

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN101218\  
 Data File : VN051860.D  
 Acq On : 13 Oct 2018 3:19  
 Operator : MD\SY  
 Sample : J5193-02  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 41 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 BU-01-101118

Quant Time: Oct 13 03:53:19 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N101118W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Oct 12 09:51:20 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 815195   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 1176935  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 1028256  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 368126   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response   | Conc    | Units | Dev(Min) |
|-----------------------------|-------|------|------------|---------|-------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.03  | 65   | 450830     | 57.86   | ug/l  | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery = | 115.72% |       |          |
| 35) Dibromofluoromethane    | 7.59  | 113  | 437943     | 59.84   | ug/l  | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery = | 119.68% |       |          |
| 50) Toluene-d8              | 10.09 | 98   | 1616970    | 59.29   | ug/l  | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery = | 118.58% |       |          |
| 62) 4-Bromofluorobenzene    | 12.40 | 95   | 455396     | 48.37   | ug/l  | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery = | 96.74%  |       |          |

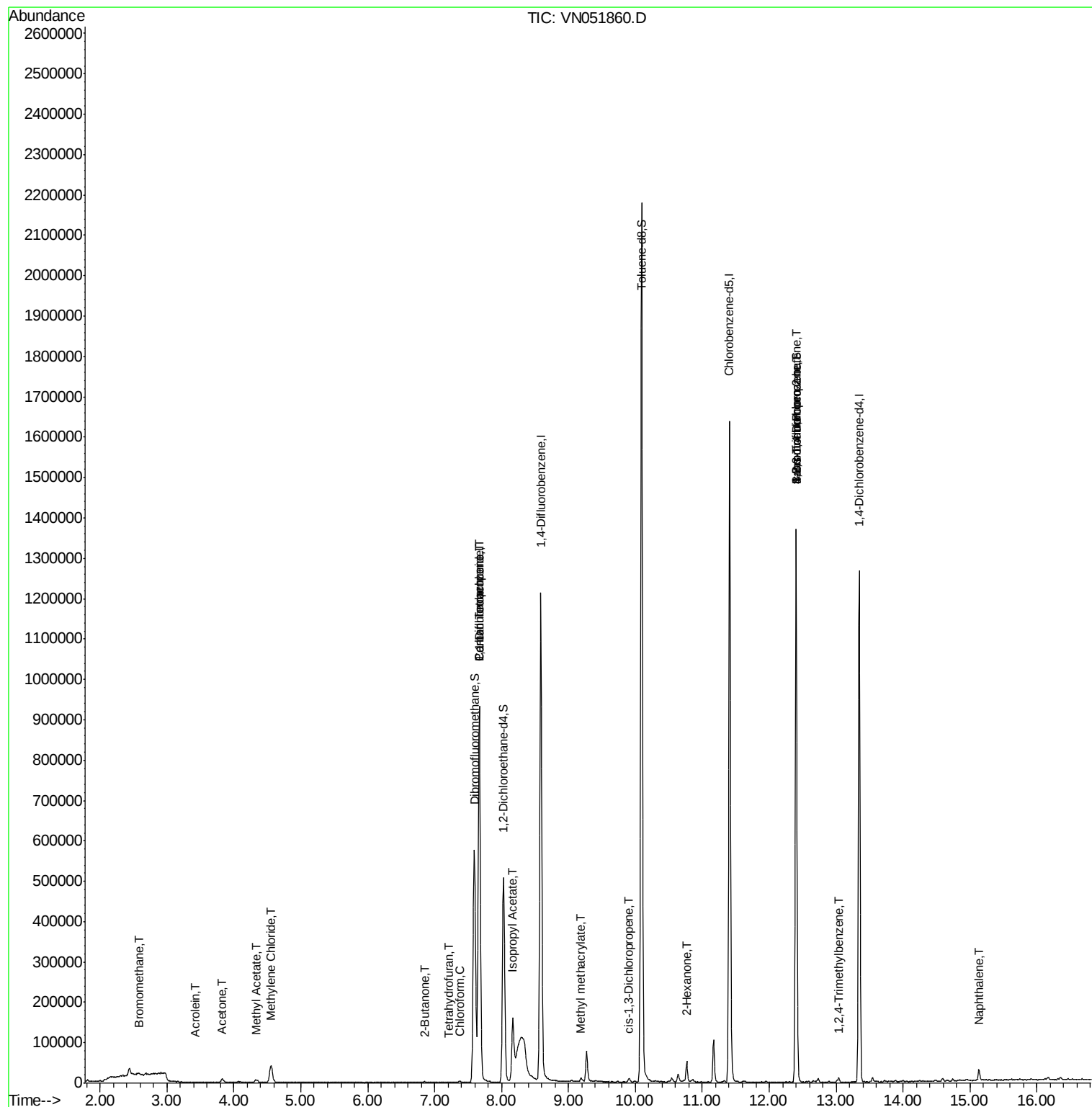
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 5) Bromomethane                | 2.57  | 94   | 2158     | 0.291     | ug/l # | 61     |
| 13) Acrolein                   | 3.43  | 56   | 67       | 16.047    | ug/l # | 14     |
| 16) Acetone                    | 3.82  | 43   | 13838    | 8.235     | ug/l # | 86     |
| 18) Methyl Acetate             | 4.33  | 43   | 13500    | 2.020     | ug/l # | 80     |
| 20) Methylene Chloride         | 4.55  | 84   | 34840    | 5.010     | ug/l   | 85     |
| 25) 2-Butanone                 | 6.86  | 43   | 1682     | 0.708     | ug/l # | 47     |
| 29) Tetrahydrofuran            | 7.20  | 42   | 372      | 0.263     | ug/l # | 46     |
| 30) Chloroform                 | 7.37  | 83   | 3548     | 0.266     | ug/l # | 67     |
| 31) Cyclohexane                | 7.66  | 56   | 13096    | Below Cal | #      | 4      |
| 36) 1,1-Dichloropropene        | 7.66  | 75   | 52361    | 5.495     | ug/l # | 51     |
| 38) Carbon Tetrachloride       | 7.67  | 117  | 72588    | 6.572     | ug/l # | 16     |
| 43) Isopropyl Acetate          | 8.17  | 43   | 199246   | 20.076    | ug/l   | 96     |
| 48) Methyl methacrylate        | 9.18  | 41   | 4648     | 1.067     | ug/l # | 22     |
| 54) cis-1,3-Dichloropropene    | 9.90  | 75   | 2271     | 0.208     | ug/l # | 67     |
| 59) 2-Hexanone                 | 10.77 | 43   | 6673     | 1.871     | ug/l   | 62     |
| 71) Bromoform                  | 12.40 | 173  | 3845     | 4.151     | ug/l # | 1      |
| 76) 1,2,3-Trichloropropane     | 12.40 | 75   | 233334   | 51.386    | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.40 | 75   | 233334   | 145.961   | ug/l # | 15     |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 6291     | 0.273     | ug/l   | 88     |
| 95) Naphthalene                | 15.13 | 128  | 24018    | 6.011     | ug/l   | 100    |

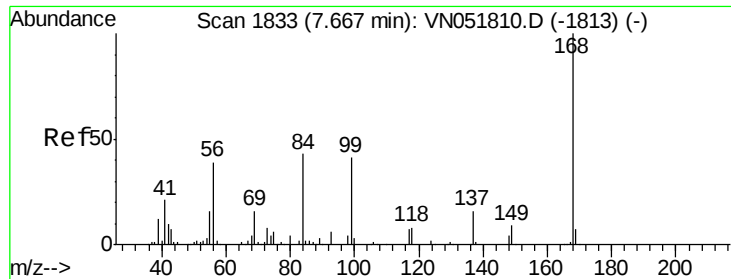
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260  
QLast Update : Fri Oct 12 09:51:20 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.67 min Scan# 1833

Delta R.T. 0.00 min

Lab File: VN051860.D

Acq: 13 Oct 2018 3:19

Instrument :

MSVOA\_N

ClientSampleId :

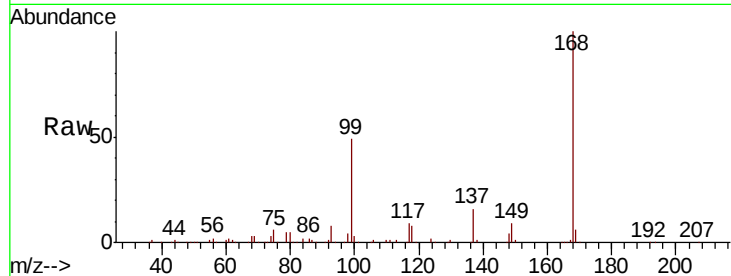
BU-01-101118

Tot Ion:168 Resp: 815195

Ion Ratio Lower Upper

168 100

99 49.3 39.6 59.4



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN

7.67

400000

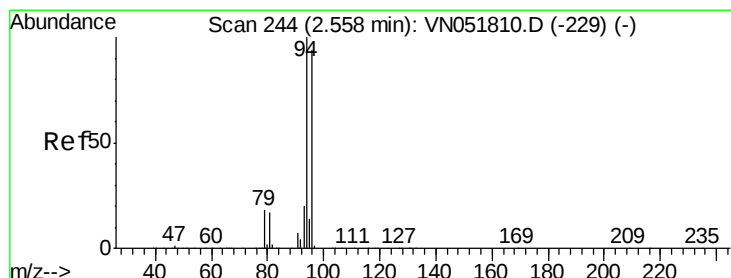
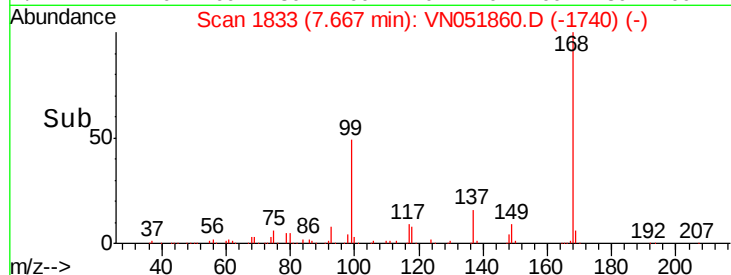
300000

200000

100000

0

Time-->



#5

Bromomethane

Concen: 0.291 ug/l

RT: 2.57 min Scan# 249

Delta R.T. 0.02 min

Lab File: VN051860.D

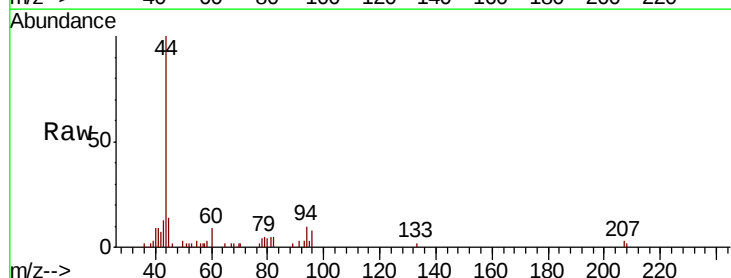
Acq: 13 Oct 2018 3:19

Tgt Ion: 94 Resp: 2158

Ion Ratio Lower Upper

94 100

96 57.1 76.2 114.2#



Abundance Ion 93.90 (93.60 to 94.60): VN

Ion 95.90 (95.60 to 96.60): VN

2.57

1000

800

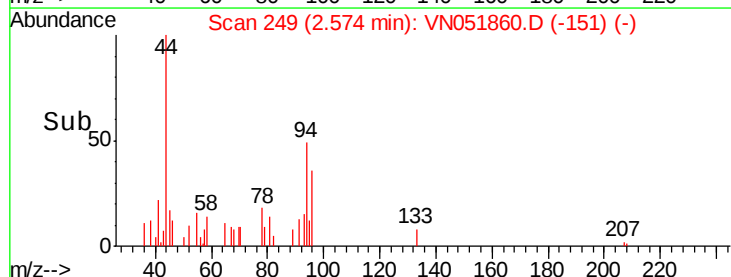
600

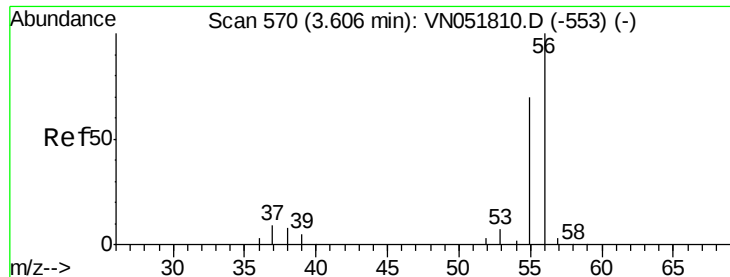
400

200

0

Time-->





#13

Acrolein

Concen: 16.047 ug/l

RT: 3.43 min Scan# 516

Delta R.T. -0.17 min

Lab File: VN051860.D

Acq: 13 Oct 2018 3:19

Instrument :

MSVOA\_N

ClientSampleId :

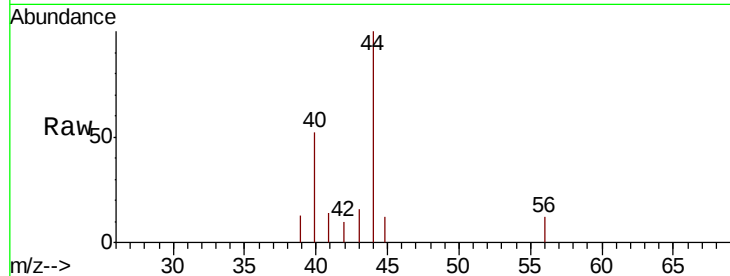
BU-01-101118

Tot Ion: 56 Resp: 67

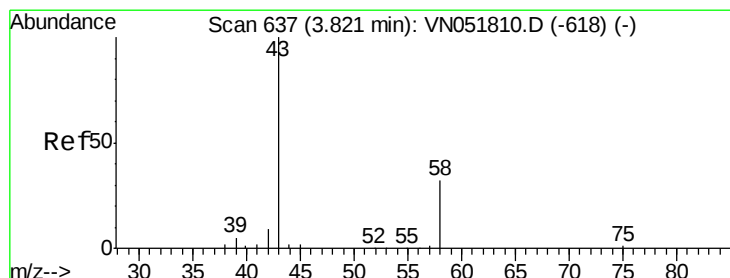
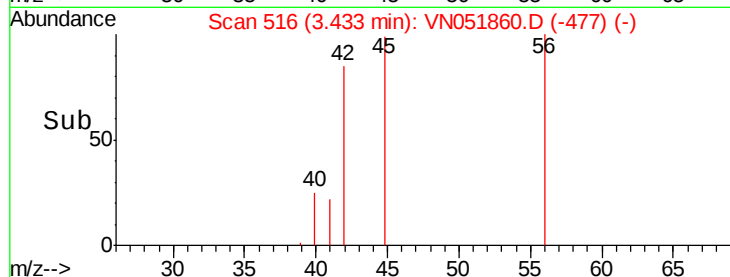
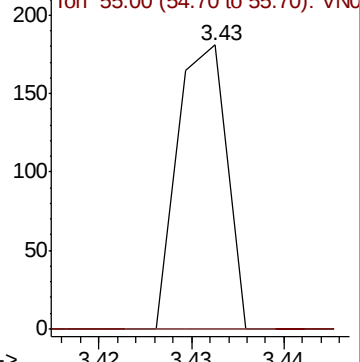
Ion Ratio Lower Upper

56 100

55 0.0 57.7 86.5#



Abundance Ion 56.00 (55.70 to 56.70): VN0



#16

Acetone

Concen: 8.235 ug/l

RT: 3.82 min Scan# 638

Delta R.T. 0.00 min

Lab File: VN051860.D

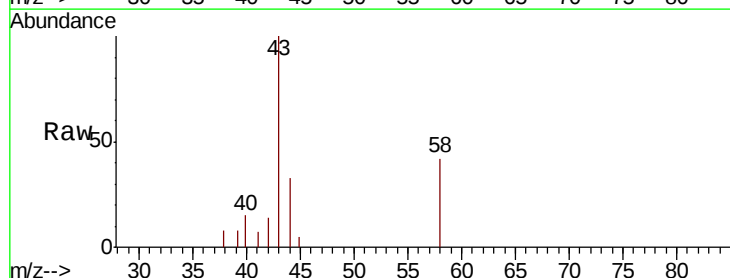
Acq: 13 Oct 2018 3:19

Tgt Ion: 43 Resp: 13838

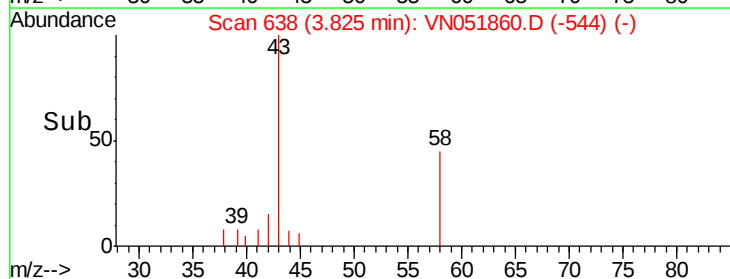
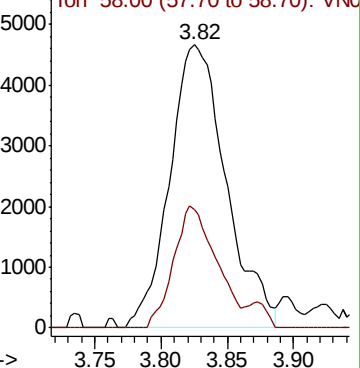
Ion Ratio Lower Upper

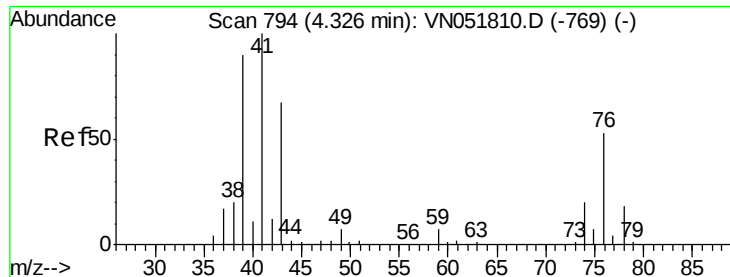
43 100

58 42.0 27.2 40.8#



Abundance Ion 43.00 (42.70 to 43.70): VN0

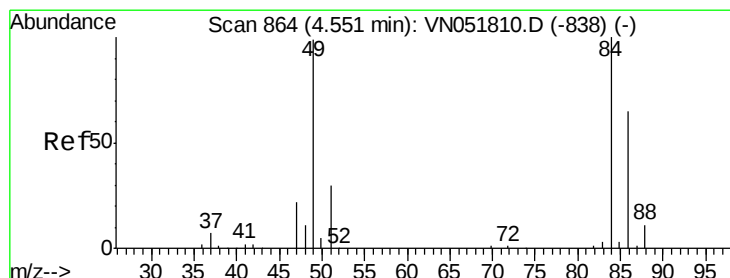
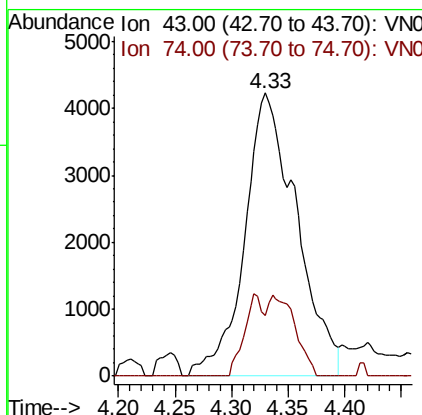
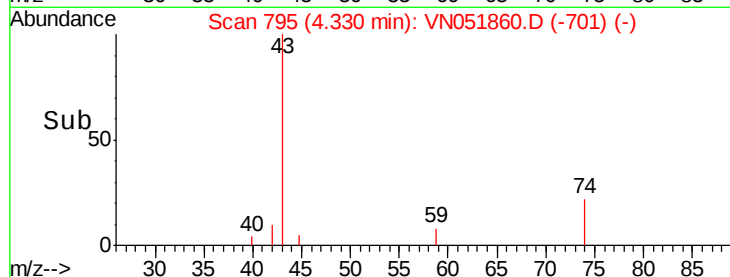
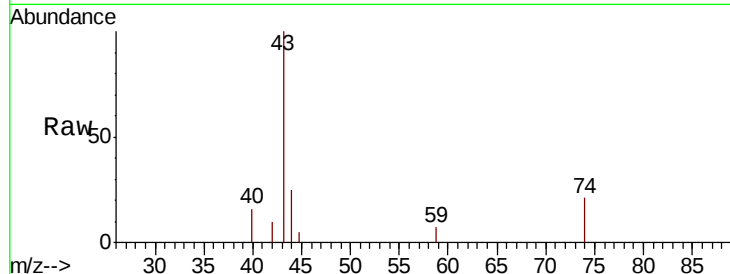




#18  
Methyl Acetate  
Concen: 2.020 ug/l  
RT: 4.33 min Scan# 795  
Delta R.T. 0.00 min  
Lab File: VN051860.D  
Acq: 13 Oct 2018 3:19

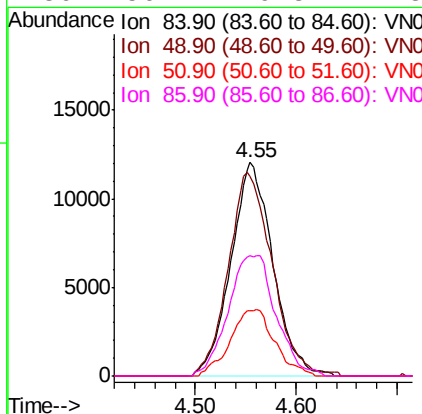
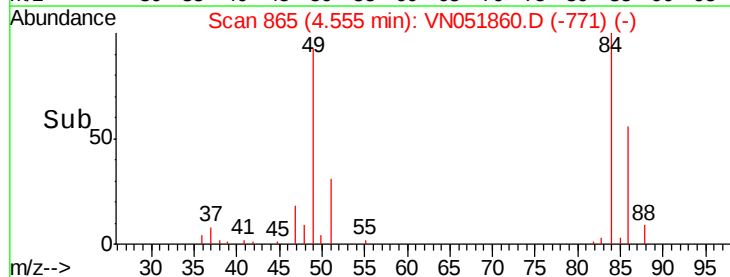
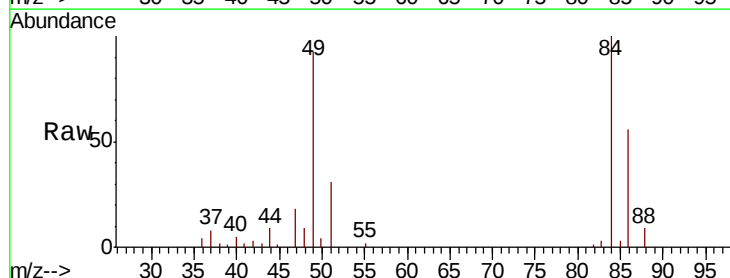
Instrument :  
MSVOA\_N  
ClientSampleId :  
BU-01-101118

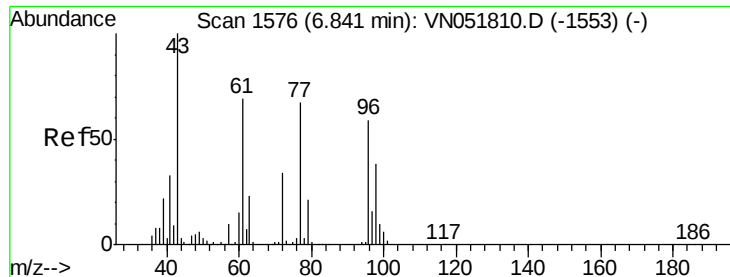
Tot Ion: 43 Resp: 13500  
Ion Ratio Lower Upper  
43 100  
74 14.7 19.8 29.8#



#20  
Methylene Chloride  
Concen: 5.010 ug/l  
RT: 4.55 min Scan# 865  
Delta R.T. 0.00 min  
Lab File: VN051860.D  
Acq: 13 Oct 2018 3:19

Tgt Ion: 84 Resp: 34840  
Ion Ratio Lower Upper  
84 100  
49 93.3 93.2 139.8  
51 30.7 29.0 43.6  
86 56.2 49.8 74.8

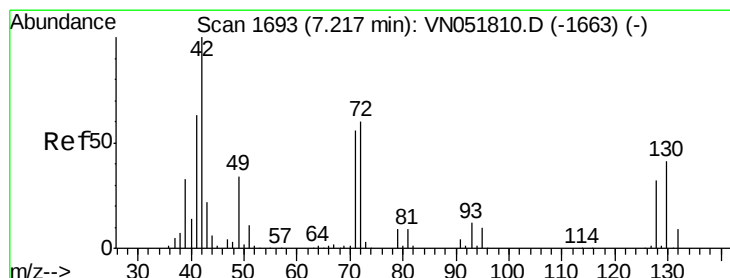
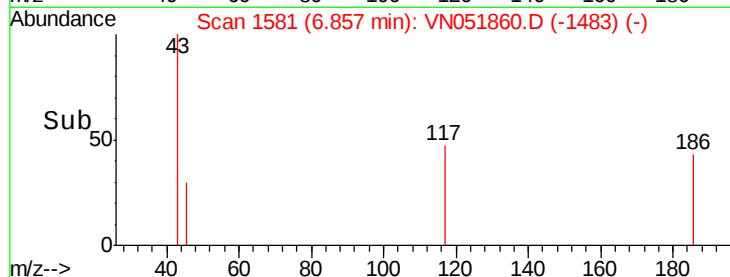
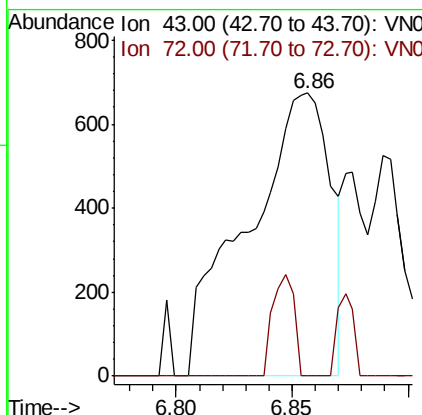
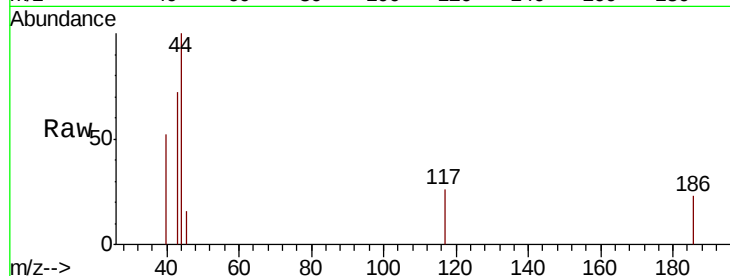




#25  
2-Butanone  
Concen: 0.708 ug/l  
RT: 6.86 min Scan# 1581  
Delta R.T. 0.02 min  
Lab File: VN051860.D  
Acq: 13 Oct 2018 3:19

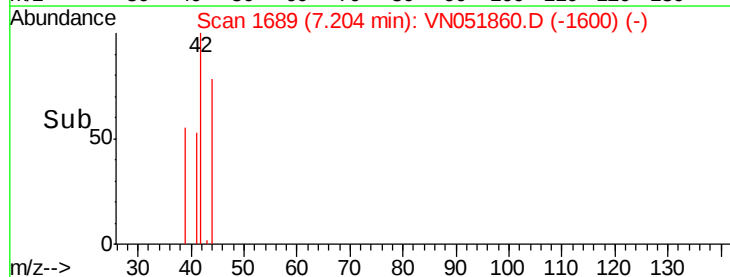
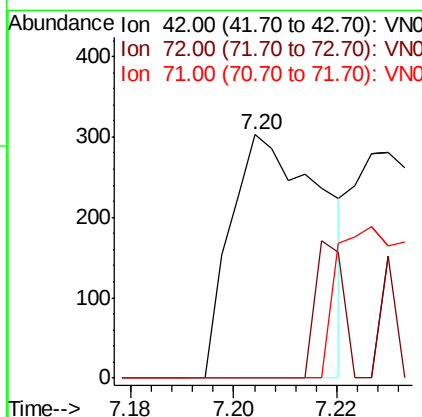
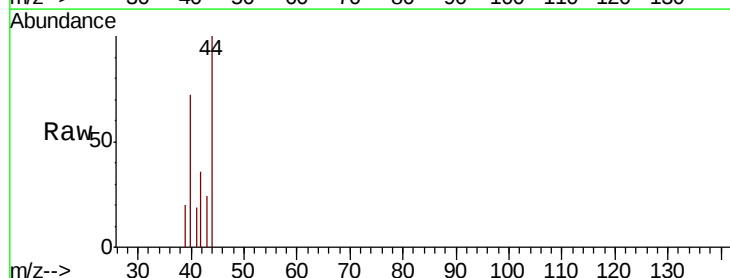
Instrument :  
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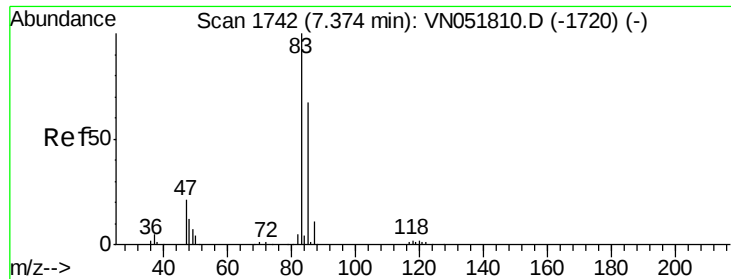
Tot Ion: 43 Resp: 1682  
Ion Ratio Lower Upper  
43 100  
72 0.0 22.3 33.5#



#29  
Tetrahydrofuran  
Concen: 0.263 ug/l  
RT: 7.20 min Scan# 1689  
Delta R.T. -0.01 min  
Lab File: VN051860.D  
Acq: 13 Oct 2018 3:19

Tgt Ion: 42 Resp: 372  
Ion Ratio Lower Upper  
42 100  
72 16.9 35.5 53.3#  
71 0.0 33.7 50.5#

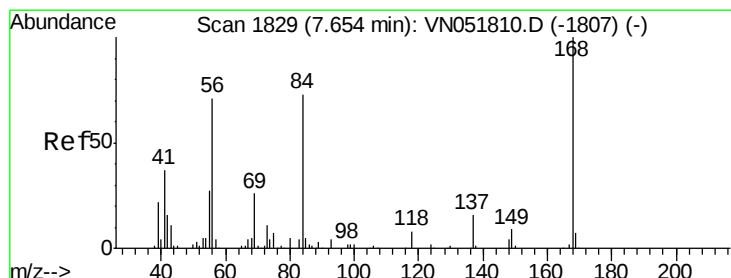
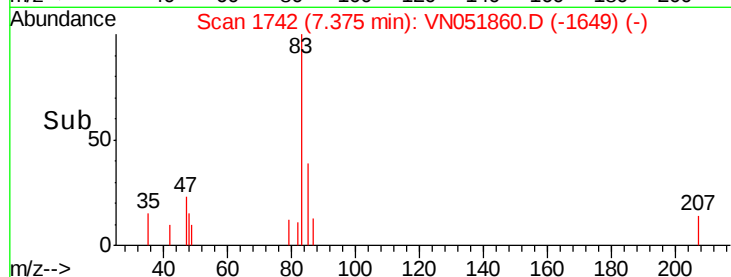
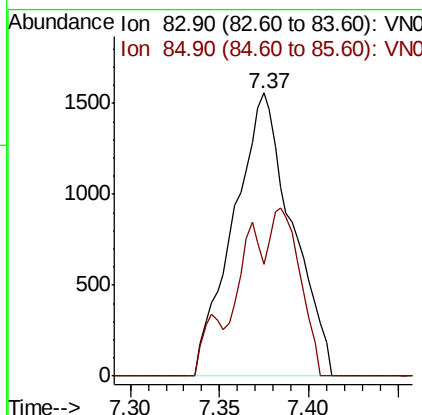
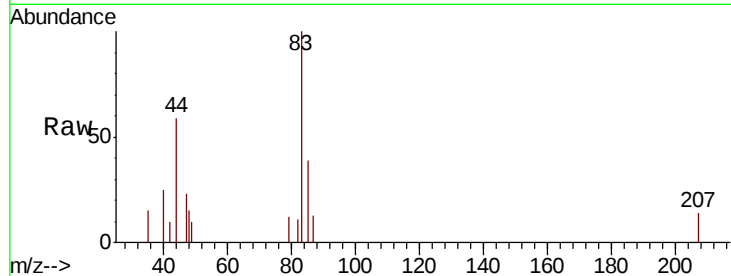




#30  
Chloroform  
Concen: 0.266 ug/l  
RT: 7.37 min Scan# 1742  
Delta R.T. 0.00 min  
Lab File: VN051860.D  
Acq: 13 Oct 2018 3:19

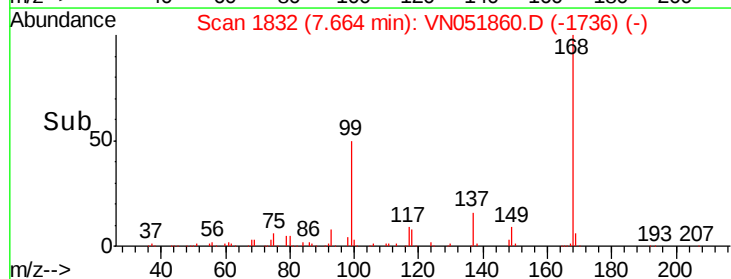
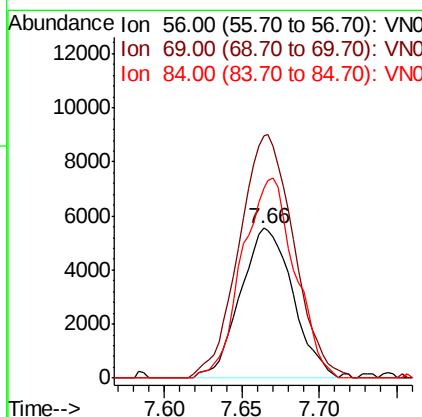
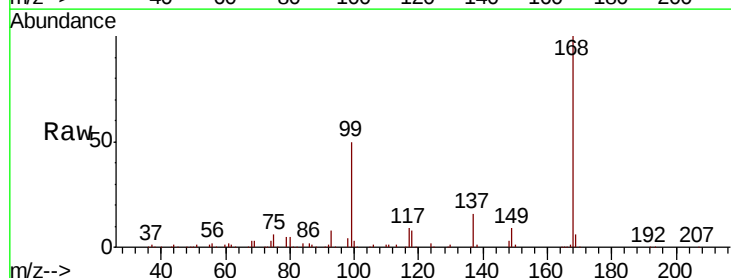
Instrument :  
MSVOA\_N  
ClientSampled :  
BU-01-101118

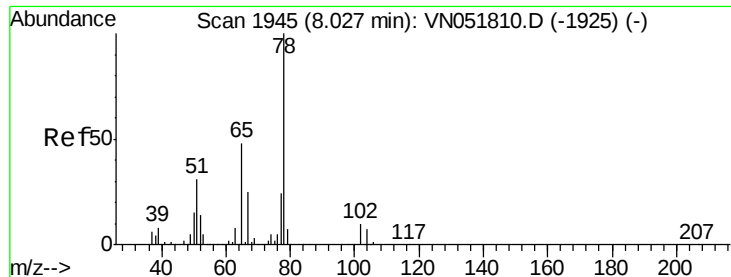
Tot Ion: 83 Resp: 3548  
Ion Ratio Lower Upper  
83 100  
85 39.4 52.2 78.4#



#31  
Cyclohexane  
Concen: Below Cal  
RT: 7.66 min Scan# 1832  
Delta R.T. 0.01 min  
Lab File: VN051860.D  
Acq: 13 Oct 2018 3:19

Tgt Ion: 56 Resp: 13096  
Ion Ratio Lower Upper  
56 100  
69 161.7 26.2 39.4#  
84 126.8 68.3 102.5#

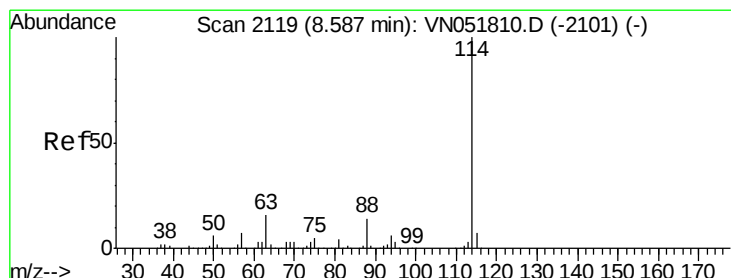
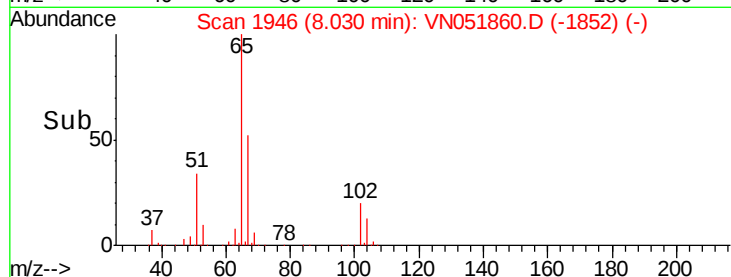
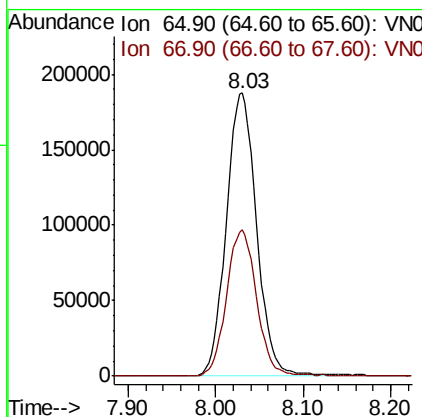
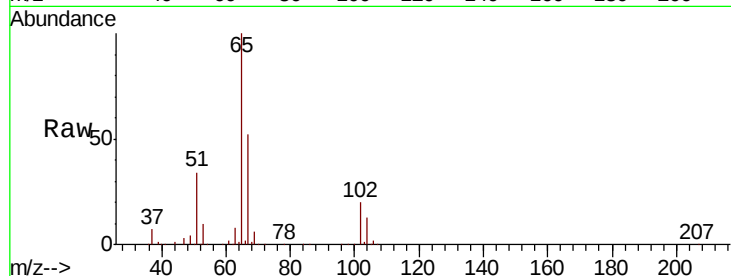




#33  
 1,2-Dichloroethane-d4  
 Concen: Below ug/l  
 RT: 8.03 min Scan# 1946  
 Delta R.T. 0.00 min  
 Lab File: VN051860.D  
 Acq: 13 Oct 2018 3:19

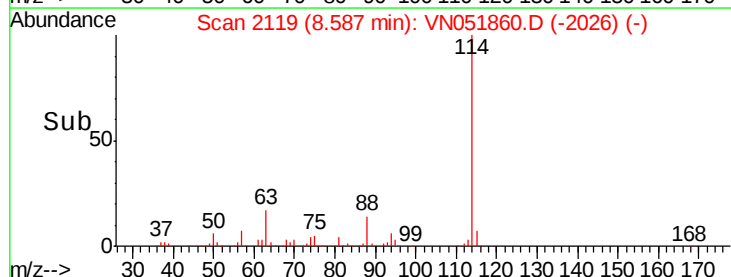
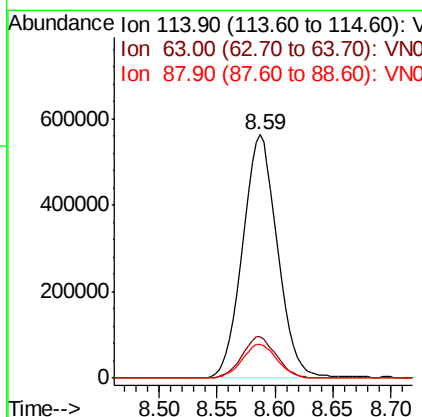
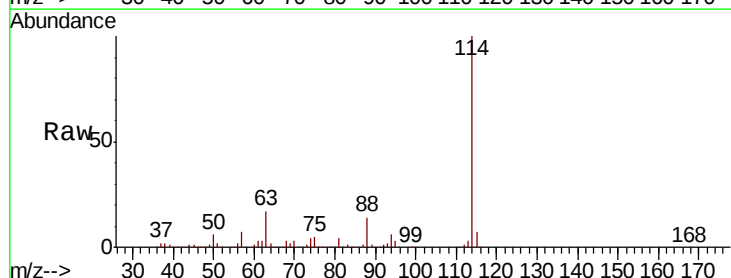
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 BU-01-101118

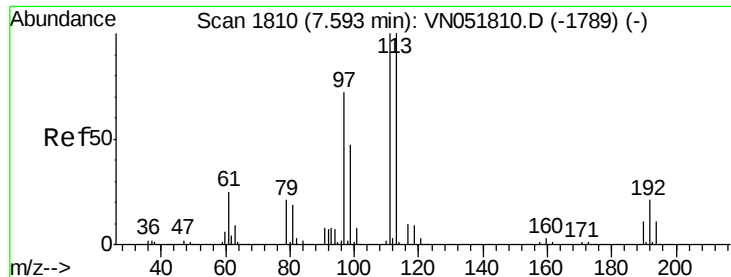
Tot Ion: 65 Resp: 450830  
 Ion Ratio Lower Upper  
 65 100  
 67 51.4 0.0 110.4



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.59 min Scan# 2119  
 Delta R.T. 0.00 min  
 Lab File: VN051860.D  
 Acq: 13 Oct 2018 3:19

Tgt Ion: 114 Resp: 1176935  
 Ion Ratio Lower Upper  
 114 100  
 63 17.0 0.0 38.6  
 88 14.0 0.0 30.6

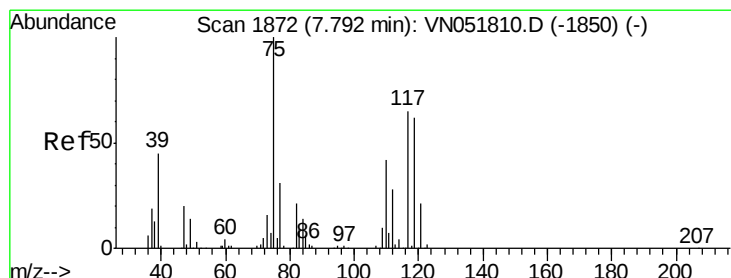
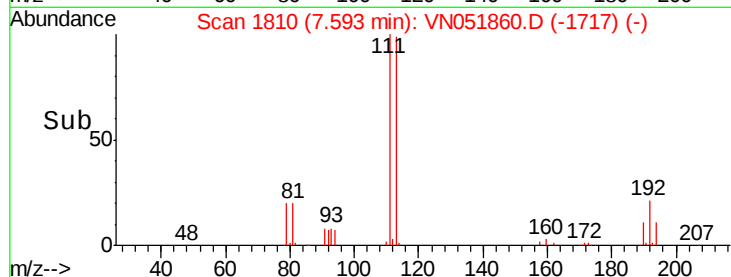
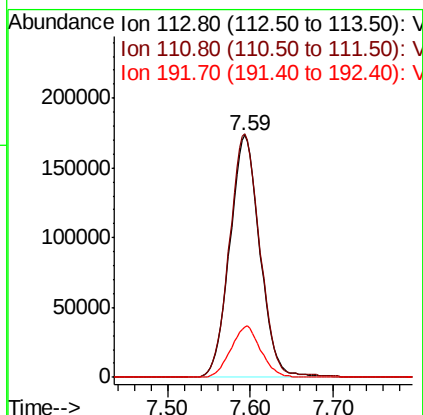
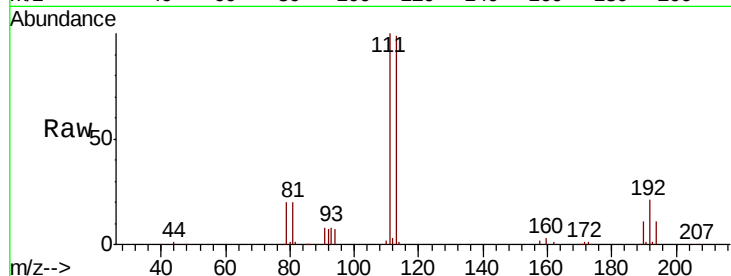




#35  
Dibromofluoromethane  
Concen: 50.000 ug/l  
RT: 7.59 min Scan# 1810  
Delta R.T. 0.00 min  
Lab File: VN051860.D  
Acq: 13 Oct 2018 3:19

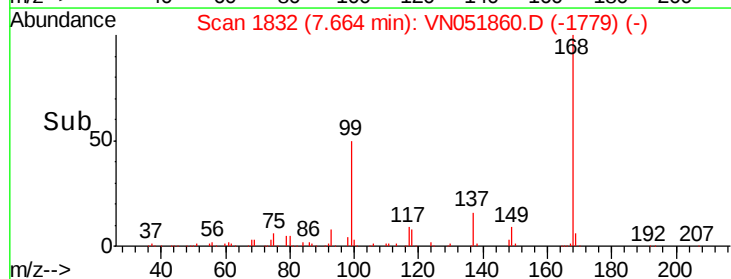
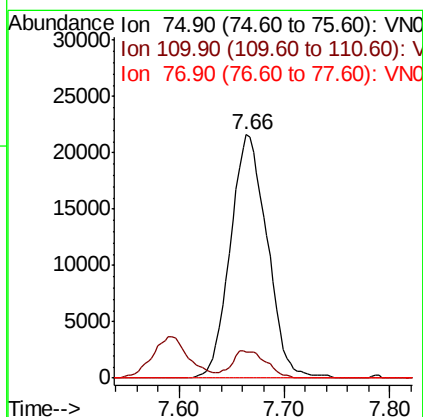
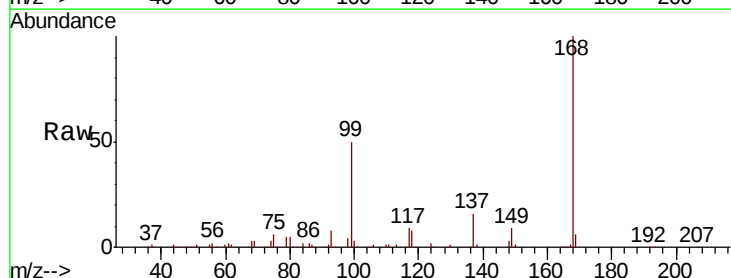
Instrument :  
MSVOA\_N  
ClientSampleId :  
BU-01-101118

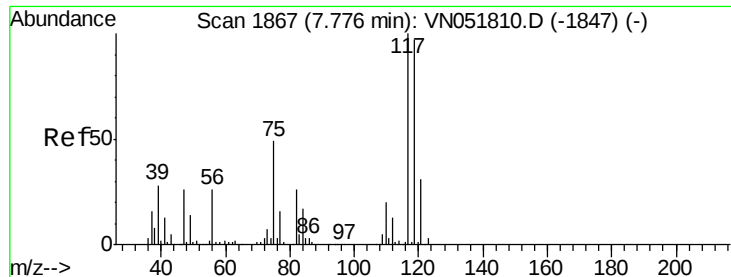
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 101.1 | 82.6  | 123.8 |
| 192     | 21.0  | 18.0  | 27.0  |



#36  
1,1-Dichloropropene  
Concen: 5.495 ug/l  
RT: 7.66 min Scan# 1832  
Delta R.T. -0.13 min  
Lab File: VN051860.D  
Acq: 13 Oct 2018 3:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 10.6  | 18.1  | 54.4# |
| 77      | 0.0   | 24.8  | 37.2# |





#38

Carbon Tetrachloride

Concen: 6.572 ug/l

RT: 7.67 min Scan# 1833

Delta R.T. -0.11 min

Lab File: VN051860.D

Acq: 13 Oct 2018 3:19

Instrument :

MSVOA\_N

ClientSampled :

BU-01-101118

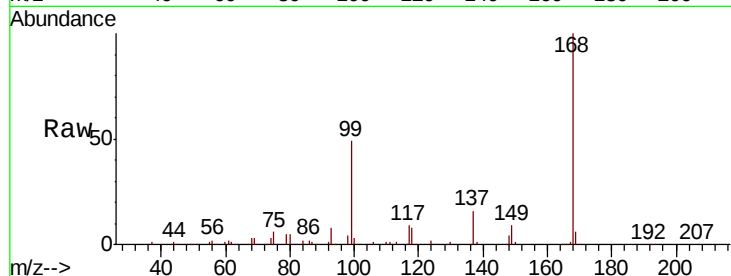
Tot Ion:117 Resp: 72588

Ion Ratio Lower Upper

117 100

119 5.0 76.3 114.5#

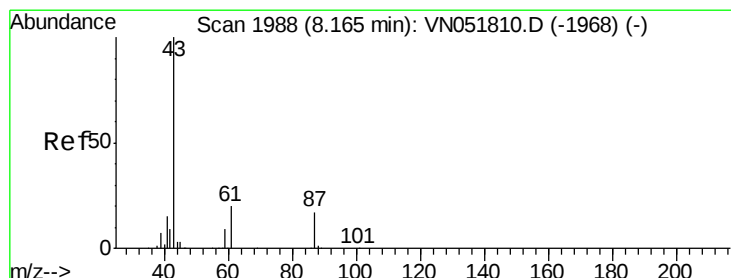
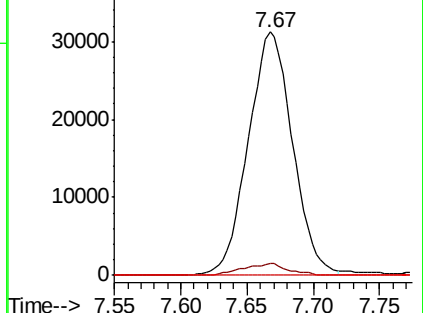
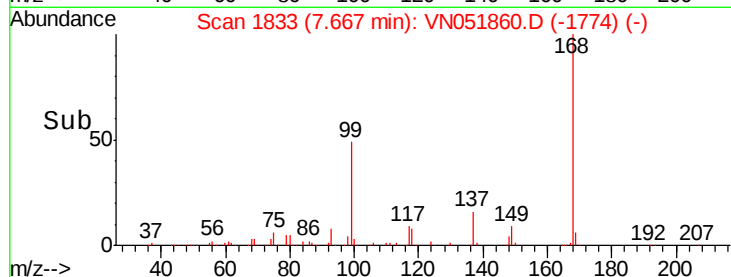
121 0.0 24.6 36.8#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V



#43

Isopropyl Acetate

Concen: 20.076 ug/l

RT: 8.17 min Scan# 1989

Delta R.T. 0.00 min

Lab File: VN051860.D

Acq: 13 Oct 2018 3:19

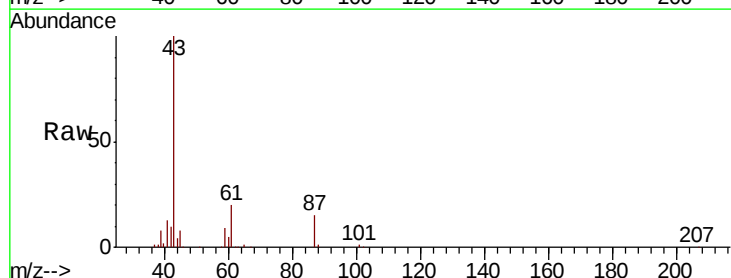
Tgt Ion: 43 Resp: 199246

Ion Ratio Lower Upper

43 100

61 19.2 17.5 26.3

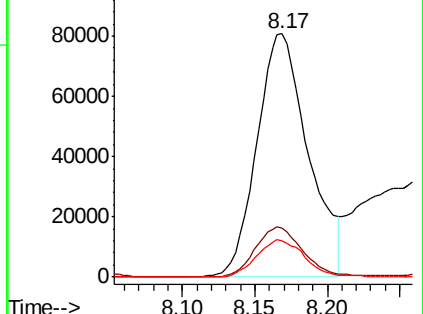
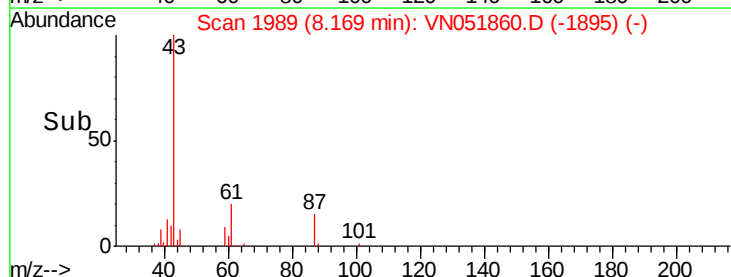
87 14.0 11.3 16.9

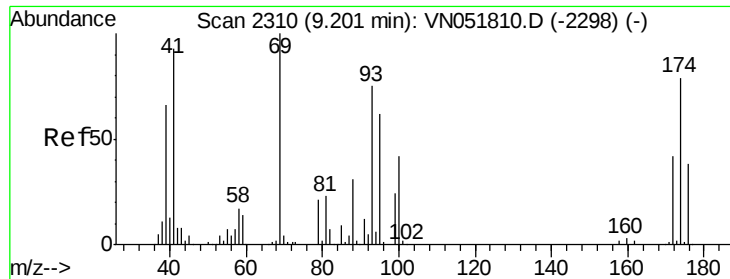


Abundance Ion 43.00 (42.70 to 43.70): V

Ion 61.00 (60.70 to 61.70): V

Ion 87.00 (86.70 to 87.70): V

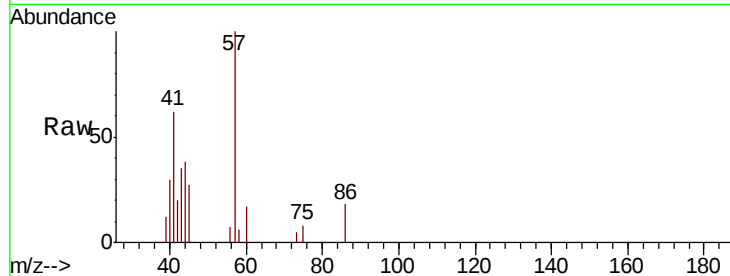




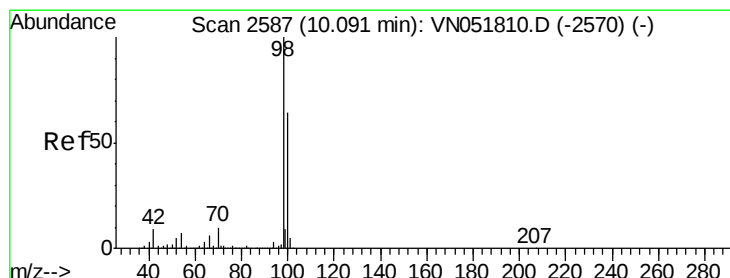
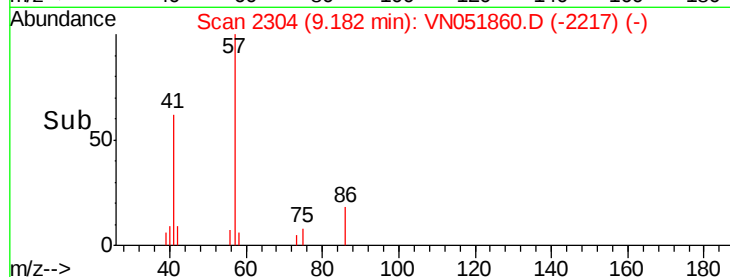
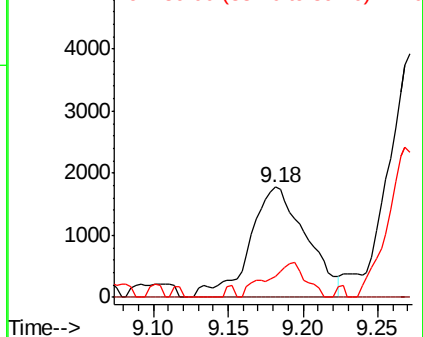
#48  
Methvl methacrylate  
Concen: 1.067 ug/l  
RT: 9.18 min Scan# 2304  
Delta R.T. -0.02 min  
Lab File: VN051860.D  
Acq: 13 Oct 2018 3:19

Instrument :  
MSVOA\_N  
ClientSampled :  
BU-01-101118

Tot Ion: 41 Resp: 4648  
Ion Ratio Lower Upper  
41 100  
69 0.0 74.7 112.1#  
39 21.4 42.2 63.2#

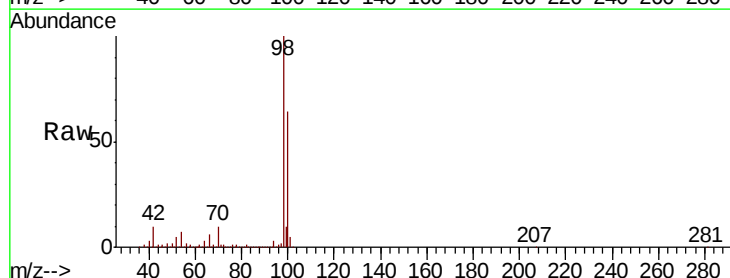


Abundance Ion 41.00 (40.70 to 41.70): VN0  
Ion 69.00 (68.70 to 69.70): VN0  
Ion 39.00 (38.70 to 39.70): VN0

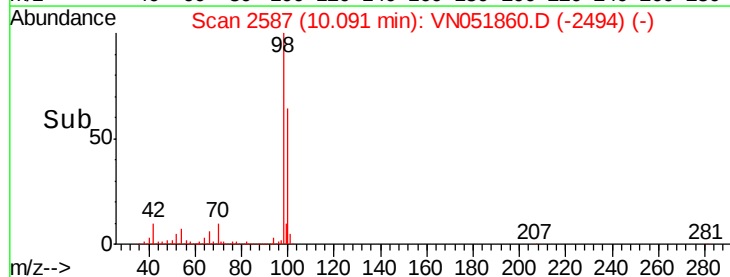
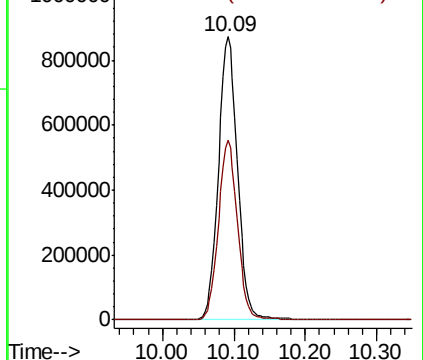


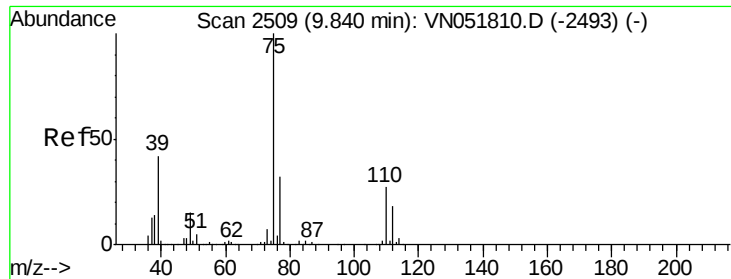
#50  
Toluene-d8  
Concen: N.D. ug/l  
RT: 10.09 min Scan# 2587  
Delta R.T. 0.00 min  
Lab File: VN051860.D  
Acq: 13 Oct 2018 3:19

Tgt Ion: 98 Resp: 1616970  
Ion Ratio Lower Upper  
98 100  
100 63.4 51.5 77.3



Abundance Ion 98.00 (97.70 to 98.70): VN0  
Ion 100.00 (99.70 to 100.70): VN0

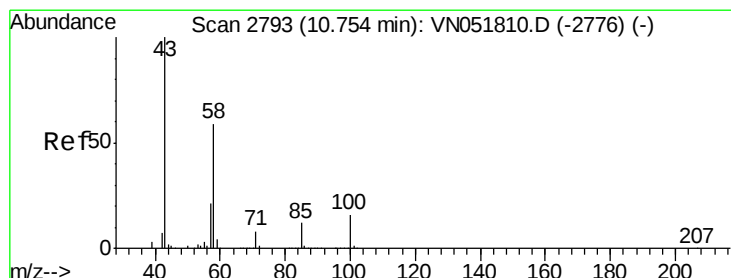
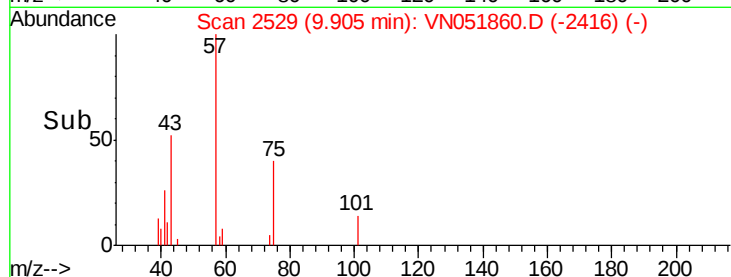
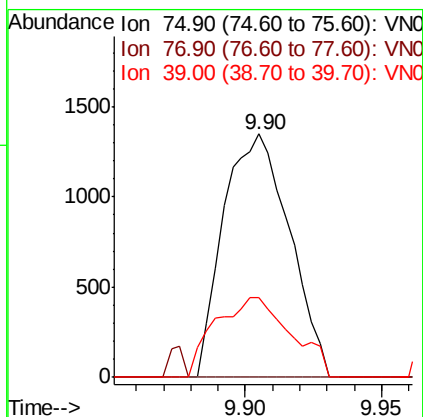
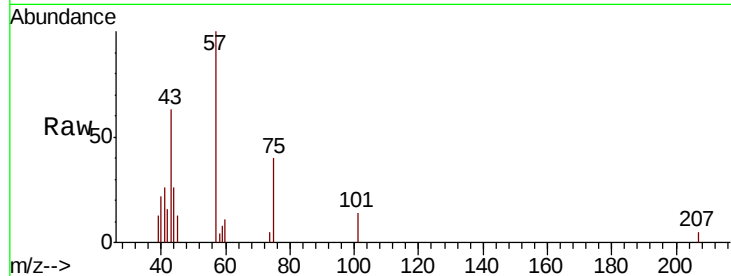




#54  
 cis-1,3-Dichloropropene  
 Concen: 0.208 ug/l  
 RT: 9.90 min Scan# 2529  
 Delta R.T. 0.06 min  
 Lab File: VN051860.D  
 Acq: 13 Oct 2018 3:19

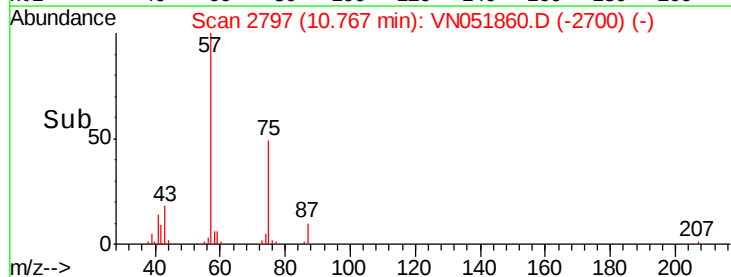
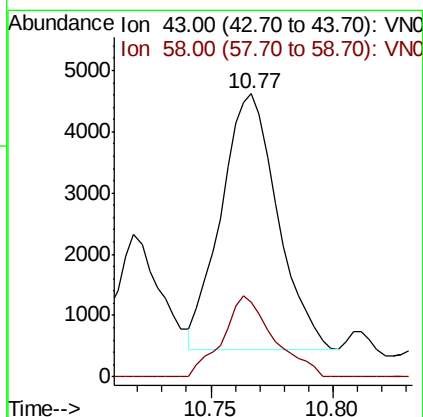
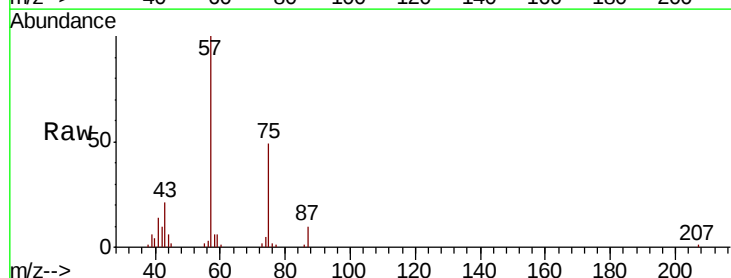
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 BU-01-101118

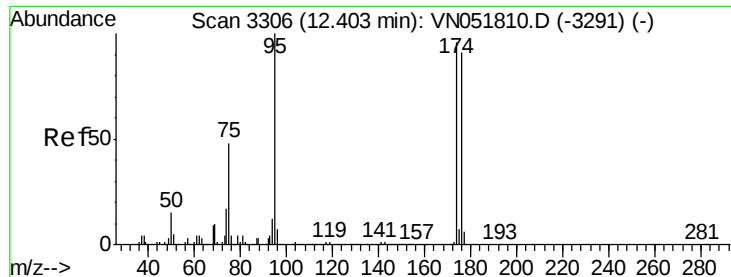
Tot Ion: 75 Resp: 2271  
 Ion Ratio Lower Upper  
 75 100  
 77 0.0 25.4 38.2#  
 39 32.6 33.0 49.4#



#59  
 2-Hexanone  
 Concen: 1.871 ug/l  
 RT: 10.77 min Scan# 2797  
 Delta R.T. 0.01 min  
 Lab File: VN051860.D  
 Acq: 13 Oct 2018 3:19

Tgt Ion: 43 Resp: 6673  
 Ion Ratio Lower Upper  
 43 100  
 58 28.6 28.3 85.0





#62

4-Bromofluorobenzene

Concen: N.D. ug/l

RT: 12.40 min Scan# 3306

Delta R.T. 0.00 min

Lab File: VN051860.D

Acq: 13 Oct 2018 3:19

Instrument :

MSVOA\_N

ClientSampleId :

BU-01-101118

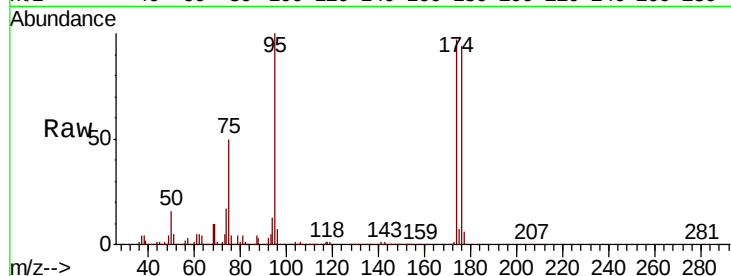
Tot Ion: 95 Resp: 455396

Ion Ratio Lower Upper

95 100

174 96.2 0.0 183.0

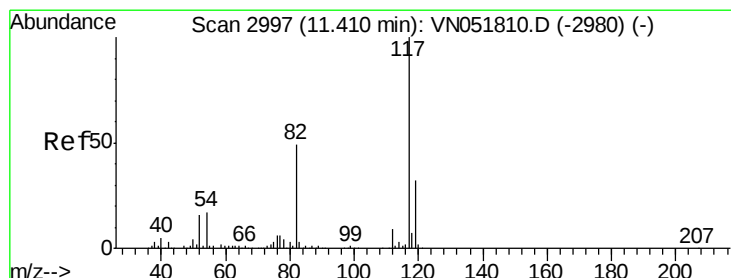
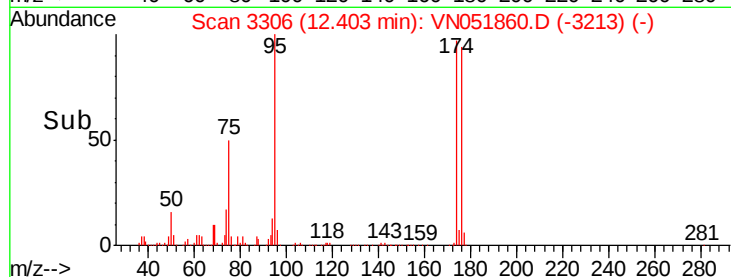
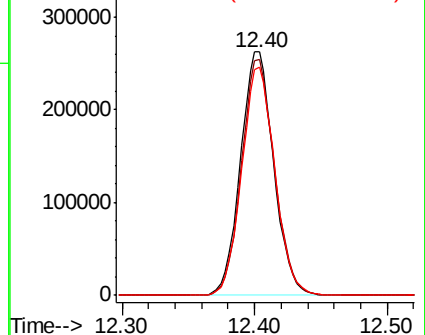
176 93.7 0.0 178.8



Abundance Ion 94.90 (94.60 to 95.60): VN051810.D (-3291) (-)

Ion 173.80 (173.50 to 174.50): VN051810.D (-3291) (-)

Ion 175.80 (175.50 to 176.50): VN051810.D (-3291) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.41 min Scan# 2996

Delta R.T. -0.00 min

Lab File: VN051860.D

Acq: 13 Oct 2018 3:19

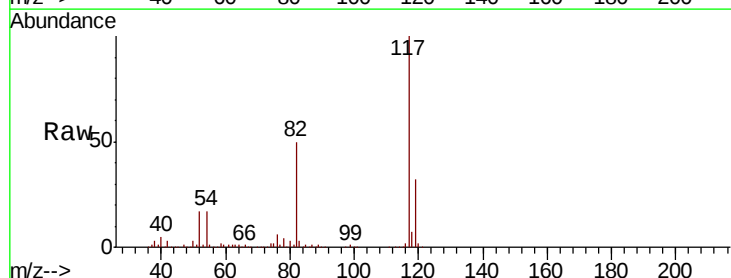
Tgt Ion: 117 Resp: 1028256

Ion Ratio Lower Upper

117 100

82 50.3 42.6 64.0

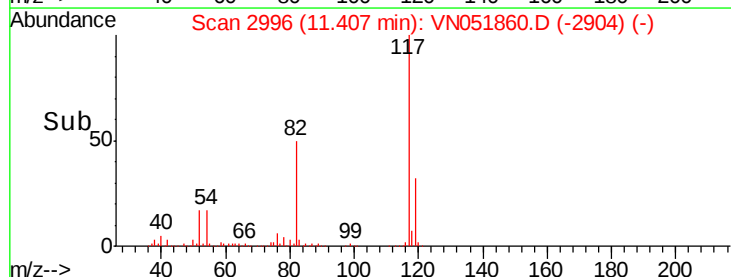
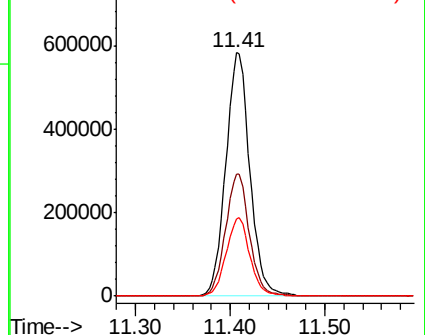
119 31.7 25.8 38.6

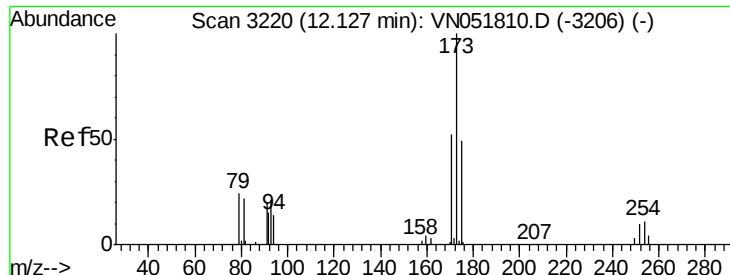


Abundance Ion 116.90 (116.60 to 117.60): VN051810.D (-2980) (-)

Ion 82.00 (81.70 to 82.70): VN051810.D (-2980) (-)

Ion 118.90 (118.60 to 119.60): VN051810.D (-2980) (-)

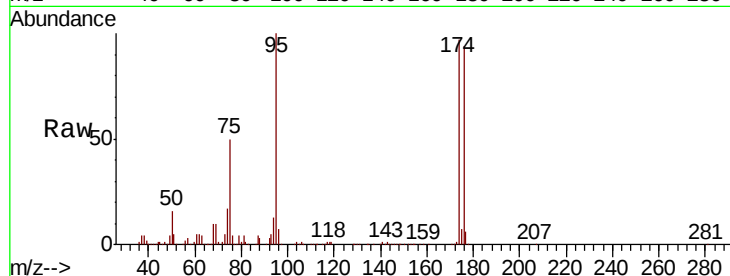




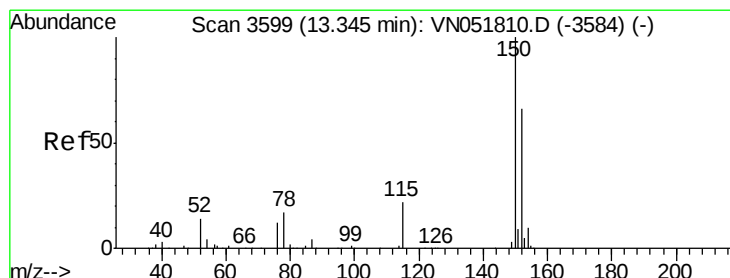
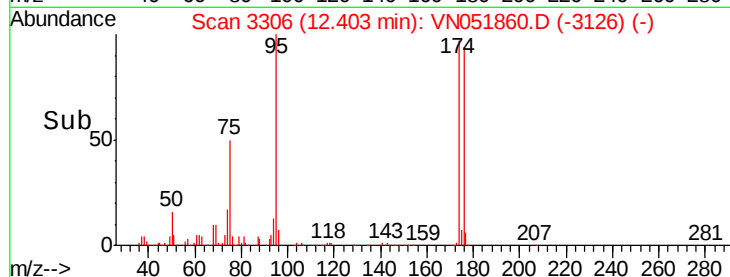
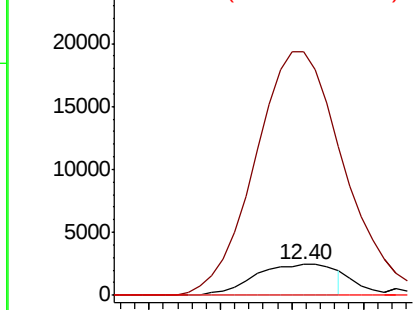
#71  
Bromoform  
Concen: 4.151 ug/l  
RT: 12.40 min Scan# 3306  
Delta R.T. 0.28 min  
Lab File: VN051860.D  
Acq: 13 Oct 2018 3:19

Instrument :  
MSVOA\_N  
ClientSampleId :  
BU-01-101118

Tot Ion:173 Resp: 3845  
Ion Ratio Lower Upper  
173 100  
175 736.2 24.4 73.4#  
254 0.0 0.1 0.1#

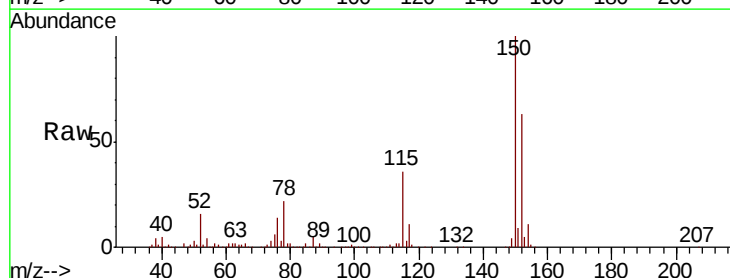


Abundance Ion 172.70 (172.40 to 173.40): V  
Ion 174.70 (174.40 to 175.40): V  
Ion 254.40 (254.10 to 255.10): V

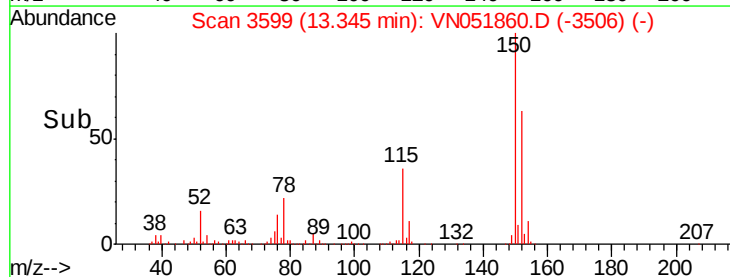
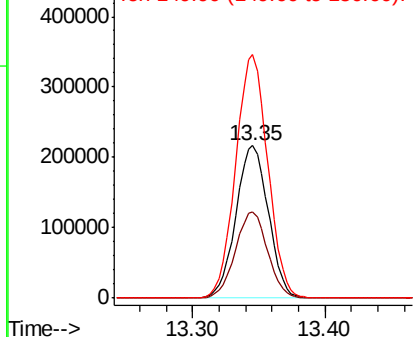


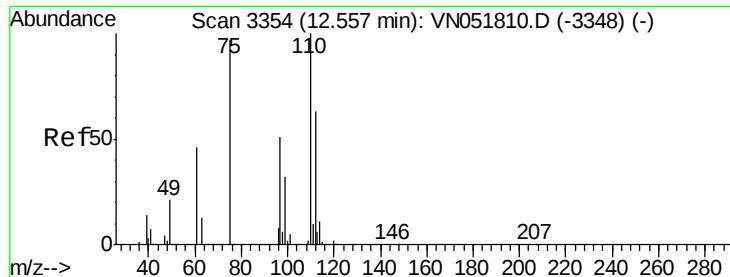
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.35 min Scan# 3599  
Delta R.T. 0.00 min  
Lab File: VN051860.D  
Acq: 13 Oct 2018 3:19

Tgt Ion:152 Resp: 368126  
Ion Ratio Lower Upper  
152 100  
115 56.1 27.8 83.4  
150 158.0 0.0 351.4



Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 114.90 (114.60 to 115.60): V  
Ion 149.90 (149.60 to 150.60): V





#76

1,2,3-Trichloropropane

Concen: 51.386 ug/l

RT: 12.40 min Scan# 3305

Delta R.T. -0.16 min

Lab File: VN051860.D

Acq: 13 Oct 2018 3:19

Instrument :

MSVOA\_N

ClientSampled :

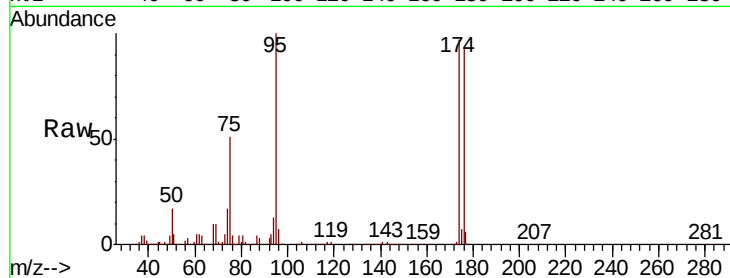
BU-01-101118

Tot Ion: 75 Resp: 233334

Ion Ratio Lower Upper

75 100

77 0.9 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 77.00 (76.70 to 77.70): VN0

12.40

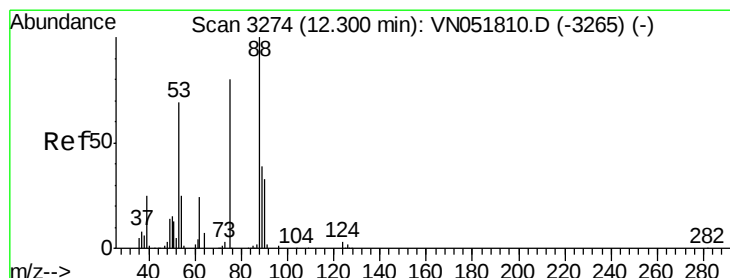
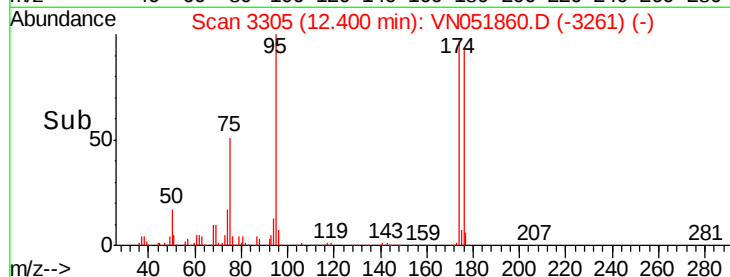
150000

100000

50000

0

Time--> 12.30 12.40 12.50



#81

trans-1,4-Dichloro-2-butene

Concen: 145.961 ug/l

RT: 12.40 min Scan# 3305

Delta R.T. 0.10 min

Lab File: VN051860.D

Acq: 13 Oct 2018 3:19

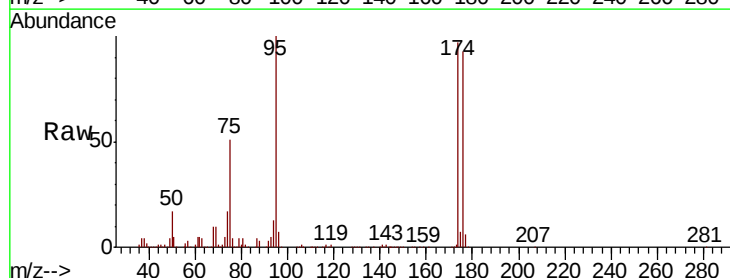
Tgt Ion: 75 Resp: 233334

Ion Ratio Lower Upper

75 100

53 0.0 68.9 103.3#

89 0.0 36.1 54.1#



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 53.00 (52.70 to 53.70): VN0

Ion 88.90 (88.60 to 89.60): VN0

12.40

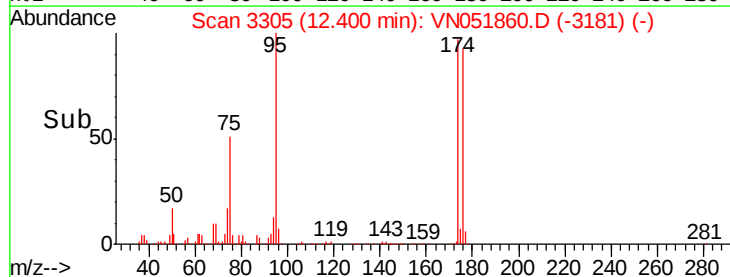
150000

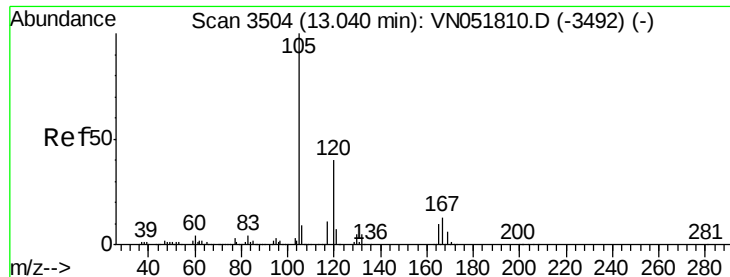
100000

50000

0

Time--> 12.30 12.40 12.50

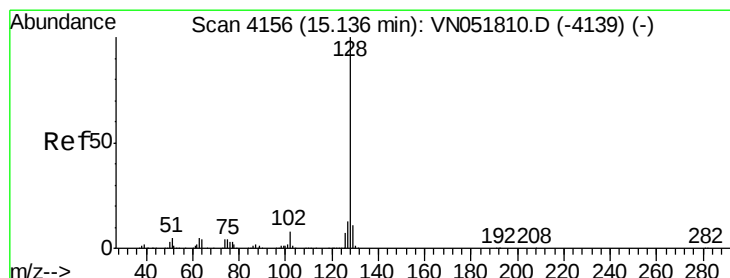
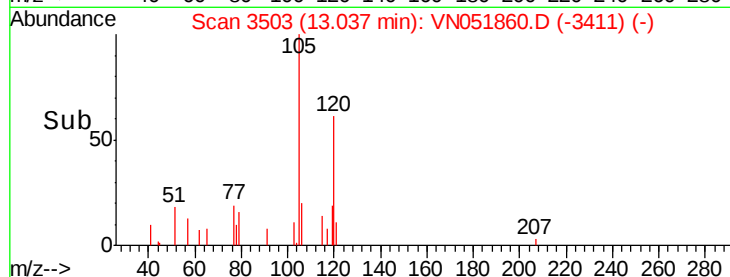
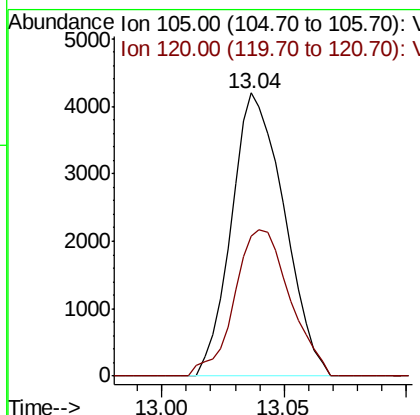
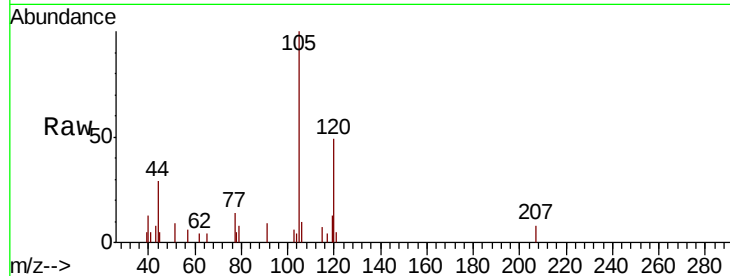




#84  
 1,2,4-Trimethylbenzene  
 Concen: 0.273 ug/l  
 RT: 13.04 min Scan# 3503  
 Delta R.T. -0.00 min  
 Lab File: VN051860.D  
 Acq: 13 Oct 2018 3:19

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 BU-01-101118

Tot Ion:105 Resp: 6291  
 Ion Ratio Lower Upper  
 105 100  
 120 54.1 22.9 68.8



#95  
 Naphthalene  
 Concen: 6.011 ug/l  
 RT: 15.13 min Scan# 4155  
 Delta R.T. -0.00 min  
 Lab File: VN051860.D  
 Acq: 13 Oct 2018 3:19

Tgt Ion:128 Resp: 24018  
 Ion Ratio Lower Upper  
 128 100  
 127 13.1 10.5 15.7  
 129 10.7 8.7 13.1

