

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL033021\
 Data File : VL036566.D
 Acq On : 30 Mar 2021 12:19
 Operator : SY/AP
 Sample : M1868-02
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Mar 31 05:13:44 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 25 09:42:40 2021
 QLast Update : Thu Mar 25 09:42:40 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1374364	10.00	ppbv	-0.03
33) 1,4-Difluorobenzene	7.15	114	3098412	10.00	ppbv	-0.03
55) Chlorobenzene-d5	12.06	117	2775518	10.00	ppbv	-0.04

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.39	95	2259804	10.22	ppbv	-0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.20%

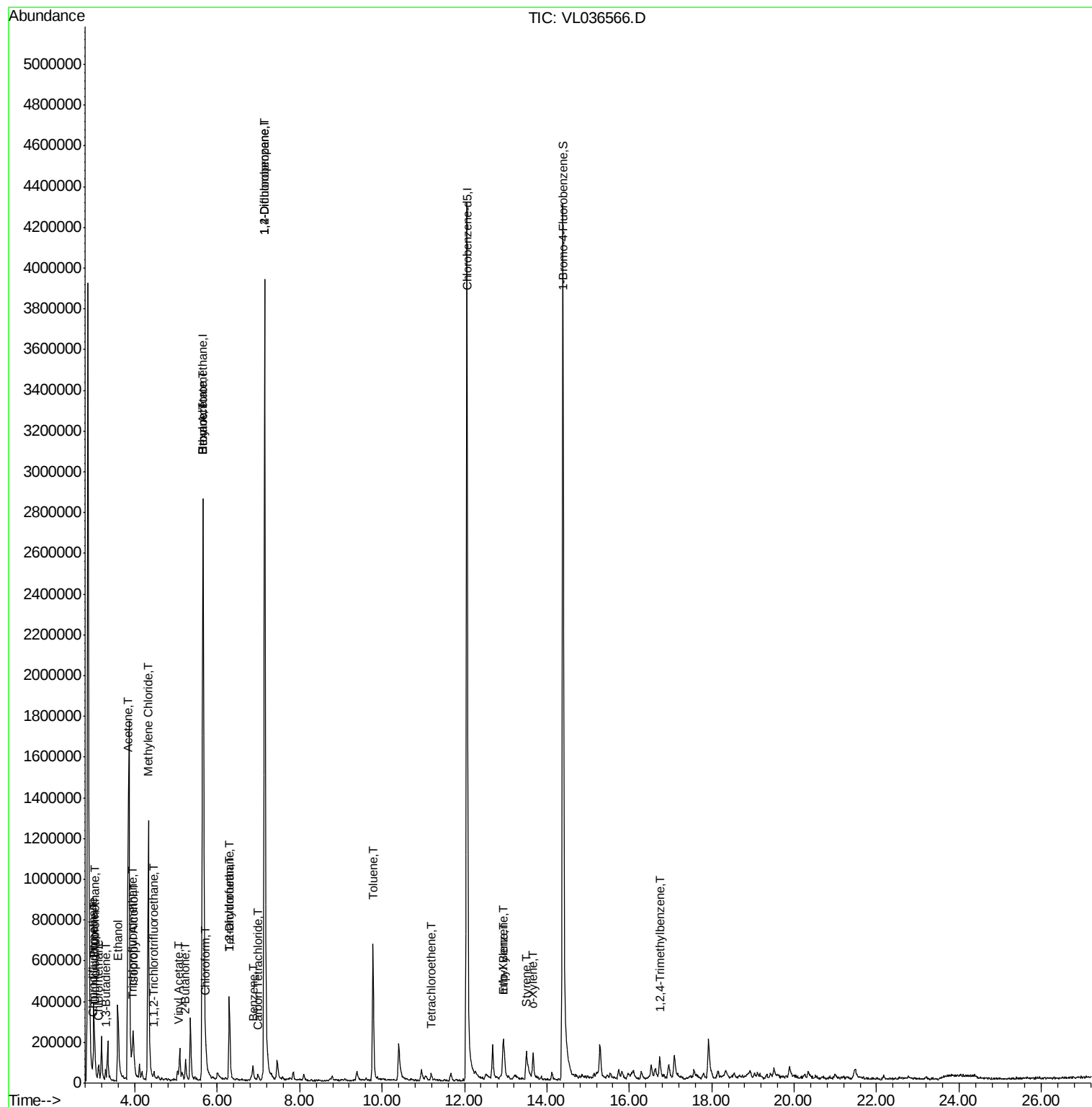
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.03	85	57641	0.257 ppbv	98
3) Chlorodifluoromethane	2.98	51	64887	0.253 ppbv	93
4) Chloromethane	3.12	50	44723	0.493 ppbv	90
9) Propene	3.00	41	56743	0.693 ppbv #	73
11) Trichlorofluoromethane	3.93	101	54084	0.237 ppbv	88
12) 1,1,2-Trichlorotrifluoroet	4.47	101	4989	0.034 ppbv #	11
13) Ethanol	3.59	45	241641	24.788 ppbv #	34
15) Acetone	3.83	43	1999754	14.783 ppbv #	87
16) 1,3-Butadiene	3.30	39	3854	0.041 ppbv #	1
19) Isopropyl Alcohol	3.95	45	261320	3.512 ppbv #	1
20) Methylene Chloride	4.32	84	491577	7.762 ppbv	97
23) Vinyl Acetate	5.06	43	4712	0.020 ppbv #	52
25) Ethyl Acetate	5.66	43	496888	1.545 ppbv #	83
26) Hexane	5.66	57	568861	3.812 ppbv #	50
29) Chloroform	5.72	83	18328	0.077 ppbv	93
34) 2-Butanone	5.22	43	127881	0.846 ppbv	99
35) Carbon Tetrachloride	6.99	117	8575	0.036 ppbv #	62
36) Benzene	6.87	78	19450	0.068 ppbv	95
37) 1,2-Dichloroethane	6.28	62	15023	0.089 ppbv #	82
39) 1,2-Dichloropropane	7.15	63	839185	7.240 ppbv #	23
41) Tetrahydrofuran	6.28	42	12361	0.177 ppbv #	42
52) Tetrachloroethene	11.19	164	3548	0.034 ppbv #	71
53) Toluene	9.78	91	521689	1.714 ppbv	97
58) Ethyl Benzene	12.94	91	142603	0.353 ppbv	89
59) m/p-Xylene	12.94	91	142603	0.405 ppbv #	66
60) o-Xylene	13.67	91	95073	0.279 ppbv	99
61) Styrene	13.50	104	38055	0.222 ppbv #	1
74) 1,2,4-Trimethylbenzene	16.73	105	34983	0.094 ppbv #	62

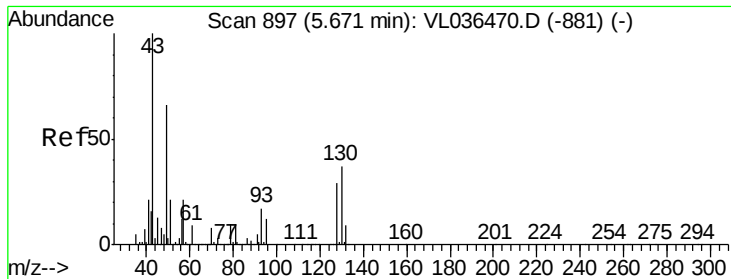
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL033021\
Data File : VL036566.D
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Misc : 400mL/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :

Quant Time: Mar 31 05:13:44 2021
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 25 09:42:40 2021
QLast Update : Thu Mar 25 09:42:40 2021
Response via : Initial Calibration

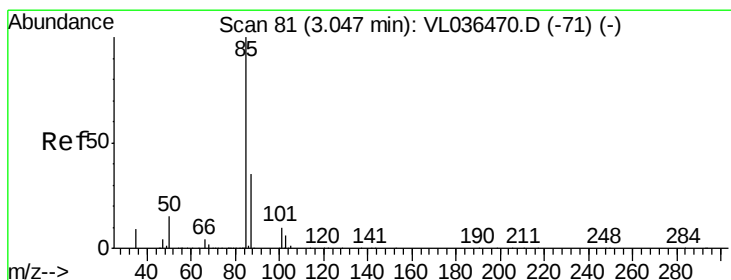
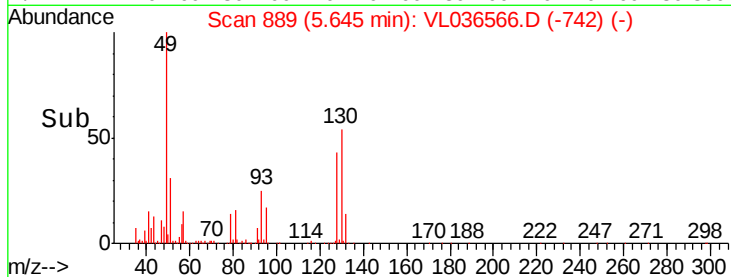
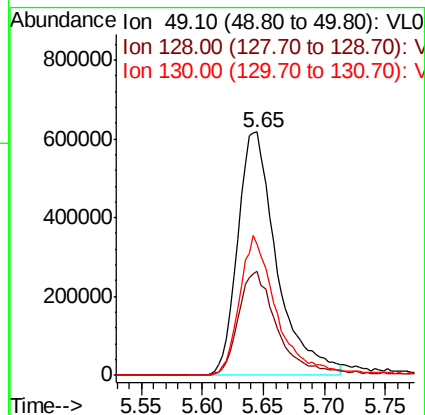
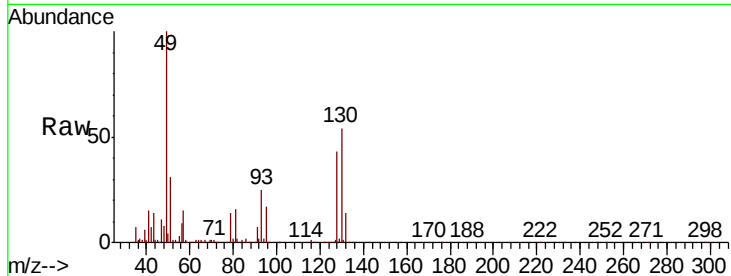




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.65 min Scan# 889
 Delta R.T. -0.03 min
 Lab File: VL036566.D
 Acq: 30 Mar 2021 12:19

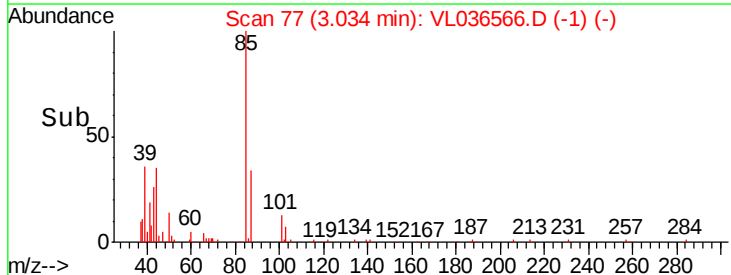
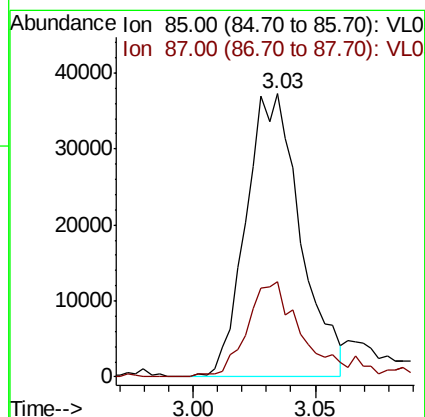
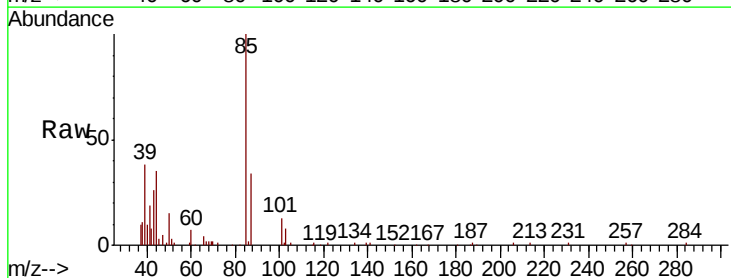
Instrument :
 MSVOA_L
 ClientSampleId :

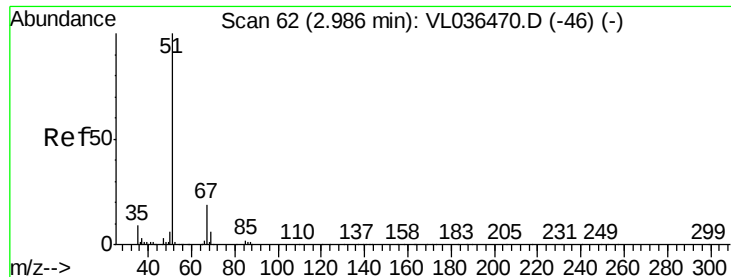
Tot Ion: 49 Resp: 1374364
 Ion Ratio Lower Upper
 49 100
 128 43.7 23.5 70.6
 130 56.1 29.1 87.4



#2
 Dichlorodifluoromethane
 Concen: 0.257 ppbv
 RT: 3.03 min Scan# 77
 Delta R.T. -0.01 min
 Lab File: VL036566.D
 Acq: 30 Mar 2021 12:19

Tgt Ion: 85 Resp: 57641
 Ion Ratio Lower Upper
 85 100
 87 33.5 27.8 41.8





#3

Chlorodifluoromethane

Concen: 0.253 ppbv

RT: 2.98 min Scan# 59

Delta R.T. -0.01 min

Lab File: VL036566.D

Acq: 30 Mar 2021 12:19

Instrument :

MSVOA_L

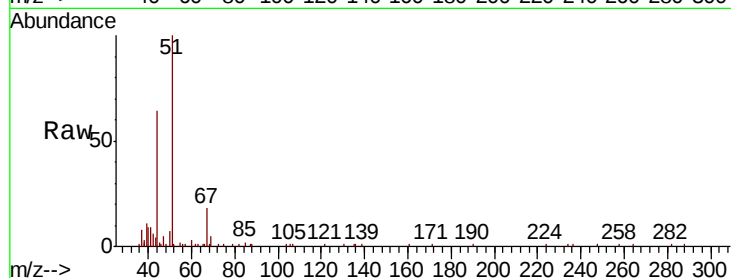
ClientSampleId :

Tot Ion: 51 Resp: 64887

Ion Ratio Lower Upper

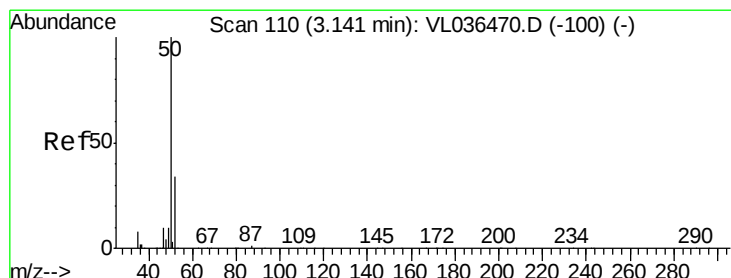
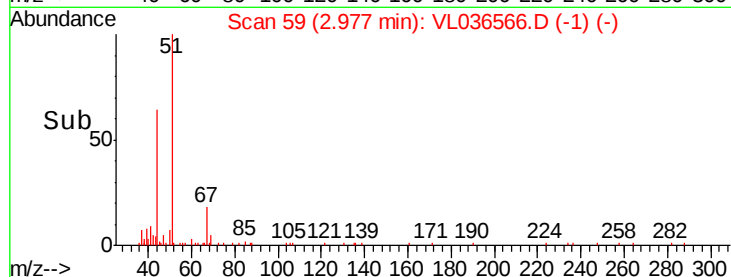
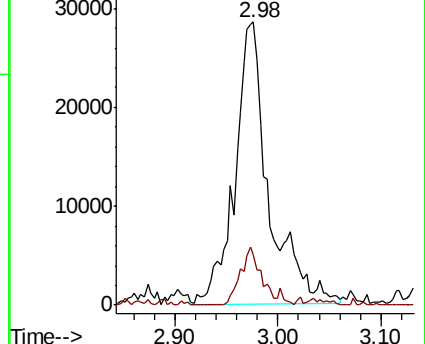
51 100

67 15.1 14.7 22.1



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.493 ppbv

RT: 3.12 min Scan# 104

Delta R.T. -0.02 min

Lab File: VL036566.D

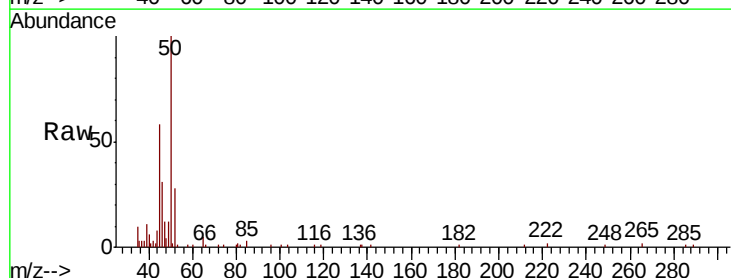
Acq: 30 Mar 2021 12:19

Tgt Ion: 50 Resp: 44723

Ion Ratio Lower Upper

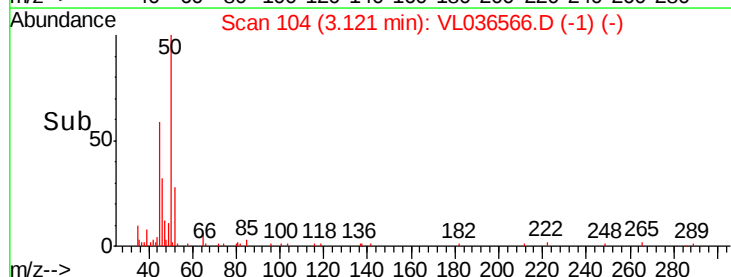
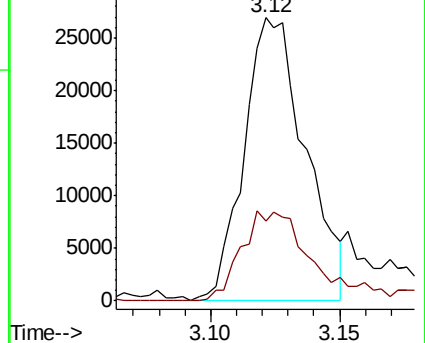
50 100

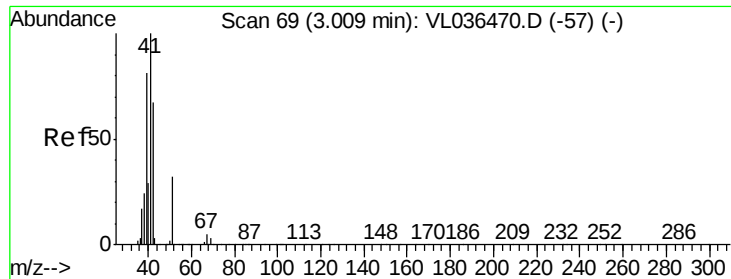
52 28.2 27.0 40.6



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.693 ppbv

RT: 3.00 min Scan# 67

Delta R.T. -0.01 min

Lab File: VL036566.D

Acq: 30 Mar 2021 12:19

Instrument :

MSVOA_L

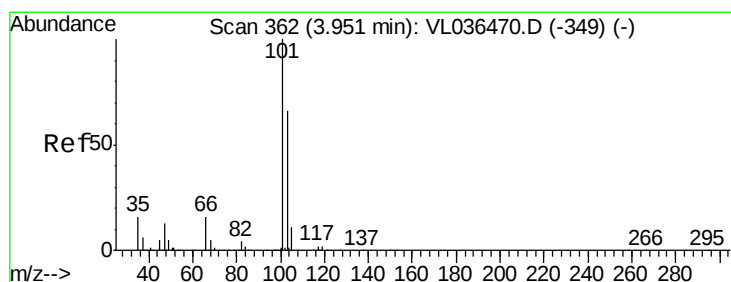
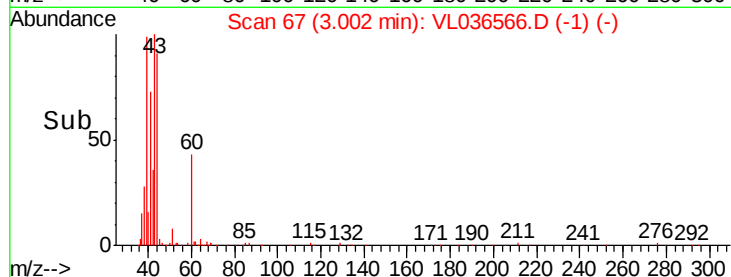
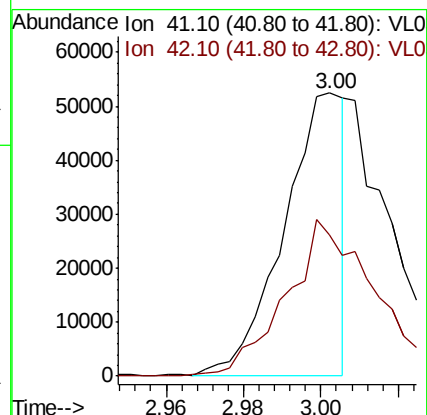
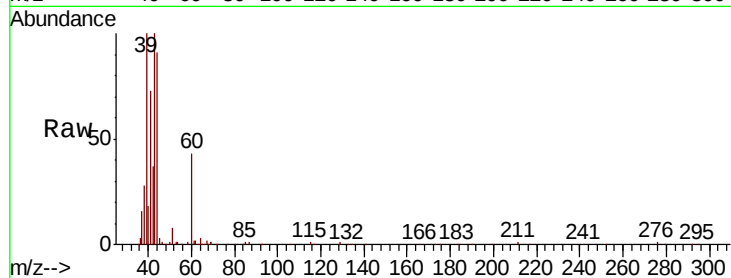
ClientSampleId :

Tot Ion: 41 Resp: 56743

Ion Ratio Lower Upper

41 100

42 93.9 57.0 85.4#



#11

Trichlorofluoromethane

Concen: 0.237 ppbv

RT: 3.93 min Scan# 355

Delta R.T. -0.02 min

Lab File: VL036566.D

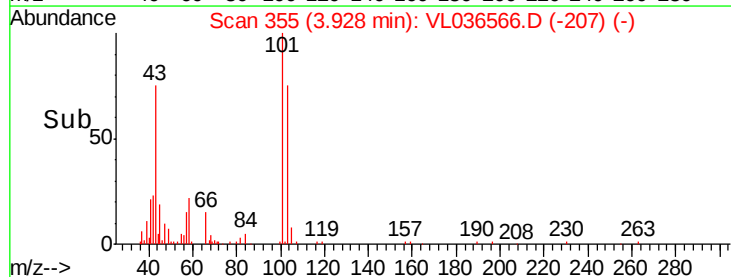
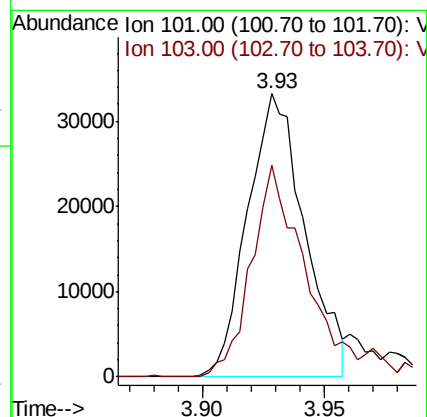
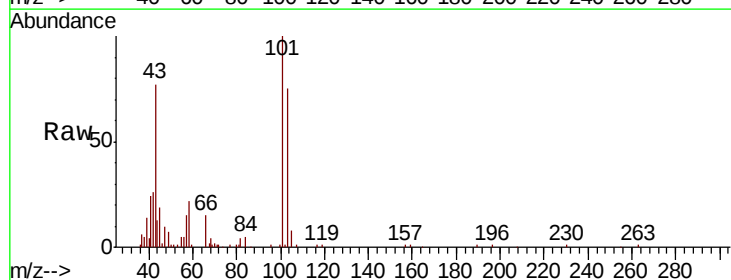
Acq: 30 Mar 2021 12:19

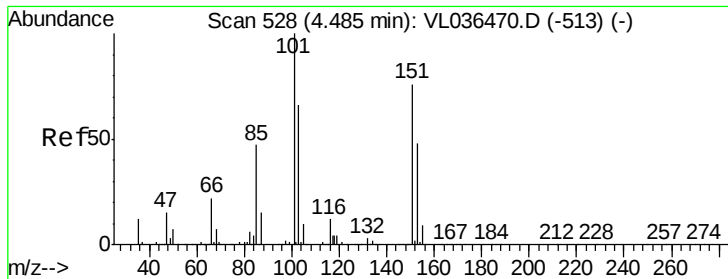
Tgt Ion: 101 Resp: 54084

Ion Ratio Lower Upper

101 100

103 74.7 52.5 78.7





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.034 ppbv

RT: 4.47 min Scan# 523

Delta R.T. -0.02 min

Lab File: VL036566.D

Acq: 30 Mar 2021 12:19

Instrument :

MSVOA_L

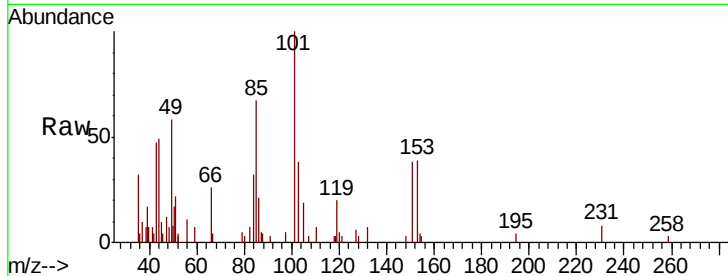
ClientSampleId :

Tot Ion:101 Resp: 4989

Ion Ratio Lower Upper

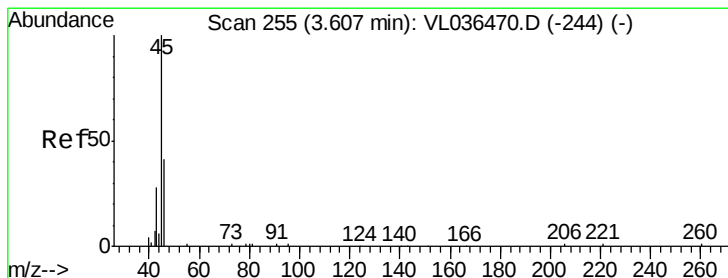
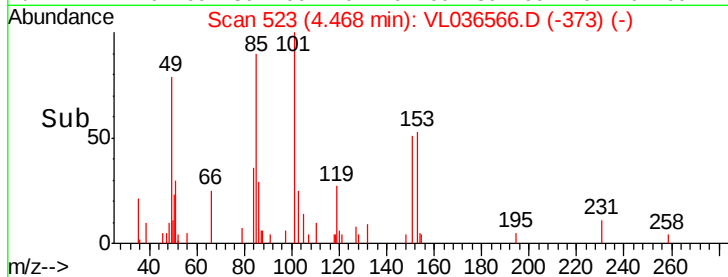
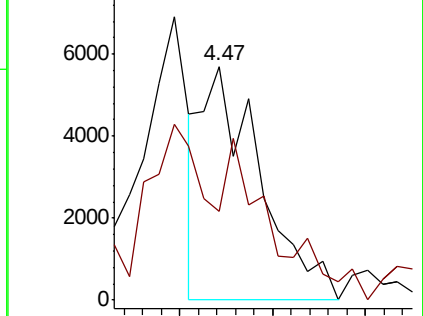
101 100

151 0.0 60.9 91.3#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 24.788 ppbv

RT: 3.59 min Scan# 251

Delta R.T. -0.01 min

Lab File: VL036566.D

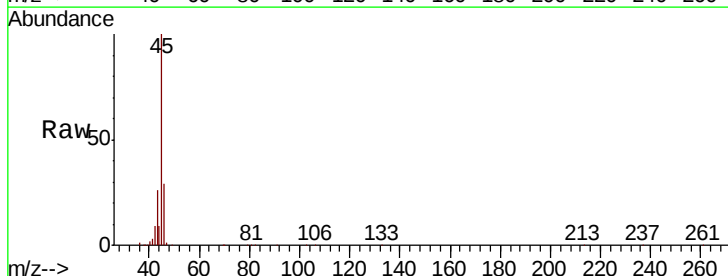
Acq: 30 Mar 2021 12:19

Tgt Ion: 45 Resp: 241641

Ion Ratio Lower Upper

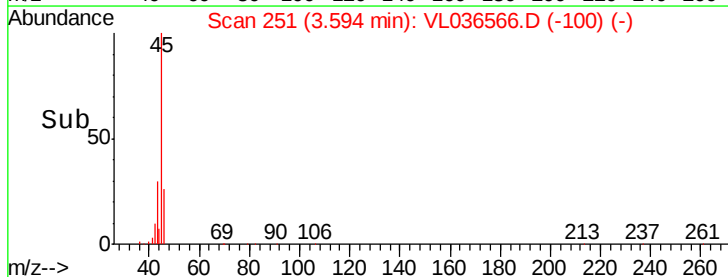
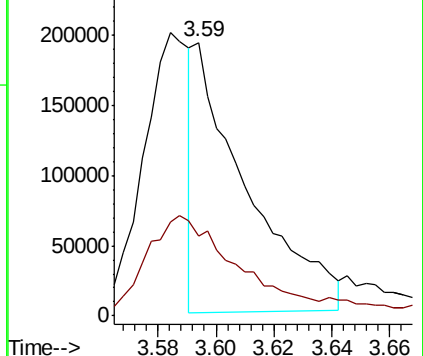
45 100

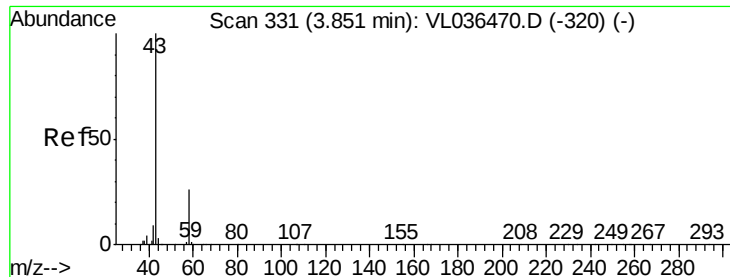
46 0.0 16.6 66.2#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 14.783 ppbv

RT: 3.83 min Scan# 325

Delta R.T. -0.02 min

Lab File: VL036566.D

Acq: 30 Mar 2021 12:19

Instrument :

MSVOA_L

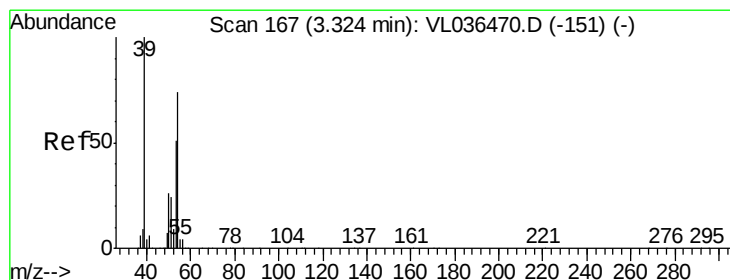
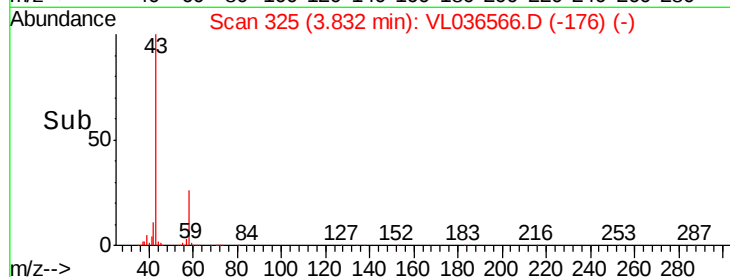
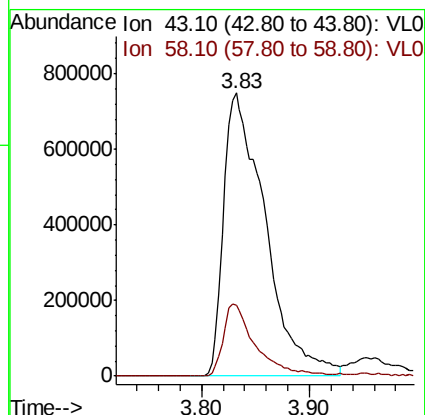
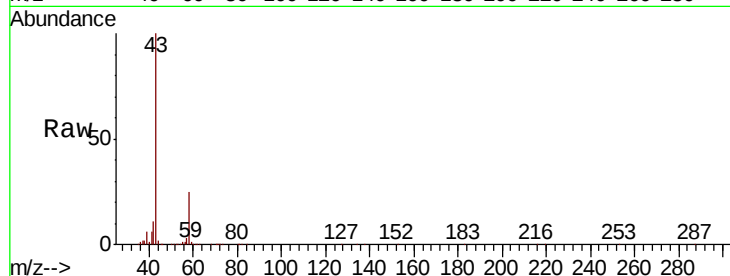
ClientSampleId :

Tot Ion: 43 Resp: 1999754

Ion Ratio Lower Upper

43 100

58 20.0 21.2 31.8#



#16

1,3-Butadiene

Concen: 0.041 ppbv

RT: 3.30 min Scan# 160

Delta R.T. -0.02 min

Lab File: VL036566.D

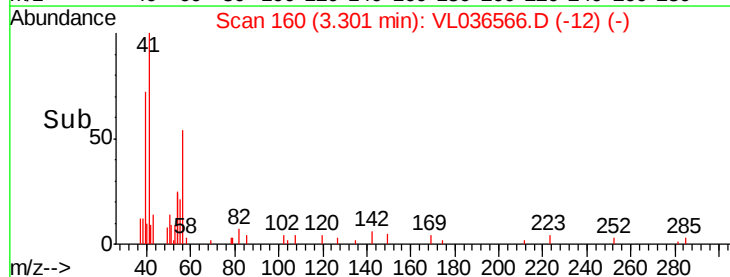
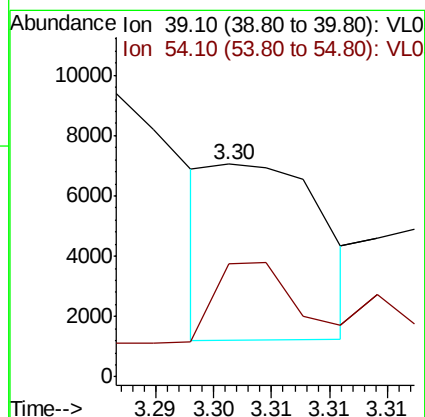
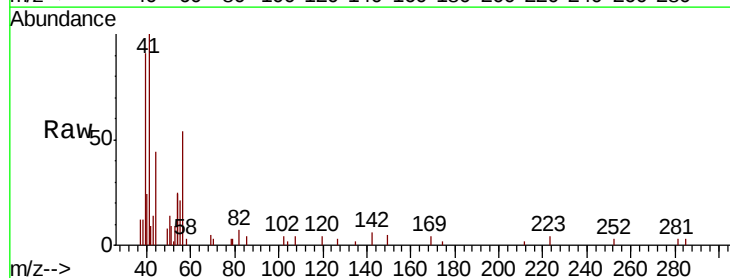
Acq: 30 Mar 2021 12:19

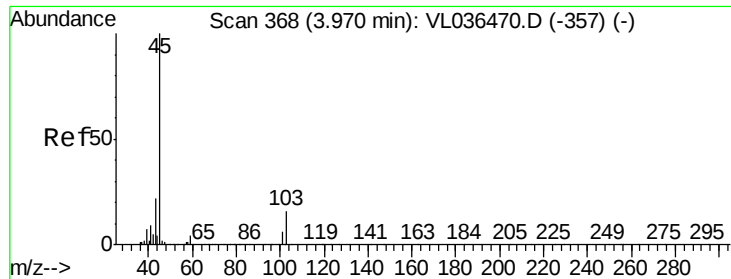
Tgt Ion: 39 Resp: 3854

Ion Ratio Lower Upper

39 100

54 177.1 58.8 88.2#





#19

Isopropyl Alcohol

Concen: 3.512 ppbv

RT: 3.95 min Scan# 363

Delta R.T. -0.02 min

Lab File: VL036566.D

Acq: 30 Mar 2021 12:19

Instrument :

MSVOA_L

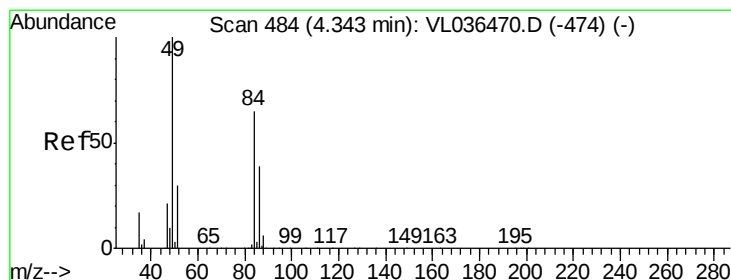
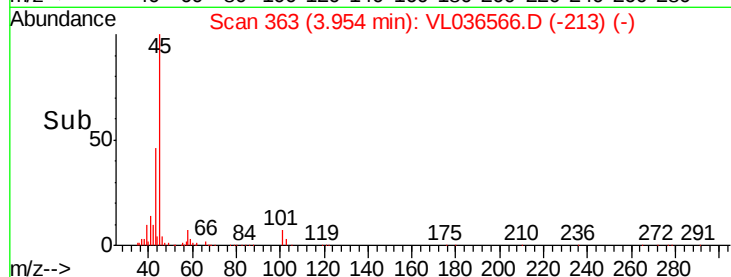
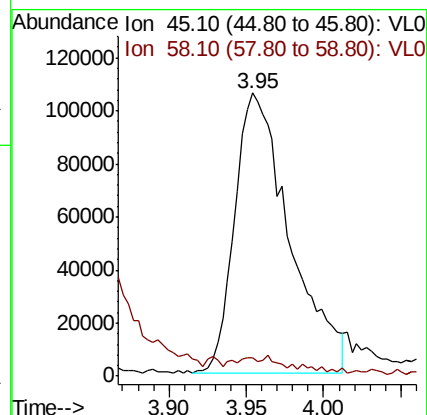
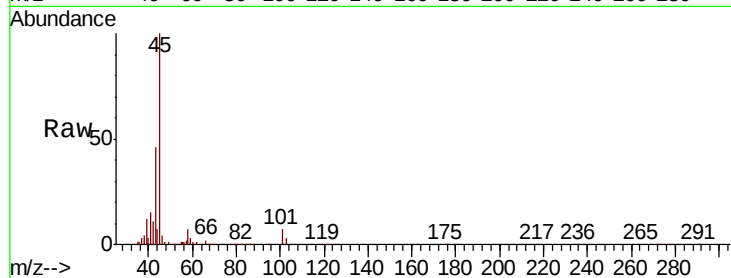
ClientSampleId :

Tot Ion: 45 Resp: 261320

Ion Ratio Lower Upper

45 100

58 161.8 2.9 4.3#



#20

Methylene Chloride

Concen: 7.762 ppbv

RT: 4.32 min Scan# 477

Delta R.T. -0.02 min

Lab File: VL036566.D

Acq: 30 Mar 2021 12:19

Tgt Ion: 84 Resp: 491577

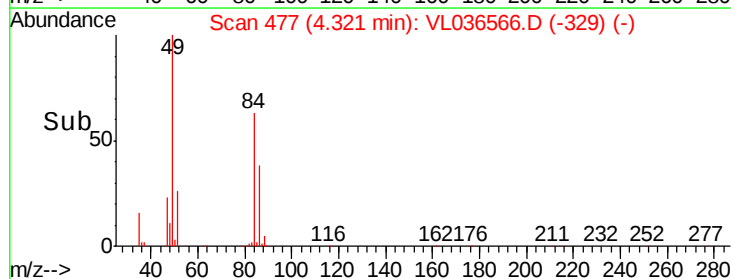
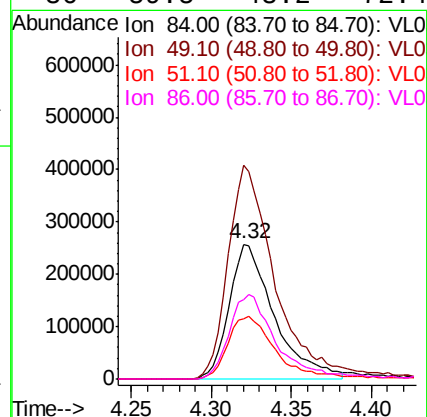
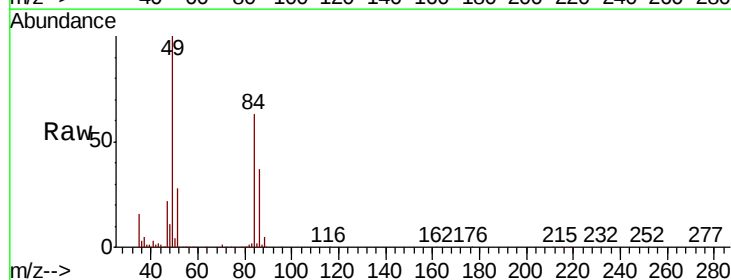
Ion Ratio Lower Upper

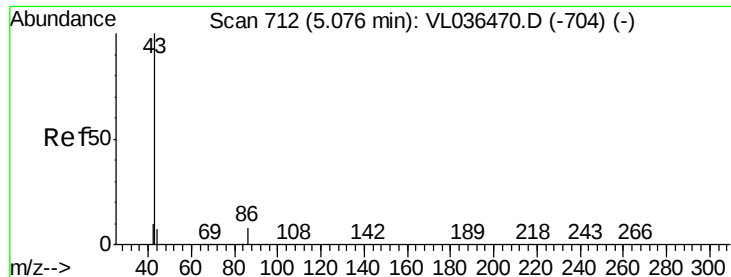
84 100

49 158.9 122.9 184.3

51 44.3 36.9 55.3

86 59.5 48.2 72.4

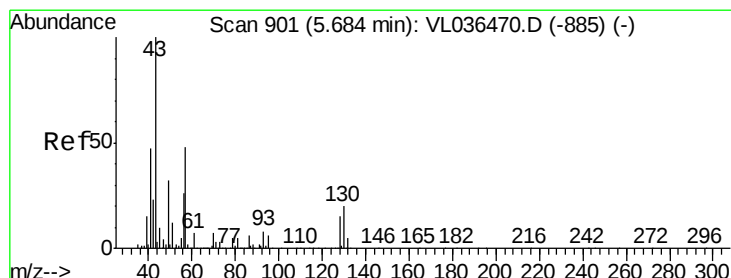
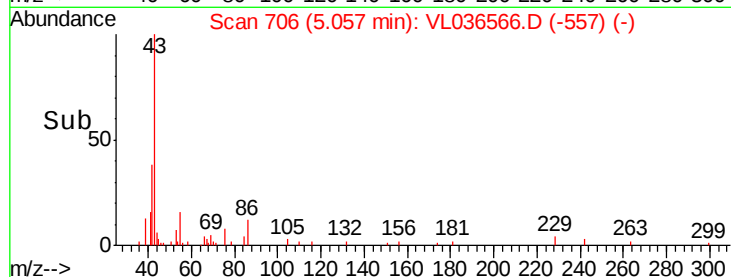
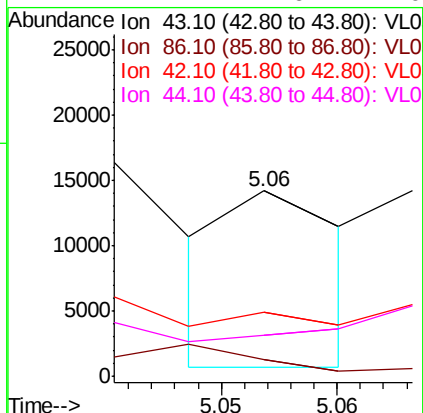
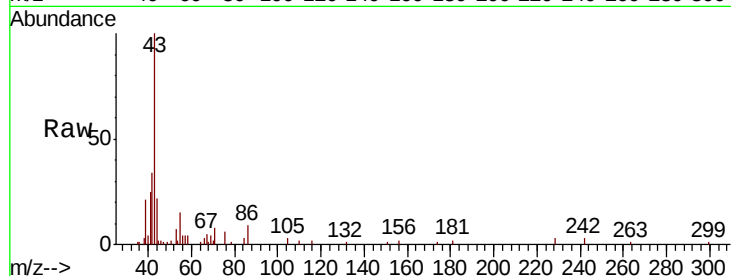




#23
 Vinyl Acetate
 Concen: 0.020 ppbv
 RT: 5.06 min Scan# 706
 Delta R.T. -0.02 min
 Lab File: VL036566.D
 Acq: 30 Mar 2021 12:19

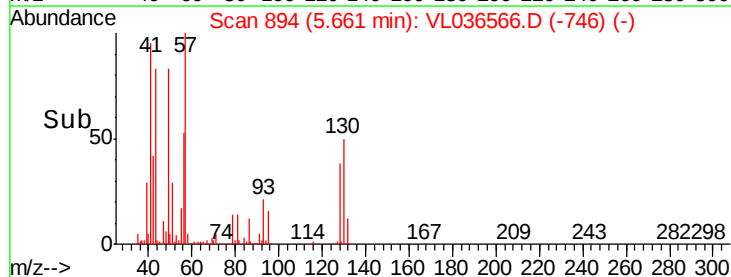
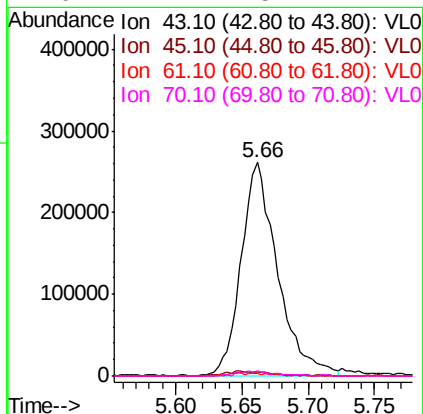
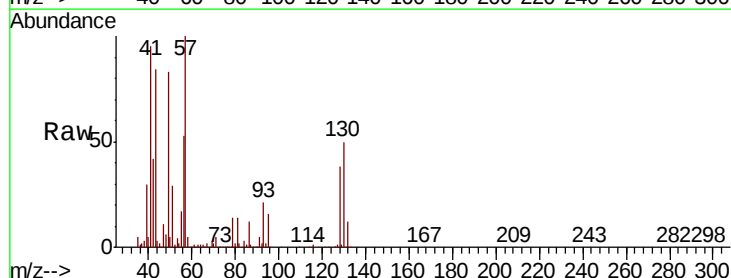
Instrument :
 MSVOA_L
 ClientSampleId :

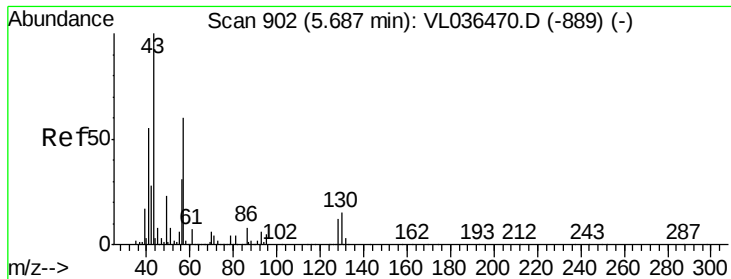
Tot Ion:	43	Resp:	4712
Ion	Ratio	Lower	Upper
43	100		
86	26.2	5.4	8.0#
42	31.2	8.5	12.7#
44	14.2	4.6	7.0#



#25
 Ethyl Acetate
 Concen: 1.545 ppbv
 RT: 5.66 min Scan# 894
 Delta R.T. -0.02 min
 Lab File: VL036566.D
 Acq: 30 Mar 2021 12:19

Tgt Ion:	43	Resp:	496888
Ion	Ratio	Lower	Upper
43	100		
45	3.2	7.9	11.9#
61	1.8	7.4	11.2#
70	2.7	5.1	7.7#





#26

Hexane

Concen: 3.812 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.03 min

Lab File: VL036566.D

Acq: 30 Mar 2021 12:19

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 57 Resp: 568861

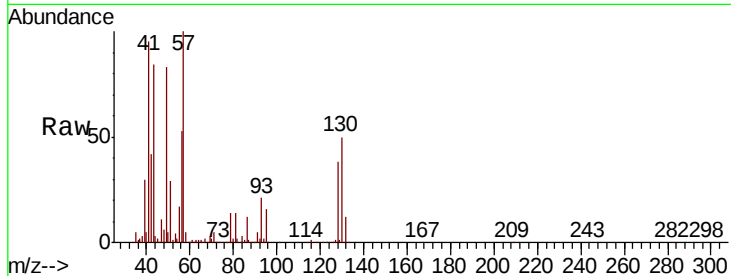
Ion Ratio Lower Upper

57 100

41 103.4 77.2 115.8

43 90.1 173.8 260.6#

56 61.4 43.8 65.6



Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0

400000

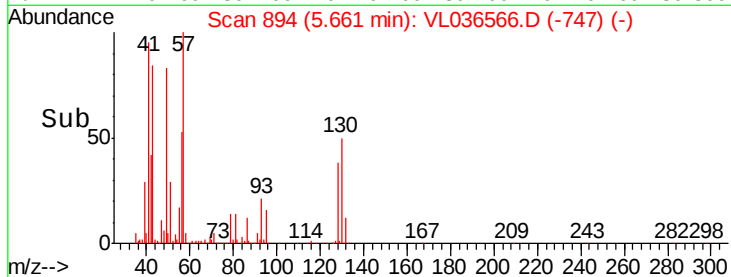
300000

200000

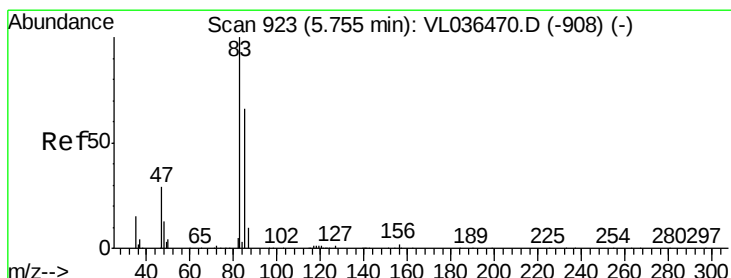
100000

0

5.60 5.65 5.70



Time-->



#29

Chloroform

Concen: 0.077 ppbv

RT: 5.72 min Scan# 913

Delta R.T. -0.03 min

Lab File: VL036566.D

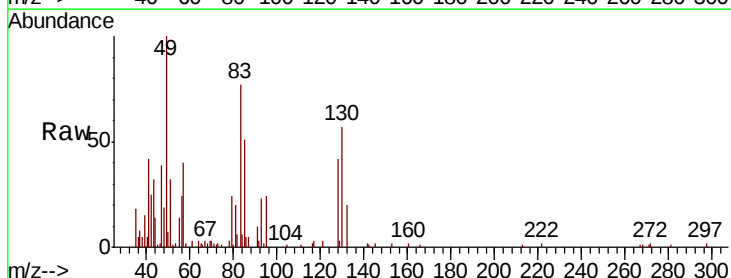
Acq: 30 Mar 2021 12:19

Tgt Ion: 83 Resp: 18328

Ion Ratio Lower Upper

83 100

85 60.4 52.6 78.8



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

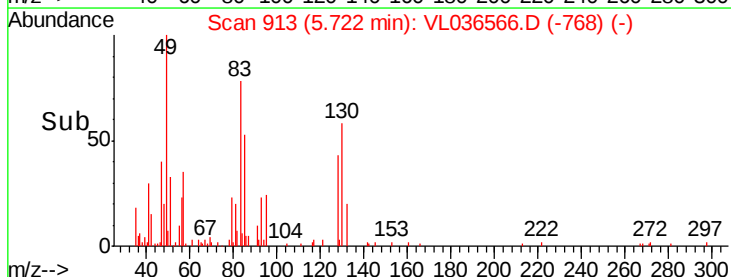
15000

10000

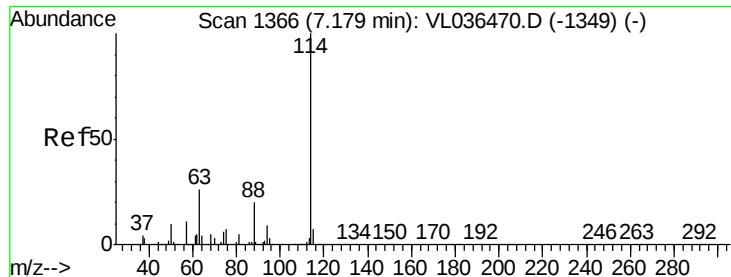
5000

0

5.68 5.70 5.72 5.74



Time-->



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.15 min Scan# 1357

Delta R.T. -0.03 min

Lab File: VL036566.D

Acq: 30 Mar 2021 12:19

Instrument :

MSVOA_L

ClientSampleId :

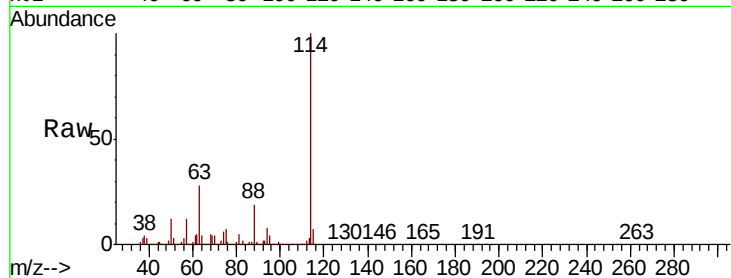
Tot Ion:114 Resp: 3098412

Ion Ratio Lower Upper

114 100

63 28.2 22.4 33.6

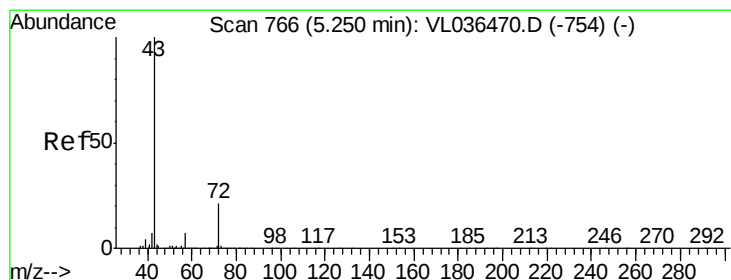
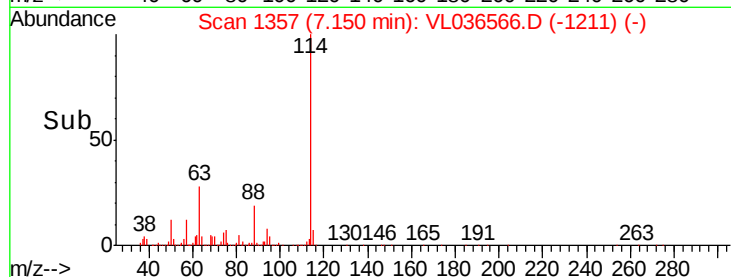
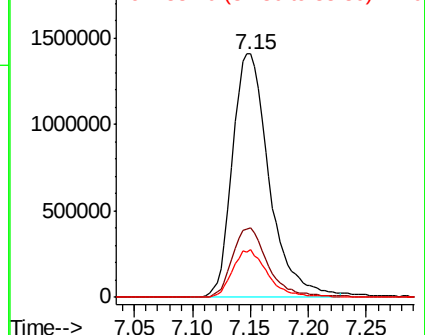
88 18.9 15.4 23.0



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: 0.846 ppbv

RT: 5.22 min Scan# 758

Delta R.T. -0.03 min

Lab File: VL036566.D

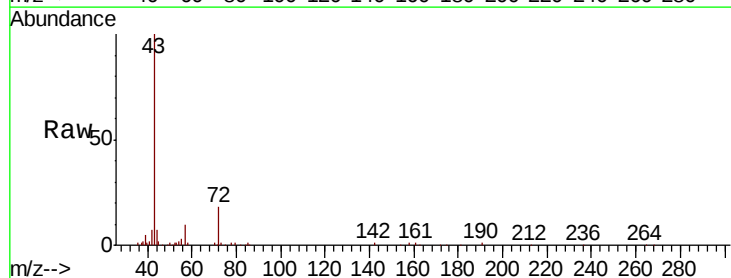
Acq: 30 Mar 2021 12:19

Tgt Ion: 43 Resp: 127881

Ion Ratio Lower Upper

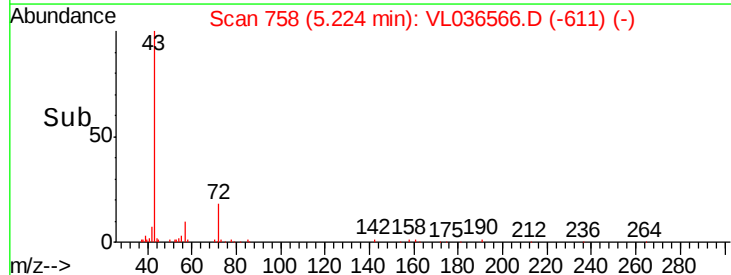
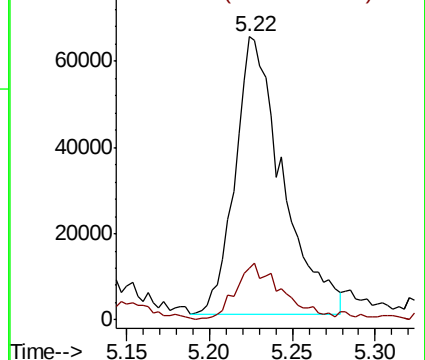
43 100

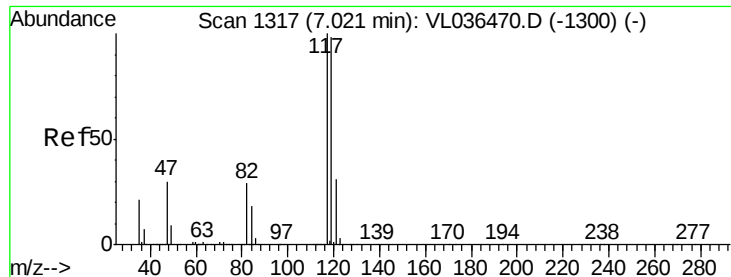
72 21.9 17.0 25.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 0.036 ppbv

RT: 6.99 min Scan# 1308

Delta R.T. -0.03 min

Lab File: VL036566.D

Acq: 30 Mar 2021 12:19

Instrument :

MSVOA_L

ClientSampleId :

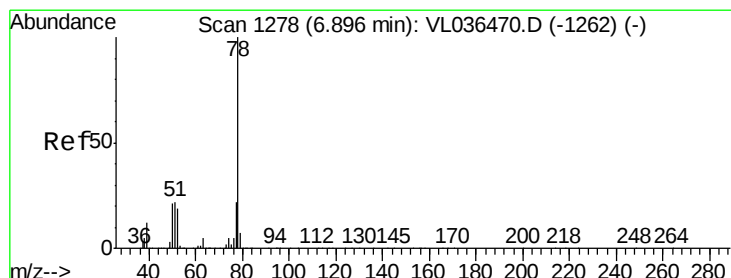
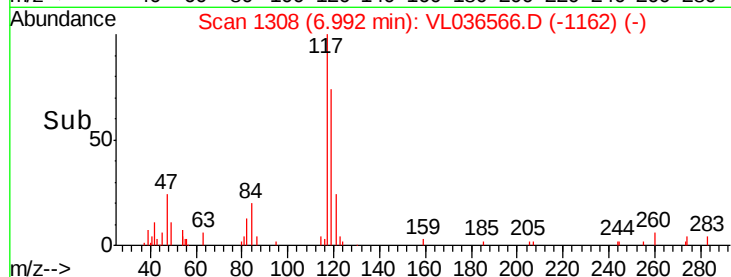
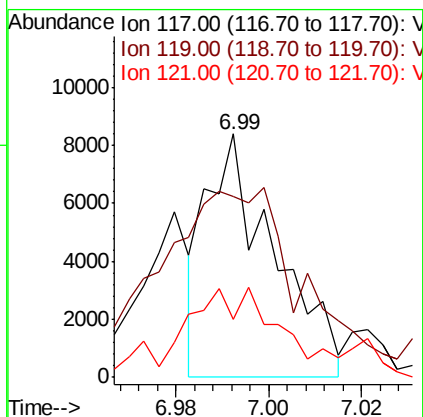
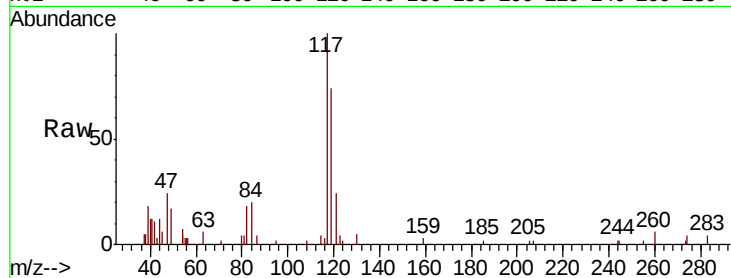
Tot Ion:117 Resp: 8575

Ion Ratio Lower Upper

117 100

119 56.3 78.2 117.2#

121 17.7 24.5 36.7#



#36

Benzene

Concen: 0.068 ppbv

RT: 6.87 min Scan# 1270

Delta R.T. -0.03 min

Lab File: VL036566.D

Acq: 30 Mar 2021 12:19

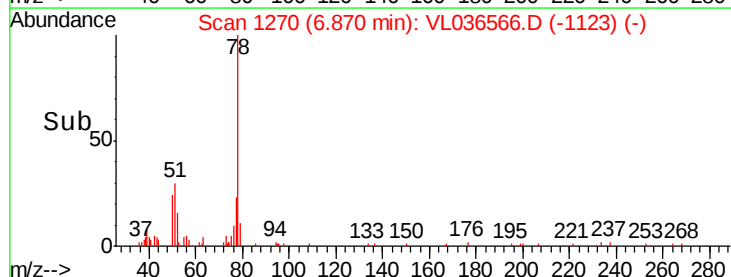
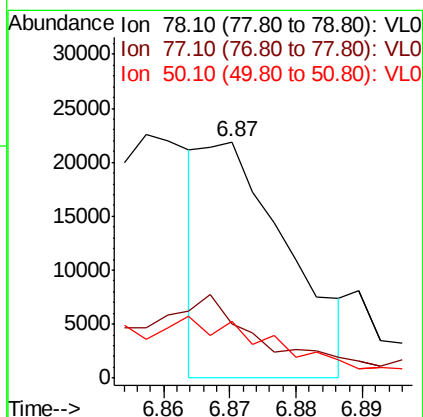
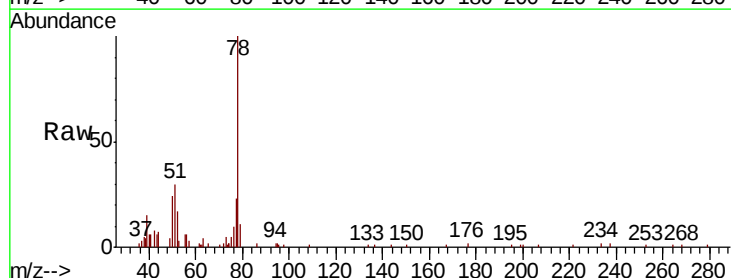
Tgt Ion: 78 Resp: 19450

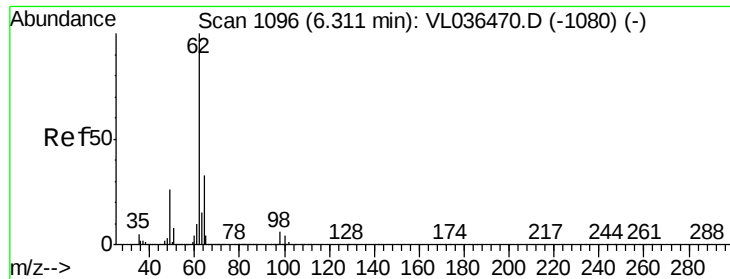
Ion Ratio Lower Upper

78 100

77 21.5 18.0 27.0

50 24.0 16.5 24.7

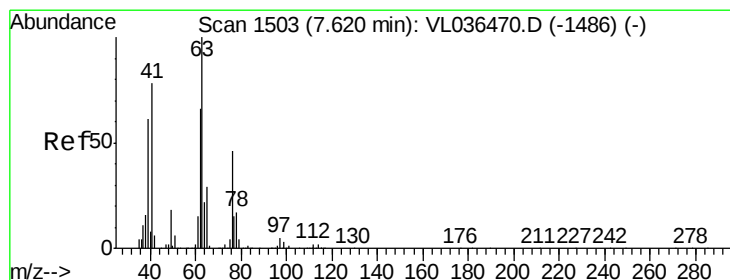
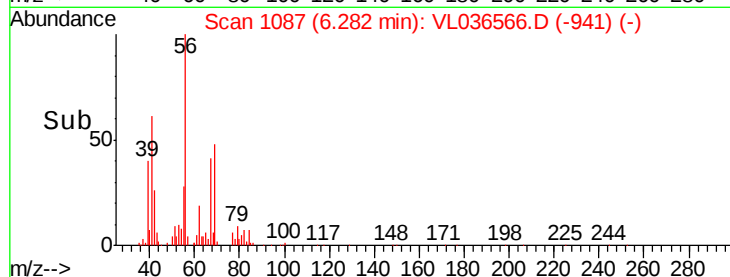
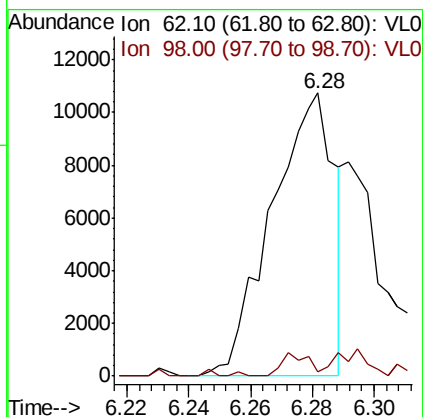
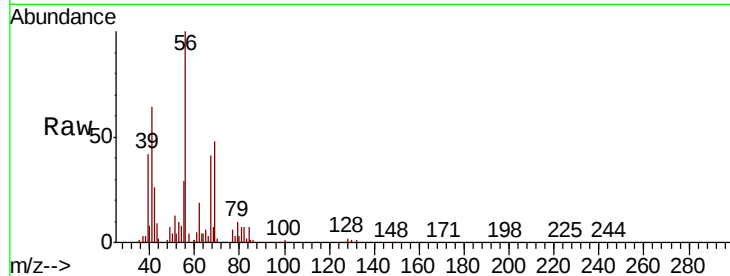




#37
 1,2-Dichloroethane
 Concen: 0.089 ppbv
 RT: 6.28 min Scan# 1087
 Delta R.T. -0.03 min
 Lab File: VL036566.D
 Acq: 30 Mar 2021 12:19

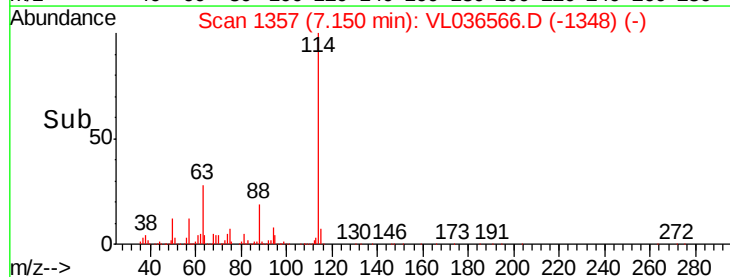
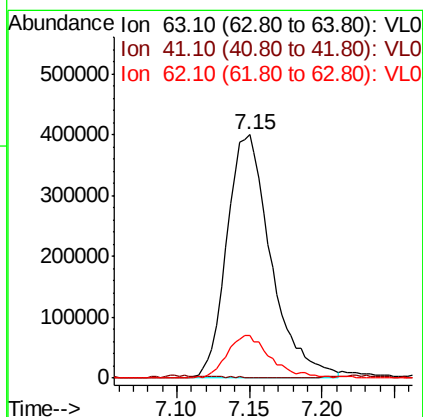
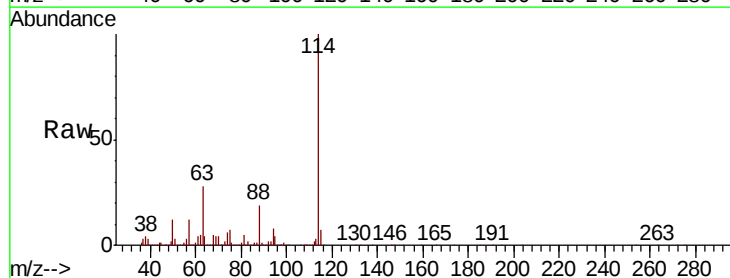
Instrument :
 MSVOA_L
 ClientSampleId :

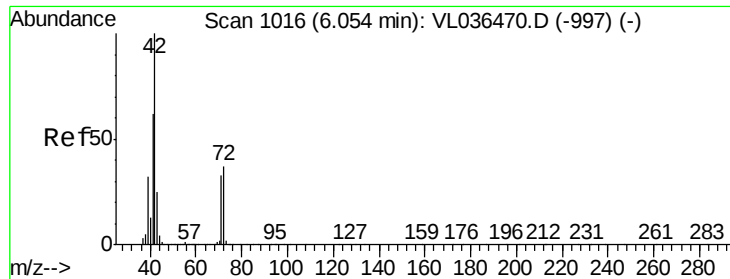
Tot Ion: 62 Resp: 15023
 Ion Ratio Lower Upper
 62 100
 98 0.0 4.9 7.3#



#39
 1,2-Dichloropropane
 Concen: 7.240 ppbv
 RT: 7.15 min Scan# 1357
 Delta R.T. -0.47 min
 Lab File: VL036566.D
 Acq: 30 Mar 2021 12:19

Tgt Ion: 63 Resp: 839185
 Ion Ratio Lower Upper
 63 100
 41 0.0 62.4 93.6#
 62 17.5 52.8 79.2#





#41

Tetrahydrofuran

Concen: 0.177 ppbv

RT: 6.28 min Scan# 1087

Delta R.T. 0.23 min

Lab File: VL036566.D

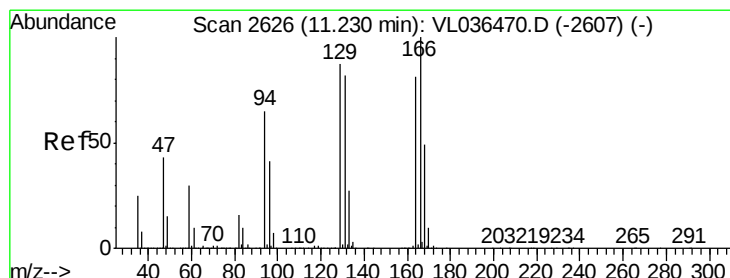
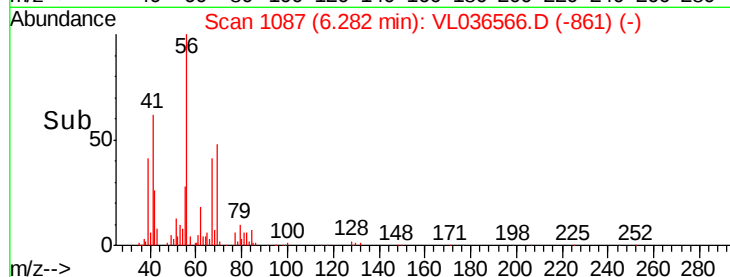
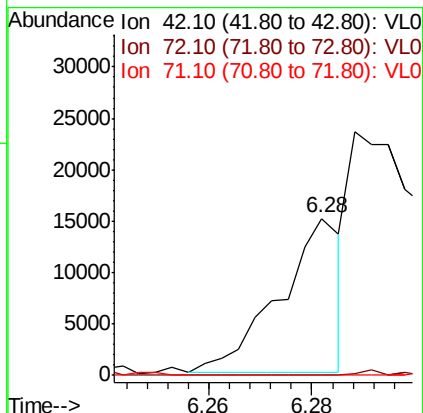
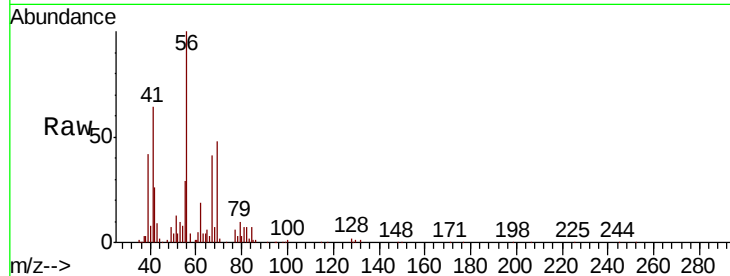
Acq: 30 Mar 2021 12:19

Instrument :

MSVOA_L

ClientSampled :

Tot Ion:	42	Resp:	12361
Ion	Ratio	Lower	Upper
42	100		
72	1.5	27.6	41.4#
71	0.0	27.0	40.4#



#52

Tetrachloroethene

Concen: 0.034 ppbv

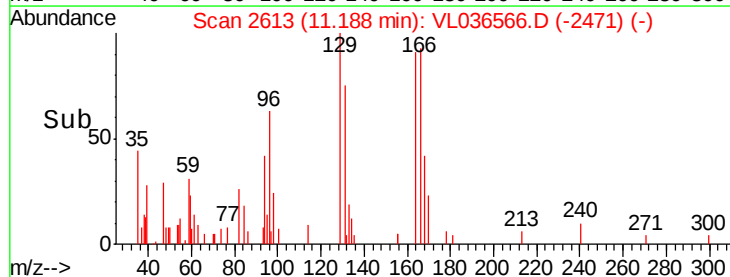
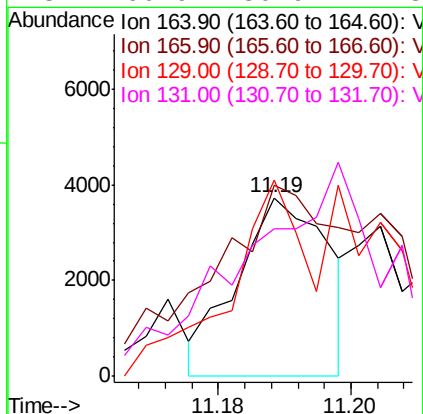
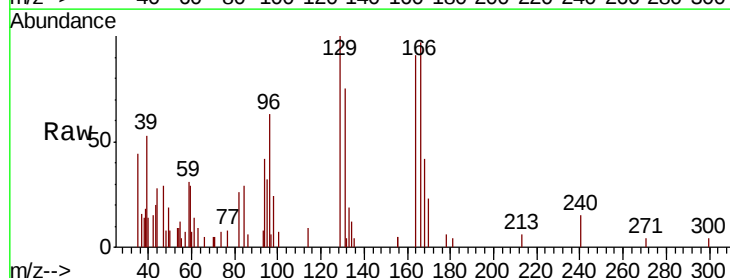
RT: 11.19 min Scan# 2613

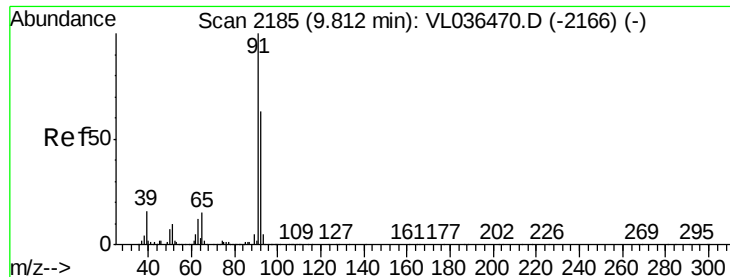
Delta R.T. -0.04 min

Lab File: VL036566.D

Acq: 30 Mar 2021 12:19

Tgt Ion:	164	Resp:	3548
Ion	Ratio	Lower	Upper
164	100		
166	75.3	98.3	147.5#
129	102.8	85.8	128.8
131	60.9	80.9	121.3#





#53

Toluene

Concen: 1.714 ppbv

RT: 9.78 min Scan# 2175

Delta R.T. -0.03 min

Lab File: VL036566.D

Acq: 30 Mar 2021 12:19

Instrument :

MSVOA_L

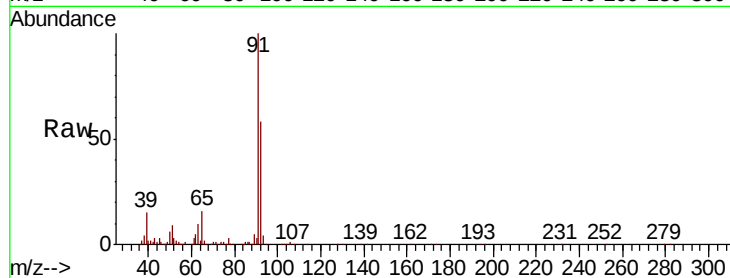
ClientSampleId :

Tot Ion: 91 Resp: 521689

Ion Ratio Lower Upper

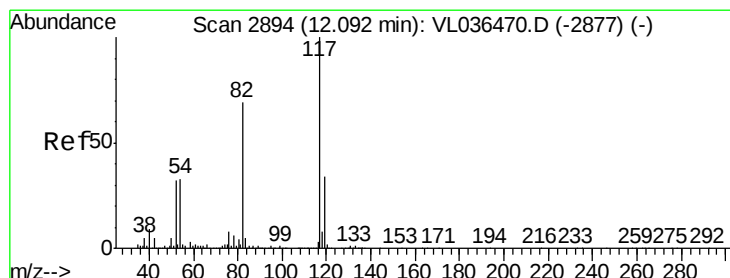
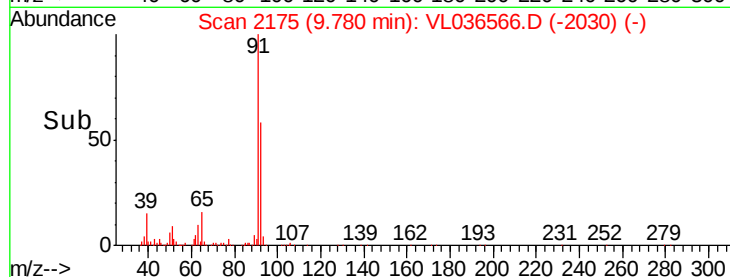
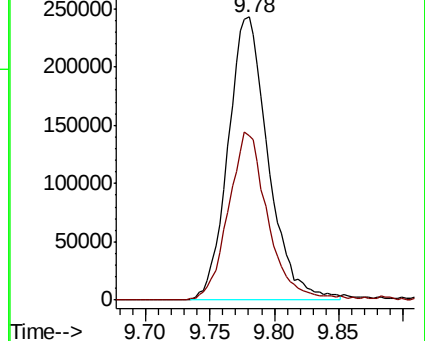
91 100

92 58.9 48.8 73.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.06 min Scan# 2883

Delta R.T. -0.04 min

Lab File: VL036566.D

Acq: 30 Mar 2021 12:19

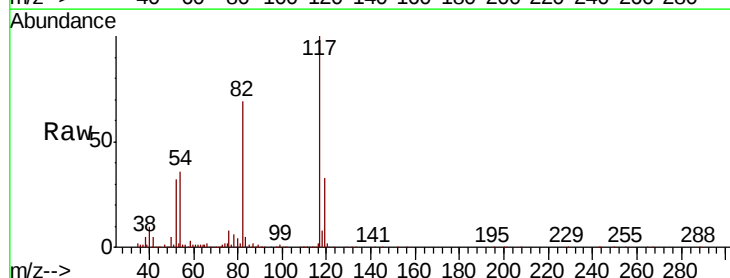
Tgt Ion: 117 Resp: 2775518

Ion Ratio Lower Upper

117 100

82 71.8 57.4 86.0

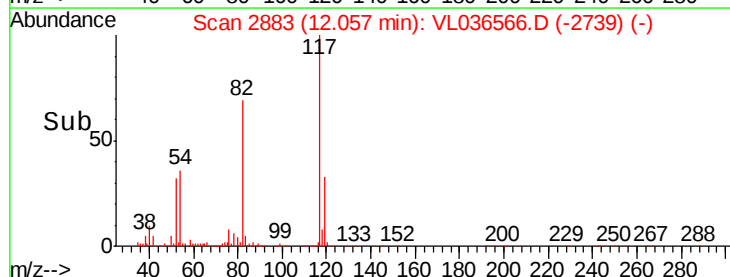
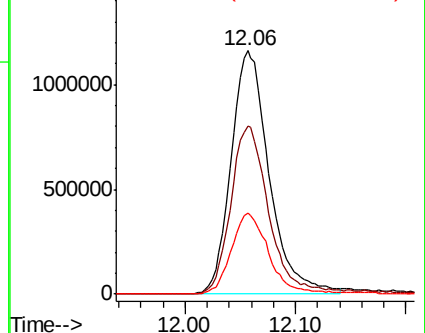
119 33.5 47.4 71.0#

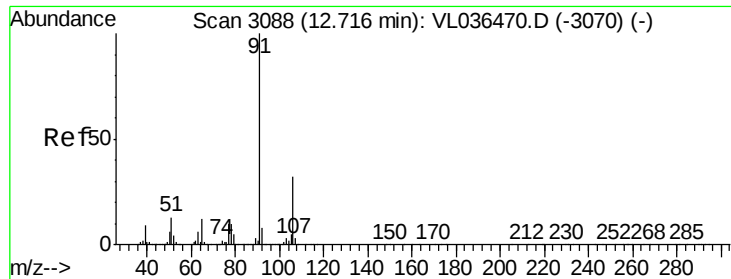


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





#58

Ethyl Benzene

Concen: 0.353 ppbv

RT: 12.94 min Scan# 3159

Delta R.T. 0.23 min

Lab File: VL036566.D

Acq: 30 Mar 2021 12:19

Instrument :

MSVOA_L

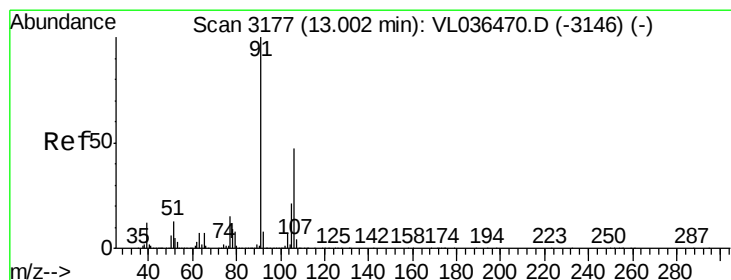
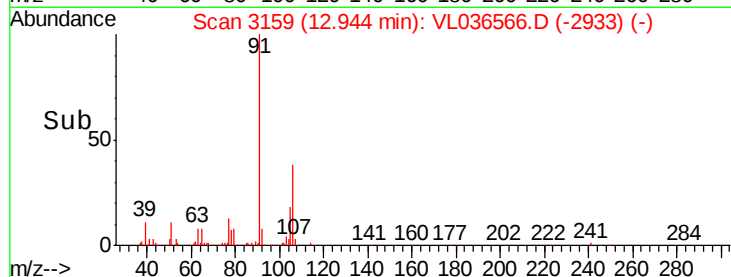
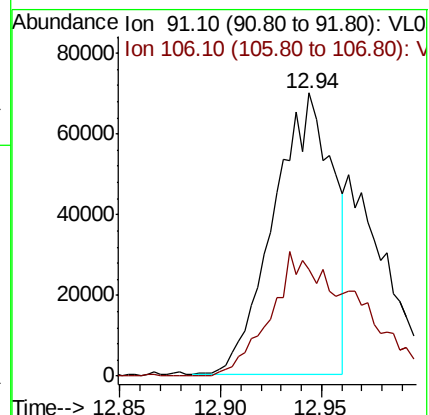
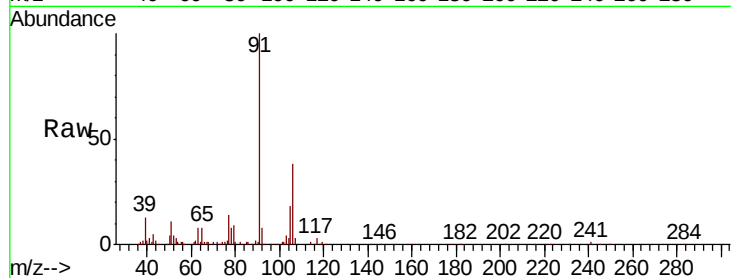
ClientSampleId :

Tot Ion: 91 Resp: 142603

Ion Ratio Lower Upper

91 100

106 37.4 25.3 37.9



#59

m/p-Xylene

Concen: 0.405 ppbv

RT: 12.94 min Scan# 3159

Delta R.T. -0.06 min

Lab File: VL036566.D

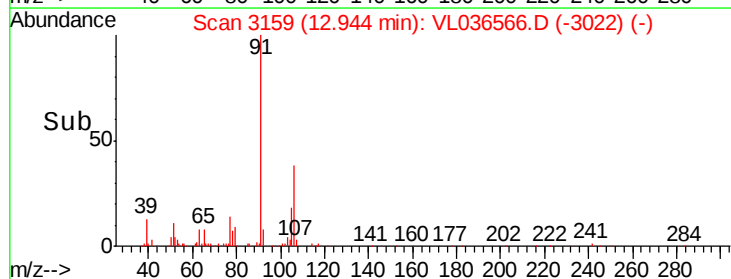
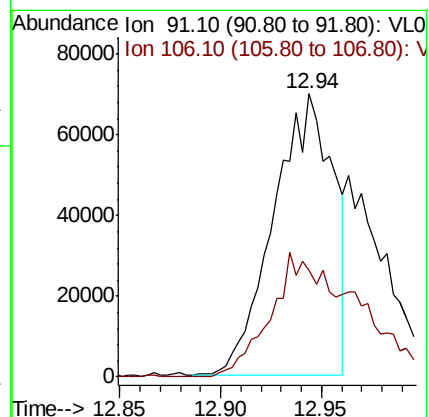
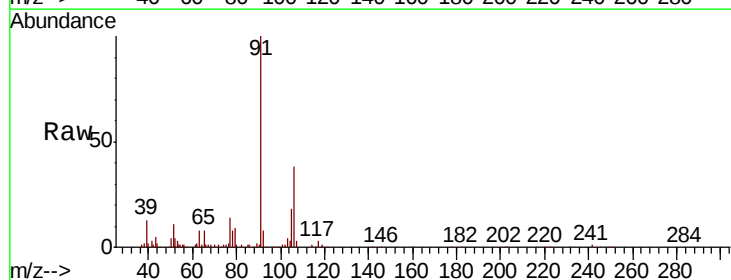
Acq: 30 Mar 2021 12:19

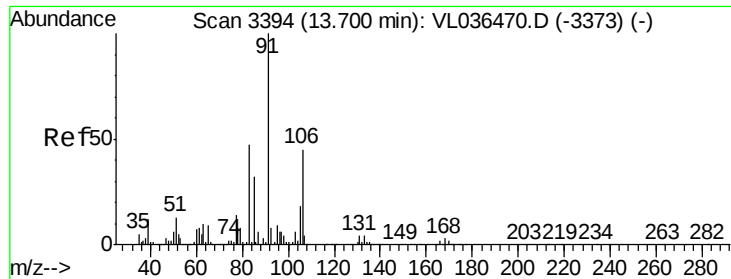
Tgt Ion: 91 Resp: 142603

Ion Ratio Lower Upper

91 100

106 65.9 35.3 52.9#





#60

o-Xylene

Concen: 0.279 ppbv

RT: 13.67 min Scan# 3384

Delta R.T. -0.03 min

Lab File: VL036566.D

Acq: 30 Mar 2021 12:19

Instrument :

MSVOA_L

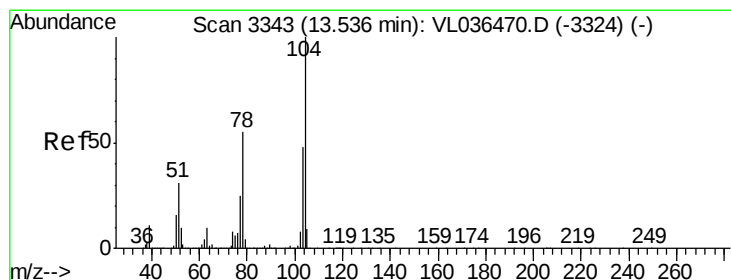
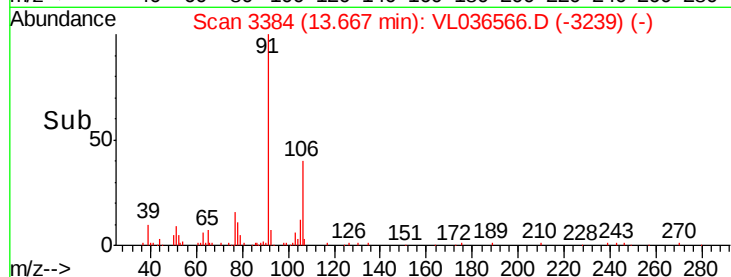
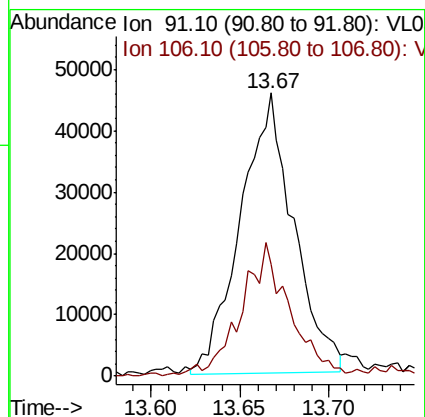
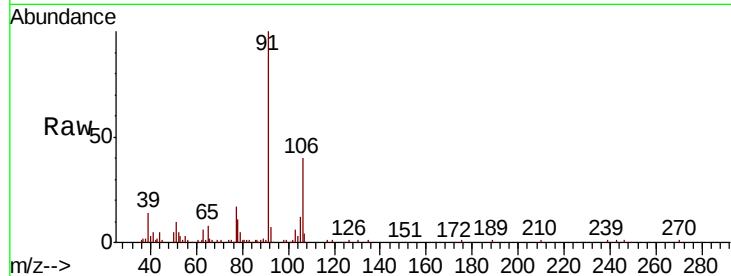
ClientSampled :

Tot Ion: 91 Resp: 95073

Ion Ratio Lower Upper

91 100

106 44.3 22.3 66.9



#61

Styrene

Concen: 0.222 ppbv

RT: 13.50 min Scan# 3331

Delta R.T. -0.04 min

Lab File: VL036566.D

Acq: 30 Mar 2021 12:19

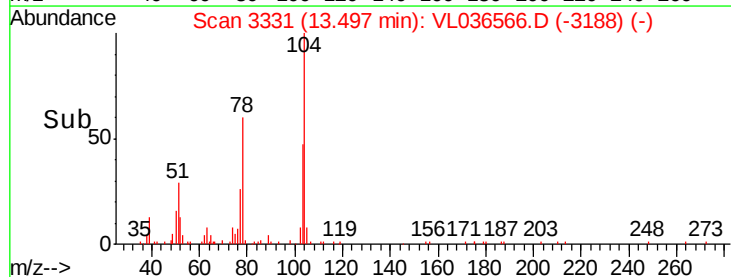
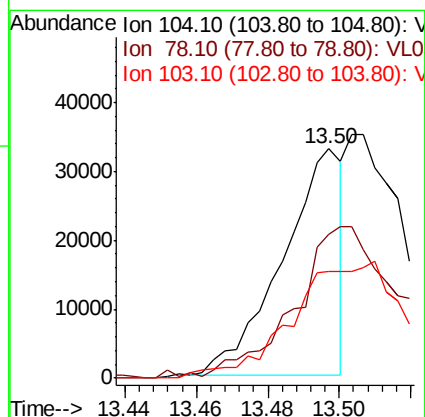
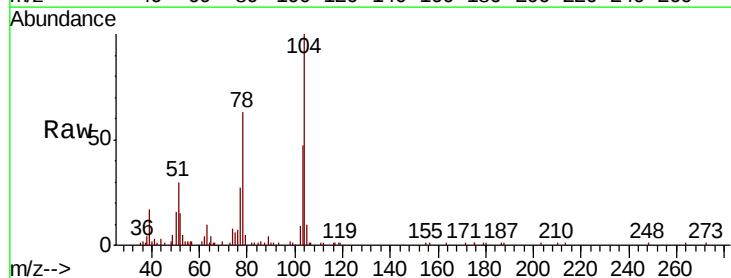
Tgt Ion: 104 Resp: 38055

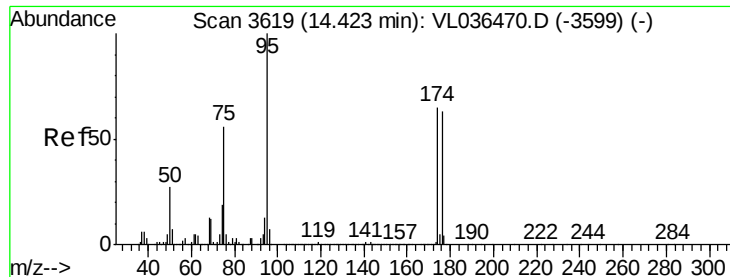
Ion Ratio Lower Upper

104 100

78 144.9 43.8 65.8#

103 0.0 38.3 57.5#

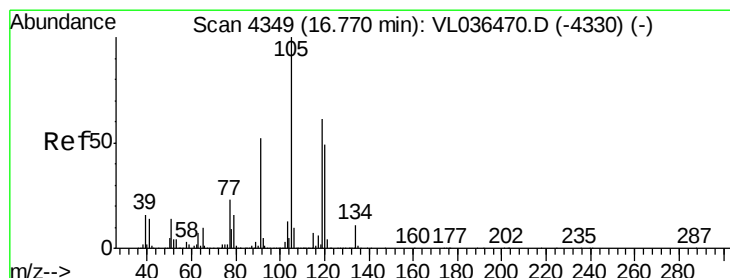
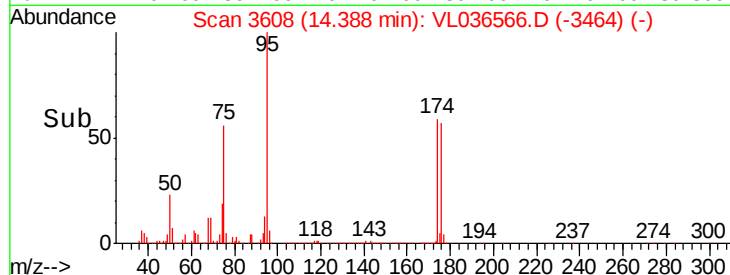
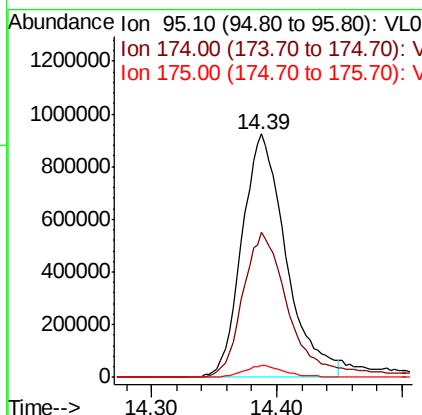
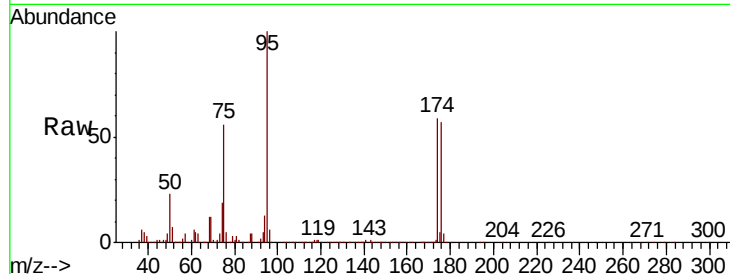




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.216 ppbv
 RT: 14.39 min Scan# 3608
 Delta R.T. -0.04 min
 Lab File: VL036566.D
 Acq: 30 Mar 2021 12:19

Instrument :
 MSVOA_L
 ClientSampled :

Tot Ion: 95 Resp: 2259804
 Ion Ratio Lower Upper
 95 100
 174 63.9 51.0 76.6
 175 4.7 3.9 5.9



#74
 1,2,4-Trimethylbenzene
 Concen: 0.094 ppbv
 RT: 16.73 min Scan# 4337
 Delta R.T. -0.04 min
 Lab File: VL036566.D
 Acq: 30 Mar 2021 12:19

Tgt Ion: 105 Resp: 34983
 Ion Ratio Lower Upper
 105 100
 120 40.1 39.2 58.8
 91 10.3 42.6 64.0#
 77 5.3 18.6 28.0#

