

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL100521\
 Data File : VL037777.D
 Acq On : 5 Oct 2021 17:16
 Operator : SY/AP
 Sample : M4012-06
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 C0P28

Quant Time: Oct 06 04:47:09 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	1348113	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.15	114	3747701	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.06	117	3145853	10.00	ppbv	-0.03

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.39	95	2318871	10.54	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.40%

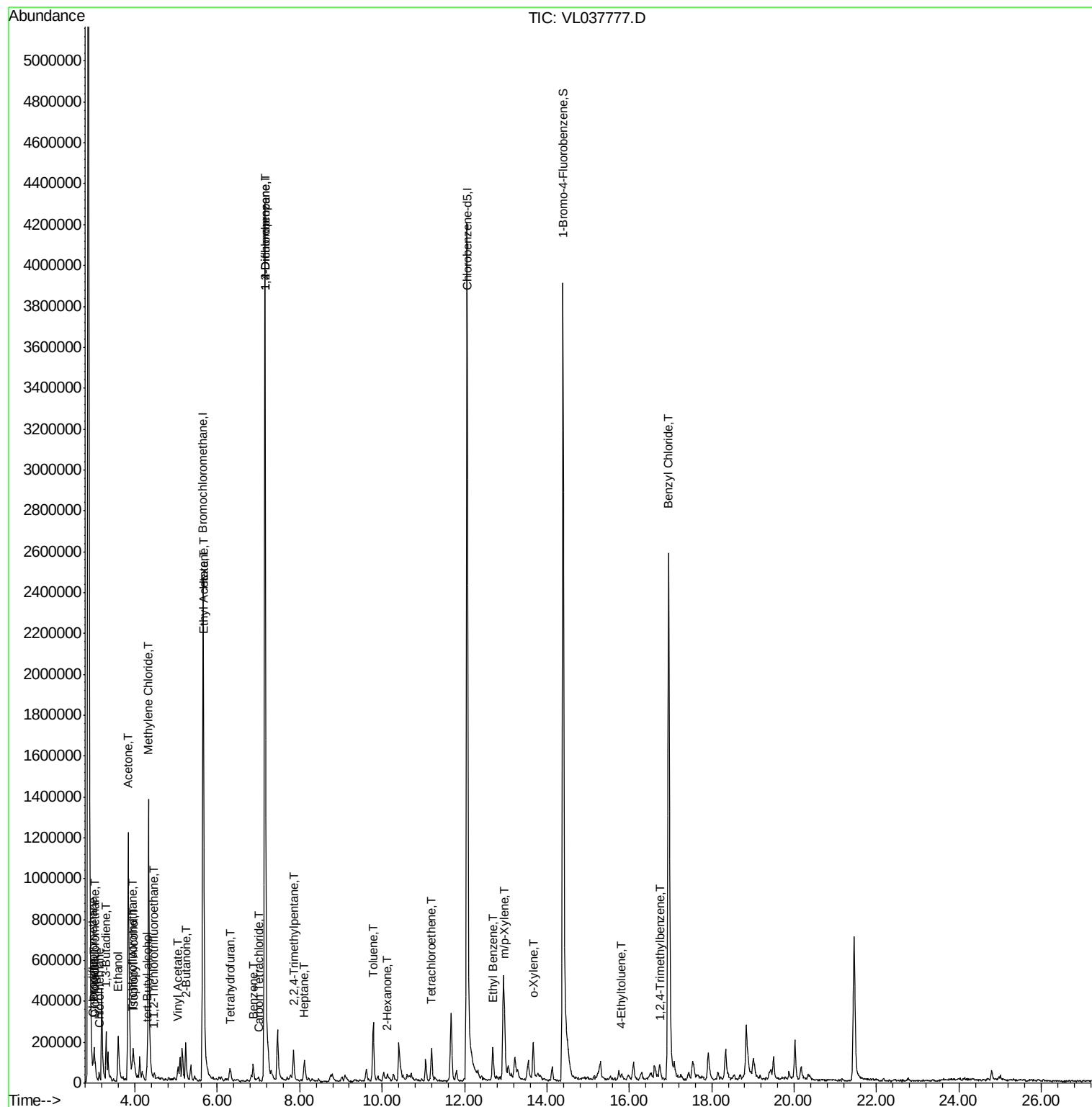
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.04	85	50108	0.233	ppbv	98
3) Chlorodifluoromethane	2.98	51	54676	0.211	ppbv	93
4) Chloromethane	3.13	50	30750	0.324	ppbv #	66
9) Propene	3.01	41	35167	0.369	ppbv #	16
10) Heptane	8.10	43	9582	0.044	ppbv #	27
11) Trichlorofluoromethane	3.93	101	17790	0.093	ppbv	96
12) 1,1,2-Trichlorotrifluoroet	4.47	101	6141	0.042	ppbv #	44
13) Ethanol	3.59	45	277198	35.563	ppbv	85
15) Acetone	3.84	43	1625171	13.429	ppbv	97
16) 1,3-Butadiene	3.30	39	64061	0.728	ppbv #	24
17) tert-Butyl alcohol	4.29	59	21459	0.172	ppbv #	27
19) Isopropyl Alcohol	3.98	45	33938	0.451	ppbv #	96
20) Methylene Chloride	4.33	84	521786	8.533	ppbv	96
23) Vinyl Acetate	5.05	43	40831	0.225	ppbv #	59
25) Ethyl Acetate	5.67	43	164669	0.485	ppbv #	81
26) Hexane	5.67	57	217156	1.299	ppbv #	44
34) 2-Butanone	5.23	43	229749	1.519	ppbv	97
35) Carbon Tetrachloride	7.00	117	5707	0.027	ppbv #	74
36) Benzene	6.87	78	55570	0.174	ppbv #	95
39) 1,2-Dichloropropane	7.15	63	896199	7.443	ppbv #	29
41) Tetrahydrofuran	6.30	42	1616	0.022	ppbv #	58
44) 2,2,4-Trimethylpentane	7.85	57	118269	0.220	ppbv #	83
51) 2-Hexanone	10.12	43	5454	0.062	ppbv #	28
52) Tetrachloroethene	11.20	164	21517	0.173	ppbv #	86
53) Toluene	9.78	91	194502	0.548	ppbv	98
58) Ethyl Benzene	12.69	91	132756	0.314	ppbv	89
59) m/p-Xylene	12.97	91	151807	0.419	ppbv #	30
60) o-Xylene	13.66	91	65312	0.188	ppbv #	13
66) Benzyl Chloride	16.95	91	897	0.043	ppbv #	81
72) 4-Ethyltoluene	15.81	105	12042	0.031	ppbv #	66
74) 1,2,4-Trimethylbenzene	16.73	105	38488	0.102	ppbv #	72

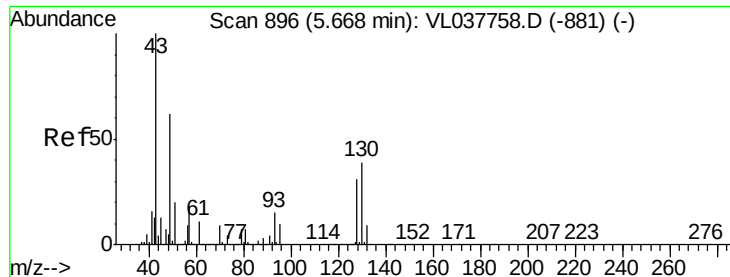
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL100521\
Data File : VL037777.D
Acq On : 5 Oct 2021 17:16
Operator : SY/AP
Sample : M4012-06
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
C0P28

Quant Time: Oct 06 04:47:09 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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 890

Delta R.T. -0.02 min

Lab File: VL037777.D

Acq: 5 Oct 2021 17:16

Instrument :

MSVOA_L

ClientSampleId :

C0P28

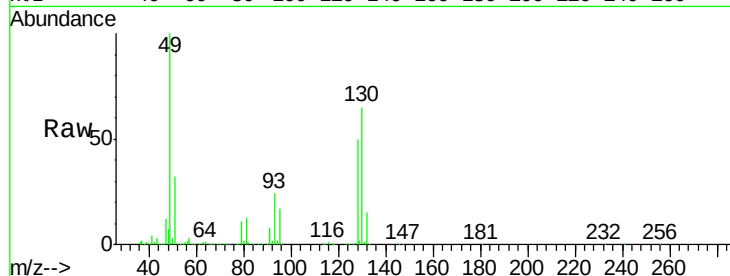
Tgt Ion: 49 Resp: 1348113

Ion Ratio Lower Upper

49 100

128 51.5 27.1 81.3

130 67.0 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

5.65

600000

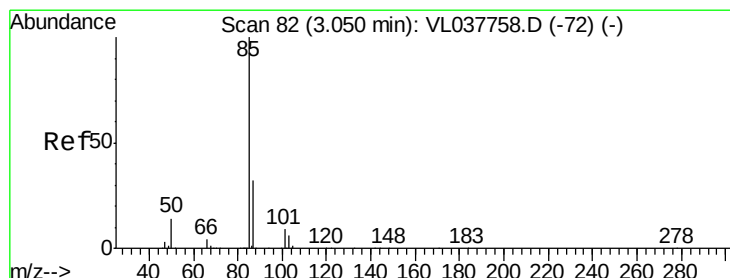
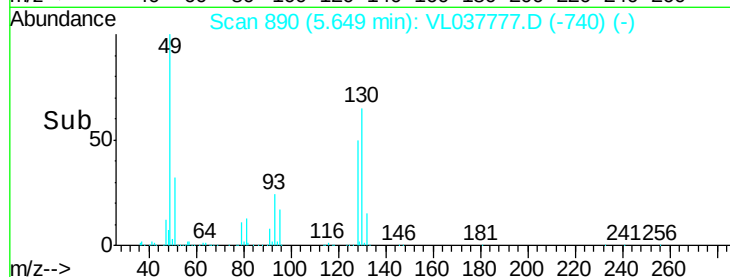
400000

200000

0

5.60 5.70 5.80

Time-->



#2

Dichlorodifluoromethane

Concen: 0.233 ppbv

RT: 3.04 min Scan# 79

Delta R.T. -0.01 min

Lab File: VL037777.D

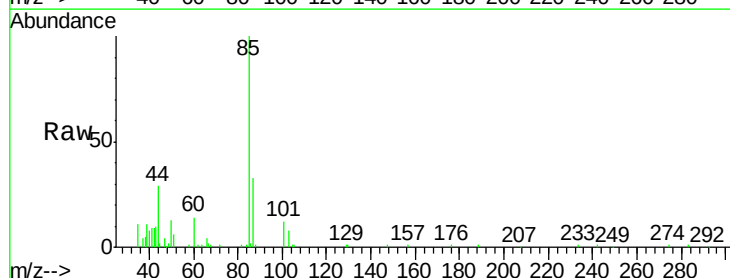
Acq: 5 Oct 2021 17:16

Tgt Ion: 85 Resp: 50108

Ion Ratio Lower Upper

85 100

87 31.1 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

3.04

30000

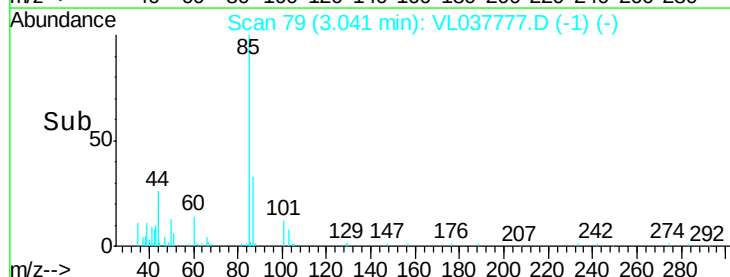
20000

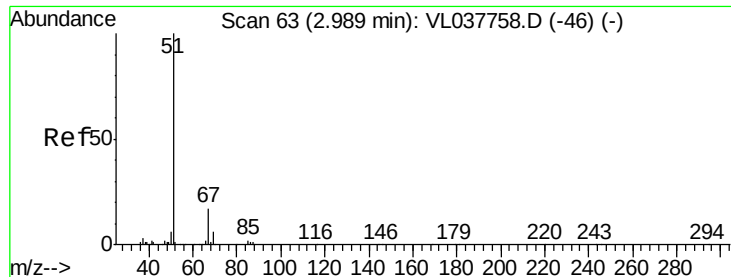
10000

0

3.00 3.05

Time-->

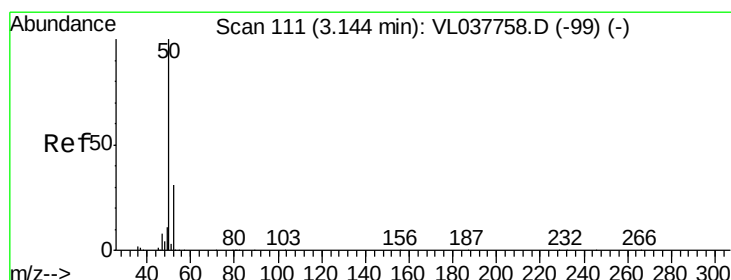
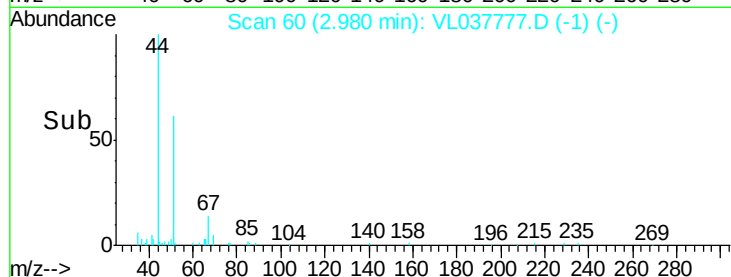
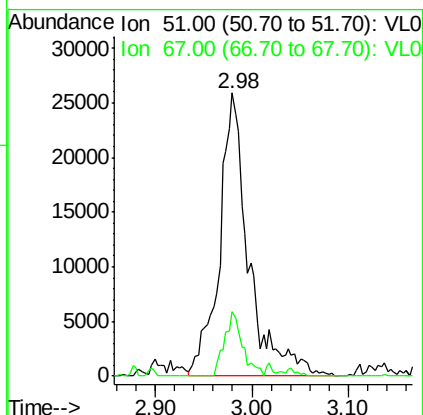
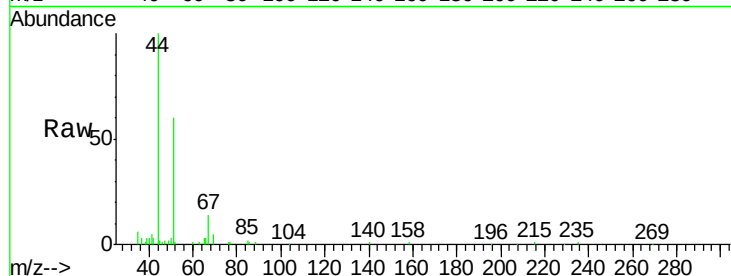




#3
 Chlorodifluoromethane
 Concen: 0.211 ppbv
 RT: 2.98 min Scan# 60
 Delta R.T. -0.01 min
 Lab File: VL037777.D
 Acq: 5 Oct 2021 17:16

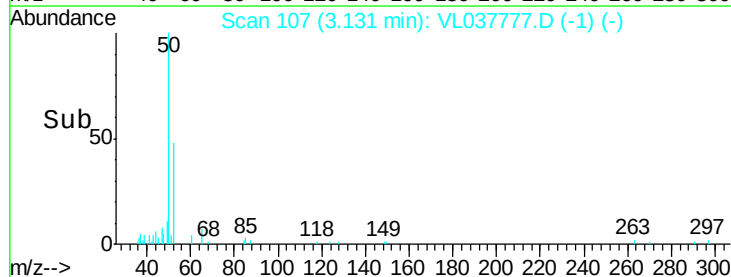
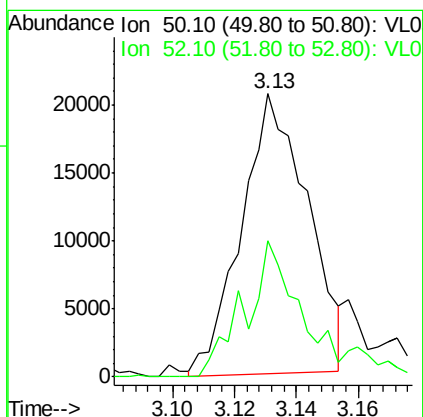
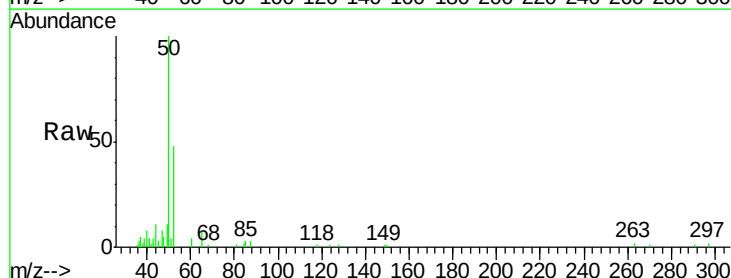
Instrument :
 MSVOA_L
 ClientSampleId :
 C0P28

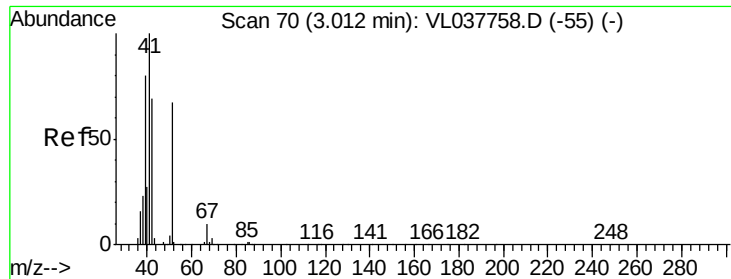
Tgt Ion: 51 Resp: 54676
 Ion Ratio Lower Upper
 51 100
 67 13.9 13.5 20.3



#4
 Chloromethane
 Concen: 0.324 ppbv
 RT: 3.13 min Scan# 107
 Delta R.T. -0.01 min
 Lab File: VL037777.D
 Acq: 5 Oct 2021 17:16

Tgt Ion: 50 Resp: 30750
 Ion Ratio Lower Upper
 50 100
 52 49.1 24.4 36.6#





#9

Propene

Concen: 0.369 ppbv

RT: 3.01 min Scan# 68

Delta R.T. -0.01 min

Lab File: VL037777.D

Acq: 5 Oct 2021 17:16

Instrument :

MSVOA_L

ClientSampleId :

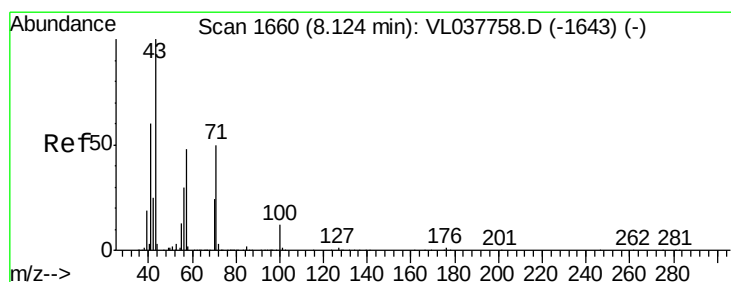
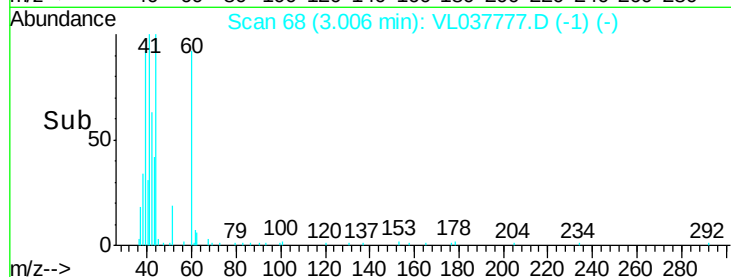
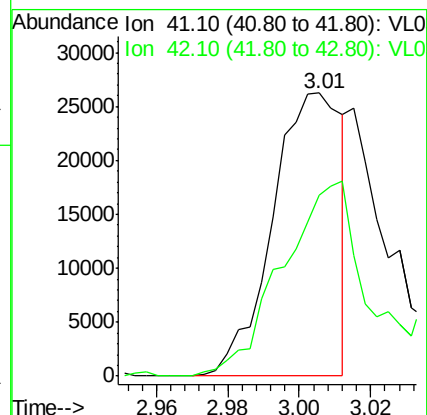
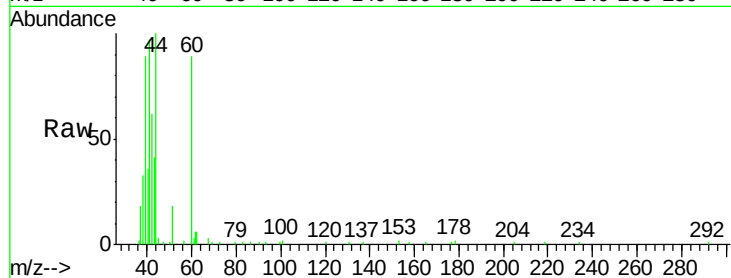
C0P28

Tgt Ion: 41 Resp: 35167

Ion Ratio Lower Upper

41 100

42 0.0 54.2 81.2#



#10

Heptane

Concen: 0.044 ppbv

RT: 8.10 min Scan# 1651

Delta R.T. -0.03 min

Lab File: VL037777.D

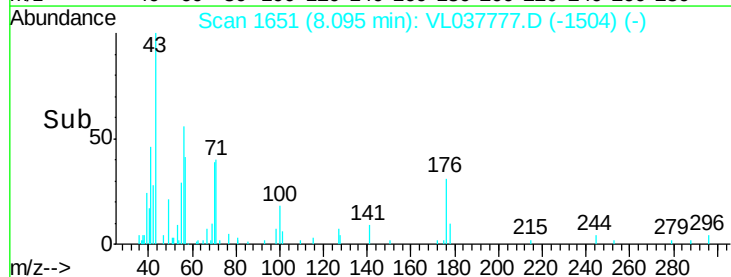
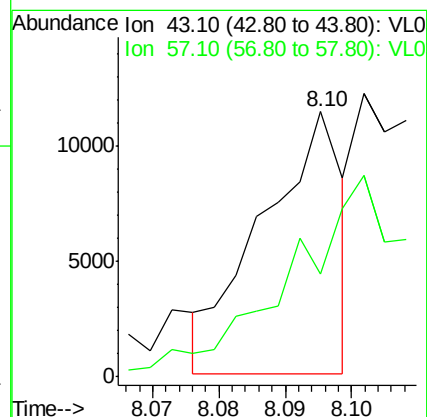
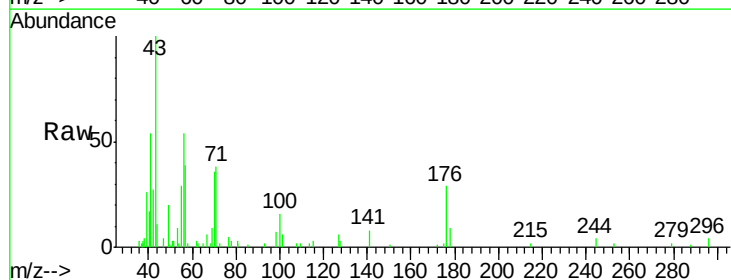
Acq: 5 Oct 2021 17:16

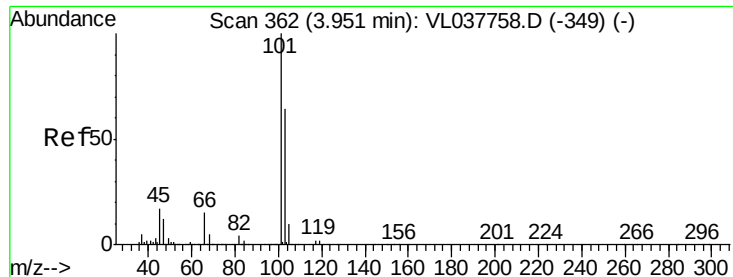
Tgt Ion: 43 Resp: 9582

Ion Ratio Lower Upper

43 100

57 0.0 40.0 60.0#





#11

Trichlorofluoromethane

Concen: 0.093 ppbv

RT: 3.93 min Scan# 357

Delta R.T. -0.02 min

Lab File: VL037777.D

Acq: 5 Oct 2021 17:16

Instrument :

MSVOA_L

ClientSampleId :

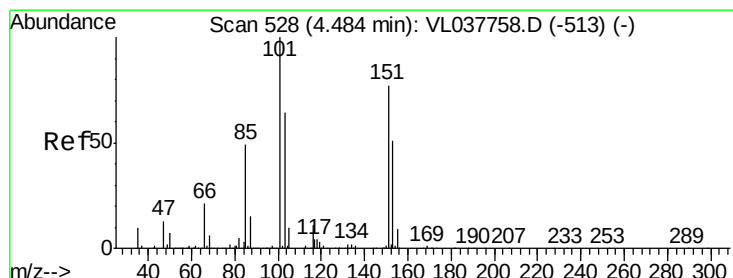
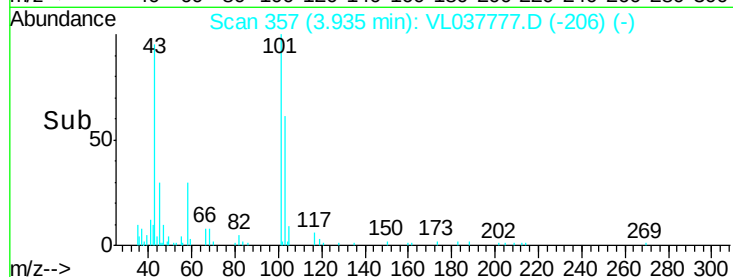
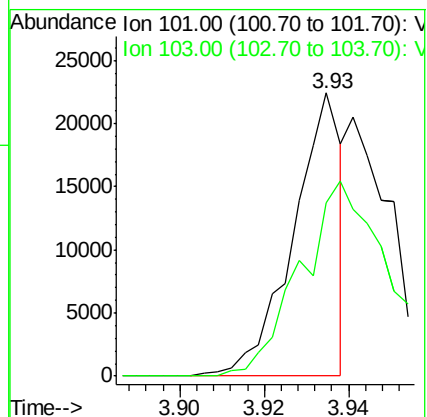
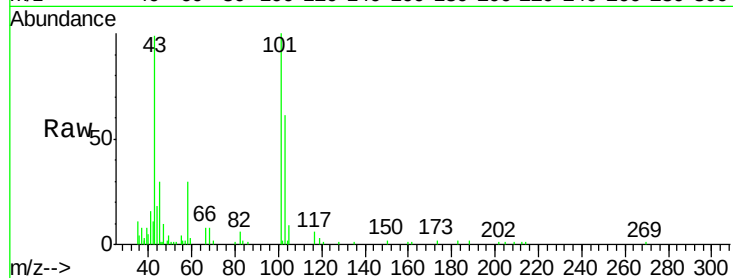
C0P28

Tgt Ion:101 Resp: 17790

Ion Ratio Lower Upper

101 100

103 61.2 51.5 77.3



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.042 ppbv

RT: 4.47 min Scan# 522

Delta R.T. -0.02 min

Lab File: VL037777.D

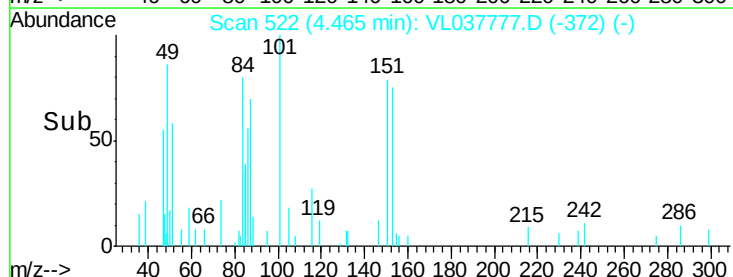
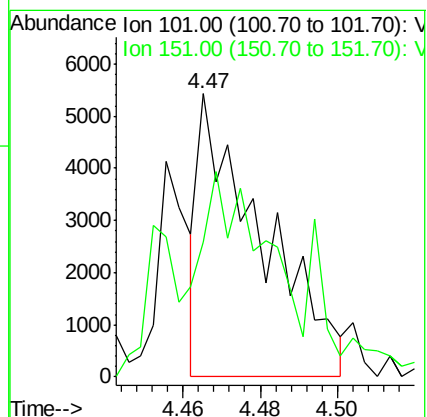
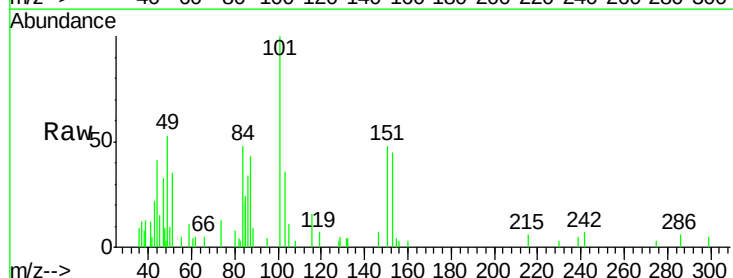
Acq: 5 Oct 2021 17:16

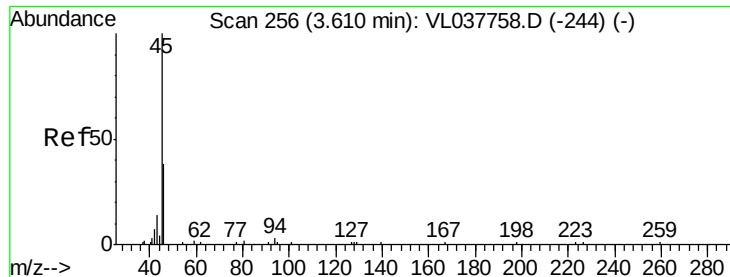
Tgt Ion:101 Resp: 6141

Ion Ratio Lower Upper

101 100

151 127.7 62.9 94.3#





#13

Ethanol

Concen: 35.563 ppbv

RT: 3.59 min Scan# 250

Delta R.T. -0.02 min

Lab File: VL037777.D

Acq: 5 Oct 2021 17:16

Instrument :

MSVOA_L

ClientSampleId :

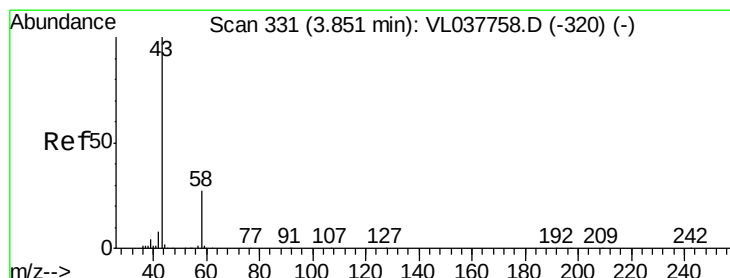
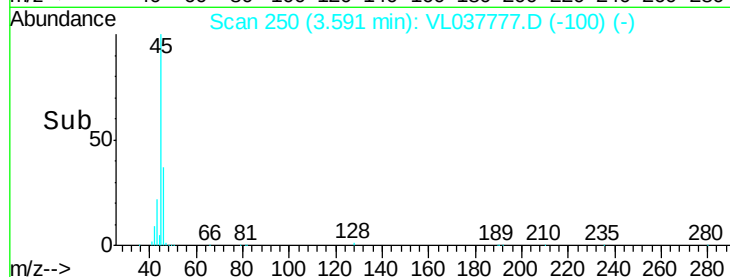
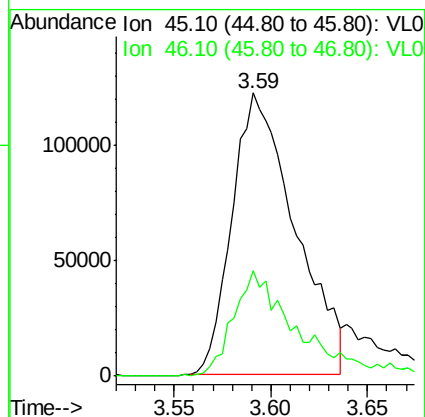
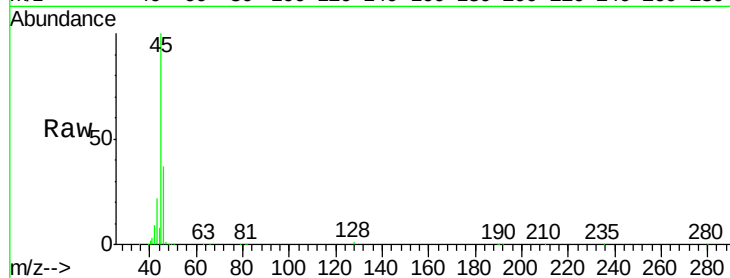
C0P28

Tgt Ion: 45 Resp: 277198

Ion Ratio Lower Upper

45 100

46 40.5 20.2 81.0



#15

Acetone

Concen: 13.429 ppbv

RT: 3.84 min Scan# 326

Delta R.T. -0.02 min

Lab File: VL037777.D

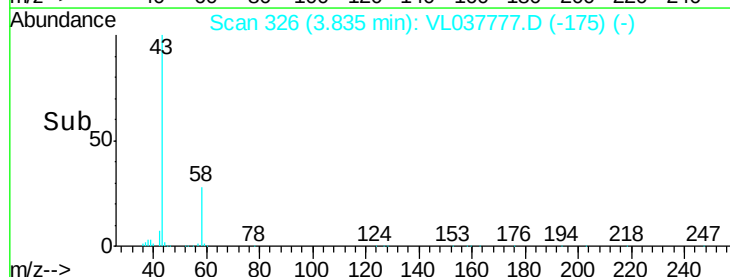
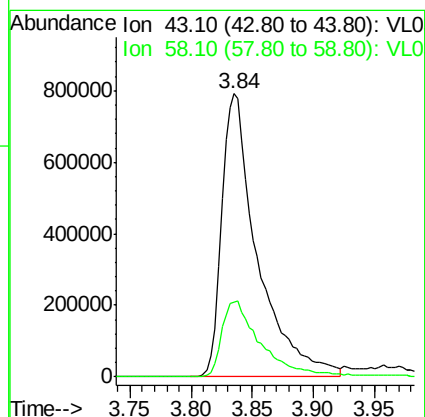
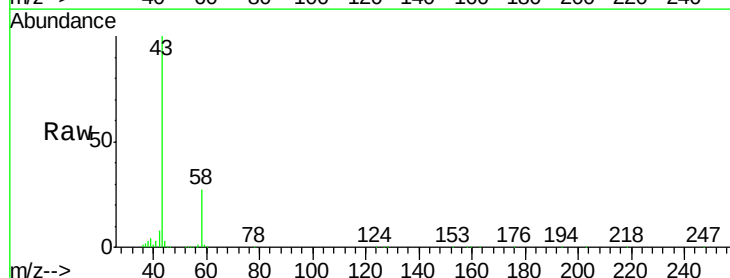
Acq: 5 Oct 2021 17:16

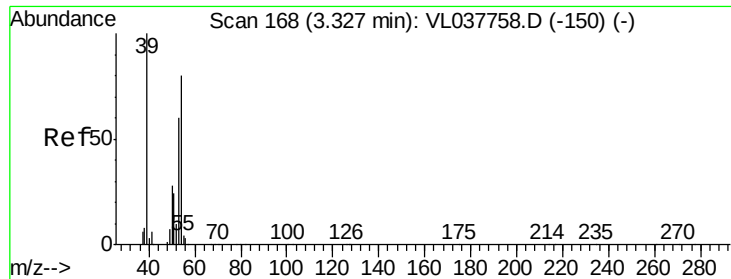
Tgt Ion: 43 Resp: 1625171

Ion Ratio Lower Upper

43 100

58 30.6 23.0 34.6

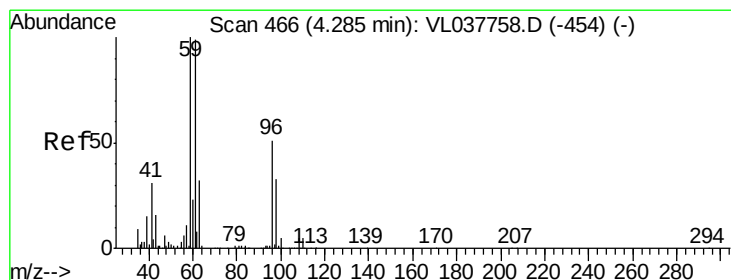
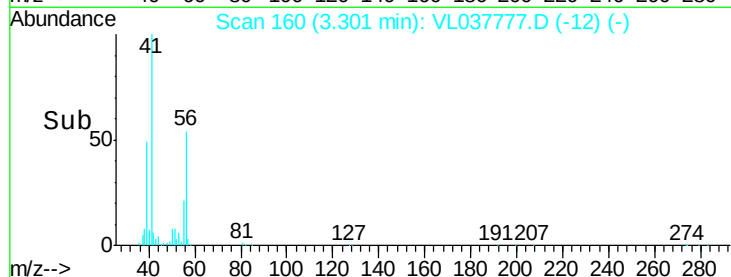
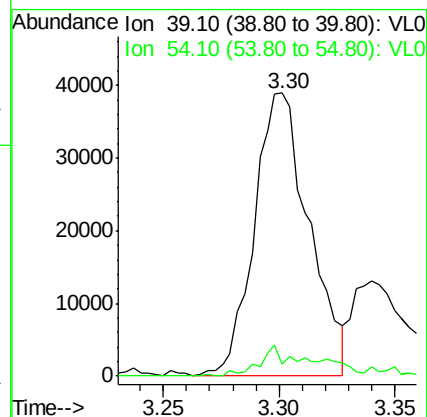
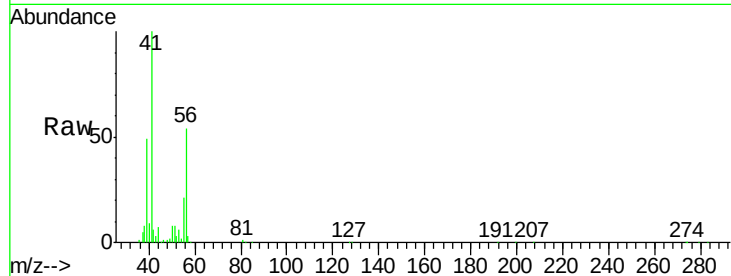




#16
1,3-Butadiene
Concen: 0.728 ppbv
RT: 3.30 min Scan# 160
Delta R.T. -0.03 min
Lab File: VL037777.D
Acq: 5 Oct 2021 17:16

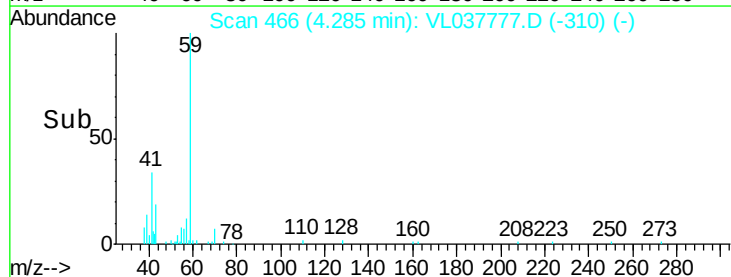
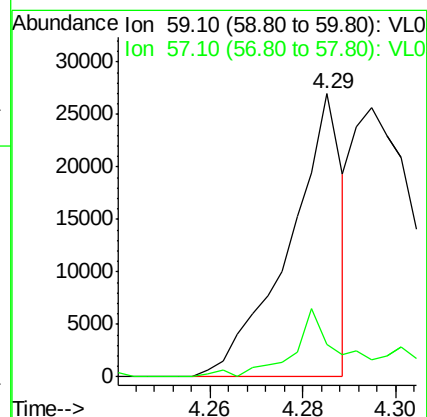
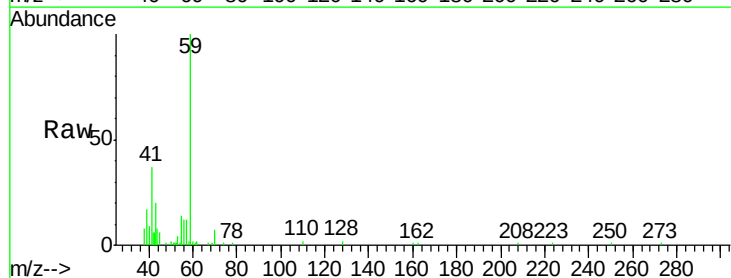
Instrument :
MSVOA_L
ClientSampleId :
C0P28

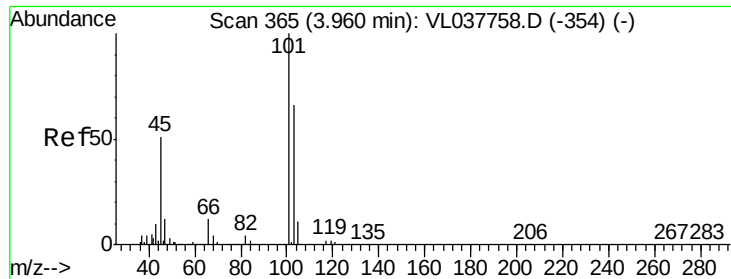
Tgt Ion: 39 Resp: 64061
Ion Ratio Lower Upper
39 100
54 11.7 61.7 92.5#



#17
tert-Butyl alcohol
Concen: 0.172 ppbv
RT: 4.29 min Scan# 466
Delta R.T. 0.00 min
Lab File: VL037777.D
Acq: 5 Oct 2021 17:16

Tgt Ion: 59 Resp: 21459
Ion Ratio Lower Upper
59 100
57 38.2 8.6 13.0#





#19

Isopropyl Alcohol

Concen: 0.451 ppbv

RT: 3.98 min Scan# 371

Delta R.T. 0.02 min

Lab File: VL037777.D

Acq: 5 Oct 2021 17:16

Instrument :

MSVOA_L

ClientSampleId :

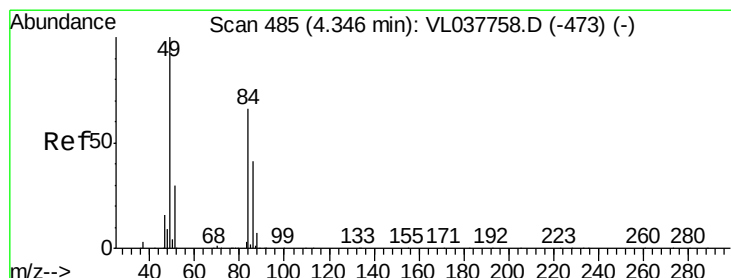
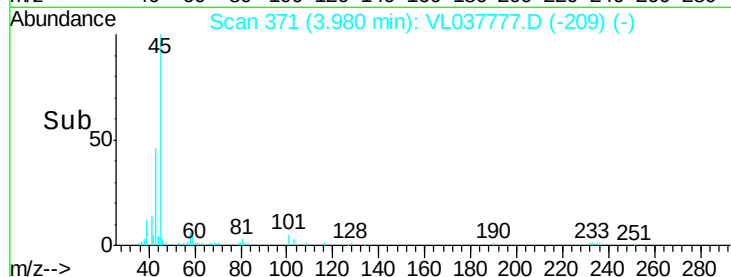
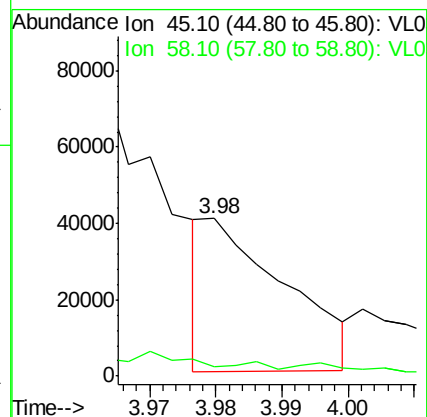
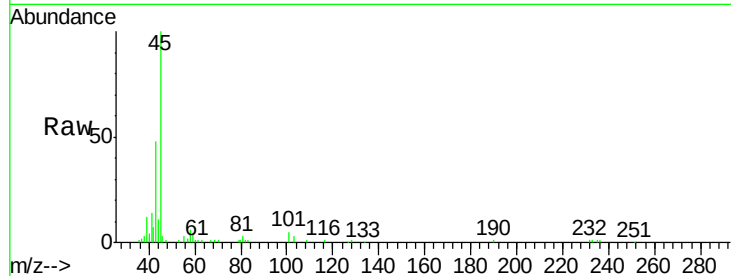
C0P28

Tgt Ion: 45 Resp: 33938

Ion Ratio Lower Upper

45 100

58 0.0 1.1 1.7#



#20

Methylene Chloride

Concen: 8.533 ppbv

RT: 4.33 min Scan# 480

Delta R.T. -0.02 min

Lab File: VL037777.D

Acq: 5 Oct 2021 17:16

Tgt Ion: 84 Resp: 521786

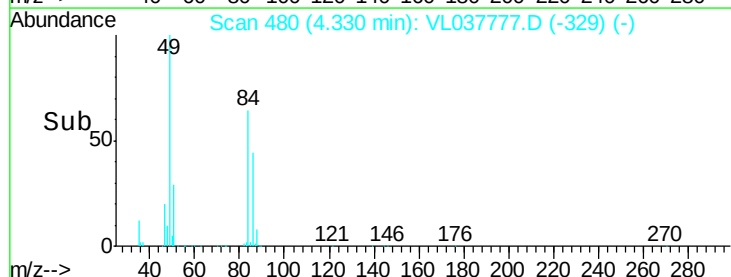
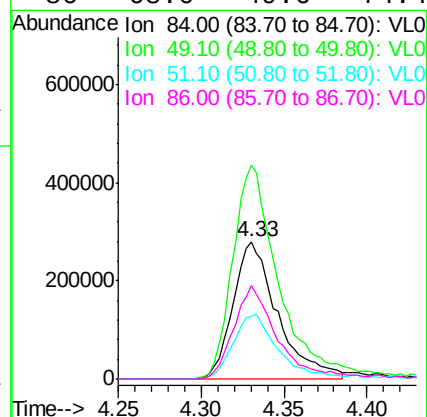
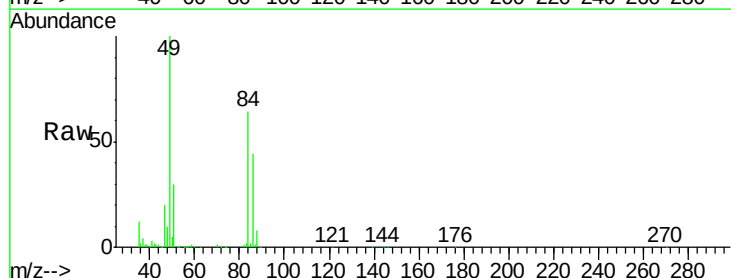
Ion Ratio Lower Upper

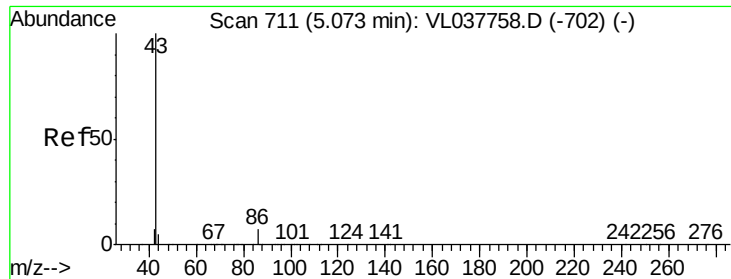
84 100

49 155.5 120.7 181.1

51 45.9 36.2 54.4

86 68.0 49.6 74.4





#23

Vinyl Acetate

Concen: 0.225 ppbv

RT: 5.05 min Scan# 704

Delta R.T. -0.02 min

Lab File: VL037777.D

Acq: 5 Oct 2021 17:16

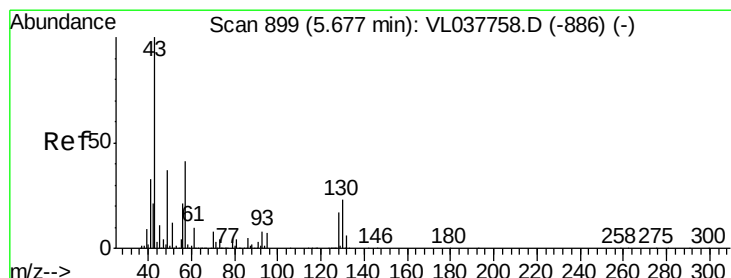
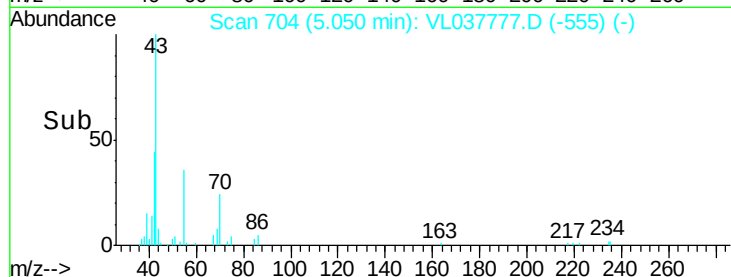
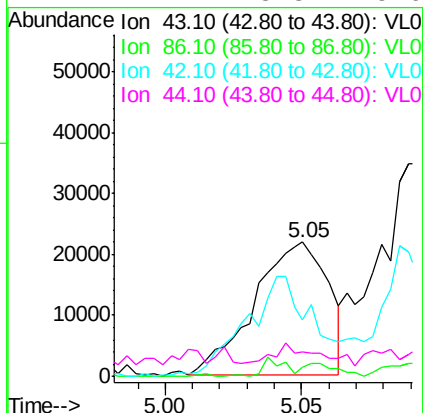
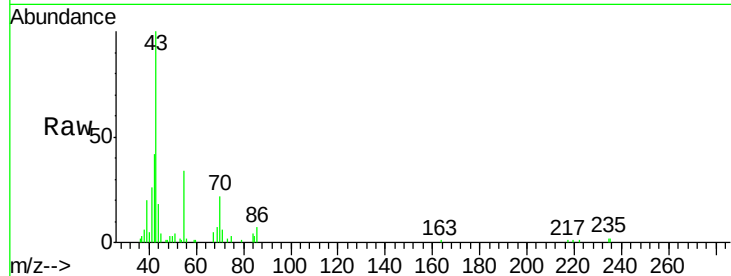
Instrument :

MSVOA_L

ClientSampleId :

C0P28

Tgt Ion:	43	Resp:	40831
Ion	Ratio	Lower	Upper
43	100		
86	7.1	5.0	7.4
42	40.5	7.4	11.0#
44	4.2	3.8	5.6



#25

Ethyl Acetate

Concen: 0.485 ppbv

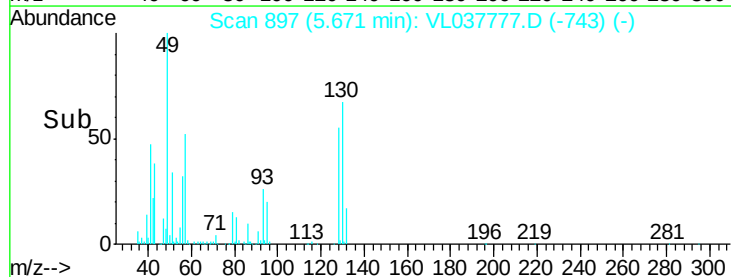
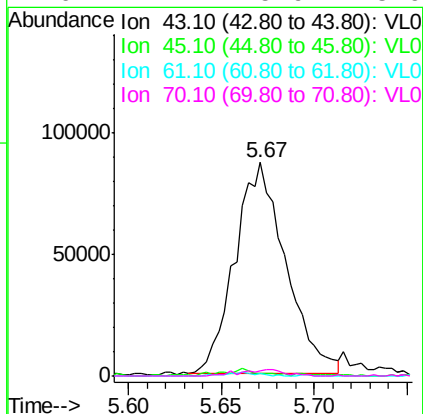
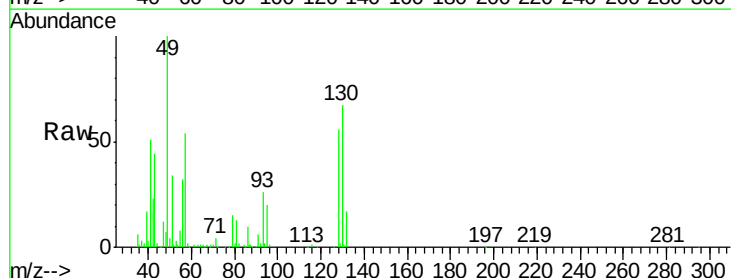
RT: 5.67 min Scan# 897

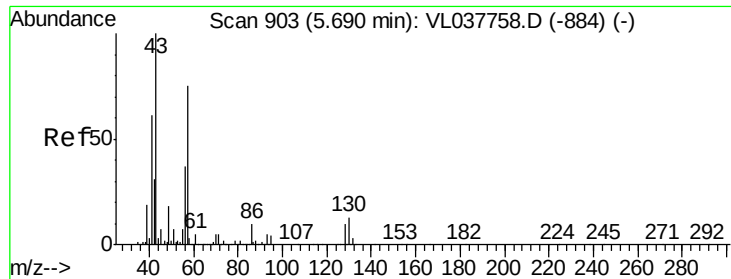
Delta R.T. -0.01 min

Lab File: VL037777.D

Acq: 5 Oct 2021 17:16

Tgt Ion:	43	Resp:	164669
Ion	Ratio	Lower	Upper
43	100		
45	2.2	8.1	12.1#
61	1.5	7.5	11.3#
70	2.7	5.9	8.9#

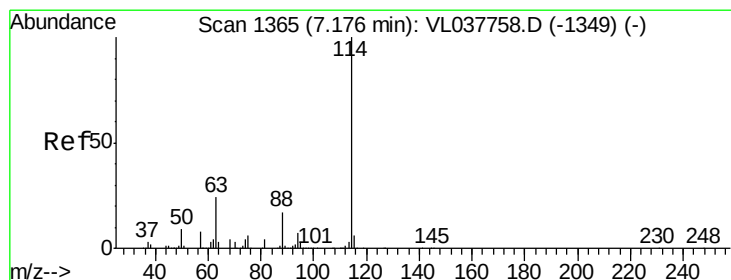
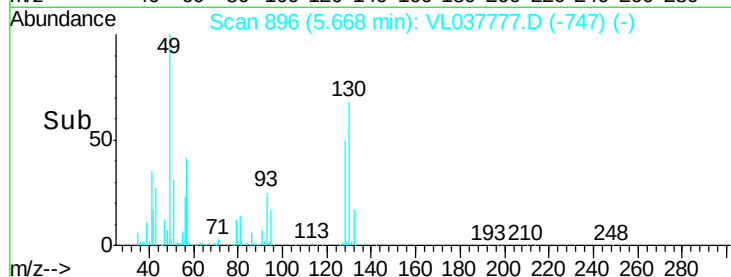
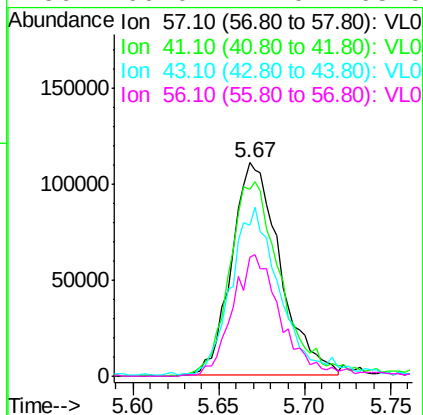
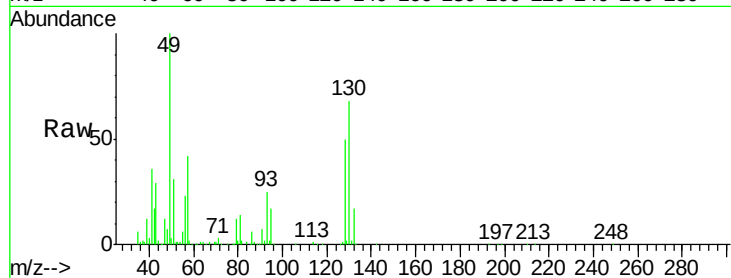




#26
Hexane
Concen: 1.299 ppbv
RT: 5.67 min Scan# 896
Delta R.T. -0.02 min
Lab File: VL037777.D
Acq: 5 Oct 2021 17:16

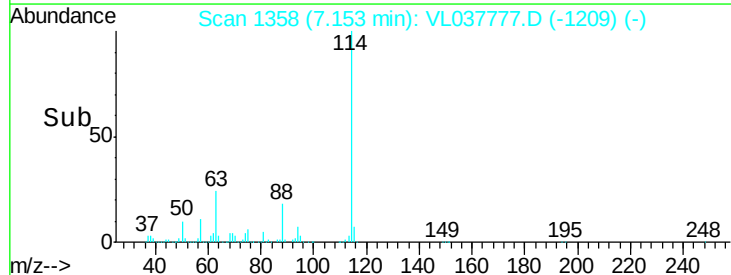
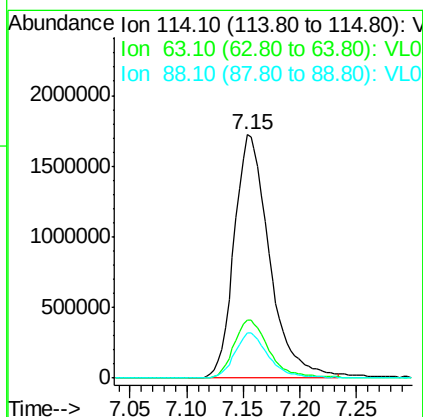
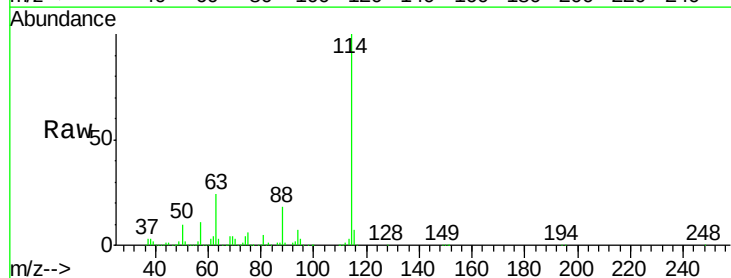
Instrument :
MSVOA_L
ClientSampleId :
C0P28

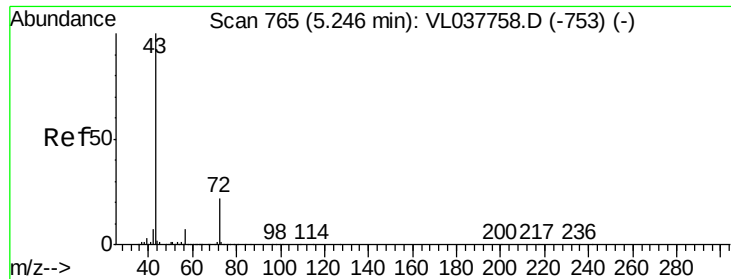
Tgt Ion: 57 Resp: 217156
Ion Ratio Lower Upper
57 100
41 99.1 69.6 104.4
43 81.3 171.4 257.0#
56 60.0 42.0 63.0



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.15 min Scan# 1358
Delta R.T. -0.02 min
Lab File: VL037777.D
Acq: 5 Oct 2021 17:16

Tgt Ion: 114 Resp: 3747701
Ion Ratio Lower Upper
114 100
63 24.2 19.4 29.2
88 18.1 14.4 21.6

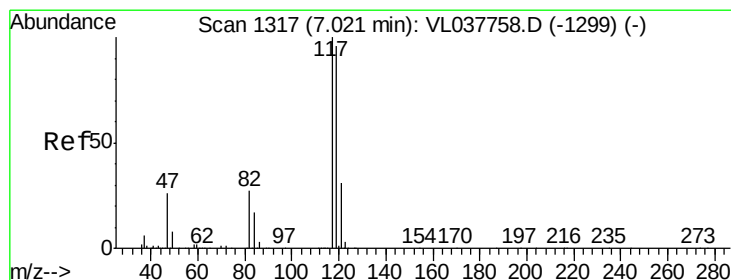
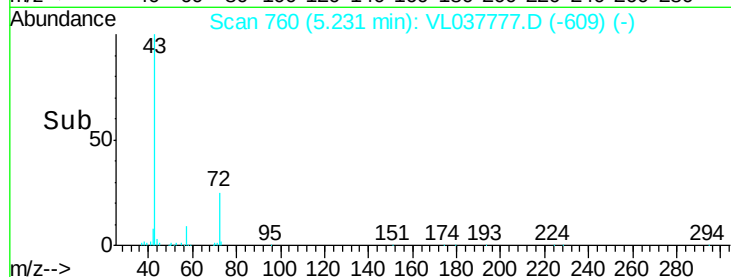
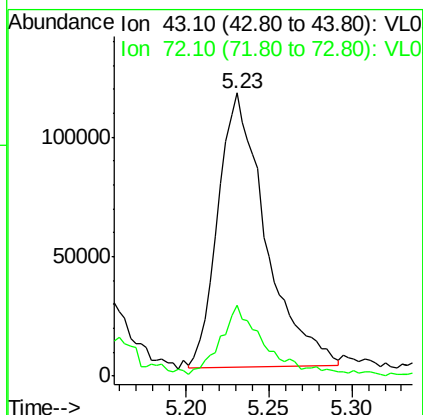
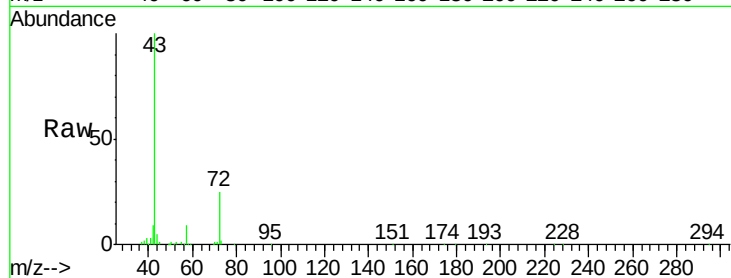




#34
2-Butanone
Concen: 1.519 ppbv
RT: 5.23 min Scan# 760
Delta R.T. -0.02 min
Lab File: VL037777.D
Acq: 5 Oct 2021 17:16

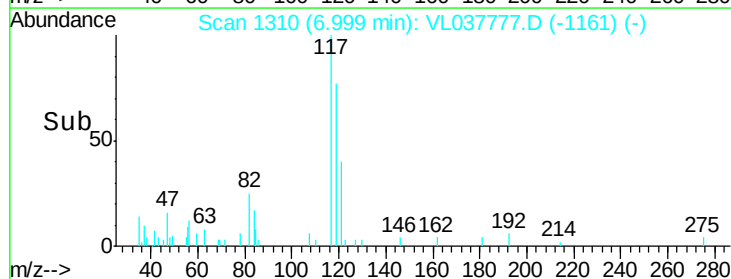
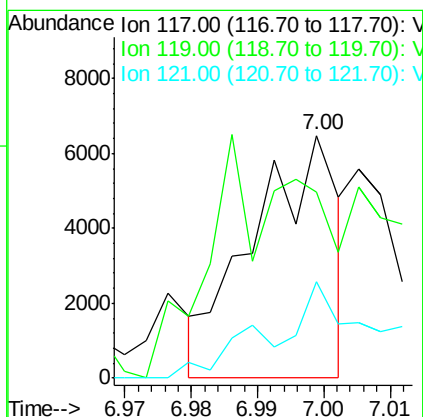
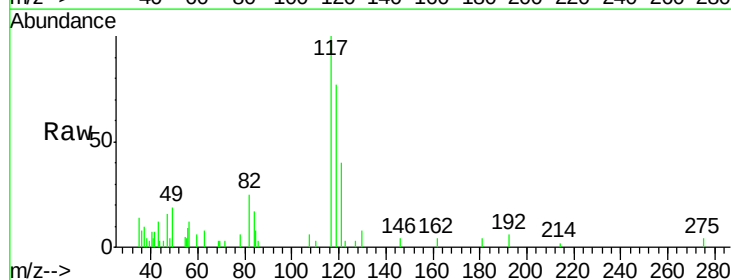
Instrument :
MSVOA_L
ClientSampleId :
C0P28

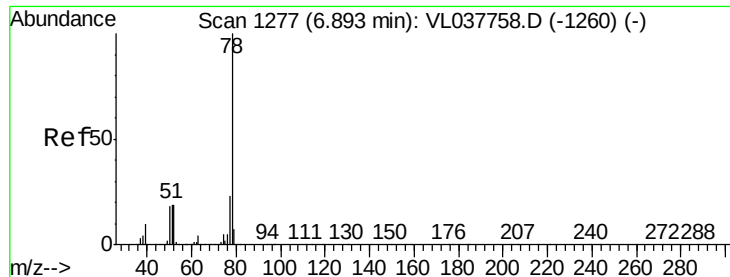
Tgt Ion: 43 Resp: 229749
Ion Ratio Lower Upper
43 100
72 23.9 18.2 27.2



#35
Carbon Tetrachloride
Concen: 0.027 ppbv
RT: 7.00 min Scan# 1310
Delta R.T. -0.02 min
Lab File: VL037777.D
Acq: 5 Oct 2021 17:16

Tgt Ion: 117 Resp: 5707
Ion Ratio Lower Upper
117 100
119 69.2 76.5 114.7#
121 44.4 24.9 37.3#





#36

Benzene

Concen: 0.174 ppbv

RT: 6.87 min Scan# 1271

Delta R.T. -0.02 min

Lab File: VL037777.D

Acq: 5 Oct 2021 17:16

Instrument :

MSVOA_L

ClientSampleId :

C0P28

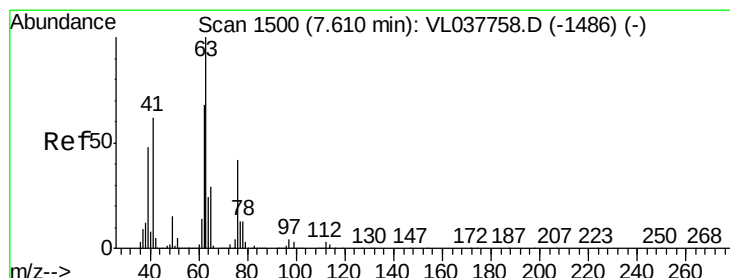
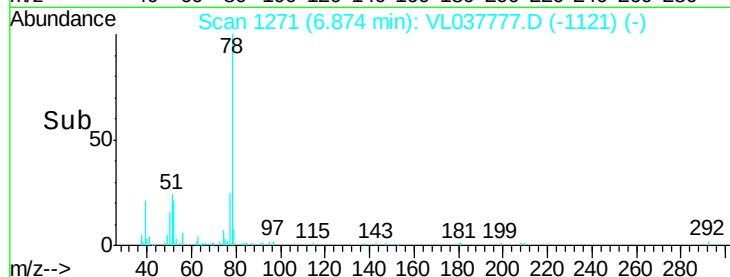
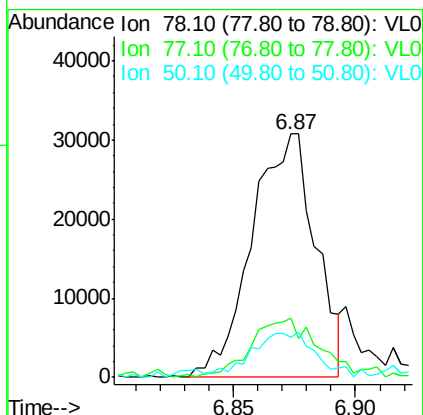
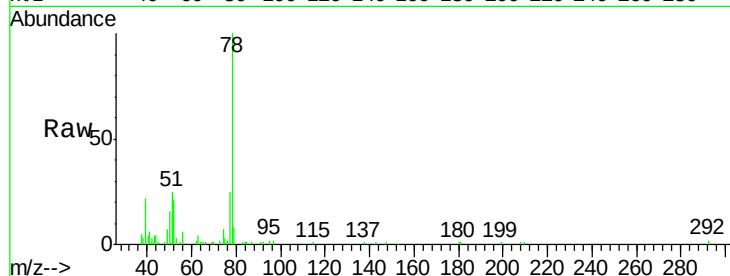
Tgt Ion: 78 Resp: 55570

Ion Ratio Lower Upper

78 100

77 23.5 18.8 28.2

50 13.5 14.7 22.1#



#39

1,2-Dichloropropane

Concen: 7.443 ppbv

RT: 7.15 min Scan# 1358

Delta R.T. -0.46 min

Lab File: VL037777.D

Acq: 5 Oct 2021 17:16

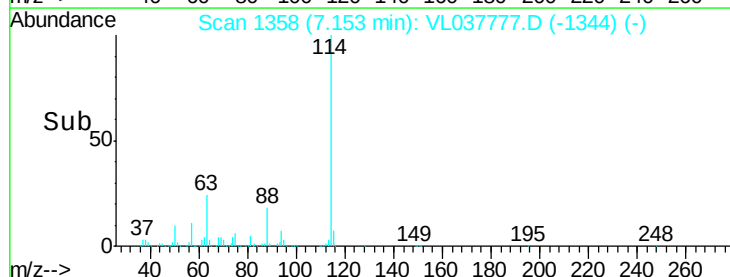
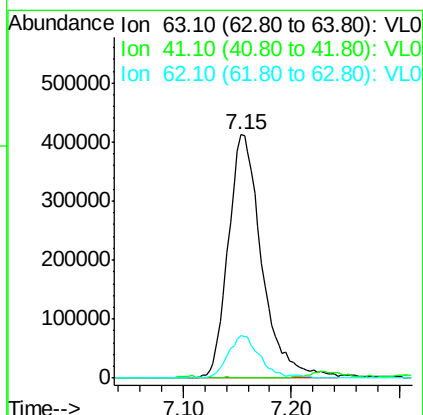
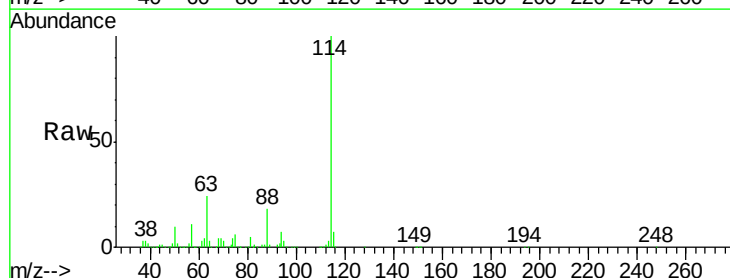
Tgt Ion: 63 Resp: 896199

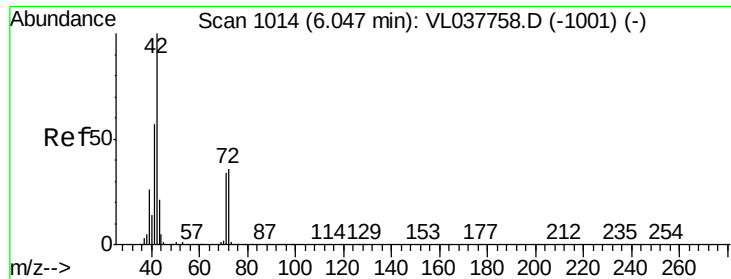
Ion Ratio Lower Upper

63 100

41 0.0 49.8 74.6#

62 17.5 54.6 82.0#

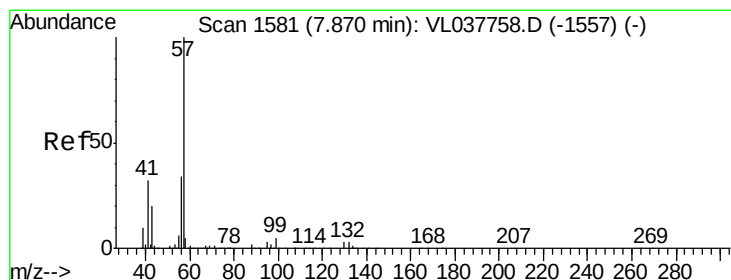
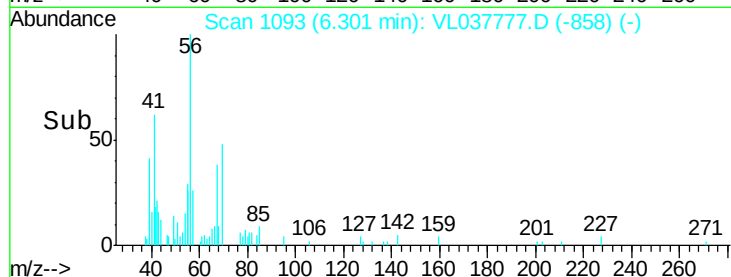
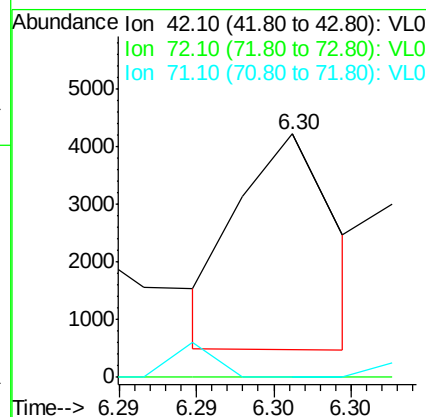
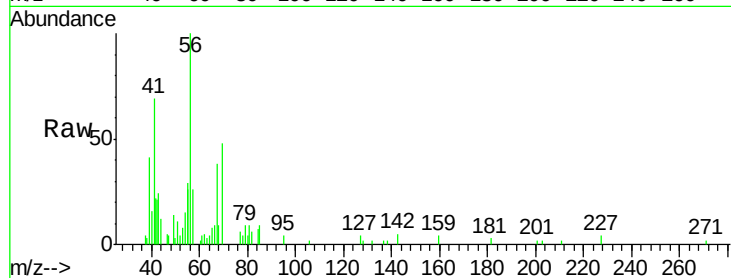




#41
Tetrahydrofuran
Concen: 0.022 ppbv
RT: 6.30 min Scan# 1093
Delta R.T. 0.25 min
Lab File: VL037777.D
Acq: 5 Oct 2021 17:16

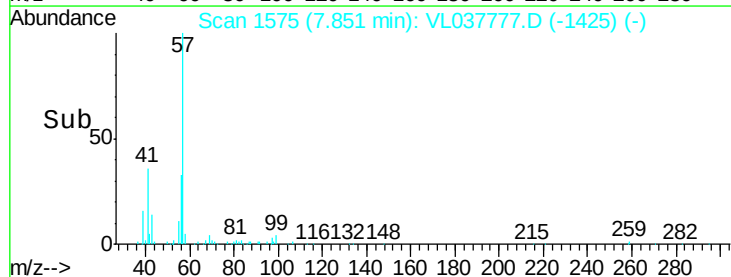
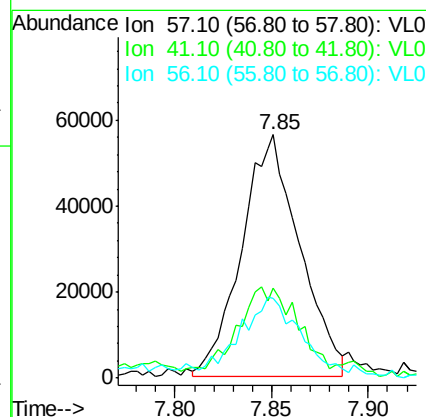
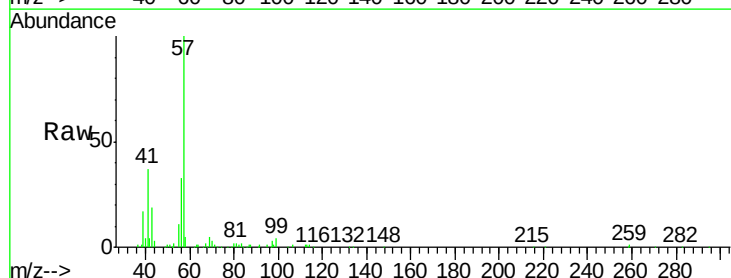
Instrument :
MSVOA_L
ClientSampleId :
C0P28

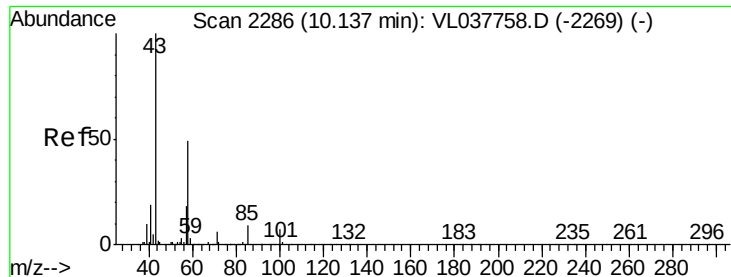
Tgt Ion: 42 Resp: 1616
Ion Ratio Lower Upper
42 100
72 26.5 31.9 47.9#
71 0.0 30.3 45.5#



#44
2,2,4-Trimethylpentane
Concen: 0.220 ppbv
RT: 7.85 min Scan# 1575
Delta R.T. -0.02 min
Lab File: VL037777.D
Acq: 5 Oct 2021 17:16

Tgt Ion: 57 Resp: 118269
Ion Ratio Lower Upper
57 100
41 43.3 25.6 38.4#
56 39.5 25.5 38.3#

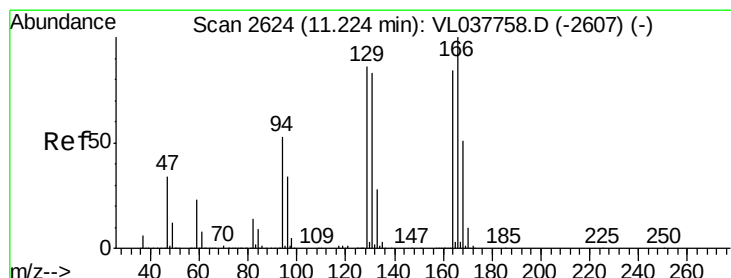
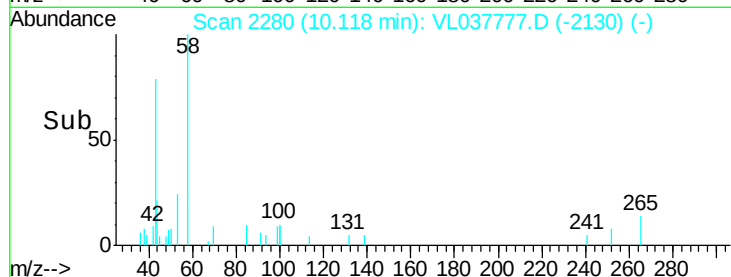
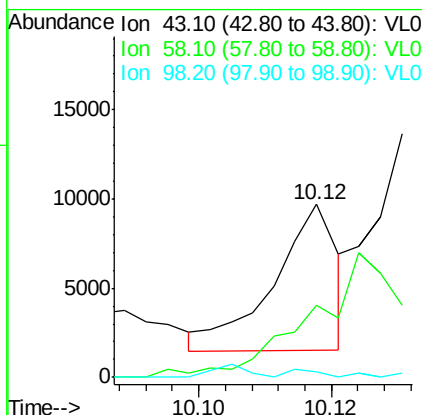
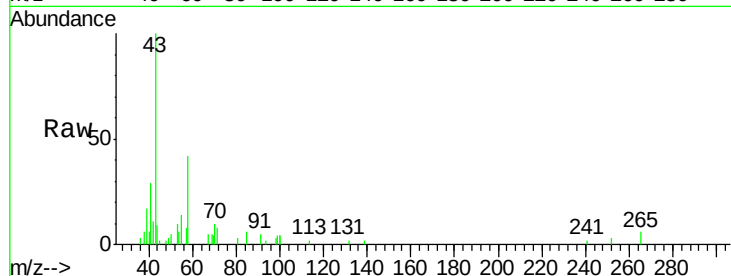




#51
2-Hexanone
Concen: 0.062 ppbv
RT: 10.12 min Scan# 2280
Delta R.T. -0.02 min
Lab File: VL037777.D
Acq: 5 Oct 2021 17:16

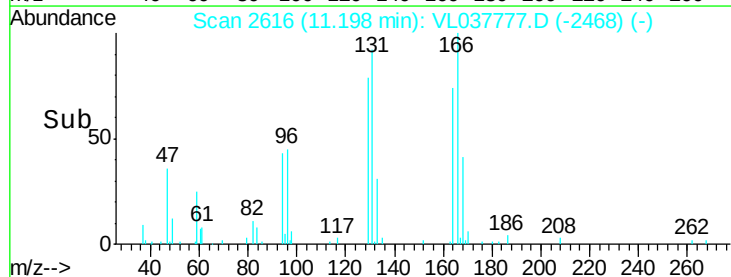
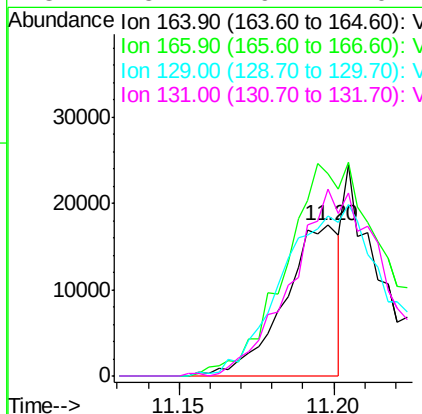
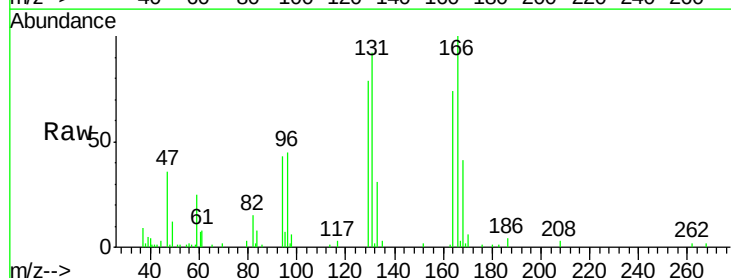
Instrument :
MSVOA_L
ClientSampled :
C0P28

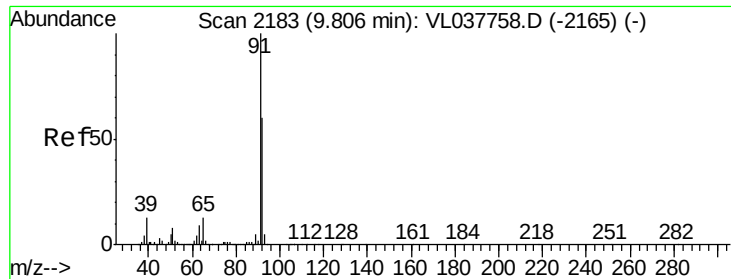
Tgt Ion: 43 Resp: 5454
Ion Ratio Lower Upper
43 100
58 0.0 39.4 59.0#
98 8.3 0.3 0.5#



#52
Tetrachloroethene
Concen: 0.173 ppbv
RT: 11.20 min Scan# 2616
Delta R.T. -0.03 min
Lab File: VL037777.D
Acq: 5 Oct 2021 17:16

Tgt Ion: 164 Resp: 21517
Ion Ratio Lower Upper
164 100
166 134.6 95.4 143.2
129 106.5 82.2 123.4
131 125.2 79.4 119.2#





#53

Toluene

Concen: 0.548 ppbv

RT: 9.78 min Scan# 2176

Delta R.T. -0.02 min

Lab File: VL037777.D

Acq: 5 Oct 2021 17:16

Instrument :

MSVOA_L

ClientSampleId :

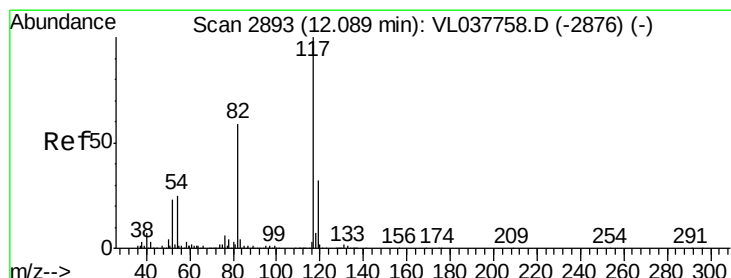
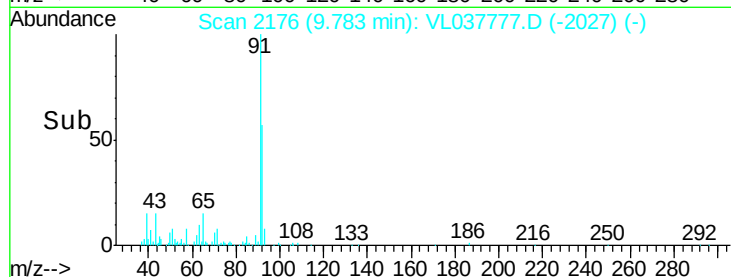
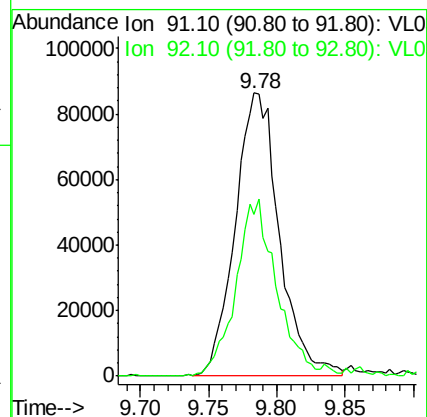
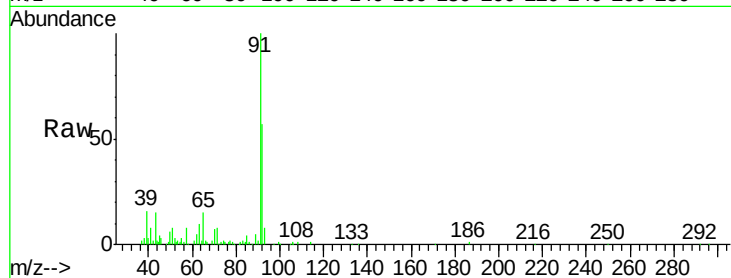
C0P28

Tgt Ion: 91 Resp: 194502

Ion Ratio Lower Upper

91 100

92 58.6 48.4 72.6



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.06 min Scan# 2885

Delta R.T. -0.03 min

Lab File: VL037777.D

Acq: 5 Oct 2021 17:16

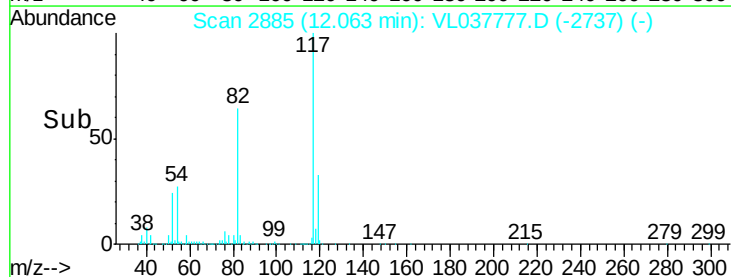
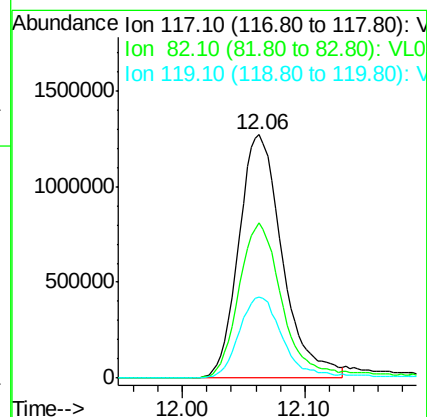
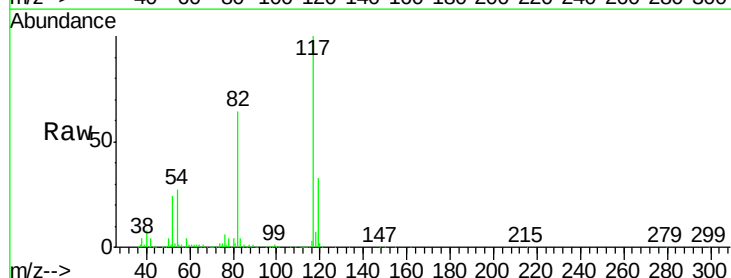
Tgt Ion: 117 Resp: 3145853

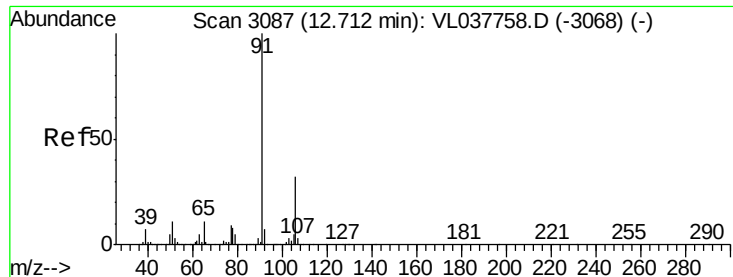
Ion Ratio Lower Upper

117 100

82 65.8 52.2 78.2

119 35.0 26.0 39.0





#58

Ethyl Benzene

Concen: 0.314 ppbv

RT: 12.69 min Scan# 3080

Delta R.T. -0.02 min

Lab File: VL037777.D

Acq: 5 Oct 2021 17:16

Instrument :

MSVOA_L

ClientSampleId :

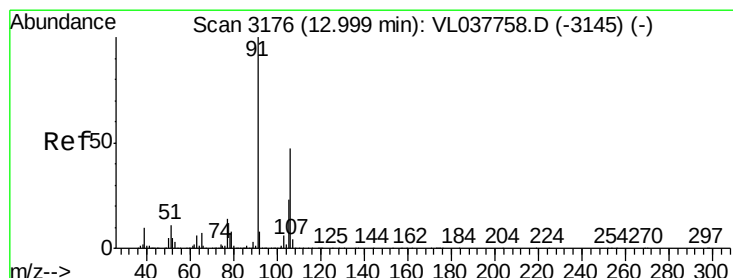
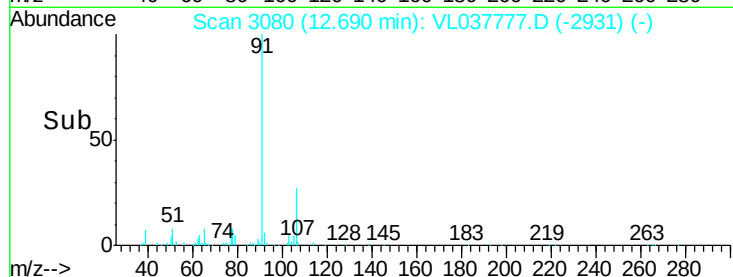
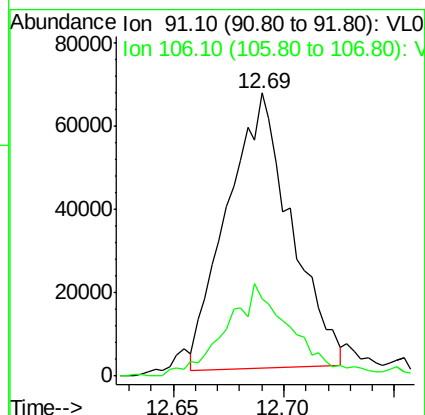
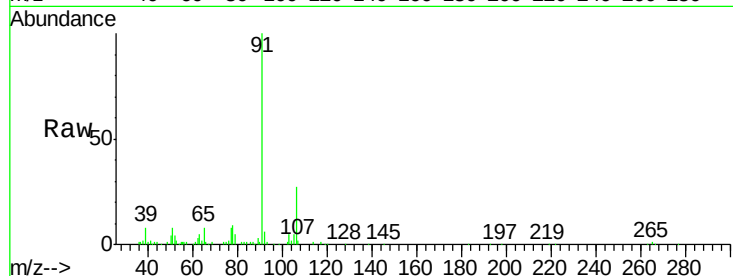
C0P28

Tgt Ion: 91 Resp: 132756

Ion Ratio Lower Upper

91 100

106 25.5 25.3 37.9



#59

m/p-Xylene

Concen: 0.419 ppbv

RT: 12.97 min Scan# 3168

Delta R.T. -0.03 min

Lab File: VL037777.D

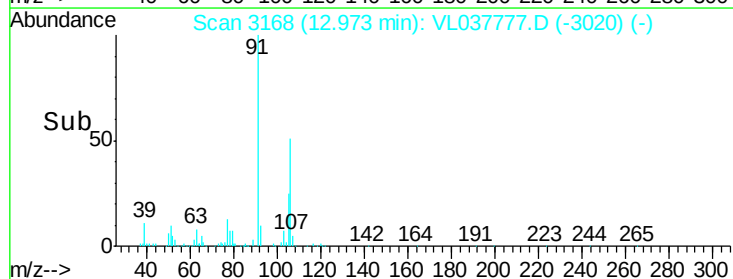
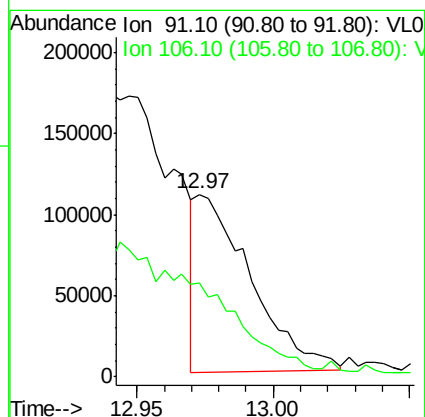
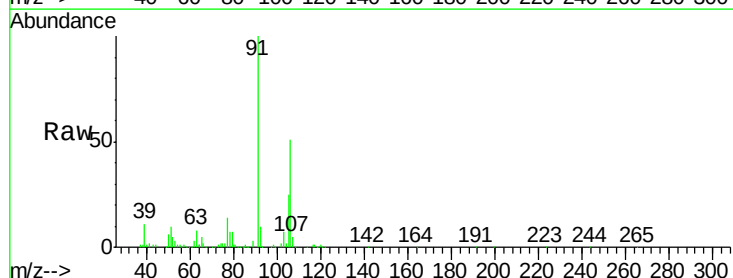
Acq: 5 Oct 2021 17:16

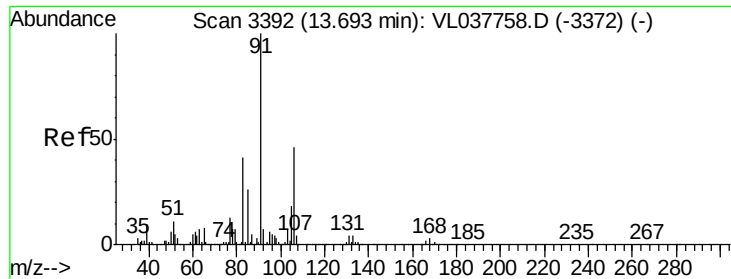
Tgt Ion: 91 Resp: 151807

Ion Ratio Lower Upper

91 100

106 0.0 36.7 55.1#

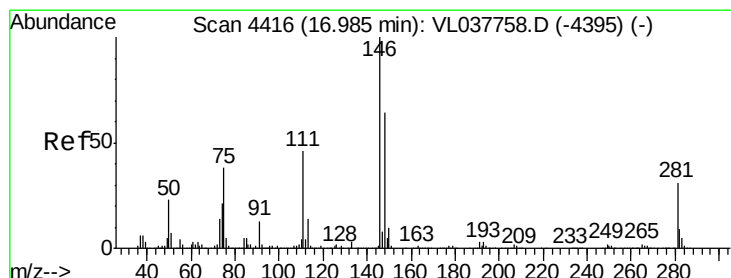
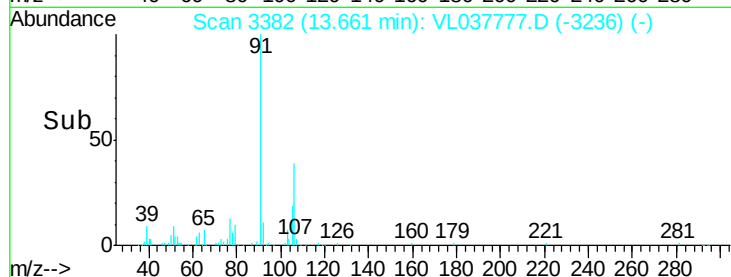
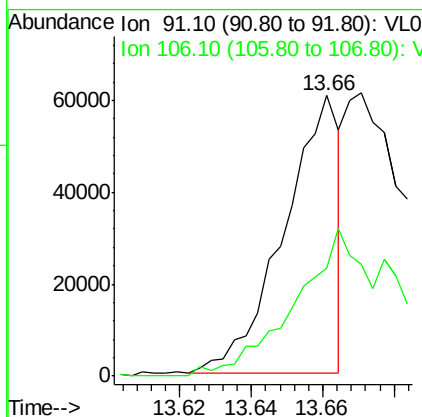
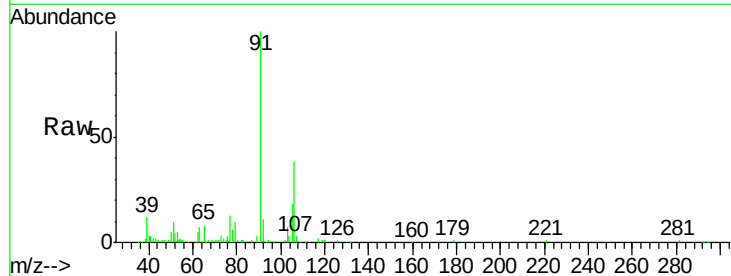




#60
o-Xylene
Concen: 0.188 ppbv
RT: 13.66 min Scan# 3382
Delta R.T. -0.03 min
Lab File: VL037777.D
Acq: 5 Oct 2021 17:16

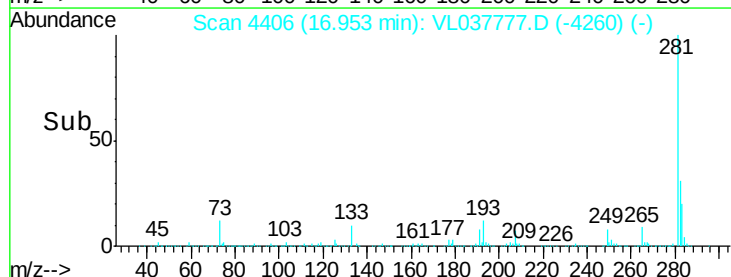
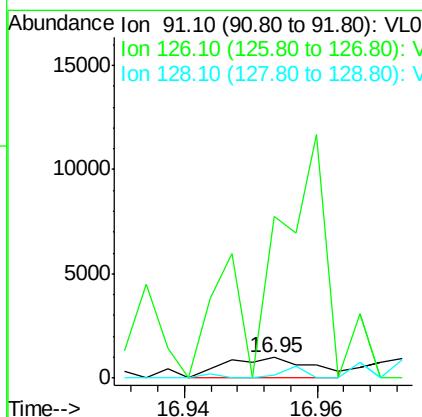
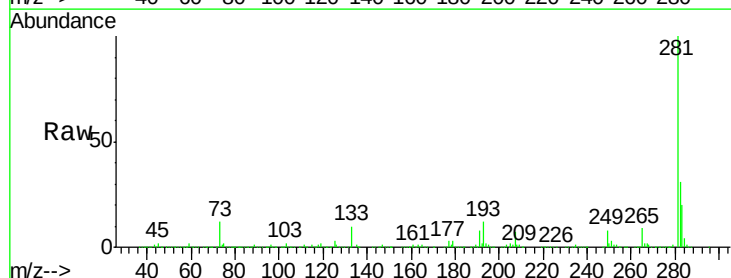
Instrument :
MSVOA_L
ClientSampled :
C0P28

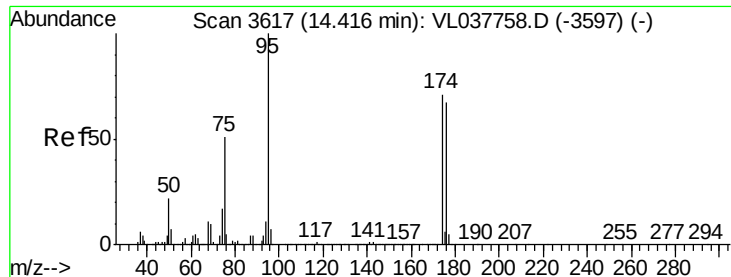
Tgt Ion: 91 Resp: 65312
Ion Ratio Lower Upper
91 100
106 105.1 23.5 70.5#



#66
Benzyl Chloride
Concen: 0.043 ppbv
RT: 16.95 min Scan# 4406
Delta R.T. -0.03 min
Lab File: VL037777.D
Acq: 5 Oct 2021 17:16

Tgt Ion: 91 Resp: 897
Ion Ratio Lower Upper
91 100
126 1163.0 0.0 0.0#
128 0.0 5.3 7.9#

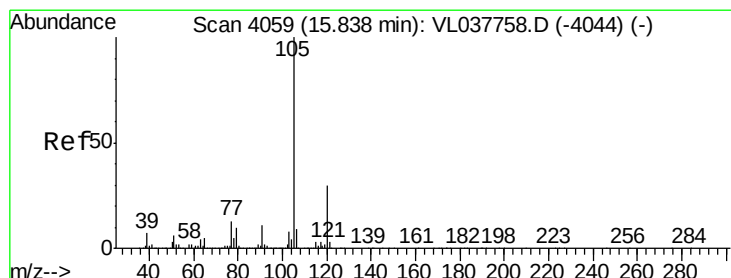
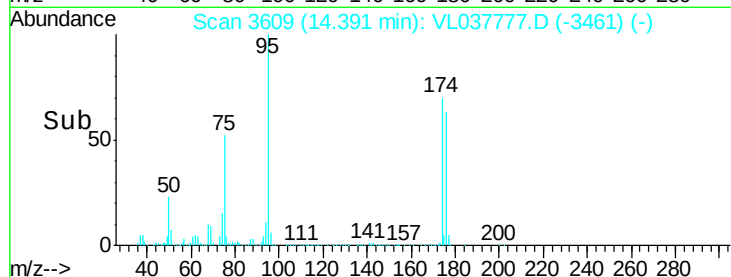
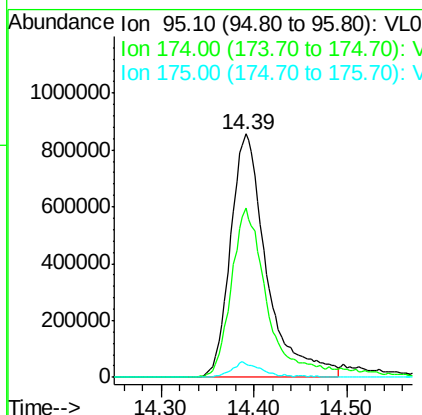
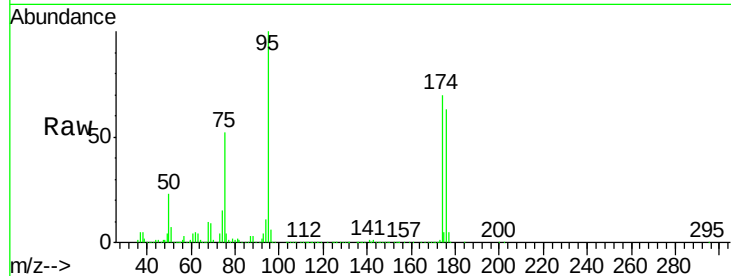




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.541 ppbv
 RT: 14.39 min Scan# 3609
 Delta R.T. -0.03 min
 Lab File: VL037777.D
 Acq: 5 Oct 2021 17:16

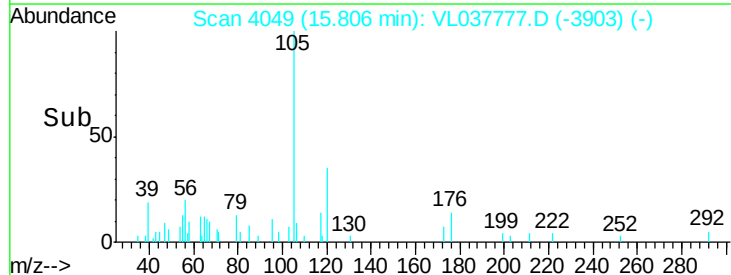
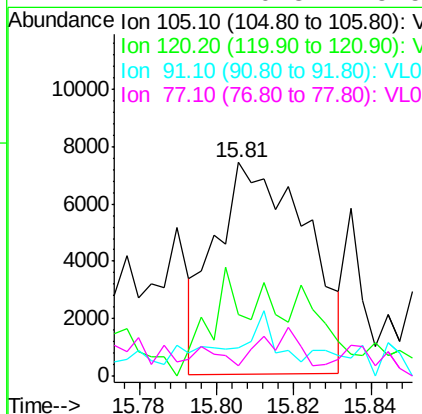
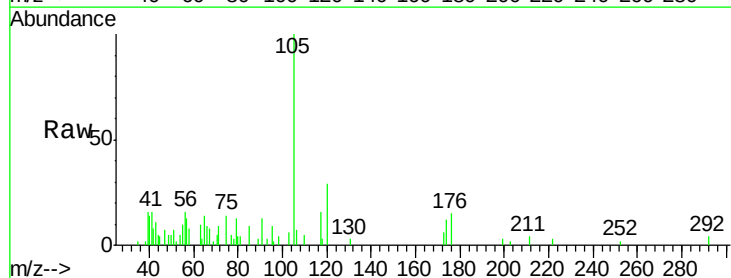
Instrument :
 MSVOA_L
 ClientSampleId :
 C0P28

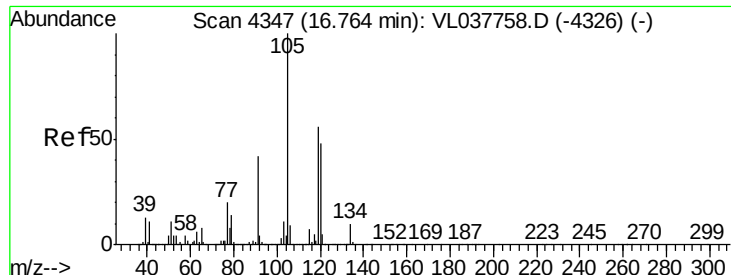
Tgt Ion: 95 Resp: 2318871
 Ion Ratio Lower Upper
 95 100
 174 73.2 57.8 86.6
 175 5.4 4.7 7.1



#72
 4-Ethyltoluene
 Concen: 0.031 ppbv
 RT: 15.81 min Scan# 4049
 Delta R.T. -0.03 min
 Lab File: VL037777.D
 Acq: 5 Oct 2021 17:16

Tgt Ion: 105 Resp: 12042
 Ion Ratio Lower Upper
 105 100
 120 53.0 24.2 36.2#
 91 23.5 10.4 15.6#
 77 22.4 10.3 15.5#





#74

1,2,4-Trimethylbenzene

Concen: 0.102 ppbv

RT: 16.73 min Scan# 4337

Delta R.T. -0.03 min

Lab File: VL037777.D

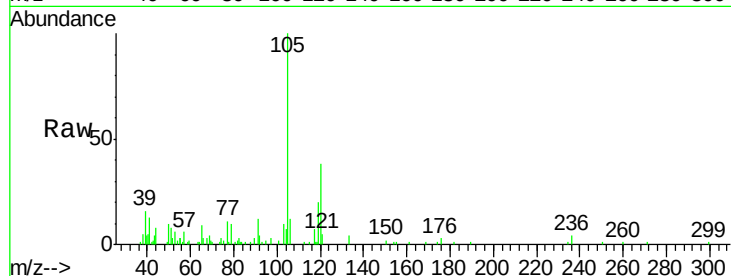
Acq: 5 Oct 2021 17:16

Instrument :

MSVOA_L

ClientSampleId :

C0P28



Tgt Ion	Ratio	Lower	Upper
105	100		
120	41.5	38.4	57.6
91	9.9	34.2	51.2#
77	10.2	15.8	23.8#

