

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032719\
 Data File : VL033492.D
 Acq On : 28 Mar 2019 6:53
 Operator : SY/AP
 Sample : K1991-09DL 10X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Mar 28 07:33:53 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Mar 26 16:00:50 2019
 QLast Update : Tue Mar 26 16:00:50 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.75	49	758694	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.28	114	2078712	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.23	117	2100119	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.57	95	1609945	9.78	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.80%

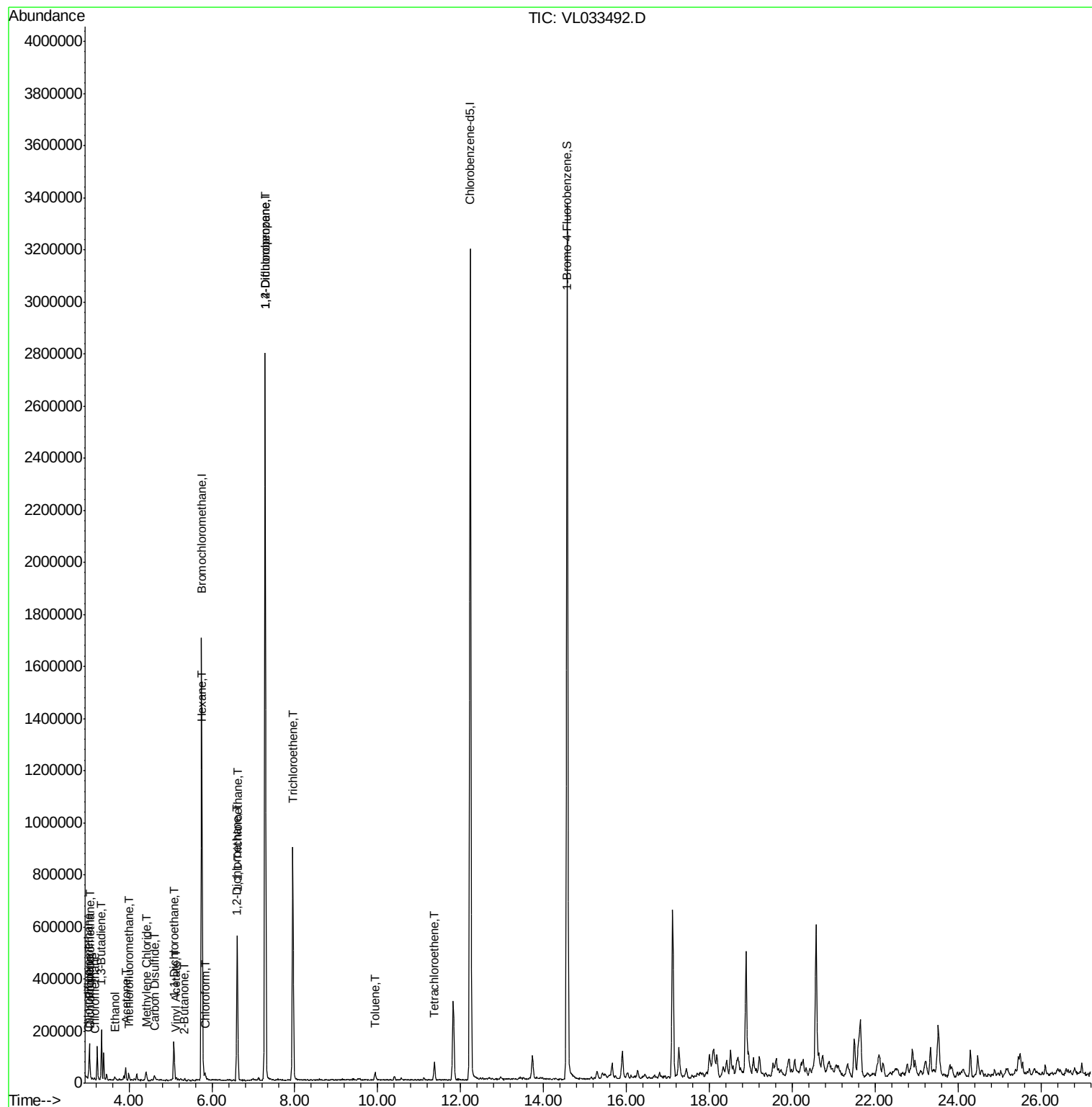
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.07	85	7586	0.069	ppbv #	88
3) Chlorodifluoromethane	3.00	51	5318	0.061	ppbv #	83
4) Chloromethane	3.16	50	1054	0.023	ppbv #	74
9) Propene	3.04	41	19194	0.523	ppbv	100
11) Trichlorofluoromethane	4.00	101	17232	0.126	ppbv	93
13) Ethanol	3.65	45	3572	0.376	ppbv #	18
15) Acetone	3.91	43	20096	0.220	ppbv #	69
16) 1,3-Butadiene	3.33	39	52330	1.446	ppbv #	10
20) Methylene Chloride	4.41	84	9793	0.253	ppbv #	75
23) Vinyl Acetate	5.14	43	2711	0.021	ppbv #	84
24) 1,1-Dichloroethane	5.08	63	118181	1.198	ppbv	97
26) Hexane	5.77	57	7714	0.103	ppbv #	1
27) Carbon Disulfide	4.62	76	6926	0.077	ppbv #	54
29) Chloroform	5.84	83	8095	0.063	ppbv	94
32) 1,1,1-Trichloroethane	6.61	97	341950	2.784	ppbv	99
34) 2-Butanone	5.34	43	2779	0.022	ppbv #	54
37) 1,2-Dichloroethane	6.59	62	3795	0.032	ppbv #	84
38) Trichloroethene	7.95	130	277339	4.225	ppbv	96
39) 1,2-Dichloropropane	7.28	63	512817	7.506	ppbv #	22
52) Tetrachloroethene	11.38	164	4318	0.066	ppbv	94
53) Toluene	9.94	91	20978	0.104	ppbv	95

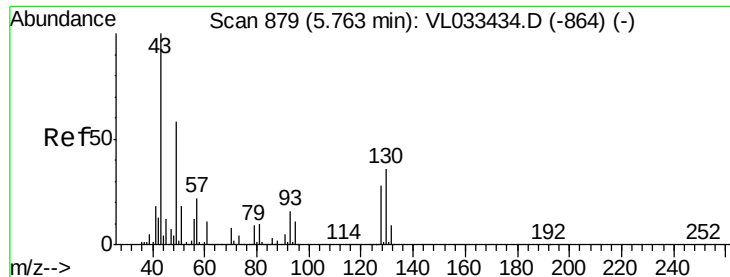
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.75 min Scan# 876

Delta R.T. -0.01 min

Lab File: VL033492.D

Acq: 28 Mar 2019 6:53

Instrument :

MSVOA_L

ClientSampleId :

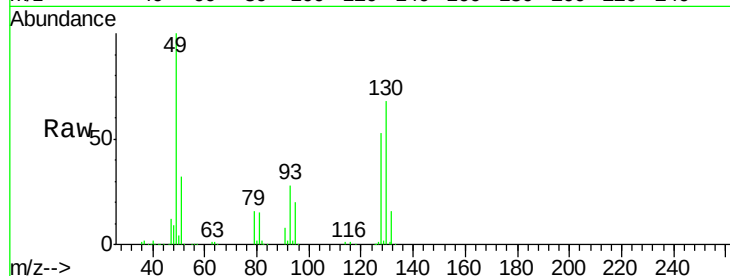
Tot Ion: 49 Resp: 758694

Ion Ratio Lower Upper

49 100

128 51.5 24.0 72.0

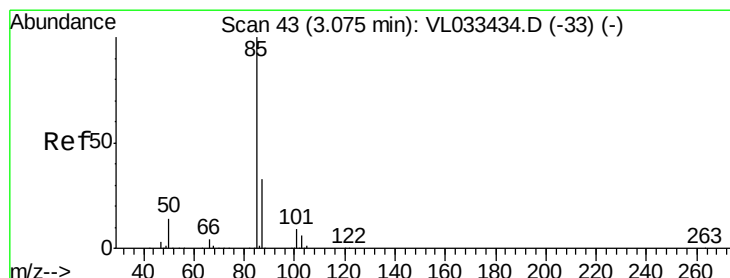
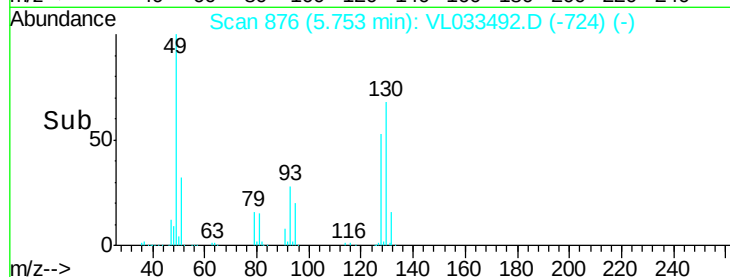
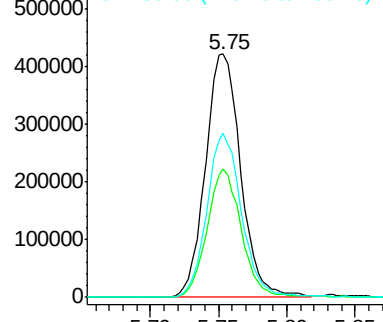
130 66.8 31.2 93.6



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: 0.069 ppbv

RT: 3.07 min Scan# 42

Delta R.T. -0.00 min

Lab File: VL033492.D

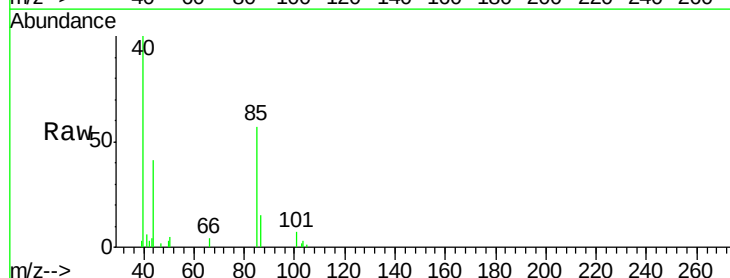
Acq: 28 Mar 2019 6:53

Tgt Ion: 85 Resp: 7586

Ion Ratio Lower Upper

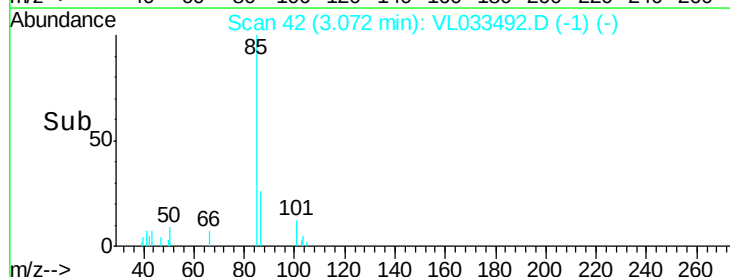
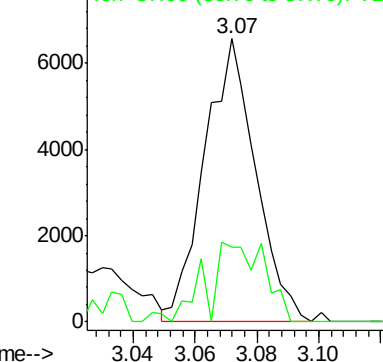
85 100

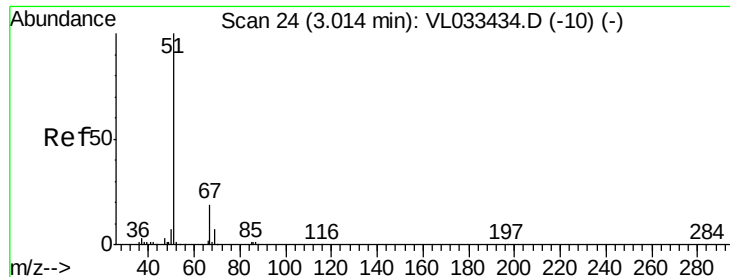
87 26.5 26.7 40.1#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.061 ppbv

RT: 3.00 min Scan# 21

Delta R.T. -0.01 min

Lab File: VL033492.D

Acq: 28 Mar 2019 6:53

Instrument :

MSVOA_L

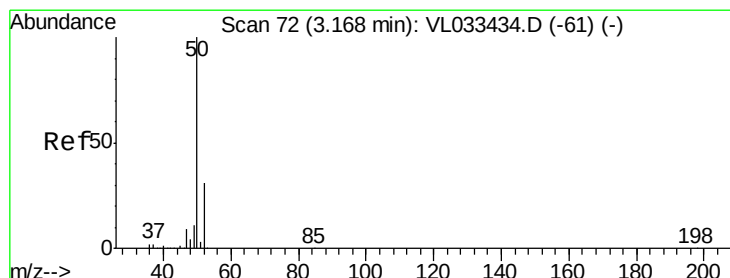
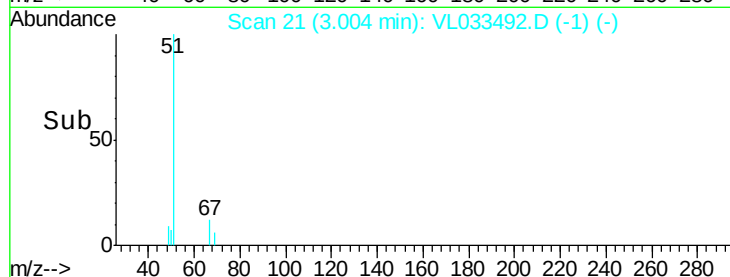
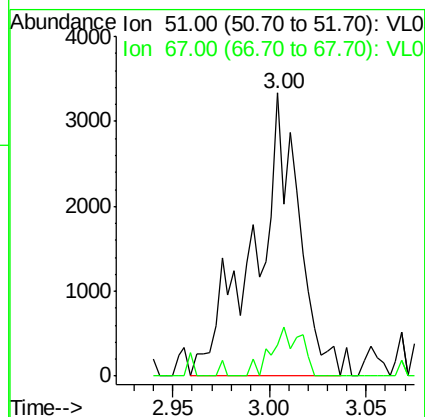
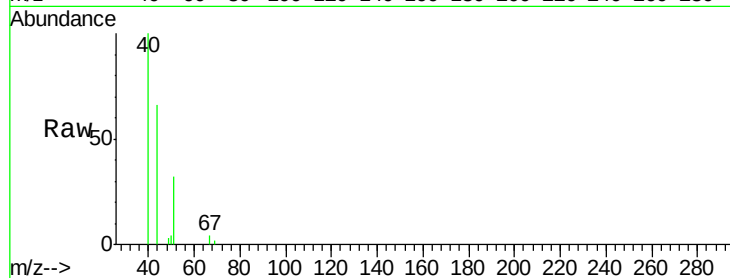
ClientSampleId :

Tot Ion: 51 Resp: 5318

Ion Ratio Lower Upper

51 100

67 11.7 15.7 23.5#



#4

Chloromethane

Concen: 0.023 ppbv

RT: 3.16 min Scan# 70

Delta R.T. -0.01 min

Lab File: VL033492.D

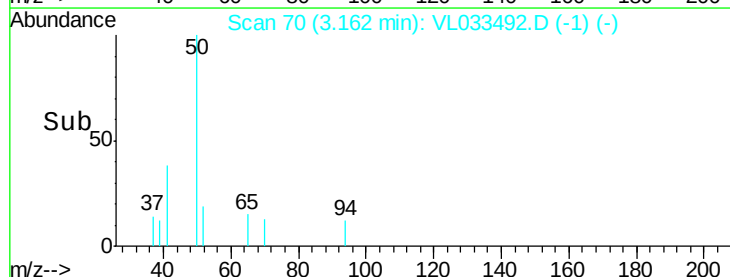
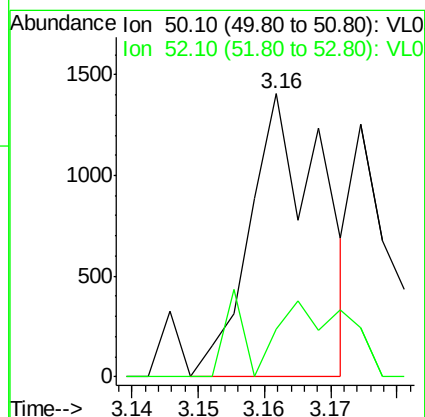
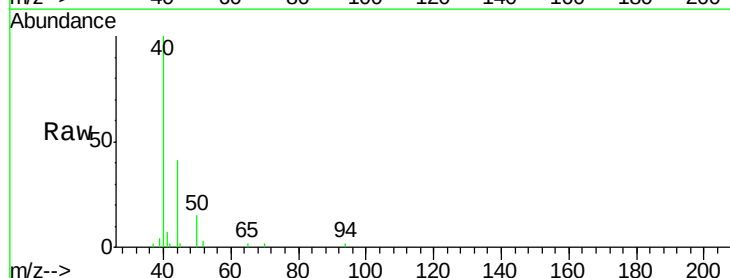
Acq: 28 Mar 2019 6:53

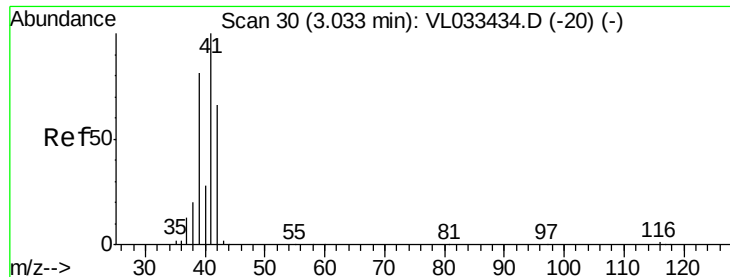
Tgt Ion: 50 Resp: 1054

Ion Ratio Lower Upper

50 100

52 17.1 25.0 37.6#





#9

Propene

Concen: 0.523 ppbv

RT: 3.04 min Scan# 32

Delta R.T. 0.01 min

Lab File: VL033492.D

Acq: 28 Mar 2019 6:53

Instrument :

MSVOA_L

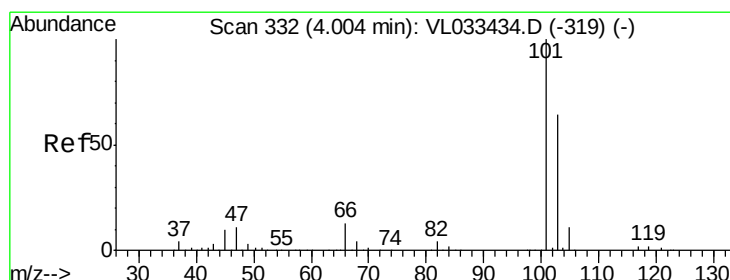
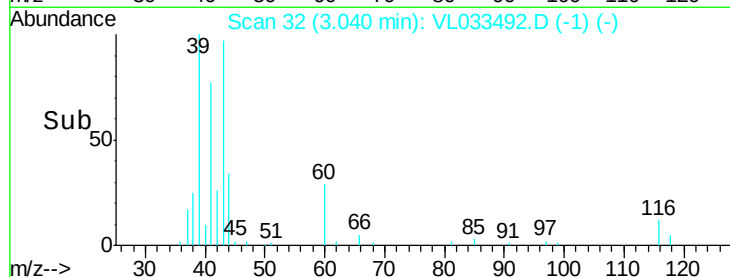
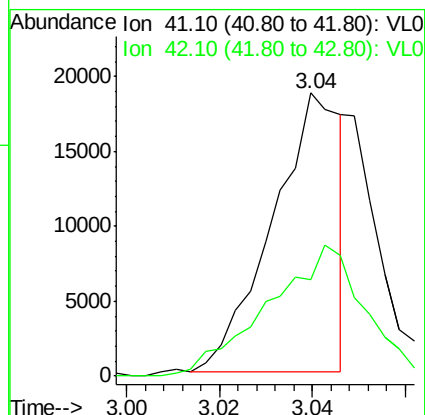
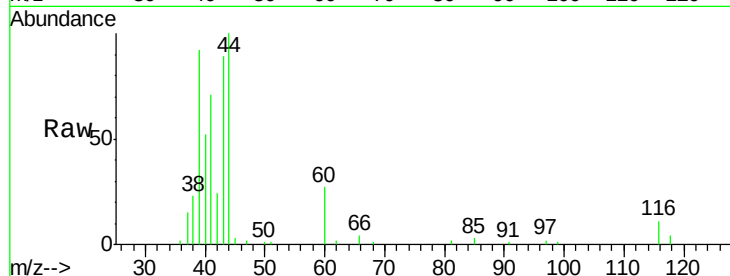
ClientSampleId :

Tot Ion: 41 Resp: 19194

Ion Ratio Lower Upper

41 100

42 67.4 53.9 80.9



#11

Trichlorofluoromethane

Concen: 0.126 ppbv

RT: 4.00 min Scan# 331

Delta R.T. -0.00 min

Lab File: VL033492.D

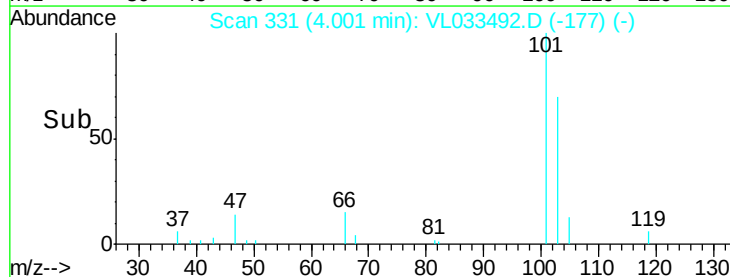
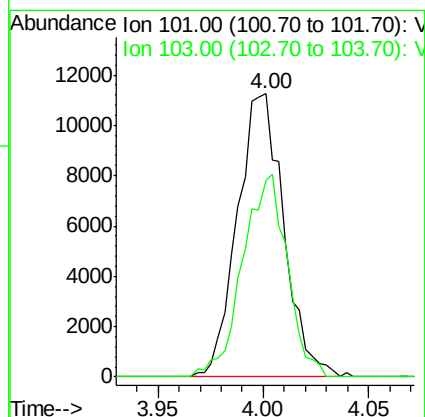
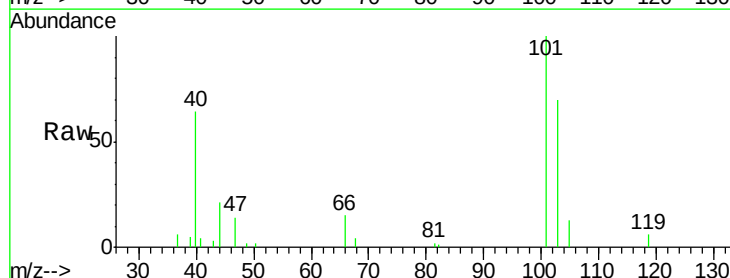
Acq: 28 Mar 2019 6:53

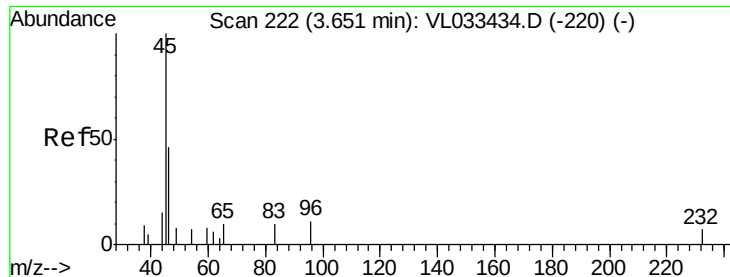
Tgt Ion: 101 Resp: 17232

Ion Ratio Lower Upper

101 100

103 69.6 51.3 76.9

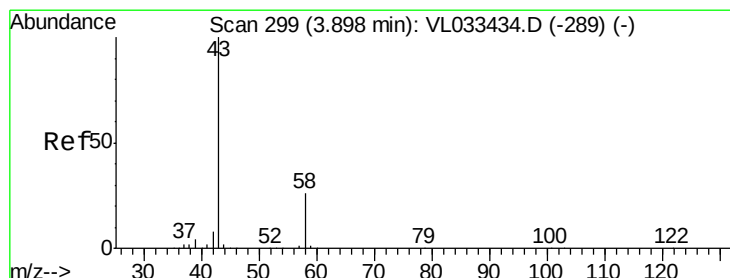
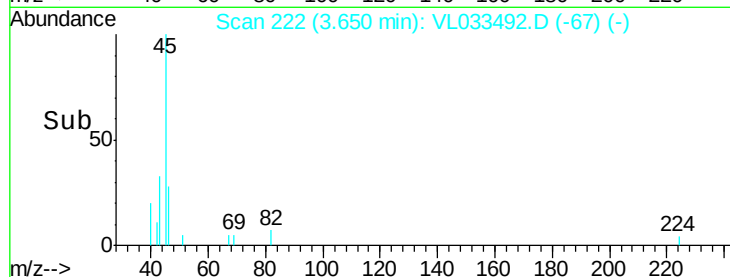
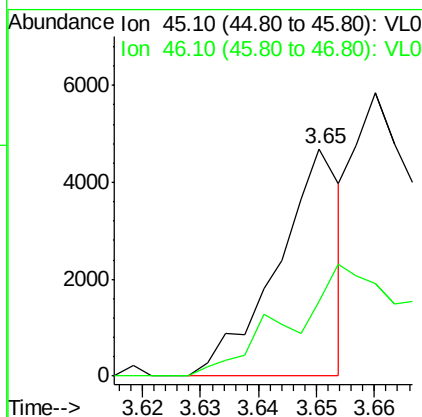
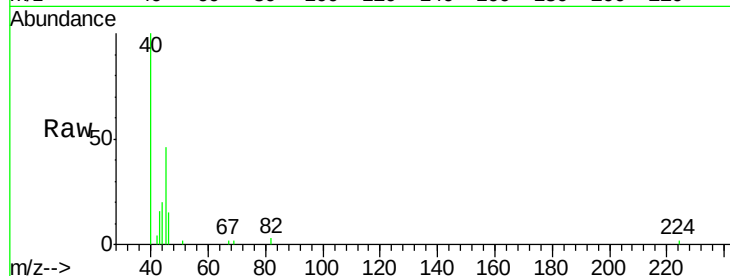




#13
Ethanol
Concen: 0.376 ppbv
RT: 3.65 min Scan# 222
Delta R.T. -0.00 min
Lab File: VL033492.D
Acq: 28 Mar 2019 6:53

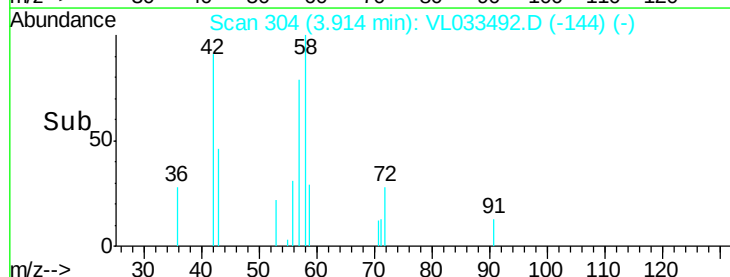
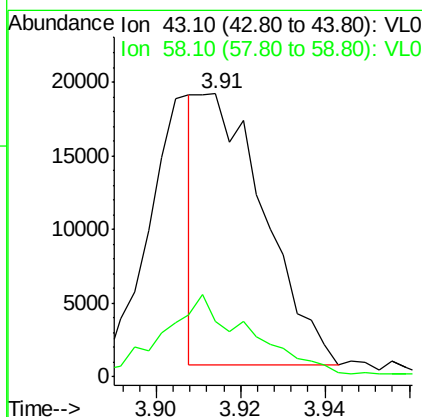
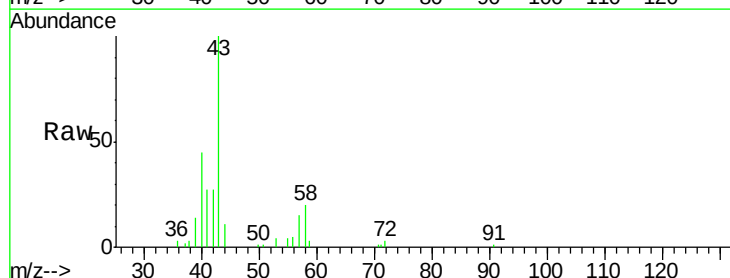
Instrument :
MSVOA_L
ClientSampleId :

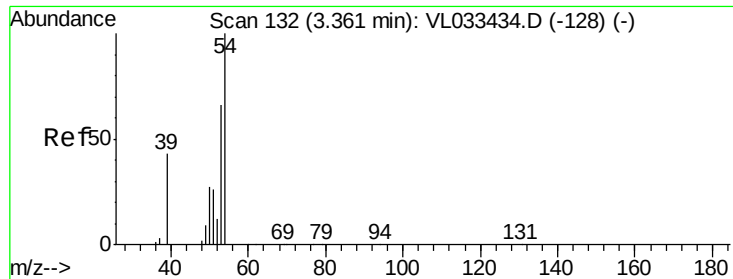
Tot Ion: 45 Resp: 3572
Ion Ratio Lower Upper
45 100
46 0.0 25.4 101.8#



#15
Acetone
Concen: 0.220 ppbv
RT: 3.91 min Scan# 304
Delta R.T. 0.02 min
Lab File: VL033492.D
Acq: 28 Mar 2019 6:53

Tgt Ion: 43 Resp: 20096
Ion Ratio Lower Upper
43 100
58 41.4 20.5 30.7#





#16

1,3-Butadiene

Concen: 1.446 ppbv

RT: 3.33 min Scan# 123

Delta R.T. -0.03 min

Lab File: VL033492.D

Acq: 28 Mar 2019 6:53

Instrument :

MSVOA_L

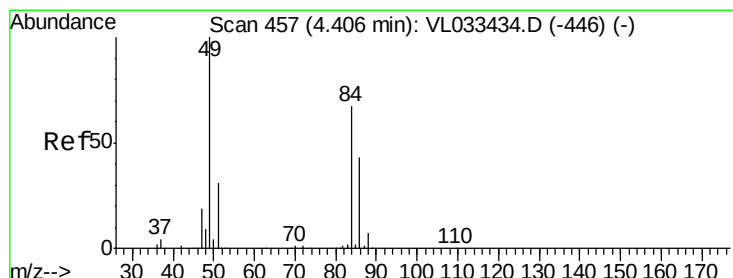
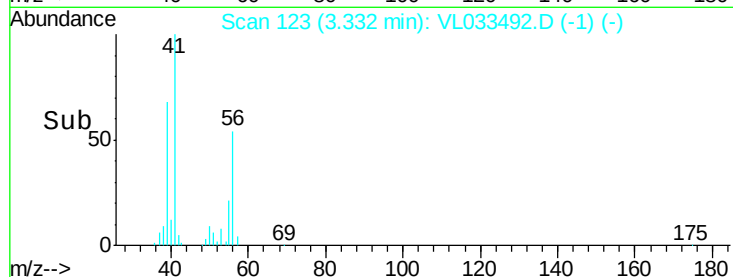
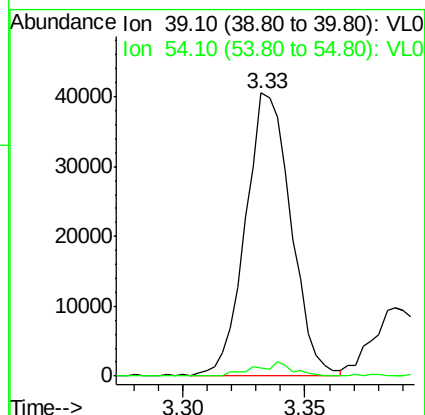
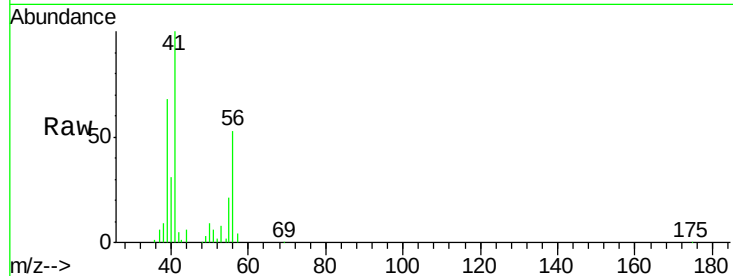
ClientSampleId :

Tot Ion: 39 Resp: 52330

Ion Ratio Lower Upper

39 100

54 4.1 69.4 104.2#



#20

Methylene Chloride

Concen: 0.253 ppbv

RT: 4.41 min Scan# 457

Delta R.T. -0.00 min

Lab File: VL033492.D

Acq: 28 Mar 2019 6:53

Tgt Ion: 84 Resp: 9793

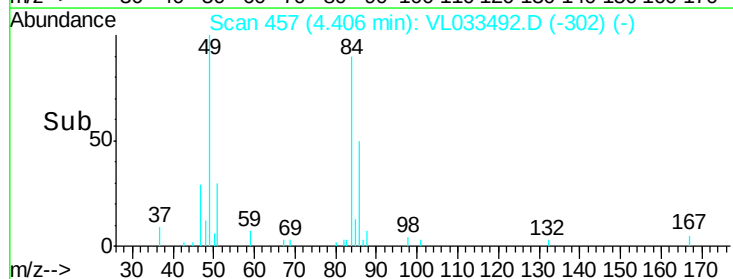
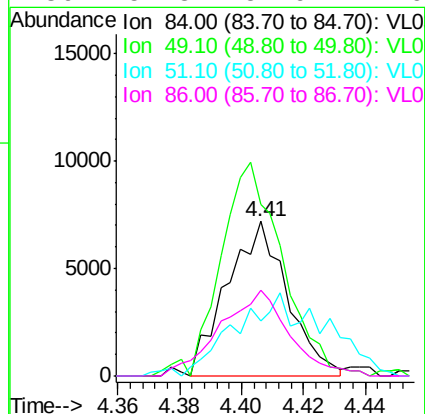
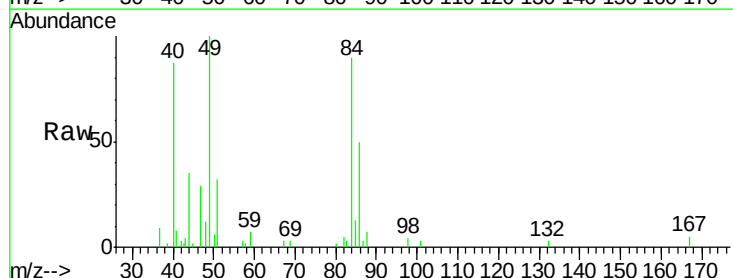
Ion Ratio Lower Upper

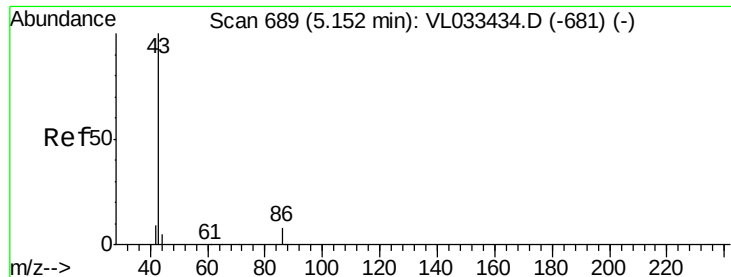
84 100

49 111.3 120.0 180.0#

51 29.9 36.7 55.1#

86 54.3 51.9 77.9





#23

Vinyl Acetate

Concen: 0.021 ppbv

RT: 5.14 min Scan# 686

Delta R.T. -0.01 min

Lab File: VL033492.D

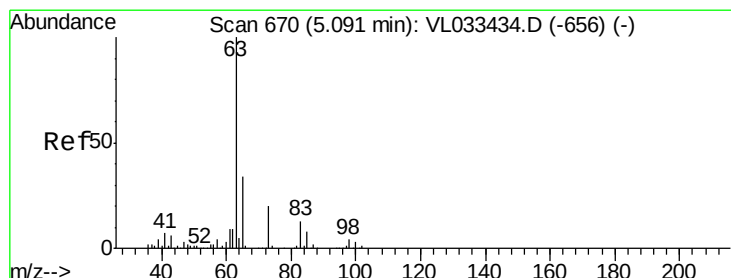
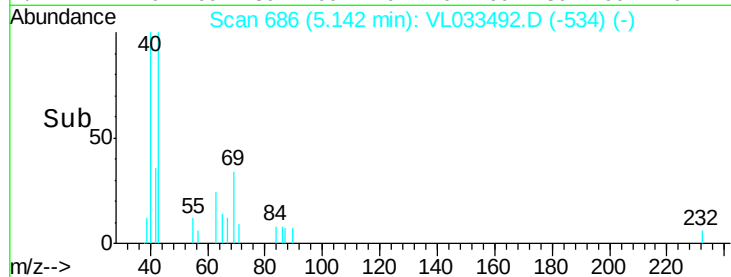
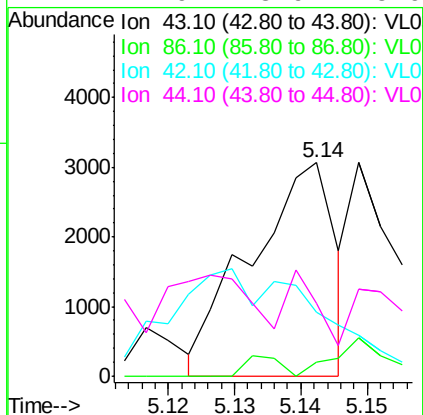
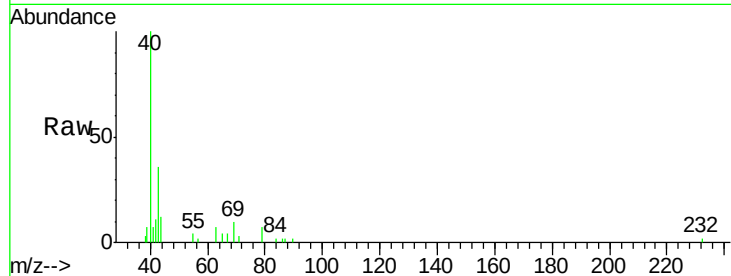
Acq: 28 Mar 2019 6:53

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:	43	Resp:	2711
Ion	Ratio	Lower	Upper
43	100		
86	7.1	5.6	8.4
42	6.4	8.0	12.0#
44	21.9	3.9	5.9#



#24

1,1-Dichloroethane

Concen: 1.198 ppbv

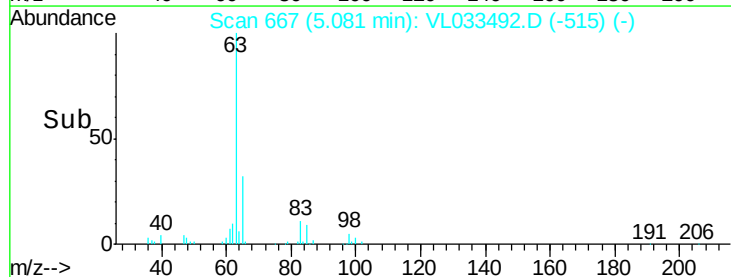
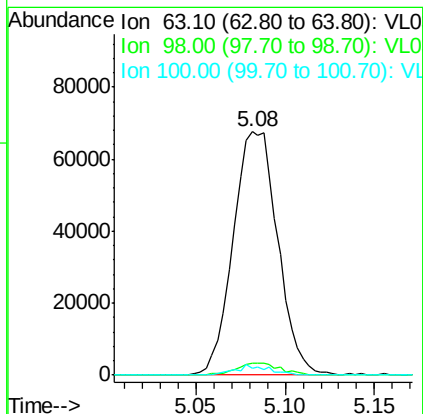
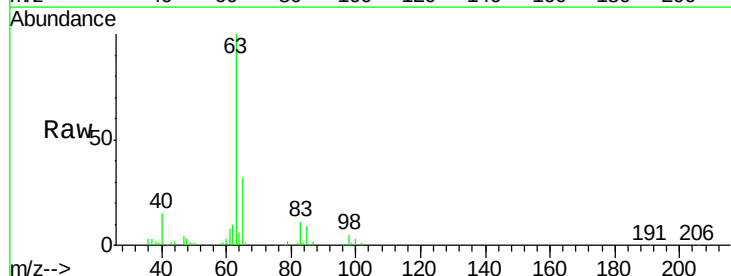
RT: 5.08 min Scan# 667

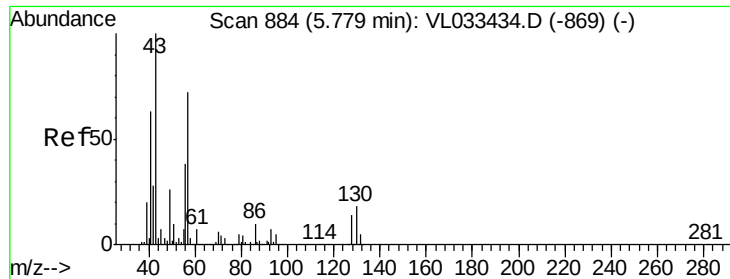
Delta R.T. -0.01 min

Lab File: VL033492.D

Acq: 28 Mar 2019 6:53

Tgt Ion:	63	Resp:	118181
Ion	Ratio	Lower	Upper
63	100		
98	6.0	2.2	6.6
100	2.9	1.5	4.4





#26

Hexane

Concen: 0.103 ppbv

RT: 5.77 min Scan# 882

Delta R.T. -0.01 min

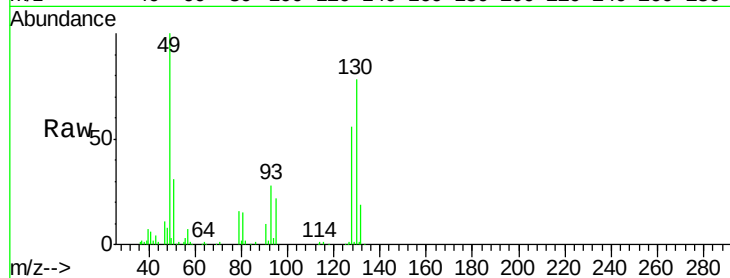
Lab File: VL033492.D

Acq: 28 Mar 2019 6:53

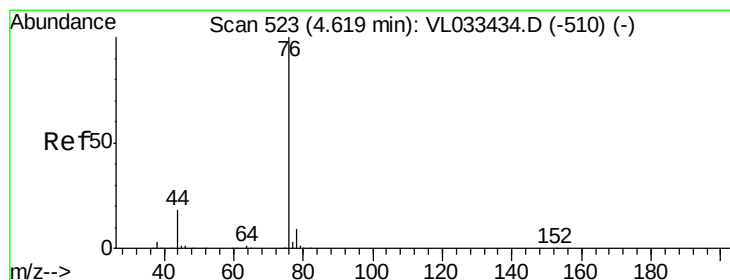
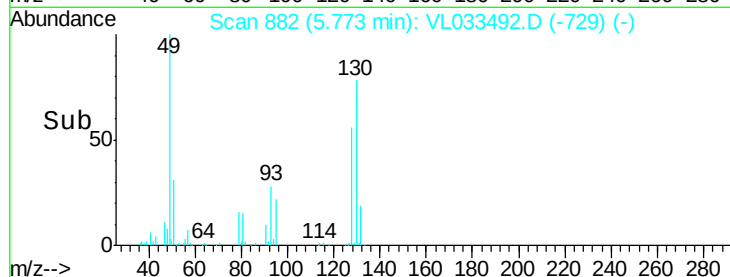
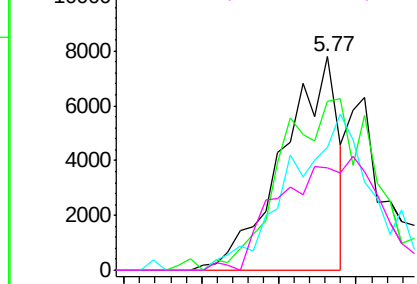
Instrument :
MSVOA_L
ClientSampled :

Tot Ion: 57 Resp: 7714

Ion	Ratio	Lower	Upper
57	100		
41	0.0	70.7	106.1#
43	0.0	182.6	274.0#
56	0.0	42.0	63.0#



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



#27

Carbon Disulfide

Concen: 0.077 ppbv

RT: 4.62 min Scan# 522

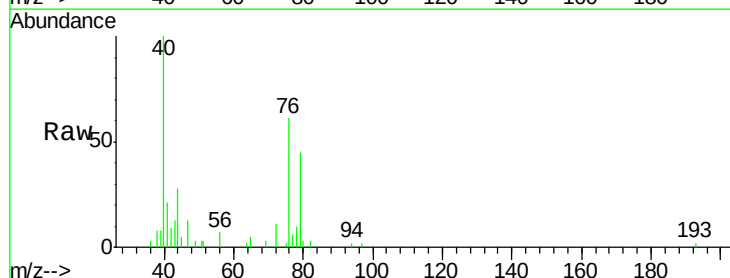
Delta R.T. -0.00 min

Lab File: VL033492.D

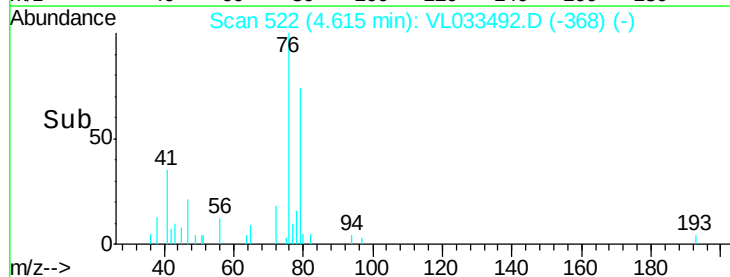
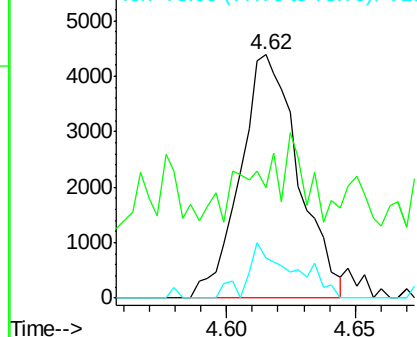
Acq: 28 Mar 2019 6:53

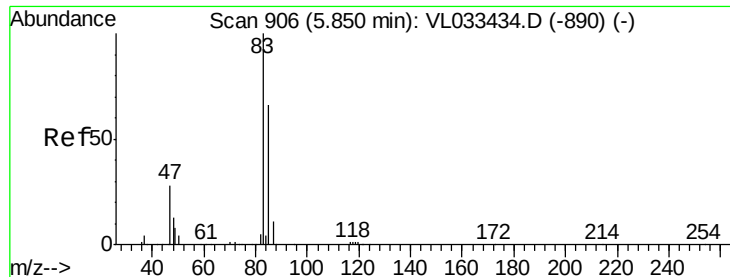
Tgt Ion: 76 Resp: 6926

Ion	Ratio	Lower	Upper
76	100		
44	44.6	14.8	22.2#
78	18.0	7.6	11.4#



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

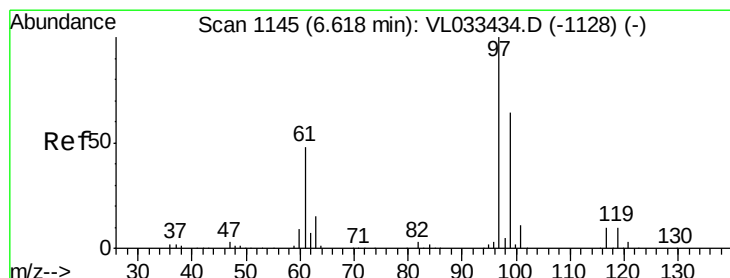
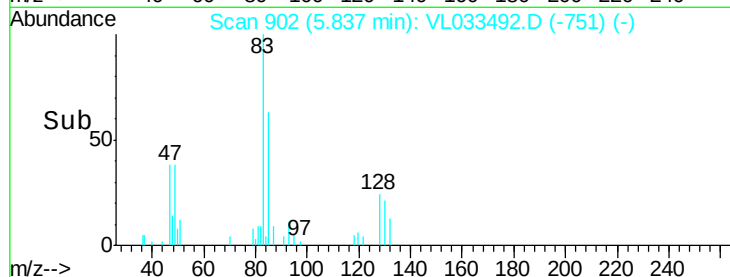
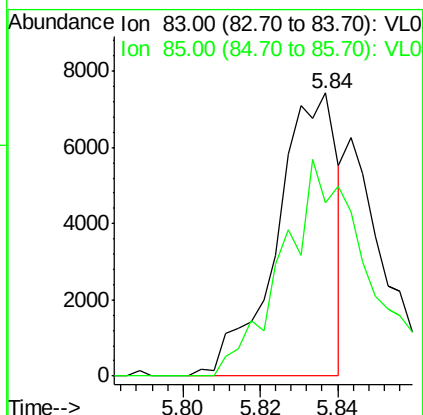
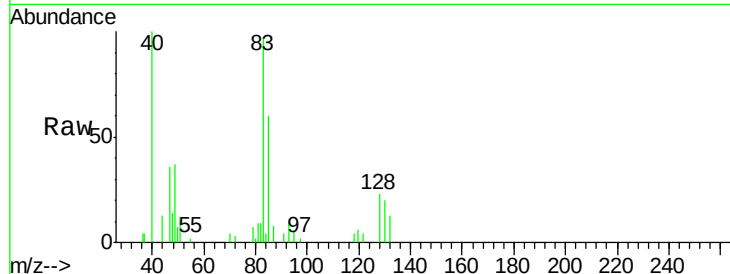




#29
Chloroform
Concen: 0.063 ppbv
RT: 5.84 min Scan# 902
Delta R.T. -0.01 min
Lab File: VL033492.D
Acq: 28 Mar 2019 6:53

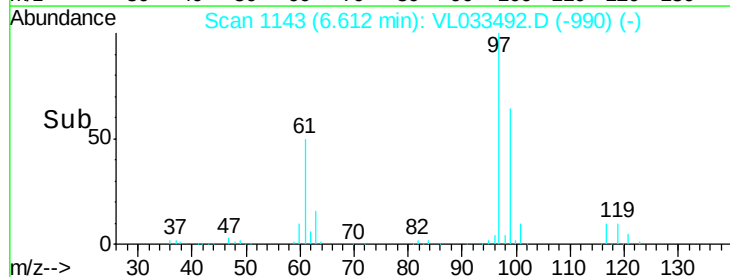
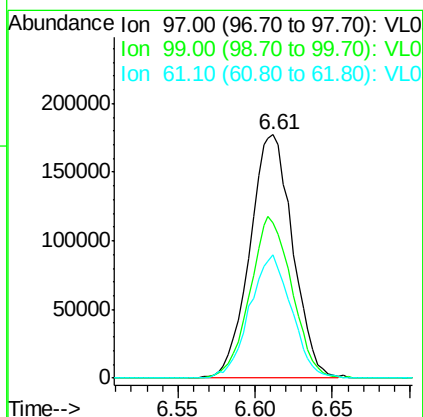
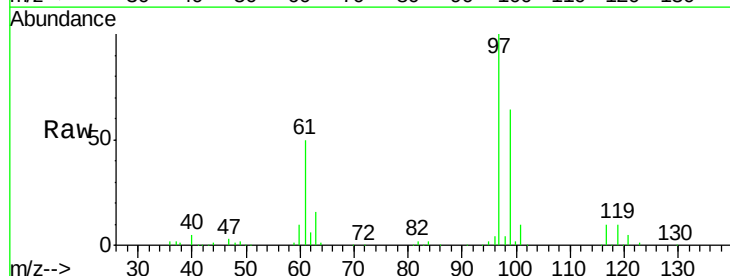
Instrument :
MSVOA_L
ClientSampleId :

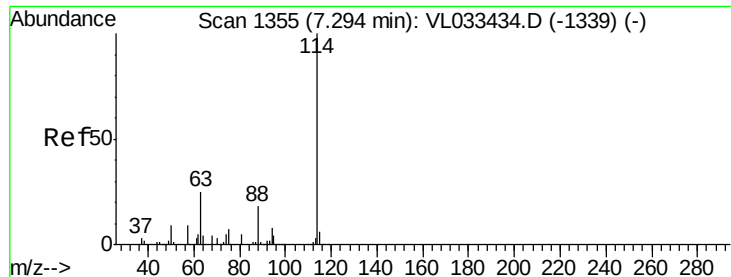
Tot Ion: 83 Resp: 8095
Ion Ratio Lower Upper
83 100
85 61.3 52.6 79.0



#32
1,1,1-Trichloroethane
Concen: 2.784 ppbv
RT: 6.61 min Scan# 1143
Delta R.T. -0.01 min
Lab File: VL033492.D
Acq: 28 Mar 2019 6:53

Tgt Ion: 97 Resp: 341950
Ion Ratio Lower Upper
97 100
99 64.9 51.5 77.3
61 49.4 38.8 58.2





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.28 min Scan# 1352

Delta R.T. -0.01 min

Lab File: VL033492.D

Acq: 28 Mar 2019 6:53

Instrument :

MSVOA_L

ClientSampled :

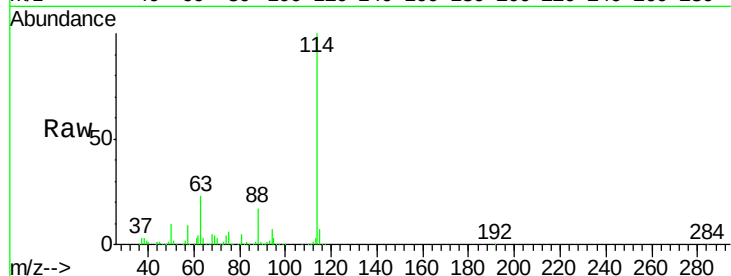
Tot Ion:114 Resp: 2078712

Ion Ratio Lower Upper

114 100

63 24.9 21.5 32.3

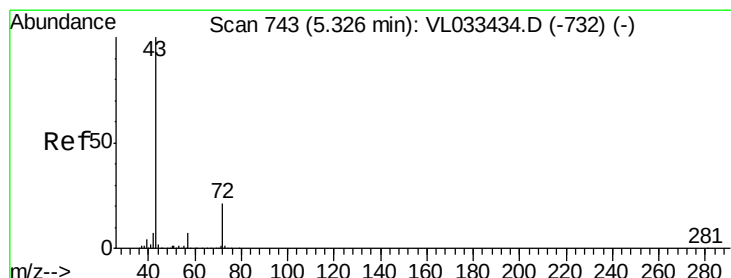
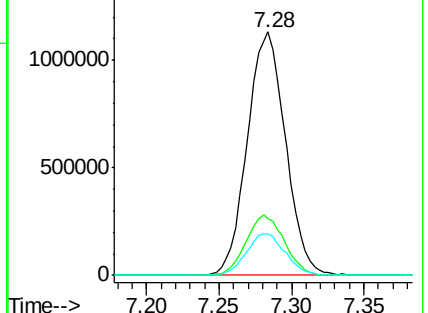
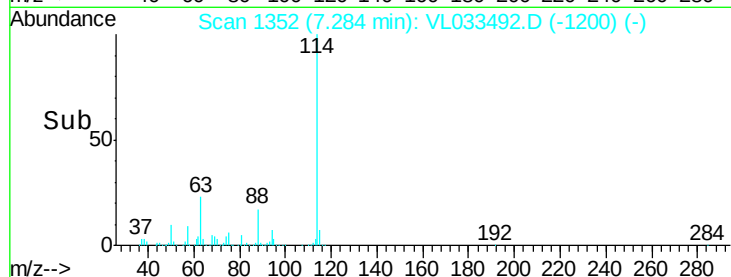
88 17.5 14.5 21.7



Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 0.022 ppbv

RT: 5.34 min Scan# 748

Delta R.T. 0.02 min

Lab File: VL033492.D

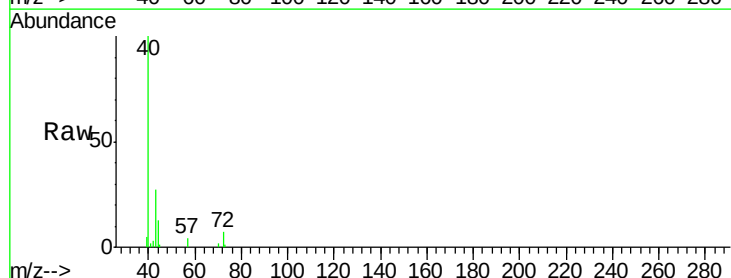
Acq: 28 Mar 2019 6:53

Tgt Ion: 43 Resp: 2779

Ion Ratio Lower Upper

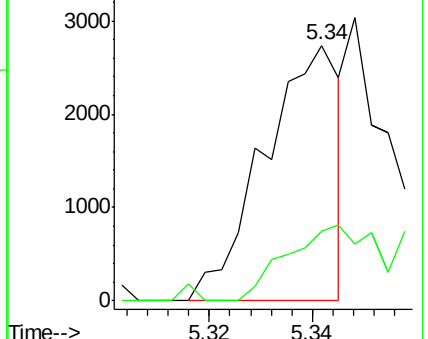
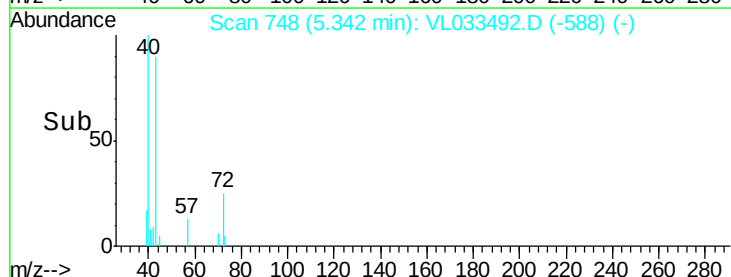
43 100

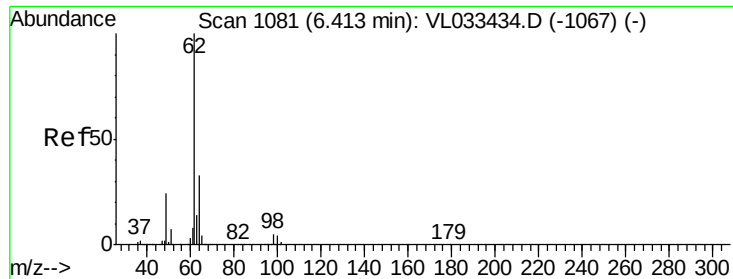
72 0.0 17.4 26.2#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

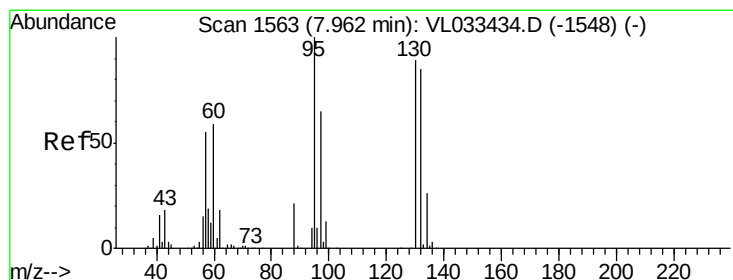
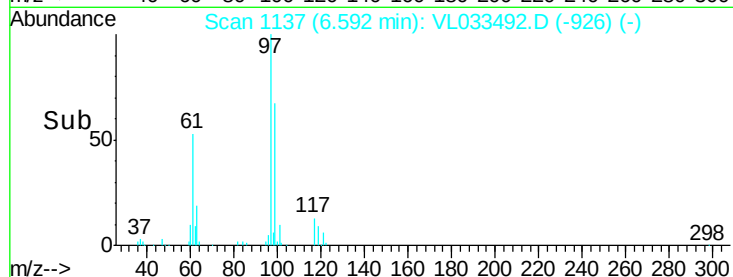
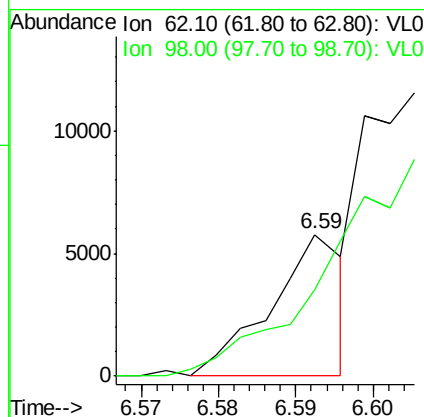
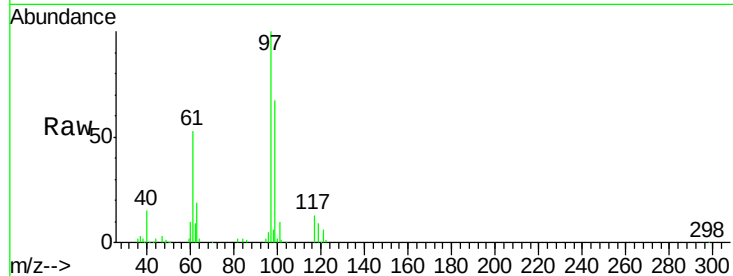




#37
 1,2-Dichloroethane
 Concen: 0.032 ppbv
 RT: 6.59 min Scan# 1137
 Delta R.T. 0.18 min
 Lab File: VL033492.D
 Acq: 28 Mar 2019 6:53

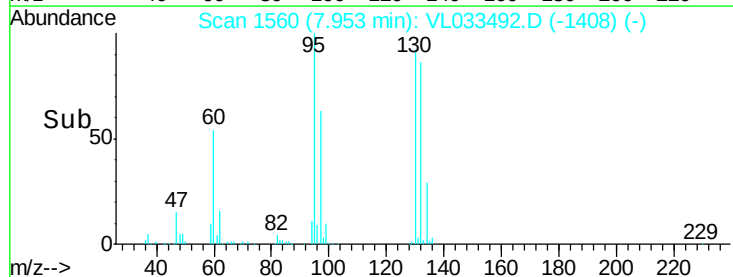
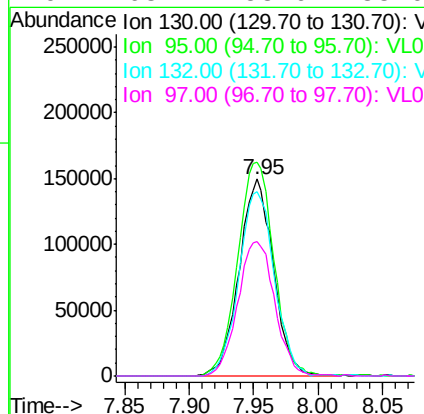
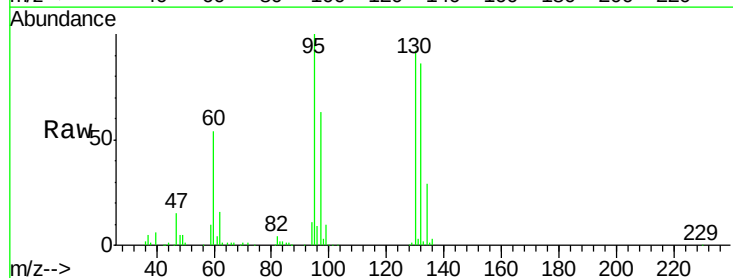
Instrument :
 MSVOA_L
 ClientSampled :

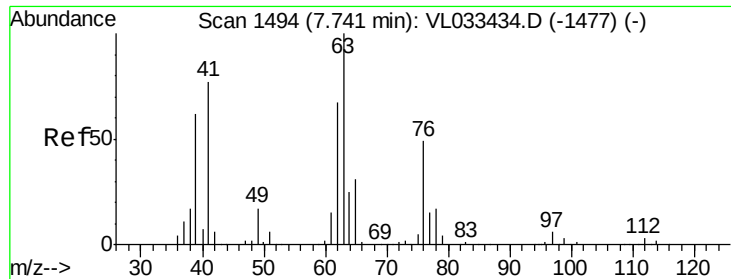
Tot Ion: 62 Resp: 3795
 Ion Ratio Lower Upper
 62 100
 98 0.0 4.4 6.6#



#38
 Trichloroethene
 Concen: 4.225 ppbv
 RT: 7.95 min Scan# 1560
 Delta R.T. -0.01 min
 Lab File: VL033492.D
 Acq: 28 Mar 2019 6:53

Tgt Ion: 130 Resp: 277339
 Ion Ratio Lower Upper
 130 100
 95 108.6 89.8 134.8
 132 93.9 76.6 115.0
 97 68.2 58.6 88.0

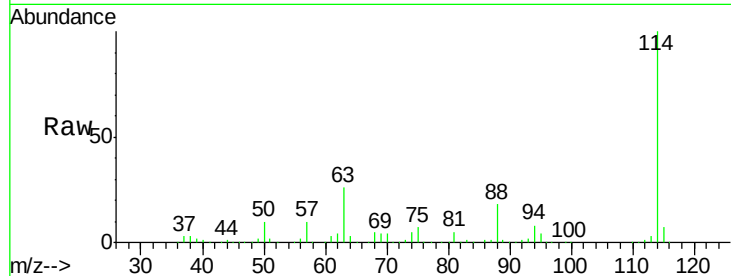




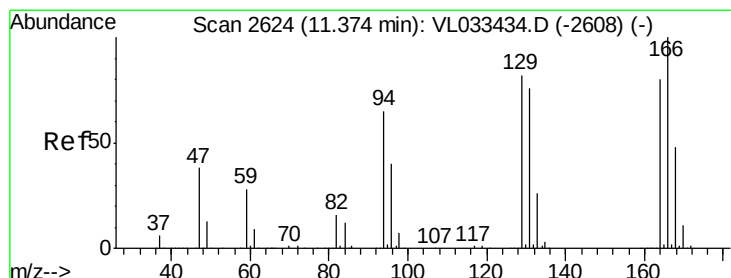
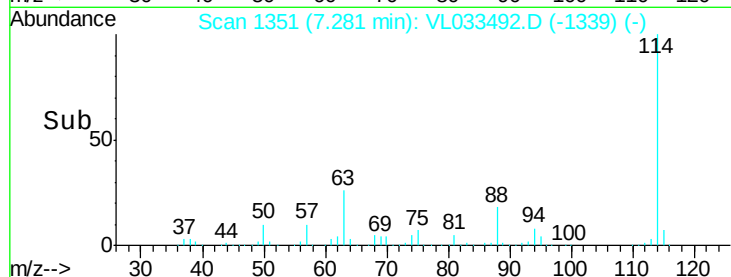
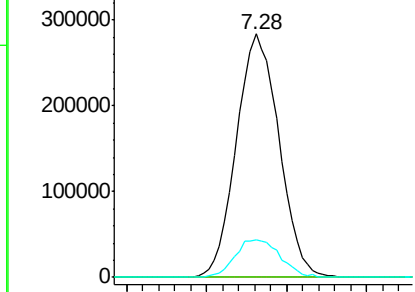
#39
 1,2-Dichloropropane
 Concen: 7.506 ppbv
 RT: 7.28 min Scan# 1351
 Delta R.T. -0.46 min
 Lab File: VL033492.D
 Acq: 28 Mar 2019 6:53

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion: 63 Resp: 512817
 Ion Ratio Lower Upper
 63 100
 41 0.0 61.2 91.8#
 62 15.0 54.0 81.0#

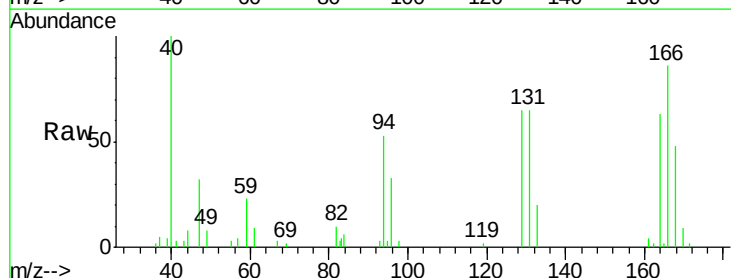


Abundance Ion 63.10 (62.80 to 63.80): VL0
 Ion 41.10 (40.80 to 41.80): VL0
 Ion 62.10 (61.80 to 62.80): VL0

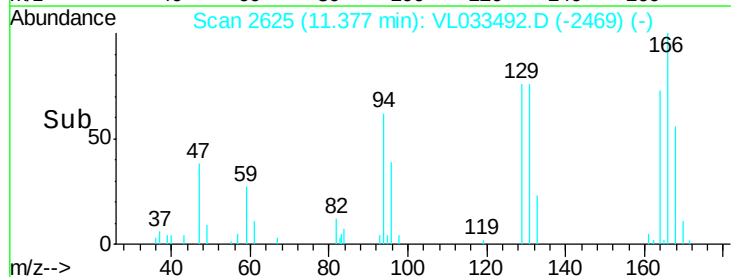
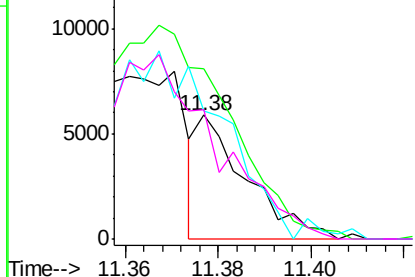


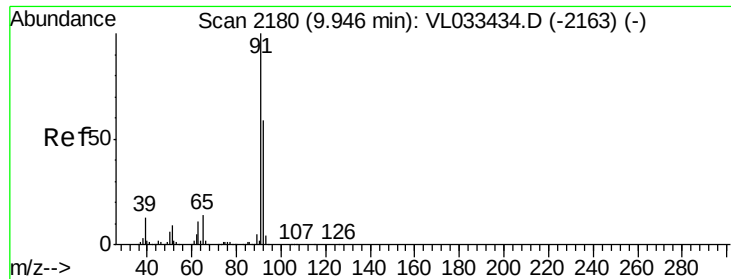
#52
 Tetrachloroethene
 Concen: 0.066 ppbv
 RT: 11.38 min Scan# 2625
 Delta R.T. 0.00 min
 Lab File: VL033492.D
 Acq: 28 Mar 2019 6:53

Tgt Ion:164 Resp: 4318
 Ion Ratio Lower Upper
 164 100
 166 130.4 99.5 149.3
 129 99.8 81.4 122.2
 131 104.6 75.6 113.4



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





#53

Toluene

Concen: 0.104 ppbv

RT: 9.94 min Scan# 2179

Delta R.T. -0.00 min

Lab File: VL033492.D

Acq: 28 Mar 2019 6:53

Instrument :

MSVOA_L

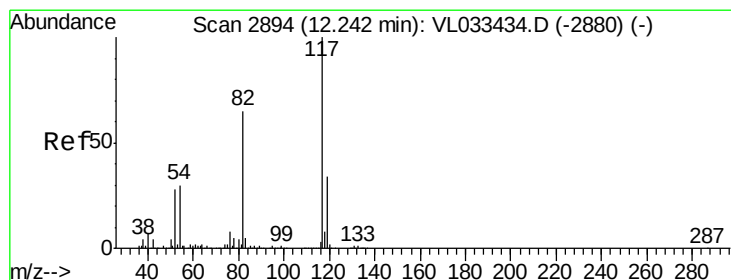
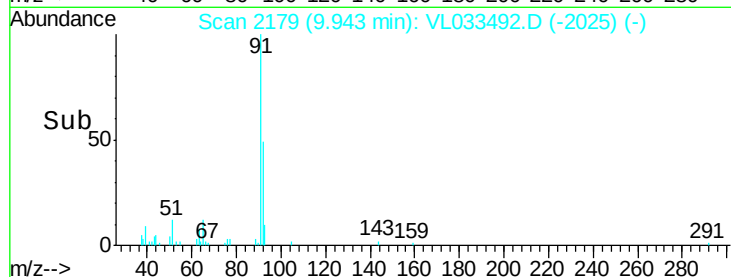
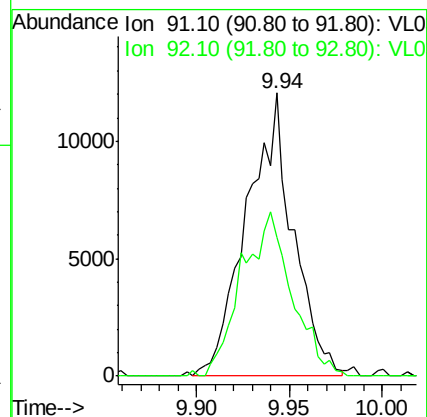
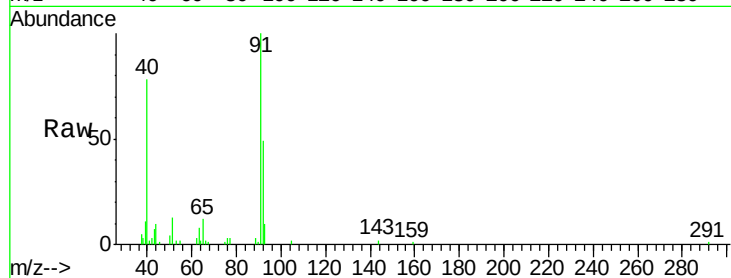
ClientSampleId :

Tot Ion: 91 Resp: 20978

Ion Ratio Lower Upper

91 100

92 63.1 47.4 71.0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.23 min Scan# 2891

Delta R.T. -0.01 min

Lab File: VL033492.D

Acq: 28 Mar 2019 6:53

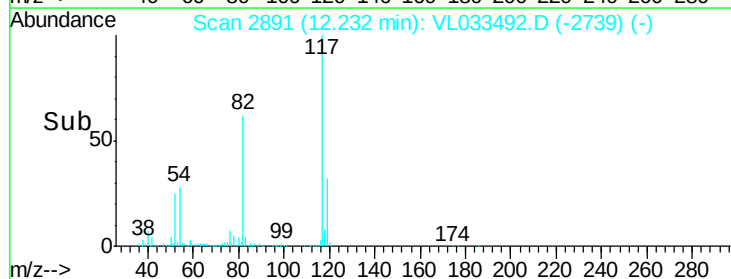
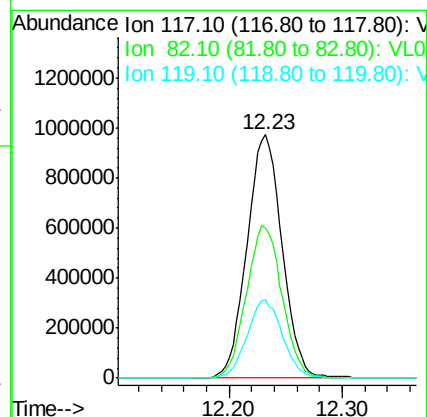
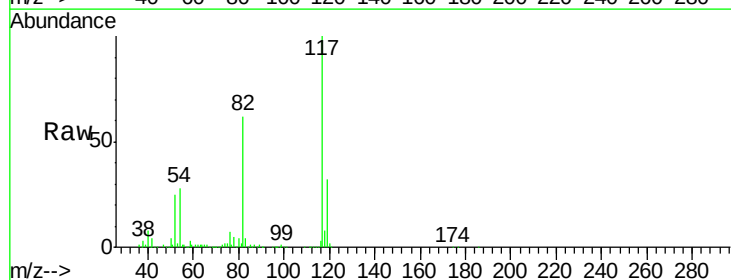
Tgt Ion: 117 Resp: 2100119

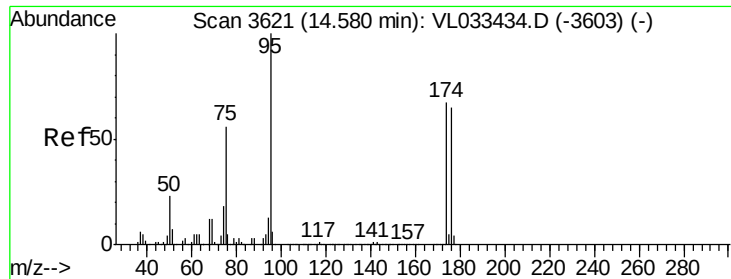
Ion Ratio Lower Upper

117 100

82 63.8 51.5 77.3

119 32.4 25.5 38.3





#68

1-Bromo-4-Fluorobenzene

Concen: 9.778 ppbv

RT: 14.57 min Scan# 3617

Delta R.T. -0.01 min

Lab File: VL033492.D

Acq: 28 Mar 2019 6:53

Instrument :

MSVOA_L

ClientSampleId :

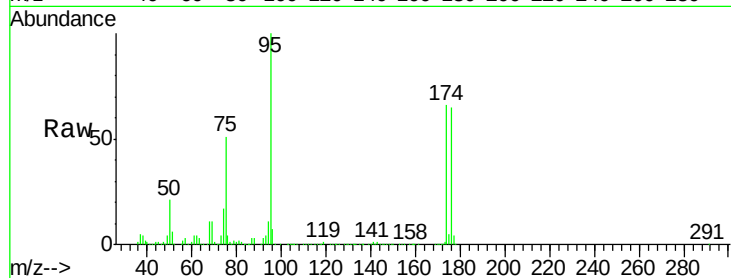
Tot Ion: 95 Resp: 1609945

Ion Ratio Lower Upper

95 100

174 69.3 52.9 79.3

175 5.2 3.8 5.6



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

