

Data File : VL033179.D
Acq On : 6 Feb 2019 10:35
Operator : SY/AP
Sample : K1289-01
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
1000

Quant Time: Feb 20 06:18:04 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL020519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Feb 20 06:00:52 2019
QLast Update : Wed Feb 20 06:00:52 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	801078	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1903566	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.24	117	1964430	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.57	95	1640303	10.71	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	107.10%

Target Compounds

						Qvalue
4) Chloromethane	3.17	50	1576	0.031	ppbv	94
5) Vinyl Chloride	3.29	62	962810	18.104	ppbv	99
7) Chloroethane	3.29	64	309269	17.788	ppbv #	42
9) Propene	3.04	41	768495	16.493	ppbv	98
13) Ethanol	3.66	45	36458	2.302	ppbv	93
14) Bromoethene	3.79	108	17883	0.483	ppbv	93
15) Acetone	3.91	43	47405	0.525	ppbv	97
16) 1,3-Butadiene	3.04	39	637638	14.884	ppbv #	5
17) tert-Butyl alcohol	4.35	59	43622	2.516	ppbv #	75
18) 1,1-Dichloroethene	4.35	96	627108	16.303	ppbv	96
19) Isopropyl Alcohol	4.04	45	5959	0.097	ppbv #	1
20) Methylene Chloride	4.41	84	41828	1.165	ppbv	97
24) 1,1-Dichloroethane	5.09	63	2612606	23.614	ppbv	100
25) Ethyl Acetate	5.78	43	1684557	8.301	ppbv #	76
26) Hexane	5.78	57	2465254	25.879	ppbv #	42
32) 1,1,1-Trichloroethane	6.62	97	10755	0.067	ppbv #	26
34) 2-Butanone	5.78	43	1671942	13.847	ppbv #	54
37) 1,2-Dichloroethane	6.41	62	7176	0.067	ppbv #	92
39) 1,2-Dichloropropane	7.29	63	489527	6.425	ppbv #	25
41) Tetrahydrofuran	5.78	42	877691	11.759	ppbv #	51
42) Bromodichloromethane	7.91	83	8452	0.055	ppbv #	82
47) 1,1,2-Trichloroethane	9.61	97	1395952	17.668	ppbv	98
48) Dibromochloromethane	10.45	129	2007845	16.130	ppbv	100
53) Toluene	9.95	91	3073278	13.453	ppbv	100
54) 1,2-Dibromoethane	10.76	107	2110031	17.018	ppbv	97
56) 1,1,1,2-Tetrachloroethane	12.29	131	2823	0.031	ppbv #	49
57) Chlorobenzene	12.30	112	3260756	18.759	ppbv	98
80) Naphthalene,2-methyl-	25.12	142	8991	0.055	ppbv	100

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

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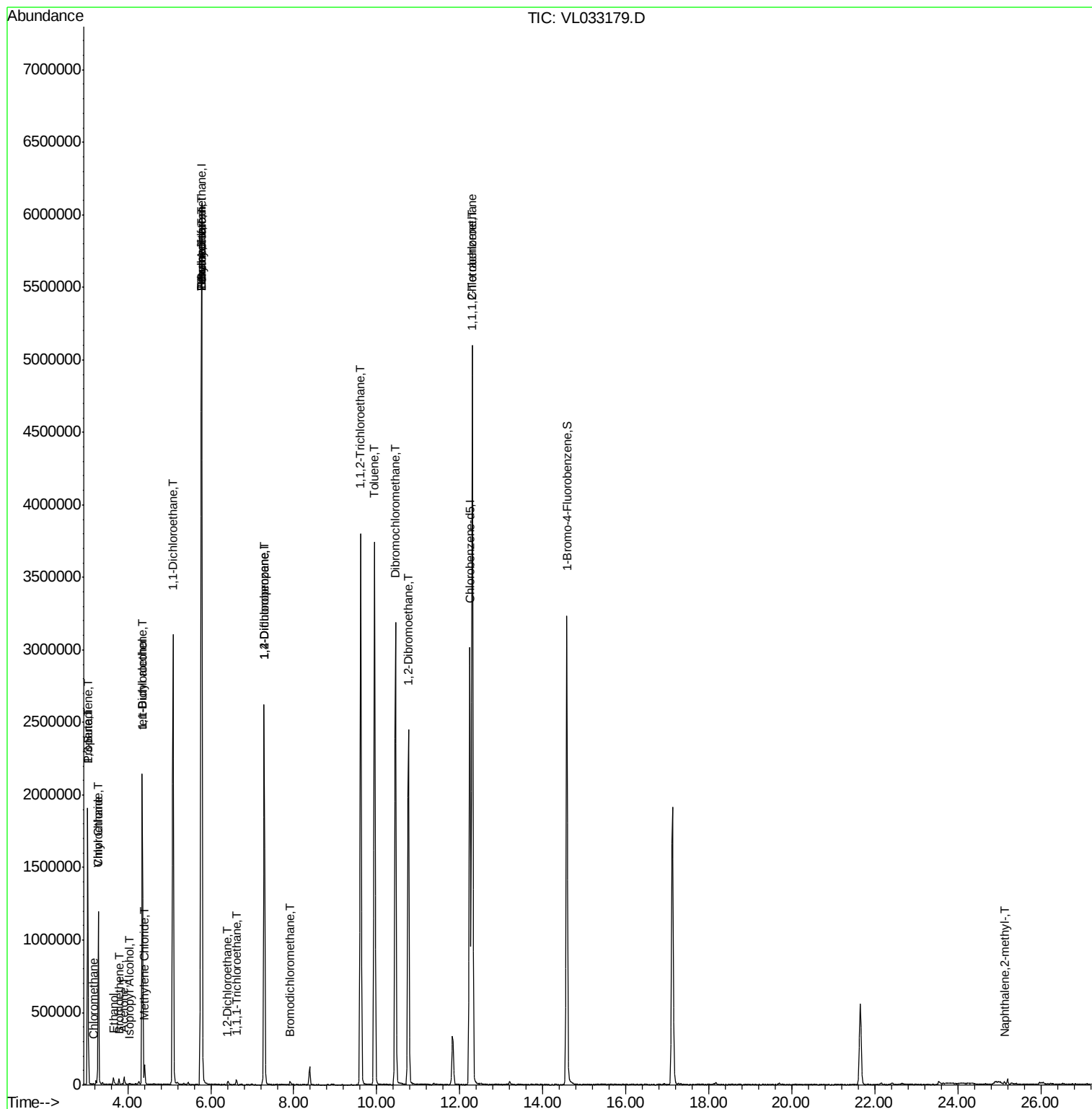
Quant Time: Feb 20 06:18:04 2019

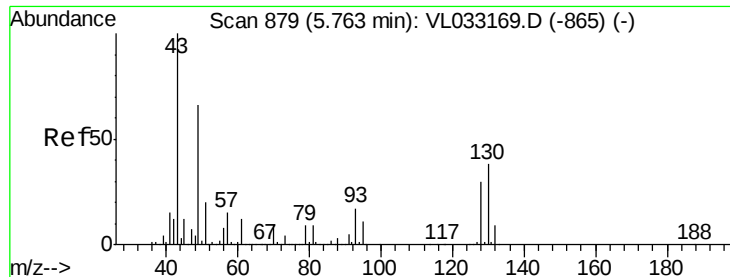
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL020519AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Feb 20 06:00:52 2019

QLast Update : Wed Feb 20 06:00:52 2019

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 878

Delta R.T. -0.00 min

Lab File: VL033179.D

Acq: 6 Feb 2019 10:35

Instrument :
MSVOA_L
ClientSampleId :
1000

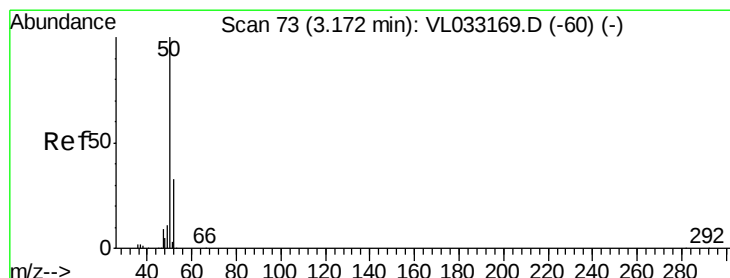
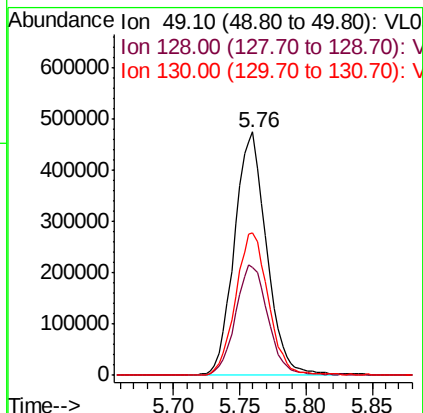
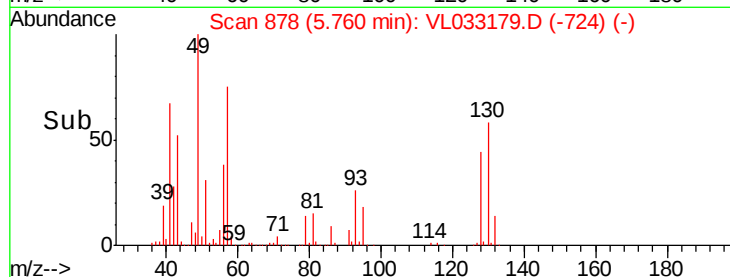
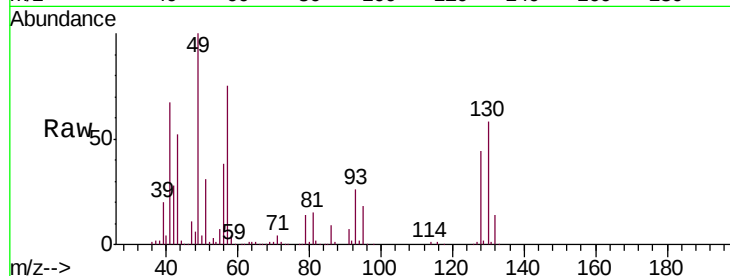
Tgt Ion: 49 Resp: 801078

Ion Ratio Lower Upper

49 100

128 46.3 23.6 71.0

130 60.4 30.3 91.0



#4

Chloromethane

Concen: 0.031 ppbv

RT: 3.17 min Scan# 73

Delta R.T. -0.00 min

Lab File: VL033179.D

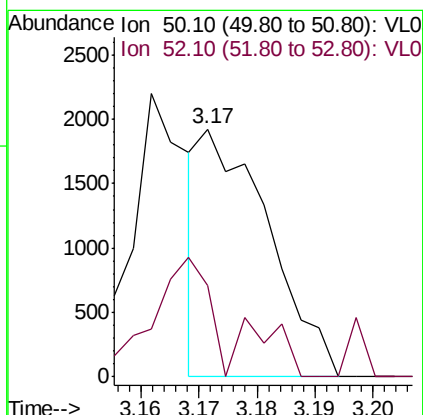
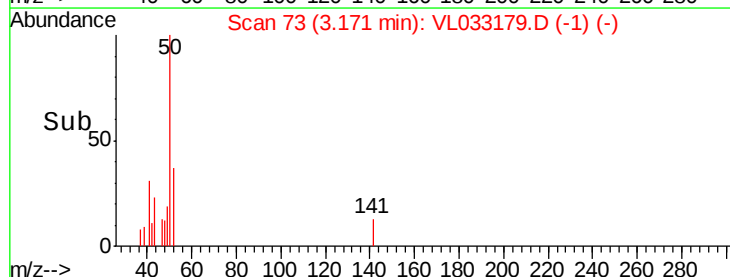
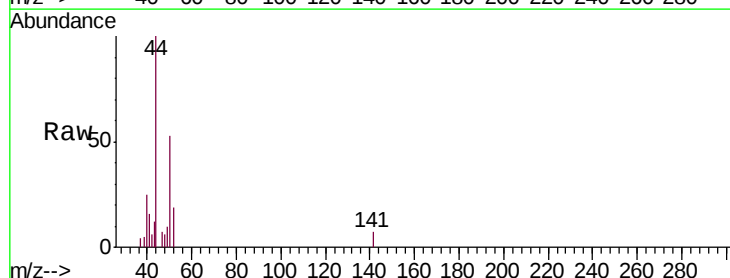
Acq: 6 Feb 2019 10:35

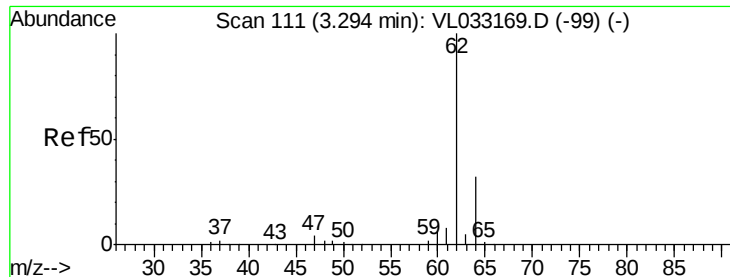
Tgt Ion: 50 Resp: 1576

Ion Ratio Lower Upper

50 100

52 36.7 26.5 39.7

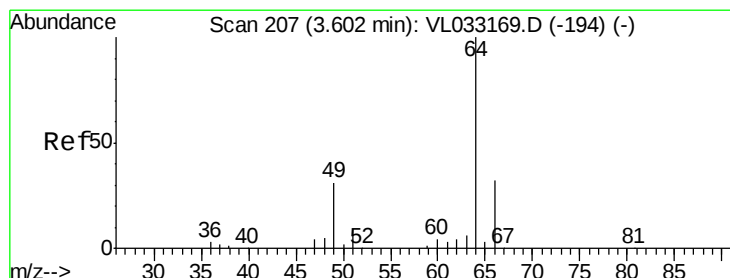
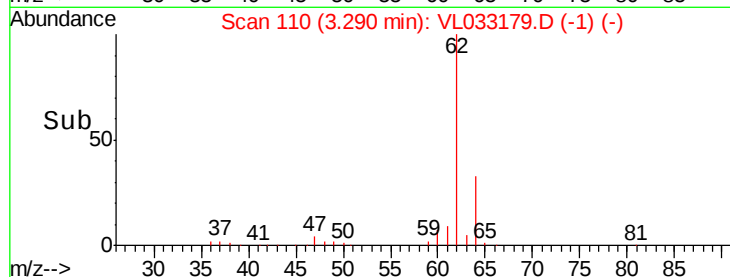
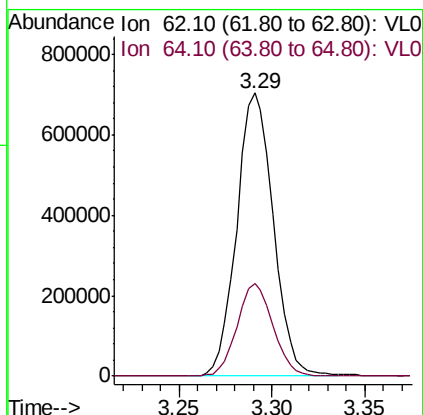
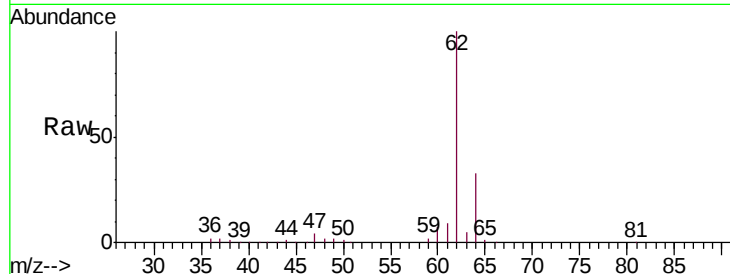




#5
 Vinyl Chloride
 Concen: 18.104 ppbv
 RT: 3.29 min Scan# 110
 Delta R.T. -0.00 min
 Lab File: VL033179.D
 Acq: 6 Feb 2019 10:35

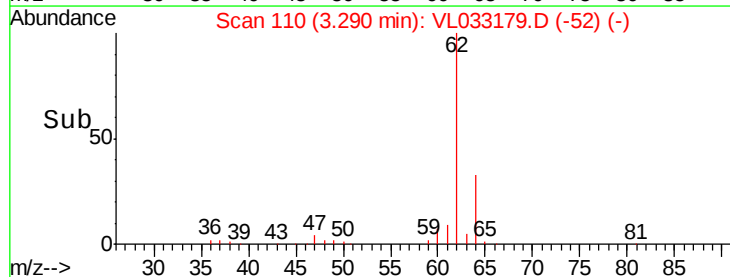
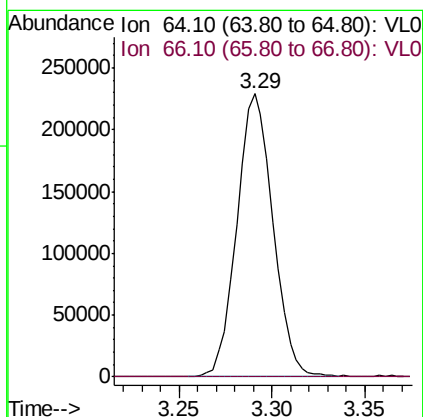
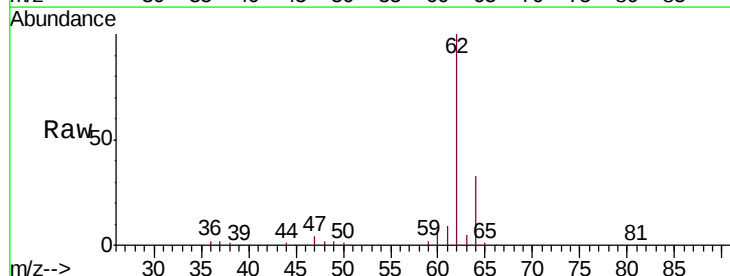
Instrument :
 MSVOA_L
 ClientSampleId :
 1000

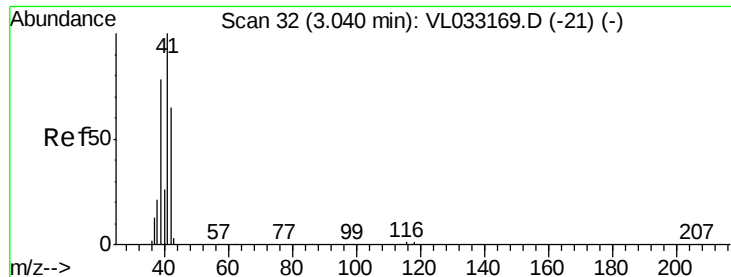
Tgt Ion: 62 Resp: 962810
 Ion Ratio Lower Upper
 62 100
 64 32.5 25.6 38.4



#7
 Chloroethane
 Concen: 17.788 ppbv
 RT: 3.29 min Scan# 110
 Delta R.T. -0.31 min
 Lab File: VL033179.D
 Acq: 6 Feb 2019 10:35

Tgt Ion: 64 Resp: 309269
 Ion Ratio Lower Upper
 64 100
 66 0.1 26.0 39.0#





#9

Propene

Concen: 16.493 ppbv

RT: 3.04 min Scan# 31

Delta R.T. -0.00 min

Lab File: VL033179.D

Acq: 6 Feb 2019 10:35

Instrument :

MSVOA_L

ClientSampleId :

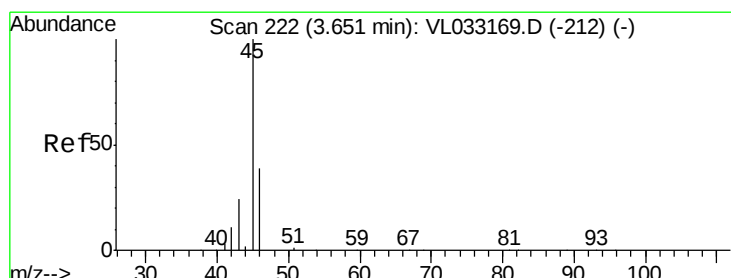
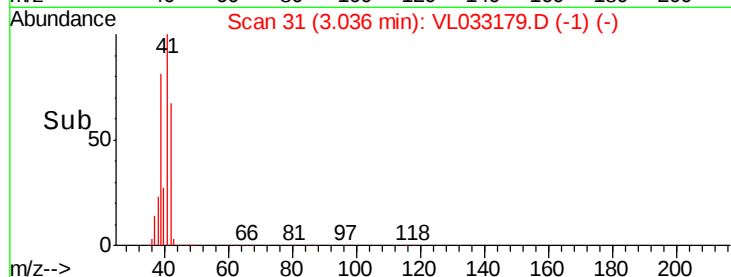
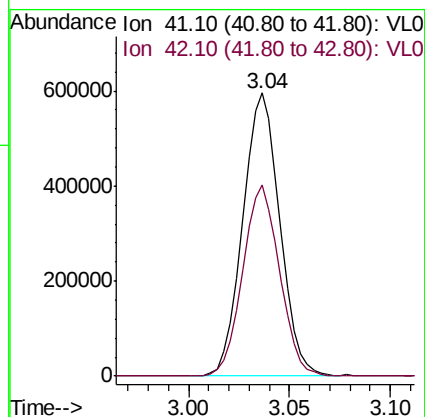
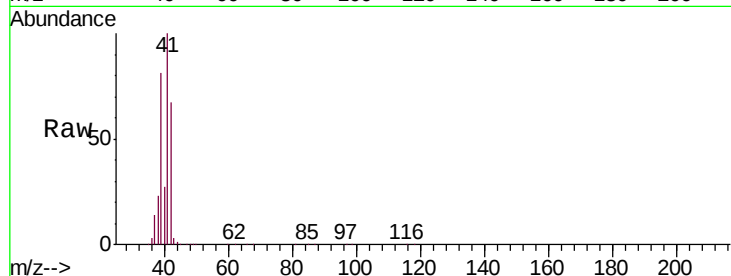
1000

Tgt Ion: 41 Resp: 768495

Ion Ratio Lower Upper

41 100

42 67.4 55.0 82.6



#13

Ethanol

Concen: 2.302 ppbv

RT: 3.66 min Scan# 224

Delta R.T. 0.01 min

Lab File: VL033179.D

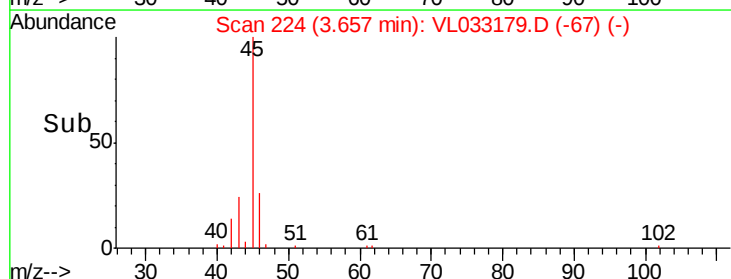
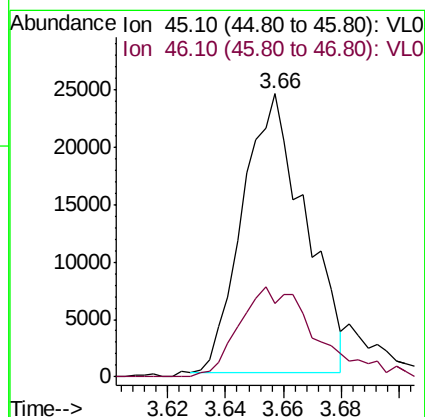
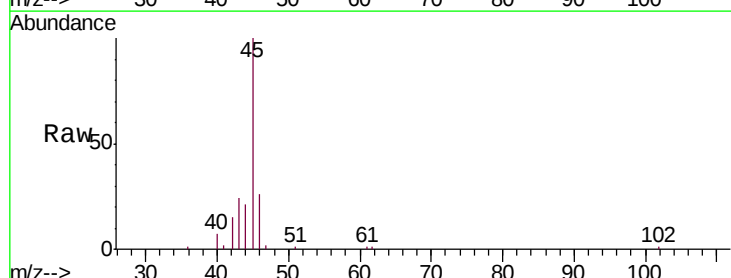
Acq: 6 Feb 2019 10:35

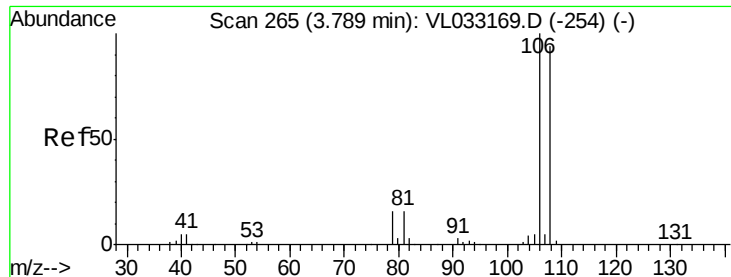
Tgt Ion: 45 Resp: 36458

Ion Ratio Lower Upper

45 100

46 41.8 15.0 60.2





#14

Bromoethene

Concen: 0.483 ppbv

RT: 3.79 min Scan# 265

Delta R.T. -0.00 min

Lab File: VL033179.D

Acq: 6 Feb 2019 10:35

Instrument :

MSVOA_L

ClientSampled :

1000

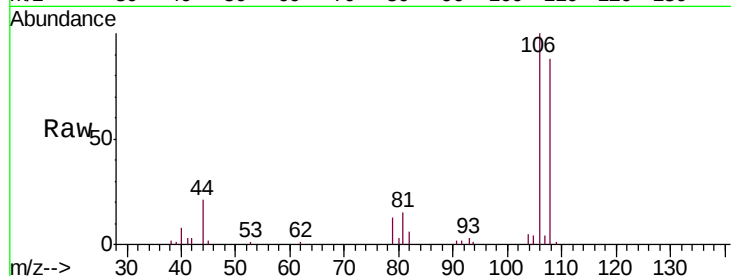
Tgt Ion:108 Resp: 17883

Ion Ratio Lower Upper

108 100

106 115.6 86.0 129.0

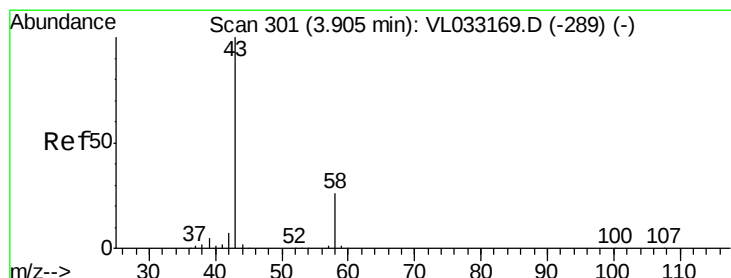
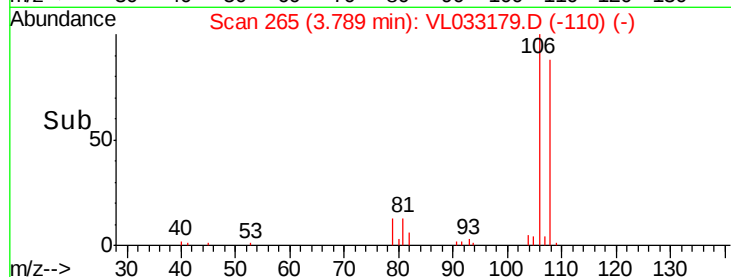
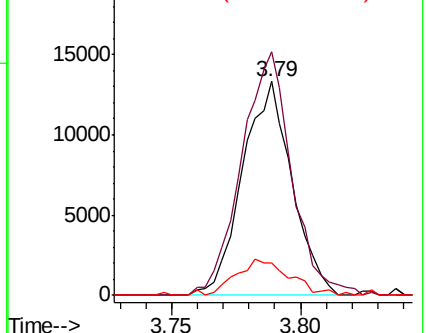
79 19.0 14.5 21.7



Abundance Ion 108.00 (107.70 to 108.70): V

Ion 106.00 (105.70 to 106.70): V

Ion 79.00 (78.70 to 79.70): VL0



#15

Acetone

Concen: 0.525 ppbv

RT: 3.91 min Scan# 303

Delta R.T. 0.01 min

Lab File: VL033179.D

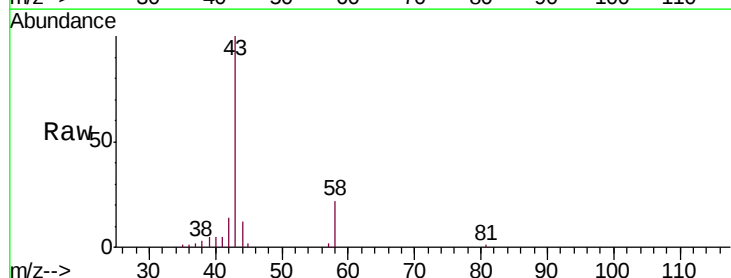
Acq: 6 Feb 2019 10:35

Tgt Ion: 43 Resp: 47405

Ion Ratio Lower Upper

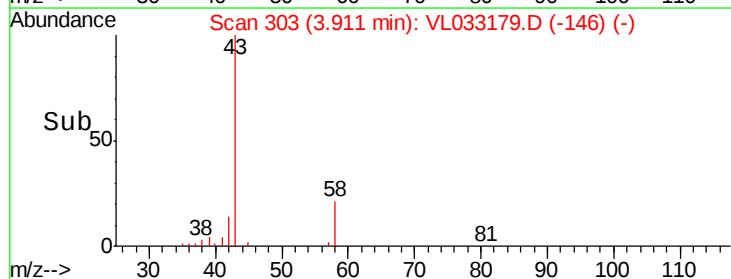
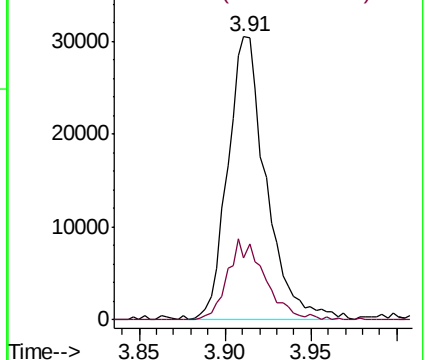
43 100

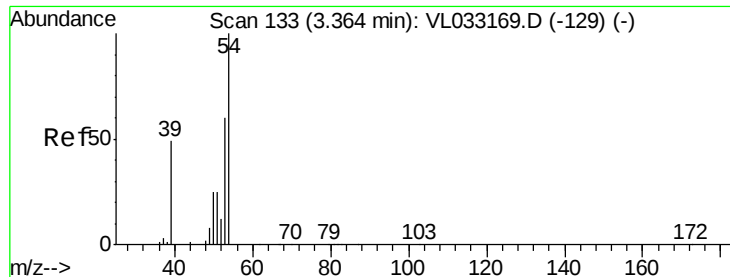
58 27.9 21.1 31.7



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

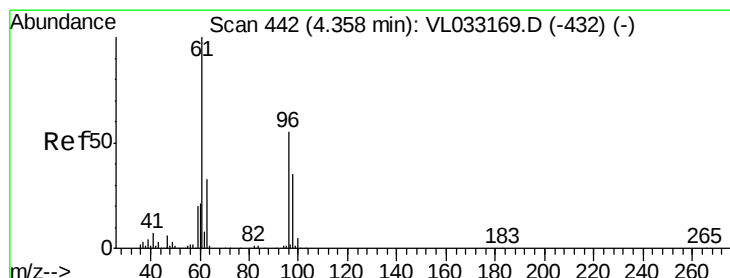
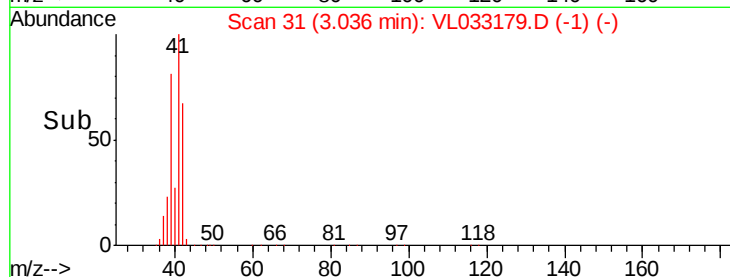
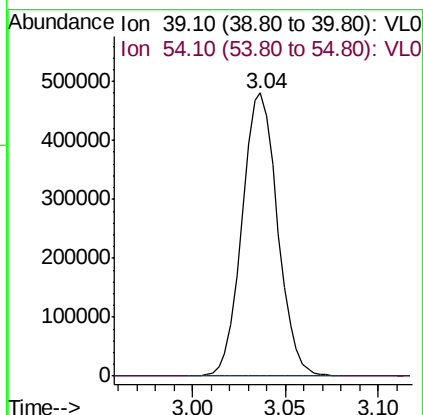
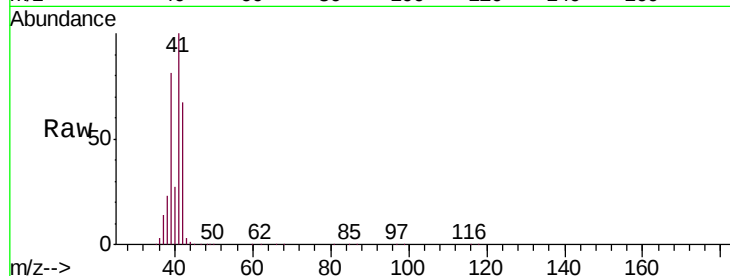




#16
 1,3-Butadiene
 Concen: 14.884 ppbv
 RT: 3.04 min Scan# 31
 Delta R.T. -0.33 min
 Lab File: VL033179.D
 Acq: 6 Feb 2019 10:35

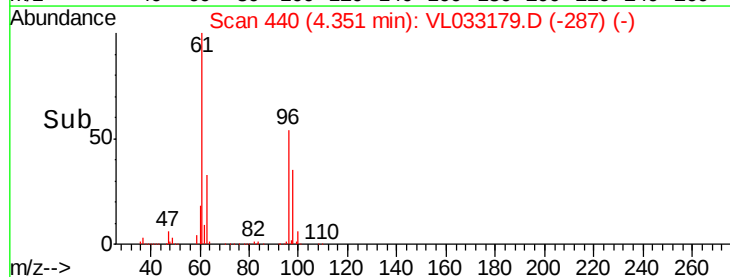
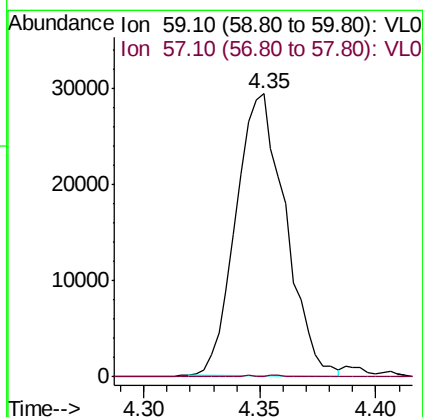
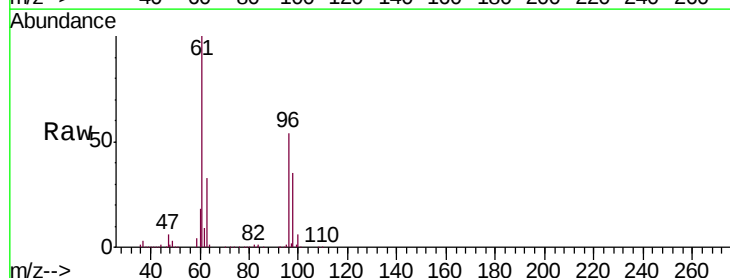
Instrument :
 MSVOA_L
 ClientSampleId :
 1000

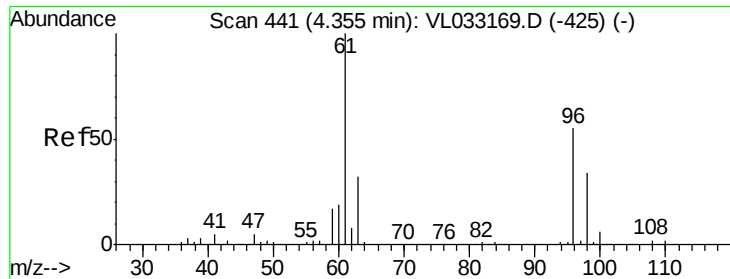
Tgt Ion: 39 Resp: 637638
 Ion Ratio Lower Upper
 39 100
 54 0.0 71.3 106.9#



#17
 tert-Butyl alcohol
 Concen: 2.516 ppbv
 RT: 4.35 min Scan# 440
 Delta R.T. -0.01 min
 Lab File: VL033179.D
 Acq: 6 Feb 2019 10:35

Tgt Ion: 59 Resp: 43622
 Ion Ratio Lower Upper
 59 100
 57 0.3 7.6 11.4#





#18

1,1-Dichloroethene

Concen: 16.303 ppbv

RT: 4.35 min Scan# 440

Delta R.T. -0.00 min

Lab File: VL033179.D

Acq: 6 Feb 2019 10:35

Instrument :

MSVOA_L

ClientSampleId :

1000

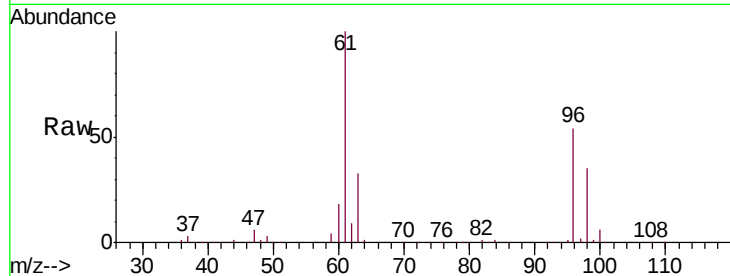
Tgt Ion: 96 Resp: 627108

Ion Ratio Lower Upper

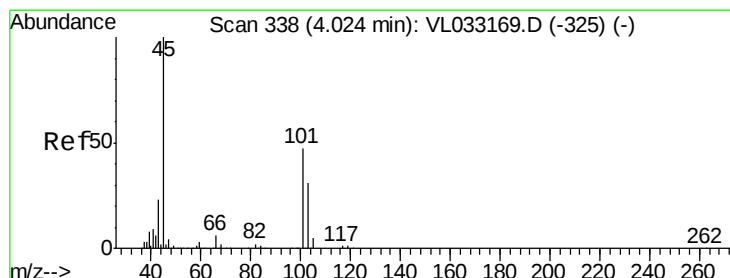
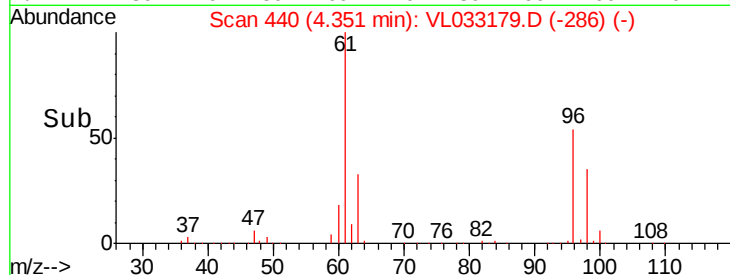
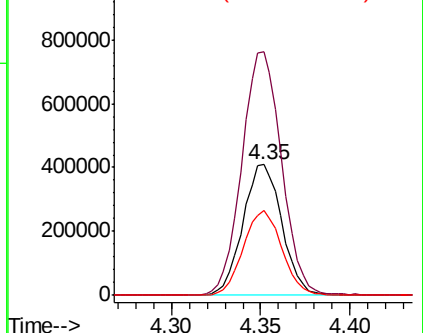
96 100

61 186.4 145.0 217.6

98 65.3 50.0 75.0



Abundance Ion 96.00 (95.70 to 96.70): VL0
Ion 61.10 (60.80 to 61.80): VL0
Ion 98.00 (97.70 to 98.70): VL0



#19

Isopropyl Alcohol

Concen: 0.097 ppbv

RT: 4.04 min Scan# 344

Delta R.T. 0.02 min

Lab File: VL033179.D

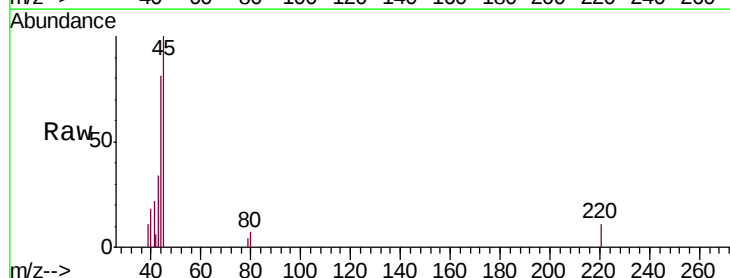
Acq: 6 Feb 2019 10:35

Tgt Ion: 45 Resp: 5959

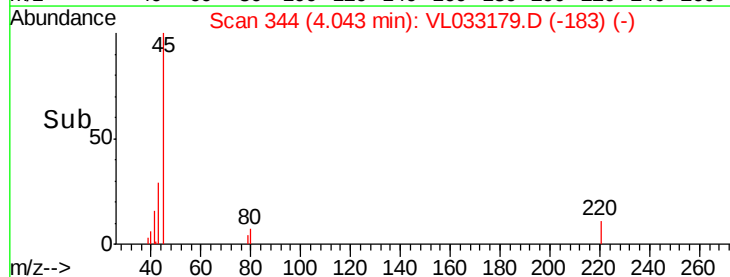
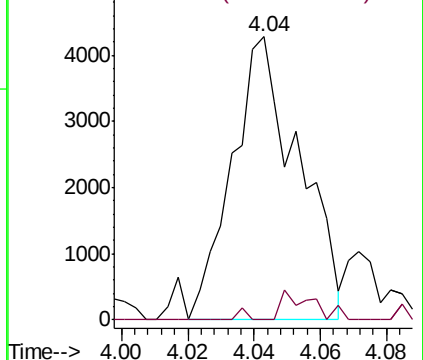
Ion Ratio Lower Upper

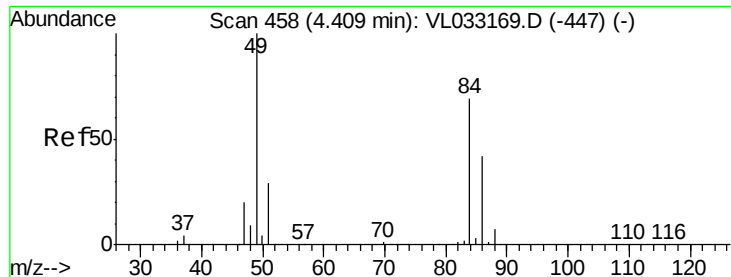
45 100

58 222.2 1.5 2.3#



Abundance Ion 45.10 (44.80 to 45.80): VL0
Ion 58.10 (57.80 to 58.80): VL0

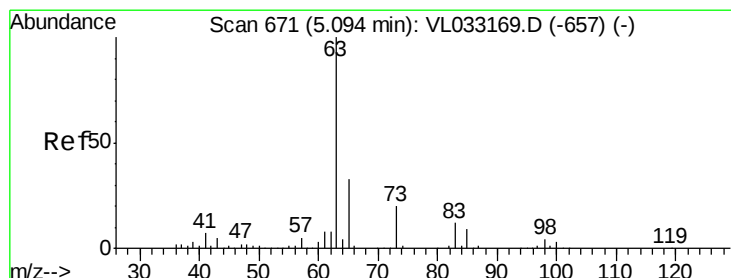
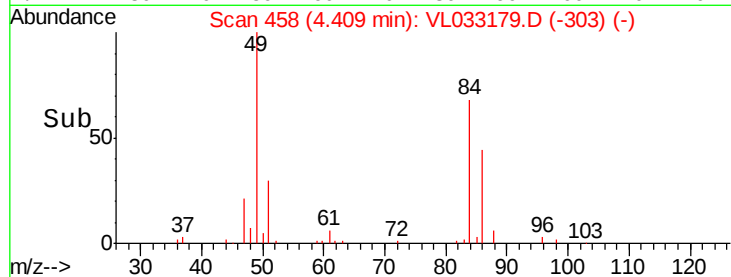
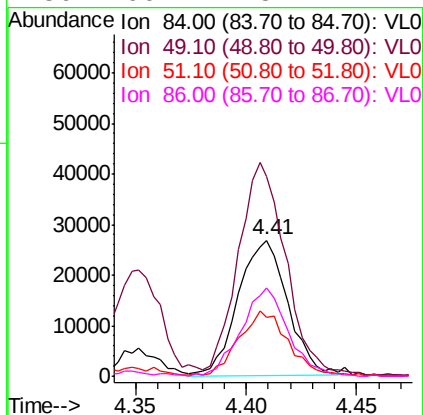
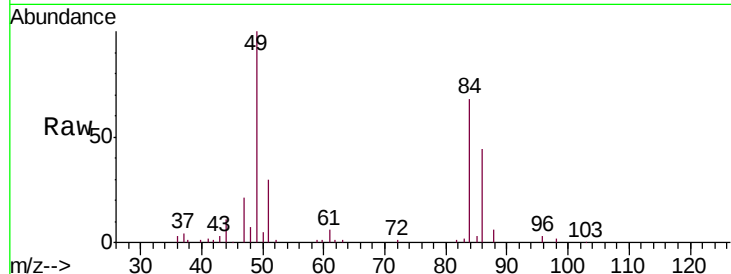




#20
Methylene Chloride
Concen: 1.165 ppbv
RT: 4.41 min Scan# 458
Delta R.T. -0.00 min
Lab File: VL033179.D
Acq: 6 Feb 2019 10:35

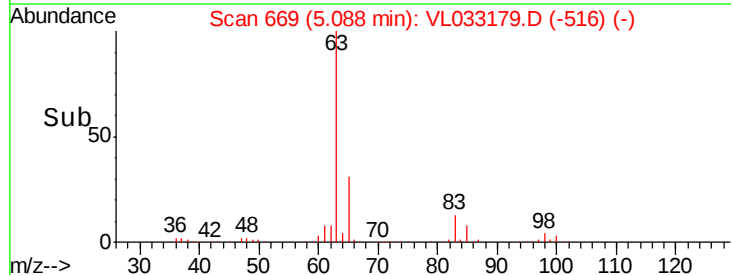
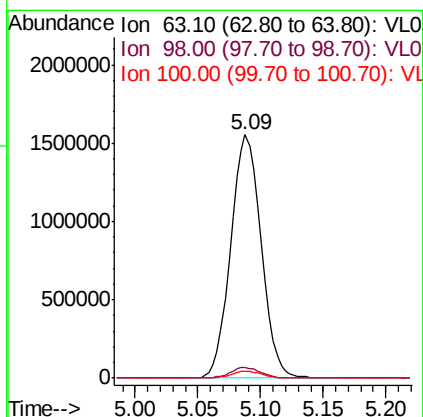
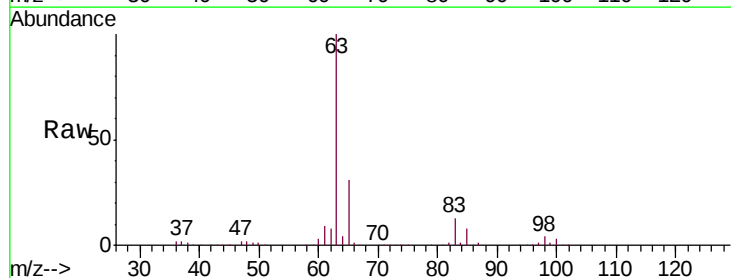
Instrument :
MSVOA_L
ClientSampleId :
1000

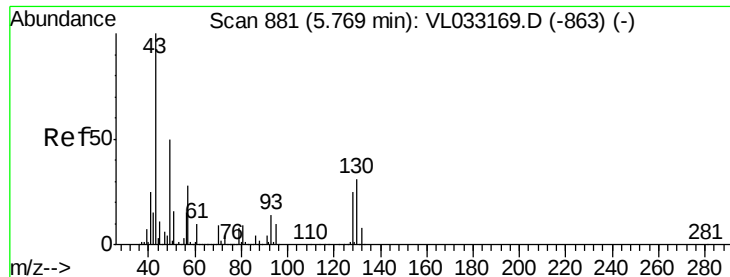
Tgt Ion:	84	Resp:	41828
Ion	Ratio	Lower	Upper
84	100		
49	145.2	115.8	173.8
51	43.8	33.0	49.6
86	66.2	48.2	72.2



#24
1,1-Dichloroethane
Concen: 23.614 ppbv
RT: 5.09 min Scan# 669
Delta R.T. -0.01 min
Lab File: VL033179.D
Acq: 6 Feb 2019 10:35

Tgt Ion:	63	Resp:	2612606
Ion	Ratio	Lower	Upper
63	100		
98	4.4	2.1	6.5
100	2.6	1.4	4.2





#25

Ethyl Acetate

Concen: 8.301 ppbv

RT: 5.78 min Scan# 884

Delta R.T. 0.01 min

Lab File: VL033179.D

Acq: 6 Feb 2019 10:35

Instrument :

MSVOA_L

ClientSampleId :

1000

Tgt Ion: 43 Resp: 1684557

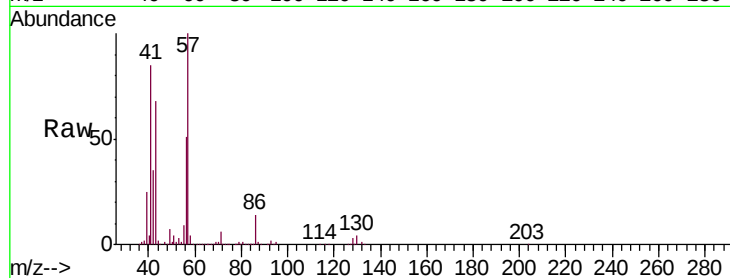
Ion Ratio Lower Upper

43 100

45 0.1 7.9 11.9#

61 0.1 7.5 11.3#

70 1.4 5.8 8.8#

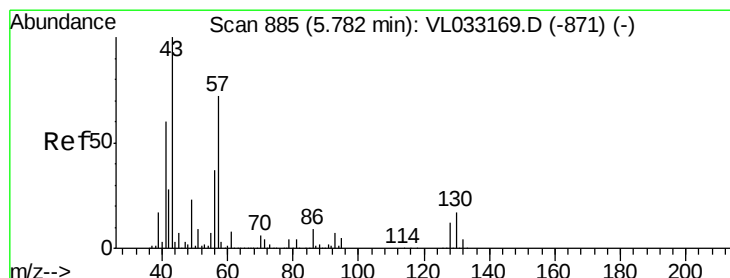
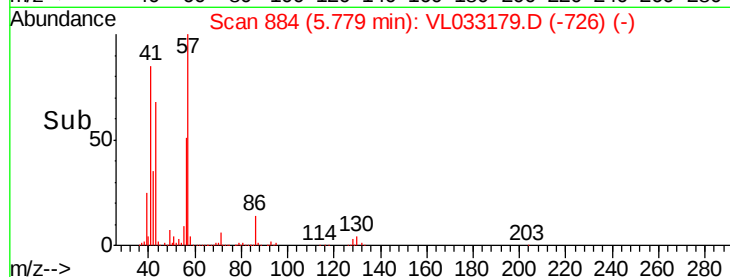
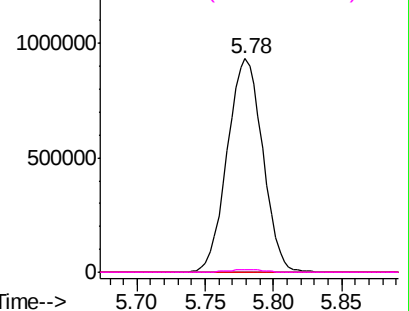


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 25.879 ppbv

RT: 5.78 min Scan# 884

Delta R.T. -0.00 min

Lab File: VL033179.D

Acq: 6 Feb 2019 10:35

Tgt Ion: 57 Resp: 2465254

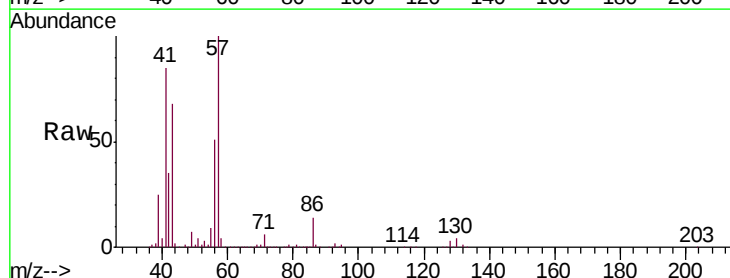
Ion Ratio Lower Upper

57 100

41 85.9 69.4 104.2

43 68.5 176.7 265.1#

56 52.0 41.4 62.0

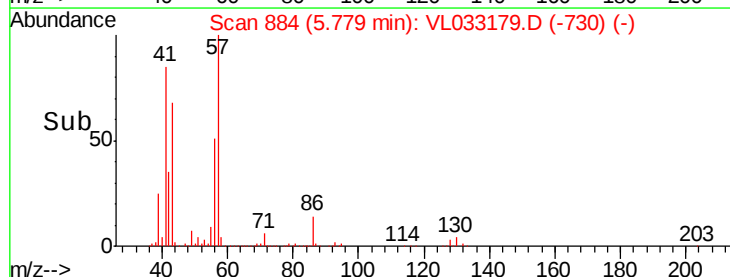
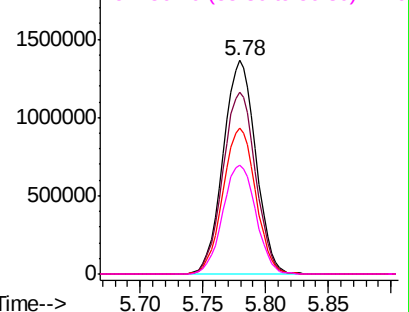


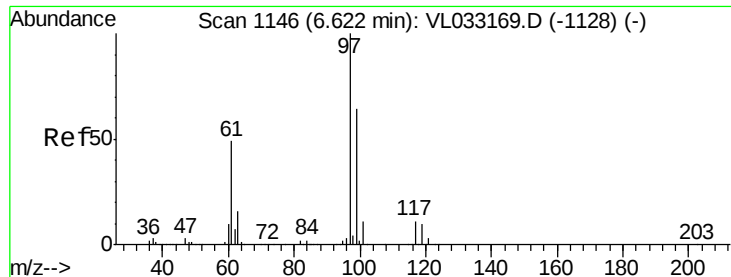
Abundance Ion 57.10 (56.80 to 57.80): VL0

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





#32

1,1,1-Trichloroethane

Concen: 0.067 ppbv

RT: 6.62 min Scan# 1144

Delta R.T. -0.01 min

Lab File: VL033179.D

Acq: 6 Feb 2019 10:35

Instrument :

MSVOA_L

ClientSampled :

1000

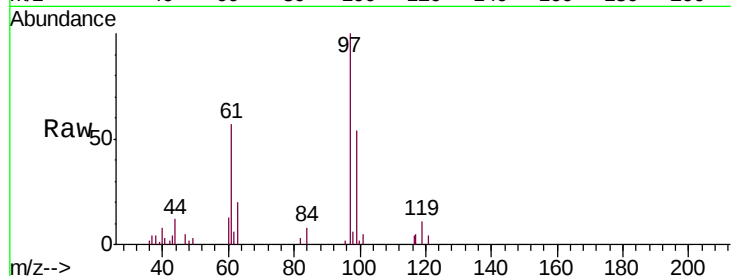
Tgt Ion: 97 Resp: 10755

Ion Ratio Lower Upper

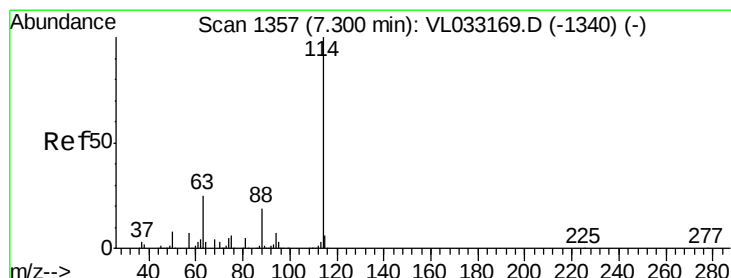
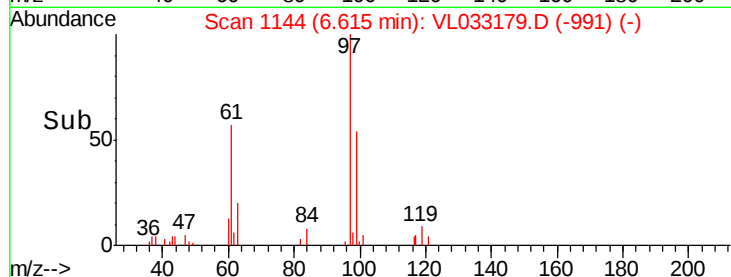
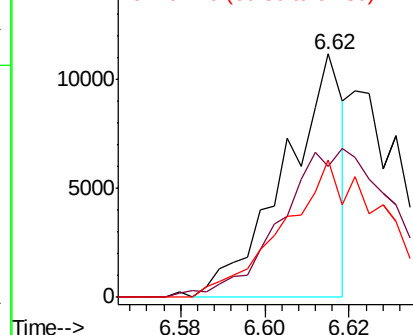
97 100

99 122.4 51.4 77.2#

61 99.1 38.8 58.2#



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: 7.29 min Scan# 1353

Delta R.T. -0.01 min

Lab File: VL033179.D

Acq: 6 Feb 2019 10:35

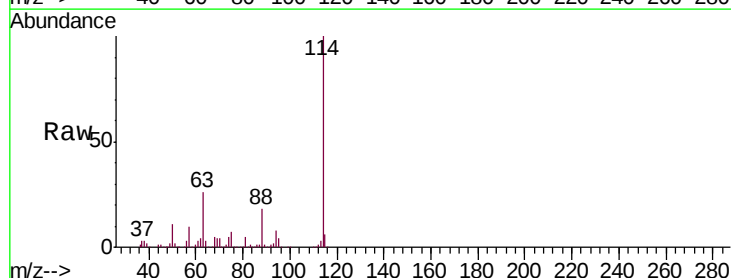
Tgt Ion: 114 Resp: 1903566

Ion Ratio Lower Upper

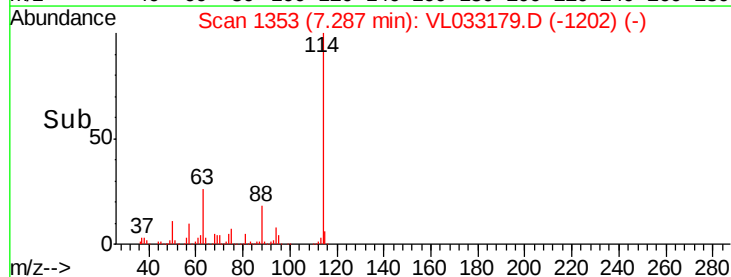
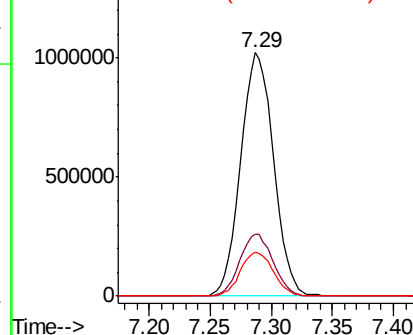
114 100

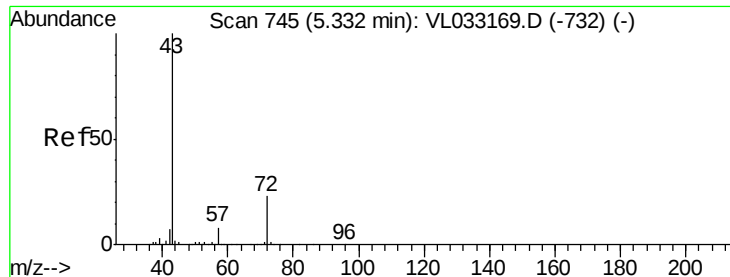
63 25.8 20.8 31.2

88 18.0 14.6 22.0



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

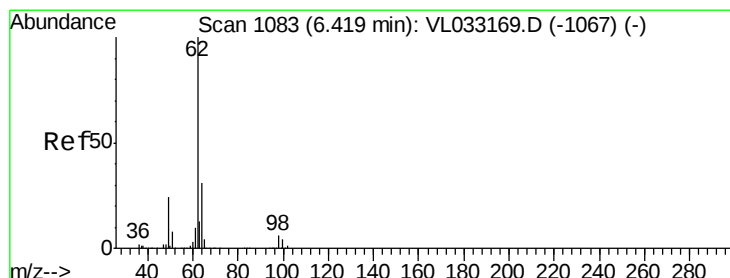
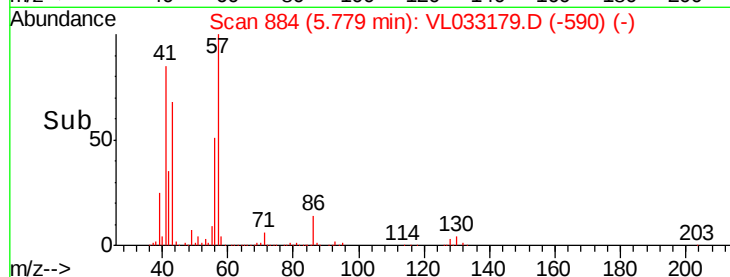
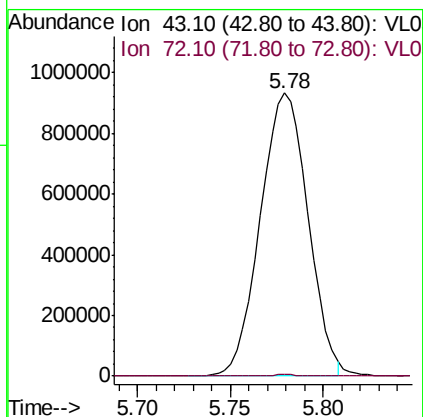
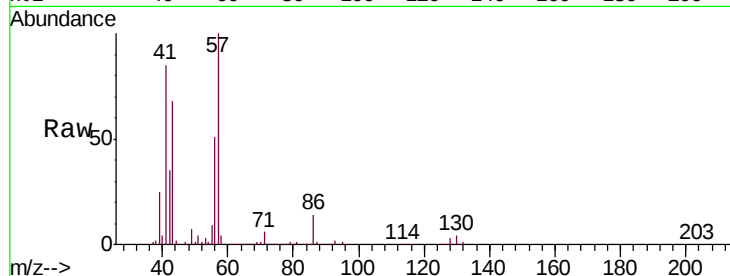




#34
2-Butanone
Concen: 13.847 ppbv
RT: 5.78 min Scan# 884
Delta R.T. 0.45 min
Lab File: VL033179.D
Acq: 6 Feb 2019 10:35

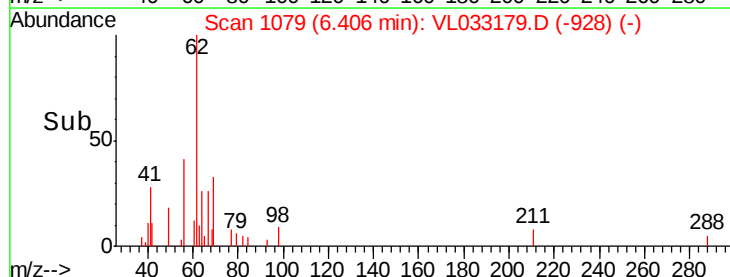
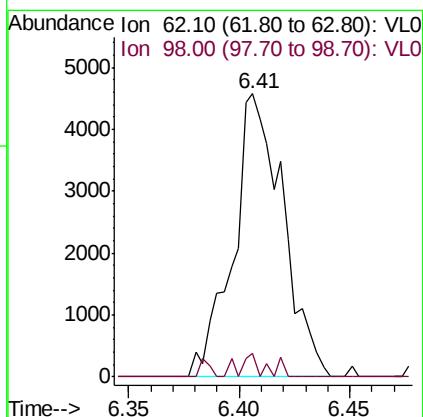
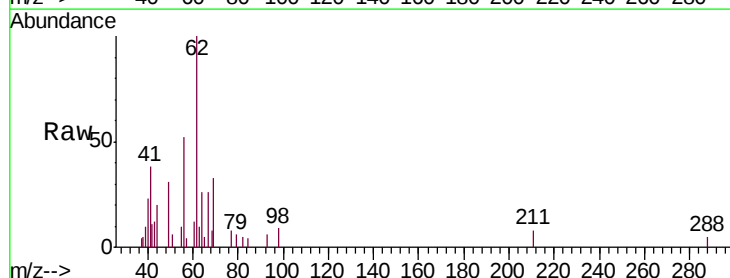
Instrument :
MSVOA_L
ClientSampleId :
1000

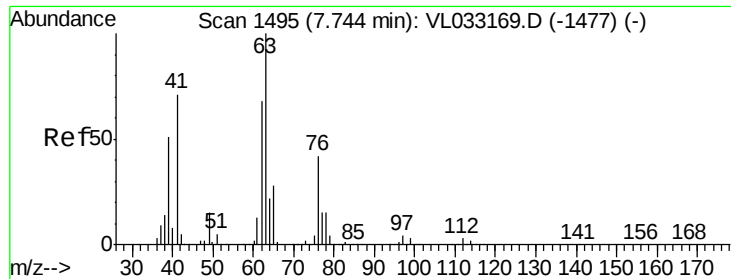
Tgt Ion: 43 Resp: 1671942
Ion Ratio Lower Upper
43 100
72 0.0 17.8 26.6#



#37
1,2-Dichloroethane
Concen: 0.067 ppbv
RT: 6.41 min Scan# 1079
Delta R.T. -0.01 min
Lab File: VL033179.D
Acq: 6 Feb 2019 10:35

Tgt Ion: 62 Resp: 7176
Ion Ratio Lower Upper
62 100
98 3.3 4.7 7.1#

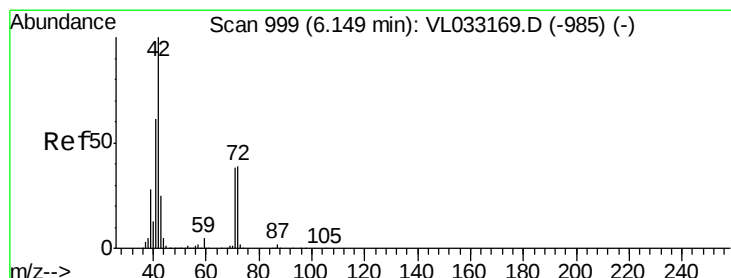
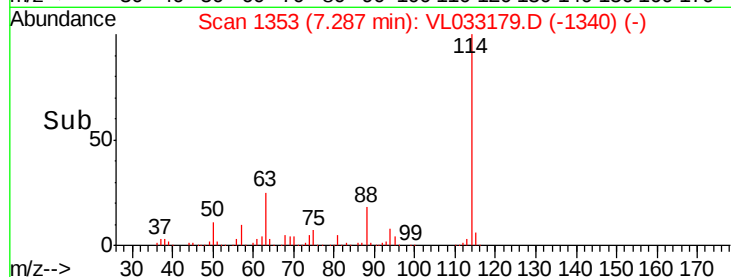
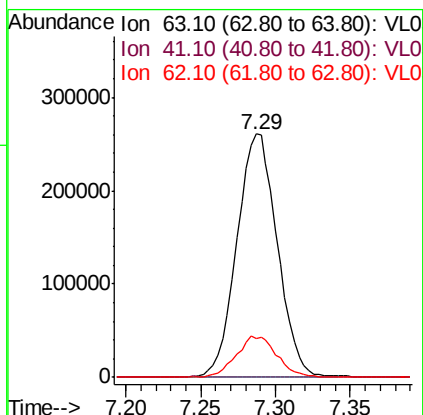
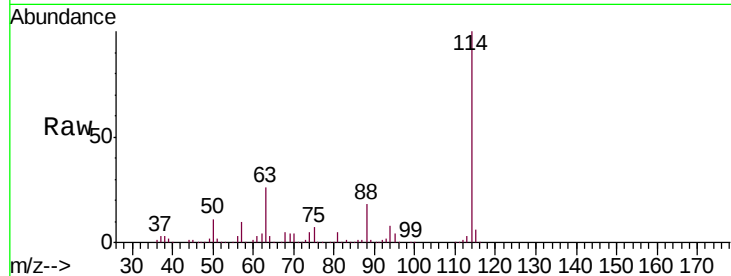




#39
 1,2-Dichloropropane
 Concen: 6.425 ppbv
 RT: 7.29 min Scan# 1353
 Delta R.T. -0.46 min
 Lab File: VL033179.D
 Acq: 6 Feb 2019 10:35

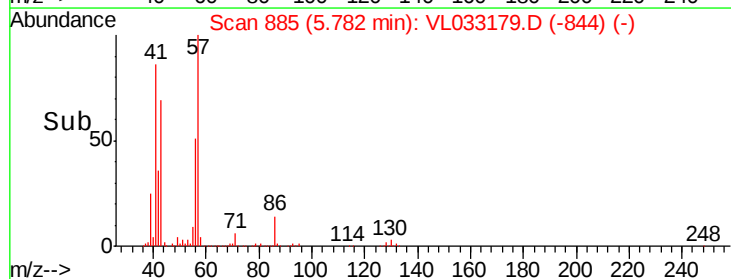
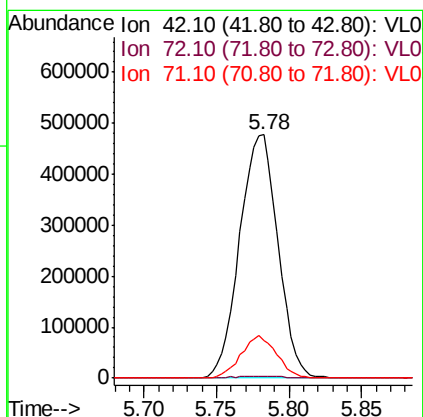
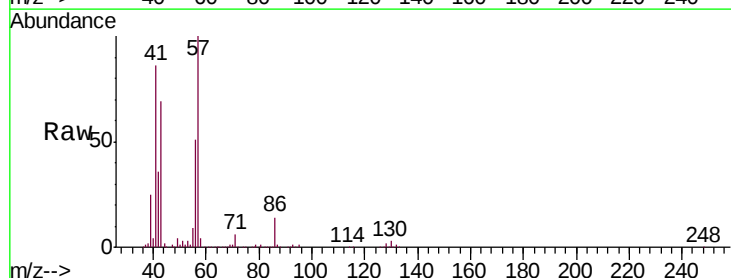
Instrument :
 MSVOA_L
 ClientSampleId :
 1000

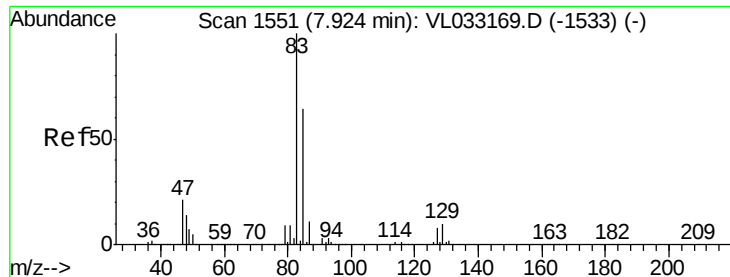
Tgt Ion	Ratio	Lower	Upper
63	100		
41	0.0	56.4	84.6#
62	15.7	54.2	81.4#



#41
 Tetrahydrofuran
 Concen: 11.759 ppbv
 RT: 5.78 min Scan# 885
 Delta R.T. -0.37 min
 Lab File: VL033179.D
 Acq: 6 Feb 2019 10:35

Tgt Ion	Ratio	Lower	Upper
42	100		
72	0.9	31.4	47.2#
71	16.3	30.2	45.2#





#42

Bromodichloromethane

Concen: 0.055 ppbv

RT: 7.91 min Scan# 1548

Delta R.T. -0.01 min

Lab File: VL033179.D

Acq: 6 Feb 2019 10:35

Instrument :

MSVOA_L

ClientSampleId :

1000

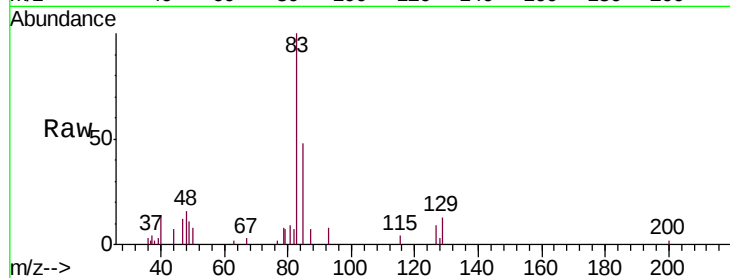
Tgt Ion: 83 Resp: 8452

Ion Ratio Lower Upper

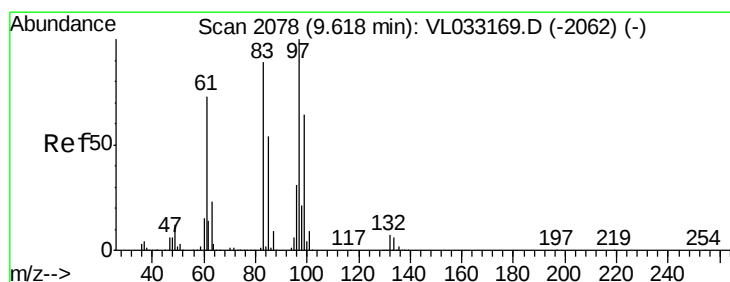
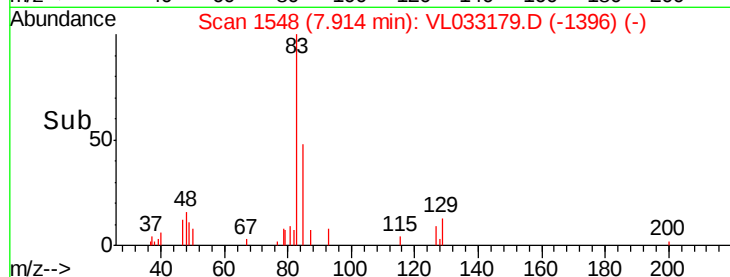
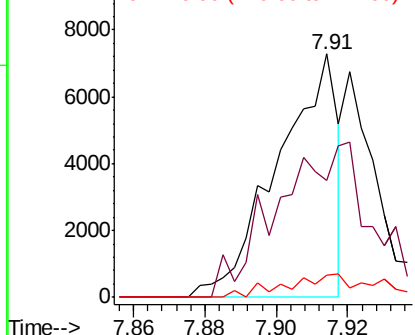
83 100

85 48.1 51.1 76.7#

127 8.9 6.4 9.6



Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0
Ion 126.90 (126.60 to 127.60): V



#47

1,1,2-Trichloroethane

Concen: 17.668 ppbv

RT: 9.61 min Scan# 2076

Delta R.T. -0.01 min

Lab File: VL033179.D

Acq: 6 Feb 2019 10:35

Tgt Ion: 97 Resp: 1395952

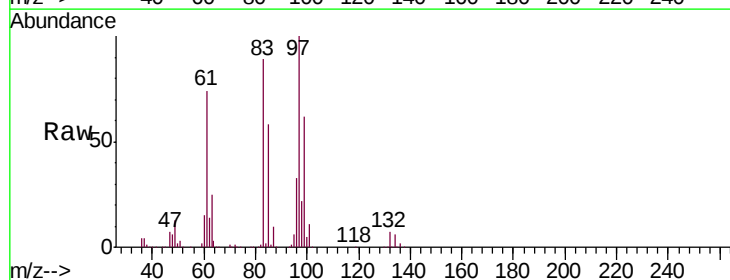
Ion Ratio Lower Upper

97 100

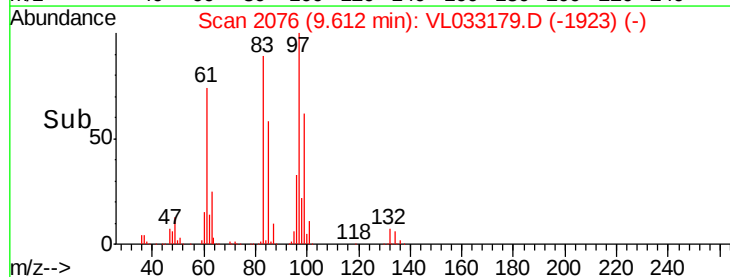
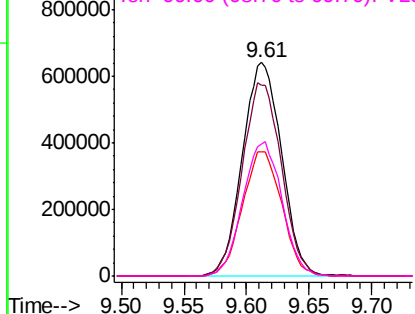
83 89.4 71.4 107.2

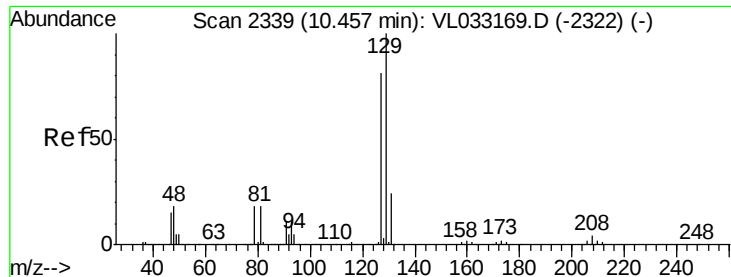
85 57.9 43.5 65.3

99 61.9 51.4 77.0



Abundance Ion 97.00 (96.70 to 97.70): VL0
Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0
Ion 99.00 (98.70 to 99.70): VL0





#48

Dibromochloromethane

Concen: 16.130 ppbv

RT: 10.45 min Scan# 2337

Delta R.T. -0.01 min

Lab File: VL033179.D

Acq: 6 Feb 2019 10:35

Instrument :

MSVOA_L

ClientSampleId :

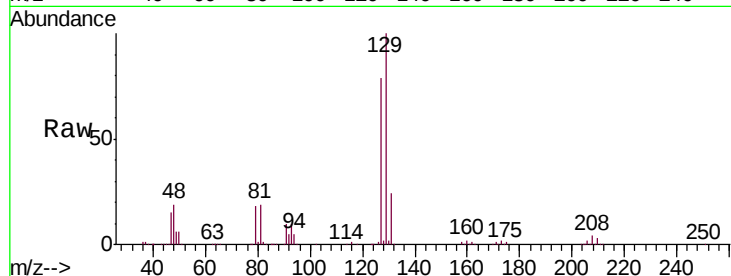
1000

Tgt Ion:129 Resp: 2007845

Ion Ratio Lower Upper

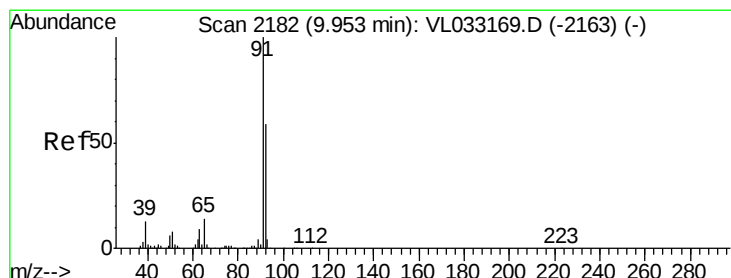
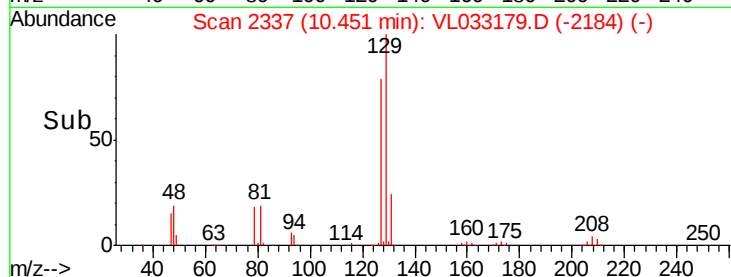
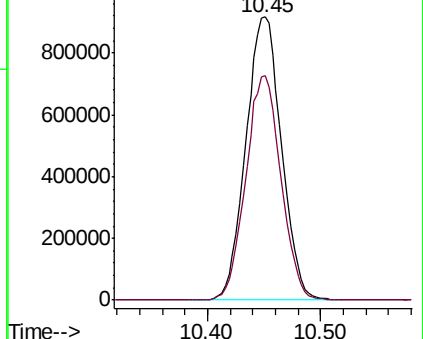
129 100

127 78.4 39.1 117.3



Abundance Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V



#53

Toluene

Concen: 13.453 ppbv

RT: 9.95 min Scan# 2180

Delta R.T. -0.01 min

Lab File: VL033179.D

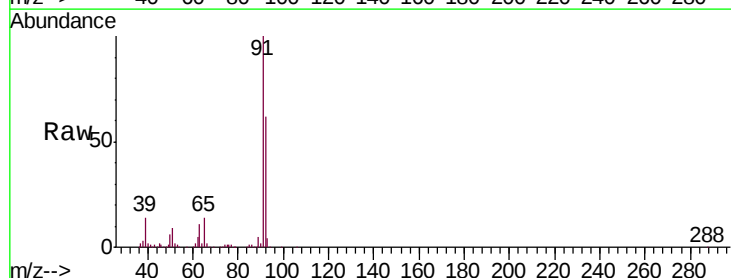
Acq: 6 Feb 2019 10:35

Tgt Ion: 91 Resp: 3073278

Ion Ratio Lower Upper

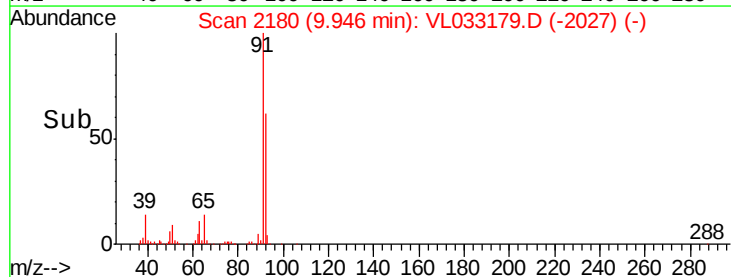
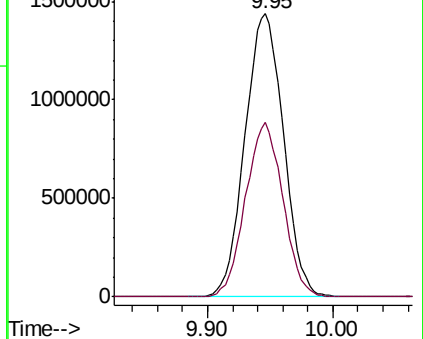
91 100

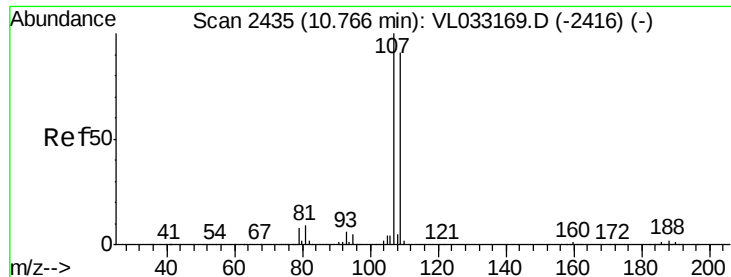
92 59.9 48.0 72.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





#54

1,2-Dibromoethane

Concen: 17.018 ppbv

RT: 10.76 min Scan# 2433

Delta R.T. -0.01 min

Lab File: VL033179.D

Acq: 6 Feb 2019 10:35

Instrument :

MSVOA_L

ClientSampled :

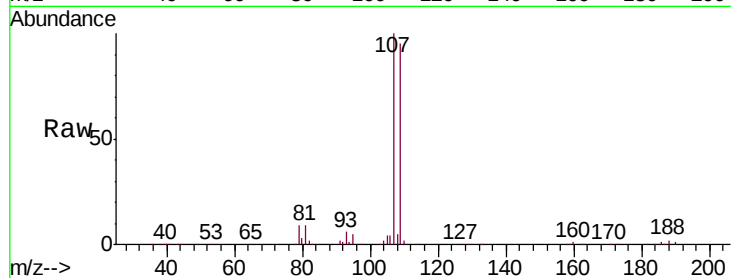
1000

Tgt Ion:107 Resp: 2110031

Ion Ratio Lower Upper

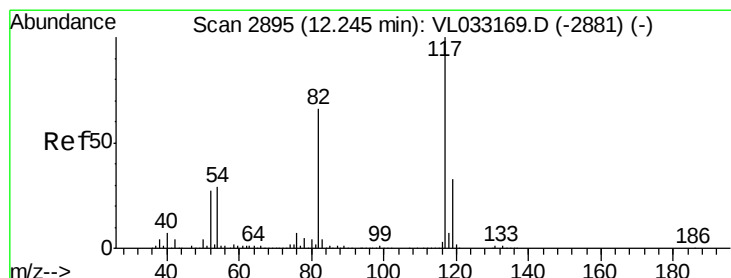
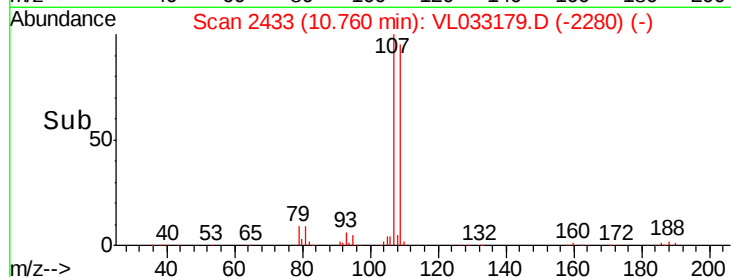
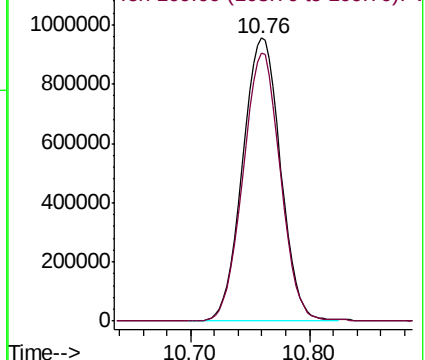
107 100

109 94.6 73.2 109.8



Abundance Ion 107.00 (106.70 to 107.70): V

Ion 109.00 (108.70 to 109.70): V



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2893

Delta R.T. -0.01 min

Lab File: VL033179.D

Acq: 6 Feb 2019 10:35

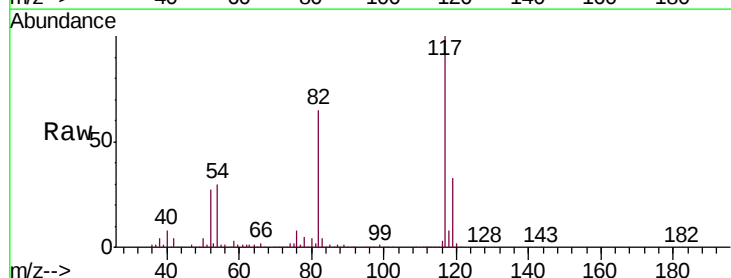
Tgt Ion:117 Resp: 1964430

Ion Ratio Lower Upper

117 100

82 65.5 53.8 80.8

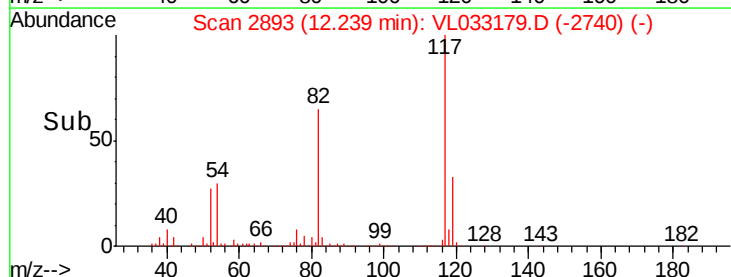
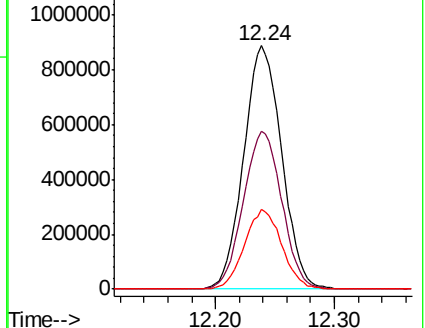
119 32.3 46.9 70.3#

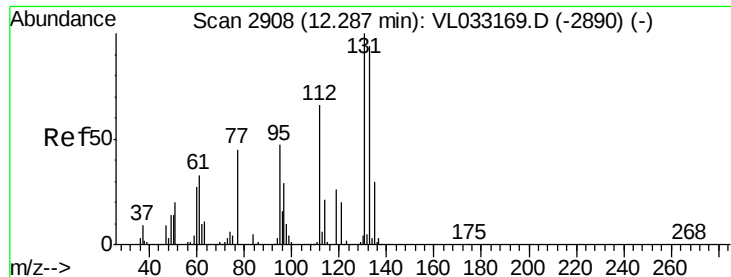


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V

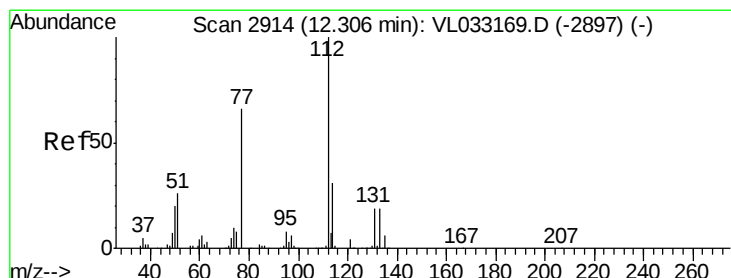
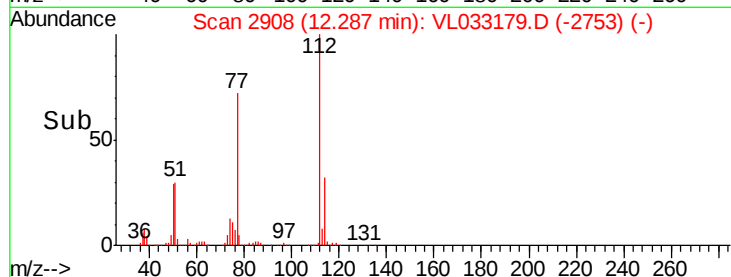
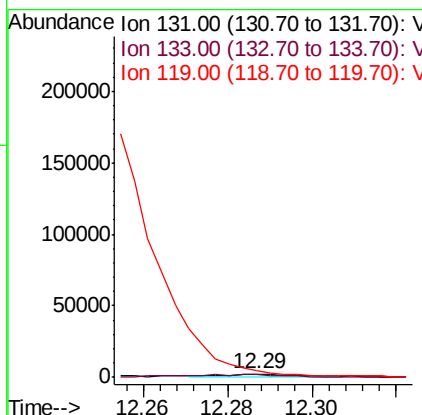
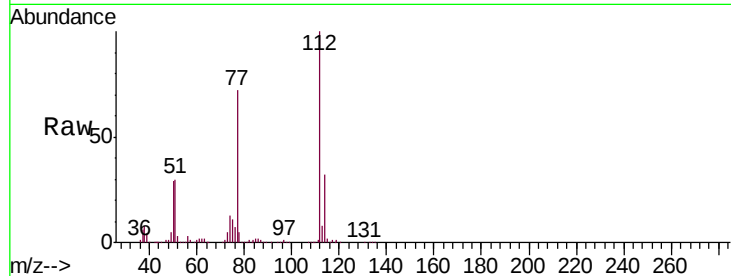




#56
 1,1,1,2-Tetrachloroethane
 Concen: 0.031 ppbv
 RT: 12.29 min Scan# 2908
 Delta R.T. -0.00 min
 Lab File: VL033179.D
 Acq: 6 Feb 2019 10:35

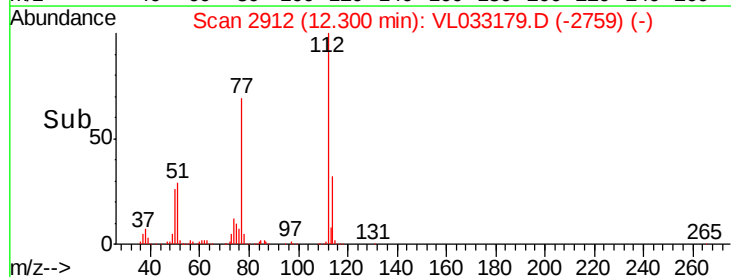
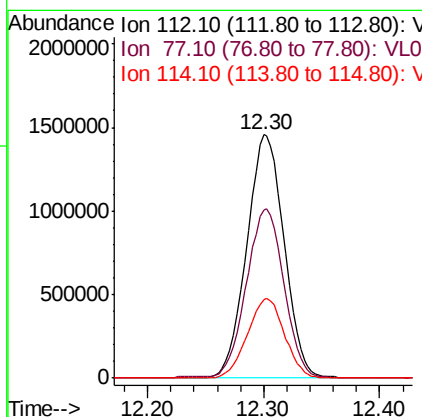
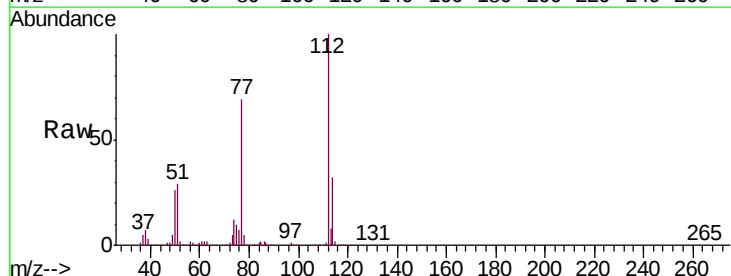
Instrument :
 MSVOA_L
 ClientSampleId :
 1000

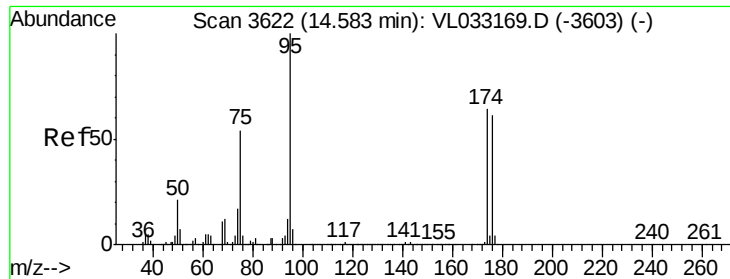
Tgt Ion:131 Resp: 2823
 Ion Ratio Lower Upper
 131 100
 133 126.2 75.8 113.6#
 119 0.0 48.1 72.1#



#57
 Chlorobenzene
 Concen: 18.759 ppbv
 RT: 12.30 min Scan# 2912
 Delta R.T. -0.01 min
 Lab File: VL033179.D
 Acq: 6 Feb 2019 10:35

Tgt Ion:112 Resp: 3260756
 Ion Ratio Lower Upper
 112 100
 77 68.9 54.0 81.0
 114 32.4 27.9 34.1

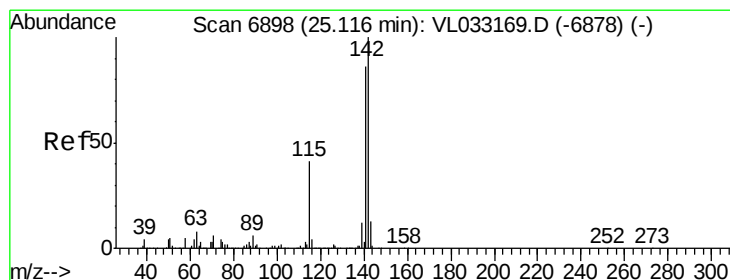
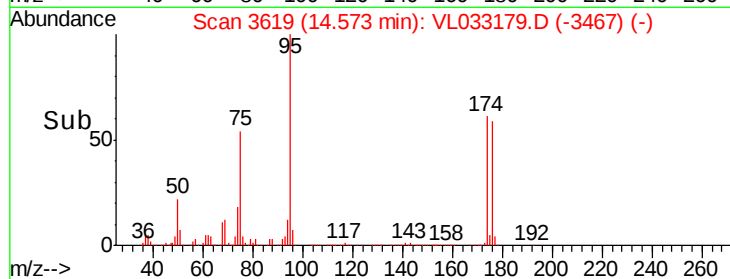
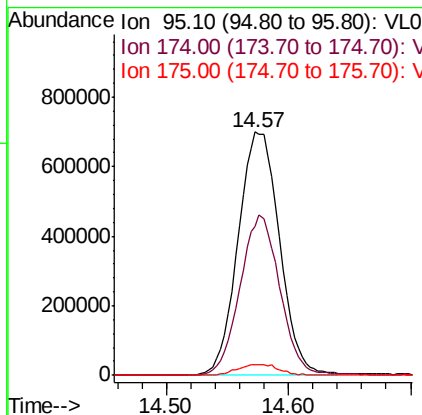
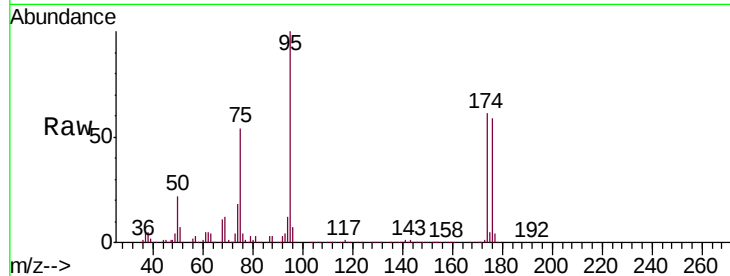




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.715 ppbv
 RT: 14.57 min Scan# 3619
 Delta R.T. -0.01 min
 Lab File: VL033179.D
 Acq: 6 Feb 2019 10:35

Instrument :
 MSVOA_L
 ClientSampleId :
 1000

Tgt Ion: 95 Resp: 1640303
 Ion Ratio Lower Upper
 95 100
 174 63.7 51.1 76.7
 175 4.5 3.8 5.6



#80
 Naphthalene, 2-methyl-
 Concen: 0.055 ppbv
 RT: 25.12 min Scan# 6900
 Delta R.T. 0.01 min
 Lab File: VL033179.D
 Acq: 6 Feb 2019 10:35

Tgt Ion: 142 Resp: 8991
 Ion Ratio Lower Upper
 142 100
 141 84.0 67.7 101.5
 115 40.9 32.7 49.1

