

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL061319\
 Data File : VL033912.D
 Acq On : 14 Jun 2019 00:50
 Operator : SY/AP
 Sample : K3357-03DL 10X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Jun 14 05:36:41 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL060719AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jun 07 08:53:27 2019
 QLast Update : Fri Jun 07 08:53:27 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.75	49	1077327	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.28	114	2456226	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.22	117	2527797	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.56	95	1828395	8.81	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	88.10%

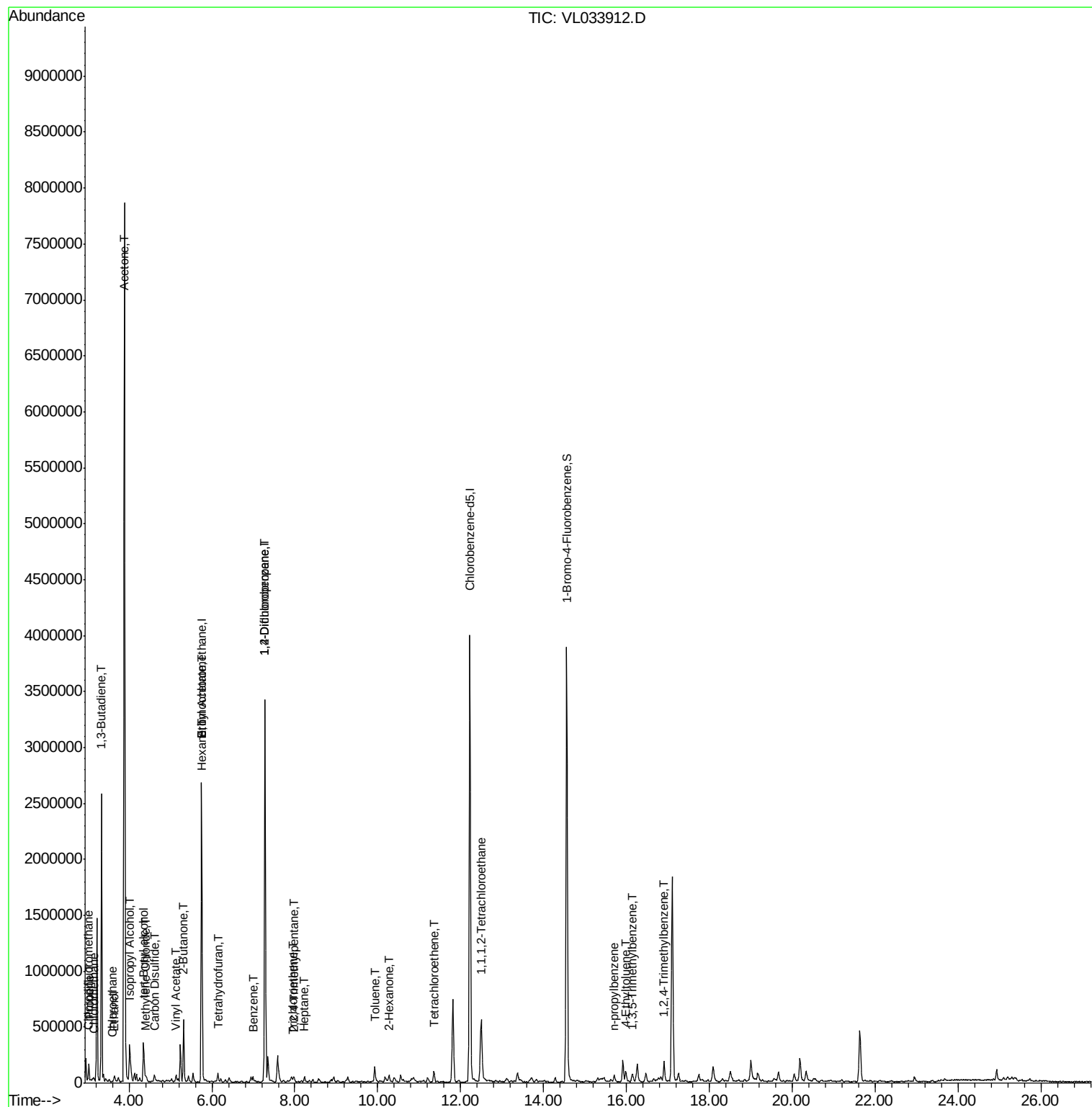
Target Compounds					Ovalue
3) Chlorodifluoromethane	3.01	51	8172	0.064 ppbv	96
4) Chloromethane	3.16	50	2841	0.039 ppbv	92
7) Chloroethane	3.59	64	896	0.034 ppbv	100
9) Propene	3.03	41	51859	1.093 ppbv	96
10) Heptane	8.23	43	18357	0.153 ppbv	97
13) Ethanol	3.64	45	49144	3.183 ppbv	98
15) Acetone	3.89	43	8226564	52.357 ppbv #	89
16) 1,3-Butadiene	3.34	39	650353	10.875 ppbv #	12
17) tert-Butyl alcohol	4.35	59	324193	2.639 ppbv	99
19) Isopropyl Alcohol	4.02	45	345111	3.845 ppbv #	94
20) Methylene Chloride	4.40	84	6316	0.103 ppbv #	70
23) Vinyl Acetate	5.14	43	39619	0.217 ppbv #	87
25) Ethyl Acetate	5.76	43	26232	0.110 ppbv #	87
26) Hexane	5.77	57	22922	0.210 ppbv #	31
27) Carbon Disulfide	4.61	76	41507	0.274 ppbv #	79
34) 2-Butanone	5.32	43	618293	4.462 ppbv	99
36) Benzene	6.99	78	36044	0.192 ppbv #	91
38) Trichloroethene	7.95	130	2815	0.039 ppbv #	33
39) 1,2-Dichloropropane	7.28	63	608843	8.408 ppbv #	25
41) Tetrahydrofuran	6.15	42	39360	0.560 ppbv	98
44) 2,2,4-Trimethylpentane	7.98	57	12183	0.037 ppbv #	1
51) 2-Hexanone	10.26	43	19400	0.120 ppbv #	29
52) Tetrachloroethene	11.37	164	6137	0.093 ppbv	91
53) Toluene	9.93	91	100508	0.484 ppbv	99
56) 1,1,1,2-Tetrachloroethane	12.50	131	202012	1.829 ppbv #	25
64) n-propylbenzene	15.70	120	4265	0.046 ppbv #	1
72) 4-Ethyltoluene	15.99	105	27525	0.090 ppbv #	36
73) 1,3,5-Trimethylbenzene	16.14	105	44955	0.150 ppbv	94
74) 1,2,4-Trimethylbenzene	16.91	105	112933	0.327 ppbv #	73

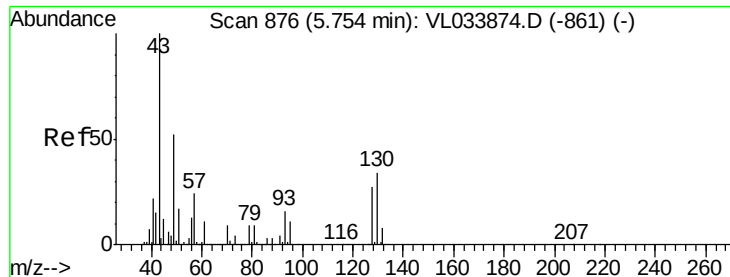
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Fri Jun 07 08:53:27 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.75 min Scan# 875

Delta R.T. -0.00 min

Lab File: VL033912.D

Acq: 14 Jun 2019 00:50

Instrument :

MSVOA_L

ClientSampleId :

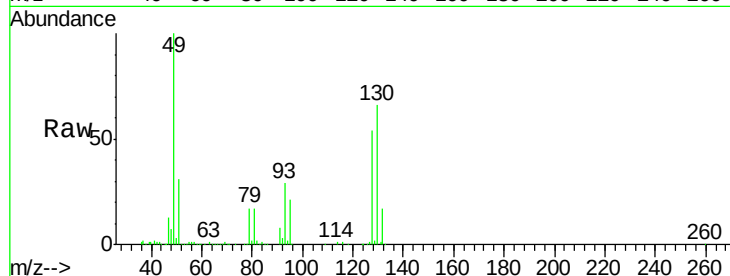
Tot Ion: 49 Resp: 1077327

Ion Ratio Lower Upper

49 100

128 53.2 25.5 76.5

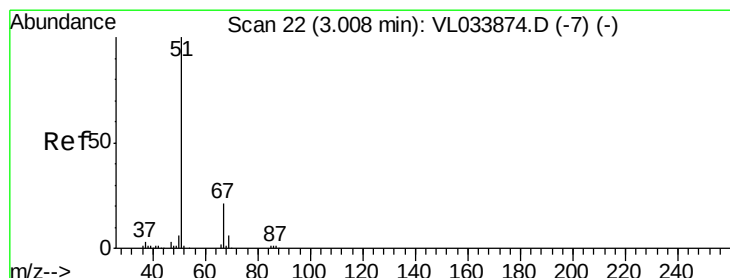
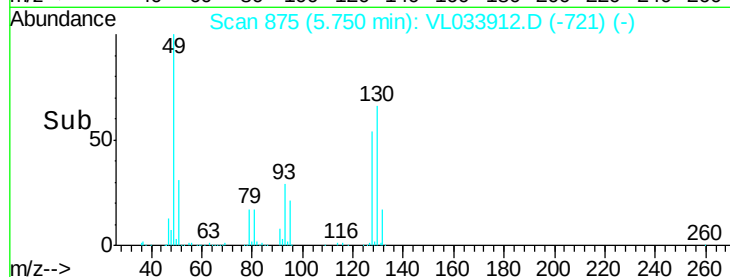
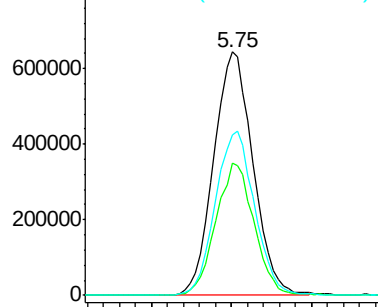
130 67.7 32.5 97.4



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



#3

Chlorodifluoromethane

Concen: 0.064 ppbv

RT: 3.01 min Scan# 22

Delta R.T. -0.00 min

Lab File: VL033912.D

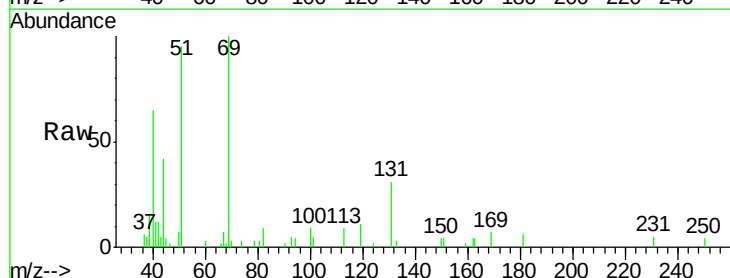
Acq: 14 Jun 2019 00:50

Tgt Ion: 51 Resp: 8172

Ion Ratio Lower Upper

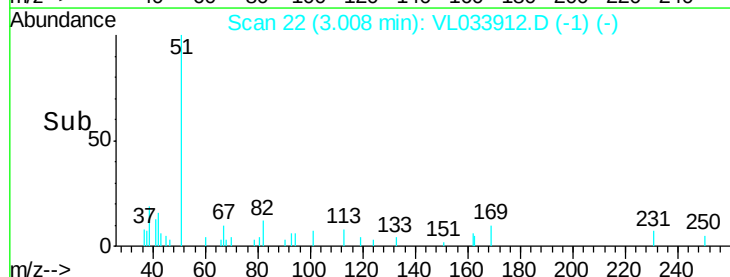
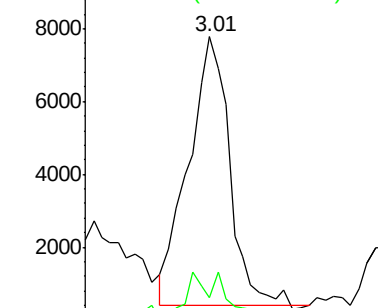
51 100

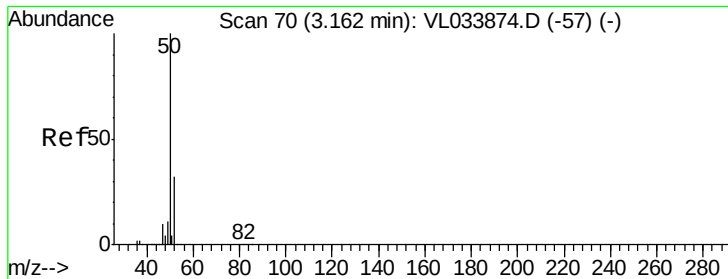
67 18.5 16.4 24.6



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.039 ppbv

RT: 3.16 min Scan# 69

Delta R.T. -0.00 min

Lab File: VL033912.D

Acq: 14 Jun 2019 00:50

Instrument :

MSVOA_L

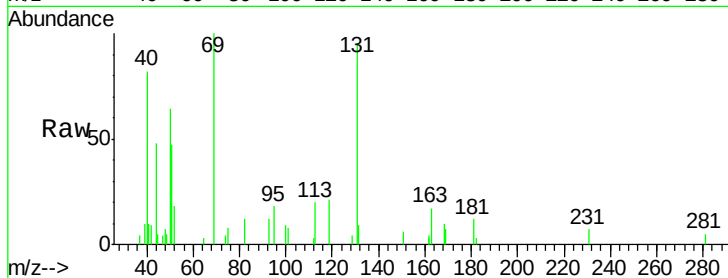
ClientSampleId :

Tot Ion: 50 Resp: 2841

Ion Ratio Lower Upper

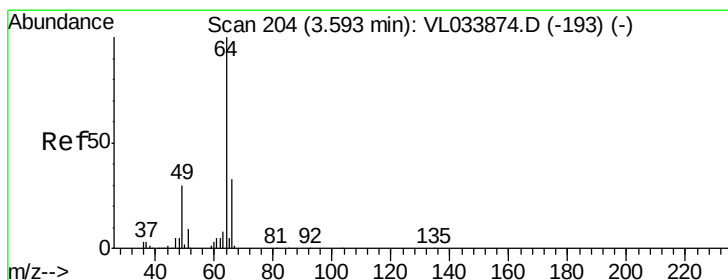
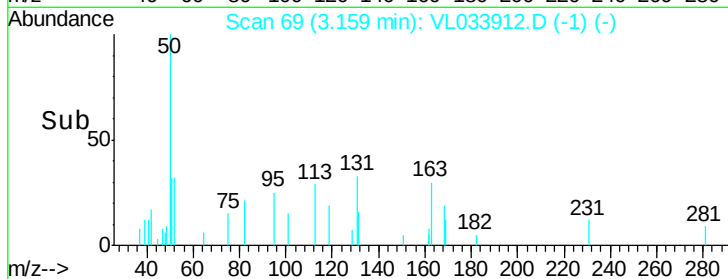
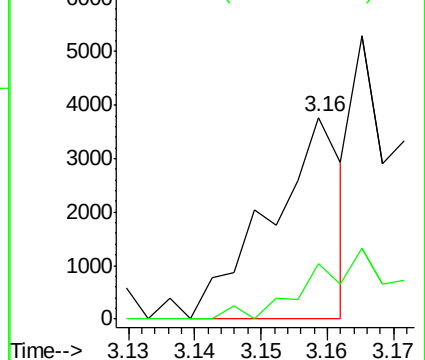
50 100

52 27.4 25.4 38.0



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0



#7

Chloroethane

Concen: 0.034 ppbv

RT: 3.59 min Scan# 203

Delta R.T. -0.00 min

Lab File: VL033912.D

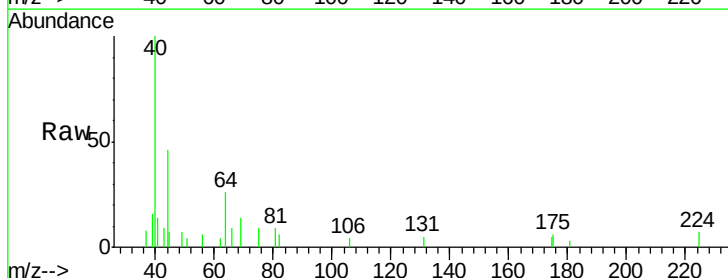
Acq: 14 Jun 2019 00:50

Tgt Ion: 64 Resp: 896

Ion Ratio Lower Upper

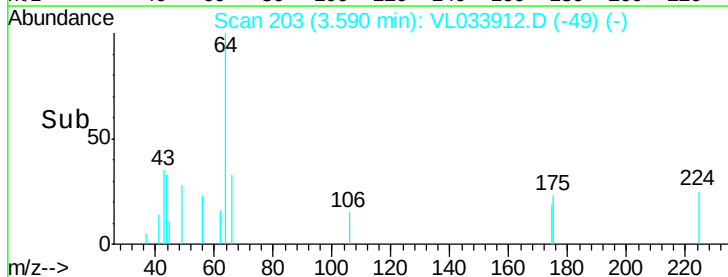
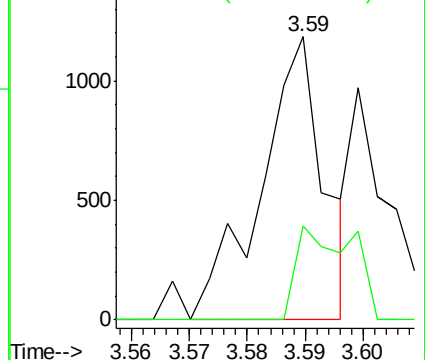
64 100

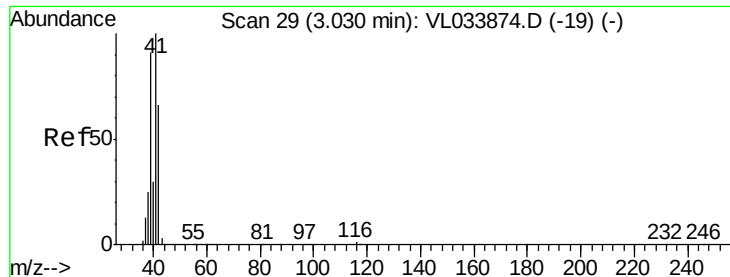
66 33.3 26.7 40.1



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0





#9

Propene

Concen: 1.093 ppbv

RT: 3.03 min Scan# 30

Delta R.T. 0.00 min

Lab File: VL033912.D

Acq: 14 Jun 2019 00:50

Instrument :

MSVOA_L

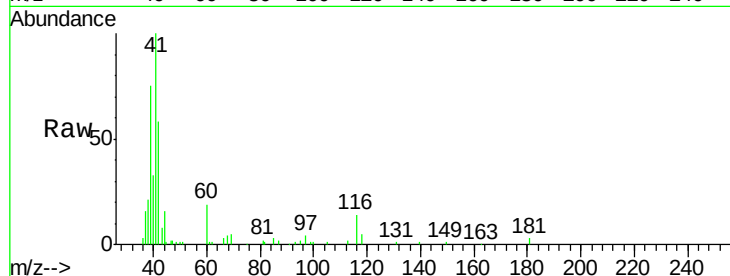
ClientSampleId :

Tot Ion: 41 Resp: 51859

Ion Ratio Lower Upper

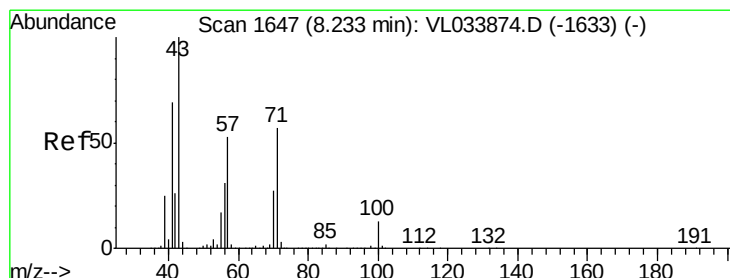
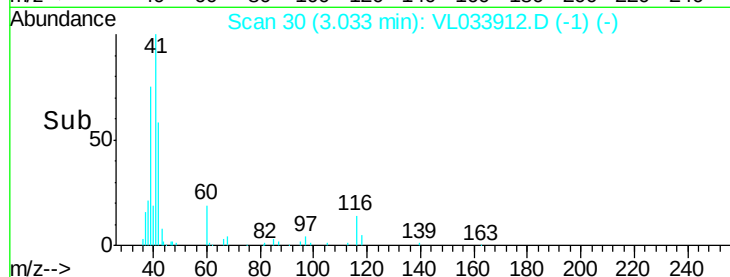
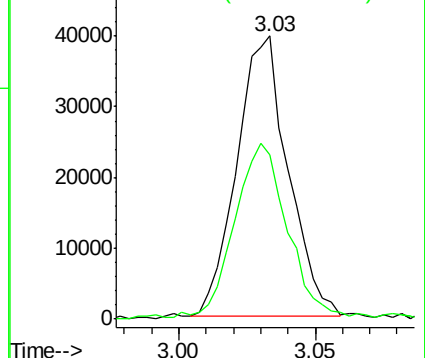
41 100

42 67.4 56.3 84.5



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#10

Heptane

Concen: 0.153 ppbv

RT: 8.23 min Scan# 1646

Delta R.T. -0.00 min

Lab File: VL033912.D

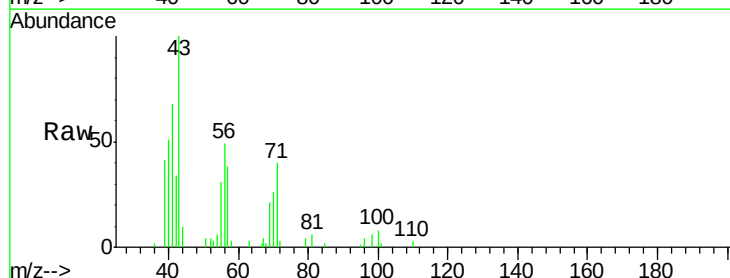
Acq: 14 Jun 2019 00:50

Tgt Ion: 43 Resp: 18357

Ion Ratio Lower Upper

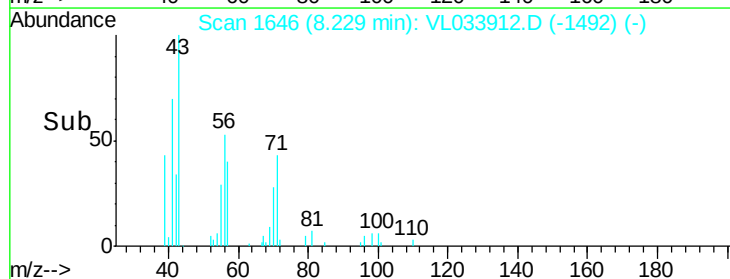
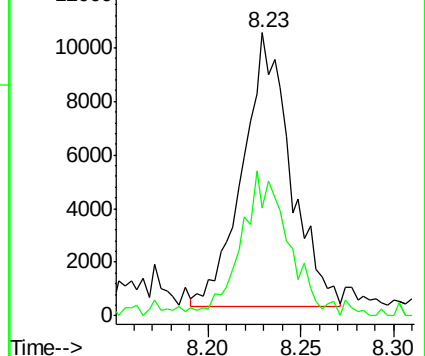
43 100

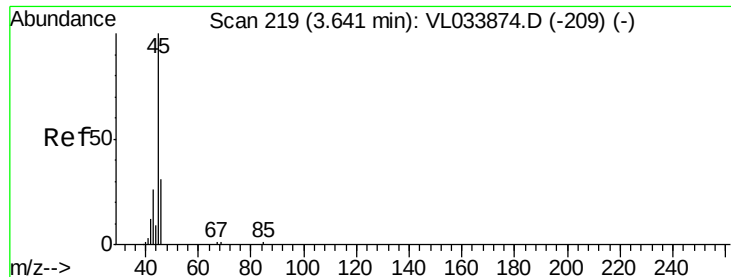
57 54.1 41.7 62.5



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

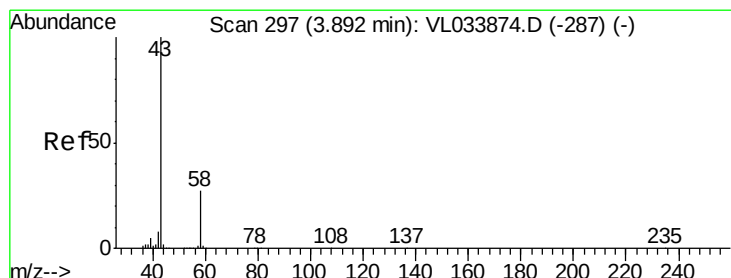
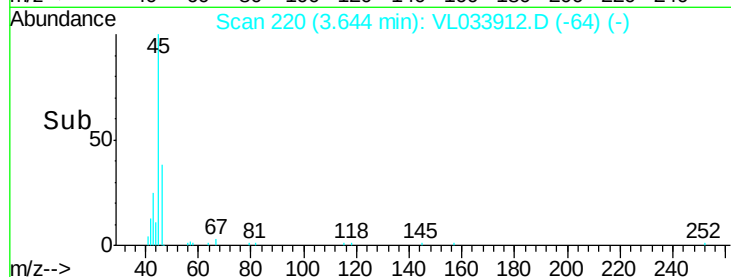
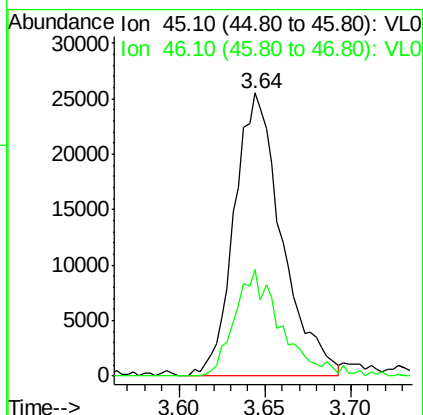
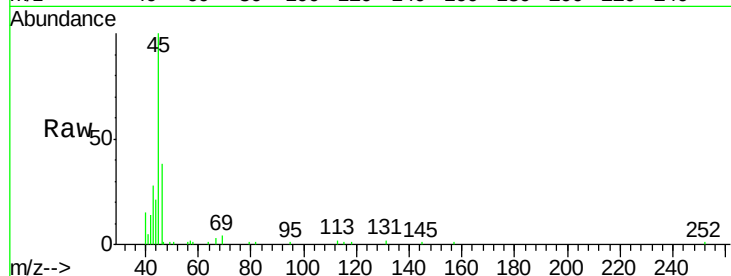




#13
Ethanol
Concen: 3.183 ppbv
RT: 3.64 min Scan# 220
Delta R.T. 0.00 min
Lab File: VL033912.D
Acq: 14 Jun 2019 00:50

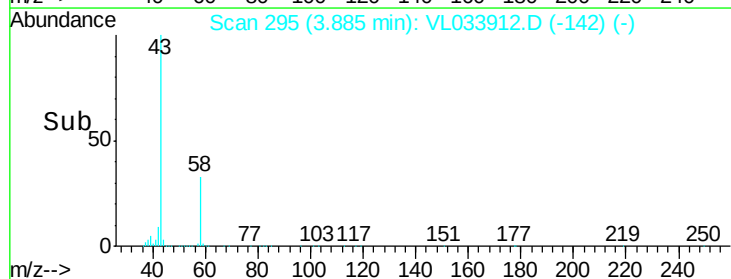
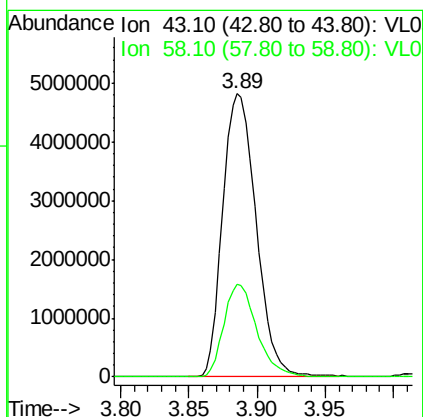
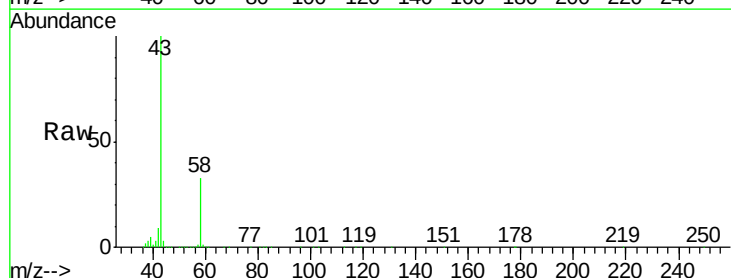
Instrument :
MSVOA_L
ClientSampleId :

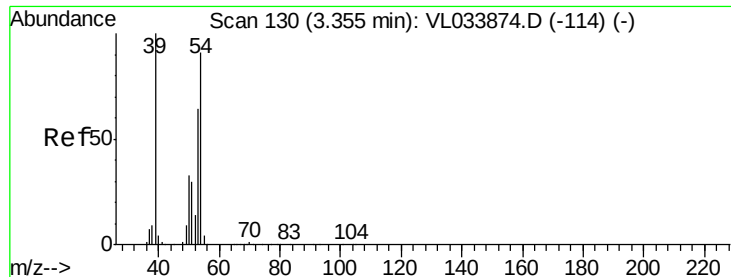
Tot Ion: 45 Resp: 49144
Ion Ratio Lower Upper
45 100
46 36.7 15.3 61.1



#15
Acetone
Concen: 52.357 ppbv
RT: 3.89 min Scan# 295
Delta R.T. -0.01 min
Lab File: VL033912.D
Acq: 14 Jun 2019 00:50

Tgt Ion: 43 Resp: 8226564
Ion Ratio Lower Upper
43 100
58 32.4 21.3 31.9#





#16

1,3-Butadiene

Concen: 10.875 ppbv

RT: 3.34 min Scan# 124

Delta R.T. -0.02 min

Lab File: VL033912.D

Acq: 14 Jun 2019 00:50

Instrument :

MSVOA_L

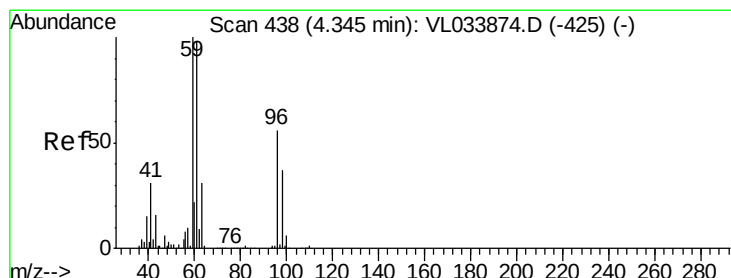
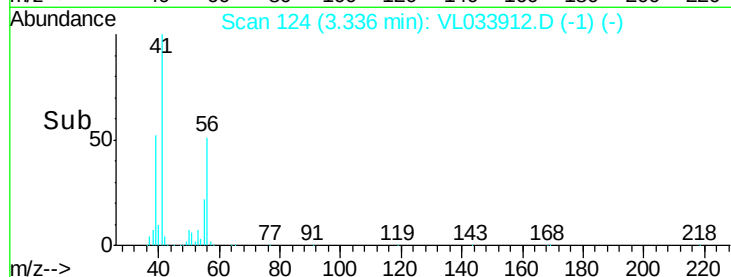
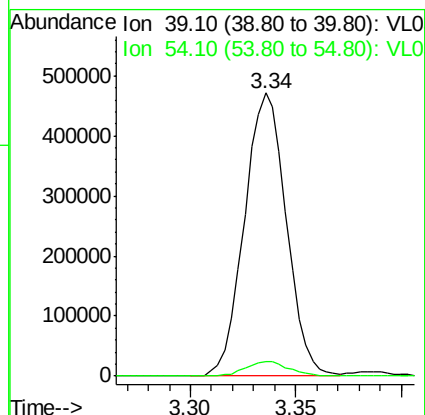
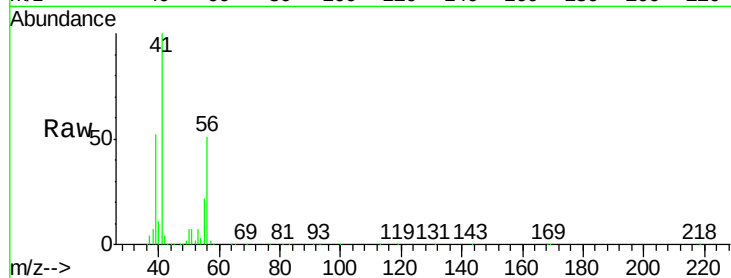
ClientSampleId :

Tot Ion: 39 Resp: 650353

Ion Ratio Lower Upper

39 100

54 5.4 68.6 103.0#



#17

tert-Butyl alcohol

Concen: 2.639 ppbv

RT: 4.35 min Scan# 440

Delta R.T. 0.01 min

Lab File: VL033912.D

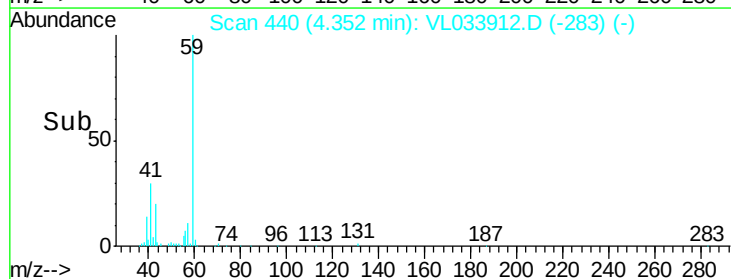
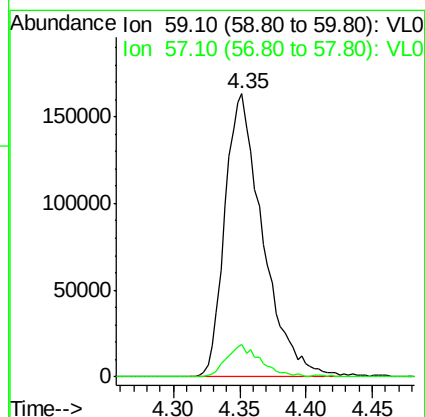
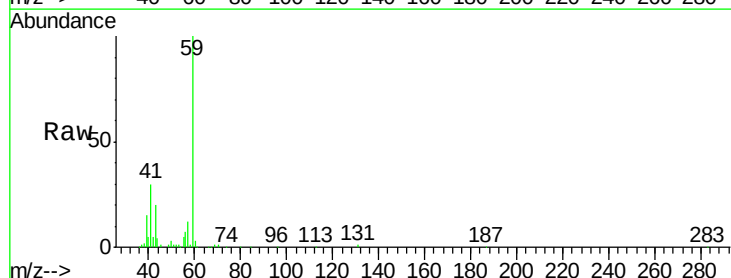
Acq: 14 Jun 2019 00:50

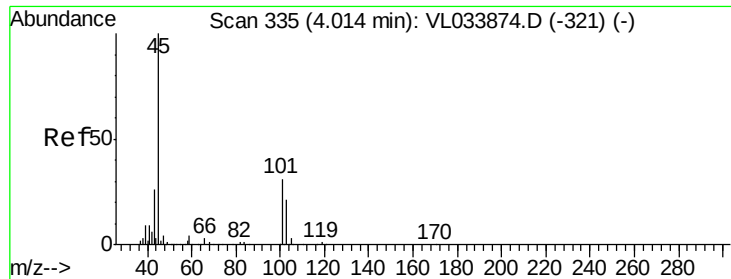
Tgt Ion: 59 Resp: 324193

Ion Ratio Lower Upper

59 100

57 10.8 8.4 12.6



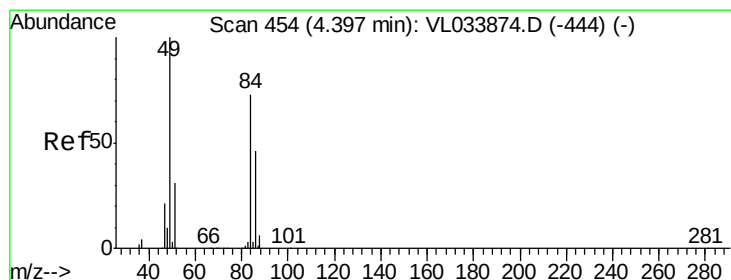
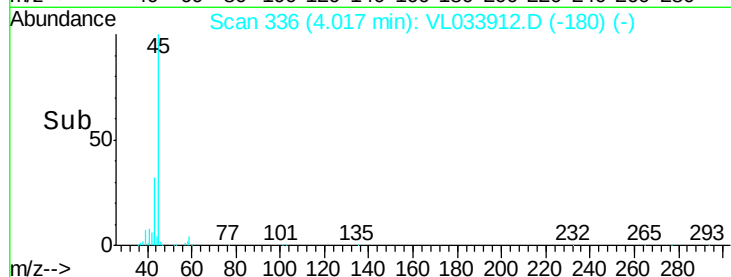
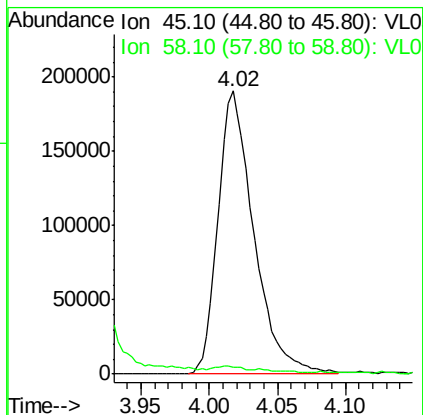
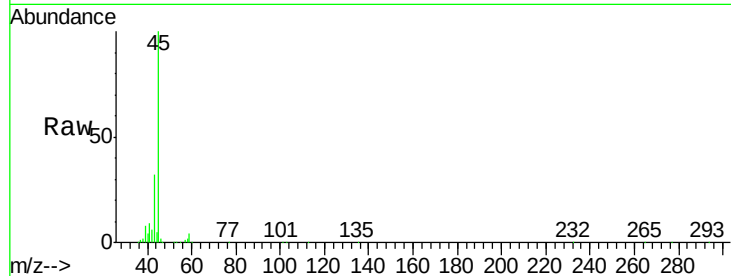


#19

Isopropyl Alcohol
 Concen: 3.845 ppbv
 RT: 4.02 min Scan# 336
 Delta R.T. 0.00 min
 Lab File: VL033912.D
 Acq: 14 Jun 2019 00:50

Instrument :
 MSVOA_L
 ClientSampleId :

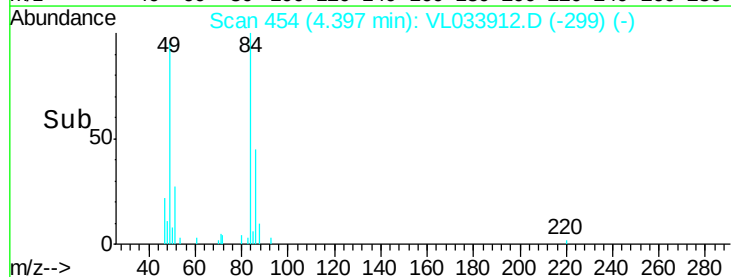
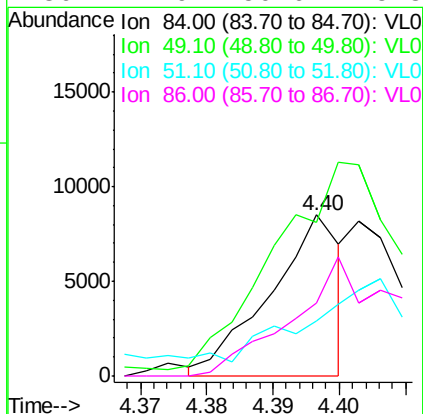
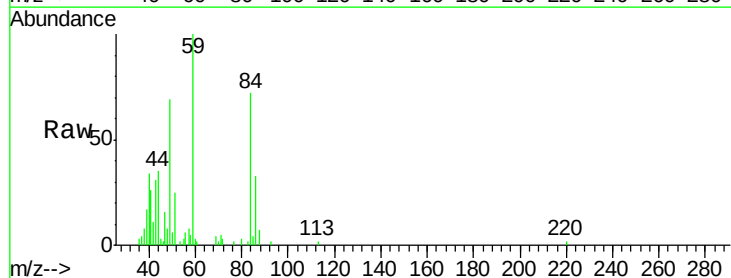
Tot Ion: 45 Resp: 345111
 Ion Ratio Lower Upper
 45 100
 58 0.0 1.8 2.6#

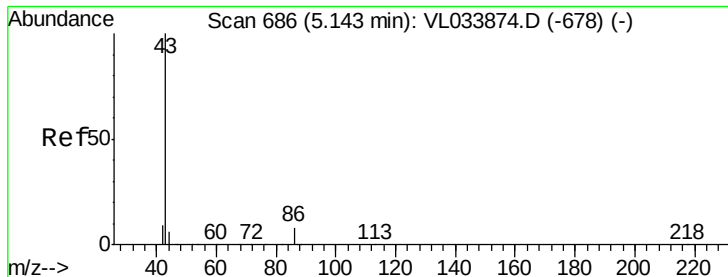


#20

Methylene Chloride
 Concen: 0.103 ppbv
 RT: 4.40 min Scan# 454
 Delta R.T. -0.00 min
 Lab File: VL033912.D
 Acq: 14 Jun 2019 00:50

Tgt Ion: 84 Resp: 6316
 Ion Ratio Lower Upper
 84 100
 49 95.0 110.0 165.0#
 51 25.0 34.6 51.8#
 86 47.9 50.6 75.8#





#23

Vinyl Acetate

Concen: 0.217 ppbv

RT: 5.14 min Scan# 684

Delta R.T. -0.01 min

Lab File: VL033912.D

Acq: 14 Jun 2019 00:50

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 43 Resp: 39619

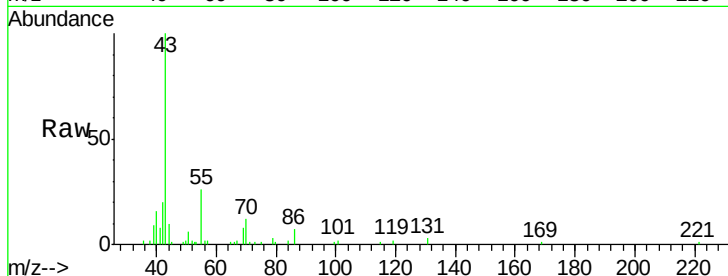
Ion Ratio Lower Upper

43 100

86 7.4 5.8 8.8

42 19.1 7.8 11.8#

44 2.8 4.2 6.4#

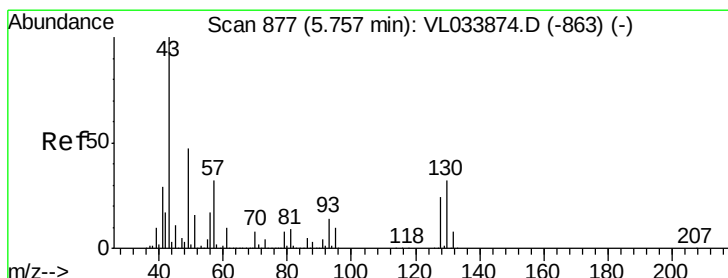
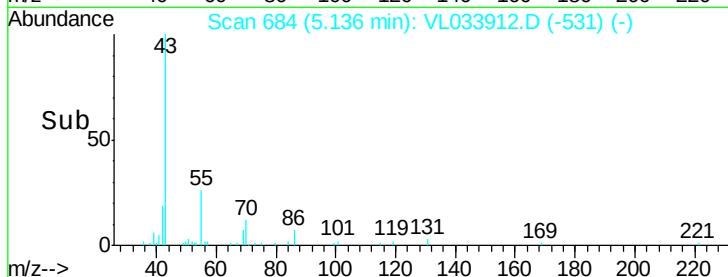
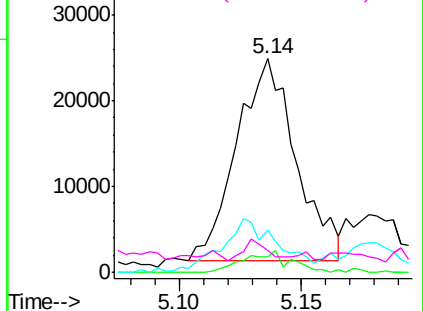


Abundance Ion 43.10 (42.80 to 43.80): VL0

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



#25

Ethyl Acetate

Concen: 0.110 ppbv

RT: 5.76 min Scan# 879

Delta R.T. 0.01 min

Lab File: VL033912.D

Acq: 14 Jun 2019 00:50

Tgt Ion: 43 Resp: 26232

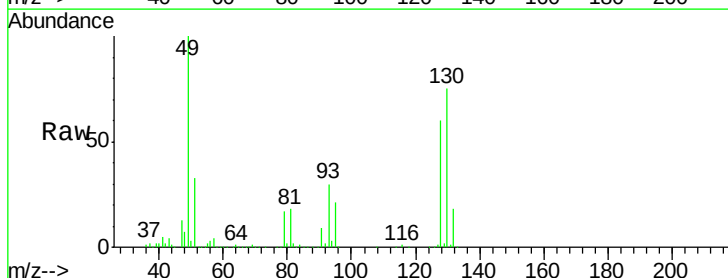
Ion Ratio Lower Upper

43 100

45 17.6 7.9 11.9#

61 6.0 7.8 11.6#

70 9.8 5.8 8.6#

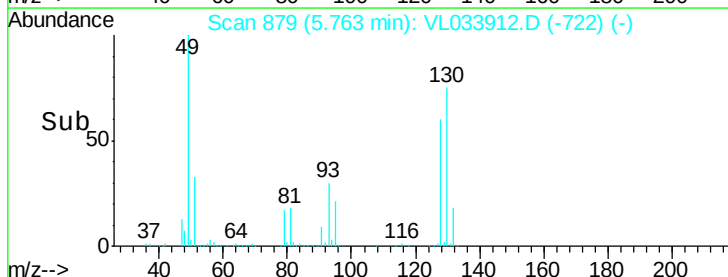
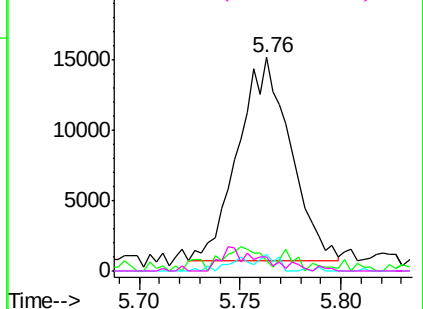


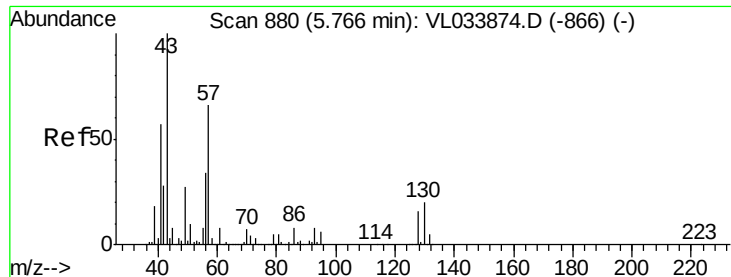
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0

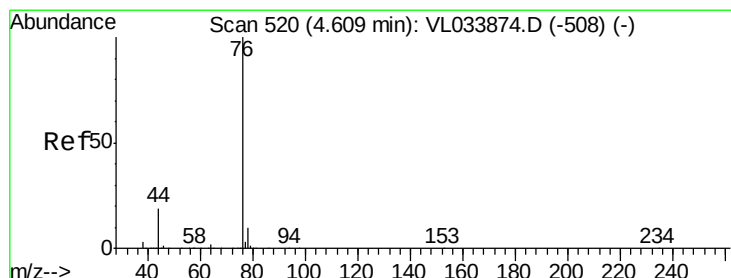
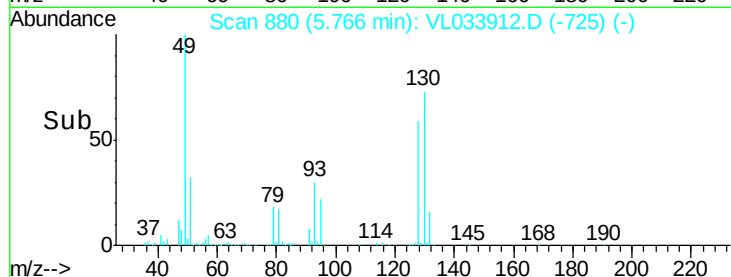
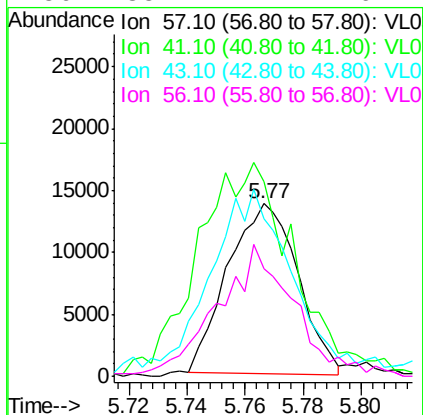
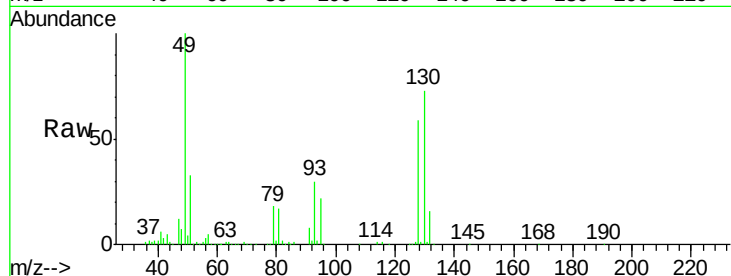




#26
Hexane
Concen: 0.210 ppbv
RT: 5.77 min Scan# 880
Delta R.T. -0.00 min
Lab File: VL033912.D
Acq: 14 Jun 2019 00:50

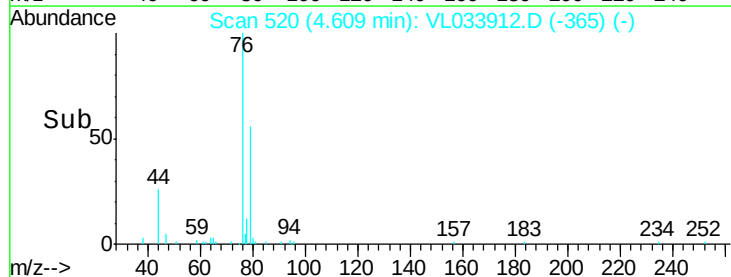
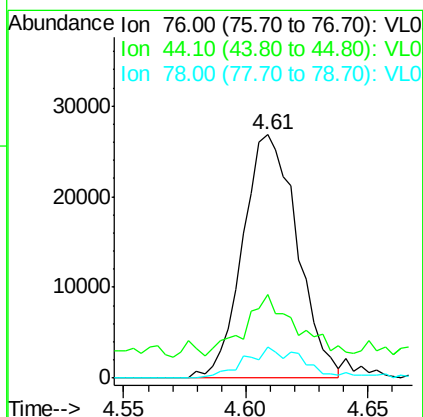
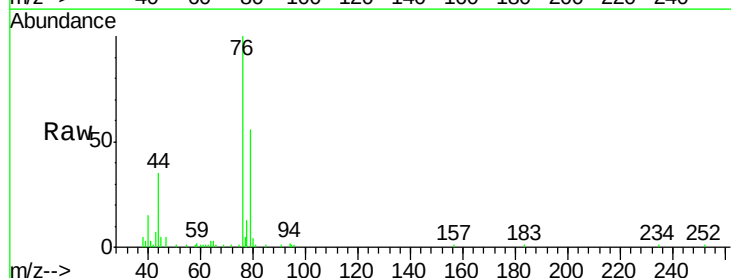
Instrument :
MSVOA_L
ClientSampled :

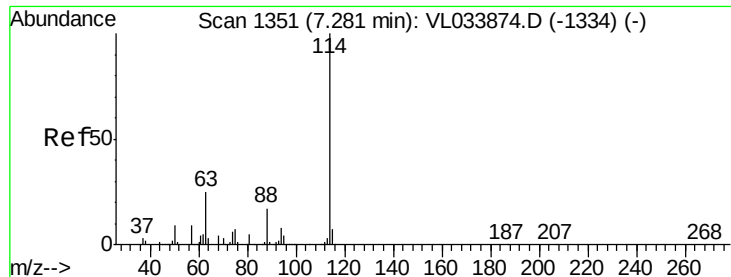
Tot Ion: 57 Resp: 22922
Ion Ratio Lower Upper
57 100
41 177.8 71.4 107.2#
43 122.3 183.7 275.5#
56 85.1 42.7 64.1#



#27
Carbon Disulfide
Concen: 0.274 ppbv
RT: 4.61 min Scan# 520
Delta R.T. -0.00 min
Lab File: VL033912.D
Acq: 14 Jun 2019 00:50

Tgt Ion: 76 Resp: 41507
Ion Ratio Lower Upper
76 100
44 29.1 14.4 21.6#
78 14.4 7.5 11.3#

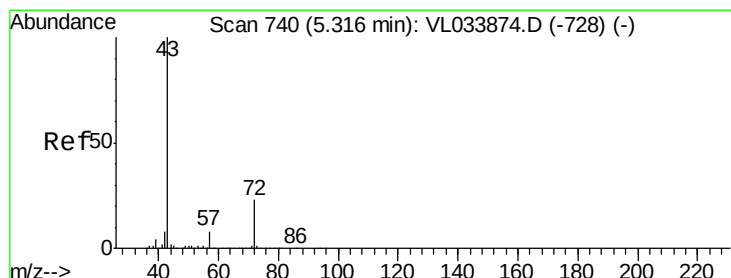
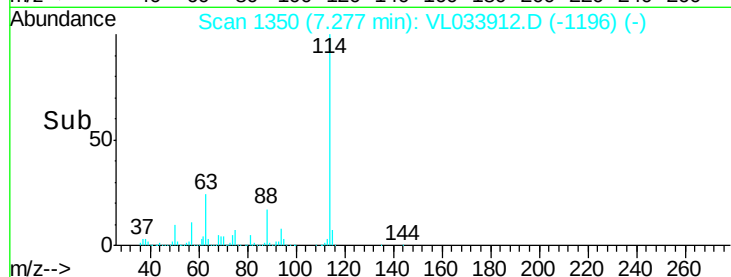
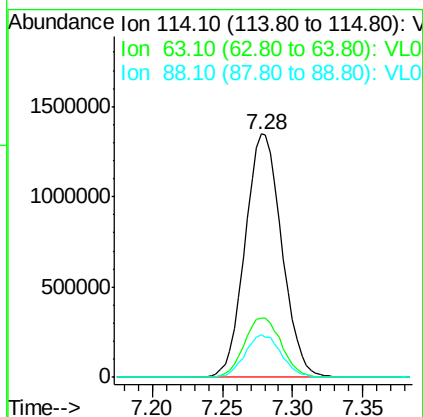
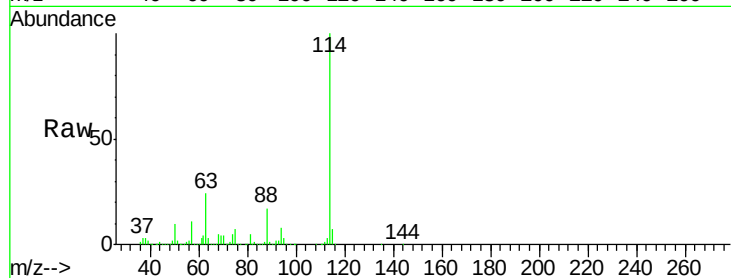




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.28 min Scan# 1350
 Delta R.T. -0.00 min
 Lab File: VL033912.D
 Acq: 14 Jun 2019 00:50

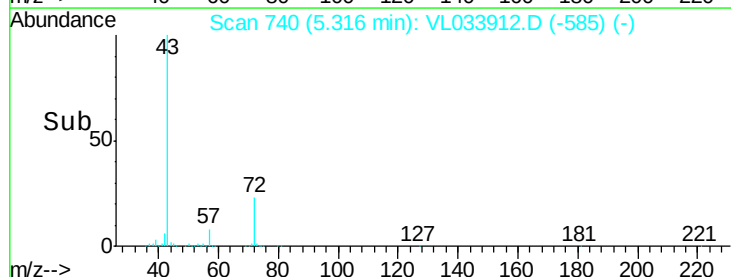
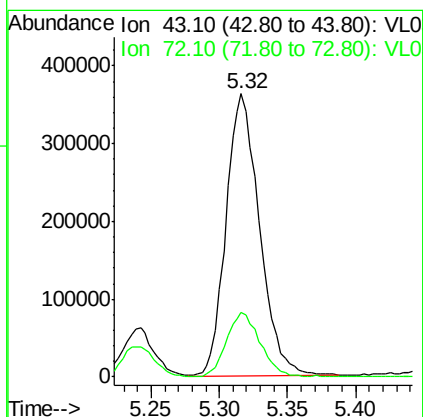
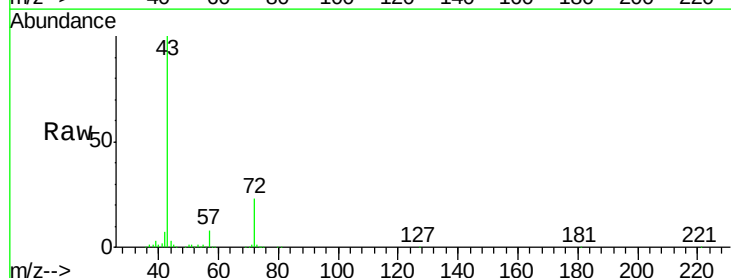
Instrument :
 MSVOA_L
 ClientSampleId :

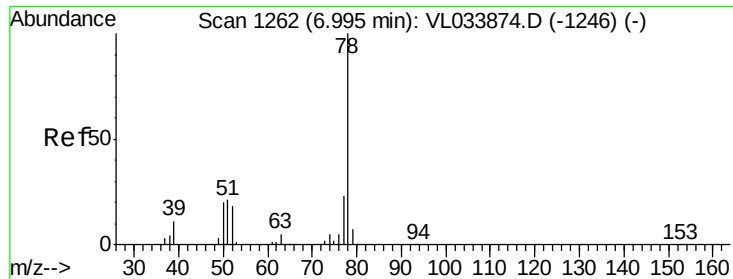
Tot Ion:114 Resp: 2456226
 Ion Ratio Lower Upper
 114 100
 63 24.9 21.1 31.7
 88 17.4 14.2 21.4



#34
 2-Butanone
 Concen: 4.462 ppbv
 RT: 5.32 min Scan# 740
 Delta R.T. -0.00 min
 Lab File: VL033912.D
 Acq: 14 Jun 2019 00:50

Tgt Ion: 43 Resp: 618293
 Ion Ratio Lower Upper
 43 100
 72 23.1 17.9 26.9

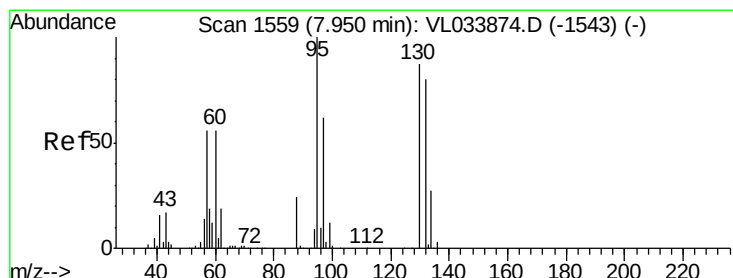
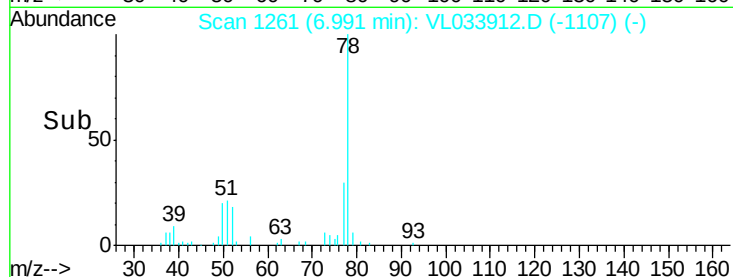
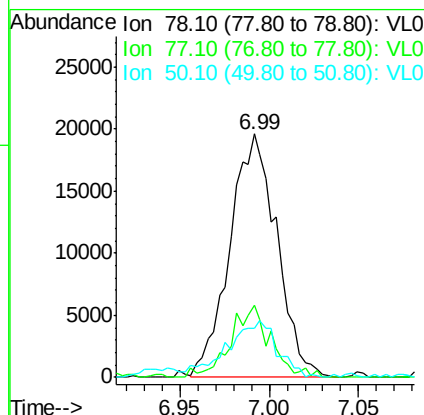
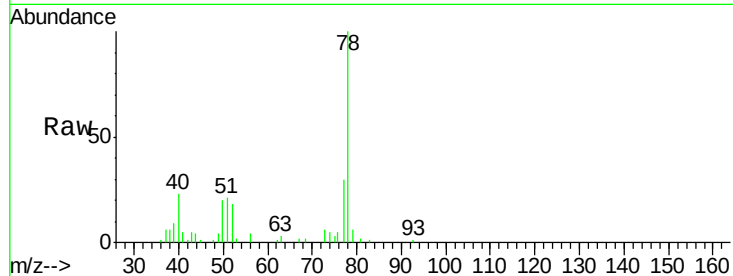




#36
Benzene
Concen: 0.192 ppbv
RT: 6.99 min Scan# 1261
Delta R.T. -0.00 min
Lab File: VL033912.D
Acq: 14 Jun 2019 00:50

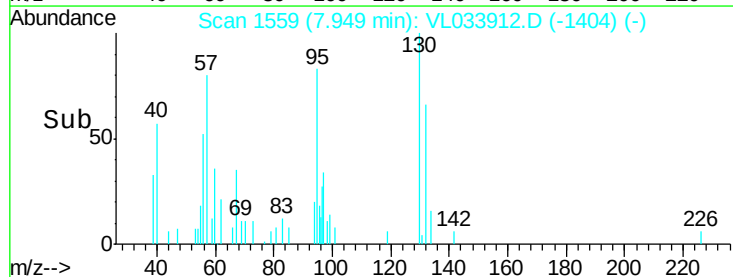
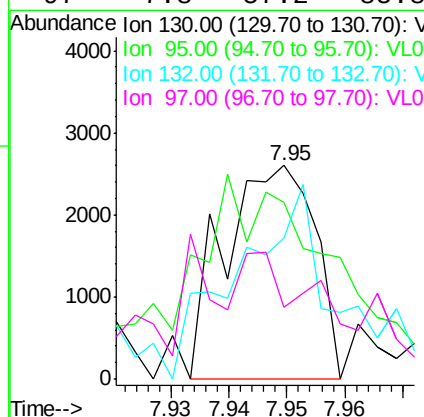
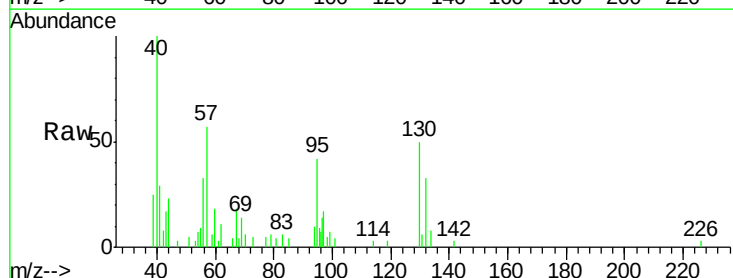
Instrument :
MSVOA_L
ClientSampled :

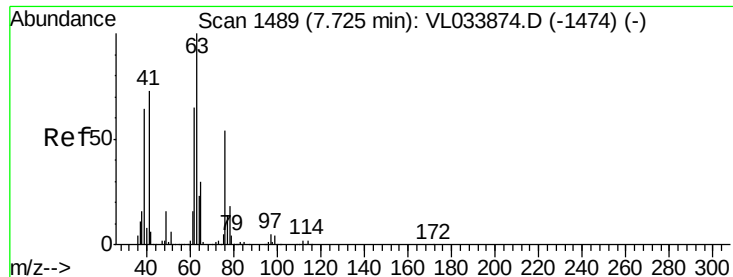
Tot Ion: 78 Resp: 36044
Ion Ratio Lower Upper
78 100
77 29.5 18.2 27.2#
50 18.3 15.9 23.9



#38
Trichloroethene
Concen: 0.039 ppbv
RT: 7.95 min Scan# 1559
Delta R.T. -0.00 min
Lab File: VL033912.D
Acq: 14 Jun 2019 00:50

Tgt Ion:130 Resp: 2815
Ion Ratio Lower Upper
130 100
95 43.1 92.0 138.0#
132 34.4 73.8 110.8#
97 7.8 57.2 85.8#

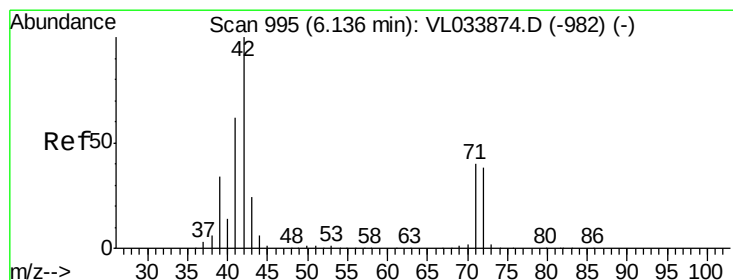
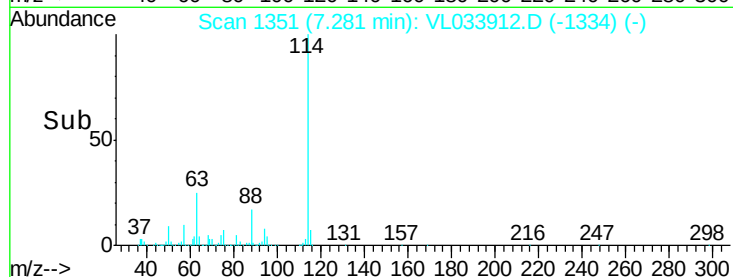
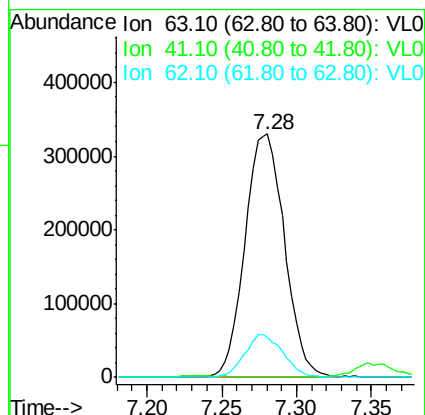
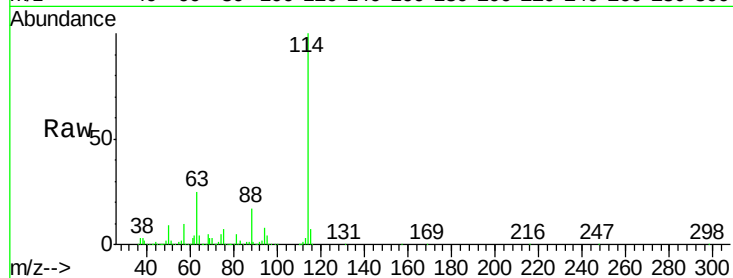




#39
 1,2-Dichloropropane
 Concen: 8.408 ppbv
 RT: 7.28 min Scan# 1351
 Delta R.T. -0.44 min
 Lab File: VL033912.D
 Acq: 14 Jun 2019 00:50

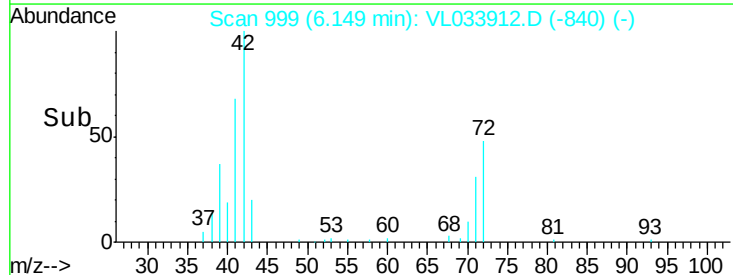
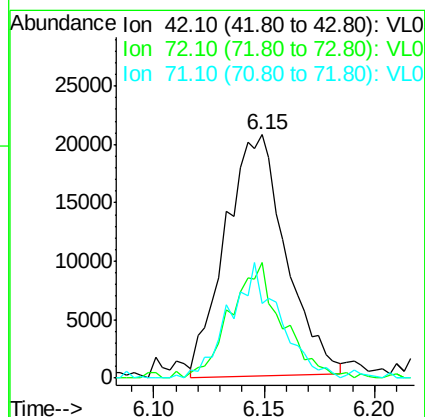
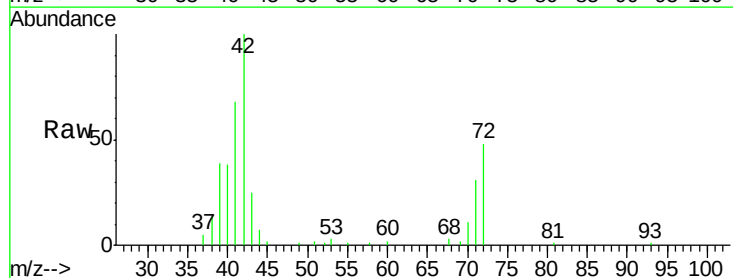
Instrument :
 MSVOA_L
 ClientSampleId :

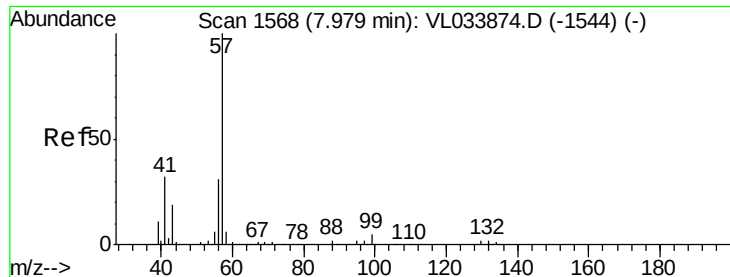
Tot Ion: 63 Resp: 608843
 Ion Ratio Lower Upper
 63 100
 41 0.0 58.7 88.1#
 62 16.3 51.9 77.9#



#41
 Tetrahydrofuran
 Concen: 0.560 ppbv
 RT: 6.15 min Scan# 999
 Delta R.T. 0.01 min
 Lab File: VL033912.D
 Acq: 14 Jun 2019 00:50

Tgt Ion: 42 Resp: 39360
 Ion Ratio Lower Upper
 42 100
 72 42.0 32.2 48.4
 71 40.1 31.7 47.5





#44

2,2,4-Trimethylpentane

Concen: 0.037 ppbv

RT: 7.98 min Scan# 1569

Delta R.T. 0.00 min

Lab File: VL033912.D

Acq: 14 Jun 2019 00:50

Instrument :

MSVOA_L

ClientSampleId :

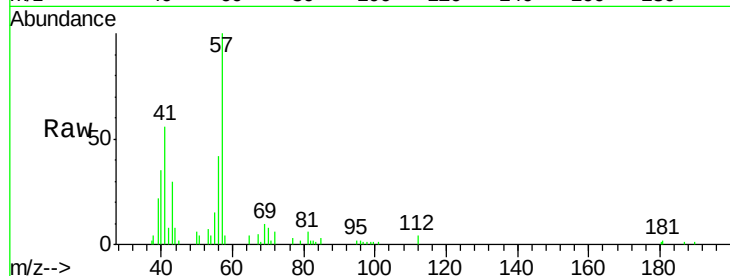
Tot Ion: 57 Resp: 12183

Ion Ratio Lower Upper

57 100

41 128.6 26.1 39.1#

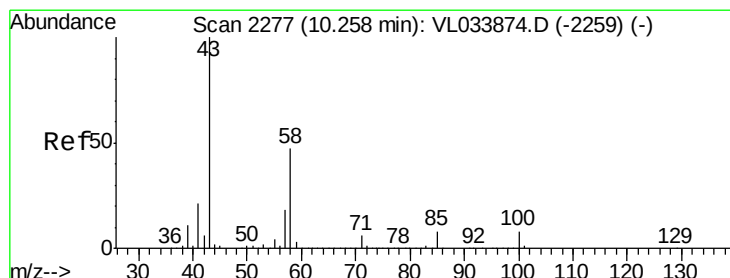
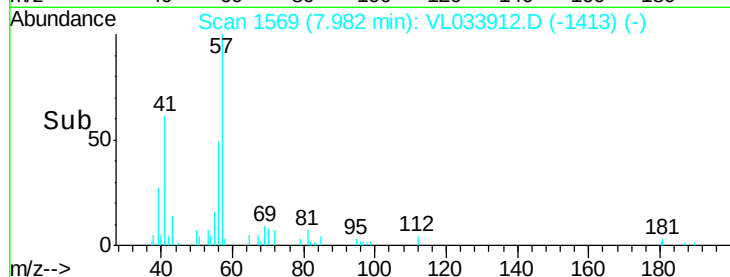
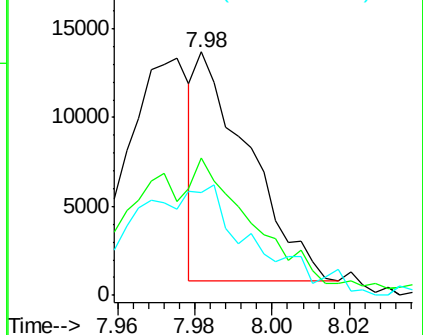
56 126.5 24.6 36.8#



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



#51

2-Hexanone

Concen: 0.120 ppbv

RT: 10.26 min Scan# 2279

Delta R.T. 0.01 min

Lab File: VL033912.D

Acq: 14 Jun 2019 00:50

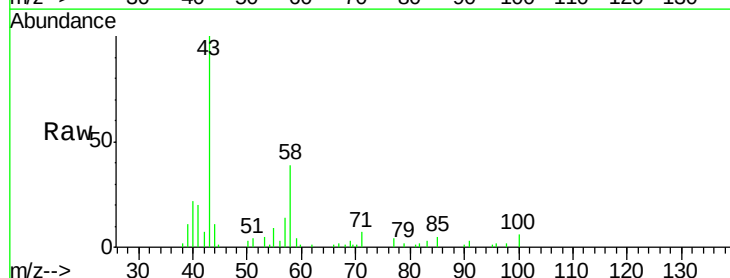
Tgt Ion: 43 Resp: 19400

Ion Ratio Lower Upper

43 100

58 0.0 38.2 57.4#

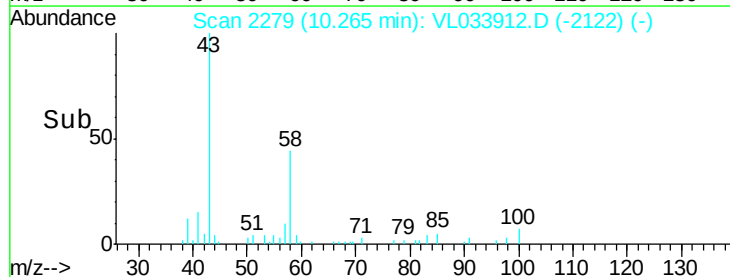
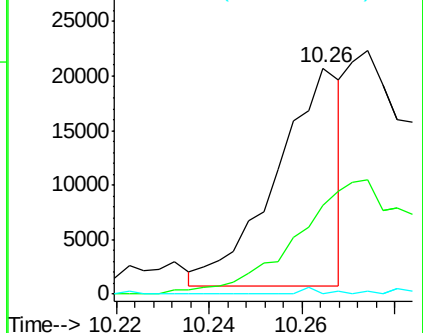
98 2.7 0.2 0.2#

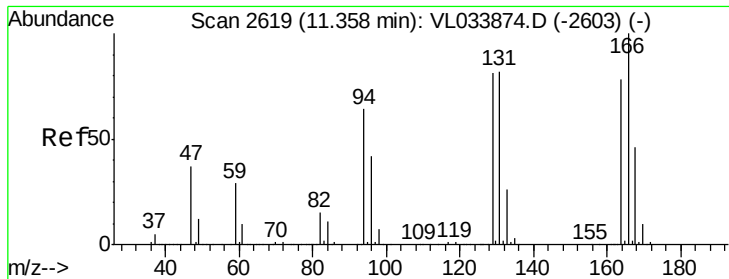


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

Ion 98.20 (97.90 to 98.90): VL0

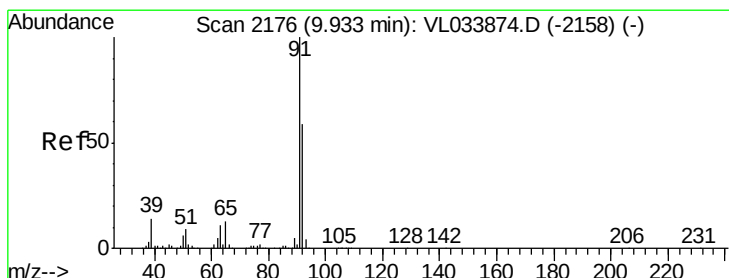
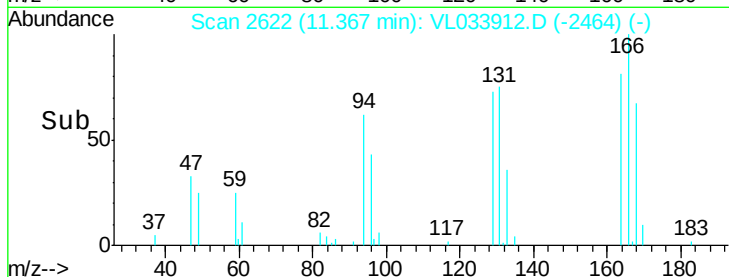
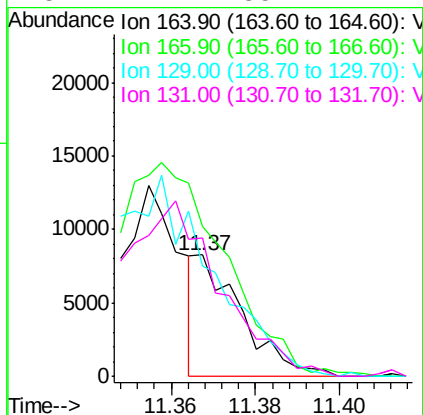
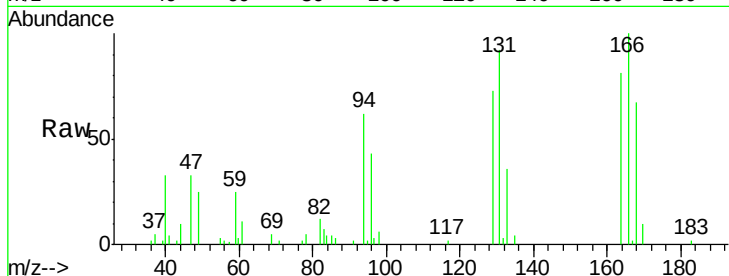




#52
Tetrachloroethene
Concen: 0.093 ppbv
RT: 11.37 min Scan# 2622
Delta R.T. 0.01 min
Lab File: VL033912.D
Acq: 14 Jun 2019 00:50

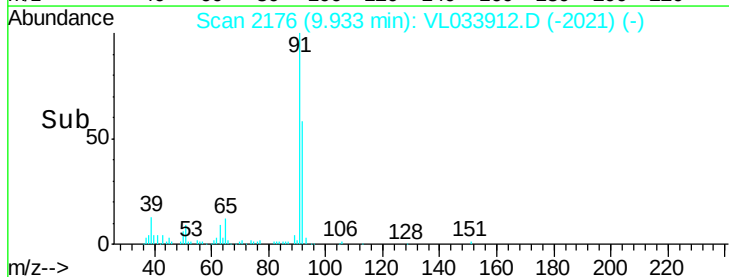
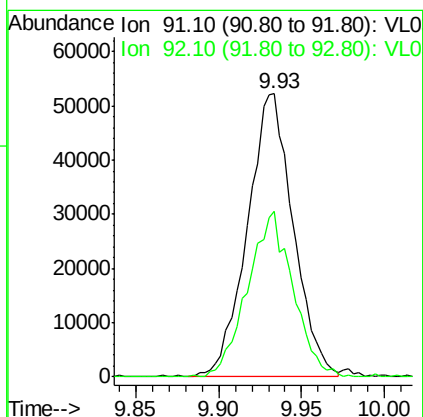
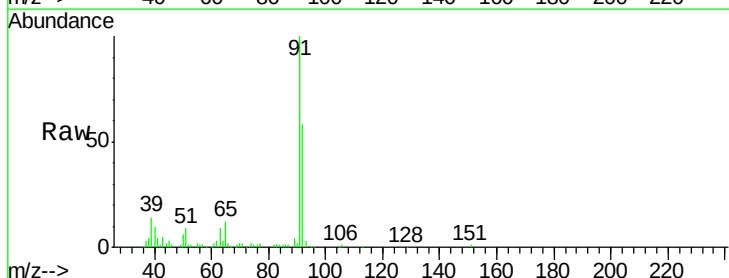
Instrument :
MSVOA_L
ClientSampleId :

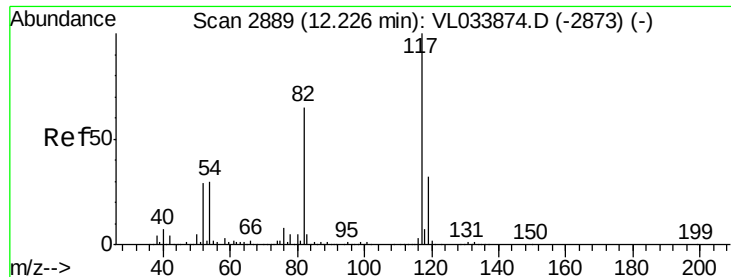
Tot Ion:164 Resp: 6137
Ion Ratio Lower Upper
164 100
166 120.8 103.1 154.7
129 90.8 83.9 125.9
131 114.2 85.1 127.7



#53
Toluene
Concen: 0.484 ppbv
RT: 9.93 min Scan# 2176
Delta R.T. -0.00 min
Lab File: VL033912.D
Acq: 14 Jun 2019 00:50

Tgt Ion: 91 Resp: 100508
Ion Ratio Lower Upper
91 100
92 57.7 47.0 70.6

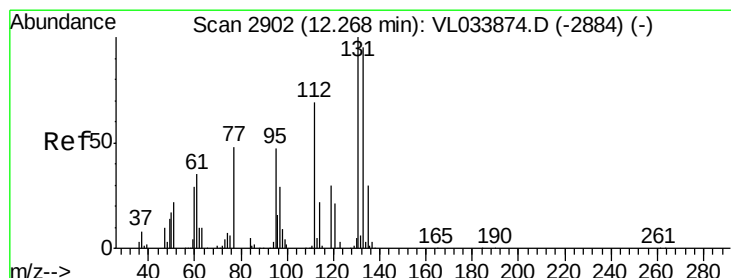
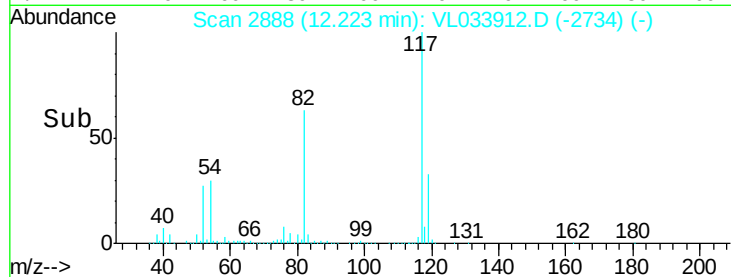
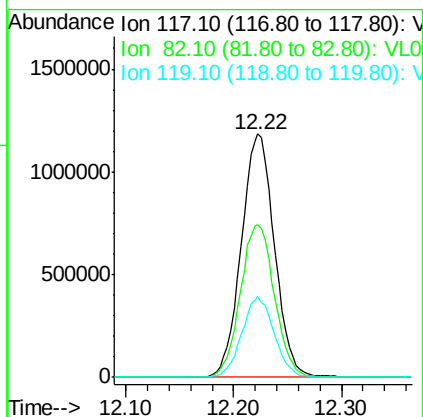
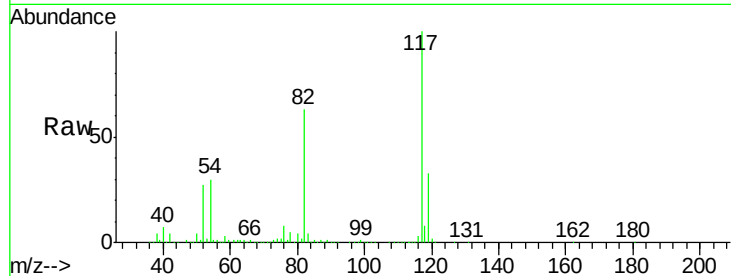




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.22 min Scan# 2888
Delta R.T. -0.00 min
Lab File: VL033912.D
Acq: 14 Jun 2019 00:50

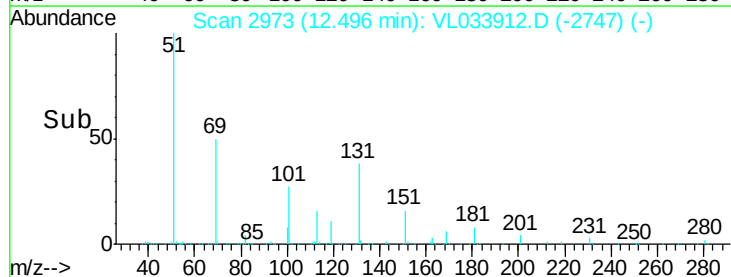
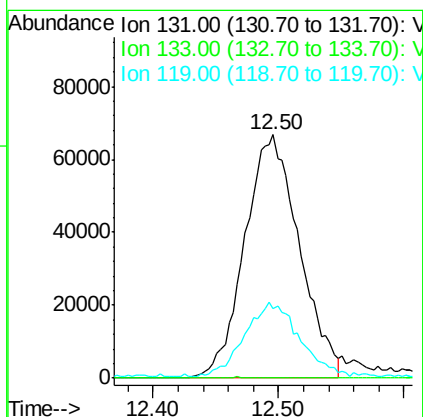
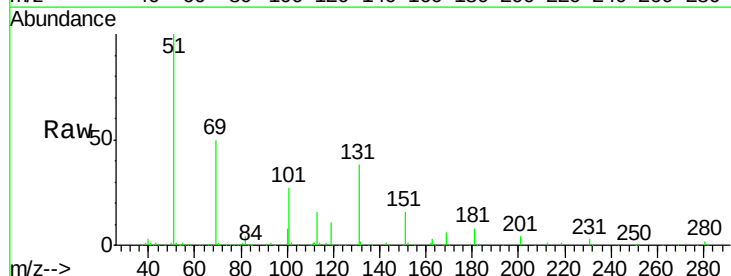
Instrument :
MSVOA_L
ClientSampleId :

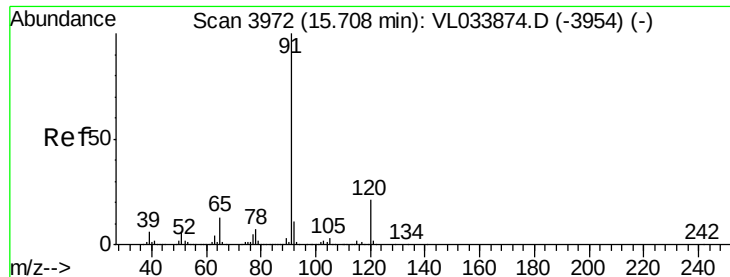
Tot Ion:117 Resp: 2527797
Ion Ratio Lower Upper
117 100
82 64.9 50.2 75.2
119 32.5 24.8 37.2



#56
1,1,1,2-Tetrachloroethane
Concen: 1.829 ppbv
RT: 12.50 min Scan# 2973
Delta R.T. 0.23 min
Lab File: VL033912.D
Acq: 14 Jun 2019 00:50

Tgt Ion:131 Resp: 202012
Ion Ratio Lower Upper
131 100
133 0.0 76.5 114.7#
119 30.3 42.6 64.0#

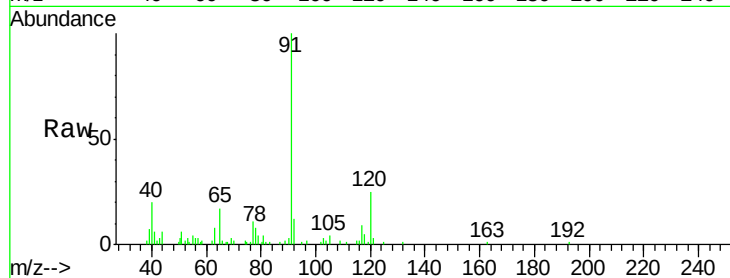




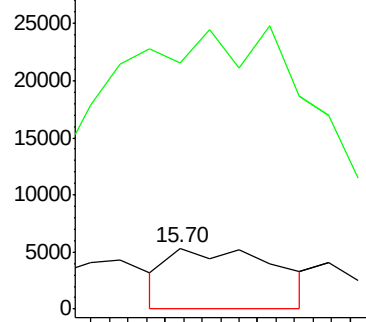
#64
n-propylbenzene
Concen: 0.046 ppbv
RT: 15.70 min Scan# 3970
Delta R.T. -0.01 min
Lab File: VL033912.D
Acq: 14 Jun 2019 00:50

Instrument :
MSVOA_L
ClientSampleId :

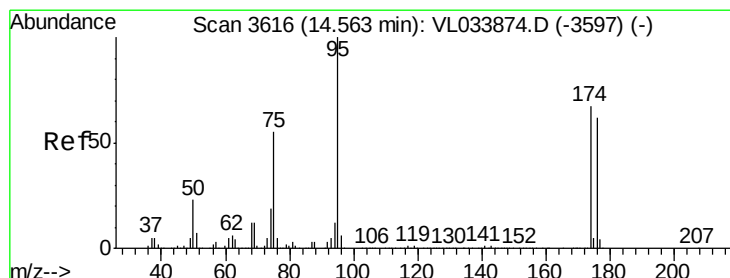
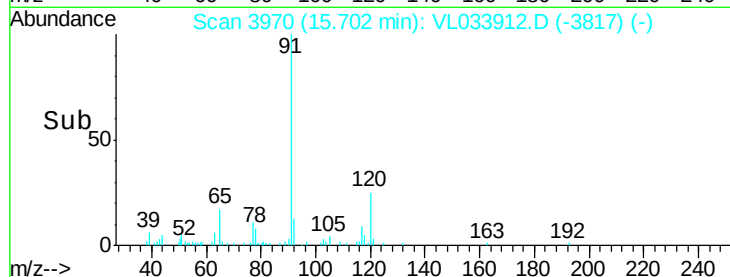
Tot Ion:120 Resp: 4265
Ion Ratio Lower Upper
120 100
91 0.0 387.0 580.6#



Abundance Ion 120.20 (119.90 to 120.90): V
Ion 91.10 (90.80 to 91.80): VL0

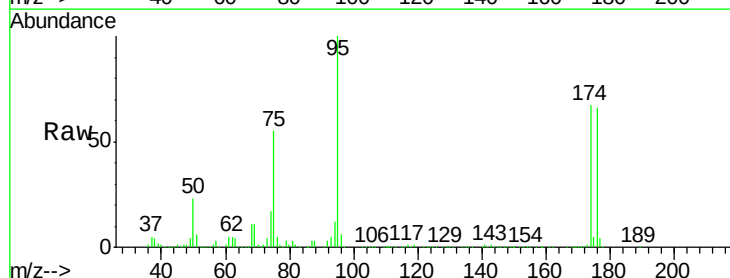


Time-->

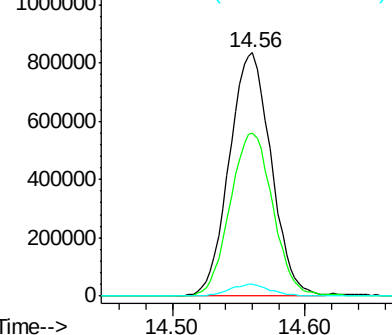


#68
1-Bromo-4-Fluorobenzene
Concen: 8.806 ppbv
RT: 14.56 min Scan# 3615
Delta R.T. -0.00 min
Lab File: VL033912.D
Acq: 14 Jun 2019 00:50

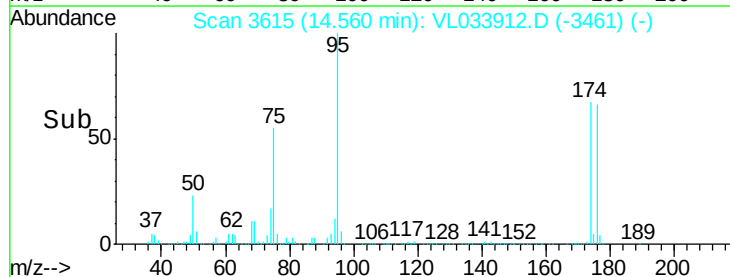
Tgt Ion: 95 Resp: 1828395
Ion Ratio Lower Upper
95 100
174 69.1 54.0 81.0
175 4.8 3.8 5.8

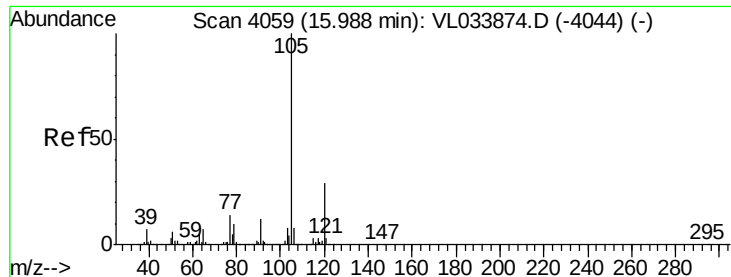


Abundance Ion 95.10 (94.80 to 95.80): VL0
Ion 174.00 (173.70 to 174.70): V
Ion 175.00 (174.70 to 175.70): V



Time-->





#72

4-Ethyltoluene

Concen: 0.090 ppbv

RT: 15.99 min Scan# 4059

Delta R.T. -0.00 min

Lab File: VL033912.D

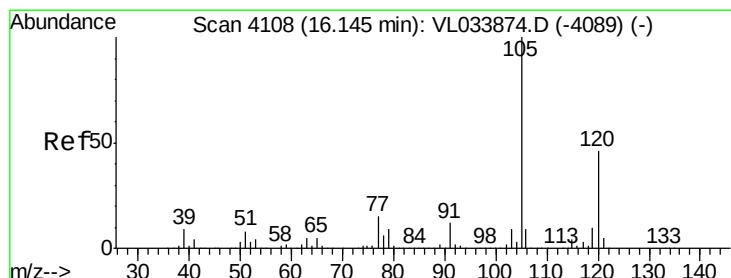
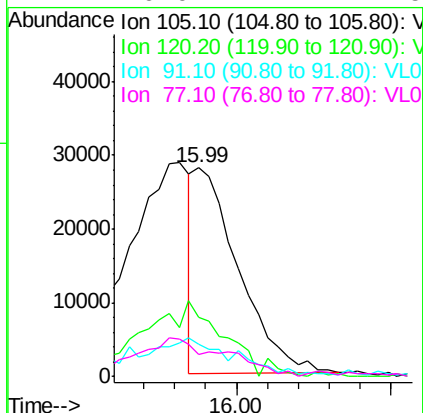
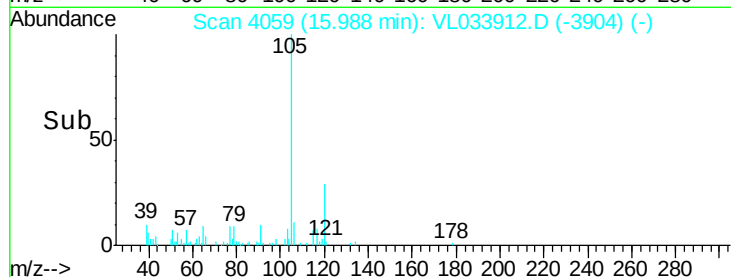
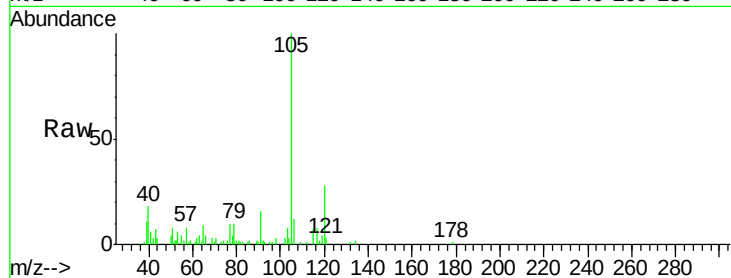
Acq: 14 Jun 2019 00:50

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:	105	Resp:	27525
Ion	Ratio	Lower	Upper
105	100		
120	71.7	23.5	35.3#
91	38.6	10.4	15.6#
77	0.0	11.7	17.5#



#73

1,3,5-Trimethylbenzene

Concen: 0.150 ppbv

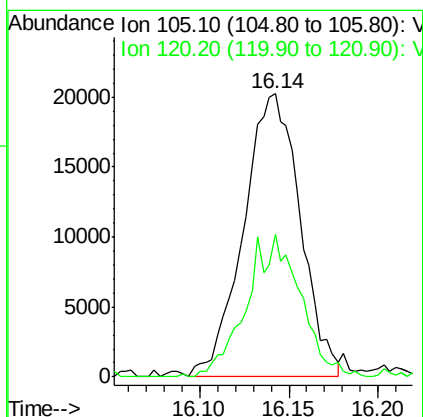
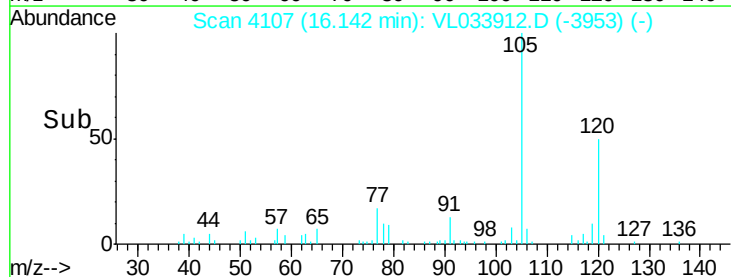
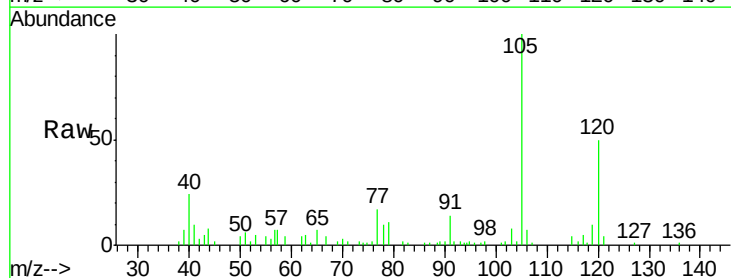
RT: 16.14 min Scan# 4107

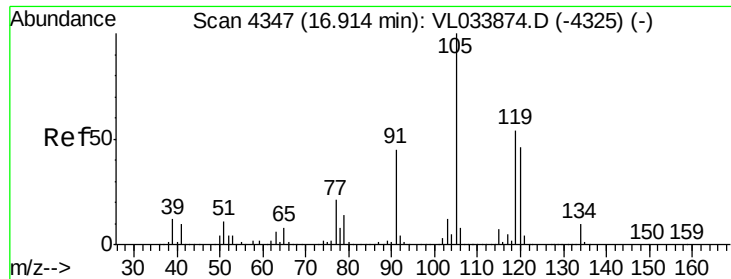
Delta R.T. -0.00 min

Lab File: VL033912.D

Acq: 14 Jun 2019 00:50

Tgt Ion:	105	Resp:	44955
Ion	Ratio	Lower	Upper
105	100		
120	50.5	37.1	55.7





#74

1,2,4-Trimethylbenzene

Concen: 0.327 ppbv

RT: 16.91 min Scan# 4345

Delta R.T. -0.01 min

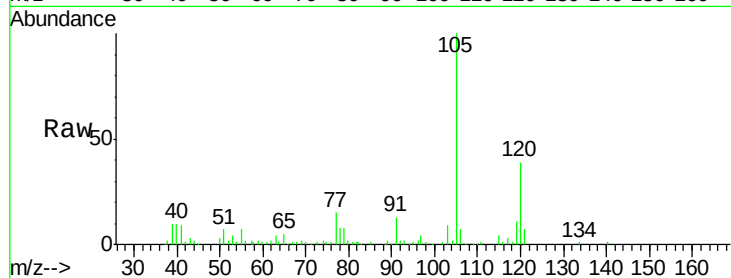
Lab File: VL033912.D

Acq: 14 Jun 2019 00:50

Instrument :

MSVOA_L

ClientSampleId :



Tot Ion:105 Resp: 112933

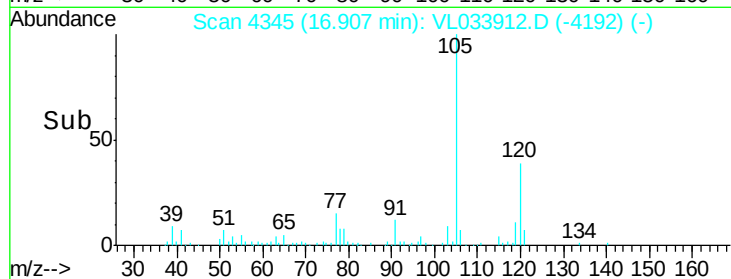
Ion Ratio Lower Upper

105 100

120 39.0 36.7 55.1

91 12.1 35.8 53.8#

77 14.4 16.9 25.3#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

