

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL100721\
 Data File : VL037820.D
 Acq On : 8 Oct 2021 6:54
 Operator : SY/AP
 Sample : M4079-12
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 C0P12

Quant Time: Oct 08 10:10:47 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL100421AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Oct 04 17:43:54 2021
 QLast Update : Mon Oct 04 17:43:54 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1260302	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.16	114	3648270	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.07	117	3026261	10.00	ppbv	-0.02

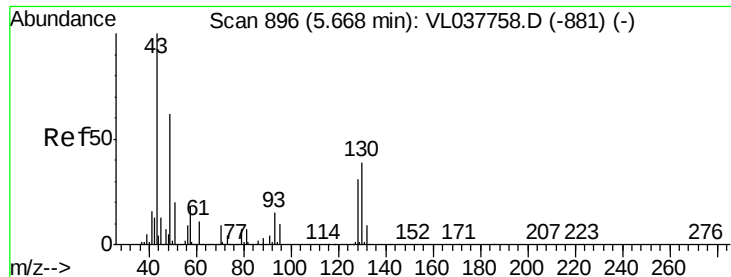
System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	2175343	10.28	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.80%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.04	85	27288	0.136	ppbv	98
3) Chlorodifluoromethane	2.98	51	23025	0.095	ppbv	96
4) Chloromethane	3.13	50	4719	0.053	ppbv #	78
9) Propene	3.01	41	13312	0.149	ppbv #	78
11) Trichlorofluoromethane	3.94	101	30508	0.170	ppbv	91
12) 1,1,2-Trichlorotrifluoroet	4.47	101	3500	0.026	ppbv #	1
13) Ethanol	3.60	45	56117	7.701	ppbv	82
15) Acetone	3.84	43	707298	6.252	ppbv	96
16) 1,3-Butadiene	3.32	39	3764	0.046	ppbv #	11
19) Isopropyl Alcohol	3.97	45	22283	0.317	ppbv #	96
20) Methylene Chloride	4.34	84	103186	1.805	ppbv	91
23) Vinyl Acetate	5.06	43	50817	0.300	ppbv #	87
25) Ethyl Acetate	5.67	43	143039	0.451	ppbv #	93
26) Hexane	5.68	57	74165	0.474	ppbv #	60
27) Carbon Disulfide	4.54	76	9882	0.071	ppbv #	64
29) Chloroform	5.74	83	15547	0.070	ppbv	86
34) 2-Butanone	5.25	43	33906	0.230	ppbv #	53
36) Benzene	6.88	78	7429	0.024	ppbv #	85
37) 1,2-Dichloroethane	6.29	62	5720	0.039	ppbv #	78
39) 1,2-Dichloropropane	7.16	63	854159	7.287	ppbv #	27
52) Tetrachloroethene	11.20	164	150060	1.238	ppbv	92
53) Toluene	9.79	91	86649	0.251	ppbv	97
60) o-Xylene	13.68	91	19377	0.058	ppbv	96

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

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Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 892

Delta R.T. -0.01 min

Lab File: VL037820.D

Acq: 8 Oct 2021 6:54

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ClientSampleId :

C0P12

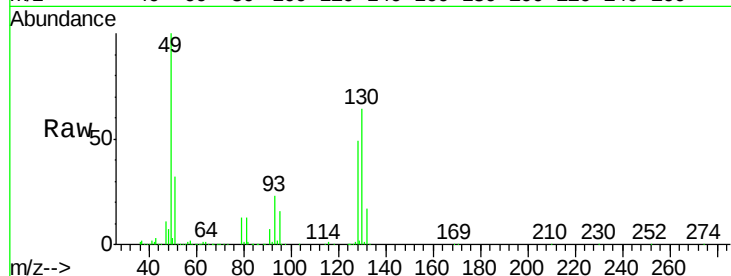
Tgt Ion: 49 Resp: 1260302

Ion Ratio Lower Upper

49 100

128 51.7 27.1 81.3

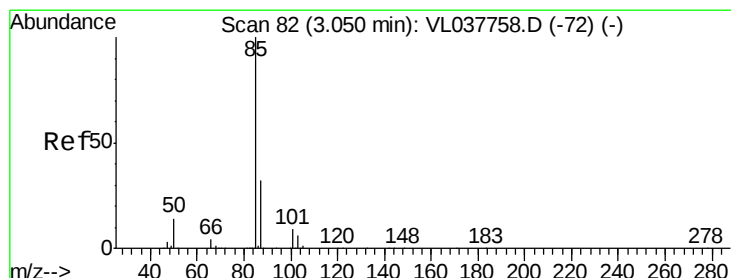
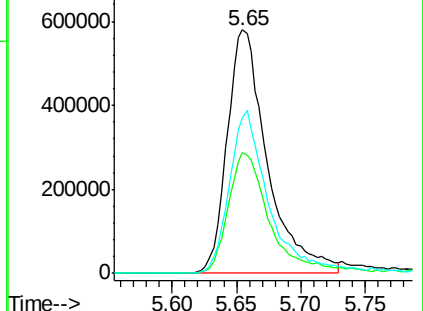
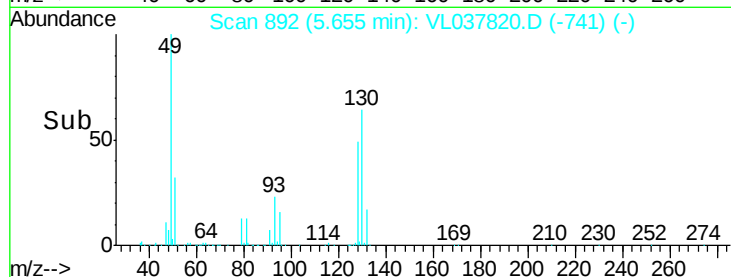
130 67.3 33.2 99.6



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.136 ppbv

RT: 3.04 min Scan# 80

Delta R.T. -0.01 min

Lab File: VL037820.D

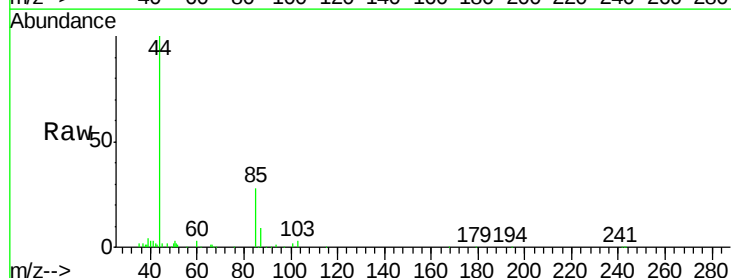
Acq: 8 Oct 2021 6:54

Tgt Ion: 85 Resp: 27288

Ion Ratio Lower Upper

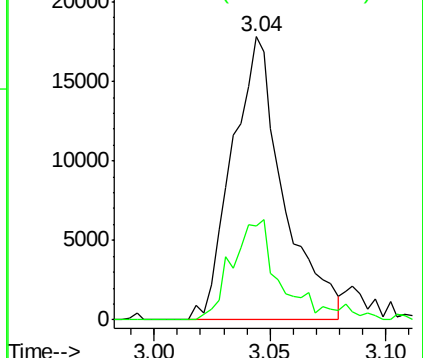
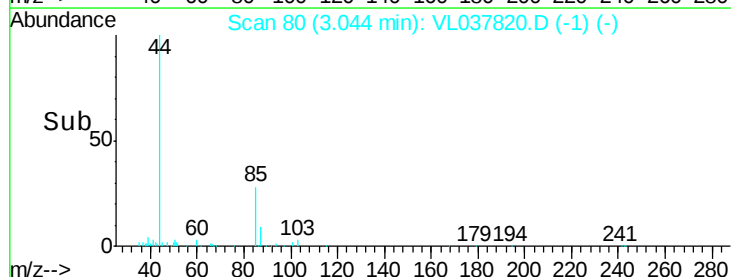
85 100

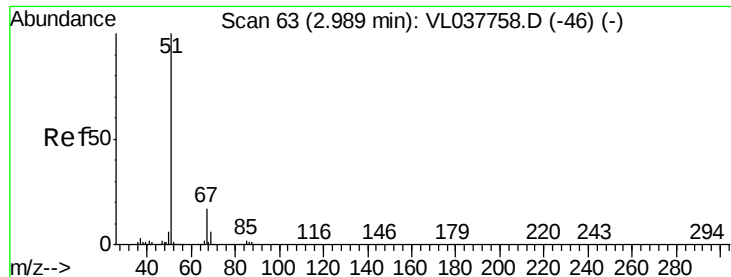
87 33.0 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.095 ppbv

RT: 2.98 min Scan# 61

Delta R.T. -0.01 min

Lab File: VL037820.D

Acq: 8 Oct 2021 6:54

Instrument :

MSVOA_L

ClientSampleId :

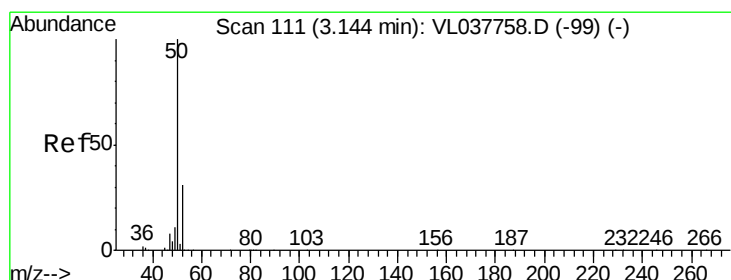
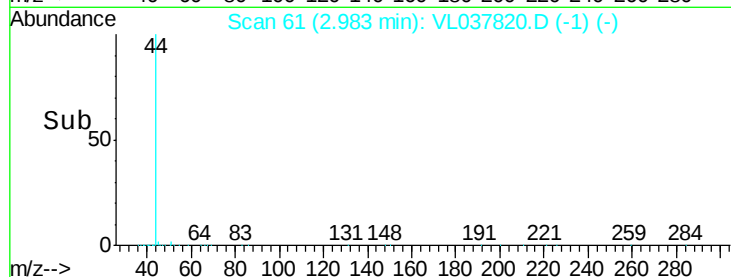
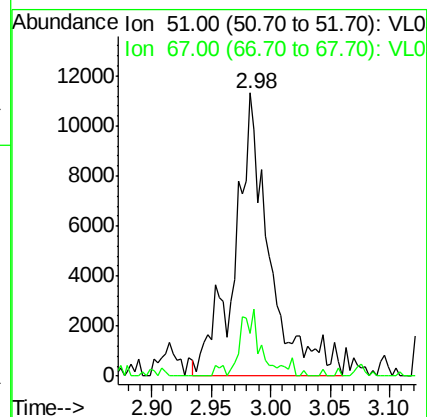
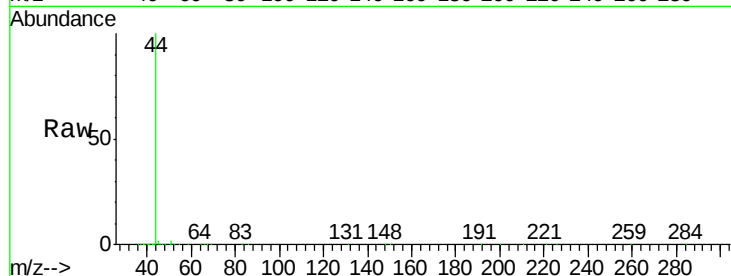
C0P12

Tgt Ion: 51 Resp: 23025

Ion Ratio Lower Upper

51 100

67 15.0 13.5 20.3



#4

Chloromethane

Concen: 0.053 ppbv

RT: 3.13 min Scan# 108

Delta R.T. -0.01 min

Lab File: VL037820.D

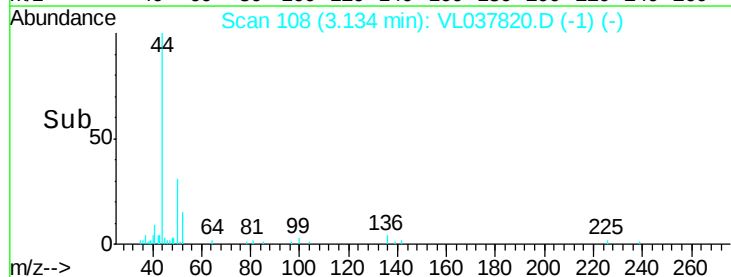
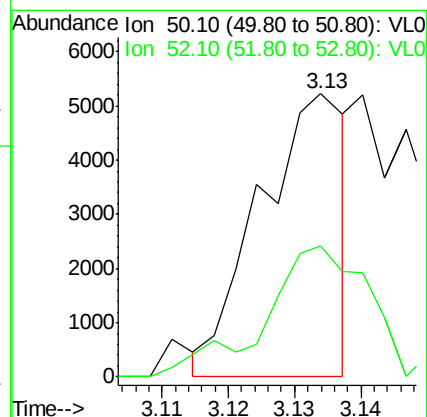
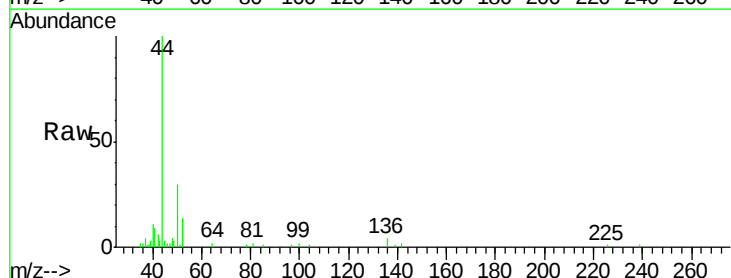
Acq: 8 Oct 2021 6:54

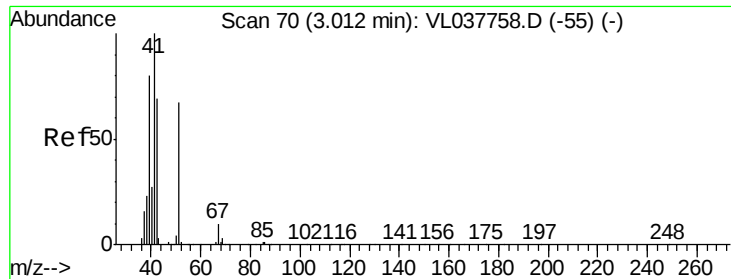
Tgt Ion: 50 Resp: 4719

Ion Ratio Lower Upper

50 100

52 42.5 24.4 36.6#





#9

Propene

Concen: 0.149 ppbv

RT: 3.01 min Scan# 71

Delta R.T. 0.00 min

Lab File: VL037820.D

Acq: 8 Oct 2021 6:54

Instrument :

MSVOA_L

ClientSampleId :

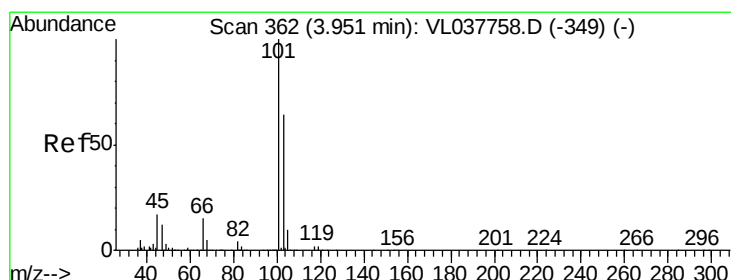
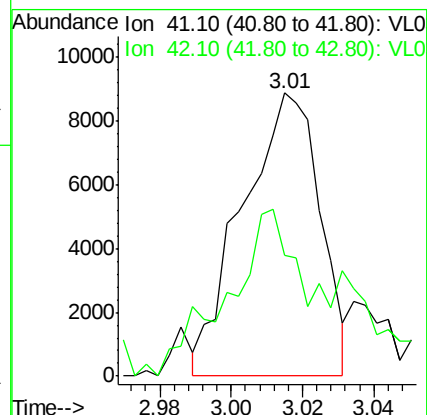
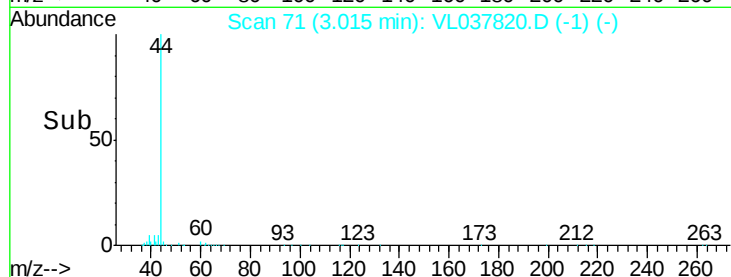
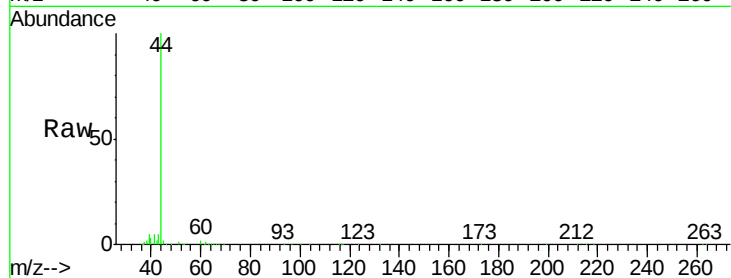
C0P12

Tgt Ion: 41 Resp: 13312

Ion Ratio Lower Upper

41 100

42 85.5 54.2 81.2#



#11

Trichlorofluoromethane

Concen: 0.170 ppbv

RT: 3.94 min Scan# 359

Delta R.T. -0.01 min

Lab File: VL037820.D

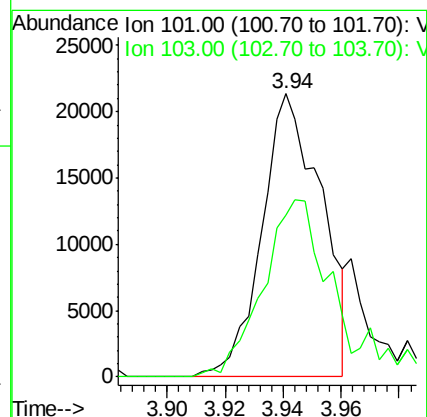
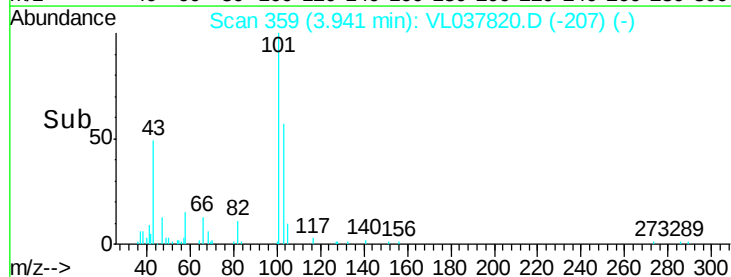
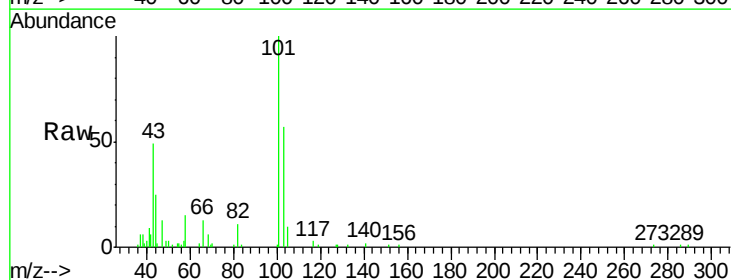
Acq: 8 Oct 2021 6:54

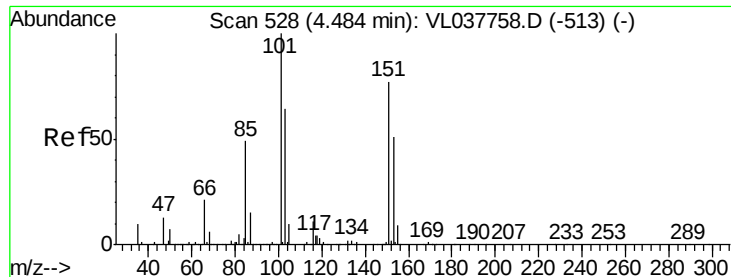
Tgt Ion: 101 Resp: 30508

Ion Ratio Lower Upper

101 100

103 57.3 51.5 77.3

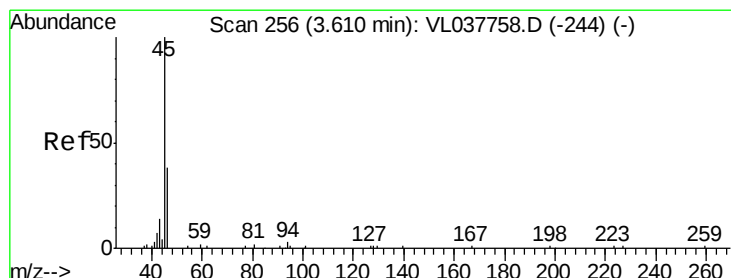
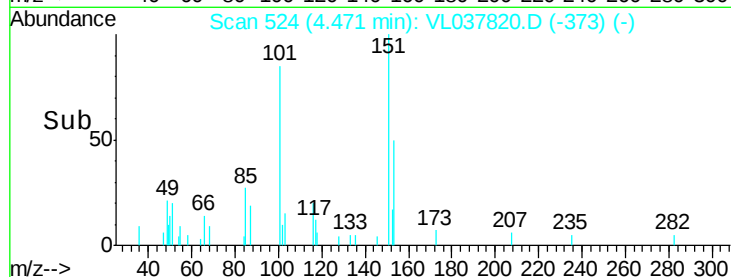
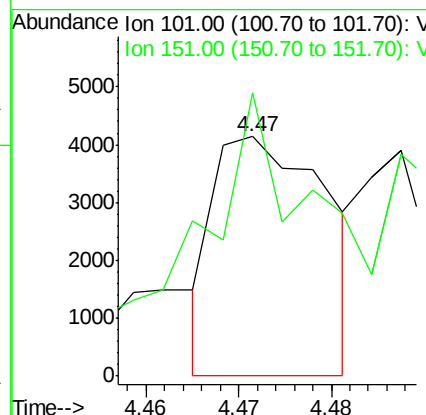
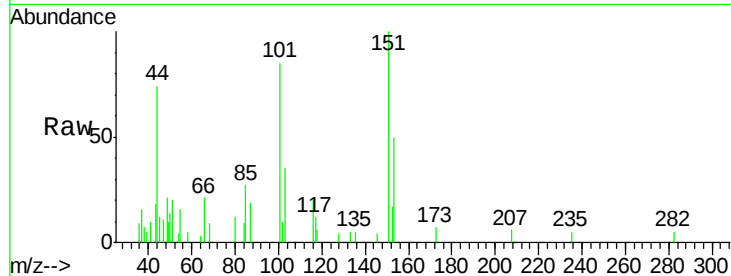




#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.026 ppbv
 RT: 4.47 min Scan# 524
 Delta R.T. -0.01 min
 Lab File: VL037820.D
 Acq: 8 Oct 2021 6:54

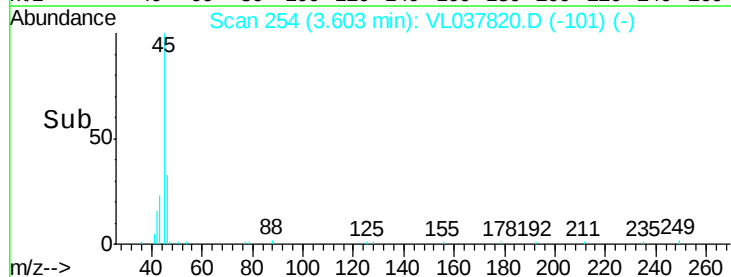
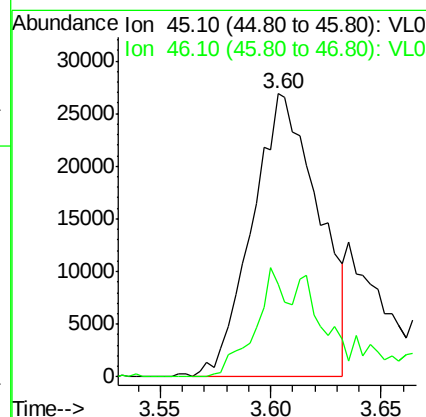
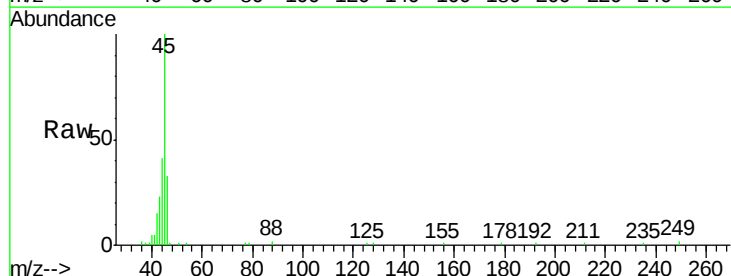
Instrument :
 MSVOA_L
 ClientSampleId :
 C0P12

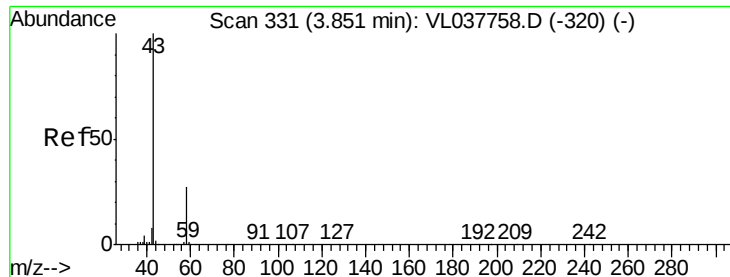
Tgt Ion:101 Resp: 3500
 Ion Ratio Lower Upper
 101 100
 151 237.7 62.9 94.3#



#13
 Ethanol
 Concen: 7.701 ppbv
 RT: 3.60 min Scan# 254
 Delta R.T. -0.01 min
 Lab File: VL037820.D
 Acq: 8 Oct 2021 6:54

Tgt Ion: 45 Resp: 56117
 Ion Ratio Lower Upper
 45 100
 46 38.4 20.2 81.0





#15

Acetone

Concen: 6.252 ppbv

RT: 3.84 min Scan# 328

Delta R.T. -0.01 min

Lab File: VL037820.D

Acq: 8 Oct 2021 6:54

Instrument :

MSVOA_L

ClientSampleId :

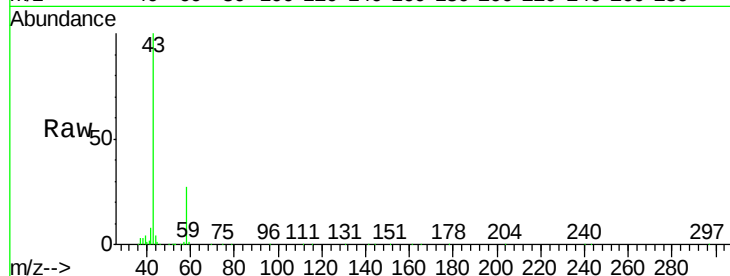
C0P12

Tgt Ion: 43 Resp: 707298

Ion Ratio Lower Upper

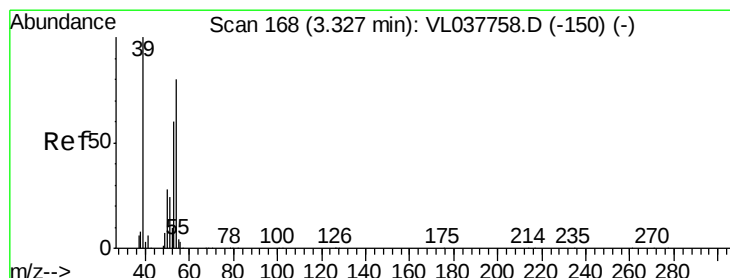
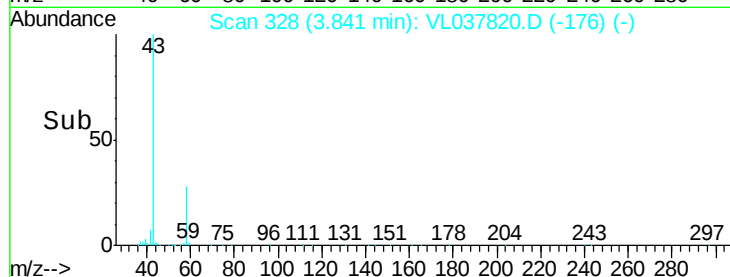
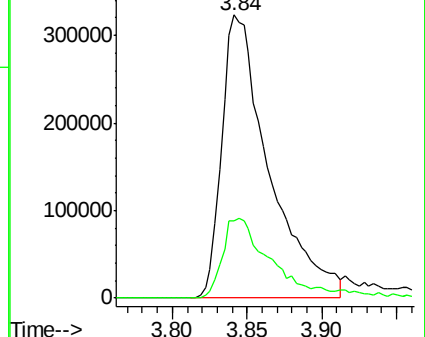
43 100

58 31.1 23.0 34.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 0.046 ppbv

RT: 3.32 min Scan# 165

Delta R.T. -0.01 min

Lab File: VL037820.D

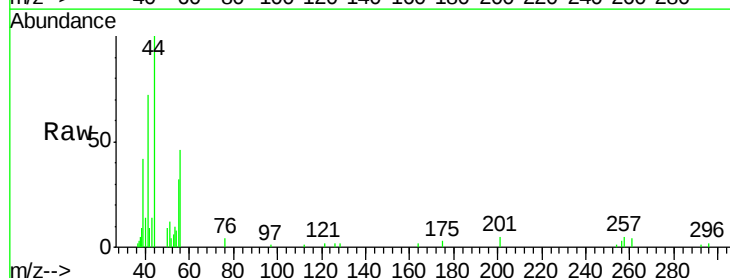
Acq: 8 Oct 2021 6:54

Tgt Ion: 39 Resp: 3764

Ion Ratio Lower Upper

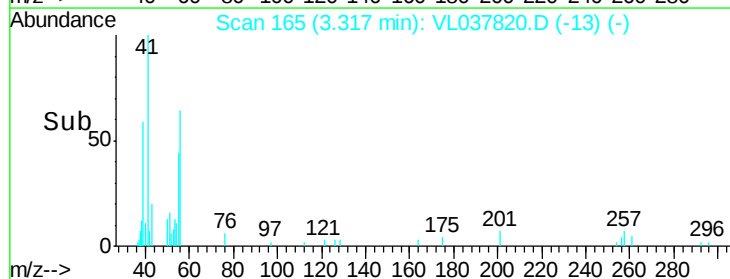
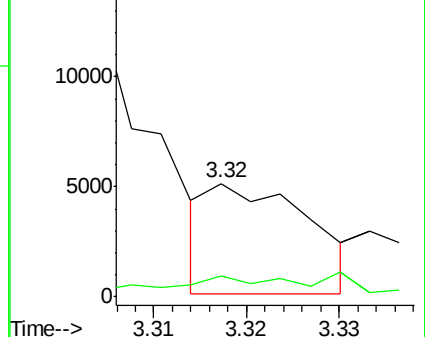
39 100

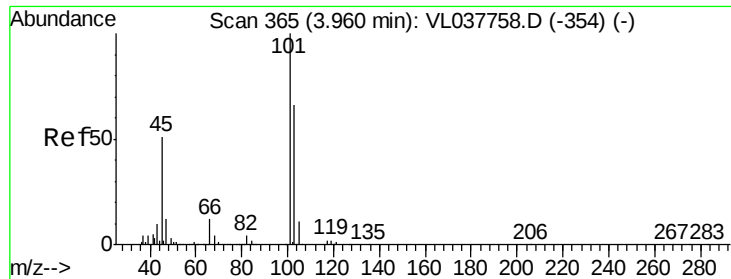
54 0.0 61.7 92.5#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0





#19

Isopropyl Alcohol

Concen: 0.317 ppbv

RT: 3.97 min Scan# 368

Delta R.T. 0.01 min

Lab File: VL037820.D

Acq: 8 Oct 2021 6:54

Instrument :

MSVOA_L

ClientSampleId :

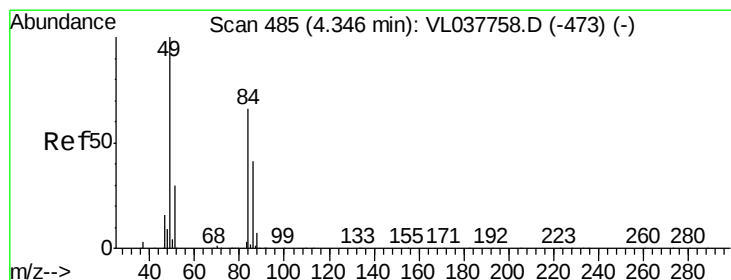
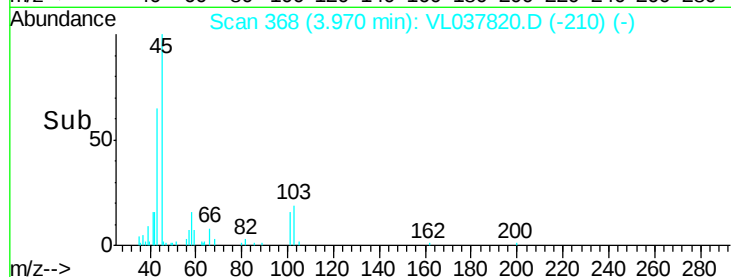
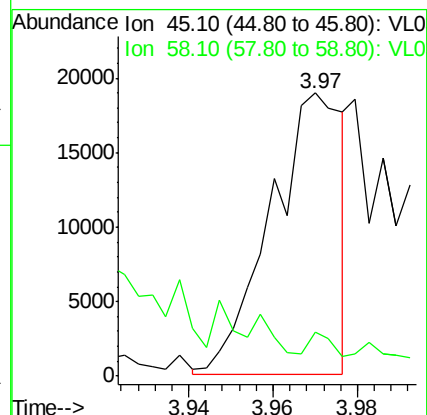
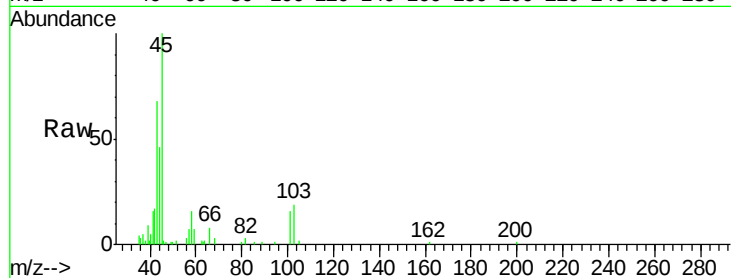
C0P12

Tgt Ion: 45 Resp: 22283

Ion Ratio Lower Upper

45 100

58 0.0 1.1 1.7#



#20

Methylene Chloride

Concen: 1.805 ppbv

RT: 4.34 min Scan# 482

Delta R.T. -0.01 min

Lab File: VL037820.D

Acq: 8 Oct 2021 6:54

Tgt Ion: 84 Resp: 103186

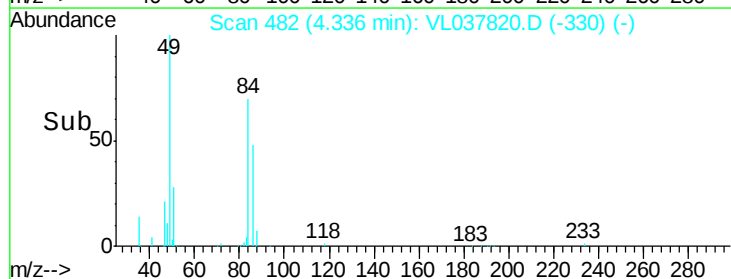
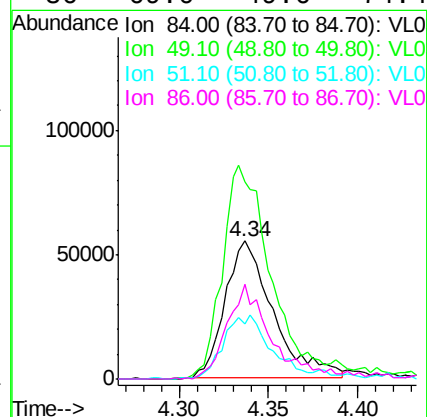
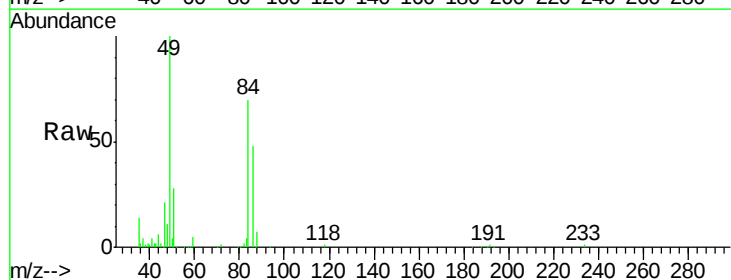
Ion Ratio Lower Upper

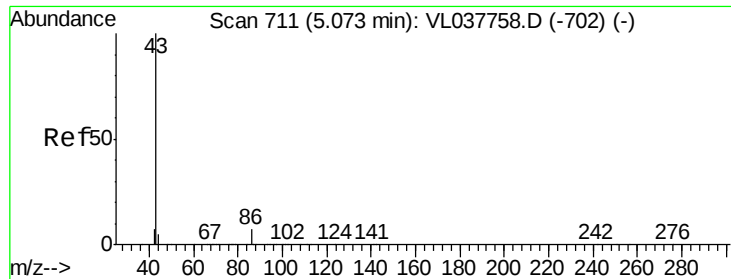
84 100

49 140.4 120.7 181.1

51 38.9 36.2 54.4

86 69.0 49.6 74.4





#23

Vinyl Acetate

Concen: 0.300 ppbv

RT: 5.06 min Scan# 707

Delta R.T. -0.01 min

Lab File: VL037820.D

Acq: 8 Oct 2021 6:54

Instrument :

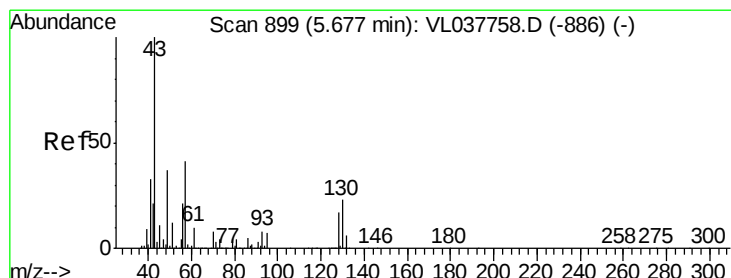
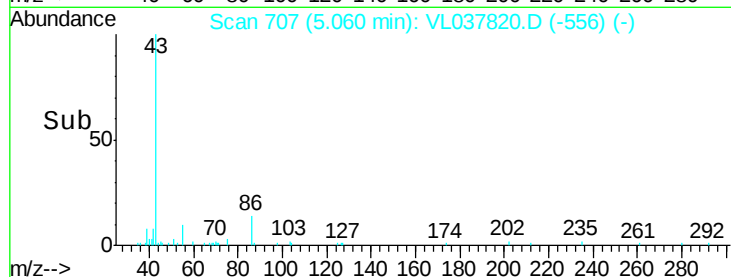
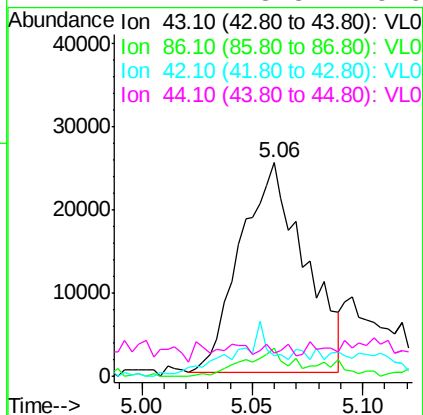
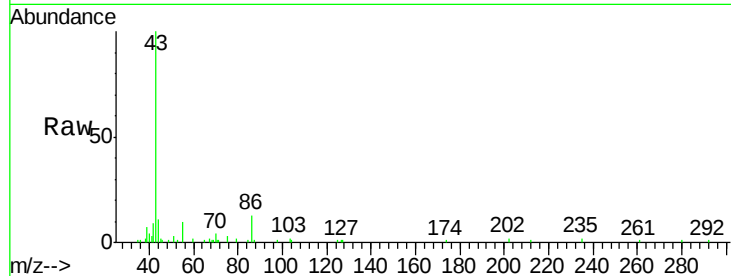
MSVOA_L

ClientSampleId :

C0P12

Tgt Ion: 43 Resp: 50817

Ion	Ratio	Lower	Upper
43	100		
86	13.5	5.0	7.4#
42	5.5	7.4	11.0#
44	2.2	3.8	5.6#



#25

Ethyl Acetate

Concen: 0.451 ppbv

RT: 5.67 min Scan# 898

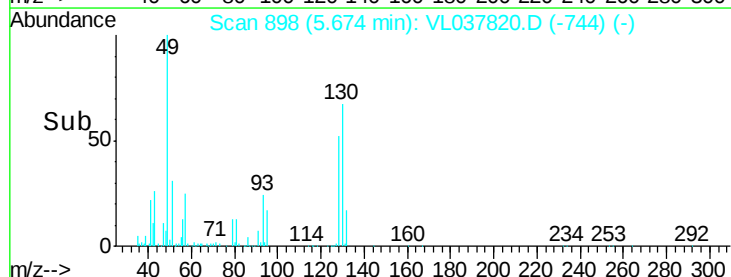
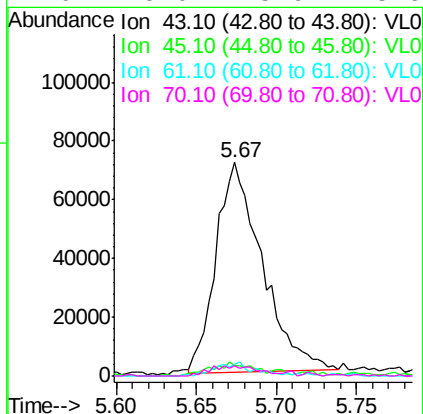
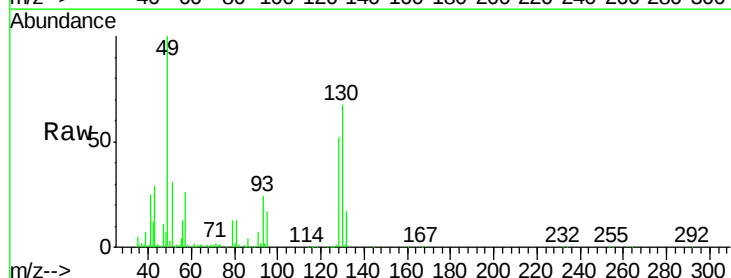
Delta R.T. -0.00 min

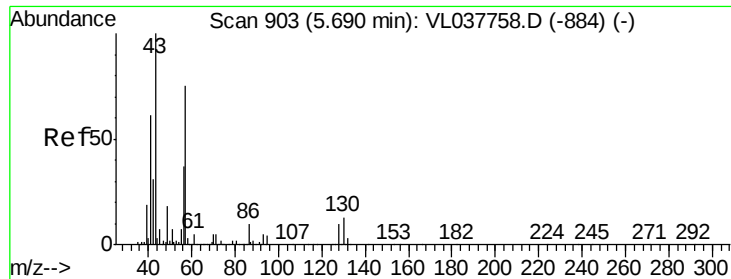
Lab File: VL037820.D

Acq: 8 Oct 2021 6:54

Tgt Ion: 43 Resp: 143039

Ion	Ratio	Lower	Upper
43	100		
45	7.8	8.1	12.1#
61	5.8	7.5	11.3#
70	6.0	5.9	8.9





#26

Hexane

Concen: 0.474 ppbv

RT: 5.68 min Scan# 900

Delta R.T. -0.01 min

Lab File: VL037820.D

Acq: 8 Oct 2021 6:54

Instrument :

MSVOA_L

ClientSampleId :

C0P12

Tgt Ion: 57 Resp: 74165

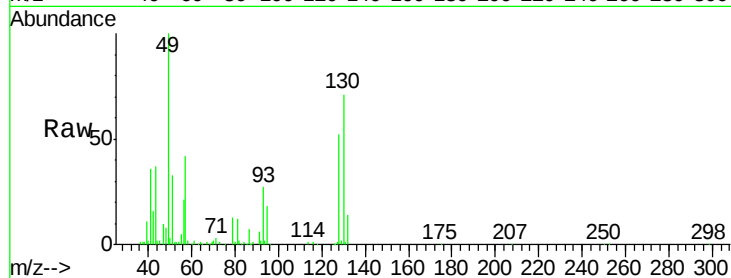
Ion Ratio Lower Upper

57 100

41 178.8 69.6 104.4#

43 203.4 171.4 257.0

56 105.4 42.0 63.0#

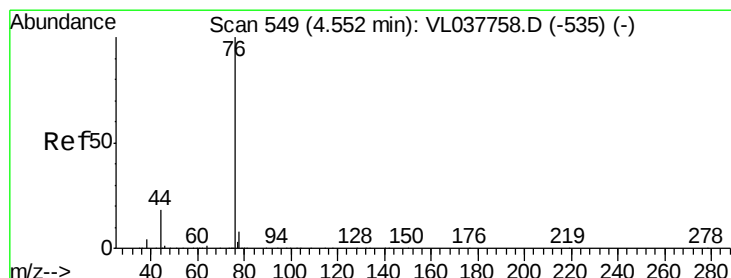
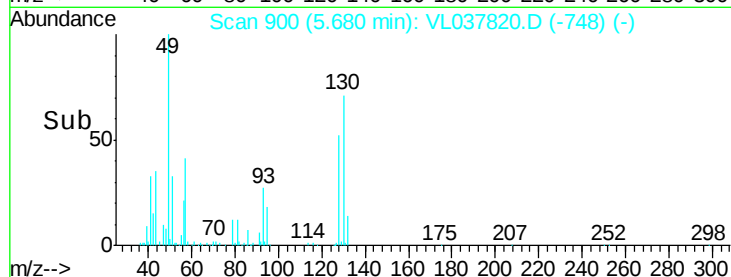
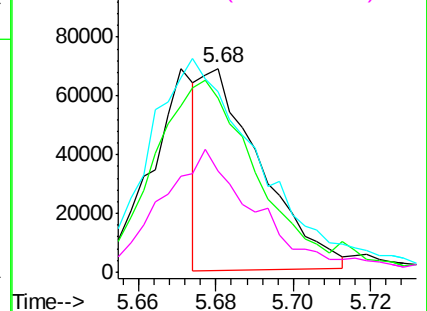


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#27

Carbon Disulfide

Concen: 0.071 ppbv

RT: 4.54 min Scan# 545

Delta R.T. -0.01 min

Lab File: VL037820.D

Acq: 8 Oct 2021 6:54

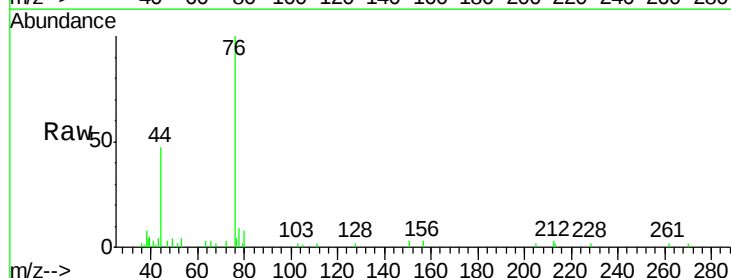
Tgt Ion: 76 Resp: 9882

Ion Ratio Lower Upper

76 100

44 0.0 14.3 21.5#

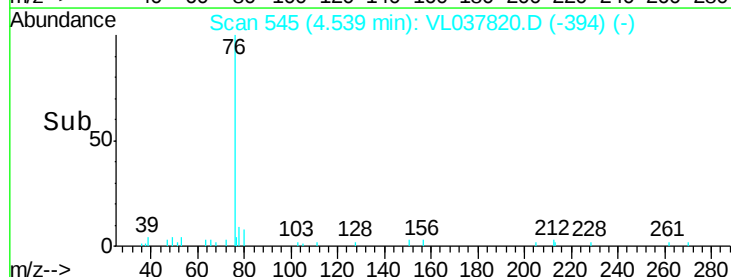
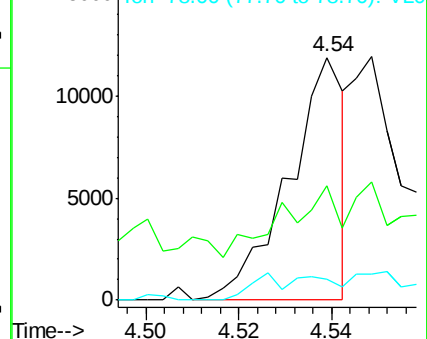
78 0.0 7.8 11.6#

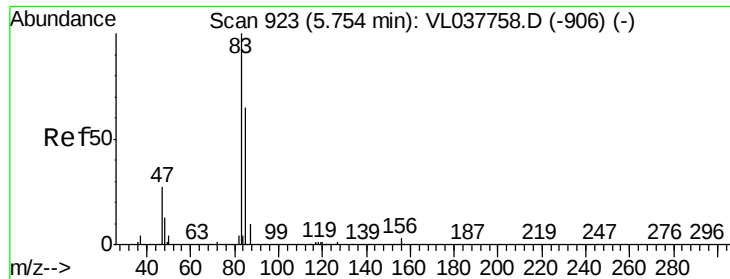


Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0





#29

Chloroform

Concen: 0.070 ppbv

RT: 5.74 min Scan# 919

Delta R.T. -0.01 min

Lab File: VL037820.D

Acq: 8 Oct 2021 6:54

Instrument :

MSVOA_L

ClientSampleId :

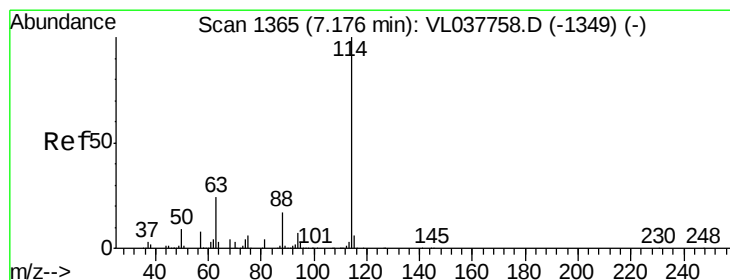
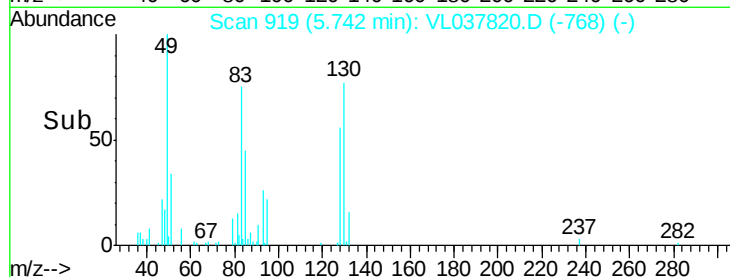
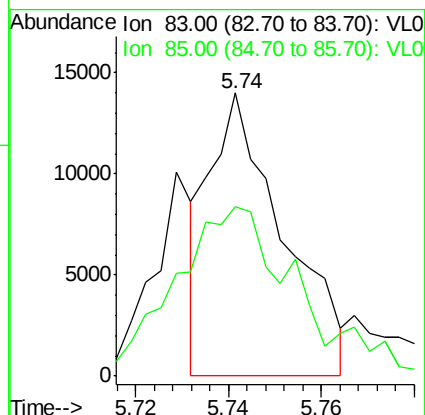
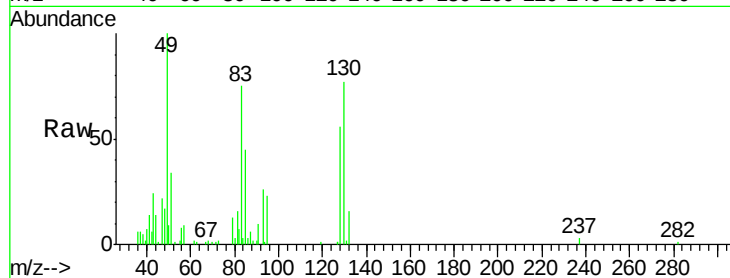
C0P12

Tgt Ion: 83 Resp: 15547

Ion Ratio Lower Upper

83 100

85 53.4 51.8 77.8



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.16 min Scan# 1361

Delta R.T. -0.01 min

Lab File: VL037820.D

Acq: 8 Oct 2021 6:54

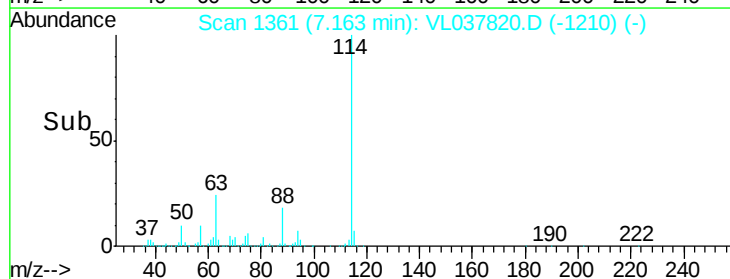
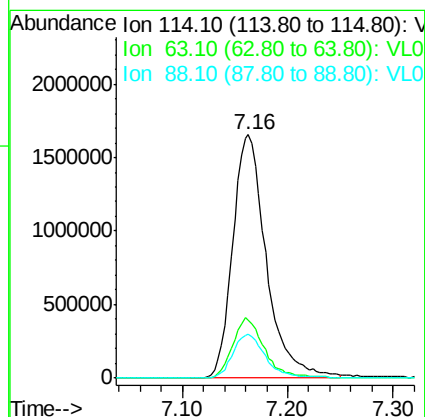
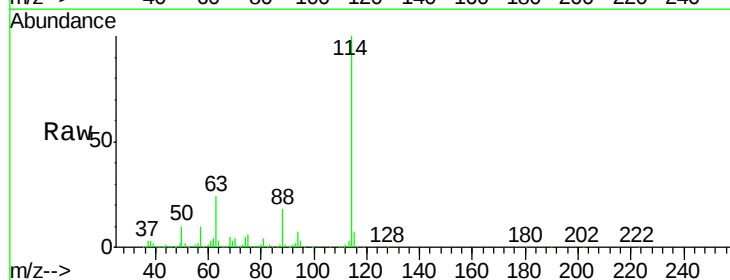
Tgt Ion: 114 Resp: 3648270

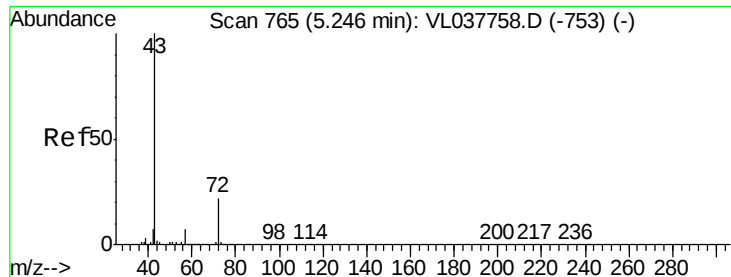
Ion Ratio Lower Upper

114 100

63 23.9 19.4 29.2

88 17.8 14.4 21.6

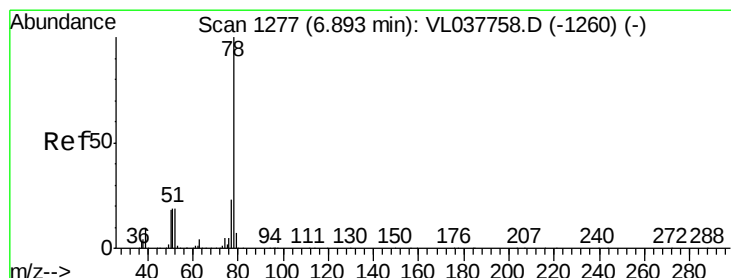
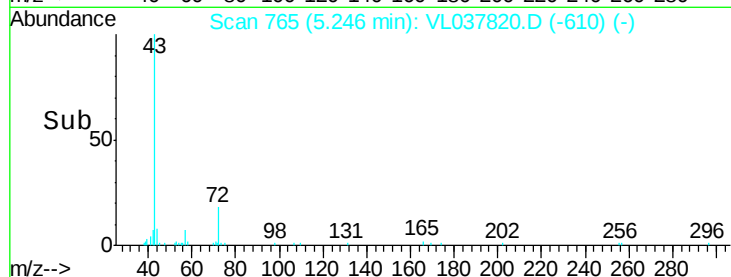
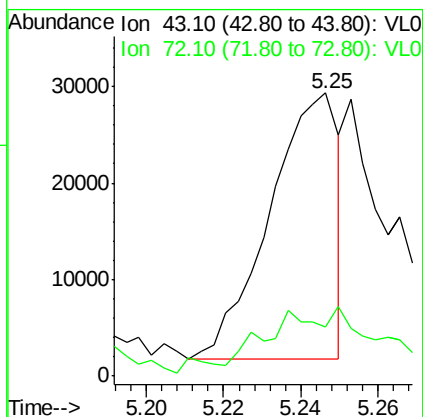
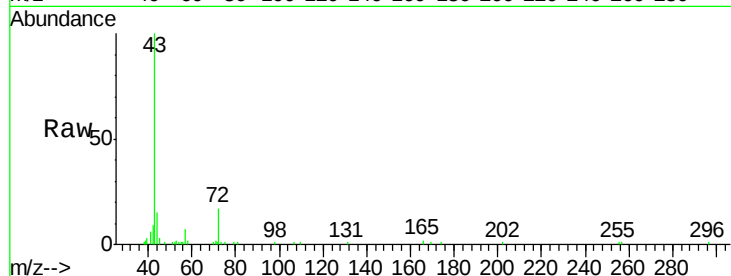




#34
2-Butanone
Concen: 0.230 ppbv
RT: 5.25 min Scan# 765
Delta R.T. -0.00 min
Lab File: VL037820.D
Acq: 8 Oct 2021 6:54

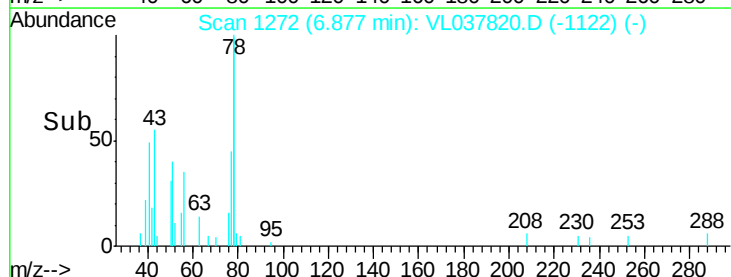
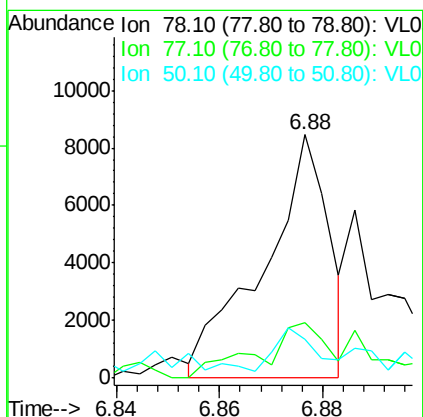
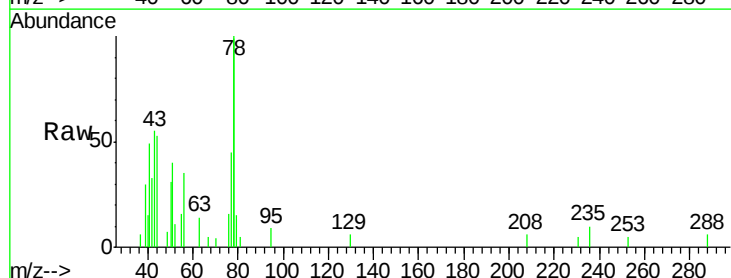
Instrument :
MSVOA_L
ClientSampleId :
C0P12

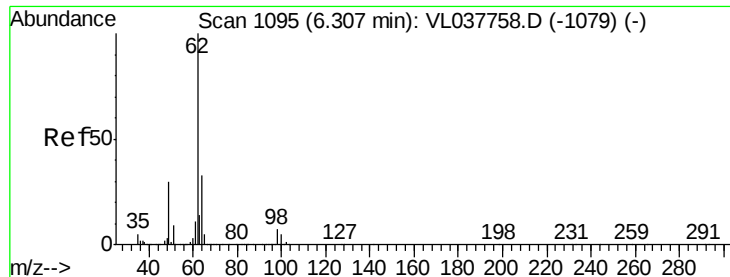
Tgt Ion: 43 Resp: 33906
Ion Ratio Lower Upper
43 100
72 0.0 18.2 27.2#



#36
Benzene
Concen: 0.024 ppbv
RT: 6.88 min Scan# 1272
Delta R.T. -0.02 min
Lab File: VL037820.D
Acq: 8 Oct 2021 6:54

Tgt Ion: 78 Resp: 7429
Ion Ratio Lower Upper
78 100
77 25.1 18.8 28.2
50 31.6 14.7 22.1#





#37

1,2-Dichloroethane

Concen: 0.039 ppbv

RT: 6.29 min Scan# 1089

Delta R.T. -0.02 min

Lab File: VL037820.D

Acq: 8 Oct 2021 6:54

Instrument :

MSVOA_L

ClientSampleId :

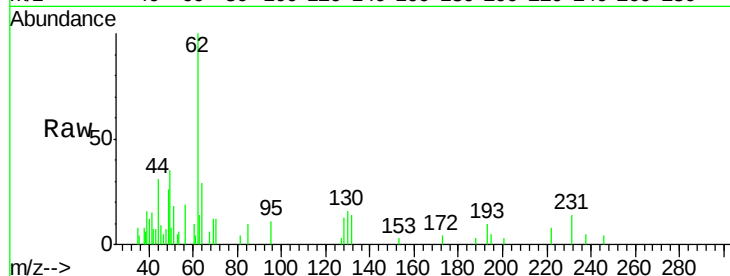
C0P12

Tgt Ion: 62 Resp: 5720

Ion Ratio Lower Upper

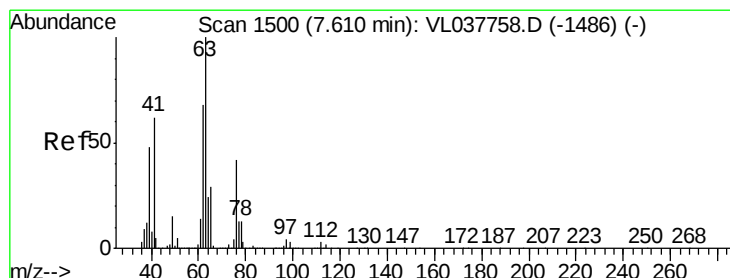
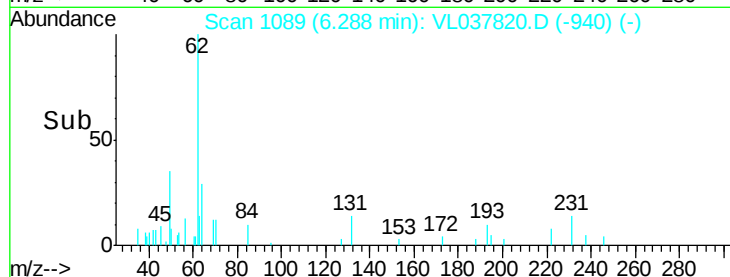
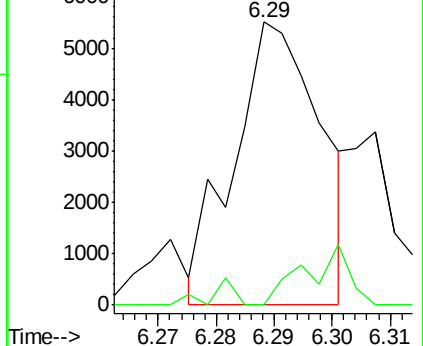
62 100

98 0.0 6.1 9.1#



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 98.00 (97.70 to 98.70): VL0



#39

1,2-Dichloropropane

Concen: 7.287 ppbv

RT: 7.16 min Scan# 1360

Delta R.T. -0.45 min

Lab File: VL037820.D

Acq: 8 Oct 2021 6:54

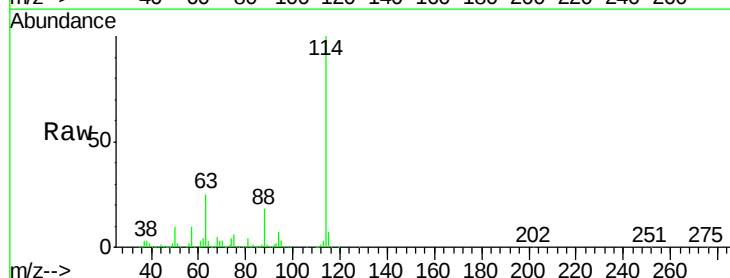
Tgt Ion: 63 Resp: 854159

Ion Ratio Lower Upper

63 100

41 0.0 49.8 74.6#

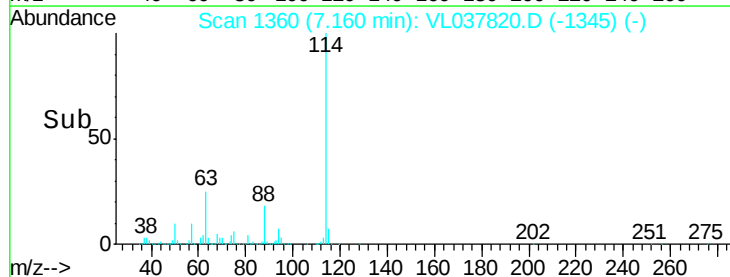
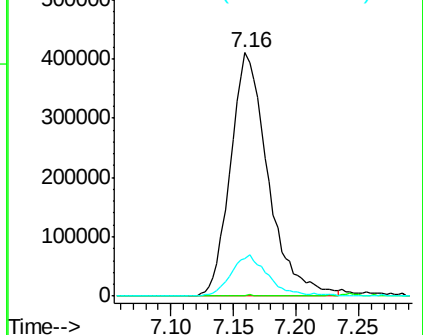
62 15.5 54.6 82.0#

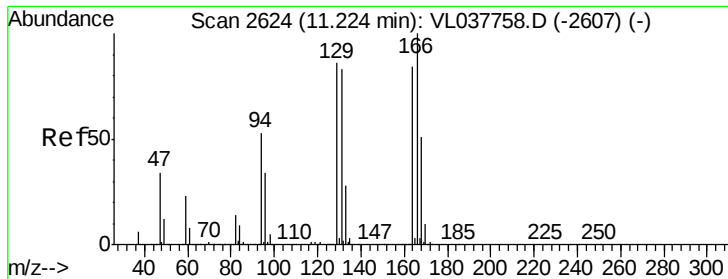


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0





#52

Tetrachloroethene

Concen: 1.238 ppbv

RT: 11.20 min Scan# 2618

Delta R.T. -0.02 min

Lab File: VL037820.D

Acq: 8 Oct 2021 6:54

Instrument :

MSVOA_L

ClientSampleId :

C0P12

Tgt Ion:164 Resp: 150060

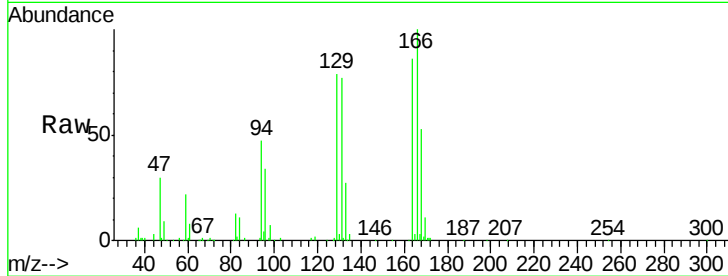
Ion Ratio Lower Upper

164 100

166 115.8 95.4 143.2

129 91.1 82.2 123.4

131 88.8 79.4 119.2

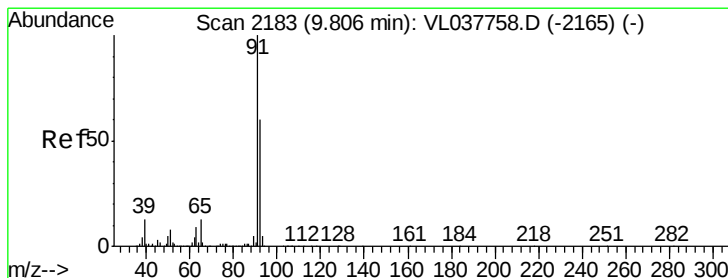
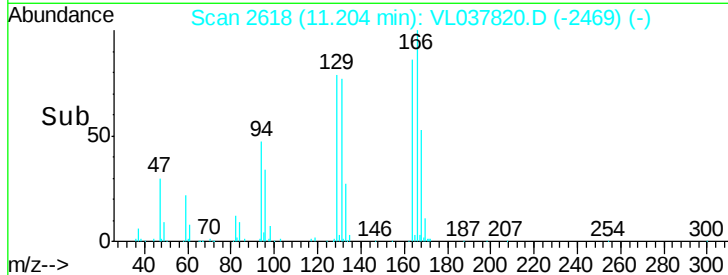
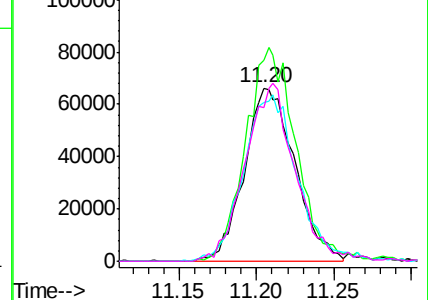


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.251 ppbv

RT: 9.79 min Scan# 2179

Delta R.T. -0.01 min

Lab File: VL037820.D

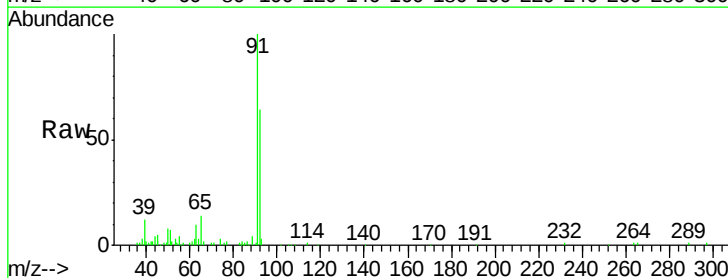
Acq: 8 Oct 2021 6:54

Tgt Ion: 91 Resp: 86649

Ion Ratio Lower Upper

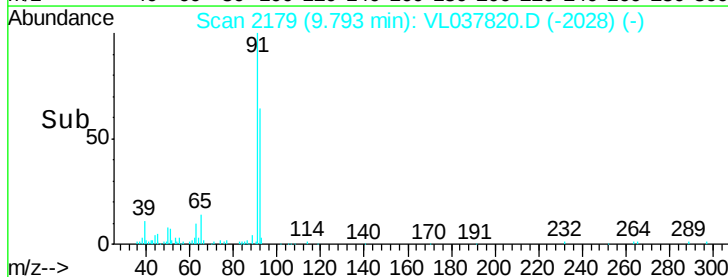
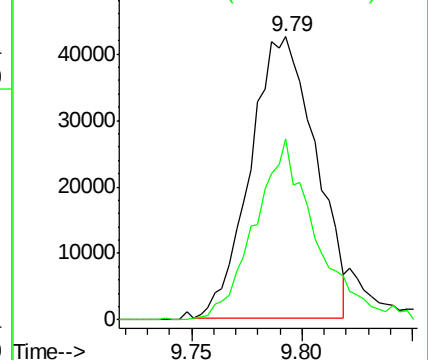
91 100

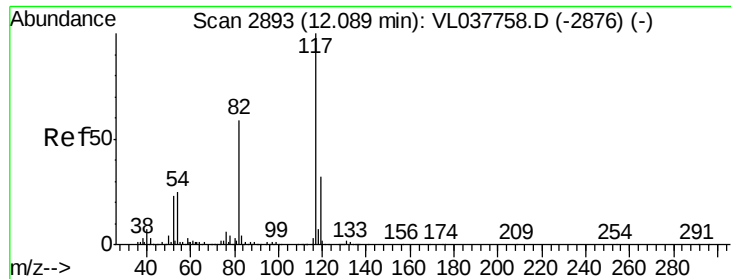
92 63.0 48.4 72.6



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

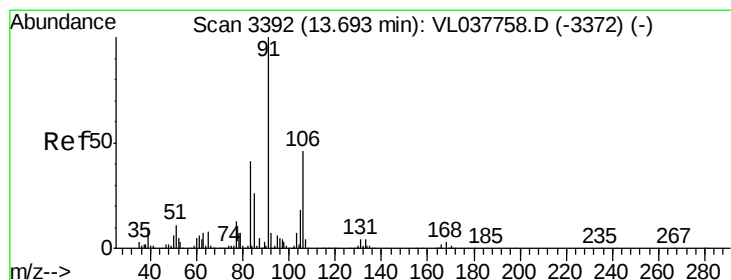
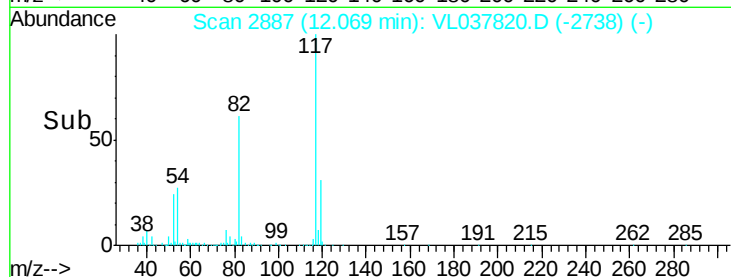
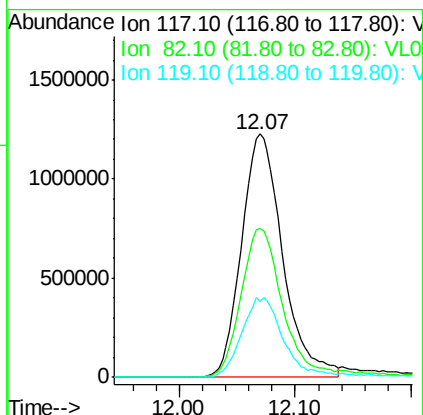
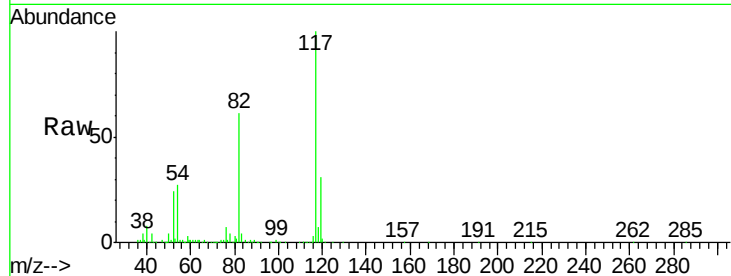




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.07 min Scan# 2887
Delta R.T. -0.02 min
Lab File: VL037820.D
Acq: 8 Oct 2021 6:54

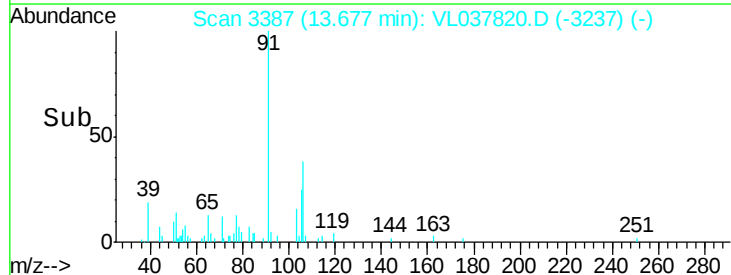
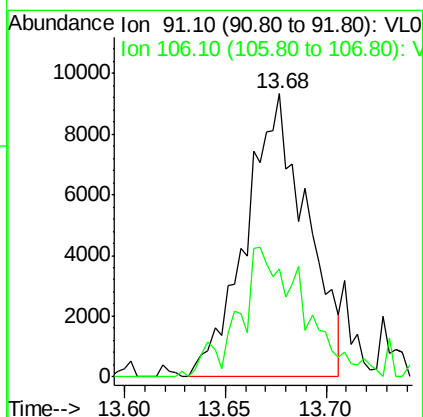
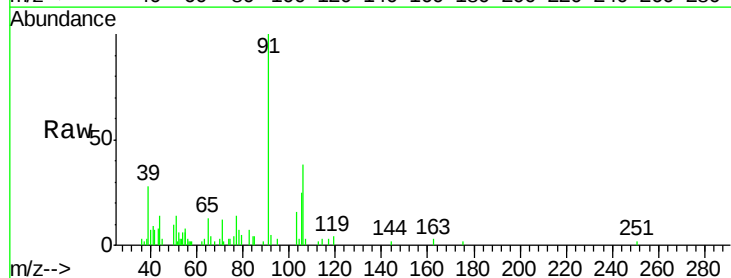
Instrument :
MSVOA_L
ClientSampleId :
C0P12

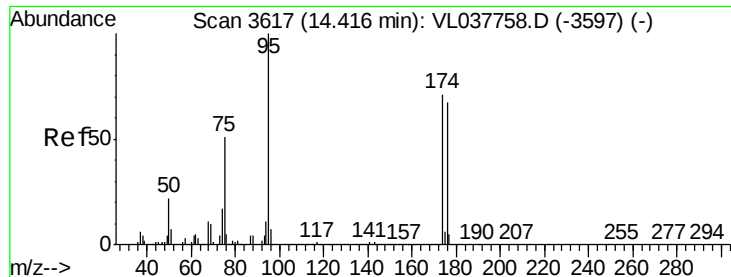
Tgt Ion: 117 Resp: 3026261
Ion Ratio Lower Upper
117 100
82 64.7 52.2 78.2
119 34.9 26.0 39.0



#60
o-Xylene
Concen: 0.058 ppbv
RT: 13.68 min Scan# 3387
Delta R.T. -0.02 min
Lab File: VL037820.D
Acq: 8 Oct 2021 6:54

Tgt Ion: 91 Resp: 19377
Ion Ratio Lower Upper
91 100
106 49.6 23.5 70.5





#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.279 ppbv
 RT: 14.40 min Scan# 3611
 Delta R.T. -0.02 min
 Lab File: VL037820.D
 Acq: 8 Oct 2021 6:54

Instrument :
 MSVOA_L
 ClientSampleId :
 C0P12

Tgt Ion: 95 Resp: 2175343
 Ion Ratio Lower Upper
 95 100
 174 75.3 57.8 86.6
 175 5.3 4.7 7.1

