

Data File : VL036340.D
Acq On : 11 Feb 2021 8:33
Operator : SY/AP
Sample : VIBLK
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
VIBLK

Quant Time: Feb 11 09:55:19 2021
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL021021AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Feb 10 16:04:02 2021
QLast Update : Wed Feb 10 16:04:02 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1615823	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.15	114	3507454	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.06	117	3292740	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.39 95 2631559 9.71 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 97.10%

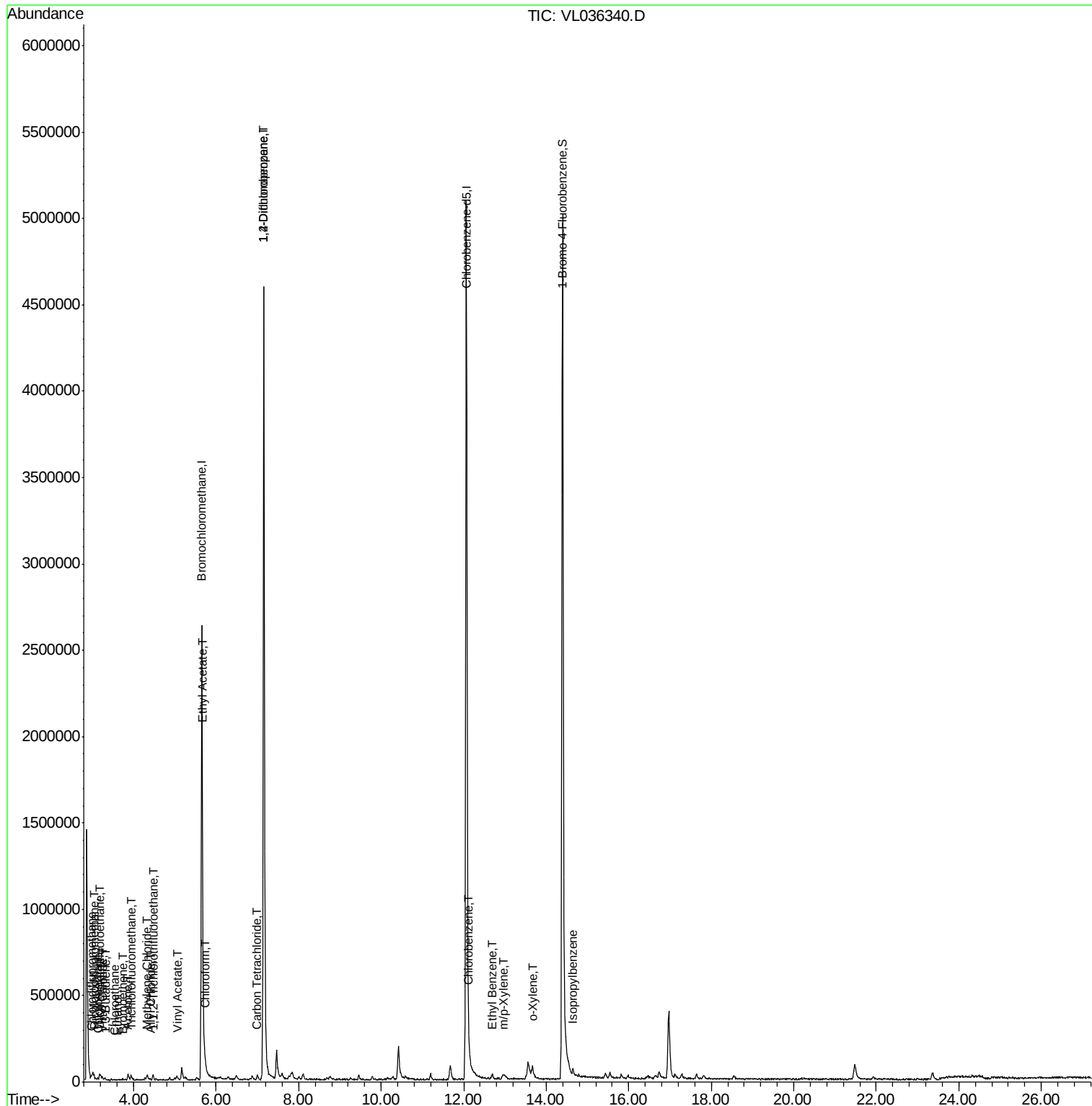
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.03	85	16028	0.066	ppbv	92
3) Chlorodifluoromethane	2.97	51	15553	0.077	ppbv	100
4) Chloromethane	3.13	50	4016	0.041	ppbv	90
5) Vinyl Chloride	3.25	62	5342	0.059	ppbv #	80
7) Chloroethane	3.54	64	1634	0.051	ppbv #	43
8) Dichlorotetrafluoroethane	3.18	85	14322	0.065	ppbv	87
11) Trichlorofluoromethane	3.93	101	14805	0.063	ppbv	95
12) 1,1,2-Trichlorotrifluoroet	4.47	101	4661	0.032	ppbv #	13
13) Ethanol	3.61	45	1225	0.087	ppbv #	1
14) Bromoethene	3.73	108	2381	0.039	ppbv #	6
15) Acetone	3.86	43	37300	0.189	ppbv #	17
16) 1,3-Butadiene	3.31	39	3019	0.032	ppbv #	9
20) Methylene Chloride	4.33	84	7237	0.114	ppbv #	65
21) Allyl Chloride	4.40	41	4149	0.038	ppbv #	16
23) Vinyl Acetate	5.06	43	12761	0.055	ppbv #	70
25) Ethyl Acetate	5.67	43	14393	0.038	ppbv #	67
29) Chloroform	5.73	83	16898	0.067	ppbv	89
35) Carbon Tetrachloride	6.99	117	10870	0.046	ppbv	97
39) 1,2-Dichloropropane	7.15	63	1048783	8.665	ppbv #	23
57) Chlorobenzene	12.13	112	8257	0.032	ppbv #	95
58) Ethyl Benzene	12.69	91	15179	0.034	ppbv	100
59) m/p-Xylene	12.98	91	11980	0.030	ppbv #	33
60) o-Xylene	13.67	91	16940	0.045	ppbv	88
62) Isopropylbenzene	14.65	105	21637	0.038	ppbv #	81

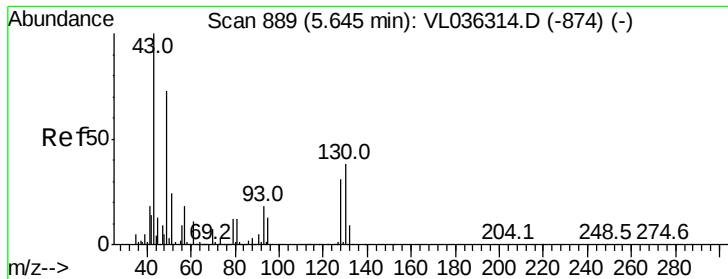
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 890

Delta R.T. 0.00 min

Lab File: VL036340.D

Acq: 11 Feb 2021 8:33

Instrument :

MSVOA_L

ClientSampleId :

VIBLK

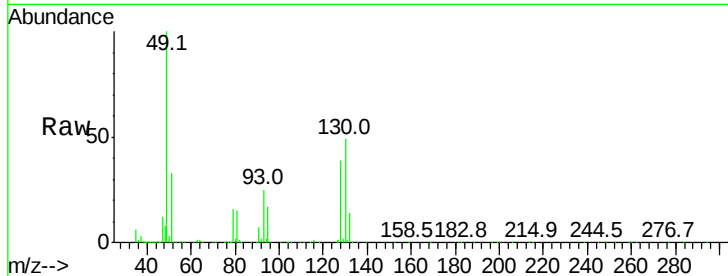
Tgt Ion: 49 Resp: 1615823

Ion Ratio Lower Upper

49 100

128 42.5 20.8 62.5

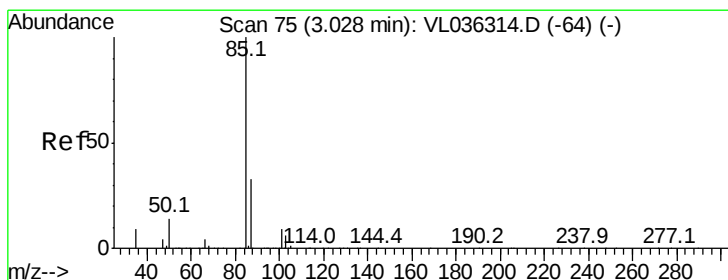
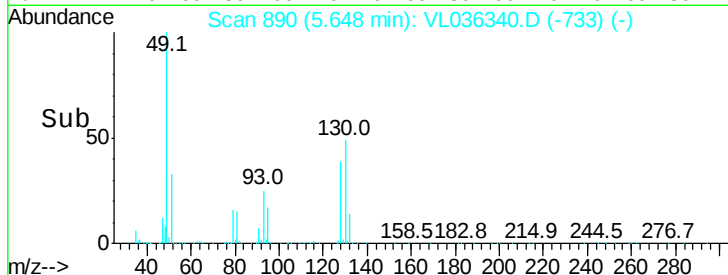
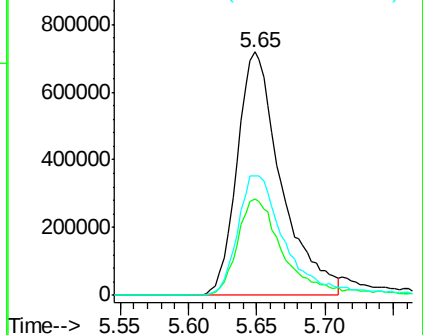
130 55.1 26.7 80.1



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: 0.066 ppbv

RT: 3.03 min Scan# 77

Delta R.T. 0.01 min

Lab File: VL036340.D

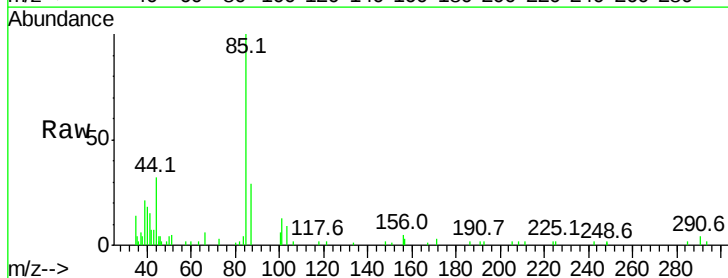
Acq: 11 Feb 2021 8:33

Tgt Ion: 85 Resp: 16028

Ion Ratio Lower Upper

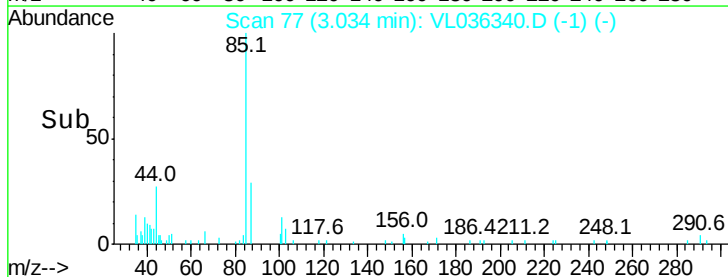
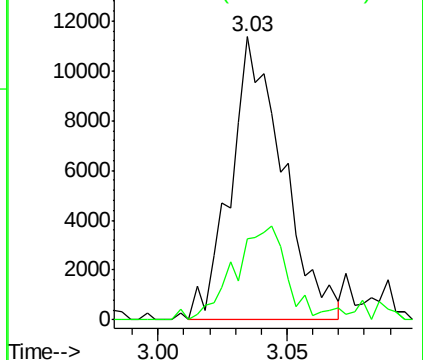
85 100

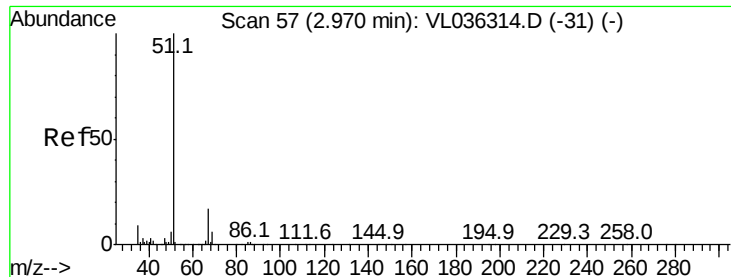
87 28.6 26.5 39.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.077 ppbv

RT: 2.97 min Scan# 58

Delta R.T. 0.00 min

Lab File: VL036340.D

Acq: 11 Feb 2021 8:33

Instrument :

MSVOA_L

ClientSampleId :

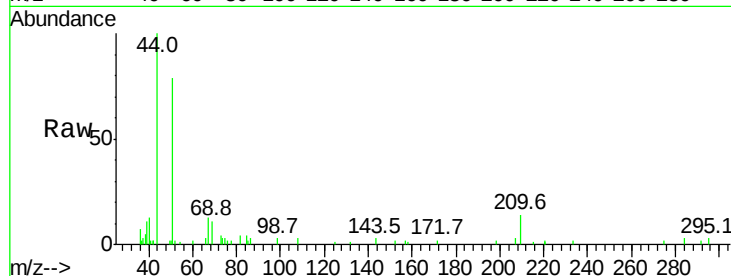
VIBLK

Tgt Ion: 51 Resp: 15553

Ion Ratio Lower Upper

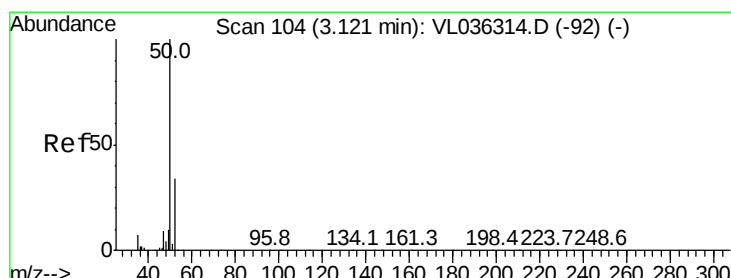
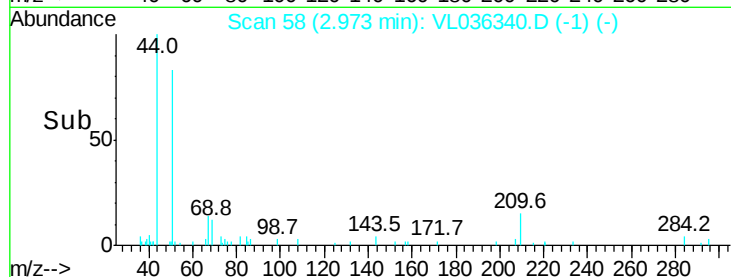
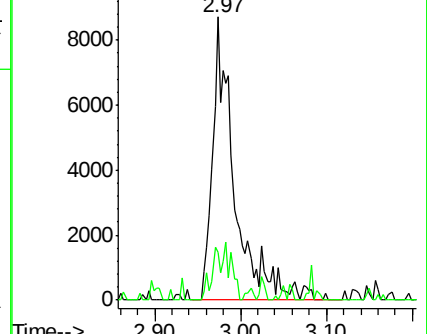
51 100

67 18.3 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: 0.041 ppbv

RT: 3.13 min Scan# 106

Delta R.T. 0.01 min

Lab File: VL036340.D

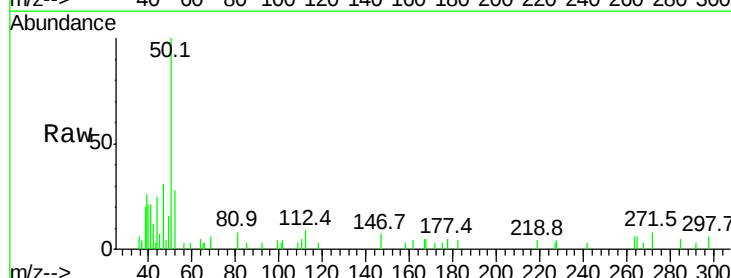
Acq: 11 Feb 2021 8:33

Tgt Ion: 50 Resp: 4016

Ion Ratio Lower Upper

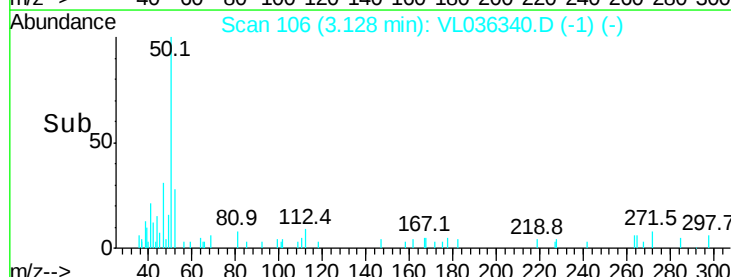
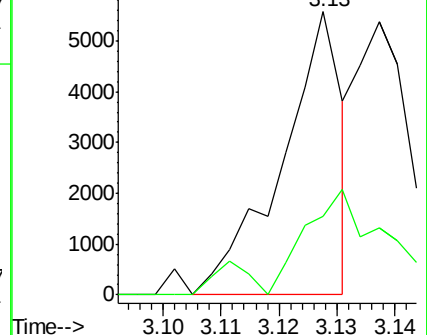
50 100

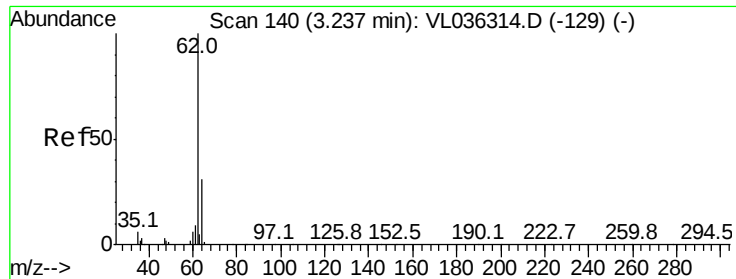
52 27.8 27.0 40.4



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 0.059 ppbv

RT: 3.25 min Scan# 143

Delta R.T. 0.01 min

Lab File: VL036340.D

Acq: 11 Feb 2021 8:33

Instrument :

MSVOA_L

ClientSampleId :

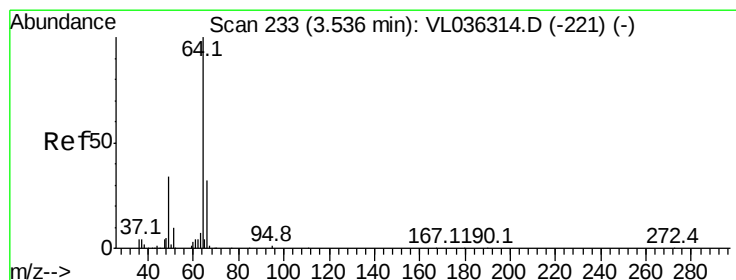
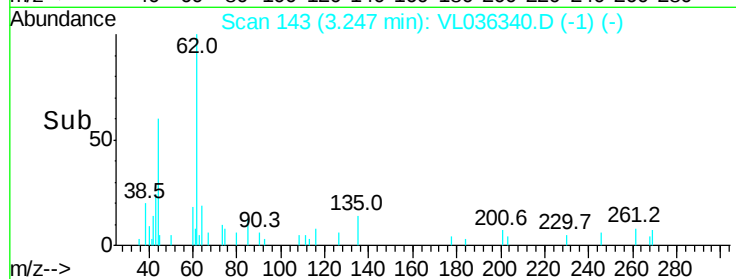
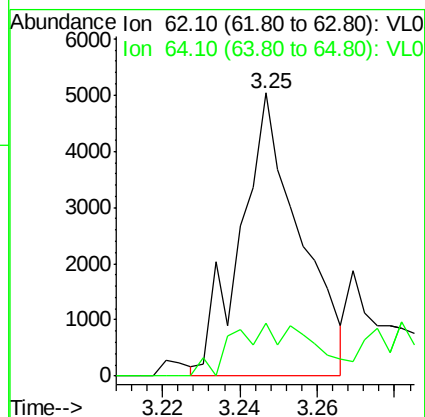
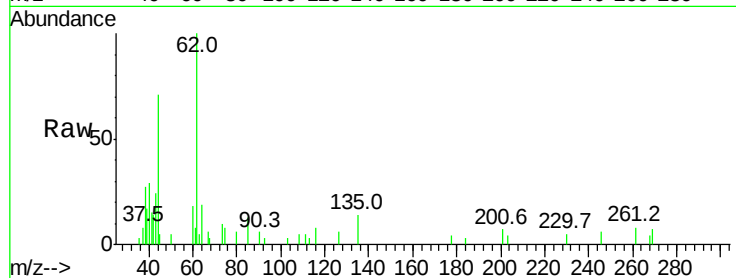
VIBLK

Tgt Ion: 62 Resp: 5342

Ion Ratio Lower Upper

62 100

64 19.6 24.4 36.6#



#7

Chloroethane

Concen: 0.051 ppbv

RT: 3.54 min Scan# 234

Delta R.T. 0.00 min

Lab File: VL036340.D

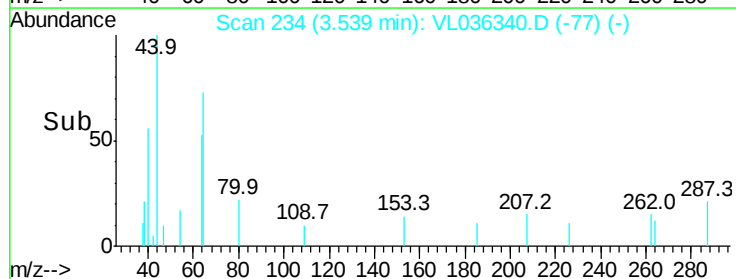
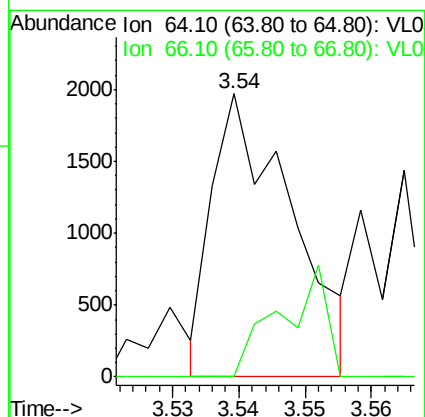
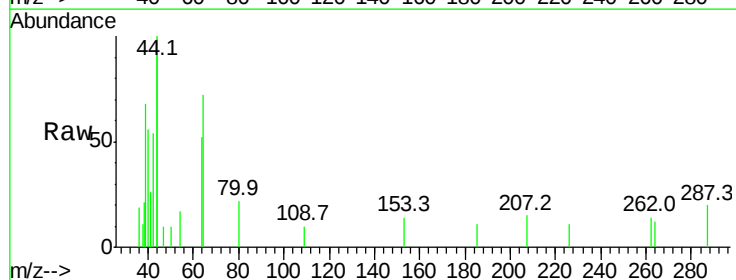
Acq: 11 Feb 2021 8:33

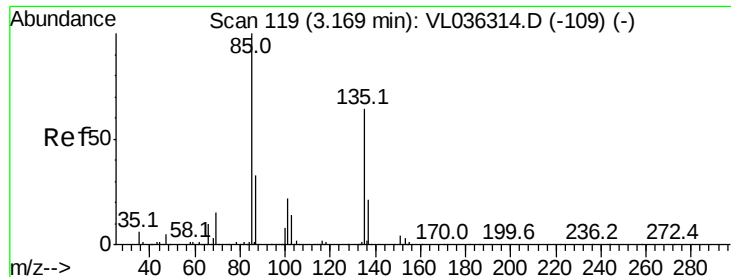
Tgt Ion: 64 Resp: 1634

Ion Ratio Lower Upper

64 100

66 0.0 25.6 38.4#





#8

Dichlorotetrafluoroethane

Concen: 0.065 ppbv

RT: 3.18 min Scan# 121

Delta R.T. 0.01 min

Lab File: VL036340.D

Acq: 11 Feb 2021 8:33

Instrument :

MSVOA_L

ClientSampled :

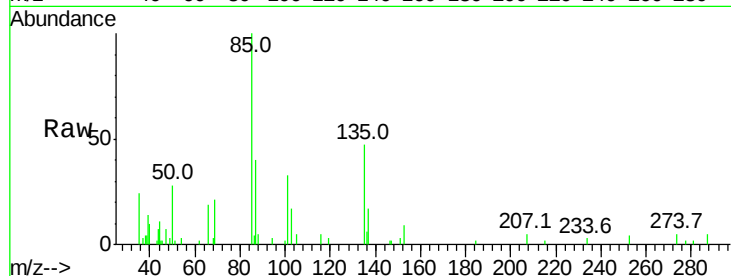
VIBLK

Tgt Ion: 85 Resp: 14322

Ion Ratio Lower Upper

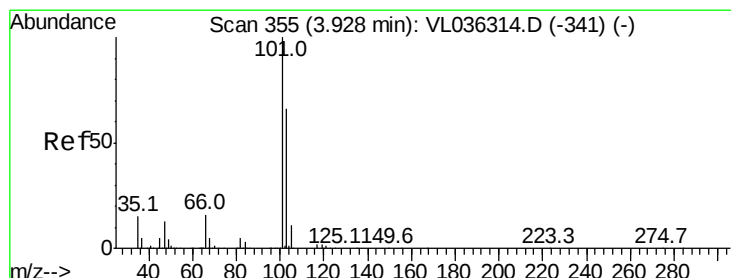
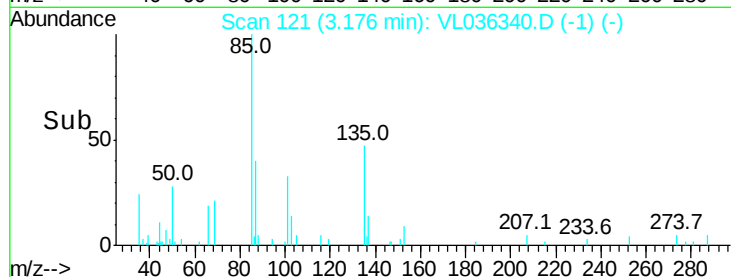
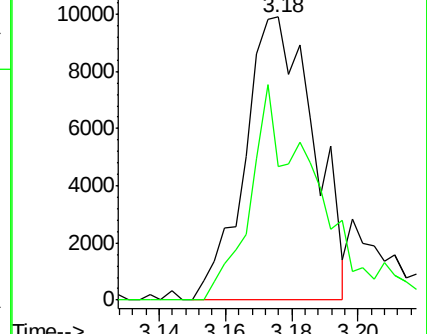
85 100

135 74.4 51.1 76.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V



#11

Trichlorofluoromethane

Concen: 0.063 ppbv

RT: 3.93 min Scan# 357

Delta R.T. 0.01 min

Lab File: VL036340.D

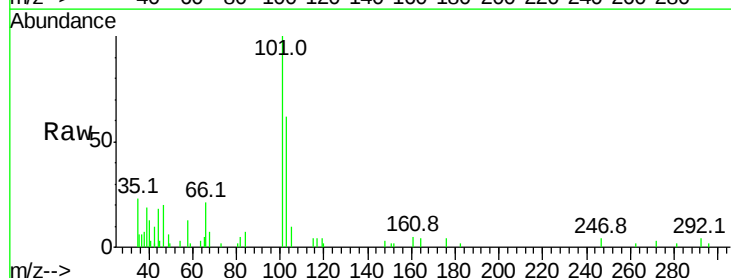
Acq: 11 Feb 2021 8:33

Tgt Ion: 101 Resp: 14805

Ion Ratio Lower Upper

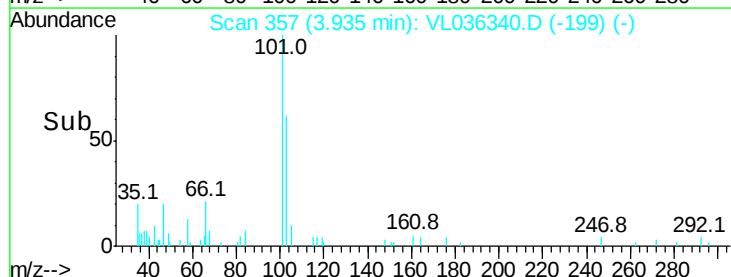
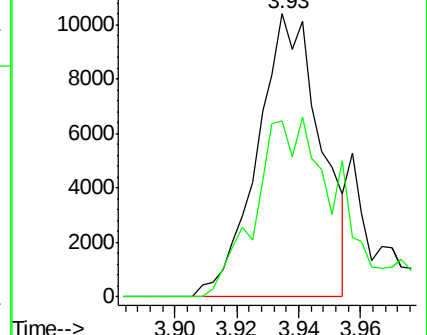
101 100

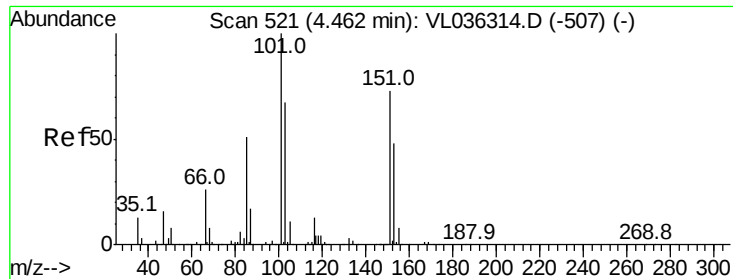
103 62.1 52.9 79.3



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.032 ppbv

RT: 4.47 min Scan# 522

Delta R.T. 0.00 min

Lab File: VL036340.D

Acq: 11 Feb 2021 8:33

Instrument :

MSVOA_L

ClientSampleId :

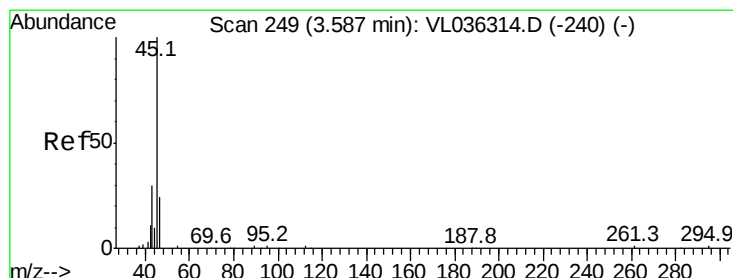
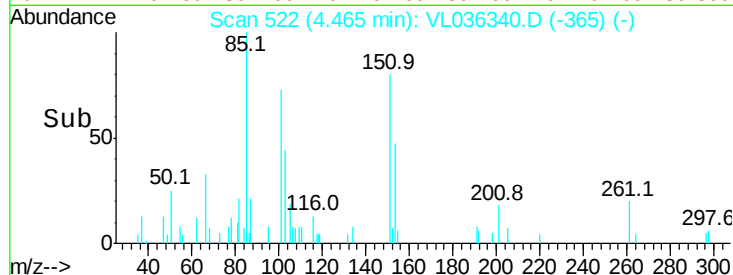
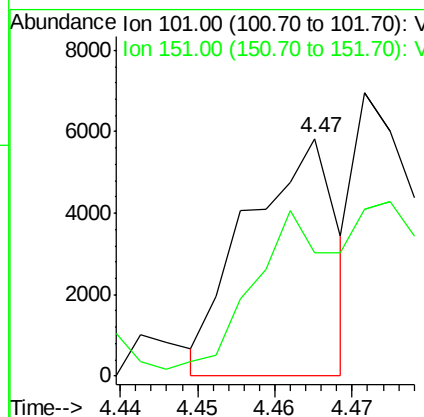
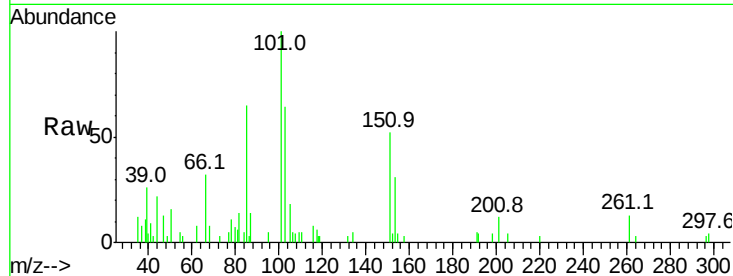
VIBLK

Tgt Ion:101 Resp: 4661

Ion Ratio Lower Upper

101 100

151 0.0 58.2 87.4#



#13

Ethanol

Concen: 0.087 ppbv

RT: 3.61 min Scan# 255

Delta R.T. 0.02 min

Lab File: VL036340.D

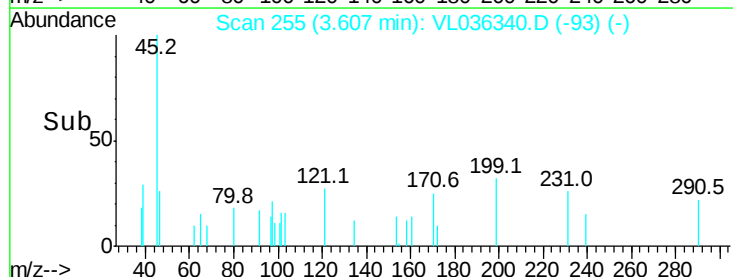
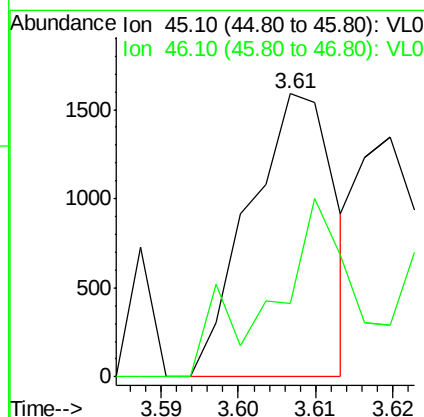
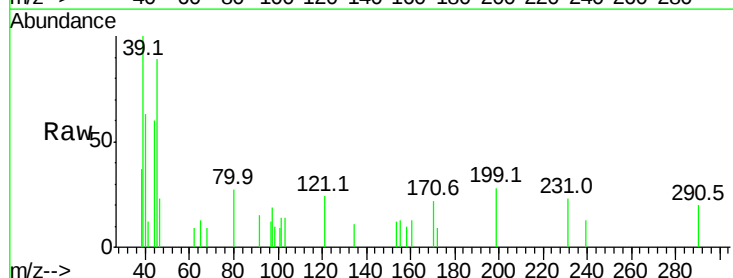
Acq: 11 Feb 2021 8:33

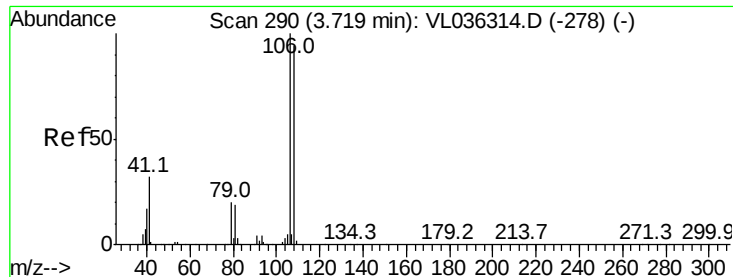
Tgt Ion: 45 Resp: 1225

Ion Ratio Lower Upper

45 100

46 117.7 17.7 70.7#





#14

Bromoethene

Concen: 0.039 ppbv

RT: 3.73 min Scan# 294

Delta R.T. 0.01 min

Lab File: VL036340.D

Acq: 11 Feb 2021 8:33

Instrument :

MSVOA_L

ClientSampleId :

VIBLK

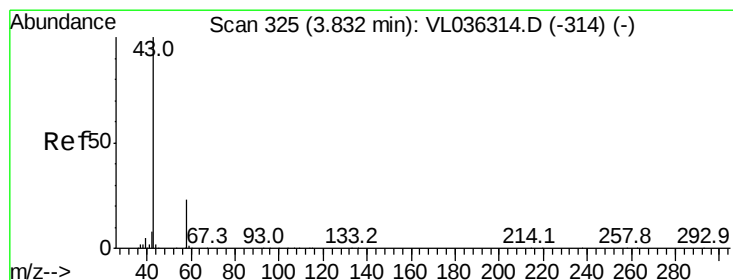
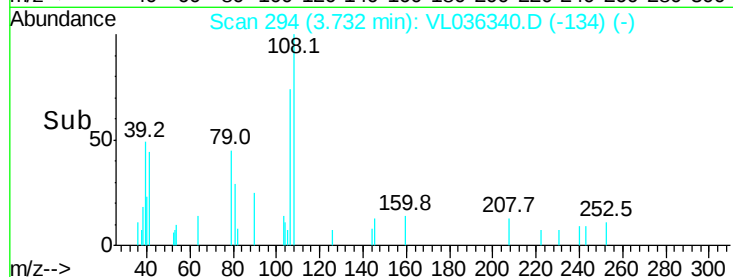
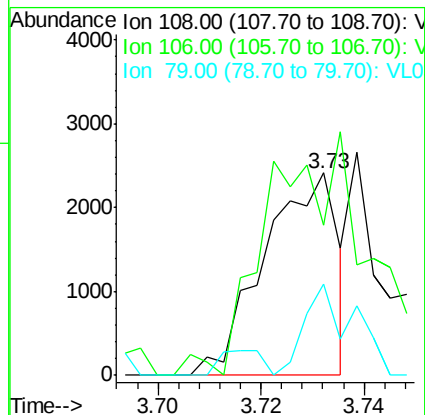
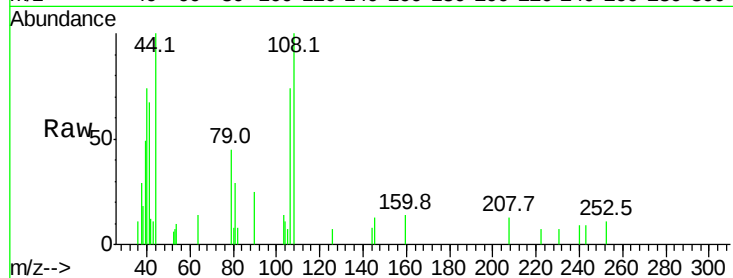
Tgt Ion:108 Resp: 2381

Ion Ratio Lower Upper

108 100

106 0.0 89.8 134.8#

79 37.0 17.1 25.7#



#15

Acetone

Concen: 0.189 ppbv

RT: 3.86 min Scan# 334

Delta R.T. 0.03 min

Lab File: VL036340.D

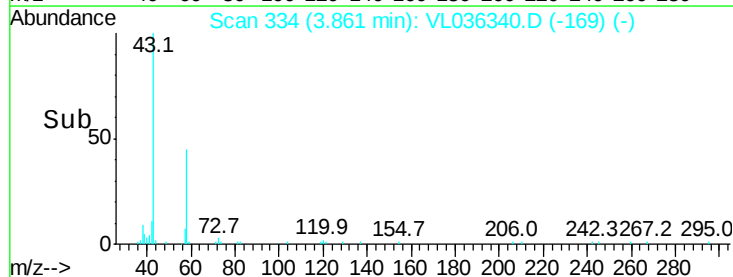
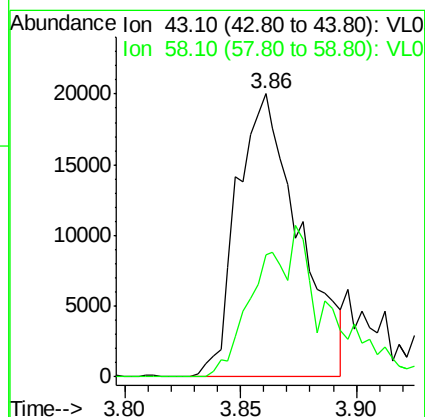
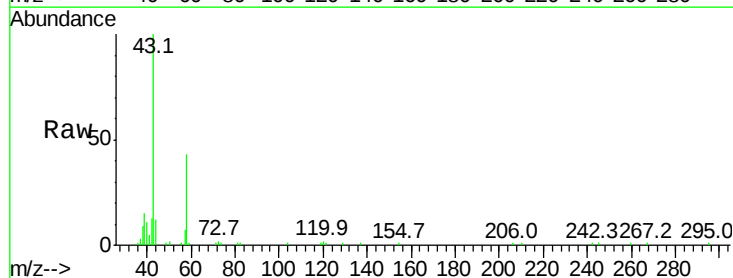
Acq: 11 Feb 2021 8:33

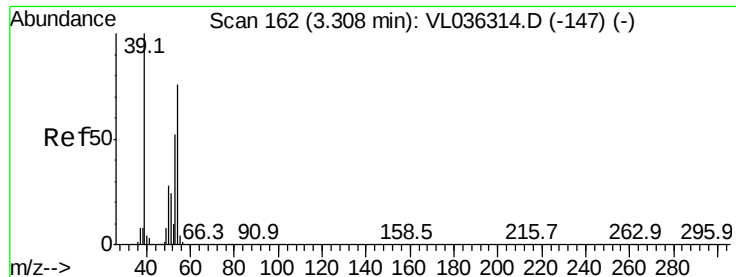
Tgt Ion: 43 Resp: 37300

Ion Ratio Lower Upper

43 100

58 67.5 20.3 30.5#





#16

1,3-Butadiene

Concen: 0.032 ppbv

RT: 3.31 min Scan# 163

Delta R.T. 0.00 min

Lab File: VL036340.D

Acq: 11 Feb 2021 8:33

Instrument :

MSVOA_L

ClientSampleId :

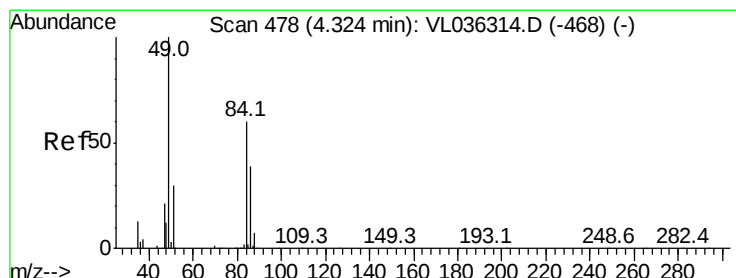
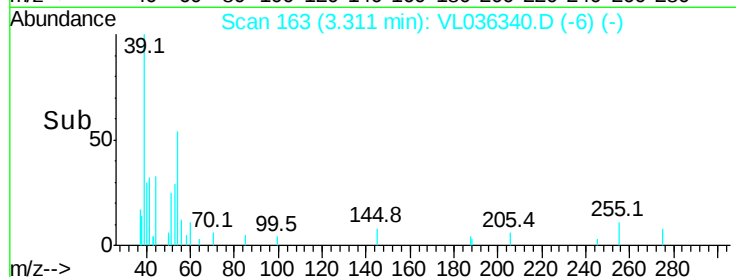
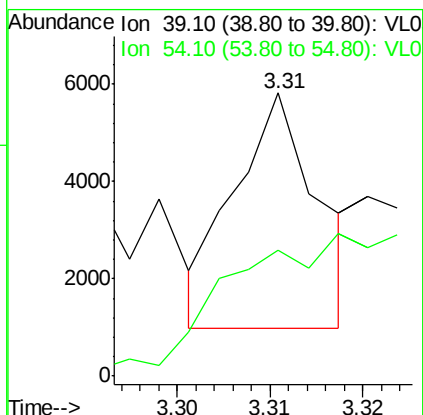
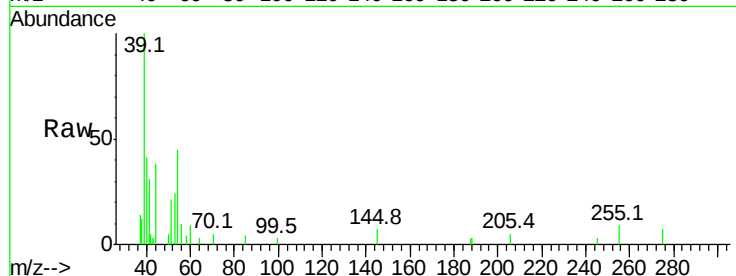
VIBLK

Tgt Ion: 39 Resp: 3019

Ion Ratio Lower Upper

39 100

54 0.0 64.4 96.6#



#20

Methylene Chloride

Concen: 0.114 ppbv

RT: 4.33 min Scan# 481

Delta R.T. 0.01 min

Lab File: VL036340.D

Acq: 11 Feb 2021 8:33

Tgt Ion: 84 Resp: 7237

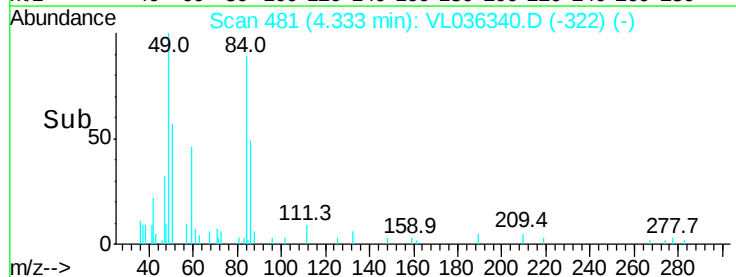
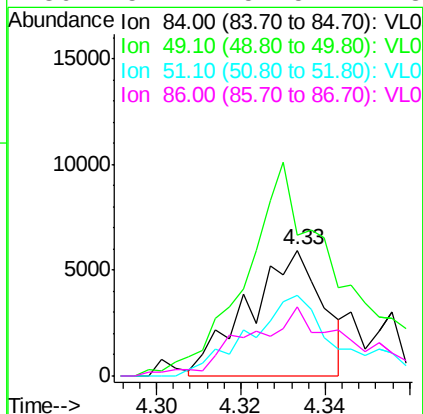
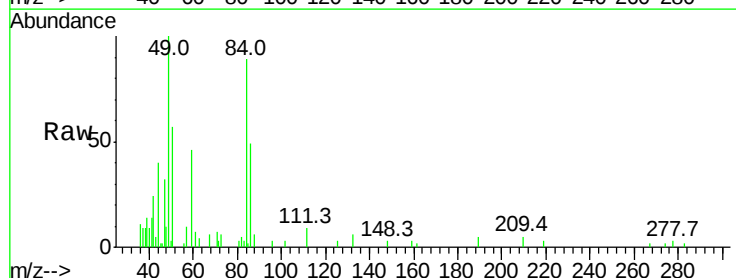
Ion Ratio Lower Upper

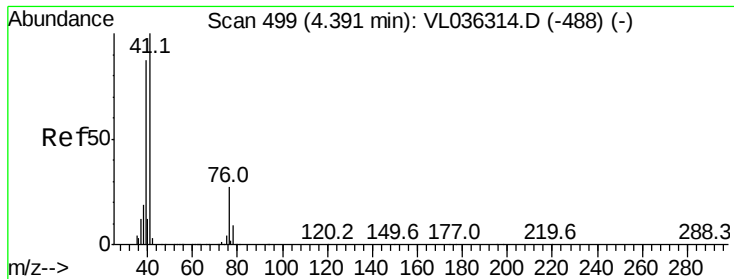
84 100

49 101.7 133.8 200.8#

51 61.4 41.4 62.0

86 51.7 51.5 77.3





#21

Allyl Chloride

Concen: 0.038 ppbv

RT: 4.40 min Scan# 501

Delta R.T. 0.01 min

Lab File: VL036340.D

Acq: 11 Feb 2021 8:33

Instrument :

MSVOA_L

ClientSampleId :

VIBLK

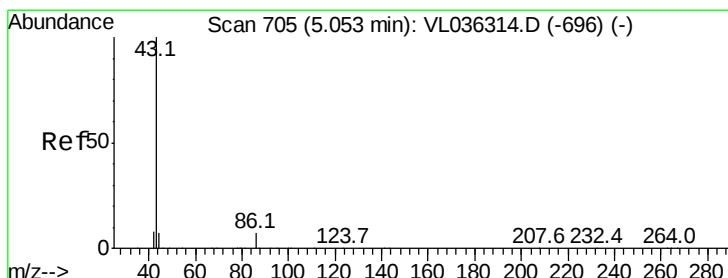
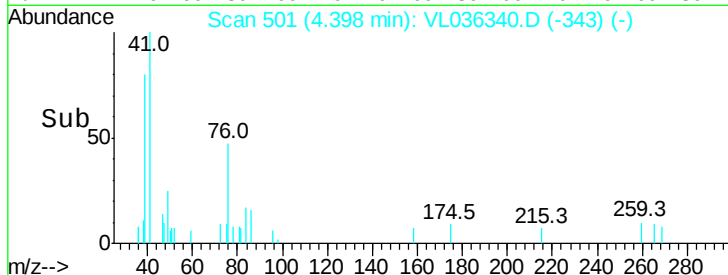
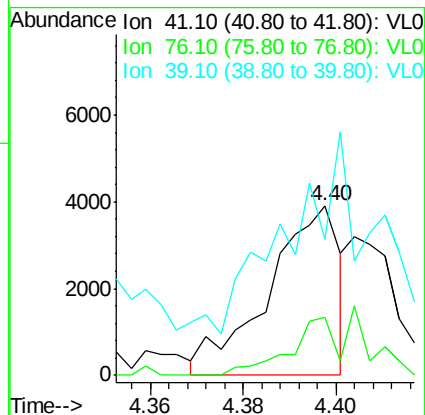
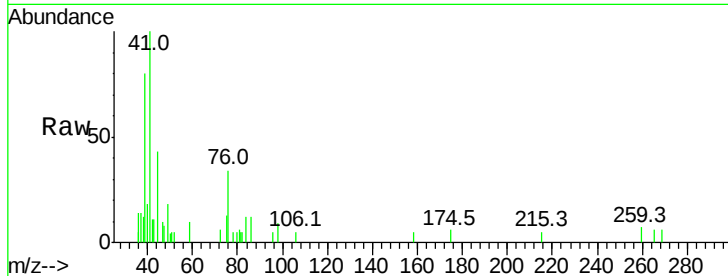
Tgt Ion: 41 Resp: 4149

Ion Ratio Lower Upper

41 100

76 0.0 22.0 33.0#

39 0.0 70.2 105.2#



#23

Vinyl Acetate

Concen: 0.055 ppbv

RT: 5.06 min Scan# 708

Delta R.T. 0.01 min

Lab File: VL036340.D

Acq: 11 Feb 2021 8:33

Tgt Ion: 43 Resp: 12761

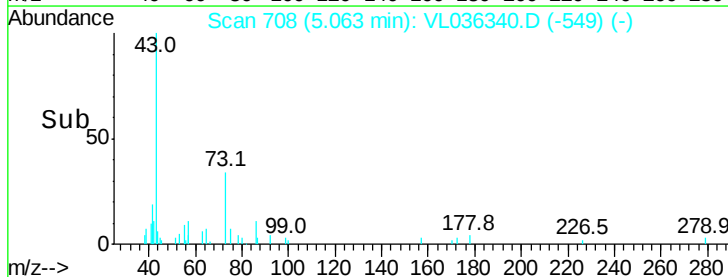
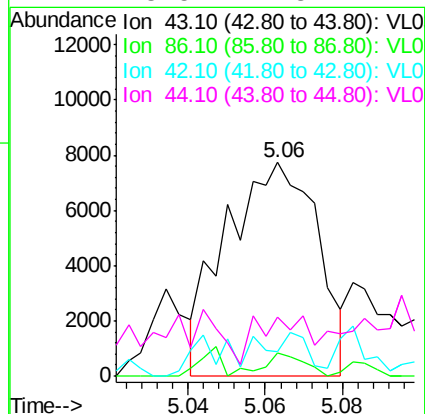
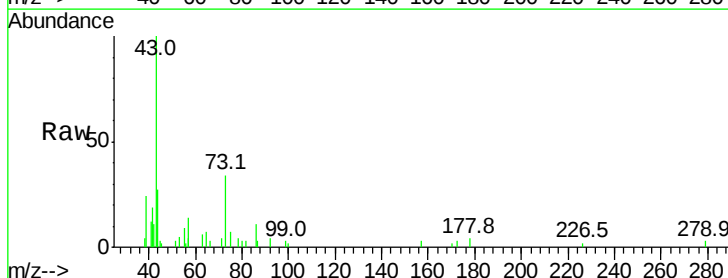
Ion Ratio Lower Upper

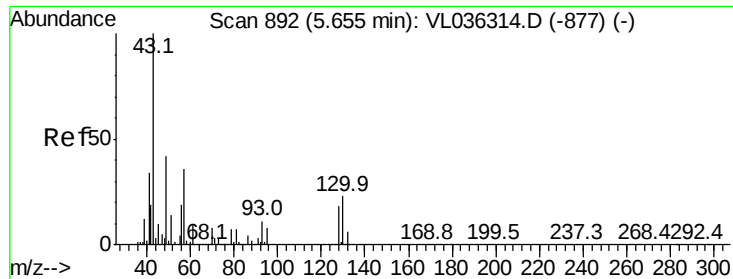
43 100

86 11.7 4.8 7.2#

42 0.0 7.4 11.0#

44 23.5 4.8 7.2#





#25

Ethyl Acetate

Concen: 0.038 ppbv

RT: 5.67 min Scan# 897

Delta R.T. 0.02 min

Lab File: VL036340.D

Acq: 11 Feb 2021 8:33

Instrument :

MSVOA_L

ClientSampleId :

VIBLK

Tgt Ion: 43 Resp: 14393

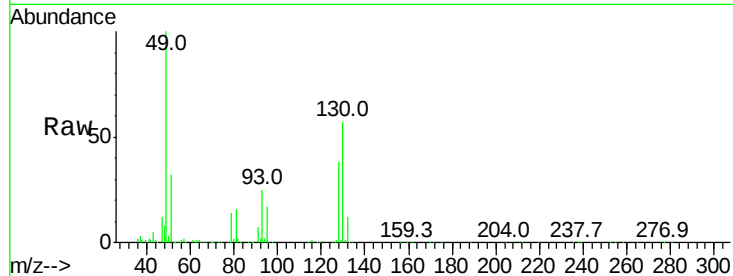
Ion Ratio Lower Upper

43 100

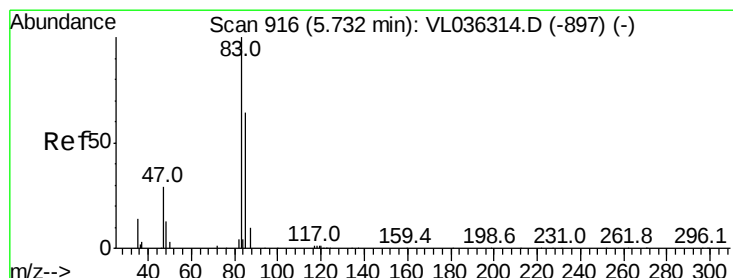
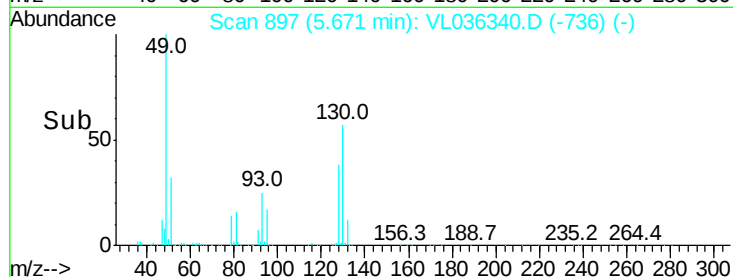
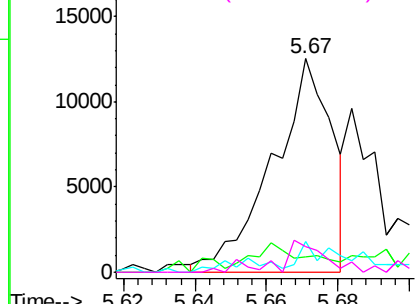
45 27.2 8.3 12.5#

61 19.3 7.3 10.9#

70 13.6 5.4 8.0#



Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 45.10 (44.80 to 45.80): VL0
Ion 61.10 (60.80 to 61.80): VL0
Ion 70.10 (69.80 to 70.80): VL0



#29

Chloroform

Concen: 0.067 ppbv

RT: 5.73 min Scan# 916

Delta R.T. 0.00 min

Lab File: VL036340.D

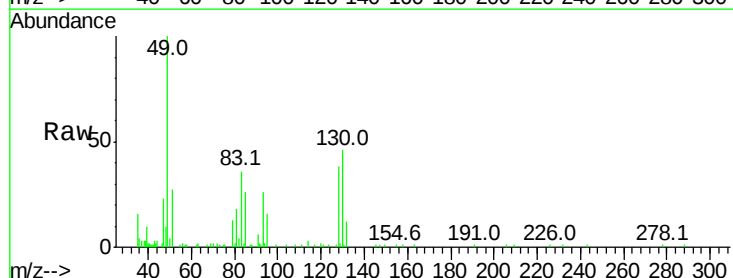
Acq: 11 Feb 2021 8:33

Tgt Ion: 83 Resp: 16898

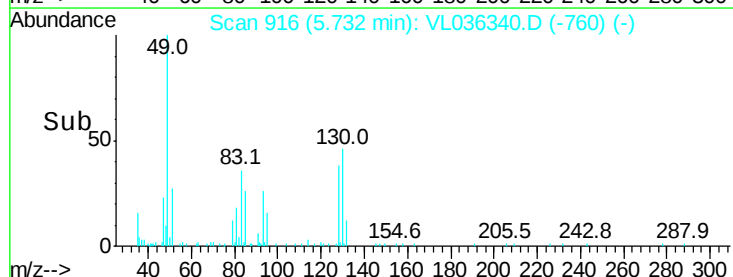
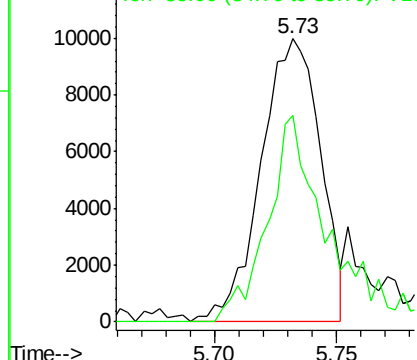
Ion Ratio Lower Upper

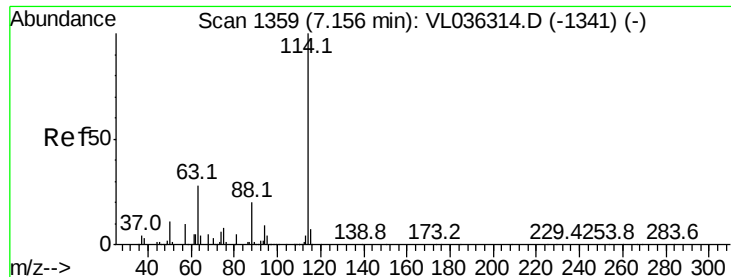
83 100

85 72.8 51.4 77.2



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: 7.15 min Scan# 1358

Delta R.T. -0.00 min

Lab File: VL036340.D

Acq: 11 Feb 2021 8:33

Instrument :

MSVOA_L

ClientSampleId :

VIBLK

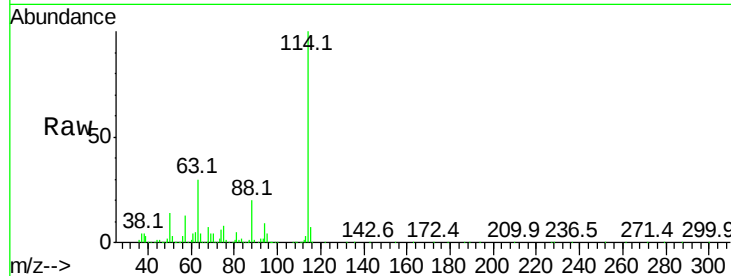
Tgt Ion:114 Resp: 3507454

Ion Ratio Lower Upper

114 100

63 31.0 24.1 36.1

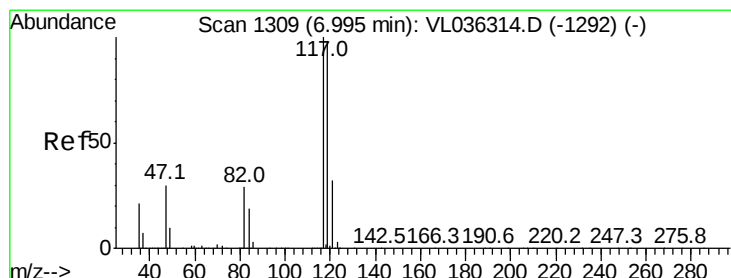
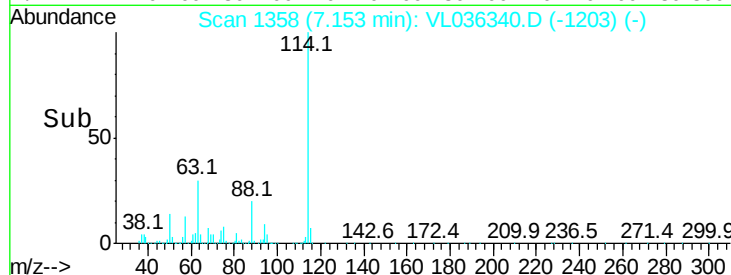
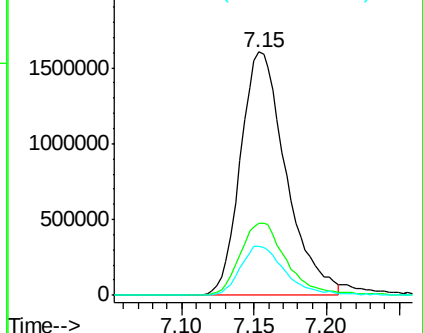
88 20.4 16.0 24.0



Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#35

Carbon Tetrachloride

Concen: 0.046 ppbv

RT: 6.99 min Scan# 1308

Delta R.T. -0.00 min

Lab File: VL036340.D

Acq: 11 Feb 2021 8:33

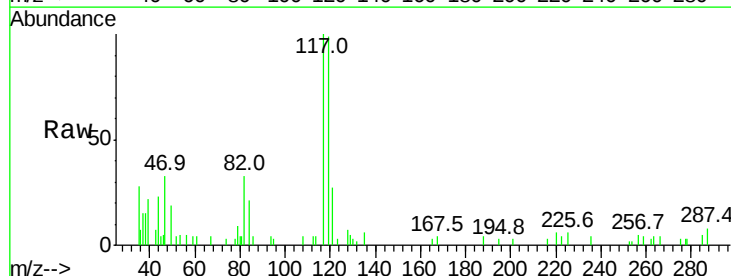
Tgt Ion:117 Resp: 10870

Ion Ratio Lower Upper

117 100

119 98.4 78.1 117.1

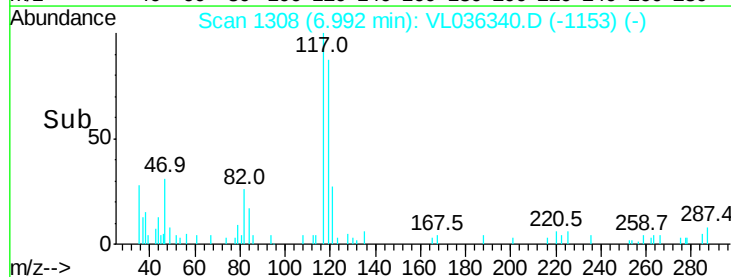
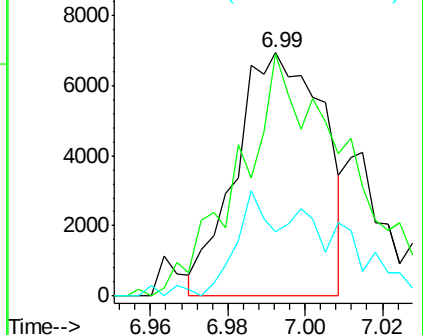
121 26.3 25.8 38.8

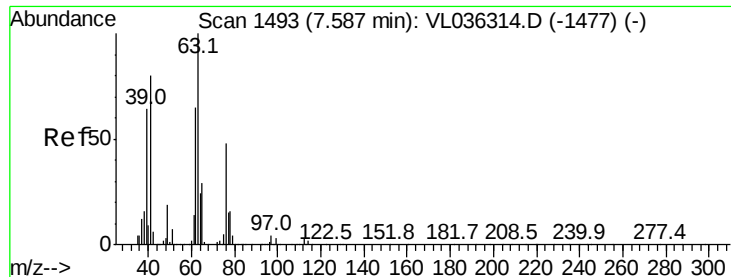


Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V





#39

1,2-Dichloropropane

Concen: 8.665 ppbv

RT: 7.15 min Scan# 1358

Delta R.T. -0.43 min

Lab File: VL036340.D

Acq: 11 Feb 2021 8:33

Instrument :

MSVOA_L

ClientSampled :

VIBLK

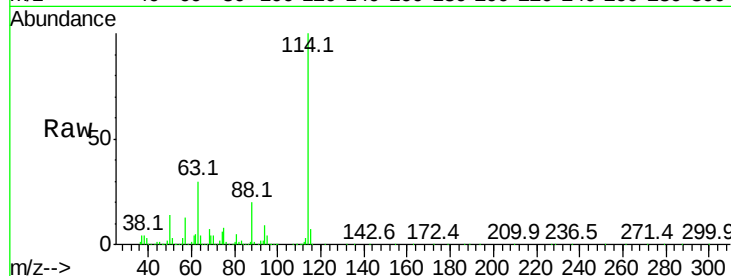
Tgt Ion: 63 Resp: 1048783

Ion Ratio Lower Upper

63 100

41 0.0 63.8 95.6#

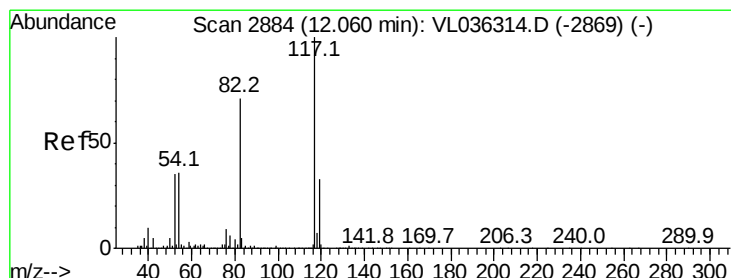
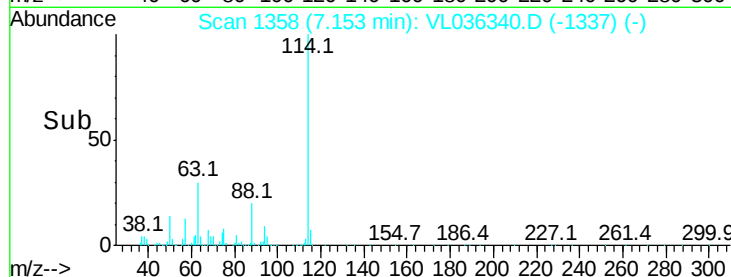
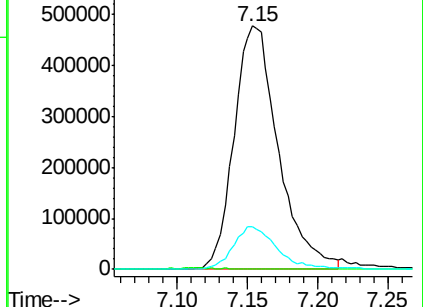
62 17.5 52.3 78.5#



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



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.06 min Scan# 2885

Delta R.T. 0.00 min

Lab File: VL036340.D

Acq: 11 Feb 2021 8:33

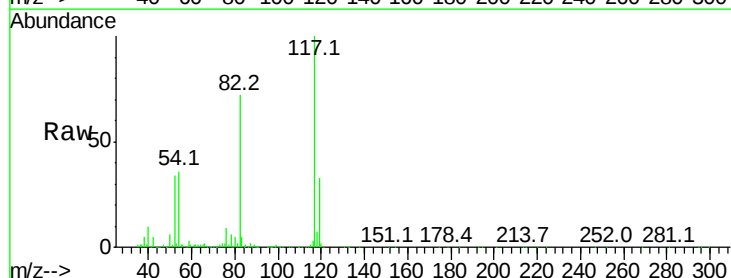
Tgt Ion: 117 Resp: 3292740

Ion Ratio Lower Upper

117 100

82 73.8 59.1 88.7

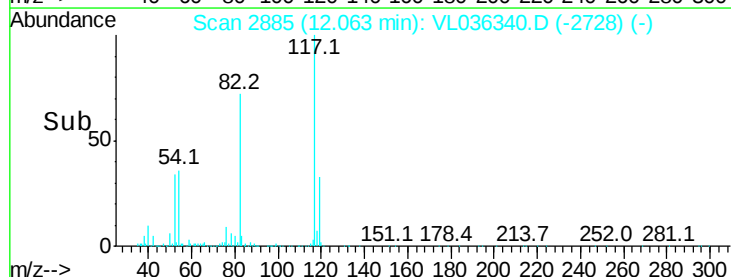
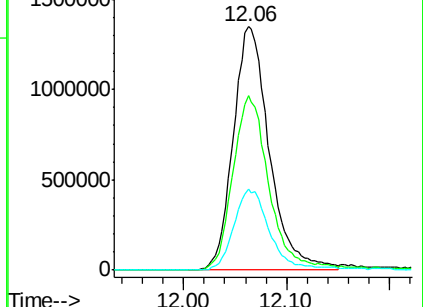
119 33.1 46.3 69.5#

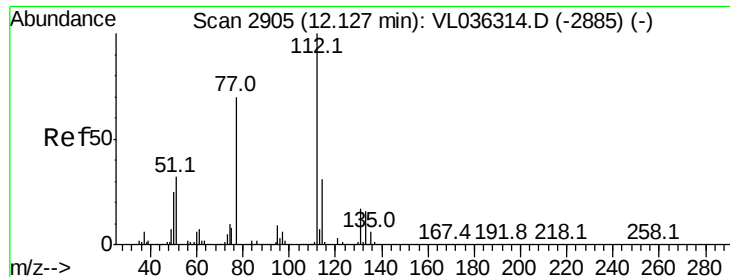


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





#57

Chlorobenzene

Concen: 0.032 ppbv

RT: 12.13 min Scan# 2906

Delta R.T. 0.00 min

Lab File: VL036340.D

Acq: 11 Feb 2021 8:33

Instrument :

MSVOA_L

ClientSampleId :

VIBLK

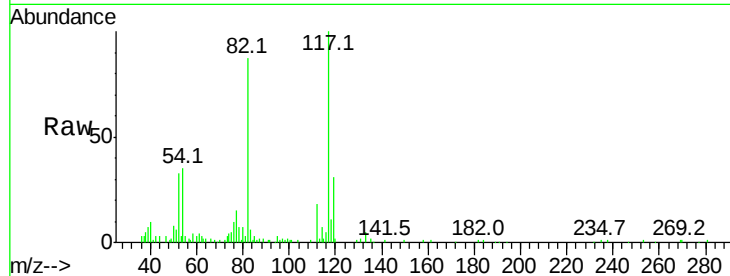
Tgt Ion: 112 Resp: 8257

Ion Ratio Lower Upper

112 100

77 68.7 56.1 84.1

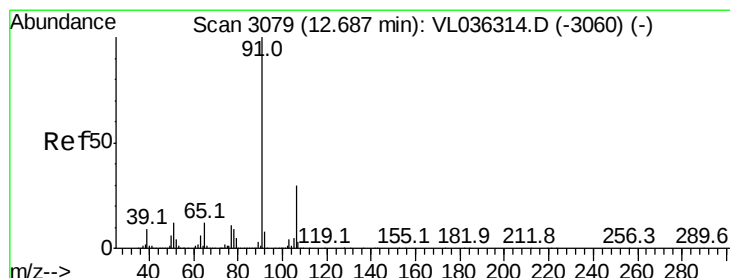
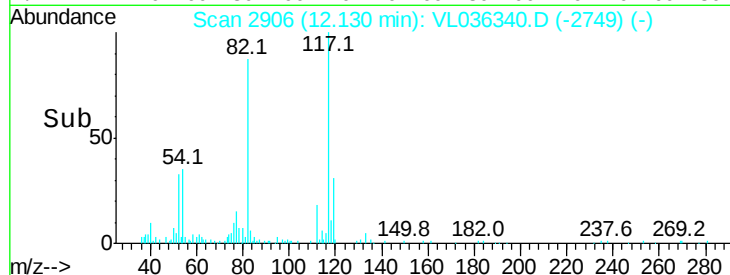
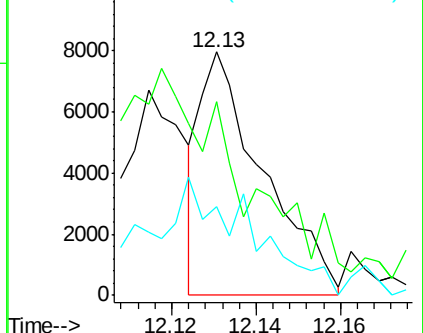
114 37.7 28.3 34.5#



Abundance Ion 112.10 (111.80 to 112.80): V

Ion 77.10 (76.80 to 77.80): VL0

Ion 114.10 (113.80 to 114.80): V



#58

Ethyl Benzene

Concen: 0.034 ppbv

RT: 12.69 min Scan# 3080

Delta R.T. 0.00 min

Lab File: VL036340.D

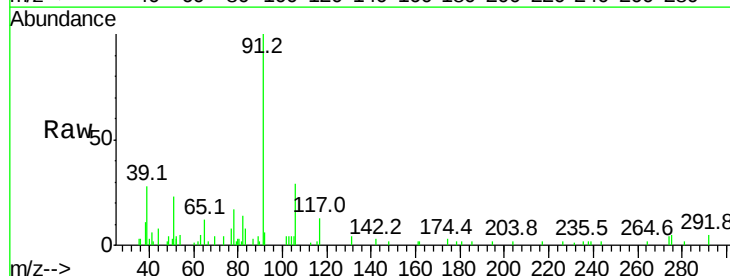
Acq: 11 Feb 2021 8:33

Tgt Ion: 91 Resp: 15179

Ion Ratio Lower Upper

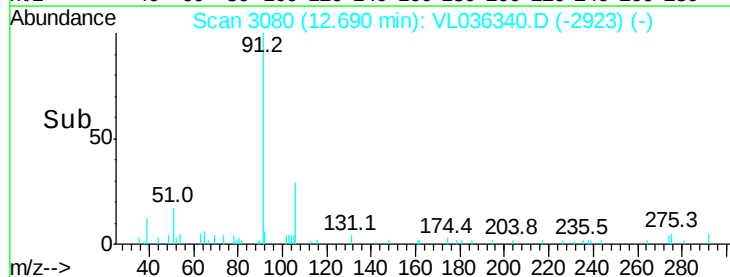
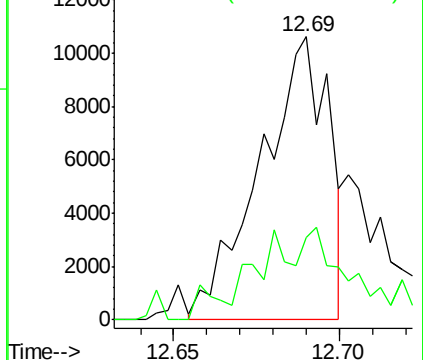
91 100

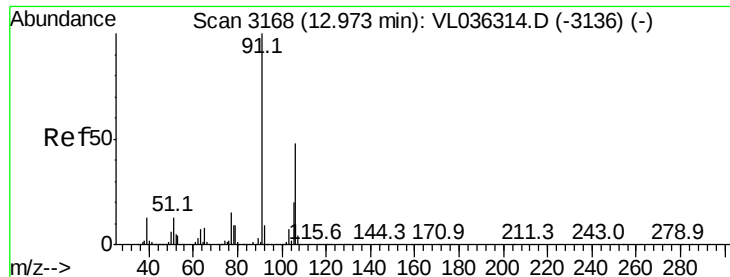
106 29.8 23.8 35.6



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

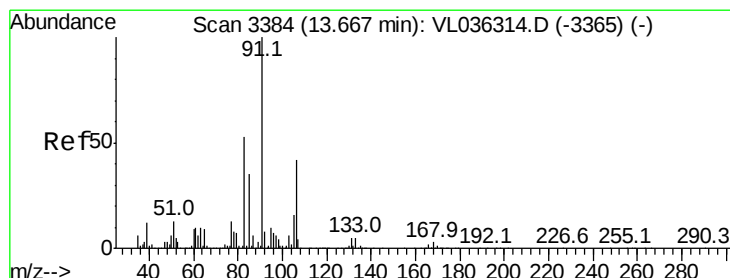
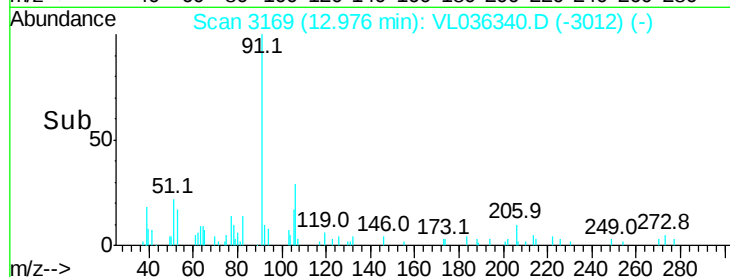
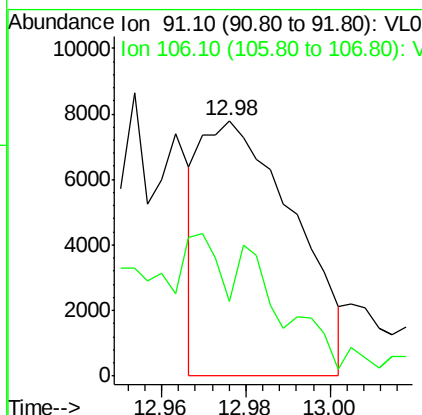
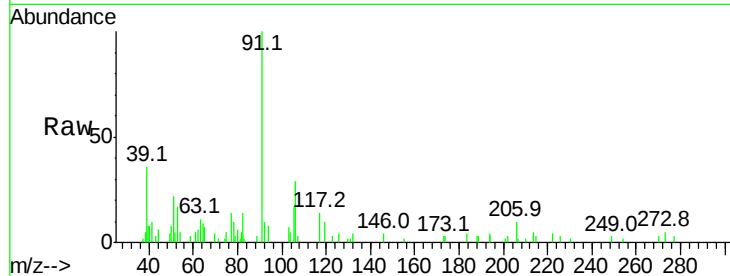




#59
m/p-Xylene
Concen: 0.030 ppbv
RT: 12.98 min Scan# 3169
Delta R.T. 0.00 min
Lab File: VL036340.D
Acq: 11 Feb 2021 8:33

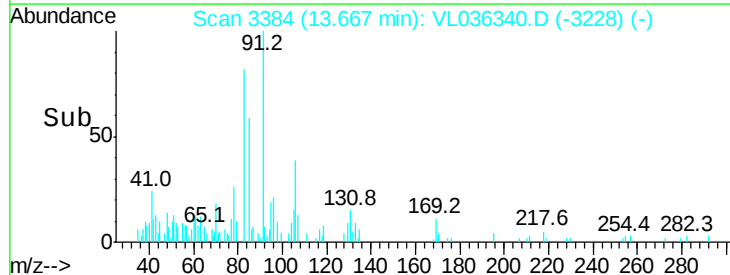
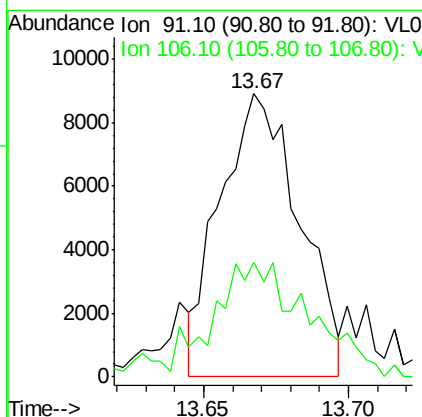
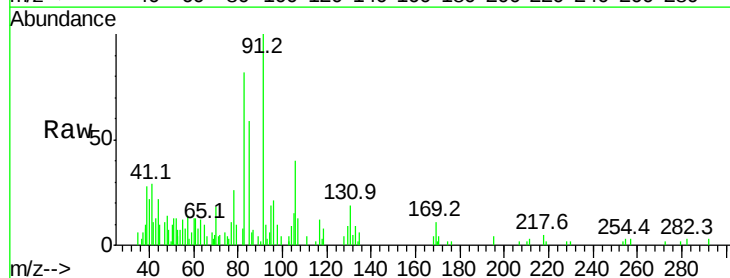
Instrument :
MSVOA_L
ClientSampleId :
VIBLK

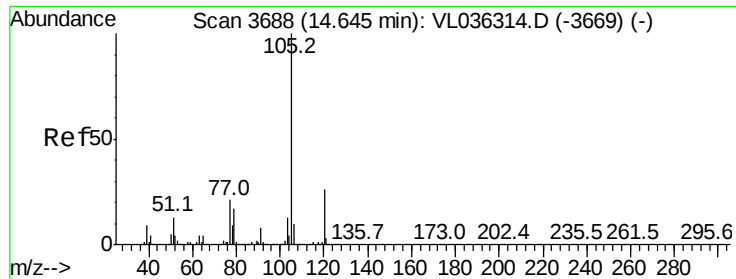
Tgt Ion: 91 Resp: 11980
Ion Ratio Lower Upper
91 100
106 0.0 34.2 51.2#



#60
o-Xylene
Concen: 0.045 ppbv
RT: 13.67 min Scan# 3384
Delta R.T. 0.00 min
Lab File: VL036340.D
Acq: 11 Feb 2021 8:33

Tgt Ion: 91 Resp: 16940
Ion Ratio Lower Upper
91 100
106 51.9 22.0 66.0





#62

Isopropylbenzene

Concen: 0.038 ppbv

RT: 14.65 min Scan# 3689

Delta R.T. 0.00 min

Lab File: VL036340.D

Acq: 11 Feb 2021 8:33

Instrument :

MSVOA_L

ClientSampleId :

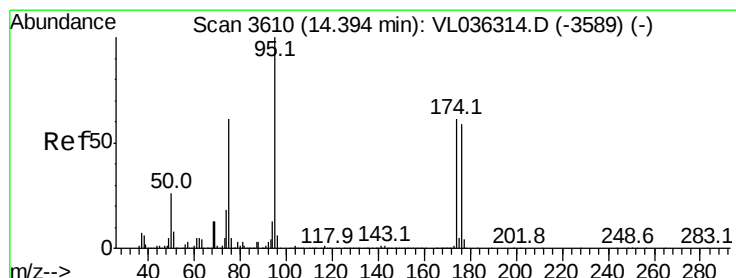
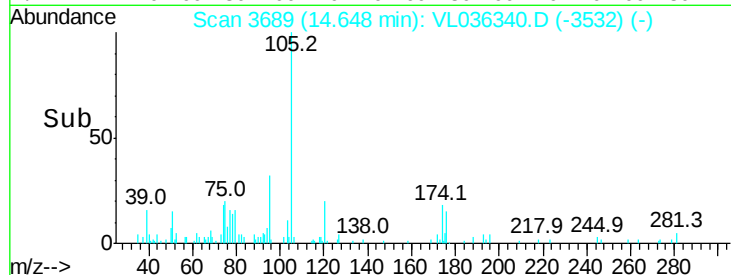
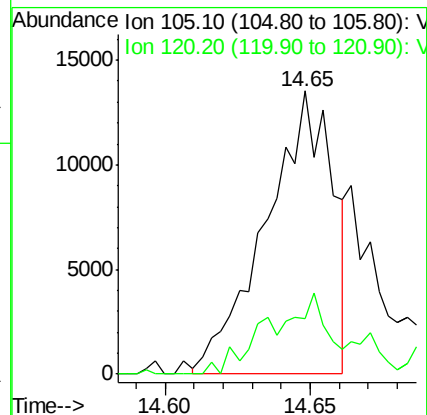
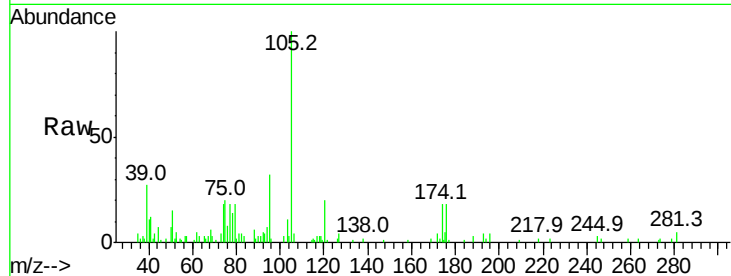
VIBLK

Tgt Ion:105 Resp: 21637

Ion Ratio Lower Upper

105 100

120 35.2 20.6 30.8#



#68

1-Bromo-4-Fluorobenzene

Concen: 9.714 ppbv

RT: 14.39 min Scan# 3610

Delta R.T. 0.00 min

Lab File: VL036340.D

Acq: 11 Feb 2021 8:33

Tgt Ion: 95 Resp: 2631559

Ion Ratio Lower Upper

95 100

174 64.9 49.8 74.6

175 4.6 3.7 5.5

