

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL072120\
 Data File : VL035219.D
 Acq On : 21 Jul 2020 22:20
 Operator : SY/AP
 Sample : L3290-03
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OUTDOOR-AMBIENT

Quant Time: Jul 22 00:49:54 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL070820AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Jul 08 07:05:23 2020
 QLast Update : Wed Jul 08 07:05:23 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1002294	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	2373864	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.11	117	2214984	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.44	95	1816924	10.10	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.00%

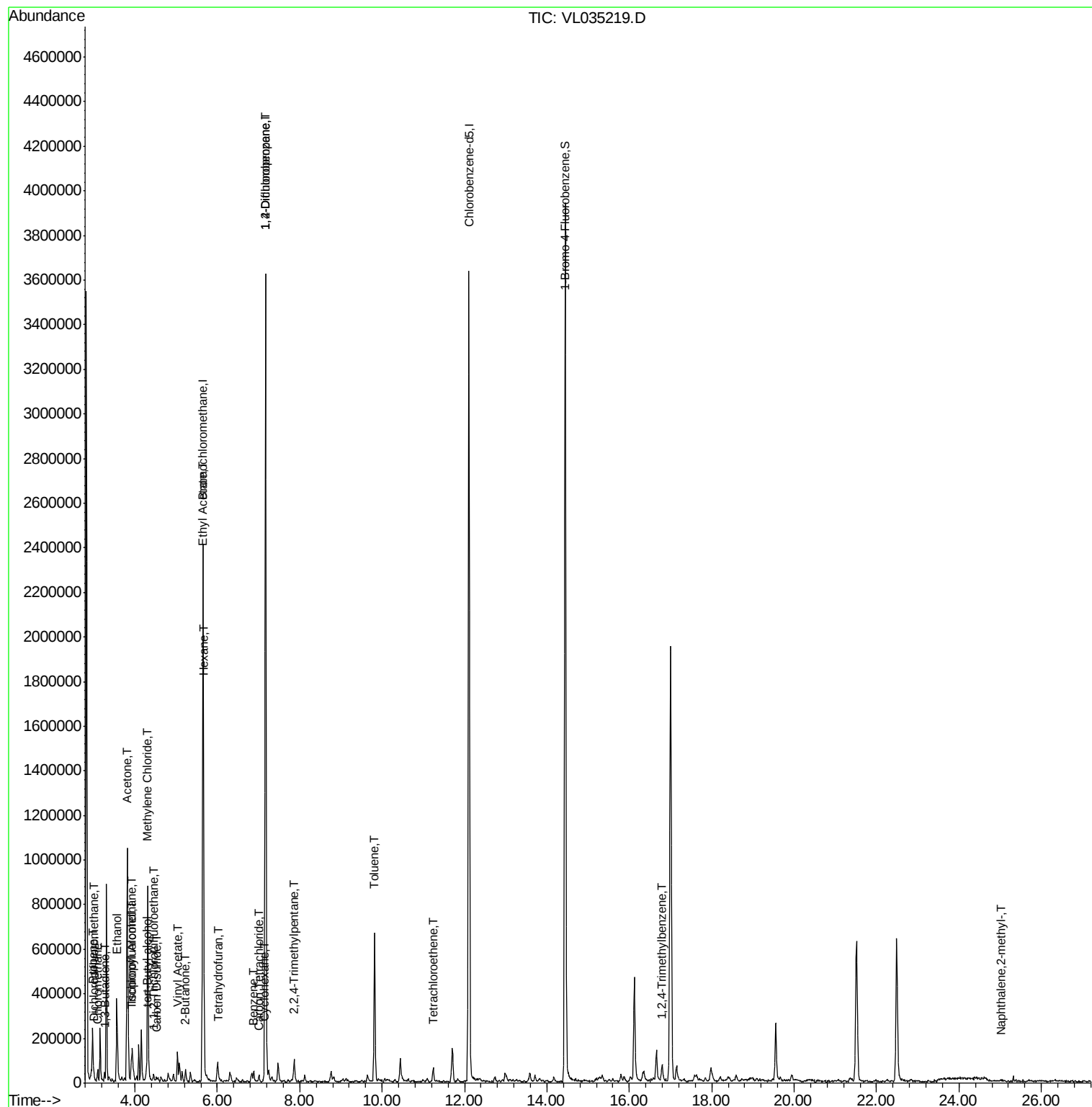
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.00	85	38326	0.273 ppbv	95
4) Chloromethane	3.10	50	37301	0.598 ppbv	91
9) Propene	2.97	41	52828	1.263 ppbv #	83
11) Trichlorofluoromethane	3.92	101	47397	0.299 ppbv #	82
12) 1,1,2-Trichlorotrifluoroet	4.46	101	6626	0.059 ppbv #	55
13) Ethanol	3.56	45	366230	27.493 ppbv	94
15) Acetone	3.81	43	1079986	7.959 ppbv	98
16) 1,3-Butadiene	3.26	39	9929	0.191 ppbv #	70
17) tert-Butyl alcohol	4.28	59	12867	0.107 ppbv #	72
19) Isopropyl Alcohol	3.94	45	73640	0.900 ppbv #	92
20) Methylene Chloride	4.31	84	283519	4.802 ppbv	99
23) Vinyl Acetate	5.04	43	78428	0.534 ppbv #	74
25) Ethyl Acetate	5.66	43	69895	0.332 ppbv #	86
26) Hexane	5.67	57	173729	1.871 ppbv #	43
27) Carbon Disulfide	4.52	76	5204	0.040 ppbv #	67
30) Cyclohexane	7.13	84	2236	0.033 ppbv #	13
34) 2-Butanone	5.23	43	52143	0.412 ppbv	93
35) Carbon Tetrachloride	7.00	117	4886	0.032 ppbv #	55
36) Benzene	6.89	78	20374	0.119 ppbv #	90
39) 1,2-Dichloropropane	7.17	63	639335	9.357 ppbv #	23
41) Tetrahydrofuran	6.03	42	3227	0.051 ppbv #	35
44) 2,2,4-Trimethylpentane	7.86	57	26733	0.090 ppbv #	42
52) Tetrachloroethene	11.23	164	3817	0.059 ppbv #	75
53) Toluene	9.82	91	463535	2.556 ppbv	98
74) 1,2,4-Trimethylbenzene	16.80	105	46986	0.180 ppbv #	68
80) Naphthalene,2-methyl-	25.01	142	2336	0.058 ppbv #	91

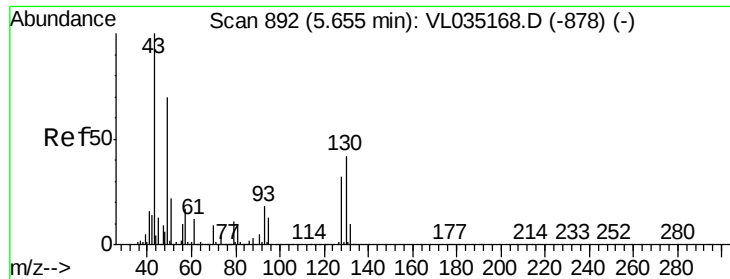
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Wed Jul 08 07:05:23 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 890

Delta R.T. -0.01 min

Lab File: VL035219.D

Acq: 21 Jul 2020 22:20

Instrument :

MSVOA_L

ClientSampleId :

OUTDOOR-AMBIENT

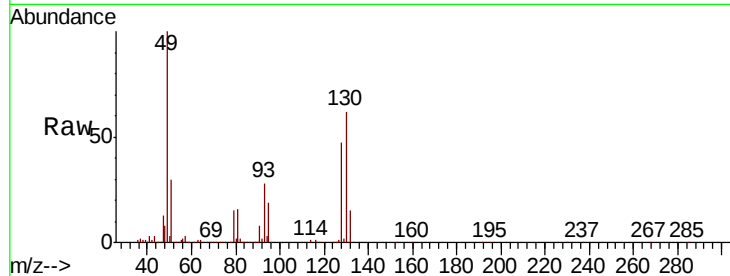
Tot Ion: 49 Resp: 1002294

Ion Ratio Lower Upper

49 100

128 47.5 23.8 71.4

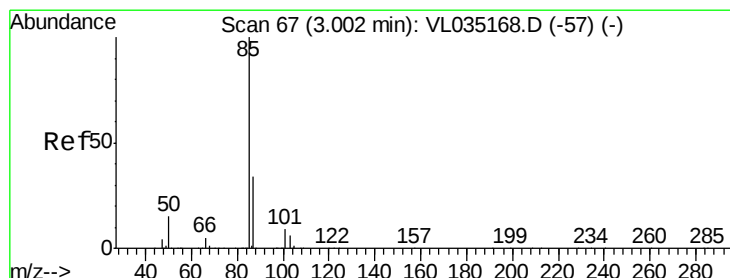
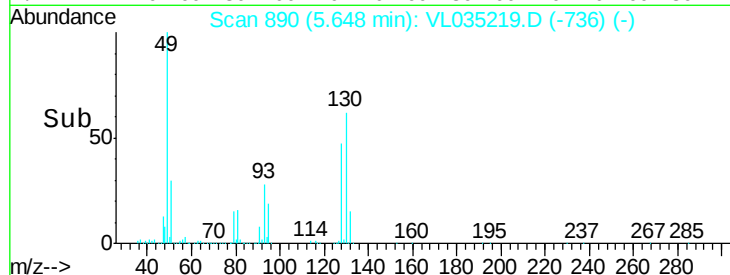
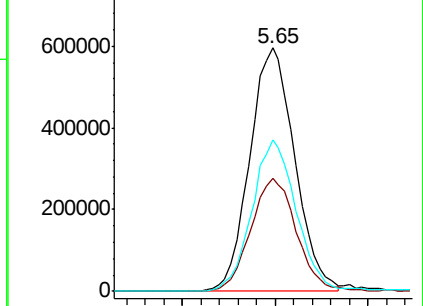
130 62.1 29.9 89.8



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: 0.273 ppbv

RT: 3.00 min Scan# 67

Delta R.T. 0.00 min

Lab File: VL035219.D

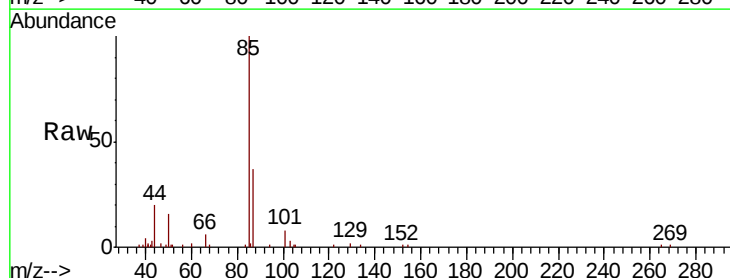
Acq: 21 Jul 2020 22:20

Tgt Ion: 85 Resp: 38326

Ion Ratio Lower Upper

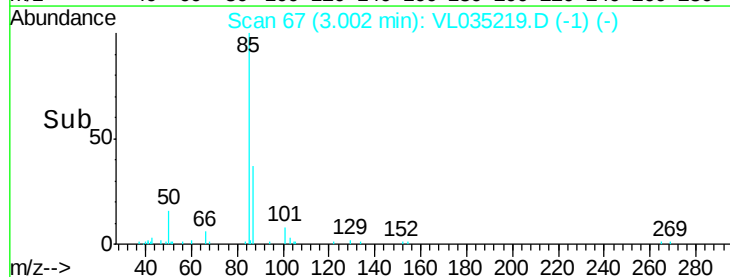
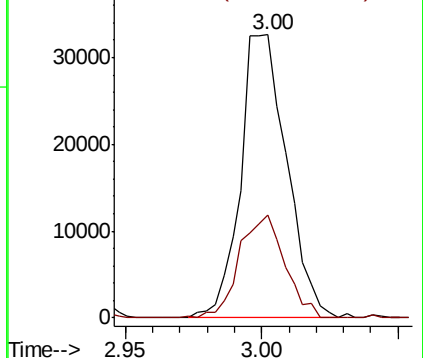
85 100

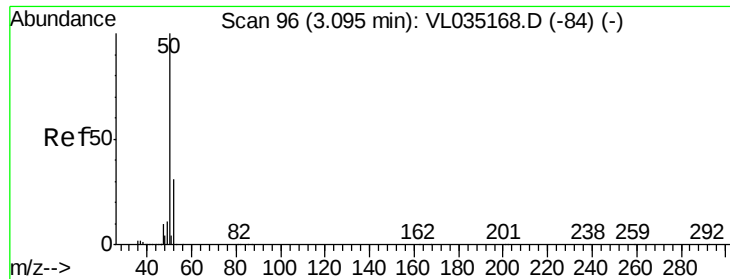
87 36.5 27.0 40.6



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#4

Chloromethane

Concen: 0.598 ppbv

RT: 3.10 min Scan# 96

Delta R.T. 0.00 min

Lab File: VL035219.D

Acq: 21 Jul 2020 22:20

Instrument :

MSVOA_L

ClientSampleId :

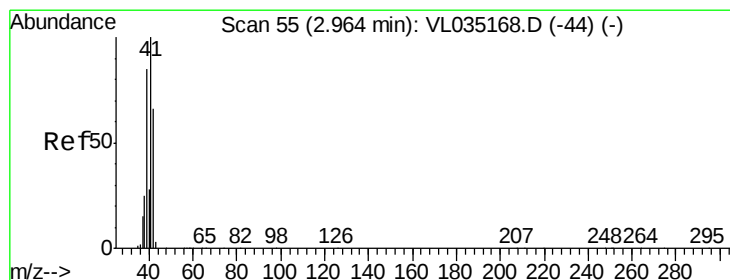
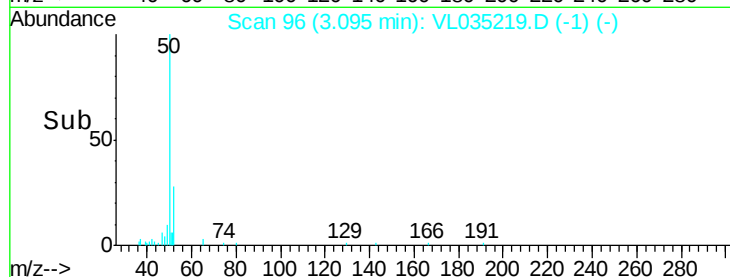
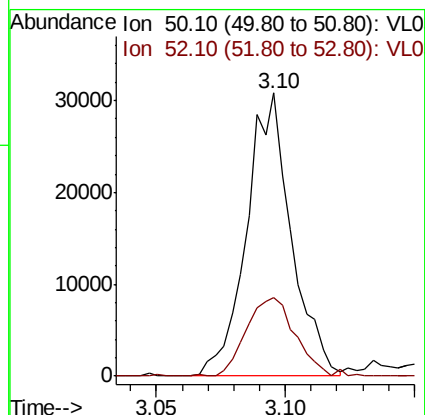
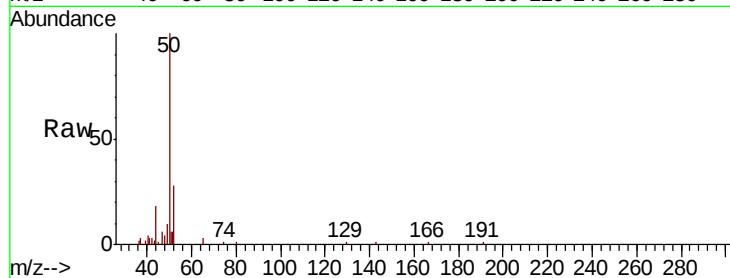
OUTDOOR-AMBIENT

Tot Ion: 50 Resp: 37301

Ion Ratio Lower Upper

50 100

52 26.5 25.0 37.6



#9

Propene

Concen: 1.263 ppbv

RT: 2.97 min Scan# 57

Delta R.T. 0.01 min

Lab File: VL035219.D

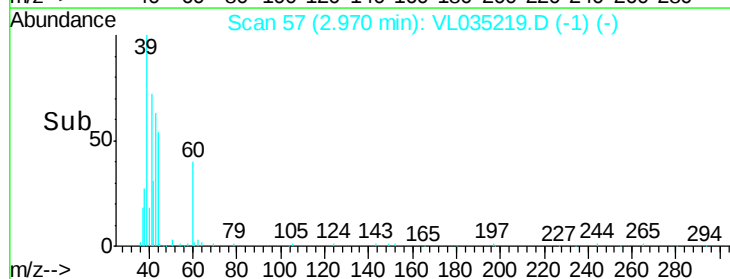
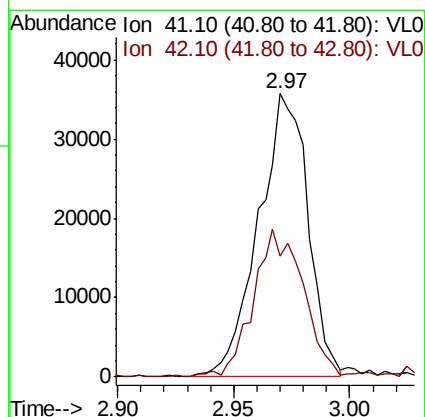
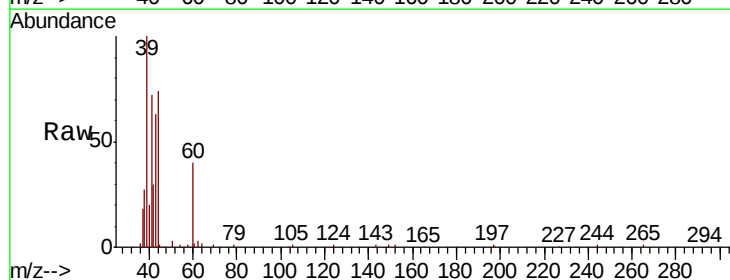
Acq: 21 Jul 2020 22:20

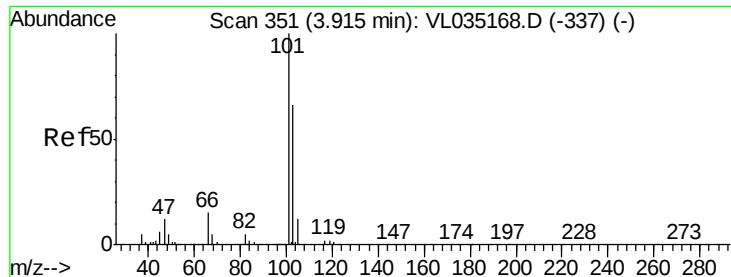
Tgt Ion: 41 Resp: 52828

Ion Ratio Lower Upper

41 100

42 54.2 54.6 81.8#





#11

Trichlorofluoromethane

Concen: 0.299 ppbv

RT: 3.92 min Scan# 351

Delta R.T. 0.00 min

Lab File: VL035219.D

Acq: 21 Jul 2020 22:20

Instrument :

MSVOA_L

ClientSampleId :

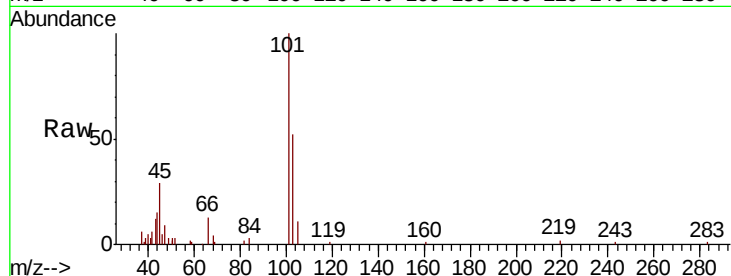
OUTDOOR-AMBIENT

Tot Ion:101 Resp: 47397

Ion Ratio Lower Upper

101 100

103 52.3 53.1 79.7#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V

3.92

40000

30000

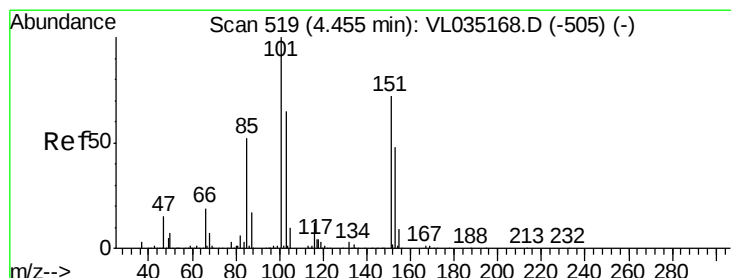
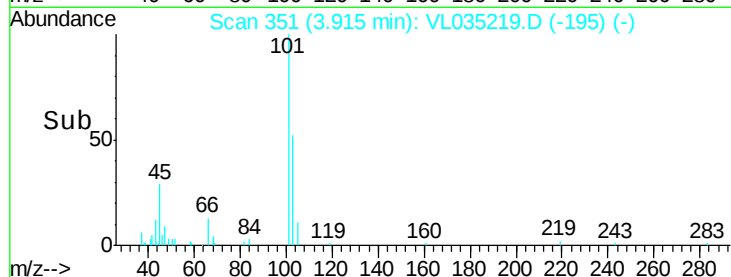
20000

10000

0

Time-->

3.85 3.90 3.95



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.059 ppbv

RT: 4.46 min Scan# 519

Delta R.T. 0.00 min

Lab File: VL035219.D

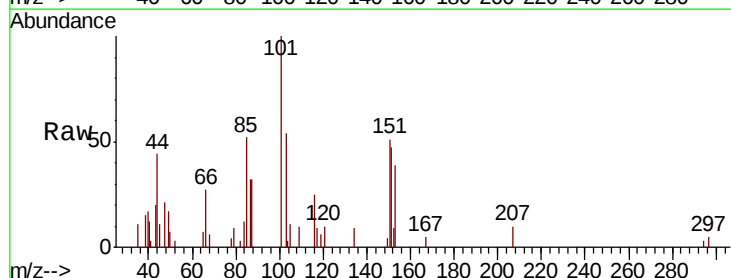
Acq: 21 Jul 2020 22:20

Tgt Ion:101 Resp: 6626

Ion Ratio Lower Upper

101 100

151 108.4 57.0 85.4#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V

4.46

6000

5000

4000

3000

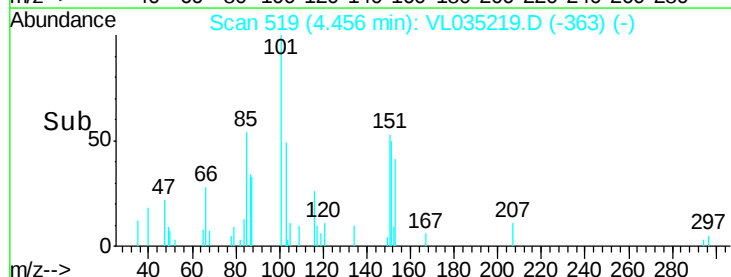
2000

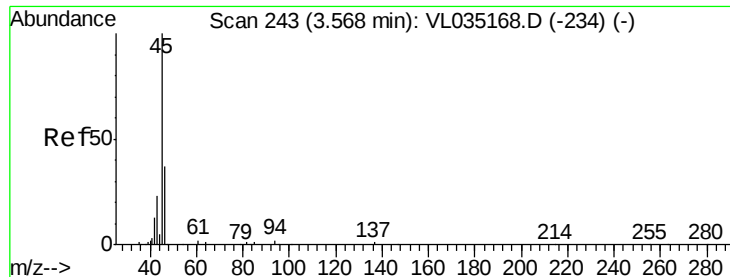
1000

0

Time-->

4.42 4.44 4.46





#13

Ethanol

Concen: 27.493 ppbv

RT: 3.56 min Scan# 242

Delta R.T. -0.00 min

Lab File: VL035219.D

Acq: 21 Jul 2020 22:20

Instrument :

MSVOA_L

ClientSampleId :

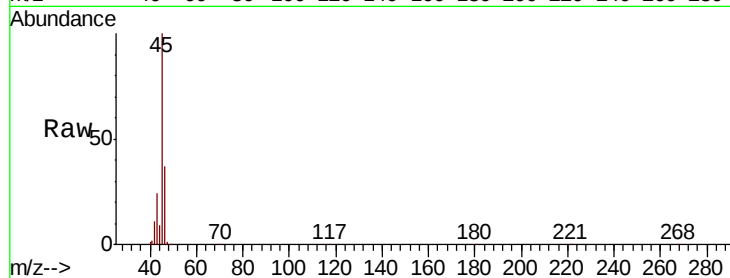
OUTDOOR-AMBIENT

Tot Ion: 45 Resp: 366230

Ion Ratio Lower Upper

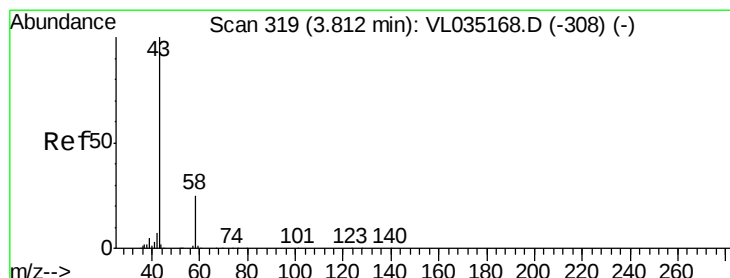
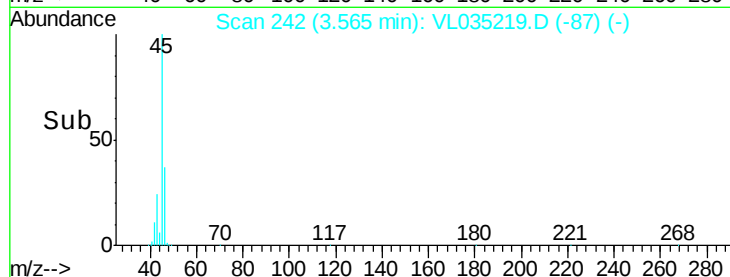
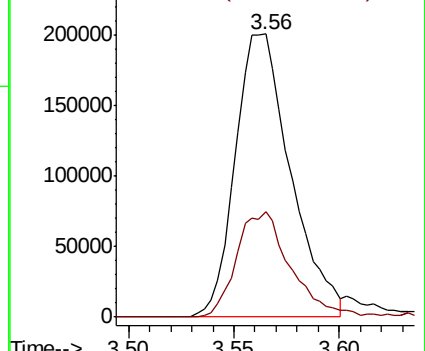
45 100

46 37.1 16.2 65.0



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0



#15

Acetone

Concen: 7.959 ppbv

RT: 3.81 min Scan# 318

Delta R.T. -0.00 min

Lab File: VL035219.D

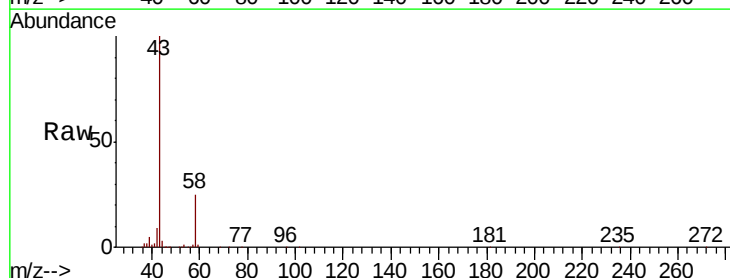
Acq: 21 Jul 2020 22:20

Tgt Ion: 43 Resp: 1079986

Ion Ratio Lower Upper

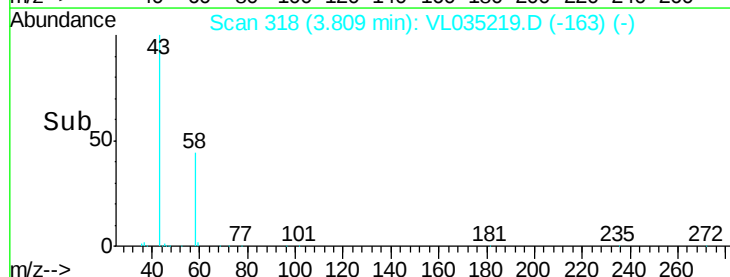
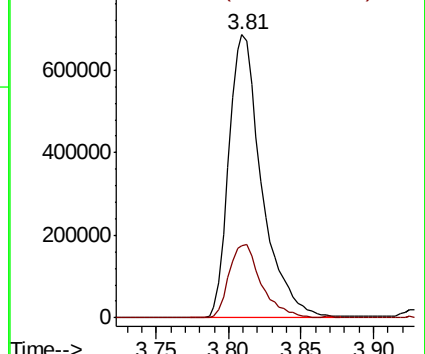
43 100

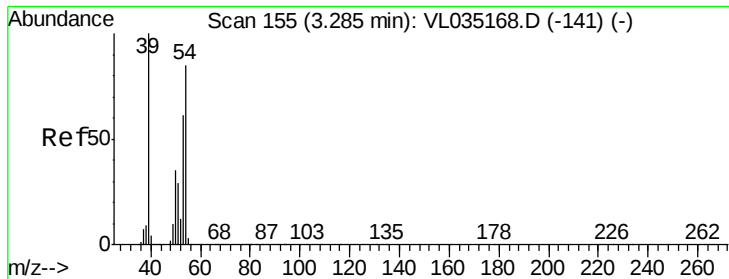
58 25.7 21.3 31.9



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0





#16

1,3-Butadiene

Concen: 0.191 ppbv

RT: 3.26 min Scan# 147

Delta R.T. -0.03 min

Lab File: VL035219.D

Acq: 21 Jul 2020 22:20

Instrument :

MSVOA_L

ClientSampleId :

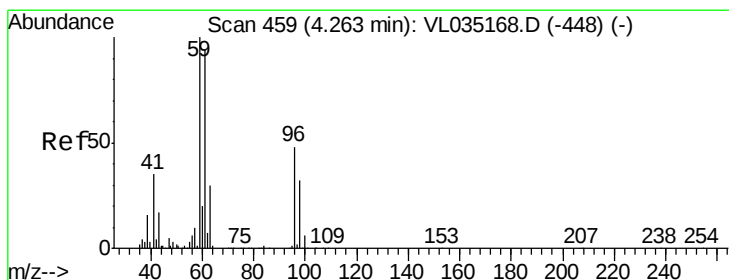
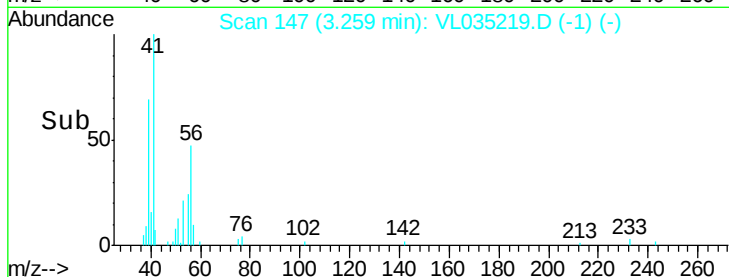
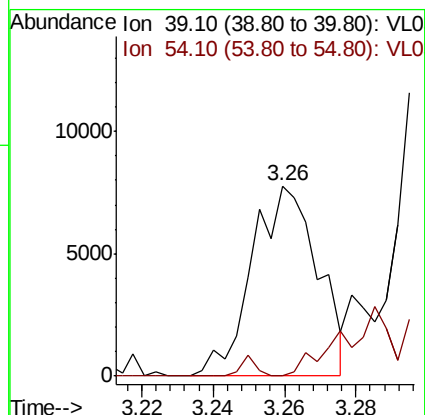
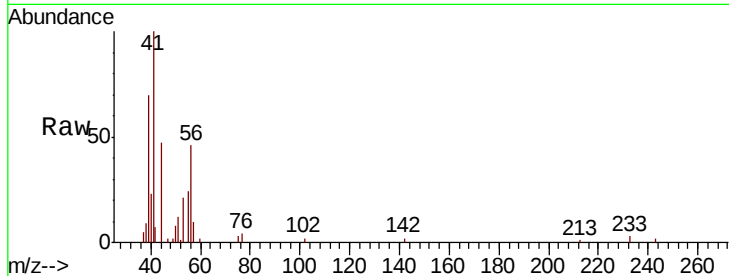
OUTDOOR-AMBIENT

Tot Ion: 39 Resp: 9929

Ion Ratio Lower Upper

39 100

54 56.9 67.2 100.8#



#17

tert-Butyl alcohol

Concen: 0.107 ppbv

RT: 4.28 min Scan# 465

Delta R.T. 0.02 min

Lab File: VL035219.D

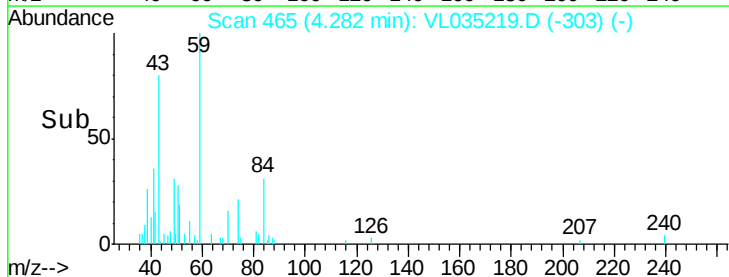
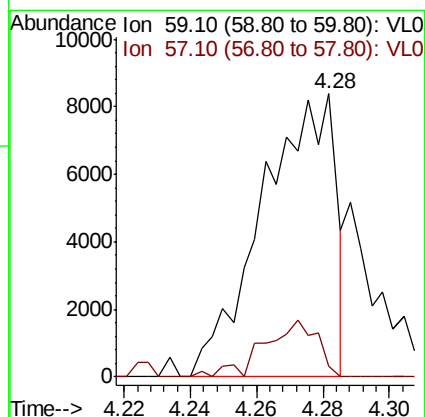
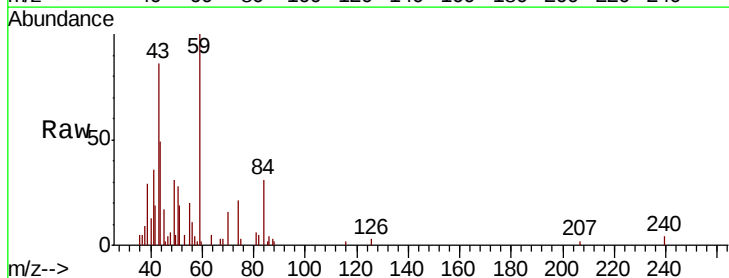
Acq: 21 Jul 2020 22:20

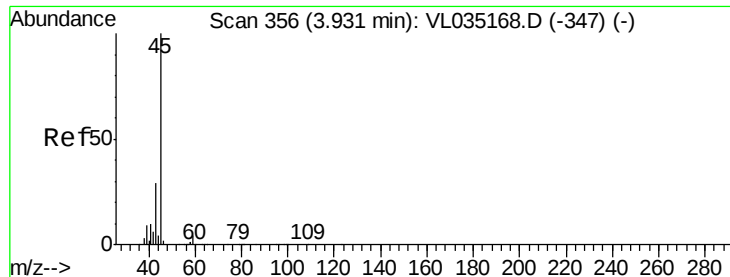
Tgt Ion: 59 Resp: 12867

Ion Ratio Lower Upper

59 100

57 0.0 8.6 12.8#





#19

Isopropyl Alcohol

Concen: 0.900 ppbv

RT: 3.94 min Scan# 358

Delta R.T. 0.01 min

Lab File: VL035219.D

Acq: 21 Jul 2020 22:20

Instrument :

MSVOA_L

ClientSampleId :

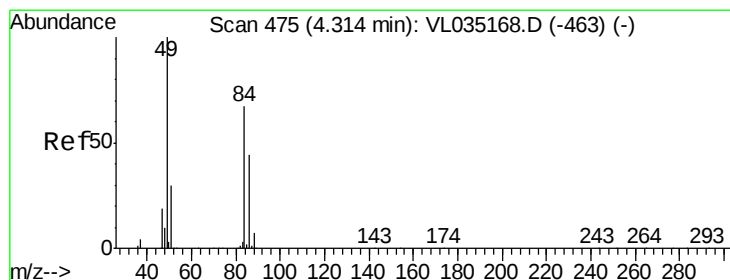
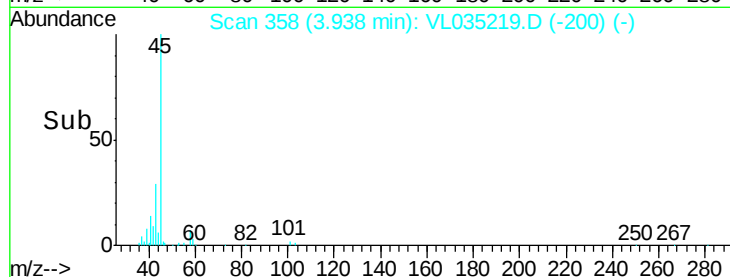
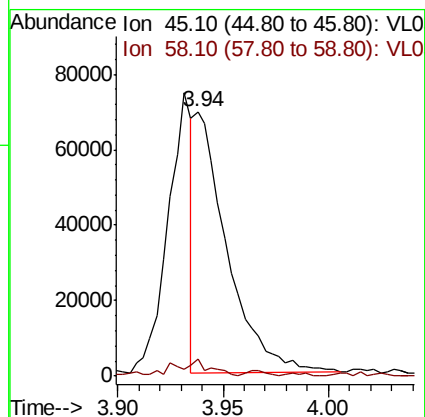
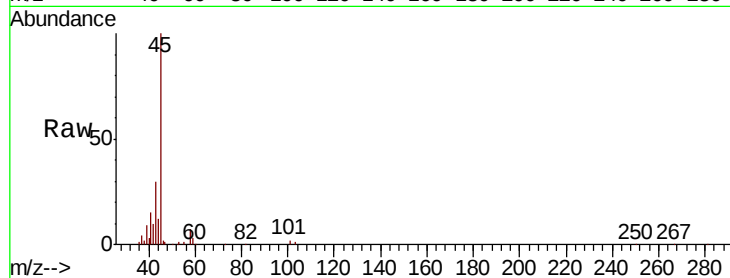
OUTDOOR-AMBIENT

Tot Ion: 45 Resp: 73640

Ion Ratio Lower Upper

45 100

58 0.0 2.1 3.1#



#20

Methylene Chloride

Concen: 4.802 ppbv

RT: 4.31 min Scan# 474

Delta R.T. -0.00 min

Lab File: VL035219.D

Acq: 21 Jul 2020 22:20

Tgt Ion: 84 Resp: 283519

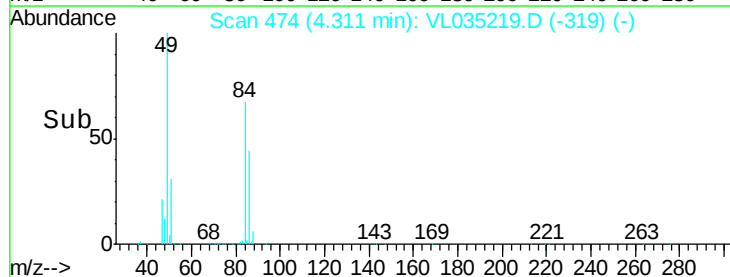
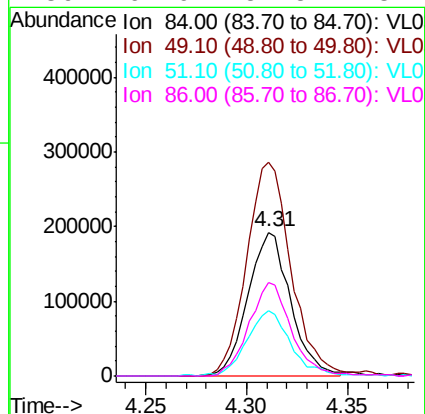
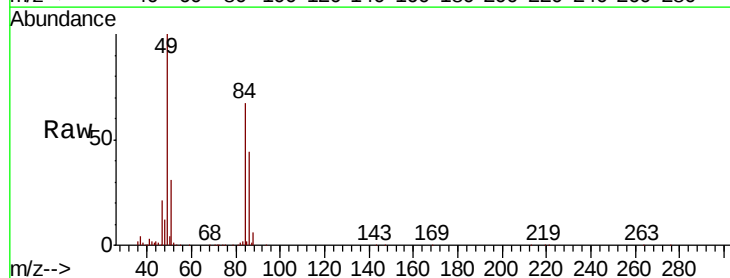
Ion Ratio Lower Upper

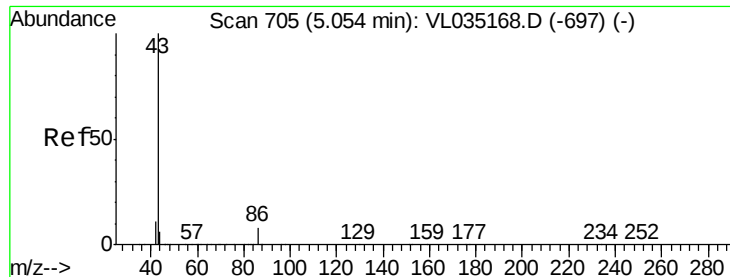
84 100

49 148.3 119.4 179.0

51 44.8 36.6 55.0

86 64.9 52.5 78.7





#23

Vinyl Acetate

Concen: 0.534 ppbv

RT: 5.04 min Scan# 700

Delta R.T. -0.02 min

Lab File: VL035219.D

Acq: 21 Jul 2020 22:20

Instrument :

MSVOA_L

ClientSampleId :

OUTDOOR-AMBIENT

Tot Ion: 43 Resp: 78428

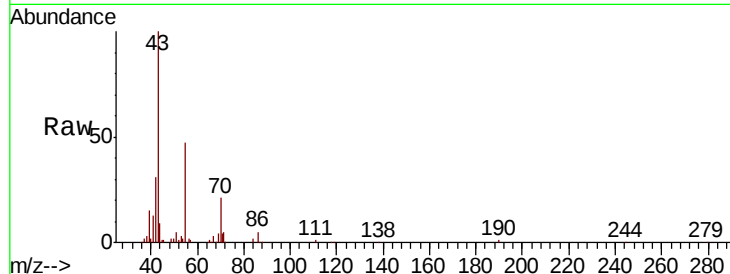
Ion Ratio Lower Upper

43 100

86 5.3 6.2 9.2#

42 30.6 9.1 13.7#

44 6.8 4.6 6.8

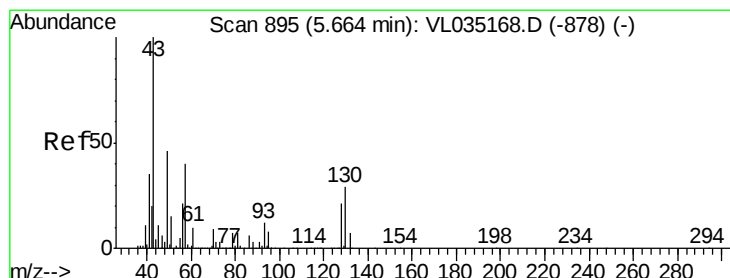
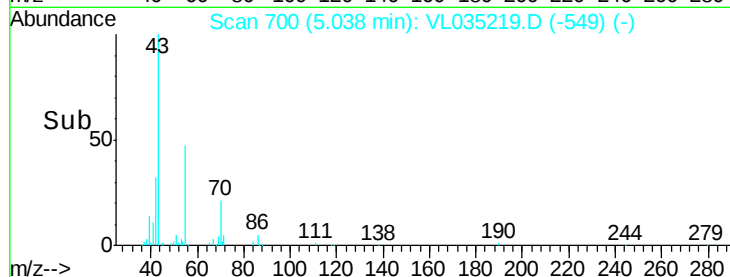
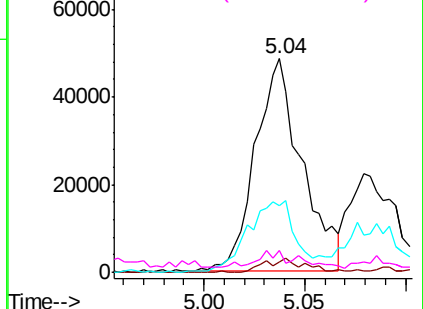


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 0.332 ppbv

RT: 5.66 min Scan# 895

Delta R.T. 0.00 min

Lab File: VL035219.D

Acq: 21 Jul 2020 22:20

Tgt Ion: 43 Resp: 69895

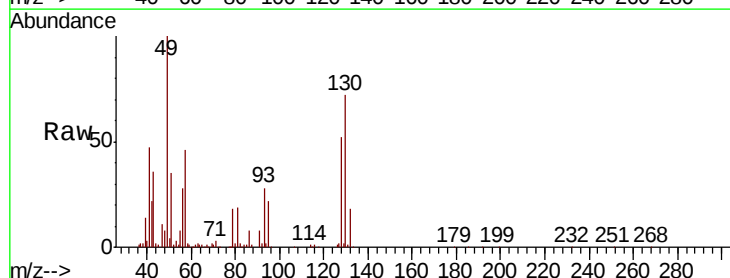
Ion Ratio Lower Upper

43 100

45 5.8 8.5 12.7#

61 2.3 8.1 12.1#

70 5.7 6.3 9.5#

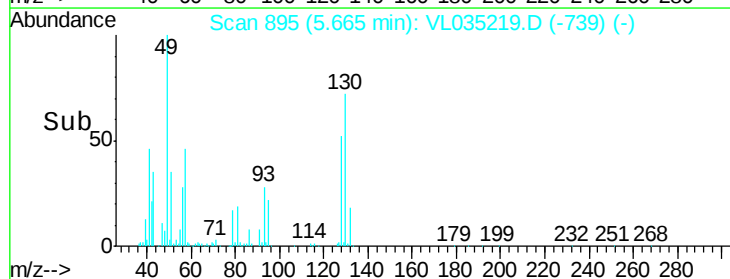
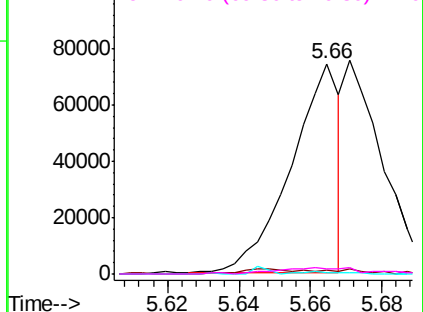


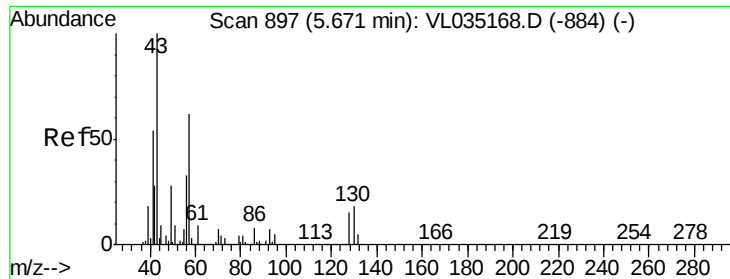
Abundance Ion 43.10 (42.80 to 43.80): VL0

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

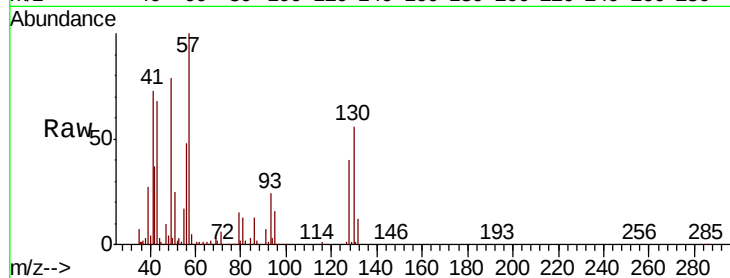




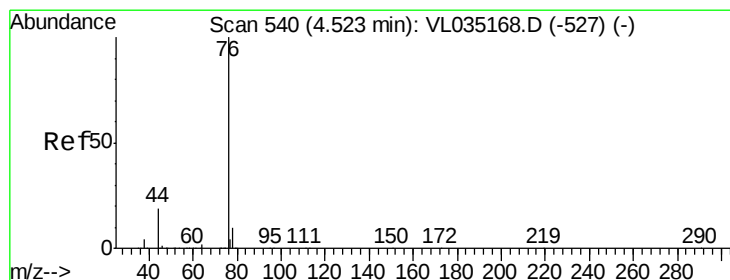
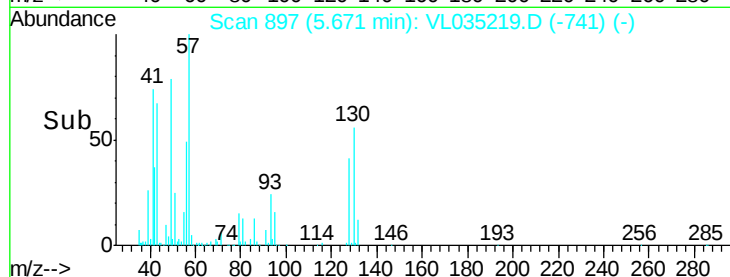
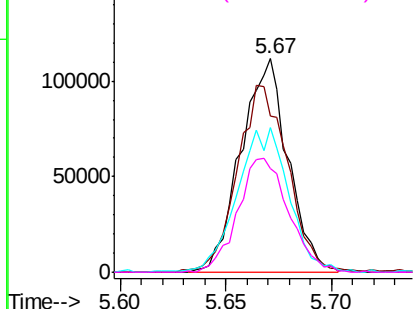
#26
Hexane
Concen: 1.871 ppbv
RT: 5.67 min Scan# 897
Delta R.T. 0.00 min
Lab File: VL035219.D
Acq: 21 Jul 2020 22:20

Instrument :
MSVOA_L
ClientSampleId :
OUTDOOR-AMBIENT

Tot Ion:	57	Resp:	173729
Ion	Ratio	Lower	Upper
57	100		
41	93.3	72.9	109.3
43	74.8	179.5	269.3#
56	57.3	42.9	64.3

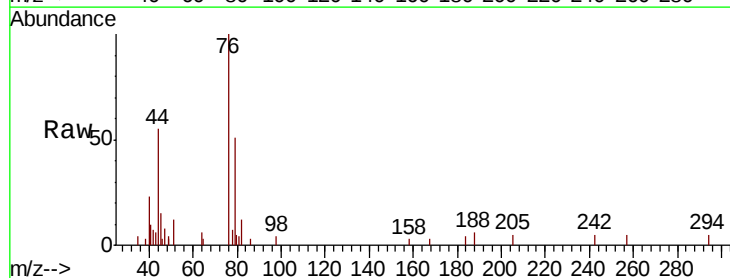


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

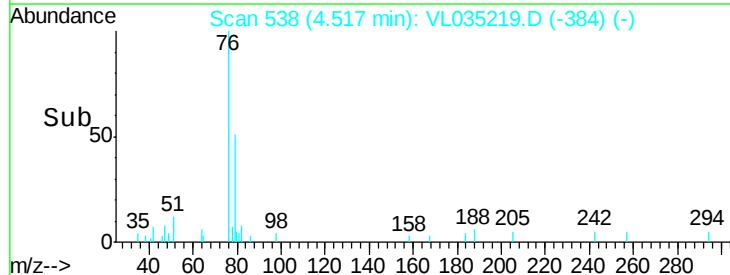
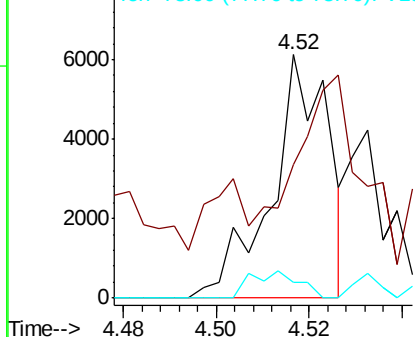


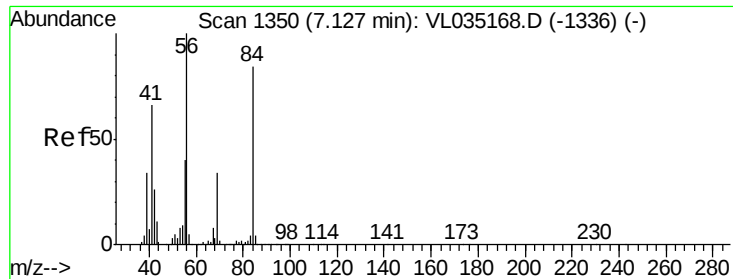
#27
Carbon Disulfide
Concen: 0.040 ppbv
RT: 4.52 min Scan# 538
Delta R.T. -0.01 min
Lab File: VL035219.D
Acq: 21 Jul 2020 22:20

Tgt Ion:	76	Resp:	5204
Ion	Ratio	Lower	Upper
76	100		
44	0.0	14.9	22.3#
78	14.9	7.5	11.3#



Abundance Ion 76.00 (75.70 to 76.70): VL0
Ion 44.10 (43.80 to 44.80): VL0
Ion 78.00 (77.70 to 78.70): VL0

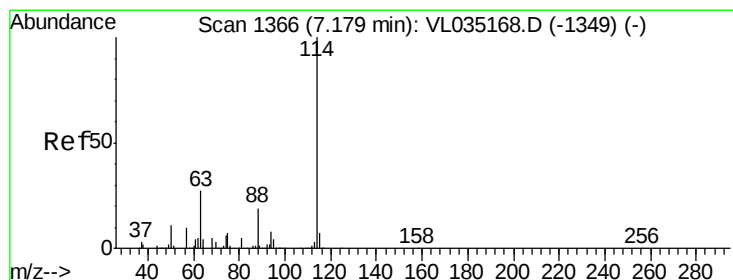
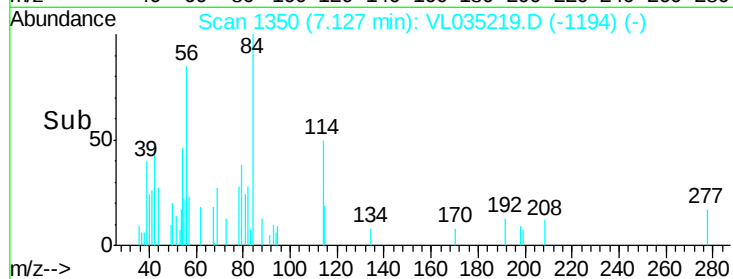
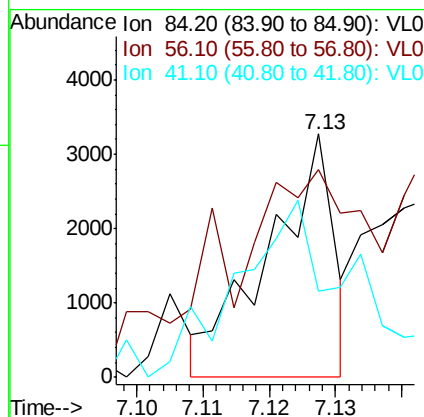
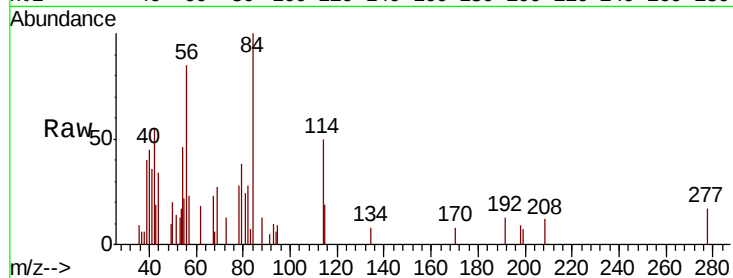




#30
Cyclohexane
Concen: 0.033 ppbv
RT: 7.13 min Scan# 1350
Delta R.T. 0.00 min
Lab File: VL035219.D
Acq: 21 Jul 2020 22:20

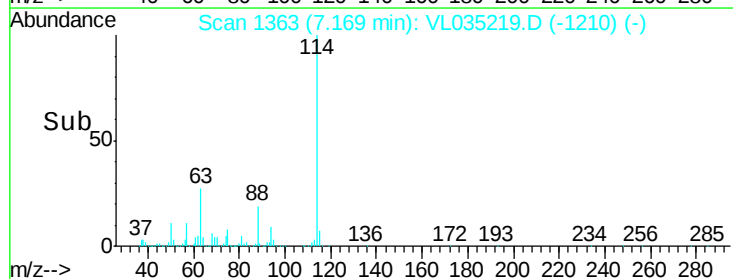
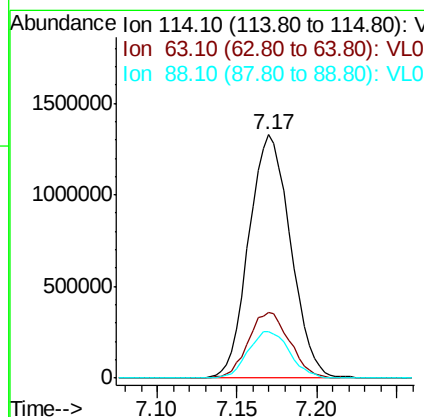
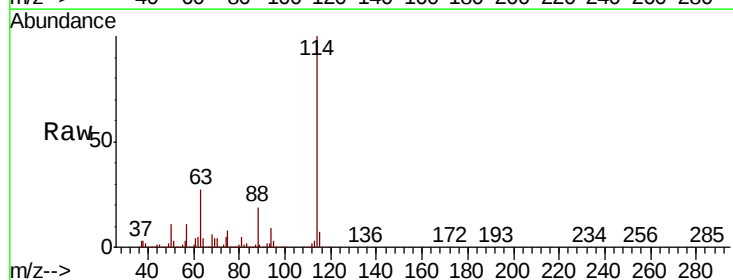
Instrument :
MSVOA_L
ClientSampleId :
OUTDOOR-AMBIENT

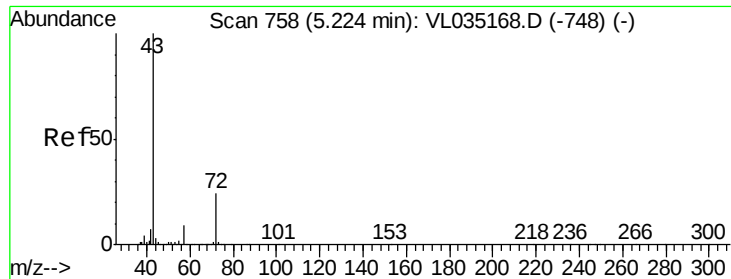
Tot Ion: 84 Resp: 2236
Ion Ratio Lower Upper
84 100
56 0.0 105.6 158.4#
41 120.9 64.9 97.3#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.17 min Scan# 1363
Delta R.T. -0.01 min
Lab File: VL035219.D
Acq: 21 Jul 2020 22:20

Tgt Ion:114 Resp: 2373864
Ion Ratio Lower Upper
114 100
63 27.1 22.0 33.0
88 19.2 15.4 23.0

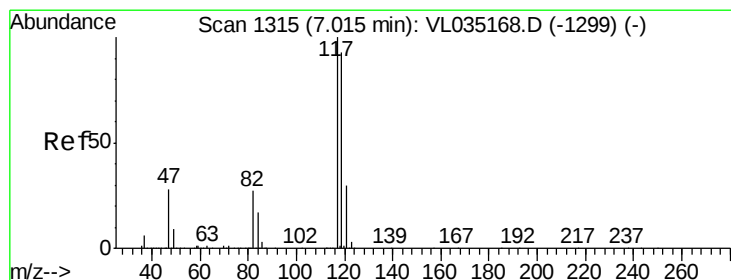
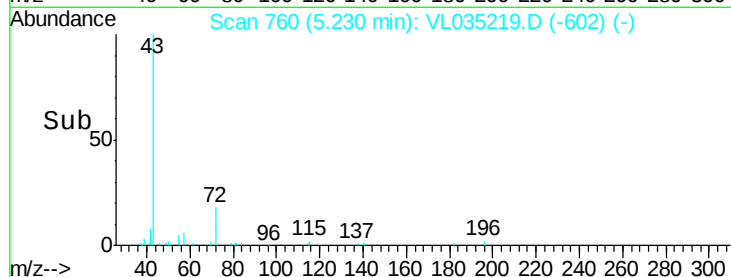
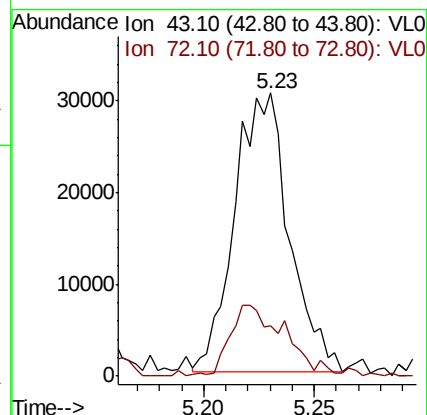
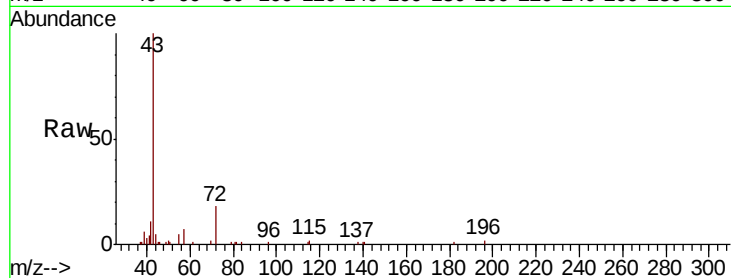




#34
2-Butanone
Concen: 0.412 ppbv
RT: 5.23 min Scan# 760
Delta R.T. 0.01 min
Lab File: VL035219.D
Acq: 21 Jul 2020 22:20

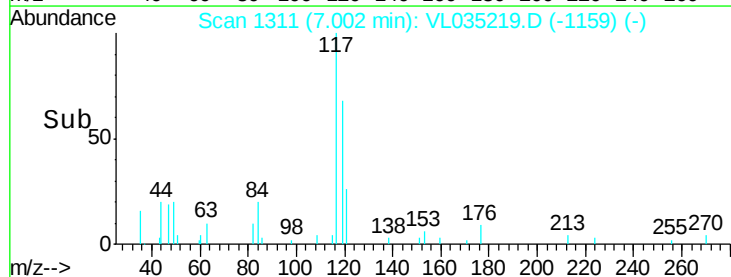
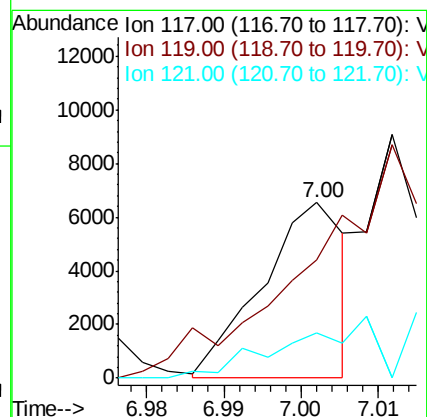
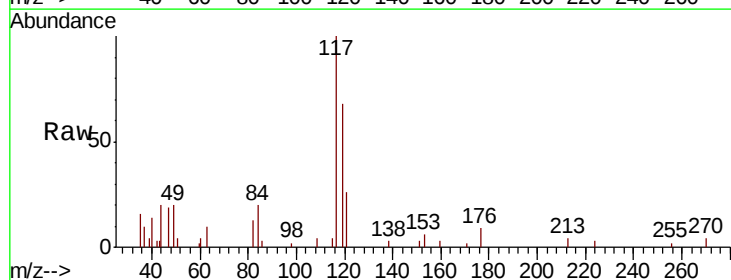
Instrument :
MSVOA_L
ClientSampleId :
OUTDOOR-AMBIENT

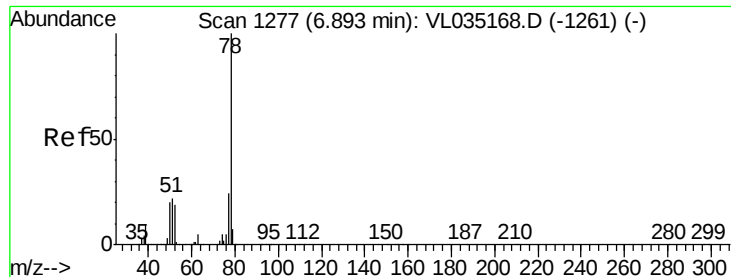
Tot Ion: 43 Resp: 52143
Ion Ratio Lower Upper
43 100
72 26.6 18.6 28.0



#35
Carbon Tetrachloride
Concen: 0.032 ppbv
RT: 7.00 min Scan# 1311
Delta R.T. -0.01 min
Lab File: VL035219.D
Acq: 21 Jul 2020 22:20

Tgt Ion: 117 Resp: 4886
Ion Ratio Lower Upper
117 100
119 40.3 74.8 112.2#
121 22.5 24.2 36.2#





#36

Benzene

Concen: 0.119 ppbv

RT: 6.89 min Scan# 1275

Delta R.T. -0.01 min

Lab File: VL035219.D

Acq: 21 Jul 2020 22:20

Instrument :

MSVOA_L

ClientSampleId :

OUTDOOR-AMBIENT

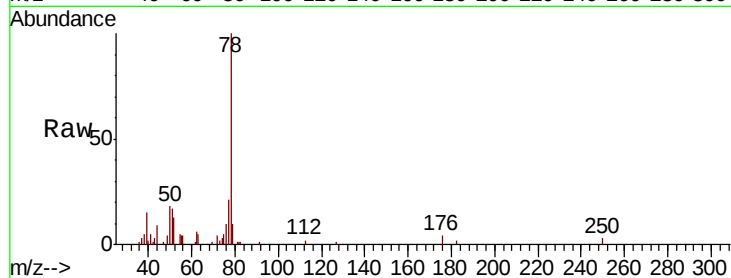
Tot Ion: 78 Resp: 20374

Ion Ratio Lower Upper

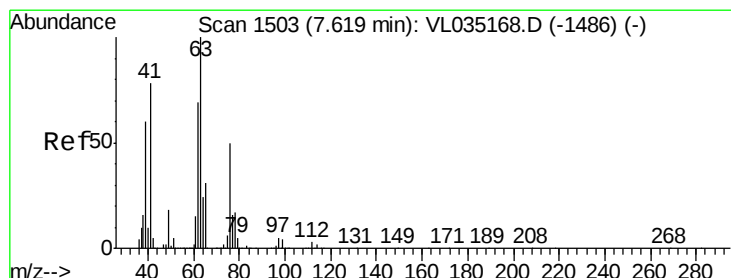
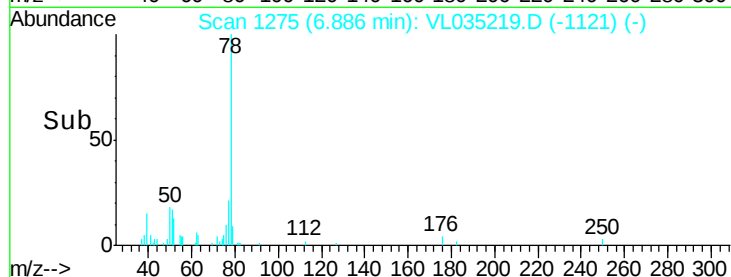
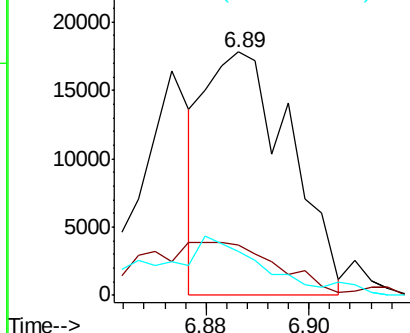
78 100

77 21.0 19.3 28.9

50 13.5 16.0 24.0#



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



#39

1,2-Dichloropropane

Concen: 9.357 ppbv

RT: 7.17 min Scan# 1363

Delta R.T. -0.45 min

Lab File: VL035219.D

Acq: 21 Jul 2020 22:20

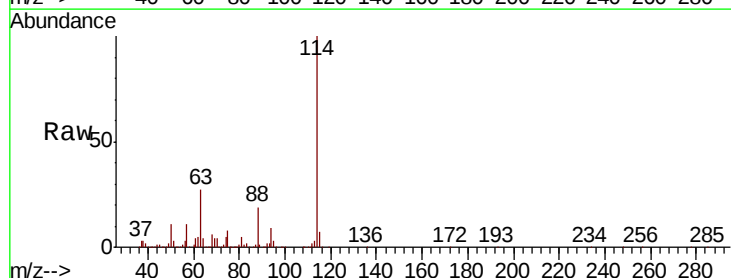
Tgt Ion: 63 Resp: 639335

Ion Ratio Lower Upper

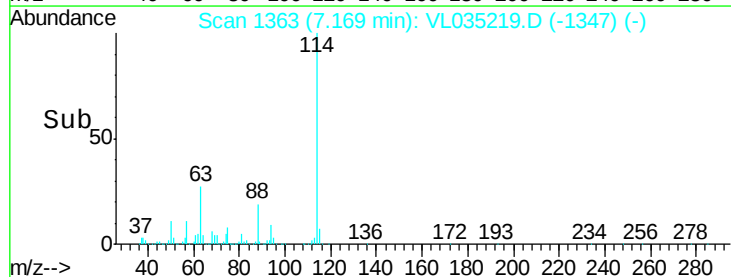
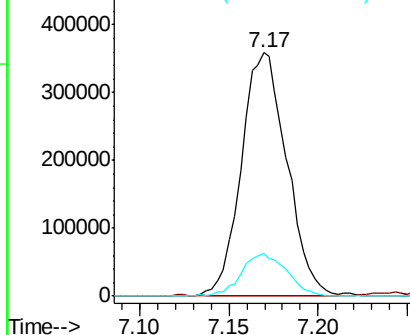
63 100

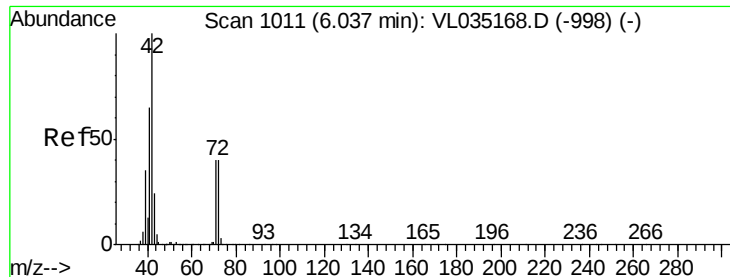
41 0.0 62.6 94.0#

62 17.4 55.0 82.6#



Abundance Ion 63.10 (62.80 to 63.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 62.10 (61.80 to 62.80): VL0

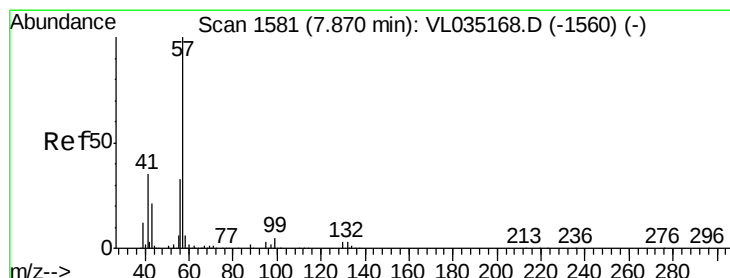
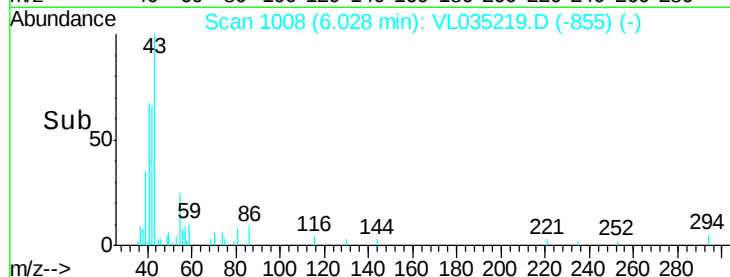
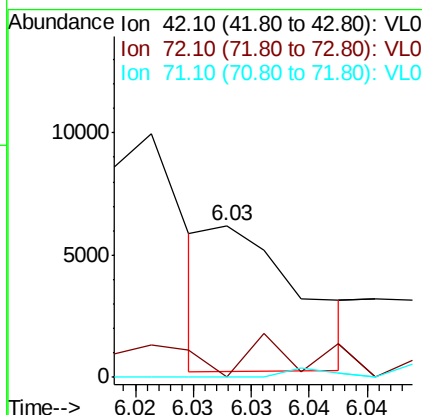
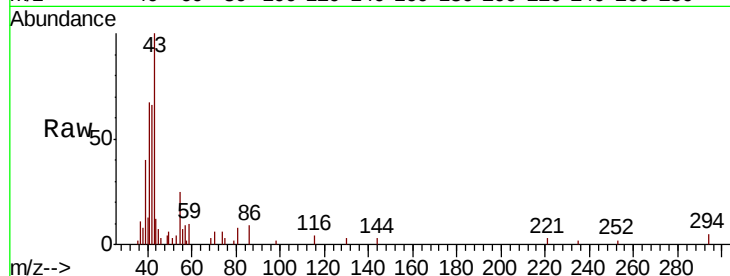




#41
Tetrahydrofuran
Concen: 0.051 ppbv
RT: 6.03 min Scan# 1008
Delta R.T. -0.01 min
Lab File: VL035219.D
Acq: 21 Jul 2020 22:20

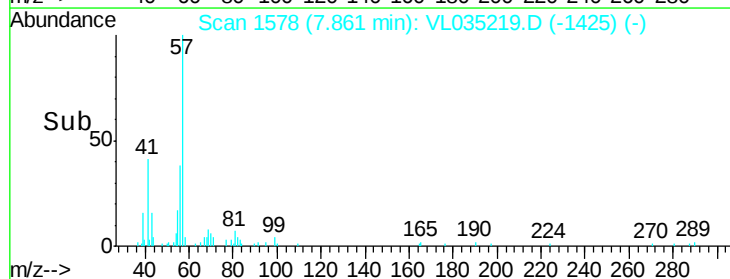
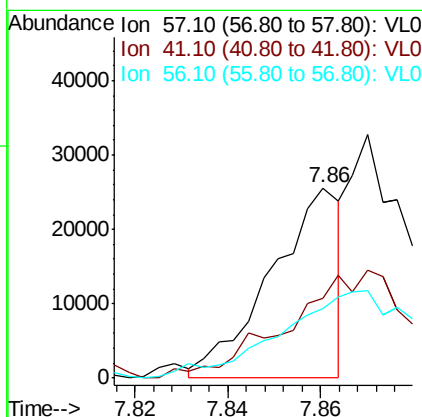
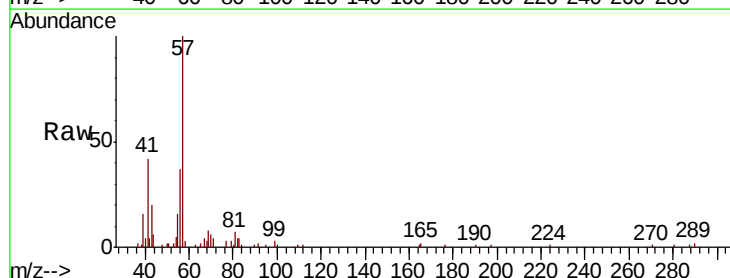
Instrument :
MSVOA_L
ClientSampleId :
OUTDOOR-AMBIENT

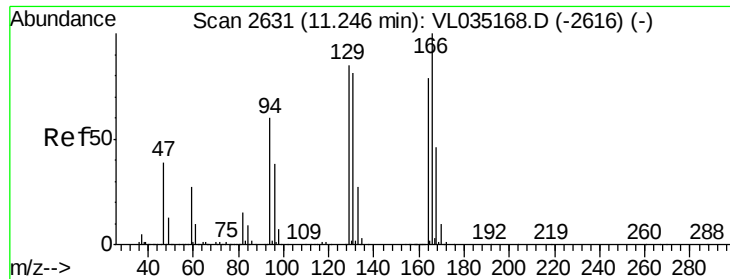
Tot Ion: 42 Resp: 3227
Ion Ratio Lower Upper
42 100
72 0.0 33.4 50.2#
71 0.0 31.9 47.9#



#44
2,2,4-Trimethylpentane
Concen: 0.090 ppbv
RT: 7.86 min Scan# 1578
Delta R.T. -0.01 min
Lab File: VL035219.D
Acq: 21 Jul 2020 22:20

Tgt Ion: 57 Resp: 26733
Ion Ratio Lower Upper
57 100
41 0.0 27.0 40.6#
56 0.0 25.5 38.3#





#52

Tetrachloroethene

Concen: 0.059 ppbv

RT: 11.23 min Scan# 2625

Delta R.T. -0.02 min

Lab File: VL035219.D

Acq: 21 Jul 2020 22:20

Instrument :

MSVOA_L

ClientSampleId :

OUTDOOR-AMBIENT

Tot Ion:164 Resp: 3817

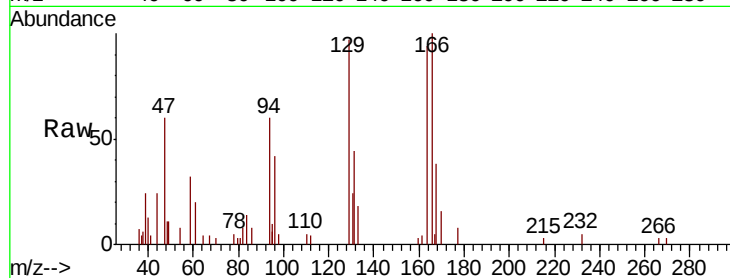
Ion Ratio Lower Upper

164 100

166 103.4 100.7 151.1

129 103.0 85.8 128.6

131 46.6 82.0 123.0#

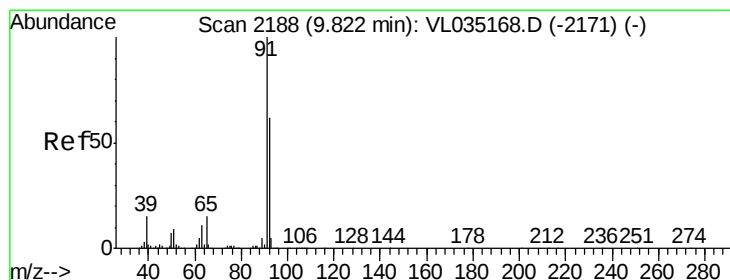
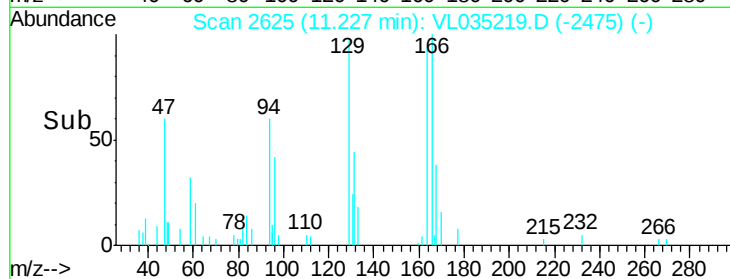
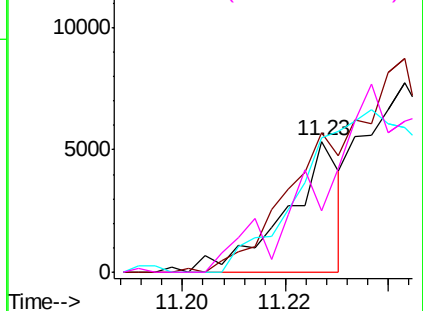


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 2.556 ppbv

RT: 9.82 min Scan# 2187

Delta R.T. -0.00 min

Lab File: VL035219.D

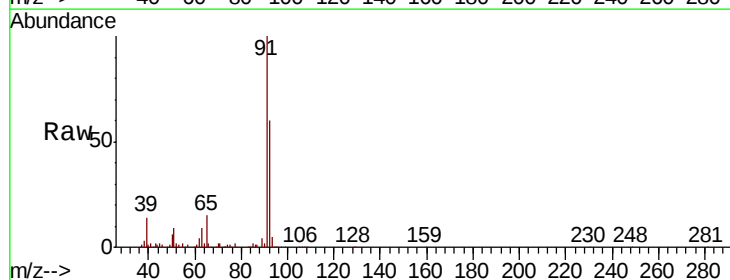
Acq: 21 Jul 2020 22:20

Tgt Ion: 91 Resp: 463535

Ion Ratio Lower Upper

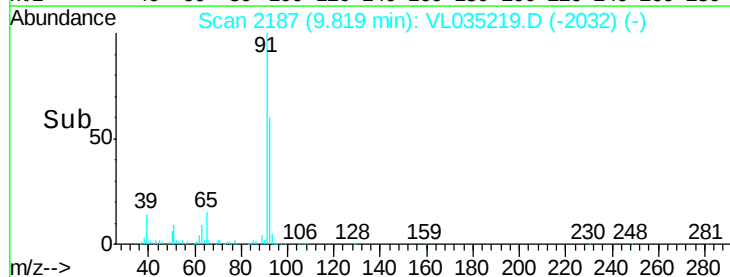
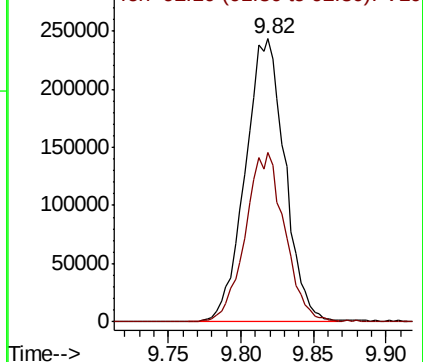
91 100

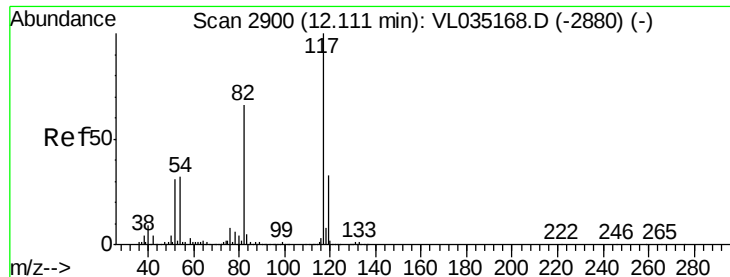
92 59.2 48.4 72.6



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

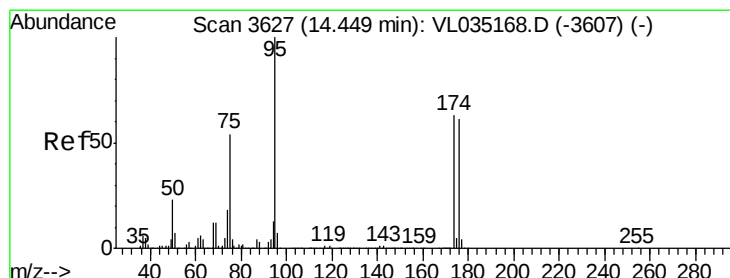
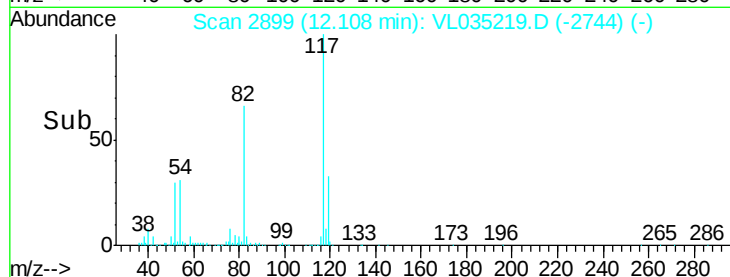
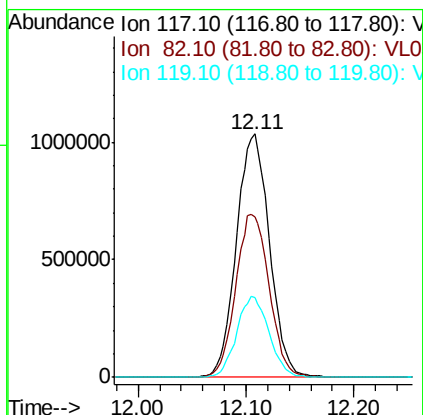
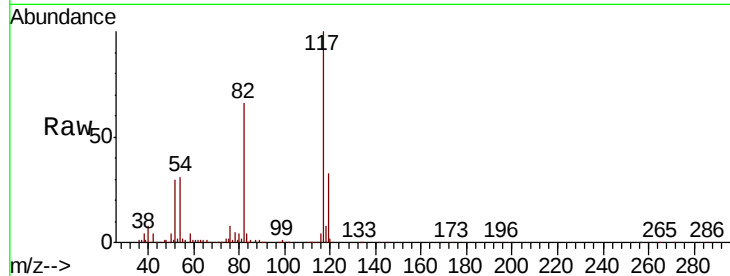




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.11 min Scan# 2899
Delta R.T. -0.00 min
Lab File: VL035219.D
Acq: 21 Jul 2020 22:20

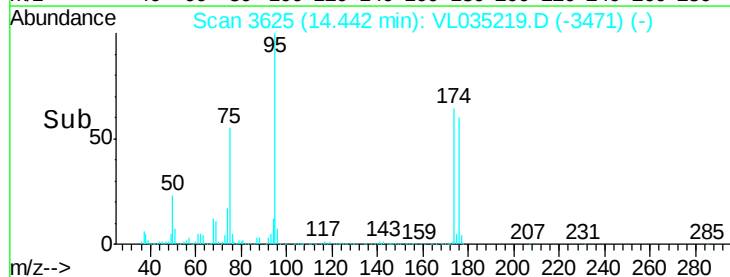
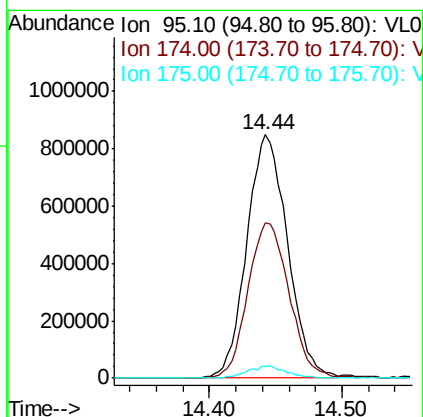
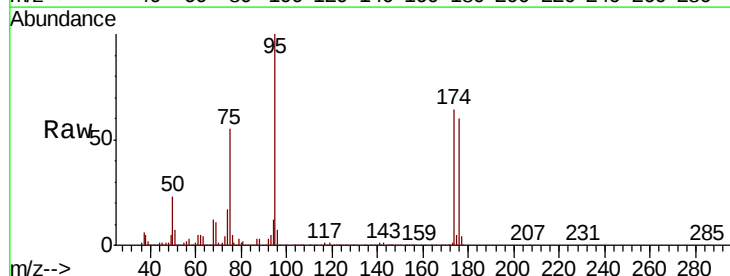
Instrument :
MSVOA_L
ClientSampleId :
OUTDOOR-AMBIENT

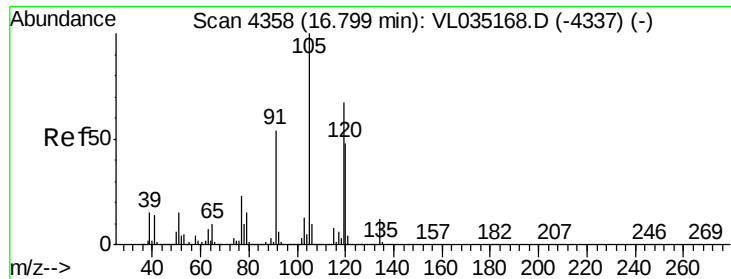
Tot Ion:117 Resp: 2214984
Ion Ratio Lower Upper
117 100
82 67.8 52.3 78.5
119 32.5 24.9 37.3



#68
1-Bromo-4-Fluorobenzene
Concen: 10.098 ppbv
RT: 14.44 min Scan# 3625
Delta R.T. -0.01 min
Lab File: VL035219.D
Acq: 21 Jul 2020 22:20

Tgt Ion: 95 Resp: 1816924
Ion Ratio Lower Upper
95 100
174 64.6 52.2 78.2
175 4.8 4.0 6.0





#74

1,2,4-Trimethylbenzene

Concen: 0.180 ppbv

RT: 16.80 min Scan# 4357

Delta R.T. -0.00 min

Lab File: VL035219.D

Acq: 21 Jul 2020 22:20

Instrument :

MSVOA_L

ClientSampleId :

OUTDOOR-AMBIENT

Tot Ion:105 Resp: 46986

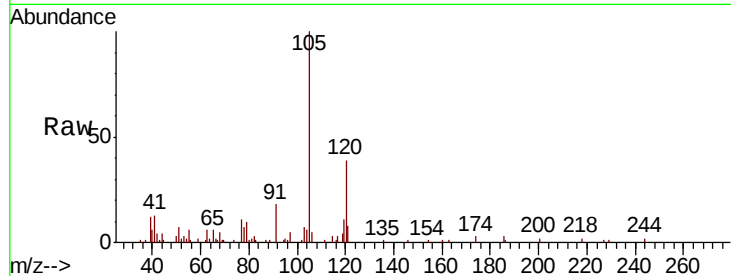
Ion Ratio Lower Upper

105 100

120 39.1 38.6 57.8

91 17.9 43.6 65.4#

77 9.5 18.3 27.5#

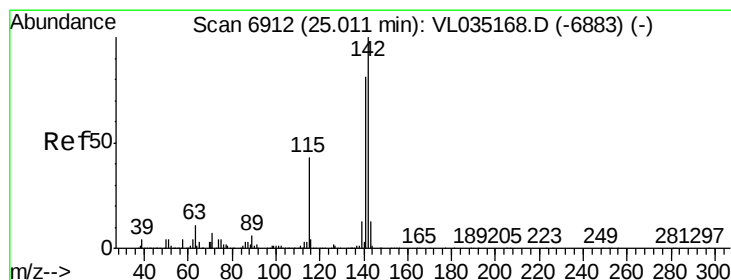
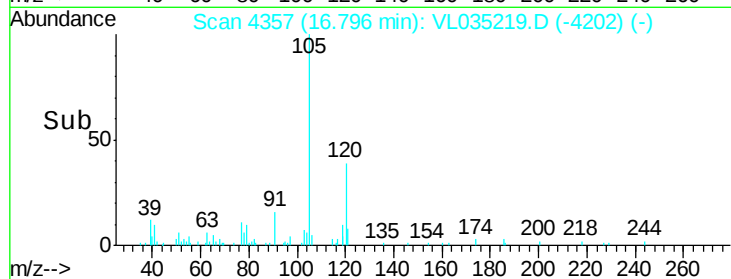
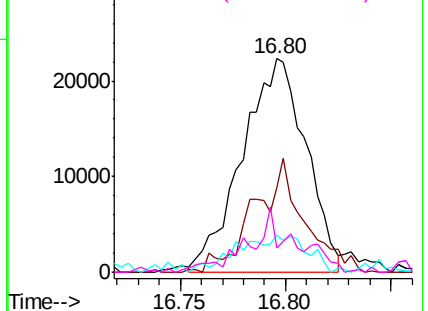


Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0



#80

Naphthalene, 2-methyl-

Concen: 0.058 ppbv

RT: 25.01 min Scan# 6911

Delta R.T. -0.00 min

Lab File: VL035219.D

Acq: 21 Jul 2020 22:20

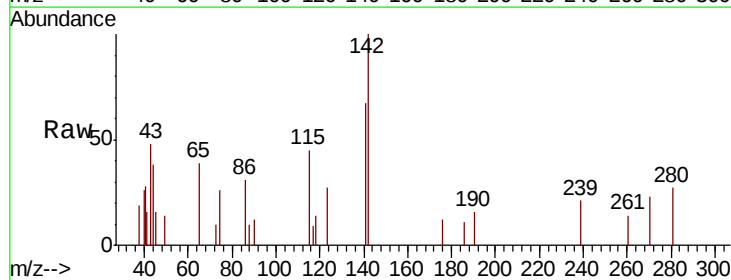
Tgt Ion:142 Resp: 2336

Ion Ratio Lower Upper

142 100

141 83.0 68.2 102.4

115 28.8 34.4 51.6#



Abundance Ion 142.00 (141.70 to 142.70): V

Ion 141.00 (140.70 to 141.70): V

Ion 115.00 (114.70 to 115.70): V

