

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL060121\
 Data File : VL037080.D
 Acq On : 1 Jun 2021 21:37
 Operator : SY/AP
 Sample : M2548-01DUP
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Jun 02 03:03:12 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue May 18 12:00:15 2021
 QLast Update : Tue May 18 12:00:15 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1265979	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	3833511	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	3281790	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.39	95	2328961	9.45	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	94.50%

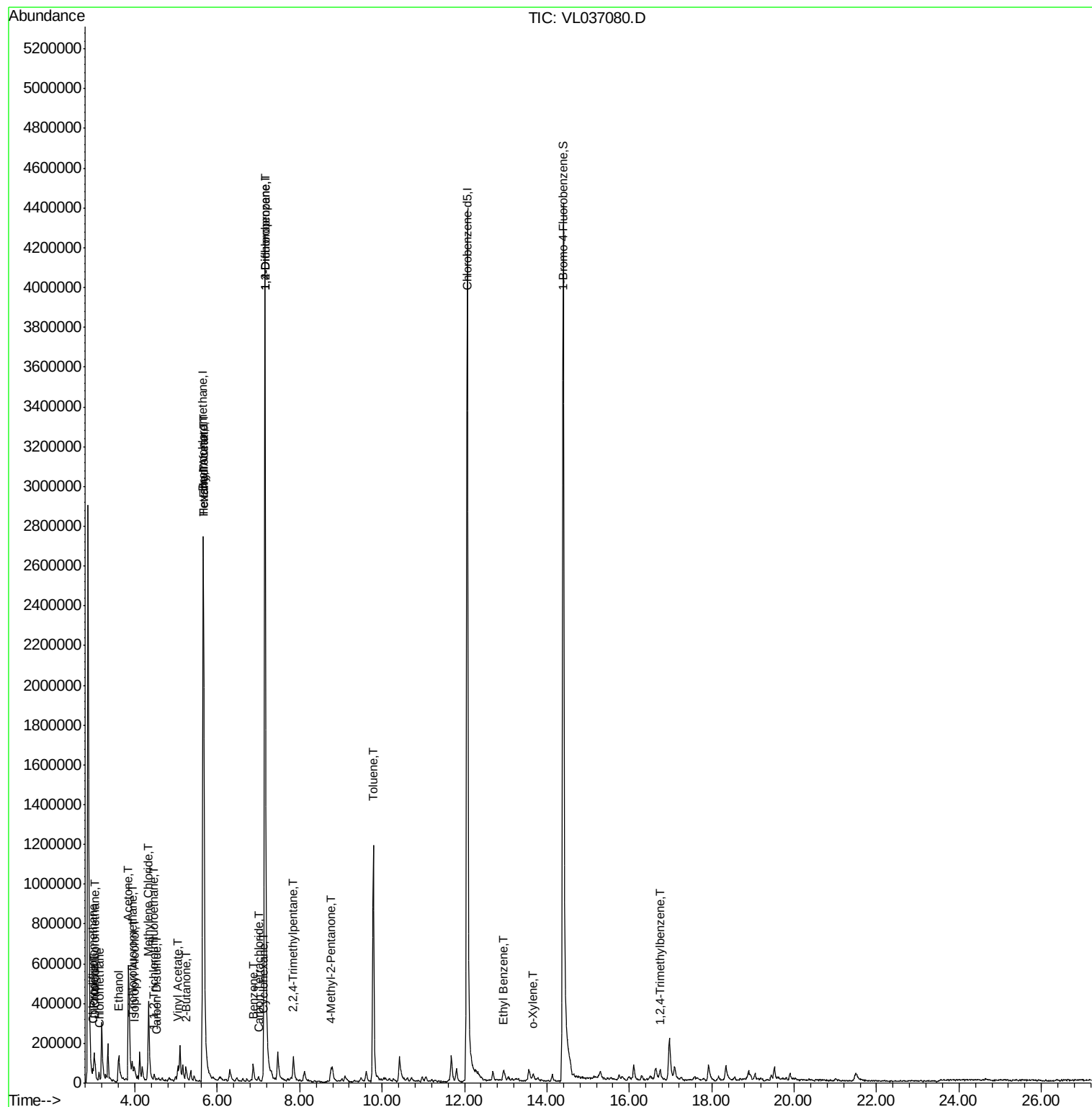
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.03	85	50540	0.235	ppbv 93
3) Chlorodifluoromethane	2.98	51	71100	0.307	ppbv 96
4) Chloromethane	3.13	50	45002	0.570	ppbv 94
9) Propene	3.00	41	20849	0.251	ppbv # 16
11) Trichlorofluoromethane	3.94	101	29078	0.146	ppbv 94
12) 1,1,2-Trichlorotrifluoroet	4.47	101	9227	0.065	ppbv # 77
13) Ethanol	3.60	45	65410	5.903	ppbv # 35
15) Acetone	3.84	43	861493	6.644	ppbv 97
19) Isopropyl Alcohol	3.98	45	42032	0.603	ppbv # 58
20) Methylene Chloride	4.33	84	167663	2.412	ppbv 91
23) Vinyl Acetate	5.05	43	39948	0.194	ppbv # 61
25) Ethyl Acetate	5.67	43	425219	1.365	ppbv # 79
26) Hexane	5.67	57	596385	3.747	ppbv # 47
27) Carbon Disulfide	4.54	76	4925	0.031	ppbv # 67
30) Cyclohexane	7.11	84	7952	0.059	ppbv # 1
34) 2-Butanone	5.24	43	90415	0.648	ppbv # 81
35) Carbon Tetrachloride	7.00	117	9779	0.038	ppbv # 58
36) Benzene	6.87	78	66829	0.202	ppbv # 94
39) 1,2-Dichloropropane	7.16	63	917837	7.216	ppbv # 26
41) Tetrahydrofuran	5.67	42	226224	2.846	ppbv # 50
44) 2,2,4-Trimethylpentane	7.85	57	114952	0.203	ppbv # 87
50) 4-Methyl-2-Pentanone	8.75	43	20365	0.088	ppbv # 38
53) Toluene	9.78	91	1025382	2.610	ppbv 99
58) Ethyl Benzene	12.94	91	25170	0.054	ppbv 91
60) o-Xylene	13.67	91	11230	0.031	ppbv # 19
74) 1,2,4-Trimethylbenzene	16.74	105	19417	0.046	ppbv # 72

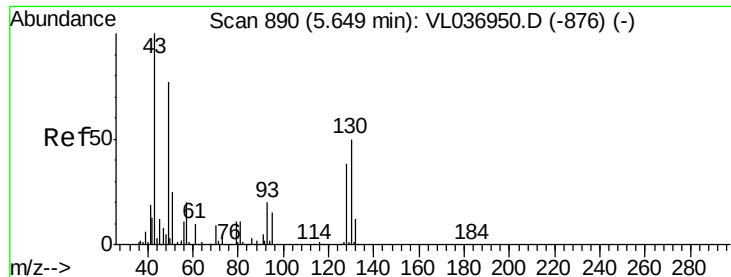
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Tue May 18 12:00:15 2021
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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 890

Delta R.T. -0.00 min

Lab File: VL037080.D

Acq: 1 Jun 2021 21:37

Instrument :

MSVOA_L

ClientSampleId :

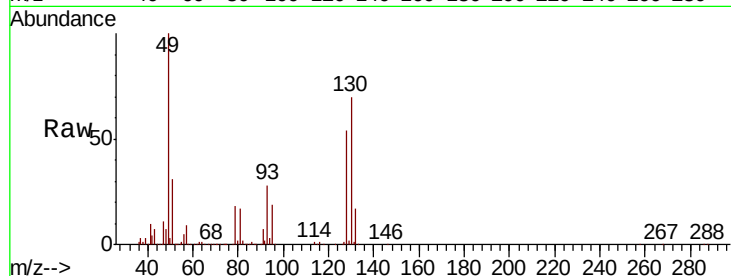
Tot Ion: 49 Resp: 1265979

Ion Ratio Lower Upper

49 100

128 58.7 26.9 80.7

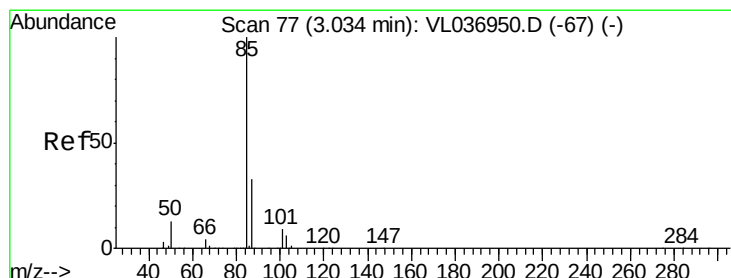
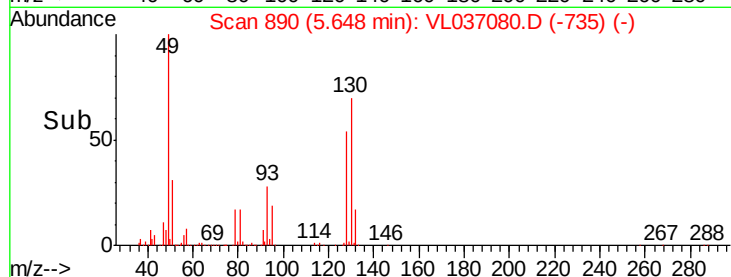
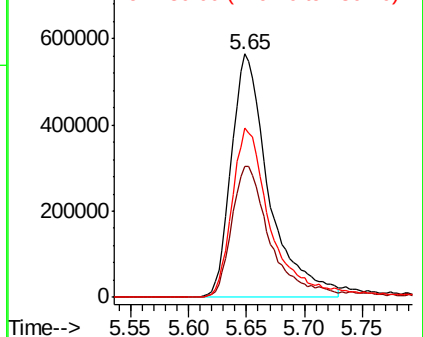
130 74.8 33.8 101.4



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: 0.235 ppbv

RT: 3.03 min Scan# 77

Delta R.T. -0.00 min

Lab File: VL037080.D

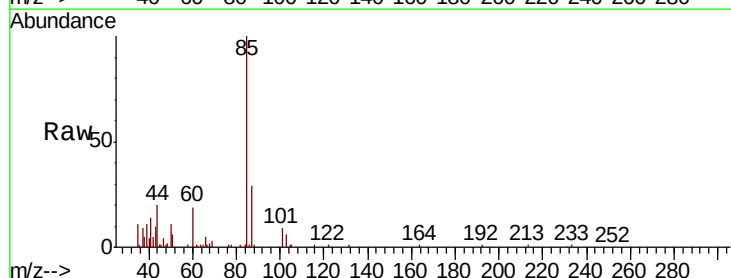
Acq: 1 Jun 2021 21:37

Tgt Ion: 85 Resp: 50540

Ion Ratio Lower Upper

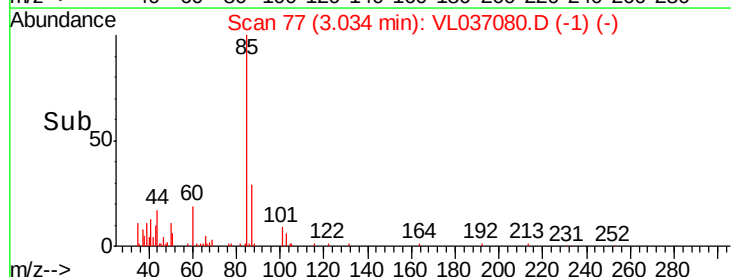
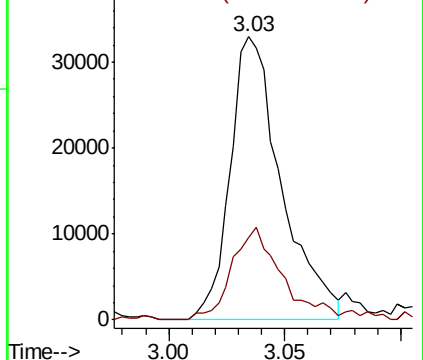
85 100

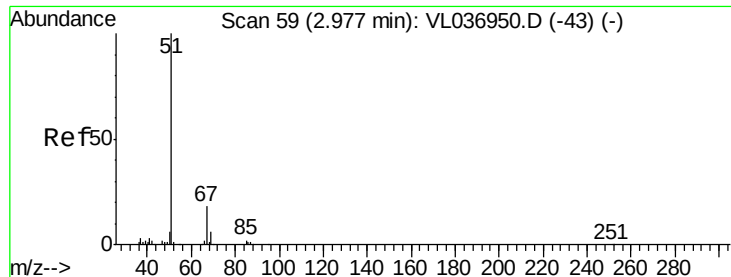
87 29.0 26.6 39.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.307 ppbv

RT: 2.98 min Scan# 59

Delta R.T. -0.00 min

Lab File: VL037080.D

Acq: 1 Jun 2021 21:37

Instrument :

MSVOA_L

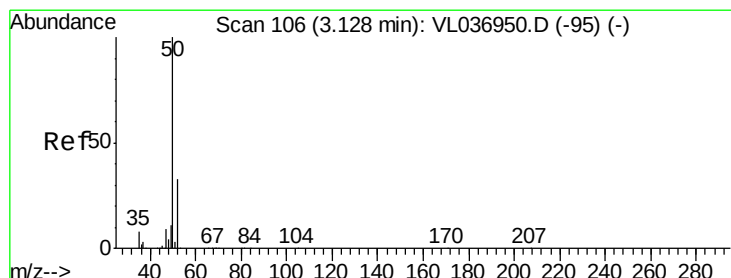
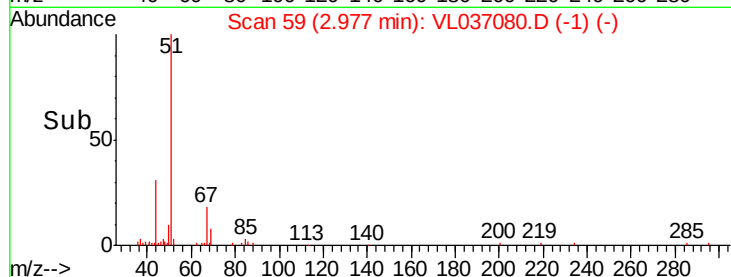
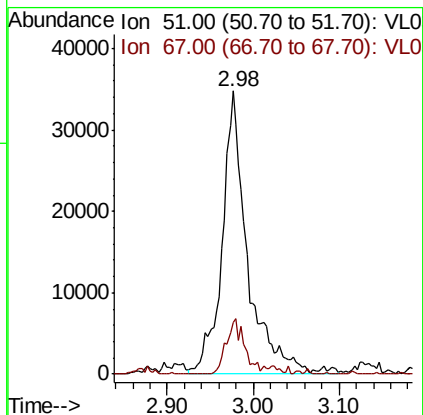
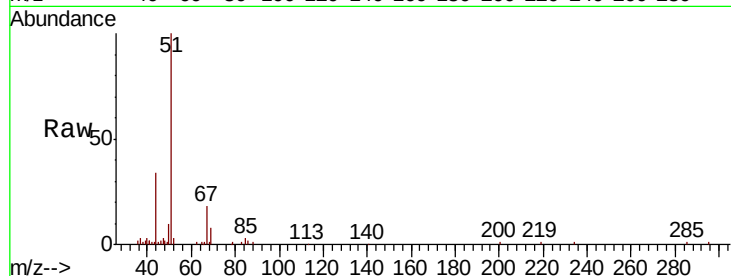
ClientSampleId :

Tot Ion: 51 Resp: 71100

Ion Ratio Lower Upper

51 100

67 16.4 14.6 21.8



#4

Chloromethane

Concen: 0.570 ppbv

RT: 3.13 min Scan# 106

Delta R.T. -0.00 min

Lab File: VL037080.D

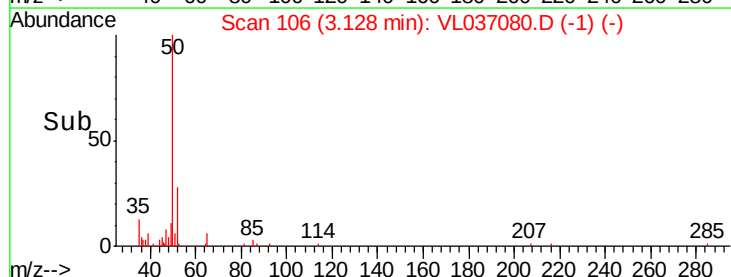
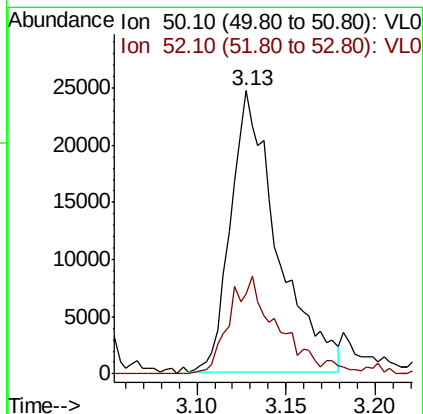
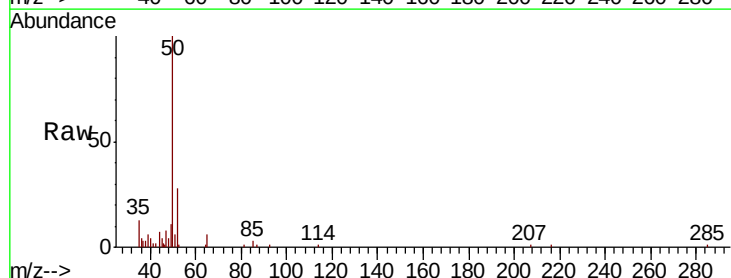
Acq: 1 Jun 2021 21:37

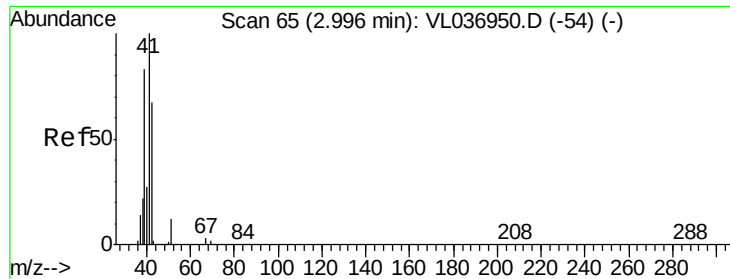
Tgt Ion: 50 Resp: 45002

Ion Ratio Lower Upper

50 100

52 29.3 26.1 39.1





#9

Propene

Concen: 0.251 ppbv

RT: 3.00 min Scan# 67

Delta R.T. 0.01 min

Lab File: VL037080.D

Acq: 1 Jun 2021 21:37

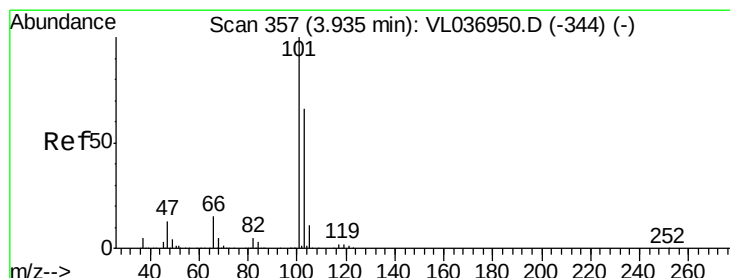
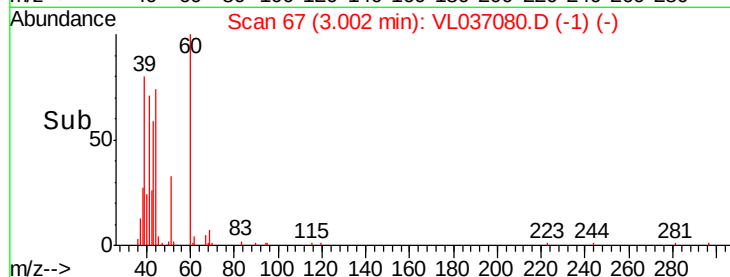
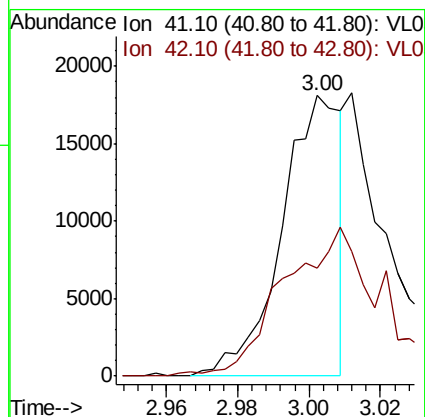
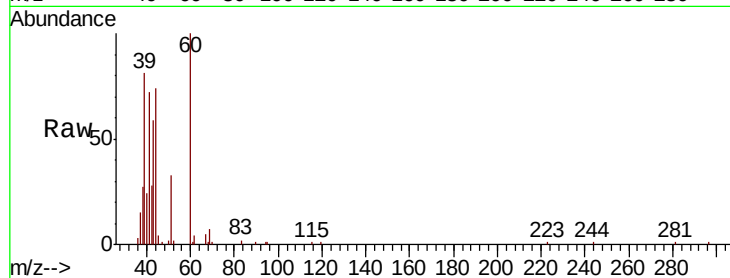
Instrument :
MSVOA_L
ClientSampled :

Tot Ion: 41 Resp: 20849

Ion Ratio Lower Upper

41 100

42 0.0 53.9 80.9#



#11

Trichlorofluoromethane

Concen: 0.146 ppbv

RT: 3.94 min Scan# 358

Delta R.T. 0.00 min

Lab File: VL037080.D

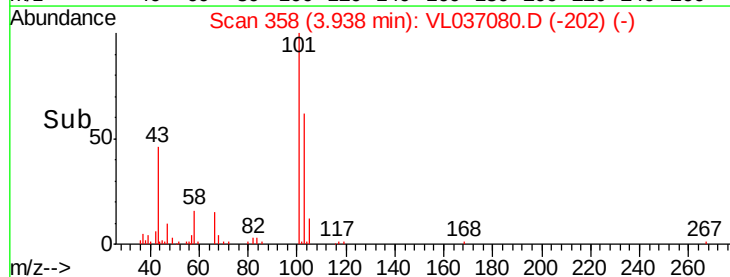
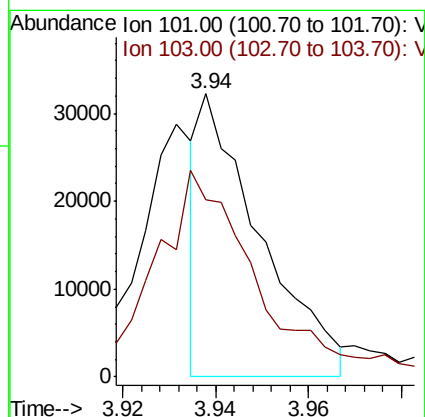
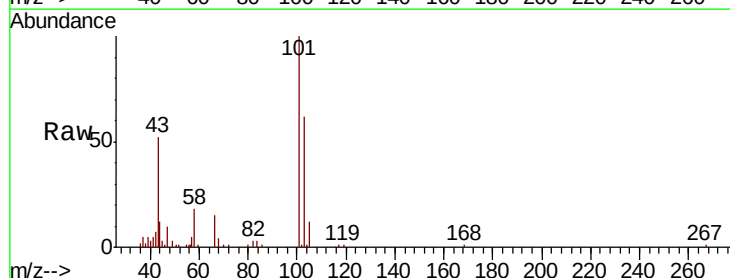
Acq: 1 Jun 2021 21:37

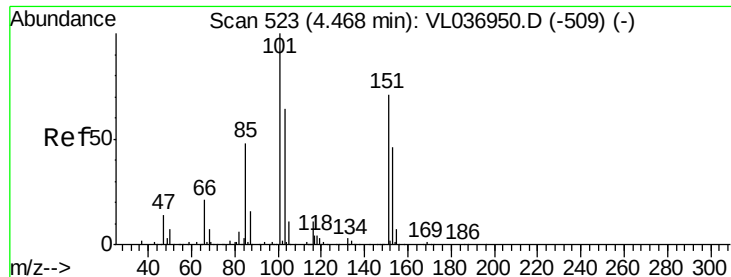
Tgt Ion: 101 Resp: 29078

Ion Ratio Lower Upper

101 100

103 60.8 52.6 79.0





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.065 ppbv

RT: 4.47 min Scan# 523

Delta R.T. -0.00 min

Lab File: VL037080.D

Acq: 1 Jun 2021 21:37

Instrument :

MSVOA_L

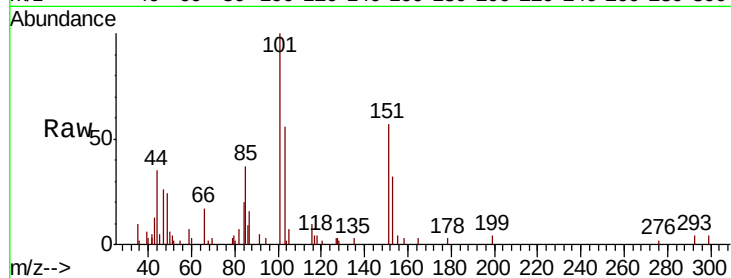
ClientSampleId :

Tot Ion:101 Resp: 9227

Ion Ratio Lower Upper

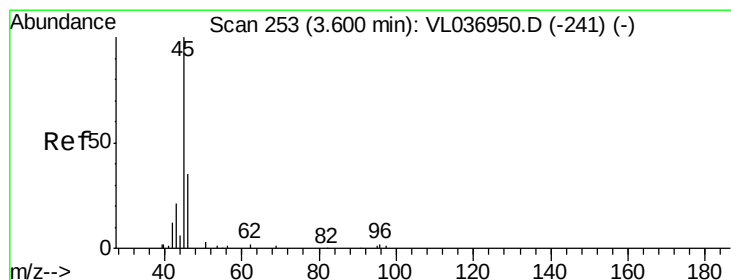
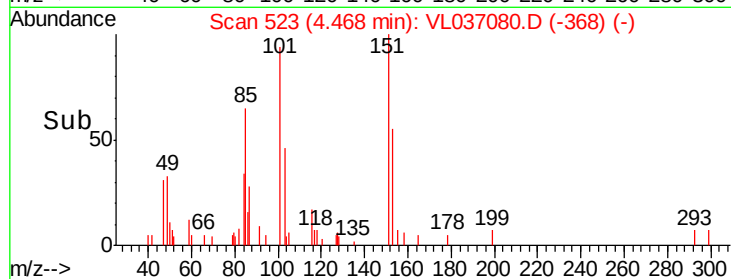
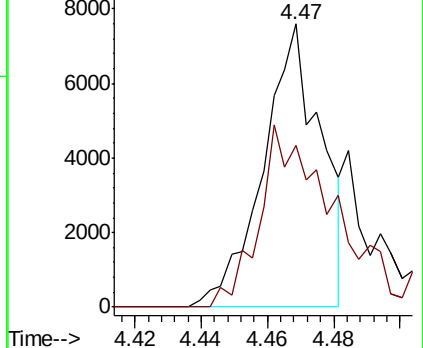
101 100

151 91.1 57.7 86.5#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 5.903 ppbv

RT: 3.60 min Scan# 252

Delta R.T. -0.00 min

Lab File: VL037080.D

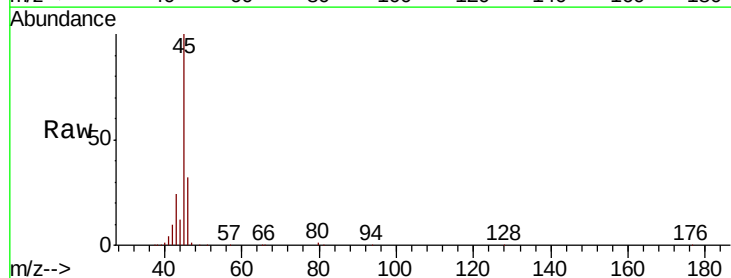
Acq: 1 Jun 2021 21:37

Tgt Ion: 45 Resp: 65410

Ion Ratio Lower Upper

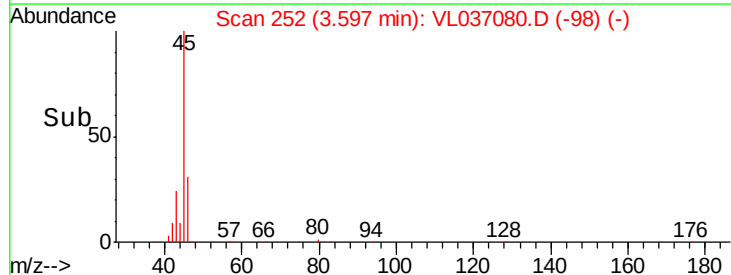
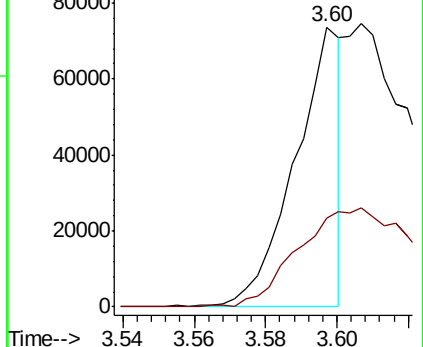
45 100

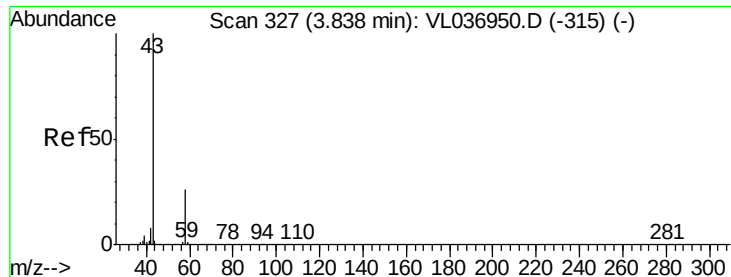
46 0.0 16.3 65.3#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 6.644 ppbv

RT: 3.84 min Scan# 328

Delta R.T. 0.00 min

Lab File: VL037080.D

Acq: 1 Jun 2021 21:37

Instrument :

MSVOA_L

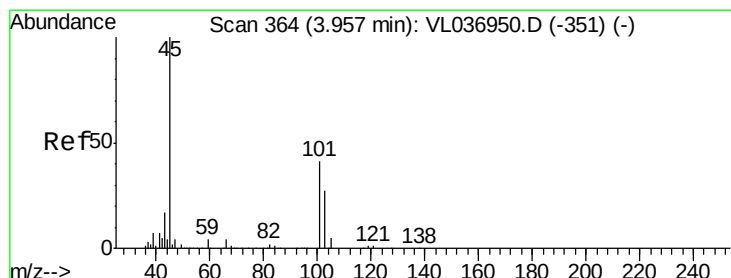
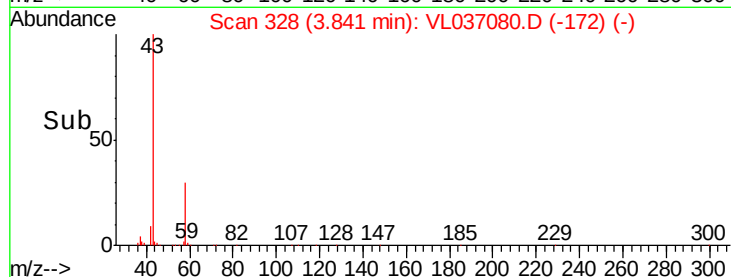
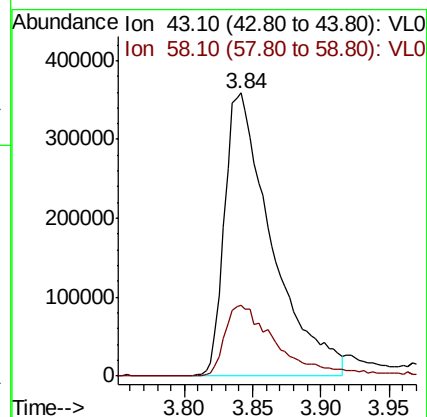
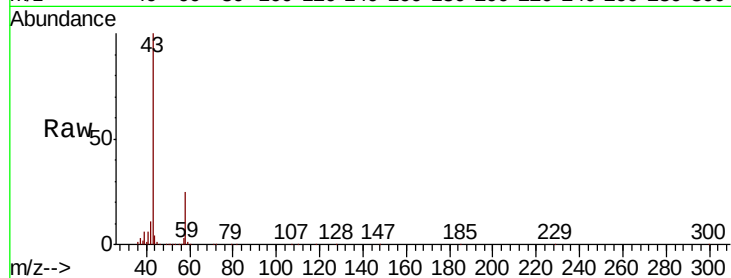
ClientSampleId :

Tot Ion: 43 Resp: 861493

Ion Ratio Lower Upper

43 100

58 28.3 24.0 36.0



#19

Isopropyl Alcohol

Concen: 0.603 ppbv

RT: 3.98 min Scan# 371

Delta R.T. 0.02 min

Lab File: VL037080.D

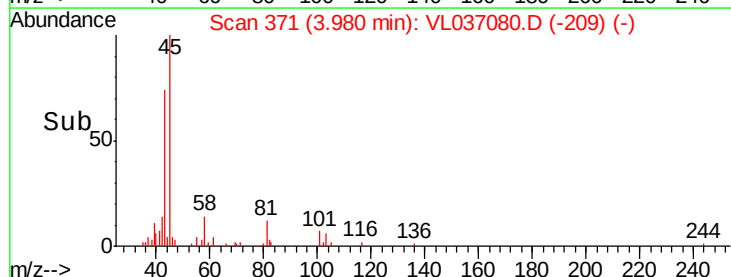
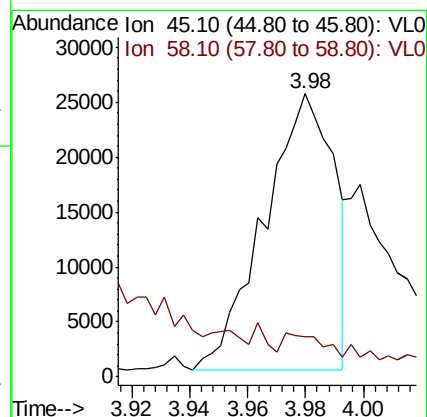
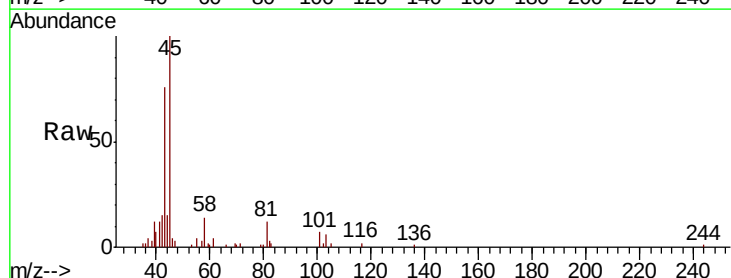
Acq: 1 Jun 2021 21:37

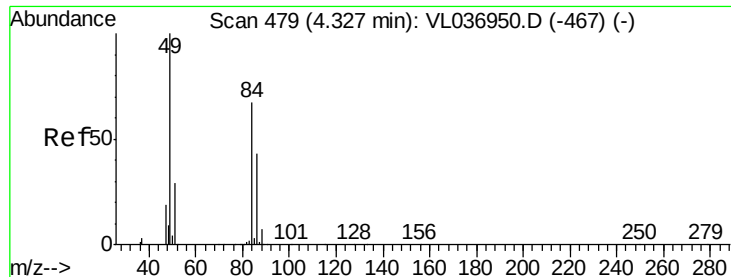
Tgt Ion: 45 Resp: 42032

Ion Ratio Lower Upper

45 100

58 18.6 37.2 55.8#

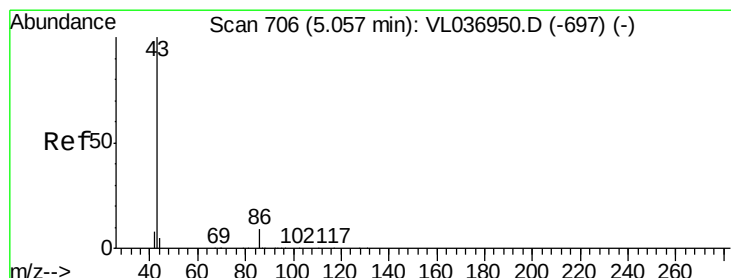
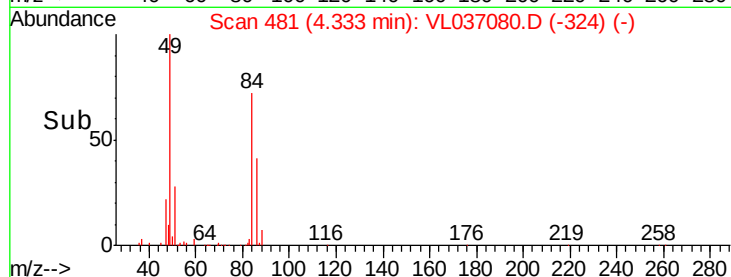
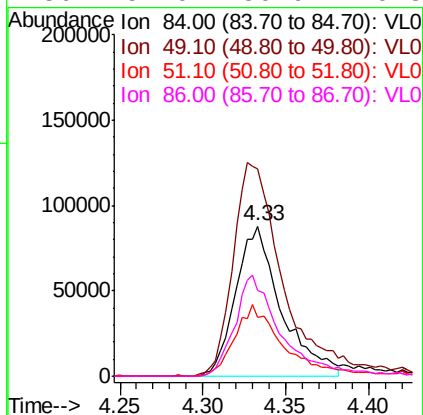
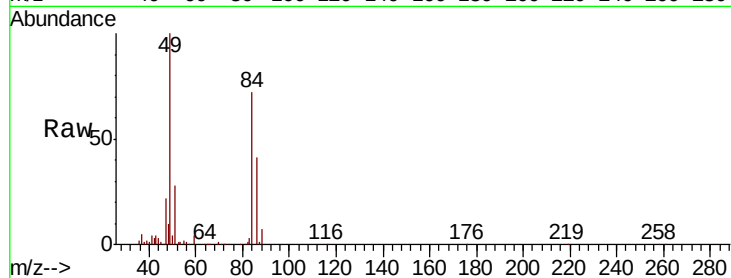




#20
Methylene Chloride
Concen: 2.412 ppbv
RT: 4.33 min Scan# 481
Delta R.T. 0.01 min
Lab File: VL037080.D
Acq: 1 Jun 2021 21:37

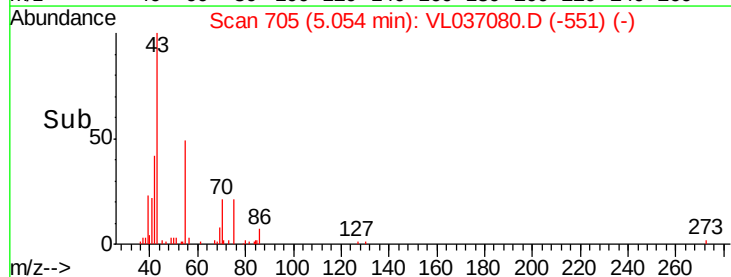
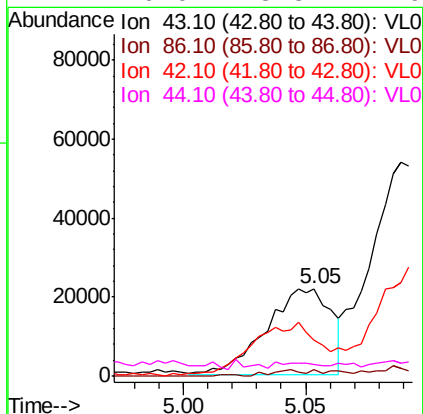
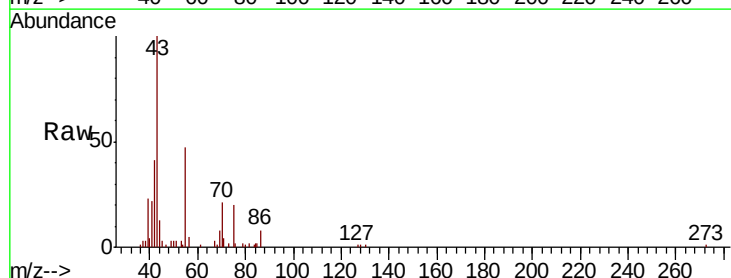
Instrument :
MSVOA_L
ClientSampleId :

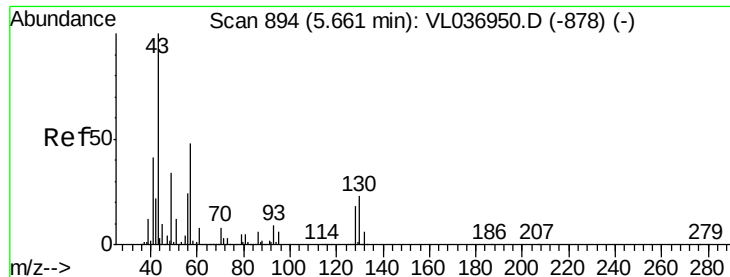
Tot Ion:	84	Resp:	167663
Ion	Ratio	Lower	Upper
84	100		
49	138.4	119.8	179.6
51	39.2	35.1	52.7
86	57.0	50.9	76.3



#23
Vinyl Acetate
Concen: 0.194 ppbv
RT: 5.05 min Scan# 705
Delta R.T. -0.00 min
Lab File: VL037080.D
Acq: 1 Jun 2021 21:37

Tgt Ion:	43	Resp:	39948
Ion	Ratio	Lower	Upper
43	100		
86	8.1	5.8	8.8
42	38.2	7.4	11.2#
44	0.0	3.3	4.9#

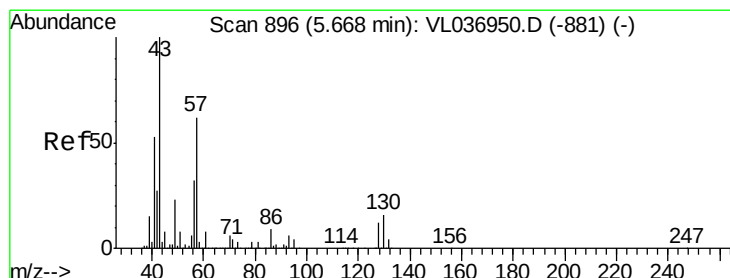
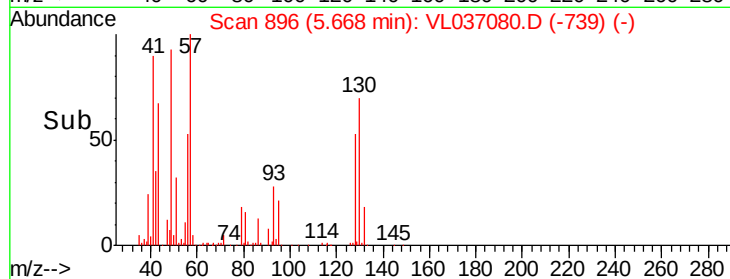
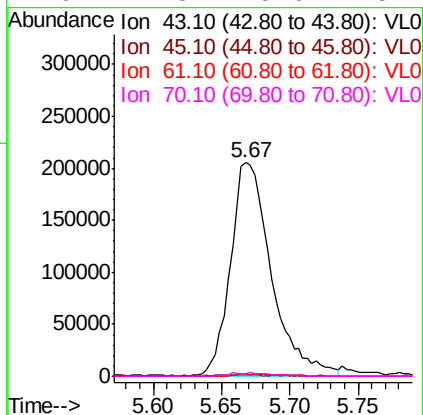
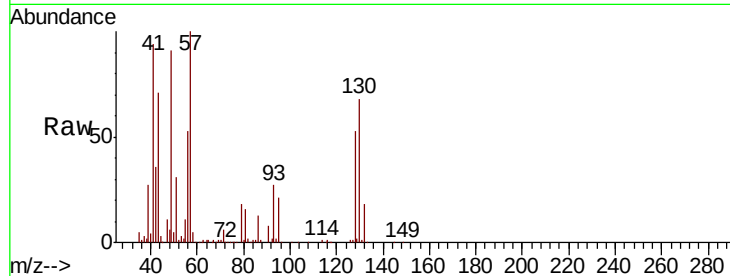




#25
Ethyl Acetate
Concen: 1.365 ppbv
RT: 5.67 min Scan# 896
Delta R.T. 0.01 min
Lab File: VL037080.D
Acq: 1 Jun 2021 21:37

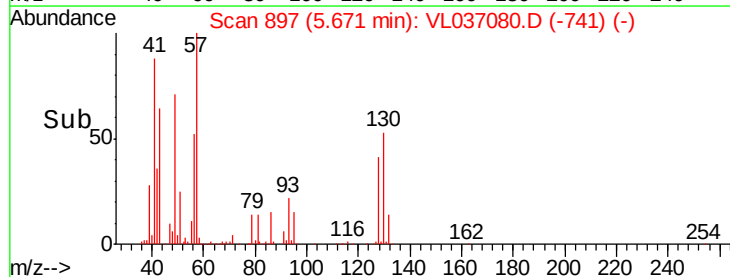
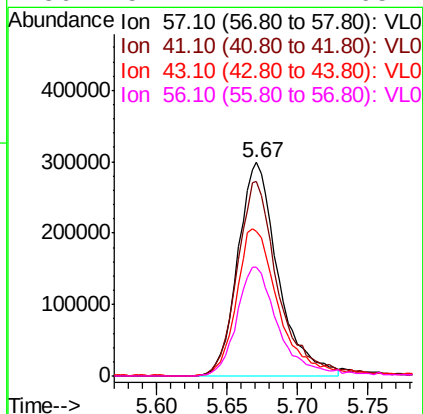
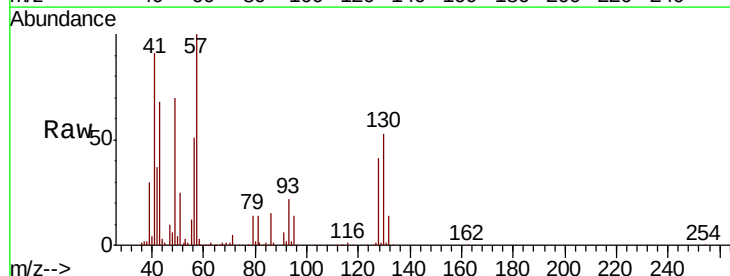
Instrument :
MSVOA_L
ClientSampleId :

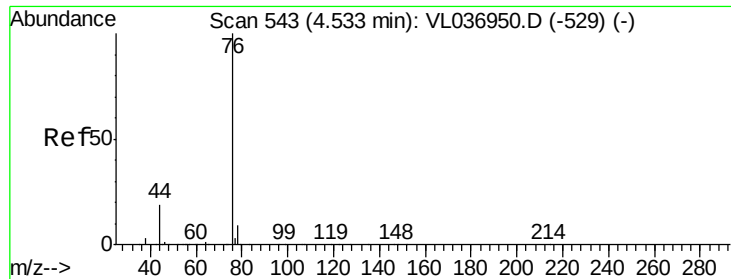
Tot Ion:	43	Resp:	425219
Ion	Ratio	Lower	Upper
43	100		
45	1.5	7.8	11.8#
61	0.7	7.8	11.8#
70	1.8	5.6	8.4#



#26
Hexane
Concen: 3.747 ppbv
RT: 5.67 min Scan# 897
Delta R.T. 0.00 min
Lab File: VL037080.D
Acq: 1 Jun 2021 21:37

Tgt Ion:	57	Resp:	596385
Ion	Ratio	Lower	Upper
57	100		
41	94.3	70.5	105.7
43	73.2	165.8	248.8#
56	54.1	42.2	63.4





#27

Carbon Disulfide

Concen: 0.031 ppbv

RT: 4.54 min Scan# 544

Delta R.T. 0.00 min

Lab File: VL037080.D

Acq: 1 Jun 2021 21:37

Instrument :

MSVOA_L

ClientSampleId :

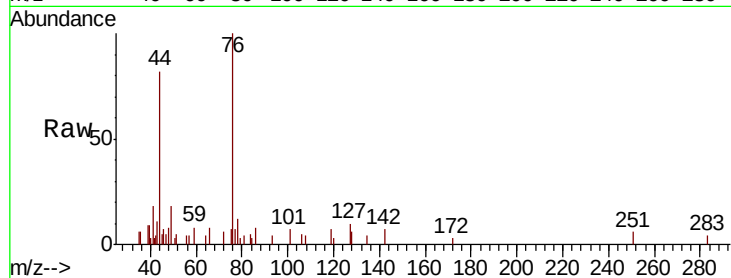
Tot Ion: 76 Resp: 4925

Ion Ratio Lower Upper

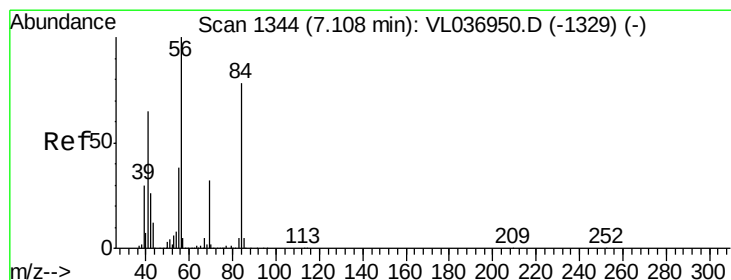
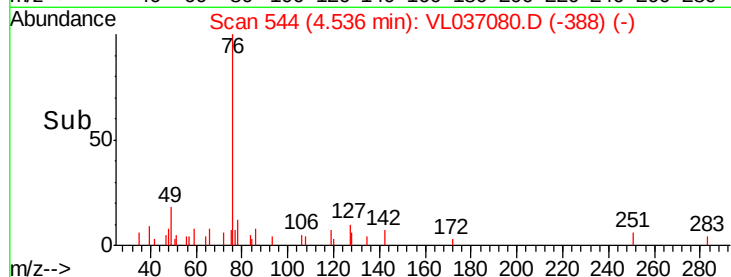
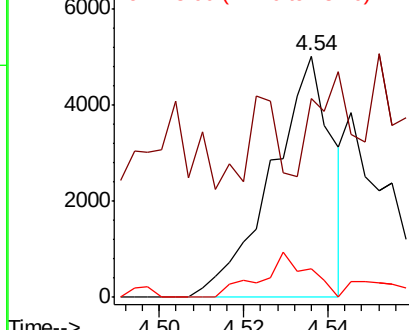
76 100

44 0.0 15.5 23.3#

78 14.8 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



#30

Cyclohexane

Concen: 0.059 ppbv

RT: 7.11 min Scan# 1345

Delta R.T. 0.00 min

Lab File: VL037080.D

Acq: 1 Jun 2021 21:37

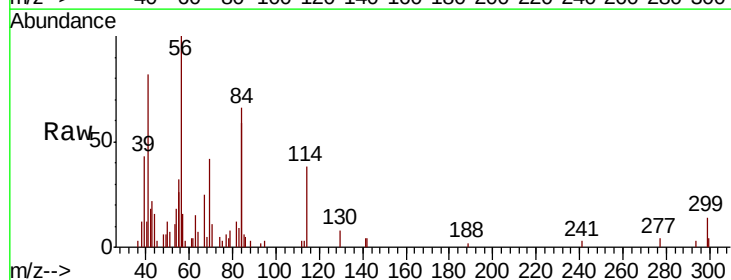
Tgt Ion: 84 Resp: 7952

Ion Ratio Lower Upper

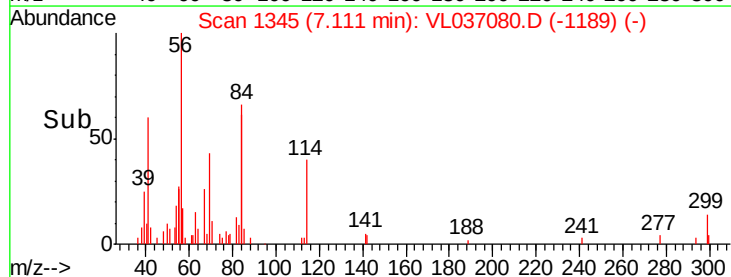
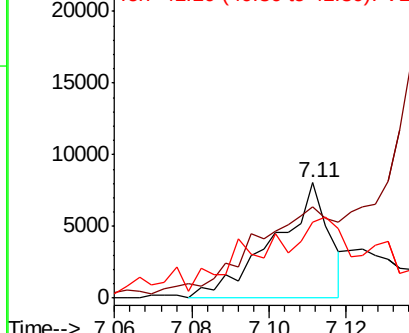
84 100

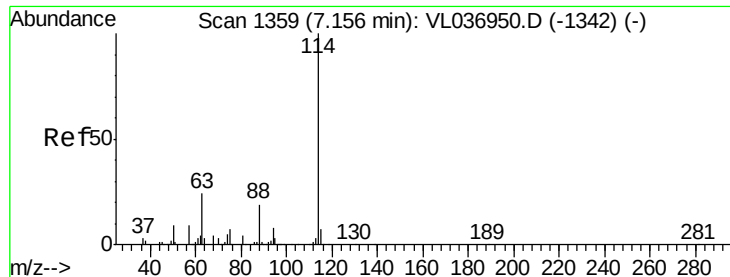
56 0.0 107.9 161.9#

41 155.7 65.5 98.3#



Abundance Ion 84.20 (83.90 to 84.90): VL0
Ion 56.10 (55.80 to 56.80): VL0
Ion 41.10 (40.80 to 41.80): VL0

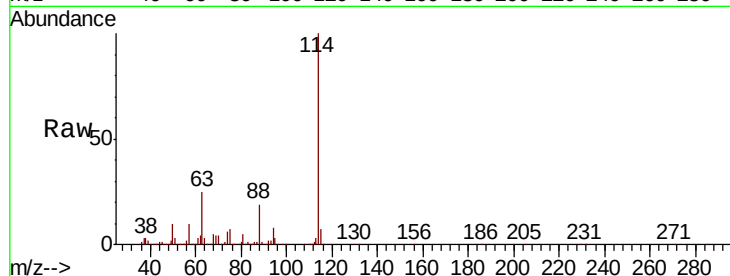




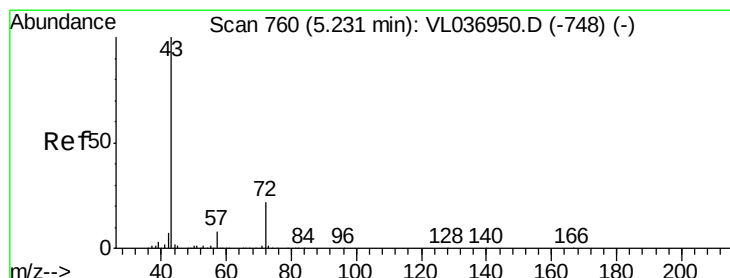
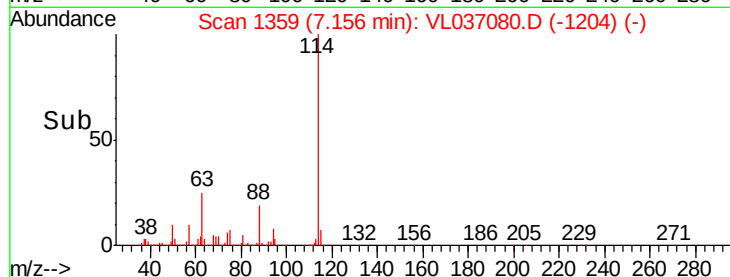
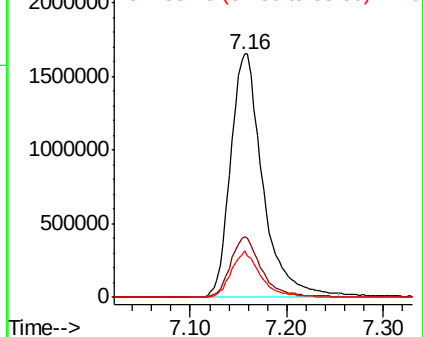
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.16 min Scan# 1359
 Delta R.T. -0.00 min
 Lab File: VL037080.D
 Acq: 1 Jun 2021 21:37

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:114 Resp: 3833511
 Ion Ratio Lower Upper
 114 100
 63 24.3 19.6 29.4
 88 17.9 14.6 21.8

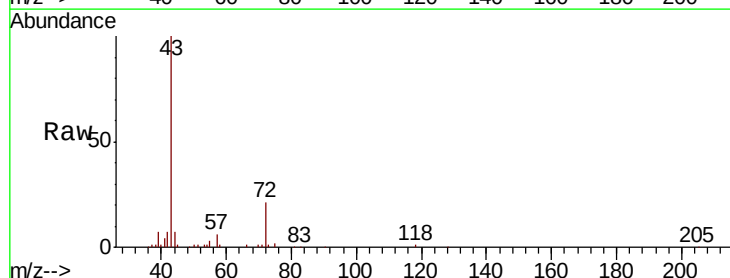


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

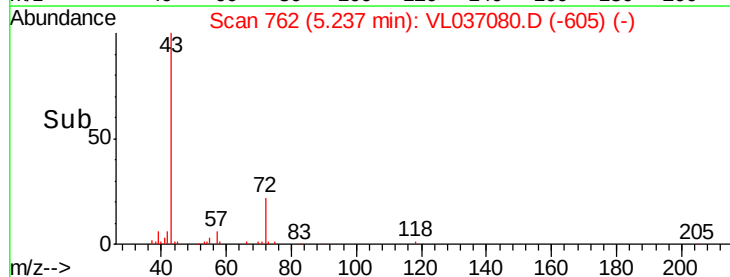
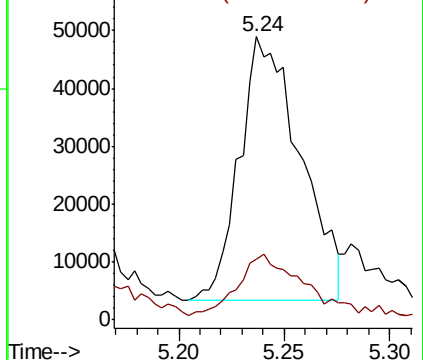


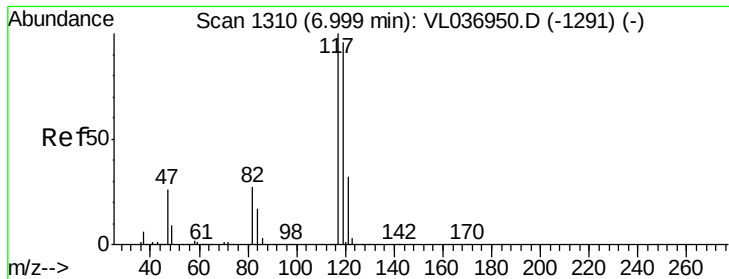
#34
 2-Butanone
 Concen: 0.648 ppbv
 RT: 5.24 min Scan# 762
 Delta R.T. 0.01 min
 Lab File: VL037080.D
 Acq: 1 Jun 2021 21:37

Tgt Ion: 43 Resp: 90415
 Ion Ratio Lower Upper
 43 100
 72 33.2 19.0 28.4#



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





#35

Carbon Tetrachloride

Concen: 0.038 ppbv

RT: 7.00 min Scan# 1311

Delta R.T. 0.00 min

Lab File: VL037080.D

Acq: 1 Jun 2021 21:37

Instrument :

MSVOA_L

ClientSampleId :

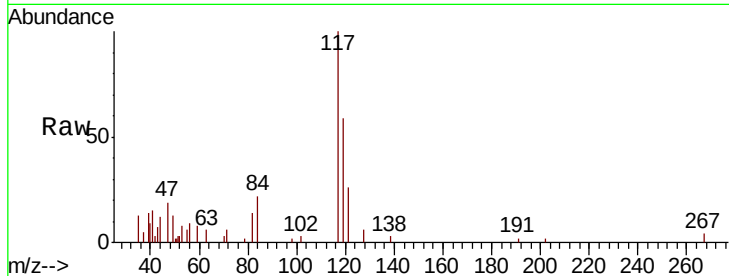
Tot Ion:117 Resp: 9779

Ion Ratio Lower Upper

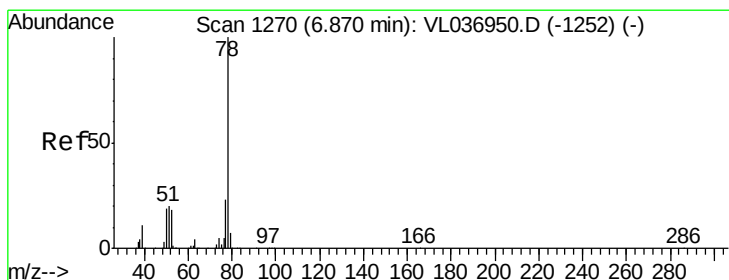
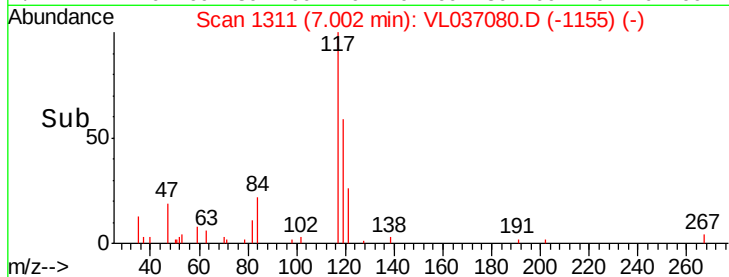
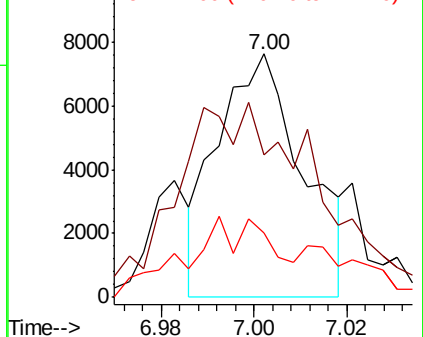
117 100

119 46.3 76.6 114.8#

121 23.3 25.8 38.6#



Abundance Ion 117.00 (116.70 to 117.70): V
Ion 119.00 (118.70 to 119.70): V
Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.202 ppbv

RT: 6.87 min Scan# 1270

Delta R.T. -0.00 min

Lab File: VL037080.D

Acq: 1 Jun 2021 21:37

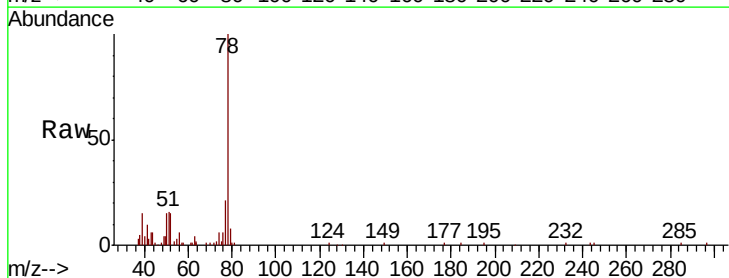
Tgt Ion: 78 Resp: 66829

Ion Ratio Lower Upper

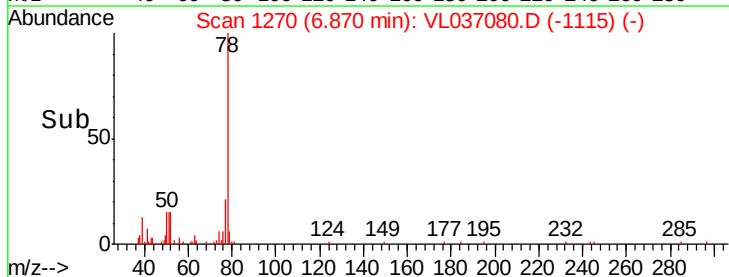
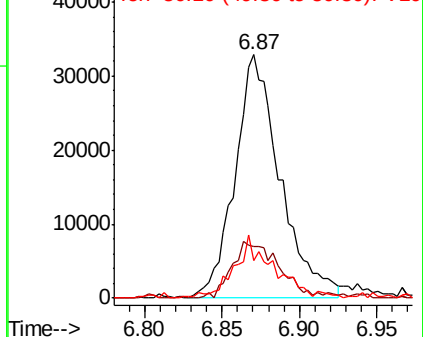
78 100

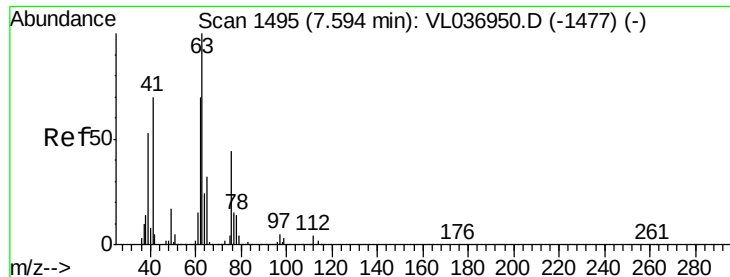
77 21.3 18.6 28.0

50 14.7 15.0 22.4#



Abundance Ion 78.10 (77.80 to 78.80): VL0
Ion 77.10 (76.80 to 77.80): VL0
Ion 50.10 (49.80 to 50.80): VL0





#39

1,2-Dichloropropane

Concen: 7.216 ppbv

RT: 7.16 min Scan# 1359

Delta R.T. -0.44 min

Lab File: VL037080.D

Acq: 1 Jun 2021 21:37

Instrument :

MSVOA_L

ClientSampleId :

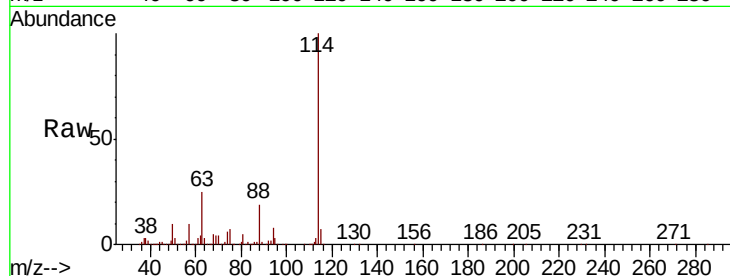
Tot Ion: 63 Resp: 917837

Ion Ratio Lower Upper

63 100

41 0.0 55.7 83.5#

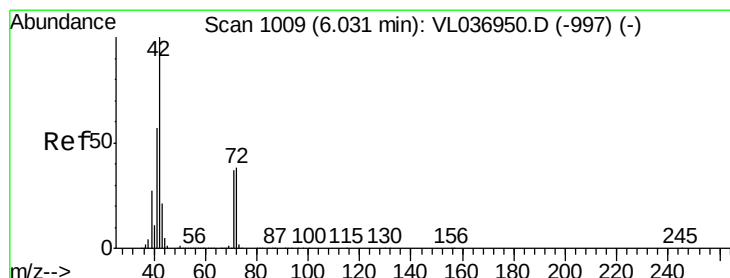
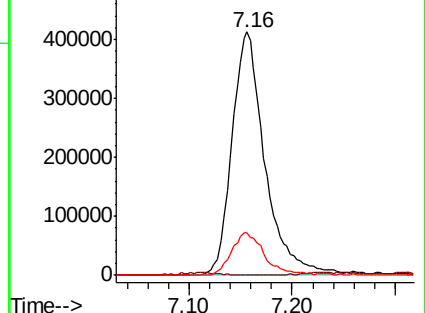
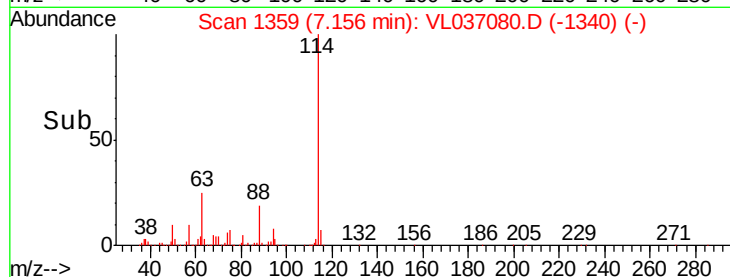
62 17.7 56.2 84.4#



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



#41

Tetrahydrofuran

Concen: 2.846 ppbv

RT: 5.67 min Scan# 897

Delta R.T. -0.36 min

Lab File: VL037080.D

Acq: 1 Jun 2021 21:37

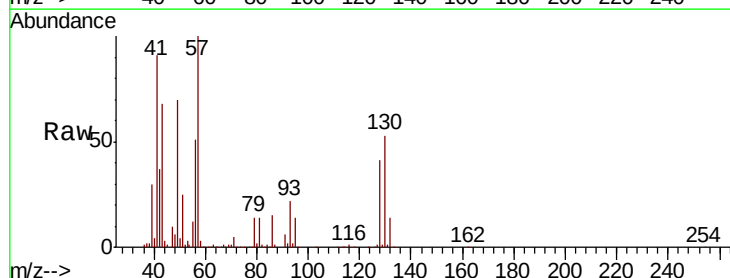
Tgt Ion: 42 Resp: 226224

Ion Ratio Lower Upper

42 100

72 1.4 31.4 47.2#

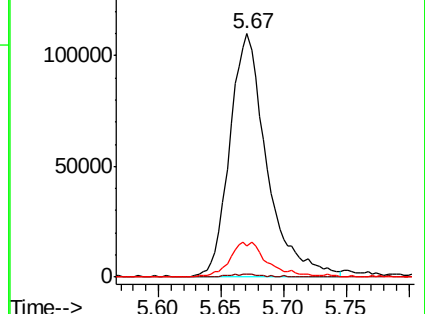
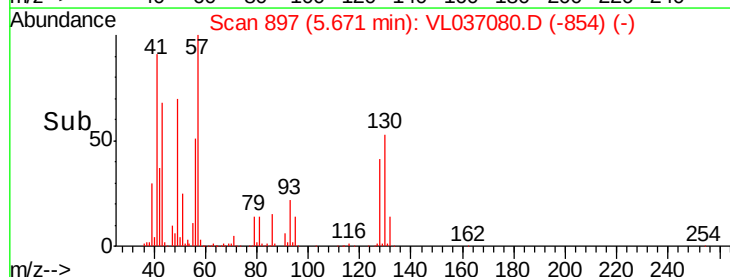
71 15.3 30.4 45.6#

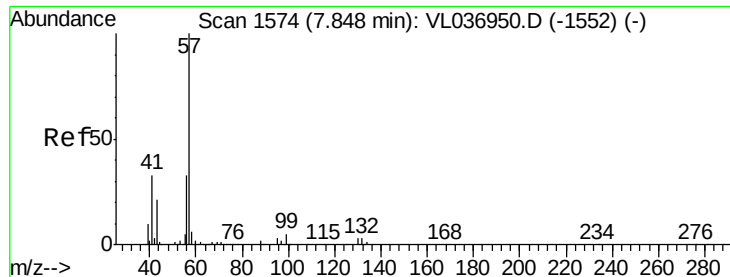


Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0





#44

2,2,4-Trimethylpentane

Concen: 0.203 ppbv

RT: 7.85 min Scan# 1574

Delta R.T. -0.00 min

Lab File: VL037080.D

Acq: 1 Jun 2021 21:37

Instrument :

MSVOA_L

ClientSampleId :

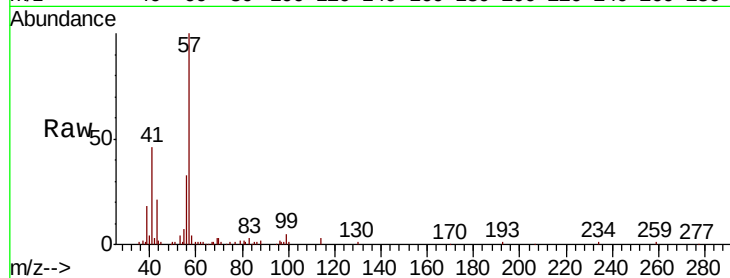
Tot Ion: 57 Resp: 114952

Ion Ratio Lower Upper

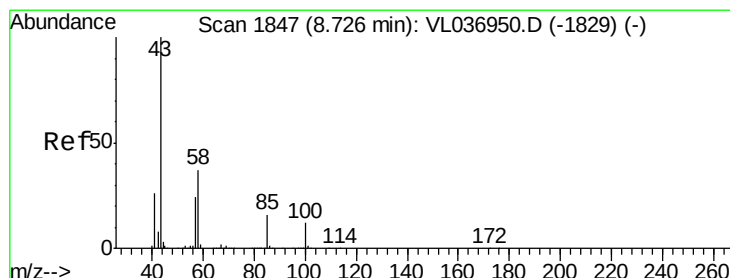
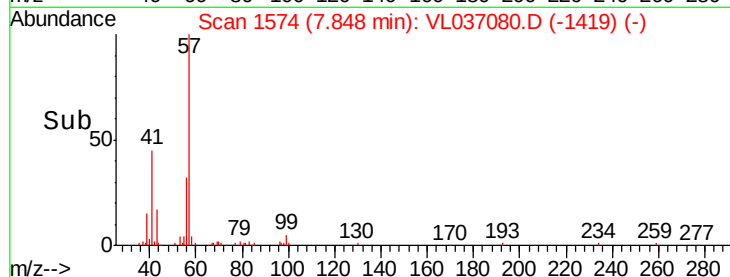
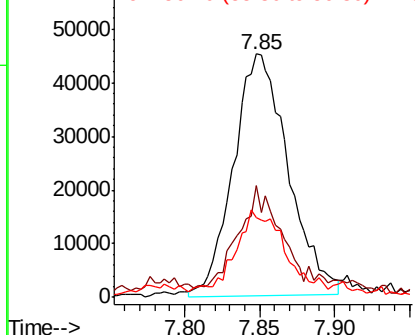
57 100

41 42.7 27.0 40.4#

56 36.8 25.4 38.2



Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 56.10 (55.80 to 56.80): VL0



#50

4-Methyl-2-Pentanone

Concen: 0.088 ppbv

RT: 8.75 min Scan# 1854

Delta R.T. 0.02 min

Lab File: VL037080.D

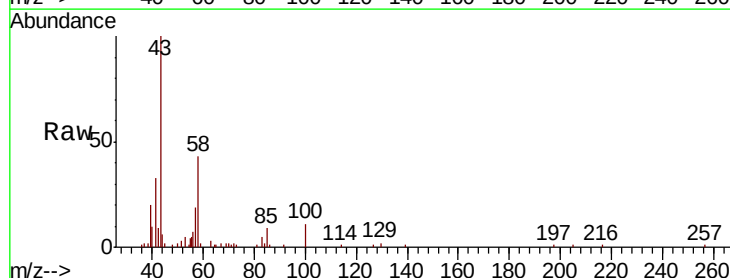
Acq: 1 Jun 2021 21:37

Tgt Ion: 43 Resp: 20365

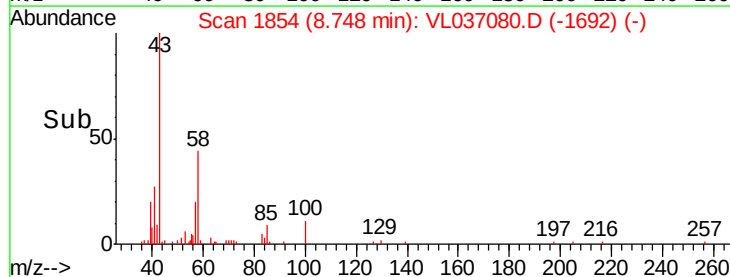
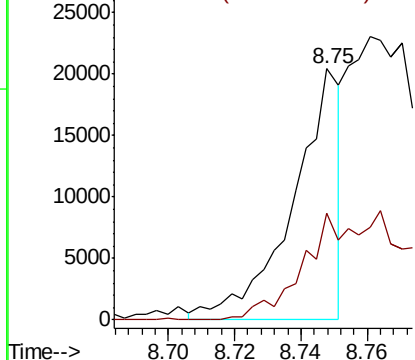
Ion Ratio Lower Upper

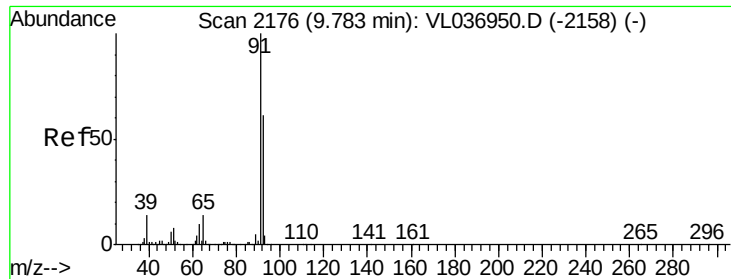
43 100

58 0.0 29.4 44.2#



Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 58.10 (57.80 to 58.80): VL0





#53

Toluene

Concen: 2.610 ppbv

RT: 9.78 min Scan# 2176

Delta R.T. -0.00 min

Lab File: VL037080.D

Acq: 1 Jun 2021 21:37

Instrument :

MSVOA_L

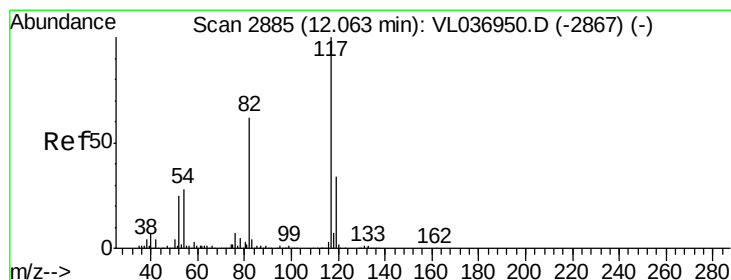
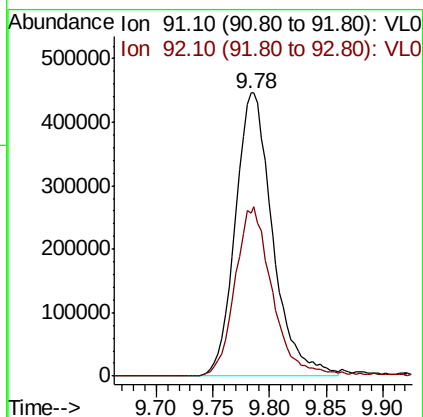
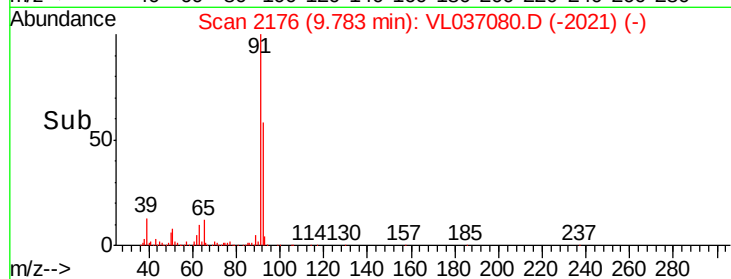
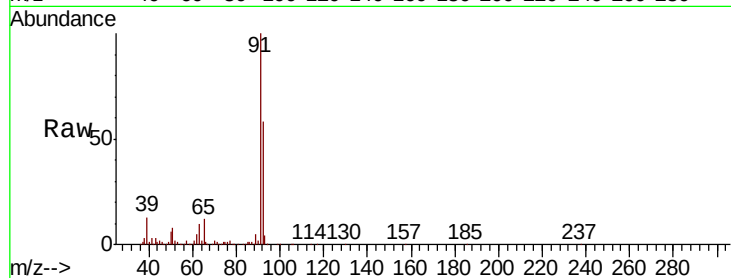
ClientSampleId :

Tot Ion: 91 Resp: 1025382

Ion Ratio Lower Upper

91 100

92 61.2 49.5 74.3



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2886

Delta R.T. 0.00 min

Lab File: VL037080.D

Acq: 1 Jun 2021 21:37

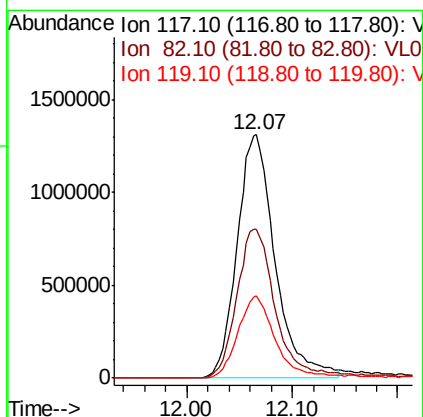
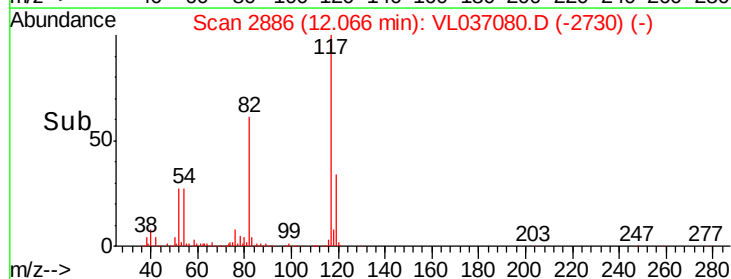
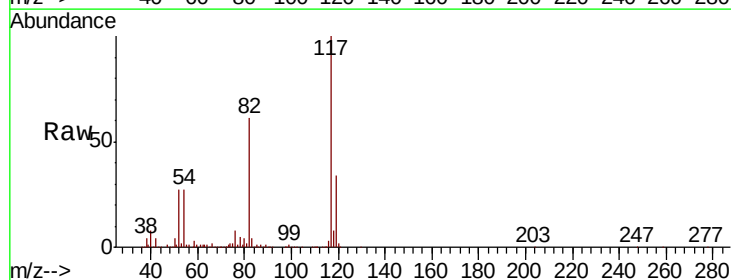
Tgt Ion: 117 Resp: 3281790

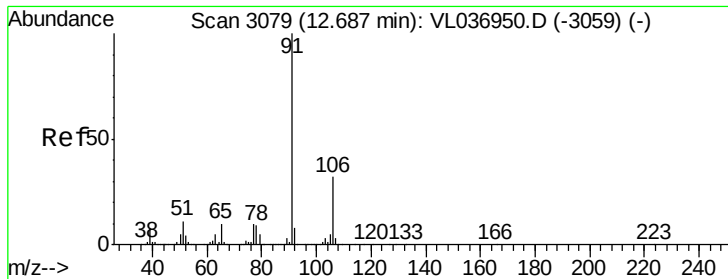
Ion Ratio Lower Upper

117 100

82 63.6 52.6 79.0

119 34.2 46.6 70.0#





#58

Ethyl Benzene

Concen: 0.054 ppbv

RT: 12.94 min Scan# 3159

Delta R.T. 0.26 min

Lab File: VL037080.D

Acq: 1 Jun 2021 21:37

Instrument :

MSVOA_L

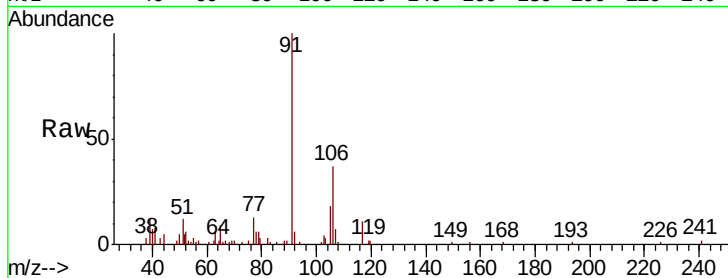
ClientSampled :

Tot Ion: 91 Resp: 25170

Ion Ratio Lower Upper

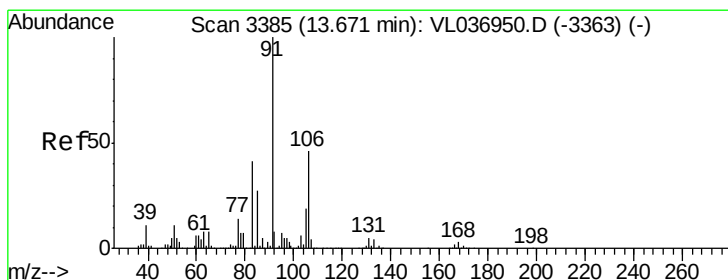
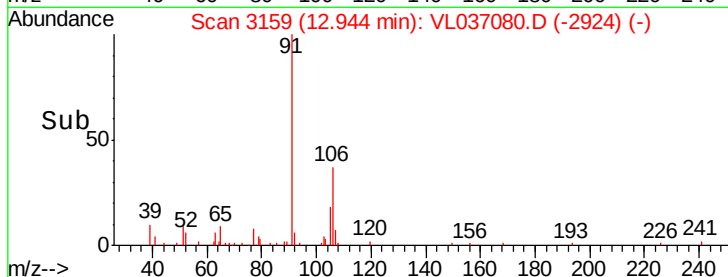
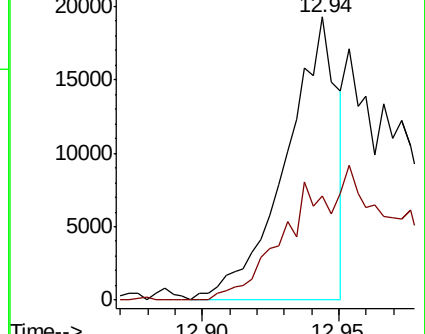
91 100

106 36.9 25.6 38.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#60

o-Xylene

Concen: 0.031 ppbv

RT: 13.67 min Scan# 3385

Delta R.T. -0.00 min

Lab File: VL037080.D

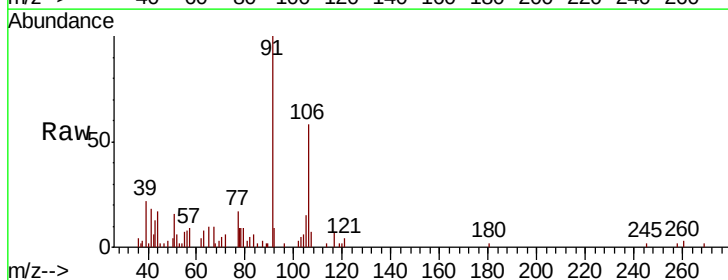
Acq: 1 Jun 2021 21:37

Tgt Ion: 91 Resp: 11230

Ion Ratio Lower Upper

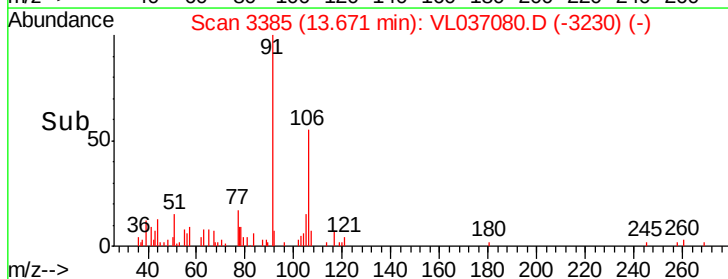
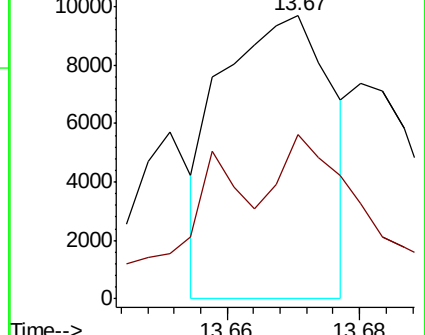
91 100

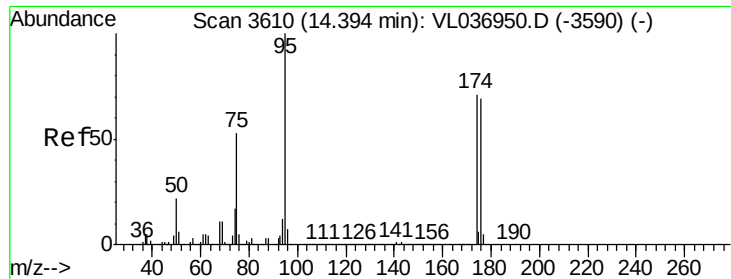
106 101.2 23.4 70.3#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

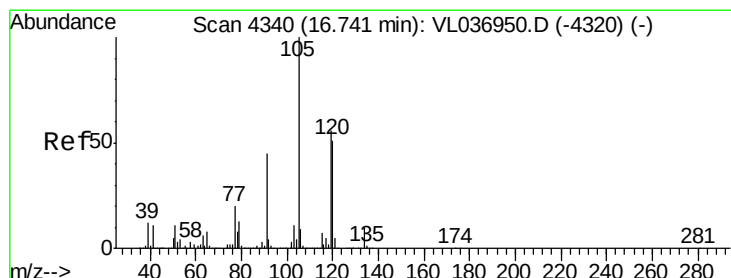
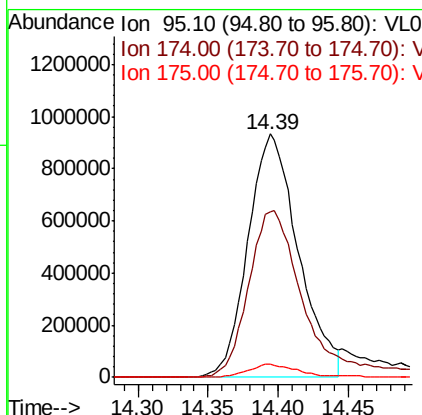
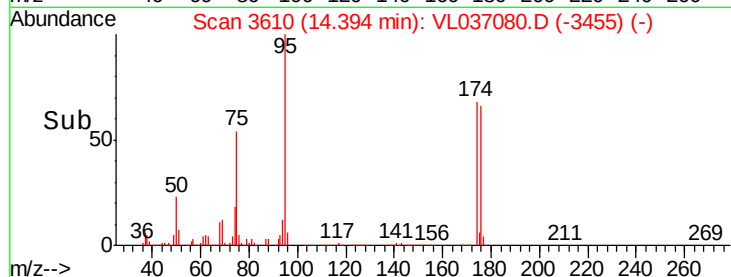
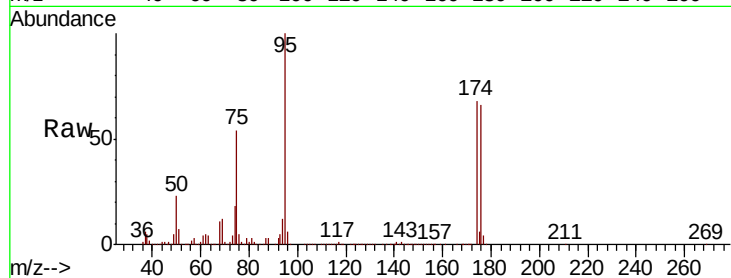




#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.447 ppbv
 RT: 14.39 min Scan# 3610
 Delta R.T. -0.00 min
 Lab File: VL037080.D
 Acq: 1 Jun 2021 21:37

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion: 95 Resp: 2328961
 Ion Ratio Lower Upper
 95 100
 174 80.3 58.4 87.6
 175 5.9 4.4 6.6



#74
 1,2,4-Trimethylbenzene
 Concen: 0.046 ppbv
 RT: 16.74 min Scan# 4341
 Delta R.T. 0.00 min
 Lab File: VL037080.D
 Acq: 1 Jun 2021 21:37

Tgt Ion: 105 Resp: 19417
 Ion Ratio Lower Upper
 105 100
 120 46.1 40.6 61.0
 91 9.3 37.4 56.0#
 77 12.9 16.2 24.4#

