

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL092418\
 Data File : VL032533.D
 Acq On : 25 Sep 2018 6:56
 Operator : SY/AP
 Sample : J5034-02DL 10X
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 BFB

Quant Time: Sep 25 08:18:56 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL092418AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Tue Sep 25 05:17:15 2018
 QLast Update : Tue Sep 25 05:17:15 2018
 Response via : Initial Calibration

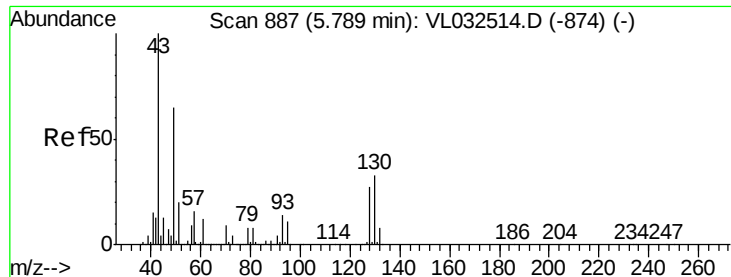
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.79	49	1543358	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.32	114	3414694	10.00	ppbv	-0.03
55) Chlorobenzene-d5	12.27	117	3288049	10.00	ppbv	-0.03

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.61	95	2483423	10.02	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.09	85	8449	0.059	ppbv	92
3) Chlorodifluoromethane	3.00	51	20254	0.158	ppbv #	80
4) Chloromethane	3.19	50	3454	0.046	ppbv #	86
5) Vinyl Chloride	3.31	62	2921	0.039	ppbv #	76
7) Chloroethane	3.62	64	1078	0.040	ppbv #	54
9) Propene	3.26	41	136528	2.452	ppbv	96
12) 1,1,2-Trichlorotrifluoroet	4.58	101	13974	0.101	ppbv	99
13) Ethanol	3.68	45	139494	8.334	ppbv	97
15) Acetone	3.93	43	144066	1.063	ppbv	96
16) 1,3-Butadiene	3.36	39	8191	0.149	ppbv #	8
17) tert-Butyl alcohol	4.40	59	7304	0.429	ppbv #	100
19) Isopropyl Alcohol	4.06	45	17789	0.189	ppbv #	77
20) Methylene Chloride	4.43	84	31706	0.483	ppbv	95
23) Vinyl Acetate	5.16	43	35256	0.147	ppbv #	20
24) 1,1-Dichloroethane	5.11	63	162466	0.815	ppbv	99
25) Ethyl Acetate	5.80	43	31301	0.095	ppbv #	86
26) Hexane	5.80	57	17030	0.115	ppbv #	68
29) Chloroform	5.87	83	43634	0.192	ppbv	99
30) Cyclohexane	7.27	84	8943	0.074	ppbv #	1
31) cis-1,2-Dichloroethene	5.67	61	113196	0.800	ppbv	98
32) 1,1,1-Trichloroethane	6.65	97	508773	2.096	ppbv	100
34) 2-Butanone	5.37	43	10663	0.052	ppbv #	63
38) Trichloroethene	7.99	130	652180	6.174	ppbv	98
39) 1,2-Dichloropropane	7.32	63	916288	7.368	ppbv #	25
65) tert-Butylbenzene	17.15	119	64783	0.155	ppbv #	21

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.79 min Scan# 886

Delta R.T. -0.02 min

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ClientSampleId :

BFB

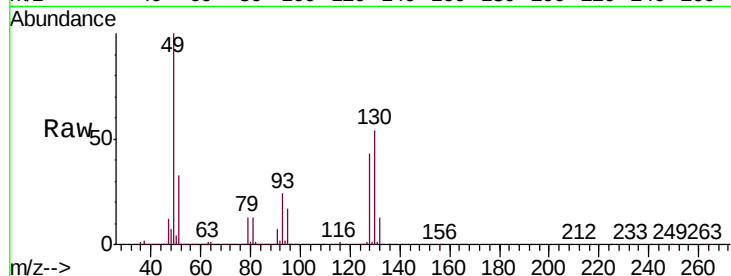
Tgt Ion: 49 Resp: 1543358

Ion Ratio Lower Upper

49 100

128 43.1 20.7 62.1

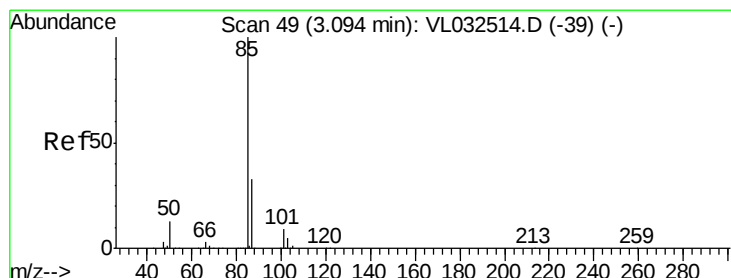
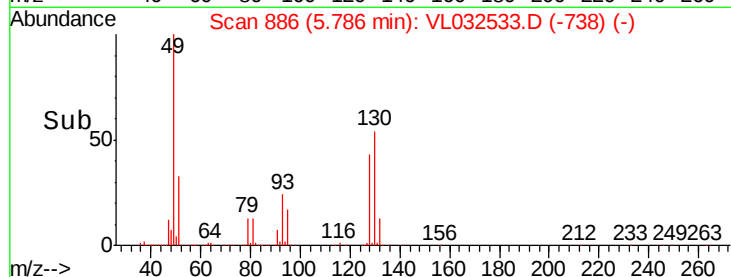
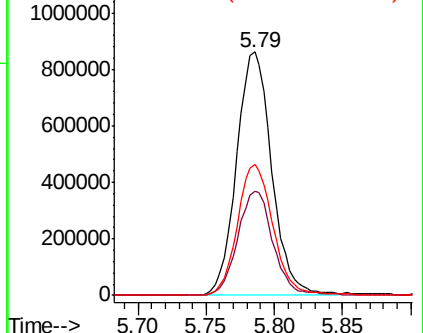
130 54.8 26.6 79.7



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.059 ppbv

RT: 3.09 min Scan# 48

Delta R.T. -0.02 min

Lab File: VL032533.D

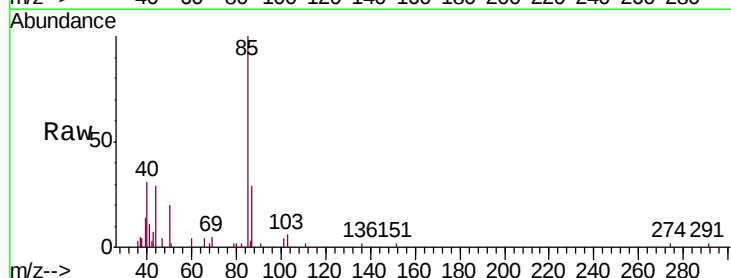
Acq: 25 Sep 2018 6:56

Tgt Ion: 85 Resp: 8449

Ion Ratio Lower Upper

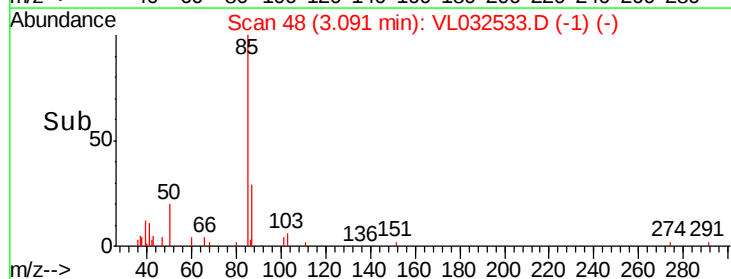
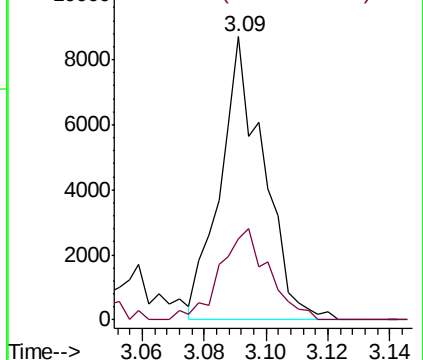
85 100

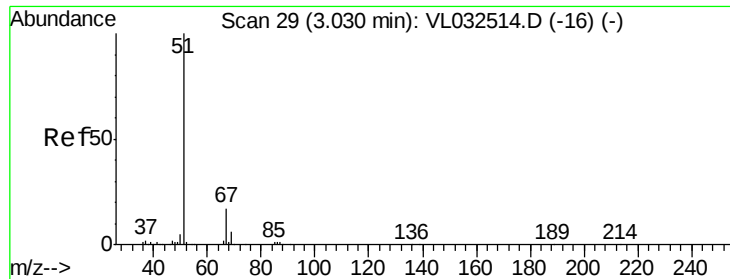
87 28.6 26.2 39.4



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.158 ppbv

RT: 3.00 min Scan# 20

Delta R.T. -0.04 min

Lab File: VL032533.D

Acq: 25 Sep 2018 6:56

Instrument :

MSVOA_L

ClientSampleId :

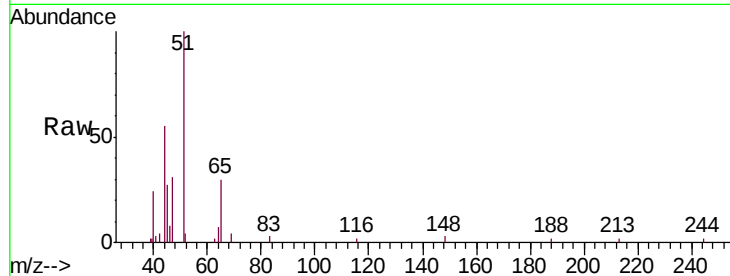
BFB

Tgt Ion: 51 Resp: 20254

Ion Ratio Lower Upper

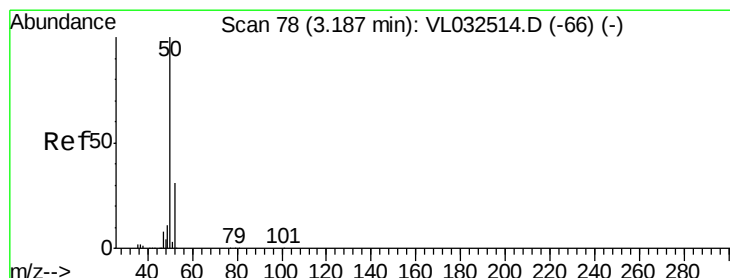
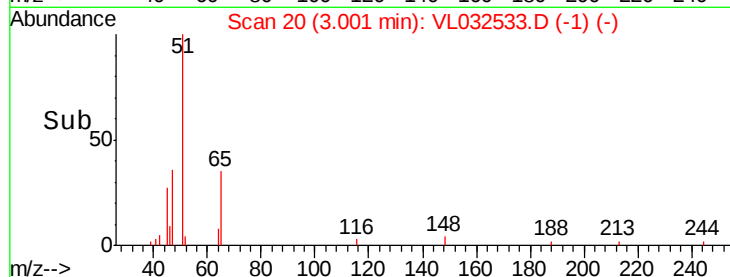
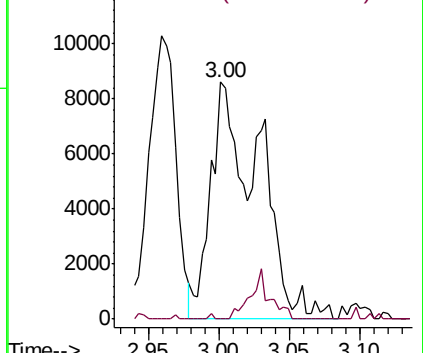
51 100

67 8.6 13.8 20.8#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.046 ppbv

RT: 3.19 min Scan# 79

Delta R.T. -0.01 min

Lab File: VL032533.D

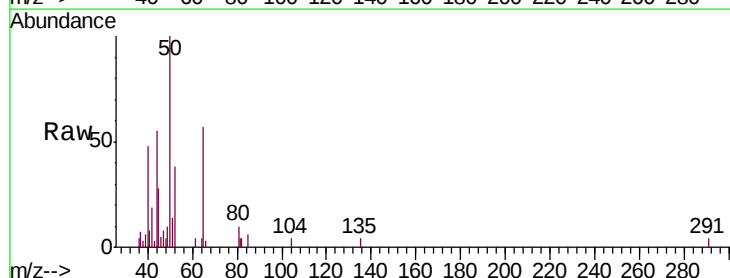
Acq: 25 Sep 2018 6:56

Tgt Ion: 50 Resp: 3454

Ion Ratio Lower Upper

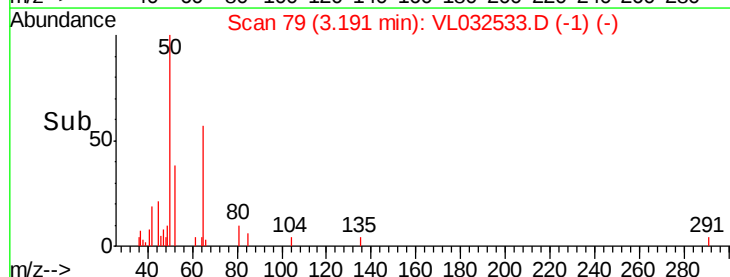
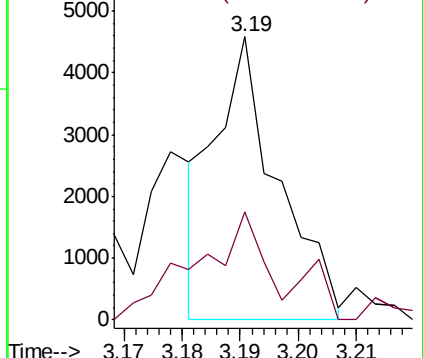
50 100

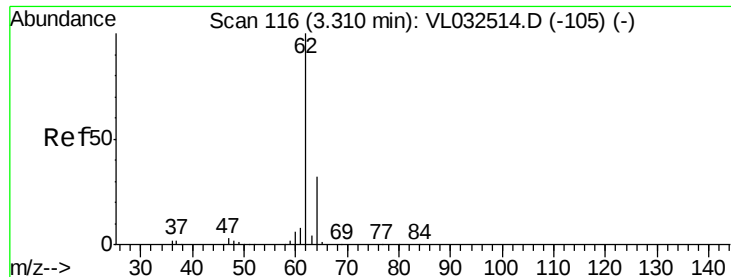
52 39.5 25.6 38.4#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 0.039 ppbv

RT: 3.31 min Scan# 115

Delta R.T. -0.02 min

Lab File: VL032533.D

Acq: 25 Sep 2018 6:56

Instrument :

MSVOA_L

ClientSampleId :

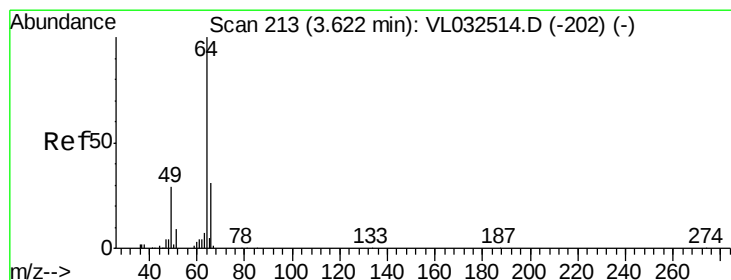
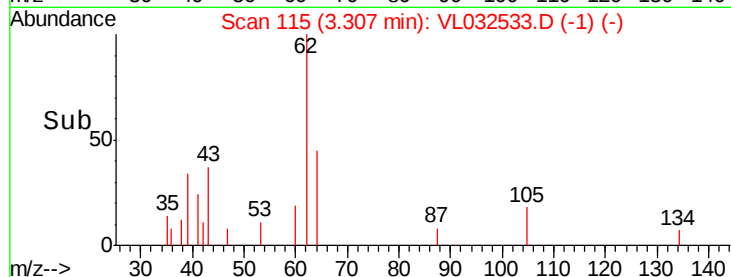
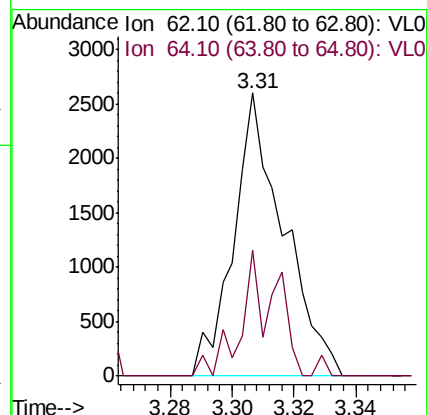
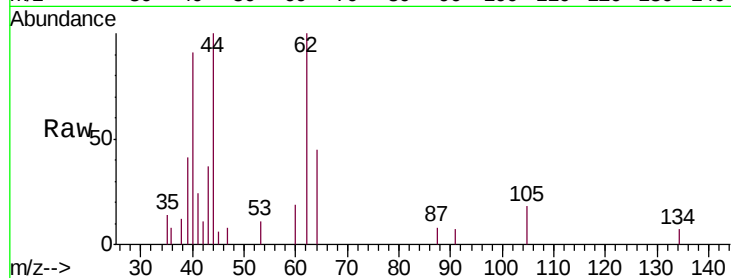
BFB

Tgt Ion: 62 Resp: 2921

Ion Ratio Lower Upper

62 100

64 44.6 25.0 37.6#



#7

Chloroethane

Concen: 0.040 ppbv

RT: 3.62 min Scan# 212

Delta R.T. -0.02 min

Lab File: VL032533.D

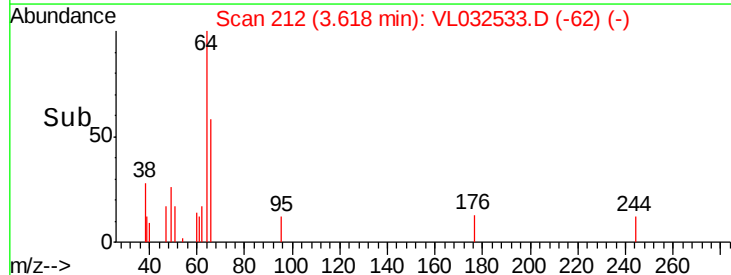
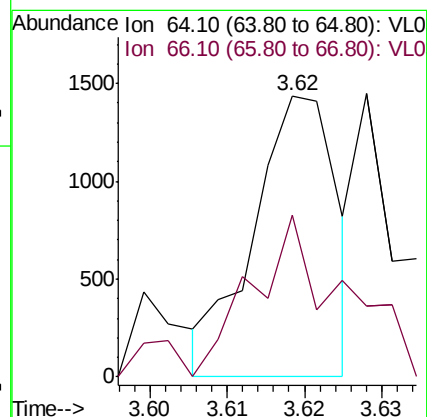
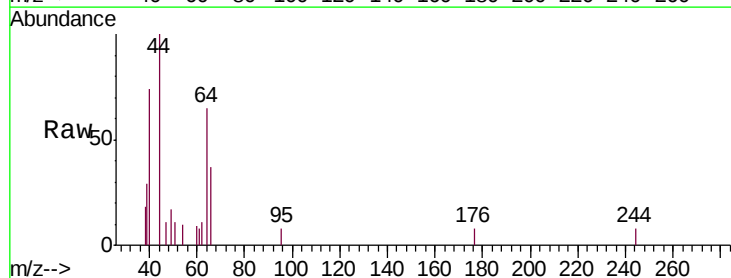
Acq: 25 Sep 2018 6:56

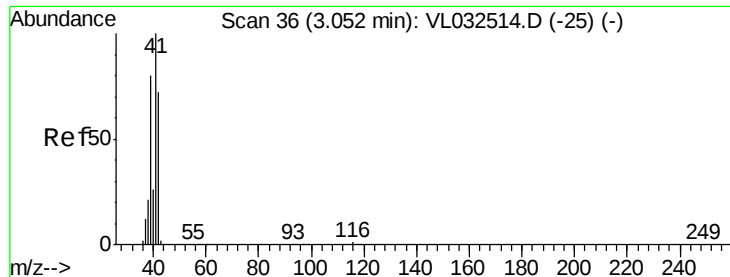
Tgt Ion: 64 Resp: 1078

Ion Ratio Lower Upper

64 100

66 57.7 25.8 38.6#





#9

Propene

Concen: 2.452 ppbv

RT: 3.26 min Scan# 99

Delta R.T. 0.19 min

Lab File: VL032533.D

Acq: 25 Sep 2018 6:56

Instrument :

MSVOA_L

ClientSampleId :

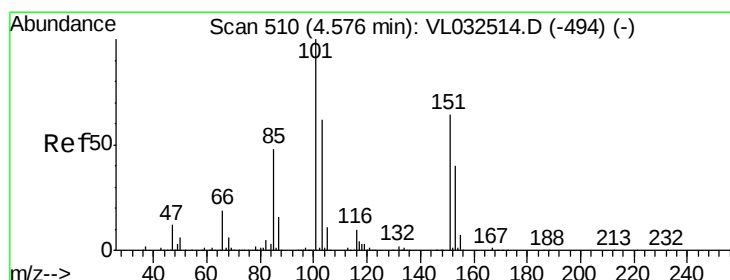
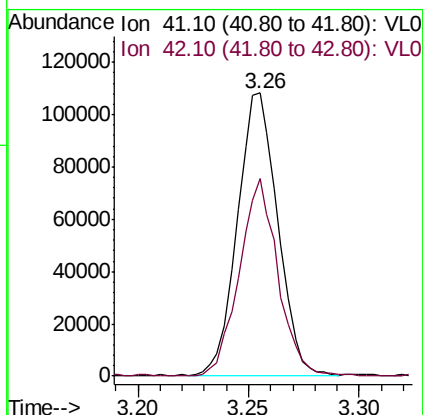
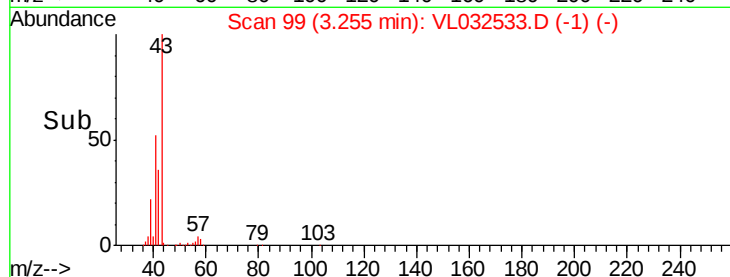
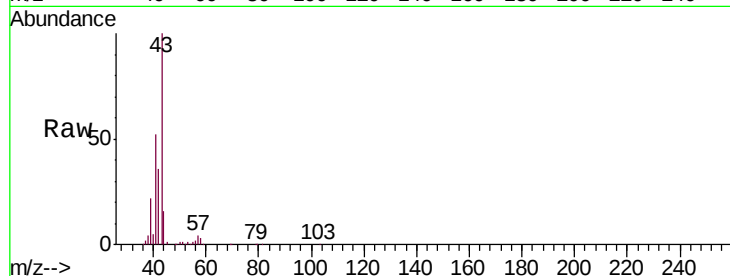
BFB

Tgt Ion: 41 Resp: 136528

Ion Ratio Lower Upper

41 100

42 67.6 56.6 84.8



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.101 ppbv

RT: 4.58 min Scan# 510

Delta R.T. -0.02 min

Lab File: VL032533.D

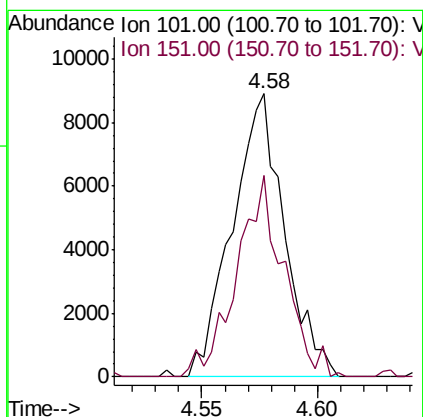
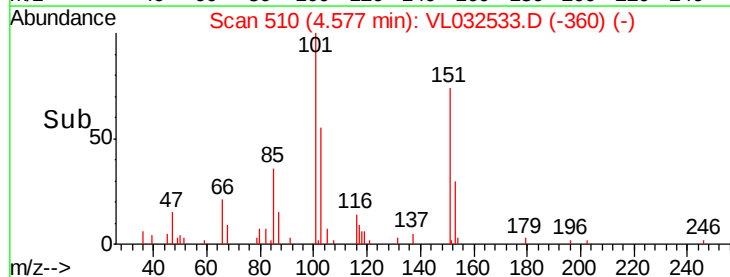
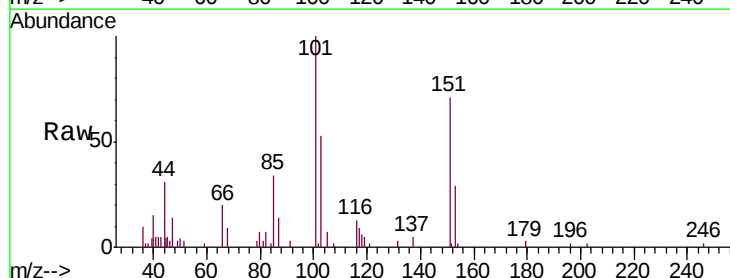
Acq: 25 Sep 2018 6:56

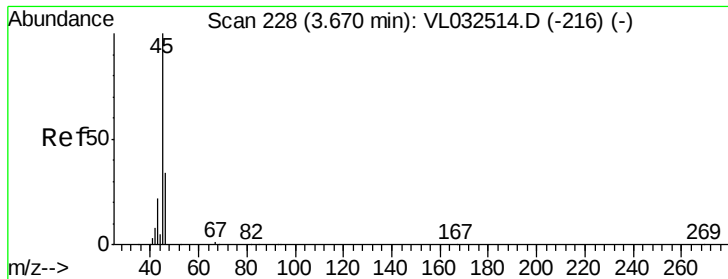
Tgt Ion: 101 Resp: 13974

Ion Ratio Lower Upper

101 100

151 64.6 52.6 78.8





#13

Ethanol

Concen: 8.334 ppbv

RT: 3.68 min Scan# 230

Delta R.T. -0.01 min

Lab File: VL032533.D

Acq: 25 Sep 2018 6:56

Instrument :

MSVOA_L

ClientSampleId :

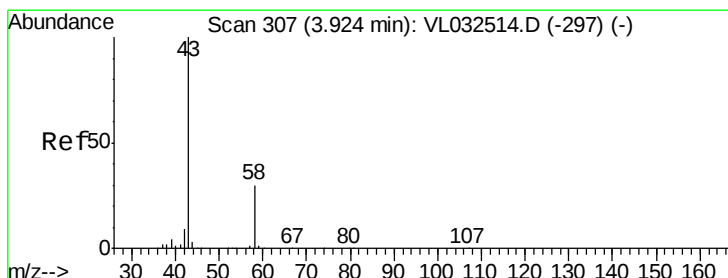
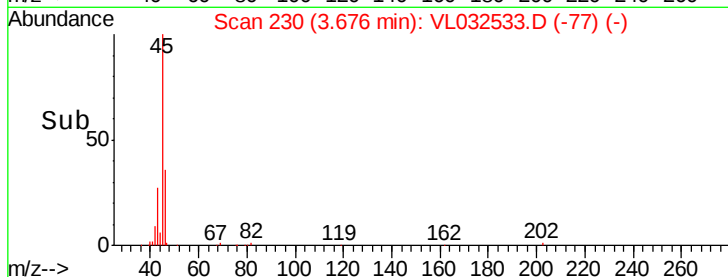
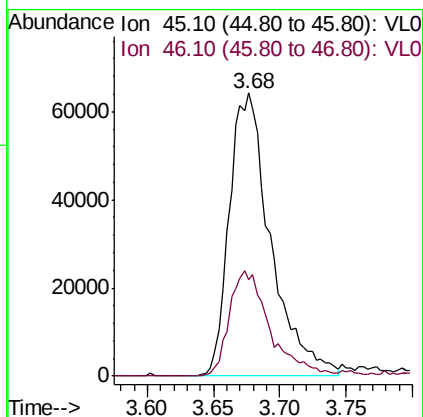
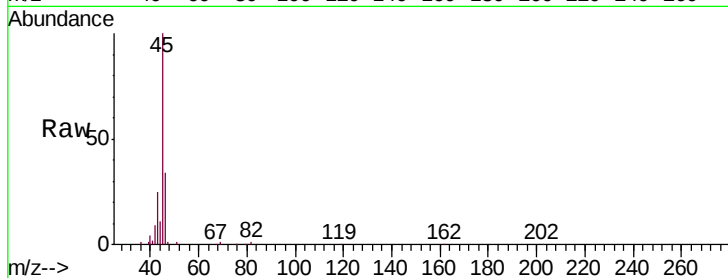
BFB

Tgt Ion: 45 Resp: 139494

Ion Ratio Lower Upper

45 100

46 37.0 14.2 56.8



#15

Acetone

Concen: 1.063 ppbv

RT: 3.93 min Scan# 309

Delta R.T. -0.01 min

Lab File: VL032533.D

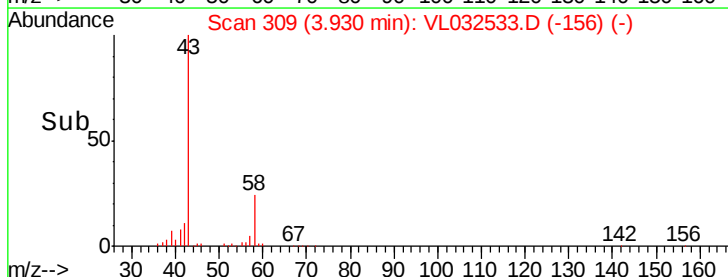
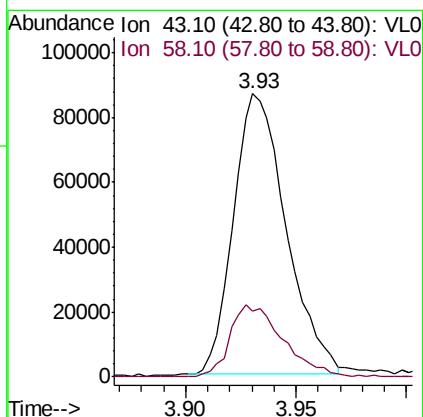
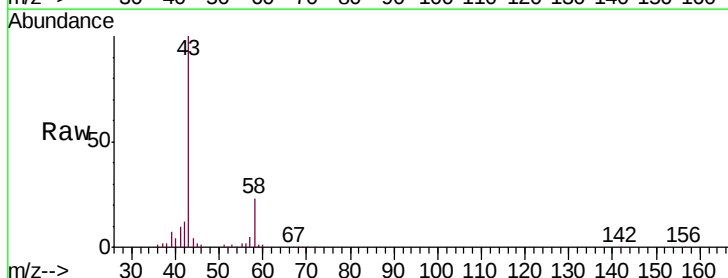
Acq: 25 Sep 2018 6:56

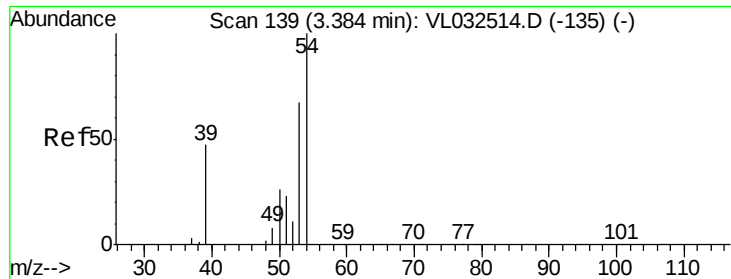
Tgt Ion: 43 Resp: 144066

Ion Ratio Lower Upper

43 100

58 25.9 22.6 33.8

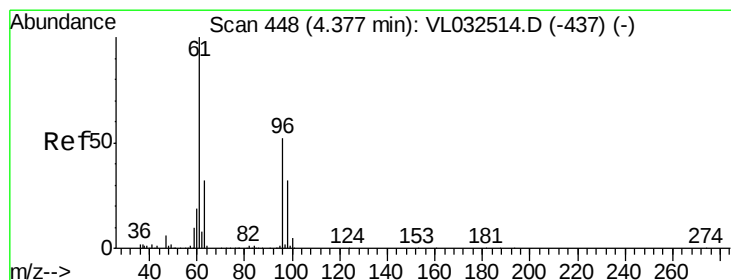
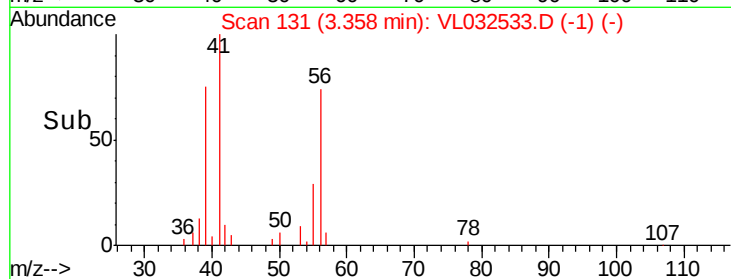
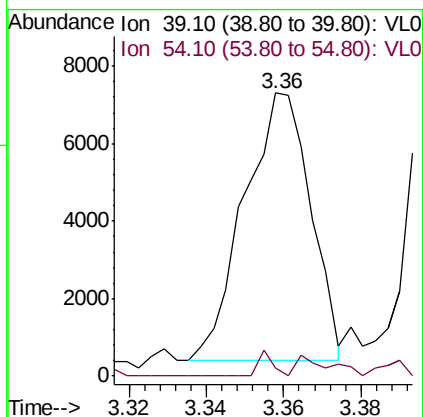
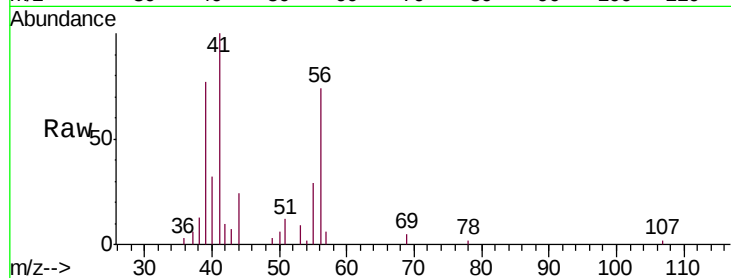




#16
 1,3-Butadiene
 Concen: 0.149 ppbv
 RT: 3.36 min Scan# 131
 Delta R.T. -0.04 min
 Lab File: VL032533.D
 Acq: 25 Sep 2018 6:56

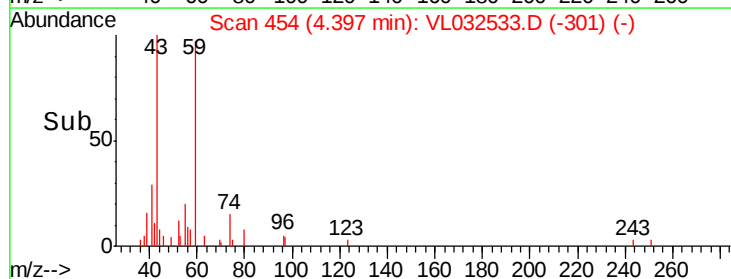
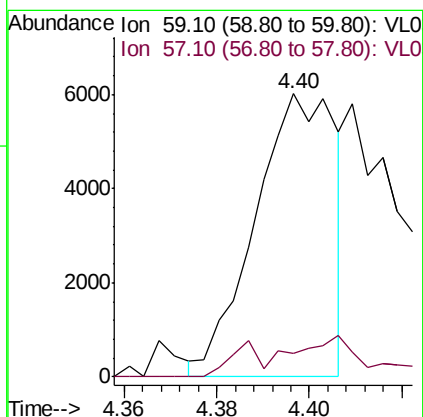
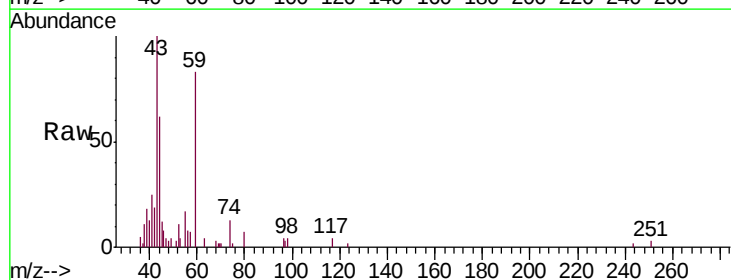
Instrument :
 MSVOA_L
 ClientSampleId :
 BFB

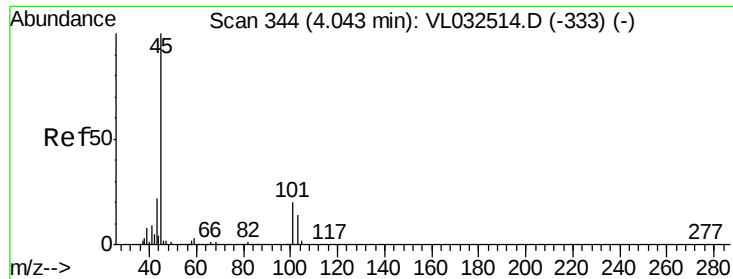
Tgt Ion: 39 Resp: 8191
 Ion Ratio Lower Upper
 39 100
 54 8.2 80.8 121.2#



#17
 tert-Butyl alcohol
 Concen: 0.429 ppbv
 RT: 4.40 min Scan# 454
 Delta R.T. -0.01 min
 Lab File: VL032533.D
 Acq: 25 Sep 2018 6:56

Tgt Ion: 59 Resp: 7304
 Ion Ratio Lower Upper
 59 100
 57 0.0 0.0 0.0





#19

Isopropyl Alcohol

Concen: 0.189 ppbv

RT: 4.06 min Scan# 349

Delta R.T. -0.00 min

Lab File: VL032533.D

Acq: 25 Sep 2018 6:56

Instrument :

MSVOA_L

ClientSampleId :

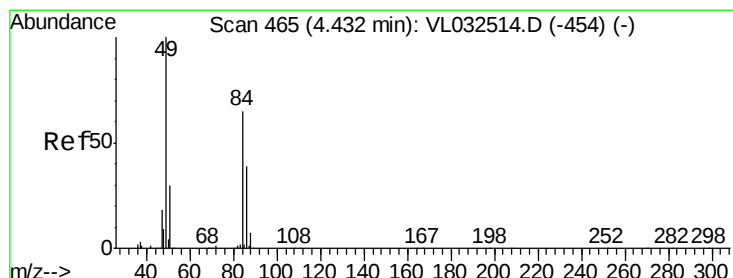
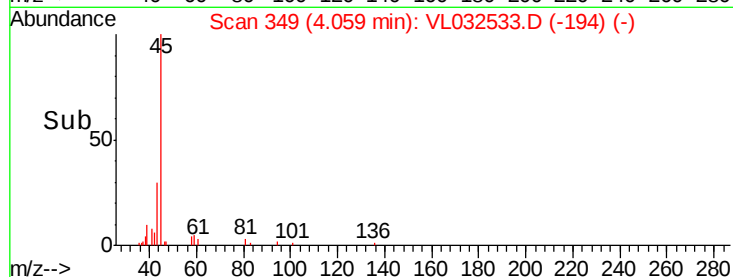
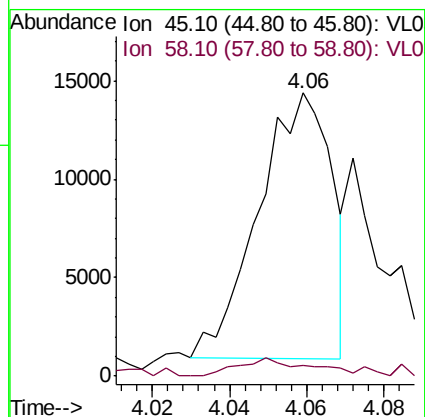
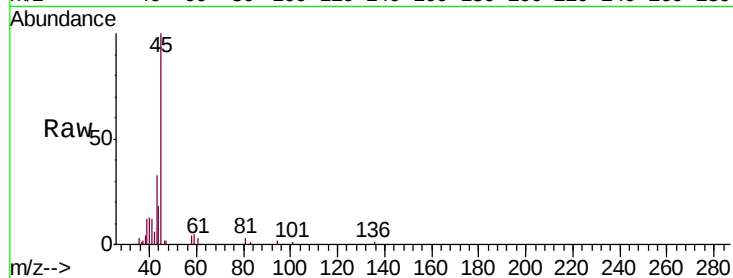
BFB

Tgt Ion: 45 Resp: 17789

Ion Ratio Lower Upper

45 100

58 10.5 2.0 3.0#



#20

Methylene Chloride

Concen: 0.483 ppbv

RT: 4.43 min Scan# 465

Delta R.T. -0.02 min

Lab File: VL032533.D

Acq: 25 Sep 2018 6:56

Tgt Ion: 84 Resp: 31706

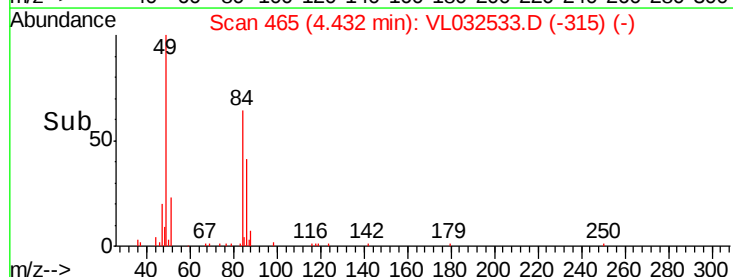
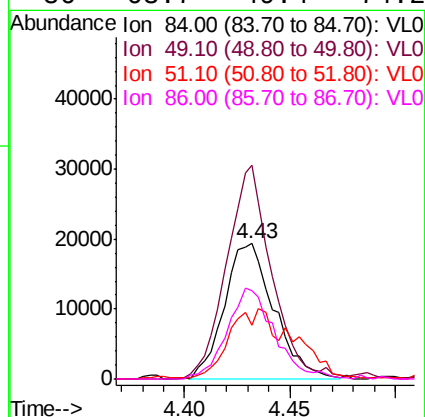
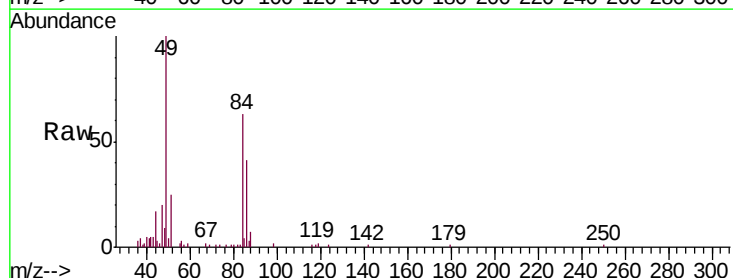
Ion Ratio Lower Upper

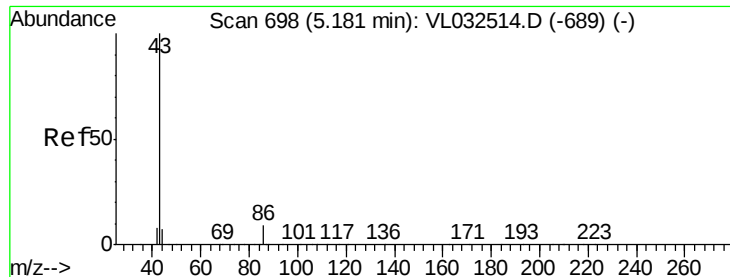
84 100

49 155.4 119.1 178.7

51 39.0 35.2 52.8

86 63.7 49.4 74.2





#23

Vinyl Acetate

Concen: 0.147 ppbv

RT: 5.16 min Scan# 692

Delta R.T. -0.04 min

Lab File: VL032533.D

Acq: 25 Sep 2018 6:56

Instrument :

MSVOA_L

ClientSampleId :

BFB

Tgt Ion: 43 Resp: 35256

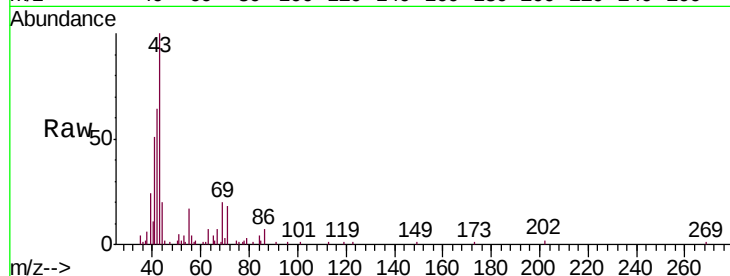
Ion Ratio Lower Upper

43 100

86 6.0 5.9 8.9

42 75.3 6.9 10.3#

44 11.9 4.6 7.0#

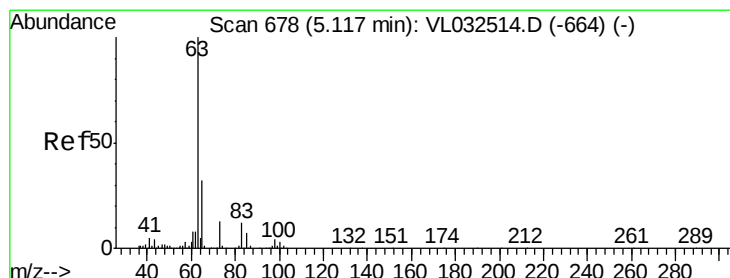
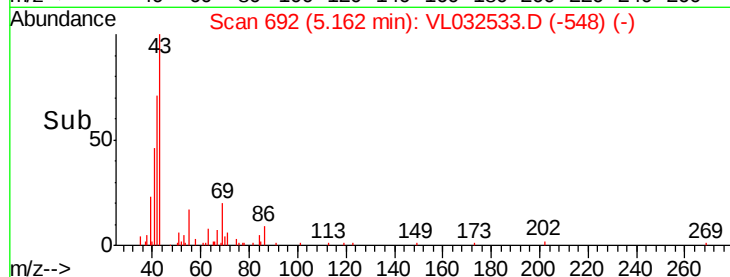
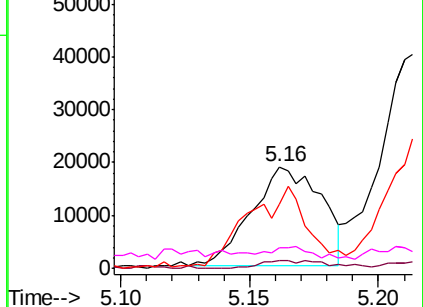


Abundance Ion 43.10 (42.80 to 43.80): VL0

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



#24

1,1-Dichloroethane

Concen: 0.815 ppbv

RT: 5.11 min Scan# 676

Delta R.T. -0.03 min

Lab File: VL032533.D

Acq: 25 Sep 2018 6:56

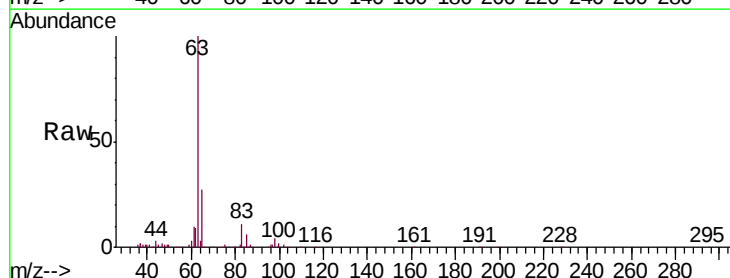
Tgt Ion: 63 Resp: 162466

Ion Ratio Lower Upper

63 100

98 3.8 2.1 6.5

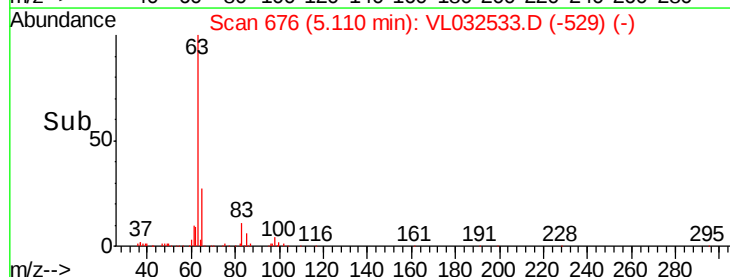
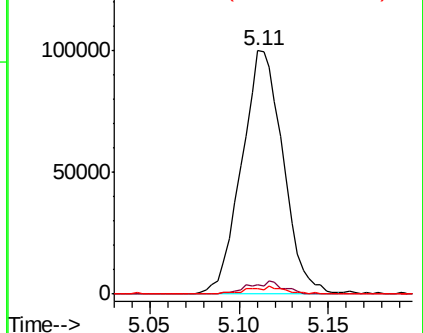
100 2.5 1.5 4.4

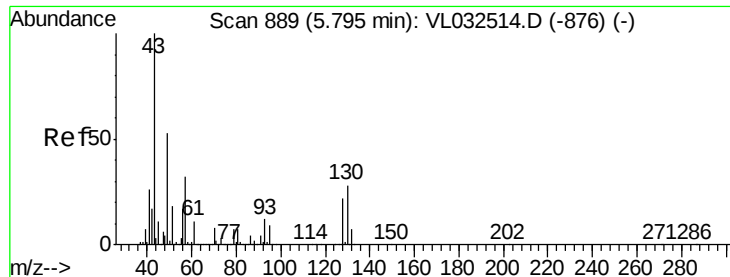


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0

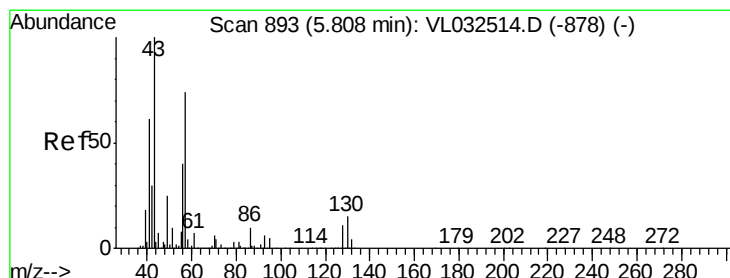
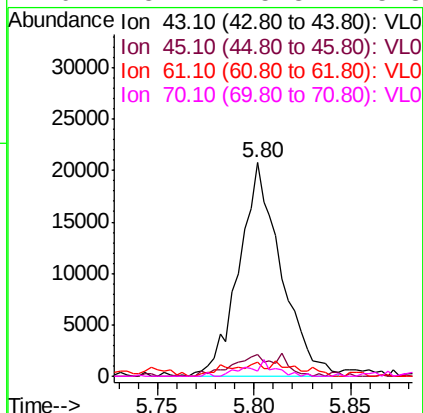
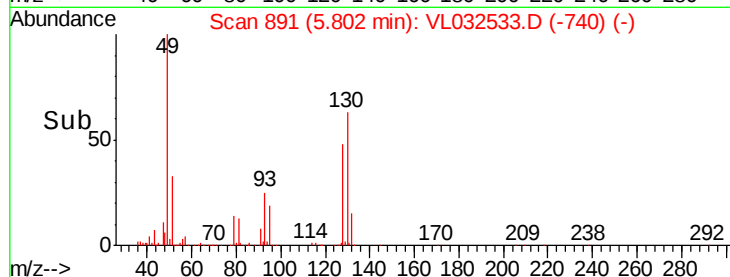
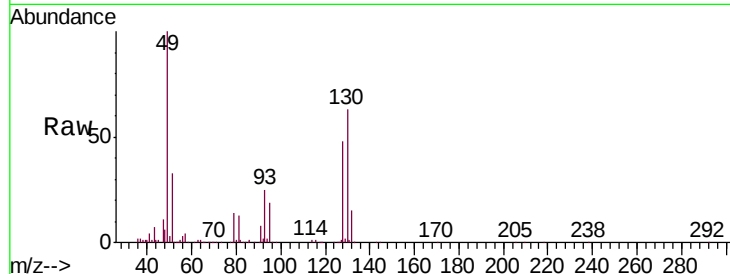




#25
Ethyl Acetate
Concen: 0.095 ppbv
RT: 5.80 min Scan# 891
Delta R.T. -0.01 min
Lab File: VL032533.D
Acq: 25 Sep 2018 6:56

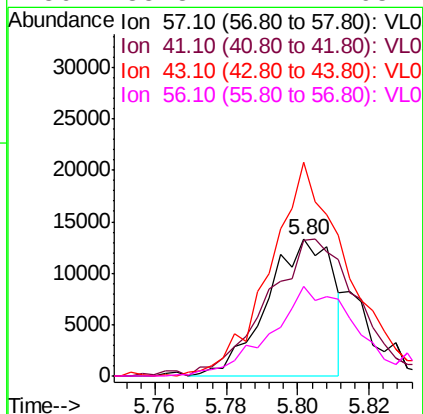
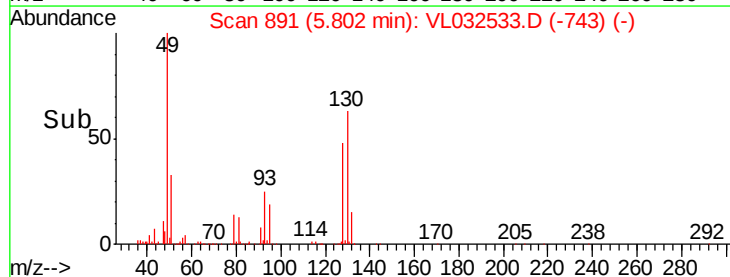
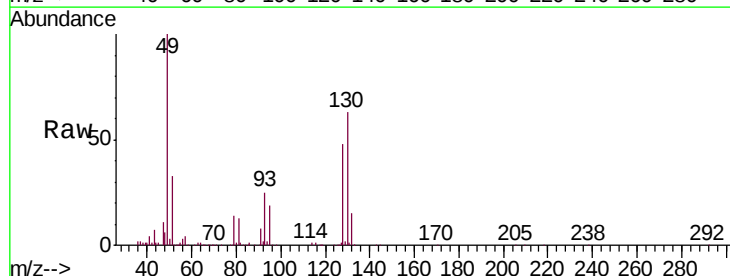
Instrument :
MSVOA_L
ClientSampled :
BFB

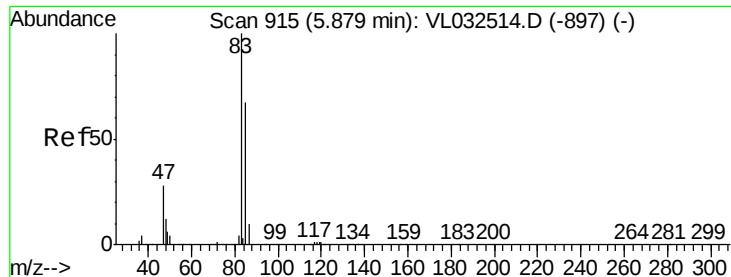
Tgt Ion:	43	Resp:	31301
Ion	Ratio	Lower	Upper
43	100		
45	12.6	8.0	12.0#
61	0.0	7.6	11.4#
70	5.1	5.8	8.8#



#26
Hexane
Concen: 0.115 ppbv
RT: 5.80 min Scan# 891
Delta R.T. -0.02 min
Lab File: VL032533.D
Acq: 25 Sep 2018 6:56

Tgt Ion:	57	Resp:	17030
Ion	Ratio	Lower	Upper
57	100		
41	145.0	69.0	103.4#
43	190.2	172.1	258.1
56	85.8	42.2	63.2#





#29

Chloroform

Concen: 0.192 ppbv

RT: 5.87 min Scan# 913

Delta R.T. -0.02 min

Lab File: VL032533.D

Acq: 25 Sep 2018 6:56

Instrument :

MSVOA_L

ClientSampleId :

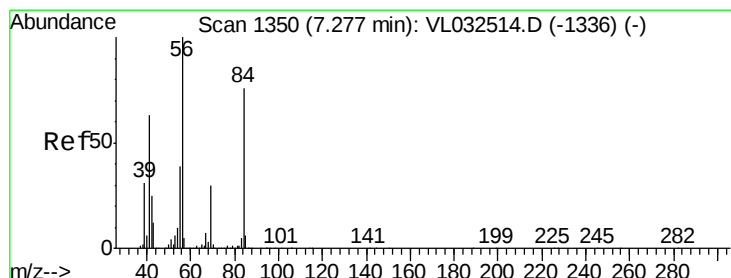
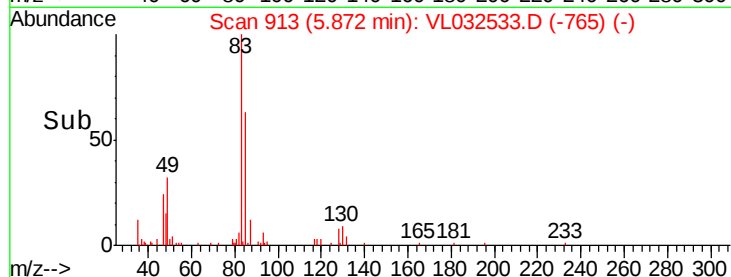
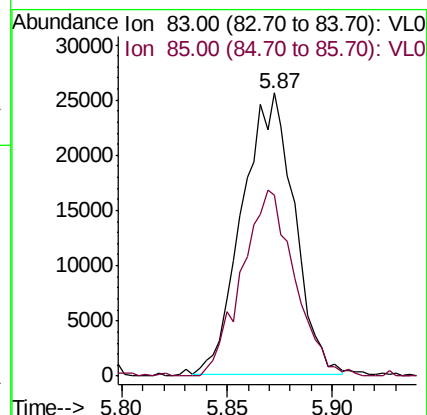
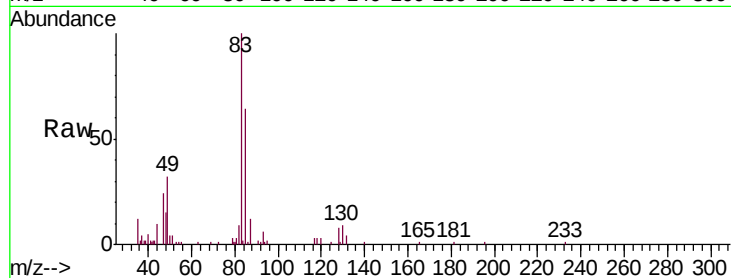
BFB

Tgt Ion: 83 Resp: 43634

Ion Ratio Lower Upper

83 100

85 64.4 52.5 78.7



#30

Cyclohexane

Concen: 0.074 ppbv

RT: 7.27 min Scan# 1348

Delta R.T. -0.03 min

Lab File: VL032533.D

Acq: 25 Sep 2018 6:56

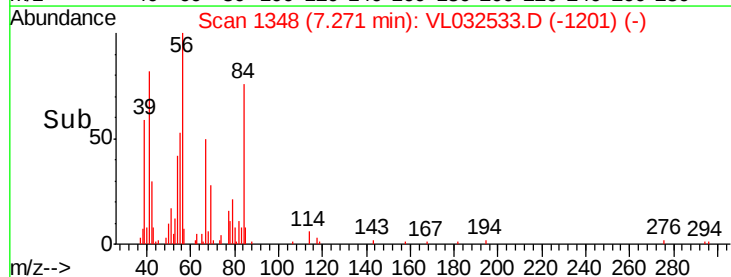
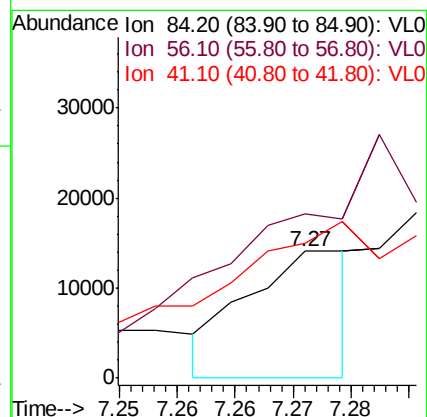
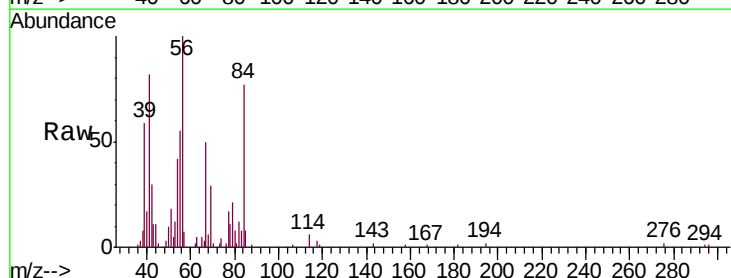
Tgt Ion: 84 Resp: 8943

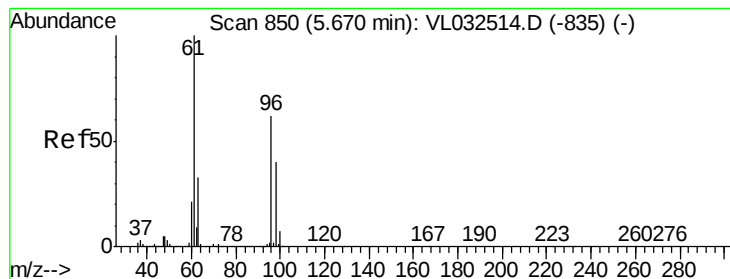
Ion Ratio Lower Upper

84 100

56 0.0 113.5 170.3#

41 391.7 68.1 102.1#





#31

cis-1,2-Dichloroethene

Concen: 0.800 ppbv

RT: 5.67 min Scan# 849

Delta R.T. -0.02 min

Lab File: VL032533.D

Acq: 25 Sep 2018 6:56

Instrument :

MSVOA_L

ClientSampleId :

BFB

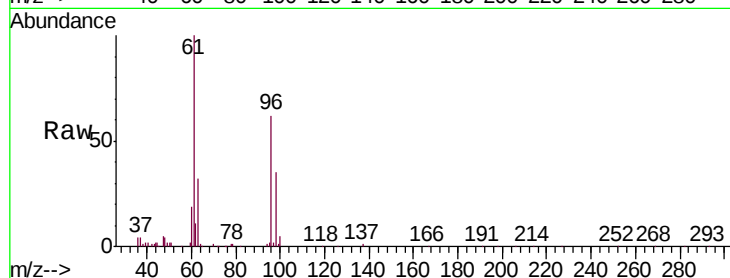
Tgt Ion: 61 Resp: 113196

Ion Ratio Lower Upper

61 100

96 61.6 49.2 73.8

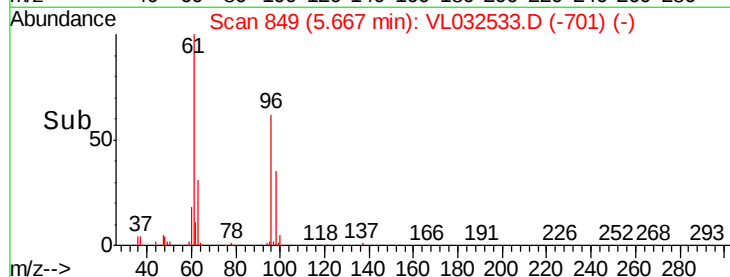
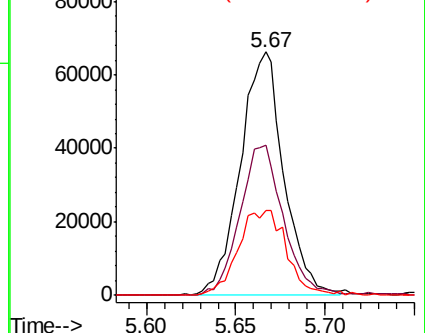
98 34.8 30.7 46.1



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



#32

1,1,1-Trichloroethane

Concen: 2.096 ppbv

RT: 6.65 min Scan# 1154

Delta R.T. -0.02 min

Lab File: VL032533.D

Acq: 25 Sep 2018 6:56

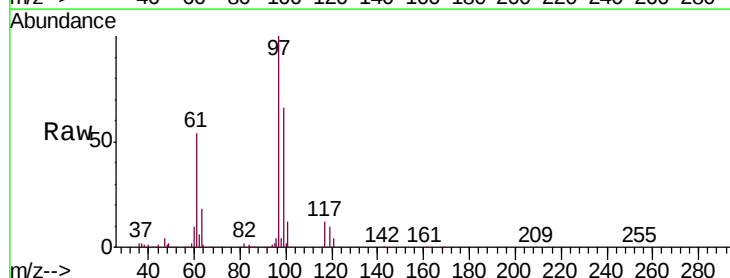
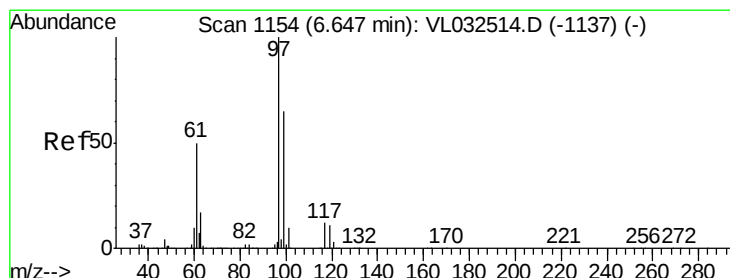
Tgt Ion: 97 Resp: 508773

Ion Ratio Lower Upper

97 100

99 65.2 52.1 78.1

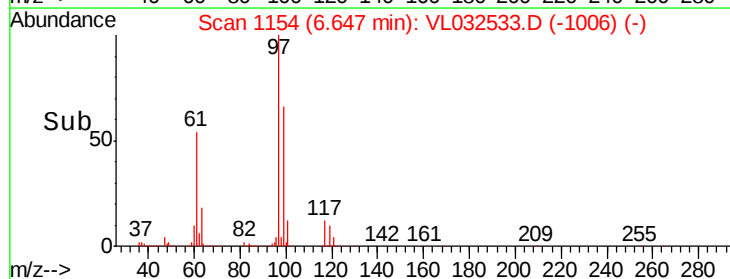
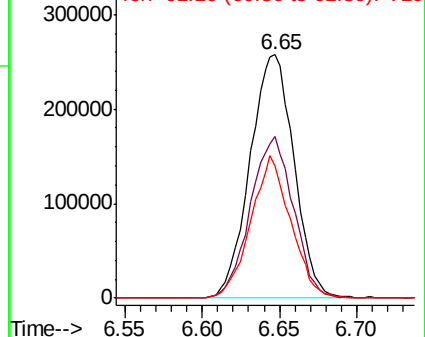
61 53.5 42.5 63.7

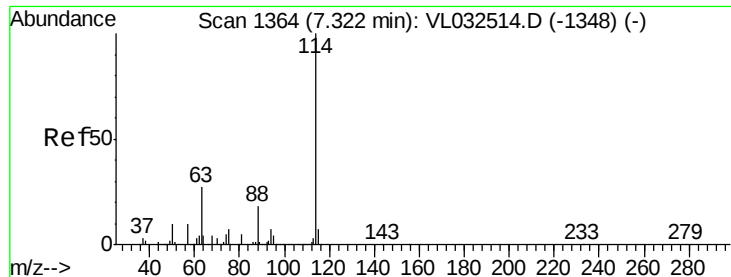


Abundance Ion 97.00 (96.70 to 97.70): VL0

Ion 99.00 (98.70 to 99.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

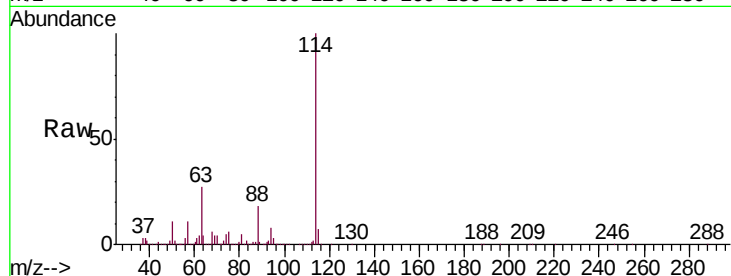




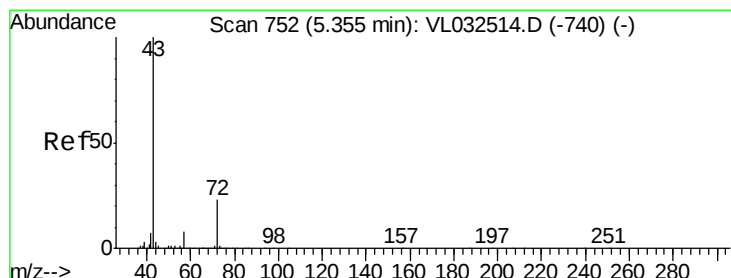
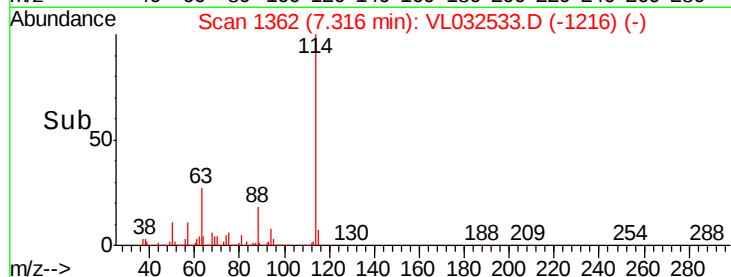
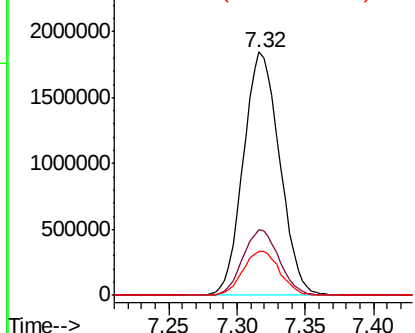
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.32 min Scan# 1362
 Delta R.T. -0.03 min
 Lab File: VL032533.D
 Acq: 25 Sep 2018 6:56

Instrument :
 MSVOA_L
 ClientSampleId :
 BFB

Tgt Ion:114 Resp: 3414694
 Ion Ratio Lower Upper
 114 100
 63 27.1 22.2 33.4
 88 18.5 15.0 22.4

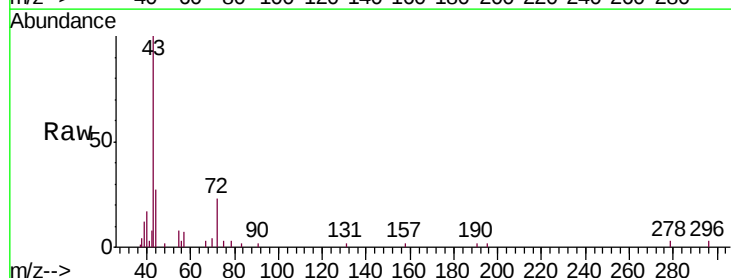


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

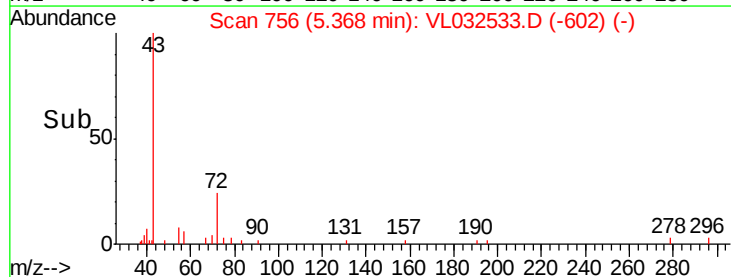
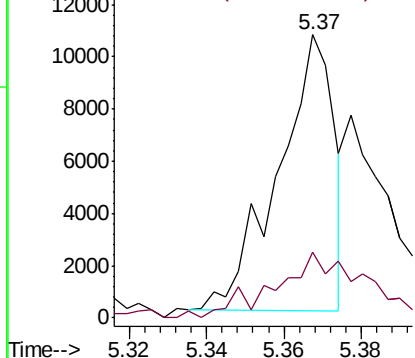


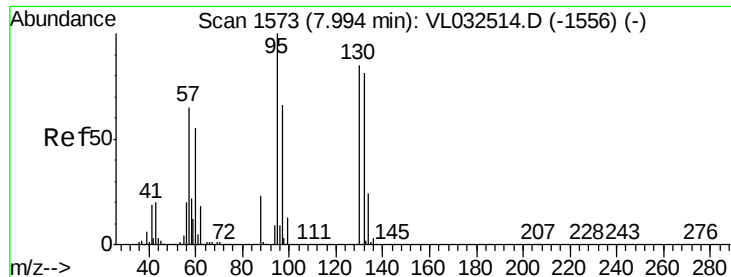
#34
 2-Butanone
 Concen: 0.052 ppbv
 RT: 5.37 min Scan# 756
 Delta R.T. -0.01 min
 Lab File: VL032533.D
 Acq: 25 Sep 2018 6:56

Tgt Ion: 43 Resp: 10663
 Ion Ratio Lower Upper
 43 100
 72 39.9 17.8 26.6#



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0

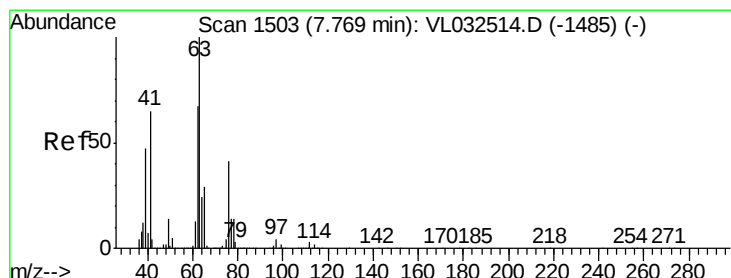
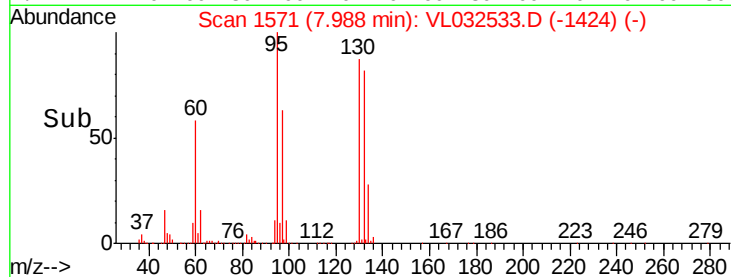
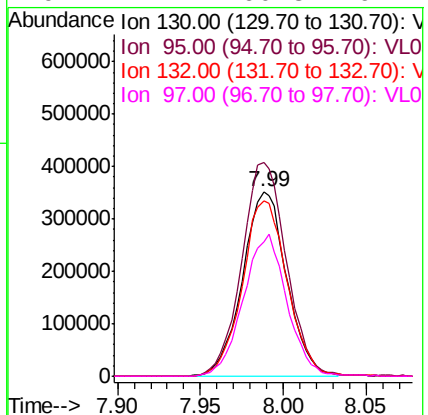
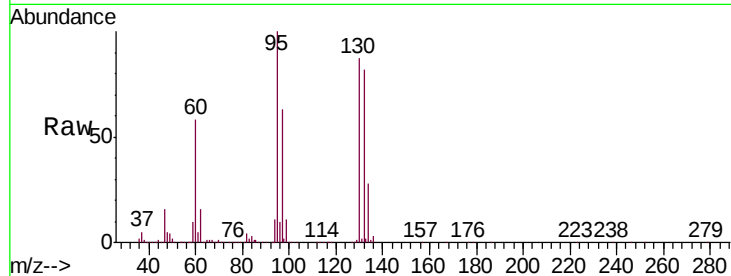




#38
 Trichloroethene
 Concen: 6.174 ppbv
 RT: 7.99 min Scan# 1571
 Delta R.T. -0.03 min
 Lab File: VL032533.D
 Acq: 25 Sep 2018 6:56

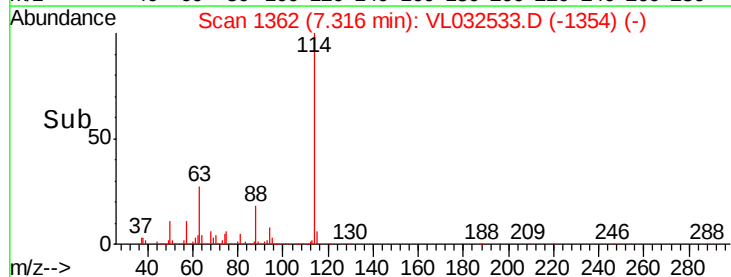
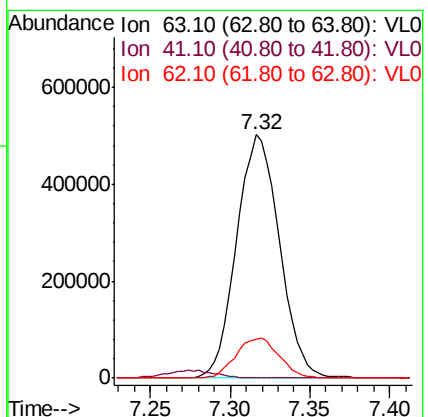
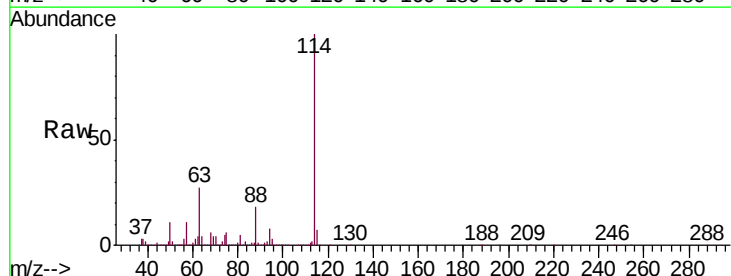
Instrument :
 MSVOA_L
 ClientSampleId :
 BFB

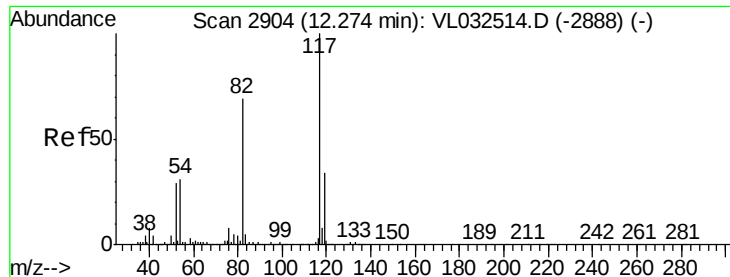
Tgt Ion:	130	Resp:	652180
Ion	Ratio	Lower	Upper
130	100		
95	115.4	94.2	141.4
132	94.8	76.2	114.4
97	72.7	60.8	91.2



#39
 1,2-Dichloropropane
 Concen: 7.368 ppbv
 RT: 7.32 min Scan# 1362
 Delta R.T. -0.47 min
 Lab File: VL032533.D
 Acq: 25 Sep 2018 6:56

Tgt Ion:	63	Resp:	916288
Ion	Ratio	Lower	Upper
63	100		
41	0.1	55.4	83.0#
62	16.1	55.4	83.0#

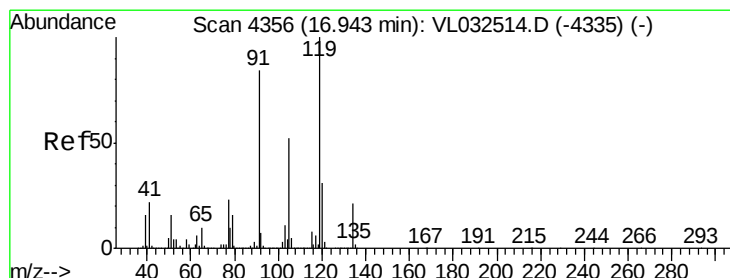
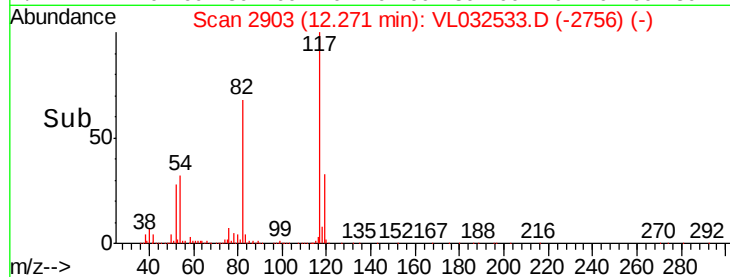
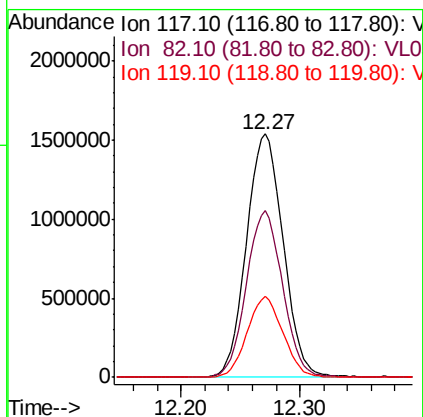
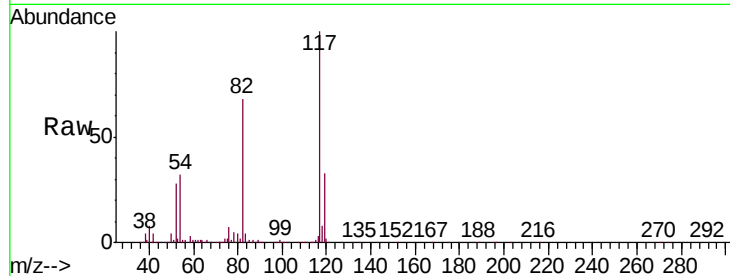




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.27 min Scan# 2903
Delta R.T. -0.03 min
Lab File: VL032533.D
Acq: 25 Sep 2018 6:56

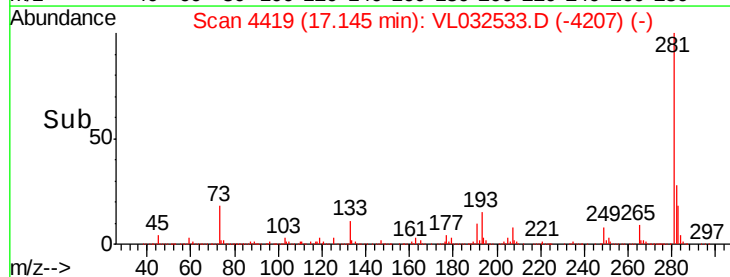
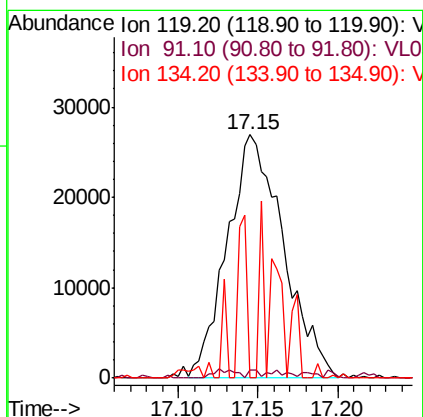
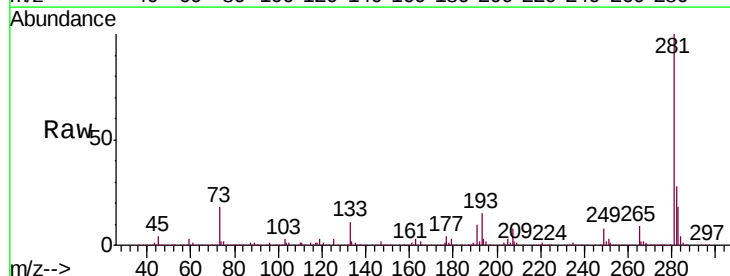
Instrument :
MSVOA_L
ClientSampleId :
BFB

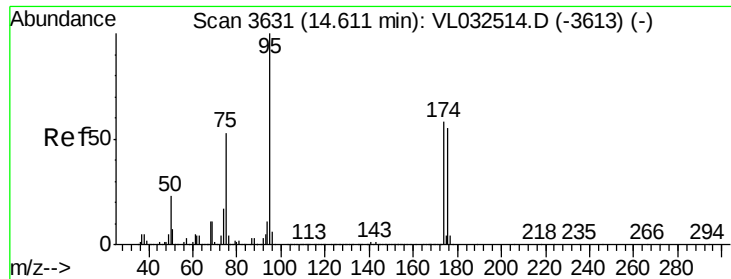
Tgt Ion:117 Resp: 3288049
Ion Ratio Lower Upper
117 100
82 68.0 53.0 79.6
119 32.5 45.9 68.9#



#65
tert-Butylbenzene
Concen: 0.155 ppbv
RT: 17.15 min Scan# 4419
Delta R.T. 0.18 min
Lab File: VL032533.D
Acq: 25 Sep 2018 6:56

Tgt Ion:119 Resp: 64783
Ion Ratio Lower Upper
119 100
91 2.7 66.5 99.7#
134 37.5 16.0 24.0#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.016 ppbv

RT: 14.61 min Scan# 3630

Delta R.T. -0.03 min

Lab File: VL032533.D

Acq: 25 Sep 2018 6:56

Instrument :

MSVOA_L

ClientSampleId :

BFB

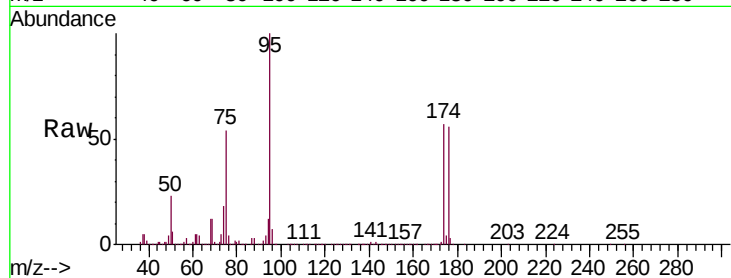
Tgt Ion: 95 Resp: 2483423

Ion Ratio Lower Upper

95 100

174 58.3 46.3 69.5

175 4.2 3.4 5.0



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

