

Data File : VL035386.D
Acq On : 12 Aug 2020 15:18
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 16:33:27 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL081220AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Aug 12 15:19:58 2020
QLast Update : Wed Aug 12 15:19:58 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1464041	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	3368220	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.10	117	3172729	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.44 95 2671501 10.10 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 101.00%

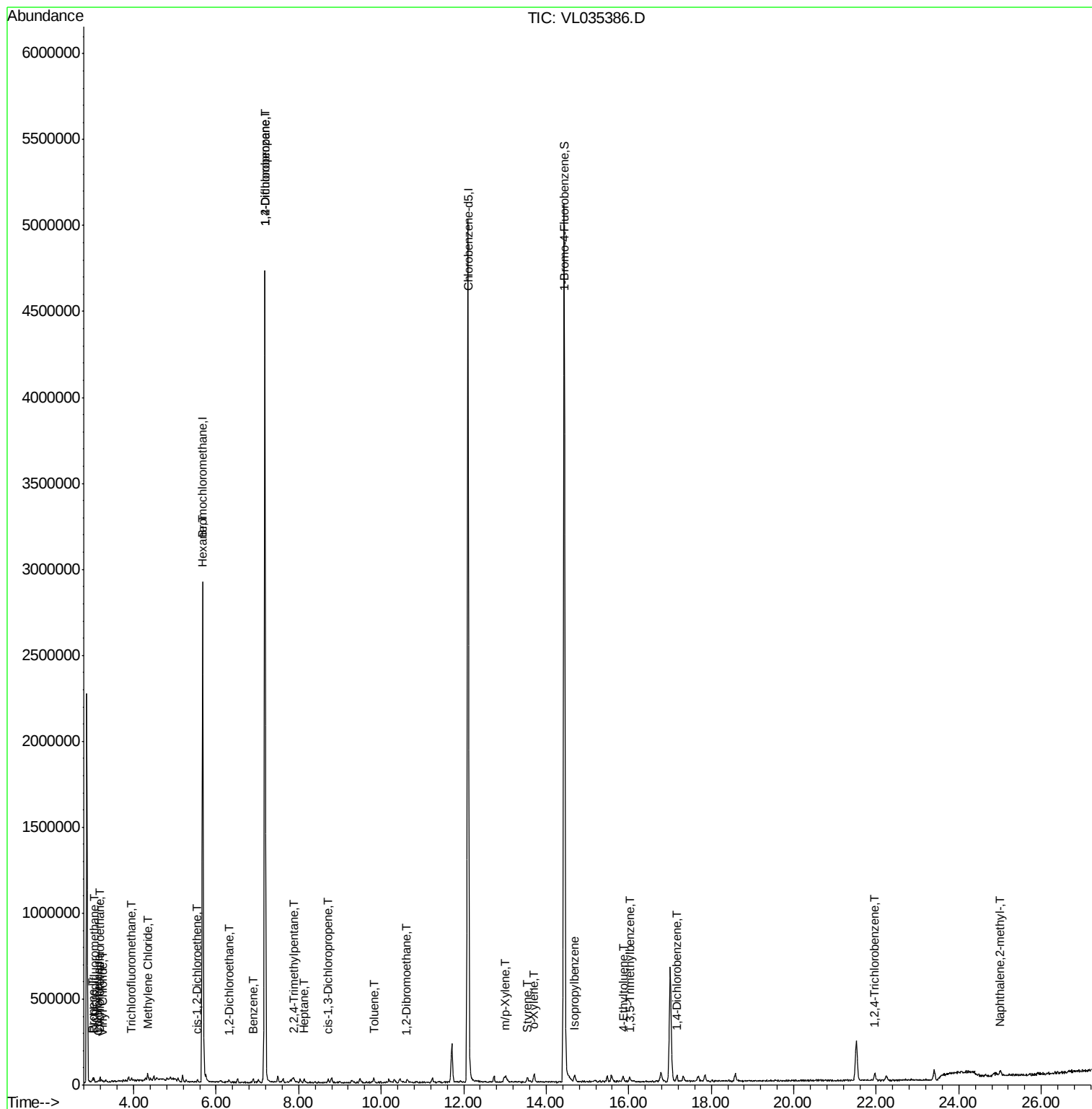
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.04	85	11665	0.060	ppbv	97
4) Chloromethane	3.13	50	4251	0.045	ppbv	89
5) Vinyl Chloride	3.25	62	4038	0.041	ppbv #	85
8) Dichlorotetrafluoroethane	3.18	85	9509	0.041	ppbv	99
9) Propene	3.01	41	9063	0.152	ppbv	83
10) Heptane	8.13	43	5302	0.035	ppbv #	28
11) Trichlorofluoromethane	3.95	101	8180	0.032	ppbv	91
20) Methylene Chloride	4.34	84	9283	0.109	ppbv #	89
26) Hexane	5.68	57	5909	0.043	ppbv #	1
31) cis-1,2-Dichloroethene	5.55	61	4990	0.041	ppbv #	75
36) Benzene	6.89	78	10580	0.047	ppbv #	73
37) 1,2-Dichloroethane	6.31	62	5003	0.031	ppbv	98
39) 1,2-Dichloropropane	7.18	63	908497	9.867	ppbv #	25
44) 2,2,4-Trimethylpentane	7.88	57	14104	0.035	ppbv #	43
46) cis-1,3-Dichloropropene	8.71	75	4436	0.037	ppbv #	59
53) Toluene	9.82	91	18845	0.076	ppbv	97
54) 1,2-Dibromoethane	10.62	107	5178	0.033	ppbv	98
59) m/p-Xylene	13.01	91	12899	0.042	ppbv #	30
60) o-Xylene	13.71	91	9611	0.032	ppbv #	32
61) Styrene	13.54	104	5755	0.031	ppbv #	27
62) Isopropylbenzene	14.69	105	20221	0.044	ppbv #	49
72) 4-Ethyltoluene	15.86	105	11275	0.032	ppbv #	46
73) 1,3,5-Trimethylbenzene	16.02	105	12431	0.037	ppbv #	30
76) 1,4-Dichlorobenzene	17.16	146	8445	0.037	ppbv #	22
80) Naphthalene,2-methyl-	25.00	142	10567	0.158	ppbv #	83
81) 1,2,4-Trichlorobenzene	21.97	180	8267	0.045	ppbv #	6

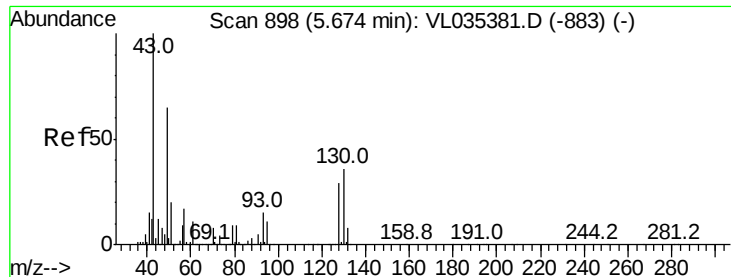
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 896

Delta R.T. -0.01 min

Lab File: VL035386.D

Acq: 12 Aug 2020 15:18

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

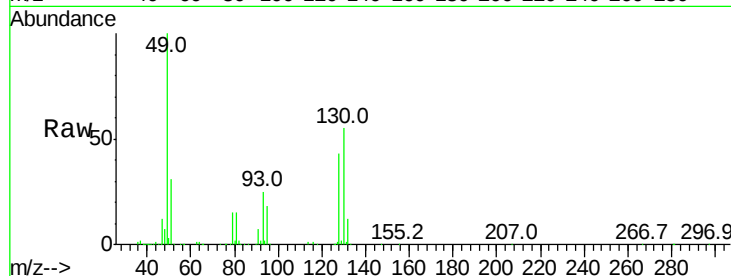
Tgt Ion: 49 Resp: 1464041

Ion Ratio Lower Upper

49 100

128 43.5 21.8 65.3

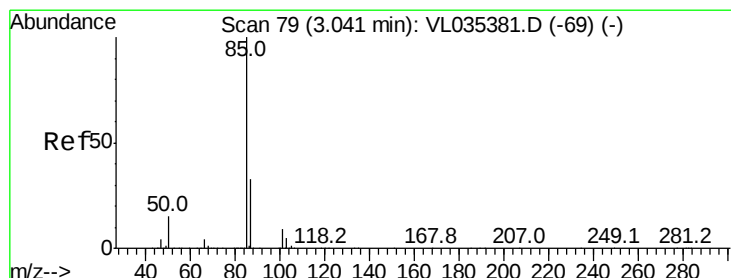
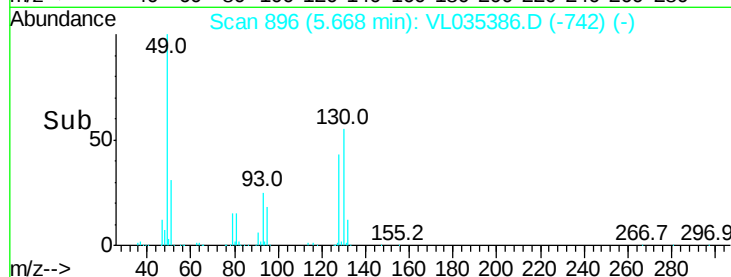
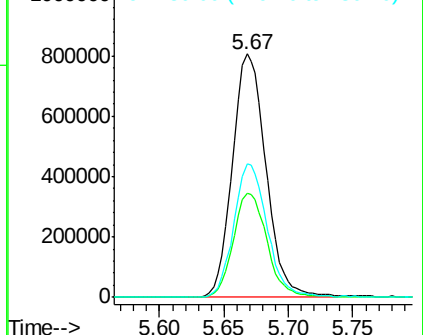
130 54.9 27.9 83.6



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.060 ppbv

RT: 3.04 min Scan# 79

Delta R.T. 0.00 min

Lab File: VL035386.D

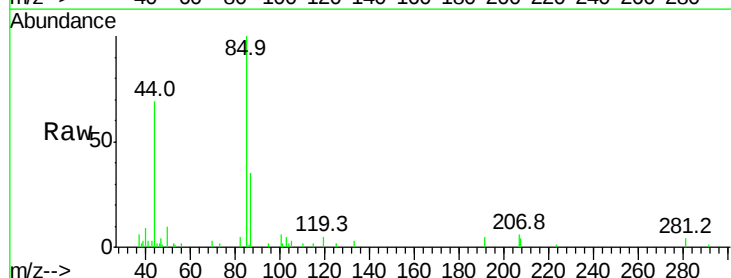
Acq: 12 Aug 2020 15:18

Tgt Ion: 85 Resp: 11665

Ion Ratio Lower Upper

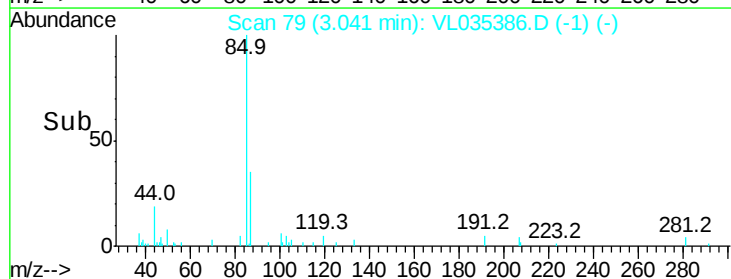
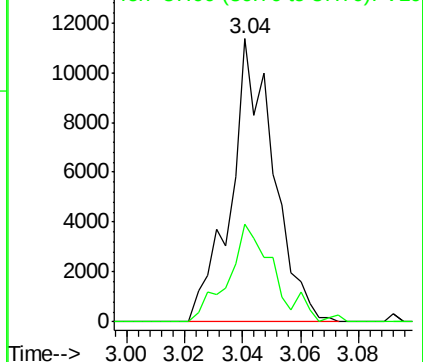
85 100

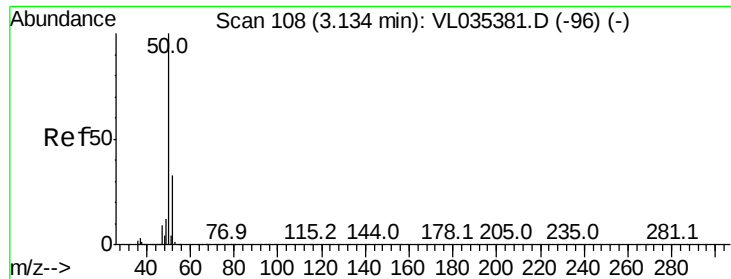
87 34.5 26.1 39.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#4

Chloromethane

Concen: 0.045 ppbv

RT: 3.13 min Scan# 108

Delta R.T. 0.00 min

Lab File: VL035386.D

Acq: 12 Aug 2020 15:18

Instrument :

MSVOA_L

ClientSampleId :

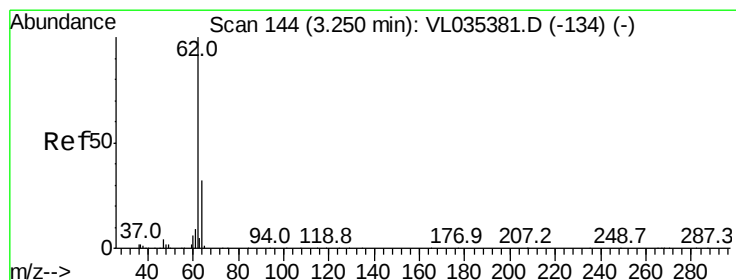
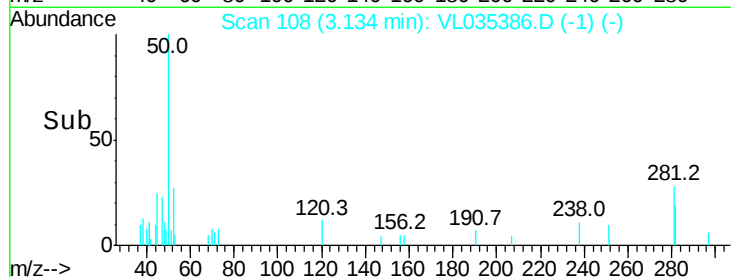
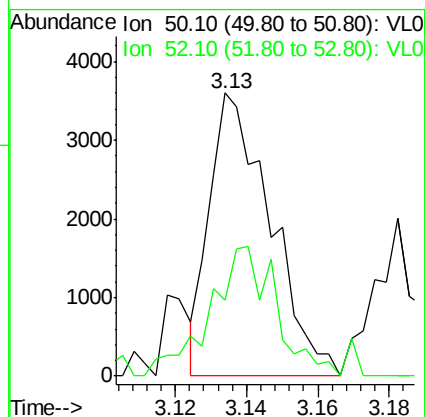
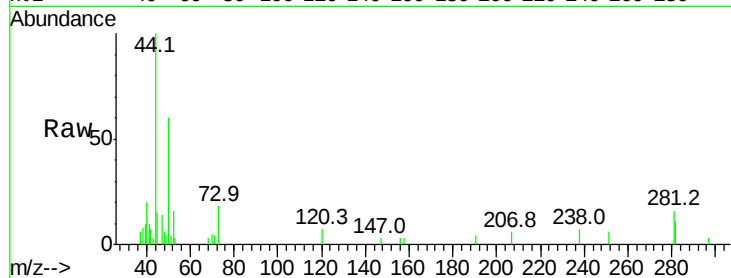
VSTDIC0.03

Tgt Ion: 50 Resp: 4251

Ion Ratio Lower Upper

50 100

52 27.0 26.6 39.8



#5

Vinyl Chloride

Concen: 0.041 ppbv

RT: 3.25 min Scan# 145

Delta R.T. 0.00 min

Lab File: VL035386.D

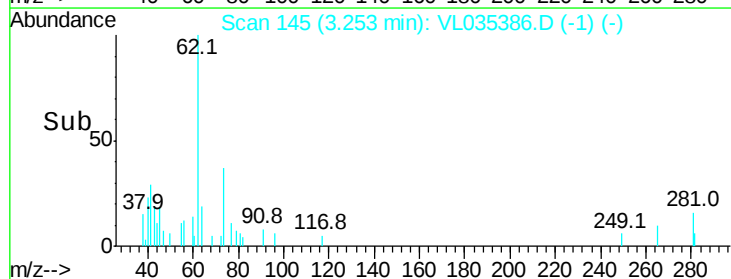
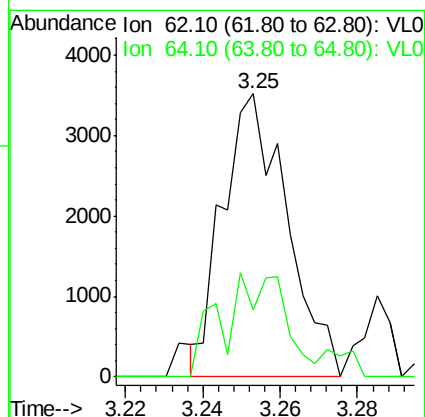
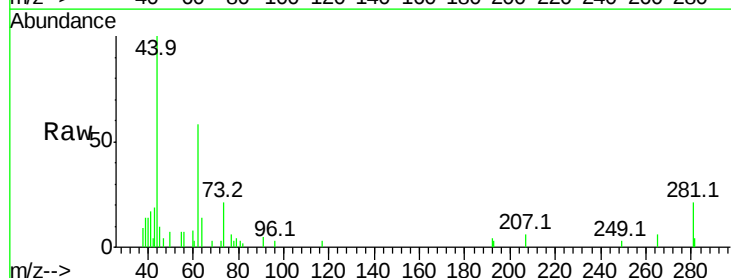
Acq: 12 Aug 2020 15:18

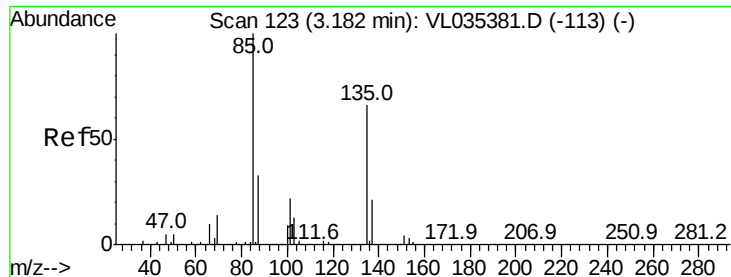
Tgt Ion: 62 Resp: 4038

Ion Ratio Lower Upper

62 100

64 23.5 25.7 38.5#





#8

Dichlorotetrafluoroethane

Concen: 0.041 ppbv

RT: 3.18 min Scan# 123

Delta R.T. 0.00 min

Lab File: VL035386.D

Acq: 12 Aug 2020 15:18

Instrument :

MSVOA_L

ClientSampleId :

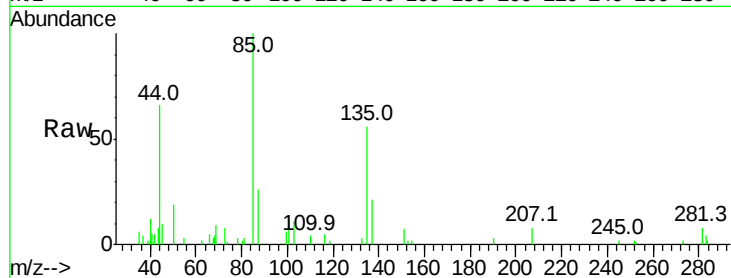
VSTDIC0.03

Tgt Ion: 85 Resp: 9509

Ion Ratio Lower Upper

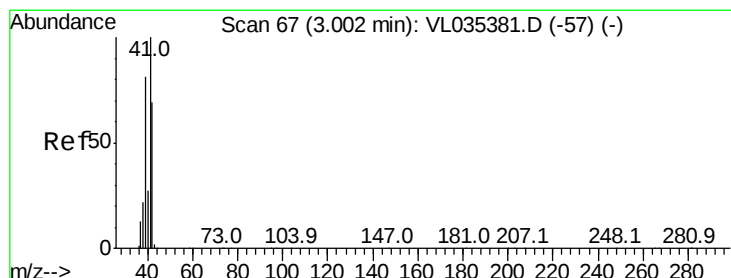
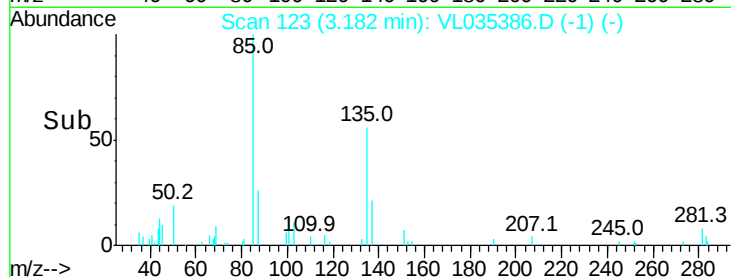
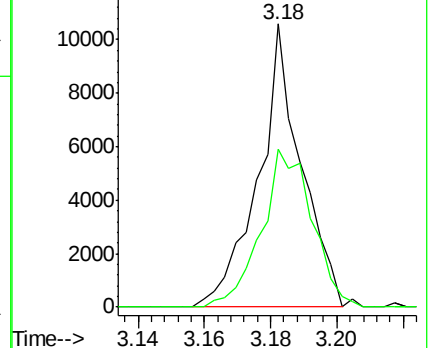
85 100

135 66.2 52.5 78.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V



#9

Propene

Concen: 0.152 ppbv

RT: 3.01 min Scan# 68

Delta R.T. 0.00 min

Lab File: VL035386.D

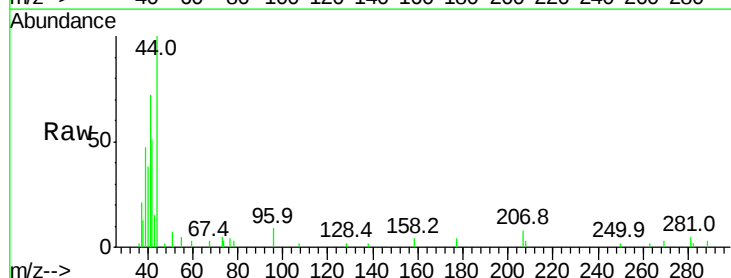
Acq: 12 Aug 2020 15:18

Tgt Ion: 41 Resp: 9063

Ion Ratio Lower Upper

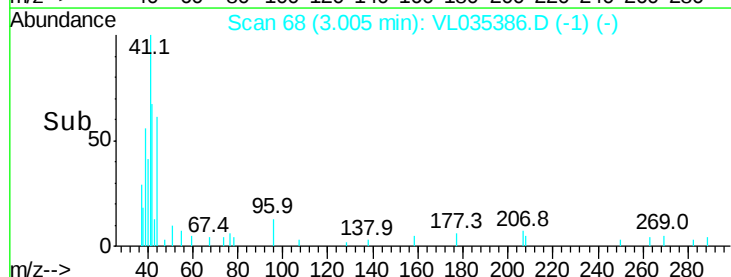
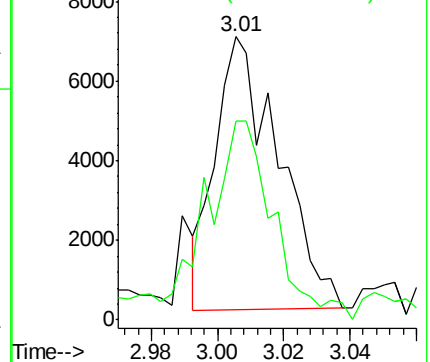
41 100

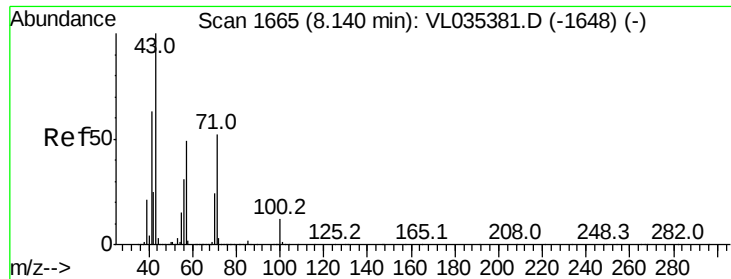
42 82.9 55.4 83.2



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.035 ppbv

RT: 8.13 min Scan# 1663

Delta R.T. -0.01 min

Lab File: VL035386.D

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MSVOA_L

ClientSampleId :

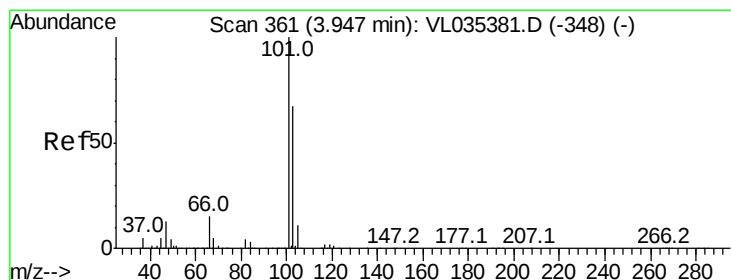
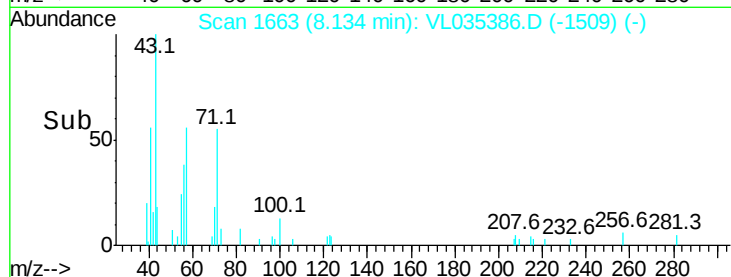
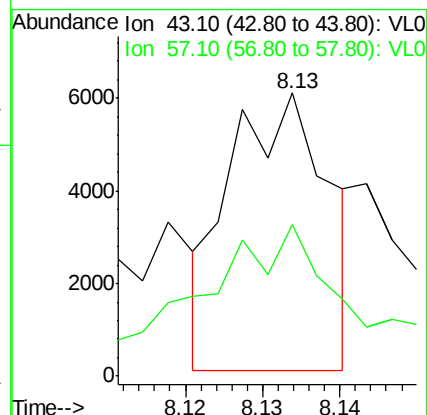
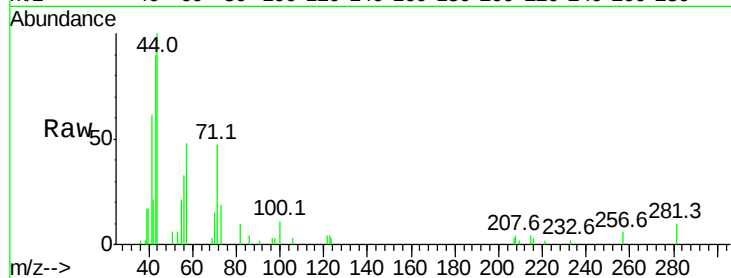
VSTDIC0.03

Tgt Ion: 43 Resp: 5302

Ion Ratio Lower Upper

43 100

57 98.8 39.4 59.2#



#11

Trichlorofluoromethane

Concen: 0.032 ppbv

RT: 3.95 min Scan# 362

Delta R.T. 0.00 min

Lab File: VL035386.D

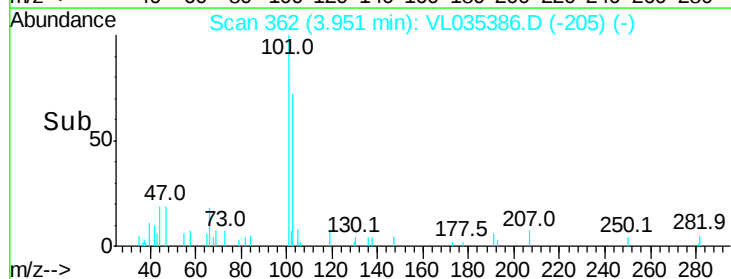
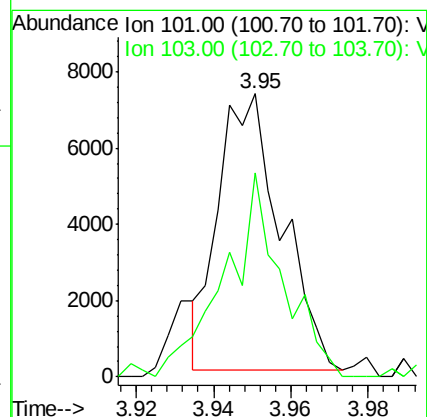
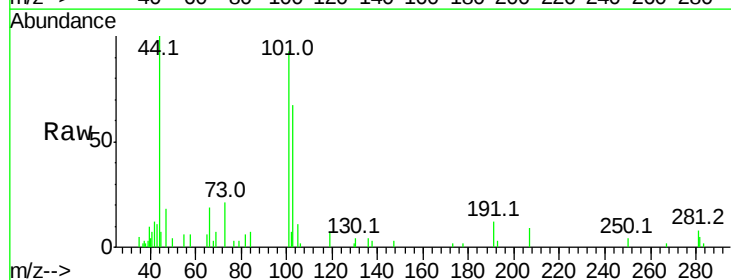
Acq: 12 Aug 2020 15:18

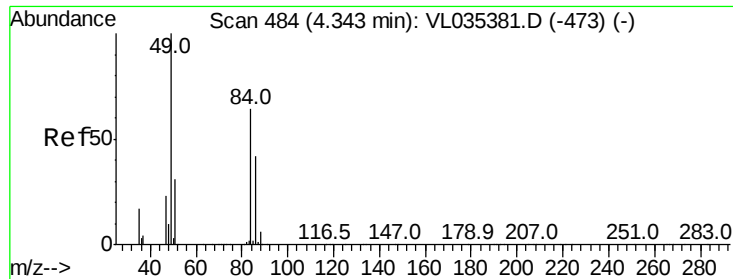
Tgt Ion:101 Resp: 8180

Ion Ratio Lower Upper

101 100

103 73.7 53.3 79.9

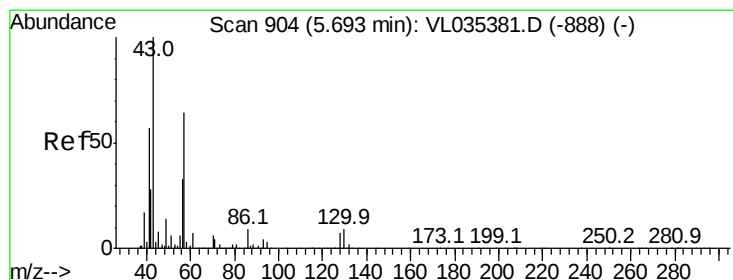
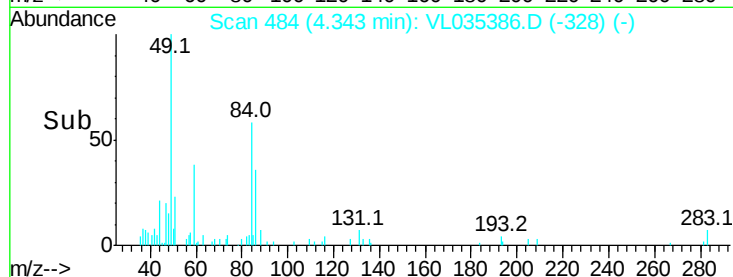
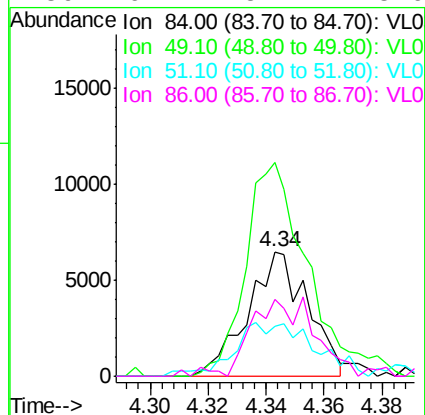
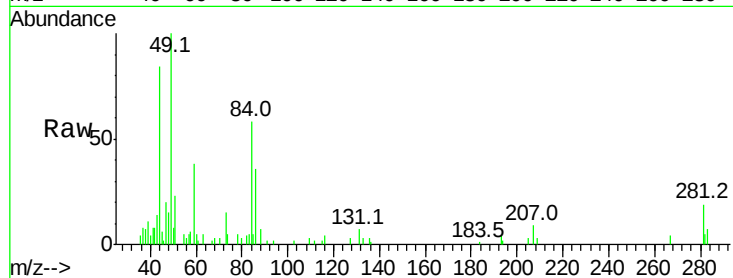




#20
Methylene Chloride
Concen: 0.109 ppbv
RT: 4.34 min Scan# 484
Delta R.T. 0.00 min
Lab File: VL035386.D
Acq: 12 Aug 2020 15:18

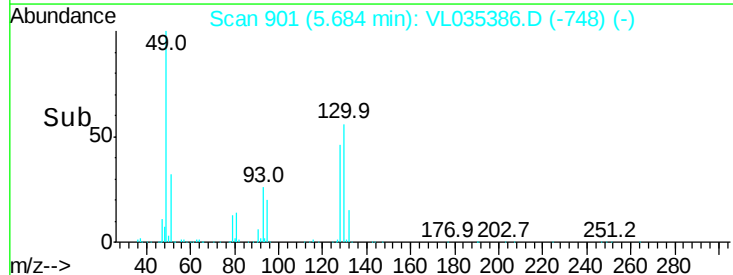
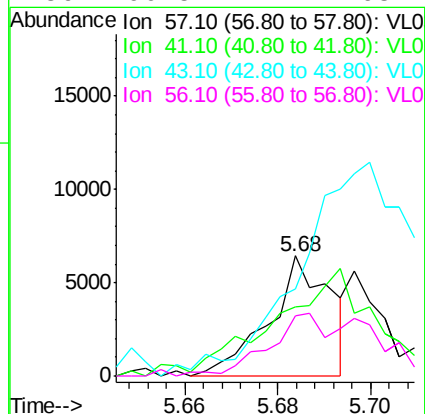
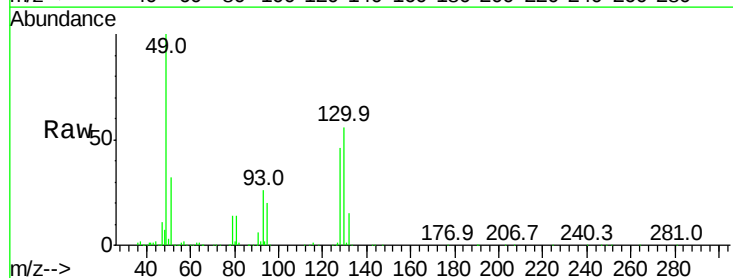
Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.03

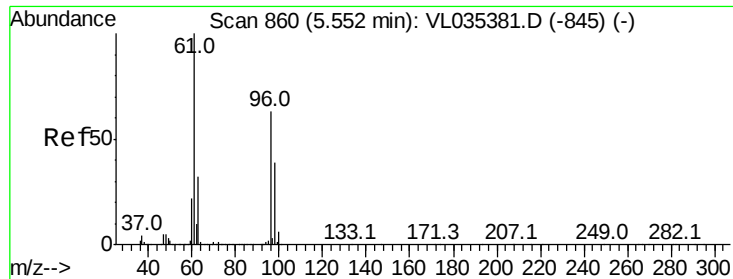
Tgt Ion: 84 Resp: 9283
Ion Ratio Lower Upper
84 100
49 171.4 125.7 188.5
51 35.8 38.5 57.7#
86 62.1 52.4 78.6



#26
Hexane
Concen: 0.043 ppbv
RT: 5.68 min Scan# 901
Delta R.T. -0.01 min
Lab File: VL035386.D
Acq: 12 Aug 2020 15:18

Tgt Ion: 57 Resp: 5909
Ion Ratio Lower Upper
57 100
41 0.0 75.4 113.2#
43 0.0 184.1 276.1#
56 90.5 42.2 63.4#





#31

cis-1,2-Dichloroethene

Concen: 0.041 ppbv

RT: 5.55 min Scan# 859

Delta R.T. -0.00 min

Lab File: VL035386.D

Acq: 12 Aug 2020 15:18

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

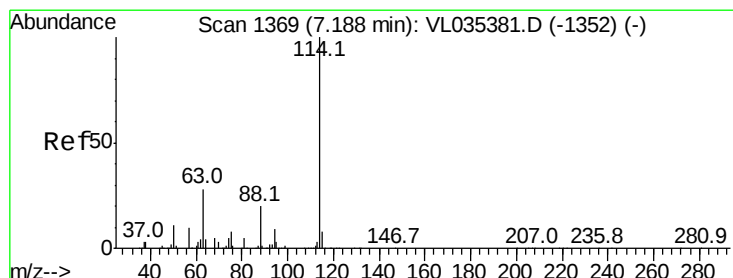
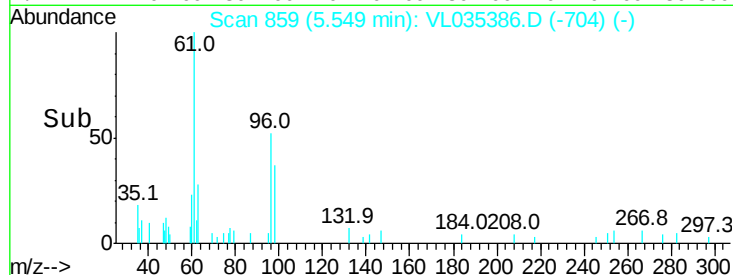
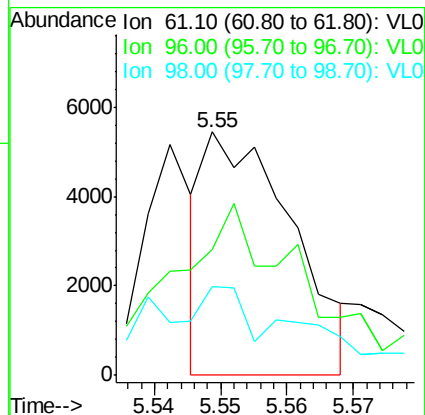
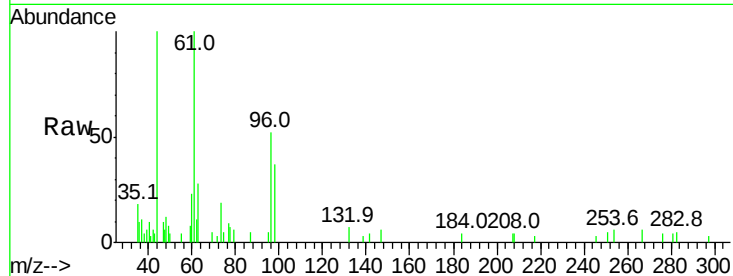
Tgt Ion: 61 Resp: 4990

Ion Ratio Lower Upper

61 100

96 40.0 50.5 75.7#

98 29.0 31.5 47.3#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.18 min Scan# 1367

Delta R.T. -0.01 min

Lab File: VL035386.D

Acq: 12 Aug 2020 15:18

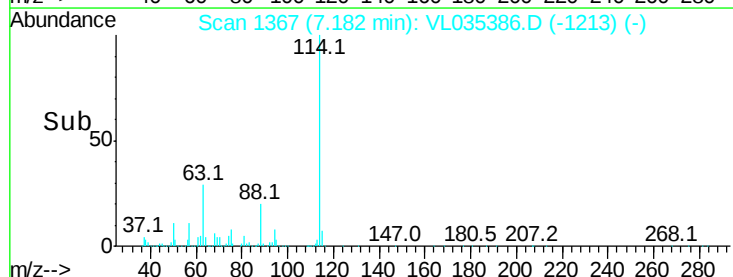
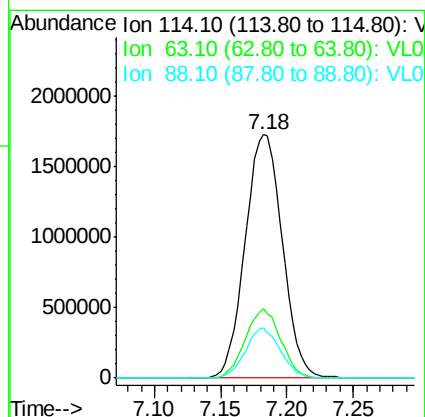
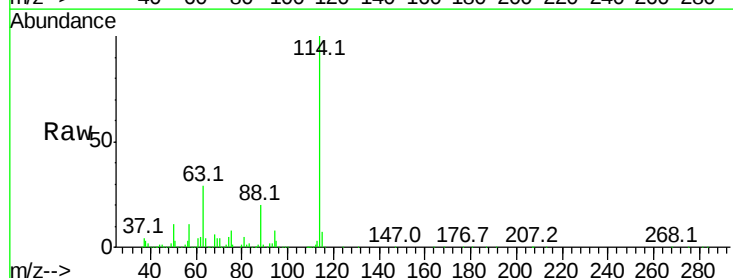
Tgt Ion: 114 Resp: 3368220

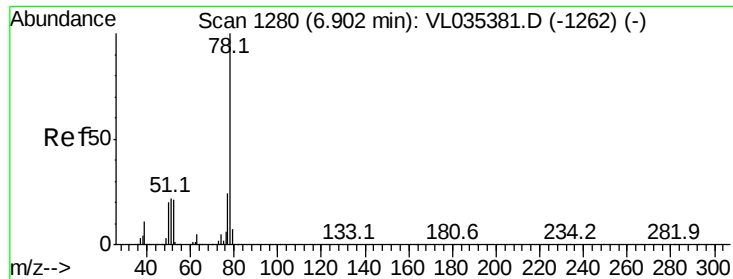
Ion Ratio Lower Upper

114 100

63 27.2 21.5 32.3

88 19.4 15.6 23.4





#36

Benzene

Concen: 0.047 ppbv

RT: 6.89 min Scan# 1277

Delta R.T. -0.01 min

Lab File: VL035386.D

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VSTDIC0.03

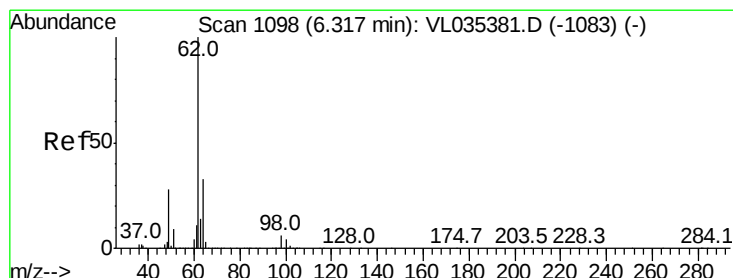
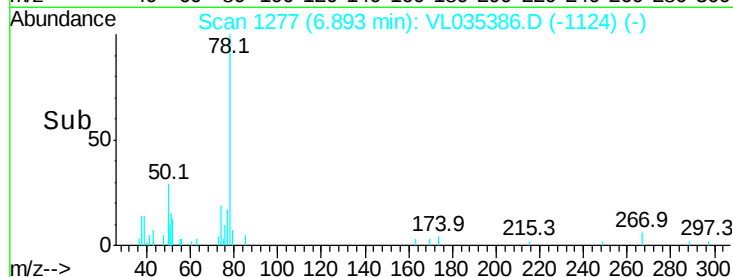
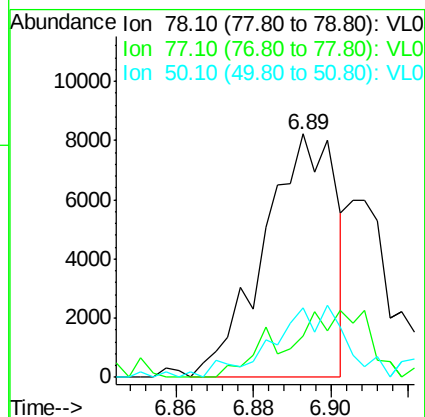
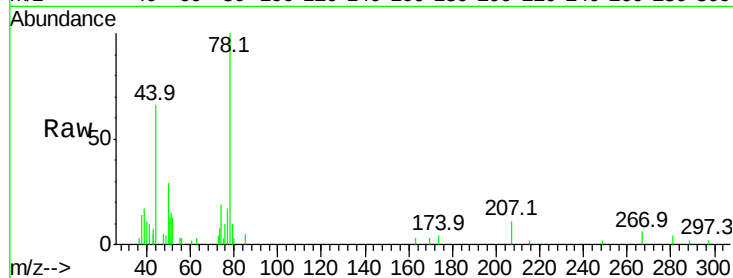
Tgt Ion: 78 Resp: 10580

Ion Ratio Lower Upper

78 100

77 17.1 19.1 28.7#

50 39.8 15.8 23.6#



#37

1,2-Dichloroethane

Concen: 0.031 ppbv

RT: 6.31 min Scan# 1095

Delta R.T. -0.01 min

Lab File: VL035386.D

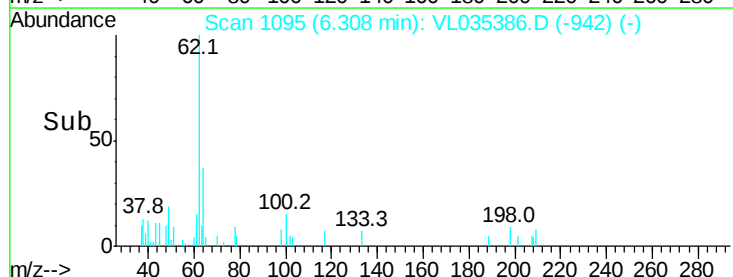
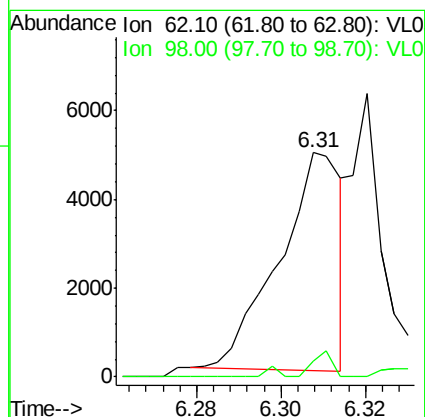
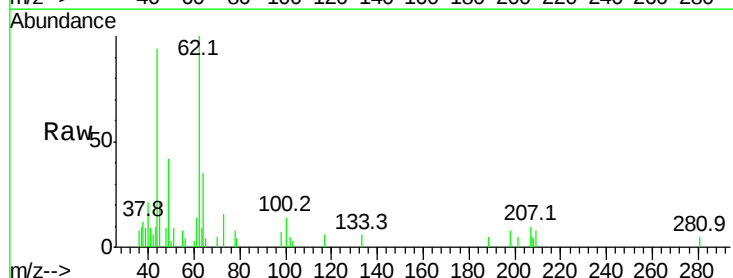
Acq: 12 Aug 2020 15:18

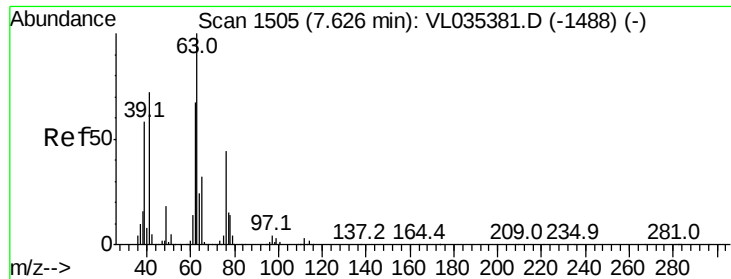
Tgt Ion: 62 Resp: 5003

Ion Ratio Lower Upper

62 100

98 5.7 5.1 7.7





#39

1,2-Dichloropropane

Concen: 9.867 ppbv

RT: 7.18 min Scan# 1367

Delta R.T. -0.44 min

Lab File: VL035386.D

Acq: 12 Aug 2020 15:18

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

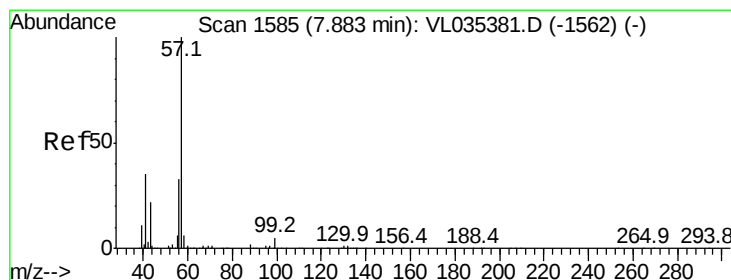
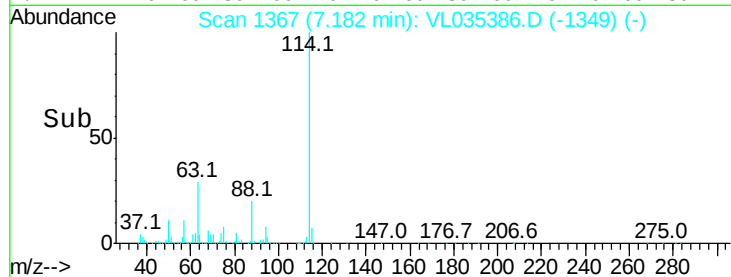
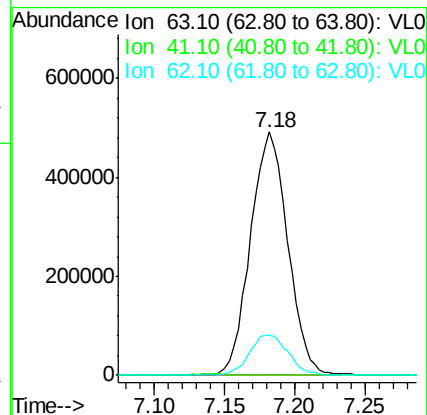
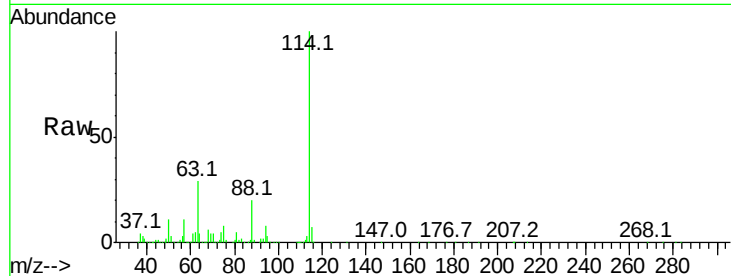
Tgt Ion: 63 Resp: 908497

Ion Ratio Lower Upper

63 100

41 0.0 57.4 86.2#

62 16.4 53.6 80.4#



#44

2,2,4-Trimethylpentane

Concen: 0.035 ppbv

RT: 7.88 min Scan# 1583

Delta R.T. -0.01 min

Lab File: VL035386.D

Acq: 12 Aug 2020 15:18

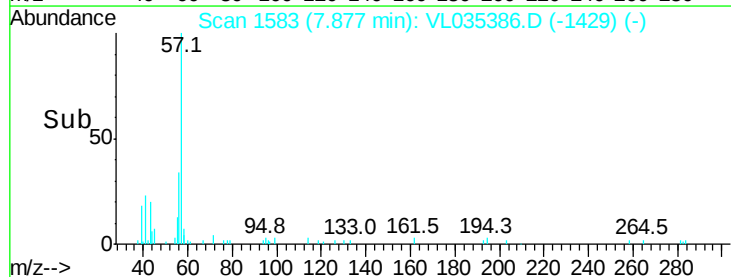
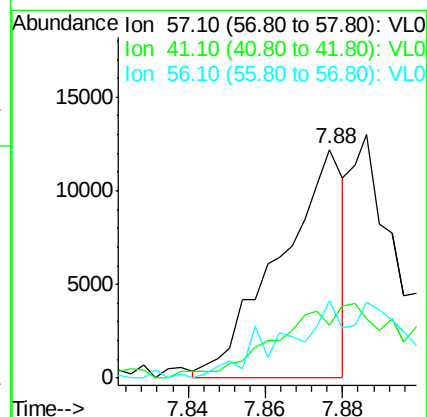
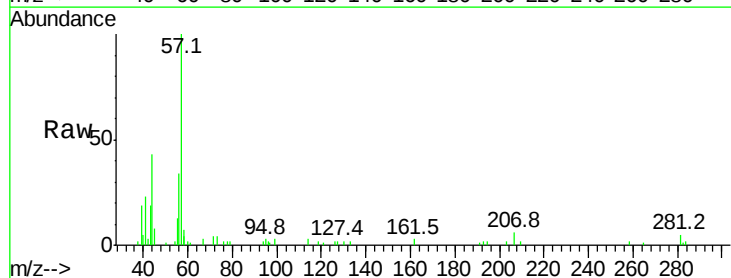
Tgt Ion: 57 Resp: 14104

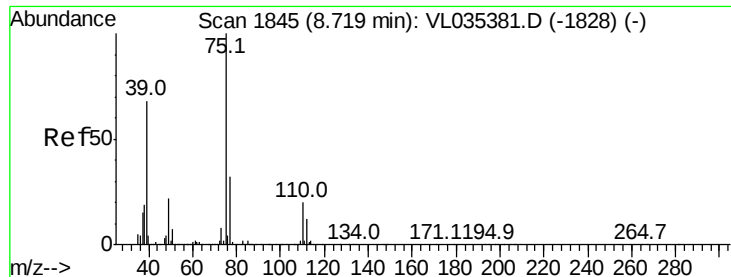
Ion Ratio Lower Upper

57 100

41 0.0 26.9 40.3#

56 62.2 25.6 38.4#



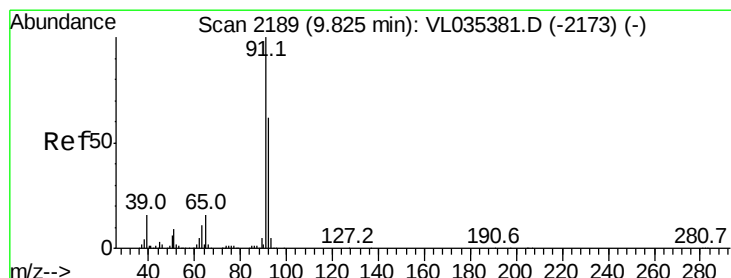
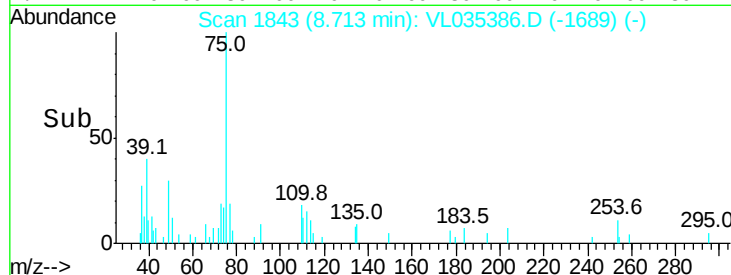
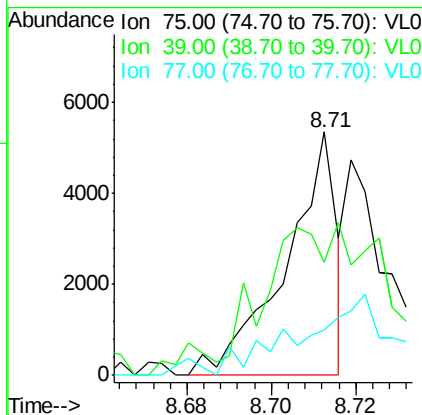
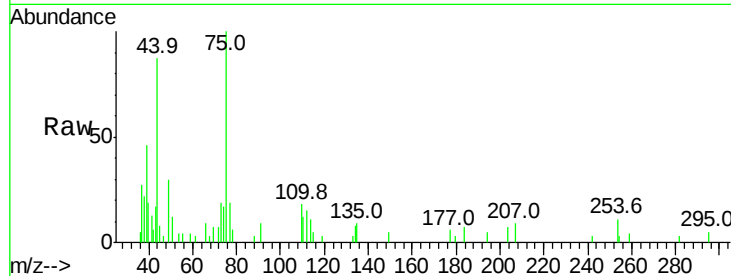


#46

cis-1,3-Dichloropropene
 Concen: 0.037 ppbv
 RT: 8.71 min Scan# 1843
 Delta R.T. -0.01 min
 Lab File: VL035386.D
 Acq: 12 Aug 2020 15:18

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.03

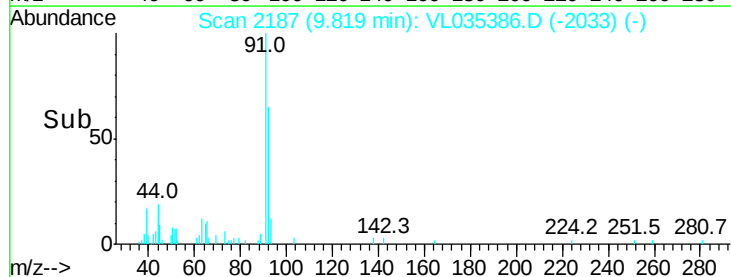
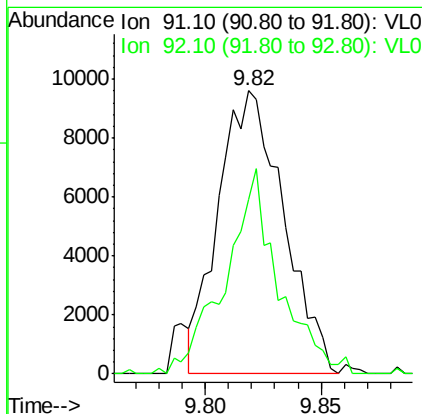
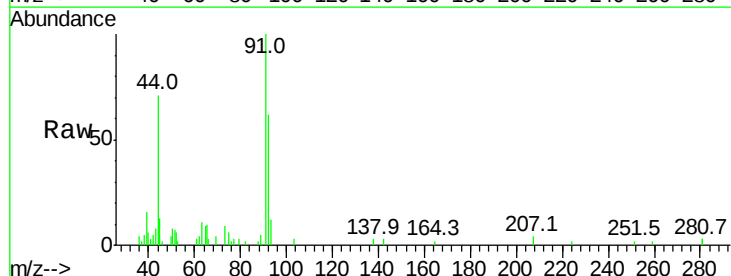
Tgt Ion: 75 Resp: 4436
 Ion Ratio Lower Upper
 75 100
 39 33.0 54.2 81.2#
 77 11.4 25.7 38.5#

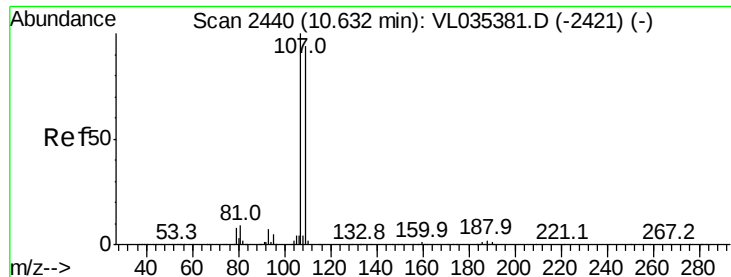


#53

Toluene
 Concen: 0.076 ppbv
 RT: 9.82 min Scan# 2187
 Delta R.T. -0.01 min
 Lab File: VL035386.D
 Acq: 12 Aug 2020 15:18

Tgt Ion: 91 Resp: 18845
 Ion Ratio Lower Upper
 91 100
 92 59.0 49.1 73.7





#54

1,2-Dibromoethane

Concen: 0.033 ppbv

RT: 10.62 min Scan# 2437

Delta R.T. -0.01 min

Lab File: VL035386.D

Acq: 12 Aug 2020 15:18

Instrument :

MSVOA_L

ClientSampleId :

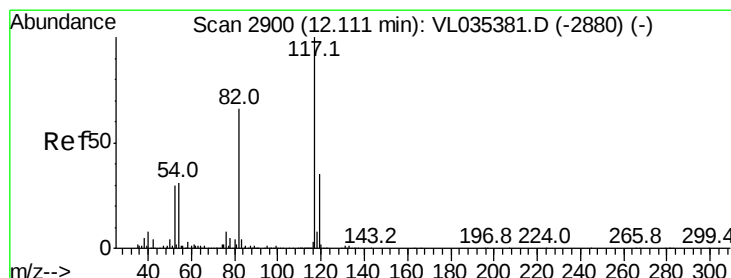
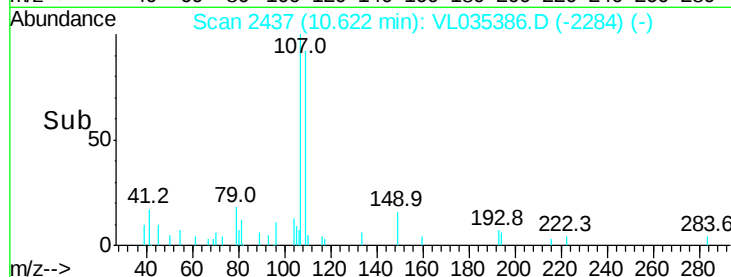
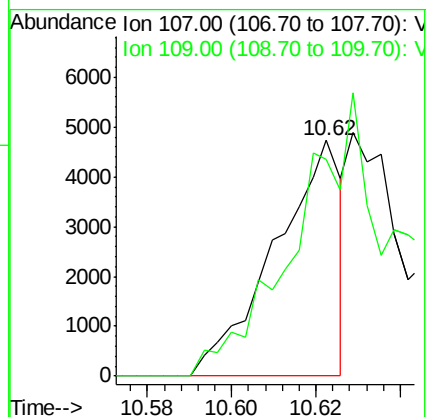
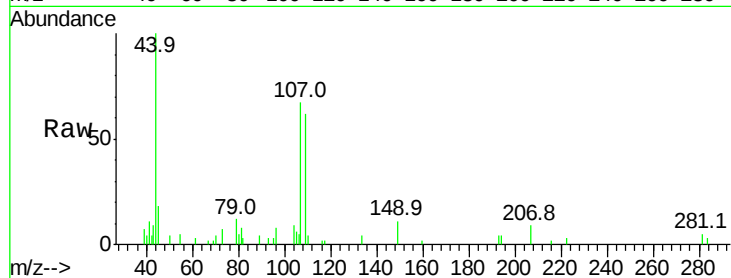
VSTDIC0.03

Tgt Ion:107 Resp: 5178

Ion Ratio Lower Upper

107 100

109 91.7 75.2 112.8



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2897

Delta R.T. -0.01 min

Lab File: VL035386.D

Acq: 12 Aug 2020 15:18

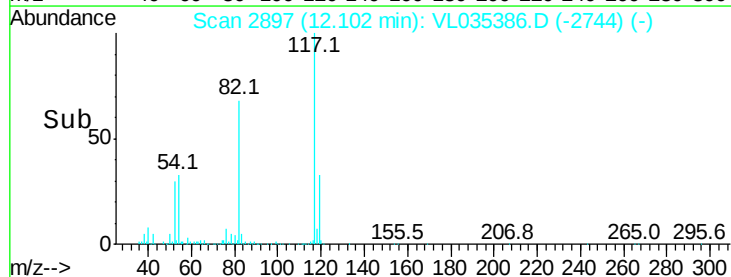
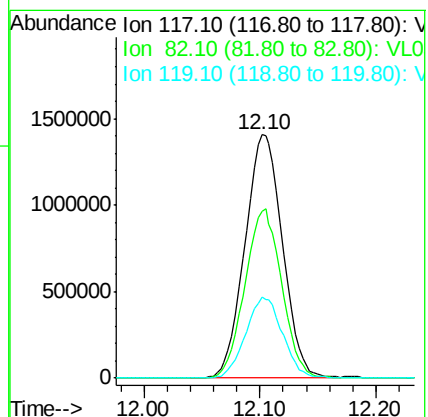
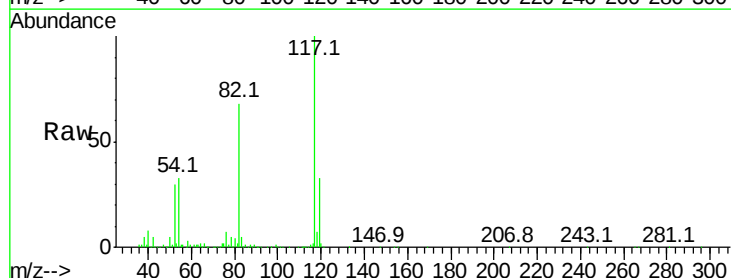
Tgt Ion:117 Resp: 3172729

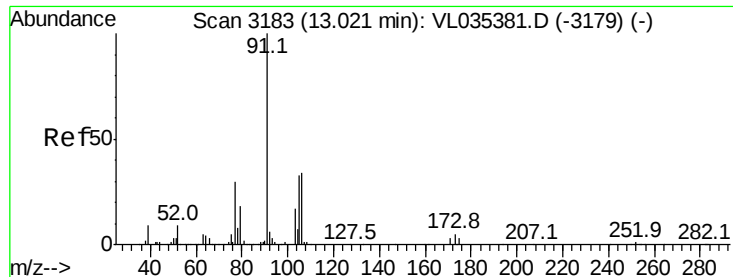
Ion Ratio Lower Upper

117 100

82 68.3 53.0 79.6

119 32.6 25.7 38.5

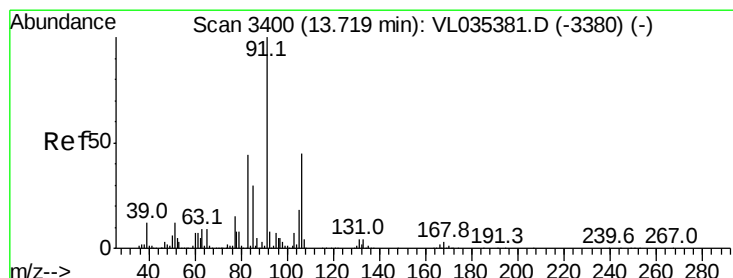
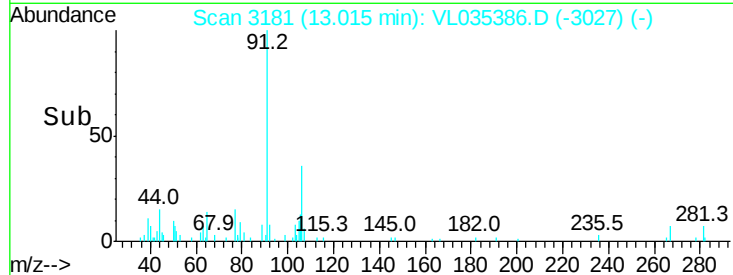
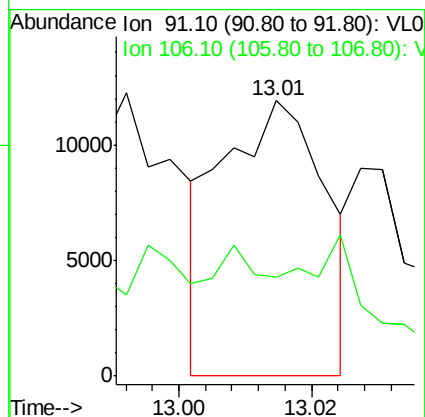
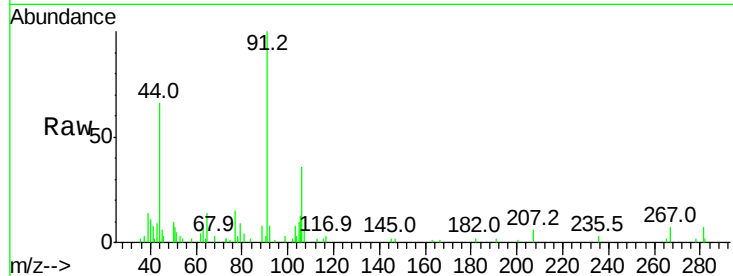




#59
m/p-Xylene
Concen: 0.042 ppbv
RT: 13.01 min Scan# 3181
Delta R.T. -0.01 min
Lab File: VL035386.D
Acq: 12 Aug 2020 15:18

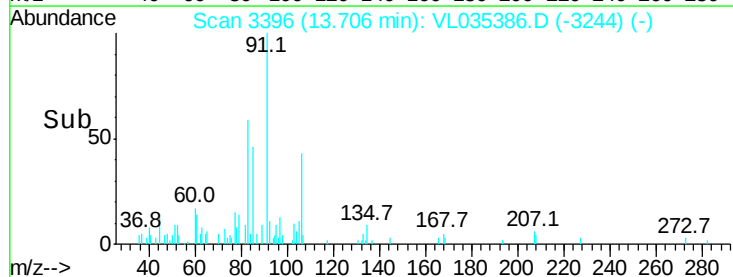
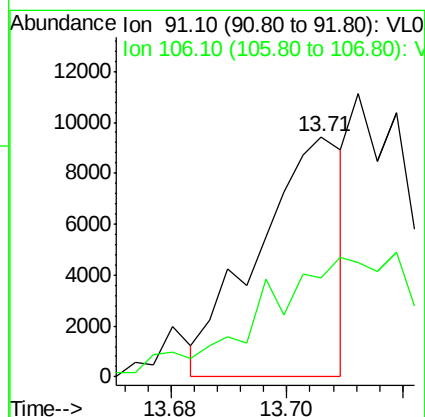
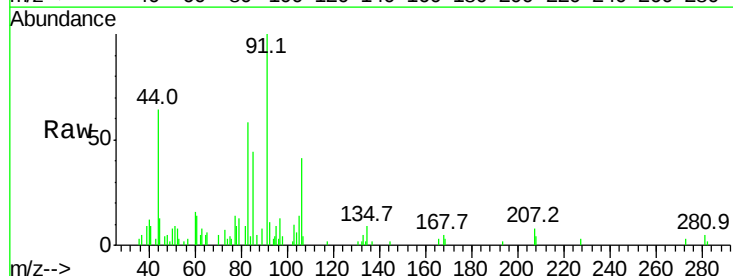
Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.03

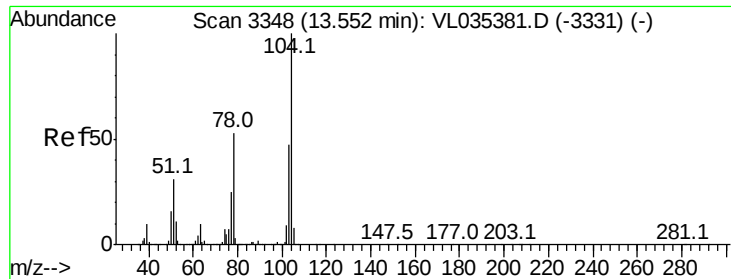
Tgt Ion: 91 Resp: 12899
Ion Ratio Lower Upper
91 100
106 0.0 36.7 55.1#



#60
o-Xylene
Concen: 0.032 ppbv
RT: 13.71 min Scan# 3396
Delta R.T. -0.01 min
Lab File: VL035386.D
Acq: 12 Aug 2020 15:18

Tgt Ion: 91 Resp: 9611
Ion Ratio Lower Upper
91 100
106 0.0 22.2 66.6#





#61

Styrene

Concen: 0.031 ppbv

RT: 13.54 min Scan# 3345

Delta R.T. -0.01 min

Lab File: VL035386.D

Acq: 12 Aug 2020 15:18

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

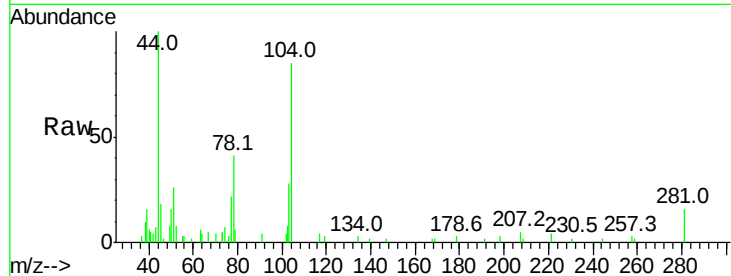
Tgt Ion:104 Resp: 5755

Ion Ratio Lower Upper

104 100

78 0.0 43.0 64.4#

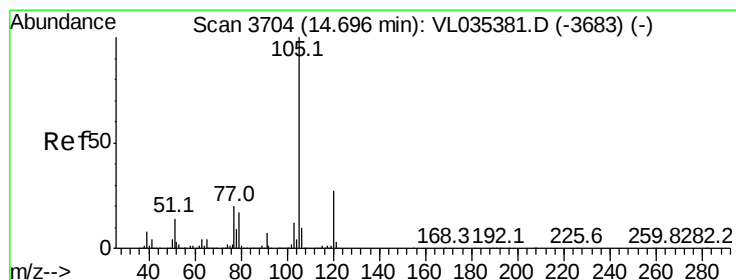
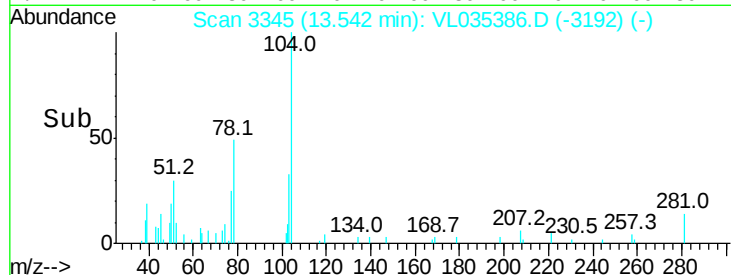
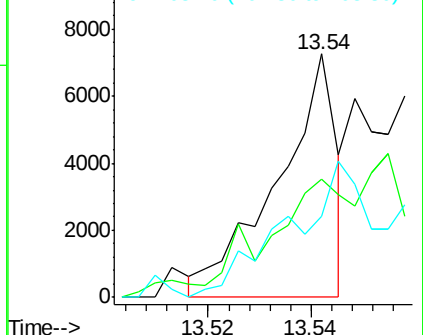
103 0.0 37.9 56.9#



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#62

Isopropylbenzene

Concen: 0.044 ppbv

RT: 14.69 min Scan# 3701

Delta R.T. -0.01 min

Lab File: VL035386.D

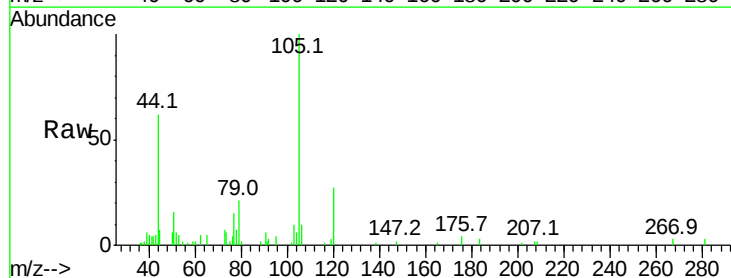
Acq: 12 Aug 2020 15:18

Tgt Ion:105 Resp: 20221

Ion Ratio Lower Upper

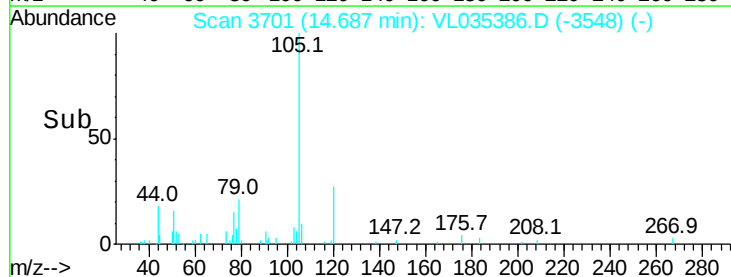
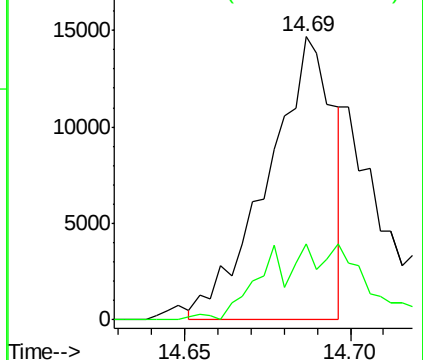
105 100

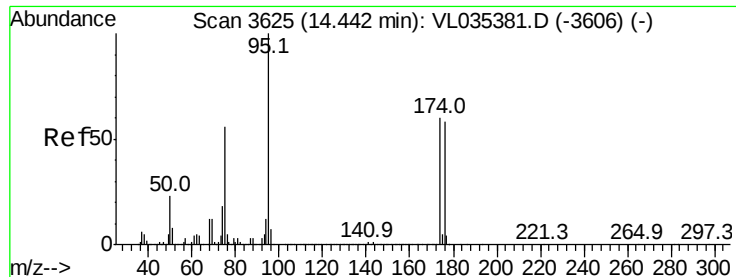
120 0.0 21.1 31.7#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

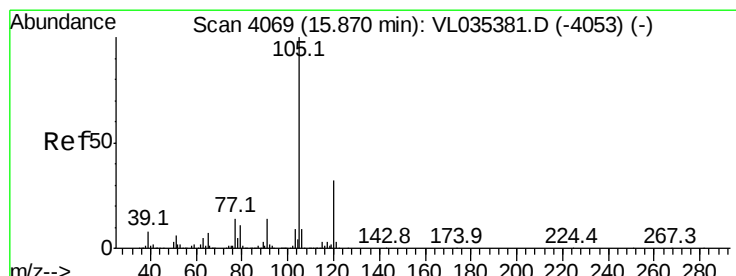
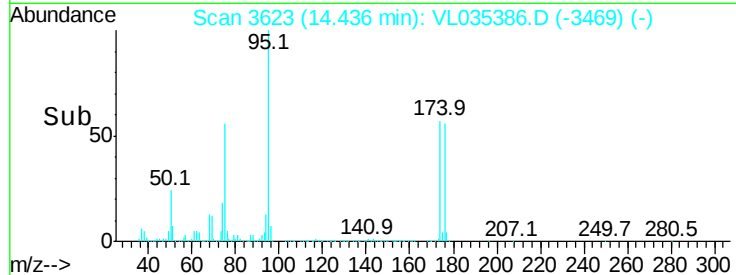
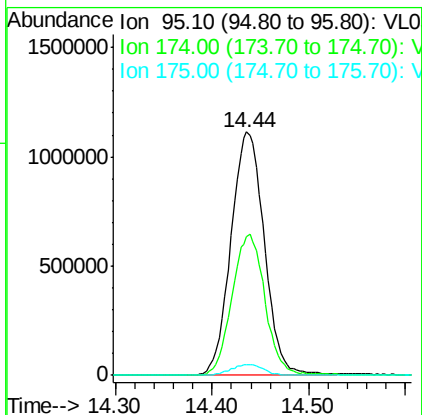
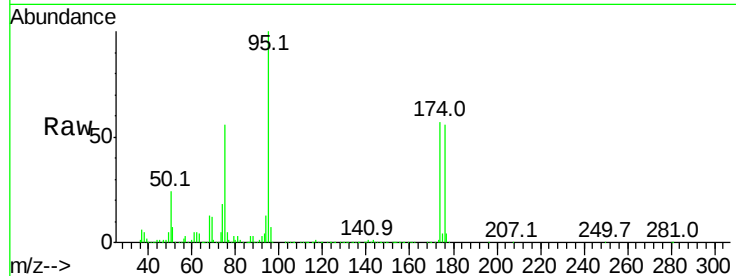




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.097 ppbv
 RT: 14.44 min Scan# 3623
 Delta R.T. -0.01 min
 Lab File: VL035386.D
 Acq: 12 Aug 2020 15:18

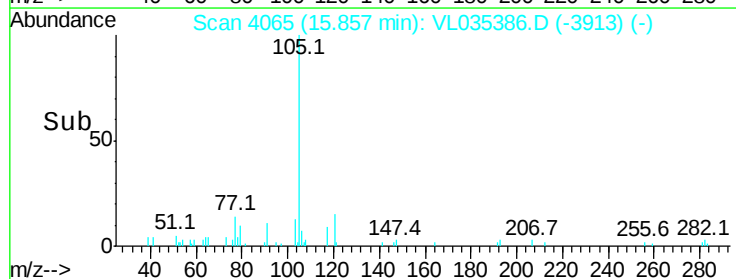
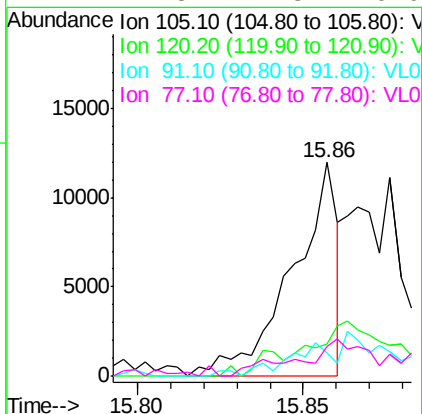
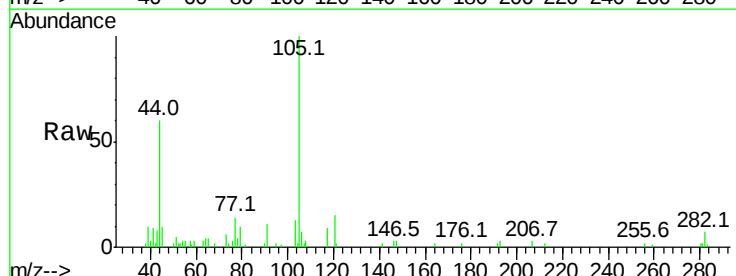
Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.03

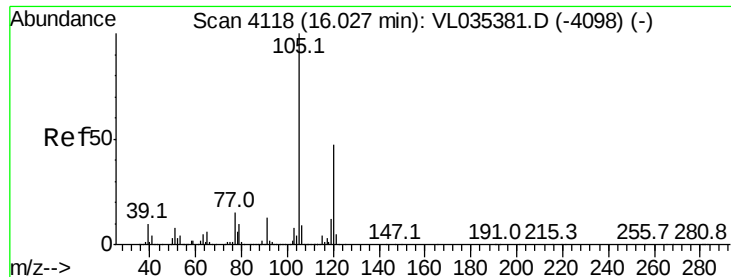
Tgt Ion: 95 Resp: 2671501
 Ion Ratio Lower Upper
 95 100
 174 57.8 48.2 72.2
 175 4.4 3.7 5.5



#72
 4-Ethyltoluene
 Concen: 0.032 ppbv
 RT: 15.86 min Scan# 4065
 Delta R.T. -0.01 min
 Lab File: VL035386.D
 Acq: 12 Aug 2020 15:18

Tgt Ion: 105 Resp: 11275
 Ion Ratio Lower Upper
 105 100
 120 0.0 24.0 36.0#
 91 0.0 10.4 15.6#
 77 42.3 11.3 16.9#

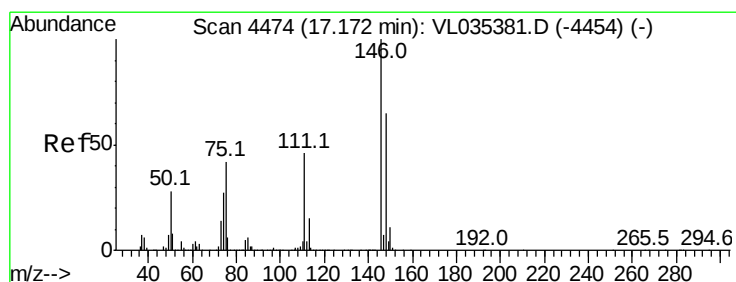
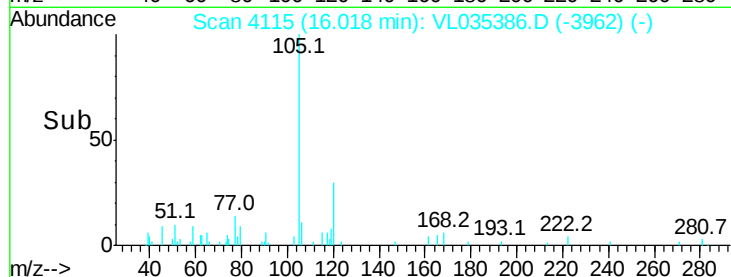
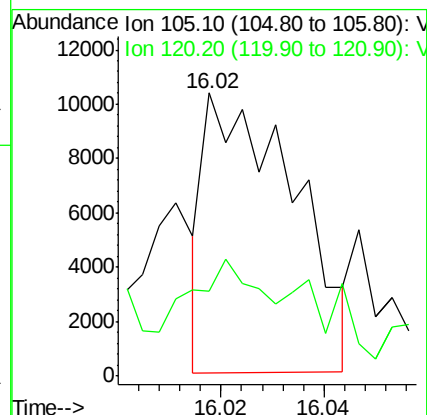
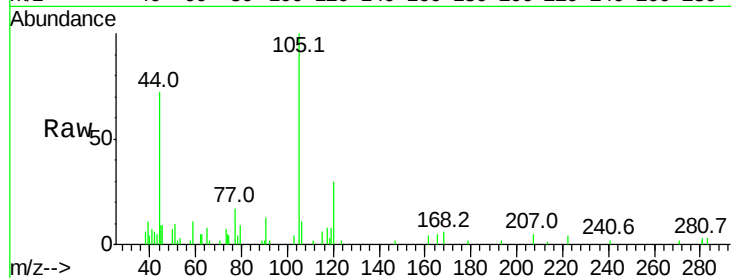




#73
 1,3,5-Trimethylbenzene
 Concen: 0.037 ppbv
 RT: 16.02 min Scan# 4115
 Delta R.T. -0.01 min
 Lab File: VL035386.D
 Acq: 12 Aug 2020 15:18

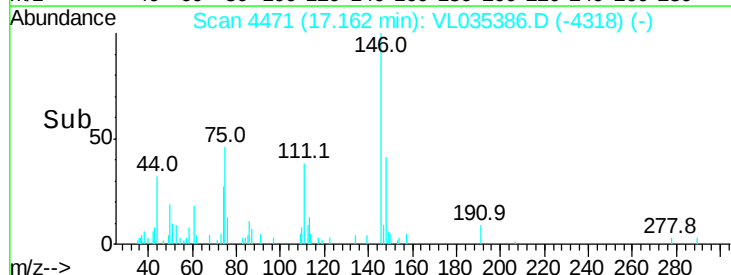
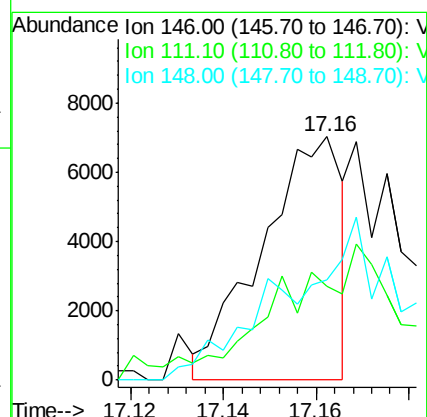
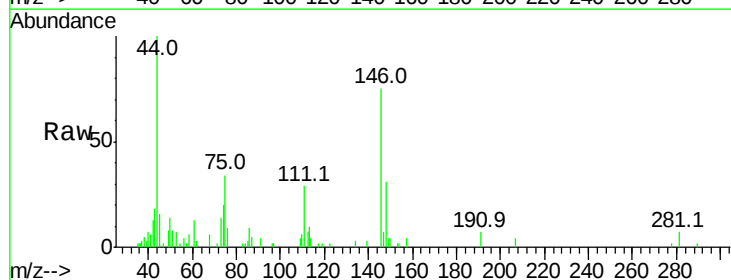
Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.03

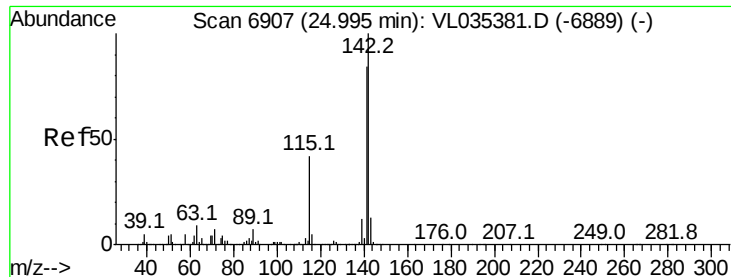
Tgt Ion:105 Resp: 12431
 Ion Ratio Lower Upper
 105 100
 120 0.0 37.4 56.0#



#76
 1,4-Dichlorobenzene
 Concen: 0.037 ppbv
 RT: 17.16 min Scan# 4471
 Delta R.T. -0.01 min
 Lab File: VL035386.D
 Acq: 12 Aug 2020 15:18

Tgt Ion:146 Resp: 8445
 Ion Ratio Lower Upper
 146 100
 111 0.0 24.0 72.0#
 148 0.0 32.5 97.5#





#80

Naphthalene, 2-methyl-

Concen: 0.158 ppbv

RT: 25.00 min Scan# 6909

Delta R.T. 0.01 min

Lab File: VL035386.D

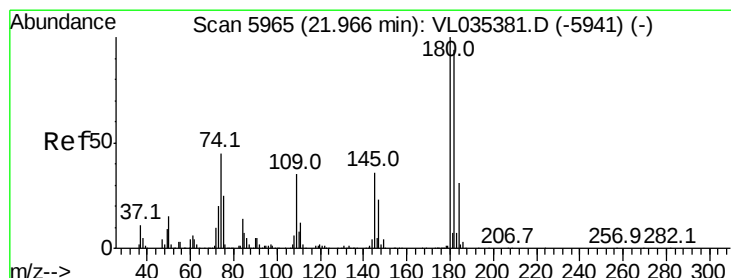
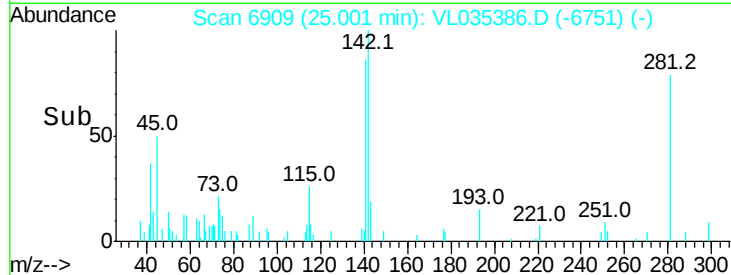
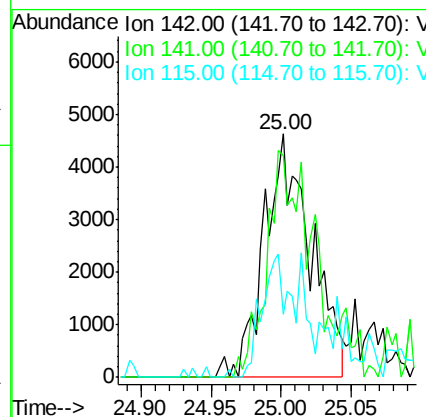
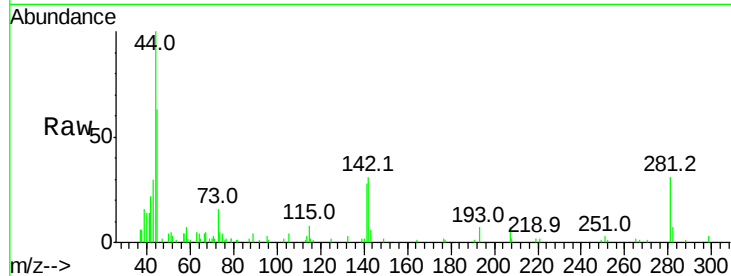
Acq: 12 Aug 2020 15:18

Instrument :
MSVOA_L

ClientSampleId :
VSTDIC0.03

Tgt Ion:142 Resp: 10567

Ion	Ratio	Lower	Upper
142	100		
141	97.3	67.7	101.5
115	56.7	34.0	51.0#



#81

1,2,4-Trichlorobenzene

Concen: 0.045 ppbv

RT: 21.97 min Scan# 5965

Delta R.T. 0.00 min

Lab File: VL035386.D

Acq: 12 Aug 2020 15:18

Tgt Ion:180 Resp: 8267

Ion	Ratio	Lower	Upper
180	100		
182	0.0	77.6	116.4#
184	75.4	24.7	37.1#

