

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL101620\
 Data File : VL035788.D
 Acq On : 16 Oct 2020 16:31
 Operator : SY/AP
 Sample : L4450-01DL 10X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

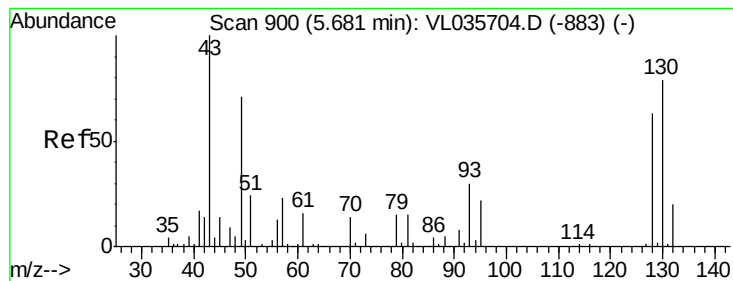
Quant Time: Oct 17 03:23:41 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL092320AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Sep 23 07:38:05 2020
 QLast Update : Wed Sep 23 07:38:05 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1198523	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.17	114	4360654	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.09	117	4378299	10.00	ppbv	-0.03

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.42	95	3282553	10.01	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.10%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	8598	0.044	ppbv #	82
3) Chlorodifluoromethane	2.98	51	157337	1.220	ppbv #	89
4) Chloromethane	3.13	50	3509	0.051	ppbv #	86
9) Propene	3.00	41	9737	0.208	ppbv #	66
11) Trichlorofluoromethane	3.94	101	28518	0.102	ppbv	86
13) Ethanol	3.59	45	104974	9.093	ppbv	99
15) Acetone	3.84	43	248999	1.931	ppbv	96
16) 1,3-Butadiene	3.29	39	21578	0.457	ppbv #	2
17) tert-Butyl alcohol	4.30	59	26970	0.192	ppbv	97
19) Isopropyl Alcohol	3.97	45	103839	1.480	ppbv #	92
20) Methylene Chloride	4.33	84	211296	2.230	ppbv	97
22) trans-1,2-Dichloroethene	4.88	96	7056	0.073	ppbv	92
23) Vinyl Acetate	5.05	43	12104	0.077	ppbv #	54
25) Ethyl Acetate	5.68	43	433945	1.870	ppbv #	72
26) Hexane	5.68	57	767317	6.034	ppbv #	49
27) Carbon Disulfide	4.54	76	169144	0.892	ppbv #	95
29) Chloroform	5.74	83	32099	0.124	ppbv	96
31) cis-1,2-Dichloroethene	5.54	61	6673	0.054	ppbv #	74
34) 2-Butanone	5.25	43	8866	0.061	ppbv	96
38) Trichloroethene	7.83	130	1343785	9.480	ppbv	98
39) 1,2-Dichloropropane	7.17	63	879650	8.541	ppbv #	31
41) Tetrahydrofuran	5.68	42	234241	3.224	ppbv #	38
53) Toluene	9.81	91	11989	0.036	ppbv	93

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 893

Delta R.T. -0.02 min

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ClientSampleId :

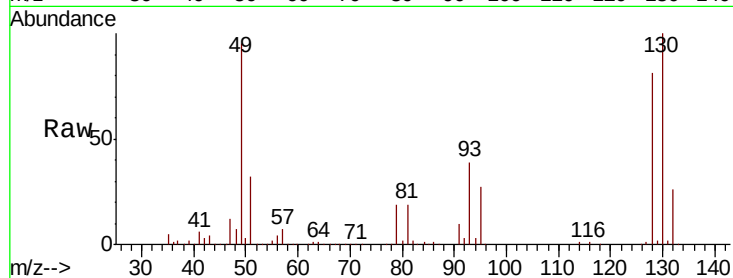
Tot Ion: 49 Resp: 1198523

Ion Ratio Lower Upper

49 100

128 82.9 43.1 129.4

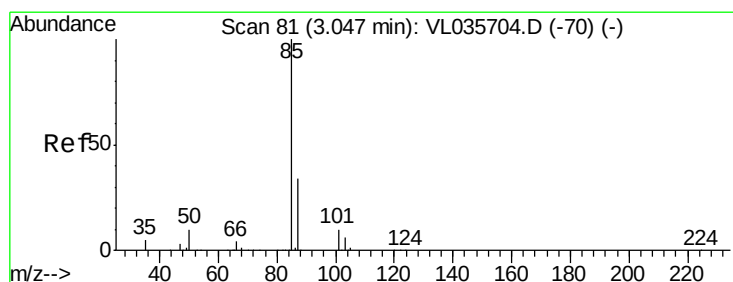
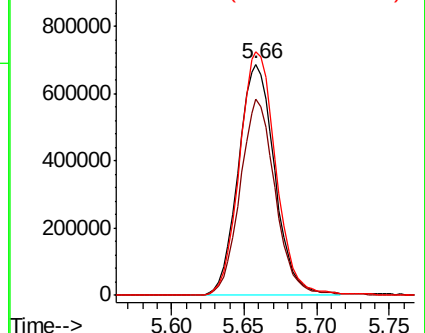
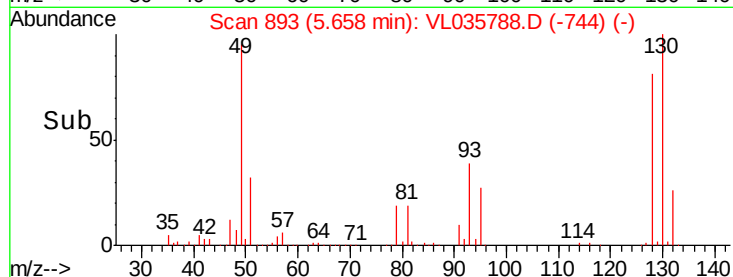
130 106.6 54.9 164.7



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: 0.044 ppbv

RT: 3.04 min Scan# 78

Delta R.T. -0.01 min

Lab File: VL035788.D

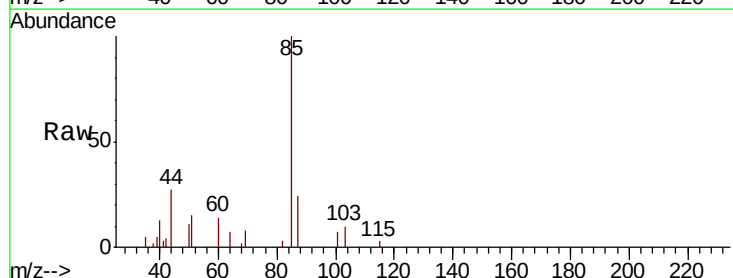
Acq: 16 Oct 2020 16:31

Tgt Ion: 85 Resp: 8598

Ion Ratio Lower Upper

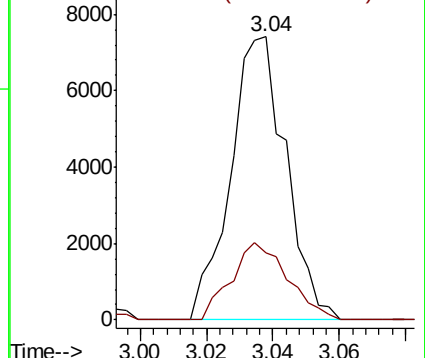
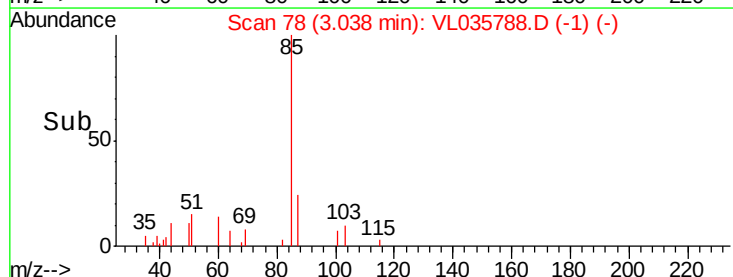
85 100

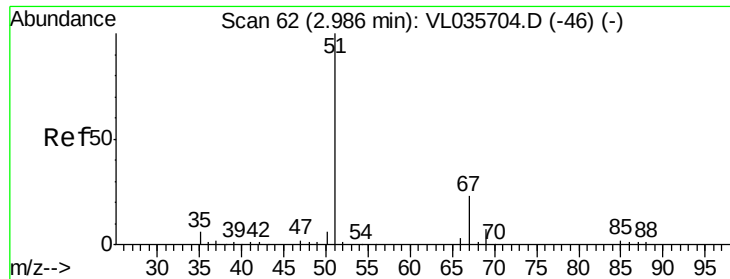
87 23.8 27.3 40.9#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 1.220 ppbv

RT: 2.98 min Scan# 59

Delta R.T. -0.01 min

Lab File: VL035788.D

Acq: 16 Oct 2020 16:31

Instrument :

MSVOA_L

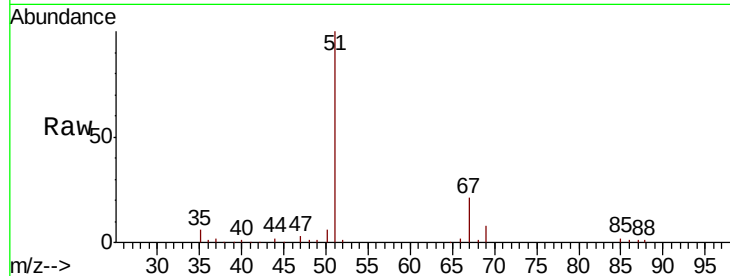
ClientSampleId :

Tot Ion: 51 Resp: 157337

Ion Ratio Lower Upper

51 100

67 17.2 17.8 26.8#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

120000

100000

80000

60000

40000

20000

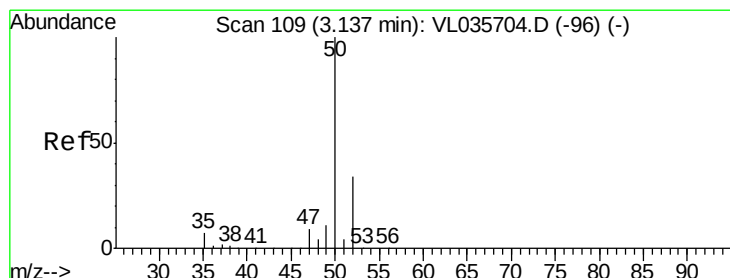
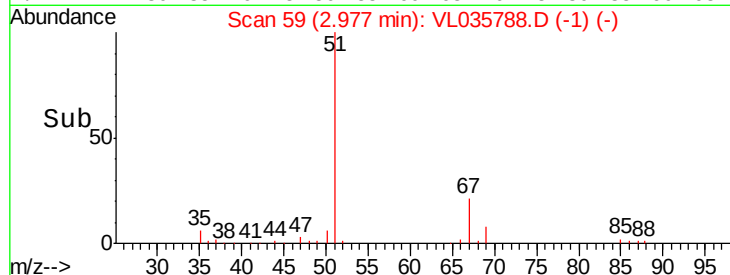
0

2.80

2.90

3.00

Time-->



#4

Chloromethane

Concen: 0.051 ppbv

RT: 3.13 min Scan# 106

Delta R.T. -0.01 min

Lab File: VL035788.D

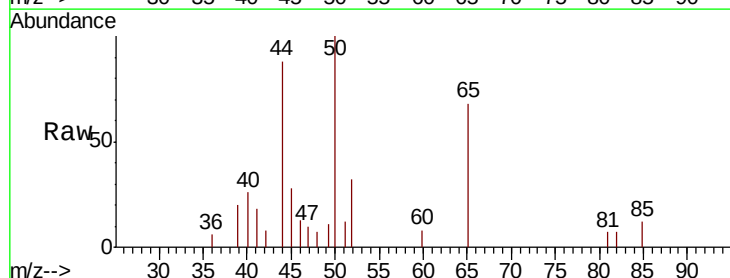
Acq: 16 Oct 2020 16:31

Tgt Ion: 50 Resp: 3509

Ion Ratio Lower Upper

50 100

52 25.3 26.8 40.2#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0

3000

2500

2000

1500

1000

500

0

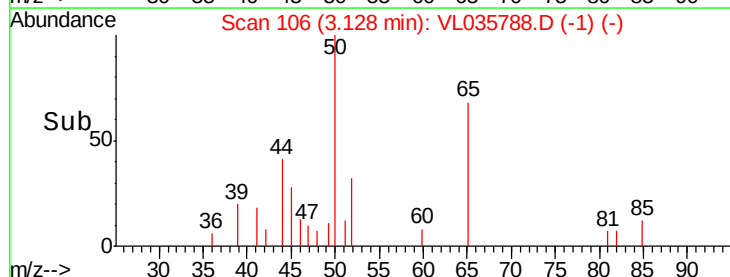
3.10

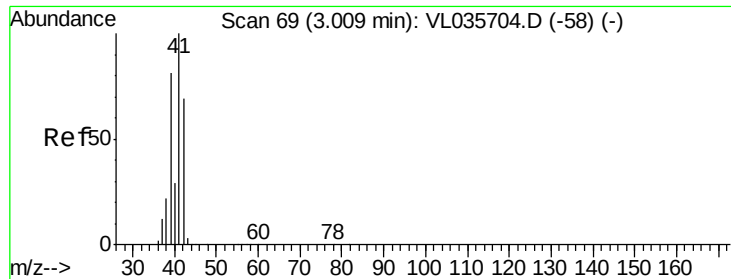
3.12

3.14

3.16

Time-->





#9

Propene

Concen: 0.208 ppbv

RT: 3.00 min Scan# 67

Delta R.T. -0.01 min

Lab File: VL035788.D

Acq: 16 Oct 2020 16:31

Instrument :

MSVOA_L

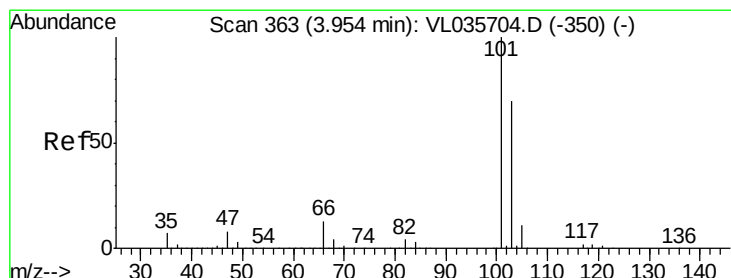
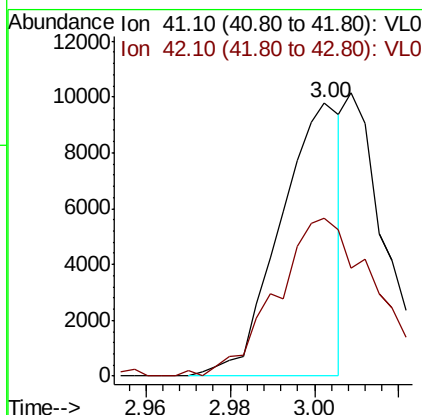
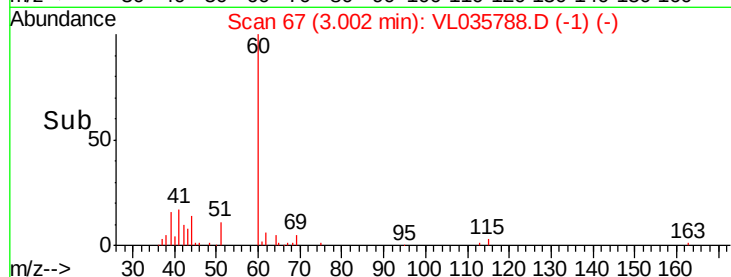
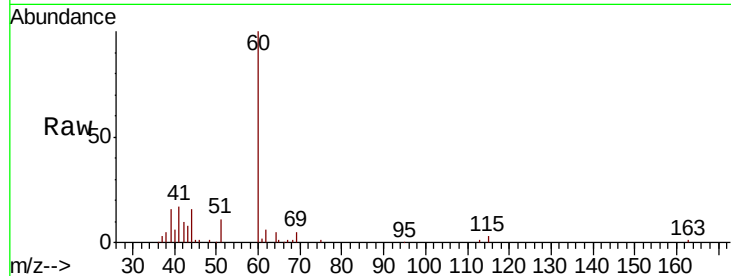
ClientSampled :

Tot Ion: 41 Resp: 9737

Ion Ratio Lower Upper

41 100

42 98.2 56.2 84.4#



#11

Trichlorofluoromethane

Concen: 0.102 ppbv

RT: 3.94 min Scan# 359

Delta R.T. -0.01 min

Lab File: VL035788.D

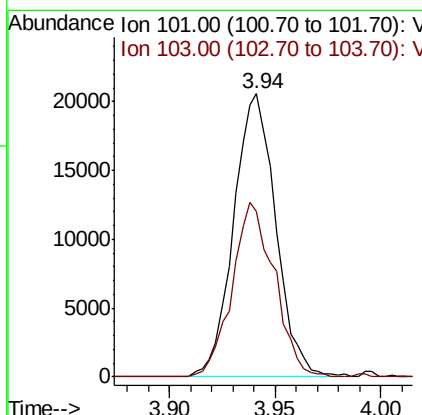
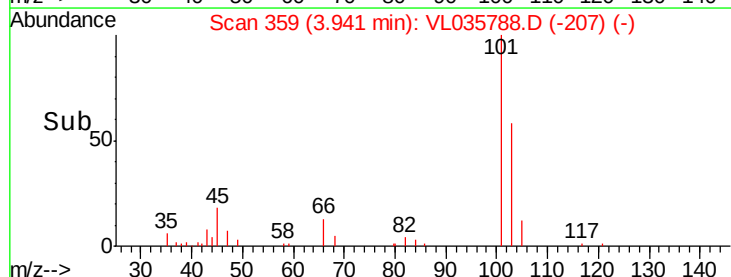
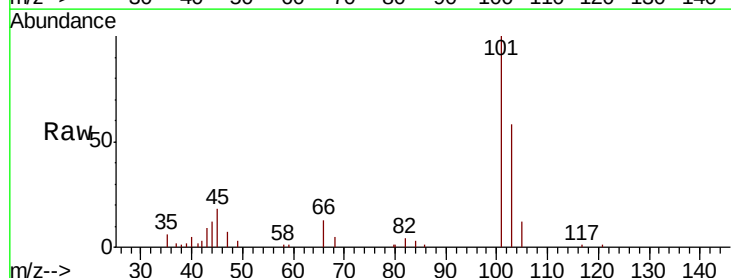
Acq: 16 Oct 2020 16:31

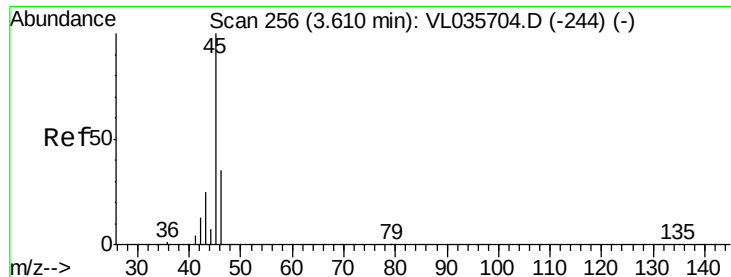
Tgt Ion: 101 Resp: 28518

Ion Ratio Lower Upper

101 100

103 58.4 55.6 83.4

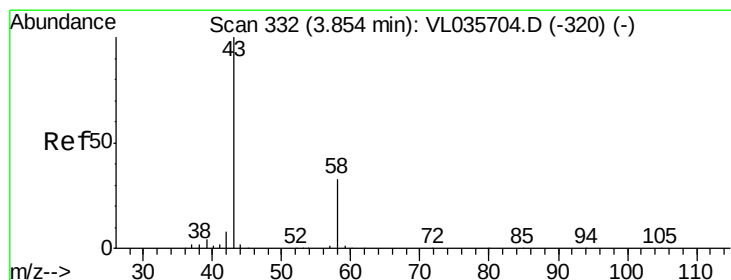
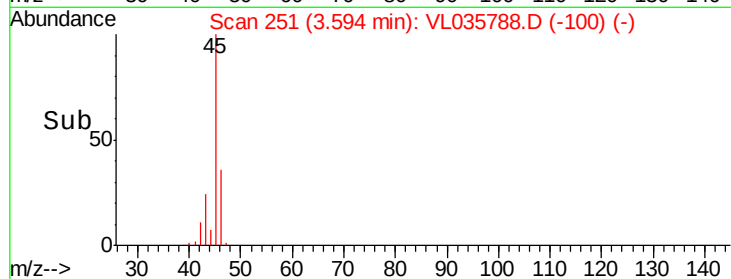
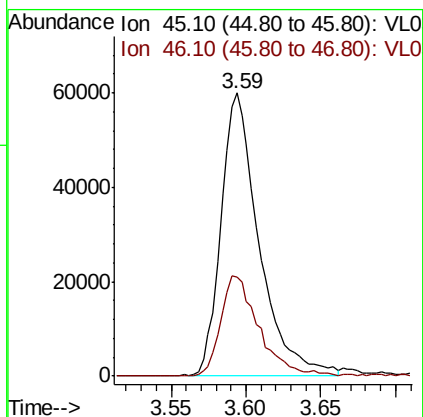
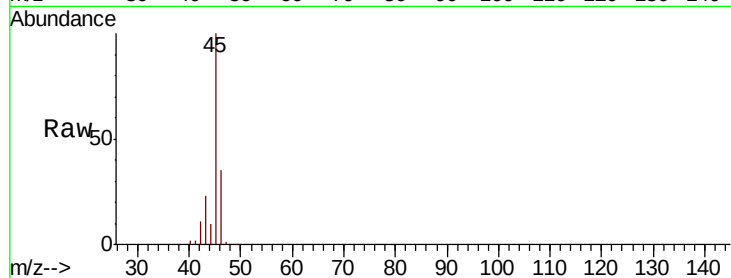




#13
Ethanol
Concen: 9.093 ppbv
RT: 3.59 min Scan# 251
Delta R.T. -0.02 min
Lab File: VL035788.D
Acq: 16 Oct 2020 16:31

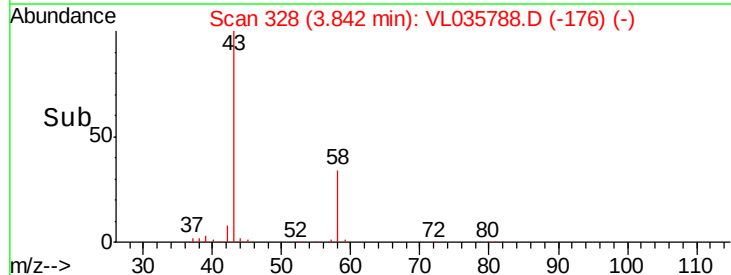
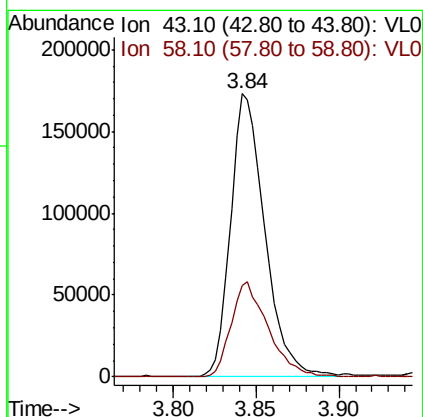
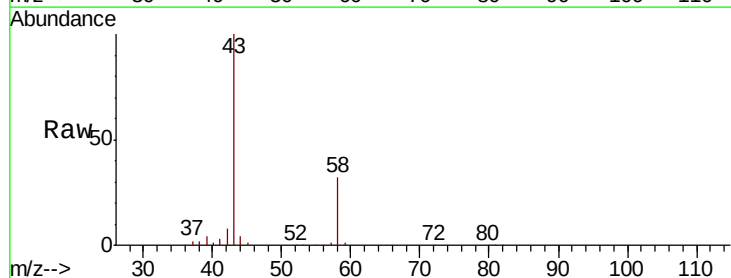
Instrument :
MSVOA_L
ClientSampleId :

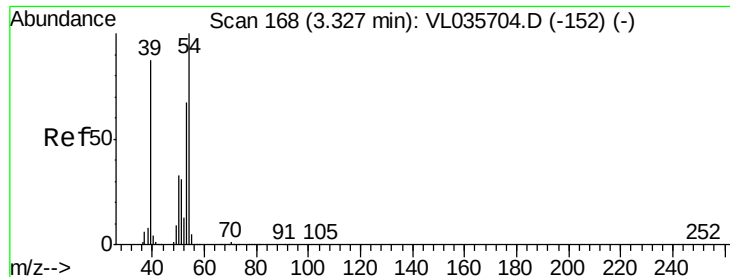
Tot Ion: 45 Resp: 104974
Ion Ratio Lower Upper
45 100
46 36.2 14.7 58.7



#15
Acetone
Concen: 1.931 ppbv
RT: 3.84 min Scan# 328
Delta R.T. -0.01 min
Lab File: VL035788.D
Acq: 16 Oct 2020 16:31

Tgt Ion: 43 Resp: 248999
Ion Ratio Lower Upper
43 100
58 36.5 27.3 40.9

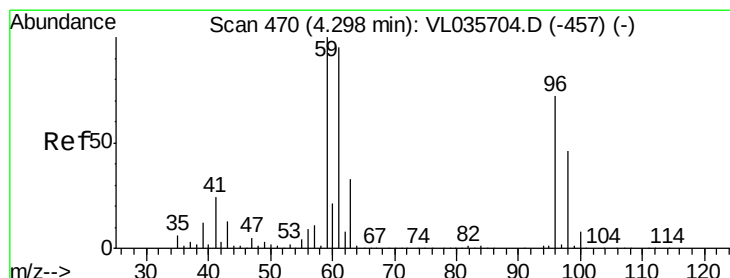
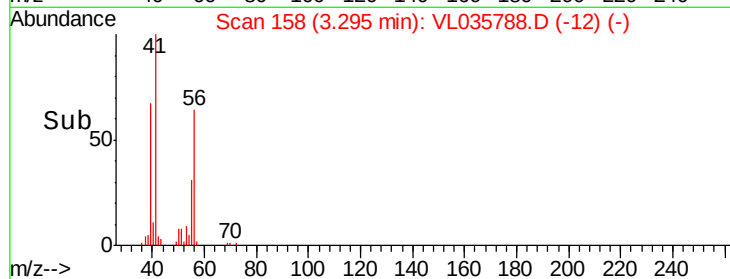
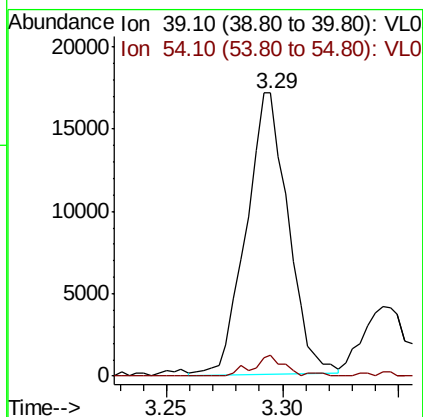
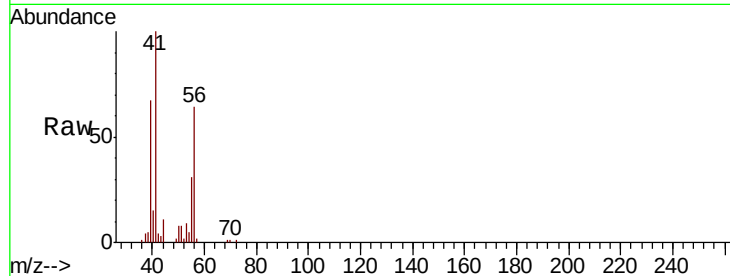




#16
 1,3-Butadiene
 Concen: 0.457 ppbv
 RT: 3.29 min Scan# 158
 Delta R.T. -0.03 min
 Lab File: VL035788.D
 Acq: 16 Oct 2020 16:31

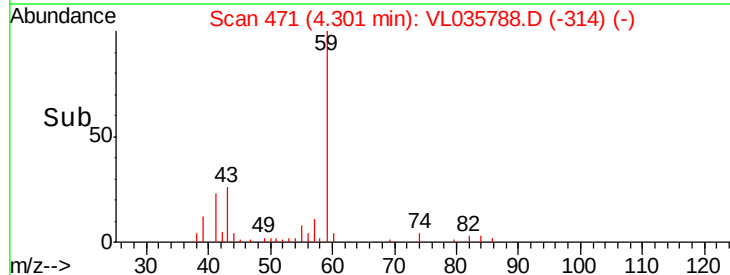
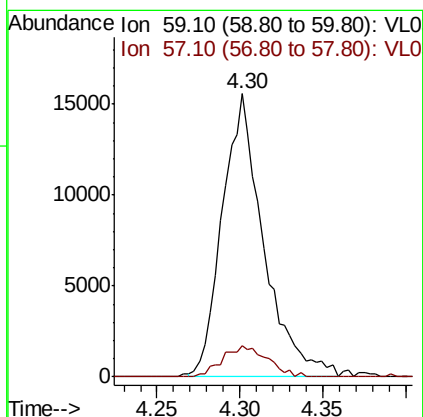
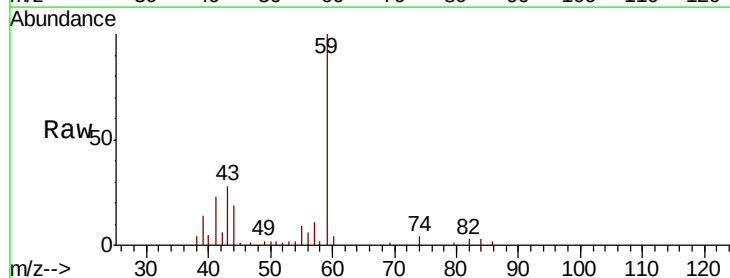
Instrument :
 MSVOA_L
 ClientSampleId :

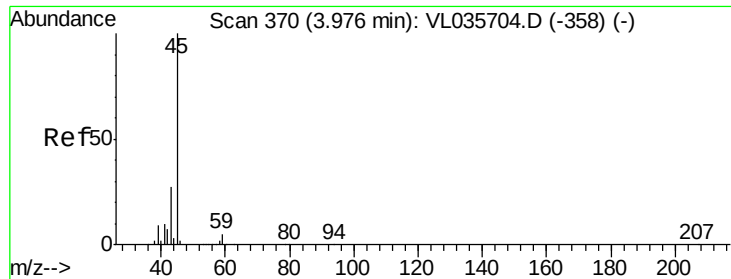
Tot Ion: 39 Resp: 21578
 Ion Ratio Lower Upper
 39 100
 54 5.9 87.4 131.0#



#17
 tert-Butyl alcohol
 Concen: 0.192 ppbv
 RT: 4.30 min Scan# 471
 Delta R.T. 0.00 min
 Lab File: VL035788.D
 Acq: 16 Oct 2020 16:31

Tgt Ion: 59 Resp: 26970
 Ion Ratio Lower Upper
 59 100
 57 11.9 8.5 12.7





#19

Isopropyl Alcohol

Concen: 1.480 ppbv

RT: 3.97 min Scan# 367

Delta R.T. -0.01 min

Lab File: VL035788.D

Acq: 16 Oct 2020 16:31

Instrument :

MSVOA_L

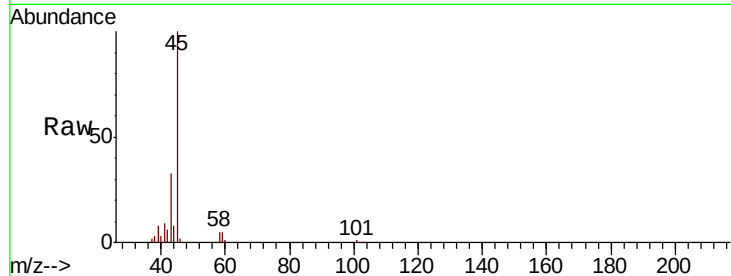
ClientSampleId :

Tot Ion: 45 Resp: 103839

Ion Ratio Lower Upper

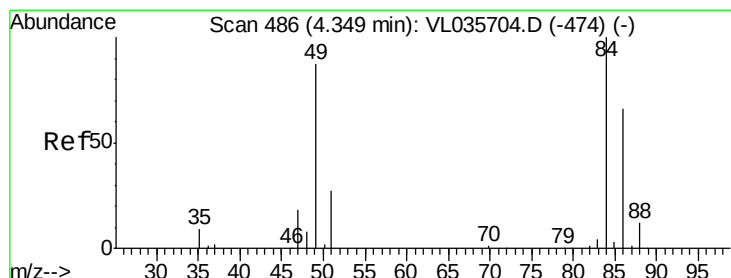
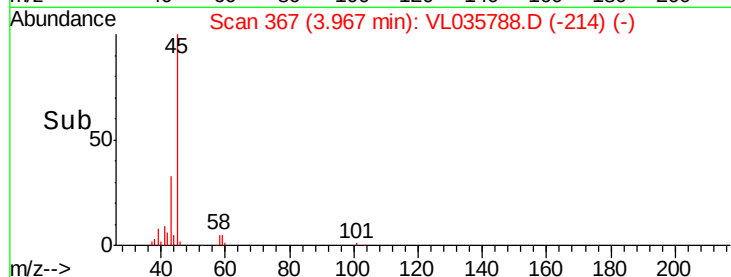
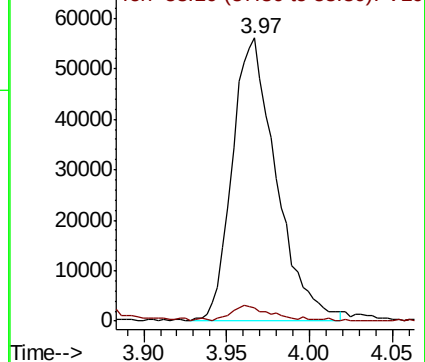
45 100

58 6.1 2.8 4.2#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 2.230 ppbv

RT: 4.33 min Scan# 481

Delta R.T. -0.02 min

Lab File: VL035788.D

Acq: 16 Oct 2020 16:31

Tgt Ion: 84 Resp: 211296

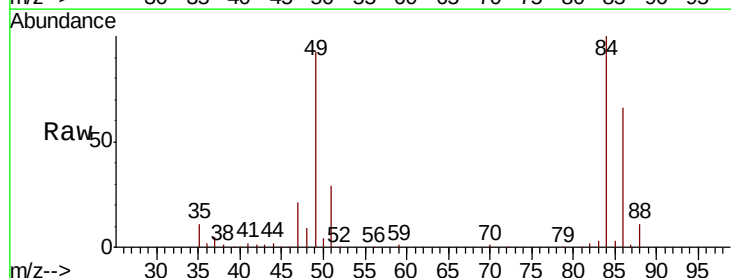
Ion Ratio Lower Upper

84 100

49 92.3 69.8 104.6

51 29.0 21.8 32.8

86 66.4 52.6 78.8

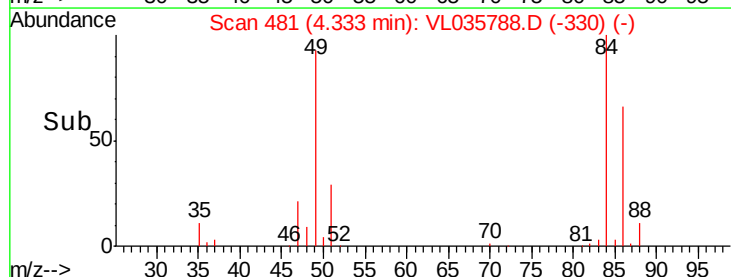
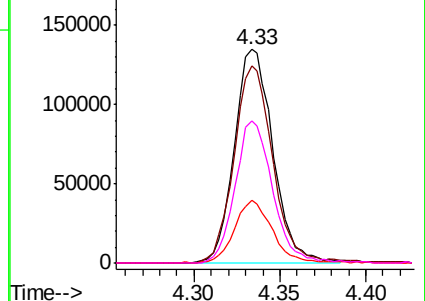


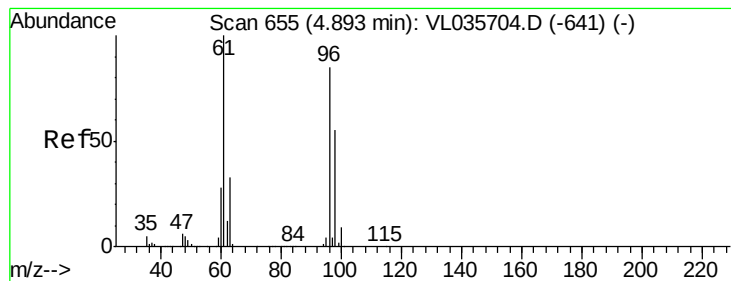
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0





#22

trans-1,2-Dichloroethene

Concen: 0.073 ppbv

RT: 4.88 min Scan# 650

Delta R.T. -0.02 min

Lab File: VL035788.D

Acq: 16 Oct 2020 16:31

Instrument :

MSVOA_L

ClientSampleId :

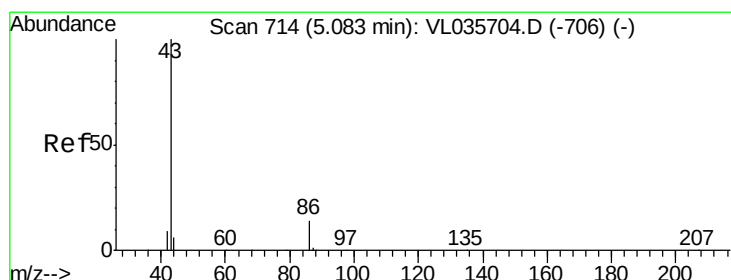
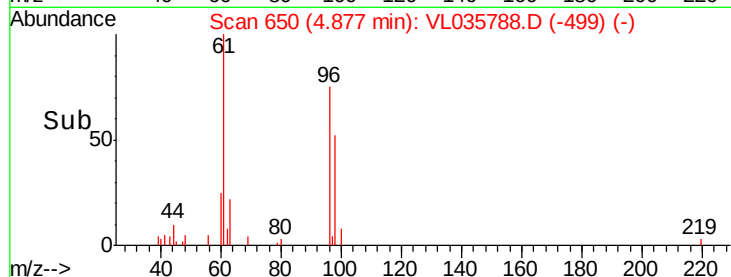
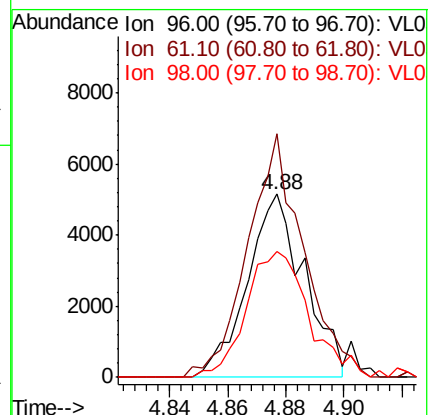
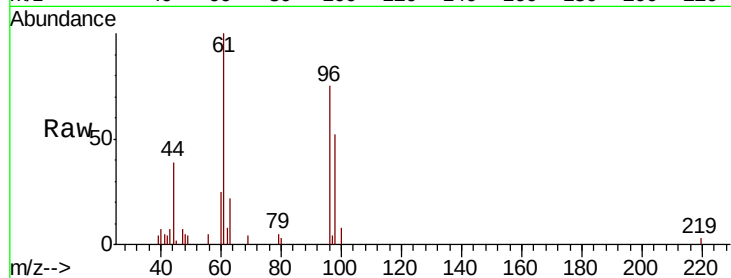
Tot Ion: 96 Resp: 7056

Ion Ratio Lower Upper

96 100

61 127.0 93.7 140.5

98 68.9 51.2 76.8



#23

Vinyl Acetate

Concen: 0.077 ppbv

RT: 5.05 min Scan# 703

Delta R.T. -0.04 min

Lab File: VL035788.D

Acq: 16 Oct 2020 16:31

Tgt Ion: 43 Resp: 12104

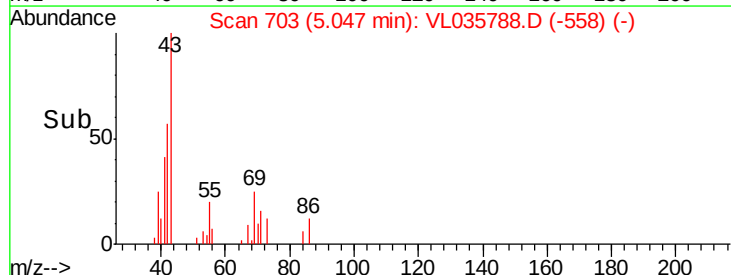
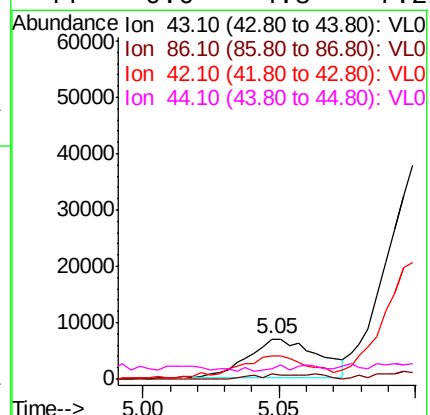
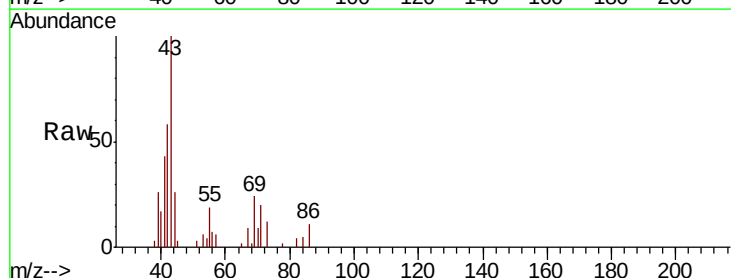
Ion Ratio Lower Upper

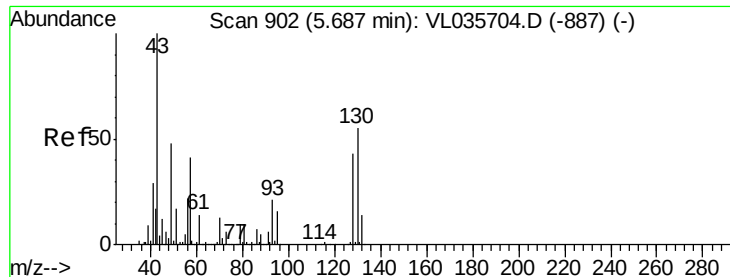
43 100

86 11.9 9.7 14.5

42 53.6 7.9 11.9#

44 0.0 4.8 7.2#

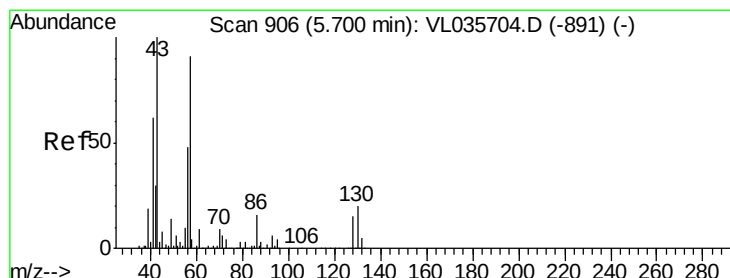
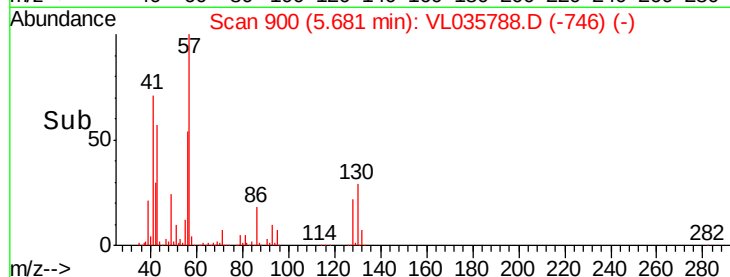
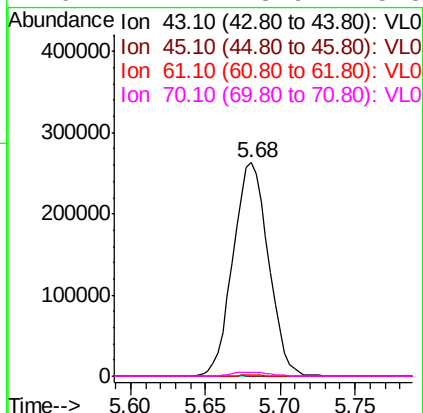
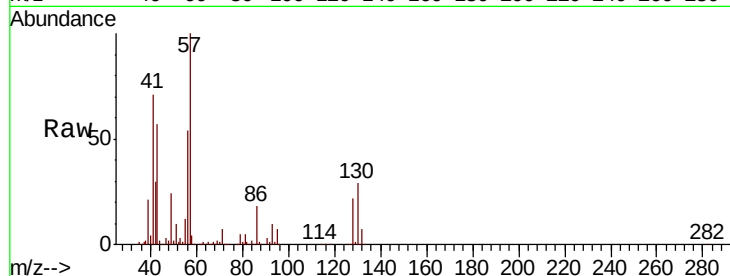




#25
Ethyl Acetate
Concen: 1.870 ppbv
RT: 5.68 min Scan# 900
Delta R.T. -0.01 min
Lab File: VL035788.D
Acq: 16 Oct 2020 16:31

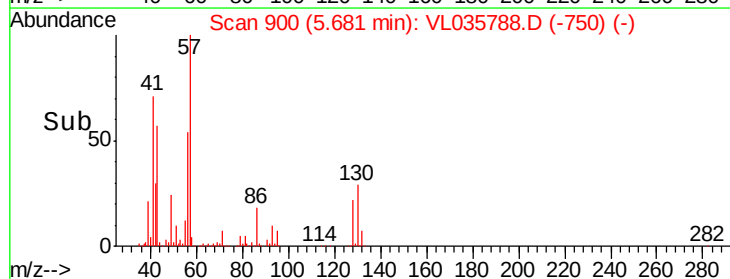
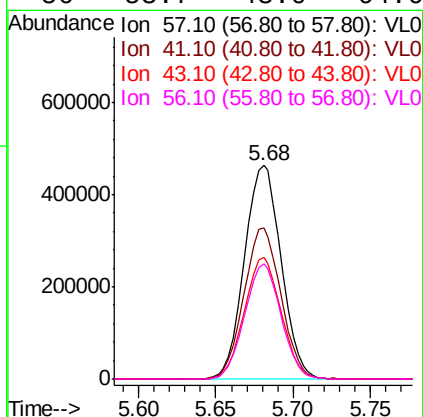
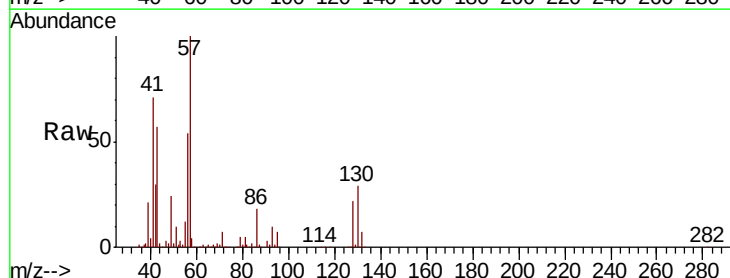
Instrument :
MSVOA_L
ClientSampleId :

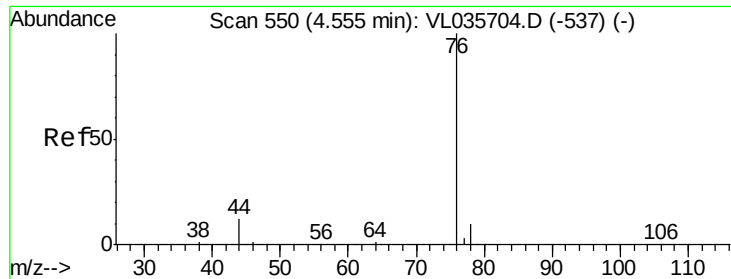
Tot Ion:	43	Resp:	433945
Ion	Ratio	Lower	Upper
43	100		
45	0.3	8.6	12.8#
61	0.4	10.4	15.6#
70	2.1	8.9	13.3#



#26
Hexane
Concen: 6.034 ppbv
RT: 5.68 min Scan# 900
Delta R.T. -0.02 min
Lab File: VL035788.D
Acq: 16 Oct 2020 16:31

Tgt Ion:	57	Resp:	767317
Ion	Ratio	Lower	Upper
57	100		
41	71.7	57.9	86.9
43	56.6	143.8	215.6#
56	53.7	43.0	64.6





#27

Carbon Disulfide

Concen: 0.892 ppbv

RT: 4.54 min Scan# 546

Delta R.T. -0.01 min

Lab File: VL035788.D

Acq: 16 Oct 2020 16:31

Instrument :

MSVOA_L

ClientSampled :

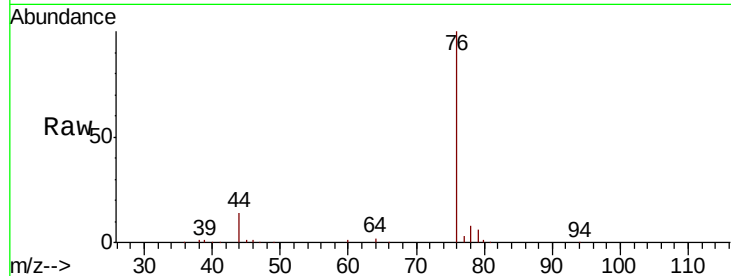
Tot Ion: 76 Resp: 169144

Ion Ratio Lower Upper

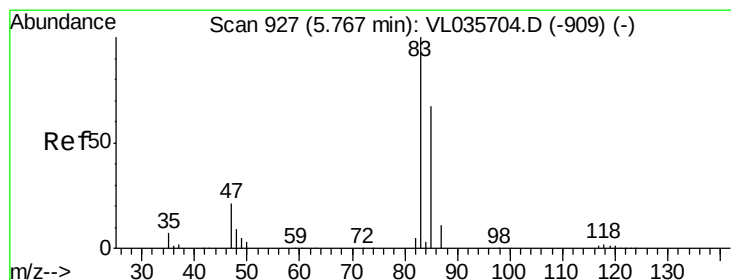
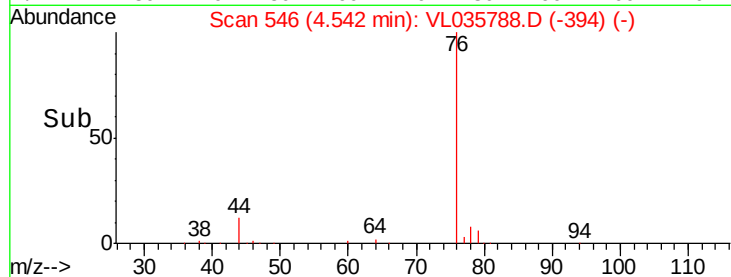
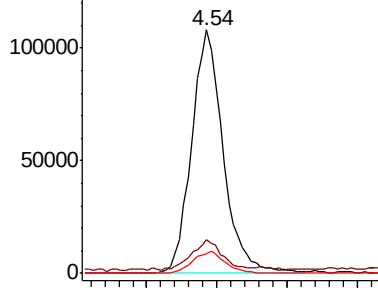
76 100

44 15.5 9.7 14.5#

78 9.4 7.8 11.8



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



#29

Chloroform

Concen: 0.124 ppbv

RT: 5.74 min Scan# 919

Delta R.T. -0.03 min

Lab File: VL035788.D

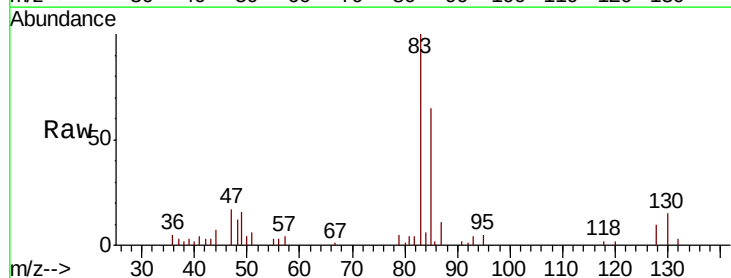
Acq: 16 Oct 2020 16:31

Tgt Ion: 83 Resp: 32099

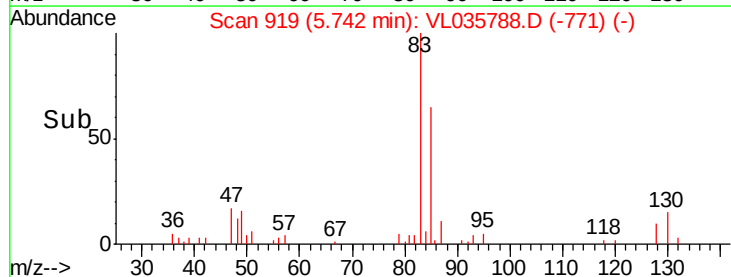
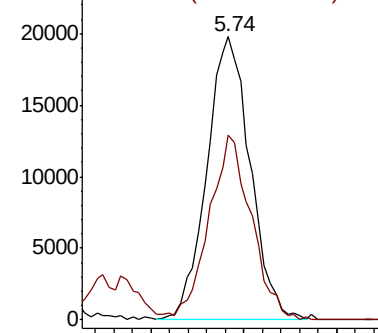
Ion Ratio Lower Upper

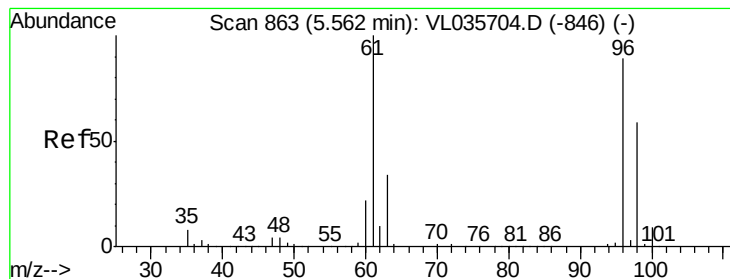
83 100

85 64.1 54.0 81.0



Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0





#31

cis-1,2-Dichloroethene

Concen: 0.054 ppbv

RT: 5.54 min Scan# 856

Delta R.T. -0.02 min

Lab File: VL035788.D

Acq: 16 Oct 2020 16:31

Instrument :

MSVOA_L

ClientSampleId :

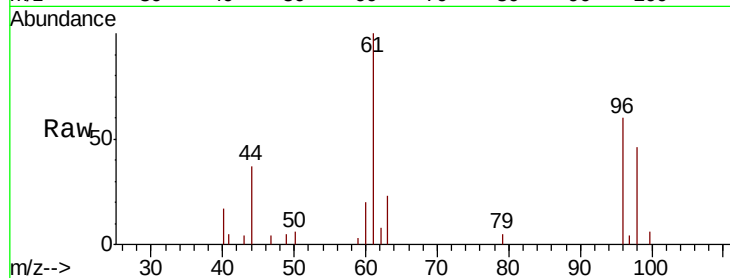
Tot Ion: 61 Resp: 6673

Ion Ratio Lower Upper

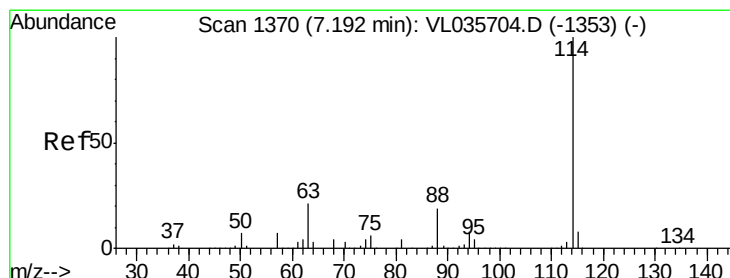
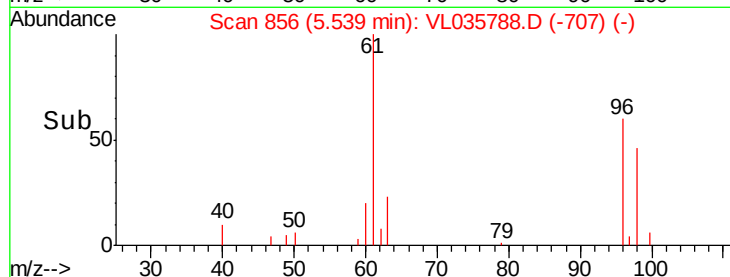
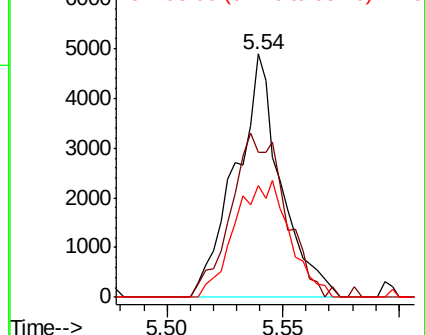
61 100

96 59.8 71.4 107.2#

98 45.9 47.4 71.2#



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



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.17 min Scan# 1363

Delta R.T. -0.02 min

Lab File: VL035788.D

Acq: 16 Oct 2020 16:31

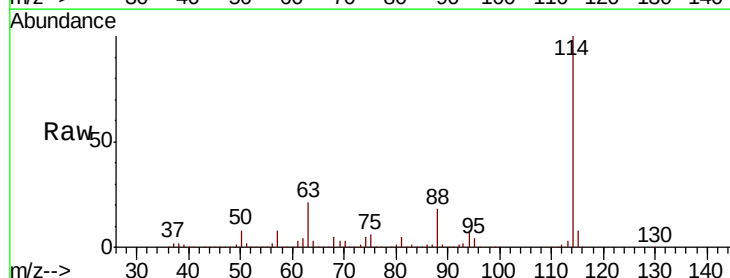
Tgt Ion: 114 Resp: 4360654

Ion Ratio Lower Upper

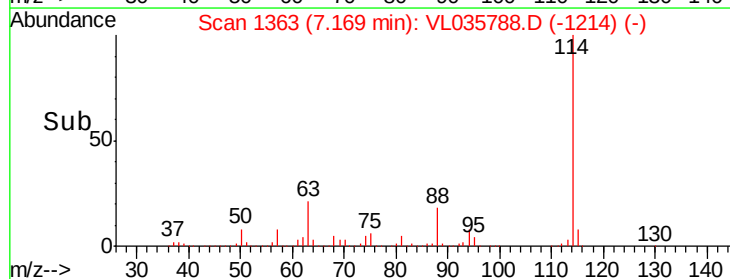
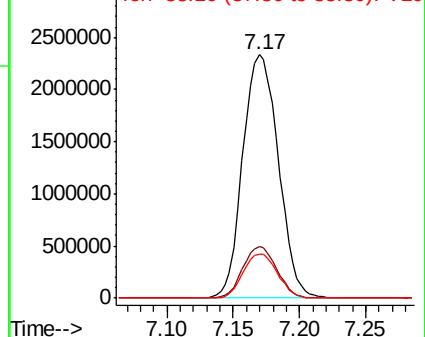
114 100

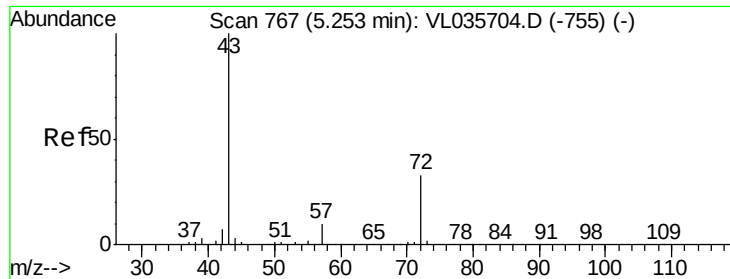
63 20.3 16.1 24.1

88 17.7 14.1 21.1



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

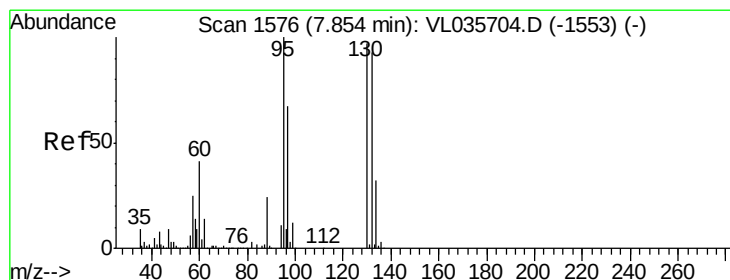
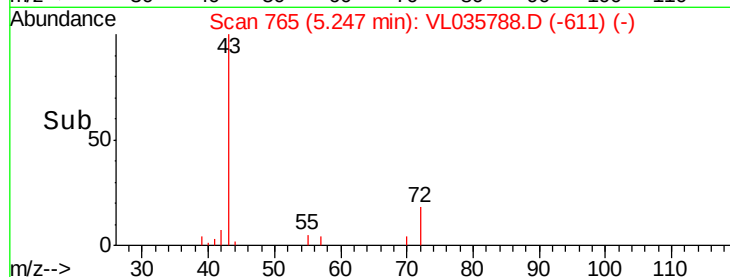
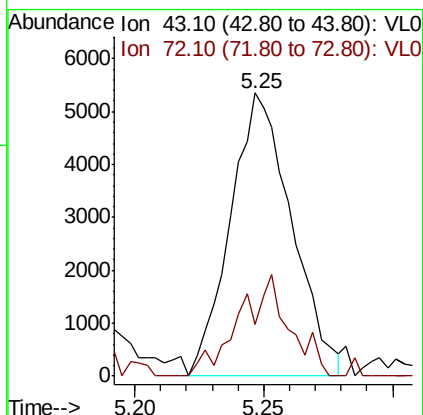
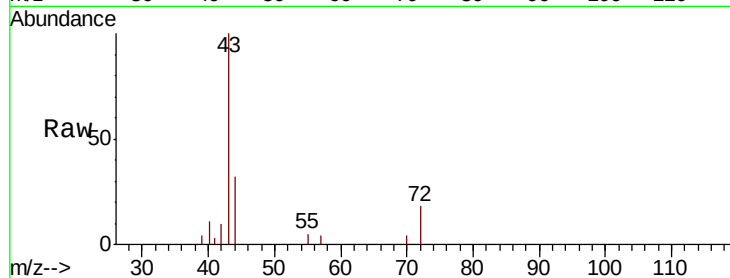




#34
2-Butanone
Concen: 0.061 ppbv
RT: 5.25 min Scan# 765
Delta R.T. -0.01 min
Lab File: VL035788.D
Acq: 16 Oct 2020 16:31

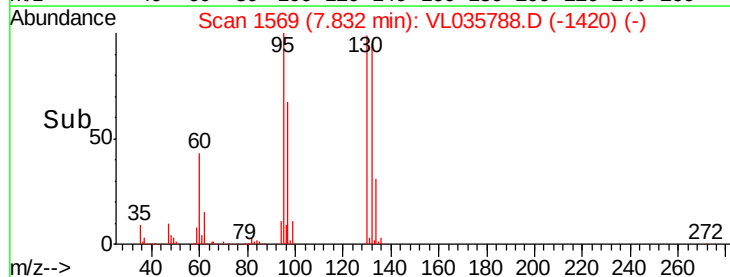
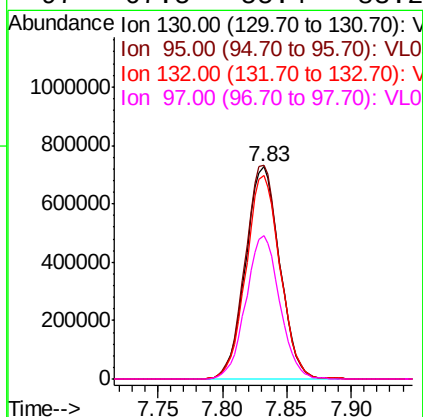
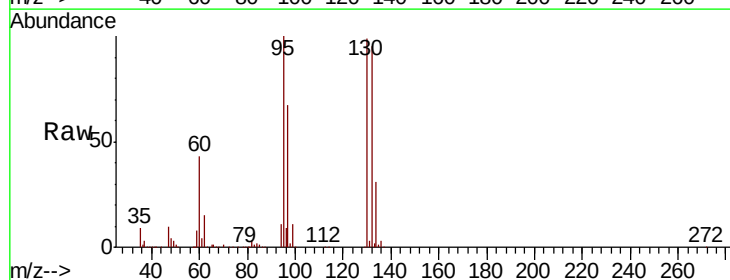
Instrument :
MSVOA_L
ClientSampleId :

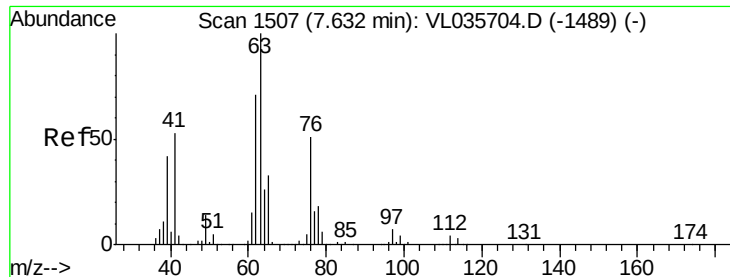
Tot Ion: 43 Resp: 8866
Ion Ratio Lower Upper
43 100
72 30.5 26.1 39.1



#38
Trichloroethene
Concen: 9.480 ppbv
RT: 7.83 min Scan# 1569
Delta R.T. -0.02 min
Lab File: VL035788.D
Acq: 16 Oct 2020 16:31

Tgt Ion:130 Resp: 1343785
Ion Ratio Lower Upper
130 100
95 100.6 82.4 123.6
132 95.6 76.8 115.2
97 67.5 55.4 83.2





#39

1,2-Dichloropropane

Concen: 8.541 ppbv

RT: 7.17 min Scan# 1363

Delta R.T. -0.46 min

Lab File: VL035788.D

Acq: 16 Oct 2020 16:31

Instrument :

MSVOA_L

ClientSampleId :

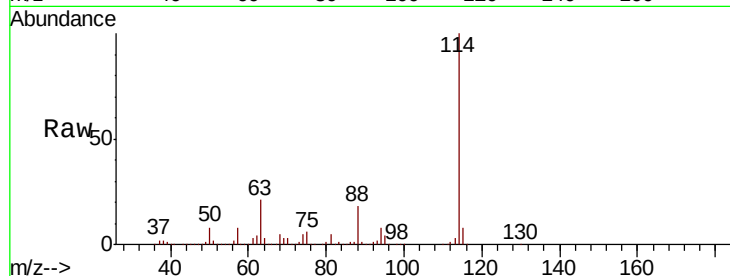
Tot Ion: 63 Resp: 879650

Ion Ratio Lower Upper

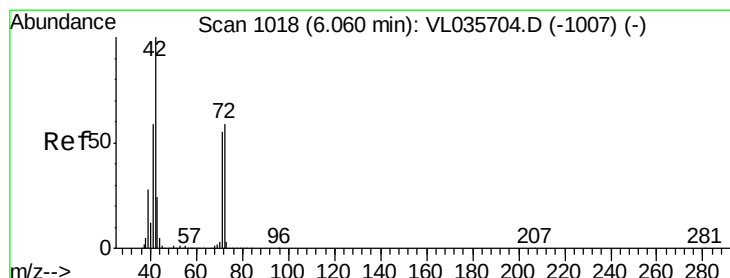
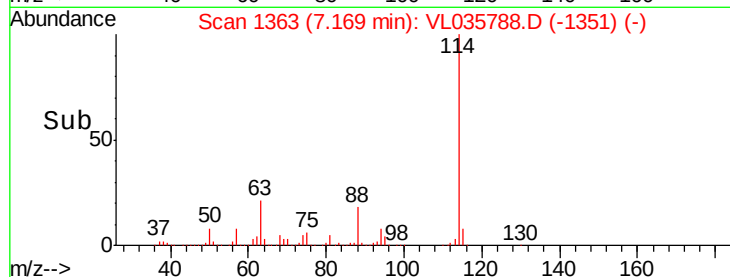
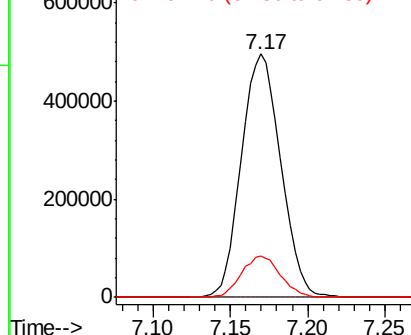
63 100

41 0.0 42.6 63.8#

62 17.0 56.5 84.7#



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: 3.224 ppbv

RT: 5.68 min Scan# 900

Delta R.T. -0.38 min

Lab File: VL035788.D

Acq: 16 Oct 2020 16:31

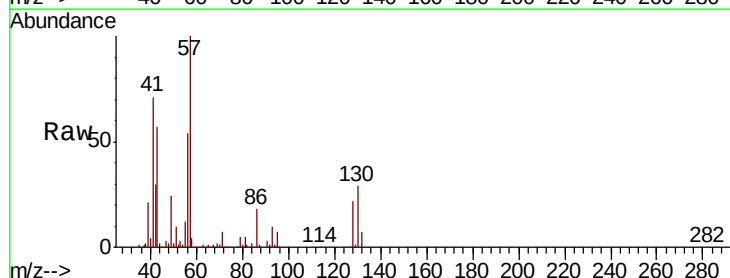
Tgt Ion: 42 Resp: 234241

Ion Ratio Lower Upper

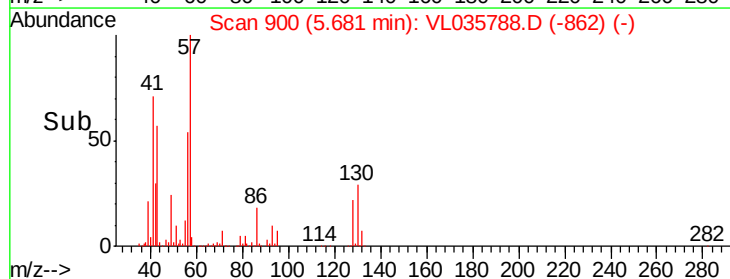
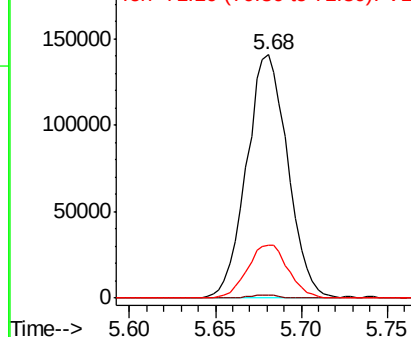
42 100

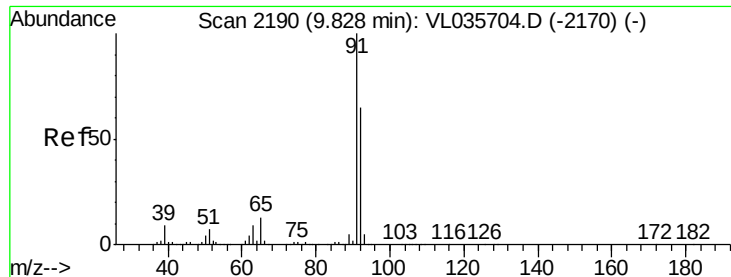
72 1.1 46.2 69.4#

71 21.6 44.2 66.4#



Abundance Ion 42.10 (41.80 to 42.80): VL0
Ion 72.10 (71.80 to 72.80): VL0
Ion 71.10 (70.80 to 71.80): VL0





#53

Toluene

Concen: 0.036 ppbv

RT: 9.81 min Scan# 2184

Delta R.T. -0.02 min

Lab File: VL035788.D

Acq: 16 Oct 2020 16:31

Instrument :

MSVOA_L

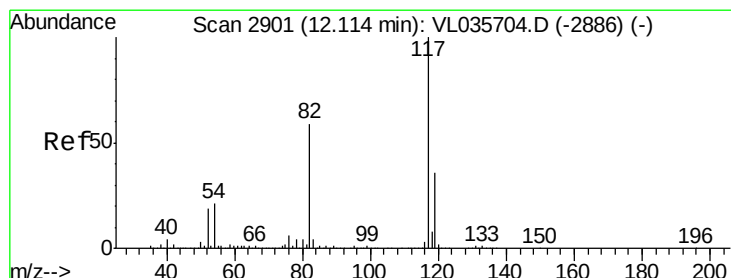
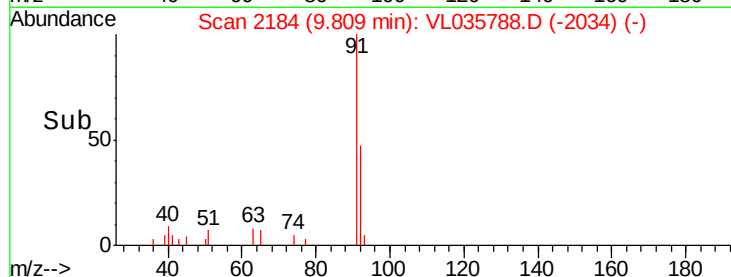
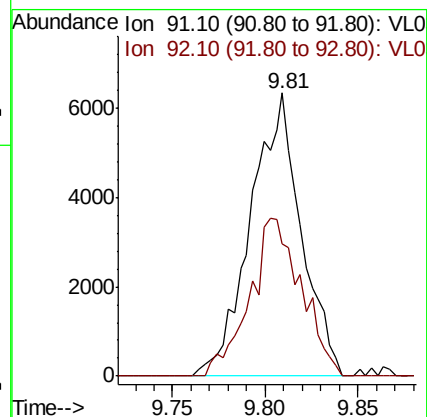
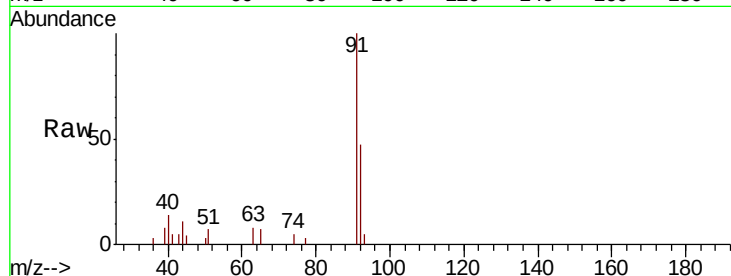
ClientSampleId :

Tot Ion: 91 Resp: 11989

Ion Ratio Lower Upper

91 100

92 56.9 50.0 75.0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2893

Delta R.T. -0.03 min

Lab File: VL035788.D

Acq: 16 Oct 2020 16:31

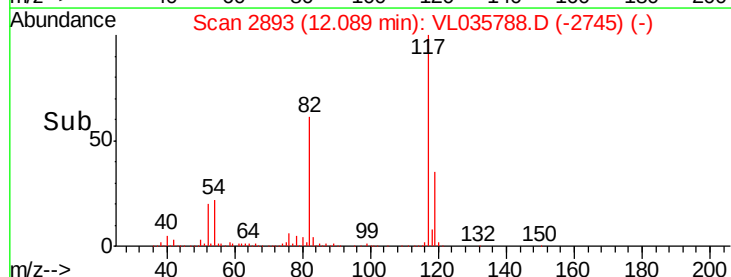
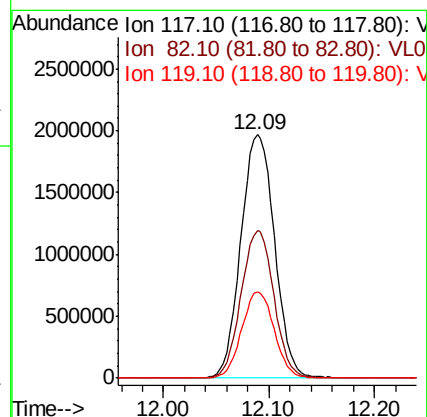
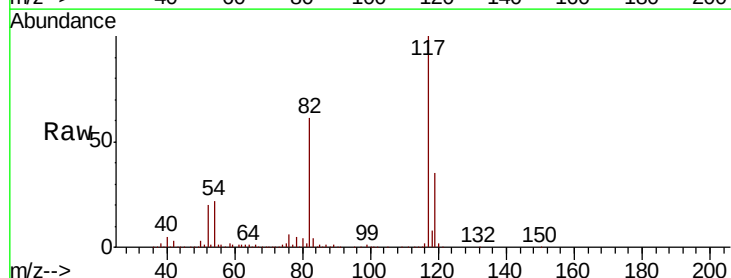
Tgt Ion: 117 Resp: 4378299

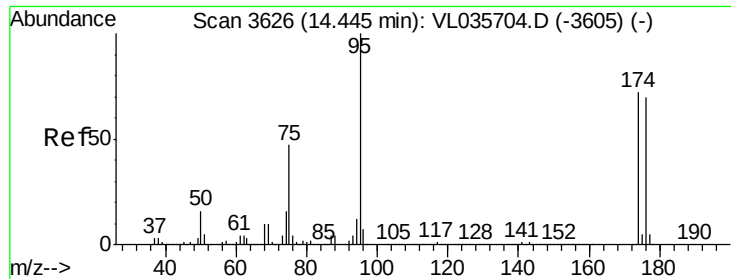
Ion Ratio Lower Upper

117 100

82 59.5 46.1 69.1

119 34.5 28.0 42.0





#68

1-Bromo-4-Fluorobenzene

Concen: 10.005 ppbv

RT: 14.42 min Scan# 3619

Delta R.T. -0.02 min

Lab File: VL035788.D

Acq: 16 Oct 2020 16:31

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 95 Resp: 3282553

Ion Ratio Lower Upper

95 100

174 76.0 59.6 89.4

175 5.5 4.2 6.4

