

Data File : VL033852.D
Acq On : 30 May 2019 2:15
Operator : SY/AP
Sample : K3067-05
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
BFB

Quant Time: May 30 02:55:55 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL051719AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri May 17 08:15:41 2019
QLast Update : Fri May 17 08:15:41 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.75	49	741737	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.28	114	1685921	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.23	117	1704507	10.00	ppbv	0.00

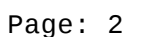
System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.57 95 1383423 10.01 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 100.10%

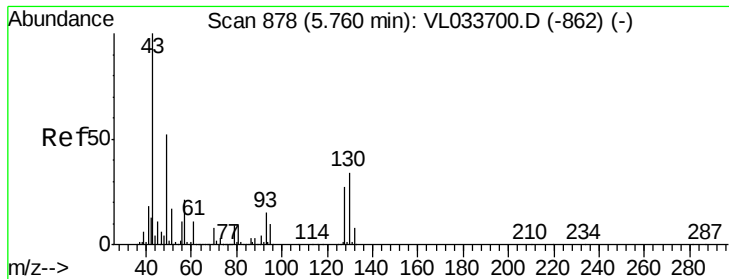
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.07	85	20824	0.133	ppbv #	84
3) Chlorodifluoromethane	3.01	51	42974	0.506	ppbv #	87
4) Chloromethane	3.17	50	9793	0.202	ppbv #	78
9) Propene	3.04	41	13811	0.382	ppbv	93
11) Trichlorofluoromethane	4.00	101	53597	0.359	ppbv	93
12) 1,1,2-Trichlorotrifluoroet	4.55	101	7718	0.074	ppbv #	78
13) Ethanol	3.66	45	171246	14.661	ppbv	98
15) Acetone	3.89	43	790594	7.682	ppbv	100
16) 1,3-Butadiene	3.34	39	18557	0.453	ppbv #	16
17) tert-Butyl alcohol	4.37	59	7482	0.090	ppbv #	72
19) Isopropyl Alcohol	4.04	45	166912	2.515	ppbv #	93
20) Methylene Chloride	4.40	84	72623	1.833	ppbv	93
23) Vinyl Acetate	5.14	43	24811	0.183	ppbv #	89
25) Ethyl Acetate	5.77	43	107615	0.595	ppbv #	84
26) Hexane	5.78	57	121478	1.563	ppbv #	43
27) Carbon Disulfide	4.62	76	34199	0.321	ppbv #	85
29) Chloroform	5.84	83	166078	1.160	ppbv	98
32) 1,1,1-Trichloroethane	6.61	97	28559	0.200	ppbv	99
34) 2-Butanone	5.33	43	153275	1.467	ppbv	97
35) Carbon Tetrachloride	7.13	117	7187	0.053	ppbv #	87
36) Benzene	7.00	78	24676	0.161	ppbv	93
38) Trichloroethene	7.95	130	41192	0.724	ppbv	97
39) 1,2-Dichloropropane	7.29	63	447554	7.828	ppbv #	23
44) 2,2,4-Trimethylpentane	7.99	57	26301	0.101	ppbv #	65
52) Tetrachloroethene	11.37	164	520046	9.647	ppbv	98
53) Toluene	9.94	91	453191	2.740	ppbv	98
60) o-Xylene	13.84	91	10394	0.052	ppbv	83
74) 1,2,4-Trimethylbenzene	16.92	105	18729	0.078	ppbv #	77

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

ALS Vial : 1 Sample Multiplier: 1

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.75 min Scan# 876

Delta R.T. -0.01 min

Lab File: VL033852.D

Acq: 30 May 2019 2:15

Instrument :

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ClientSampleId :

BFB

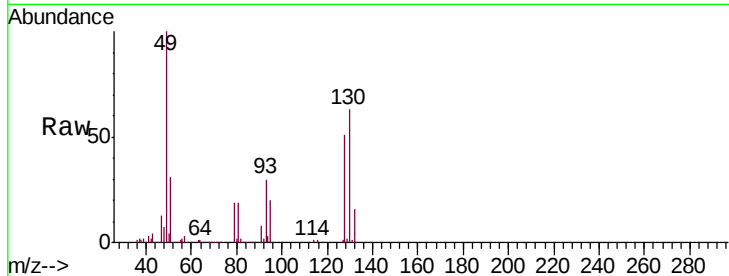
Tgt Ion: 49 Resp: 741737

Ion Ratio Lower Upper

49 100

128 49.5 25.2 75.6

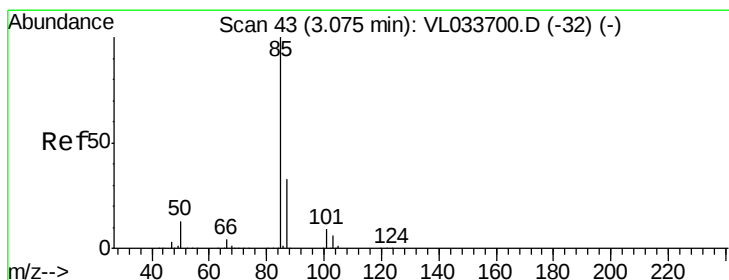
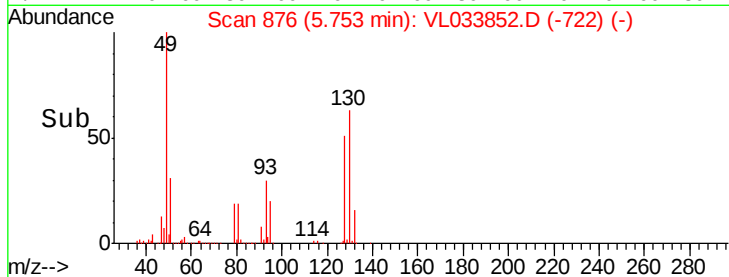
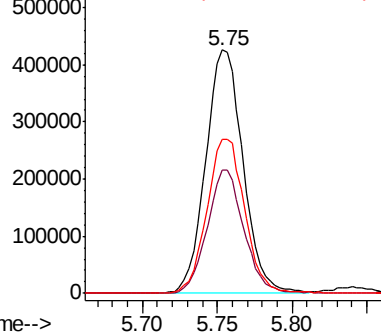
130 64.5 32.5 97.5



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: 0.133 ppbv

RT: 3.07 min Scan# 43

Delta R.T. 0.00 min

Lab File: VL033852.D

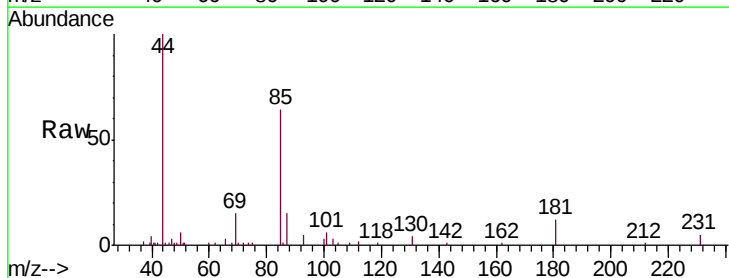
Acq: 30 May 2019 2:15

Tgt Ion: 85 Resp: 20824

Ion Ratio Lower Upper

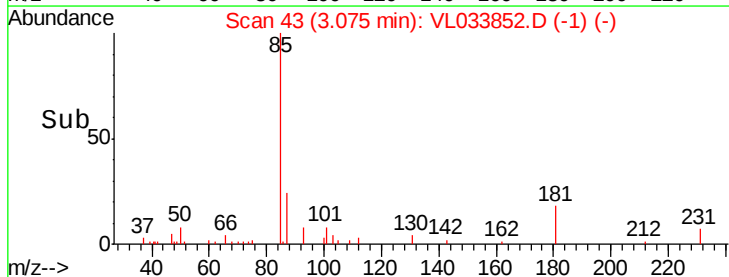
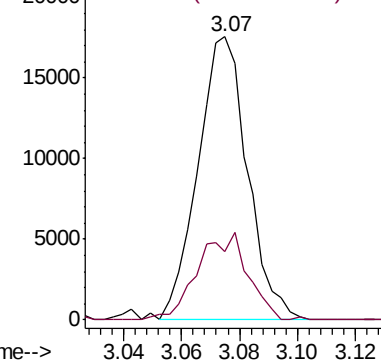
85 100

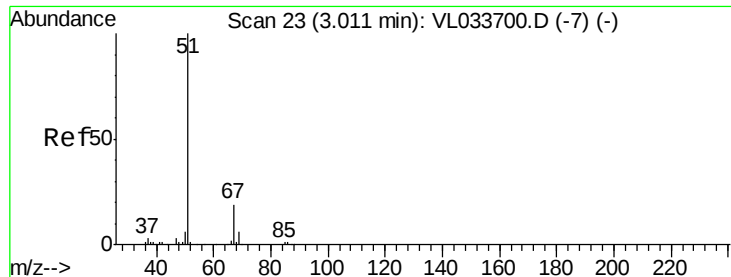
87 24.0 26.3 39.5#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

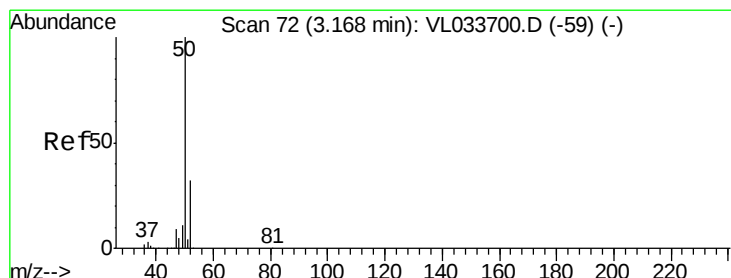
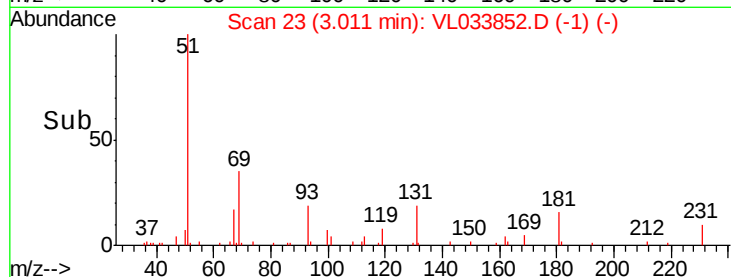
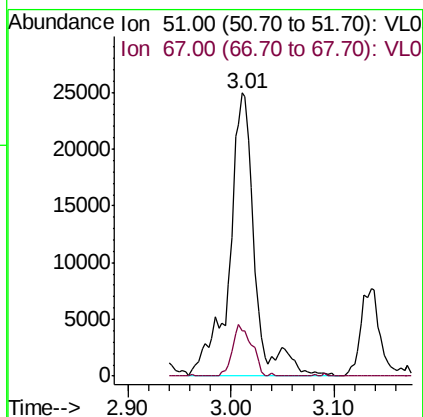
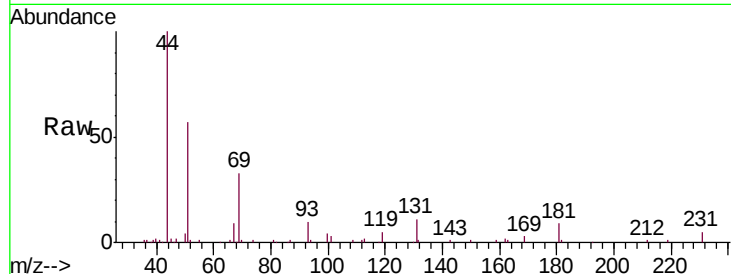




#3
 Chlorodifluoromethane
 Concen: 0.506 ppbv
 RT: 3.01 min Scan# 23
 Delta R.T. 0.00 min
 Lab File: VL033852.D
 Acq: 30 May 2019 2:15

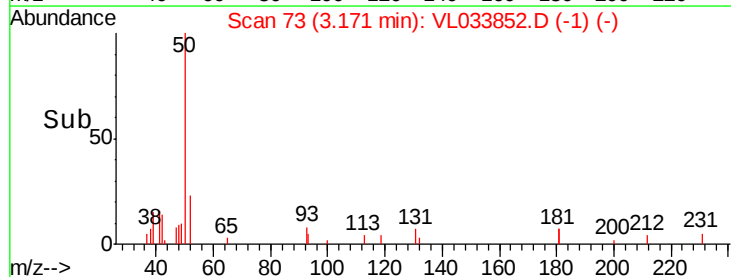
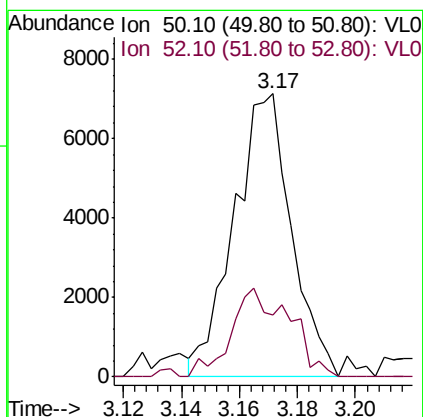
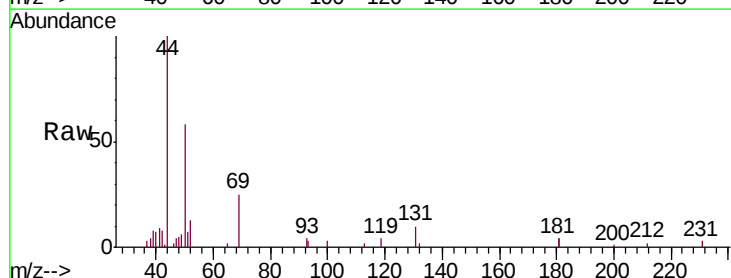
Instrument :
 MSVOA_L
 ClientSampleId :
 BFB

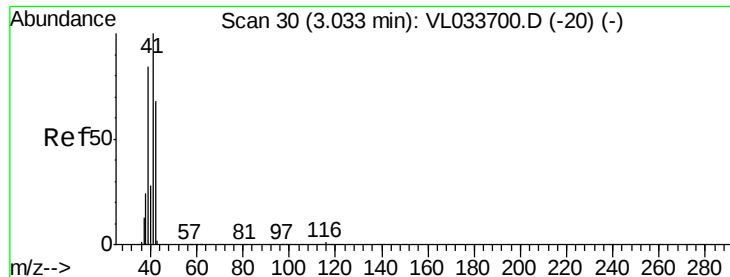
Tgt Ion: 51 Resp: 42974
 Ion Ratio Lower Upper
 51 100
 67 13.7 15.6 23.4#



#4
 Chloromethane
 Concen: 0.202 ppbv
 RT: 3.17 min Scan# 73
 Delta R.T. 0.00 min
 Lab File: VL033852.D
 Acq: 30 May 2019 2:15

Tgt Ion: 50 Resp: 9793
 Ion Ratio Lower Upper
 50 100
 52 19.6 25.7 38.5#





#9

Propene

Concen: 0.382 ppbv

RT: 3.04 min Scan# 31

Delta R.T. 0.00 min

Lab File: VL033852.D

Acq: 30 May 2019 2:15

Instrument :

MSVOA_L

ClientSampleId :

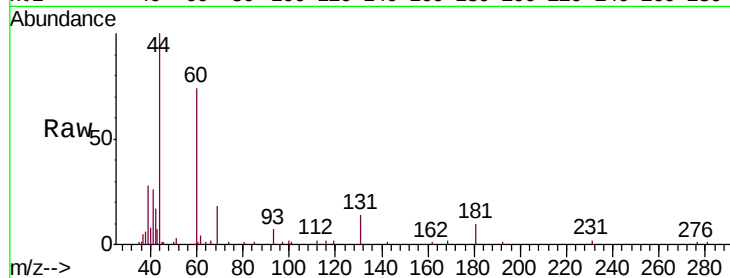
BFB

Tgt Ion: 41 Resp: 13811

Ion Ratio Lower Upper

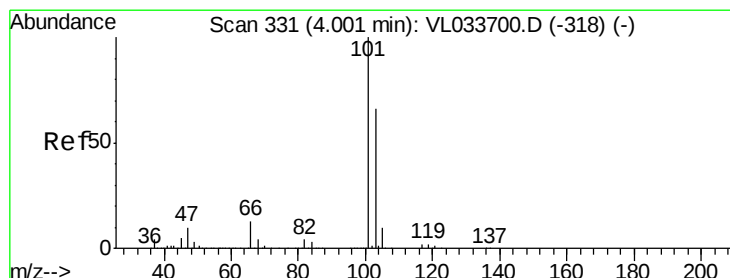
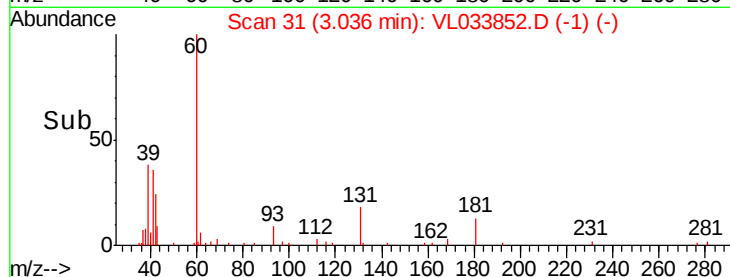
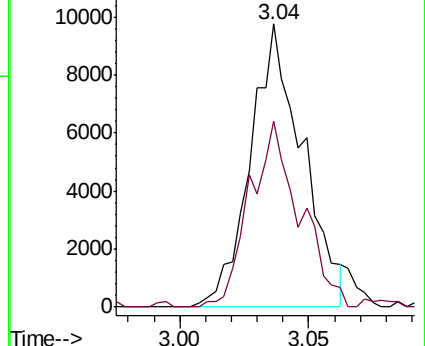
41 100

42 64.5 56.1 84.1



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#11

Trichlorofluoromethane

Concen: 0.359 ppbv

RT: 4.00 min Scan# 332

Delta R.T. 0.00 min

Lab File: VL033852.D

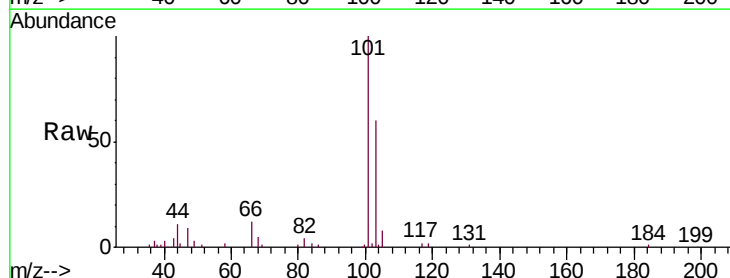
Acq: 30 May 2019 2:15

Tgt Ion: 101 Resp: 53597

Ion Ratio Lower Upper

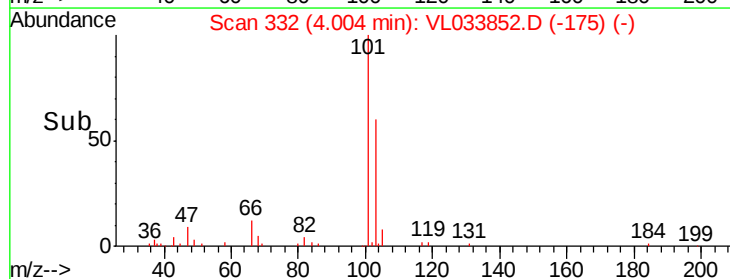
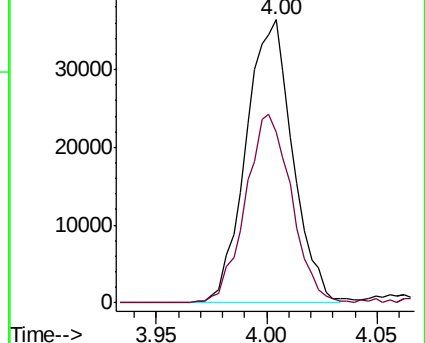
101 100

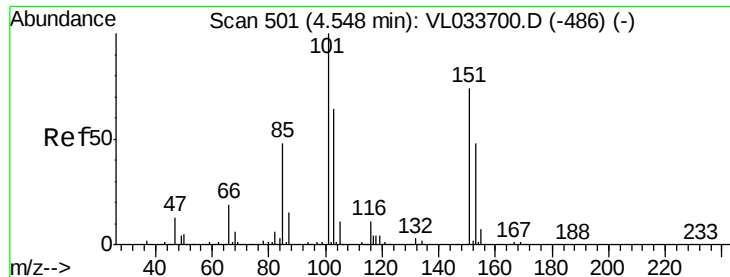
103 60.3 52.6 78.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.074 ppbv

RT: 4.55 min Scan# 502

Delta R.T. 0.00 min

Lab File: VL033852.D

Acq: 30 May 2019 2:15

Instrument :

MSVOA_L

ClientSampleId :

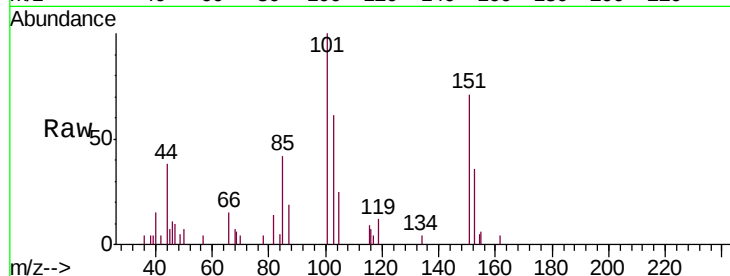
BFB

Tgt Ion:101 Resp: 7718

Ion Ratio Lower Upper

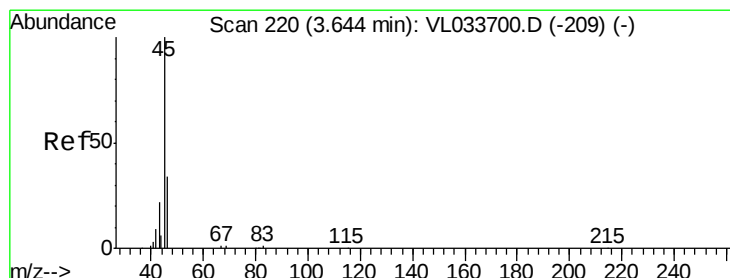
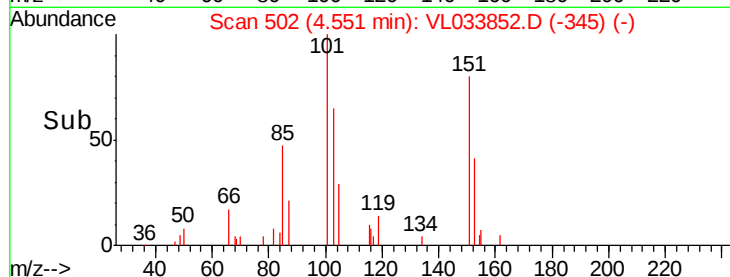
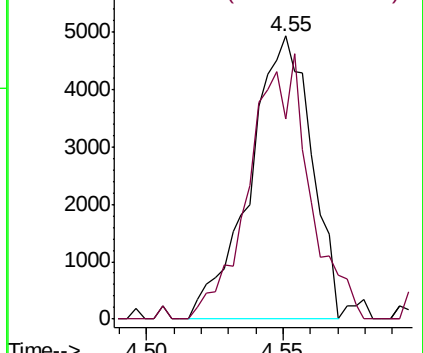
101 100

151 90.9 58.2 87.4#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 14.661 ppbv

RT: 3.66 min Scan# 225

Delta R.T. 0.02 min

Lab File: VL033852.D

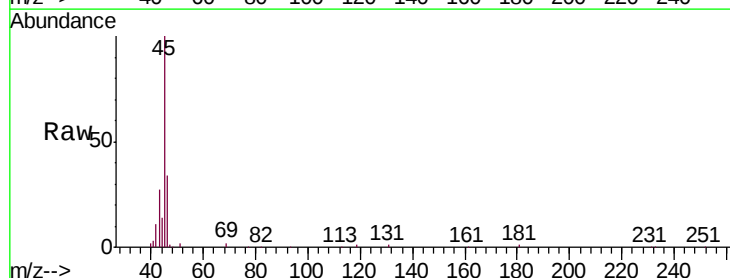
Acq: 30 May 2019 2:15

Tgt Ion: 45 Resp: 171246

Ion Ratio Lower Upper

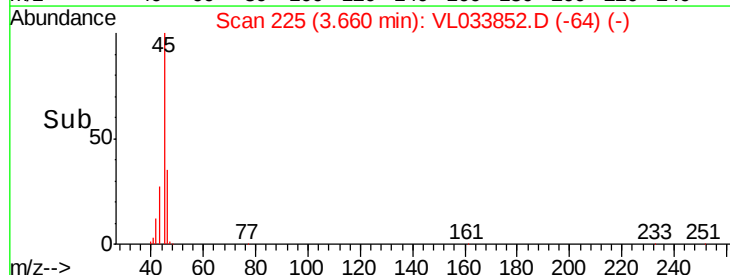
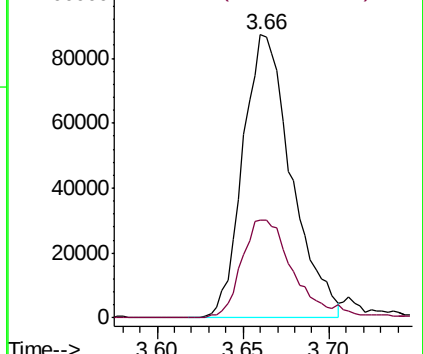
45 100

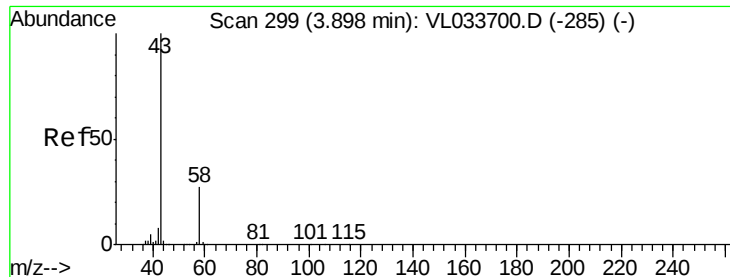
46 37.8 14.8 59.0



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 7.682 ppbv

RT: 3.89 min Scan# 298

Delta R.T. -0.00 min

Lab File: VL033852.D

Acq: 30 May 2019 2:15

Instrument :

MSVOA_L

ClientSampleId :

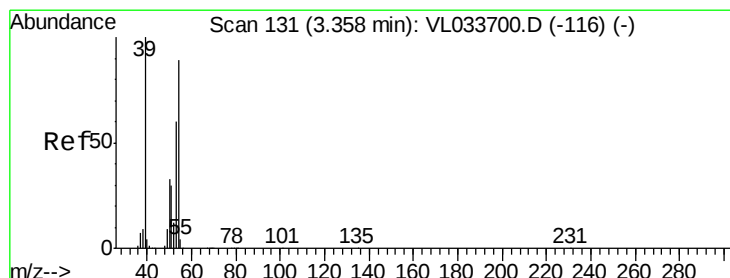
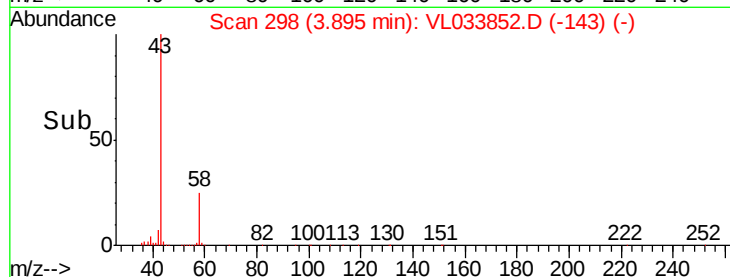
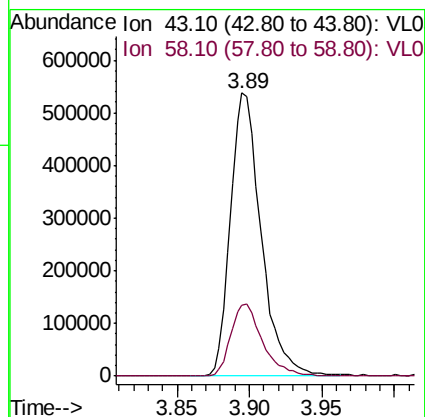
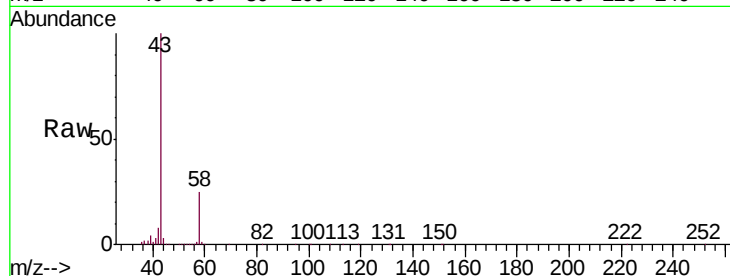
BFB

Tgt Ion: 43 Resp: 790594

Ion Ratio Lower Upper

43 100

58 26.4 21.3 31.9



#16

1,3-Butadiene

Concen: 0.453 ppbv

RT: 3.34 min Scan# 125

Delta R.T. -0.02 min

Lab File: VL033852.D

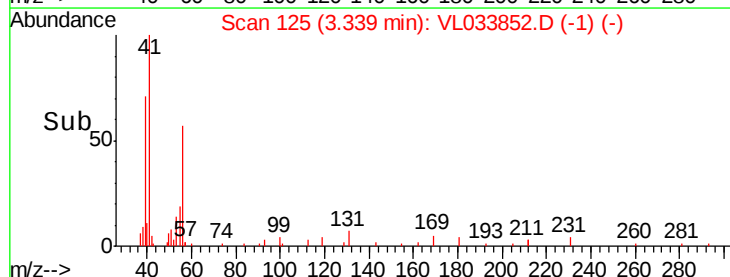
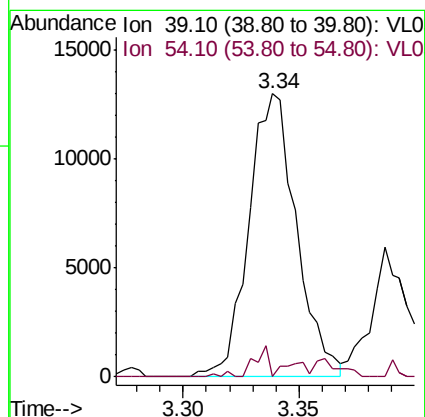
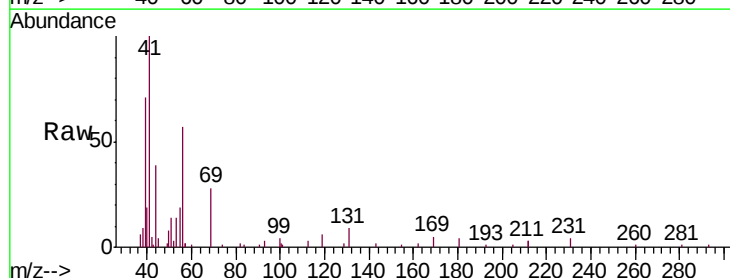
Acq: 30 May 2019 2:15

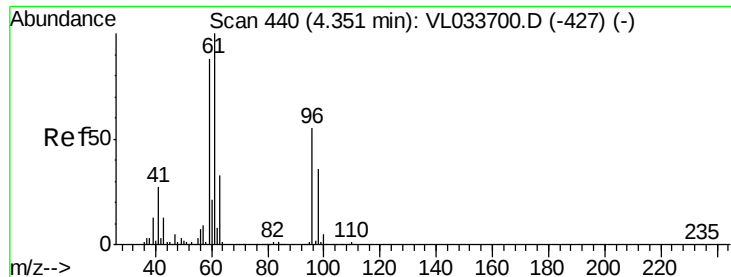
Tgt Ion: 39 Resp: 18557

Ion Ratio Lower Upper

39 100

54 8.9 69.0 103.6#





#17

tert-Butyl alcohol

Concen: 0.090 ppbv

RT: 4.37 min Scan# 446

Delta R.T. 0.02 min

Lab File: VL033852.D

Acq: 30 May 2019 2:15

Instrument :

MSVOA_L

ClientSampleId :

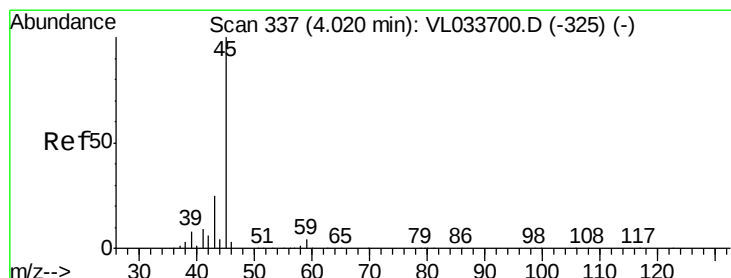
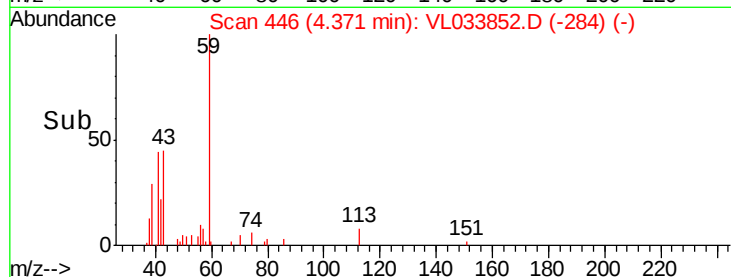
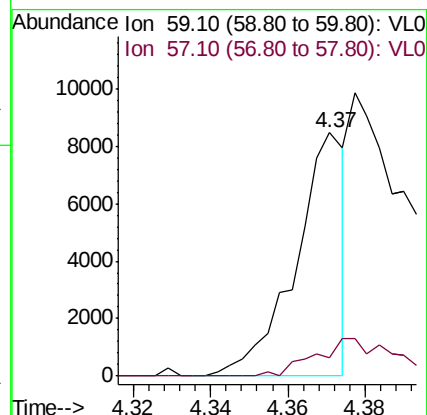
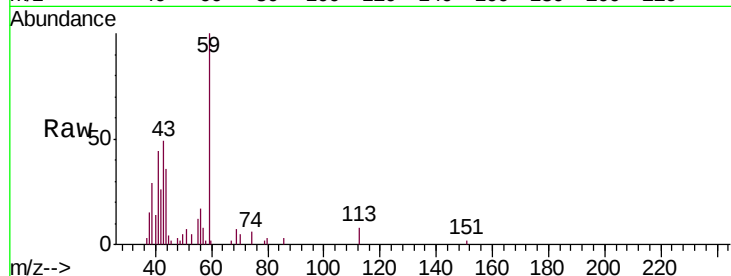
BFB

Tgt Ion: 59 Resp: 7482

Ion Ratio Lower Upper

59 100

57 0.0 8.4 12.6#



#19

Isopropyl Alcohol

Concen: 2.515 ppbv

RT: 4.04 min Scan# 343

Delta R.T. 0.02 min

Lab File: VL033852.D

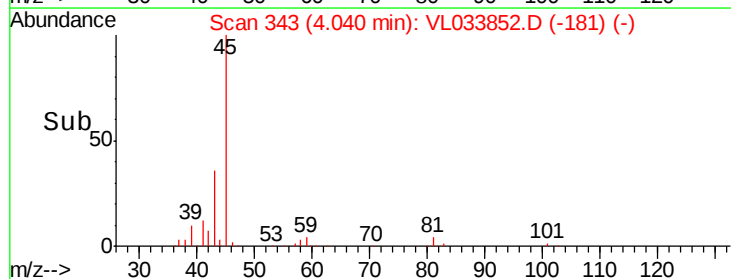
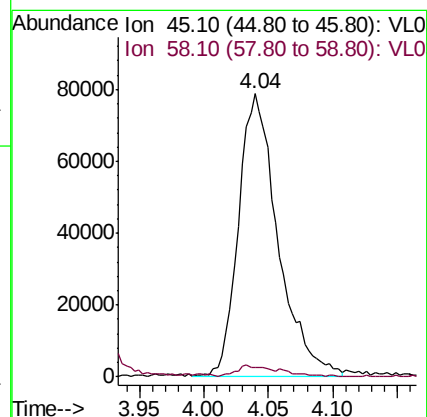
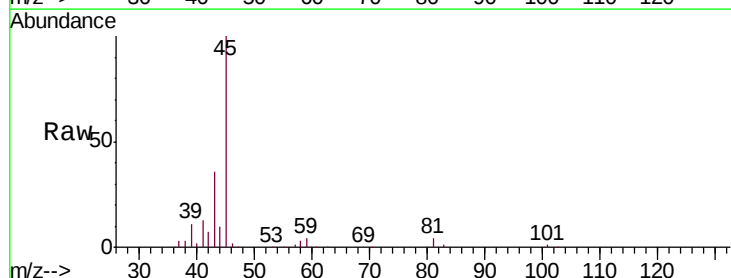
Acq: 30 May 2019 2:15

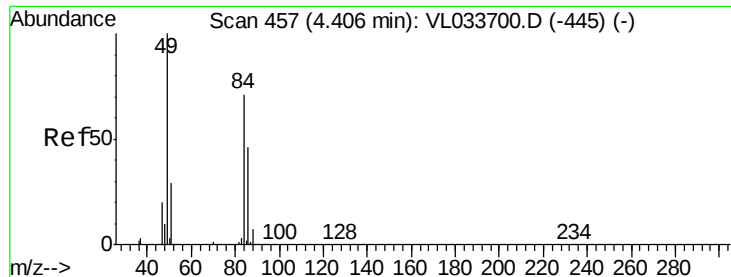
Tgt Ion: 45 Resp: 166912

Ion Ratio Lower Upper

45 100

58 4.6 1.6 2.4#

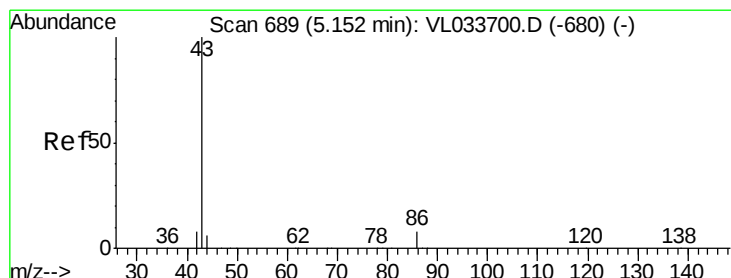
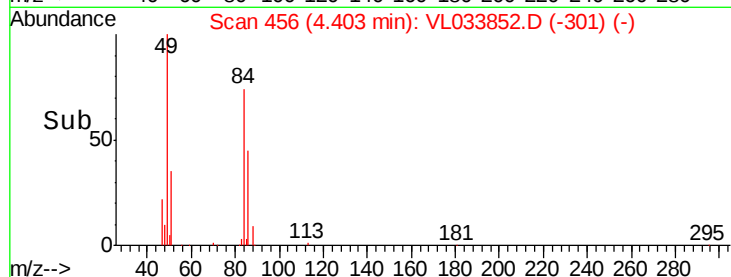
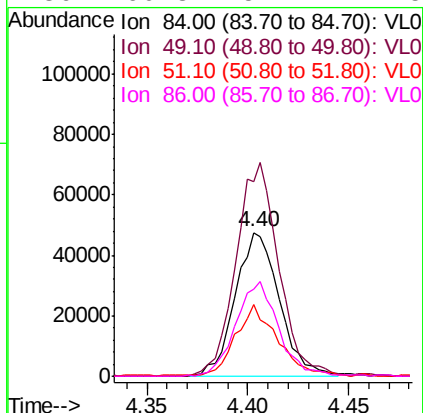
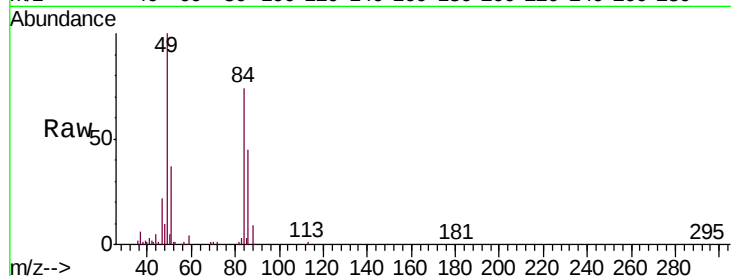




#20
Methylene Chloride
Concen: 1.833 ppbv
RT: 4.40 min Scan# 456
Delta R.T. -0.00 min
Lab File: VL033852.D
Acq: 30 May 2019 2:15

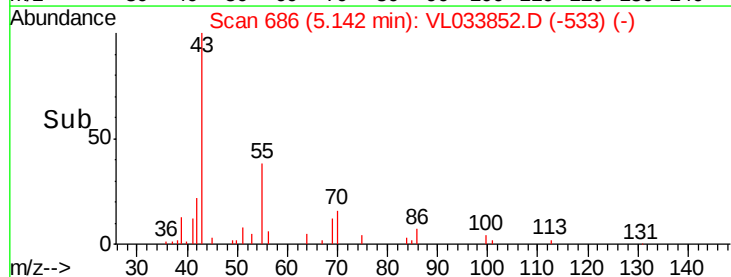
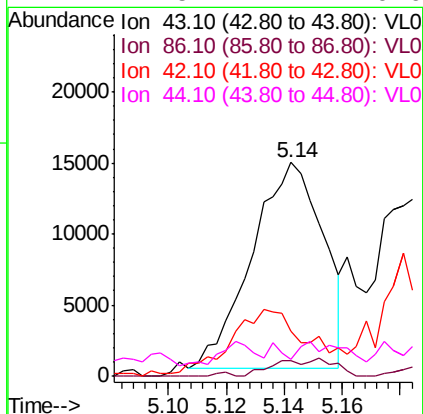
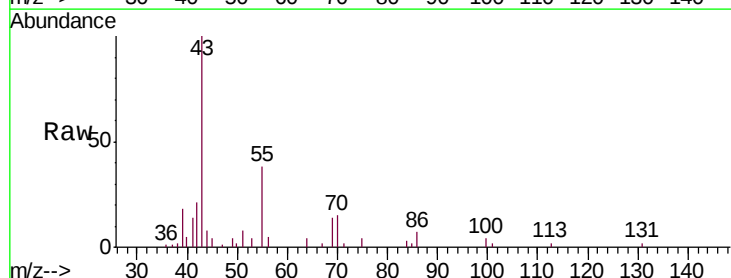
Instrument :
MSVOA_L
ClientSampleId :
BFB

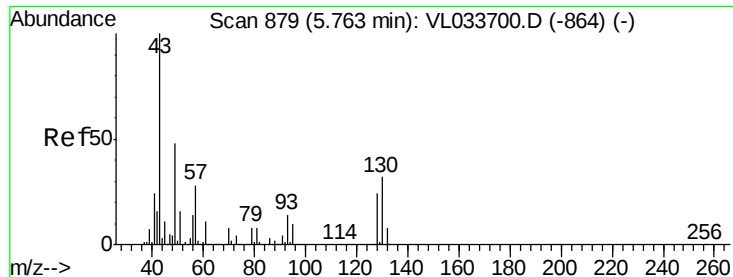
Tgt Ion:	84	Resp:	72623
Ion	Ratio	Lower	Upper
84	100		
49	134.7	112.8	169.2
51	49.8	33.4	50.0
86	60.3	51.7	77.5



#23
Vinyl Acetate
Concen: 0.183 ppbv
RT: 5.14 min Scan# 686
Delta R.T. -0.01 min
Lab File: VL033852.D
Acq: 30 May 2019 2:15

Tgt Ion:	43	Resp:	24811
Ion	Ratio	Lower	Upper
43	100		
86	7.2	6.0	9.0
42	15.7	7.5	11.3#
44	1.5	4.4	6.6#

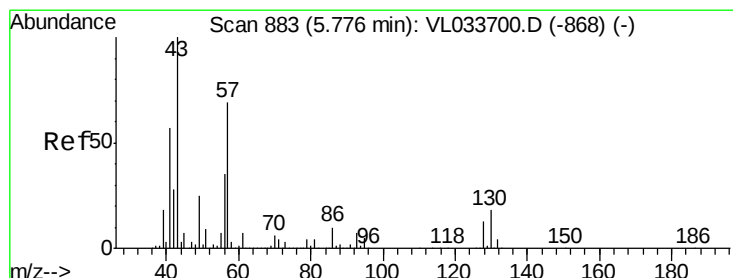
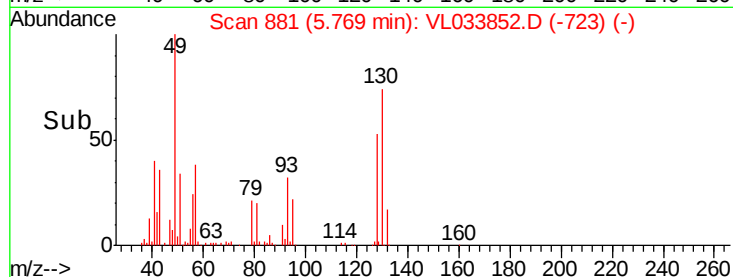
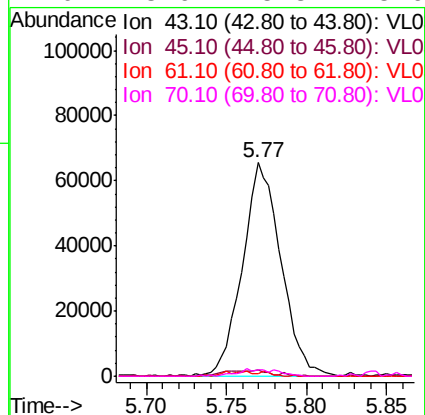
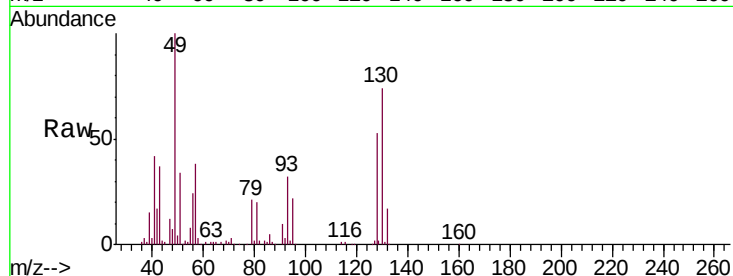




#25
Ethyl Acetate
Concen: 0.595 ppbv
RT: 5.77 min Scan# 881
Delta R.T. 0.01 min
Lab File: VL033852.D
Acq: 30 May 2019 2:15

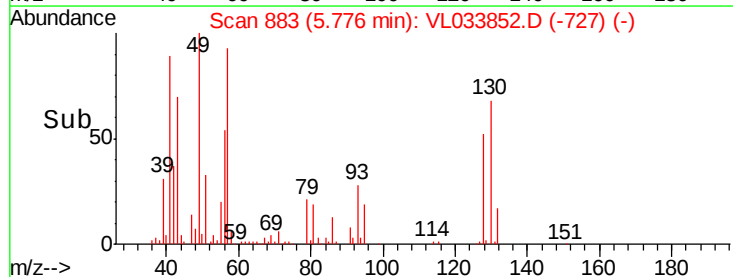
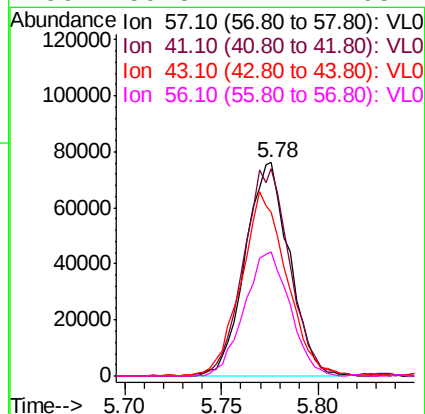
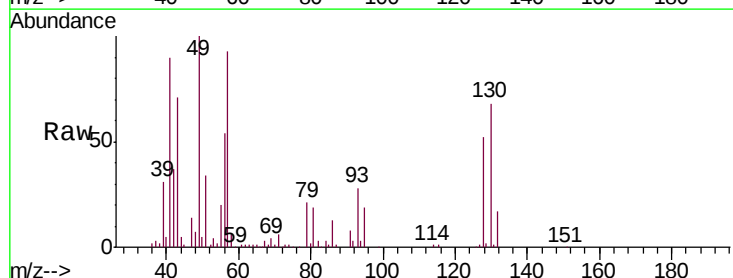
Instrument :
MSVOA_L
ClientSampleId :
BFB

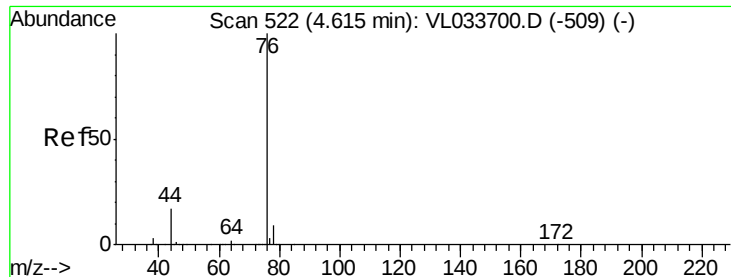
Tgt Ion:	43	Resp:	107615
Ion	Ratio	Lower	Upper
43	100		
45	3.8	7.9	11.9#
61	2.5	7.7	11.5#
70	3.6	5.8	8.6#



#26
Hexane
Concen: 1.563 ppbv
RT: 5.78 min Scan# 883
Delta R.T. 0.00 min
Lab File: VL033852.D
Acq: 30 May 2019 2:15

Tgt Ion:	57	Resp:	121478
Ion	Ratio	Lower	Upper
57	100		
41	101.7	69.8	104.6
43	89.3	181.8	272.6#
56	59.8	42.1	63.1





#27

Carbon Disulfide

Concen: 0.321 ppbv

RT: 4.62 min Scan# 523

Delta R.T. 0.00 min

Lab File: VL033852.D

Acq: 30 May 2019 2:15

Instrument :

MSVOA_L

ClientSampleId :

BFB

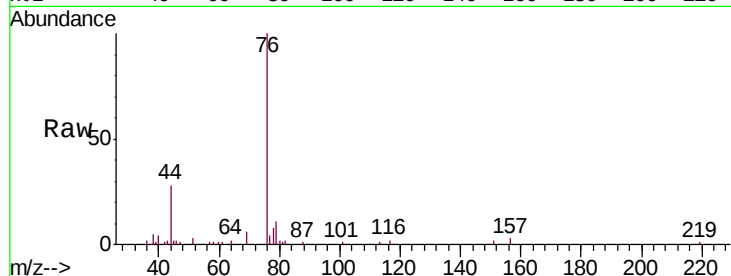
Tgt Ion: 76 Resp: 34199

Ion Ratio Lower Upper

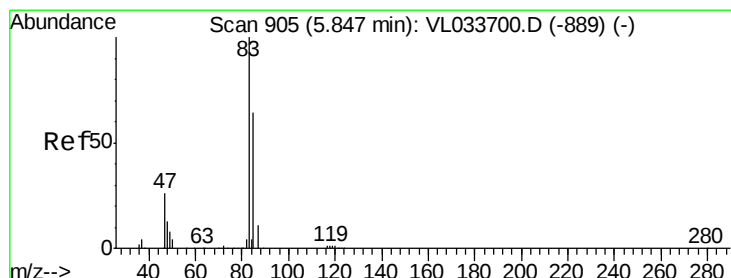
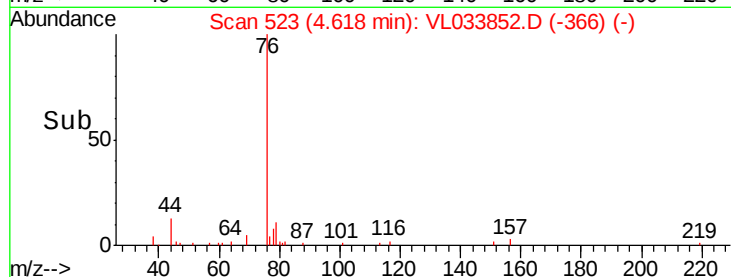
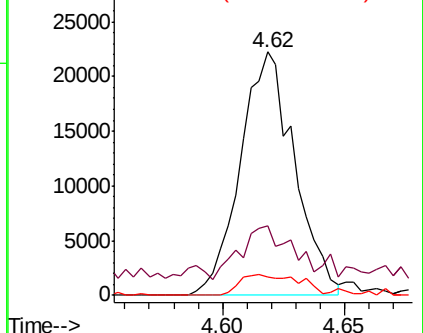
76 100

44 26.2 13.8 20.8#

78 11.0 7.4 11.0



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: 1.160 ppbv

RT: 5.84 min Scan# 903

Delta R.T. -0.01 min

Lab File: VL033852.D

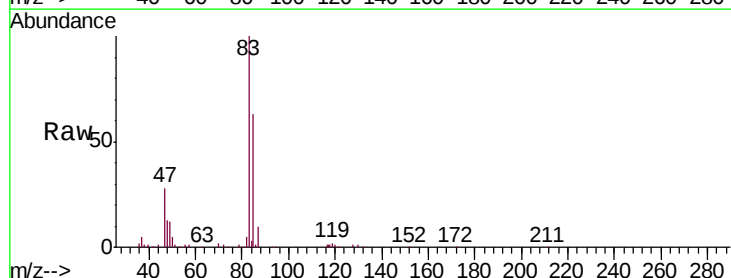
Acq: 30 May 2019 2:15

Tgt Ion: 83 Resp: 166078

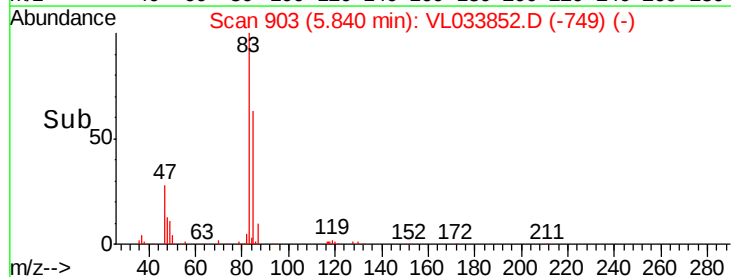
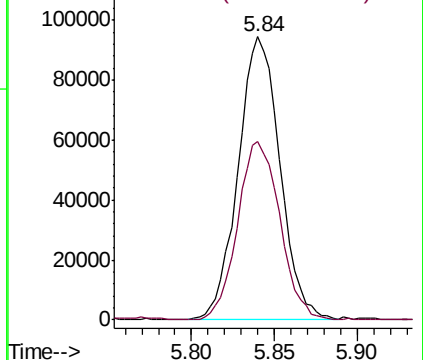
Ion Ratio Lower Upper

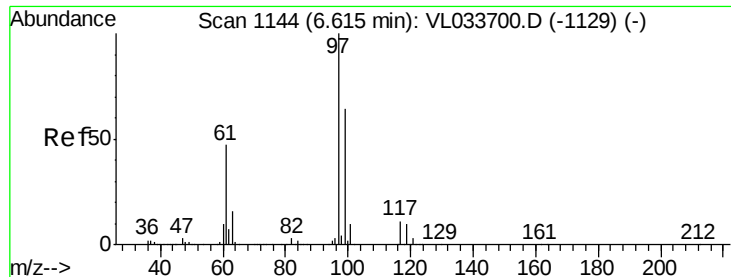
83 100

85 62.9 51.5 77.3



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





#32

1,1,1-Trichloroethane

Concen: 0.200 ppbv

RT: 6.61 min Scan# 1143

Delta R.T. -0.00 min

Lab File: VL033852.D

Acq: 30 May 2019 2:15

Instrument :

MSVOA_L

ClientSampleId :

BFB

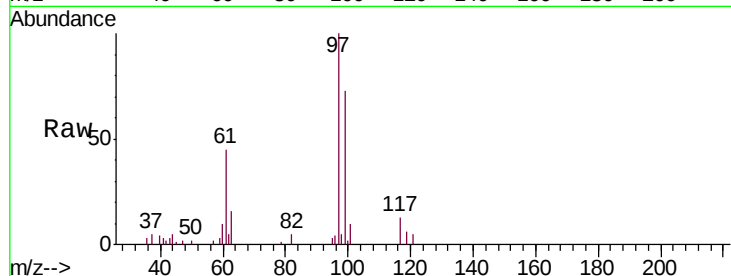
Tgt Ion: 97 Resp: 28559

Ion Ratio Lower Upper

97 100

99 64.8 51.5 77.3

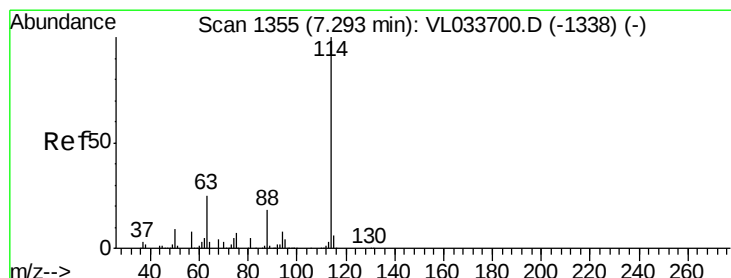
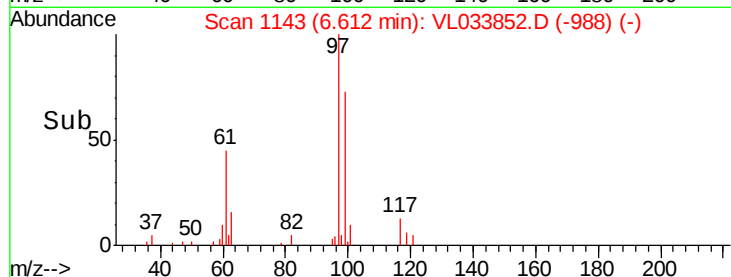
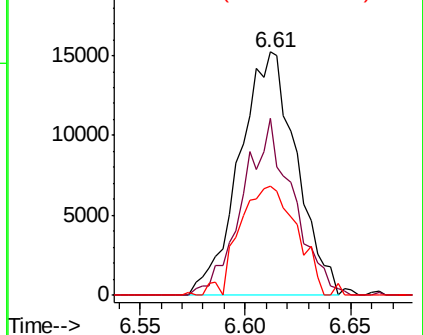
61 45.7 37.8 56.8



Abundance Ion 97.00 (96.70 to 97.70): VL0

Ion 99.00 (98.70 to 99.70): VL0

Ion 61.10 (60.80 to 61.80): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.28 min Scan# 1352

Delta R.T. -0.01 min

Lab File: VL033852.D

Acq: 30 May 2019 2:15

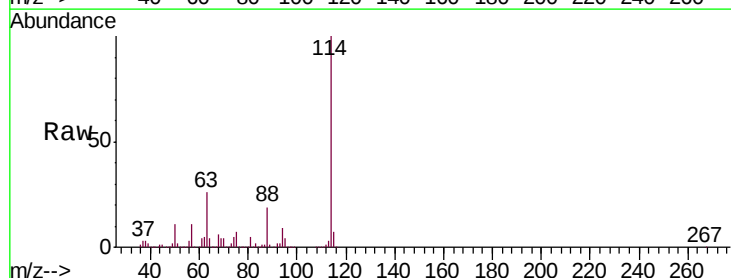
Tgt Ion: 114 Resp: 1685921

Ion Ratio Lower Upper

114 100

63 26.6 20.9 31.3

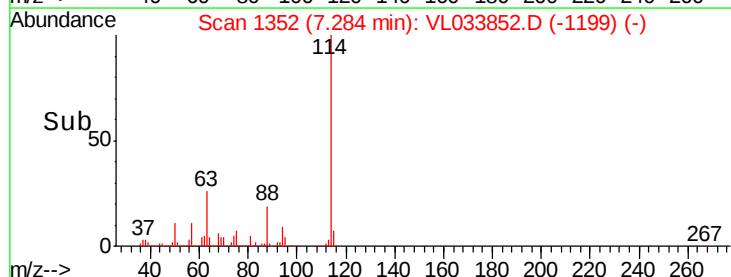
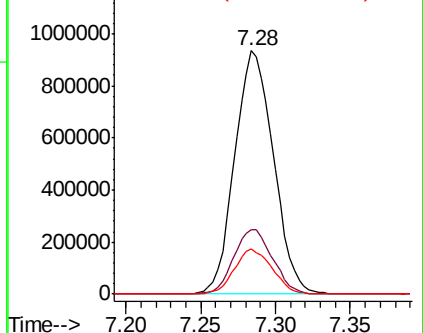
88 18.2 14.3 21.5

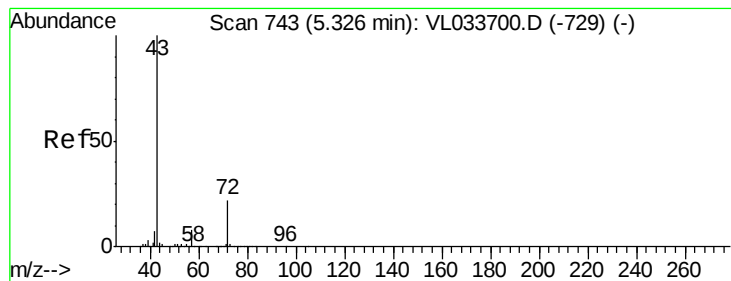


Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0





#34

2-Butanone

Concen: 1.467 ppbv

RT: 5.33 min Scan# 744

Delta R.T. 0.00 min

Lab File: VL033852.D

Acq: 30 May 2019 2:15

Instrument :

MSVOA_L

ClientSampleId :

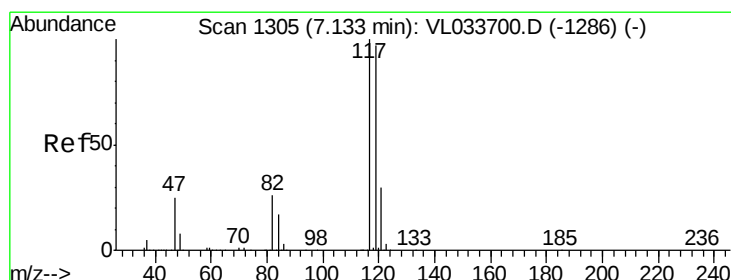
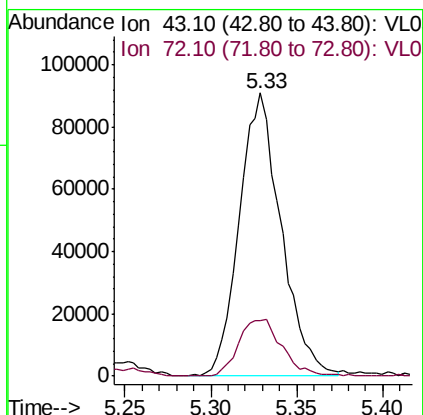
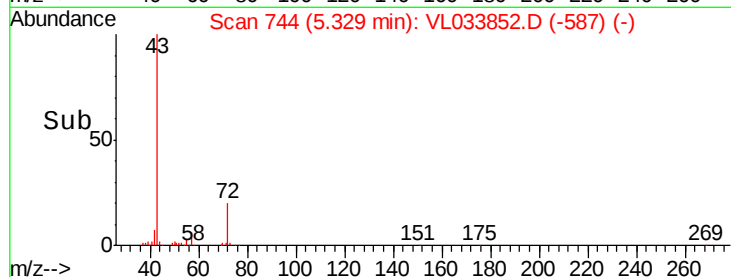
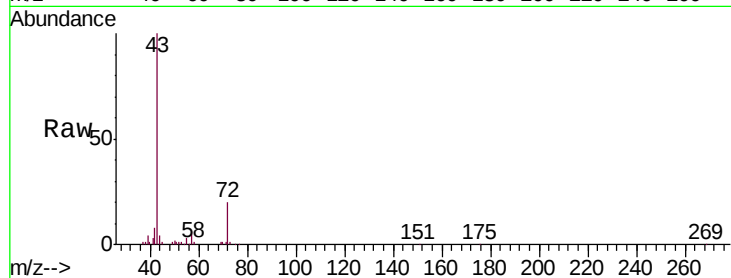
BFB

Tgt Ion: 43 Resp: 153275

Ion Ratio Lower Upper

43 100

72 20.9 17.8 26.6



#35

Carbon Tetrachloride

Concen: 0.053 ppbv

RT: 7.13 min Scan# 1303

Delta R.T. -0.01 min

Lab File: VL033852.D

Acq: 30 May 2019 2:15

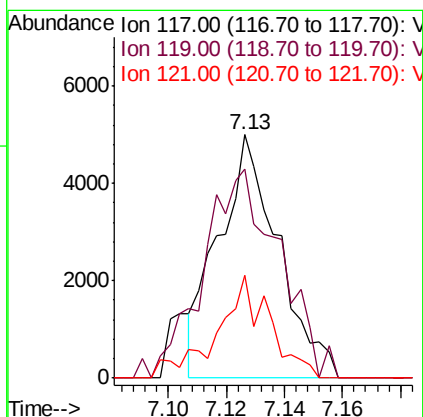
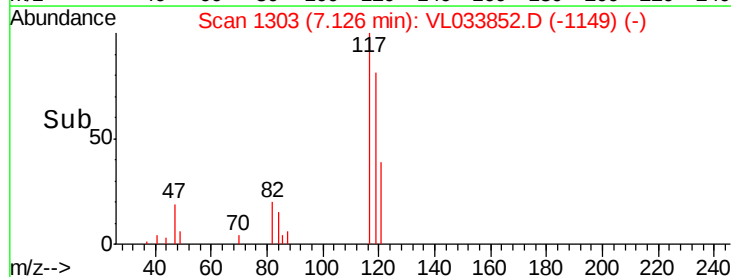
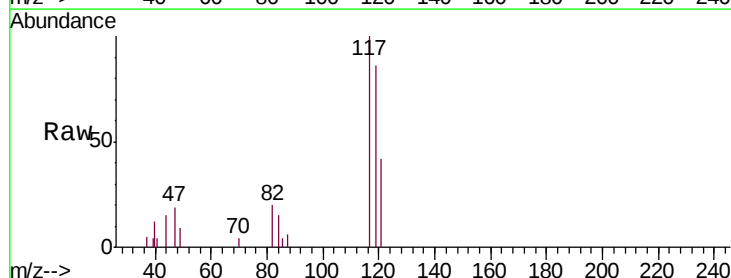
Tgt Ion: 117 Resp: 7187

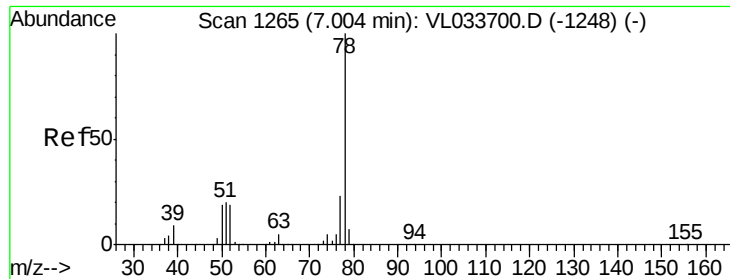
Ion Ratio Lower Upper

117 100

119 86.1 77.2 115.8

121 42.0 24.1 36.1#





#36

Benzene

Concen: 0.161 ppbv

RT: 7.00 min Scan# 1263

Delta R.T. -0.01 min

Lab File: VL033852.D

Acq: 30 May 2019 2:15

Instrument :

MSVOA_L

ClientSampleId :

BFB

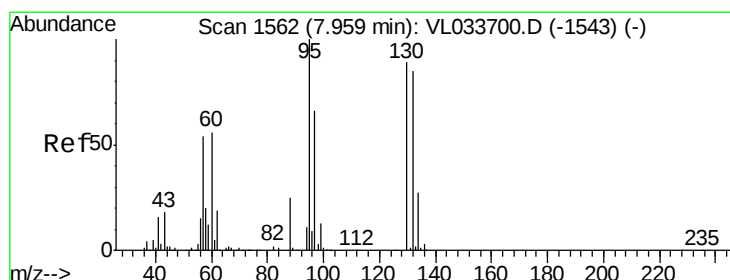
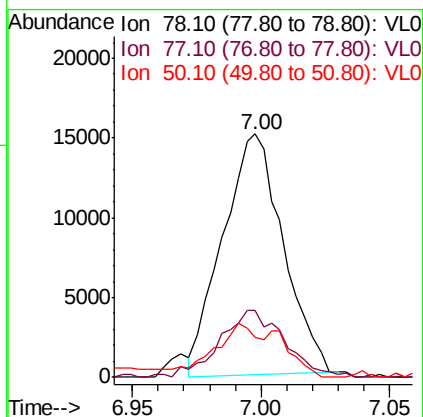
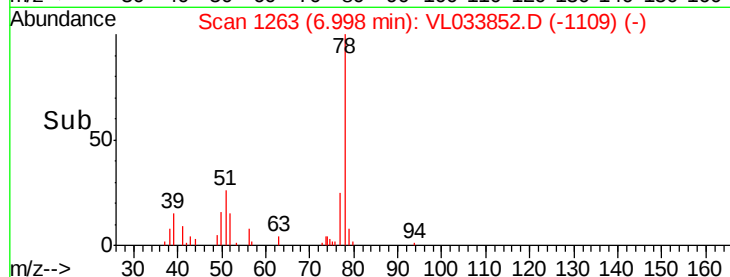
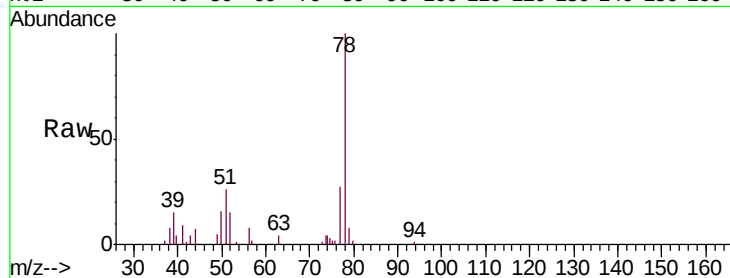
Tgt Ion: 78 Resp: 24676

Ion Ratio Lower Upper

78 100

77 26.5 18.4 27.6

50 16.7 15.5 23.3



#38

Trichloroethene

Concen: 0.724 ppbv

RT: 7.95 min Scan# 1560

Delta R.T. -0.01 min

Lab File: VL033852.D

Acq: 30 May 2019 2:15

Tgt Ion: 130 Resp: 41192

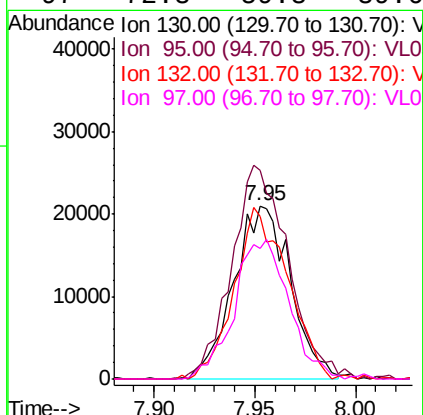
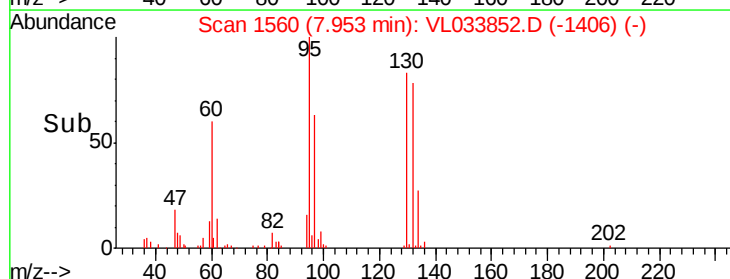
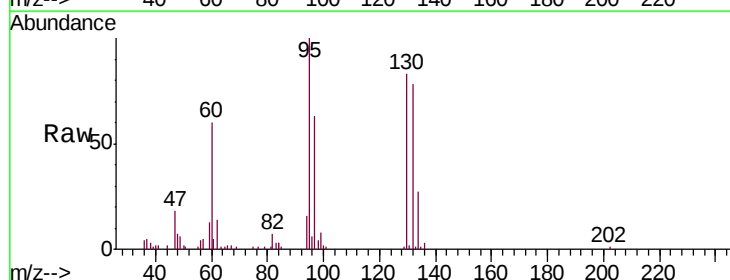
Ion Ratio Lower Upper

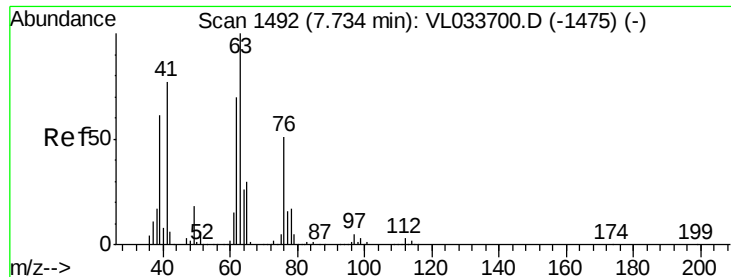
130 100

95 115.0 90.2 135.4

132 91.6 76.4 114.6

97 72.8 59.8 89.6





#39

1,2-Dichloropropane

Concen: 7.828 ppbv

RT: 7.29 min Scan# 1353

Delta R.T. -0.45 min

Lab File: VL033852.D

Acq: 30 May 2019 2:15

Instrument :

MSVOA_L

ClientSampleId :

BFB

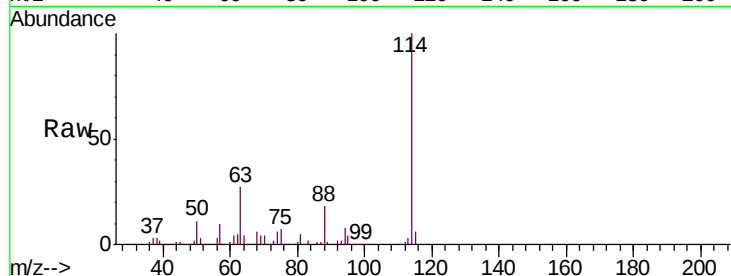
Tgt Ion: 63 Resp: 447554

Ion Ratio Lower Upper

63 100

41 0.1 61.5 92.3#

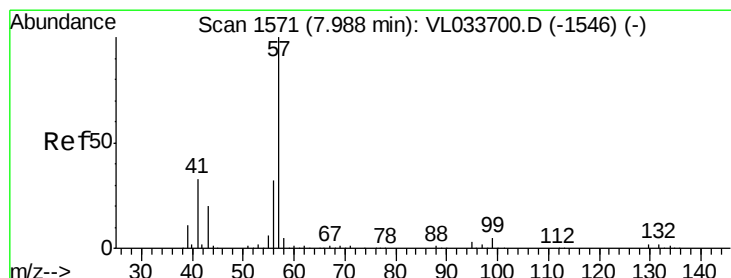
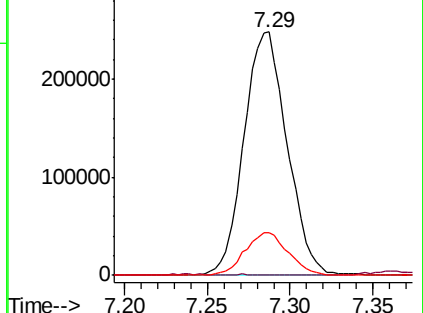
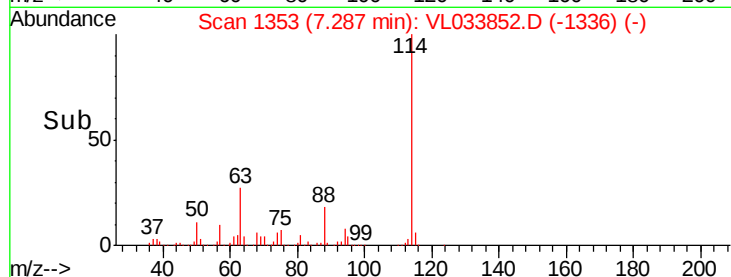
62 17.2 56.2 84.4#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#44

2,2,4-Trimethylpentane

Concen: 0.101 ppbv

RT: 7.99 min Scan# 1571

Delta R.T. 0.00 min

Lab File: VL033852.D

Acq: 30 May 2019 2:15

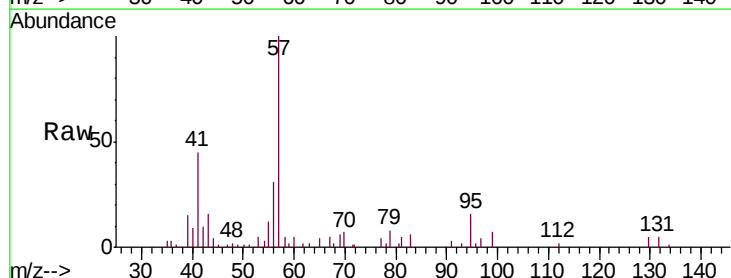
Tgt Ion: 57 Resp: 26301

Ion Ratio Lower Upper

57 100

41 58.6 25.4 38.0#

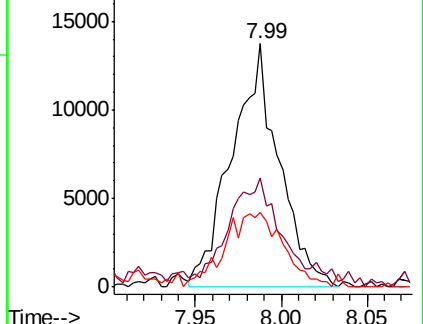
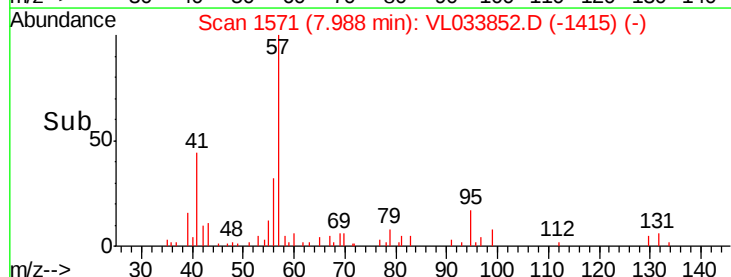
56 42.4 24.7 37.1#

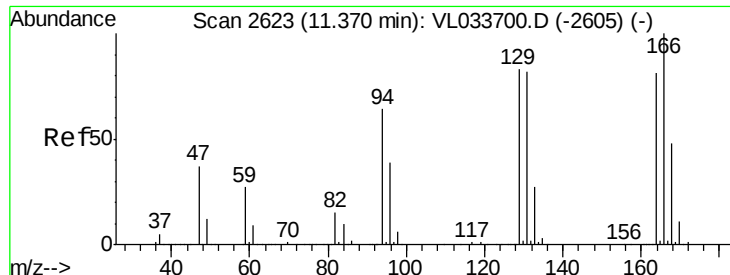


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#52

Tetrachloroethene

Concen: 9.647 ppbv

RT: 11.37 min Scan# 2622

Delta R.T. -0.00 min

Lab File: VL033852.D

Acq: 30 May 2019 2:15

Instrument :

MSVOA_L

ClientSampleId :

BFB

Tgt Ion:164 Resp: 520046

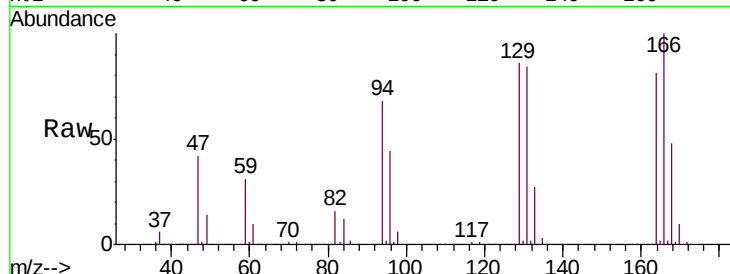
Ion Ratio Lower Upper

164 100

166 123.2 98.9 148.3

129 106.5 81.8 122.6

131 103.9 81.1 121.7



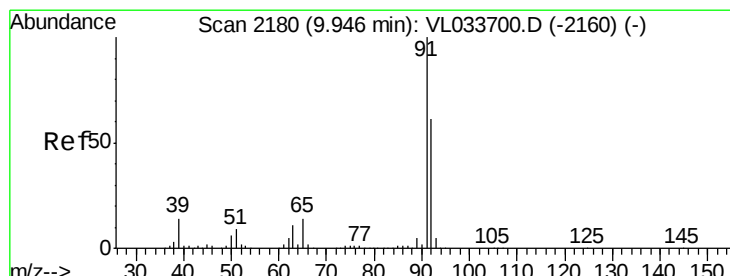
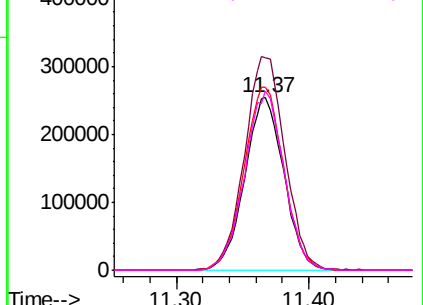
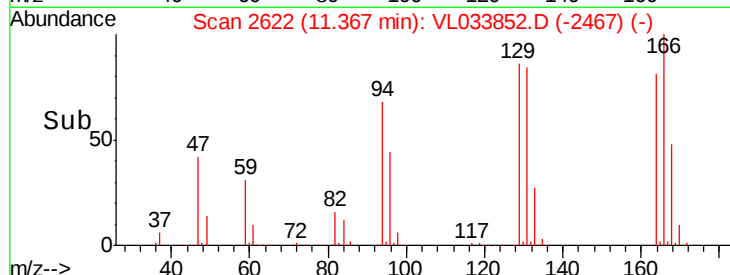
Abundance

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: 2.740 ppbv

RT: 9.94 min Scan# 2178

Delta R.T. -0.01 min

Lab File: VL033852.D

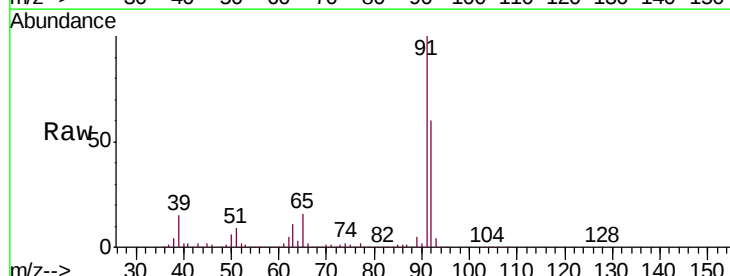
Acq: 30 May 2019 2:15

Tgt Ion: 91 Resp: 453191

Ion Ratio Lower Upper

91 100

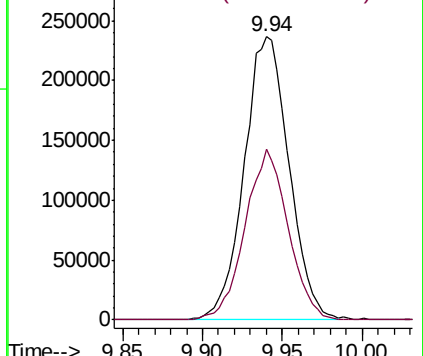
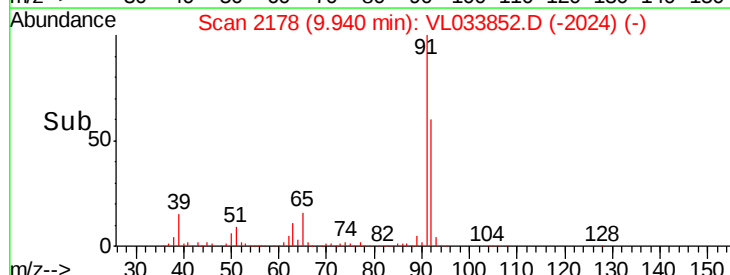
92 57.9 47.6 71.4

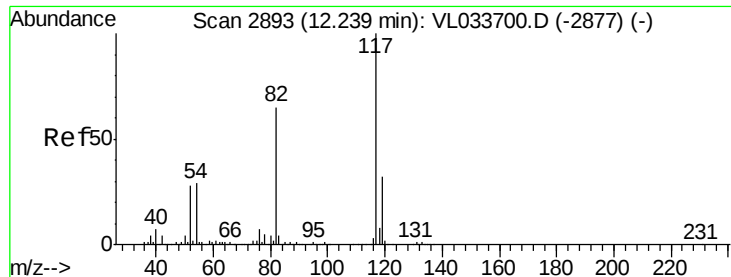


Abundance

Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

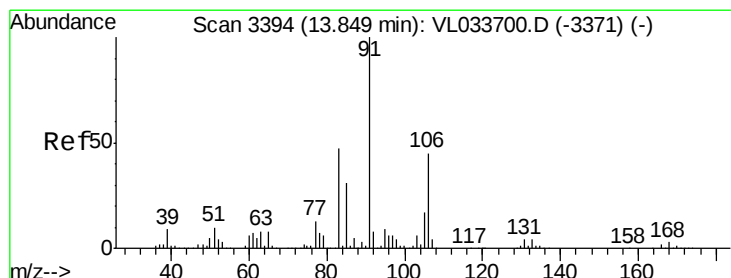
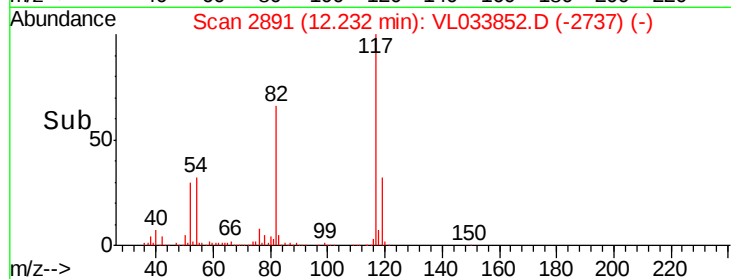
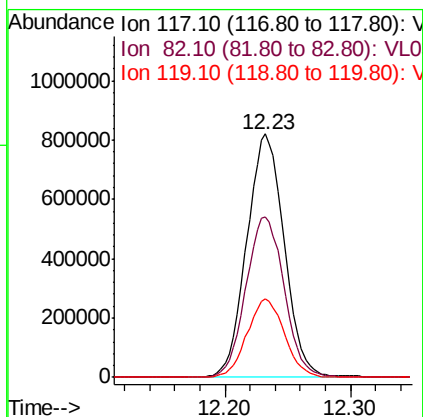
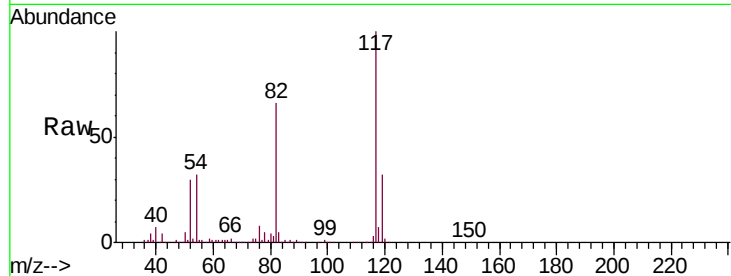




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.23 min Scan# 2891
Delta R.T. -0.01 min
Lab File: VL033852.D
Acq: 30 May 2019 2:15

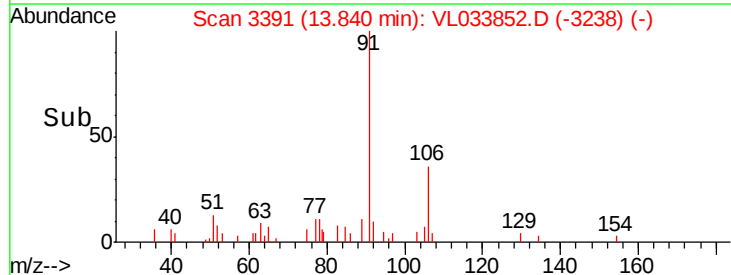
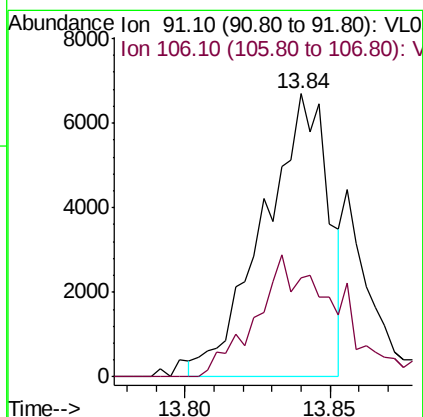
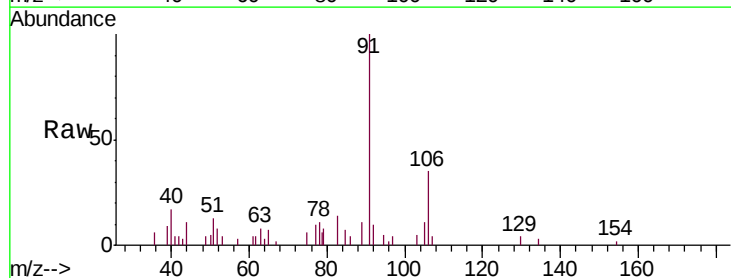
Instrument :
MSVOA_L
ClientSampled :
BFB

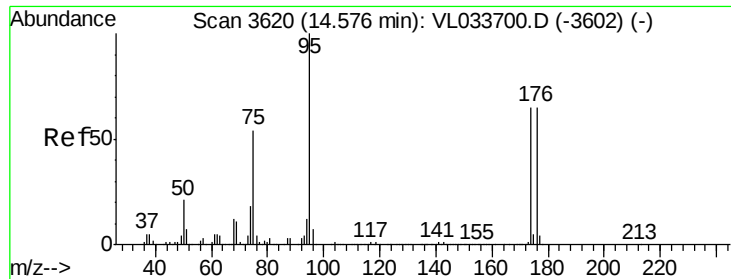
Tgt Ion:117 Resp: 1704507
Ion Ratio Lower Upper
117 100
82 67.7 49.4 74.0
119 32.3 24.9 37.3



#60
o-Xylene
Concen: 0.052 ppbv
RT: 13.84 min Scan# 3391
Delta R.T. -0.01 min
Lab File: VL033852.D
Acq: 30 May 2019 2:15

Tgt Ion: 91 Resp: 10394
Ion Ratio Lower Upper
91 100
106 53.9 21.6 64.8

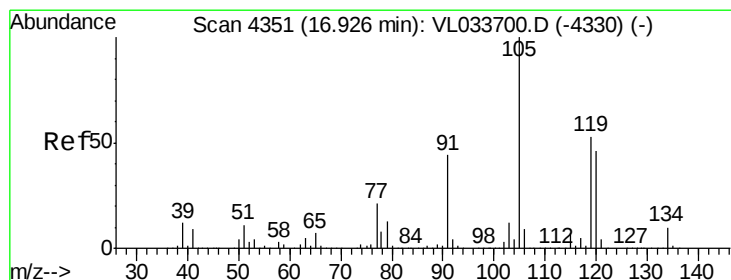
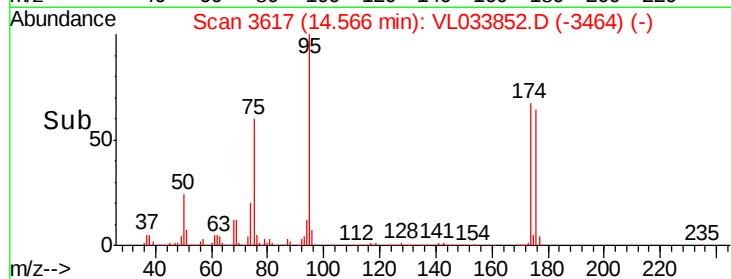
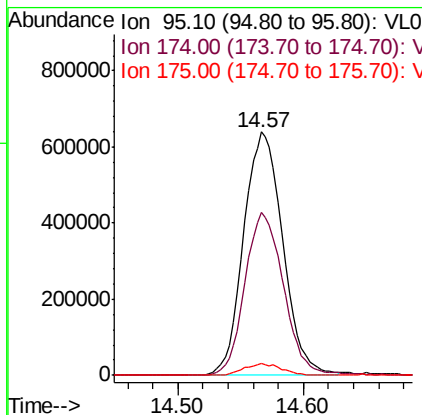
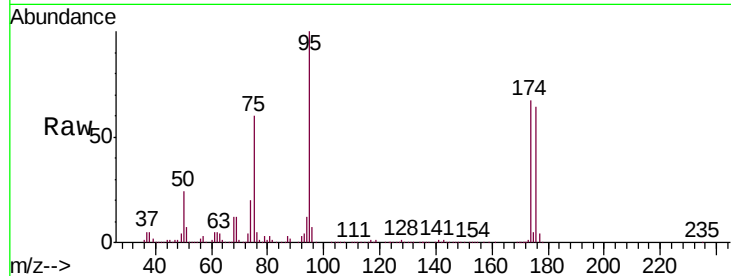




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.012 ppbv
 RT: 14.57 min Scan# 3617
 Delta R.T. -0.01 min
 Lab File: VL033852.D
 Acq: 30 May 2019 2:15

Instrument :
 MSVOA_L
 ClientSampleId :
 BFB

Tgt Ion: 95 Resp: 1383423
 Ion Ratio Lower Upper
 95 100
 174 66.8 53.9 80.9
 175 4.7 3.8 5.8



#74
 1,2,4-Trimethylbenzene
 Concen: 0.078 ppbv
 RT: 16.92 min Scan# 4348
 Delta R.T. -0.01 min
 Lab File: VL033852.D
 Acq: 30 May 2019 2:15

Tgt Ion: 105 Resp: 18729
 Ion Ratio Lower Upper
 105 100
 120 50.8 36.8 55.2
 91 15.4 35.4 53.0#
 77 15.3 16.8 25.2#

