

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN100118\  
 Data File : VN051632.D  
 Acq On : 1 Oct 2018 12:50  
 Operator : MD\SY  
 Sample : J5090-01  
 Misc : Sample  
 ALS Vial : 8 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 MW-1

Quant Time: Oct 02 01:00:55 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N092818W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Sat Sep 29 01:07:29 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 7.20  | 128  | 94117    | 30.00 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 8.59  | 114  | 457964   | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 11.41 | 117  | 381330   | 30.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |         |
|---------------------------|--------|-------|----------|----------|------|---------|
| 27) 1,2-Dichloroethane-d4 | 8.03   | 65    | 205601   | 31.37    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 50 - 169 | Recovery | =    | 104.57% |
| 60) 4-Bromofluorobenzene  | 12.40  | 95    | 121238   | 20.68    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 56 - 143 | Recovery | =    | 68.93%  |
| 63) Toluene-d8            | 10.09  | 98    | 527772   | 29.33    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 66 - 137 | Recovery | =    | 97.77%  |

## Target Compounds

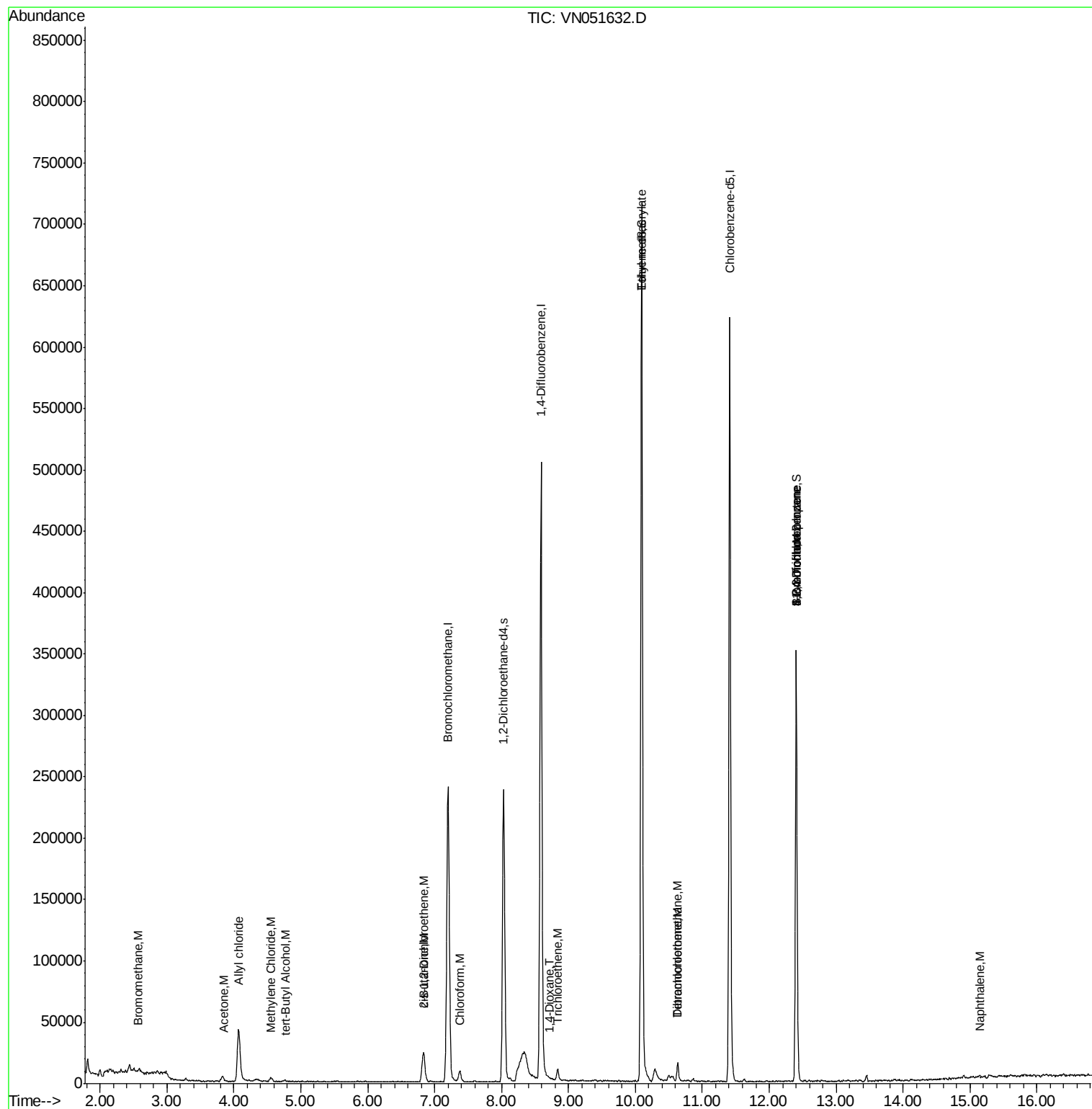
|                             |       |     |       |               | Ovalue |
|-----------------------------|-------|-----|-------|---------------|--------|
| 5) Bromomethane             | 2.57  | 94  | 1400  | 0.297 ug/l #  | 50     |
| 15) Acetone                 | 3.85  | 58  | 393   | 0.746 ug/l    | 71     |
| 17) Allyl chloride          | 4.08  | 41  | 7679  | 0.755 ug/l    | 97     |
| 18) Methylene Chloride      | 4.55  | 84  | 1575  | 0.241 ug/l #  | 77     |
| 22) cis-1,2-Dichloroethene  | 6.83  | 96  | 7038  | 1.068 ug/l    | 95     |
| 23) tert-Butyl Alcohol      | 4.77  | 59  | 322   | 0.838 ug/l #  | 100    |
| 25) Chloroform              | 7.38  | 83  | 9067  | 0.793 ug/l    | 90     |
| 30) 2-Butanone              | 6.84  | 43  | 1127  | 0.530 ug/l #  | 56     |
| 37) Trichloroethene         | 8.84  | 130 | 3782  | 0.636 ug/l    | 85     |
| 45) 1,4-Dioxane             | 8.72  | 88  | 194   | 4.071 ug/l #  | 36     |
| 51) Ethyl methacrylate      | 10.09 | 69  | 1274  | 0.211 ug/l    | 91     |
| 53) Dibromochloromethane    | 10.63 | 129 | 3925  | 0.691 ug/l #  | 10     |
| 56) Bromoform               | 12.40 | 173 | 1917  | 0.509 ug/l #  | 1      |
| 61) Tetrachloroethene       | 10.63 | 164 | 3968  | 0.735 ug/l    | 86     |
| 72) 1,2,3-Trichloropropane  | 12.40 | 75  | 60143 | 12.381 ug/l   | 1      |
| 77) t-1,4-Dichloro-2-butene | 12.40 | 75  | 60143 | 39.091 ug/l # | 11     |
| 91) Naphthalene             | 15.13 | 128 | 1328  | 8.370 ug/l #  | 68     |

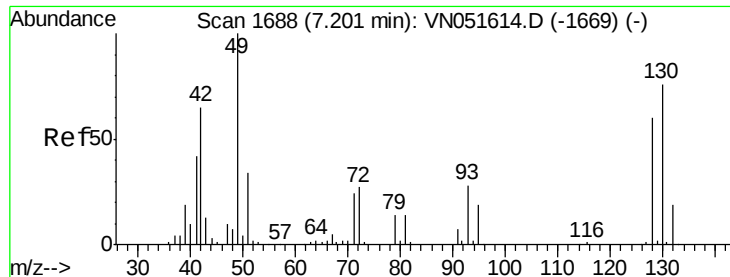
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Misc : Sample  
ALS Vial : 8 Sample Multiplier: 28

Instrument :  
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ClientSampleId :  
MW-1

Quant Time: Oct 02 01:00:55 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N092818W.M  
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
QLast Update : Sat Sep 29 01:07:29 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 30.000 ug/l

RT: 7.20 min Scan# 1688

Delta R.T. 0.00 min

Lab File: VN051632.D

Acq: 1 Oct 2018 12:50

Instrument :

MSVOA\_N

ClientSampleId :

MW-1

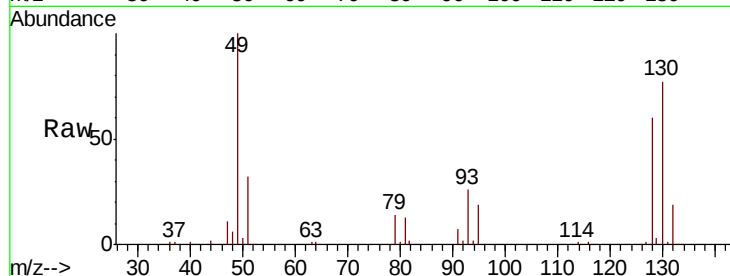
Tot Ion:128 Resp: 94117

Ion Ratio Lower Upper

128 100

49 169.1 0.0 426.8

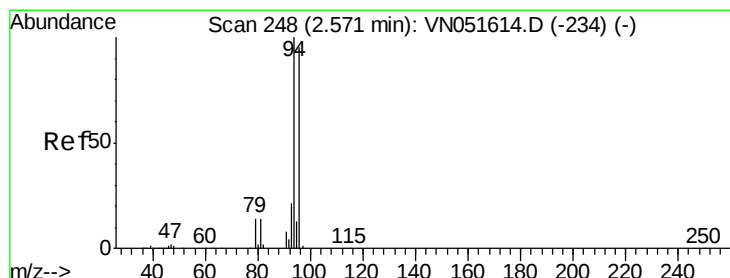
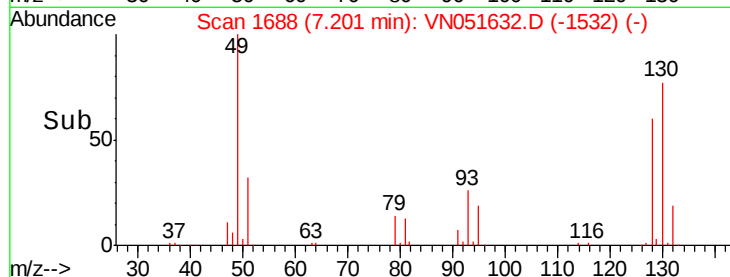
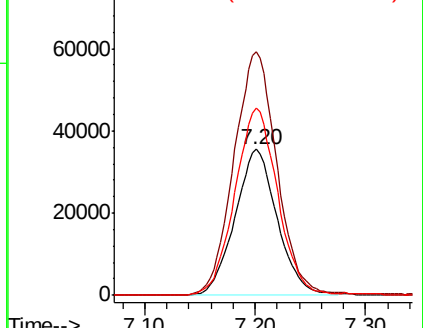
130 129.8 0.0 326.3



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 49.00 (48.70 to 49.70): VN0

Ion 130.00 (129.70 to 130.70): V



#5

Bromomethane

Concen: 0.297 ug/l

RT: 2.57 min Scan# 248

Delta R.T. 0.00 min

Lab File: VN051632.D

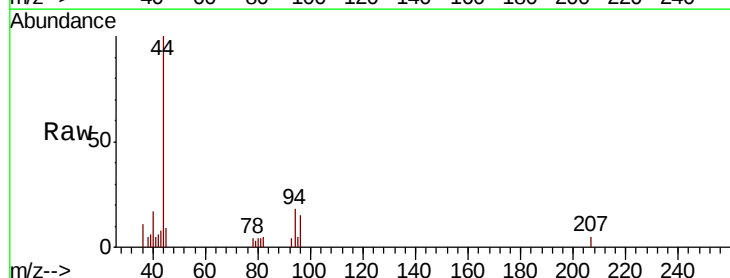
Acq: 1 Oct 2018 12:50

Tgt Ion: 94 Resp: 1400

Ion Ratio Lower Upper

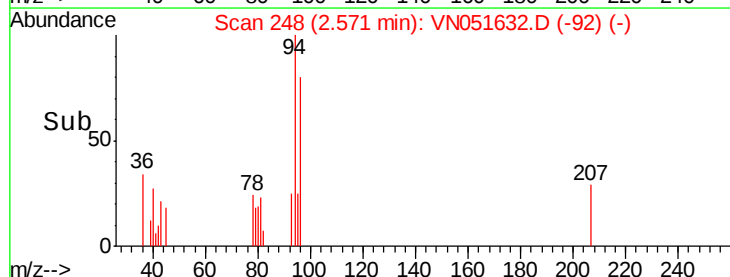
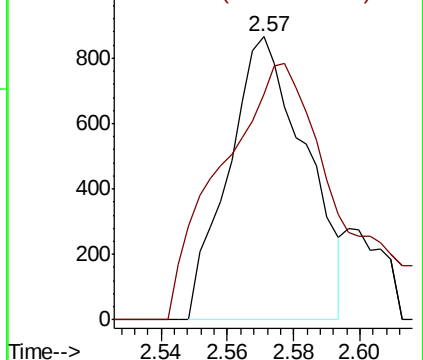
94 100

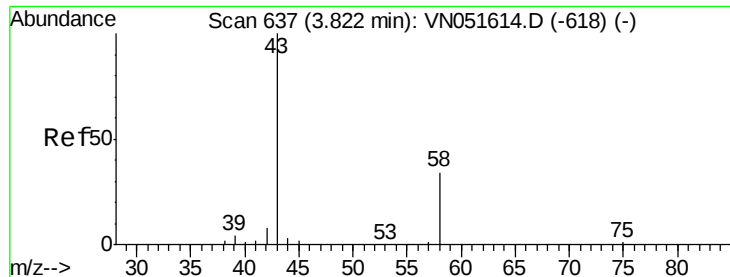
96 46.4 75.8 113.6#



Abundance Ion 94.00 (93.70 to 94.70): VN0

Ion 96.00 (95.70 to 96.70): VN0





#15

Acetone

Concen: 0.746 ug/l

RT: 3.85 min Scan# 647

Delta R.T. 0.03 min

Lab File: VN051632.D

Acq: 1 Oct 2018 12:50

Instrument :

MSVOA\_N

ClientSampled :

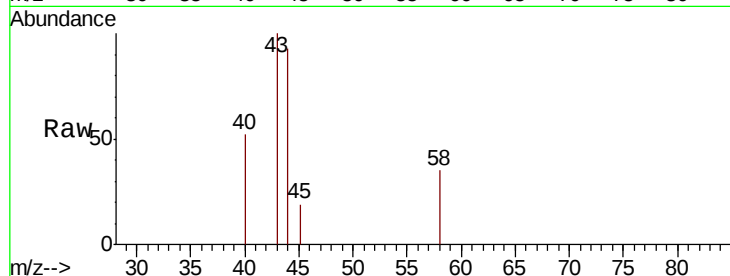
MW-1

Tot Ion: 58 Resp: 393

Ion Ratio Lower Upper

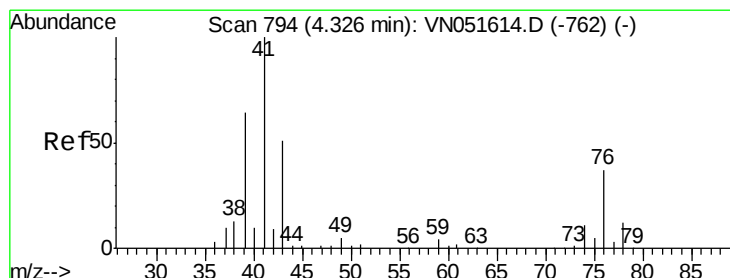
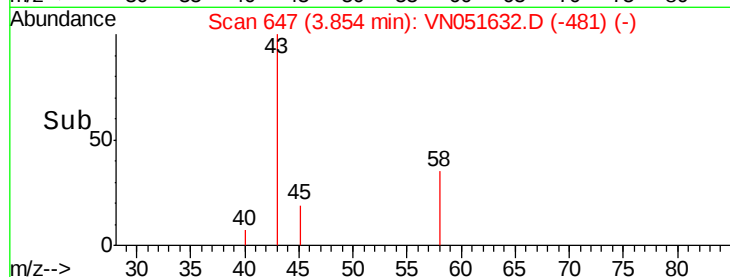
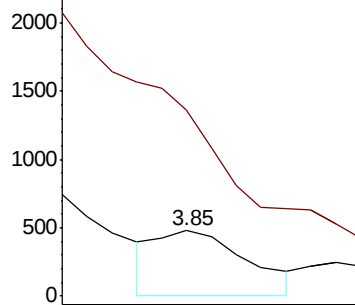
58 100

43 241.4 238.0 357.0



Abundance Ion 58.00 (57.70 to 58.70): VN0

Ion 43.00 (42.70 to 43.70): VN0



#17

Allyl chloride

Concen: 0.755 ug/l

RT: 4.08 min Scan# 716

Delta R.T. -0.25 min

Lab File: VN051632.D

Acq: 1 Oct 2018 12:50

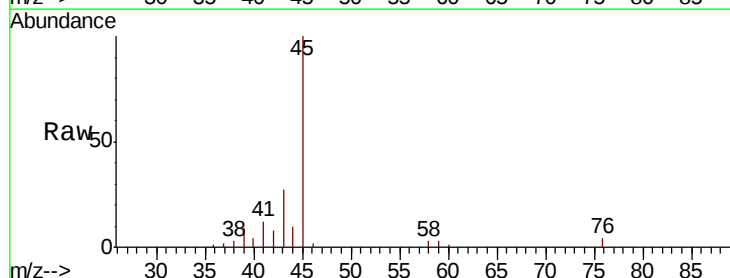
Tgt Ion: 41 Resp: 7679

Ion Ratio Lower Upper

41 100

39 67.1 31.9 95.9

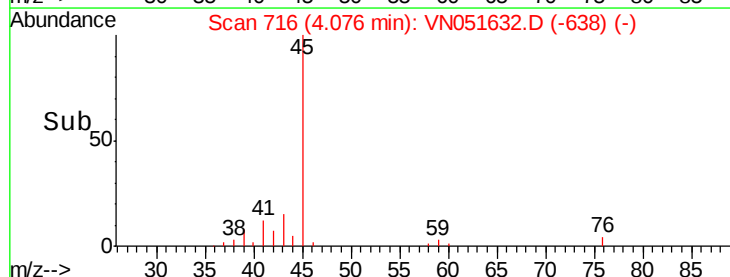
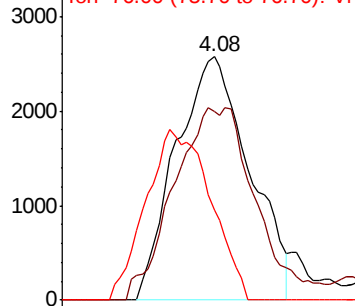
76 37.1 18.6 56.0

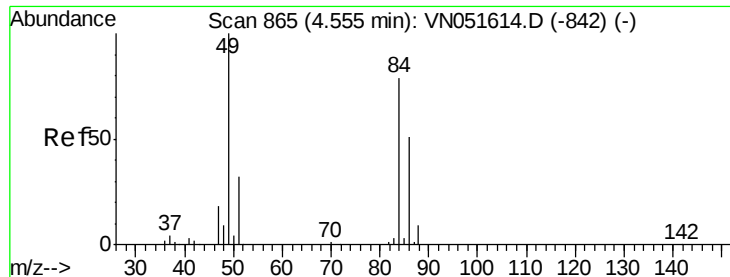


Abundance Ion 41.00 (40.70 to 41.70): VN0

Ion 39.00 (38.70 to 39.70): VN0

Ion 76.00 (75.70 to 76.70): VN0

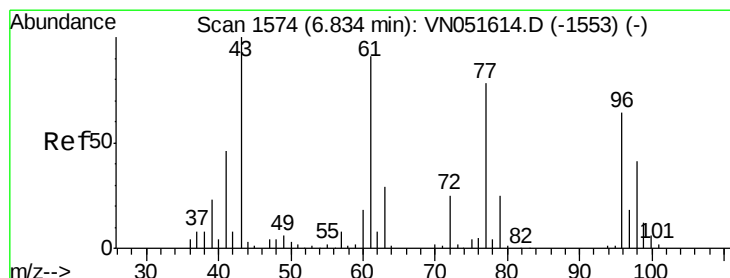
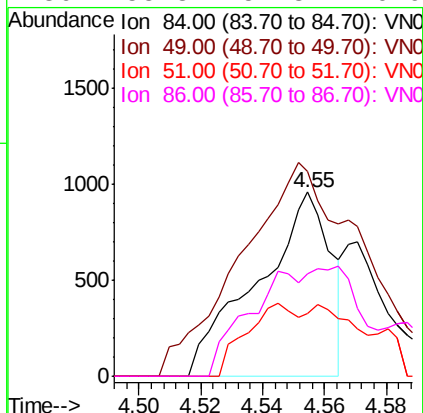
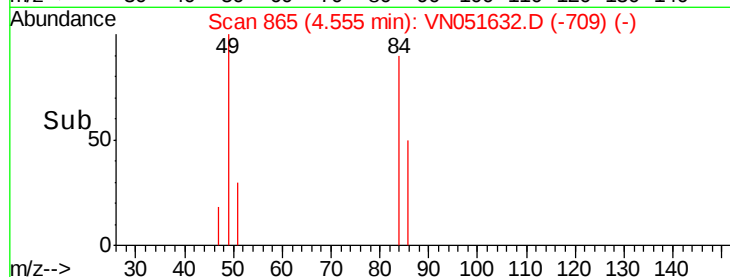
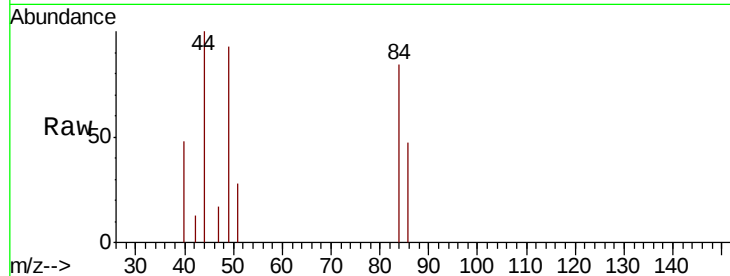




#18  
Methvlene Chloride  
Concen: 0.241 ug/l  
RT: 4.55 min Scan# 865  
Delta R.T. 0.00 min  
Lab File: VN051632.D  
Acq: 1 Oct 2018 12:50

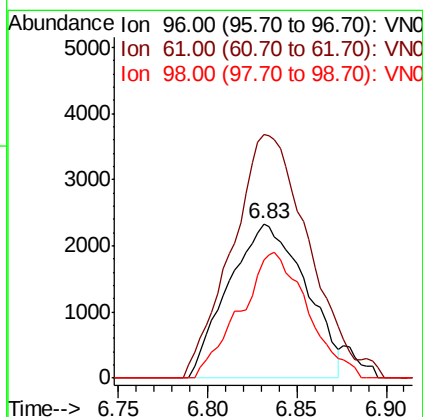
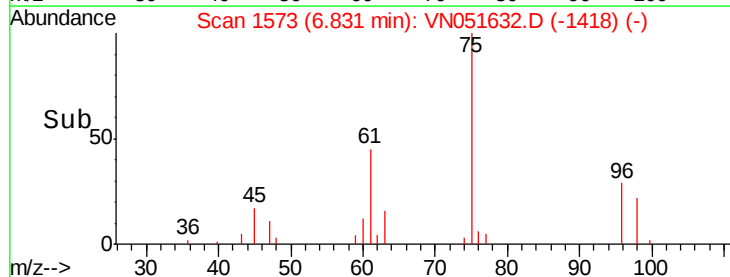
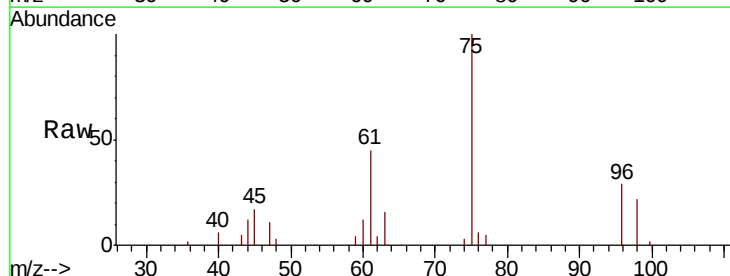
Instrument :  
MSVOA\_N  
ClientSampled :  
MW-1

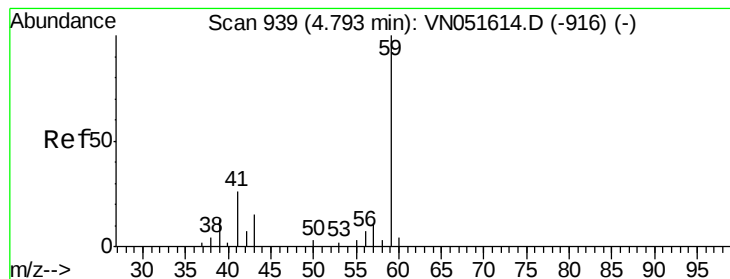
|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 84    | Resp: | 1575   |
| Ion      | Ratio | Lower | Upper  |
| 84       | 100   |       |        |
| 49       | 87.9  | 100.9 | 151.3# |
| 51       | 34.0  | 32.5  | 48.7   |
| 86       | 55.8  | 51.3  | 76.9   |



#22  
cis-1,2-Dichloroethene  
Concen: 1.068 ug/l  
RT: 6.83 min Scan# 1573  
Delta R.T. -0.00 min  
Lab File: VN051632.D  
Acq: 1 Oct 2018 12:50

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 96    | Resp: | 7038  |
| Ion      | Ratio | Lower | Upper |
| 96       | 100   |       |       |
| 61       | 155.1 | 120.4 | 180.6 |
| 98       | 58.2  | 51.4  | 77.0  |



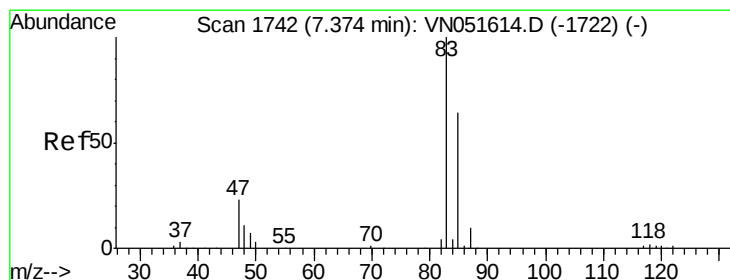
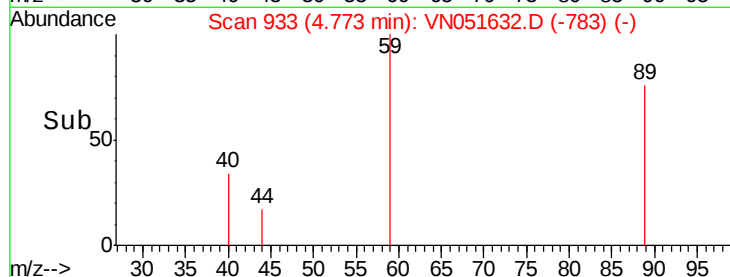
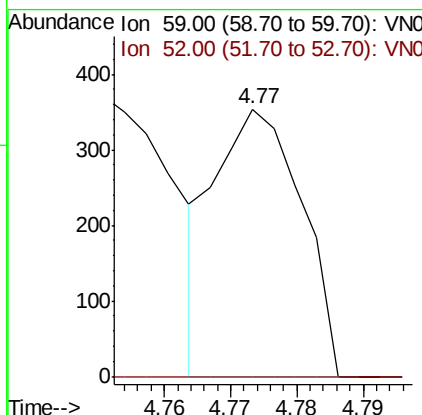
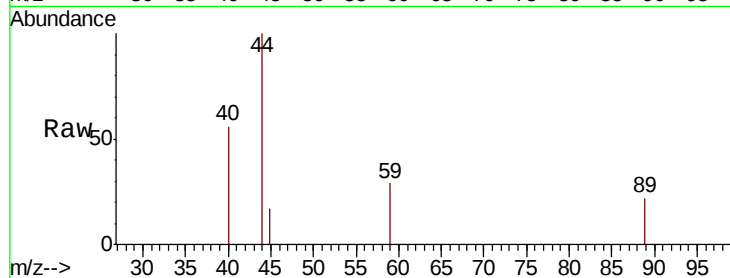


#23

tert-Butyl Alcohol  
 Concen: 0.838 ug/l  
 RT: 4.77 min Scan# 933  
 Delta R.T. -0.02 min  
 Lab File: VN051632.D  
 Acq: 1 Oct 2018 12:50

Instrument :  
 MSVOA\_N  
 ClientSampled :  
 MW-1

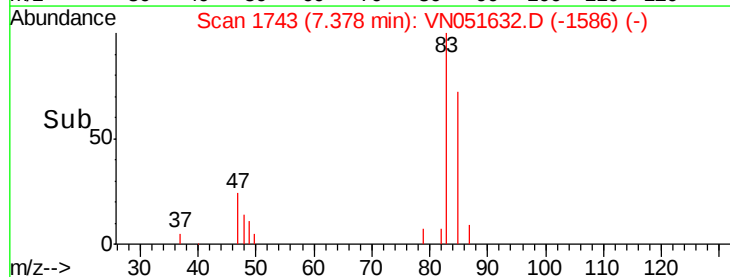
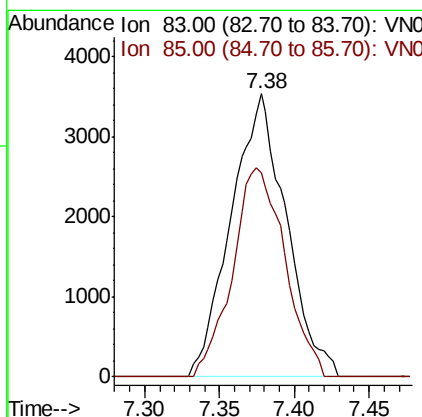
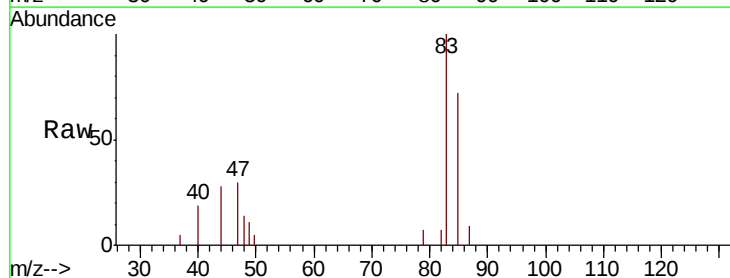
Tot Ion: 59 Resp: 322  
 Ion Ratio Lower Upper  
 59 100  
 52 0.0 0.0 0.0

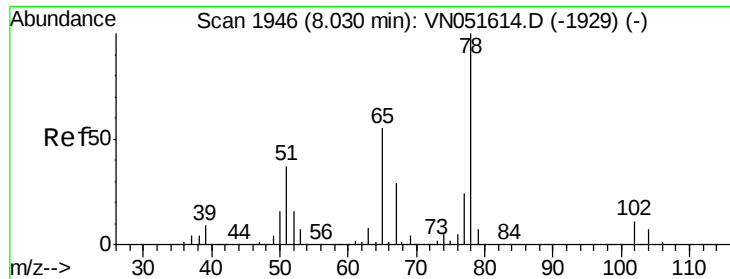


#25

Chloroform  
 Concen: 0.793 ug/l  
 RT: 7.38 min Scan# 1743  
 Delta R.T. 0.00 min  
 Lab File: VN051632.D  
 Acq: 1 Oct 2018 12:50

Tgt Ion: 83 Resp: 9067  
 Ion Ratio Lower Upper  
 83 100  
 85 72.2 51.4 77.0

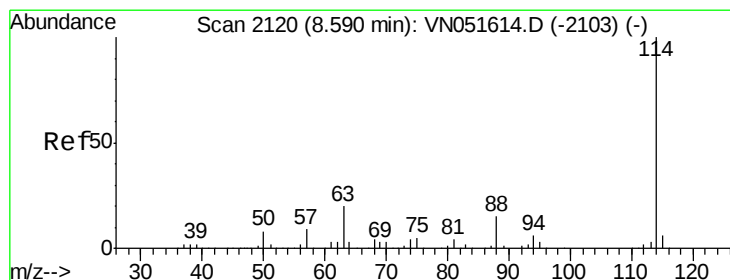
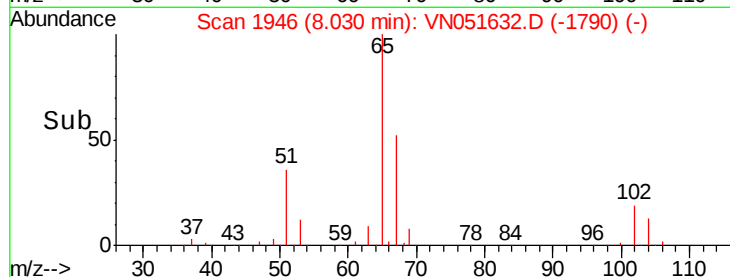
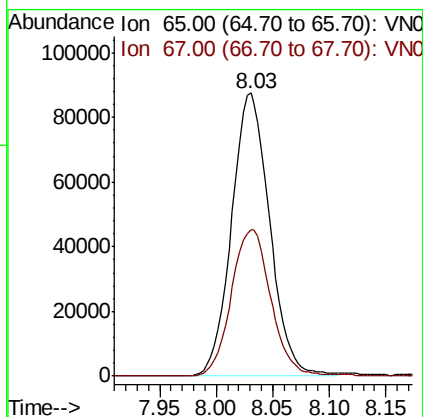
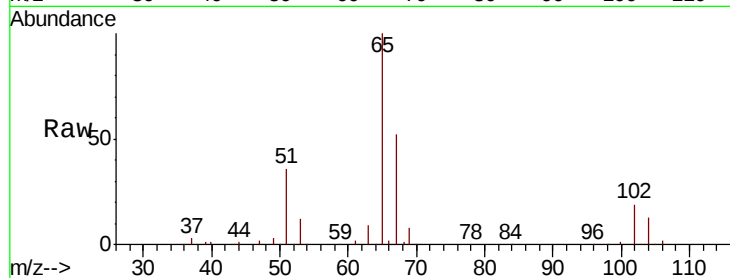




#27  
 1,2-Dichloroethane-d4  
 Concen: N.D. ug/l  
 RT: 8.03 min Scan# 1946  
 Delta R.T. 0.00 min  
 Lab File: VN051632.D  
 Acq: 1 Oct 2018 12:50

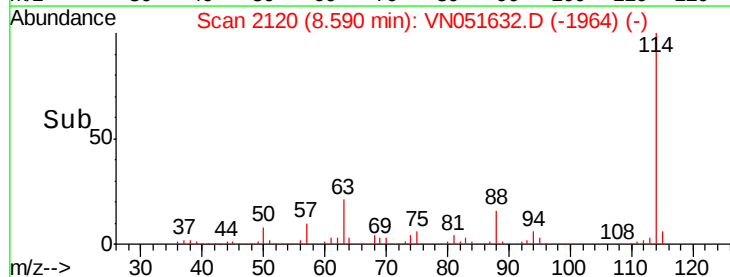
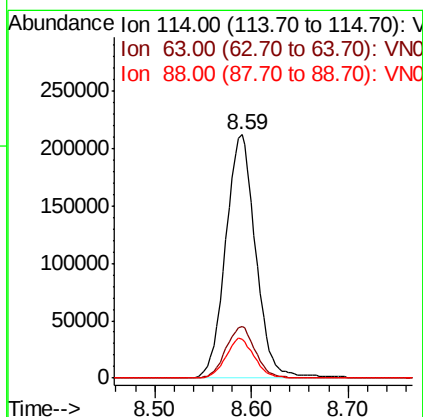
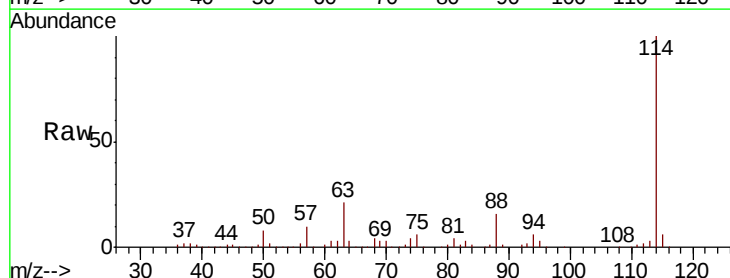
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 MW-1

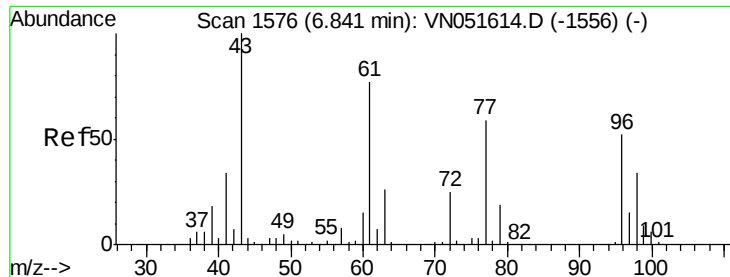
Tot Ion: 65 Resp: 205601  
 Ion Ratio Lower Upper  
 65 100  
 67 53.5 43.1 64.7



#28  
 1,4-Difluorobenzene  
 Concen: 30.000 ug/l  
 RT: 8.59 min Scan# 2120  
 Delta R.T. 0.00 min  
 Lab File: VN051632.D  
 Acq: 1 Oct 2018 12:50

Tgt Ion: 114 Resp: 457964  
 Ion Ratio Lower Upper  
 114 100  
 63 20.7 16.4 24.6  
 88 15.4 12.6 18.8

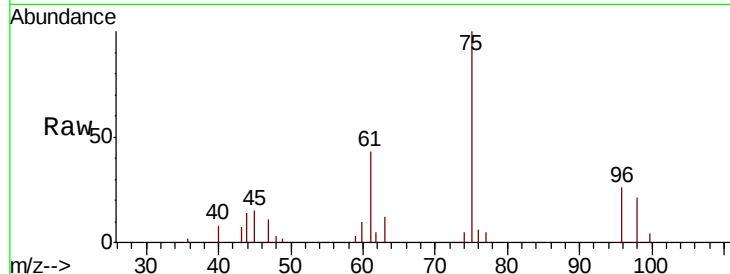




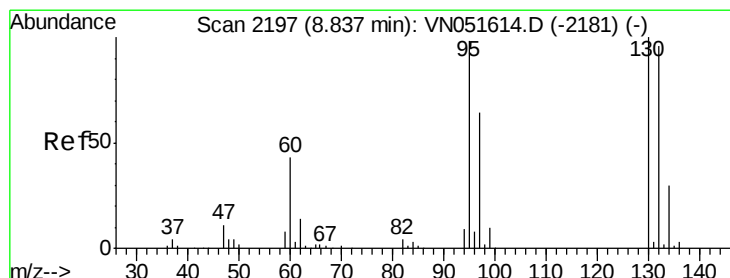
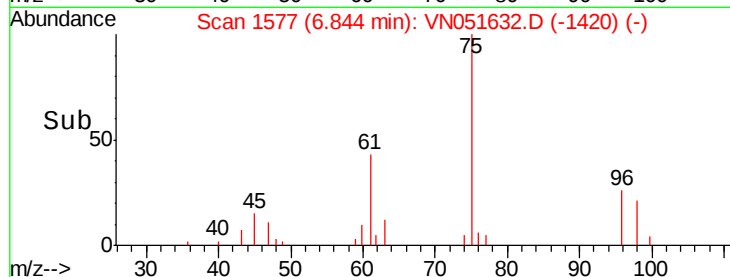
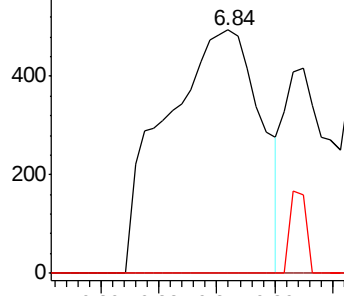
#30  
2-Butanone  
Concen: 0.530 ug/l  
RT: 6.84 min Scan# 1577  
Delta R.T. 0.00 min  
Lab File: VN051632.D  
Acq: 1 Oct 2018 12:50

Instrument :  
MSVOA\_N  
ClientSampled :  
MW-1

Tot Ion: 43 Resp: 1127  
Ion Ratio Lower Upper  
43 100  
57 0.0 6.6 10.0#  
72 0.0 20.8 31.2#

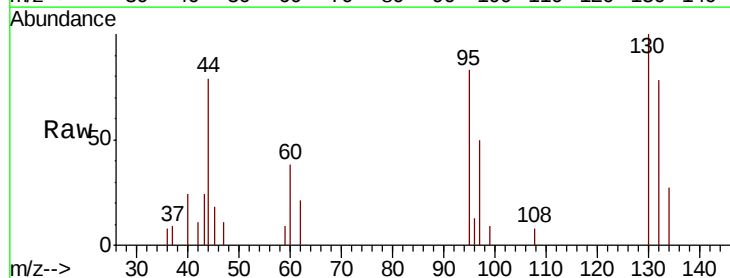


Abundance Ion 43.00 (42.70 to 43.70): VN0  
Ion 57.00 (56.70 to 57.70): VN0  
Ion 72.00 (71.70 to 72.70): VN0

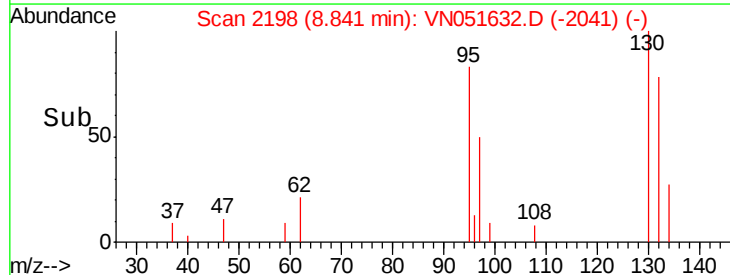
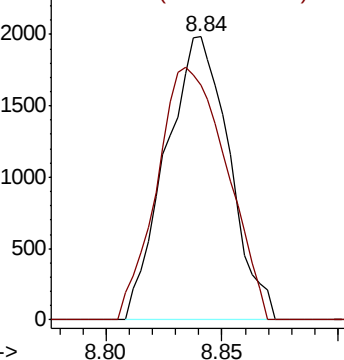


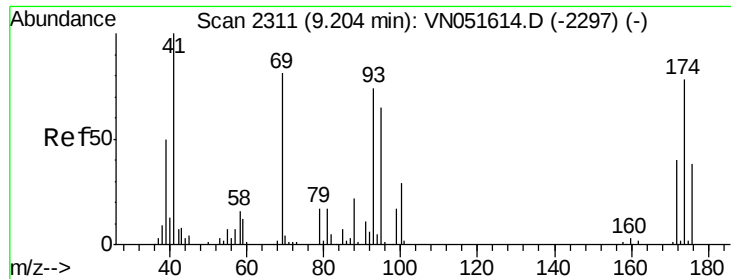
#37  
Trichloroethene  
Concen: 0.636 ug/l  
RT: 8.84 min Scan# 2198  
Delta R.T. 0.00 min  
Lab File: VN051632.D  
Acq: 1 Oct 2018 12:50

Tgt Ion:130 Resp: 3782  
Ion Ratio Lower Upper  
130 100  
95 83.1 78.4 117.6



Abundance Ion 129.90 (129.60 to 130.60): V  
Ion 94.90 (94.60 to 95.60): VN0

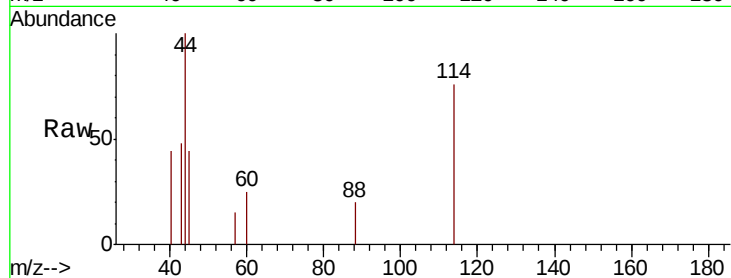




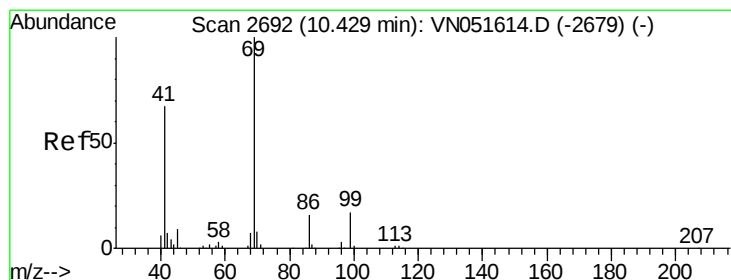
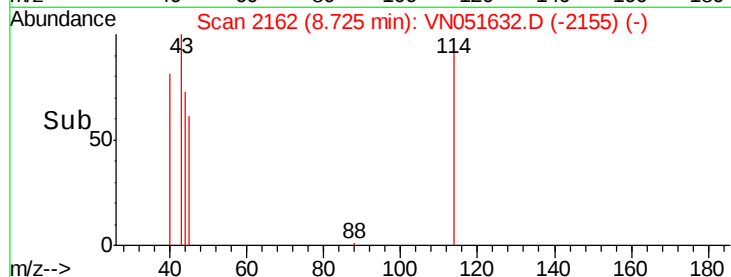
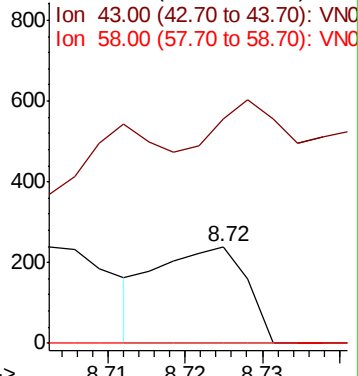
#45  
 1,4-Dioxane  
 Concen: 4.071 ug/l  
 RT: 8.72 min Scan# 2162  
 Delta R.T. -0.48 min  
 Lab File: VN051632.D  
 Acq: 1 Oct 2018 12:50

Instrument :  
 MSVOA\_N  
 ClientSampled :  
 MW-1

Tot Ion: 88 Resp: 194  
 Ion Ratio Lower Upper  
 88 100  
 43 25.8 29.0 43.6#  
 58 0.0 59.0 88.6#

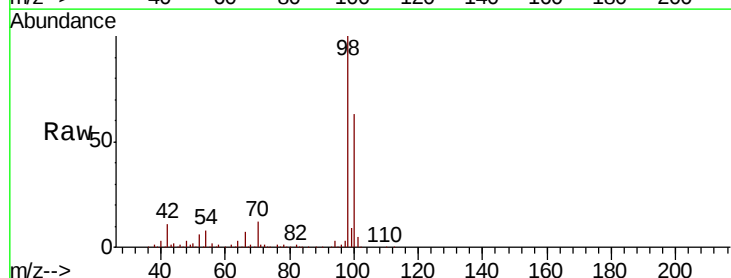


Abundance Ion 88.00 (87.70 to 88.70): VN0  
 Ion 43.00 (42.70 to 43.70): VN0  
 Ion 58.00 (57.70 to 58.70): VN0

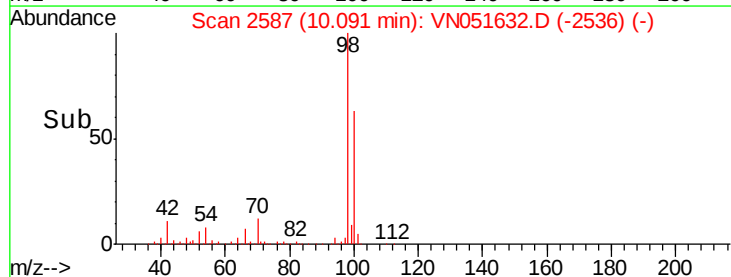
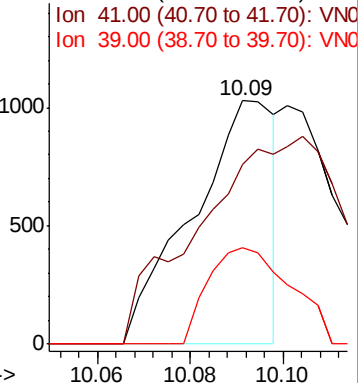


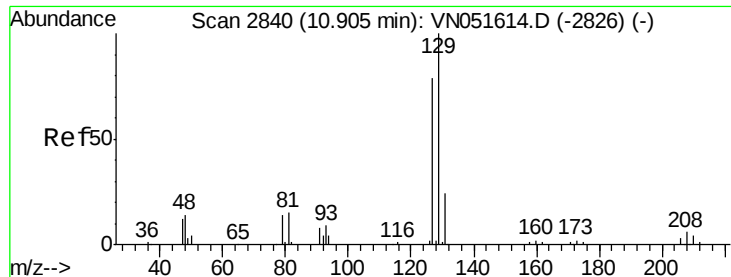
#51  
 Ethyl methacrylate  
 Concen: 0.211 ug/l  
 RT: 10.09 min Scan# 2587  
 Delta R.T. -0.34 min  
 Lab File: VN051632.D  
 Acq: 1 Oct 2018 12:50

Tgt Ion: 69 Resp: 1274  
 Ion Ratio Lower Upper  
 69 100  
 41 73.6 33.3 99.8  
 39 39.6 17.2 51.6



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





#53

Dibromochloromethane

Concen: 0.691 ug/l

RT: 10.63 min Scan# 2756

Delta R.T. -0.27 min

Lab File: VN051632.D

Acq: 1 Oct 2018 12:50

Instrument :

MSVOA\_N

ClientSampleId :

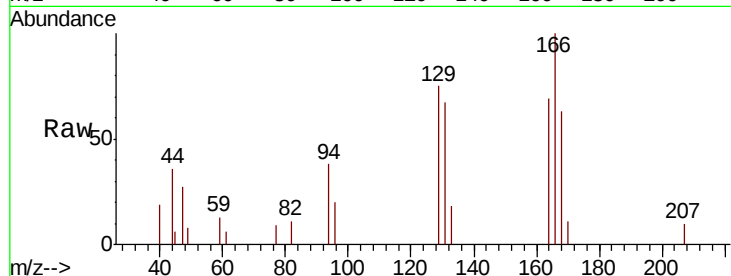
MW-1

Tot Ion:129 Resp: 3925

Ion Ratio Lower Upper

129 100

127 0.0 38.9 116.7#



Abundance Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V

2500

2000

1500

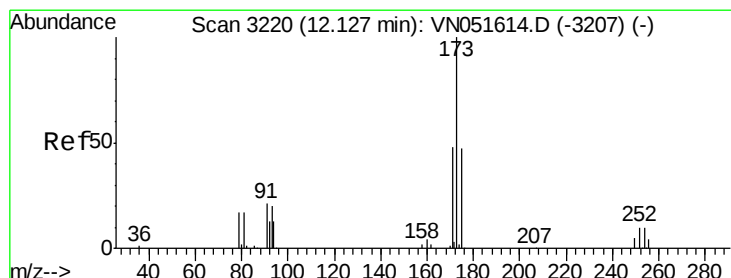
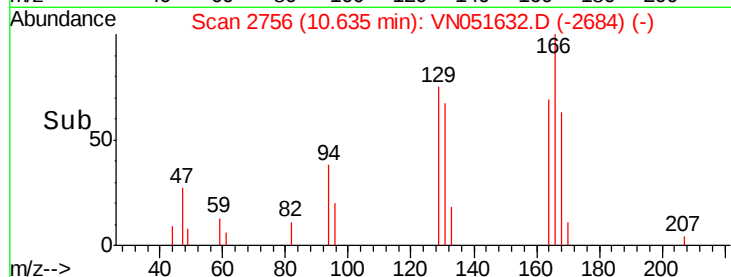
1000

500

0

Time-->

10.60 10.63 10.65



#56

Bromoform

Concen: 0.509 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. 0.28 min

Lab File: VN051632.D

Acq: 1 Oct 2018 12:50

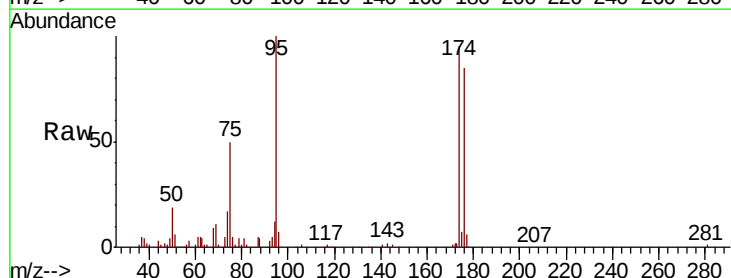
Tgt Ion:173 Resp: 1917

Ion Ratio Lower Upper

173 100

175 405.1 39.0 58.4#

254 0.0 8.7 13.1#



Abundance Ion 173.00 (172.70 to 173.70): V

Ion 175.00 (174.70 to 175.70): V

Ion 254.00 (253.70 to 254.70): V

6000

5000

4000

3000

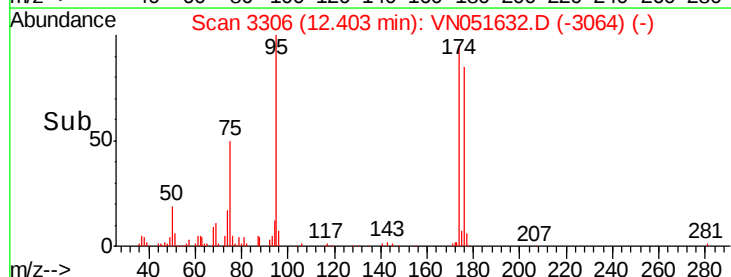
2000

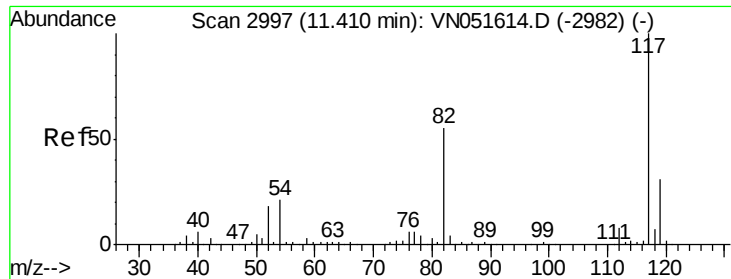
1000

0

Time-->

12.36 12.38 12.40 12.42

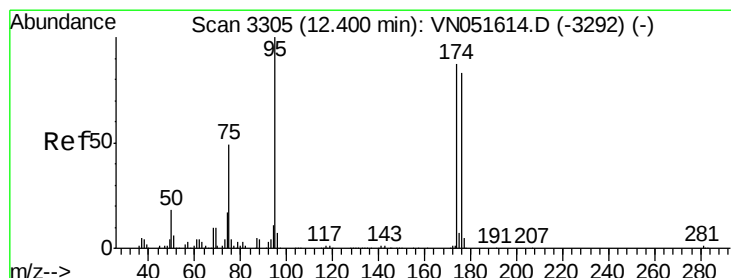
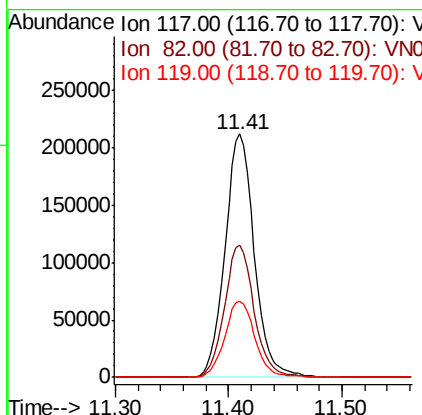
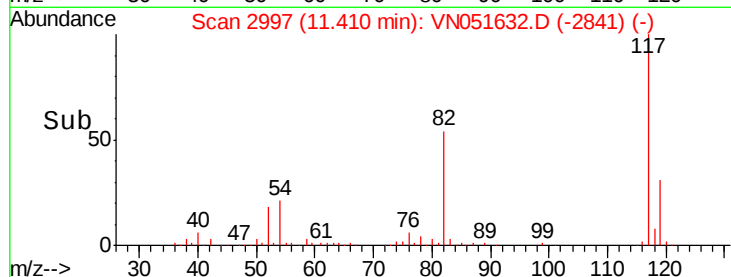
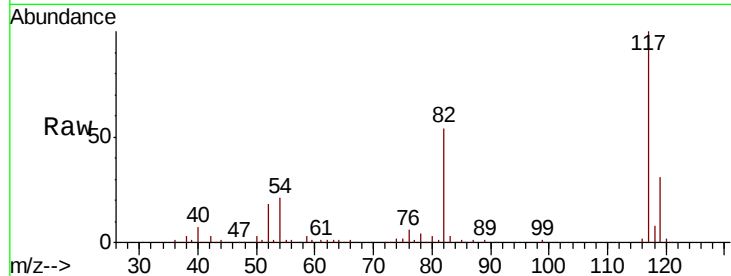




#57  
Chlorobenzene-d5  
Concen: 30.000 ug/l  
RT: 11.41 min Scan# 2997  
Delta R.T. 0.00 min  
Lab File: VN051632.D  
Acq: 1 Oct 2018 12:50

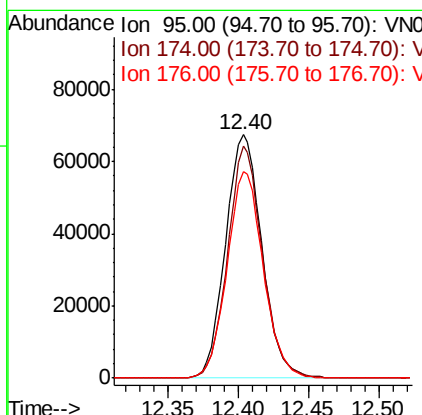
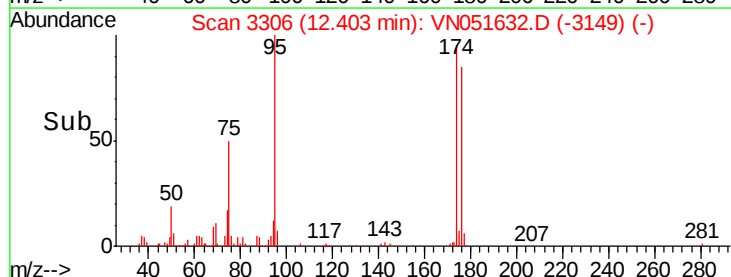
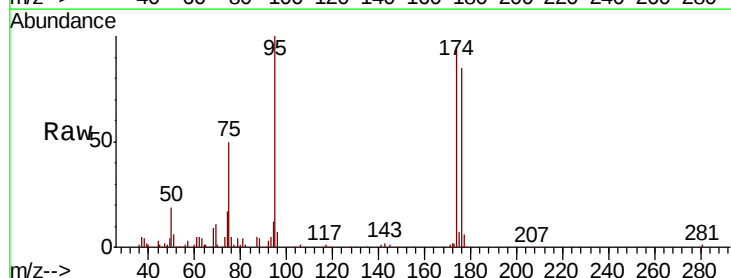
Instrument :  
MSVOA\_N  
ClientSampled :  
MW-1

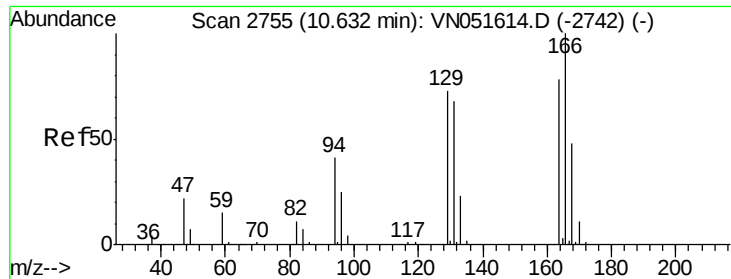
Tot Ion:117 Resp: 381330  
Ion Ratio Lower Upper  
117 100  
82 55.0 44.2 66.2  
119 32.4 25.2 37.8



#60  
4-Bromofluorobenzene  
Concen: Below ug/l  
RT: 12.40 min Scan# 3306  
Delta R.T. 0.00 min  
Lab File: VN051632.D  
Acq: 1 Oct 2018 12:50

Tgt Ion: 95 Resp: 121238  
Ion Ratio Lower Upper  
95 100  
174 91.4 71.2 106.8  
176 84.5 67.8 101.8

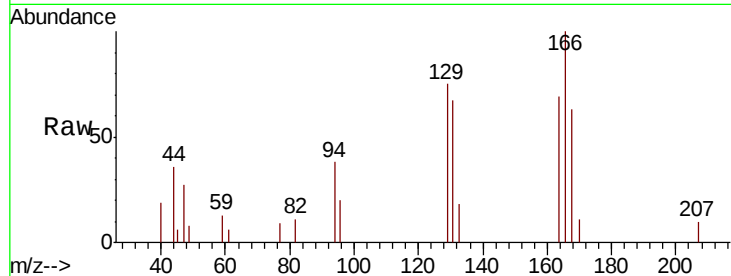




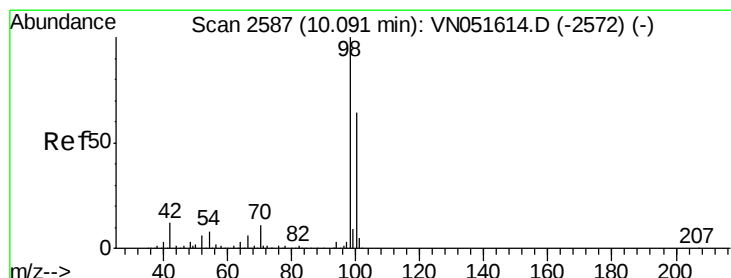
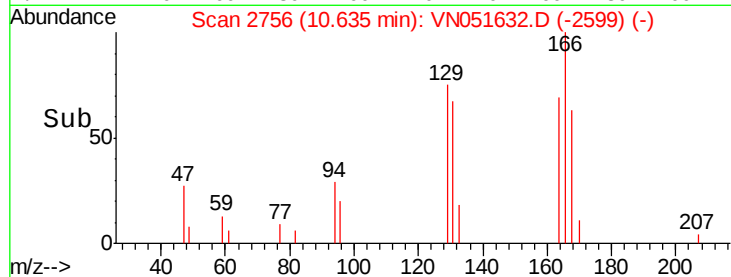
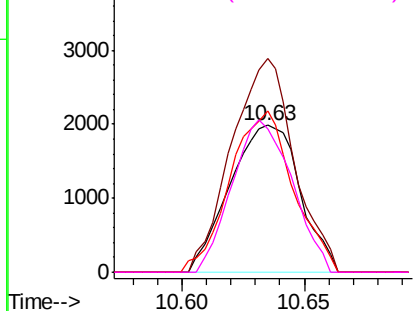
#61  
Tetrachloroethene  
Concen: 0.735 ug/l  
RT: 10.63 min Scan# 2756  
Delta R.T. 0.00 min  
Lab File: VN051632.D  
Acq: 1 Oct 2018 12:50

Instrument :  
MSVOA\_N  
ClientSampleId :  
MW-1

Tot Ion:164 Resp: 3968  
Ion Ratio Lower Upper  
164 100  
166 145.4 103.1 154.7  
129 109.8 75.3 112.9  
131 97.9 70.8 106.2

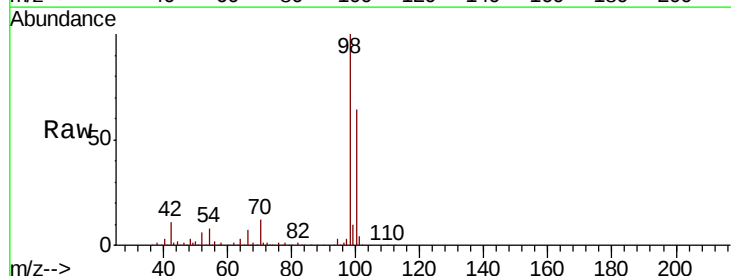


Abundance Ion 163.85 (163.55 to 164.55): V  
Ion 165.80 (165.50 to 166.50): V  
Ion 128.90 (128.60 to 129.60): V  
Ion 130.90 (130.60 to 131.60): V

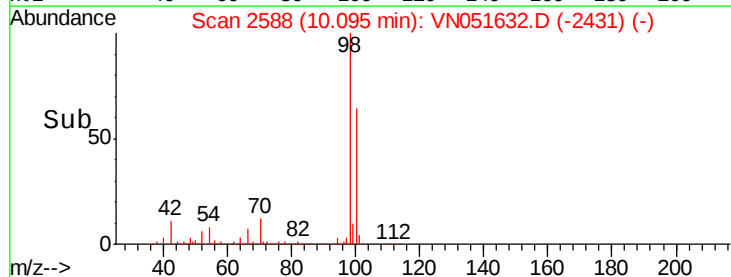
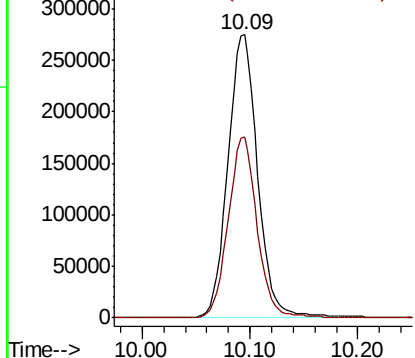


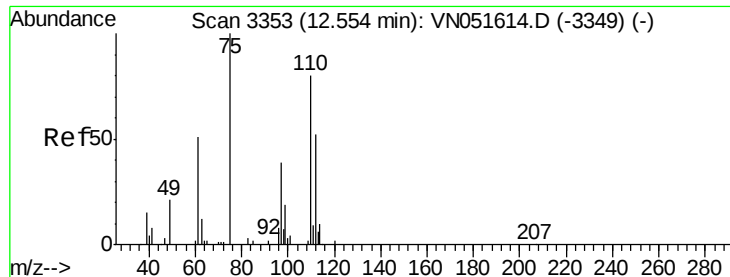
#63  
Toluene-d8  
Concen: Below ug/l  
RT: 10.09 min Scan# 2588  
Delta R.T. 0.00 min  
Lab File: VN051632.D  
Acq: 1 Oct 2018 12:50

Tgt Ion: 98 Resp: 527772  
Ion Ratio Lower Upper  
98 100  
100 61.5 51.4 77.0



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





#72

1,2,3-Trichloropropane

Concen: 12.381 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. -0.15 min

Lab File: VN051632.D

Acq: 1 Oct 2018 12:50

Instrument :

MSVOA\_N

ClientSampled :

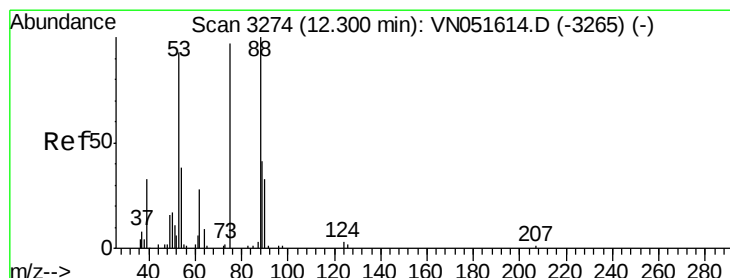
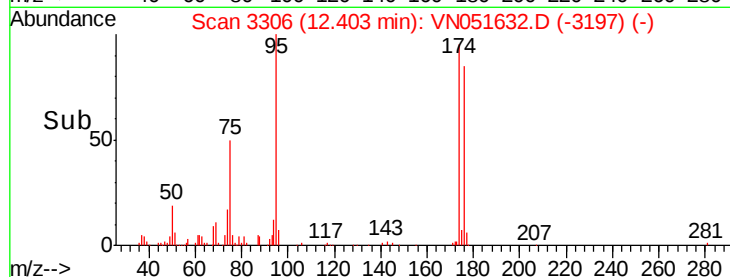
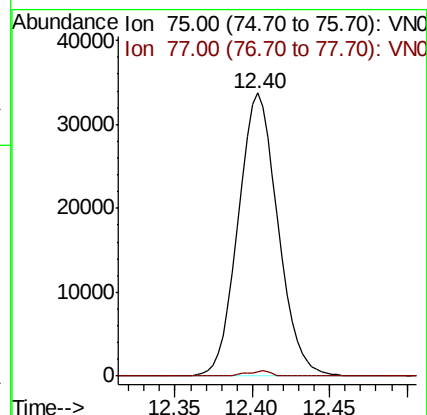
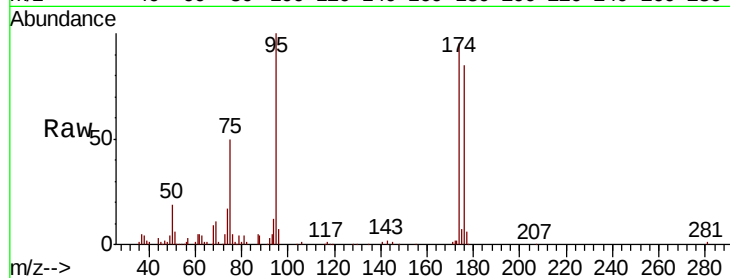
MW-1

Tot Ion: 75 Resp: 60143

Ion Ratio Lower Upper

75 100

77 1.1 0.0 492.2



#77

t-1,4-Dichloro-2-butene

Concen: 39.091 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. 0.10 min

Lab File: VN051632.D

Acq: 1 Oct 2018 12:50

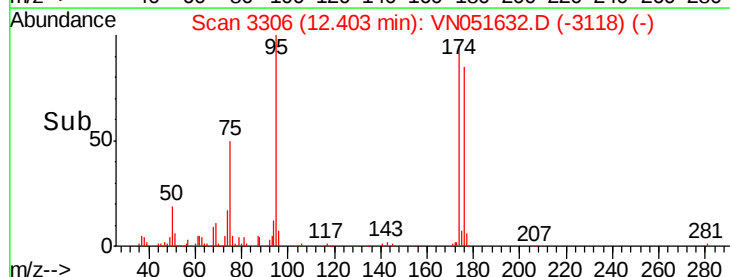
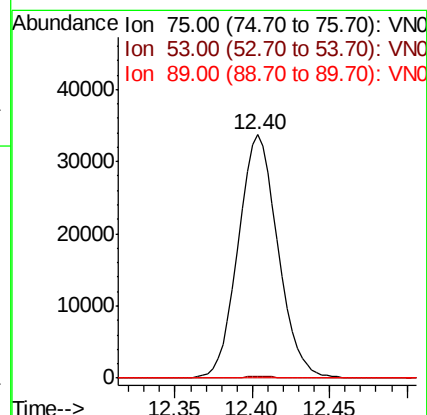
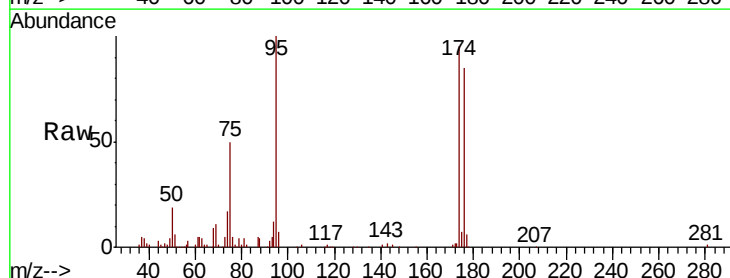
Tgt Ion: 75 Resp: 60143

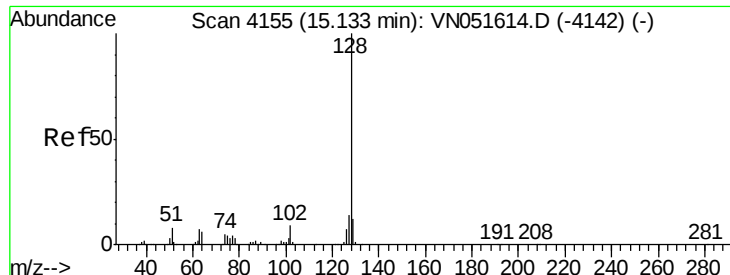
Ion Ratio Lower Upper

75 100

53 0.5 48.1 144.4#

89 0.0 22.4 67.3#





#91

Naphthalene

Concen: 8.370 ug/l

RT: 15.13 min Scan# 4155

Delta R.T. 0.00 min

Lab File: VN051632.D

Acq: 1 Oct 2018 12:50

Instrument :

MSVOA\_N

ClientSampleId :

MW-1

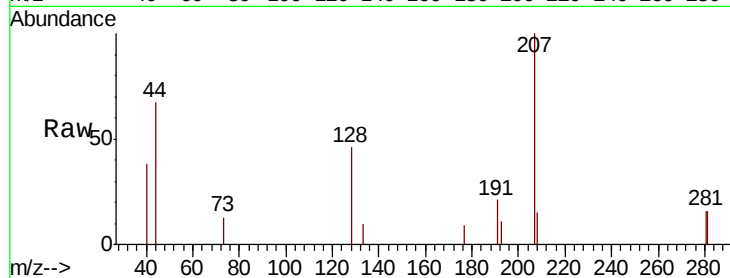
Tot Ion:128 Resp: 1328

Ion Ratio Lower Upper

128 100

127 0.0 10.8 16.2#

129 0.0 9.1 13.7#



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V

