

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_N\DATA\VN011119\  
 Data File : VN053359.D  
 Acq On : 11 Jan 2019 12:02  
 Operator : JC/SP  
 Sample : PB116316ZHE#02  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 8 Sample Multiplier: 28

Quant Time: Jan 12 00:39:37 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N010519W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Jan 07 09:34:27 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 1037954  | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 1621661  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 1524371  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 639125   | 50.00 | ug/l  | 0.00     |

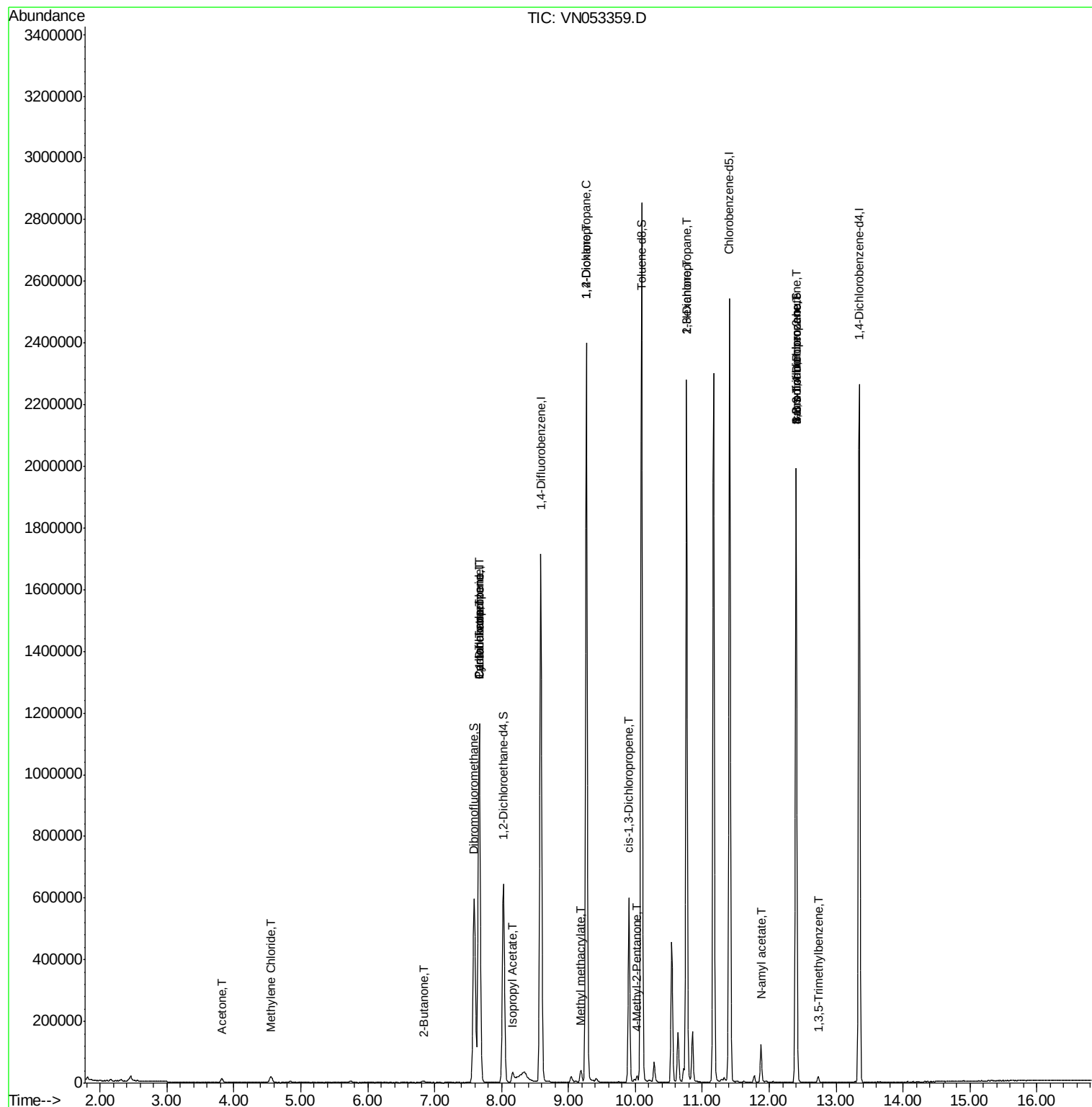
| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.03  | 65   | 530212   | 49.10 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 98.20%  |          |
| 35) Dibromofluoromethane    | 7.59  | 113  | 466258   | 50.51 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 101.02% |          |
| 50) Toluene-d8              | 10.09 | 98   | 2009328  | 50.45 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 100.90% |          |
| 62) 4-Bromofluorobenzene    | 12.40 | 95   | 698843   | 50.12 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 100.24% |          |

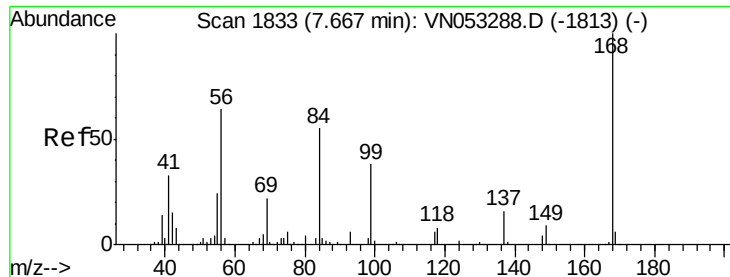
| Target Compounds               | R.T.  | QIon | Response | Conc    | Units  | Qvalue |
|--------------------------------|-------|------|----------|---------|--------|--------|
| 16) Acetone                    | 3.82  | 43   | 20609    | 5.746   | ug/l   | 92     |
| 20) Methylene Chloride         | 4.55  | 84   | 15469    | 1.334   | ug/l   | 93     |
| 25) 2-Butanone                 | 6.84  | 43   | 3183     | 0.718   | ug/l # | 83     |
| 31) Cyclohexane                | 7.66  | 56   | 16217    | 0.688   | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 7.66  | 75   | 68040    | 4.494   | ug/l # | 48     |
| 38) Carbon Tetrachloride       | 7.66  | 117  | 87701    | 6.276   | ug/l # | 16     |
| 43) Isopropyl Acetate          | 8.16  | 43   | 46995    | 2.423   | ug/l # | 83     |
| 45) 1,2-Dichloropropane        | 9.27  | 63   | 3019     | 0.249   | ug/l # | 43     |
| 48) Methyl methacrylate        | 9.18  | 41   | 13322    | 1.512   | ug/l # | 12     |
| 49) 1,4-Dioxane                | 9.26  | 88   | 148      | 1.576   | ug/l # | 1      |
| 51) 4-Methyl-2-Pentanone       | 10.02 | 43   | 16858    | 1.728   | ug/l # | 34     |
| 54) cis-1,3-Dichloropropene    | 9.90  | 75   | 111016   | 6.372   | ug/l # | 64     |
| 57) 1,3-Dichloropropane        | 10.76 | 76   | 23585    | 1.352   | ug/l # | 42     |
| 59) 2-Hexanone                 | 10.76 | 43   | 309561   | 46.313  | ug/l # | 50     |
| 71) Bromoform                  | 12.40 | 173  | 4401     | 0.538   | ug/l # | 1      |
| 74) N-amyl acetate             | 11.88 | 43   | 37596    | 2.646   | ug/l # | 51     |
| 76) 1,2,3-Trichloropropane     | 12.40 | 75   | 324359   | 34.795  | ug/l # | 100    |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 8470     | 0.221   | ug/l   | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.40 | 75   | 324359   | 102.373 | ug/l # | 14     |

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

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Quant Time: Jan 12 00:39:37 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_N\METHODS\82N010519W.M  
Quant Title : SW846 8260  
QLast Update : Mon Jan 07 09:34:27 2019  
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: VN053359.D

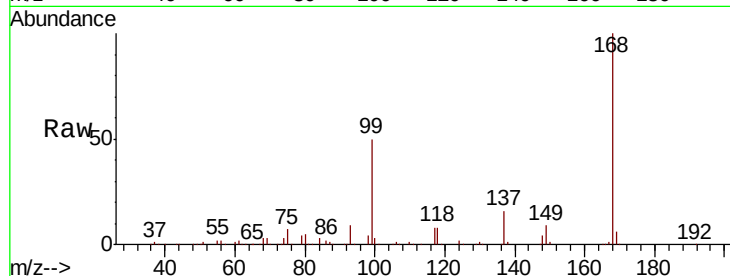
Acq: 11 Jan 2019 12:02

Tgt Ion: 168 Resp: 1037954

Ion Ratio Lower Upper

168 100

99 49.7 39.1 58.7



Abundance Ion 167.90 (167.60 to 168.60): VN053288.D (-1813) (-)

Ion 98.90 (98.60 to 99.60): VN053288.D (-1813) (-)

7.67

400000

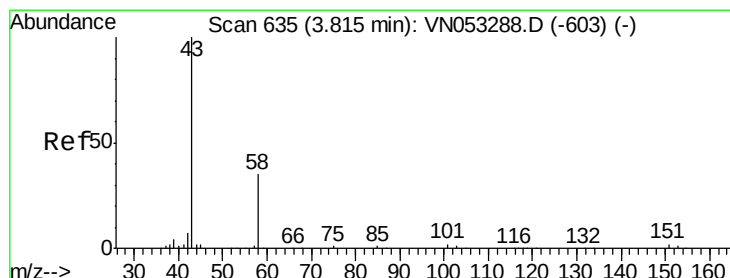
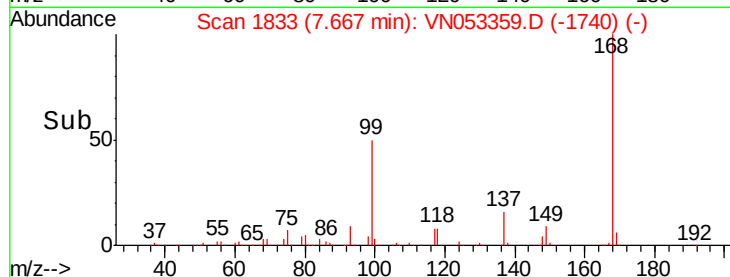
300000

200000

100000

0

Time-->



#16

Acetone

Concen: 5.746 ug/l

RT: 3.82 min Scan# 636

Delta R.T. 0.00 min

Lab File: VN053359.D

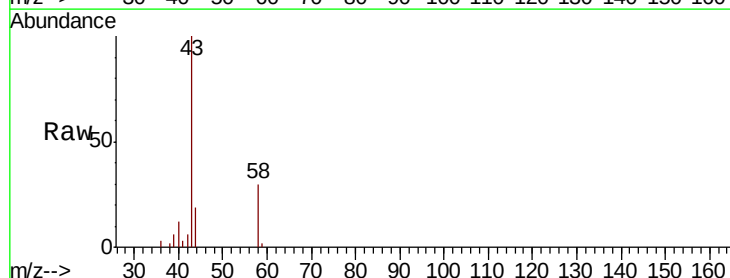
Acq: 11 Jan 2019 12:02

Tgt Ion: 43 Resp: 20609

Ion Ratio Lower Upper

43 100

58 30.2 27.8 41.6



Abundance Ion 43.00 (42.70 to 43.70): VN053288.D (-603) (-)

Ion 58.00 (57.70 to 58.70): VN053288.D (-603) (-)

3.82

8000

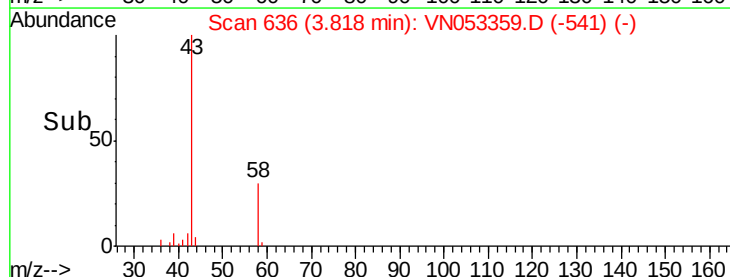
6000

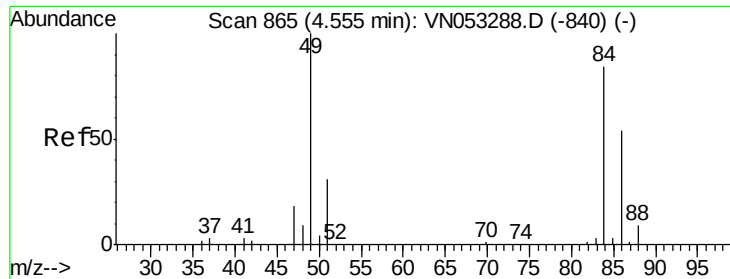
4000

2000

0

Time-->





#20

Methylene Chloride

Concen: 1.334 ug/l

RT: 4.55 min Scan# 865

Delta R.T. 0.00 min

Lab File: VN053359.D

Acq: 11 Jan 2019 12:02

Tgt Ion: 84 Resp: 15469

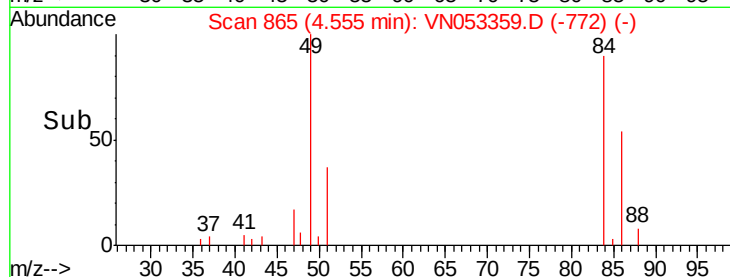
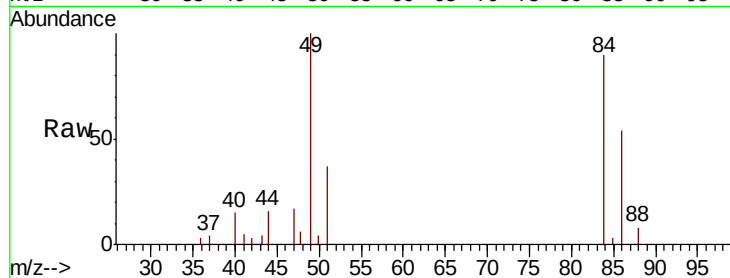
Ion Ratio Lower Upper

84 100

49 111.3 95.3 142.9

51 40.7 29.0 43.6

86 60.1 51.7 77.5

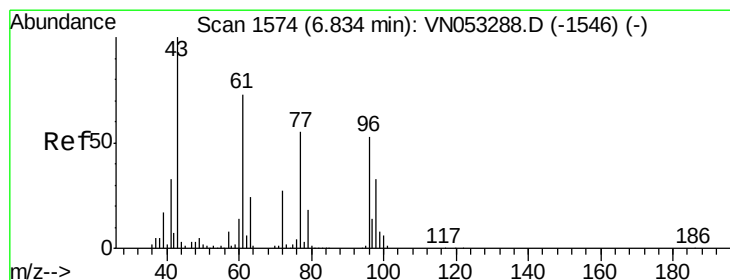
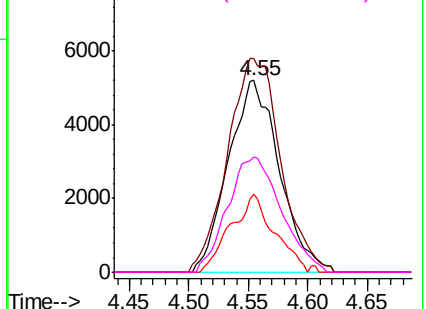


Abundance Ion 83.90 (83.60 to 84.60): VN0

Ion 48.90 (48.60 to 49.60): VN0

Ion 50.90 (50.60 to 51.60): VN0

Ion 85.90 (85.60 to 86.60): VN0



#25

2-Butanone

Concen: 0.718 ug/l

RT: 6.84 min Scan# 1576

Delta R.T. 0.01 min

Lab File: VN053359.D

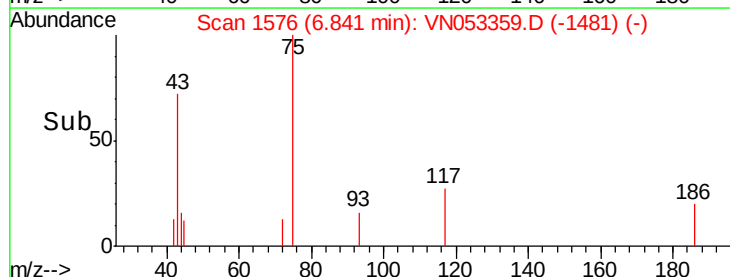
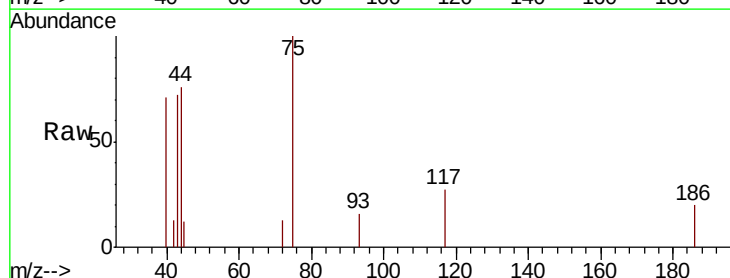
Acq: 11 Jan 2019 12:02

Tgt Ion: 43 Resp: 3183

Ion Ratio Lower Upper

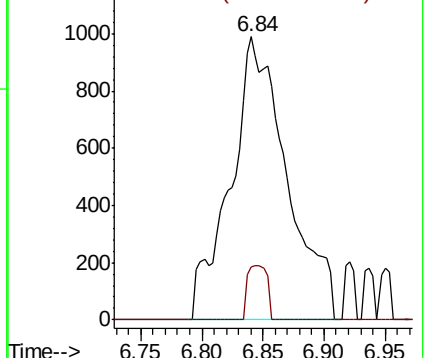
43 100

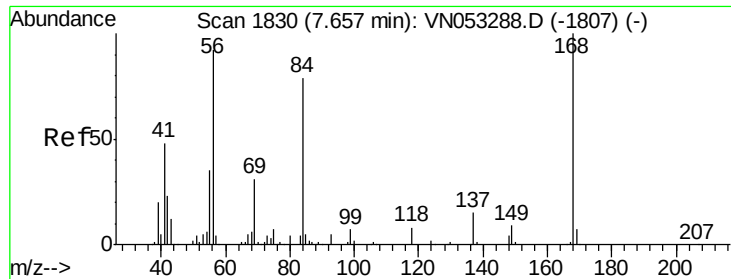
72 18.5 22.0 33.0#



Abundance Ion 43.00 (42.70 to 43.70): VN0

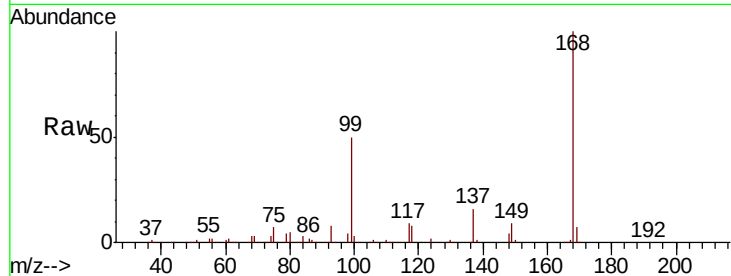
Ion 72.00 (71.70 to 72.70): VN0



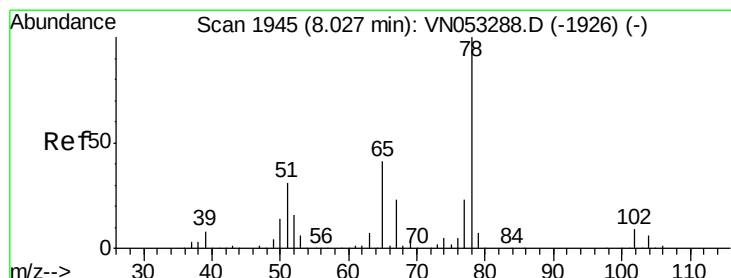
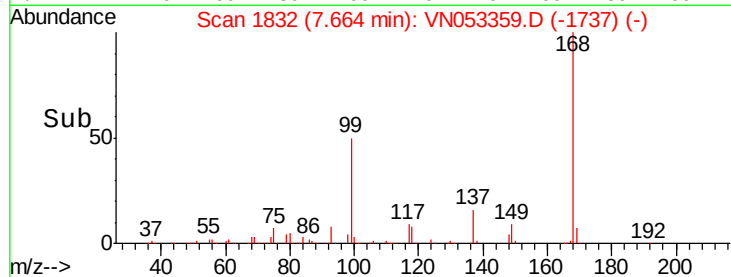
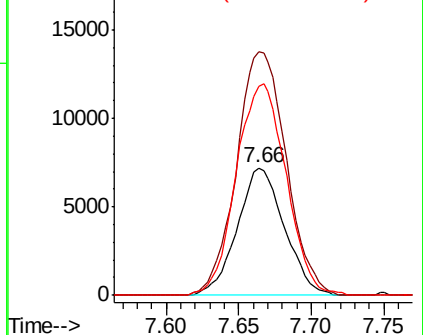


#31  
Cyclohexane  
Concen: 0.688 ug/l  
RT: 7.66 min Scan# 1832  
Delta R.T. 0.01 min  
Lab File: VN053359.D  
Acq: 11 Jan 2019 12:02

Tgt Ion: 56 Resp: 16217  
Ion Ratio Lower Upper  
56 100  
69 191.1 26.7 40.1#  
84 163.8 68.2 102.4#

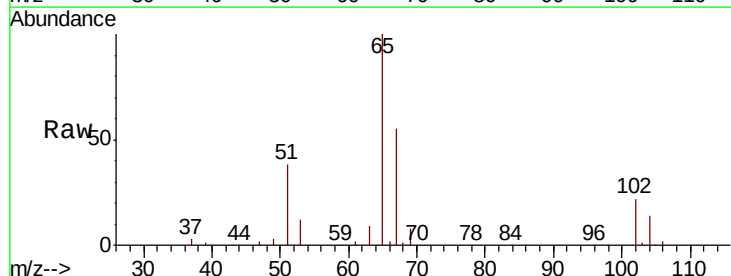


Abundance Ion 56.00 (55.70 to 56.70): VN0  
Ion 69.00 (68.70 to 69.70): VN0  
Ion 84.00 (83.70 to 84.70): VN0

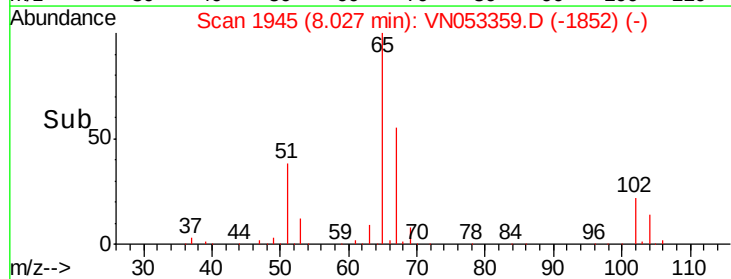
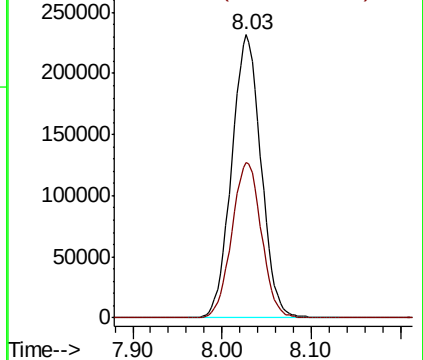


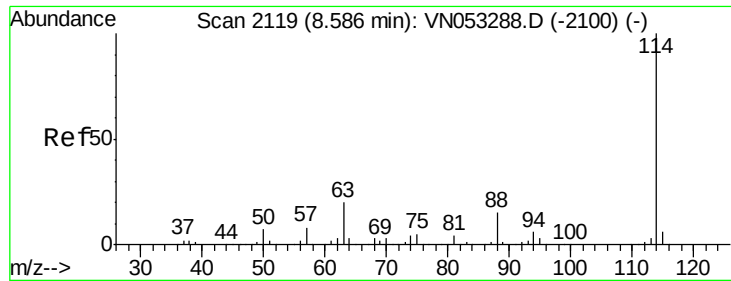
#33  
1,2-Dichloroethane-d4  
Concen: Below ug/l  
RT: 8.03 min Scan# 1945  
Delta R.T. 0.00 min  
Lab File: VN053359.D  
Acq: 11 Jan 2019 12:02

Tgt Ion: 65 Resp: 530212  
Ion Ratio Lower Upper  
65 100  
67 55.4 0.0 111.0



Abundance Ion 64.90 (64.60 to 65.60): VN0  
Ion 66.90 (66.60 to 67.60): VN0

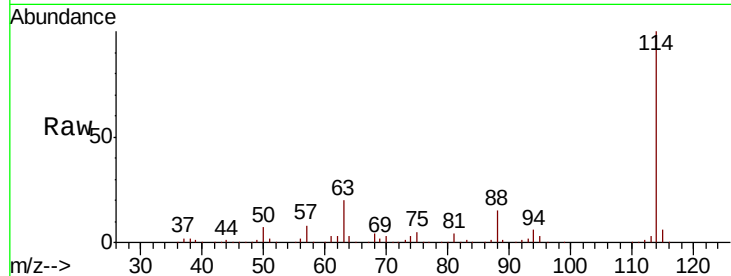




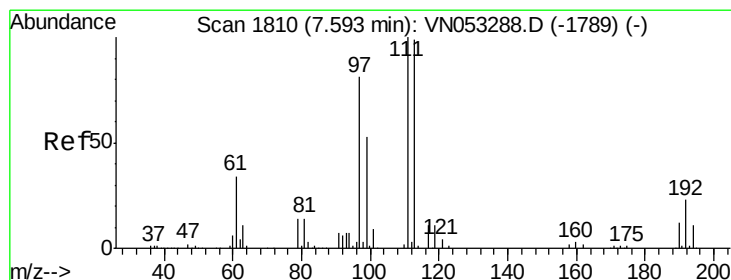
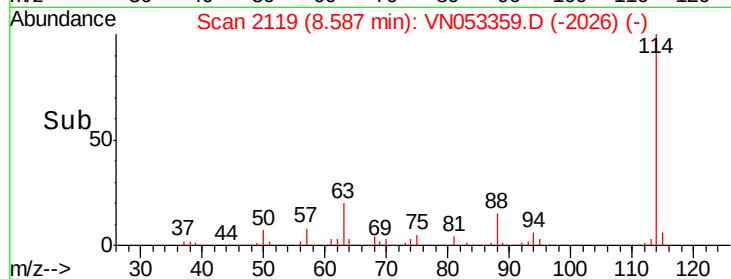
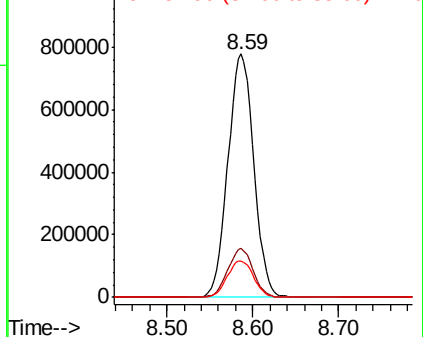
#34  
1,4-Difluorobenzene  
Concen: 50.000 ug/l  
RT: 8.59 min Scan# 2119  
Delta R.T. 0.00 min  
Lab File: VN053359.D  
Acq: 11 Jan 2019 12:02

Tgt Ion:114 Resp: 1621661

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 114 | 100   |       |       |
| 63  | 19.9  | 0.0   | 39.0  |
| 88  | 15.0  | 0.0   | 30.8  |



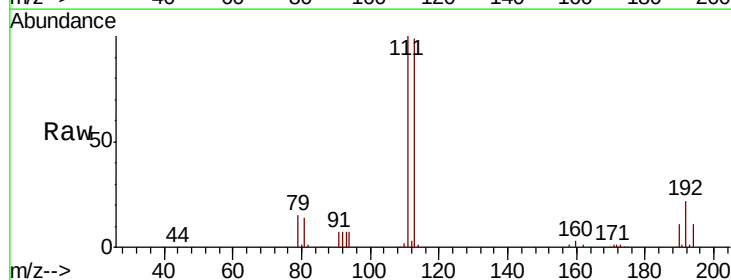
Abundance Ion 113.90 (113.60 to 114.60): V  
Ion 63.00 (62.70 to 63.70): VN  
Ion 87.90 (87.60 to 88.60): VN



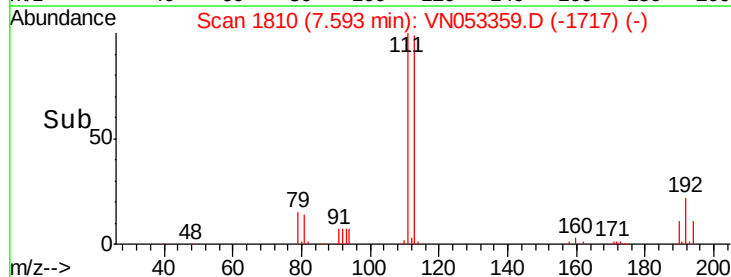
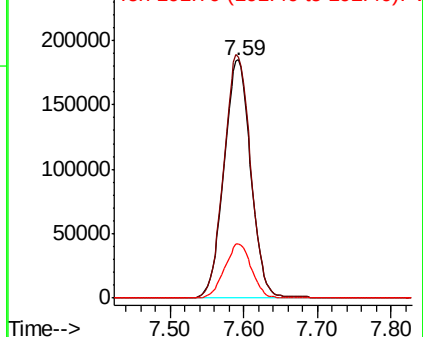
#35  
Dibromofluoromethane  
Concen: 50.000 ug/l  
RT: 7.59 min Scan# 1810  
Delta R.T. 0.00 min  
Lab File: VN053359.D  
Acq: 11 Jan 2019 12:02

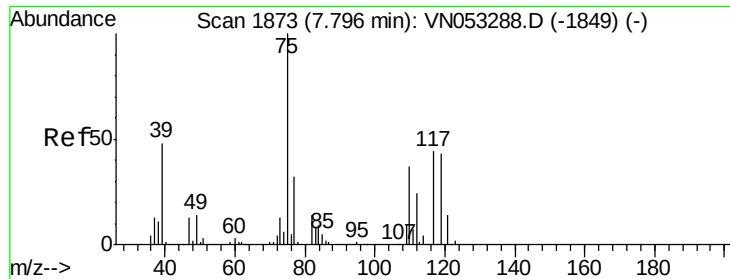
Tgt Ion:113 Resp: 466258

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 113 | 100   |       |       |
| 111 | 102.4 | 81.4  | 122.2 |
| 192 | 22.7  | 17.9  | 26.9  |



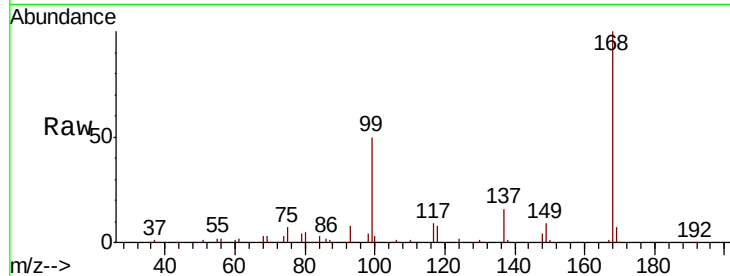
Abundance Ion 112.80 (112.50 to 113.50): V  
Ion 110.80 (110.50 to 111.50): V  
Ion 191.70 (191.40 to 192.40): V



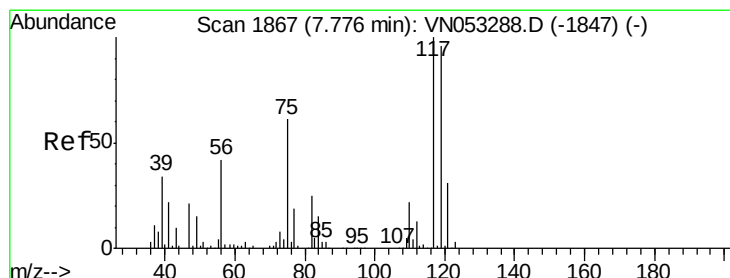
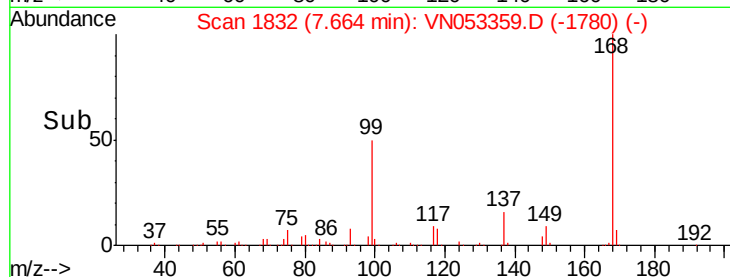
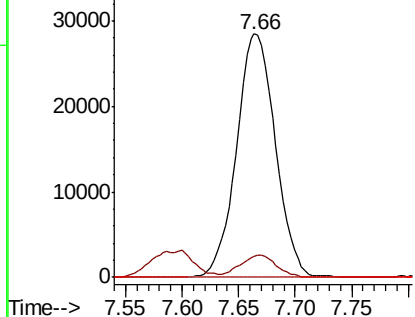


#36  
 1,1-Dichloropropene  
 Concen: 4.494 ug/l  
 RT: 7.66 min Scan# 1832  
 Delta R.T. -0.13 min  
 Lab File: VN053359.D  
 Acq: 11 Jan 2019 12:02

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 8.6   | 18.4  | 55.0# |
| 77      | 0.0   | 25.3  | 37.9# |

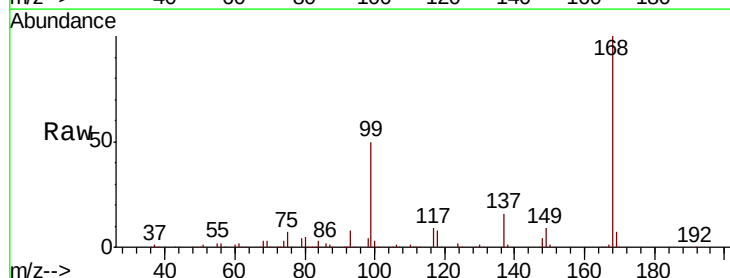


Abundance Ion 74.90 (74.60 to 75.60): VN053359.D (-1780) (-)  
 Ion 109.90 (109.60 to 110.60): VN053359.D (-1780) (-)  
 Ion 76.90 (76.60 to 77.60): VN053359.D (-1780) (-)

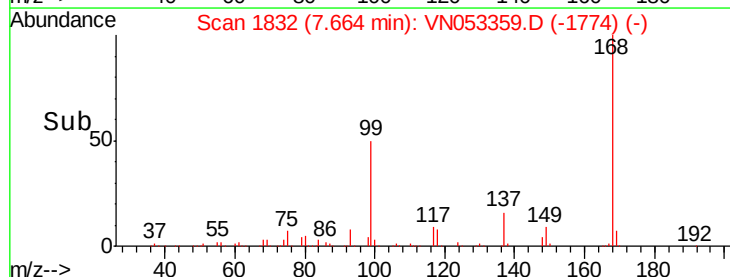
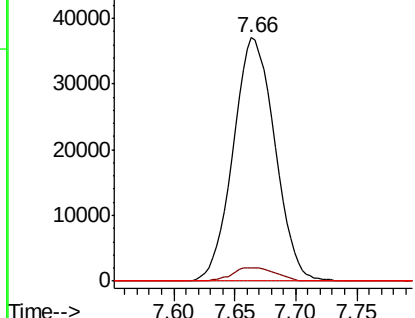


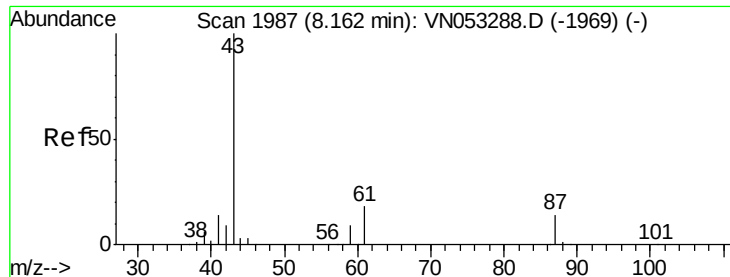
#38  
 Carbon Tetrachloride  
 Concen: 6.276 ug/l  
 RT: 7.66 min Scan# 1832  
 Delta R.T. -0.11 min  
 Lab File: VN053359.D  
 Acq: 11 Jan 2019 12:02

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 5.5   | 76.6  | 115.0# |
| 121     | 0.0   | 25.0  | 37.4#  |



Abundance Ion 116.80 (116.50 to 117.50): VN053359.D (-1774) (-)  
 Ion 118.80 (118.50 to 119.50): VN053359.D (-1774) (-)  
 Ion 120.80 (120.50 to 121.50): VN053359.D (-1774) (-)





#43

Isopropyl Acetate

Concen: 2.423 ug/l

RT: 8.16 min Scan# 1987

Delta R.T. 0.00 min

Lab File: VN053359.D

Acq: 11 Jan 2019 12:02

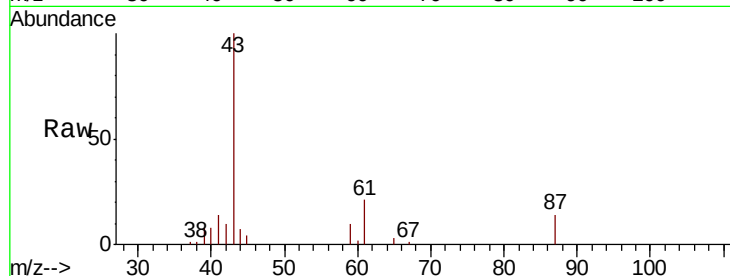
Tgt Ion: 43 Resp: 46995

Ion Ratio Lower Upper

43 100

61 17.6 23.3 34.9#

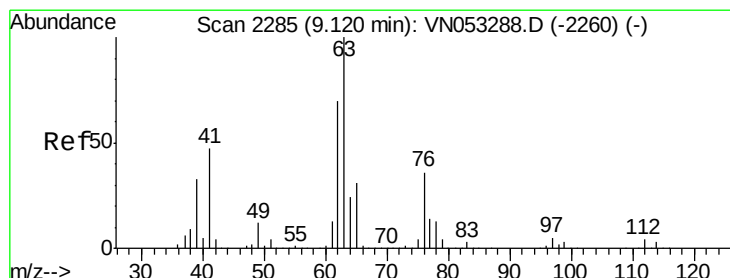
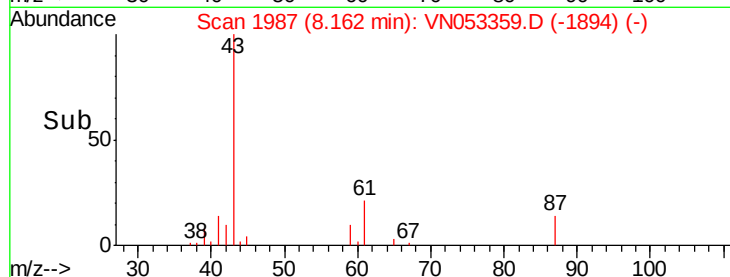
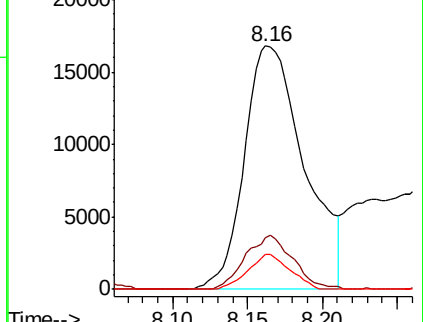
87 10.0 10.8 16.2#



Abundance Ion 43.00 (42.70 to 43.70): VN053288.D (-1969) (-)

Ion 61.00 (60.70 to 61.70): VN053288.D (-1969) (-)

Ion 87.00 (86.70 to 87.70): VN053288.D (-1969) (-)



#45

1,2-Dichloropropane

Concen: 0.249 ug/l

RT: 9.27 min Scan# 2331

Delta R.T. 0.15 min

Lab File: VN053359.D

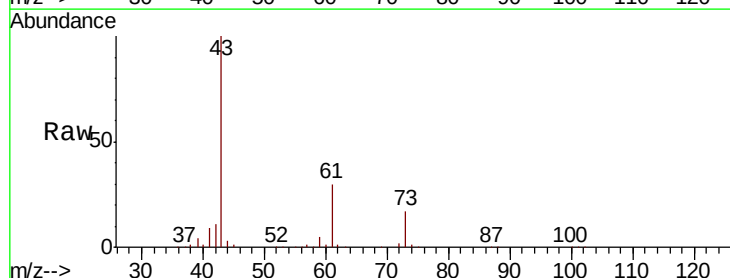
Acq: 11 Jan 2019 12:02

Tgt Ion: 63 Resp: 3019

Ion Ratio Lower Upper

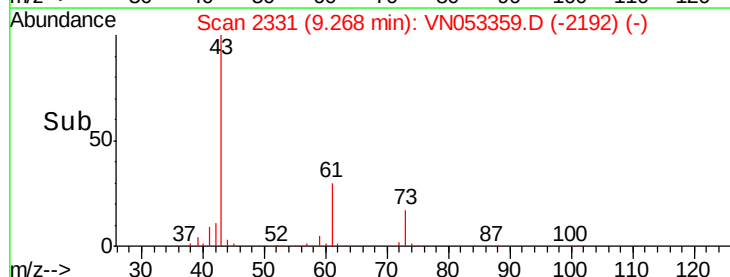
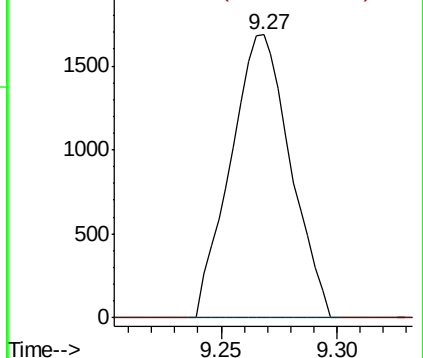
63 100

65 0.0 25.0 37.6#

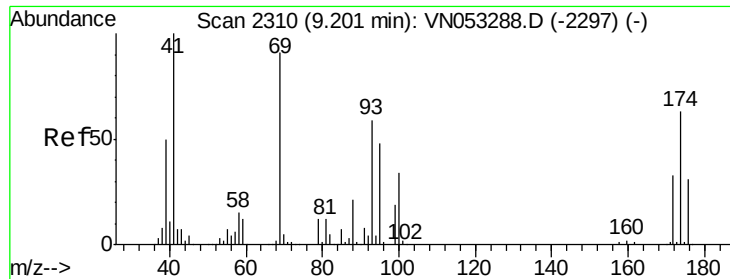


Abundance Ion 62.90 (62.60 to 63.60): VN053288.D (-2260) (-)

Ion 64.90 (64.60 to 65.60): VN053288.D (-2260) (-)







#48

Methyl methacrylate

Concen: 1.512 ug/l

RT: 9.18 min Scan# 2304

Delta R.T. -0.02 min

Lab File: VN053359.D

Acq: 11 Jan 2019 12:02

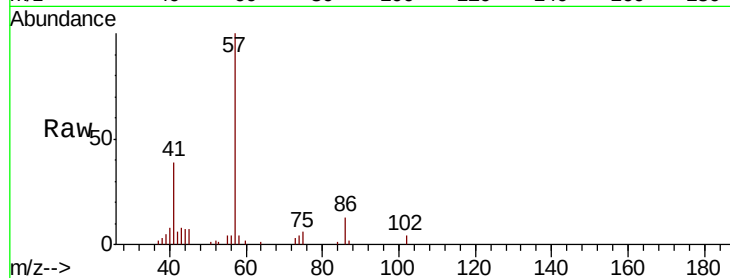
Tgt Ion: 41 Resp: 13322

Ion Ratio Lower Upper

41 100

69 0.0 73.5 110.3#

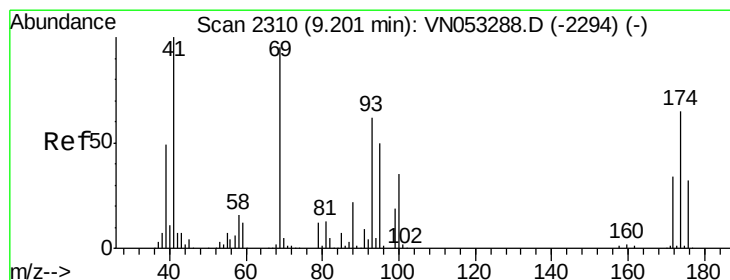
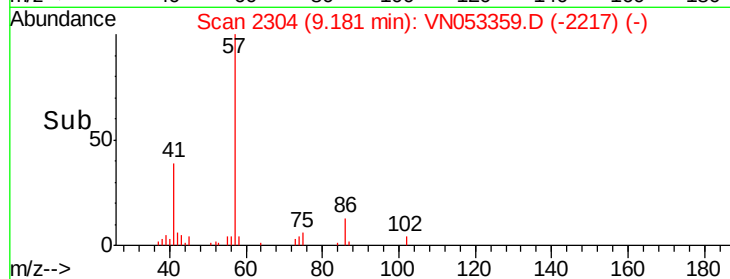
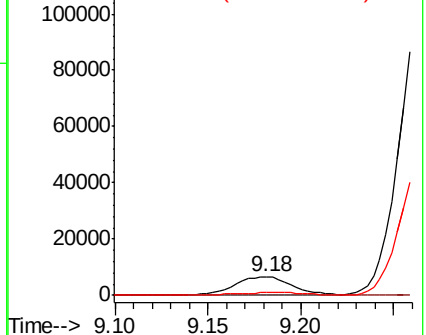
39 0.0 41.6 62.4#



Abundance Ion 41.00 (40.70 to 41.70): VN053359.D (-2217) (-)

Ion 69.00 (68.70 to 69.70): VN053359.D (-2217) (-)

Ion 39.00 (38.70 to 39.70): VN053359.D (-2217) (-)



#49

1,4-Dioxane

Concen: 1.576 ug/l

RT: 9.26 min Scan# 2329

Delta R.T. 0.06 min

Lab File: VN053359.D

Acq: 11 Jan 2019 12:02

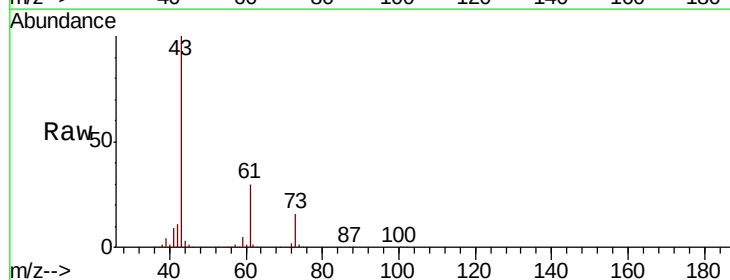
Tgt Ion: 88 Resp: 148

Ion Ratio Lower Upper

88 100

43 1576520.9 26.2 39.4#

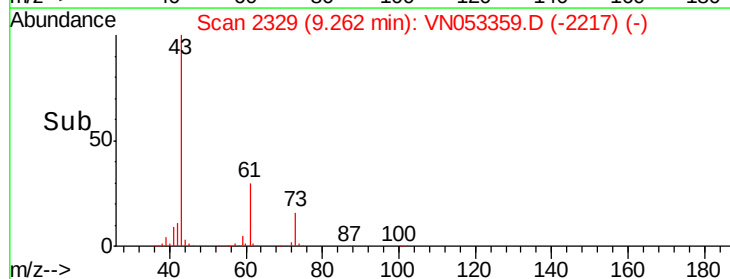
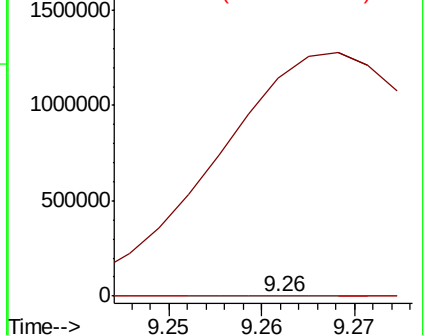
58 7125.7 55.5 83.3#

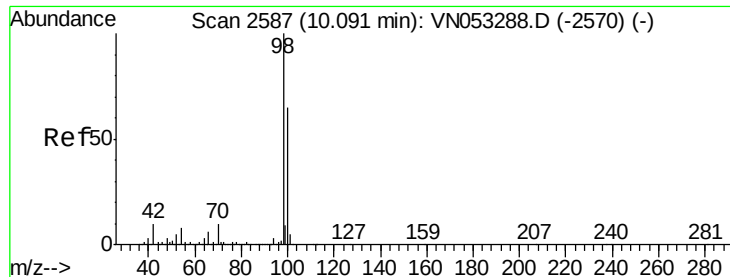


Abundance Ion 88.00 (87.70 to 88.70): VN053359.D (-2217) (-)

Ion 43.00 (42.70 to 43.70): VN053359.D (-2217) (-)

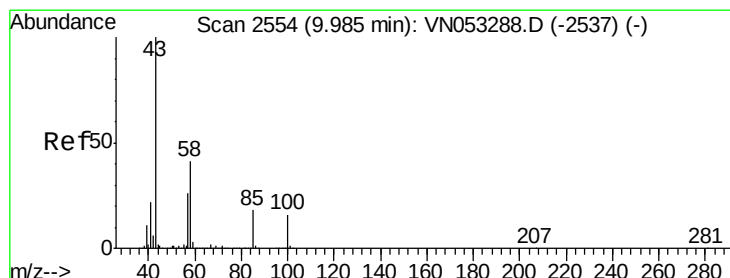
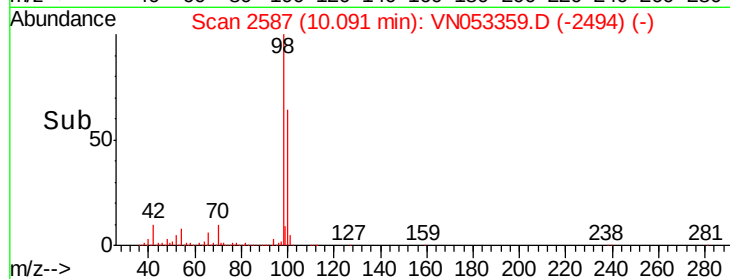
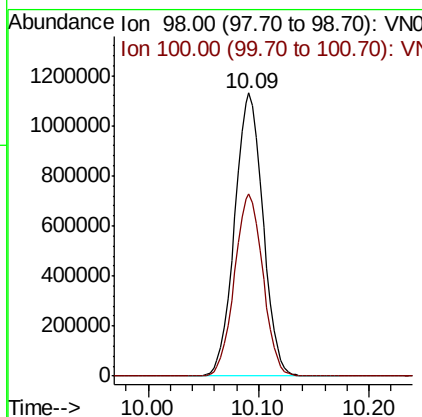
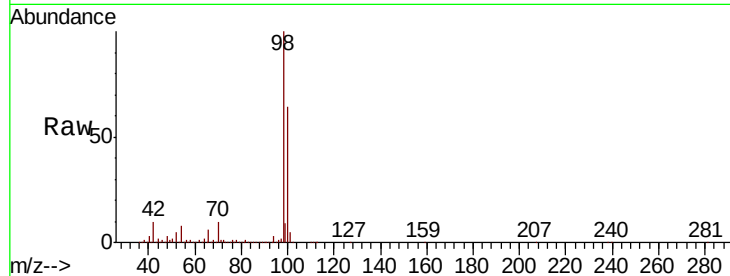
Ion 58.00 (57.70 to 58.70): VN053359.D (-2217) (-)





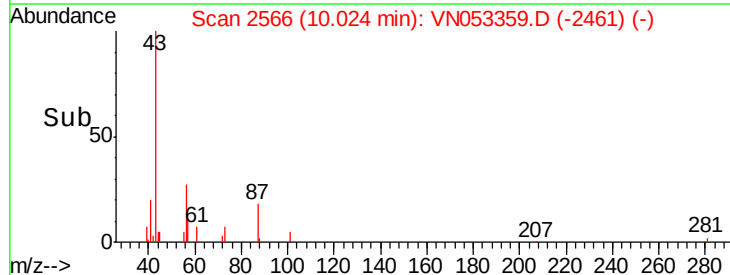
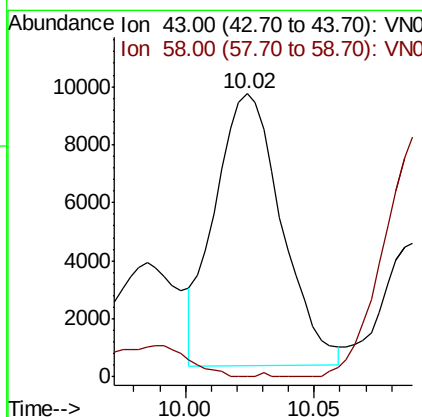
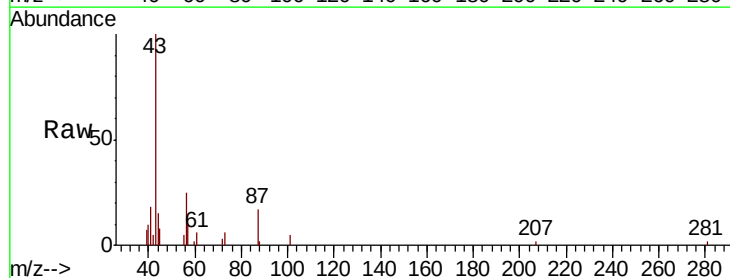
#50  
Toluene-d8  
Concen: 1.576 ug/l  
RT: 10.09 min Scan# 2587  
Delta R.T. 0.00 min  
Lab File: VN053359.D  
Acq: 11 Jan 2019 12:02

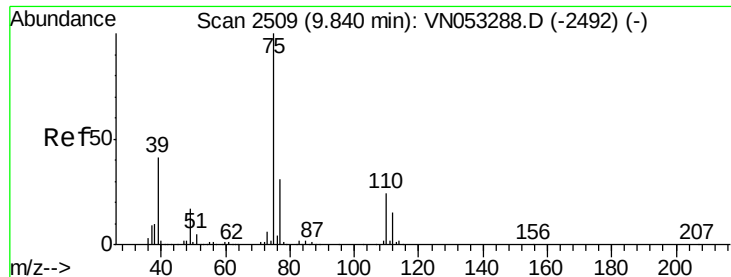
Tgt Ion: 98 Resp: 2009328  
Ion Ratio Lower Upper  
98 100  
100 64.6 51.5 77.3



#51  
4-Methyl-2-Pentanone  
Concen: 1.728 ug/l  
RT: 10.02 min Scan# 2566  
Delta R.T. 0.04 min  
Lab File: VN053359.D  
Acq: 11 Jan 2019 12:02

Tgt Ion: 43 Resp: 16858  
Ion Ratio Lower Upper  
43 100  
58 0.0 32.7 49.1#





#54

cis-1,3-Dichloropropene

Concen: 6.372 ug/l

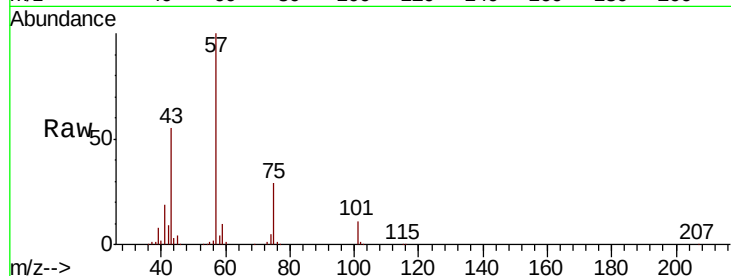
RT: 9.90 min Scan# 2529

Delta R.T. 0.06 min

Lab File: VN053359.D

Acq: 11 Jan 2019 12:02

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 75    | Resp: | 111016 |
| Ion      | Ratio | Lower | Upper  |
| 75       | 100   |       |        |
| 77       | 0.5   | 25.1  | 37.7#  |
| 39       | 27.9  | 33.1  | 49.7#  |

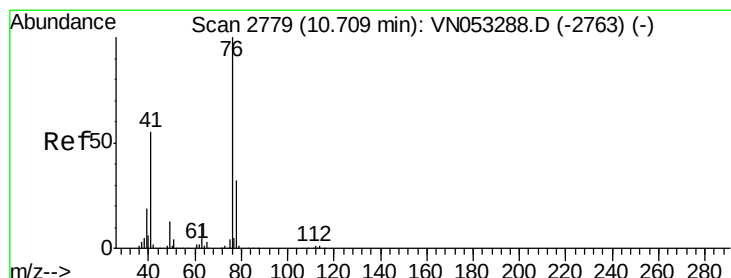
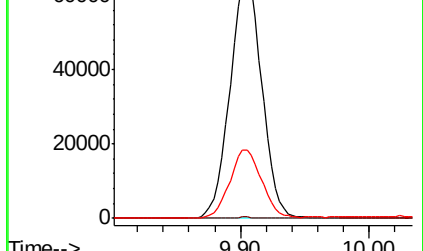
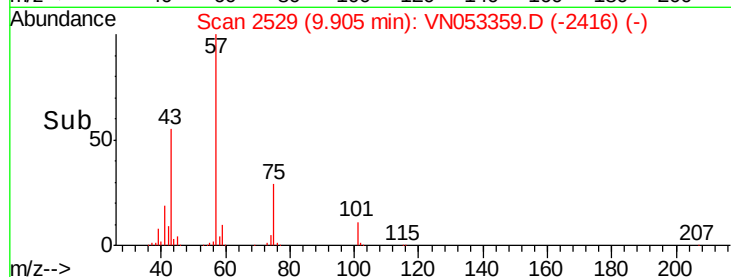


Abundance Ion 74.90 (74.60 to 75.60): VN053359.D (-2416) (-)

Ion 76.90 (76.60 to 77.60): VN053359.D (-2416) (-)

Ion 39.00 (38.70 to 39.70): VN053359.D (-2416) (-)

Time-->



#57

1,3-Dichloropropene

Concen: 1.352 ug/l

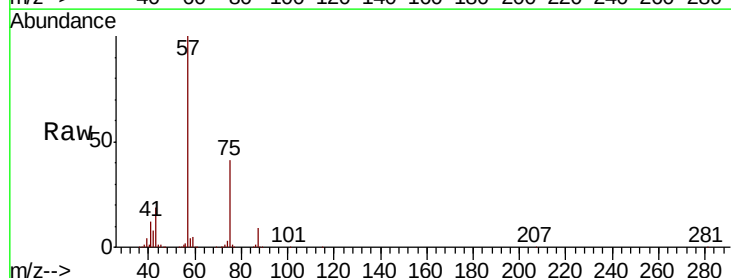
RT: 10.76 min Scan# 2796

Delta R.T. 0.05 min

Lab File: VN053359.D

Acq: 11 Jan 2019 12:02

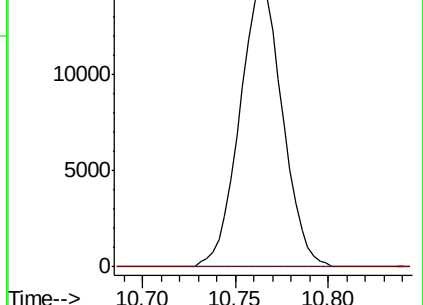
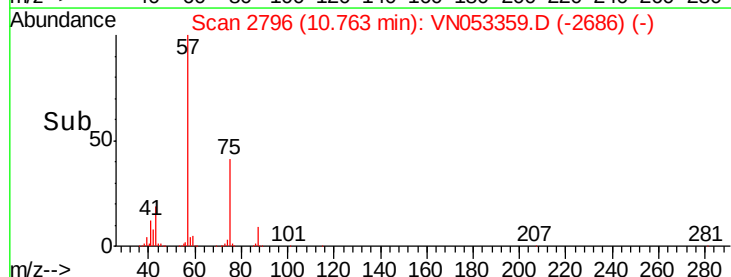
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 76    | Resp: | 23585 |
| Ion      | Ratio | Lower | Upper |
| 76       | 100   |       |       |
| 78       | 0.0   | 25.8  | 38.8# |

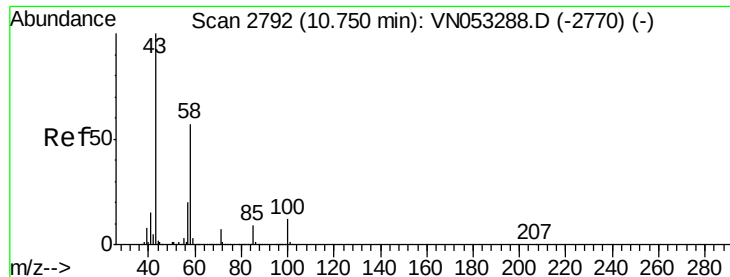


Abundance Ion 75.90 (75.60 to 76.60): VN053359.D (-2686) (-)

Ion 77.90 (77.60 to 78.60): VN053359.D (-2686) (-)

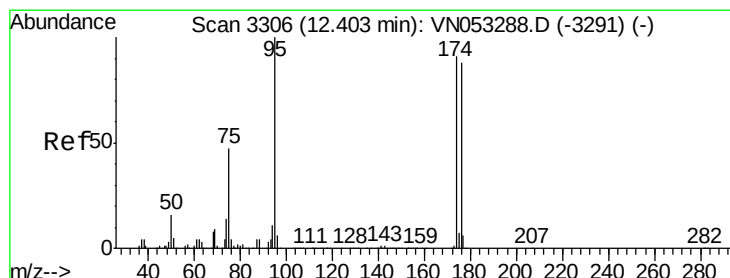
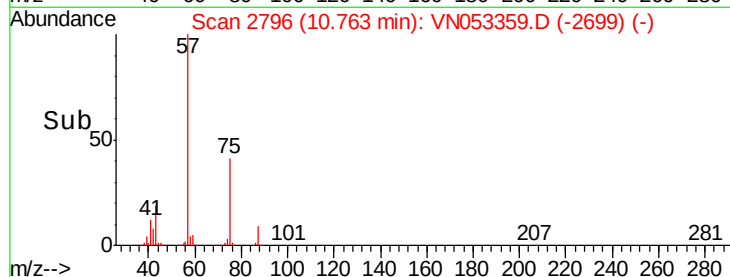
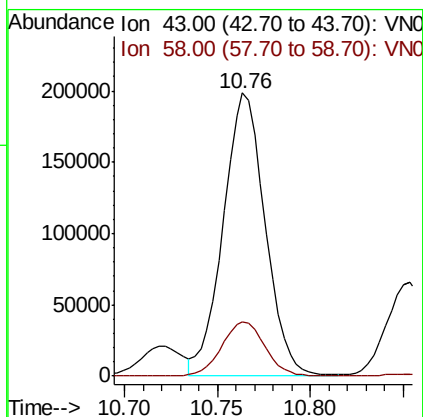
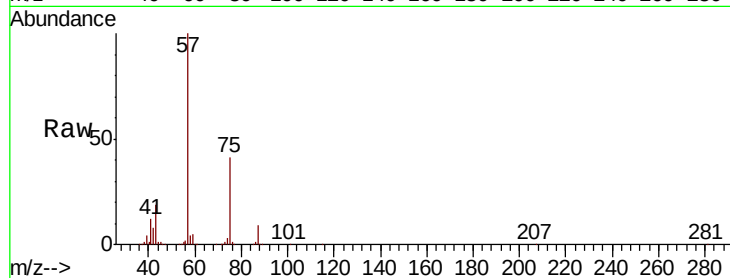
Time-->





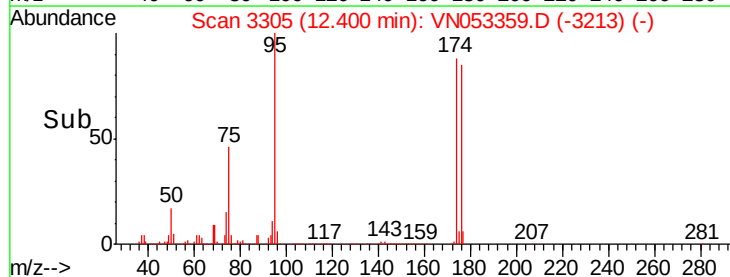
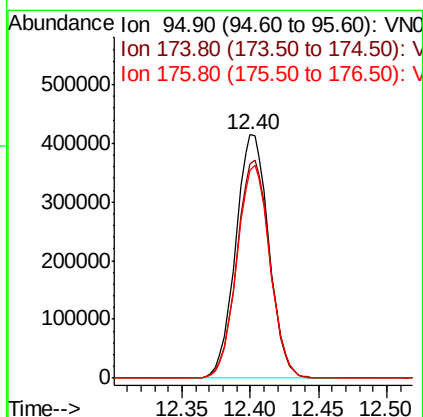
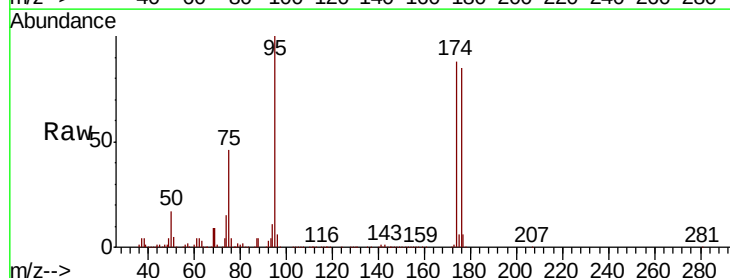
#59  
2-Hexanone  
Concen: 46.313 ug/l  
RT: 10.76 min Scan# 2796  
Delta R.T. 0.01 min  
Lab File: VN053359.D  
Acq: 11 Jan 2019 12:02

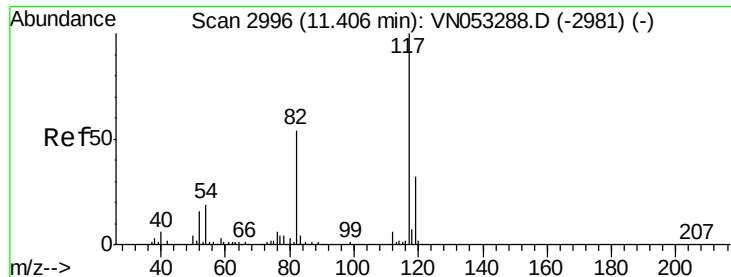
Tgt Ion: 43 Resp: 309561  
Ion Ratio Lower Upper  
43 100  
58 20.1 28.3 85.0#



#62  
4-Bromofluorobenzene  
Concen: N.D. ug/l  
RT: 12.40 min Scan# 3305  
Delta R.T. -0.00 min  
Lab File: VN053359.D  
Acq: 11 Jan 2019 12:02

Tgt Ion: 95 Resp: 698843  
Ion Ratio Lower Upper  
95 100  
174 89.5 0.0 180.4  
176 87.0 0.0 175.6

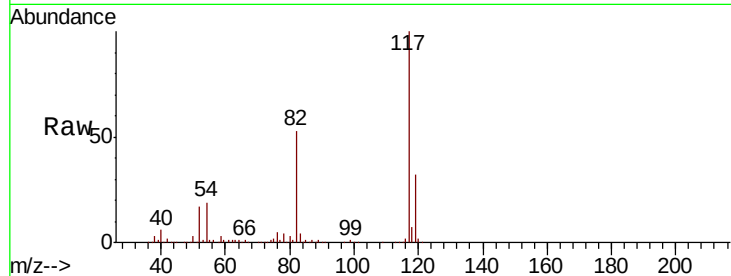




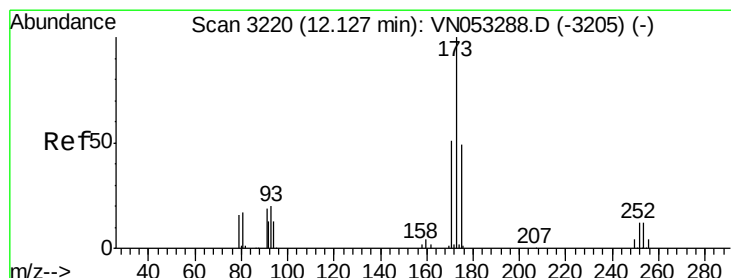
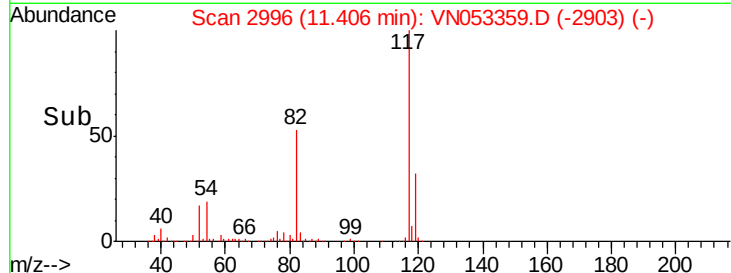
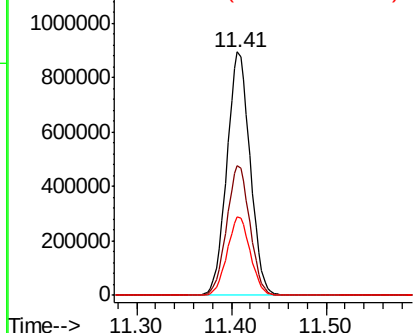
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.41 min Scan# 2996  
Delta R.T. 0.00 min  
Lab File: VN053359.D  
Acq: 11 Jan 2019 12:02

Tgt Ion:117 Resp: 1524371

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 117 | 100   |       |       |
| 82  | 53.4  | 42.9  | 64.3  |
| 119 | 32.1  | 25.6  | 38.4  |



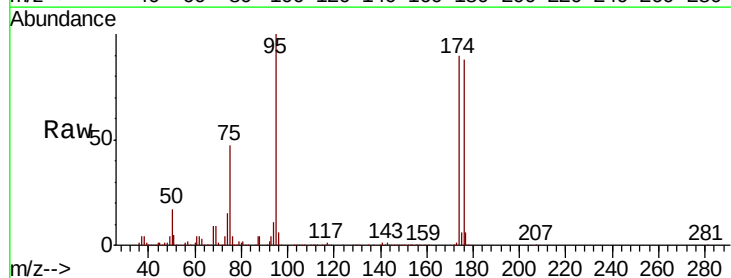
Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): VN  
Ion 118.90 (118.60 to 119.60): V



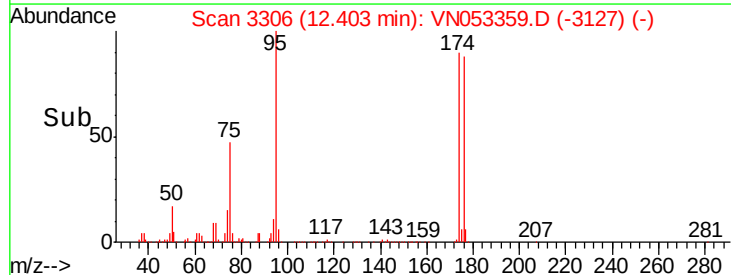
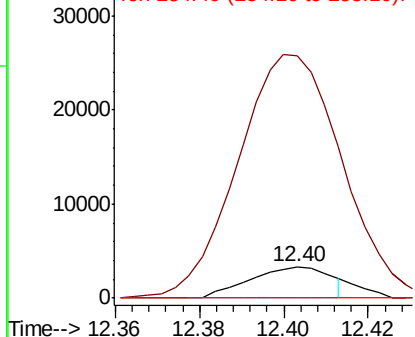
#71  
Bromoform  
Concen: 0.538 ug/l  
RT: 12.40 min Scan# 3306  
Delta R.T. 0.28 min  
Lab File: VN053359.D  
Acq: 11 Jan 2019 12:02

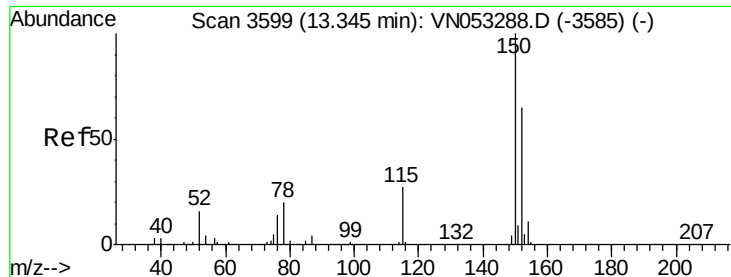
Tgt Ion:173 Resp: 4401

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 173 | 100   |       |       |
| 175 | 883.6 | 24.3  | 72.8# |
| 254 | 0.0   | 0.2   | 0.2#  |



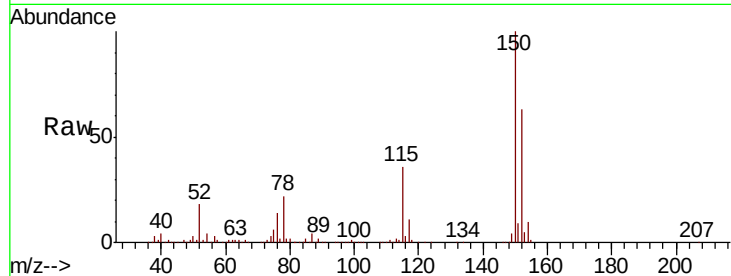
Abundance Ion 172.70 (172.40 to 173.40): V  
Ion 174.70 (174.40 to 175.40): V  
Ion 254.40 (254.10 to 255.10): V



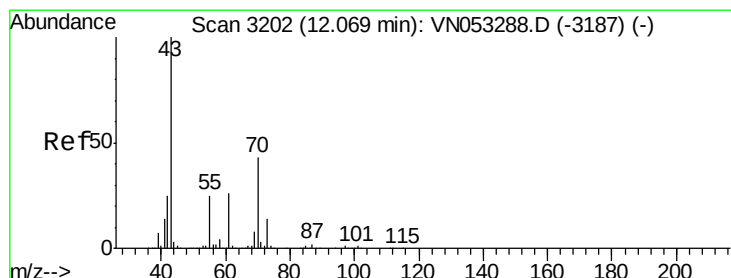
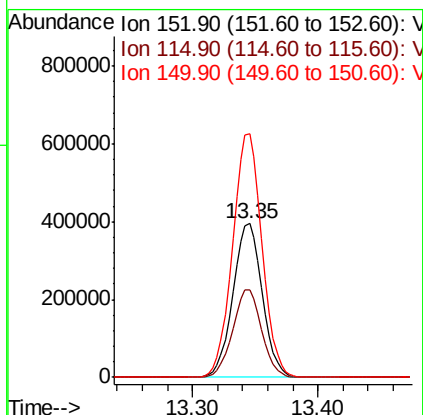
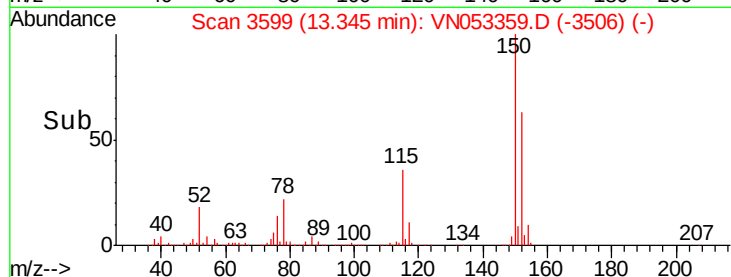


#72  
 1,4-Dichlorobenzene-d4  
 Concen: 50.000 ug/l  
 RT: 13.35 min Scan# 3599  
 Delta R.T. 0.00 min  
 Lab File: VN053359.D  
 Acq: 11 Jan 2019 12:02

Tgt Ion: 152 Resp: 639125  
 Ion Ratio Lower Upper  
 152 100  
 115 56.4 28.0 84.0  
 150 158.6 0.0 346.6

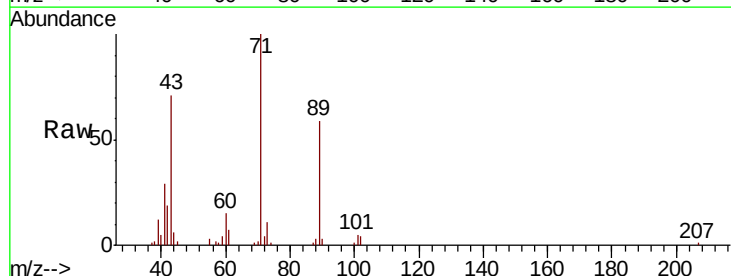


Abundance Ion 151.90 (151.60 to 152.60): V  
 Ion 114.90 (114.60 to 115.60): V  
 Ion 149.90 (149.60 to 150.60): V

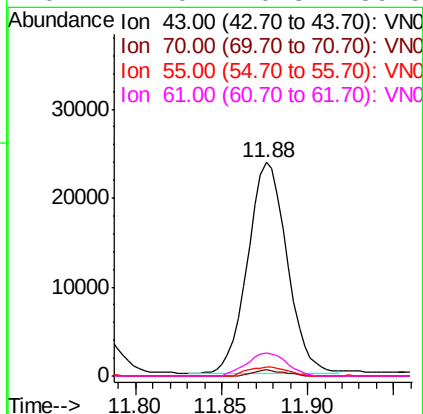
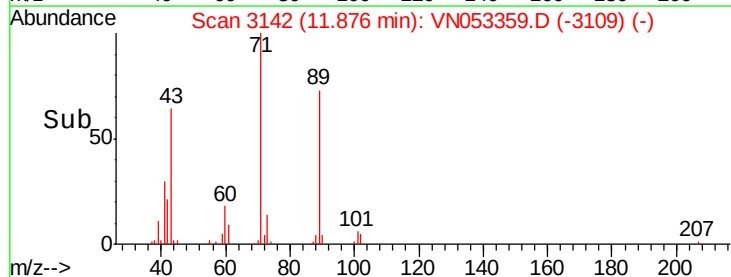


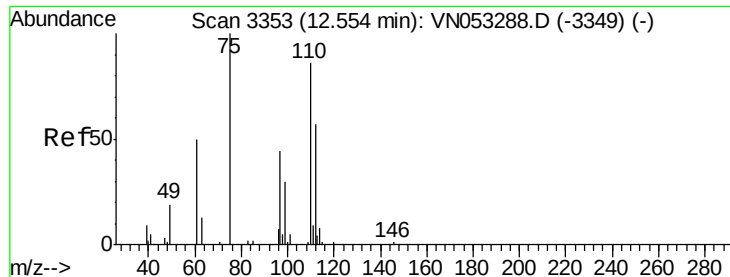
#74  
 N-ethyl acetate  
 Concen: 2.646 ug/l  
 RT: 11.88 min Scan# 3142  
 Delta R.T. -0.19 min  
 Lab File: VN053359.D  
 Acq: 11 Jan 2019 12:02

Tgt Ion: 43 Resp: 37596  
 Ion Ratio Lower Upper  
 43 100  
 70 2.2 35.0 52.6#  
 55 4.3 20.0 30.0#  
 61 11.0 20.3 30.5#



Abundance Ion 43.00 (42.70 to 43.70): VN  
 Ion 70.00 (69.70 to 70.70): VN  
 Ion 55.00 (54.70 to 55.70): VN  
 Ion 61.00 (60.70 to 61.70): VN

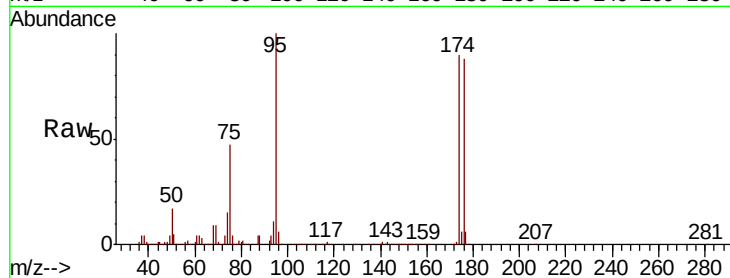




#76

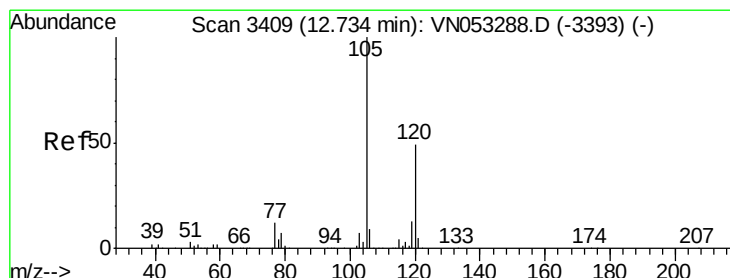
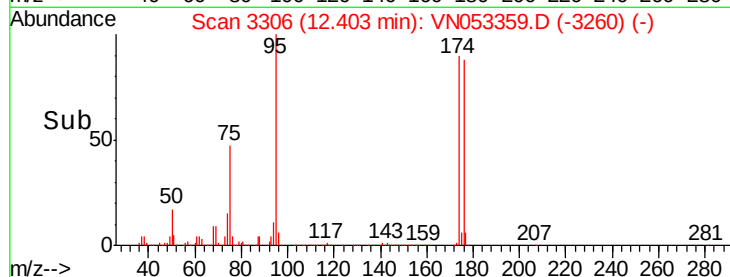
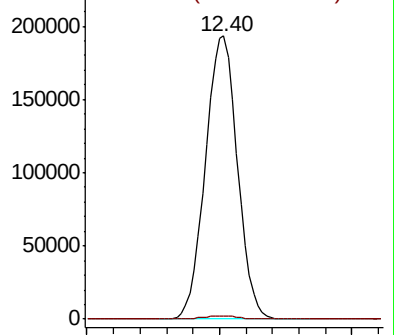
1,2,3-Trichloropropane  
Concen: 34.795 ug/l  
RT: 12.40 min Scan# 3306  
Delta R.T. -0.15 min  
Lab File: VN053359.D  
Acq: 11 Jan 2019 12:02

Tgt Ion: 75 Resp: 324359  
Ion Ratio Lower Upper  
75 100  
77 1.2 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VN0

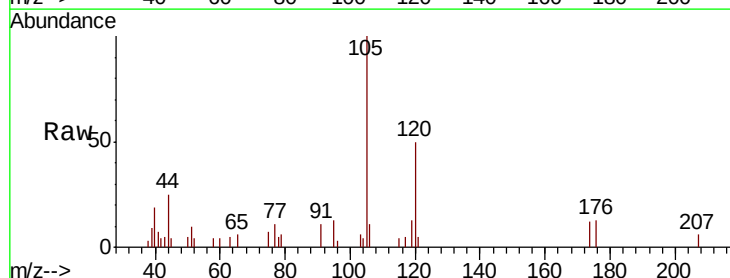
Ion 77.00 (76.70 to 77.70): VN0



#80

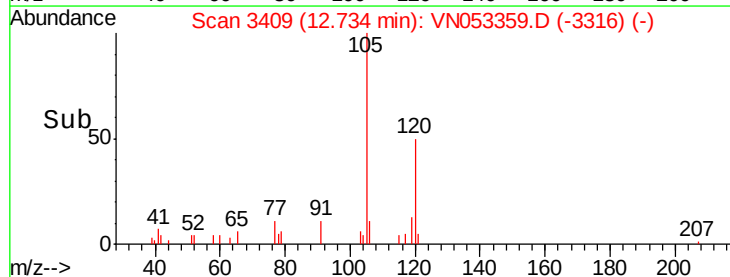
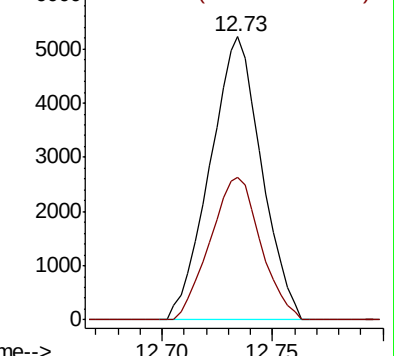
1,3,5-Trimethylbenzene  
Concen: 0.221 ug/l  
RT: 12.73 min Scan# 3409  
Delta R.T. 0.00 min  
Lab File: VN053359.D  
Acq: 11 Jan 2019 12:02

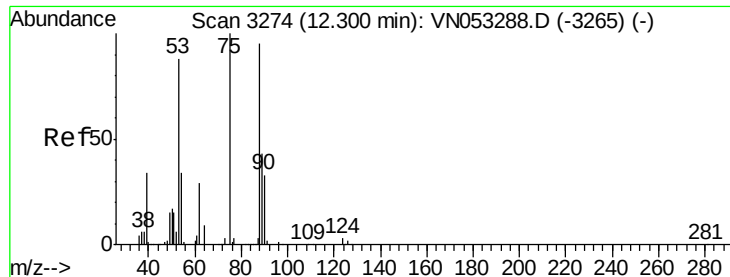
Tgt Ion: 105 Resp: 8470  
Ion Ratio Lower Upper  
105 100  
120 49.6 24.7 74.1



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V





#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 102.373 ug/l  
 RT: 12.40 min Scan# 3306  
 Delta R.T. 0.10 min  
 Lab File: VN053359.D  
 Acq: 11 Jan 2019 12:02

Tgt Ion: 75 Resp: 324359  
 Ion Ratio Lower Upper  
 75 100  
 53 0.0 70.5 105.7#  
 89 0.0 35.4 53.0#

