

Data File : VL035389.D
Acq On : 12 Aug 2020 19:38
Operator : SY/AP
Sample : VSTDIC0.03
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.03

Quant Time: Aug 12 20:23:58 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL081220AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Aug 12 20:00:38 2020
QLast Update : Wed Aug 12 20:00:38 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1493271	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	3418748	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.10	117	3201328	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	2709127	10.48	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.80%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.04	85	5607	0.031	ppbv	98
3) Chlorodifluoromethane	2.98	51	9224	0.053	ppbv	96
4) Chloromethane	3.14	50	3528	0.036	ppbv #	62
7) Chloroethane	3.55	64	1780	0.053	ppbv	100
8) Dichlorotetrafluoroethane	3.18	85	10216	0.049	ppbv	93
9) Propene	3.01	41	6850	0.076	ppbv #	70
11) Trichlorofluoromethane	3.95	101	10459	0.048	ppbv	96
18) 1,1-Dichloroethene	4.29	96	2836	0.042	ppbv #	65
20) Methylene Chloride	4.34	84	9815	0.138	ppbv #	89
31) cis-1,2-Dichloroethene	5.55	61	5307	0.032	ppbv #	79
32) 1,1,1-Trichloroethane	6.51	97	10241	0.040	ppbv	87
37) 1,2-Dichloroethane	6.31	62	9050	0.050	ppbv #	93
39) 1,2-Dichloropropane	7.18	63	921725	7.100	ppbv #	26
47) 1,1,2-Trichloroethane	9.49	97	4366	0.033	ppbv #	57
54) 1,2-Dibromoethane	10.63	107	7877	0.038	ppbv #	64
58) Ethyl Benzene	12.73	91	23375	0.046	ppbv	94
62) Isopropylbenzene	14.69	105	20147	0.033	ppbv #	75
65) tert-Butylbenzene	16.76	119	17582	0.033	ppbv #	59
67) sec-Butylbenzene	17.32	105	25928	0.033	ppbv #	85
72) 4-Ethyltoluene	15.86	105	16711	0.034	ppbv #	55
76) 1,4-Dichlorobenzene	17.16	146	13345	0.048	ppbv	87
80) Naphthalene,2-methyl-	25.00	142	11684	0.041	ppbv #	92

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

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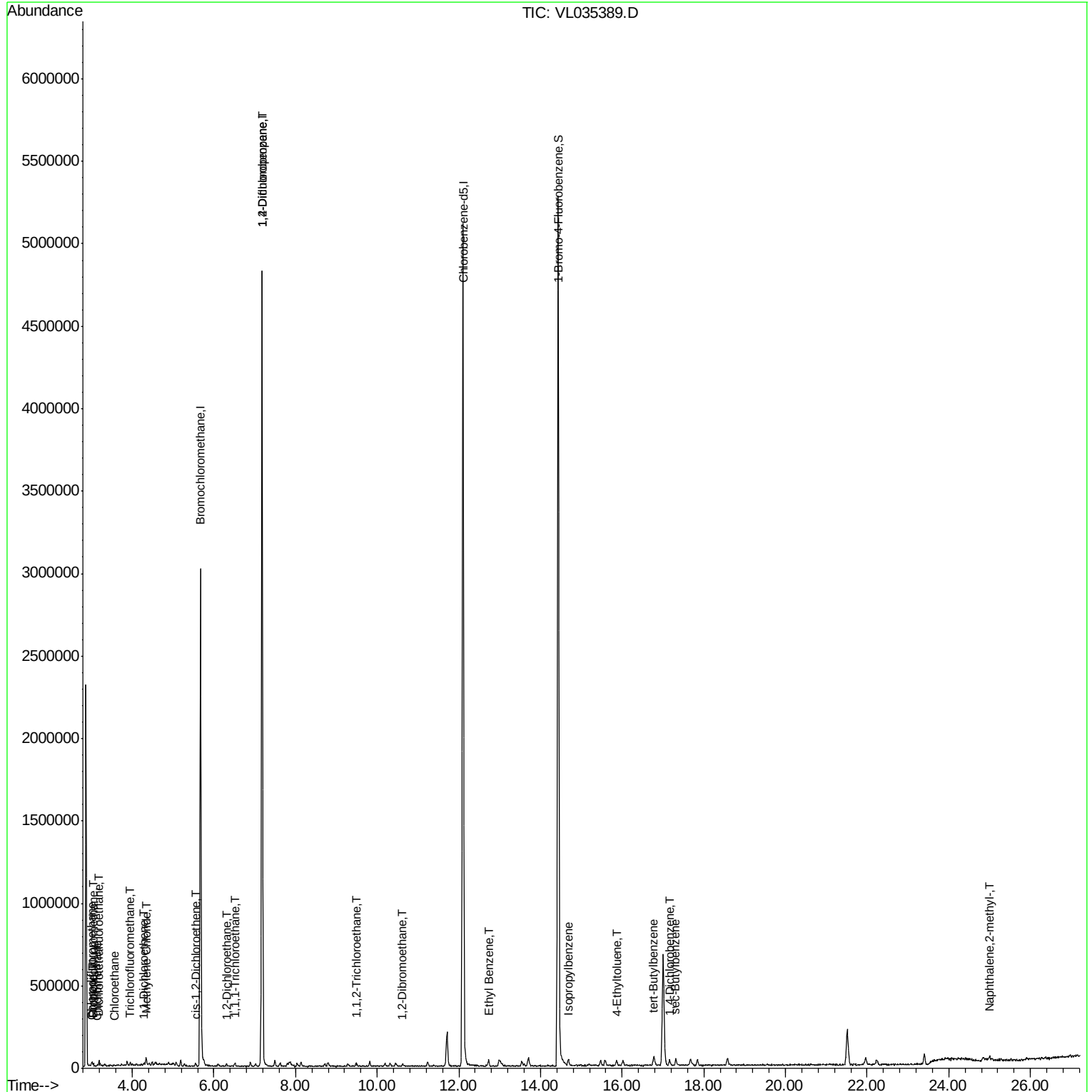
Quant Time: Aug 12 20:23:58 2020

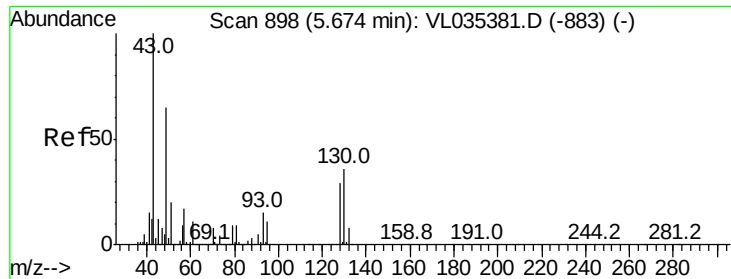
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL081220AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Aug 12 20:00:38 2020

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 896

Delta R.T. -0.01 min

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Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

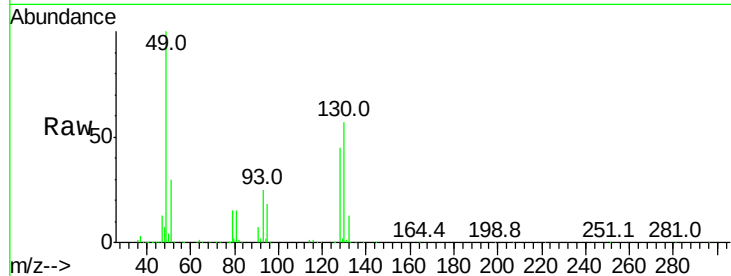
Tgt Ion: 49 Resp: 1493271

Ion Ratio Lower Upper

49 100

128 43.6 21.8 65.3

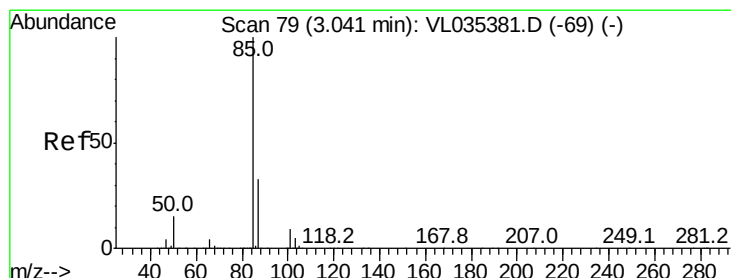
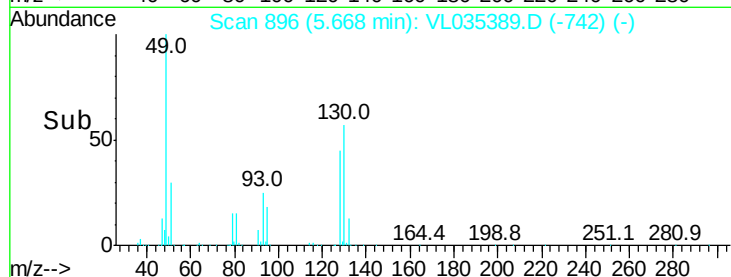
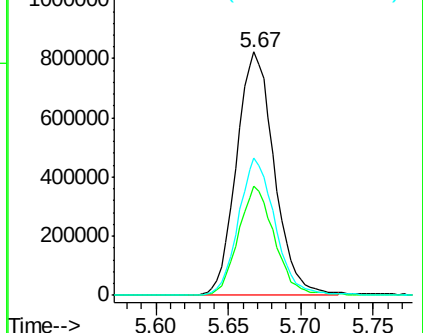
130 54.9 27.9 83.6



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.031 ppbv

RT: 3.04 min Scan# 79

Delta R.T. 0.00 min

Lab File: VL035389.D

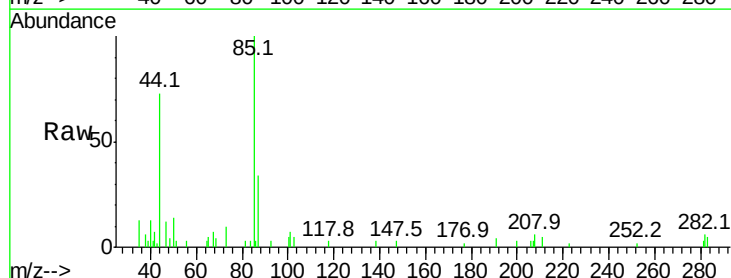
Acq: 12 Aug 2020 19:38

Tgt Ion: 85 Resp: 5607

Ion Ratio Lower Upper

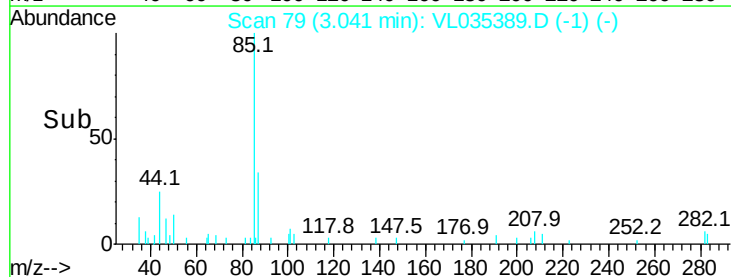
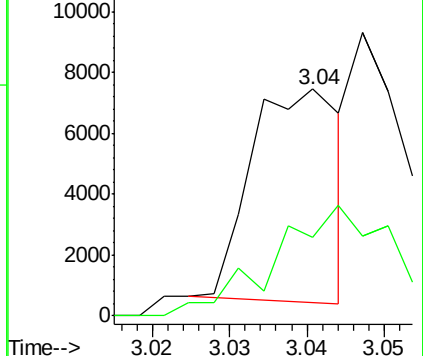
85 100

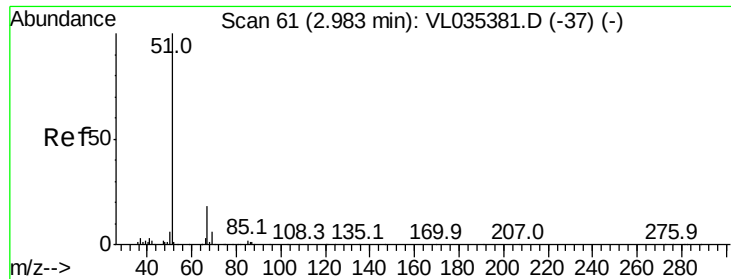
87 31.5 26.1 39.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.053 ppbv

RT: 2.98 min Scan# 61

Delta R.T. 0.00 min

Lab File: VL035389.D

Acq: 12 Aug 2020 19:38

Instrument :

MSVOA_L

ClientSampleId :

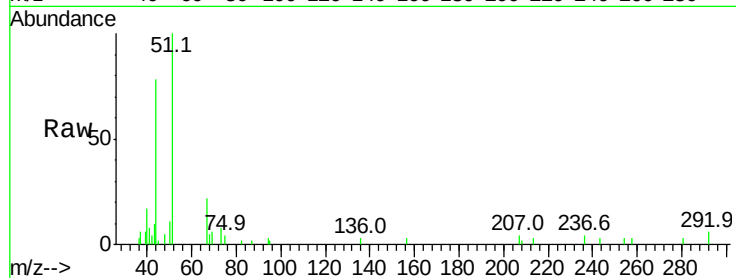
VSTDIC0.03

Tgt Ion: 51 Resp: 9224

Ion Ratio Lower Upper

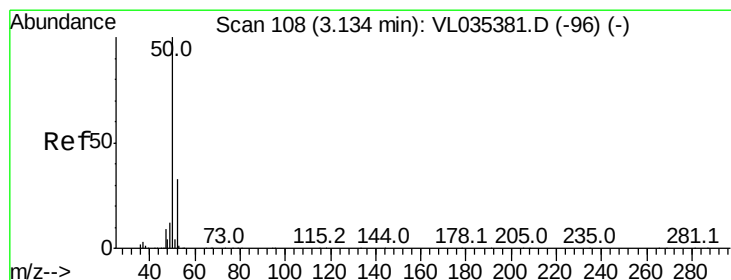
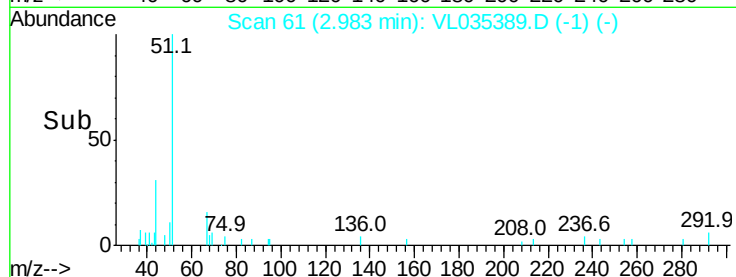
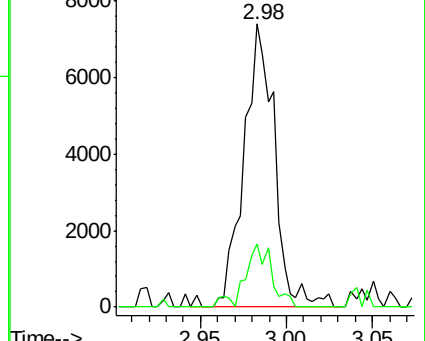
51 100

67 19.5 14.1 21.1



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.036 ppbv

RT: 3.14 min Scan# 109

Delta R.T. 0.00 min

Lab File: VL035389.D

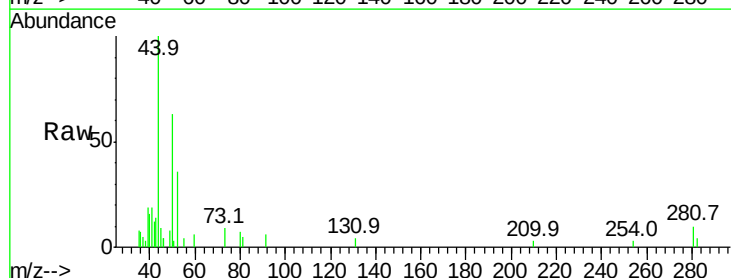
Acq: 12 Aug 2020 19:38

Tgt Ion: 50 Resp: 3528

Ion Ratio Lower Upper

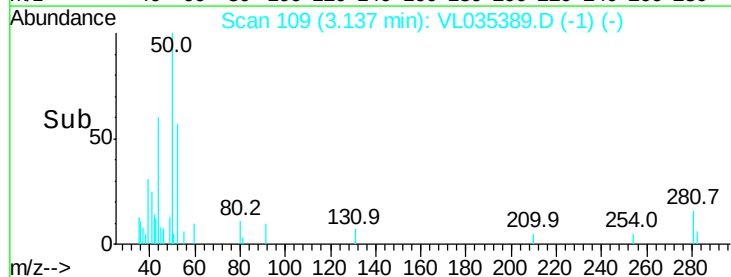
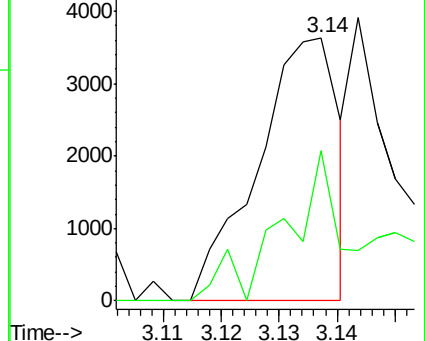
50 100

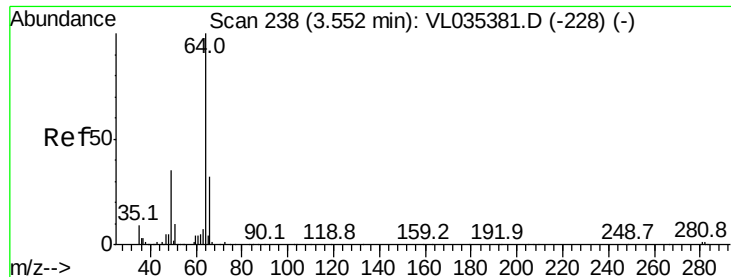
52 54.5 26.6 39.8#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#7

Chloroethane

Concen: 0.053 ppbv

RT: 3.55 min Scan# 238

Delta R.T. 0.00 min

Lab File: VL035389.D

Acq: 12 Aug 2020 19:38

Instrument :

MSVOA_L

ClientSampleId :

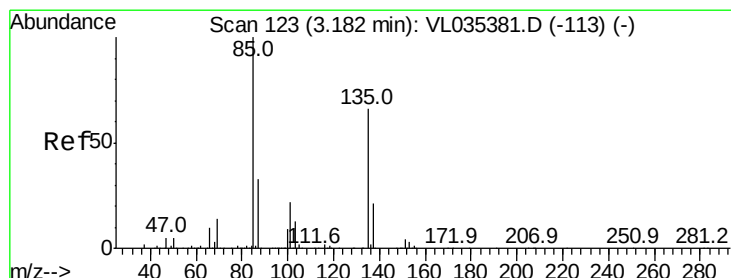
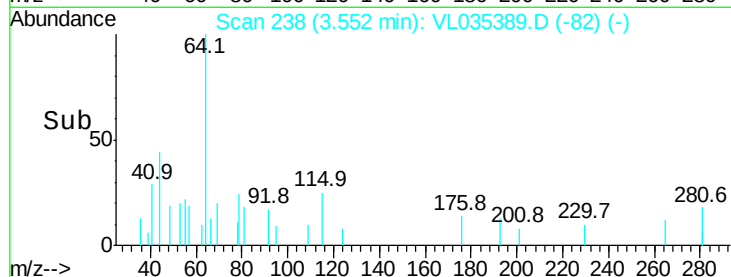
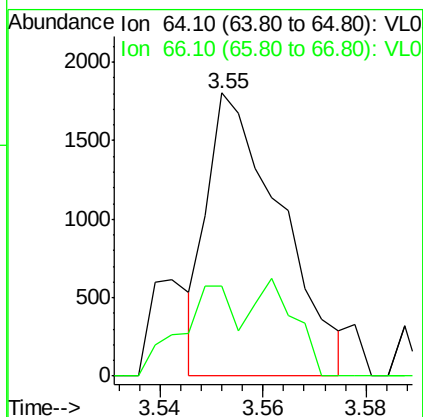
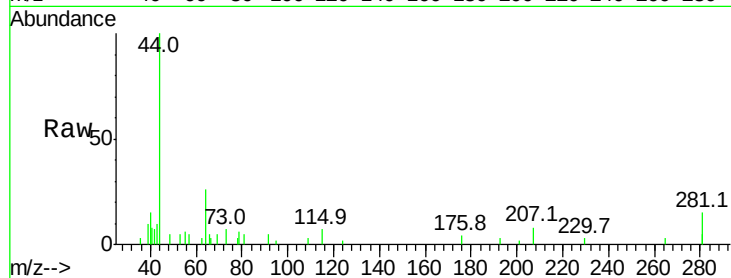
VSTDIC0.03

Tgt Ion: 64 Resp: 1780

Ion Ratio Lower Upper

64 100

66 32.0 25.7 38.5



#8

Dichlorotetrafluoroethane

Concen: 0.049 ppbv

RT: 3.18 min Scan# 123

Delta R.T. 0.00 min

Lab File: VL035389.D

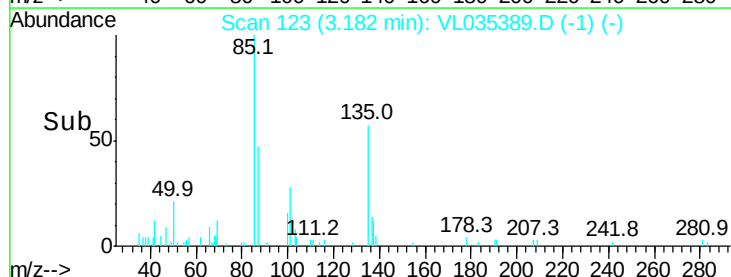
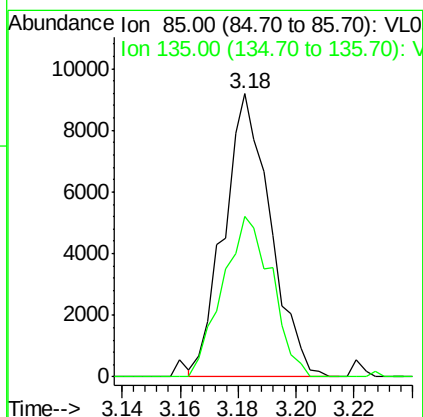
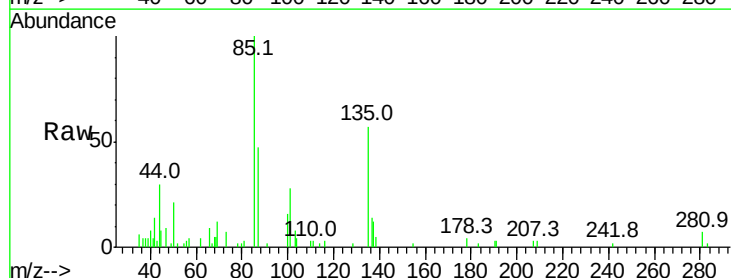
Acq: 12 Aug 2020 19:38

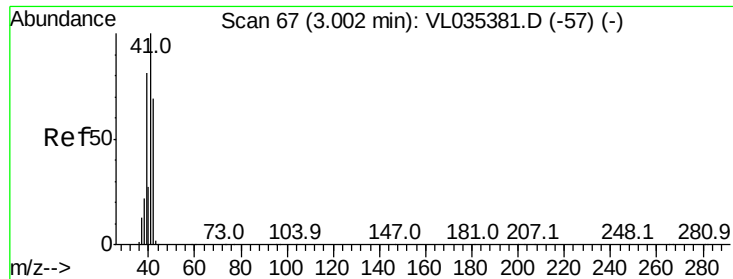
Tgt Ion: 85 Resp: 10216

Ion Ratio Lower Upper

85 100

135 60.2 52.5 78.7





#9

Propene

Concen: 0.076 ppbv

RT: 3.01 min Scan# 69

Delta R.T. 0.01 min

Lab File: VL035389.D

Acq: 12 Aug 2020 19:38

Instrument :

MSVOA_L

ClientSampleId :

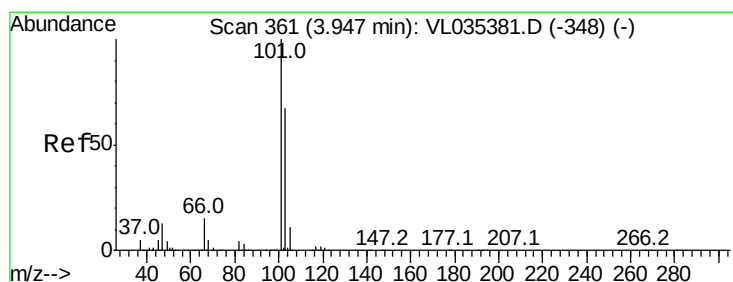
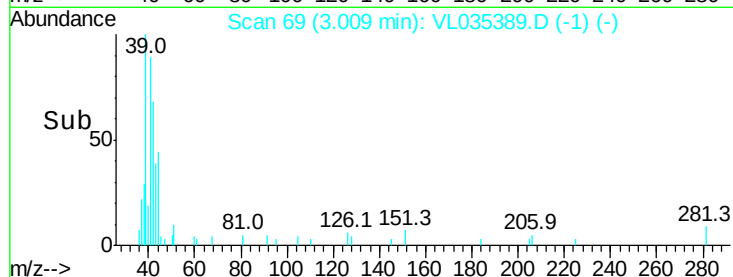
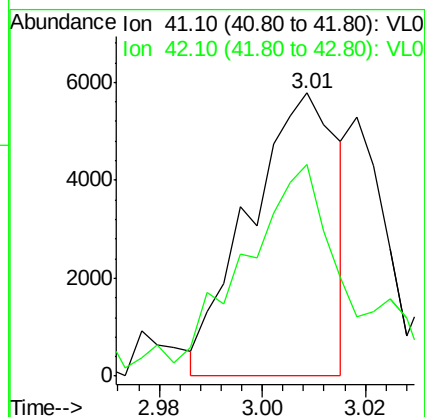
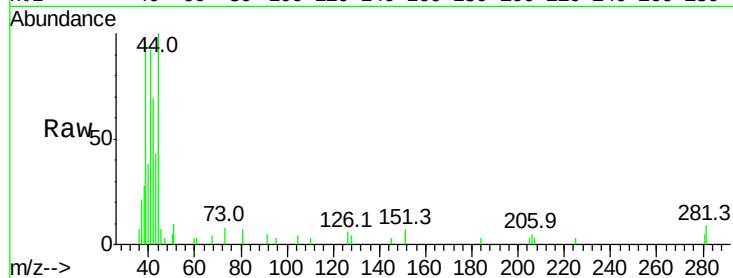
VSTDIC0.03

Tgt Ion: 41 Resp: 6850

Ion Ratio Lower Upper

41 100

42 93.4 55.4 83.2#



#11

Trichlorofluoromethane

Concen: 0.048 ppbv

RT: 3.95 min Scan# 361

Delta R.T. 0.00 min

Lab File: VL035389.D

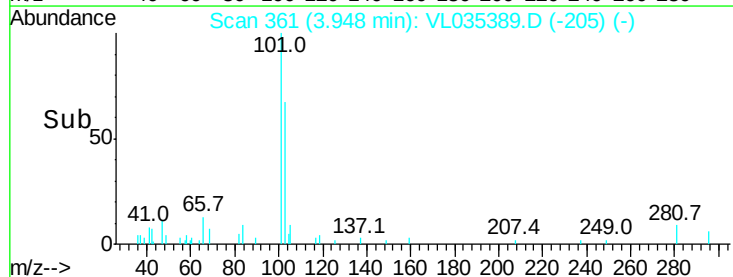
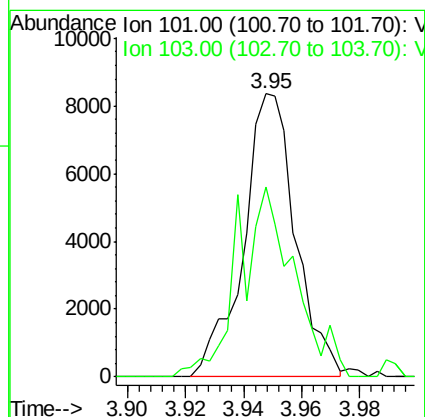
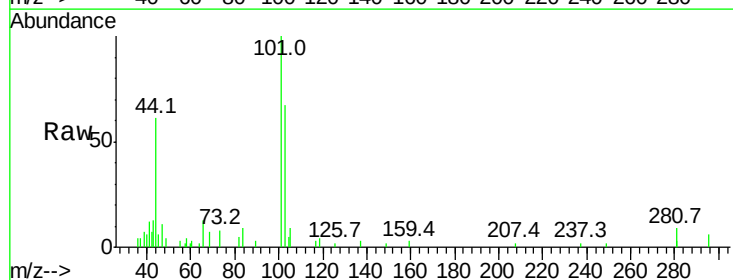
Acq: 12 Aug 2020 19:38

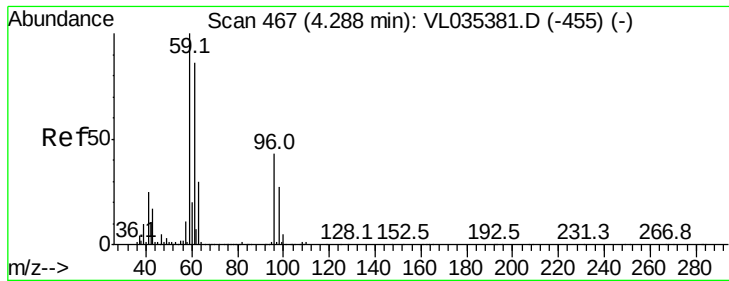
Tgt Ion: 101 Resp: 10459

Ion Ratio Lower Upper

101 100

103 63.8 53.3 79.9

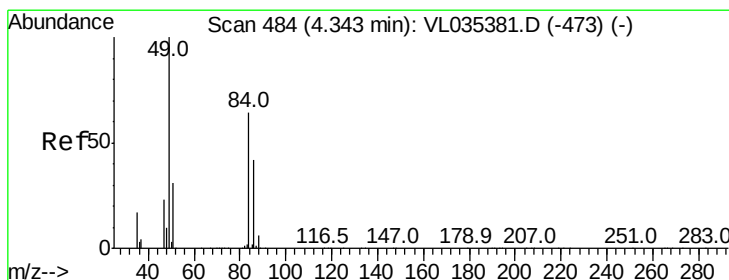
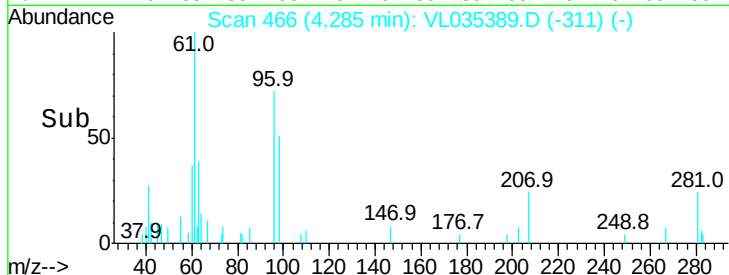
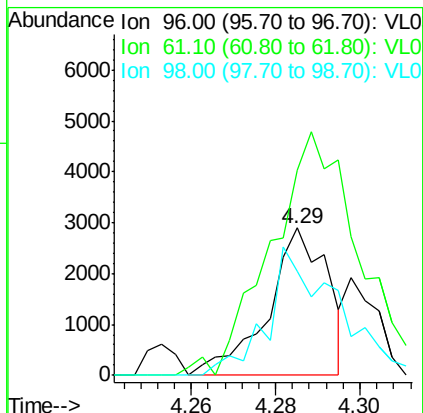
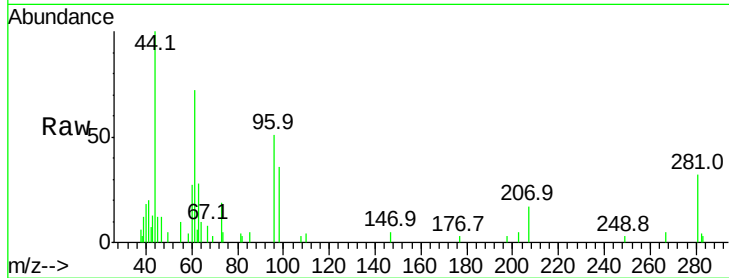




#18
 1,1-Dichloroethene
 Concen: 0.042 ppbv
 RT: 4.29 min Scan# 466
 Delta R.T. -0.00 min
 Lab File: VL035389.D
 Acq: 12 Aug 2020 19:38

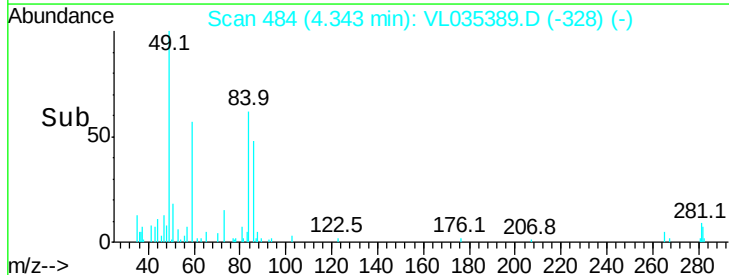
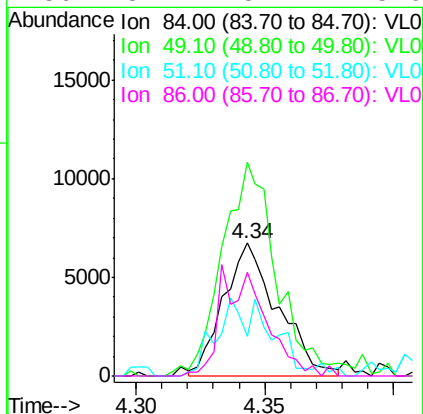
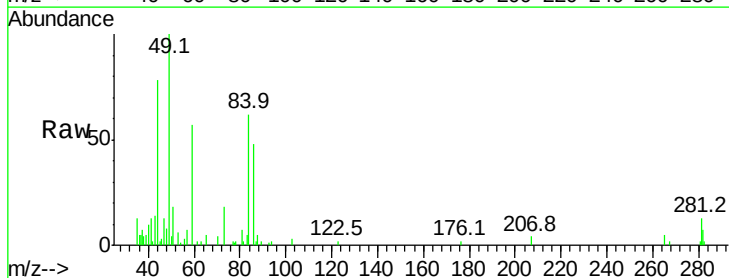
Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.03

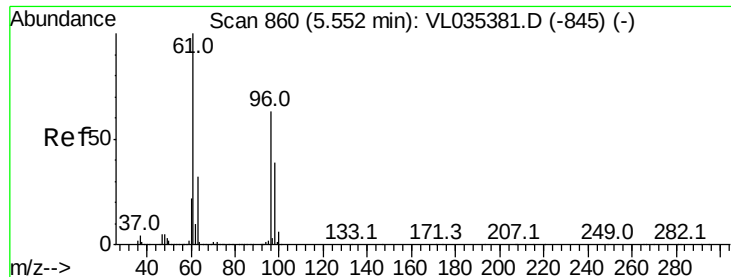
Tgt Ion: 96 Resp: 2836
 Ion Ratio Lower Upper
 96 100
 61 133.4 159.0 238.4#
 98 70.7 50.3 75.5



#20
 Methylene Chloride
 Concen: 0.138 ppbv
 RT: 4.34 min Scan# 484
 Delta R.T. 0.00 min
 Lab File: VL035389.D
 Acq: 12 Aug 2020 19:38

Tgt Ion: 84 Resp: 9815
 Ion Ratio Lower Upper
 84 100
 49 158.1 125.7 188.5
 51 27.9 38.5 57.7#
 86 81.2 52.4 78.6#





#31

cis-1,2-Dichloroethene

Concen: 0.032 ppbv

RT: 5.55 min Scan# 859

Delta R.T. -0.00 min

Lab File: VL035389.D

Acq: 12 Aug 2020 19:38

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

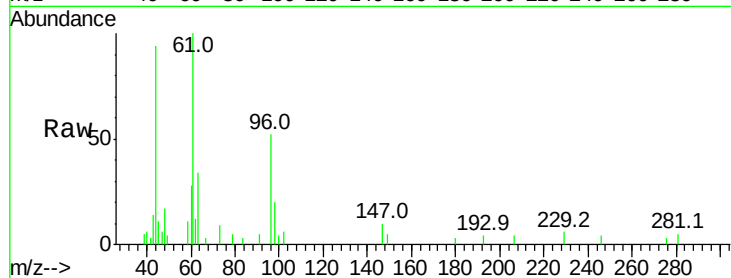
Tgt Ion: 61 Resp: 5307

Ion Ratio Lower Upper

61 100

96 52.1 50.5 75.7

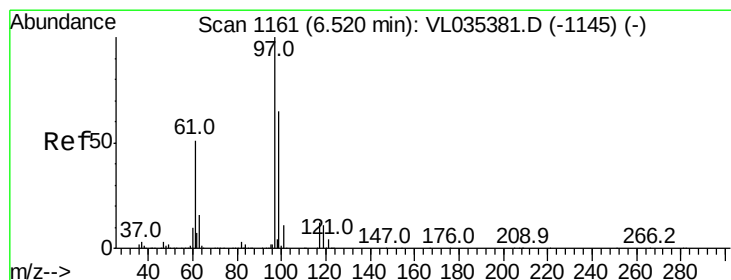
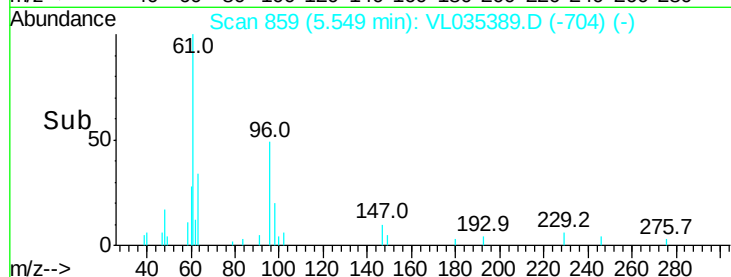
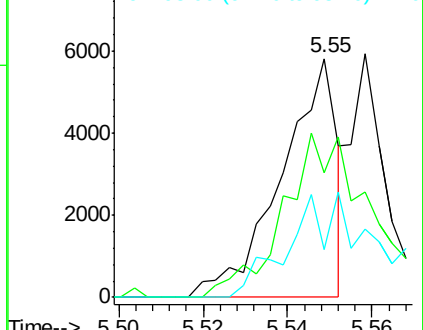
98 19.7 31.5 47.3#



Abundance Ion 61.10 (60.80 to 61.80): VL0

Ion 96.00 (95.70 to 96.70): VL0

Ion 98.00 (97.70 to 98.70): VL0



#32

1,1,1-Trichloroethane

Concen: 0.040 ppbv

RT: 6.51 min Scan# 1159

Delta R.T. -0.01 min

Lab File: VL035389.D

Acq: 12 Aug 2020 19:38

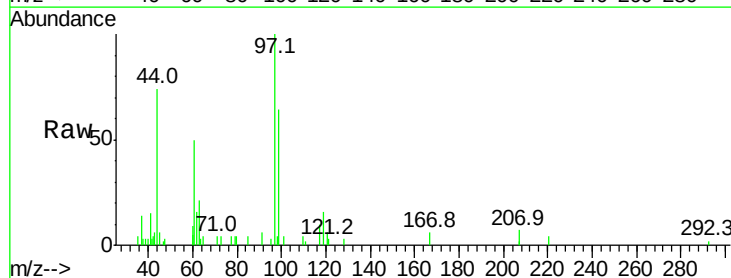
Tgt Ion: 97 Resp: 10241

Ion Ratio Lower Upper

97 100

99 76.6 51.8 77.8

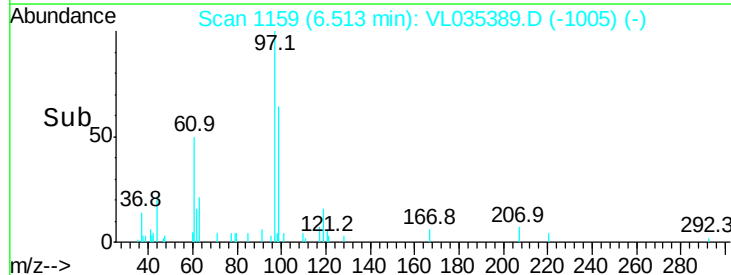
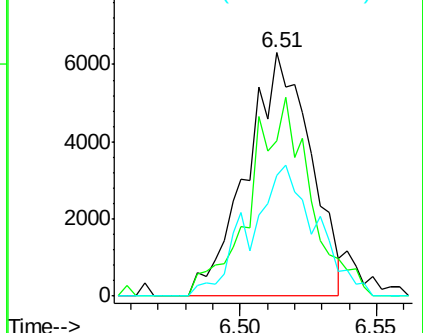
61 56.1 39.6 59.4

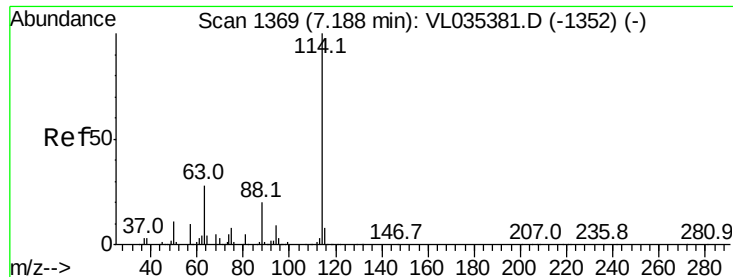


Abundance Ion 97.00 (96.70 to 97.70): VL0

Ion 99.00 (98.70 to 99.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

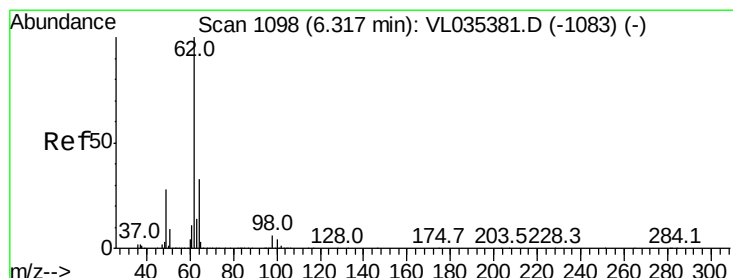
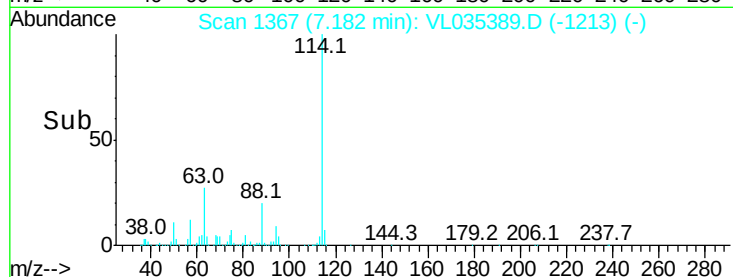
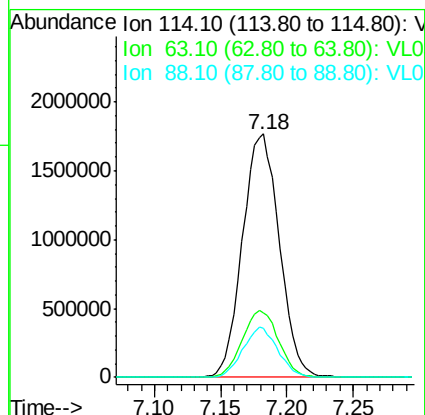
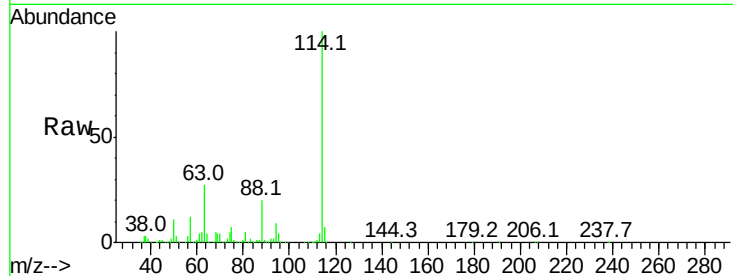




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.18 min Scan# 1367
 Delta R.T. -0.01 min
 Lab File: VL035389.D
 Acq: 12 Aug 2020 19:38

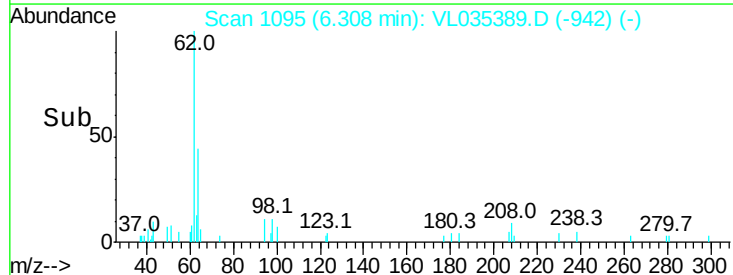
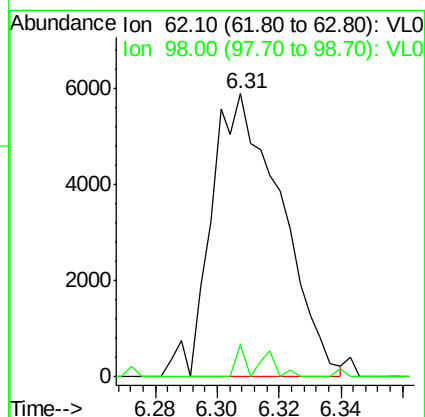
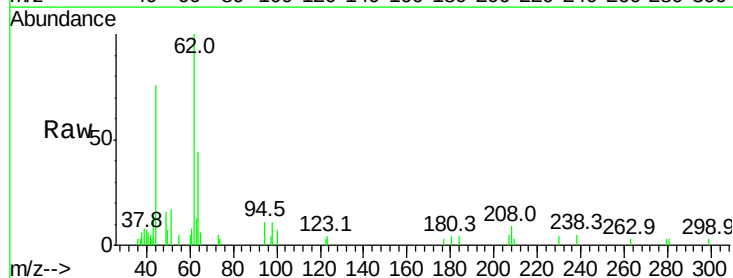
Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.03

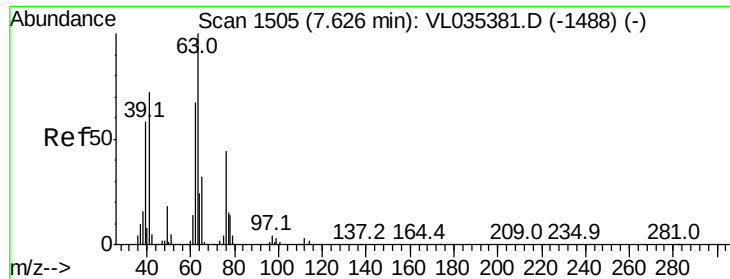
Tgt Ion:114 Resp: 3418748
 Ion Ratio Lower Upper
 114 100
 63 27.1 21.5 32.3
 88 19.6 15.6 23.4



#37
 1,2-Dichloroethane
 Concen: 0.050 ppbv
 RT: 6.31 min Scan# 1095
 Delta R.T. -0.01 min
 Lab File: VL035389.D
 Acq: 12 Aug 2020 19:38

Tgt Ion: 62 Resp: 9050
 Ion Ratio Lower Upper
 62 100
 98 4.0 5.1 7.7#





#39

1,2-Dichloropropane

Concen: 7.100 ppbv

RT: 7.18 min Scan# 1366

Delta R.T. -0.45 min

Lab File: VL035389.D

Acq: 12 Aug 2020 19:38

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

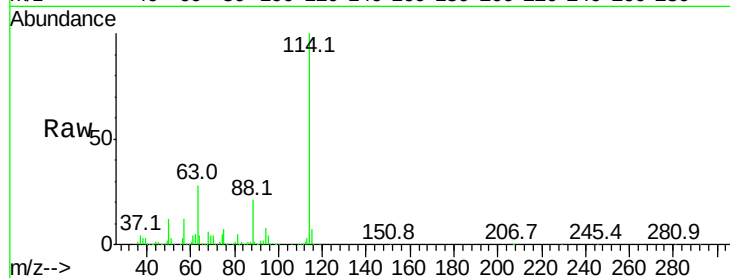
Tgt Ion: 63 Resp: 921725

Ion Ratio Lower Upper

63 100

41 0.1 57.4 86.2#

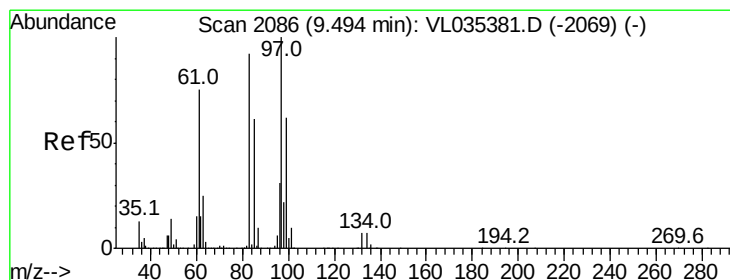
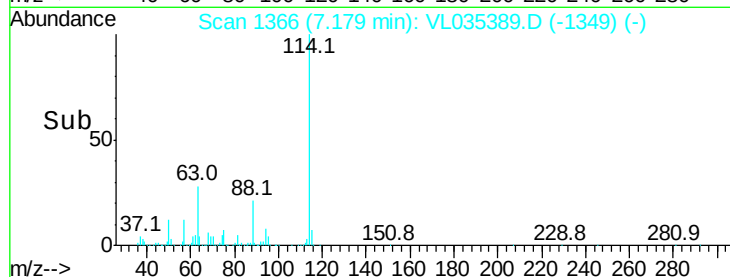
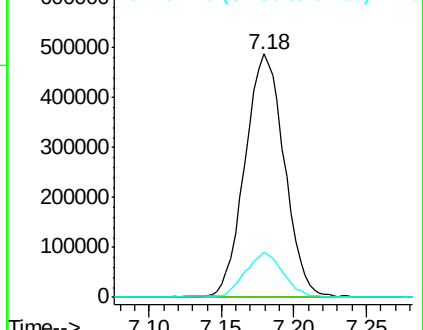
62 18.4 53.6 80.4#



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



#47

1,1,2-Trichloroethane

Concen: 0.033 ppbv

RT: 9.49 min Scan# 2085

Delta R.T. -0.00 min

Lab File: VL035389.D

Acq: 12 Aug 2020 19:38

Tgt Ion: 97 Resp: 4366

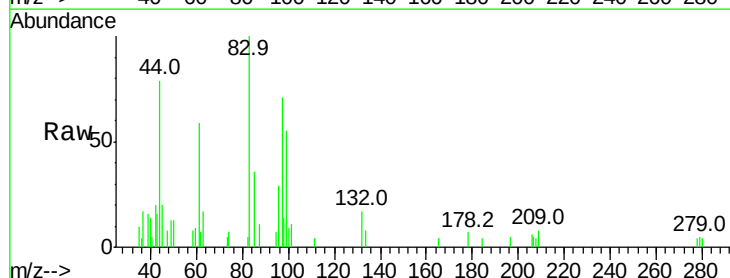
Ion Ratio Lower Upper

97 100

83 152.7 73.9 110.9#

85 18.5 49.0 73.6#

99 61.5 49.9 74.9

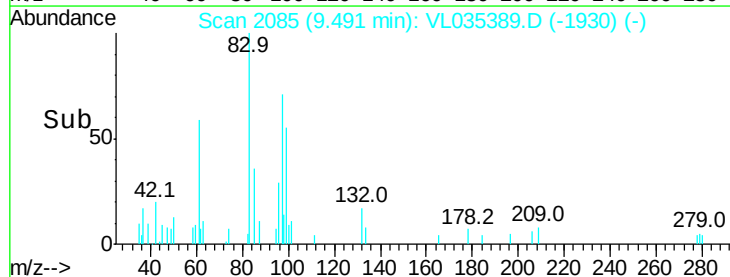
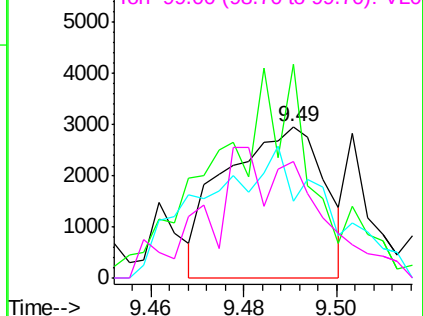


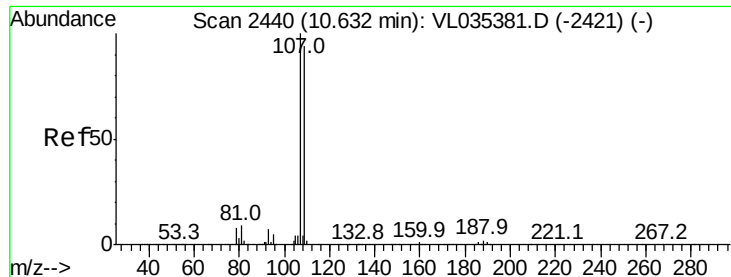
Abundance Ion 97.00 (96.70 to 97.70): VL0

Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

Ion 99.00 (98.70 to 99.70): VL0





#54

1,2-Dibromoethane

Concen: 0.038 ppbv

RT: 10.63 min Scan# 2438

Delta R.T. -0.01 min

Lab File: VL035389.D

Acq: 12 Aug 2020 19:38

Instrument :

MSVOA_L

ClientSampleId :

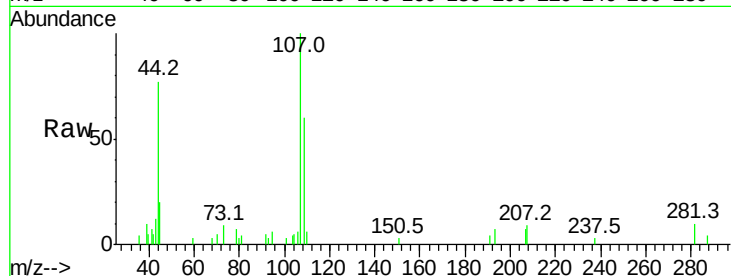
VSTDIC0.03

Tgt Ion:107 Resp: 7877

Ion Ratio Lower Upper

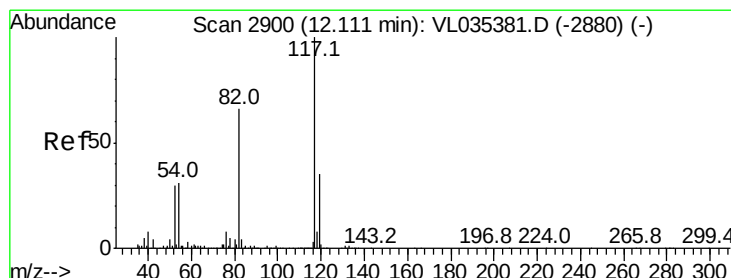
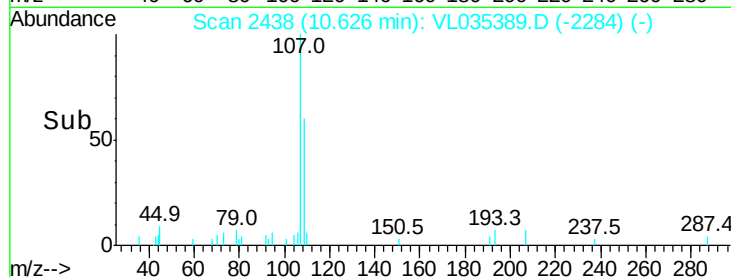
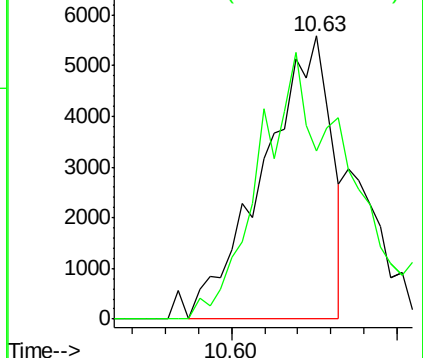
107 100

109 59.6 75.2 112.8#



Abundance Ion 107.00 (106.70 to 107.70): V

Ion 109.00 (108.70 to 109.70): V



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2897

Delta R.T. -0.01 min

Lab File: VL035389.D

Acq: 12 Aug 2020 19:38

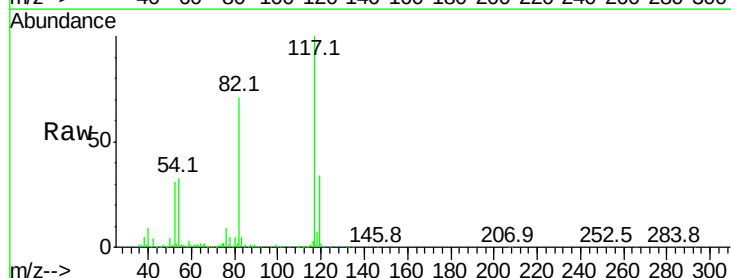
Tgt Ion:117 Resp: 3201328

Ion Ratio Lower Upper

117 100

82 69.8 53.0 79.6

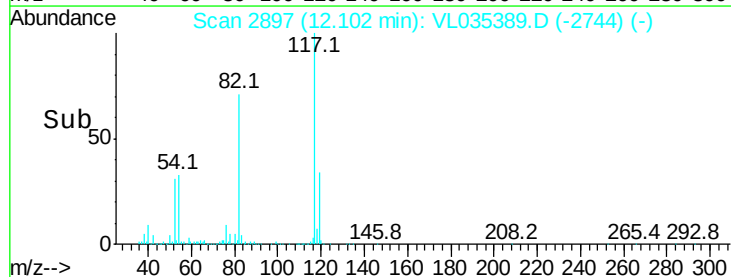
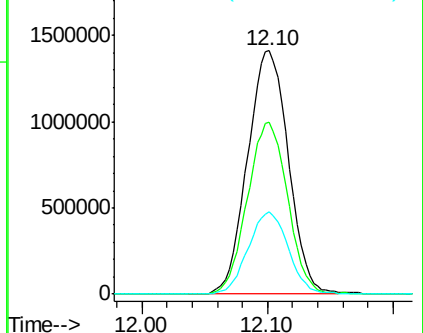
119 33.4 25.7 38.5

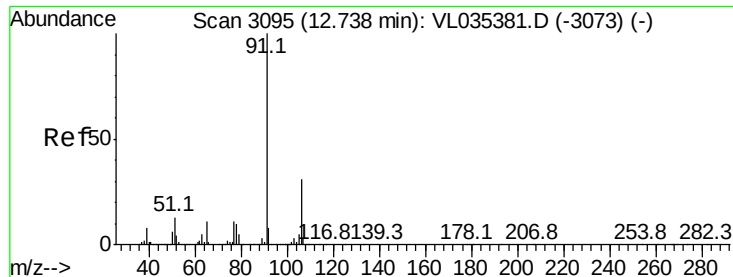


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





#58

Ethyl Benzene

Concen: 0.046 ppbv

RT: 12.73 min Scan# 3092

Delta R.T. -0.01 min

Lab File: VL035389.D

Acq: 12 Aug 2020 19:38

Instrument :

MSVOA_L

ClientSampleId :

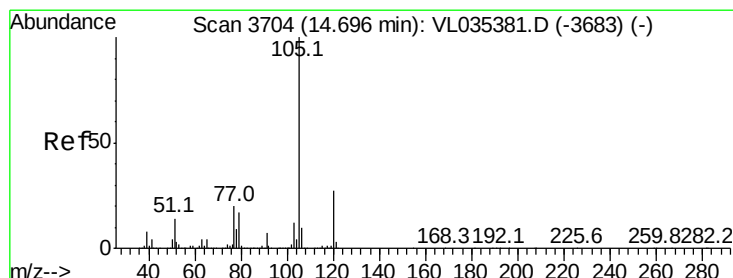
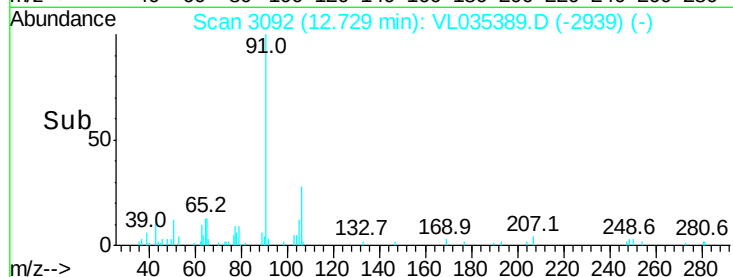
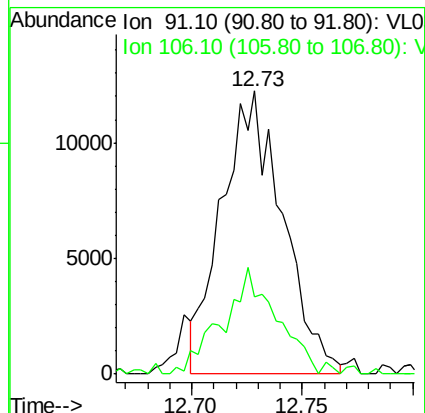
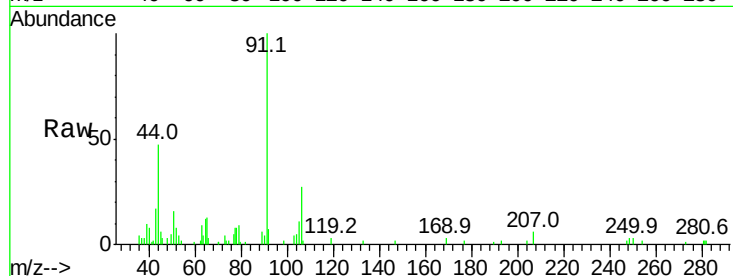
VSTDIC0.03

Tgt Ion: 91 Resp: 23375

Ion Ratio Lower Upper

91 100

106 28.1 25.1 37.7



#62

Isopropylbenzene

Concen: 0.033 ppbv

RT: 14.69 min Scan# 3702

Delta R.T. -0.01 min

Lab File: VL035389.D

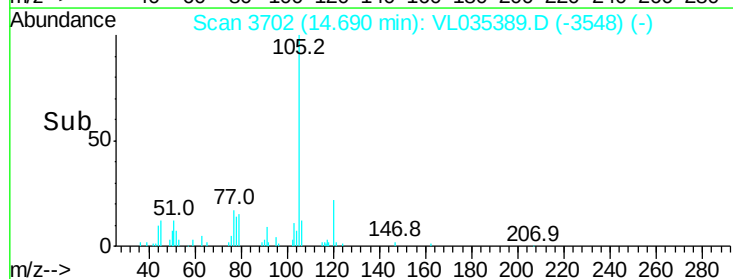
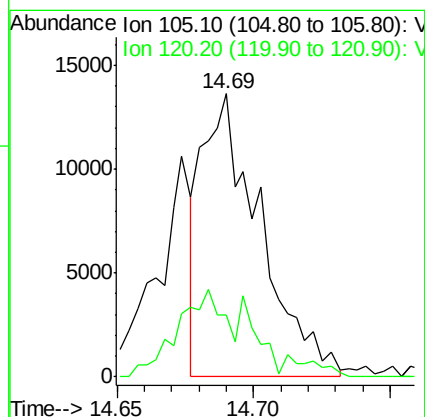
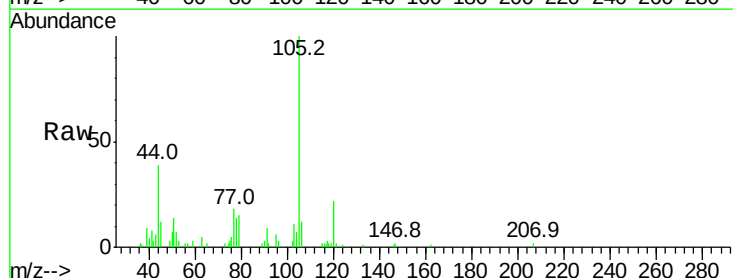
Acq: 12 Aug 2020 19:38

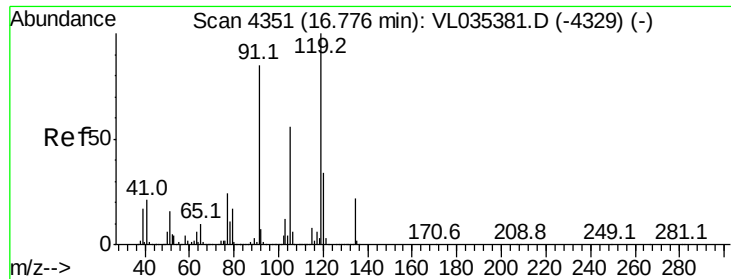
Tgt Ion: 105 Resp: 20147

Ion Ratio Lower Upper

105 100

120 39.1 21.1 31.7#

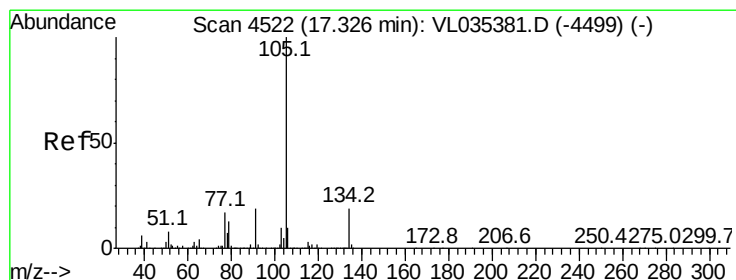
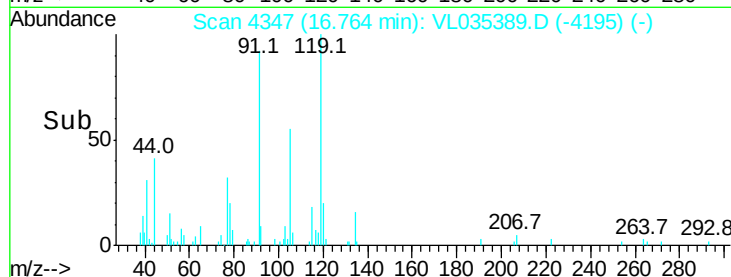
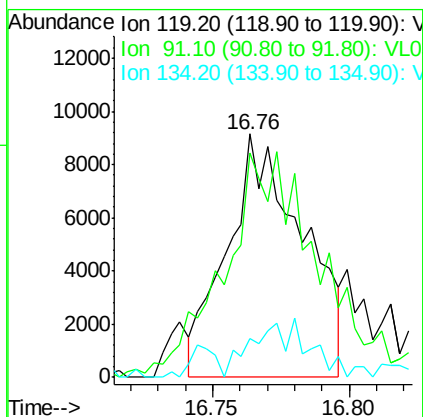
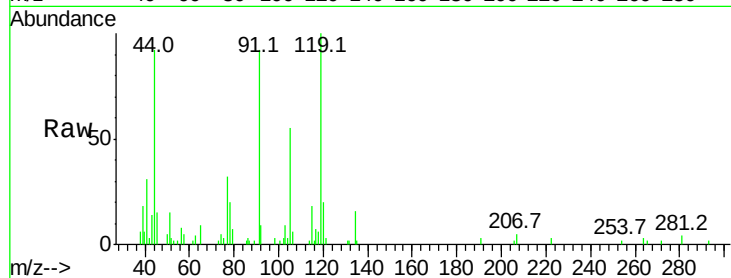




#65
tert-Butylbenzene
Concen: 0.033 ppbv
RT: 16.76 min Scan# 4347
Delta R.T. -0.01 min
Lab File: VL035389.D
Acq: 12 Aug 2020 19:38

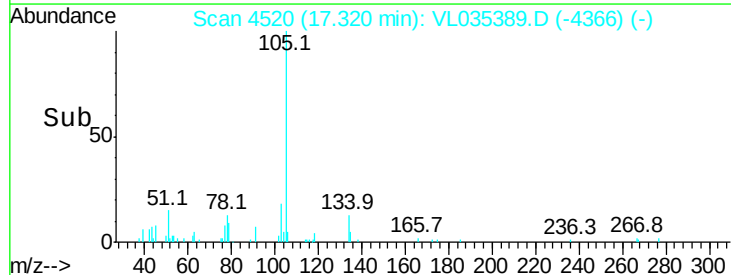
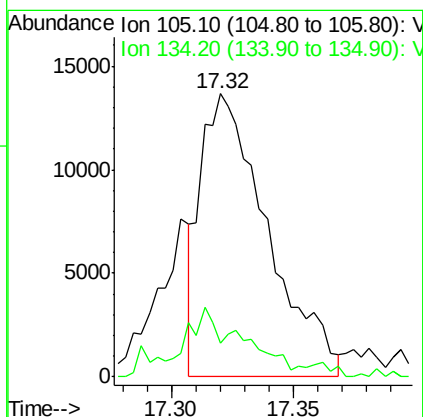
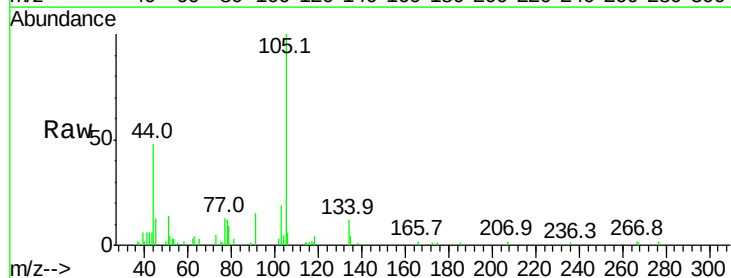
Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.03

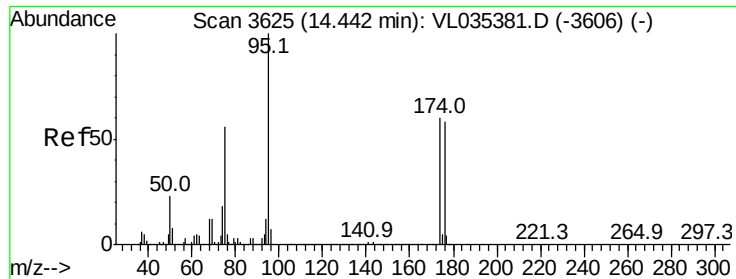
Tgt Ion:119 Resp: 17582
Ion Ratio Lower Upper
119 100
91 129.8 68.2 102.4#
134 25.0 16.2 24.4#



#67
sec-Butylbenzene
Concen: 0.033 ppbv
RT: 17.32 min Scan# 4520
Delta R.T. -0.01 min
Lab File: VL035389.D
Acq: 12 Aug 2020 19:38

Tgt Ion:105 Resp: 25928
Ion Ratio Lower Upper
105 100
134 25.7 15.0 22.6#

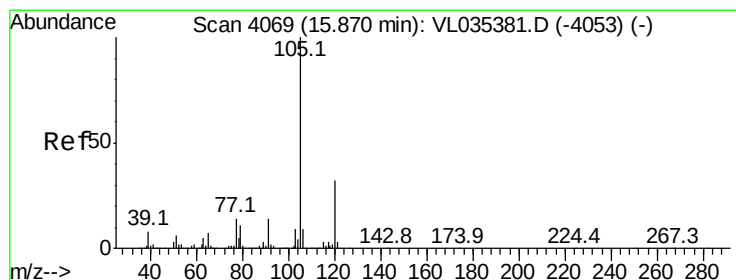
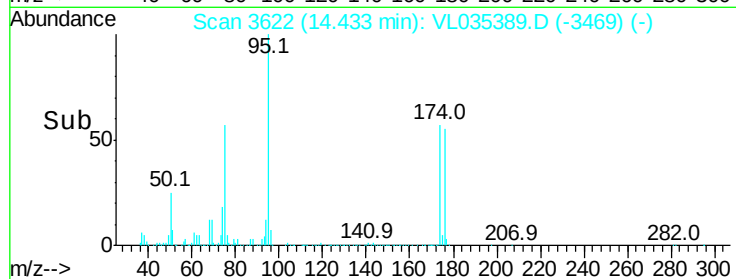
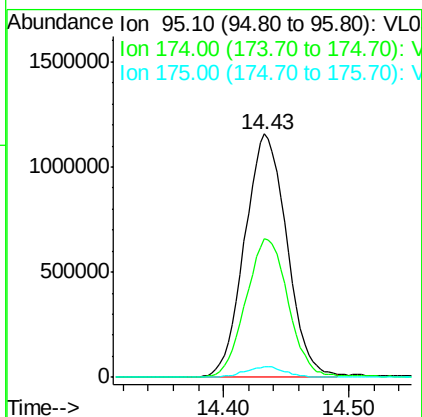
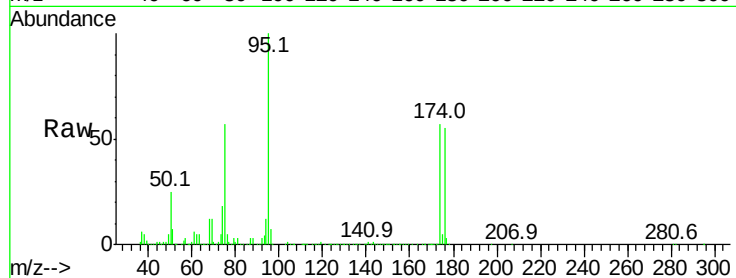




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.483 ppbv
 RT: 14.43 min Scan# 3622
 Delta R.T. -0.01 min
 Lab File: VL035389.D
 Acq: 12 Aug 2020 19:38

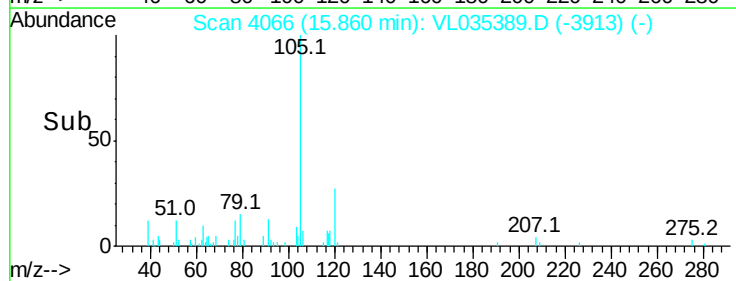
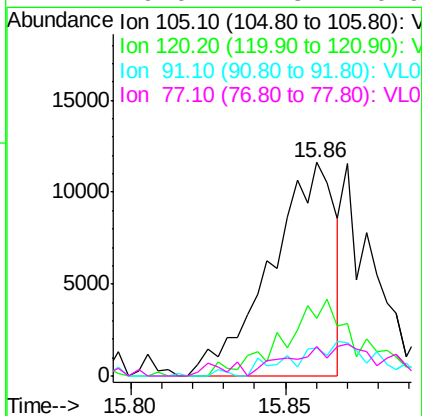
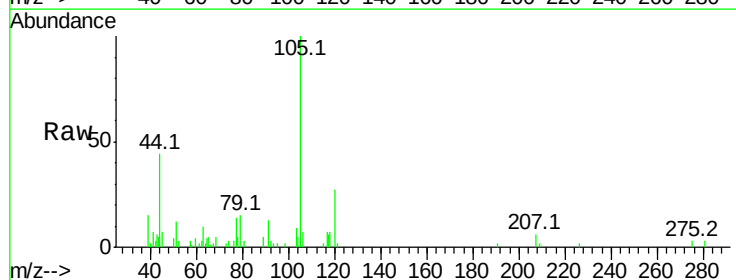
Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.03

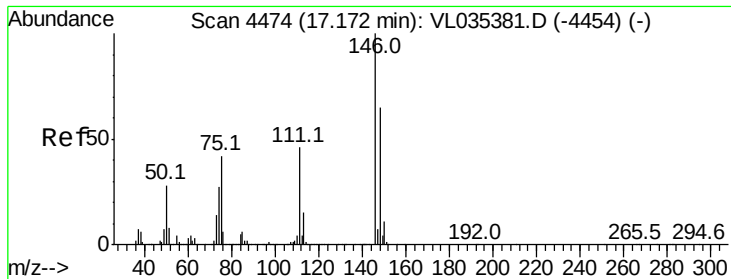
Tgt Ion: 95 Resp: 2709127
 Ion Ratio Lower Upper
 95 100
 174 57.9 48.2 72.2
 175 4.3 3.7 5.5



#72
 4-Ethyltoluene
 Concen: 0.034 ppbv
 RT: 15.86 min Scan# 4066
 Delta R.T. -0.01 min
 Lab File: VL035389.D
 Acq: 12 Aug 2020 19:38

Tgt Ion: 105 Resp: 16711
 Ion Ratio Lower Upper
 105 100
 120 0.0 24.0 36.0#
 91 0.0 10.4 15.6#
 77 0.0 11.3 16.9#

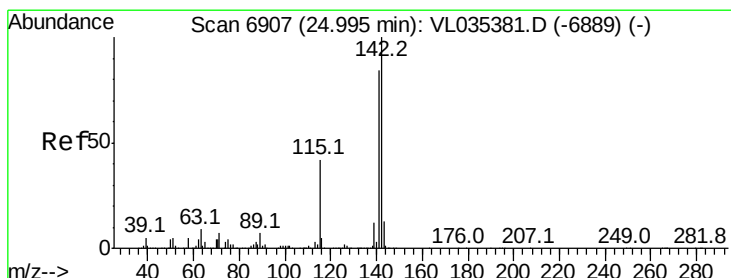
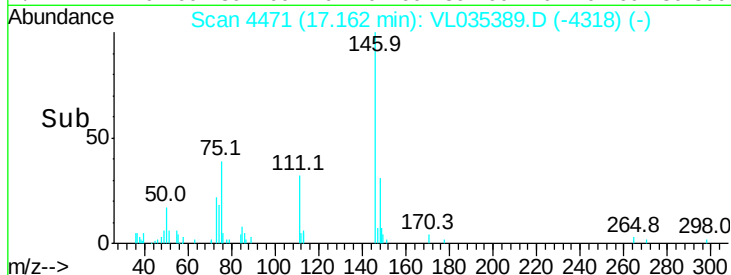
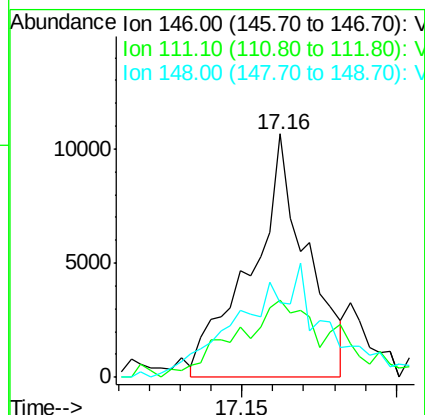
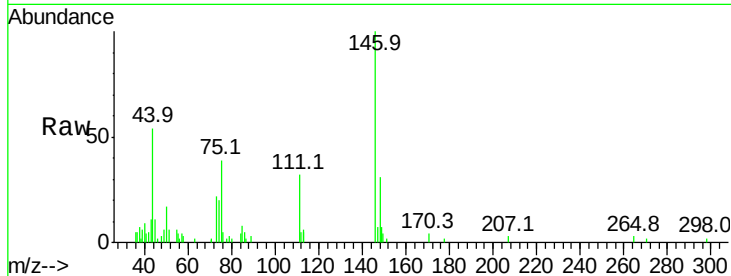




#76
 1,4-Dichlorobenzene
 Concen: 0.048 ppbv
 RT: 17.16 min Scan# 4471
 Delta R.T. -0.01 min
 Lab File: VL035389.D
 Acq: 12 Aug 2020 19:38

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.03

Tgt Ion:146 Resp: 13345
 Ion Ratio Lower Upper
 146 100
 111 61.6 24.0 72.0
 148 71.2 32.5 97.5



#80
 Naphthalene, 2-methyl-
 Concen: 0.041 ppbv
 RT: 25.00 min Scan# 6908
 Delta R.T. 0.00 min
 Lab File: VL035389.D
 Acq: 12 Aug 2020 19:38

Tgt Ion:142 Resp: 11684
 Ion Ratio Lower Upper
 142 100
 141 87.6 67.7 101.5
 115 54.1 34.0 51.0#

