

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN072418\  
 Data File : VN050030.D  
 Acq On : 24 Jul 2018 19:13  
 Operator : MD\SY  
 Sample : PB111391ZHE#04  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jul 25 00:50:40 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N072418W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jul 24 06:27:04 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 600320   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 1015112  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 839416   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 317730   | 50.00 | ug/l  | 0.00     |

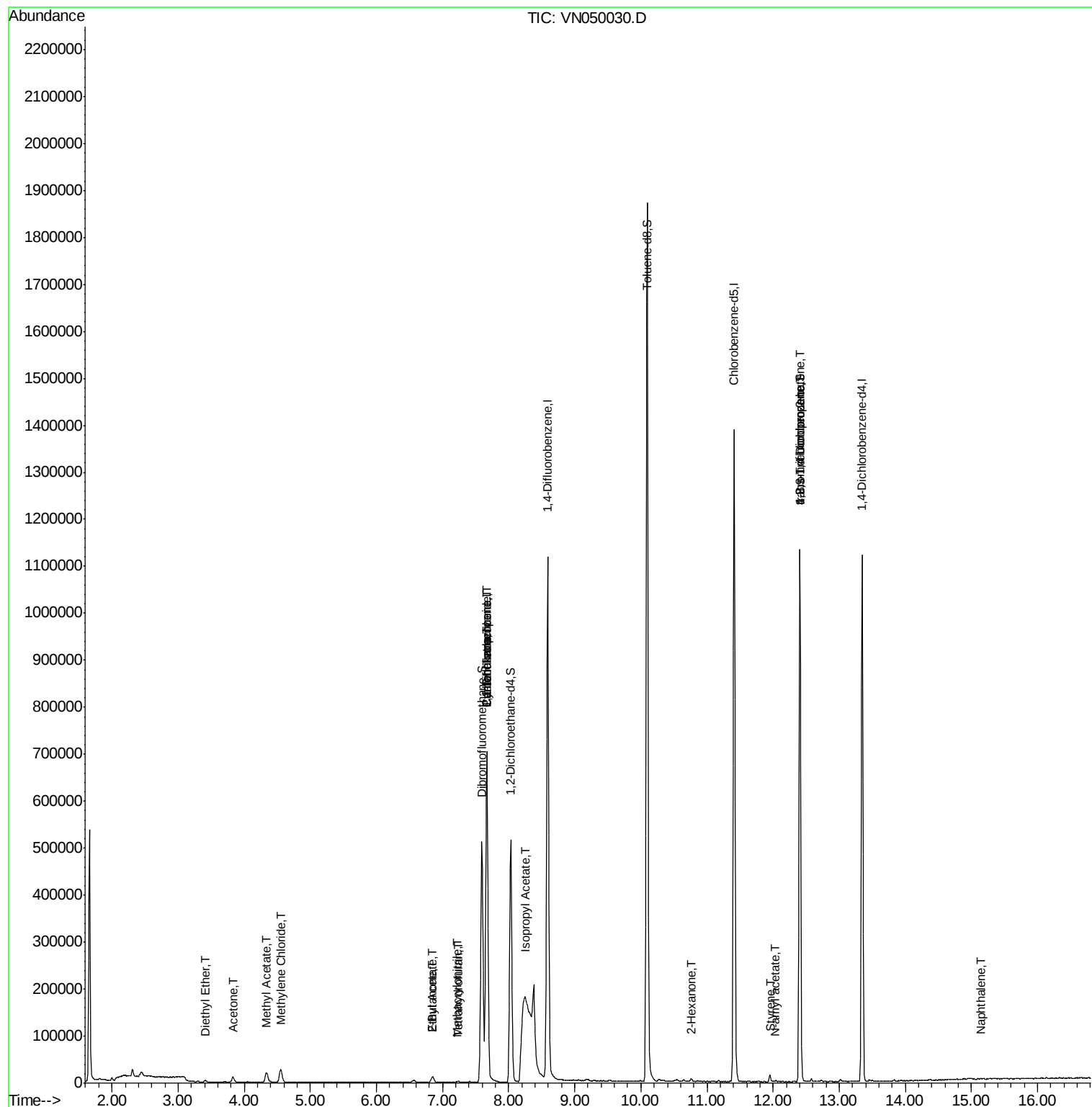
| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.03  | 65   | 444265   | 53.04 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 106.08% |          |
| 35) Dibromofluoromethane    | 7.60  | 113  | 384728   | 46.42 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 92.84%  |          |
| 50) Toluene-d8              | 10.09 | 98   | 1353209  | 44.41 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 88.82%  |          |
| 62) 4-Bromofluorobenzene    | 12.41 | 95   | 372344   | 37.11 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 74.22%  |          |

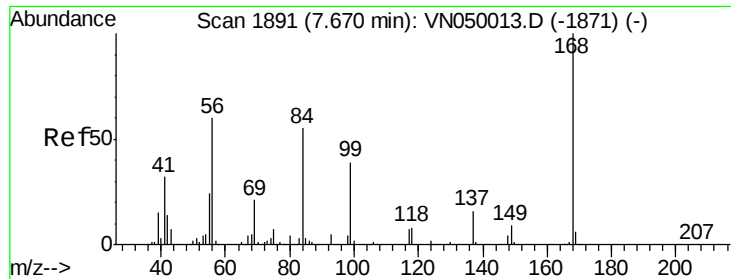
| Target Compounds               | R.T.  | QIon | Response | Conc       | Units | Qvalue |
|--------------------------------|-------|------|----------|------------|-------|--------|
| 5) Bromomethane                | 2.56  | 94   | 830      | Below Cal  |       | 92     |
| 8) Diethyl Ether               | 3.41  | 74   | 1590     | 0.37 ug/l  | #     | 41     |
| 16) Acetone                    | 3.83  | 43   | 19131    | 5.45 ug/l  |       | 96     |
| 18) Methyl Acetate             | 4.33  | 43   | 41381    | 3.89 ug/l  |       | 100    |
| 20) Methylene Chloride         | 4.55  | 84   | 21654    | 1.70 ug/l  |       | 97     |
| 25) 2-Butanone                 | 6.86  | 43   | 14292    | 4.47 ug/l  | #     | 89     |
| 29) Tetrahydrofuran            | 7.23  | 42   | 1508     | 0.73 ug/l  | #     | 46     |
| 31) Cyclohexane                | 7.67  | 56   | 11470    | 0.93 ug/l  | #     | 1      |
| 36) 1,1-Dichloropropene        | 7.67  | 75   | 43633    | 3.82 ug/l  | #     | 48     |
| 37) Ethyl Acetate              | 6.86  | 43   | 14292    | 1.79 ug/l  | #     | 68     |
| 38) Carbon Tetrachloride       | 7.67  | 117  | 55568    | 4.58 ug/l  | #     | 16     |
| 41) Methacrylonitrile          | 7.22  | 41   | 694      | 2.91 ug/l  | #     | 21     |
| 43) Isopropyl Acetate          | 8.25  | 43   | 292677   | 18.77 ug/l | #     | 61     |
| 59) 2-Hexanone                 | 10.76 | 43   | 4165     | 5.88 ug/l  |       | 91     |
| 70) Styrene                    | 11.97 | 104  | 92       | 0.93 ug/l  | #     | 48     |
| 74) N-amyl acetate             | 12.04 | 43   | 2285     | 0.30 ug/l  | #     | 43     |
| 75) 1,1,2,2-Tetrachloroethane  | 12.41 | 83   | 271      | Below Cal  | #     | 1      |
| 76) 1,2,3-Trichloropropane     | 12.40 | 75   | 183749   | 31.12 ug/l | #     | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.40 | 75   | 183749   | 98.70 ug/l | #     | 13     |
| 95) Naphthalene                | 15.14 | 128  | 335      | 4.44 ug/l  | #     | 69     |

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

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QLast Update : Tue Jul 24 06:27:04 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 7.67 min Scan# 1891

Delta R.T. 0.00 min

Lab File: VN050030.D

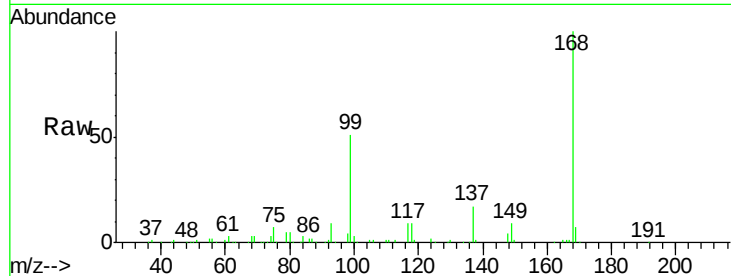
Acq: 24 Jul 2018 19:13

Tot Ion:168 Resp: 600320

Ion Ratio Lower Upper

168 100

99 50.9 40.0 60.0



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VNO

7.67

250000

200000

150000

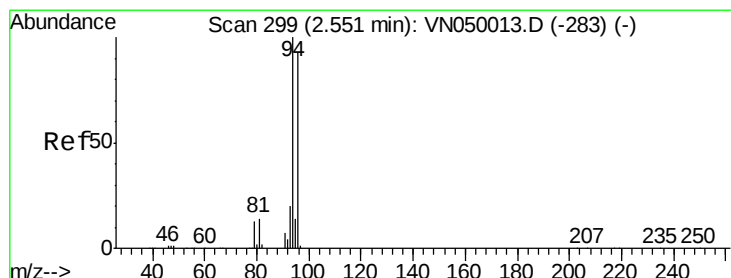
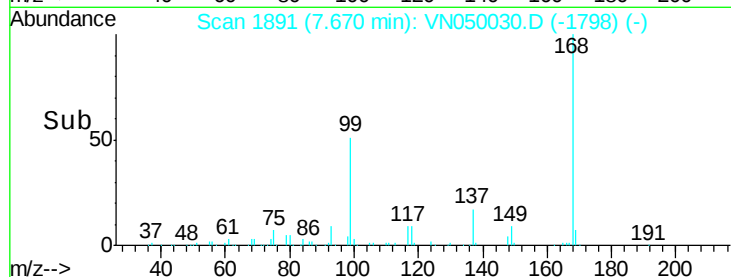
100000

50000

0

Time-->

7.60 7.70 7.80



#5

Bromomethane

Concen: Below Cal

RT: 2.56 min Scan# 302

Delta R.T. 0.01 min

Lab File: VN050030.D

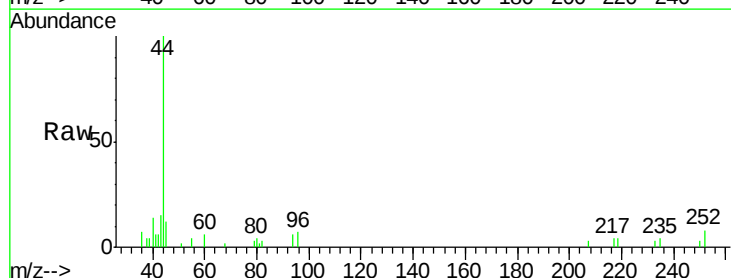
Acq: 24 Jul 2018 19:13

Tgt Ion: 94 Resp: 830

Ion Ratio Lower Upper

94 100

96 101.2 74.6 112.0



Abundance Ion 93.90 (93.60 to 94.60): VNO

Ion 95.90 (95.60 to 96.60): VNO

2.56

500

400

300

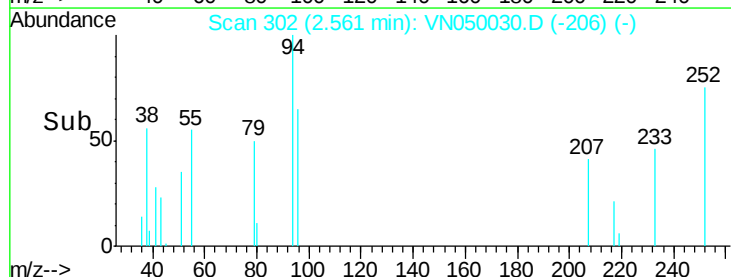
200

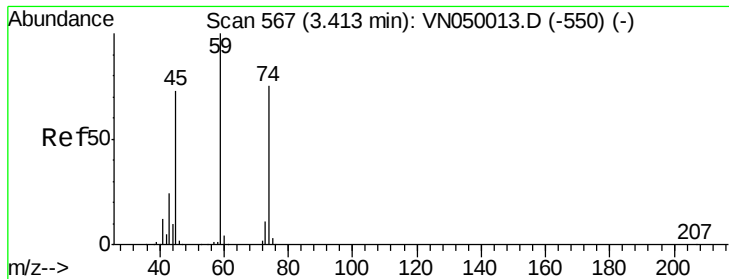
100

0

Time-->

2.52 2.54 2.56 2.58





#8

Diethyl Ether

Concen: 0.37 ug/l

RT: 3.41 min Scan# 566

Delta R.T. -0.00 min

Lab File: VN050030.D

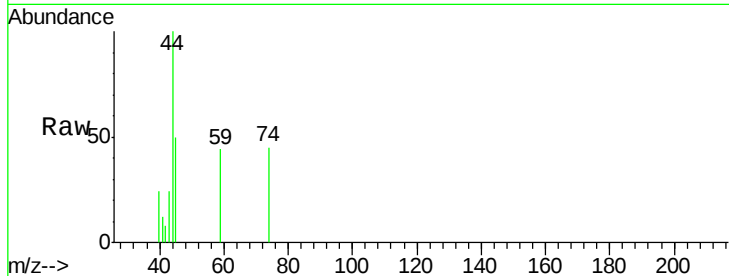
Acq: 24 Jul 2018 19:13

Tot Ion: 74 Resp: 1590

Ion Ratio Lower Upper

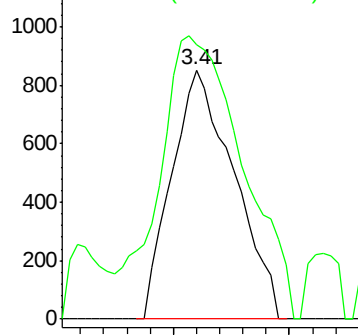
74 100

45 152.6 47.6 142.8#

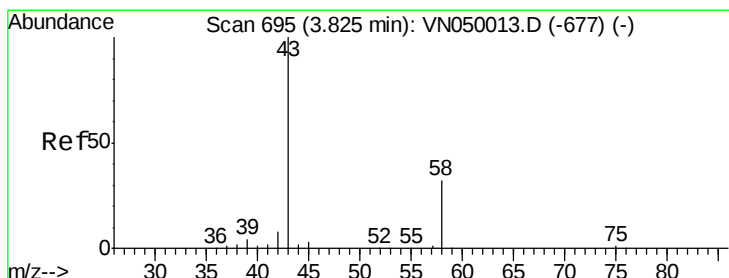
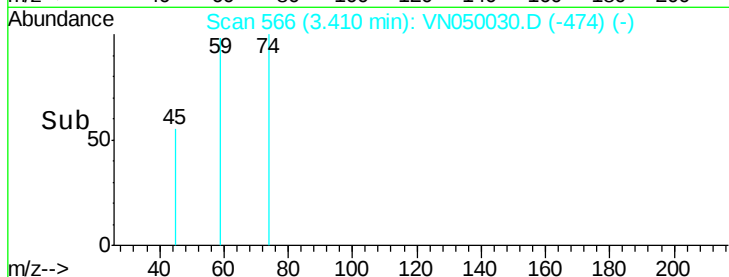


Abundance Ion 74.00 (73.70 to 74.70): VN0

Ion 45.00 (44.70 to 45.70): VN0



Time-->



#16

Acetone

Concen: 5.45 ug/l

RT: 3.83 min Scan# 697

Delta R.T. 0.01 min

Lab File: VN050030.D

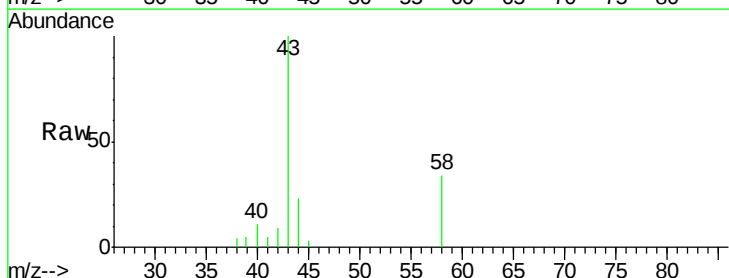
Acq: 24 Jul 2018 19:13

Tgt Ion: 43 Resp: 19131

Ion Ratio Lower Upper

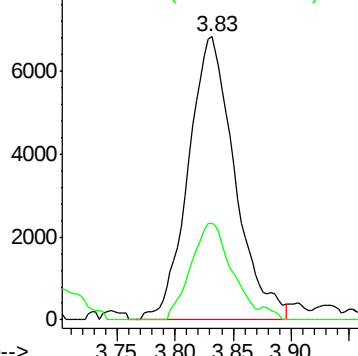
43 100

58 34.3 25.8 38.8

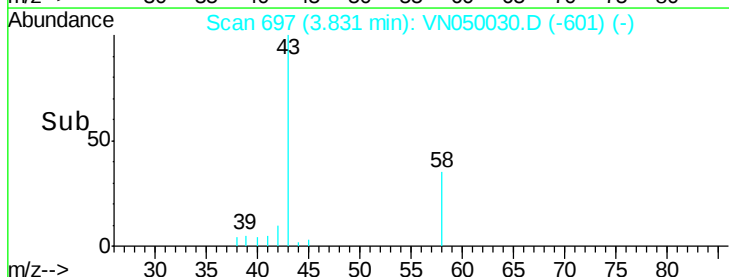


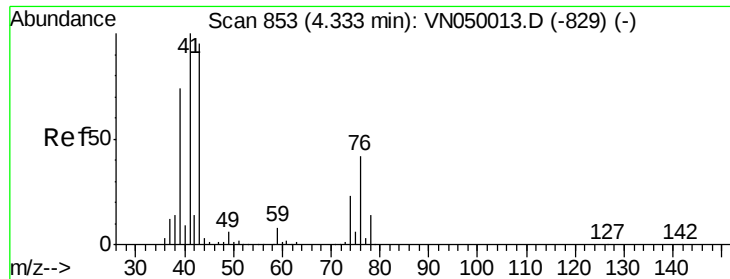
Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0



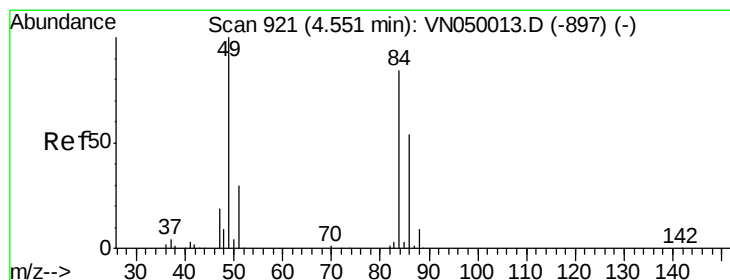
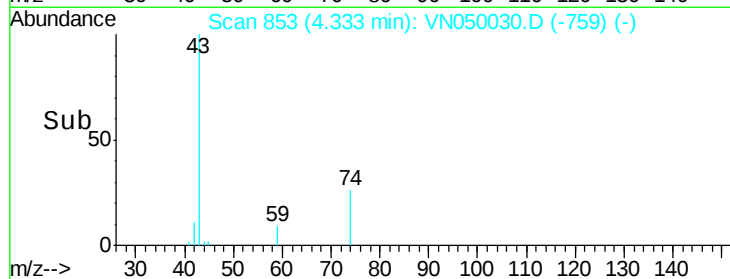
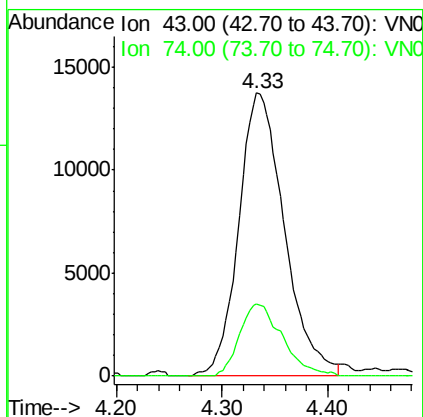
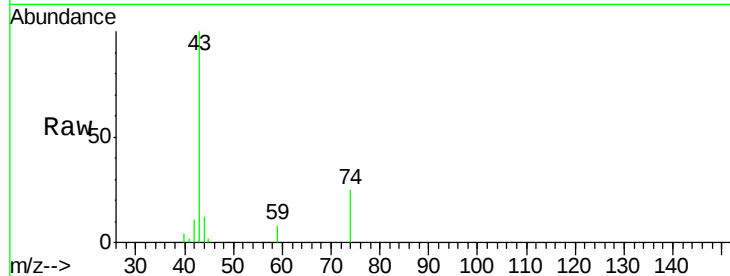
Time-->





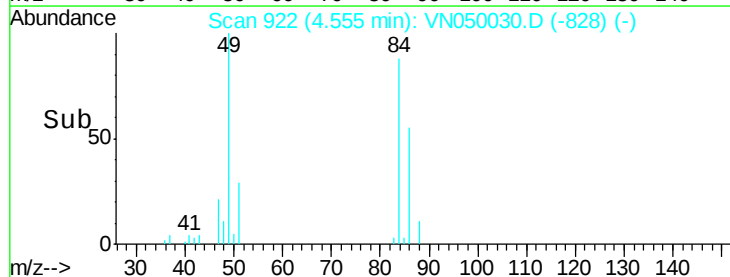
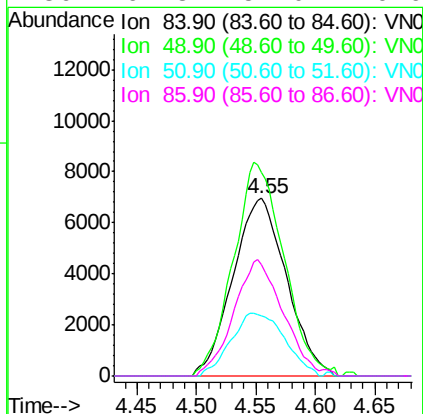
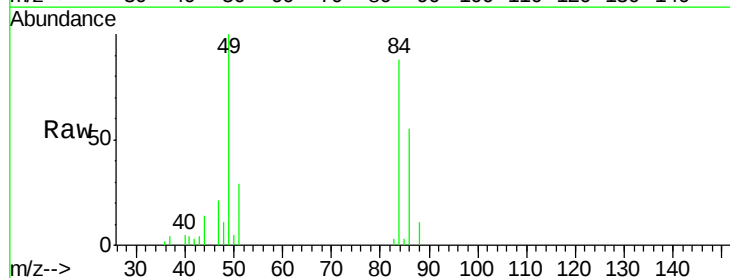
#18  
Methvl Acetate  
Concen: 3.89 ug/l  
RT: 4.33 min Scan# 853  
Delta R.T. 0.00 min  
Lab File: VN050030.D  
Acq: 24 Jul 2018 19:13

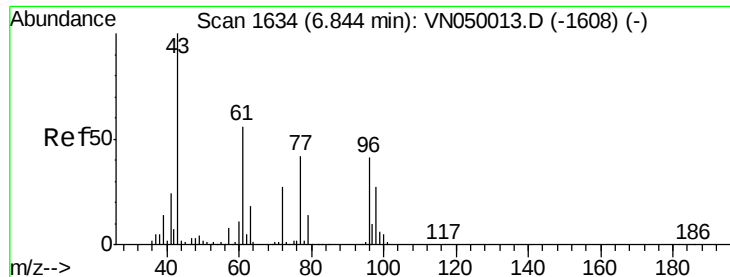
Tot Ion: 43 Resp: 41381  
Ion Ratio Lower Upper  
43 100  
74 24.0 19.2 28.8



#20  
Methylene Chloride  
Concen: 1.70 ug/l  
RT: 4.55 min Scan# 922  
Delta R.T. 0.00 min  
Lab File: VN050030.D  
Acq: 24 Jul 2018 19:13

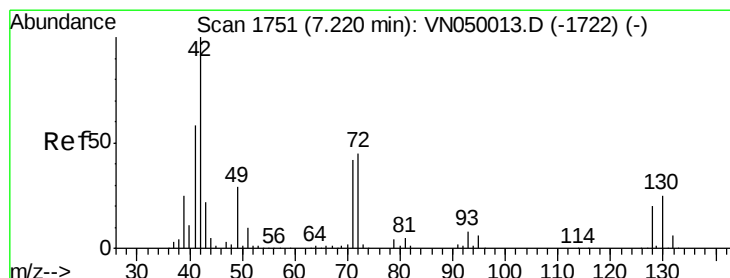
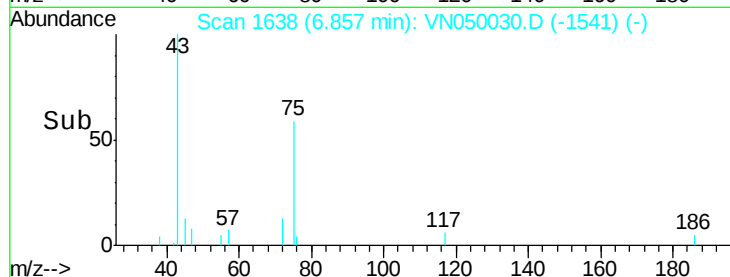
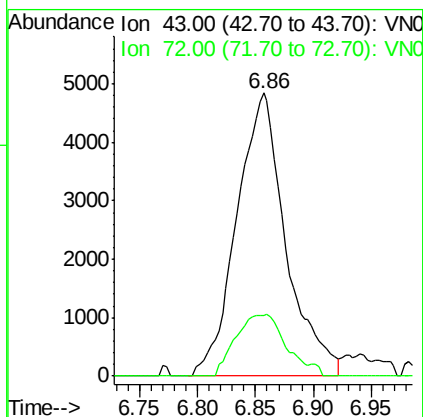
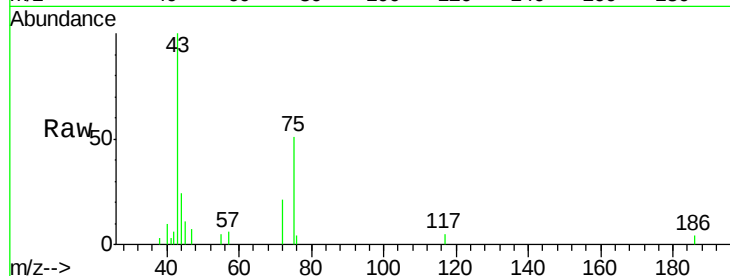
Tgt Ion: 84 Resp: 21654  
Ion Ratio Lower Upper  
84 100  
49 114.3 94.8 142.2  
51 33.7 28.3 42.5  
86 62.8 51.0 76.6





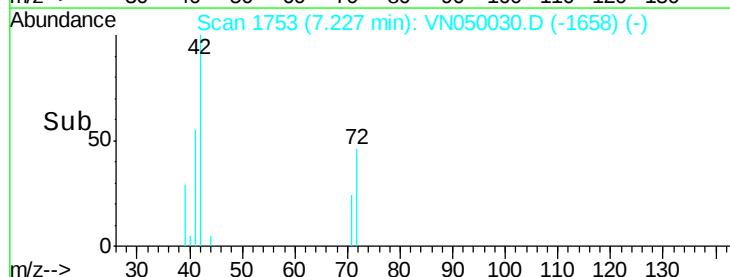
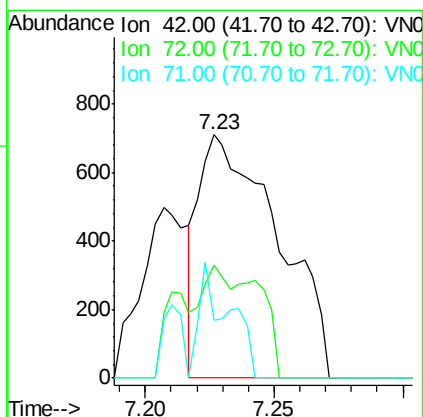
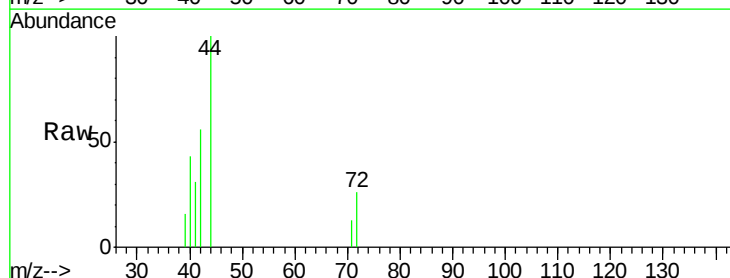
#25  
2-Butanone  
Concen: 4.47 ug/l  
RT: 6.86 min Scan# 1638  
Delta R.T. 0.01 min  
Lab File: VN050030.D  
Acq: 24 Jul 2018 19:13

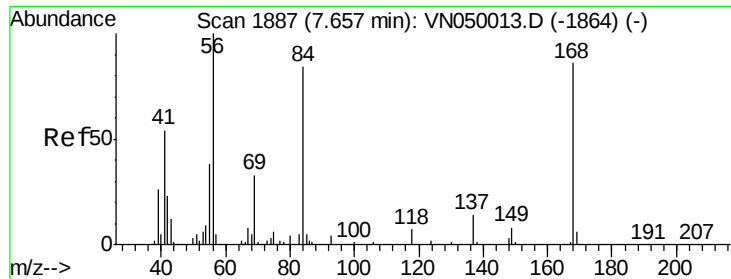
Tot Ion: 43 Resp: 14292  
Ion Ratio Lower Upper  
43 100  
72 21.2 21.5 32.3#



#29  
Tetrahydrofuran  
Concen: 0.73 ug/l  
RT: 7.23 min Scan# 1753  
Delta R.T. 0.01 min  
Lab File: VN050030.D  
Acq: 24 Jul 2018 19:13

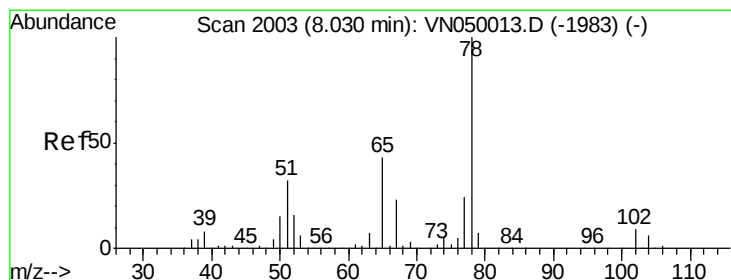
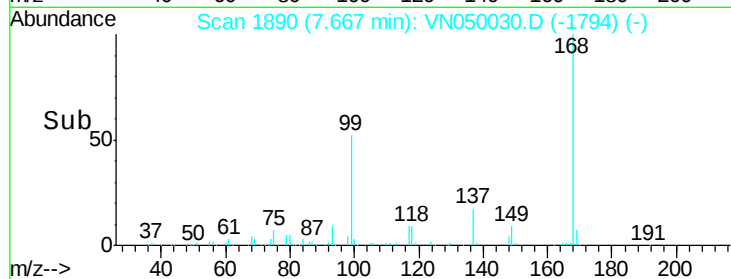
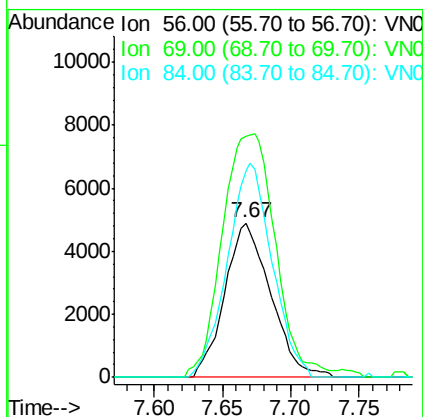
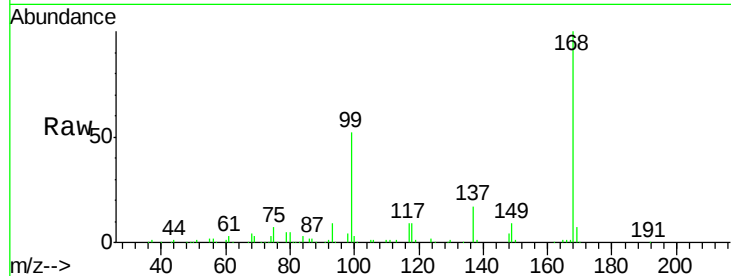
Tgt Ion: 42 Resp: 1508  
Ion Ratio Lower Upper  
42 100  
72 7.2 35.9 53.9#  
71 10.7 33.7 50.5#





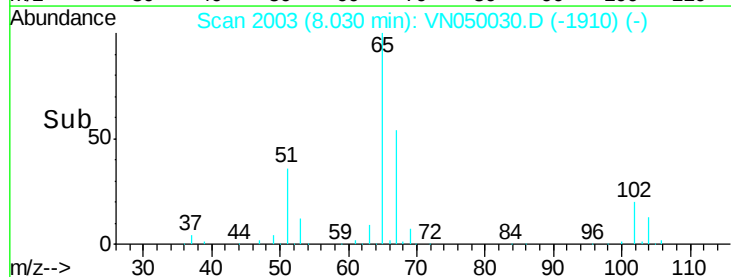
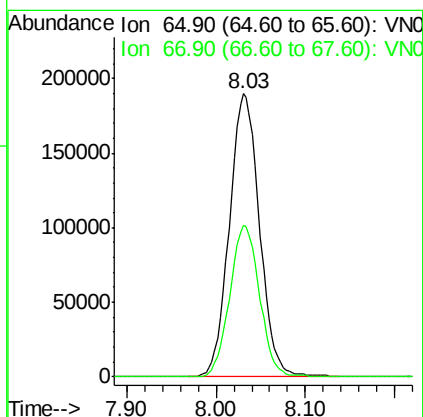
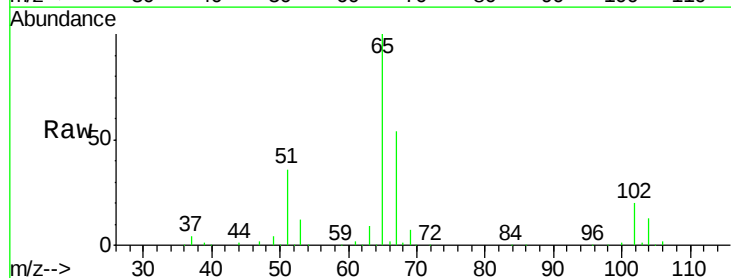
#31  
Cyclohexane  
Concen: 0.93 ug/l  
RT: 7.67 min Scan# 1890  
Delta R.T. 0.01 min  
Lab File: VN050030.D  
Acq: 24 Jul 2018 19:13

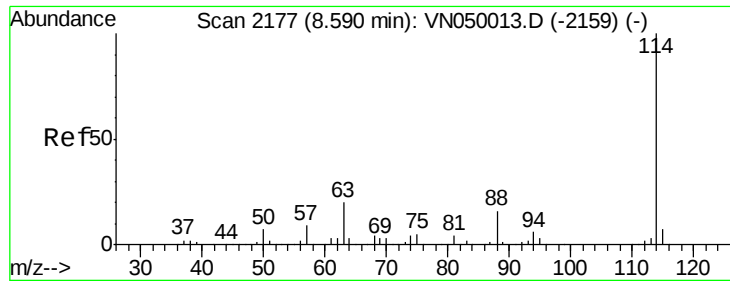
Tot Ion: 56 Resp: 11470  
Ion Ratio Lower Upper  
56 100  
69 151.7 26.2 39.4#  
84 134.2 67.4 101.0#



#33  
1,2-Dichloroethane-d4  
Concen: 53.04 ug/l  
RT: 8.03 min Scan# 2003  
Delta R.T. 0.00 min  
Lab File: VN050030.D  
Acq: 24 Jul 2018 19:13

Tgt Ion: 65 Resp: 444265  
Ion Ratio Lower Upper  
65 100  
67 53.0 0.0 108.4

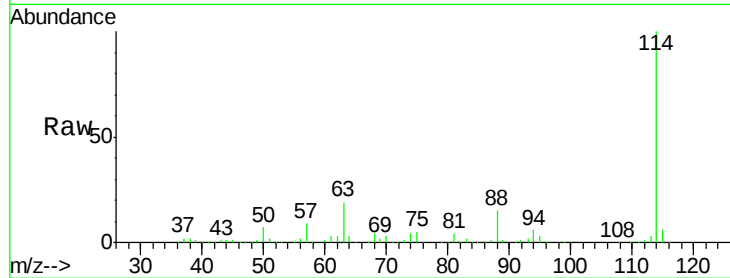




#34  
 1,4-Difluorobenzene  
 Concen: 50.00 ug/l  
 RT: 8.59 min Scan# 2177  
 Delta R.T. 0.00 min  
 Lab File: VN050030.D  
 Acq: 24 Jul 2018 19:13

Tot Ion:114 Resp: 1015112

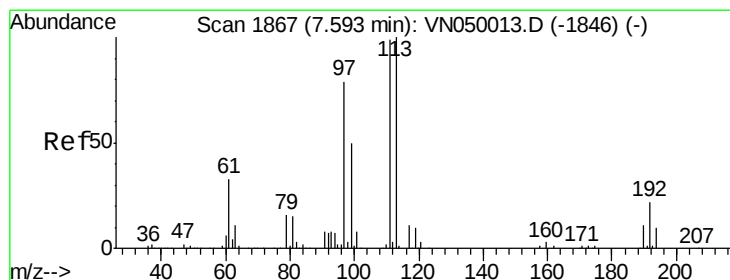
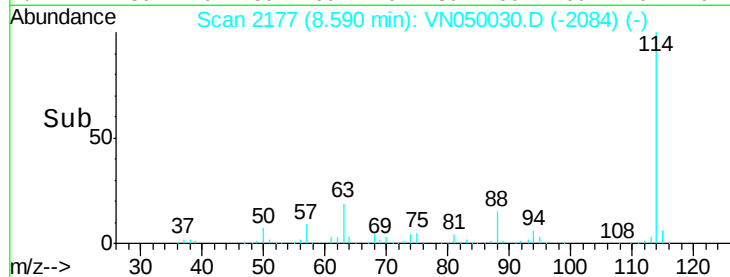
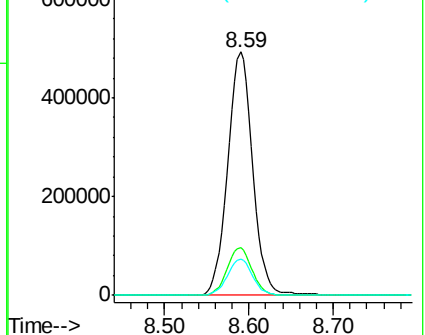
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 114 | 100   |       |       |
| 63  | 19.4  | 0.0   | 40.0  |
| 88  | 15.1  | 0.0   | 31.2  |



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): V

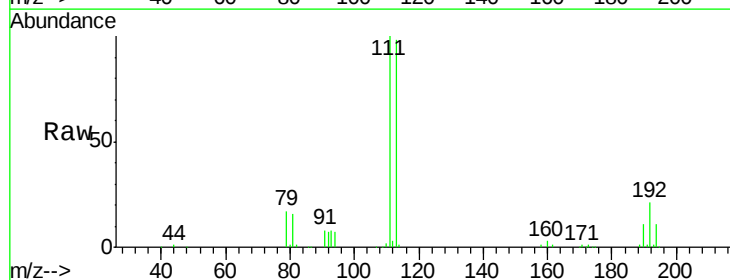
Ion 87.90 (87.60 to 88.60): V



#35  
 Dibromofluoromethane  
 Concen: 46.42 ug/l  
 RT: 7.60 min Scan# 1868  
 Delta R.T. 0.00 min  
 Lab File: VN050030.D  
 Acq: 24 Jul 2018 19:13

Tgt Ion:113 Resp: 384728

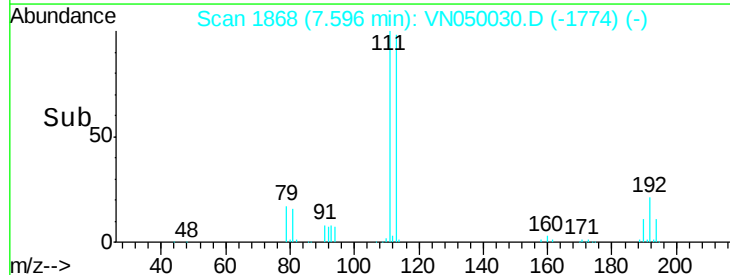
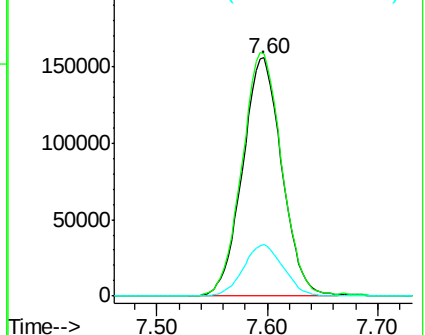
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 113 | 100   |       |       |
| 111 | 103.4 | 80.7  | 121.1 |
| 192 | 22.0  | 17.8  | 26.6  |

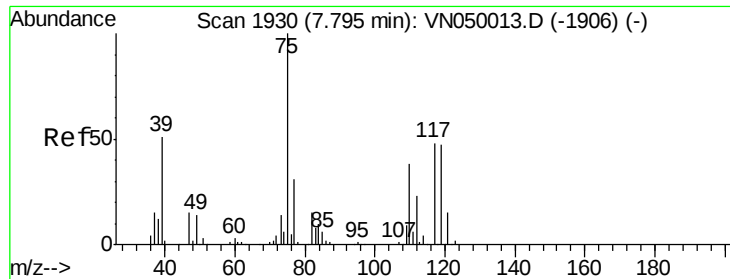


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

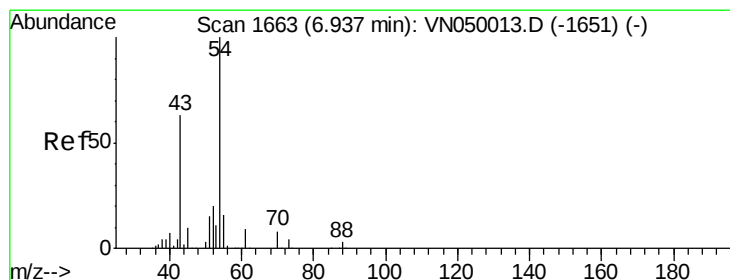
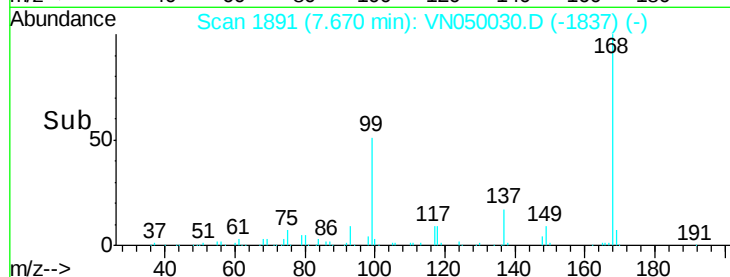
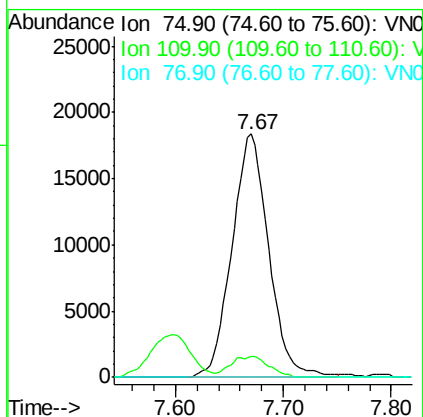
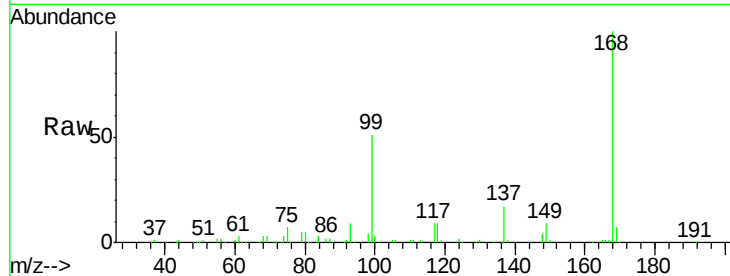
Ion 191.70 (191.40 to 192.40): V





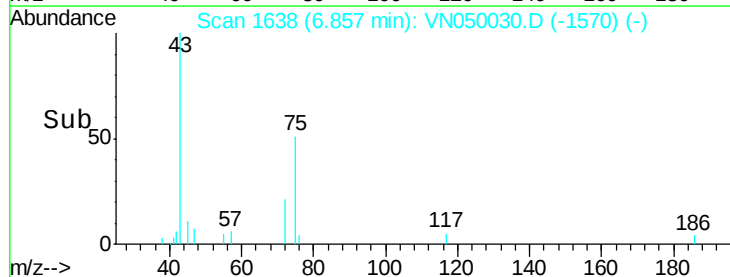
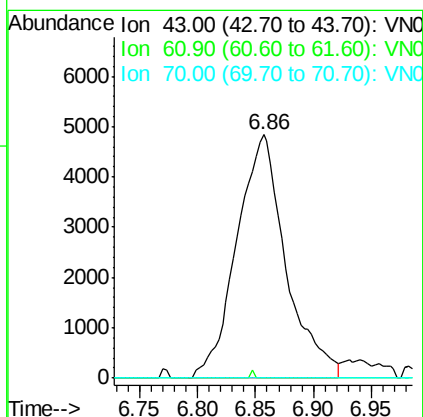
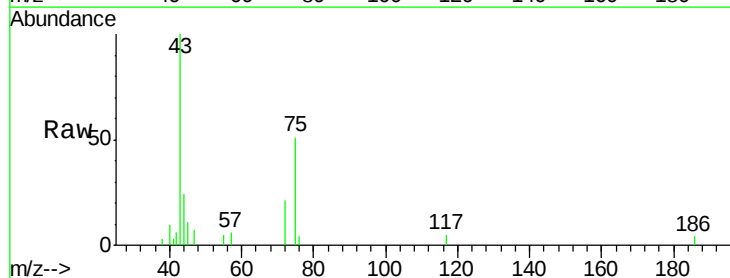
#36  
 1,1-Dichloropropene  
 Concen: 3.82 ug/l  
 RT: 7.67 min Scan# 1891  
 Delta R.T. -0.13 min  
 Lab File: VN050030.D  
 Acq: 24 Jul 2018 19:13

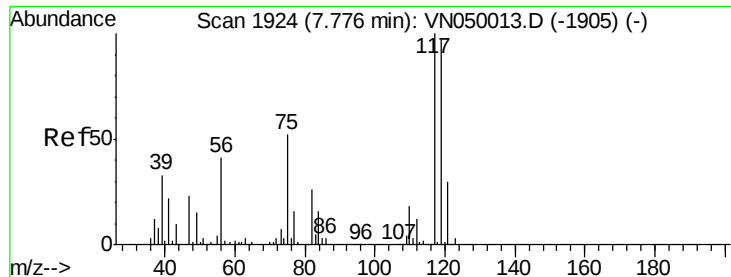
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 8.9   | 18.4  | 55.2# |
| 77      | 0.0   | 25.3  | 37.9# |



#37  
 Ethyl Acetate  
 Concen: 1.79 ug/l  
 RT: 6.86 min Scan# 1638  
 Delta R.T. -0.08 min  
 Lab File: VN050030.D  
 Acq: 24 Jul 2018 19:13

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 61      | 0.2   | 11.8  | 17.8# |
| 70      | 0.0   | 8.4   | 12.6# |





#38

Carbon Tetrachloride

Concen: 4.58 ug/l

RT: 7.67 min Scan# 1891

Delta R.T. -0.11 min

Lab File: VN050030.D

Acq: 24 Jul 2018 19:13

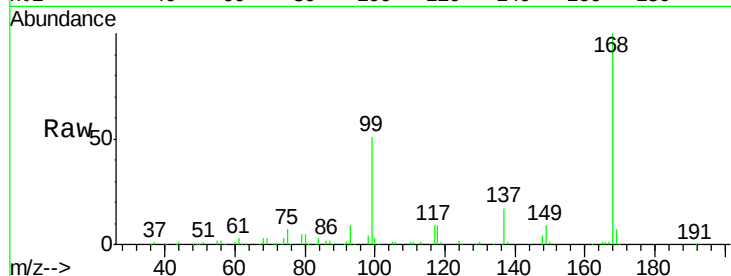
Tot Ion: 117 Resp: 55568

Ion Ratio Lower Upper

117 100

119 5.9 77.4 116.0#

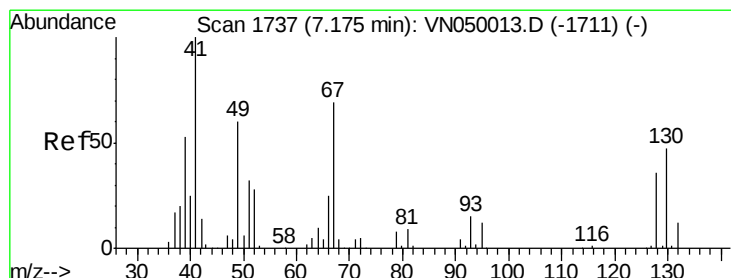
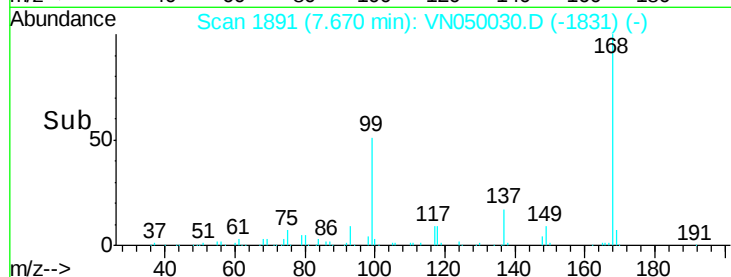
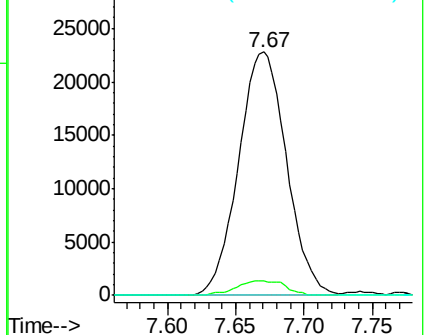
121 0.0 23.9 35.9#



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



#41

Methacrylonitrile

Concen: 2.91 ug/l

RT: 7.22 min Scan# 1750

Delta R.T. 0.04 min

Lab File: VN050030.D

Acq: 24 Jul 2018 19:13

Tgt Ion: 41 Resp: 694

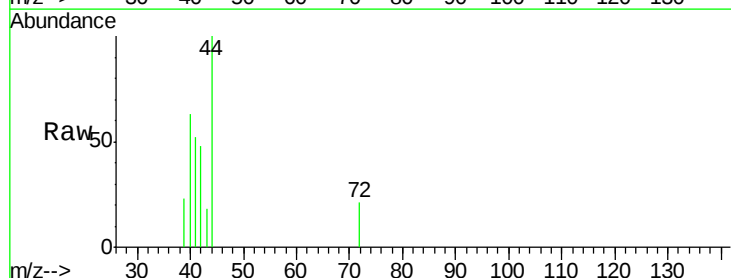
Ion Ratio Lower Upper

41 100

39 27.1 55.8 83.6#

67 0.0 84.3 126.5#

52 0.0 34.2 51.2#

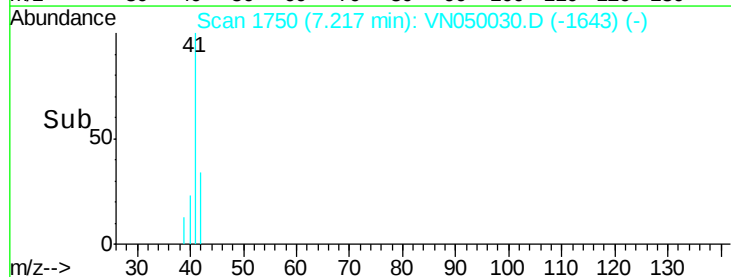
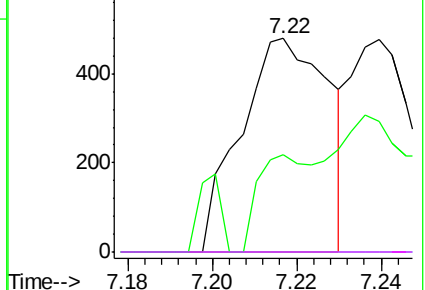


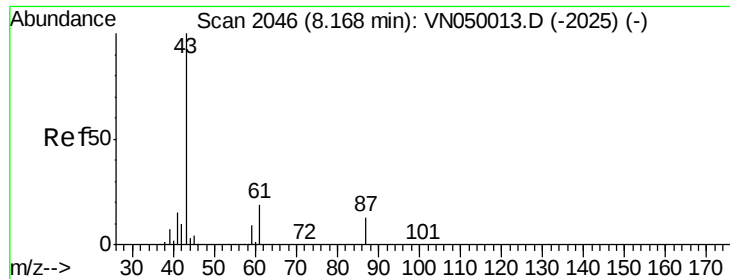
Abundance Ion 41.00 (40.70 to 41.70): V

Ion 39.00 (38.70 to 39.70): V

Ion 67.00 (66.70 to 67.70): V

Ion 52.00 (51.70 to 52.70): V

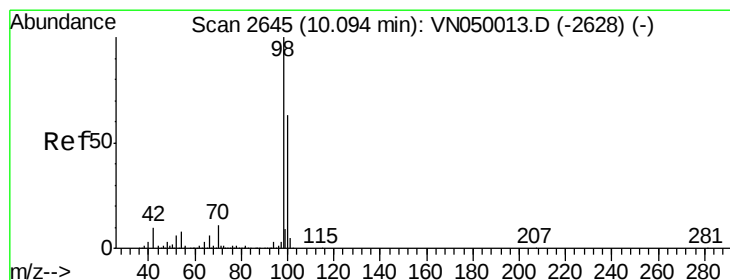
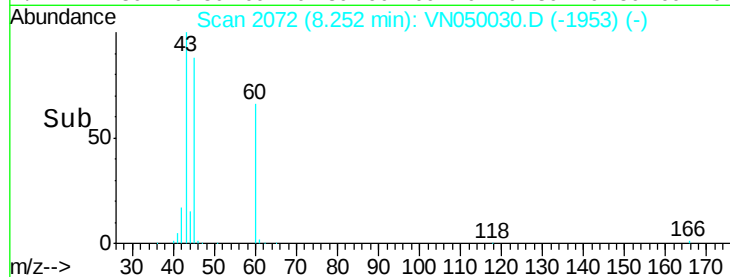
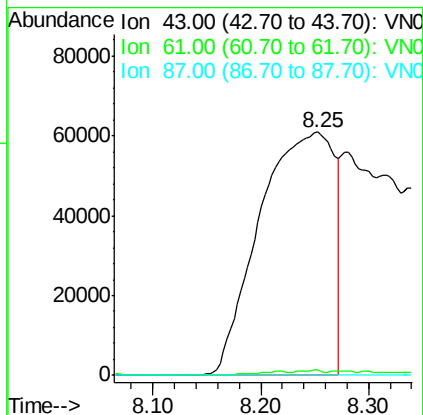
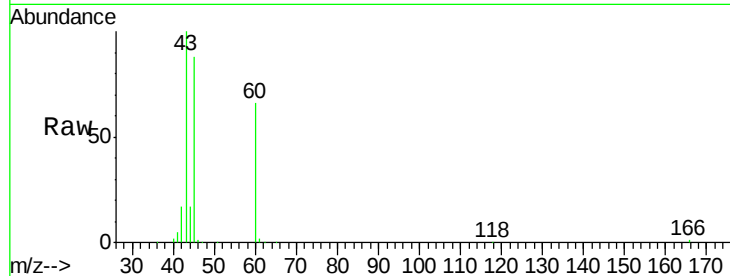




#43

Isopropyl Acetate  
 Concen: 18.77 ug/l  
 RT: 8.25 min Scan# 2072  
 Delta R.T. 0.08 min  
 Lab File: VN050030.D  
 Acq: 24 Jul 2018 19:13

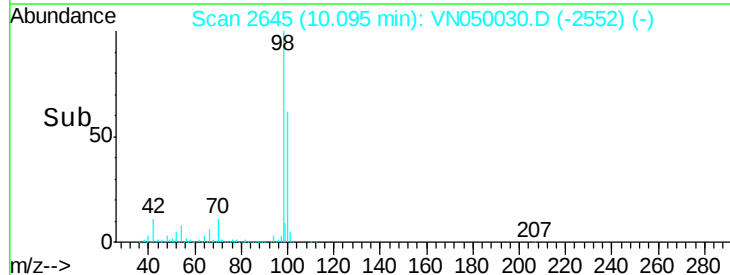
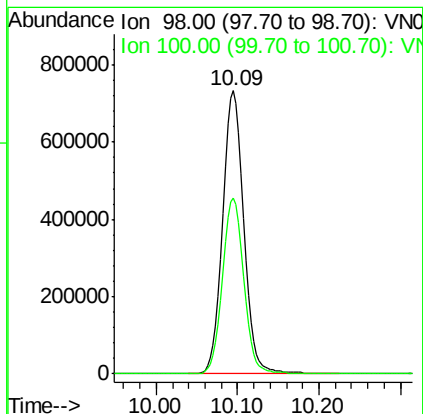
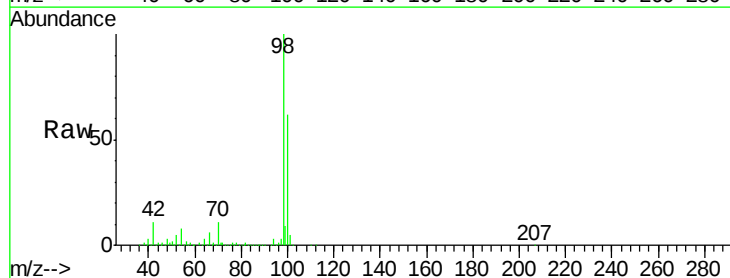
| Tot Ion   | 43   | Resp | 292677 |
|-----------|------|------|--------|
| Ion Ratio | 100  |      |        |
| Lower     | 15.8 |      |        |
| Upper     | 23.6 |      |        |

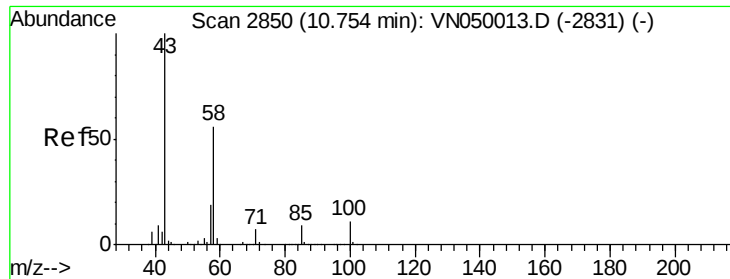


#50

Toluene-d8  
 Concen: 44.41 ug/l  
 RT: 10.09 min Scan# 2645  
 Delta R.T. 0.00 min  
 Lab File: VN050030.D  
 Acq: 24 Jul 2018 19:13

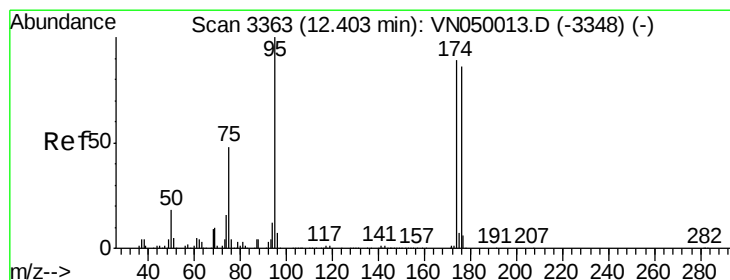
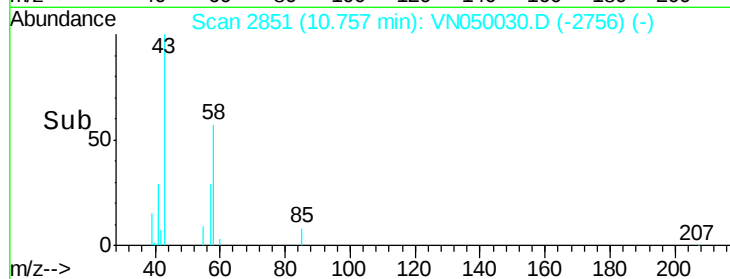
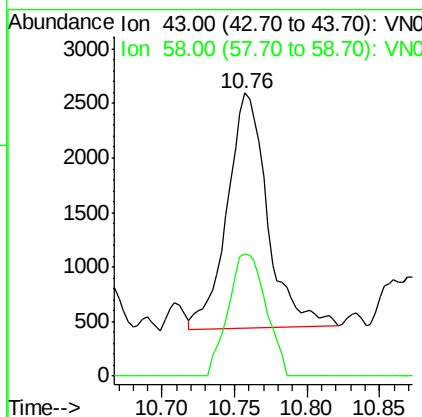
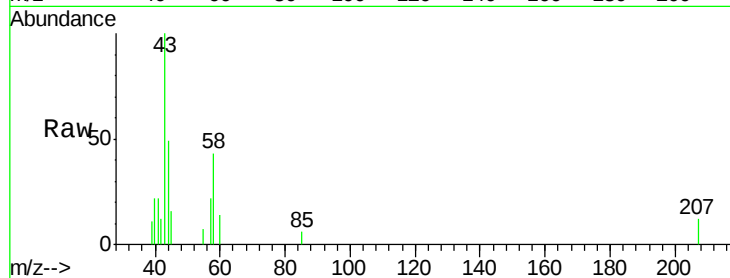
| Tgt Ion   | 98   | Resp | 1353209 |
|-----------|------|------|---------|
| Ion Ratio | 100  |      |         |
| Lower     | 50.7 |      |         |
| Upper     | 76.1 |      |         |





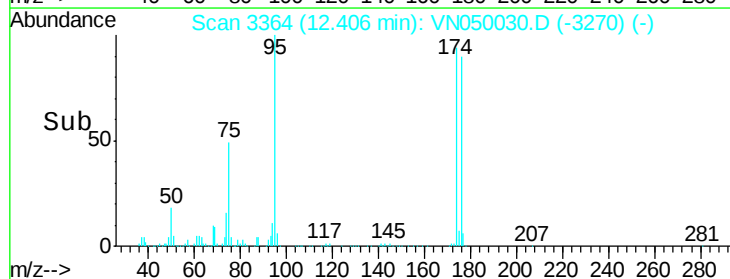
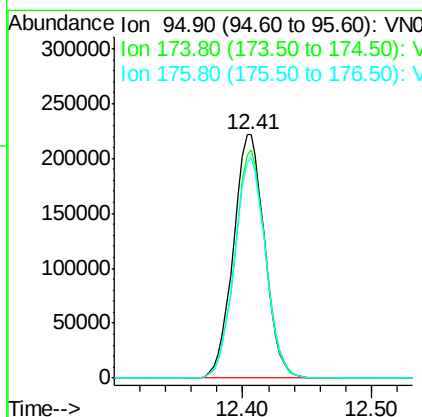
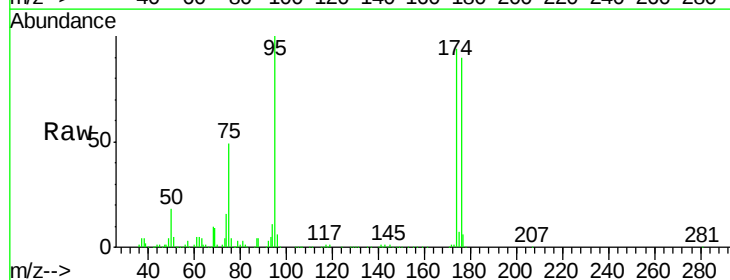
#59  
2-Hexanone  
Concen: 5.88 ug/l  
RT: 10.76 min Scan# 2851  
Delta R.T. 0.00 min  
Lab File: VN050030.D  
Acq: 24 Jul 2018 19:13

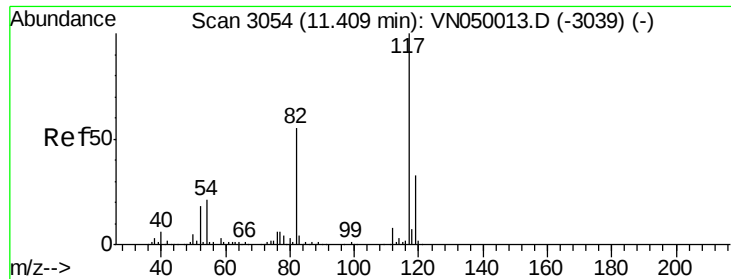
Tot Ion: 43 Resp: 4165  
Ion Ratio Lower Upper  
43 100  
58 48.8 27.6 82.7



#62  
4-Bromofluorobenzene  
Concen: 37.11 ug/l  
RT: 12.41 min Scan# 3364  
Delta R.T. 0.00 min  
Lab File: VN050030.D  
Acq: 24 Jul 2018 19:13

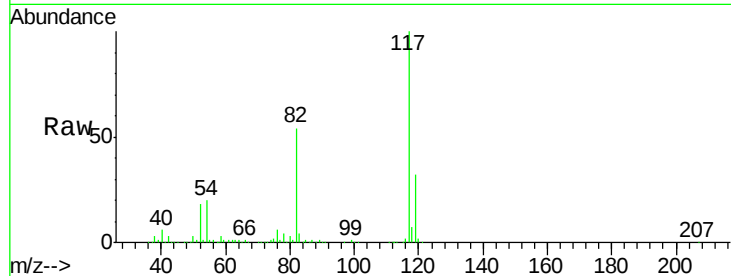
Tgt Ion: 95 Resp: 372344  
Ion Ratio Lower Upper  
95 100  
174 92.6 0.0 178.2  
176 89.7 0.0 173.4



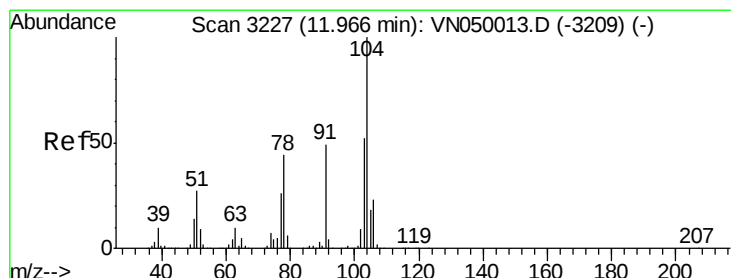
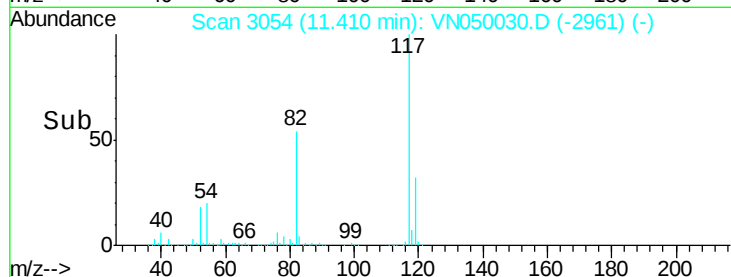
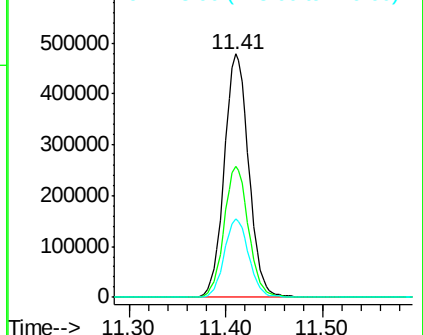


#63  
Chlorobenzene-d5  
Concen: 50.00 ug/l  
RT: 11.41 min Scan# 3054  
Delta R.T. 0.00 min  
Lab File: VN050030.D  
Acq: 24 Jul 2018 19:13

Tot Ion:117 Resp: 839416  
Ion Ratio Lower Upper  
117 100  
82 53.7 43.7 65.5  
119 32.0 26.1 39.1

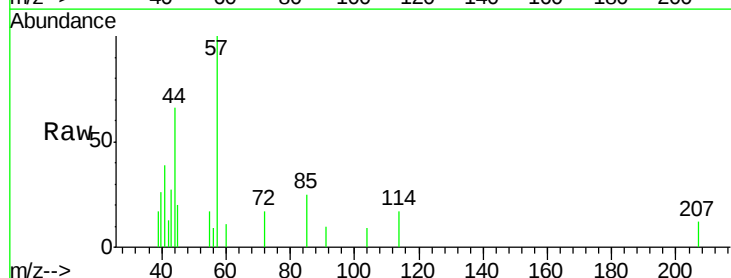


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): VNO  
Ion 118.90 (118.60 to 119.60): V

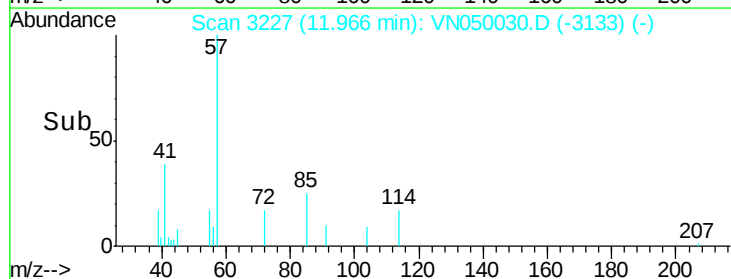
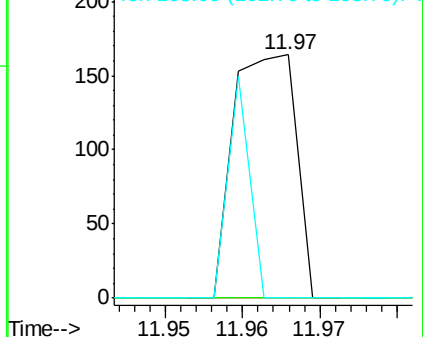


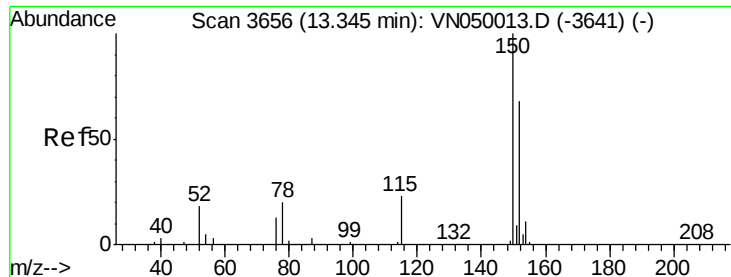
#70  
Styrene  
Concen: 0.93 ug/l  
RT: 11.97 min Scan# 3227  
Delta R.T. 0.00 min  
Lab File: VN050030.D  
Acq: 24 Jul 2018 19:13

Tgt Ion:104 Resp: 92  
Ion Ratio Lower Upper  
104 100  
78 0.0 39.3 58.9#  
103 31.5 45.0 67.6#



Abundance Ion 104.00 (103.70 to 104.70): V  
Ion 78.00 (77.70 to 78.70): VNO  
Ion 103.00 (102.70 to 103.70): V

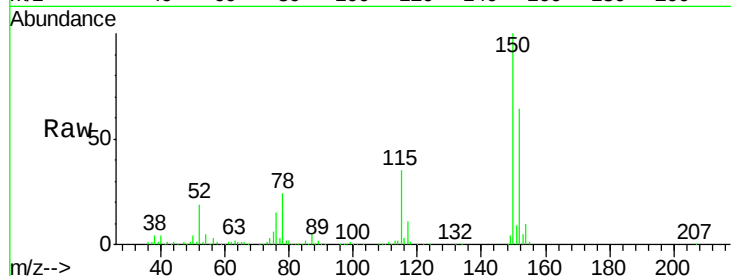




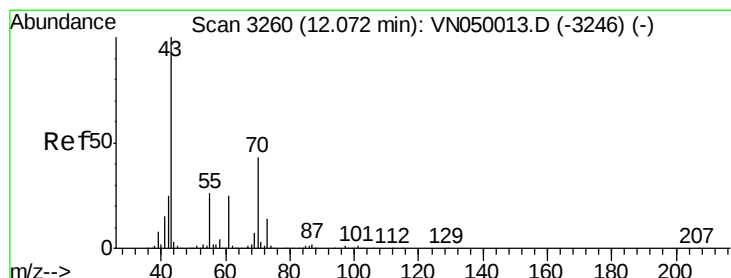
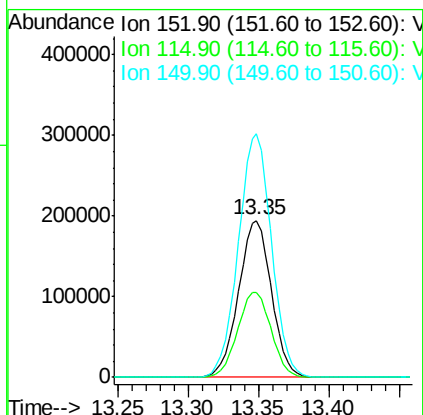
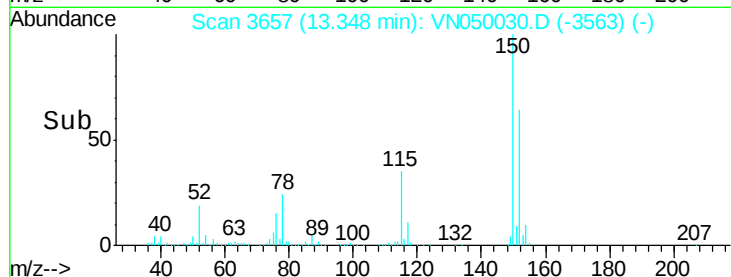
#72

1,4-Dichlorobenzene-d4  
Concen: 50.00 ug/l  
RT: 13.35 min Scan# 3657  
Delta R.T. 0.00 min  
Lab File: VN050030.D  
Acq: 24 Jul 2018 19:13

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 55.3  | 27.8  | 83.3  |
| 150     | 156.5 | 0.0   | 348.6 |



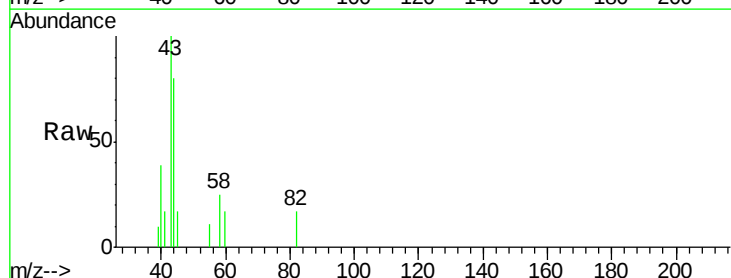
Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 114.90 (114.60 to 115.60): V  
Ion 149.90 (149.60 to 150.60): V



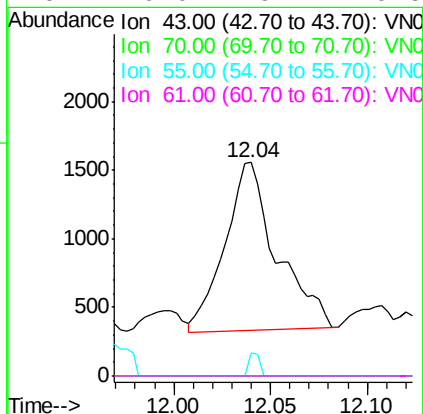
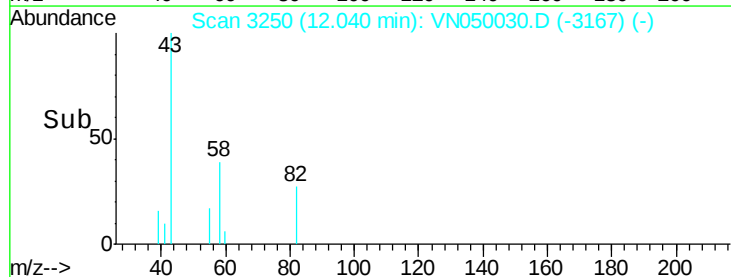
#74

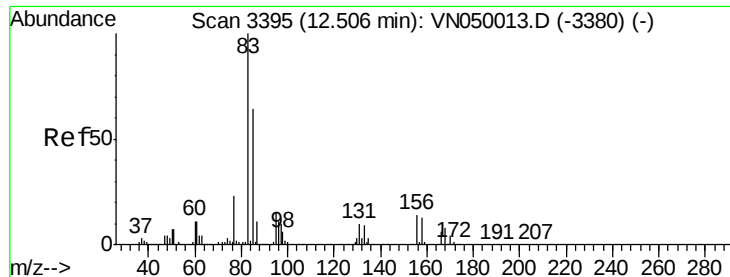
N-amil acetate  
Concen: 0.30 ug/l  
RT: 12.04 min Scan# 3250  
Delta R.T. -0.03 min  
Lab File: VN050030.D  
Acq: 24 Jul 2018 19:13

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 70      | 0.0   | 34.4  | 51.6# |
| 55      | 2.8   | 20.8  | 31.2# |
| 61      | 0.0   | 19.7  | 29.5# |



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





#75

1,1,2,2-Tetrachloroethane

Concen: Below Cal

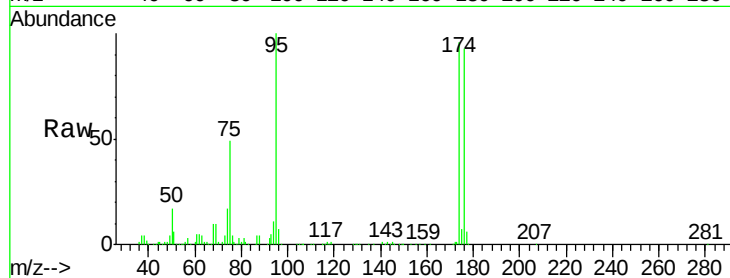
RT: 12.41 min Scan# 3365

Delta R.T. -0.10 min

Lab File: VN050030.D

Acq: 24 Jul 2018 19:13

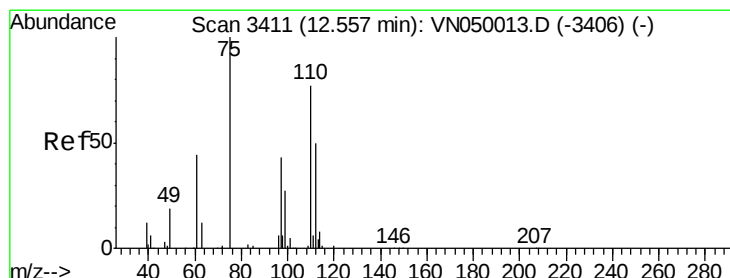
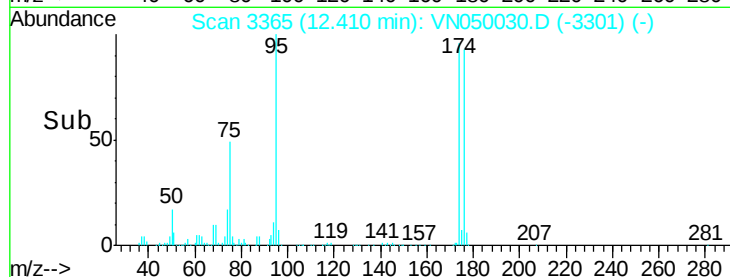
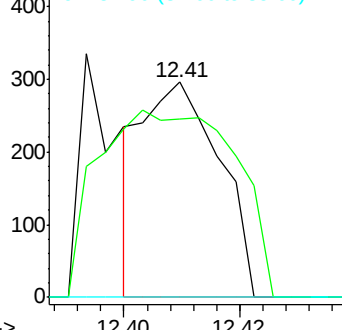
| Tot Ion   | 83    | Resp | 271 |
|-----------|-------|------|-----|
| Ion Ratio | 100   |      |     |
| Lower     | 5.1   |      |     |
| Upper     | 15.3# |      |     |
| 85        | 0.0   |      |     |
|           | 32.3  |      |     |
|           | 96.8# |      |     |



Abundance Ion 82.90 (82.60 to 83.60): VN0

Ion 130.80 (130.50 to 131.50): VN0

Ion 84.90 (84.60 to 85.60): VN0



#76

1,2,3-Trichloropropane

Concen: 31.12 ug/l

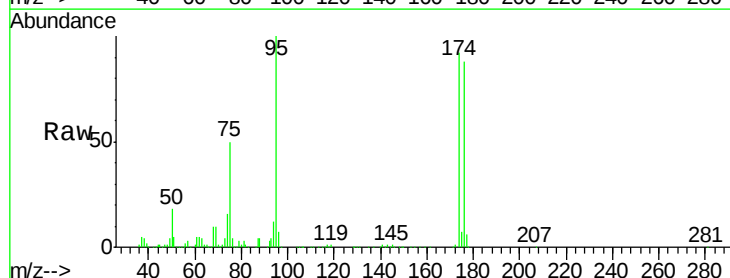
RT: 12.40 min Scan# 3363

Delta R.T. -0.15 min

Lab File: VN050030.D

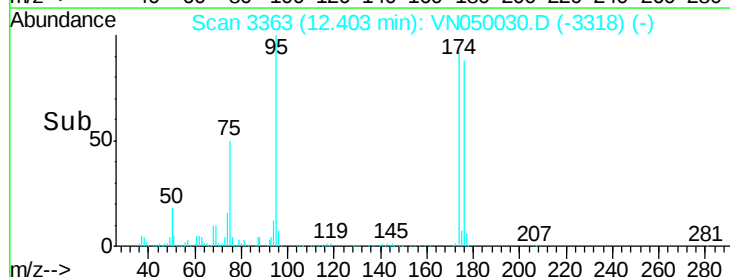
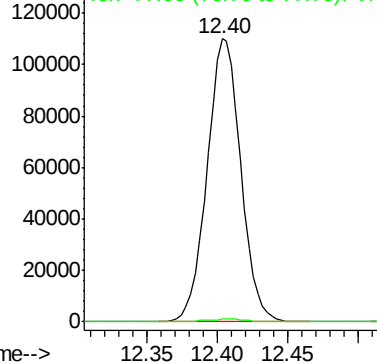
Acq: 24 Jul 2018 19:13

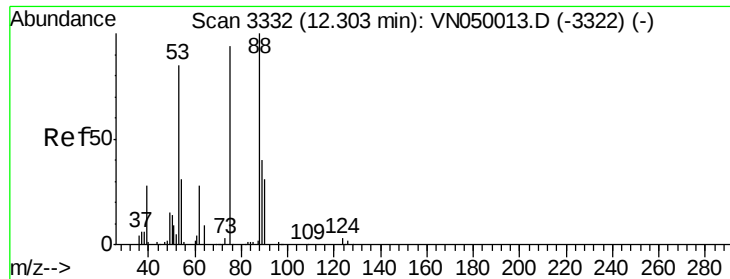
| Tgt Ion   | 75   | Resp | 183749 |
|-----------|------|------|--------|
| Ion Ratio | 100  |      |        |
| Lower     | 0.0  |      |        |
| Upper     | 0.0# |      |        |
| 77        | 1.2  |      |        |



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 77.00 (76.70 to 77.70): VN0





#81

trans-1,4-Dichloro-2-butene

Concen: 98.70 ug/l

RT: 12.40 min Scan# 3363

Delta R.T. 0.10 min

Lab File: VN050030.D

Acq: 24 Jul 2018 19:13

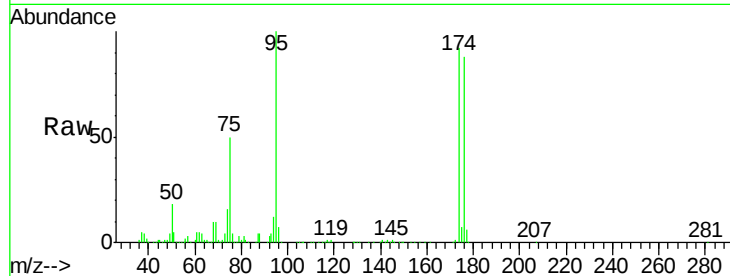
Tot Ion: 75 Resp: 183749

Ion Ratio Lower Upper

75 100

53 0.1 73.5 110.3#

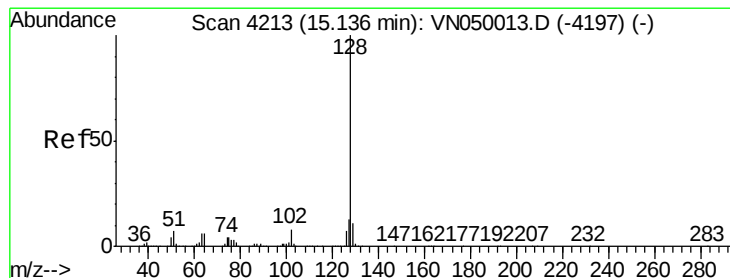
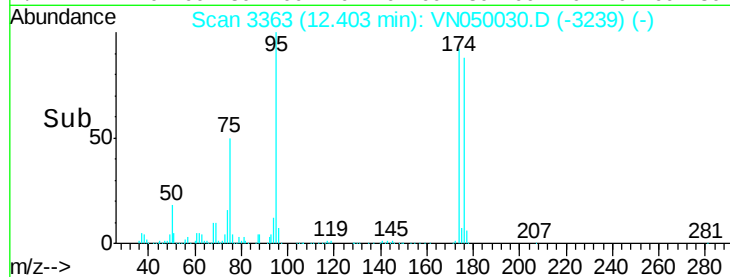
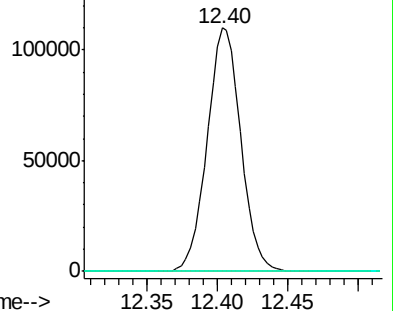
89 0.0 36.0 54.0#



Abundance Ion 74.90 (74.60 to 75.60): VN050030.D (-3363) (-)

Ion 53.00 (52.70 to 53.70): VN050030.D (-3363) (-)

Ion 88.90 (88.60 to 89.60): VN050030.D (-3363) (-)



#95

Naphthalene

Concen: 4.44 ug/l

RT: 15.14 min Scan# 4214

Delta R.T. 0.00 min

Lab File: VN050030.D

Acq: 24 Jul 2018 19:13

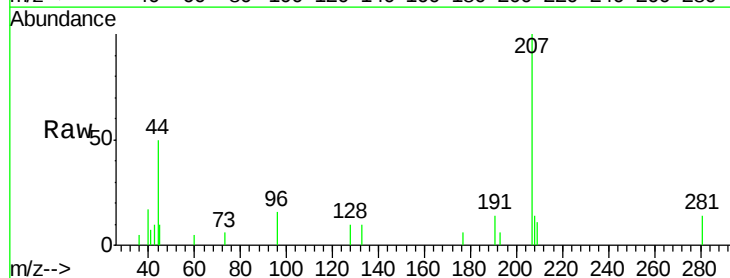
Tgt Ion: 128 Resp: 335

Ion Ratio Lower Upper

128 100

127 0.0 10.4 15.6#

129 0.0 8.8 13.2#



Abundance Ion 128.00 (127.70 to 128.70): VN050030.D (-4213) (-)

Ion 127.00 (126.70 to 127.70): VN050030.D (-4213) (-)

Ion 129.00 (128.70 to 129.70): VN050030.D (-4213) (-)

