

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL100721\
 Data File : VL037801.D
 Acq On : 7 Oct 2021 18:25
 Operator : SY/AP
 Sample : M4079-08
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 C0P20

Quant Time: Oct 08 10:06:27 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	1287379	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.16	114	3700742	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.07	117	3027552	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.39	95	2223404	10.50	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.00%

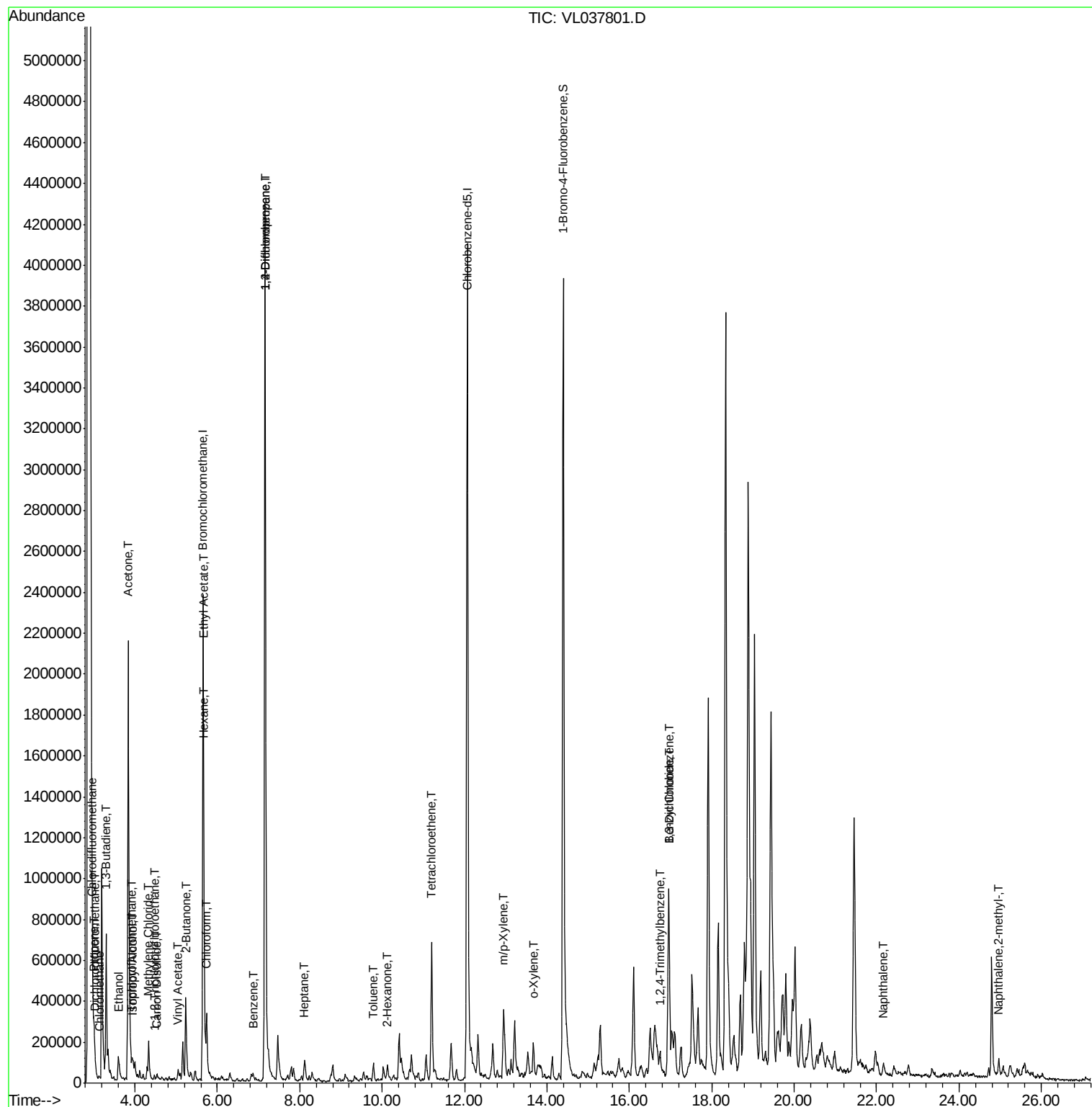
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.04	85	28435	0.138	ppbv #	82
3) Chlorodifluoromethane	2.98	51	24963	0.101	ppbv	99
4) Chloromethane	3.13	50	8194	0.090	ppbv #	85
9) Propene	3.00	41	66269	0.728	ppbv	97
10) Heptane	8.10	43	10689	0.052	ppbv #	27
11) Trichlorofluoromethane	3.94	101	35811	0.195	ppbv #	79
12) 1,1,2-Trichlorotrifluoroet	4.48	101	7867	0.057	ppbv	96
13) Ethanol	3.60	45	110242	14.811	ppbv	87
15) Acetone	3.84	43	2805815	24.278	ppbv	96
16) 1,3-Butadiene	3.30	39	204145	2.428	ppbv #	19
19) Isopropyl Alcohol	3.96	45	12817	0.178	ppbv #	96
20) Methylene Chloride	4.33	84	64829	1.110	ppbv	96
23) Vinyl Acetate	5.06	43	40662	0.235	ppbv #	89
25) Ethyl Acetate	5.67	43	71413	0.220	ppbv #	88
26) Hexane	5.68	57	78503	0.492	ppbv #	43
27) Carbon Disulfide	4.54	76	37194	0.263	ppbv #	93
29) Chloroform	5.74	83	188324	0.825	ppbv	92
34) 2-Butanone	5.23	43	551544	3.692	ppbv	96
36) Benzene	6.88	78	14752	0.047	ppbv #	73
39) 1,2-Dichloropropane	7.16	63	870499	7.322	ppbv #	28
51) 2-Hexanone	10.11	43	8835	0.102	ppbv #	29
52) Tetrachloroethene	11.20	164	94933	0.772	ppbv	96
53) Toluene	9.79	91	33040	0.094	ppbv #	20
59) m/p-Xylene	12.95	91	241958	0.693	ppbv #	58
60) o-Xylene	13.67	91	137220	0.410	ppbv	97
66) Benzyl Chloride	16.96	91	487	0.024	ppbv #	1
74) 1,2,4-Trimethylbenzene	16.74	105	57152	0.158	ppbv #	70
75) 1,3-Dichlorobenzene	16.97	146	4561	0.020	ppbv #	23
79) Naphthalene	22.15	128	7989	0.036	ppbv #	69
80) Naphthalene,2-methyl-	24.95	142	4897	0.082	ppbv #	92

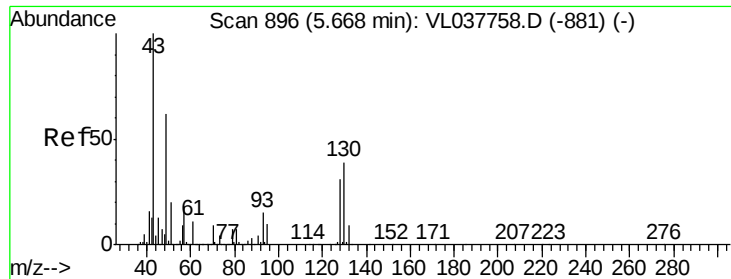
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Mon Oct 04 17:43:54 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 891

Delta R.T. -0.02 min

Lab File: VL037801.D

Acq: 7 Oct 2021 18:25

Instrument :

MSVOA_L

ClientSampled :

C0P20

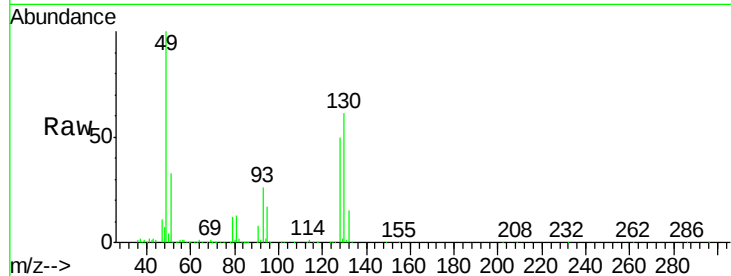
Tgt Ion: 49 Resp: 1287379

Ion Ratio Lower Upper

49 100

128 52.8 27.1 81.3

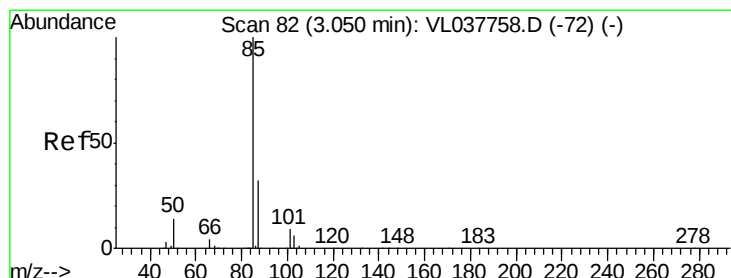
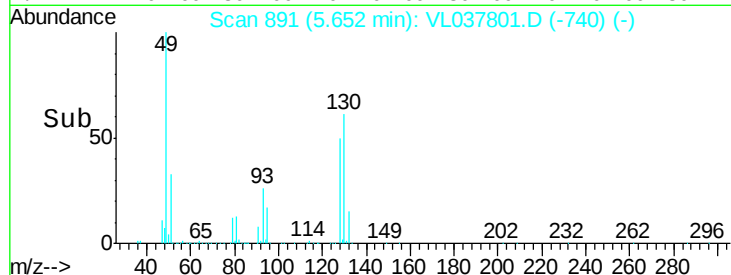
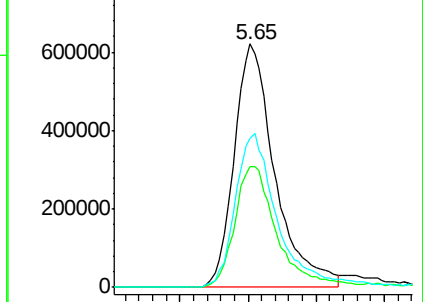
130 67.3 33.2 99.6



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: 0.138 ppbv

RT: 3.04 min Scan# 79

Delta R.T. -0.01 min

Lab File: VL037801.D

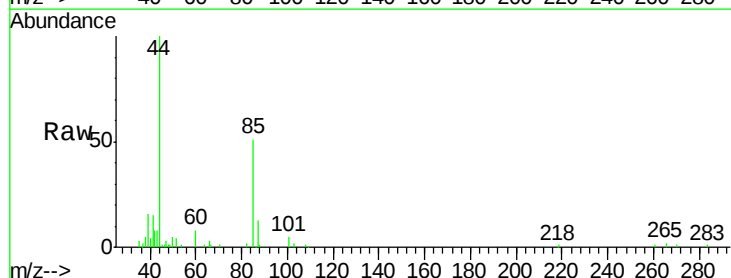
Acq: 7 Oct 2021 18:25

Tgt Ion: 85 Resp: 28435

Ion Ratio Lower Upper

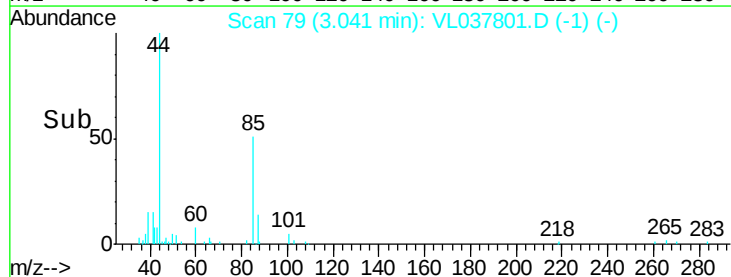
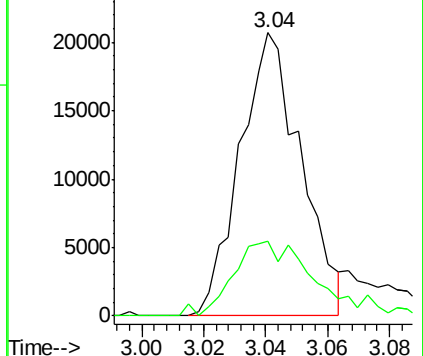
85 100

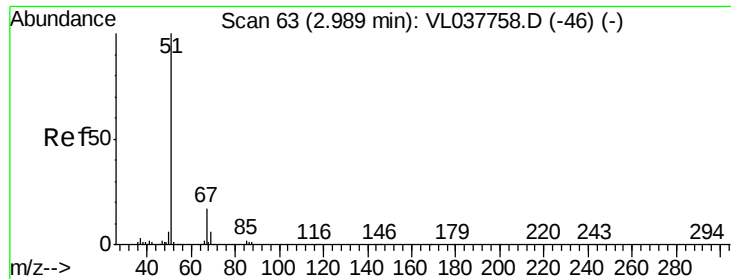
87 22.3 25.7 38.5#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.101 ppbv

RT: 2.98 min Scan# 59

Delta R.T. -0.01 min

Lab File: VL037801.D

Acq: 7 Oct 2021 18:25

Instrument :

MSVOA_L

ClientSampleId :

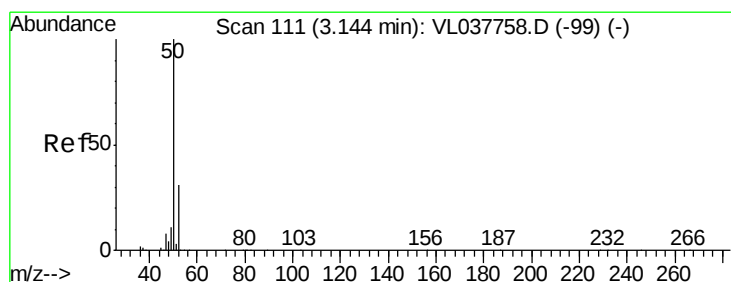
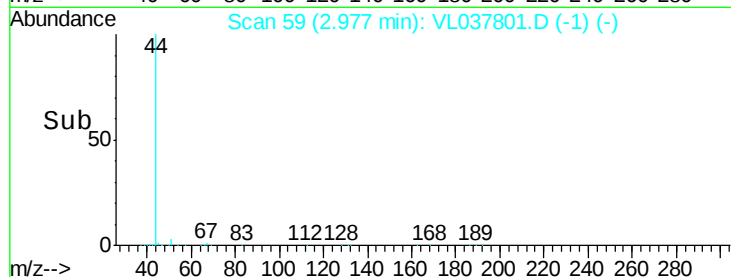
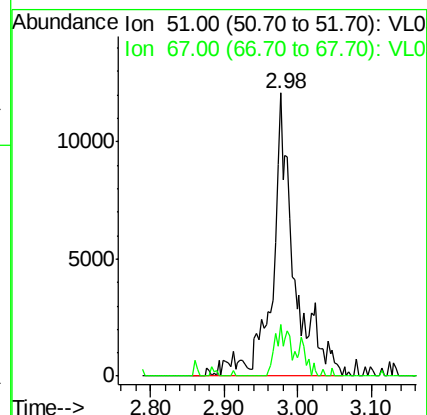
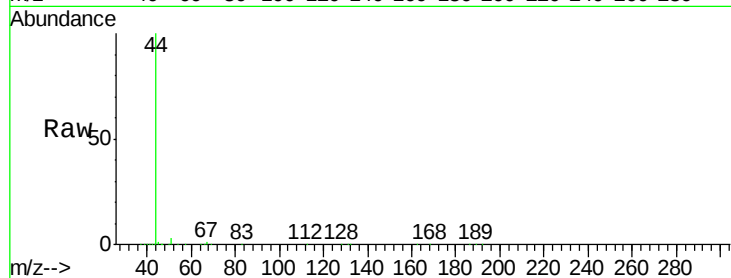
C0P20

Tgt Ion: 51 Resp: 24963

Ion Ratio Lower Upper

51 100

67 17.2 13.5 20.3



#4

Chloromethane

Concen: 0.090 ppbv

RT: 3.13 min Scan# 106

Delta R.T. -0.02 min

Lab File: VL037801.D

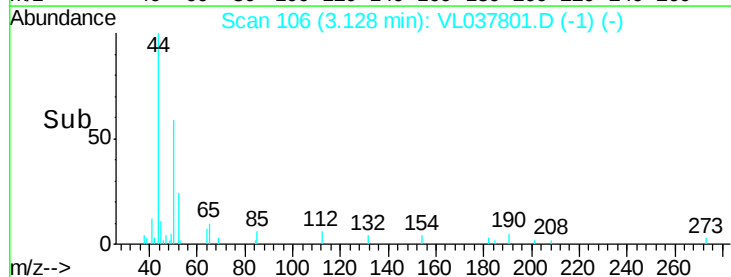
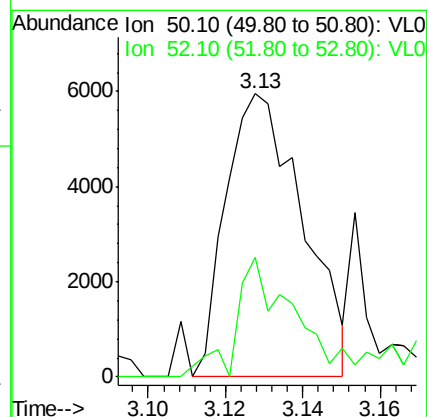
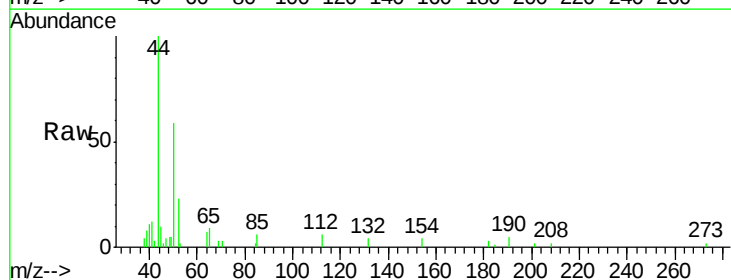
Acq: 7 Oct 2021 18:25

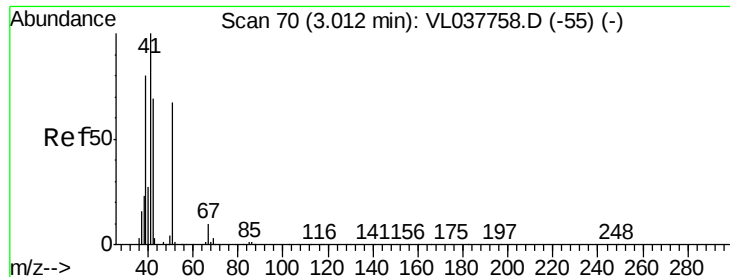
Tgt Ion: 50 Resp: 8194

Ion Ratio Lower Upper

50 100

52 38.7 24.4 36.6#





#9

Propene

Concen: 0.728 ppbv

RT: 3.00 min Scan# 67

Delta R.T. -0.01 min

Lab File: VL037801.D

Acq: 7 Oct 2021 18:25

Instrument :

MSVOA_L

ClientSampleId :

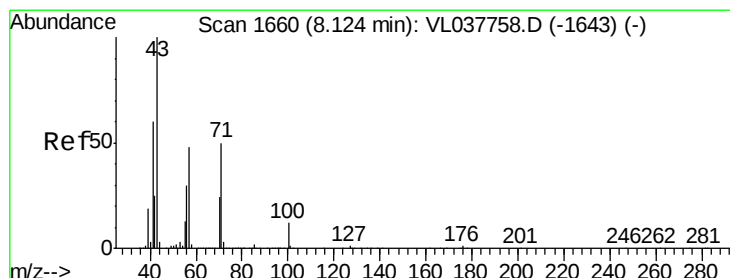
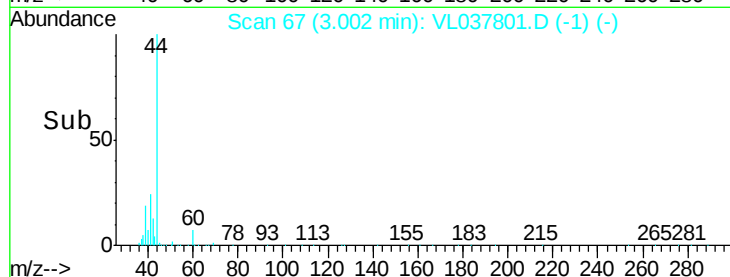
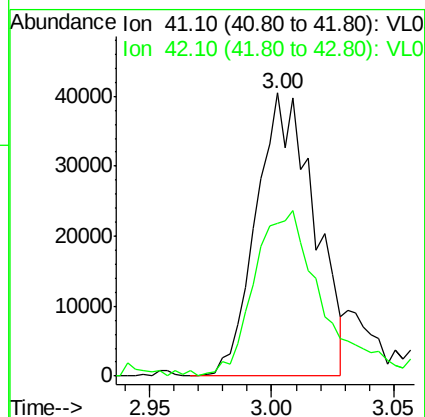
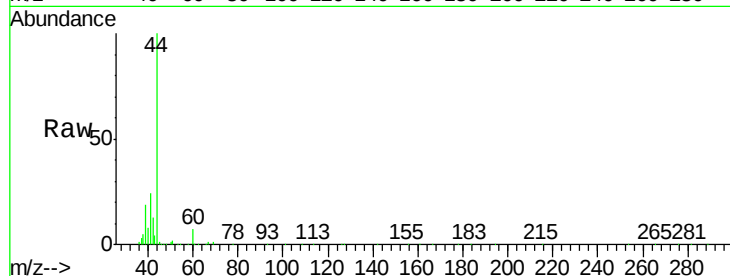
C0P20

Tgt Ion: 41 Resp: 66269

Ion Ratio Lower Upper

41 100

42 70.3 54.2 81.2



#10

Heptane

Concen: 0.052 ppbv

RT: 8.10 min Scan# 1653

Delta R.T. -0.02 min

Lab File: VL037801.D

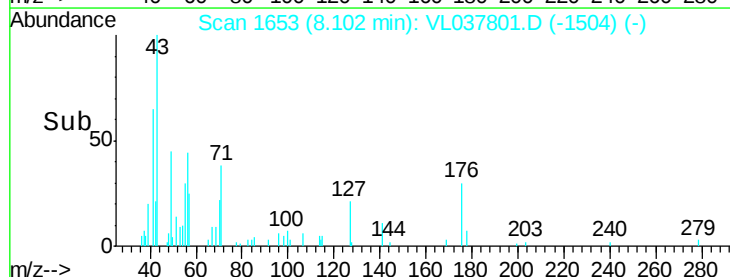
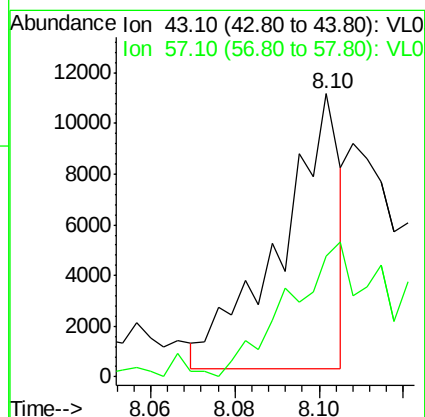
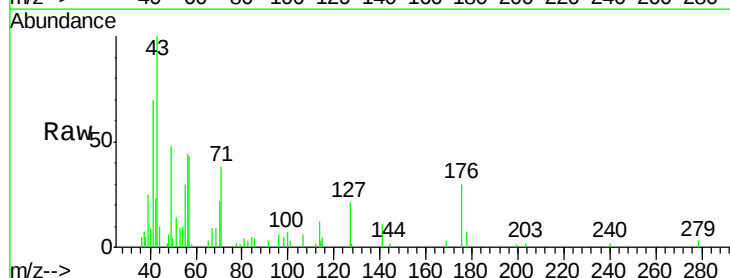
Acq: 7 Oct 2021 18:25

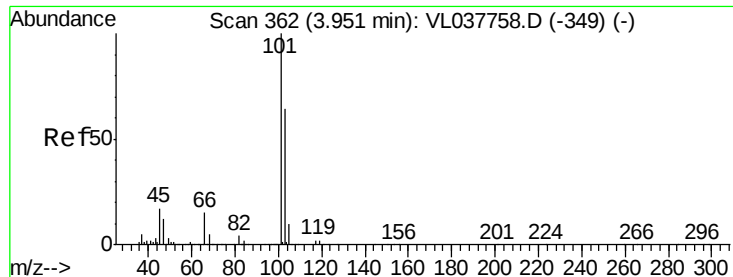
Tgt Ion: 43 Resp: 10689

Ion Ratio Lower Upper

43 100

57 0.0 40.0 60.0#





#11

Trichlorofluoromethane

Concen: 0.195 ppbv

RT: 3.94 min Scan# 358

Delta R.T. -0.01 min

Lab File: VL037801.D

Acq: 7 Oct 2021 18:25

Instrument :

MSVOA_L

ClientSampleId :

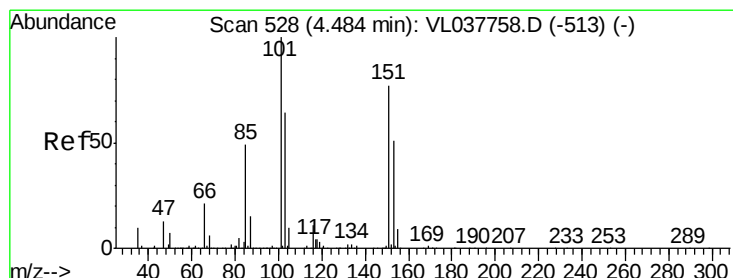
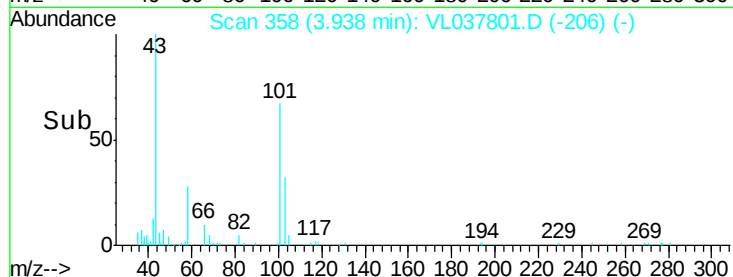
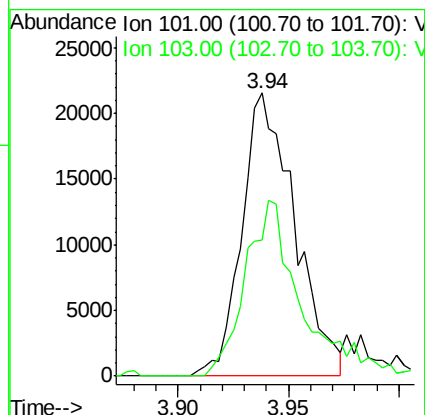
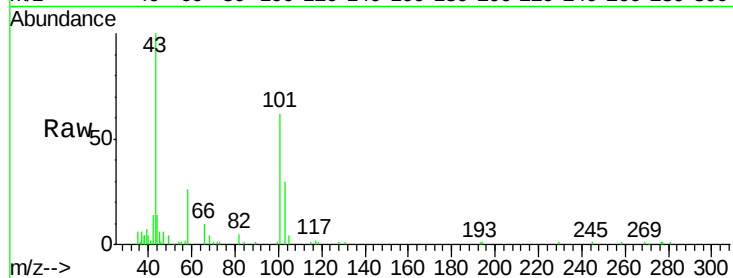
C0P20

Tgt Ion:101 Resp: 35811

Ion Ratio Lower Upper

101 100

103 48.1 51.5 77.3#



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.057 ppbv

RT: 4.48 min Scan# 526

Delta R.T. -0.01 min

Lab File: VL037801.D

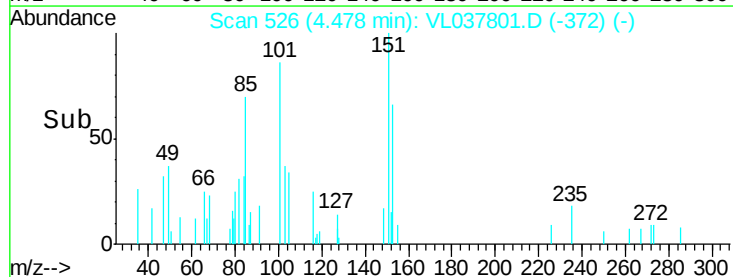
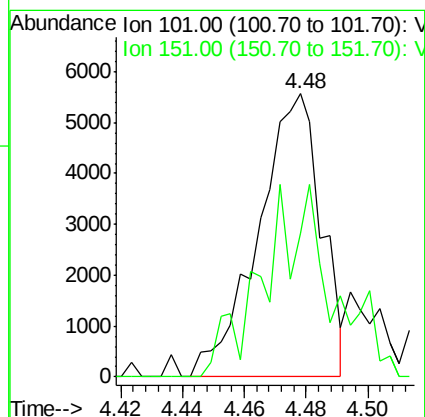
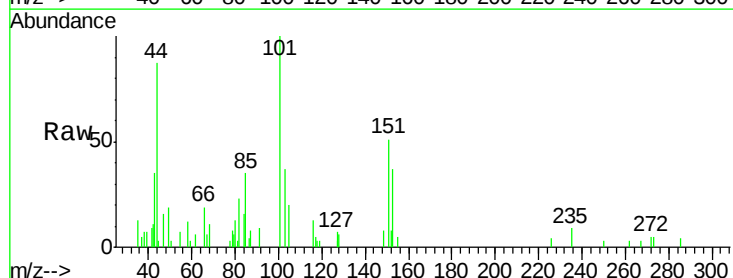
Acq: 7 Oct 2021 18:25

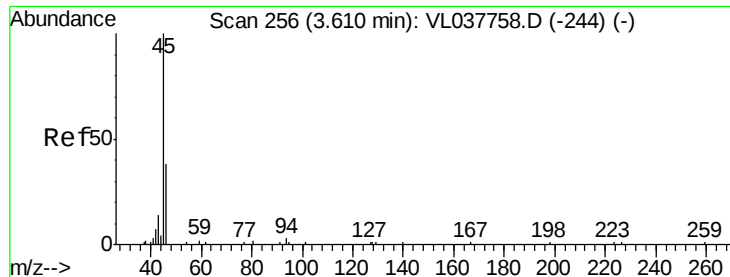
Tgt Ion:101 Resp: 7867

Ion Ratio Lower Upper

101 100

151 74.7 62.9 94.3





#13

Ethanol

Concen: 14.811 ppbv

RT: 3.60 min Scan# 253

Delta R.T. -0.01 min

Lab File: VL037801.D

Acq: 7 Oct 2021 18:25

Instrument :

MSVOA_L

ClientSampleId :

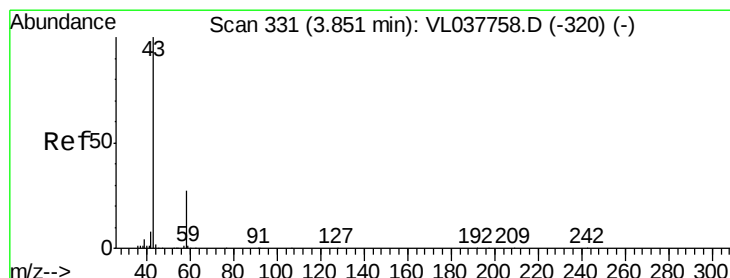
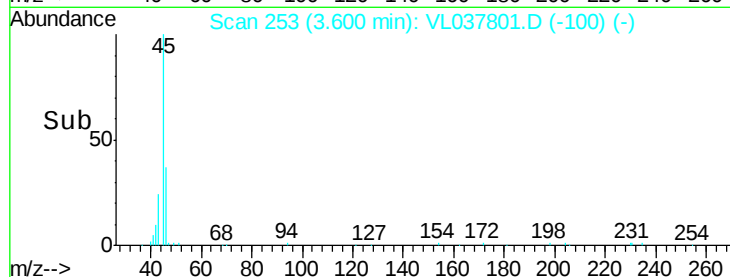
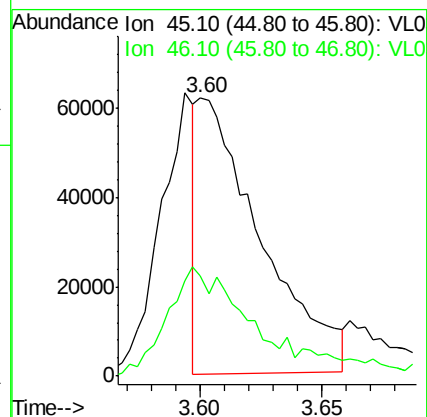
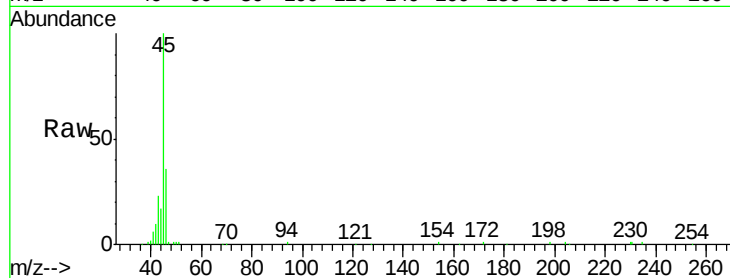
C0P20

Tgt Ion: 45 Resp: 110242

Ion Ratio Lower Upper

45 100

46 59.8 20.2 81.0



#15

Acetone

Concen: 24.278 ppbv

RT: 3.84 min Scan# 326

Delta R.T. -0.02 min

Lab File: VL037801.D

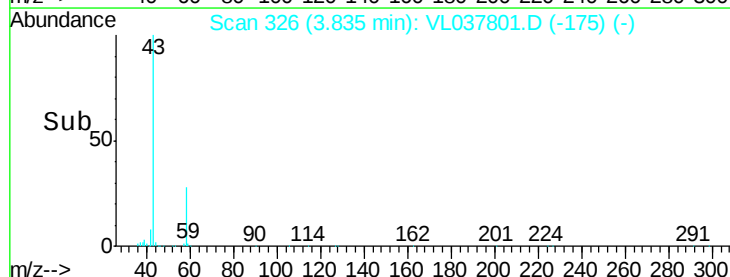
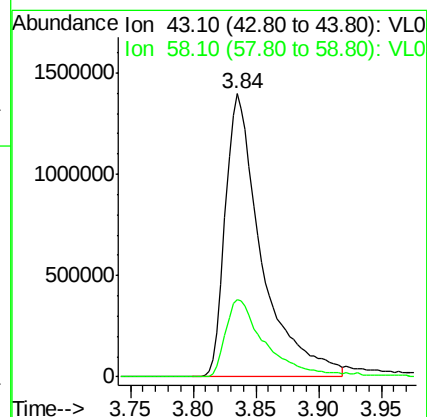
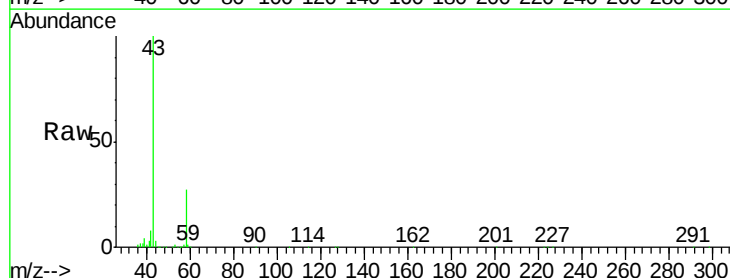
Acq: 7 Oct 2021 18:25

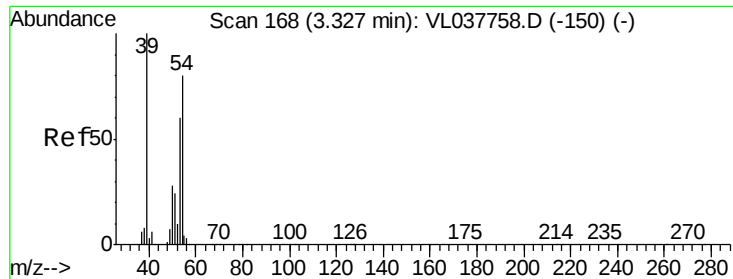
Tgt Ion: 43 Resp: 2805815

Ion Ratio Lower Upper

43 100

58 30.7 23.0 34.6

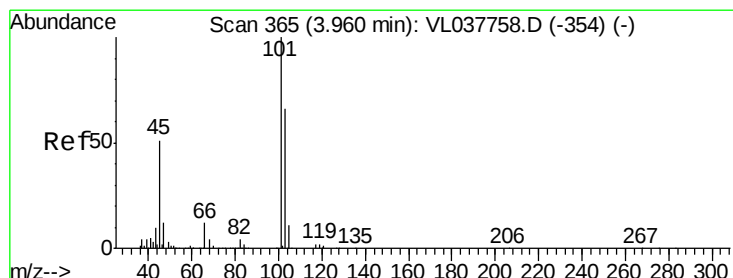
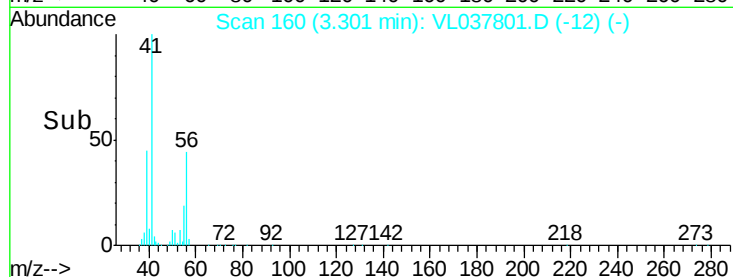
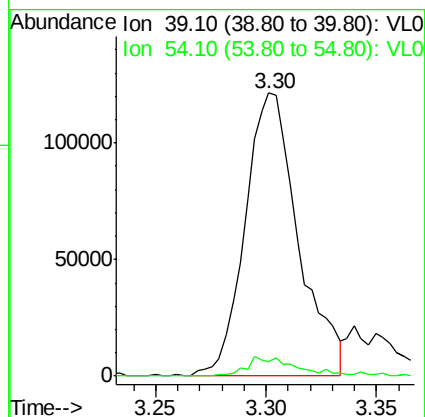
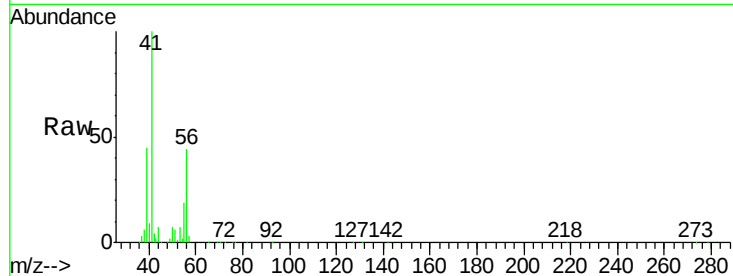




#16
 1,3-Butadiene
 Concen: 2.428 ppbv
 RT: 3.30 min Scan# 160
 Delta R.T. -0.03 min
 Lab File: VL037801.D
 Acq: 7 Oct 2021 18:25

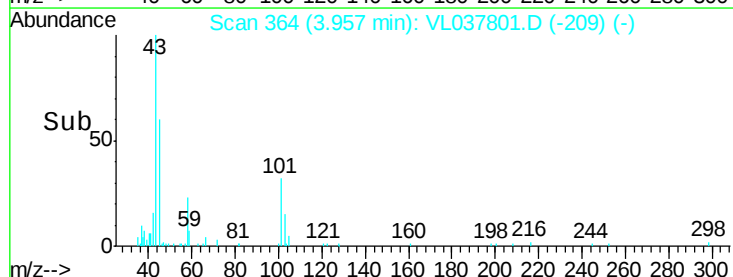
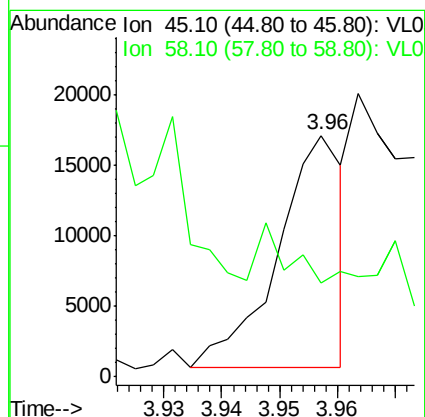
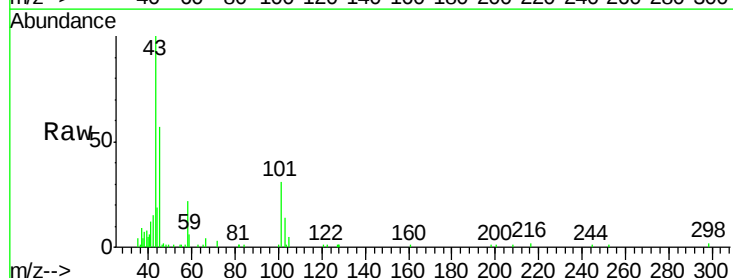
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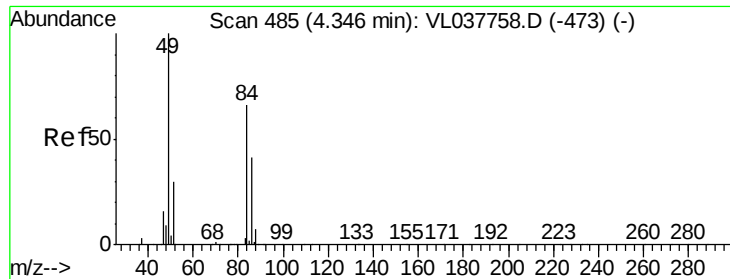
Tgt Ion: 39 Resp: 204145
 Ion Ratio Lower Upper
 39 100
 54 7.1 61.7 92.5#



#19
 Isopropyl Alcohol
 Concen: 0.178 ppbv
 RT: 3.96 min Scan# 364
 Delta R.T. -0.00 min
 Lab File: VL037801.D
 Acq: 7 Oct 2021 18:25

Tgt Ion: 45 Resp: 12817
 Ion Ratio Lower Upper
 45 100
 58 0.0 1.1 1.7#

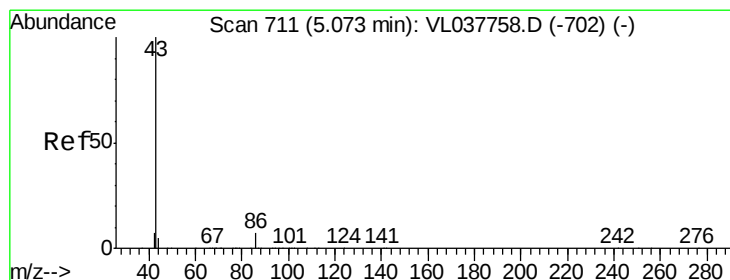
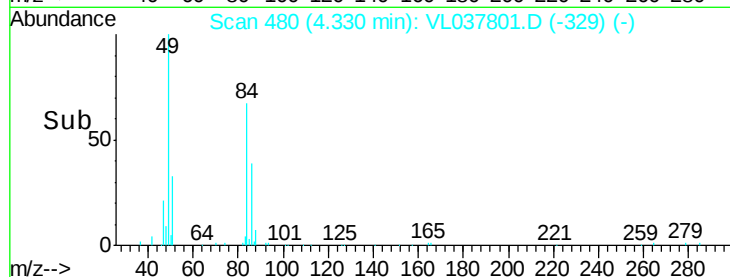
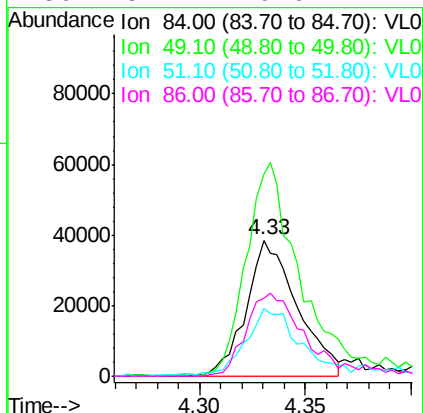
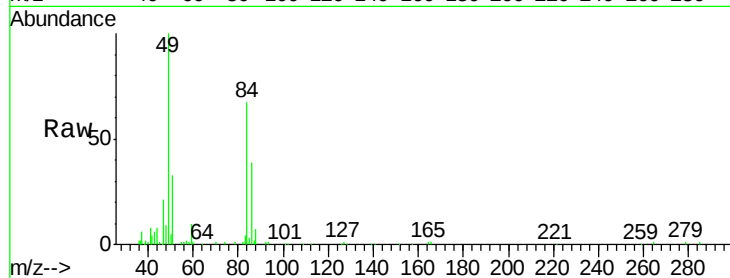




#20
Methylene Chloride
Concen: 1.110 ppbv
RT: 4.33 min Scan# 480
Delta R.T. -0.02 min
Lab File: VL037801.D
Acq: 7 Oct 2021 18:25

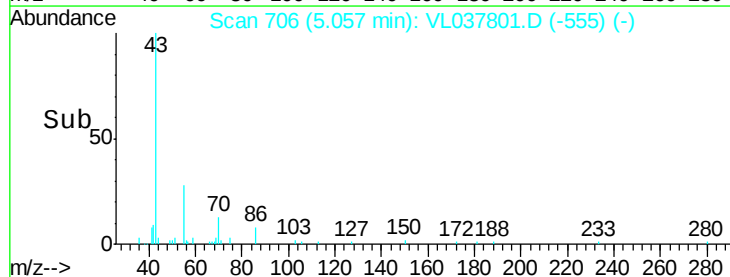
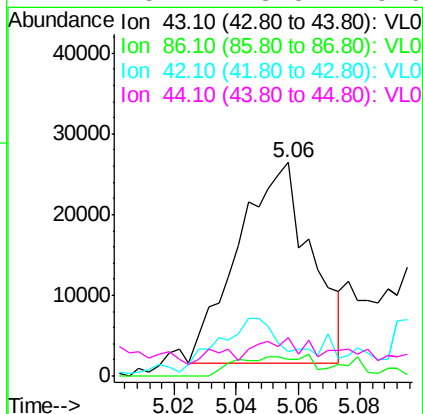
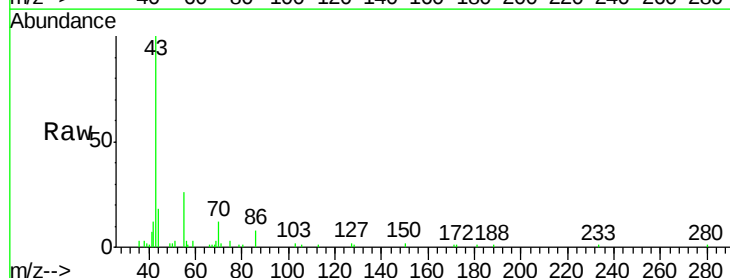
Instrument :
MSVOA_L
ClientSampleId :
C0P20

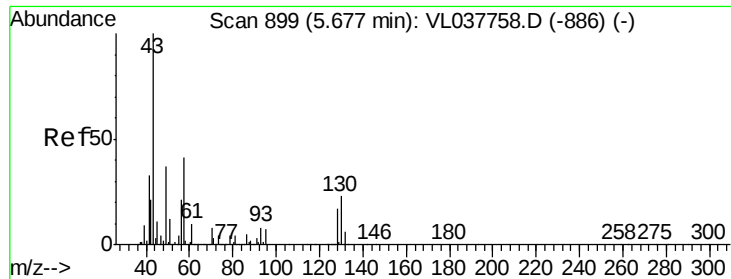
Tgt Ion: 84 Resp: 64829
Ion Ratio Lower Upper
84 100
49 146.7 120.7 181.1
51 47.9 36.2 54.4
86 57.4 49.6 74.4



#23
Vinyl Acetate
Concen: 0.235 ppbv
RT: 5.06 min Scan# 706
Delta R.T. -0.02 min
Lab File: VL037801.D
Acq: 7 Oct 2021 18:25

Tgt Ion: 43 Resp: 40662
Ion Ratio Lower Upper
43 100
86 8.3 5.0 7.4#
42 6.6 7.4 11.0#
44 13.2 3.8 5.6#

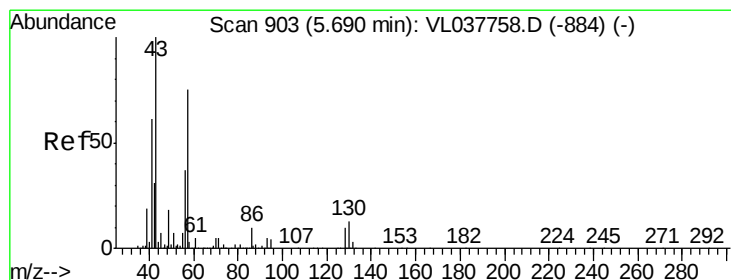
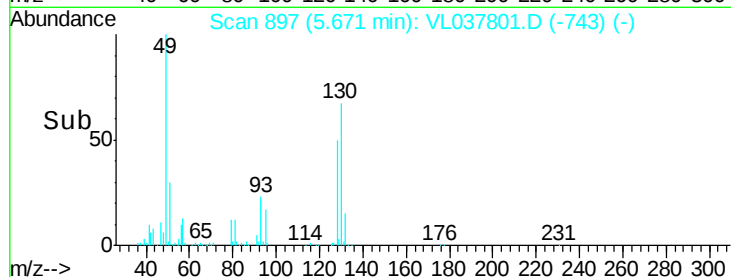
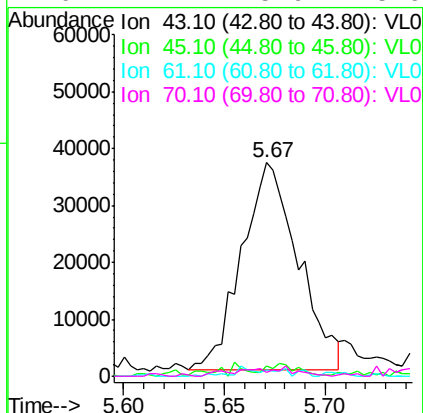
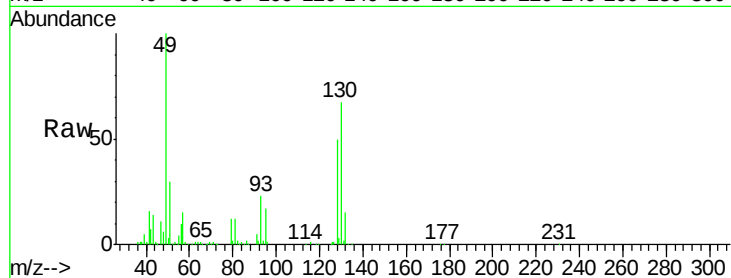




#25
Ethyl Acetate
Concen: 0.220 ppbv
RT: 5.67 min Scan# 897
Delta R.T. -0.01 min
Lab File: VL037801.D
Acq: 7 Oct 2021 18:25

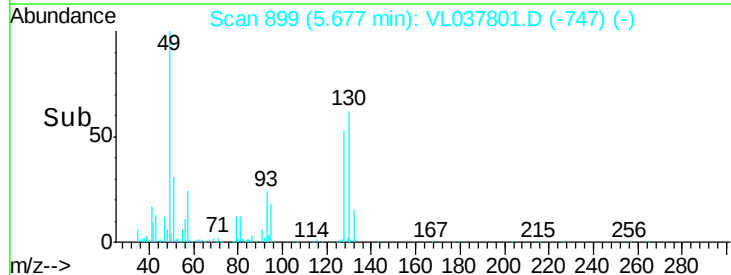
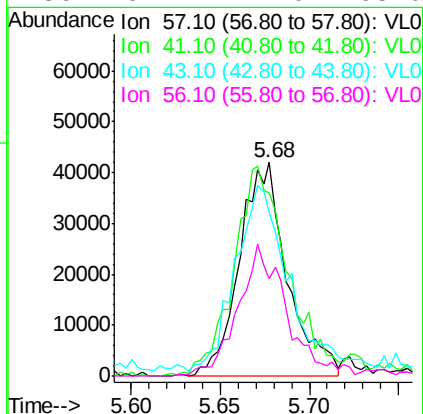
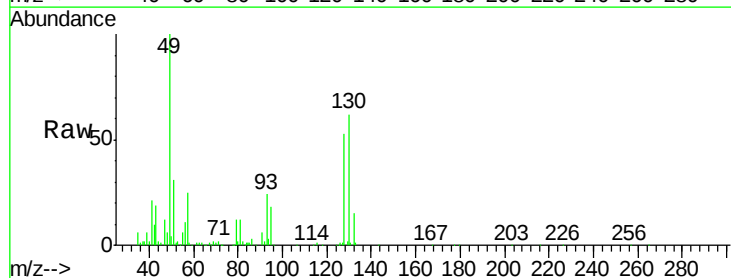
Instrument :
MSVOA_L
ClientSampleId :
C0P20

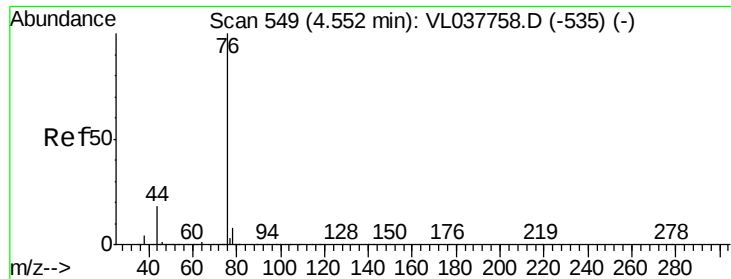
Tgt Ion:	43	Resp:	71413
Ion	Ratio	Lower	Upper
43	100		
45	6.8	8.1	12.1#
61	3.3	7.5	11.3#
70	4.2	5.9	8.9#



#26
Hexane
Concen: 0.492 ppbv
RT: 5.68 min Scan# 899
Delta R.T. -0.01 min
Lab File: VL037801.D
Acq: 7 Oct 2021 18:25

Tgt Ion:	57	Resp:	78503
Ion	Ratio	Lower	Upper
57	100		
41	120.9	69.6	104.4#
43	95.2	171.4	257.0#
56	62.4	42.0	63.0





#27

Carbon Disulfide

Concen: 0.263 ppbv

RT: 4.54 min Scan# 545

Delta R.T. -0.01 min

Lab File: VL037801.D

Acq: 7 Oct 2021 18:25

Instrument :

MSVOA_L

ClientSampled :

C0P20

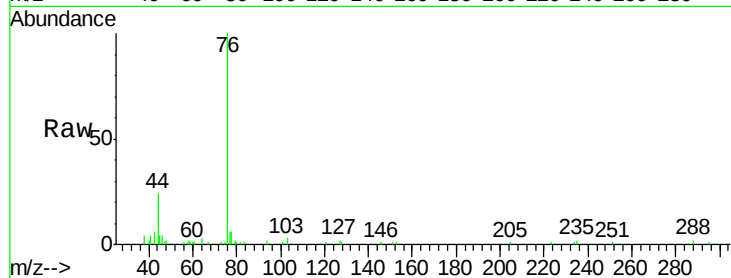
Tgt Ion: 76 Resp: 37194

Ion Ratio Lower Upper

76 100

44 21.0 14.3 21.5

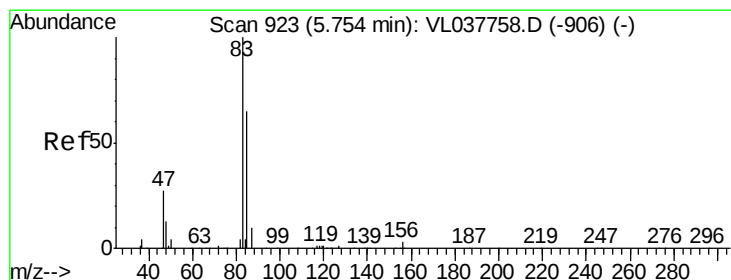
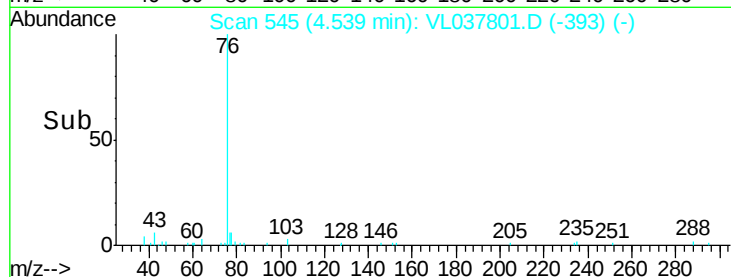
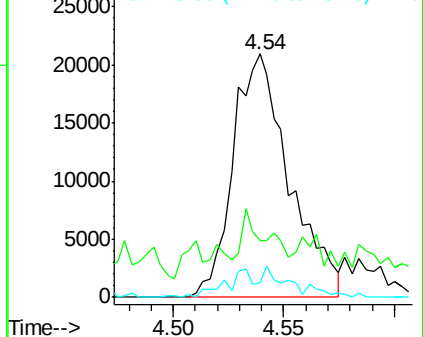
78 12.4 7.8 11.6#



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: 0.825 ppbv

RT: 5.74 min Scan# 917

Delta R.T. -0.02 min

Lab File: VL037801.D

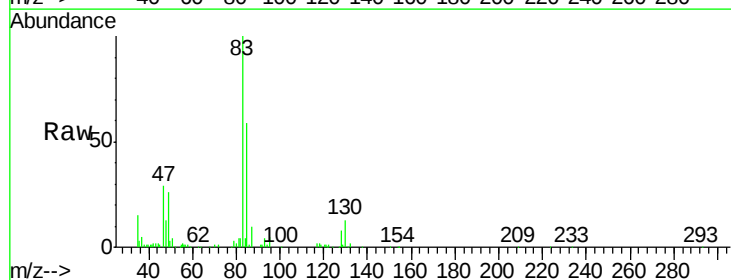
Acq: 7 Oct 2021 18:25

Tgt Ion: 83 Resp: 188324

Ion Ratio Lower Upper

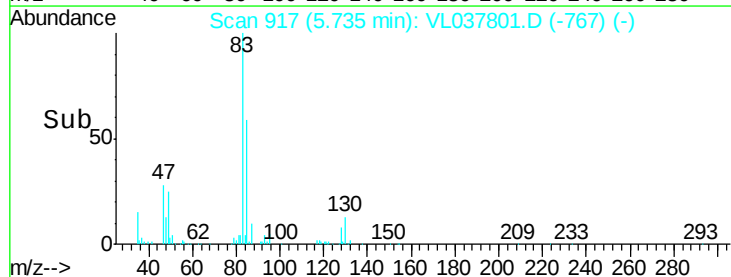
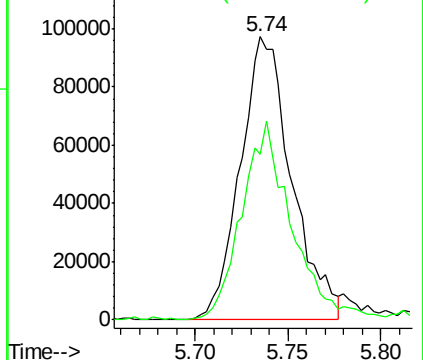
83 100

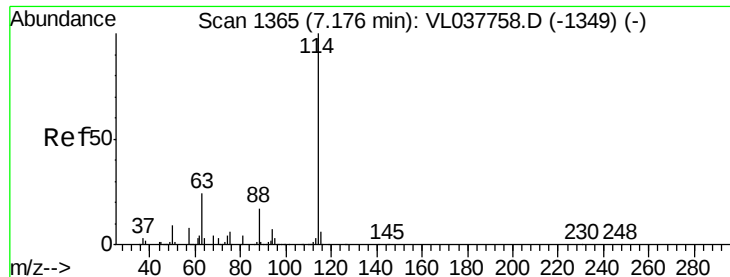
85 58.2 51.8 77.8



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

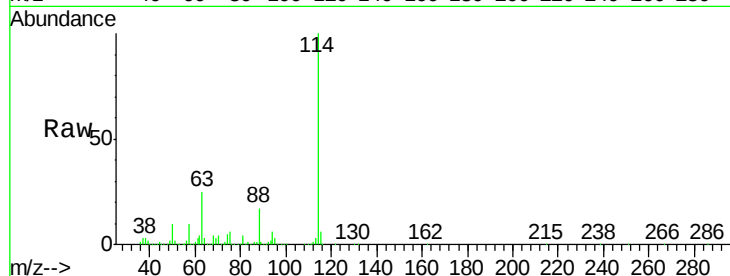




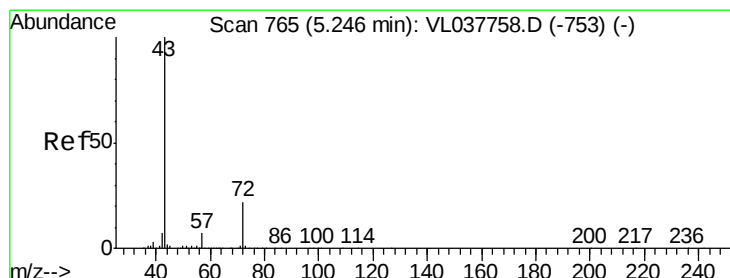
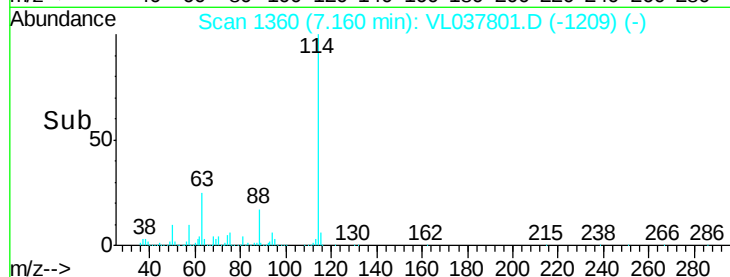
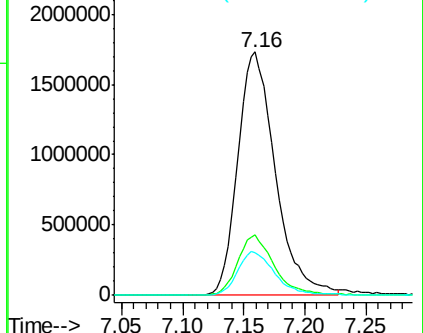
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.16 min Scan# 1360
 Delta R.T. -0.02 min
 Lab File: VL037801.D
 Acq: 7 Oct 2021 18:25

Instrument :
 MSVOA_L
 ClientSampleId :
 C0P20

Tgt Ion: 114 Resp: 3700742
 Ion Ratio Lower Upper
 114 100
 63 24.3 19.4 29.2
 88 18.0 14.4 21.6

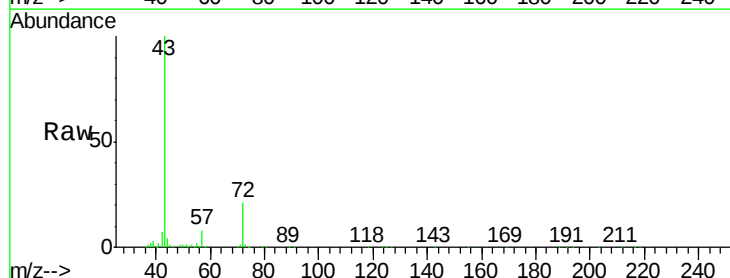


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

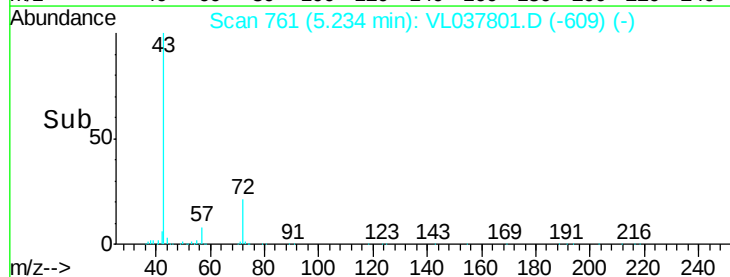
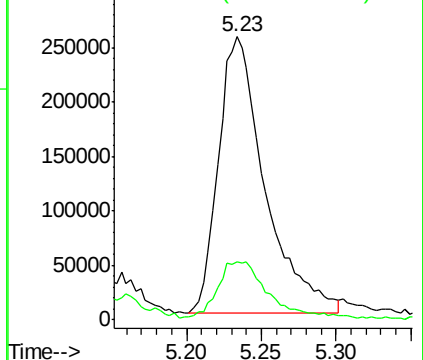


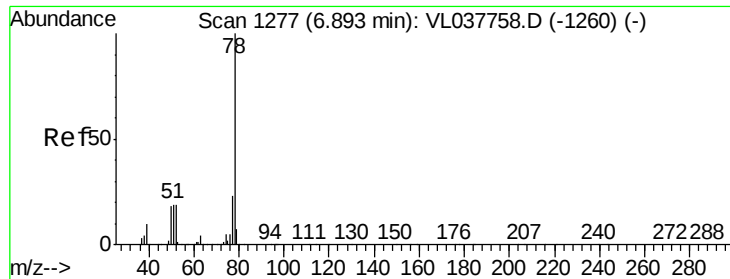
#34
 2-Butanone
 Concen: 3.692 ppbv
 RT: 5.23 min Scan# 761
 Delta R.T. -0.01 min
 Lab File: VL037801.D
 Acq: 7 Oct 2021 18:25

Tgt Ion: 43 Resp: 551544
 Ion Ratio Lower Upper
 43 100
 72 24.8 18.2 27.2



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#36

Benzene

Concen: 0.047 ppbv

RT: 6.88 min Scan# 1272

Delta R.T. -0.02 min

Lab File: VL037801.D

Acq: 7 Oct 2021 18:25

Instrument :

MSVOA_L

ClientSampleId :

C0P20

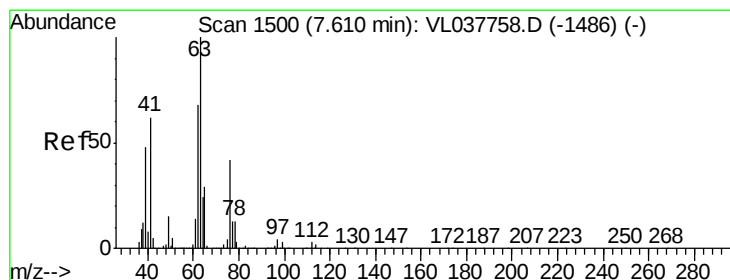
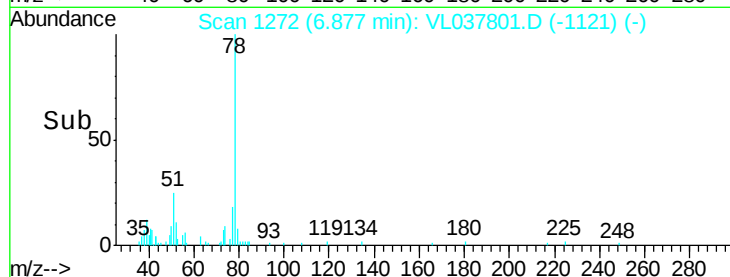
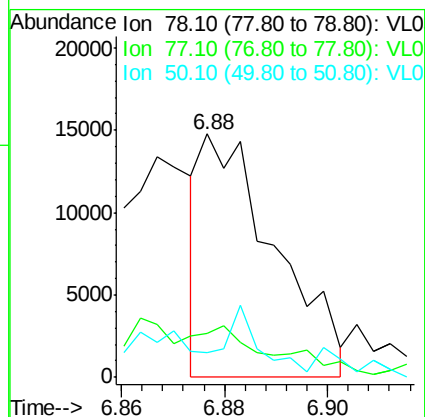
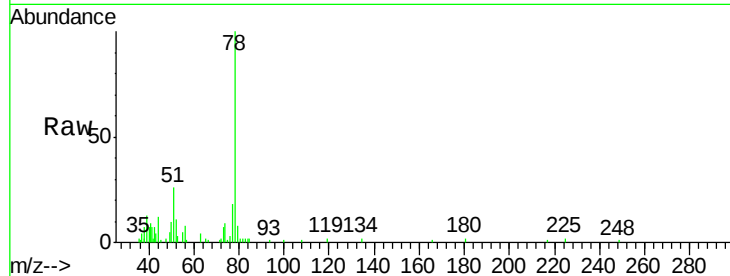
Tgt Ion: 78 Resp: 14752

Ion Ratio Lower Upper

78 100

77 13.1 18.8 28.2#

50 3.5 14.7 22.1#



#39

1,2-Dichloropropane

Concen: 7.322 ppbv

RT: 7.16 min Scan# 1360

Delta R.T. -0.45 min

Lab File: VL037801.D

Acq: 7 Oct 2021 18:25

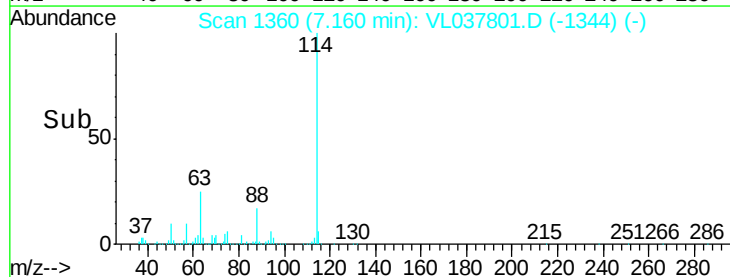
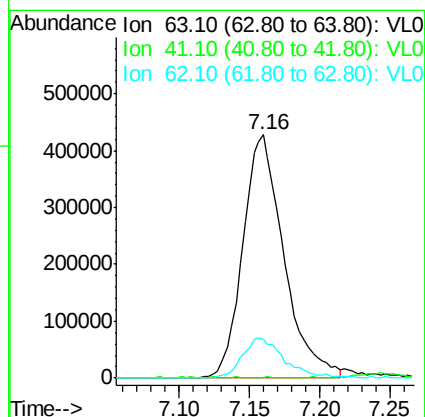
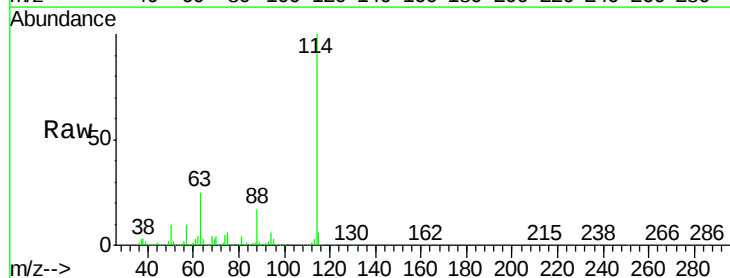
Tgt Ion: 63 Resp: 870499

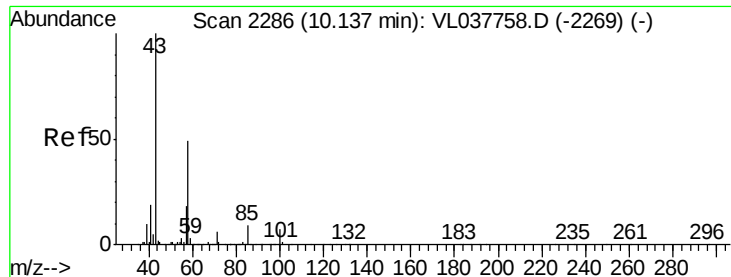
Ion Ratio Lower Upper

63 100

41 0.0 49.8 74.6#

62 16.0 54.6 82.0#

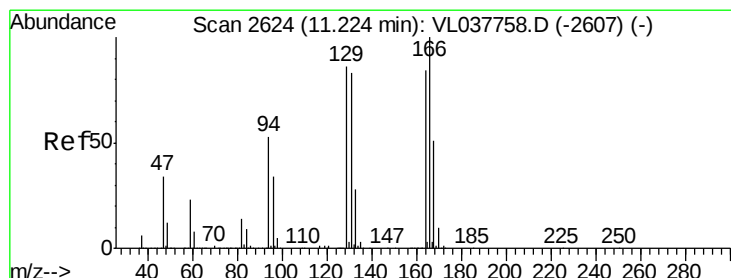
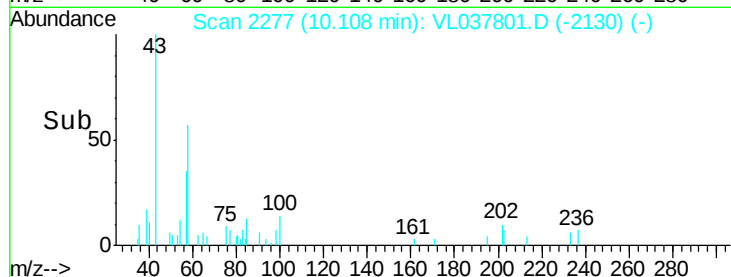
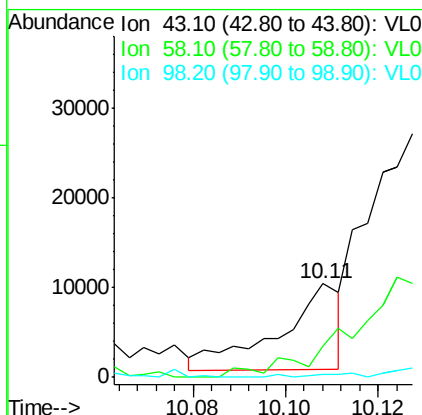
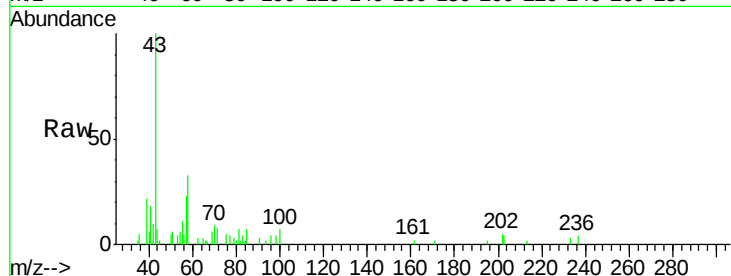




#51
2-Hexanone
Concen: 0.102 ppbv
RT: 10.11 min Scan# 2277
Delta R.T. -0.03 min
Lab File: VL037801.D
Acq: 7 Oct 2021 18:25

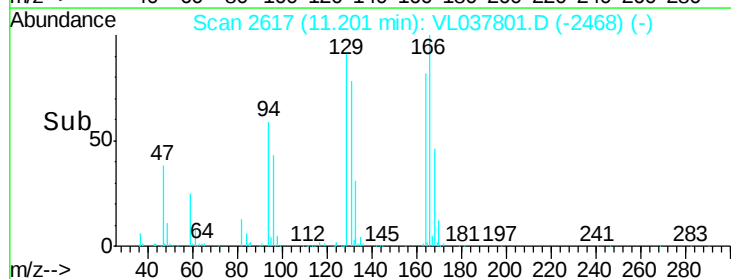
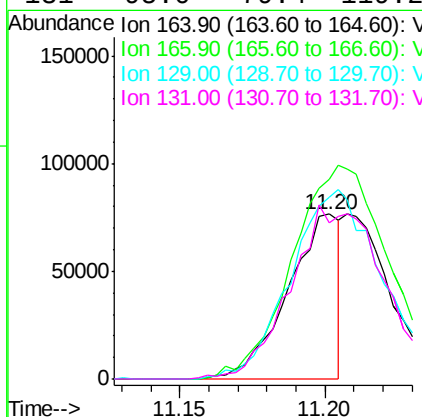
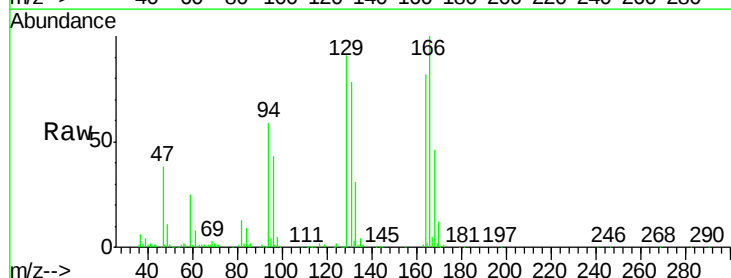
Instrument :
MSVOA_L
ClientSampleId :
C0P20

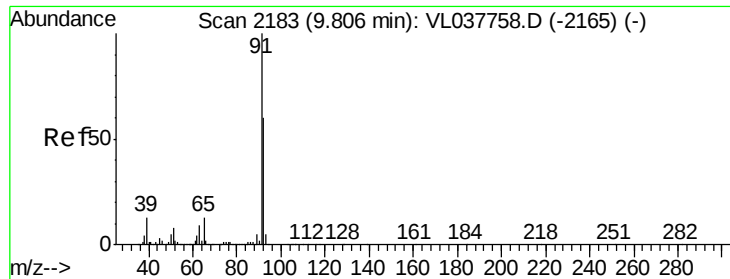
Tgt Ion: 43 Resp: 8835
Ion Ratio Lower Upper
43 100
58 0.0 39.4 59.0#
98 0.0 0.3 0.5#



#52
Tetrachloroethene
Concen: 0.772 ppbv
RT: 11.20 min Scan# 2617
Delta R.T. -0.02 min
Lab File: VL037801.D
Acq: 7 Oct 2021 18:25

Tgt Ion: 164 Resp: 94933
Ion Ratio Lower Upper
164 100
166 121.0 95.4 143.2
129 110.1 82.2 123.4
131 95.0 79.4 119.2





#53

Toluene

Concen: 0.094 ppbv

RT: 9.79 min Scan# 2177

Delta R.T. -0.02 min

Lab File: VL037801.D

Acq: 7 Oct 2021 18:25

Instrument :

MSVOA_L

ClientSampleId :

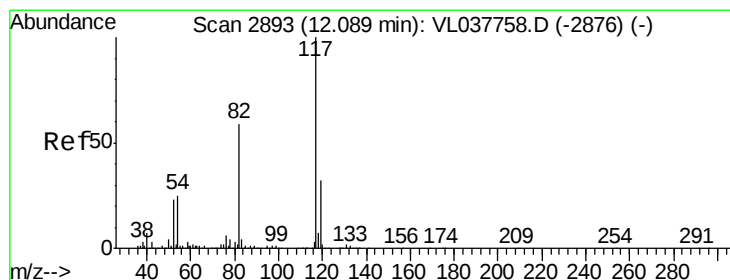
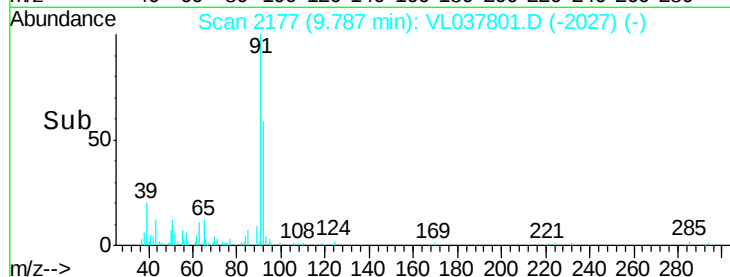
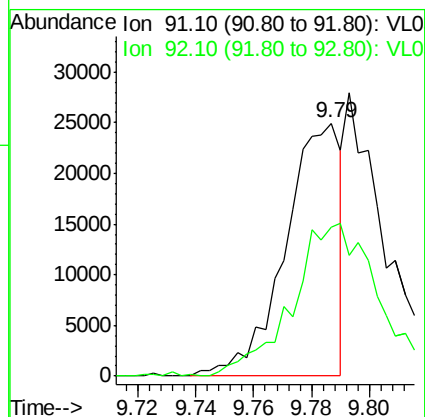
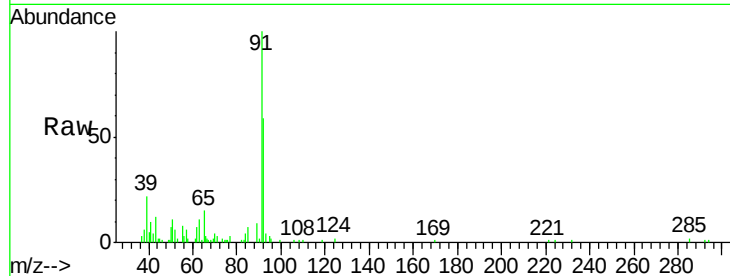
C0P20

Tgt Ion: 91 Resp: 33040

Ion Ratio Lower Upper

91 100

92 0.0 48.4 72.6#



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2886

Delta R.T. -0.02 min

Lab File: VL037801.D

Acq: 7 Oct 2021 18:25

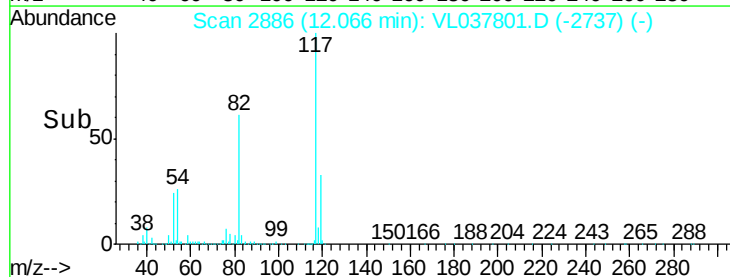
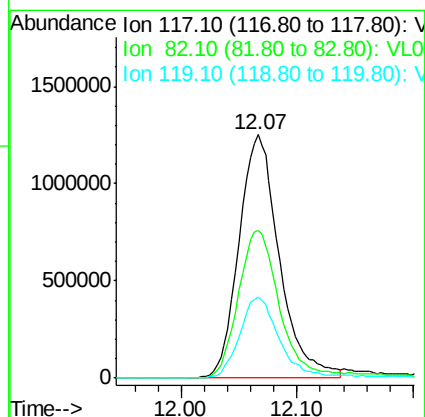
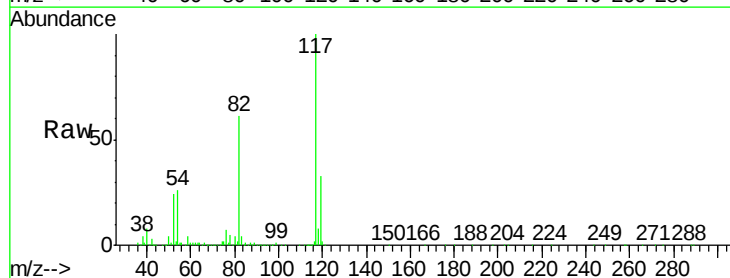
Tgt Ion: 117 Resp: 3027552

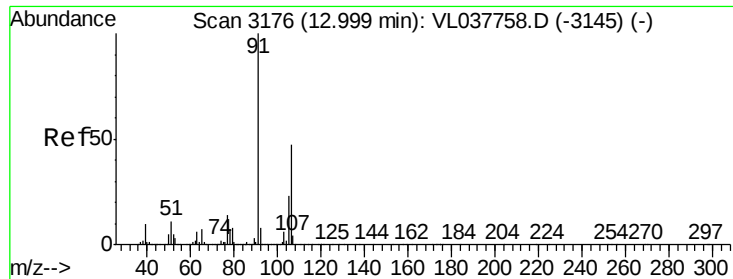
Ion Ratio Lower Upper

117 100

82 65.5 52.2 78.2

119 33.6 26.0 39.0

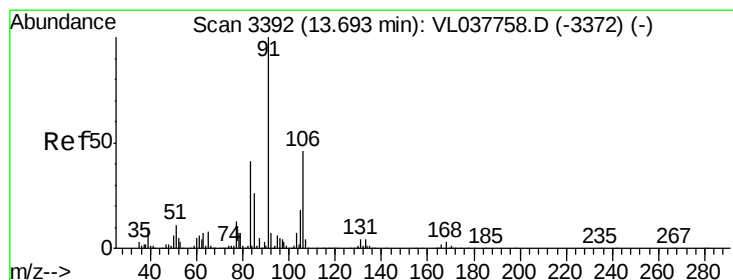
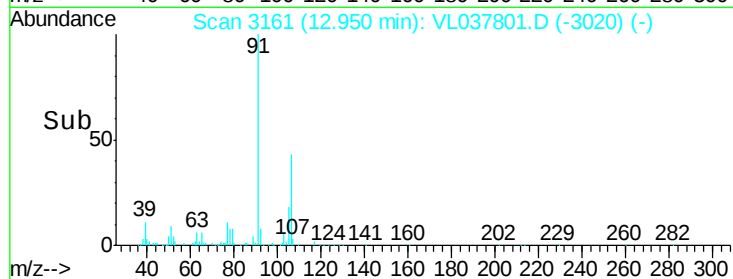
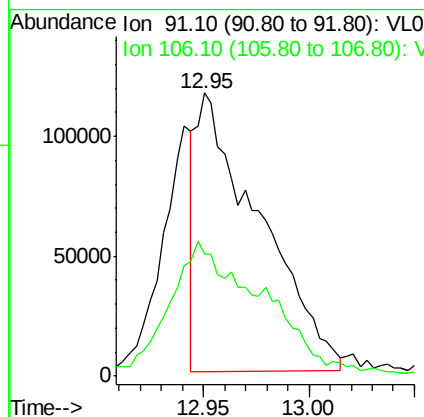
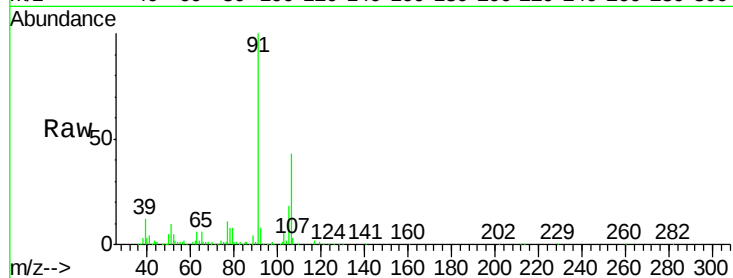




#59
m/p-Xylene
Concen: 0.693 ppbv
RT: 12.95 min Scan# 3161
Delta R.T. -0.05 min
Lab File: VL037801.D
Acq: 7 Oct 2021 18:25

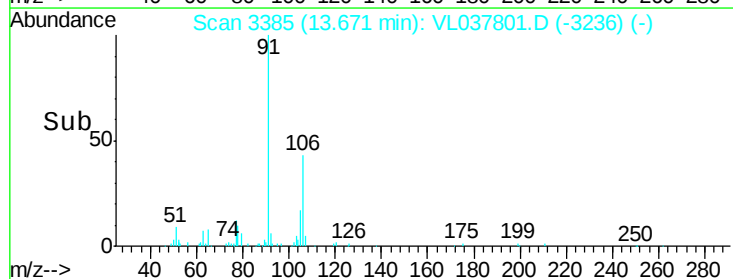
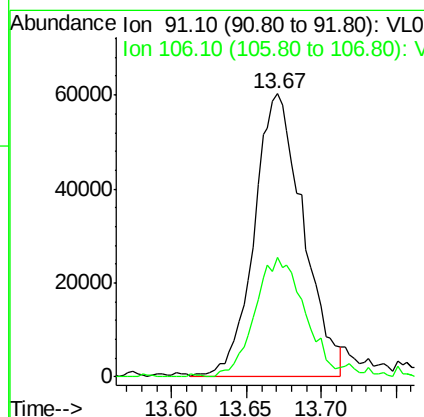
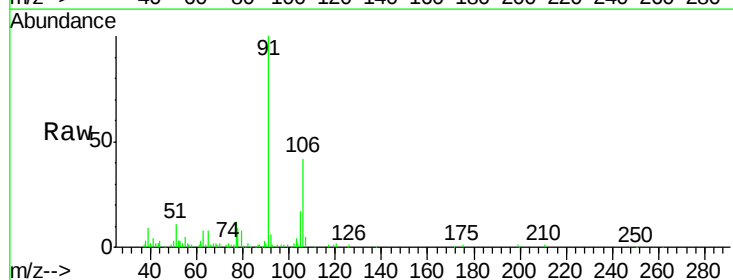
Instrument :
MSVOA_L
ClientSampleId :
C0P20

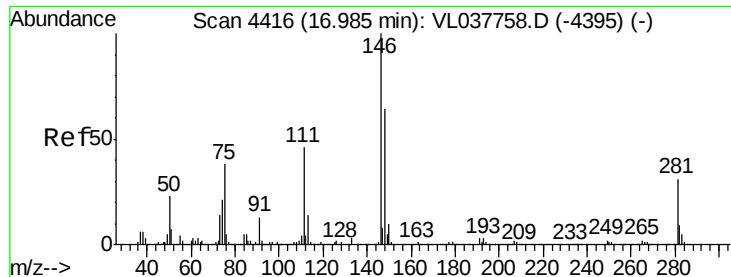
Tgt Ion: 91 Resp: 241958
Ion Ratio Lower Upper
91 100
106 73.4 36.7 55.1#



#60
o-Xylene
Concen: 0.410 ppbv
RT: 13.67 min Scan# 3385
Delta R.T. -0.02 min
Lab File: VL037801.D
Acq: 7 Oct 2021 18:25

Tgt Ion: 91 Resp: 137220
Ion Ratio Lower Upper
91 100
106 44.8 23.5 70.5

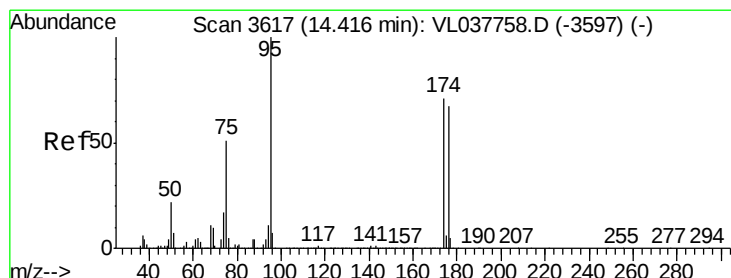
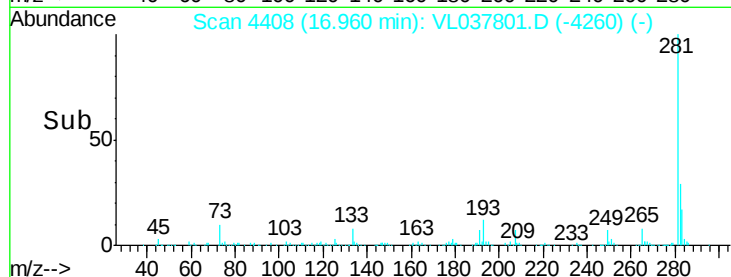
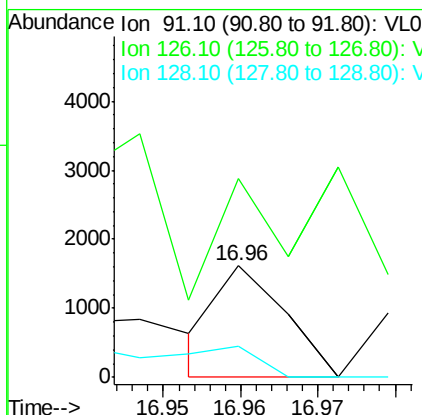
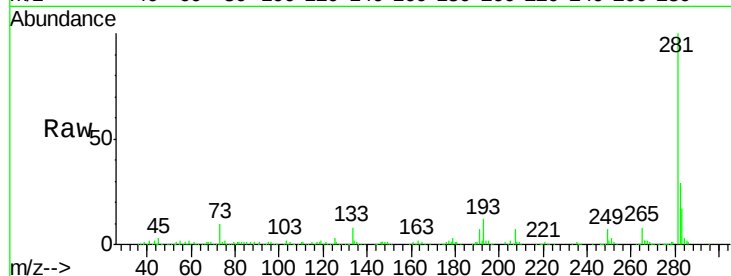




#66
Benzyl Chloride
Concen: 0.024 ppbv
RT: 16.96 min Scan# 4408
Delta R.T. -0.03 min
Lab File: VL037801.D
Acq: 7 Oct 2021 18:25

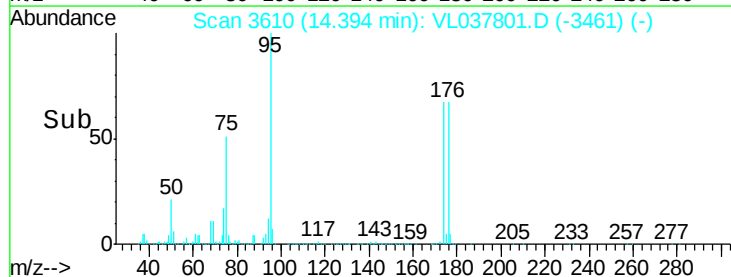
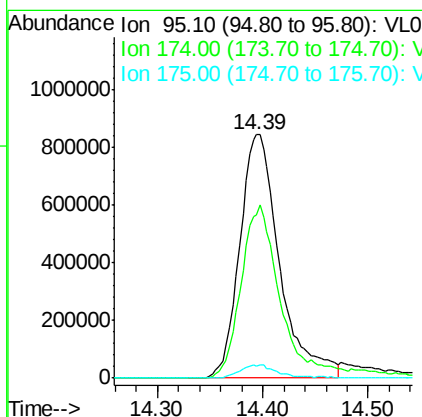
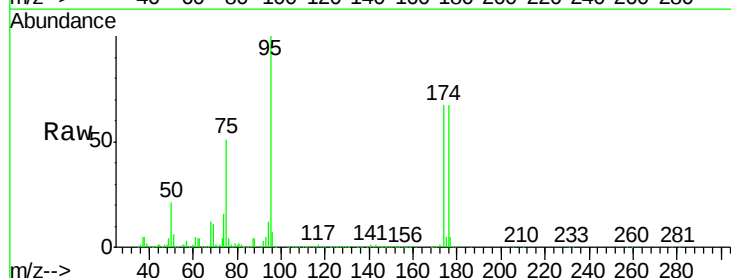
Instrument :
MSVOA_L
ClientSampleId :
C0P20

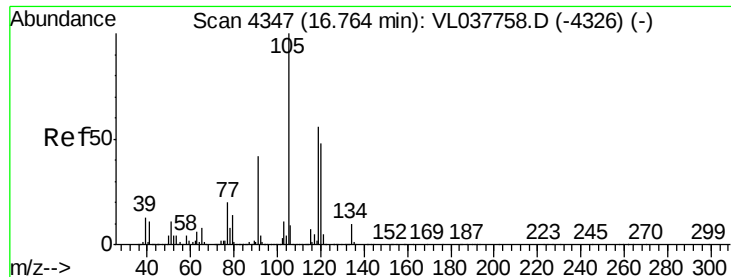
Tgt Ion: 91 Resp: 487
Ion Ratio Lower Upper
91 100
126 1353.6 0.0 0.0#
128 59.8 5.3 7.9#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.502 ppbv
RT: 14.39 min Scan# 3610
Delta R.T. -0.02 min
Lab File: VL037801.D
Acq: 7 Oct 2021 18:25

Tgt Ion: 95 Resp: 2223404
Ion Ratio Lower Upper
95 100
174 74.3 57.8 86.6
175 5.0 4.7 7.1





#74

1,2,4-Trimethylbenzene

Concen: 0.158 ppbv

RT: 16.74 min Scan# 4341

Delta R.T. -0.02 min

Lab File: VL037801.D

Acq: 7 Oct 2021 18:25

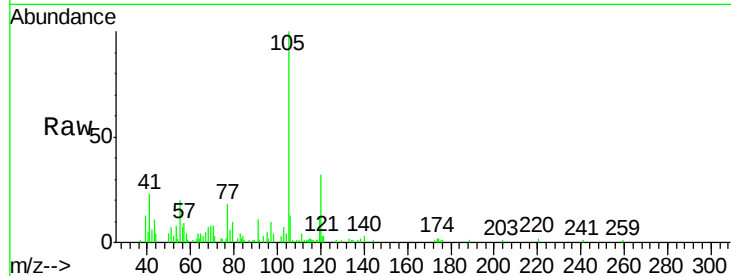
Instrument :

MSVOA_L

ClientSampleId :

C0P20

Tgt Ion:	105	Resp:	57152
Ion	Ratio	Lower	Upper
105	100		
120	35.4	38.4	57.6#
91	10.8	34.2	51.2#
77	13.1	15.8	23.8#

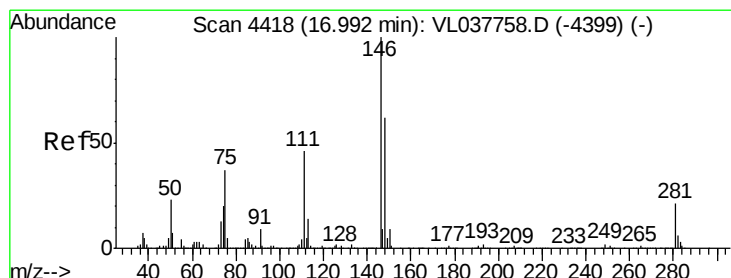
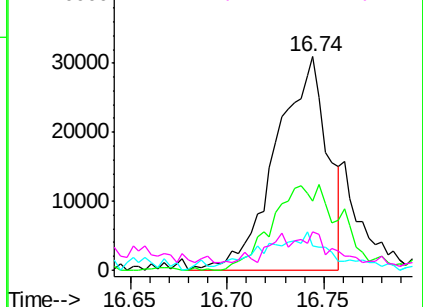
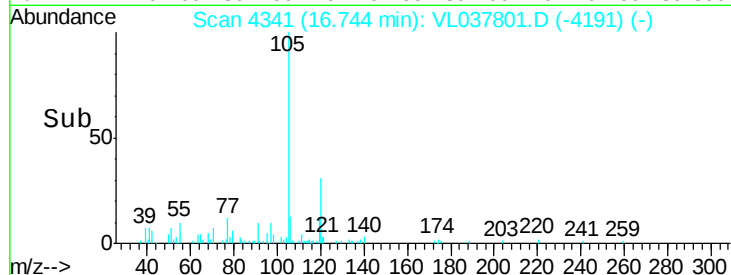


Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0



#75

1,3-Dichlorobenzene

Concen: 0.020 ppbv

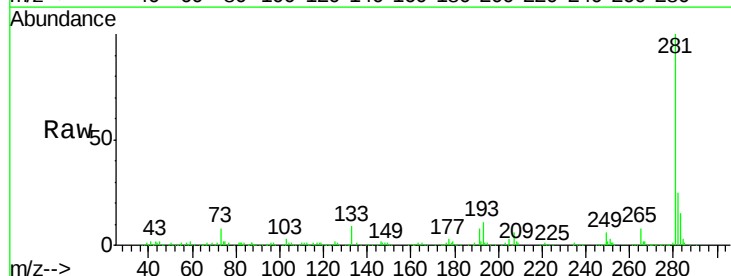
RT: 16.97 min Scan# 4410

Delta R.T. -0.03 min

Lab File: VL037801.D

Acq: 7 Oct 2021 18:25

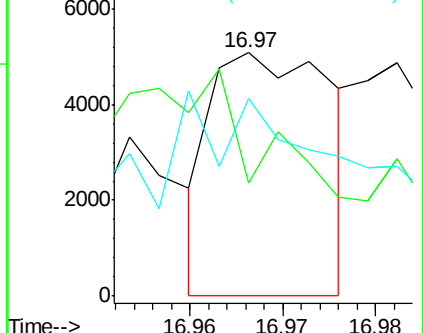
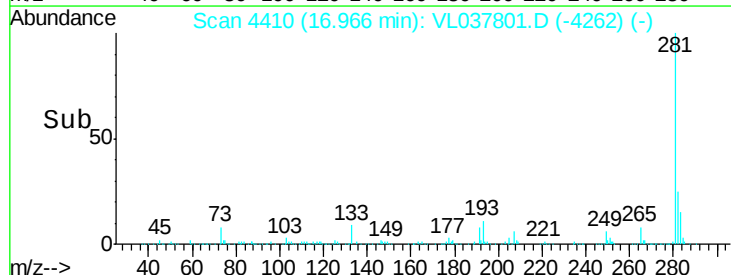
Tgt Ion:	146	Resp:	4561
Ion	Ratio	Lower	Upper
146	100		
111	0.0	22.8	68.4#
148	0.0	32.8	98.3#

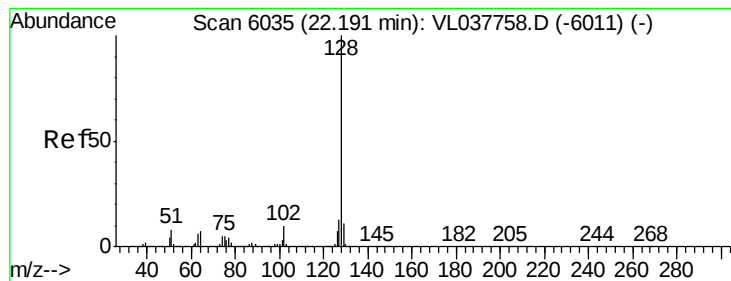


Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V





#79

Naphthalene

Concen: 0.036 ppbv

RT: 22.15 min Scan# 6023

Delta R.T. -0.04 min

Lab File: VL037801.D

Acq: 7 Oct 2021 18:25

Instrument :

MSVOA_L

ClientSampleId :

C0P20

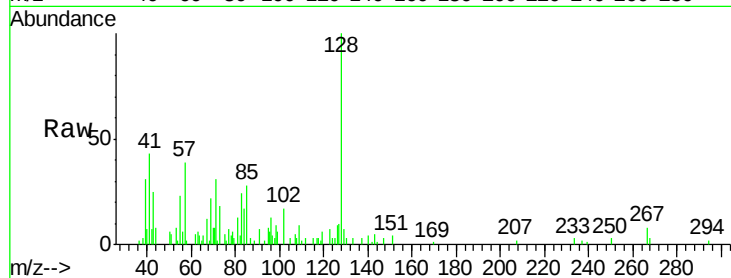
Tgt Ion:128 Resp: 7989

Ion Ratio Lower Upper

128 100

127 0.0 10.1 15.1#

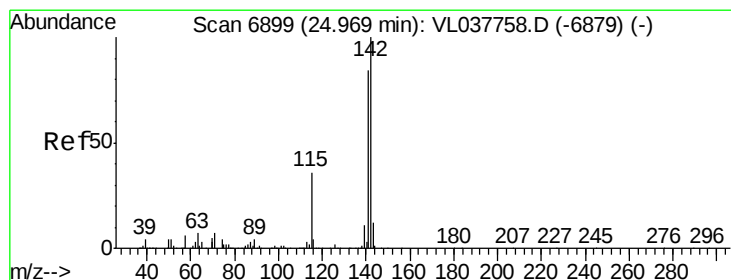
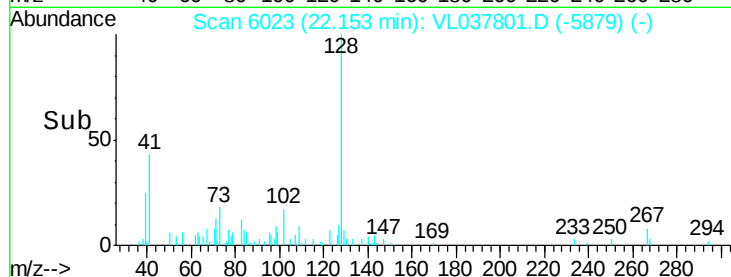
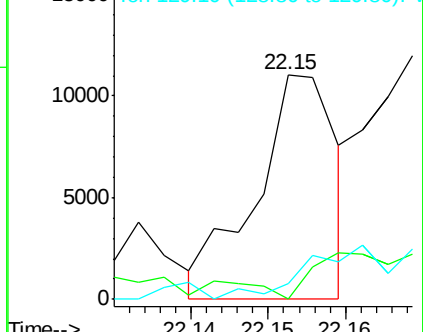
129 0.0 9.1 13.7#



Abundance Ion 128.10 (127.80 to 128.80): V

Ion 127.10 (126.80 to 127.80): V

Ion 129.10 (128.80 to 129.80): V



#80

Naphthalene, 2-methyl-

Concen: 0.082 ppbv

RT: 24.95 min Scan# 6894

Delta R.T. -0.02 min

Lab File: VL037801.D

Acq: 7 Oct 2021 18:25

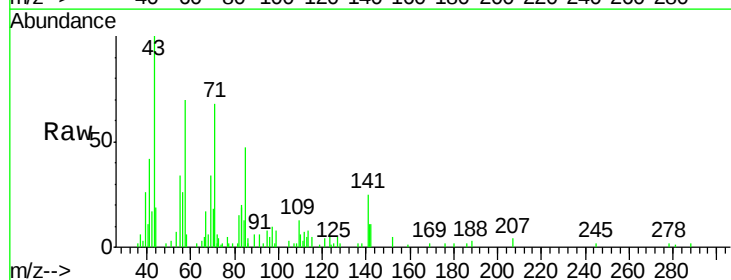
Tgt Ion:142 Resp: 4897

Ion Ratio Lower Upper

142 100

141 82.3 68.6 102.8

115 47.9 29.0 43.6#



Abundance Ion 142.00 (141.70 to 142.70): V

Ion 141.00 (140.70 to 141.70): V

Ion 115.00 (114.70 to 115.70): V

