 min Scan# 3174
Delta R.T. -0.000 min
Lab File: VL043093.D
Acq: 09 Oct 2025 18:20

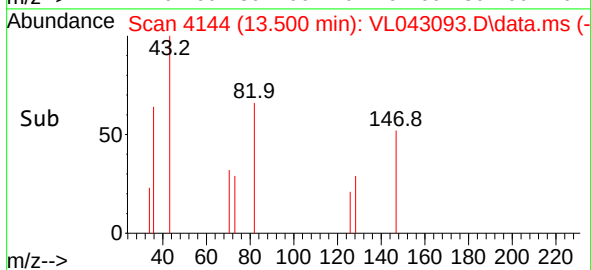
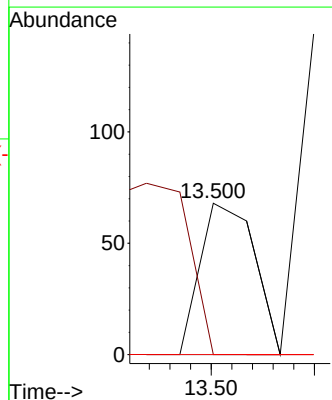
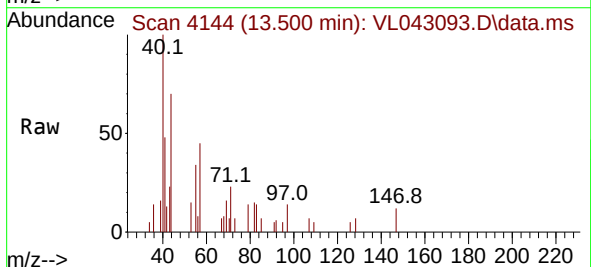
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

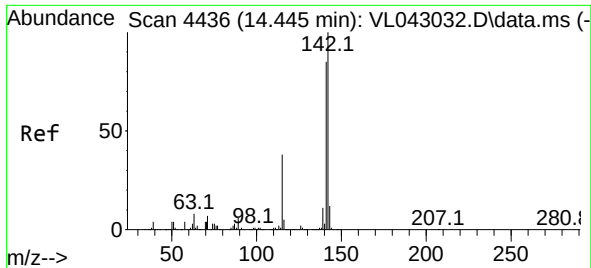
Tgt Ion: 95 Resp: 349829
Ion Ratio Lower Upper
95 100
174 64.7 52.3 78.5
175 4.7 3.8 5.8



#79
Naphthalene
Concen: 0.235 ppbv
RT: 13.500 min Scan# 4144
Delta R.T. 0.000 min
Lab File: VL043093.D
Acq: 09 Oct 2025 18:20

Tgt Ion: 128 Resp: 25
Ion Ratio Lower Upper
128 100
127 0.0 10.6 16.0#
129 0.0 8.8 13.2#





#80
 Naphthalene, 2-methyl-
 Concen: 0.665 ppbv
 RT: 14.458 min Scan# 44
 Delta R.T. 0.013 min
 Lab File: VL043093.D
 Acq: 09 Oct 2025 18:20

Instrument :
 MSVOA_L
 ClientSampleId :
 SV2DL

Tgt Ion:142 Resp: 71
 Ion Ratio Lower Upper
 142 100
 141 19.7 66.6 100.0#
 115 105.6 30.1 45.1#

