

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL112018\  
 Data File : VL032790.D  
 Acq On : 20 Nov 2018 22:42  
 Operator : SY/AP  
 Sample : J5998-01 10X  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :

Quant Time: Nov 21 04:08:24 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111418AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Nov 14 07:00:23 2018  
 QLast Update : Wed Nov 14 07:00:23 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.77  | 49   | 1388909  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.30  | 114  | 3379845  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.25 | 117  | 3216151  | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.59  | 95    | 2300742  | 9.56     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 95.60% |

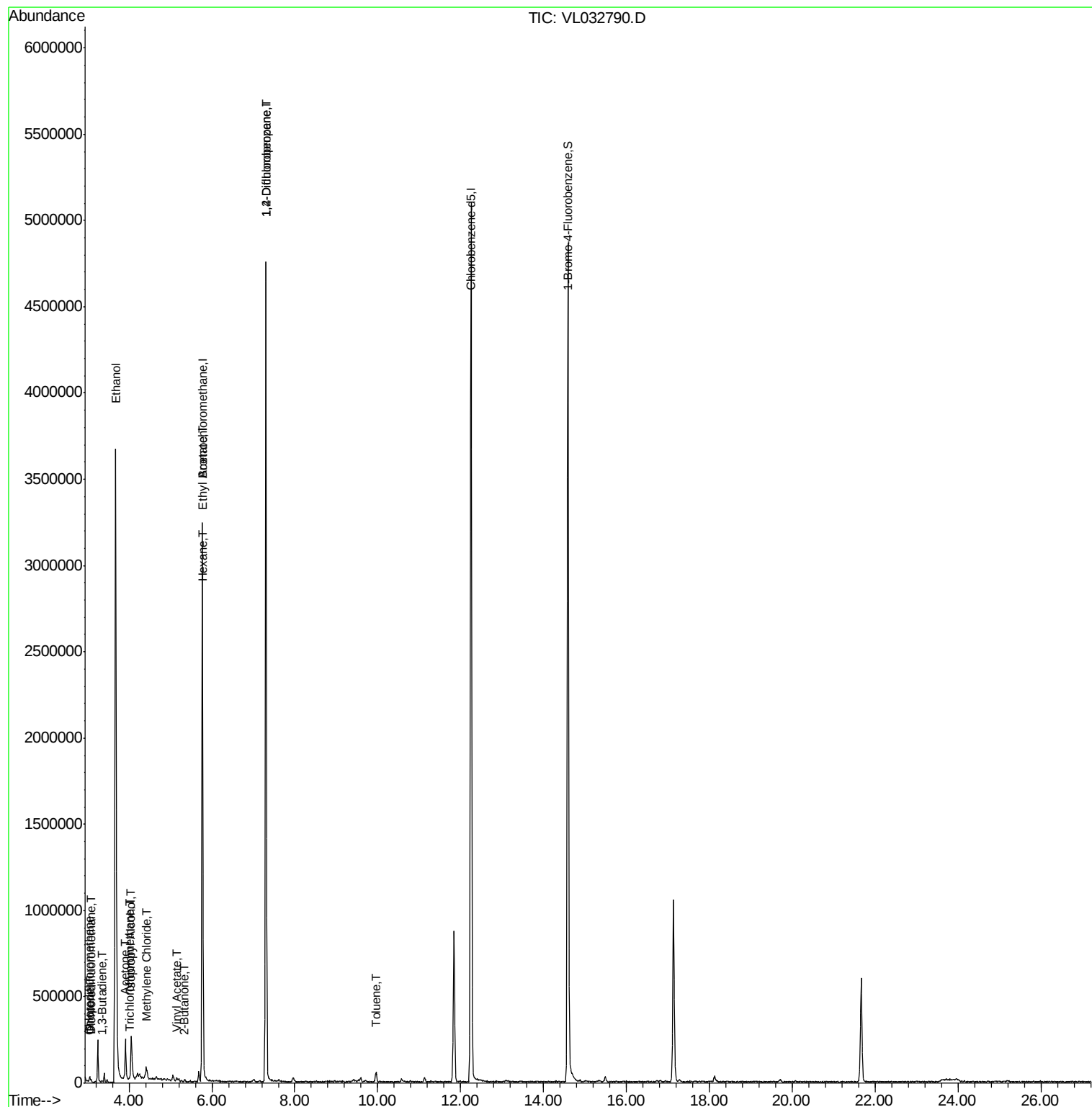
| Target Compounds           | R.T. | QIon | Response | Conc    | Units  | Ovalue |
|----------------------------|------|------|----------|---------|--------|--------|
| 2) Dichlorodifluoromethane | 3.08 | 85   | 10732    | 0.054   | ppbv # | 81     |
| 3) Chlorodifluoromethane   | 3.03 | 51   | 6311     | 0.057   | ppbv   | 99     |
| 9) Propene                 | 3.05 | 41   | 2212     | 0.050   | ppbv # | 1      |
| 11) Trichlorofluoromethane | 4.01 | 101  | 6267     | 0.033   | ppbv   | 92     |
| 13) Ethanol                | 3.68 | 45   | 4942999  | 342.473 | ppbv   | 99     |
| 15) Acetone                | 3.91 | 43   | 222370   | 1.753   | ppbv   | 100    |
| 16) 1,3-Butadiene          | 3.35 | 39   | 3201     | 0.065   | ppbv # | 18     |
| 19) Isopropyl Alcohol      | 4.05 | 45   | 323828   | 3.832   | ppbv # | 98     |
| 20) Methylene Chloride     | 4.42 | 84   | 20209    | 0.308   | ppbv # | 84     |
| 23) Vinyl Acetate          | 5.16 | 43   | 18293    | 0.079   | ppbv # | 91     |
| 25) Ethyl Acetate          | 5.78 | 43   | 21695    | 0.073   | ppbv # | 85     |
| 26) Hexane                 | 5.79 | 57   | 11205    | 0.085   | ppbv # | 90     |
| 34) 2-Butanone             | 5.34 | 43   | 10492    | 0.060   | ppbv # | 53     |
| 39) 1,2-Dichloropropane    | 7.30 | 63   | 829905   | 8.093   | ppbv # | 23     |
| 53) Toluene                | 9.95 | 91   | 18340    | 0.065   | ppbv # | 21     |

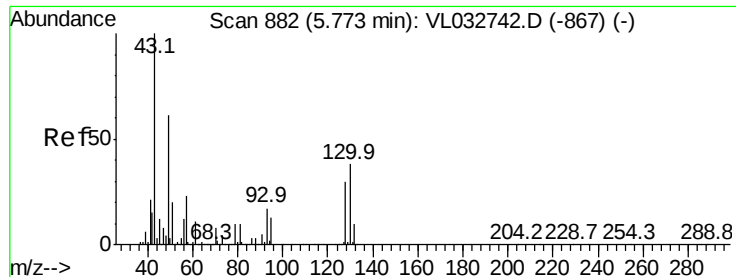
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL112018\  
Data File : VL032790.D  
Acq On : 20 Nov 2018 22:42  
Operator : SY/AP  
Sample : J5998-01 10X  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :

Quant Time: Nov 21 04:08:24 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111418AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed Nov 14 07:00:23 2018  
QLast Update : Wed Nov 14 07:00:23 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 881

Delta R.T. -0.00 min

Lab File: VL032790.D

Acq: 20 Nov 2018 22:42

Instrument :  
MSVOA\_L  
ClientSampleId :

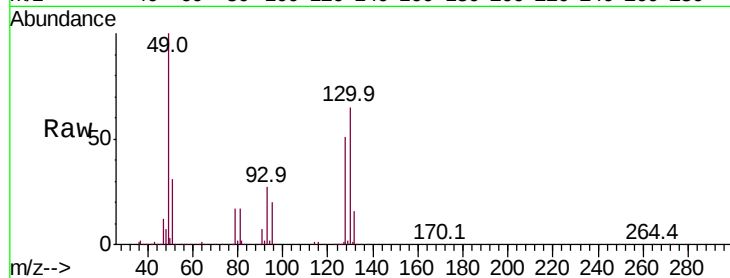
Tot Ion: 49 Resp: 1388909

Ion Ratio Lower Upper

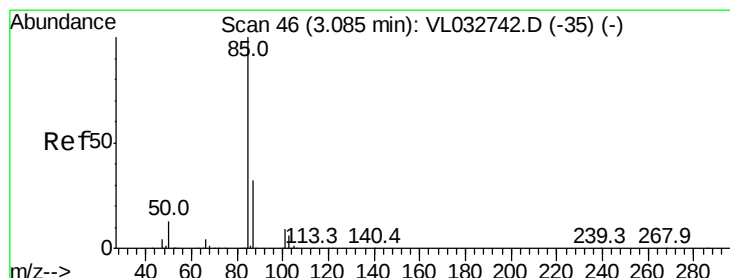
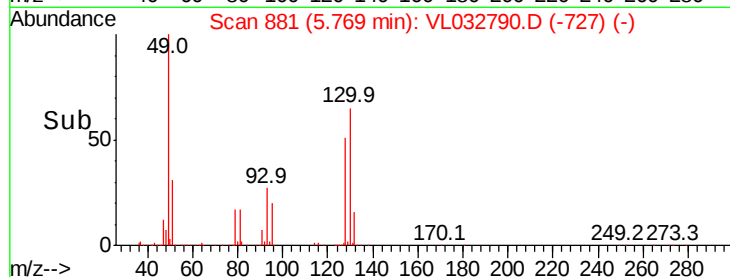
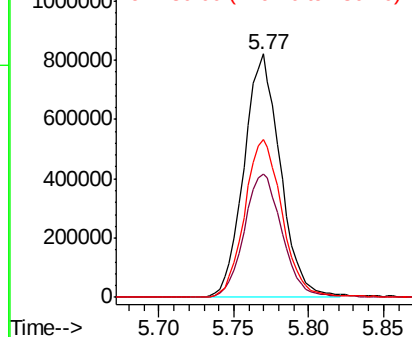
49 100

128 53.1 24.9 74.6

130 67.6 31.4 94.2



Abundance Ion 49.10 (48.80 to 49.80): VL0  
Ion 128.00 (127.70 to 128.70): V  
Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.054 ppbv

RT: 3.08 min Scan# 46

Delta R.T. -0.00 min

Lab File: VL032790.D

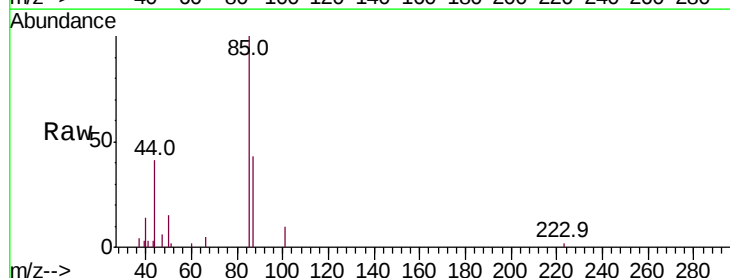
Acq: 20 Nov 2018 22:42

Tgt Ion: 85 Resp: 10732

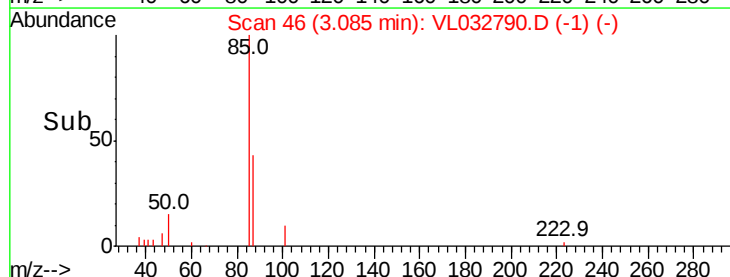
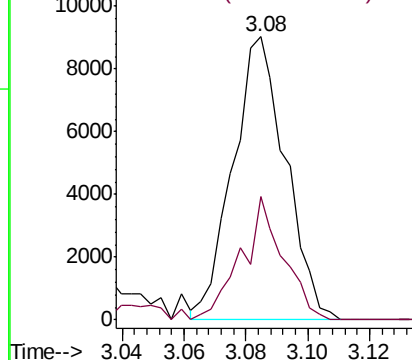
Ion Ratio Lower Upper

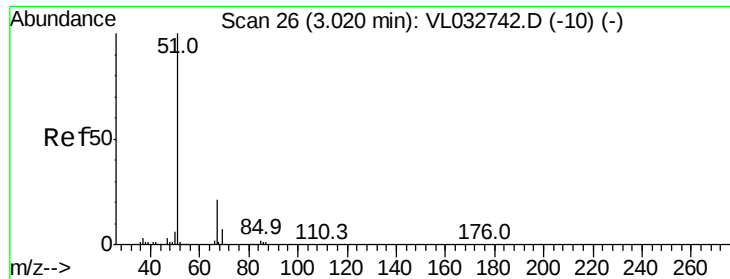
85 100

87 43.4 26.0 39.0#



Abundance Ion 85.00 (84.70 to 85.70): VL0  
Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.057 ppbv

RT: 3.03 min Scan# 28

Delta R.T. 0.01 min

Lab File: VL032790.D

Acq: 20 Nov 2018 22:42

Instrument :

MSVOA\_L

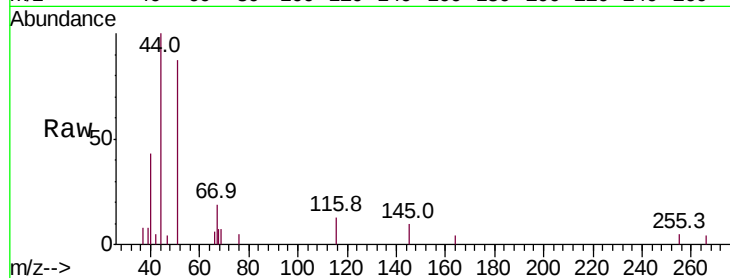
ClientSampleId :

Tot Ion: 51 Resp: 6311

Ion Ratio Lower Upper

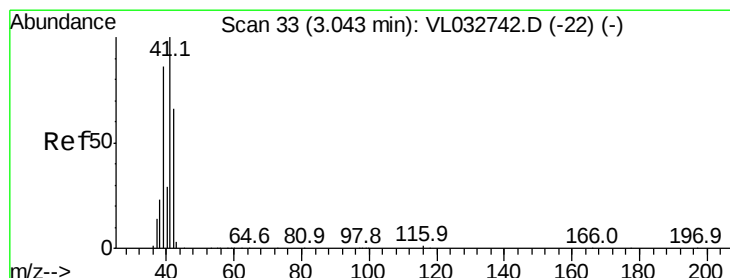
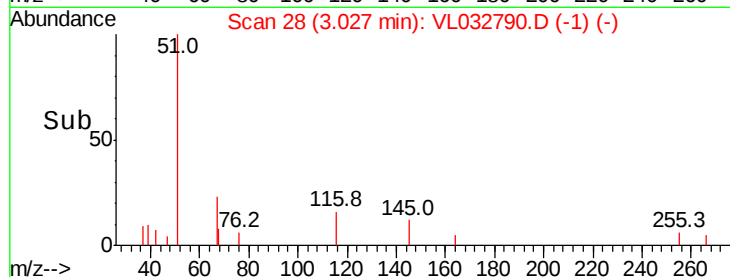
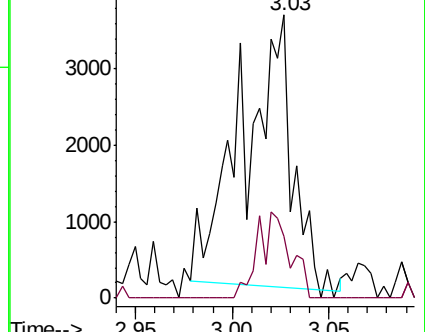
51 100

67 20.5 16.1 24.1



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#9

Propene

Concen: 0.050 ppbv

RT: 3.05 min Scan# 34

Delta R.T. 0.00 min

Lab File: VL032790.D

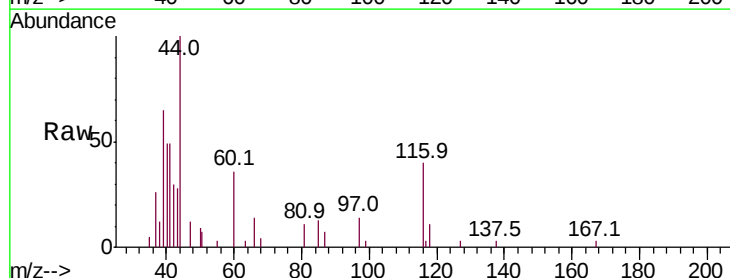
Acq: 20 Nov 2018 22:42

Tgt Ion: 41 Resp: 2212

Ion Ratio Lower Upper

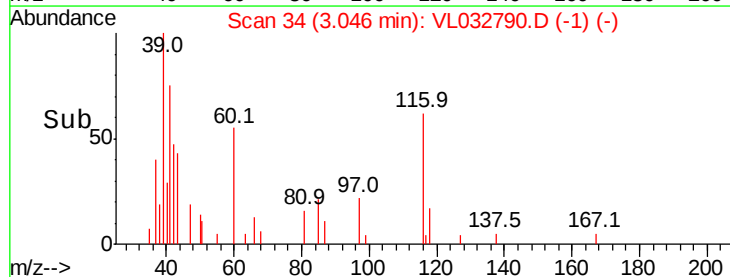
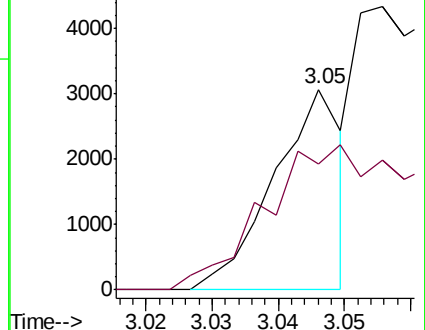
41 100

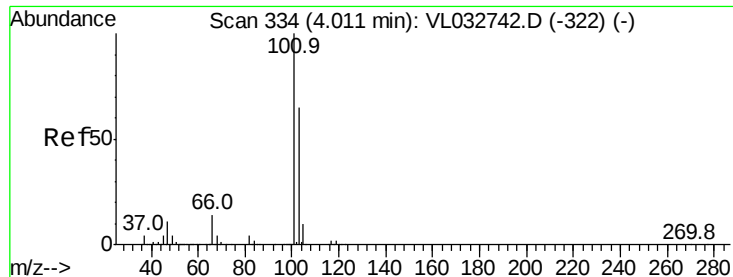
42 175.7 55.0 82.6#



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#11

Trichlorofluoromethane

Concen: 0.033 ppbv

RT: 4.01 min Scan# 335

Delta R.T. 0.00 min

Lab File: VL032790.D

Acq: 20 Nov 2018 22:42

Instrument :

MSVOA\_L

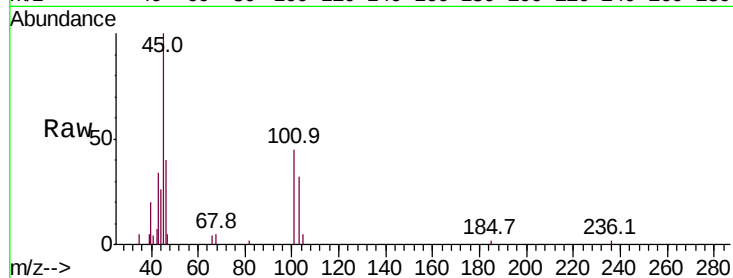
ClientSampleId :

Tot Ion:101 Resp: 6267

Ion Ratio Lower Upper

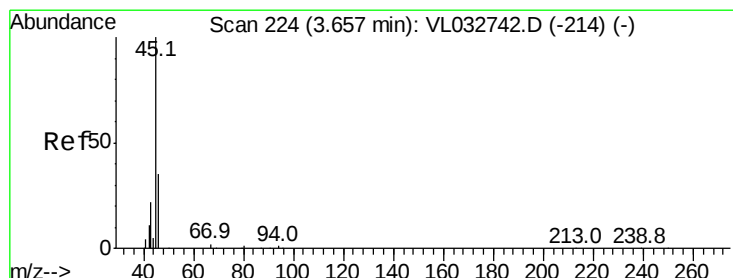
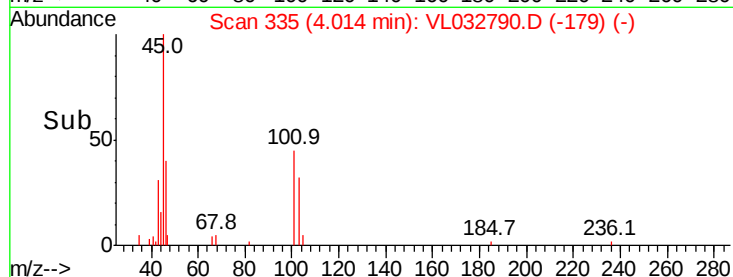
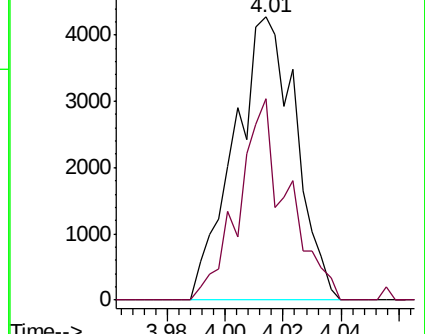
101 100

103 71.0 51.6 77.4



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#13

Ethanol

Concen: 342.473 ppbv

RT: 3.68 min Scan# 230

Delta R.T. 0.02 min

Lab File: VL032790.D

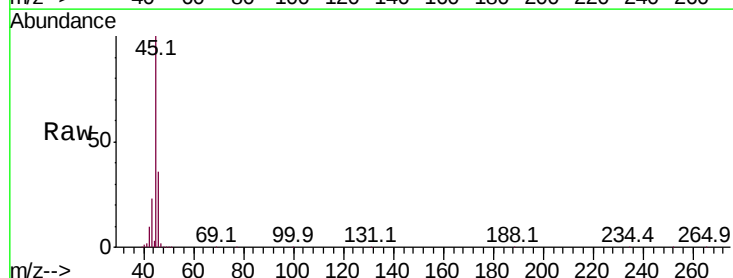
Acq: 20 Nov 2018 22:42

Tgt Ion: 45 Resp: 4942999

Ion Ratio Lower Upper

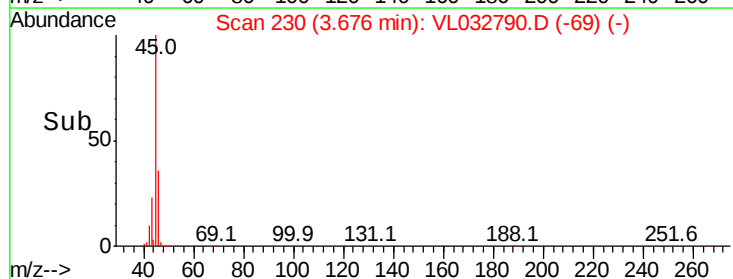
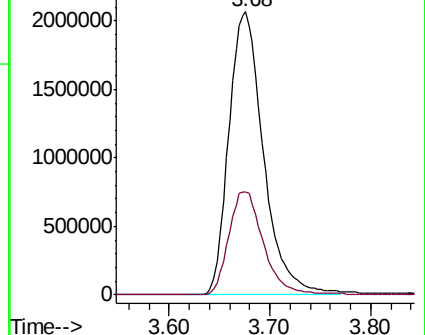
45 100

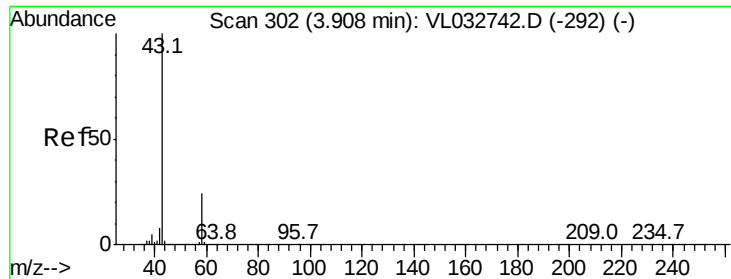
46 37.0 14.5 57.9



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 1.753 ppbv

RT: 3.91 min Scan# 304

Delta R.T. 0.01 min

Lab File: VL032790.D

Acq: 20 Nov 2018 22:42

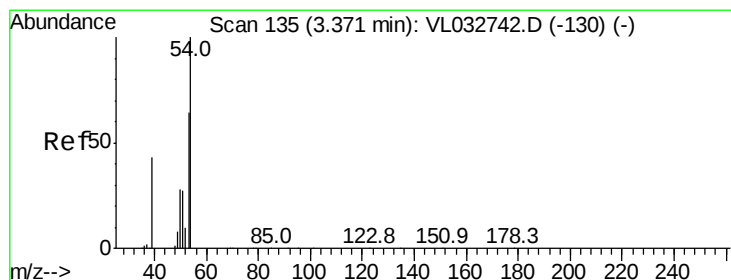
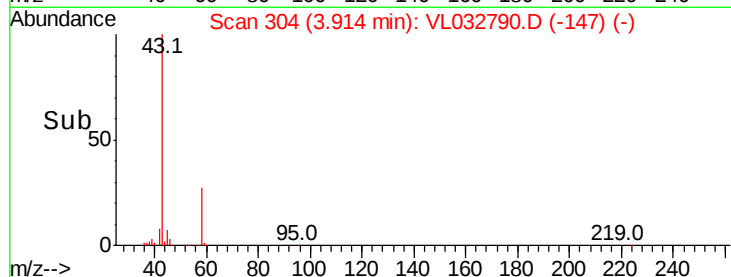
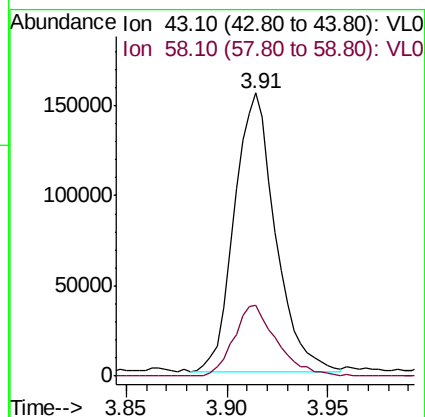
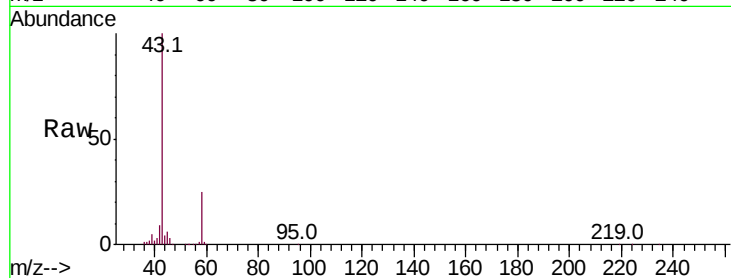
Instrument :  
MSVOA\_L  
ClientSampleId :

Tot Ion: 43 Resp: 222370

Ion Ratio Lower Upper

43 100

58 26.6 21.1 31.7



#16

1,3-Butadiene

Concen: 0.065 ppbv

RT: 3.35 min Scan# 129

Delta R.T. -0.02 min

Lab File: VL032790.D

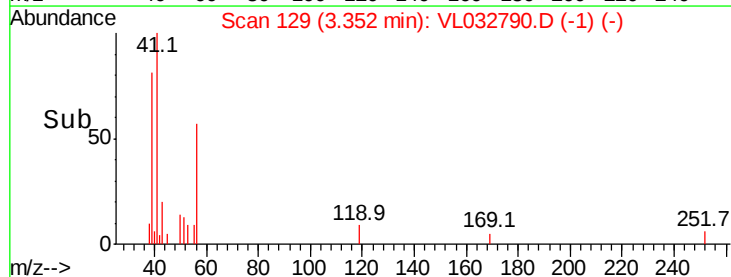
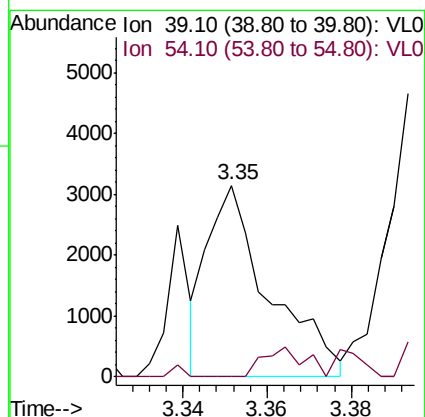
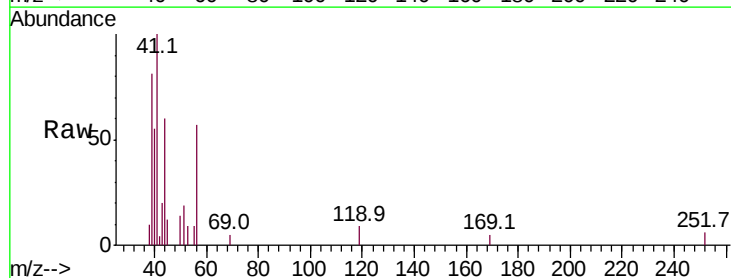
Acq: 20 Nov 2018 22:42

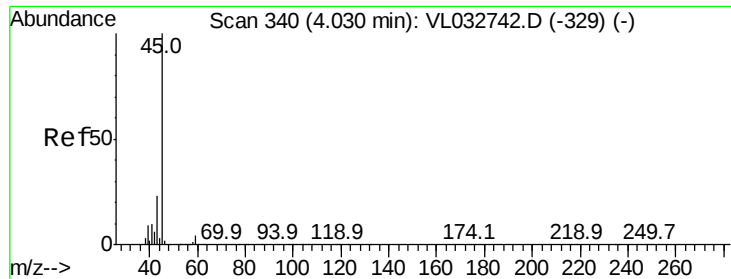
Tgt Ion: 39 Resp: 3201

Ion Ratio Lower Upper

39 100

54 10.5 68.9 103.3#

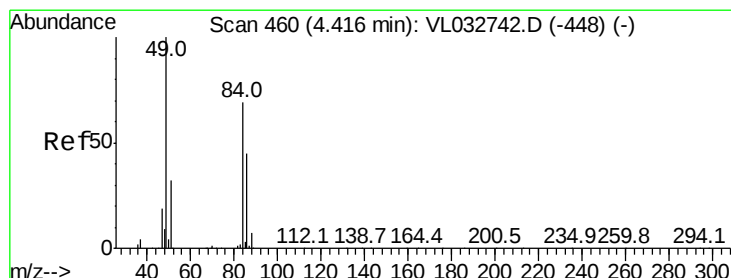
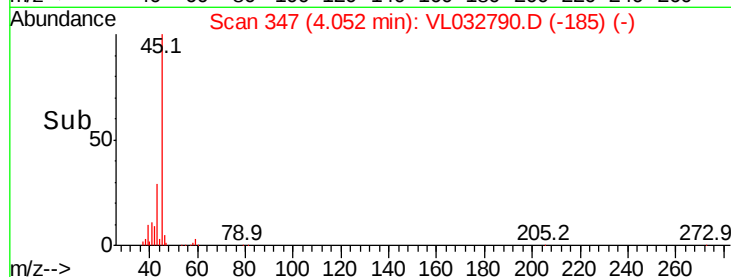
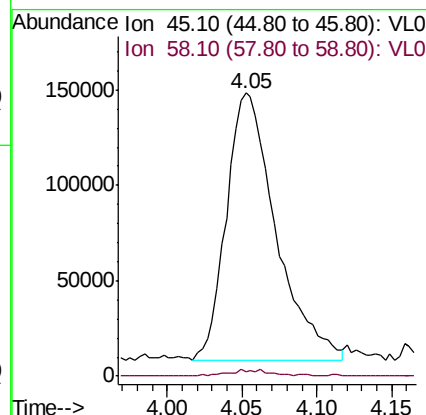
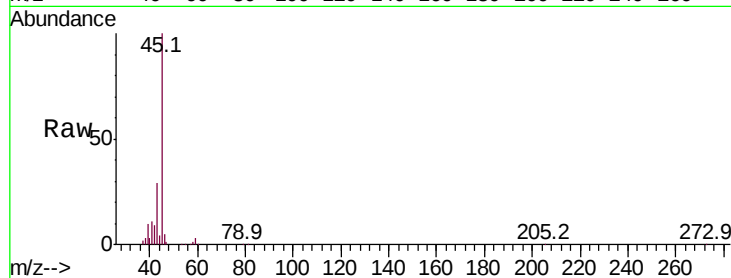




#19  
Isopropyl Alcohol  
Concen: 3.832 ppbv  
RT: 4.05 min Scan# 347  
Delta R.T. 0.02 min  
Lab File: VL032790.D  
Acq: 20 Nov 2018 22:42

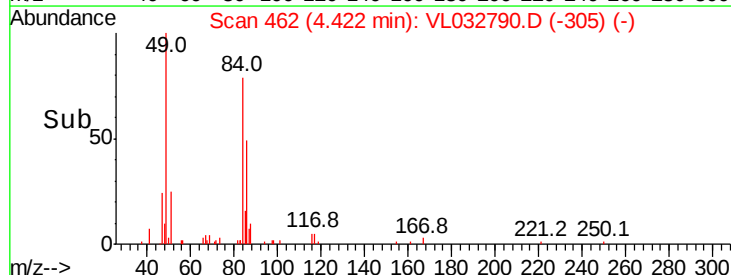
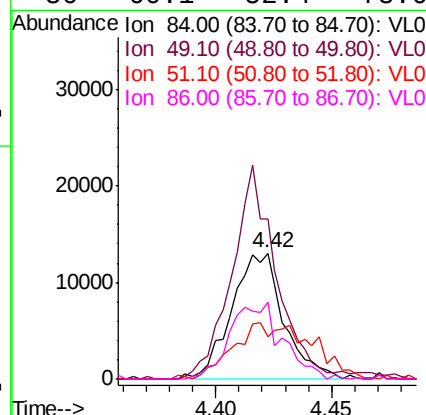
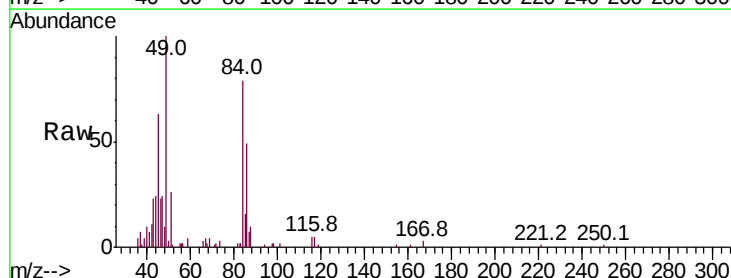
Instrument :  
MSVOA\_L  
ClientSampleId :

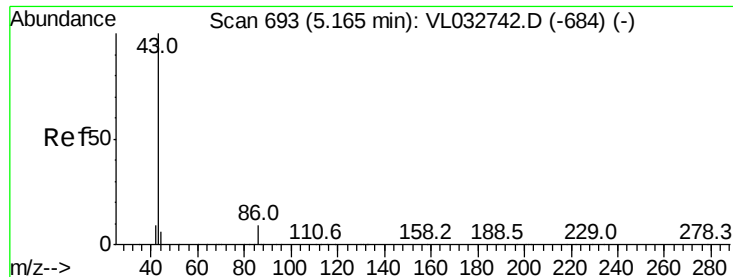
Tot Ion: 45 Resp: 323828  
Ion Ratio Lower Upper  
45 100  
58 2.4 1.4 2.0#



#20  
Methylene Chloride  
Concen: 0.308 ppbv  
RT: 4.42 min Scan# 462  
Delta R.T. 0.01 min  
Lab File: VL032790.D  
Acq: 20 Nov 2018 22:42

Tgt Ion: 84 Resp: 20209  
Ion Ratio Lower Upper  
84 100  
49 120.8 115.8 173.6  
51 35.1 36.9 55.3#  
86 60.1 52.4 78.6





#23

Vinyl Acetate

Concen: 0.079 ppbv

RT: 5.16 min Scan# 691

Delta R.T. -0.01 min

Lab File: VL032790.D

Acq: 20 Nov 2018 22:42

Instrument :

MSVOA\_L

ClientSampleId :

Tot Ion: 43 Resp: 18293

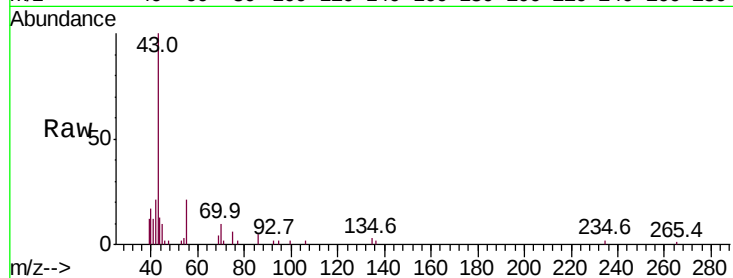
Ion Ratio Lower Upper

43 100

86 5.6 6.2 9.4#

42 12.6 7.8 11.6#

44 0.0 4.4 6.6#

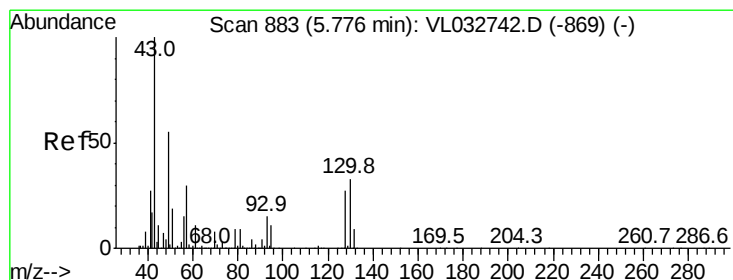
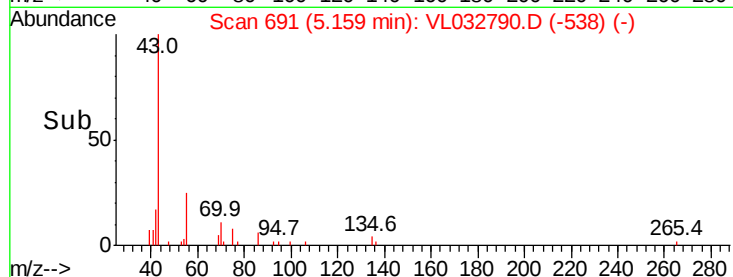
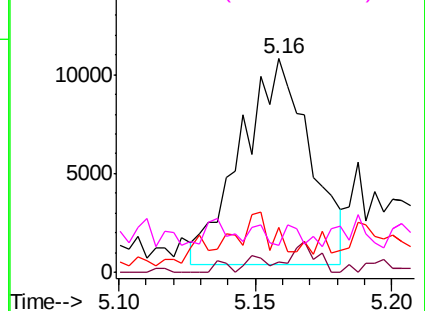


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.073 ppbv

RT: 5.78 min Scan# 885

Delta R.T. 0.01 min

Lab File: VL032790.D

Acq: 20 Nov 2018 22:42

Tgt Ion: 43 Resp: 21695

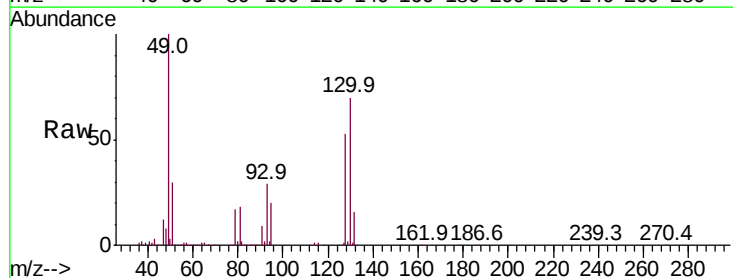
Ion Ratio Lower Upper

43 100

45 0.0 7.9 11.9#

61 6.7 7.8 11.6#

70 4.2 5.8 8.6#

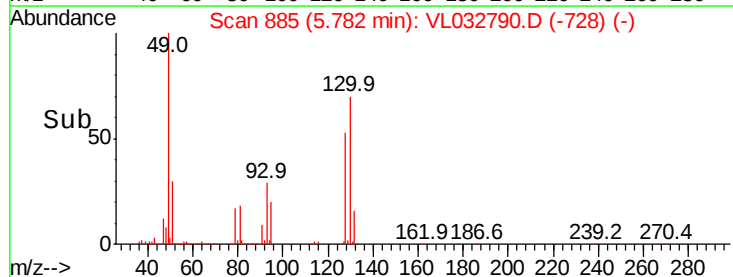
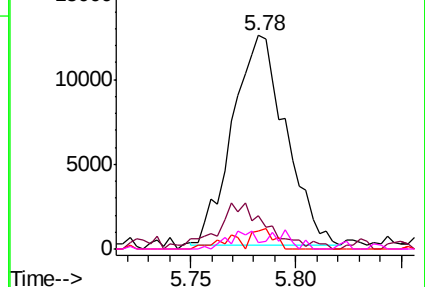


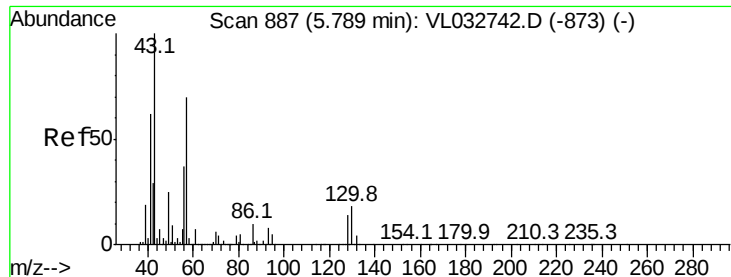
Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.085 ppbv

RT: 5.79 min Scan# 886

Delta R.T. -0.00 min

Lab File: VL032790.D

Acq: 20 Nov 2018 22:42

Instrument :

MSVOA\_L

ClientSampleId :

Tot Ion: 57 Resp: 11205

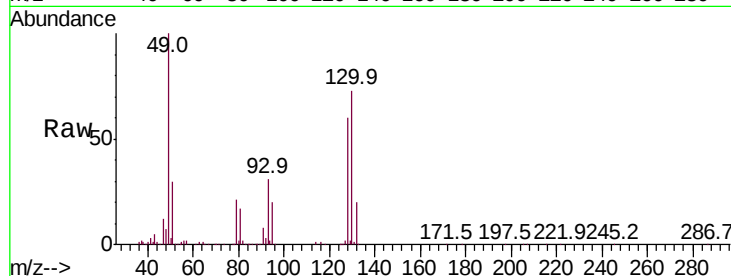
Ion Ratio Lower Upper

57 100

41 114.2 70.3 105.5#

43 216.7 174.0 261.0

56 64.8 42.3 63.5#



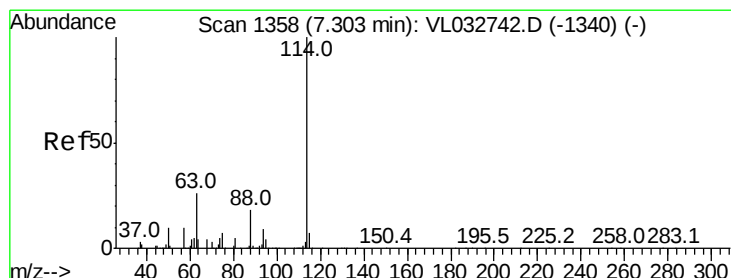
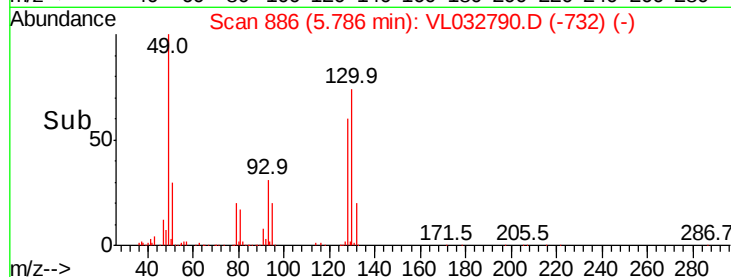
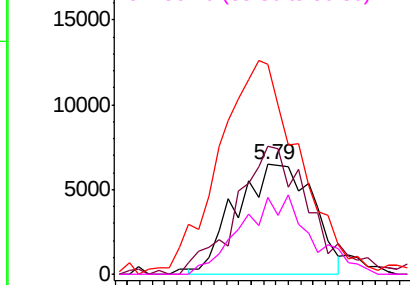
Abundance

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



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.30 min Scan# 1357

Delta R.T. -0.00 min

Lab File: VL032790.D

Acq: 20 Nov 2018 22:42

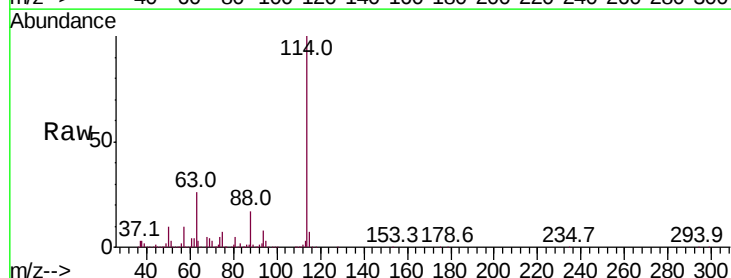
Tgt Ion:114 Resp: 3379845

Ion Ratio Lower Upper

114 100

63 24.6 20.9 31.3

88 17.5 14.4 21.6

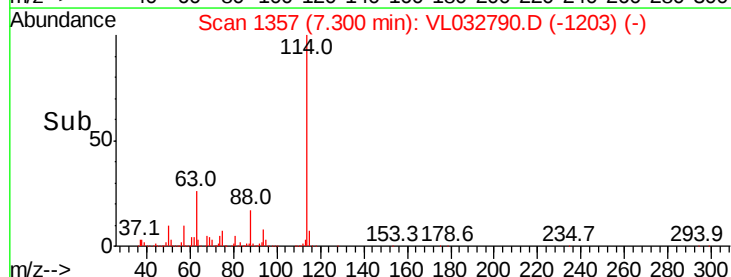
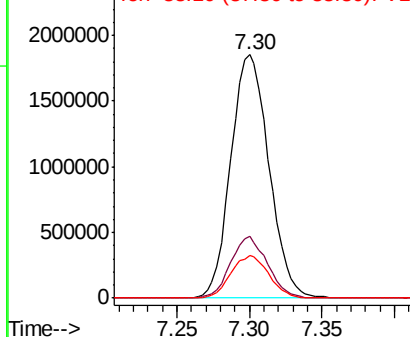


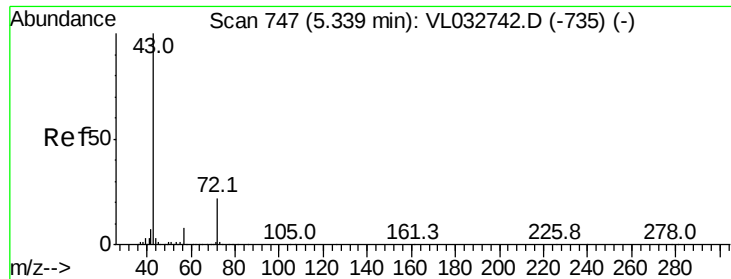
Abundance

Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0

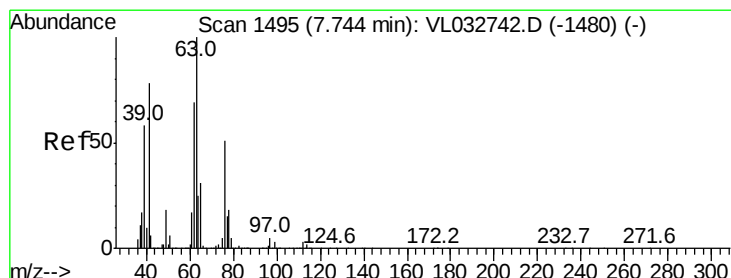
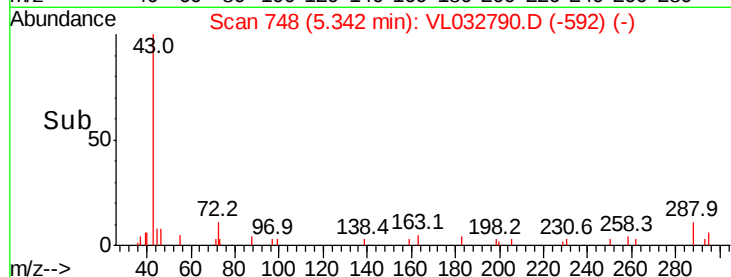
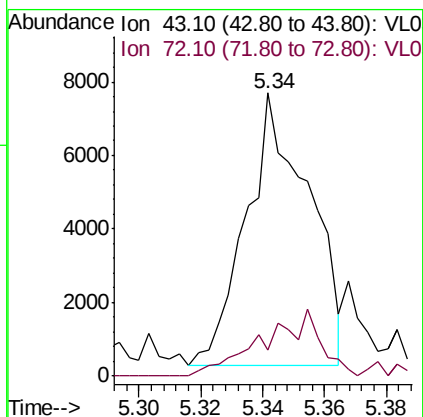
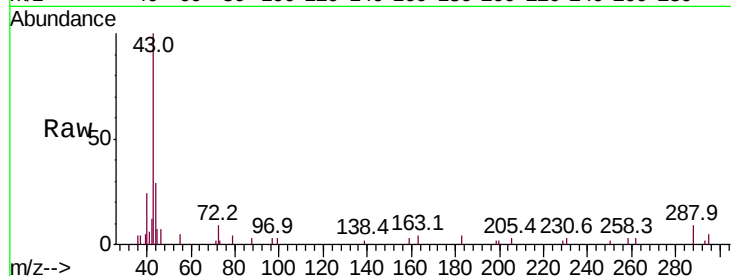




#34  
2-Butanone  
Concen: 0.060 ppbv  
RT: 5.34 min Scan# 748  
Delta R.T. 0.00 min  
Lab File: VL032790.D  
Acq: 20 Nov 2018 22:42

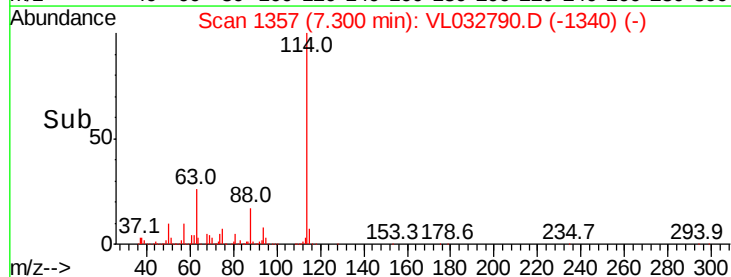
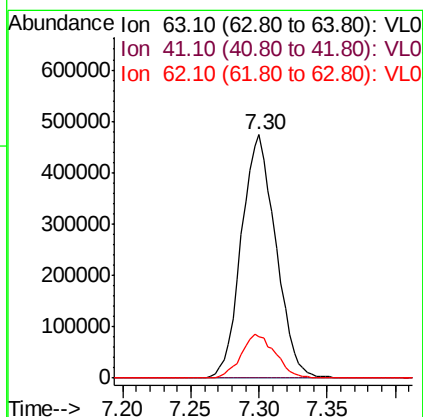
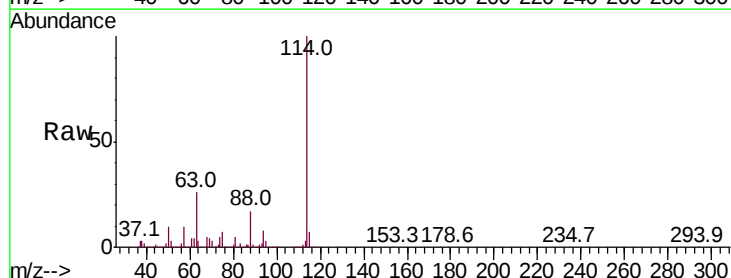
Instrument :  
MSVOA\_L  
ClientSampleId :

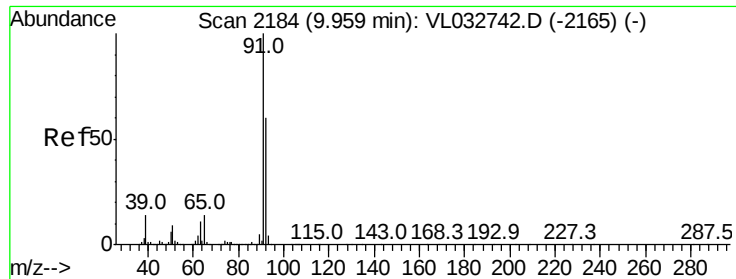
Tot Ion: 43 Resp: 10492  
Ion Ratio Lower Upper  
43 100  
72 0.0 18.4 27.6#



#39  
1,2-Dichloropropane  
Concen: 8.093 ppbv  
RT: 7.30 min Scan# 1357  
Delta R.T. -0.44 min  
Lab File: VL032790.D  
Acq: 20 Nov 2018 22:42

Tgt Ion: 63 Resp: 829905  
Ion Ratio Lower Upper  
63 100  
41 0.0 62.0 93.0#  
62 17.3 55.4 83.2#





#53

Toluene

Concen: 0.065 ppbv

RT: 9.95 min Scan# 2181

Delta R.T. -0.01 min

Lab File: VL032790.D

Acq: 20 Nov 2018 22:42

Instrument :

MSVOA\_L

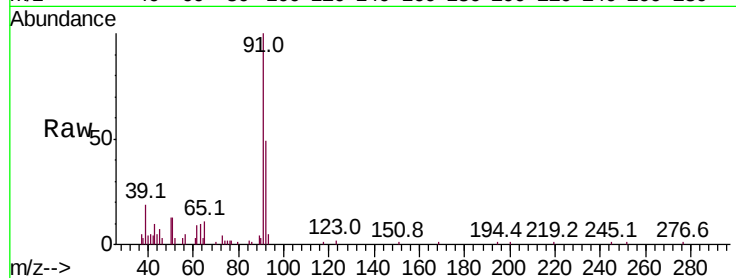
ClientSampleId :

Tot Ion: 91 Resp: 18340

Ion Ratio Lower Upper

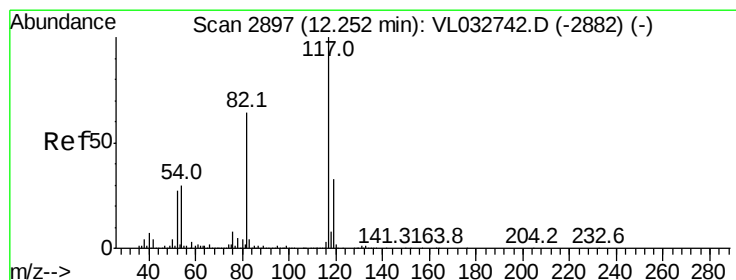
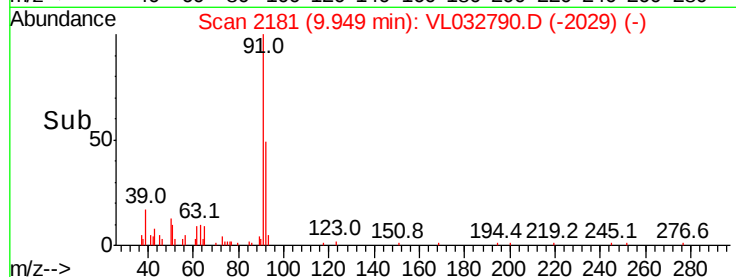
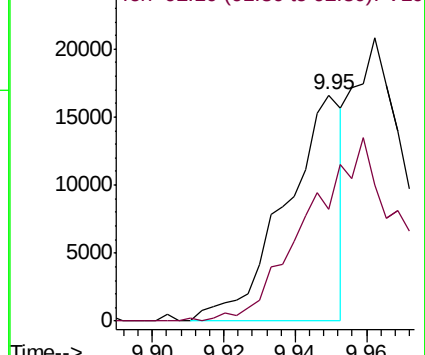
91 100

92 0.0 47.9 71.9#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.25 min Scan# 2896

Delta R.T. -0.00 min

Lab File: VL032790.D

Acq: 20 Nov 2018 22:42

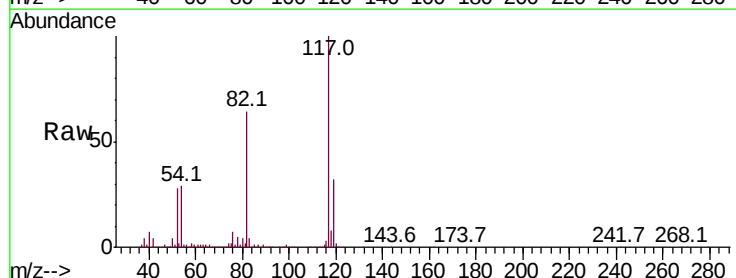
Tgt Ion: 117 Resp: 3216151

Ion Ratio Lower Upper

117 100

82 63.8 51.0 76.6

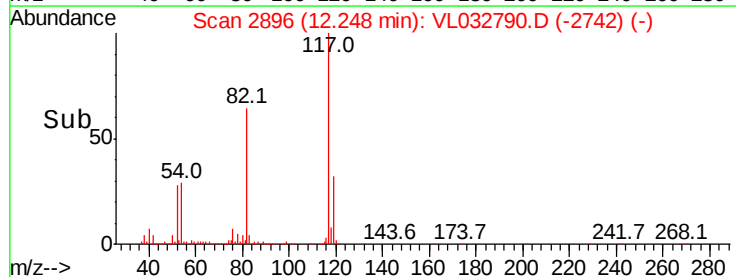
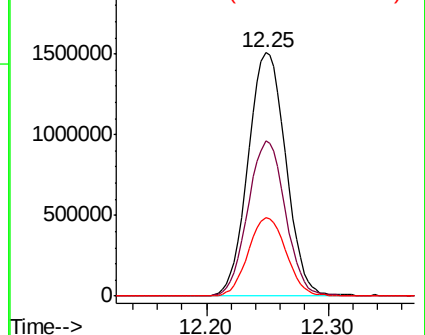
119 32.4 28.0 42.0

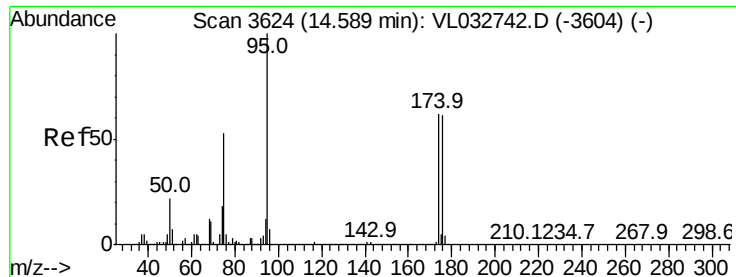


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





#68

1-Bromo-4-Fluorobenzene

Concen: 9.564 ppbv

RT: 14.59 min Scan# 3623

Delta R.T. -0.00 min

Lab File: VL032790.D

Acq: 20 Nov 2018 22:42

Instrument :

MSVOA\_L

ClientSampleId :

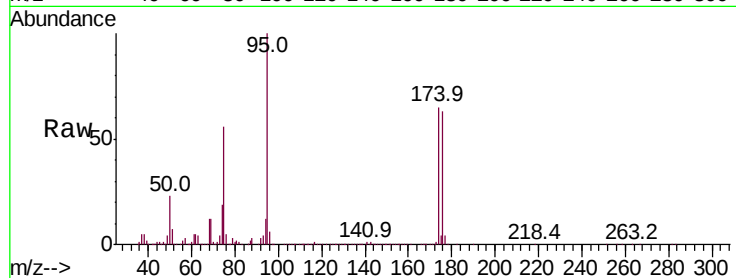
Tot Ion: 95 Resp: 2300742

Ion Ratio Lower Upper

95 100

174 66.9 50.7 76.1

175 4.8 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

