

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL091420\
 Data File : VL035623.D
 Acq On : 15 Sep 2020 7:19
 Operator : SY/AP
 Sample : L3983-06
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 BFB

Quant Time: Sep 15 08:22:51 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL082720AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Sep 14 15:19:50 2020
 QLast Update : Mon Sep 14 15:19:50 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	928909	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.16	114	4027136	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.07	117	3969541	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.40	95	2959299	10.50	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.00%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.03	85	54723	0.340 ppbv	95
3) Chlorodifluoromethane	2.97	51	73978	0.720 ppbv #	88
4) Chloromethane	3.12	50	44898	0.816 ppbv	99
9) Propene	3.00	41	29684	0.749 ppbv #	82
11) Trichlorofluoromethane	3.93	101	58648	0.250 ppbv	94
12) 1,1,2-Trichlorotrifluoroet	4.46	101	12787	0.072 ppbv	91
13) Ethanol	3.59	45	89940	9.159 ppbv	96
15) Acetone	3.83	43	690435	6.739 ppbv #	84
16) 1,3-Butadiene	3.29	39	13849	0.363 ppbv #	18
17) tert-Butyl alcohol	4.30	59	13173	0.106 ppbv #	72
19) Isopropyl Alcohol	3.96	45	59106	0.967 ppbv #	93
20) Methylene Chloride	4.32	84	168276	2.205 ppbv	96
23) Vinyl Acetate	5.05	43	5055	0.038 ppbv #	34
25) Ethyl Acetate	5.67	43	35547	0.196 ppbv #	83
26) Hexane	5.67	57	52650	0.513 ppbv #	52
29) Chloroform	5.73	83	11326	0.054 ppbv	94
31) cis-1,2-Dichloroethene	5.53	61	20545	0.195 ppbv	93
34) 2-Butanone	5.23	43	111874	0.936 ppbv	99
36) Benzene	6.87	78	10603	0.041 ppbv	96
38) Trichloroethene	7.82	130	77221	0.510 ppbv	97
39) 1,2-Dichloropropane	7.16	63	727919	8.266 ppbv #	32
44) 2,2,4-Trimethylpentane	7.85	57	56540	0.165 ppbv #	85
52) Tetrachloroethene	11.21	164	547257	3.594 ppbv	99

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 889

Delta R.T. -0.02 min

Lab File: VL035623.D

Acq: 15 Sep 2020 7:19

Instrument :
MSVOA_L
ClientSampled :
BFB

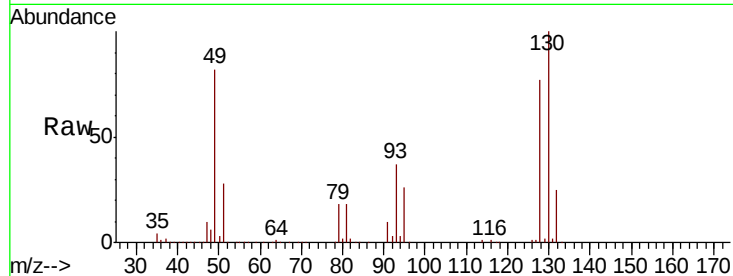
Tot Ion: 49 Resp: 928909

Ion Ratio Lower Upper

49 100

128 96.0 50.0 150.1

130 122.4 64.4 193.2



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

800000

600000

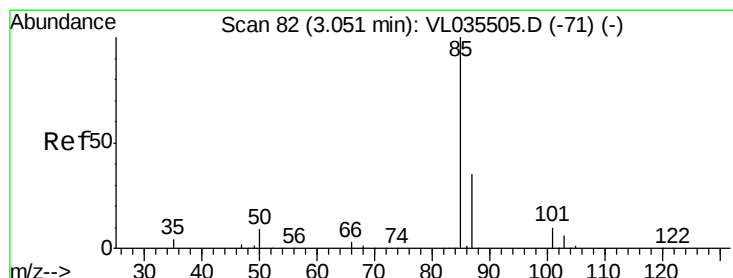
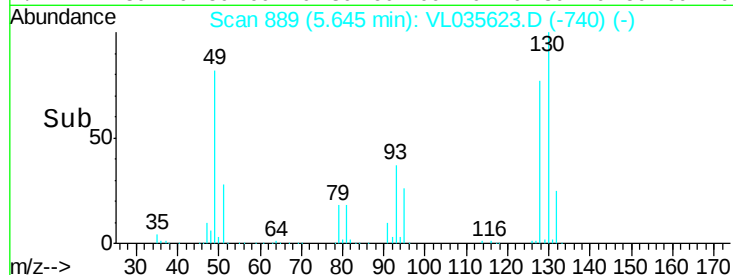
400000

200000

0

5.60 5.65 5.70

Time-->



#2

Dichlorodifluoromethane

Concen: 0.340 ppbv

RT: 3.03 min Scan# 75

Delta R.T. -0.01 min

Lab File: VL035623.D

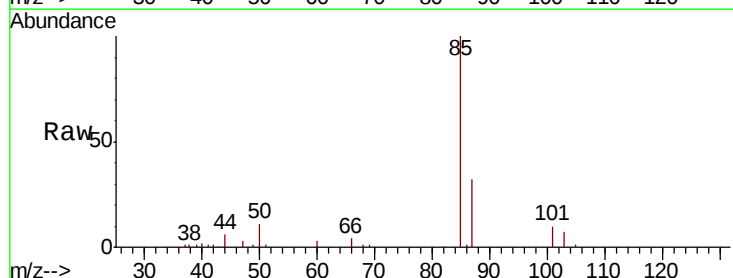
Acq: 15 Sep 2020 7:19

Tgt Ion: 85 Resp: 54723

Ion Ratio Lower Upper

85 100

87 32.3 28.0 42.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

50000

40000

30000

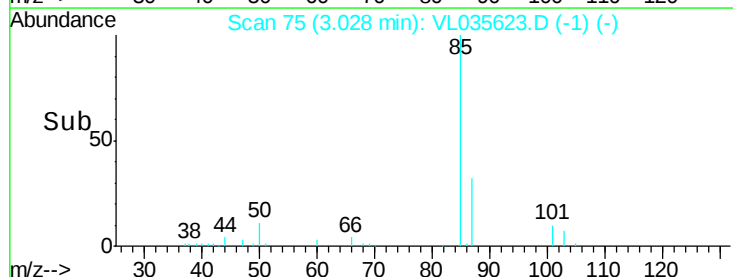
20000

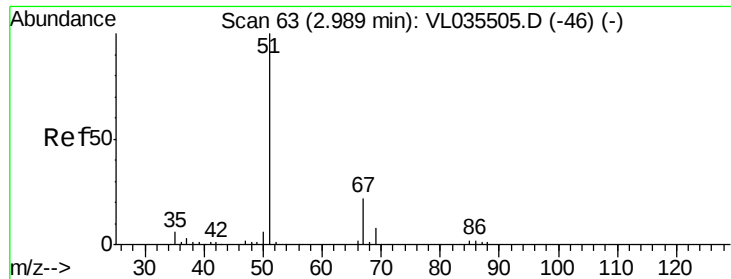
10000

0

3.00 3.03 3.05

Time-->





#3

Chlorodifluoromethane

Concen: 0.720 ppbv

RT: 2.97 min Scan# 57

Delta R.T. -0.00 min

Lab File: VL035623.D

Acq: 15 Sep 2020 7:19

Instrument :

MSVOA_L

ClientSampleId :

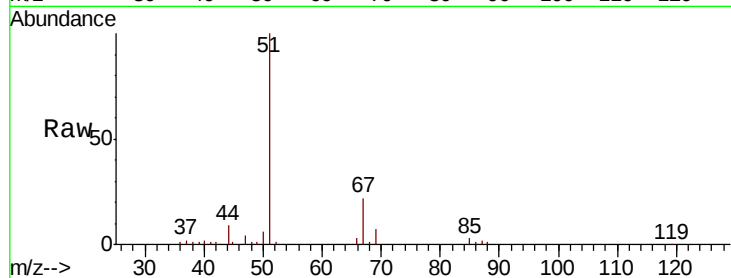
BFB

Tot Ion: 51 Resp: 73978

Ion Ratio Lower Upper

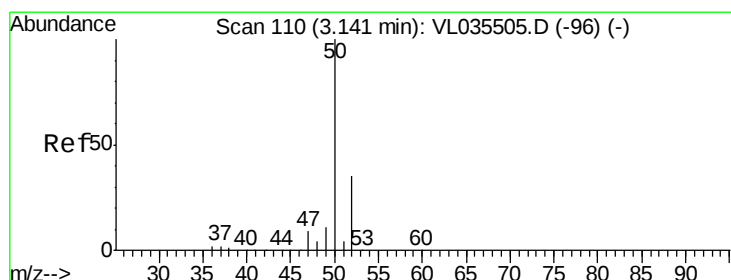
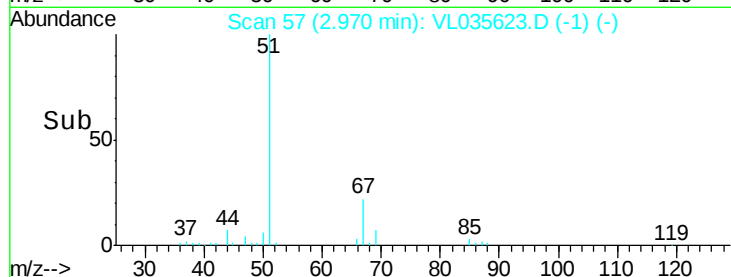
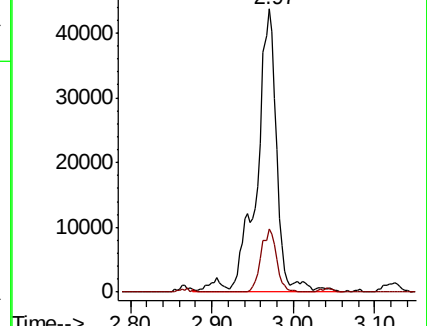
51 100

67 16.7 17.8 26.8#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.816 ppbv

RT: 3.12 min Scan# 105

Delta R.T. -0.00 min

Lab File: VL035623.D

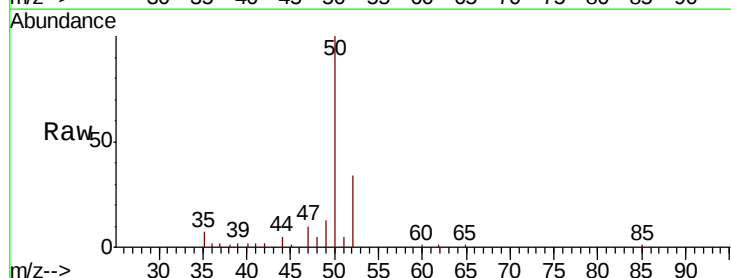
Acq: 15 Sep 2020 7:19

Tgt Ion: 50 Resp: 44898

Ion Ratio Lower Upper

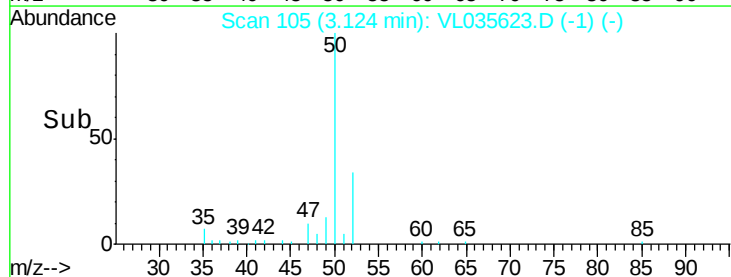
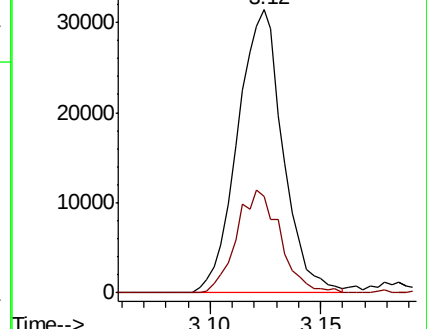
50 100

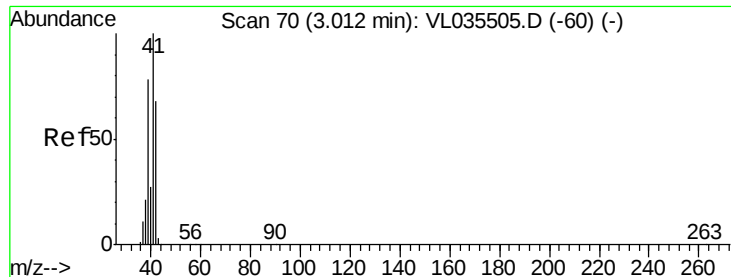
52 34.3 27.7 41.5



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.749 ppbv

RT: 3.00 min Scan# 65

Delta R.T. -0.00 min

Lab File: VL035623.D

Acq: 15 Sep 2020 7:19

Instrument :

MSVOA_L

ClientSampled :

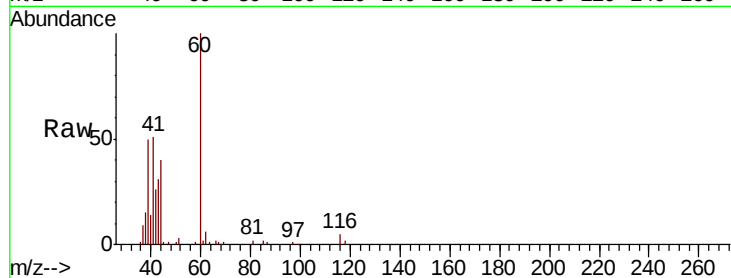
BFB

Tot Ion: 41 Resp: 29684

Ion Ratio Lower Upper

41 100

42 55.4 56.3 84.5#



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

3.00

20000

15000

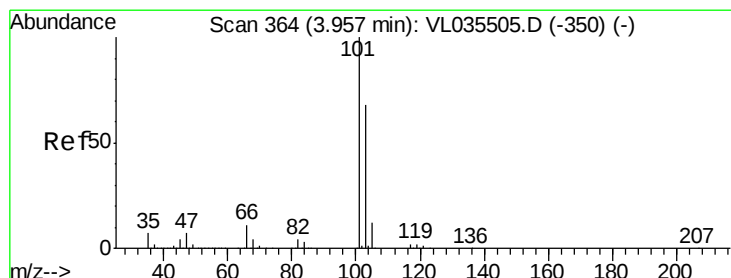
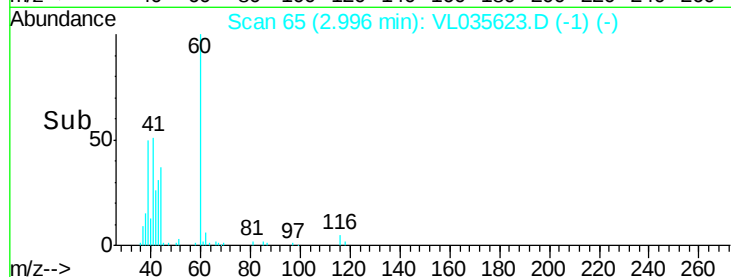
10000

5000

0

Time-->

2.95 3.00 3.05



#11

Trichlorofluoromethane

Concen: 0.250 ppbv

RT: 3.93 min Scan# 356

Delta R.T. -0.01 min

Lab File: VL035623.D

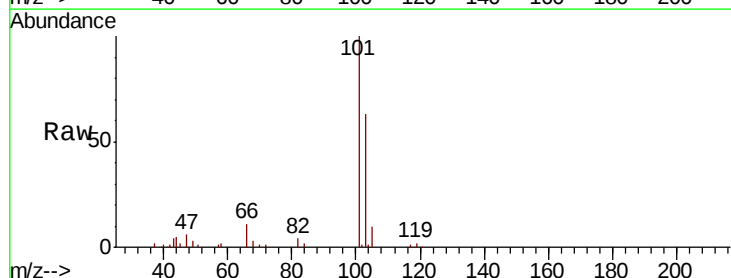
Acq: 15 Sep 2020 7:19

Tgt Ion: 101 Resp: 58648

Ion Ratio Lower Upper

101 100

103 63.0 54.5 81.7



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V

3.93

50000

40000

30000

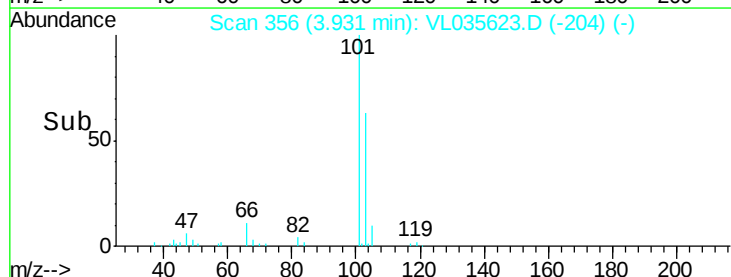
20000

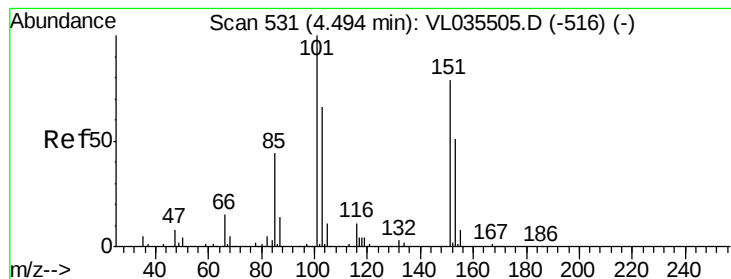
10000

0

Time-->

3.90 3.95





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.072 ppbv

RT: 4.46 min Scan# 521

Delta R.T. -0.02 min

Lab File: VL035623.D

Acq: 15 Sep 2020 7:19

Instrument :

MSVOA_L

ClientSampleId :

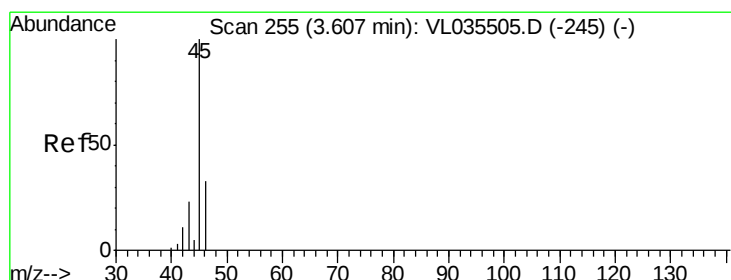
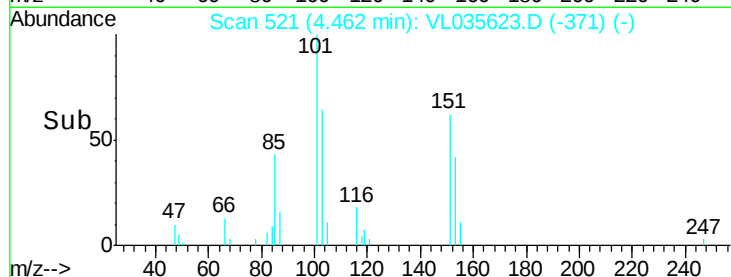
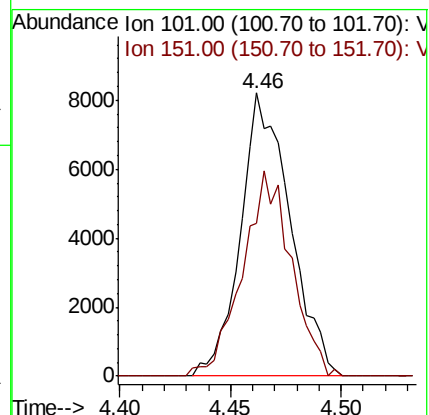
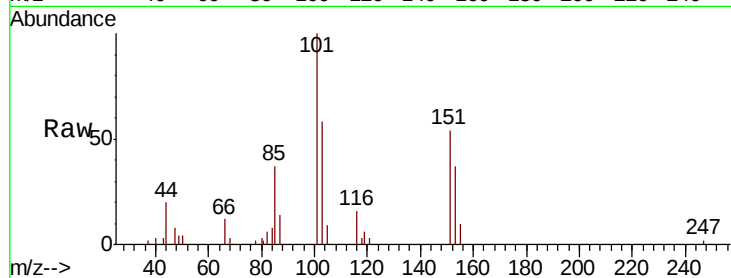
BFB

Tot Ion:101 Resp: 12787

Ion Ratio Lower Upper

101 100

151 71.2 63.5 95.3



#13

Ethanol

Concen: 9.159 ppbv

RT: 3.59 min Scan# 249

Delta R.T. -0.01 min

Lab File: VL035623.D

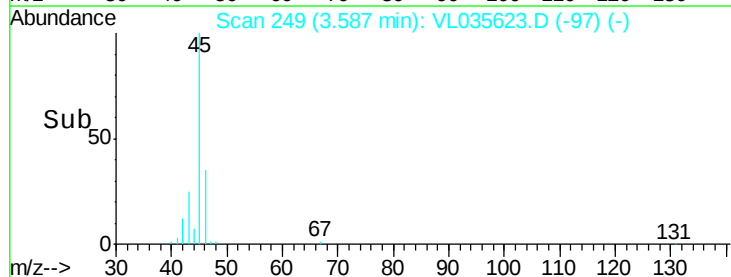
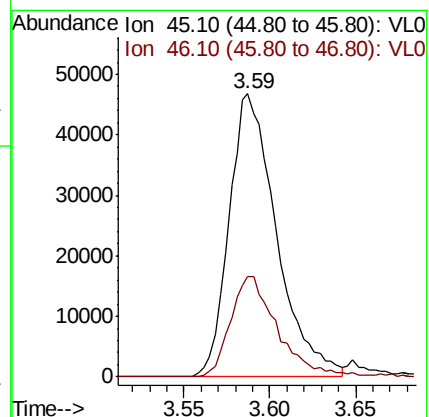
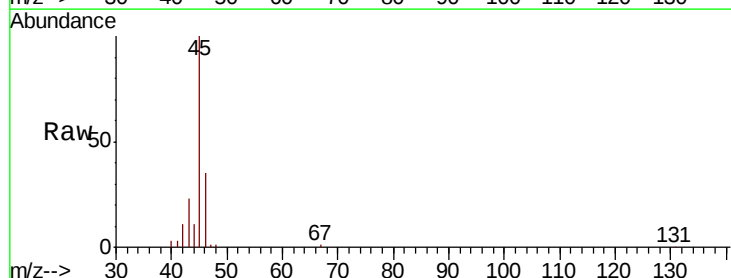
Acq: 15 Sep 2020 7:19

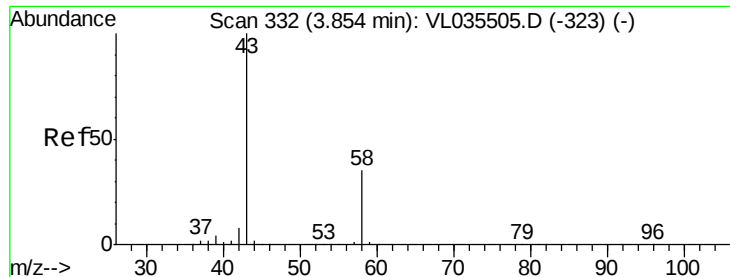
Tgt Ion: 45 Resp: 89940

Ion Ratio Lower Upper

45 100

46 35.7 15.2 60.6





#15

Acetone

Concen: 6.739 ppbv

RT: 3.83 min Scan# 325

Delta R.T. -0.01 min

Lab File: VL035623.D

Acq: 15 Sep 2020 7:19

Instrument :

MSVOA_L

ClientSampleId :

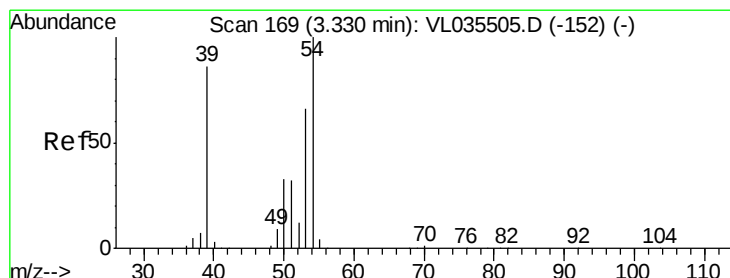
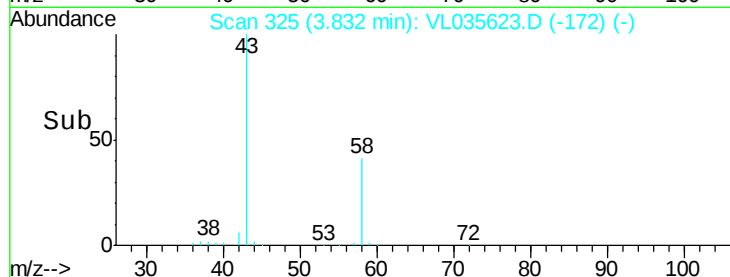
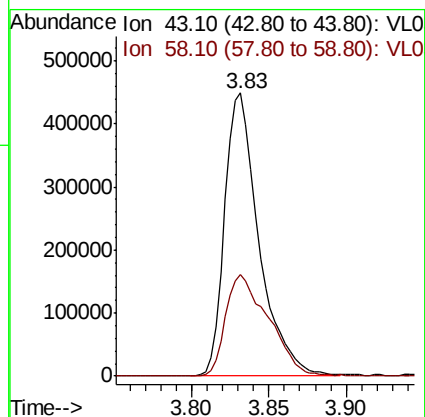
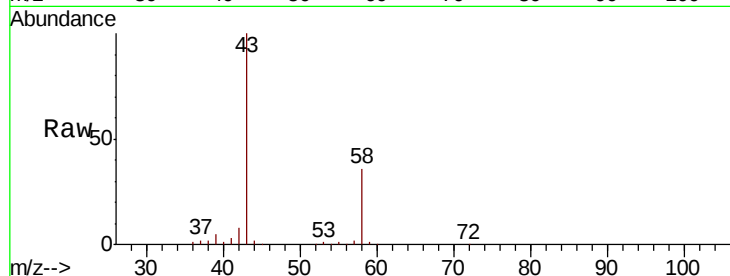
BFB

Tot Ion: 43 Resp: 690435

Ion Ratio Lower Upper

43 100

58 45.0 28.4 42.6#



#16

1,3-Butadiene

Concen: 0.363 ppbv

RT: 3.29 min Scan# 156

Delta R.T. -0.03 min

Lab File: VL035623.D

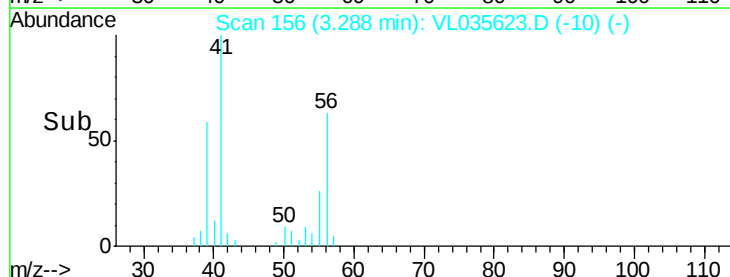
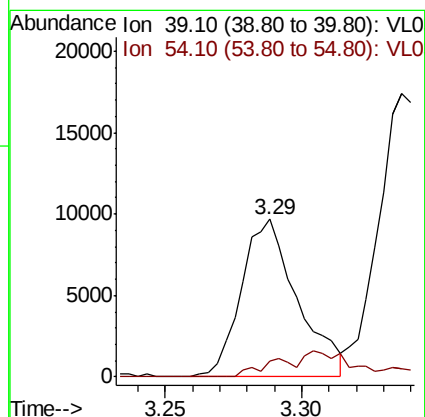
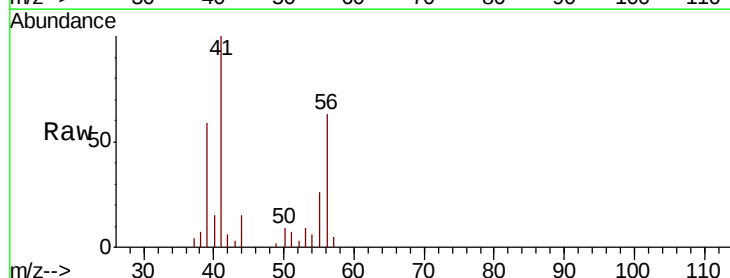
Acq: 15 Sep 2020 7:19

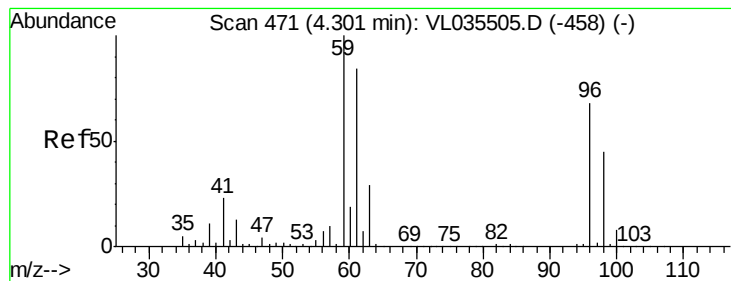
Tgt Ion: 39 Resp: 13849

Ion Ratio Lower Upper

39 100

54 23.6 88.4 132.6#





#17

tert-Butyl alcohol

Concen: 0.106 ppbv

RT: 4.30 min Scan# 470

Delta R.T. 0.02 min

Lab File: VL035623.D

Acq: 15 Sep 2020 7:19

Instrument :

MSVOA_L

ClientSampled :

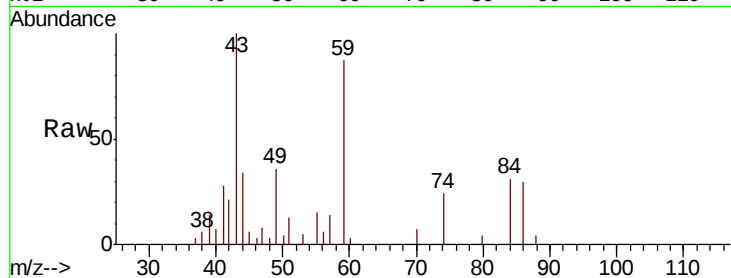
BFB

Tot Ion: 59 Resp: 13173

Ion Ratio Lower Upper

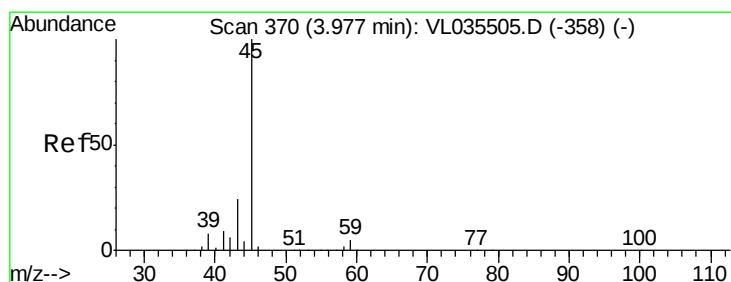
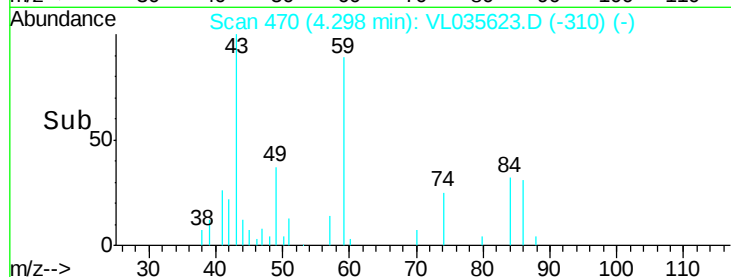
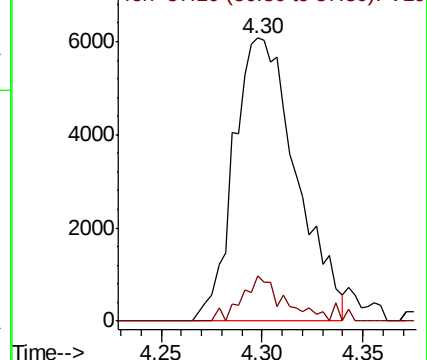
59 100

57 0.0 8.4 12.6#



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#19

Isopropyl Alcohol

Concen: 0.967 ppbv

RT: 3.96 min Scan# 365

Delta R.T. 0.00 min

Lab File: VL035623.D

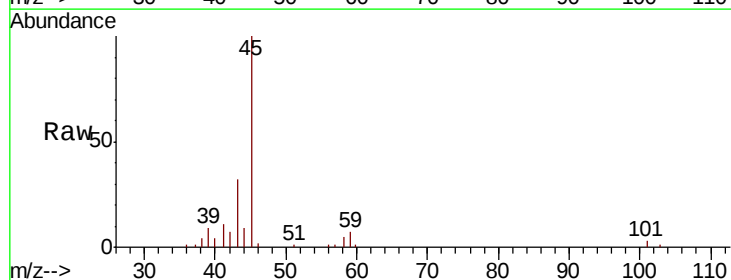
Acq: 15 Sep 2020 7:19

Tgt Ion: 45 Resp: 59106

Ion Ratio Lower Upper

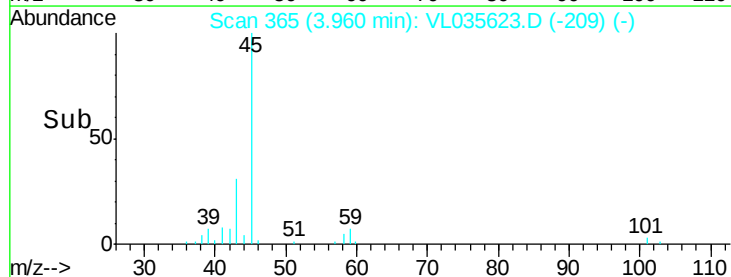
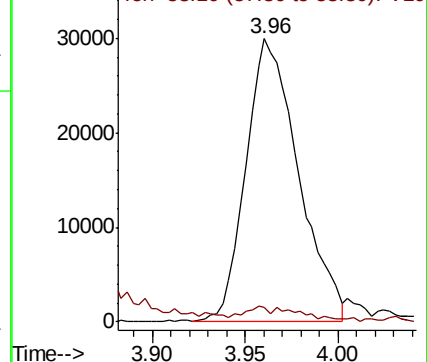
45 100

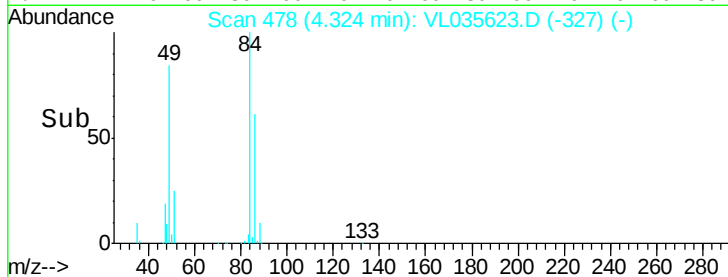
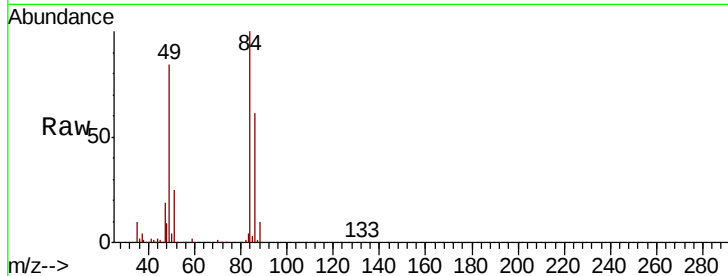
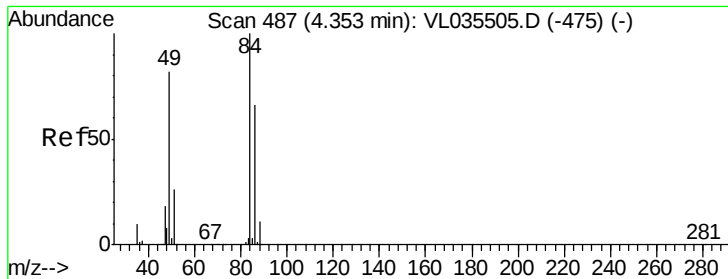
58 0.0 2.0 3.0#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

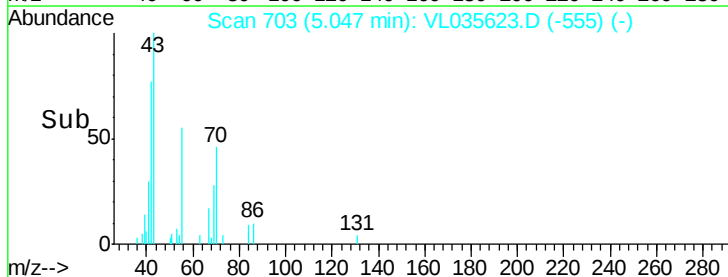
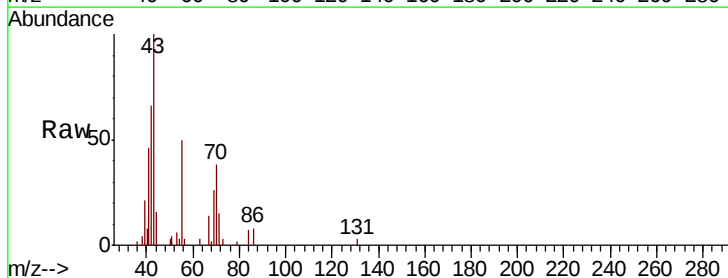
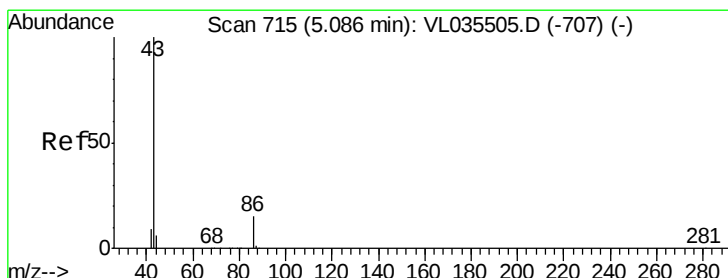
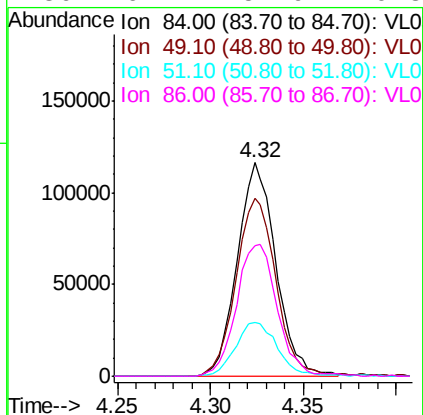




#20
Methylene Chloride
Concen: 2.205 ppbv
RT: 4.32 min Scan# 478
Delta R.T. -0.01 min
Lab File: VL035623.D
Acq: 15 Sep 2020 7:19

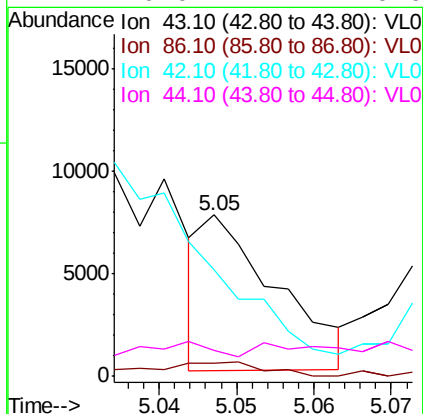
Instrument :
MSVOA_L
ClientSampleId :
BFB

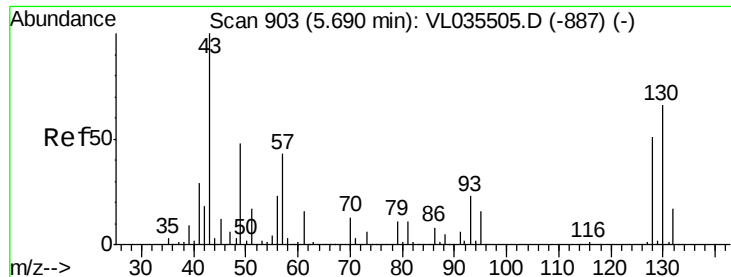
Tot Ion:	84	Resp:	168276
Ion	Ratio	Lower	Upper
84	100		
49	83.6	65.4	98.0
51	25.4	21.5	32.3
86	61.1	52.9	79.3



#23
Vinyl Acetate
Concen: 0.038 ppbv
RT: 5.05 min Scan# 703
Delta R.T. -0.02 min
Lab File: VL035623.D
Acq: 15 Sep 2020 7:19

Tgt Ion:	43	Resp:	5055
Ion	Ratio	Lower	Upper
43	100		
86	11.8	10.6	16.0
42	75.7	7.5	11.3#
44	0.0	4.4	6.6#





#25

Ethyl Acetate

Concen: 0.196 ppbv

RT: 5.67 min Scan# 896

Delta R.T. -0.01 min

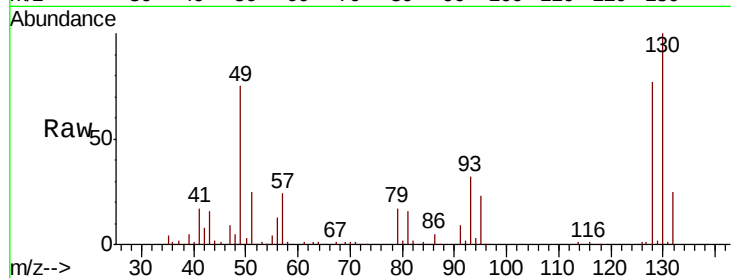
Lab File: VL035623.D

Acq: 15 Sep 2020 7:19

Instrument :
MSVOA_L
ClientSampleId :
BFB

Tot Ion: 43 Resp: 35547

Ion	Ratio	Lower	Upper
43	100		
45	6.6	8.4	12.6#
61	4.3	10.6	16.0#
70	5.3	9.4	14.2#



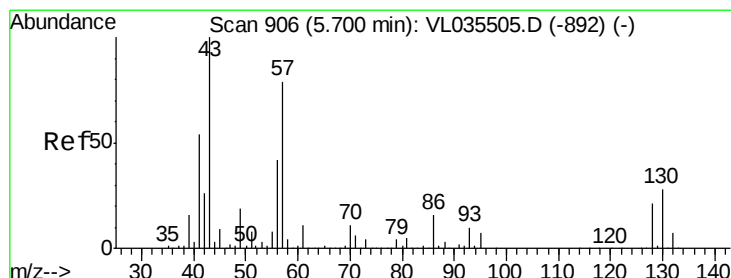
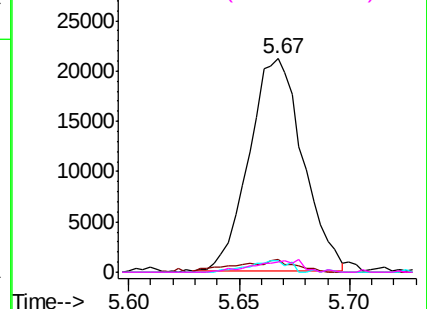
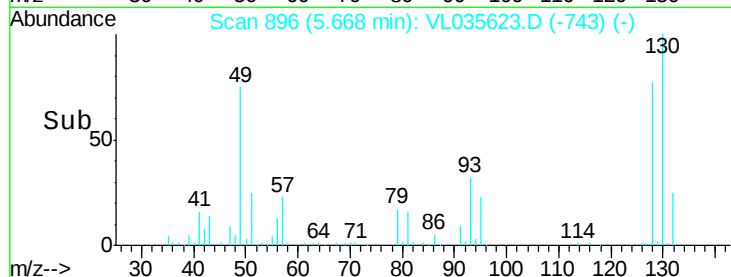
Abundance

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: 0.513 ppbv

RT: 5.67 min Scan# 897

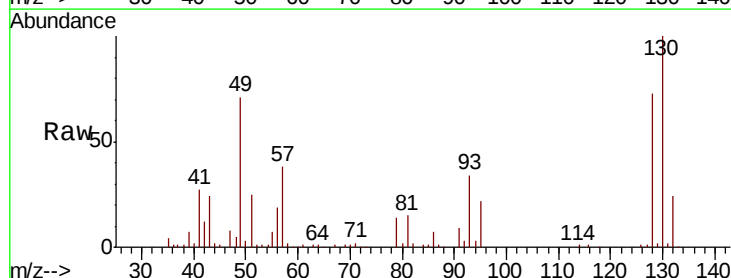
Delta R.T. -0.01 min

Lab File: VL035623.D

Acq: 15 Sep 2020 7:19

Tgt Ion: 57 Resp: 52650

Ion	Ratio	Lower	Upper
57	100		
41	75.1	55.9	83.9
43	70.5	141.8	212.8#
56	57.9	41.8	62.8



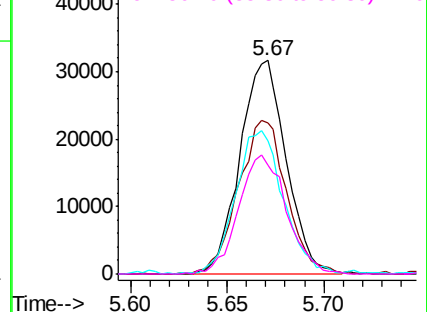
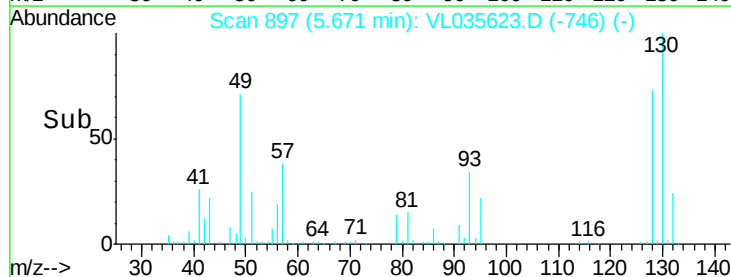
Abundance

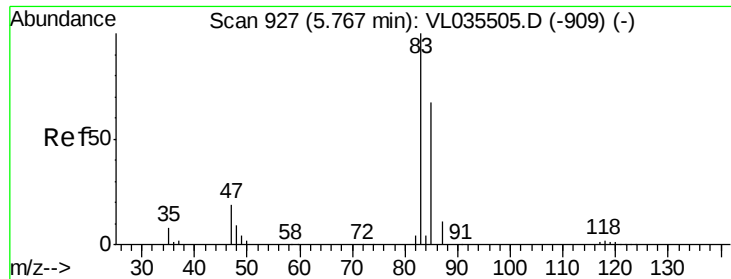
Ion 57.10 (56.80 to 57.80): VL0

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

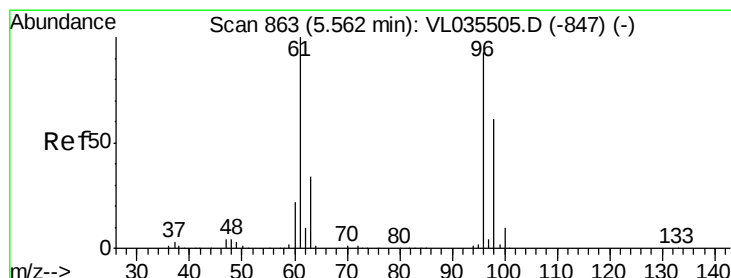
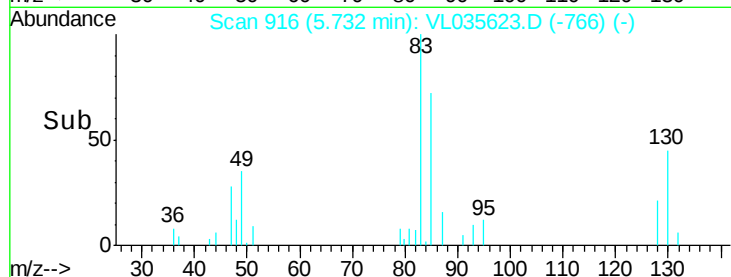
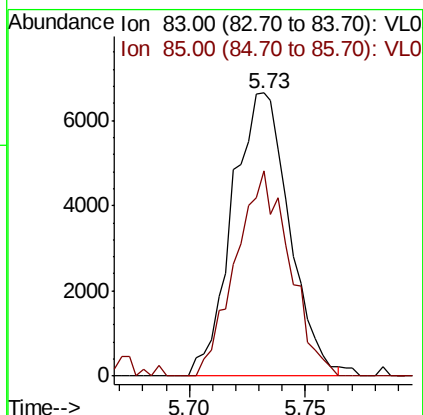
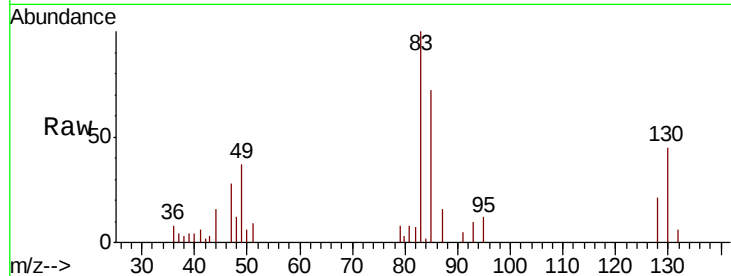




#29
Chloroform
Concen: 0.054 ppbv
RT: 5.73 min Scan# 916
Delta R.T. -0.02 min
Lab File: VL035623.D
Acq: 15 Sep 2020 7:19

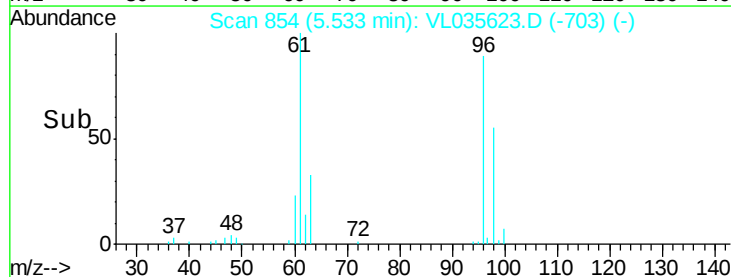
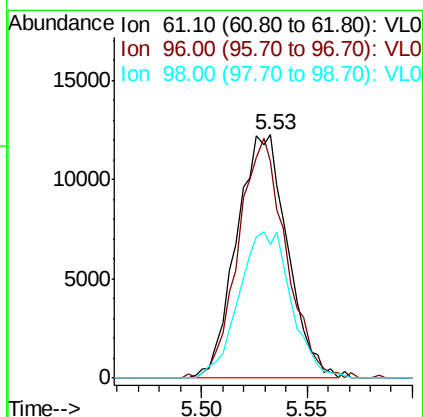
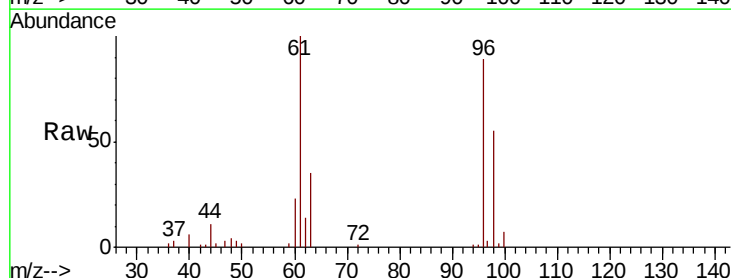
Instrument :
MSVOA_L
ClientSampleId :
BFB

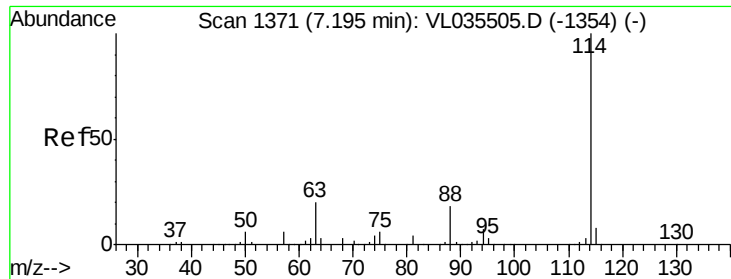
Tot Ion: 83 Resp: 11326
Ion Ratio Lower Upper
83 100
85 72.4 53.9 80.9



#31
cis-1,2-Dichloroethene
Concen: 0.195 ppbv
RT: 5.53 min Scan# 854
Delta R.T. -0.01 min
Lab File: VL035623.D
Acq: 15 Sep 2020 7:19

Tgt Ion: 61 Resp: 20545
Ion Ratio Lower Upper
61 100
96 87.8 74.4 111.6
98 55.0 49.2 73.8



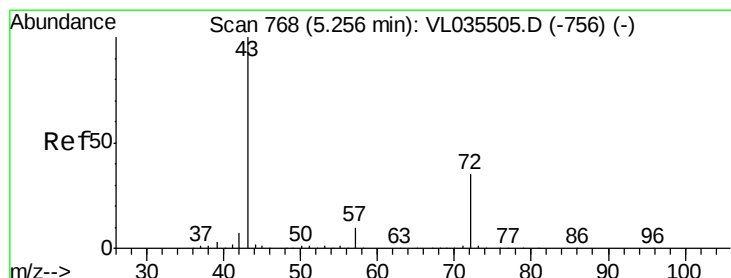
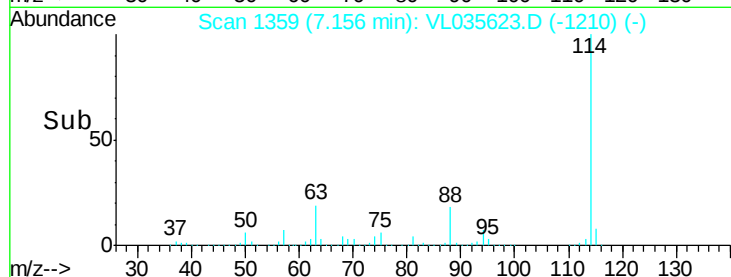
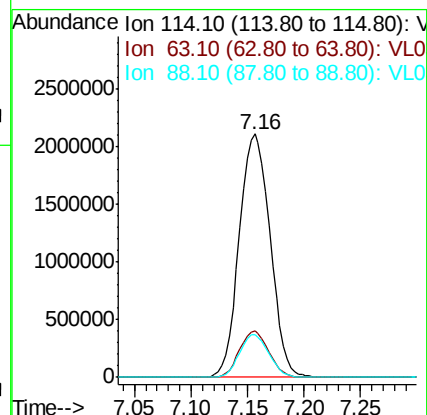
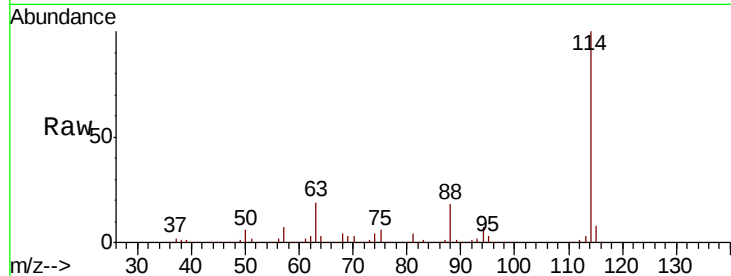


#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.16 min Scan# 1359
 Delta R.T. -0.02 min
 Lab File: VL035623.D
 Acq: 15 Sep 2020 7:19

Instrument :
 MSVOA_L
 ClientSampled :
 BFB

Tot Ion:114 Resp: 4027136

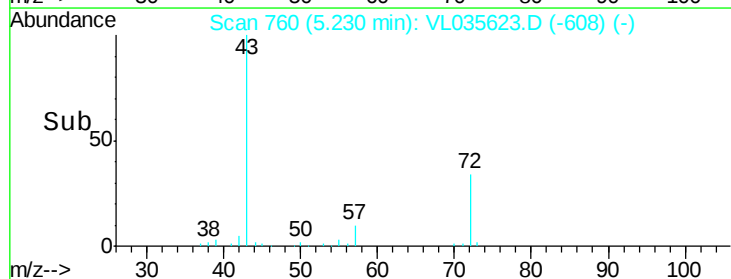
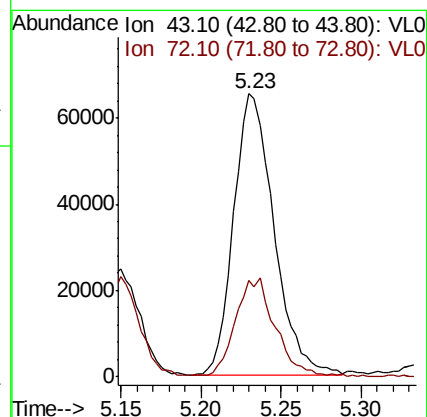
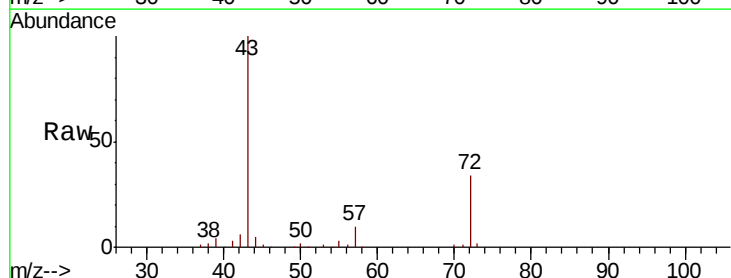
Ion	Ratio	Lower	Upper
114	100		
63	18.1	14.7	22.1
88	16.8	13.4	20.2

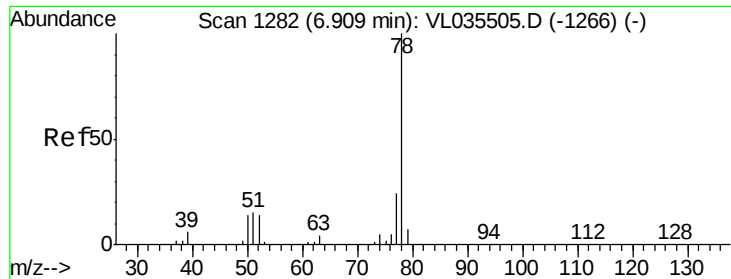


#34
 2-Butanone
 Concen: 0.936 ppbv
 RT: 5.23 min Scan# 760
 Delta R.T. -0.01 min
 Lab File: VL035623.D
 Acq: 15 Sep 2020 7:19

Tgt Ion: 43 Resp: 111874

Ion	Ratio	Lower	Upper
43	100		
72	34.2	27.7	41.5

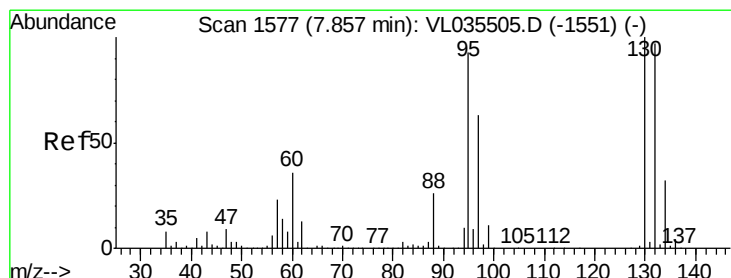
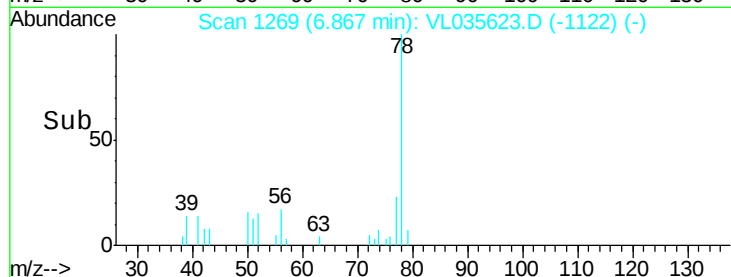
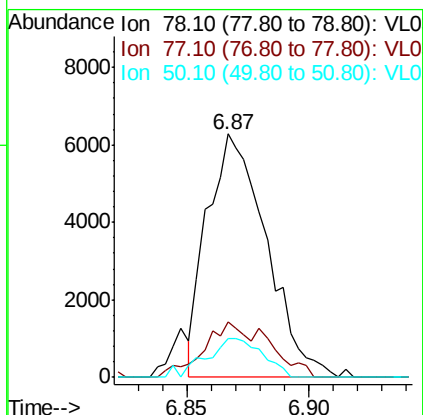
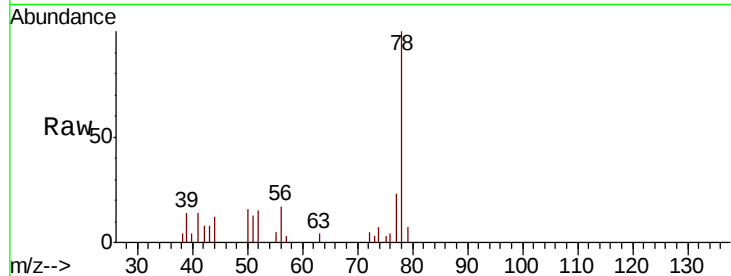




#36
Benzene
Concen: 0.041 ppbv
RT: 6.87 min Scan# 1269
Delta R.T. -0.03 min
Lab File: VL035623.D
Acq: 15 Sep 2020 7:19

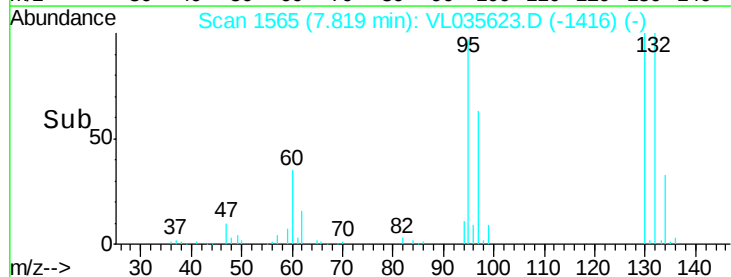
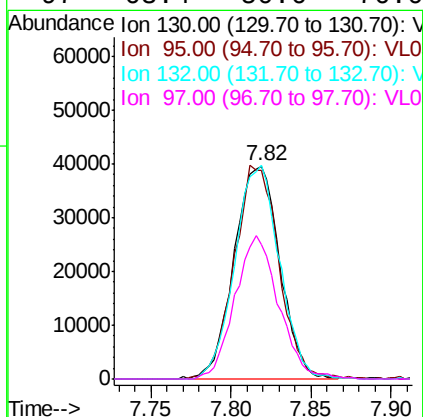
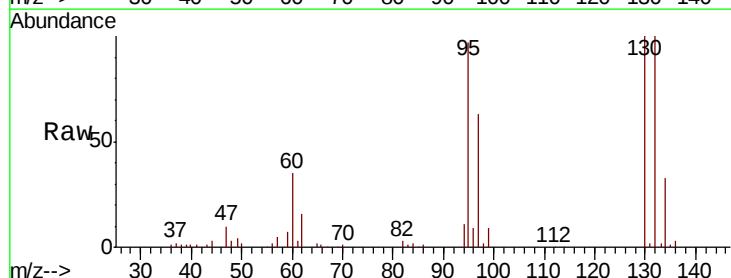
Instrument :
MSVOA_L
ClientSampleId :
BFB

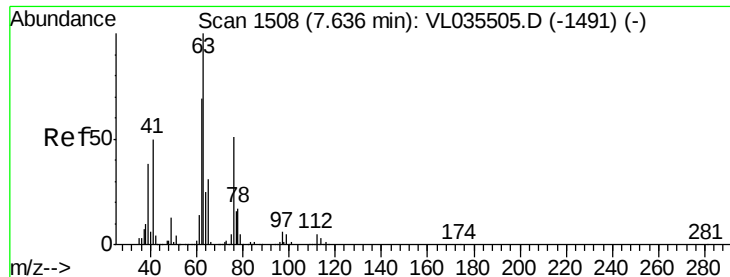
Tot Ion: 78 Resp: 10603
Ion Ratio Lower Upper
78 100
77 22.9 19.3 28.9
50 16.0 11.0 16.6



#38
Trichloroethene
Concen: 0.510 ppbv
RT: 7.82 min Scan# 1565
Delta R.T. -0.02 min
Lab File: VL035623.D
Acq: 15 Sep 2020 7:19

Tgt Ion: 130 Resp: 77221
Ion Ratio Lower Upper
130 100
95 97.1 74.6 112.0
132 100.3 77.6 116.4
97 63.4 50.6 76.0





#39

1,2-Dichloropropane

Concen: 8.266 ppbv

RT: 7.16 min Scan# 1359

Delta R.T. -0.46 min

Lab File: VL035623.D

Acq: 15 Sep 2020 7:19

Instrument :

MSVOA_L

ClientSampleId :

BFB

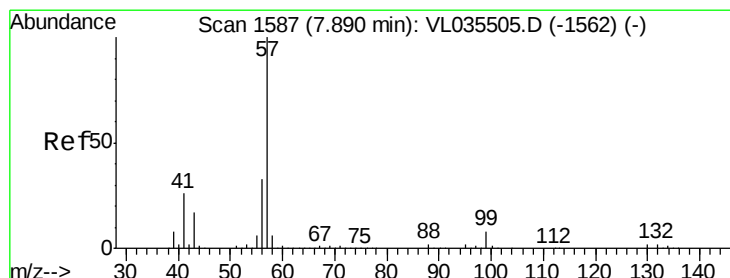
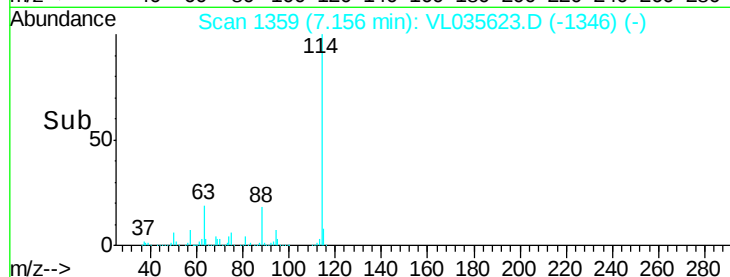
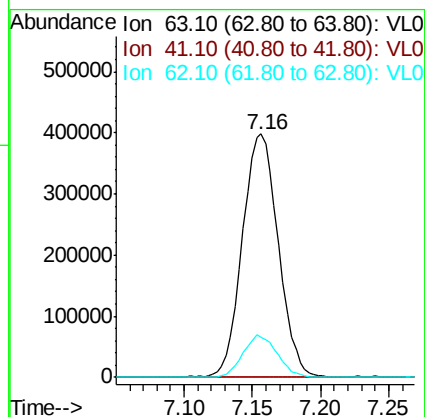
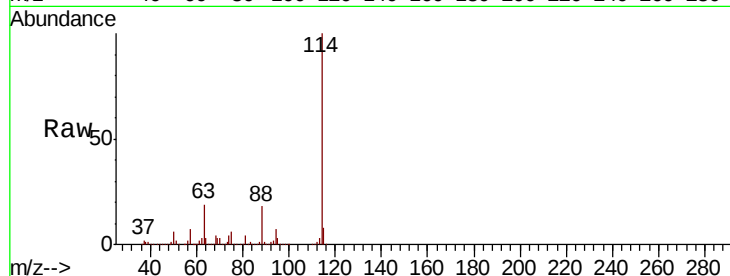
Tot Ion: 63 Resp: 727919

Ion Ratio Lower Upper

63 100

41 0.0 40.0 60.0#

62 16.5 55.4 83.0#



#44

2,2,4-Trimethylpentane

Concen: 0.165 ppbv

RT: 7.85 min Scan# 1576

Delta R.T. -0.02 min

Lab File: VL035623.D

Acq: 15 Sep 2020 7:19

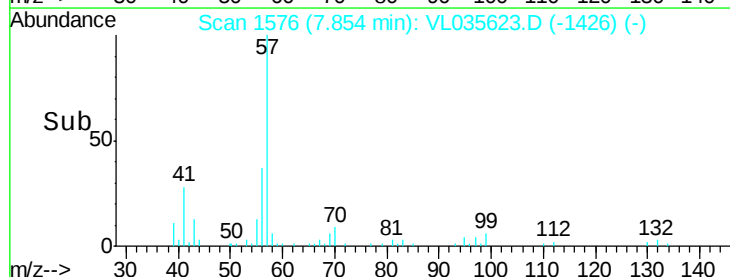
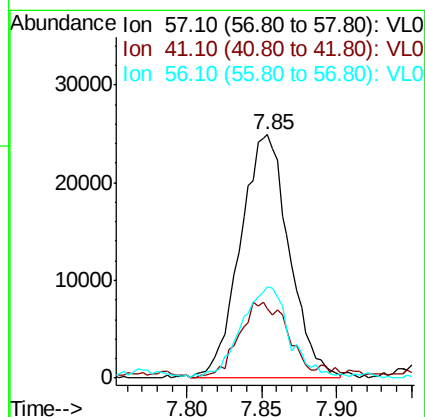
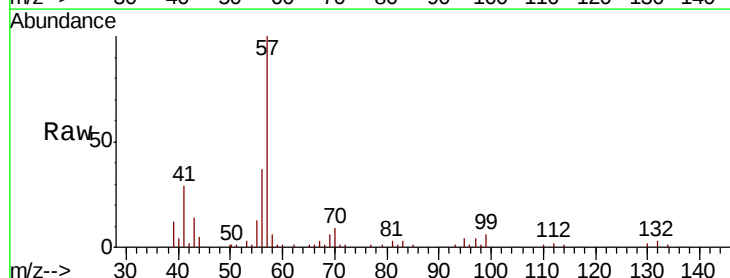
Tgt Ion: 57 Resp: 56540

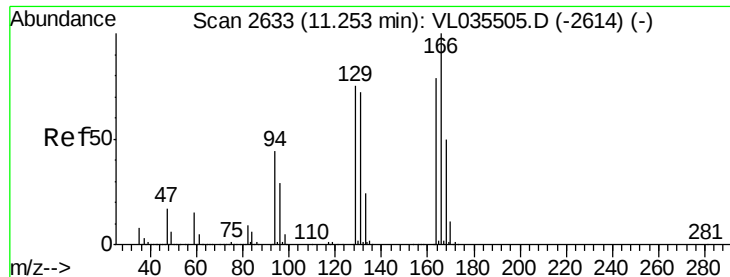
Ion Ratio Lower Upper

57 100

41 34.7 20.5 30.7#

56 38.2 25.3 37.9#

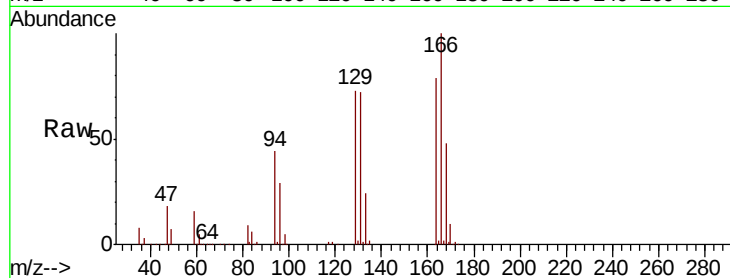




#52
Tetrachloroethene
Concen: 3.594 ppbv
RT: 11.21 min Scan# 2620
Delta R.T. -0.02 min
Lab File: VL035623.D
Acq: 15 Sep 2020 7:19

Instrument :
MSVOA_L
ClientSampled :
BFB

Tot Ion	Ratio	Lower	Upper
164	100		
166	125.7	100.9	151.3
129	91.3	75.3	112.9
131	90.2	73.0	109.4



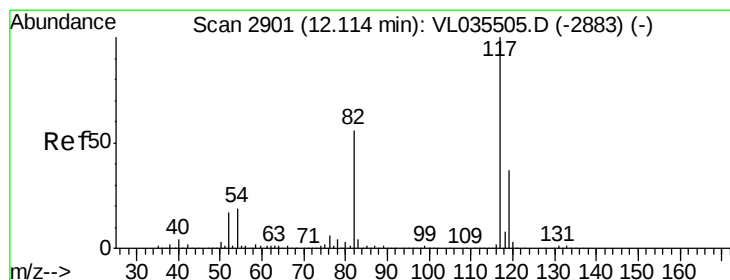
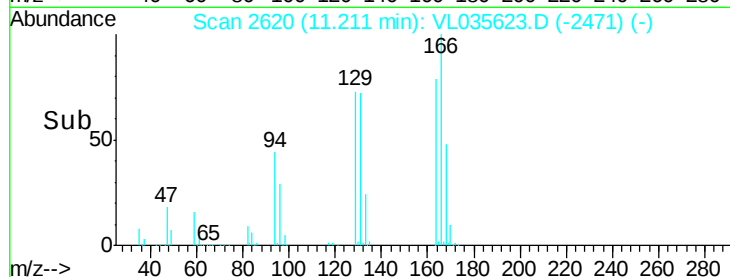
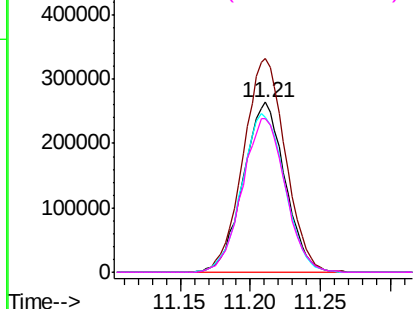
Abundance

Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

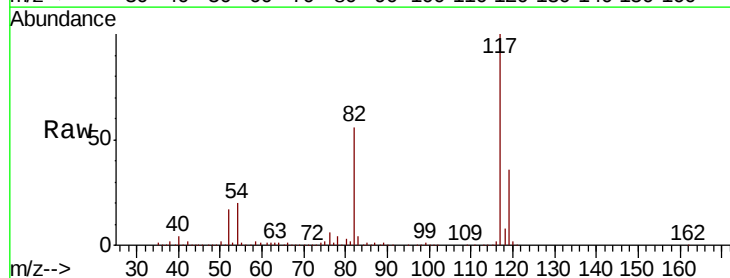
Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.07 min Scan# 2888
Delta R.T. -0.02 min
Lab File: VL035623.D
Acq: 15 Sep 2020 7:19

Tgt Ion	Ratio	Lower	Upper
117	100		
82	55.3	41.6	62.4
119	34.4	29.3	43.9

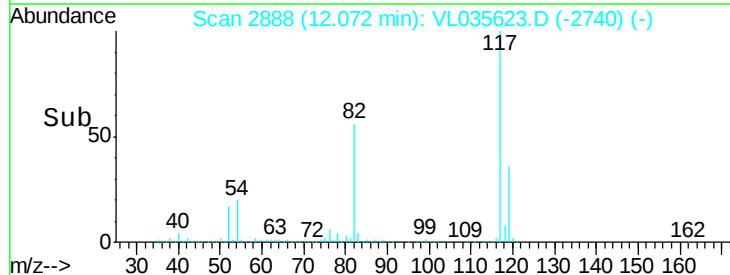
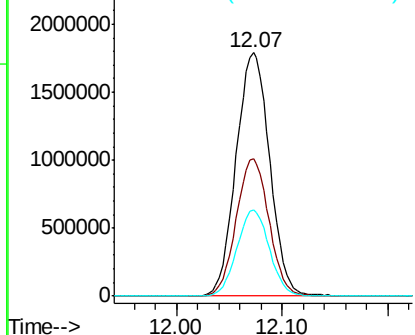


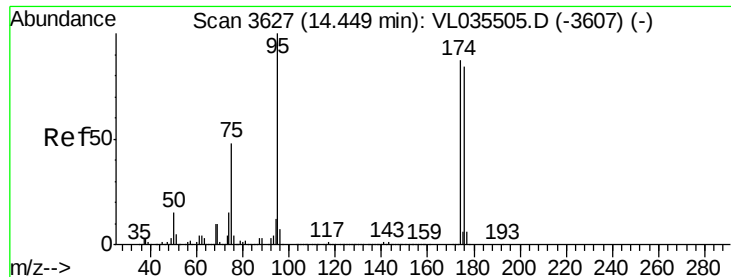
Abundance

Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): V

Ion 119.10 (118.80 to 119.80): V





#68

1-Bromo-4-Fluorobenzene

Concen: 10.498 ppbv

RT: 14.40 min Scan# 3613

Delta R.T. -0.03 min

Lab File: VL035623.D

Acq: 15 Sep 2020 7:19

Instrument :

MSVOA_L

ClientSampleId :

BFB

Tot Ion: 95 Resp: 2959299

Ion Ratio Lower Upper

95 100

174 81.1 69.6 104.4

175 5.9 5.1 7.7

