

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN092520\  
 Data File : VN063692.D  
 Acq On : 25 Sep 2020 20:42  
 Operator : JC/MD  
 Sample : L4133-02  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 MW1D

Quant Time: Sep 28 02:05:01 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N091620W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Sep 16 13:05:20 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.63  | 168  | 197235   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.55  | 114  | 365951   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.38 | 117  | 384016   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.32 | 152  | 161204   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 7.99   | 65  | 171415   | 51.05 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.10% |      |
| 35) Dibromofluoromethane  | 7.55   | 113 | 124043   | 48.96 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.92%  |      |
| 50) Toluene-d8            | 10.06  | 98  | 471984   | 49.55 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.10%  |      |
| 62) 4-Bromofluorobenzene  | 12.38  | 95  | 187063   | 53.57 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 107.14% |      |

## Target Compounds

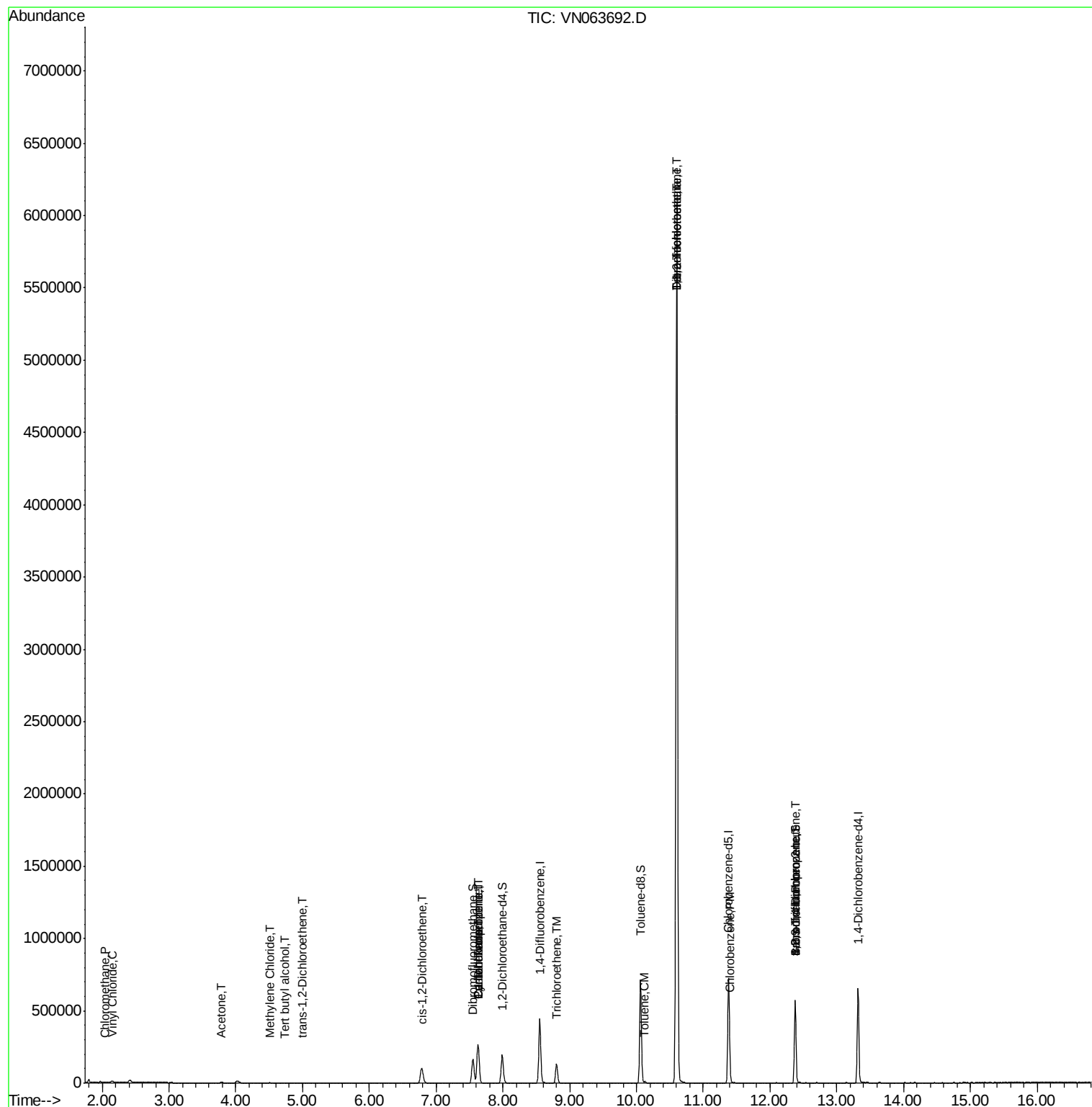
|                                |       |     |         |         |        | Qvalue |
|--------------------------------|-------|-----|---------|---------|--------|--------|
| 3) Chloromethane               | 2.04  | 50  | 2070    | 0.700   | ug/l   | 91     |
| 4) Vinyl Chloride              | 2.16  | 62  | 1417    | 0.541   | ug/l # | 59     |
| 11) Tert butyl alcohol         | 4.73  | 59  | 129     | 0.277   | ug/l # | 72     |
| 16) Acetone                    | 3.78  | 43  | 7941    | 7.359   | ug/l   | 97     |
| 20) Methylene Chloride         | 4.51  | 84  | 997     | 0.365   | ug/l # | 88     |
| 21) trans-1,2-Dichloroethene   | 4.99  | 96  | 560     | 0.227   | ug/l # | 37     |
| 27) cis-1,2-Dichloroethene     | 6.78  | 96  | 61402   | 21.999  | ug/l   | 90     |
| 31) Cyclohexane                | 7.63  | 56  | 5906    | 1.274   | ug/l # | 13     |
| 36) 1,1-Dichloropropene        | 7.63  | 75  | 18581   | 4.766   | ug/l # | 50     |
| 38) Carbon Tetrachloride       | 7.63  | 117 | 22636   | 5.688   | ug/l # | 18     |
| 44) Trichloroethene            | 8.80  | 130 | 43368   | 16.066  | ug/l   | 99     |
| 52) Toluene                    | 10.13 | 92  | 2458    | 0.367   | ug/l   | 98     |
| 55) 1,1,2-Trichloroethane      | 10.60 | 97  | 13178   | 4.958   | ug/l # | 13     |
| 60) Dibromochloromethane       | 10.60 | 129 | 1199723 | 399.556 | ug/l # | 10     |
| 64) Tetrachloroethene          | 10.60 | 164 | 1246373 | 476.648 | ug/l   | 99     |
| 65) Chlorobenzene              | 11.41 | 112 | 2096    | 0.257   | ug/l   | 90     |
| 71) Bromoform                  | 12.37 | 173 | 1758    | 0.790   | ug/l # | 1      |
| 76) 1,2,3-Trichloropropane     | 12.38 | 75  | 108125  | 27.099  | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.38 | 75  | 108125  | 74.295  | ug/l # | 7      |

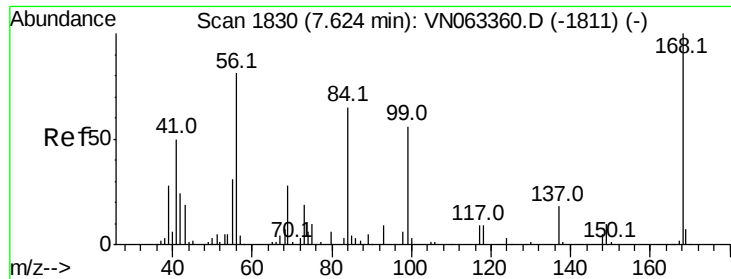
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA N\DATA\VN092520\  
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MW1D

Quant Time: Sep 28 02:05:01 2020  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_N\METHODS\82N091620W.M  
Quant Title : SW846 8260  
QLast Update : Wed Sep 16 13:05:20 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.63 min Scan# 1831

Delta R.T. 0.00 min

Lab File: VN063692.D

Acq: 25 Sep 2020 20:42

Instrument :

MSVOA\_N

ClientSampleId :

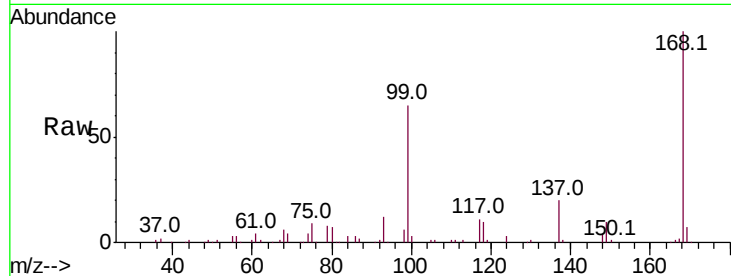
MW1D

Tot Ion:168 Resp: 197235

Ion Ratio Lower Upper

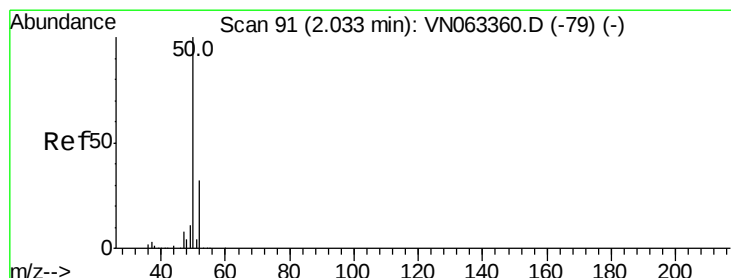
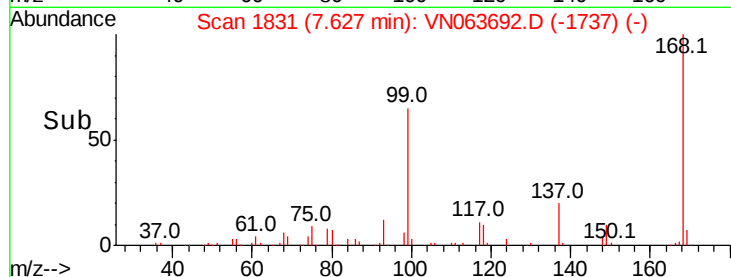
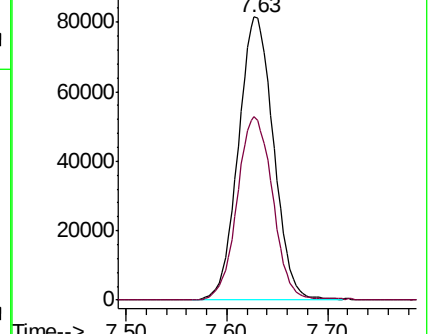
168 100

99 64.9 53.0 79.6



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN0



#3

Chloromethane

Concen: 0.700 ug/l

RT: 2.04 min Scan# 92

Delta R.T. 0.00 min

Lab File: VN063692.D

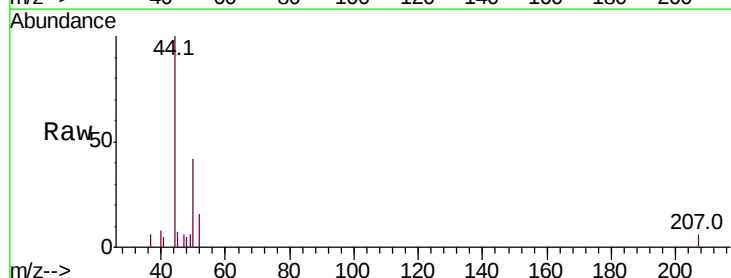
Acq: 25 Sep 2020 20:42

Tgt Ion: 50 Resp: 2070

Ion Ratio Lower Upper

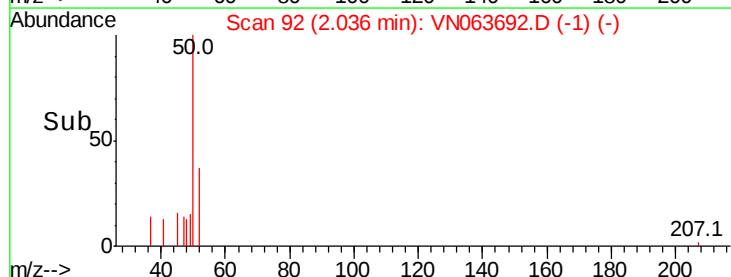
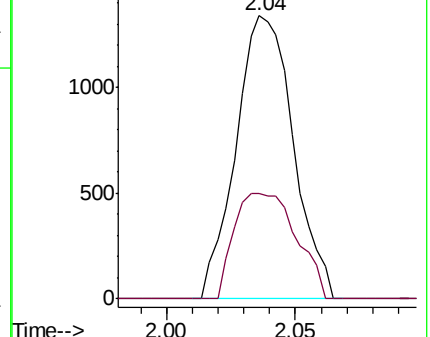
50 100

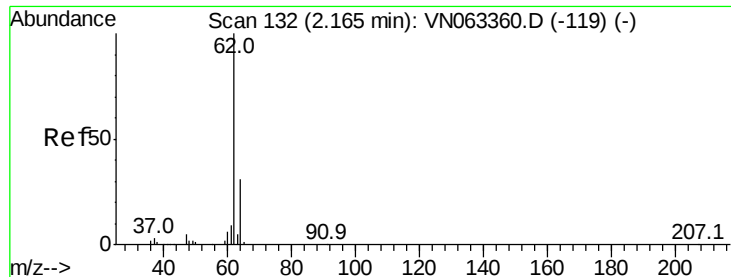
52 37.4 25.9 38.9



Abundance Ion 49.90 (49.60 to 50.60): VN0

Ion 51.90 (51.60 to 52.60): VN0





#4

Vinyl Chloride

Concen: 0.541 ug/l

RT: 2.16 min Scan# 131

Delta R.T. -0.00 min

Lab File: VN063692.D

Acq: 25 Sep 2020 20:42

Instrument :

MSVOA\_N

ClientSampled :

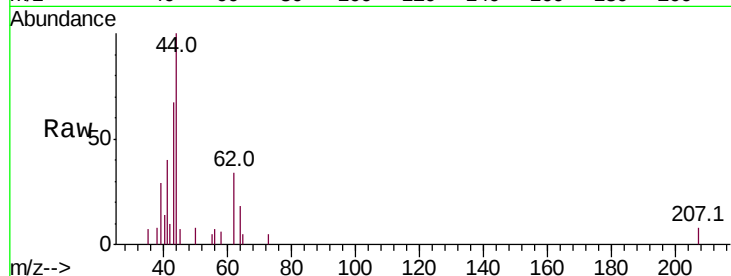
MW1D

Tot Ion: 62 Resp: 1417

Ion Ratio Lower Upper

62 100

64 53.8 25.1 37.7#



Abundance Ion 61.90 (61.60 to 62.60): VNO

Ion 63.90 (63.60 to 64.60): VNO

2.16

1000

800

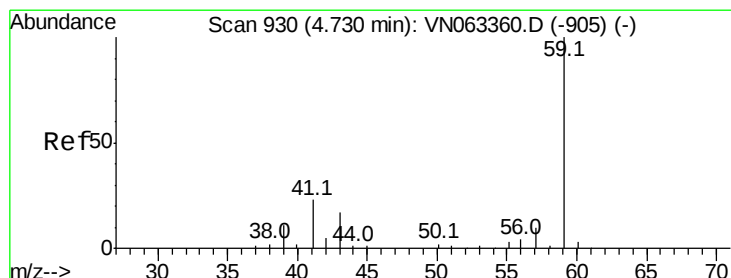
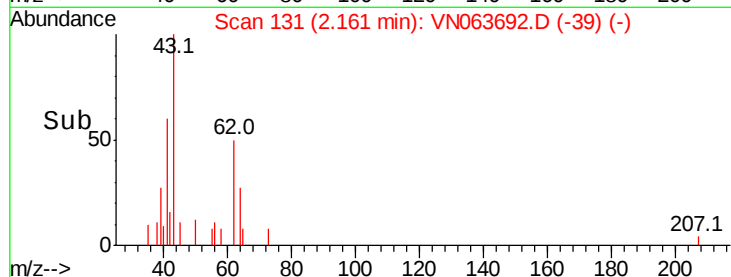
600

400

200

0

Time-->



#11

Tert butyl alcohol

Concen: 0.277 ug/l

RT: 4.73 min Scan# 931

Delta R.T. 0.00 min

Lab File: VN063692.D

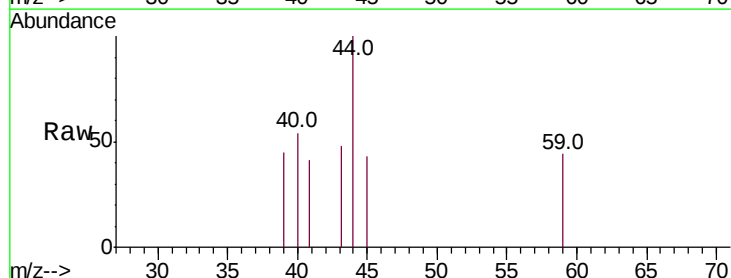
Acq: 25 Sep 2020 20:42

Tgt Ion: 59 Resp: 129

Ion Ratio Lower Upper

59 100

57 0.0 8.4 12.6#



Abundance Ion 59.00 (58.70 to 59.70): VNO

Ion 57.00 (56.70 to 57.70): VNO

200

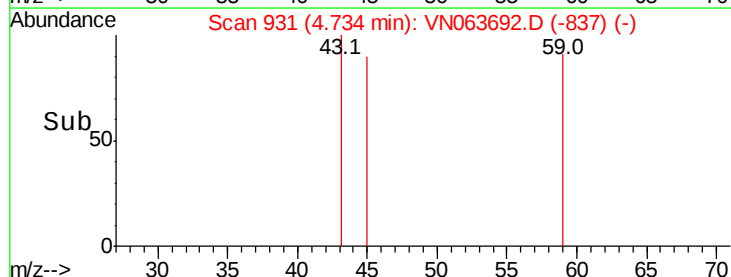
150

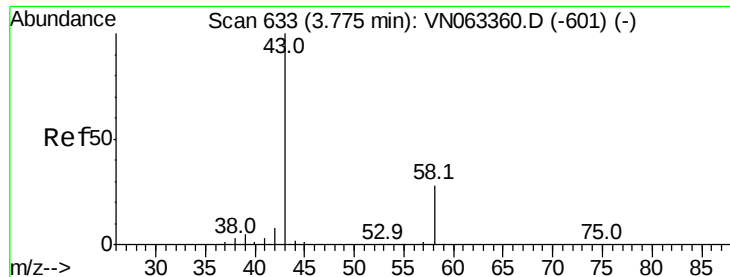
100

50

0

Time-->





#16

Acetone

Concen: 7.359 ug/l

RT: 3.78 min Scan# 635

Delta R.T. 0.01 min

Lab File: VN063692.D

Acq: 25 Sep 2020 20:42

Instrument :

MSVOA\_N

ClientSampleId :

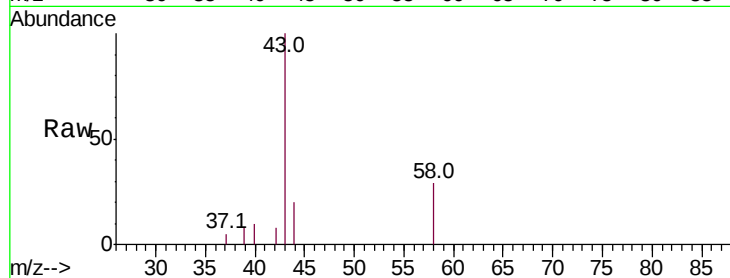
MW1D

Tot Ion: 43 Resp: 7941

Ion Ratio Lower Upper

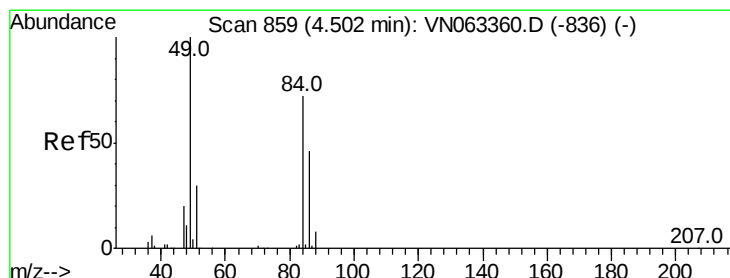
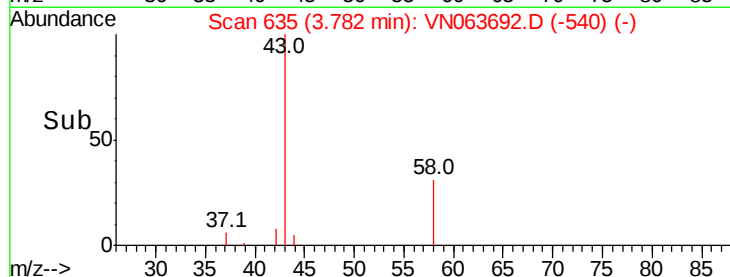
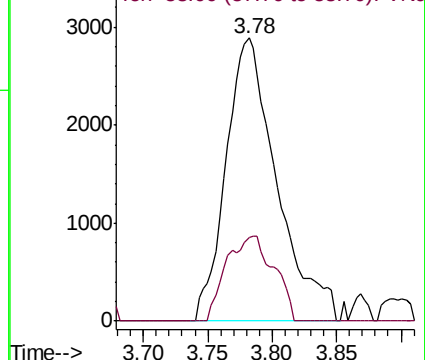
43 100

58 29.5 22.3 33.5



Abundance Ion 43.00 (42.70 to 43.70): VNO

Ion 58.00 (57.70 to 58.70): VNO



#20

Methylene Chloride

Concen: 0.365 ug/l

RT: 4.51 min Scan# 862

Delta R.T. 0.01 min

Lab File: VN063692.D

Acq: 25 Sep 2020 20:42

Tgt Ion: 84 Resp: 997

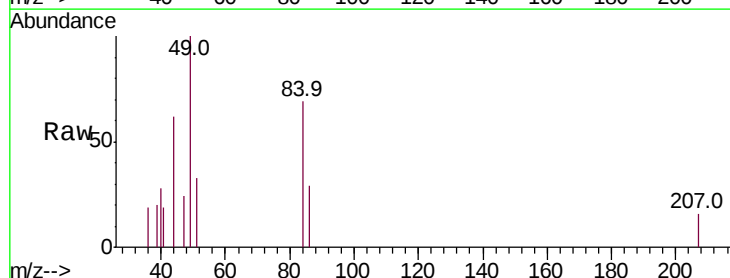
Ion Ratio Lower Upper

84 100

49 145.5 110.7 166.1

51 48.4 32.9 49.3

86 42.8 51.1 76.7#

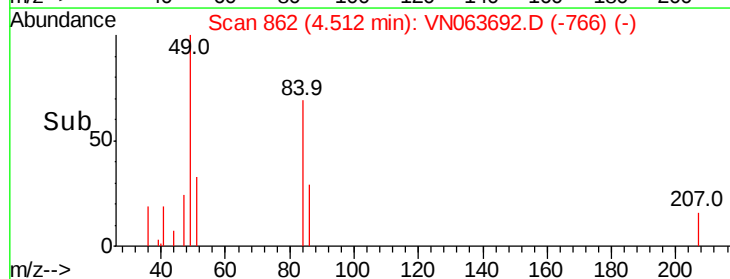
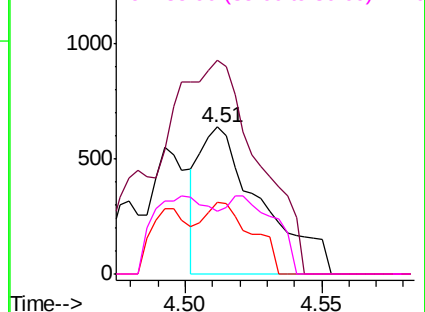


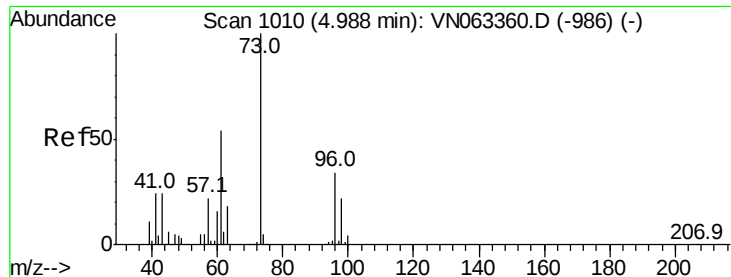
Abundance Ion 83.90 (83.60 to 84.60): VNO

Ion 48.90 (48.60 to 49.60): VNO

Ion 50.90 (50.60 to 51.60): VNO

Ion 85.90 (85.60 to 86.60): VNO

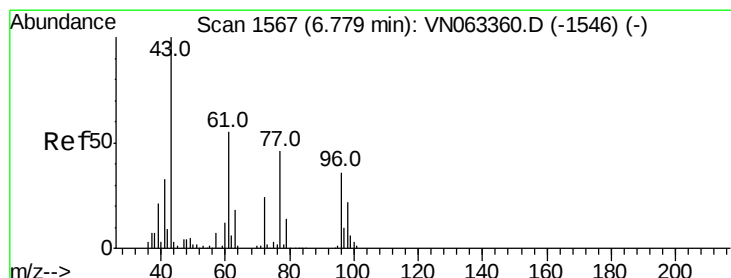
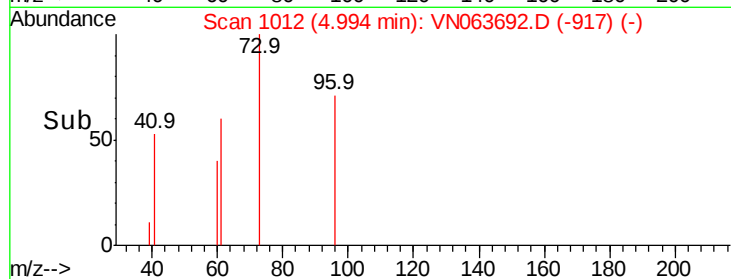
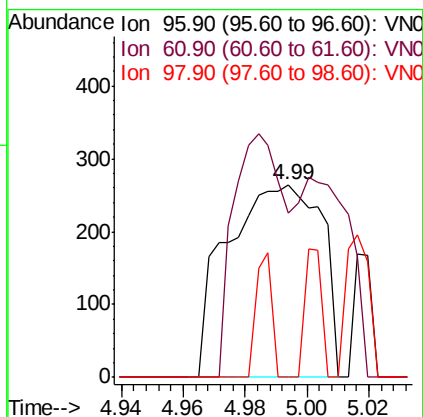
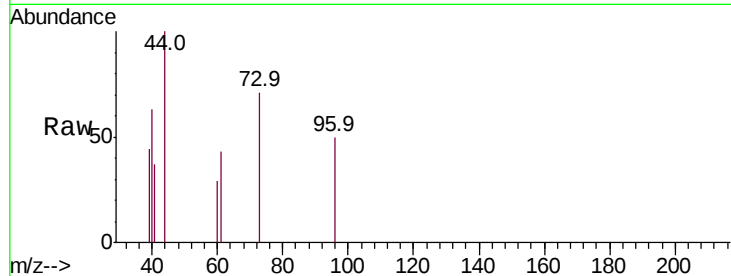




#21  
trans-1,2-Dichloroethene  
Concen: 0.227 ug/l  
RT: 4.99 min Scan# 1012  
Delta R.T. 0.01 min  
Lab File: VN063692.D  
Acq: 25 Sep 2020 20:42

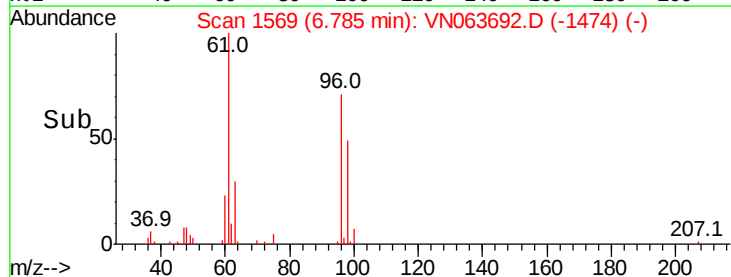
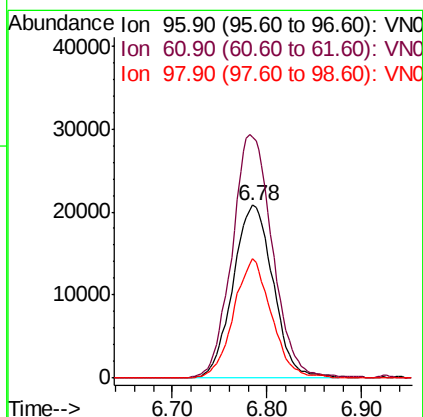
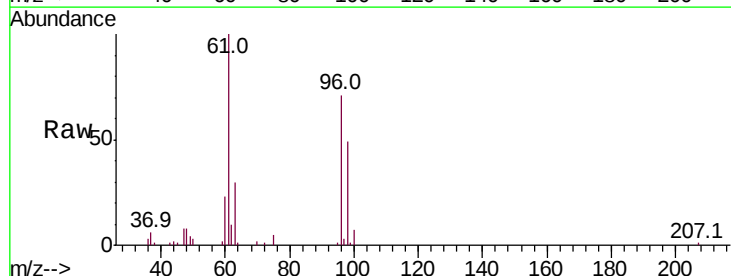
Instrument :  
MSVOA\_N  
ClientSampleId :  
MW1D

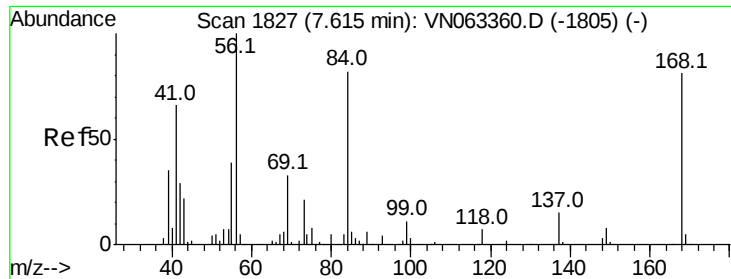
Tot Ion: 96 Resp: 560  
Ion Ratio Lower Upper  
96 100  
61 85.3 126.2 189.4#  
98 0.0 51.0 76.4#



#27  
cis-1,2-Dichloroethene  
Concen: 21.999 ug/l  
RT: 6.78 min Scan# 1569  
Delta R.T. 0.01 min  
Lab File: VN063692.D  
Acq: 25 Sep 2020 20:42

Tgt Ion: 96 Resp: 61402  
Ion Ratio Lower Upper  
96 100  
61 142.1 0.0 319.6  
98 64.4 0.0 127.8

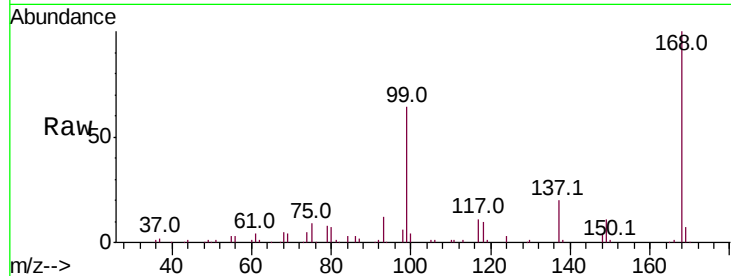




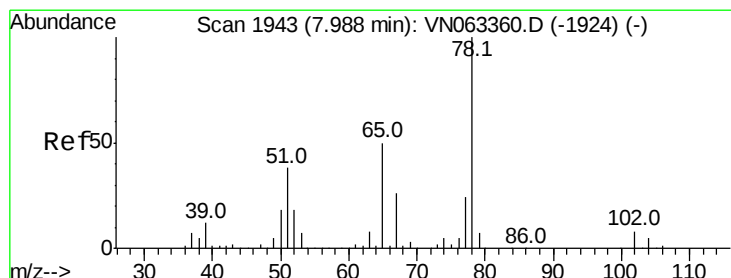
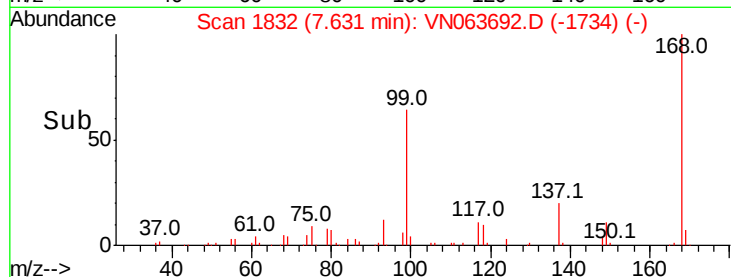
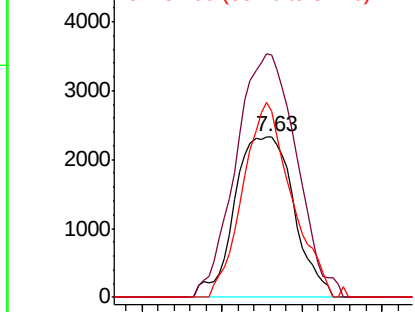
#31  
Cyclohexane  
Concen: 1.274 ug/l  
RT: 7.63 min Scan# 1832  
Delta R.T. 0.02 min  
Lab File: VN063692.D  
Acq: 25 Sep 2020 20:42

Instrument :  
MSVOA\_N  
ClientSampled :  
MW1D

Tot Ion: 56 Resp: 5906  
Ion Ratio Lower Upper  
56 100  
69 150.4 26.1 39.1#  
84 115.9 65.4 98.2#

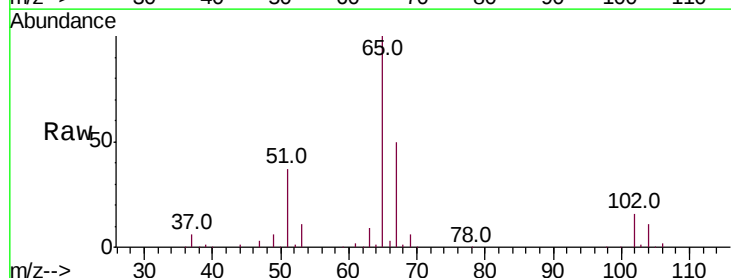


Abundance Ion 56.00 (55.70 to 56.70): VNC  
Ion 69.00 (68.70 to 69.70): VNC  
Ion 84.00 (83.70 to 84.70): VNC

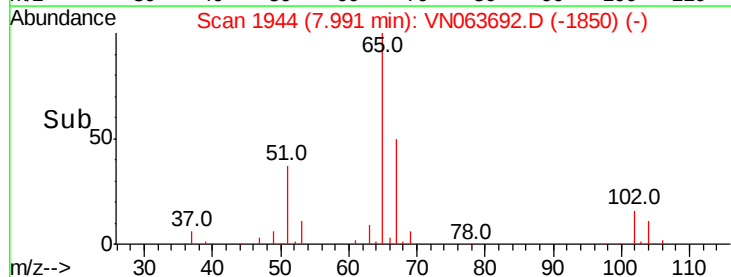
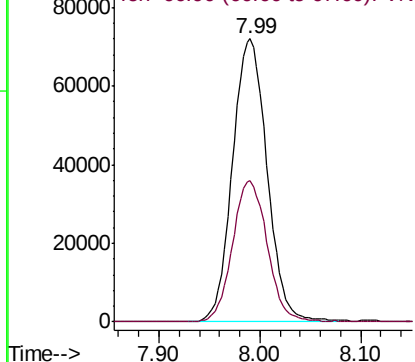


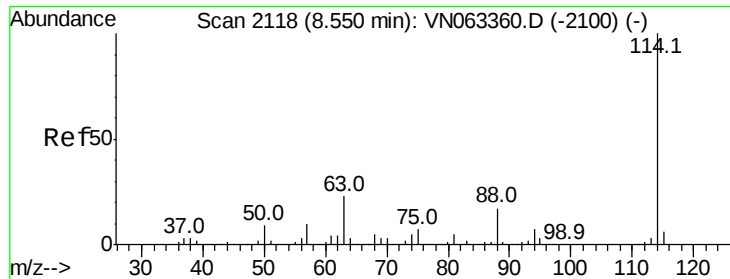
#33  
1,2-Dichloroethane-d4  
Concen: 51.055 ug/l  
RT: 7.99 min Scan# 1944  
Delta R.T. 0.00 min  
Lab File: VN063692.D  
Acq: 25 Sep 2020 20:42

Tgt Ion: 65 Resp: 171415  
Ion Ratio Lower Upper  
65 100  
67 50.1 0.0 104.2



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

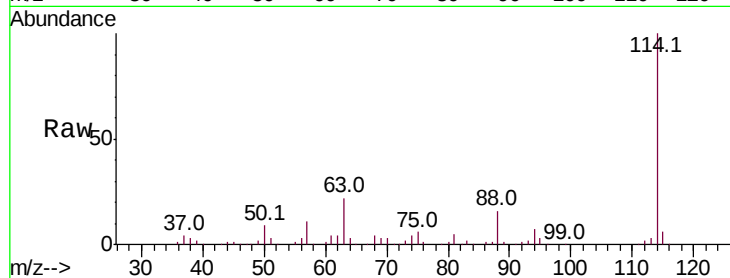




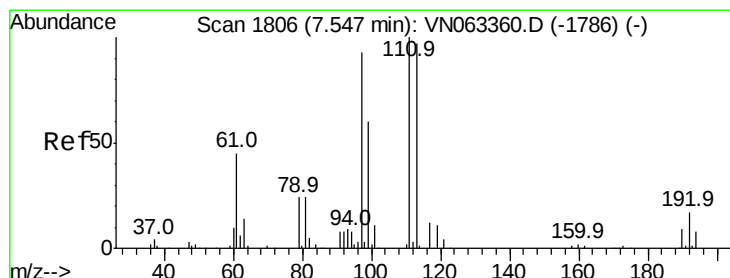
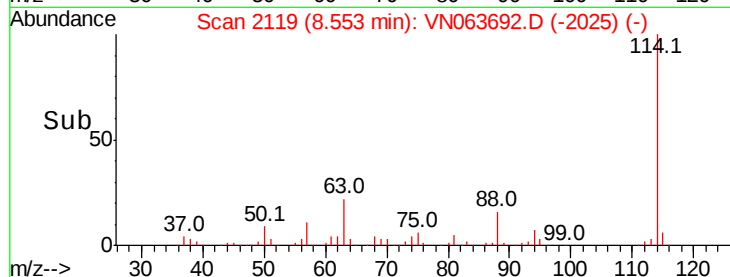
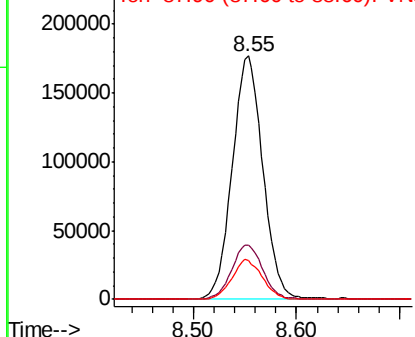
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.55 min Scan# 2119  
 Delta R.T. 0.00 min  
 Lab File: VN063692.D  
 Acq: 25 Sep 2020 20:42

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 MW1D

Tot Ion:114 Resp: 365951  
 Ion Ratio Lower Upper  
 114 100  
 63 22.2 0.0 46.4  
 88 15.8 0.0 33.2

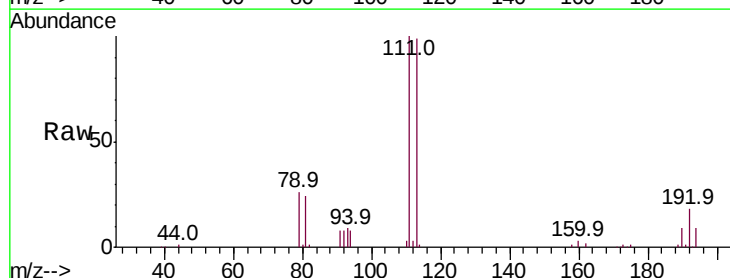


Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): VN  
 Ion 87.90 (87.60 to 88.60): VN

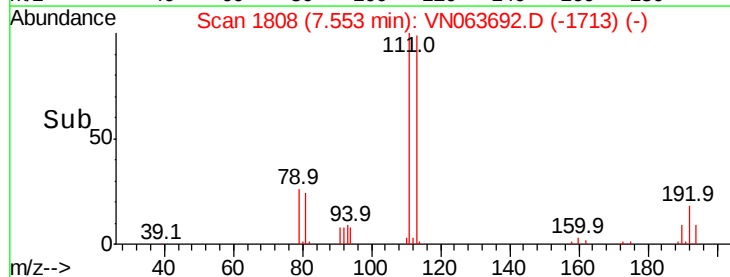
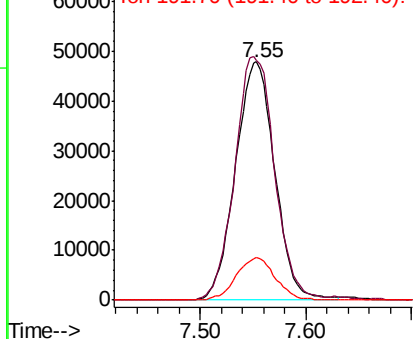


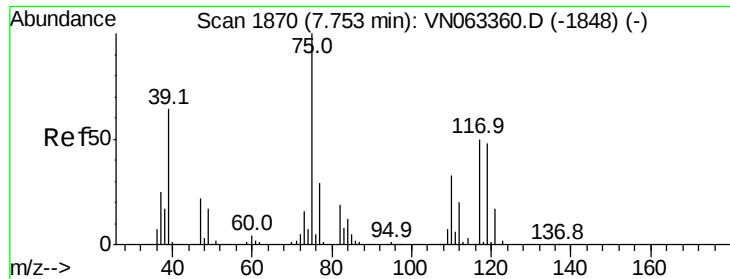
#35  
 Dibromofluoromethane  
 Concen: 48.963 ug/l  
 RT: 7.55 min Scan# 1808  
 Delta R.T. 0.01 min  
 Lab File: VN063692.D  
 Acq: 25 Sep 2020 20:42

Tgt Ion:113 Resp: 124043  
 Ion Ratio Lower Upper  
 113 100  
 111 103.3 82.9 124.3  
 192 17.7 13.9 20.9



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

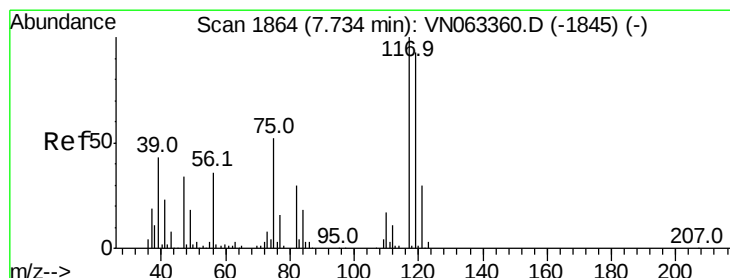
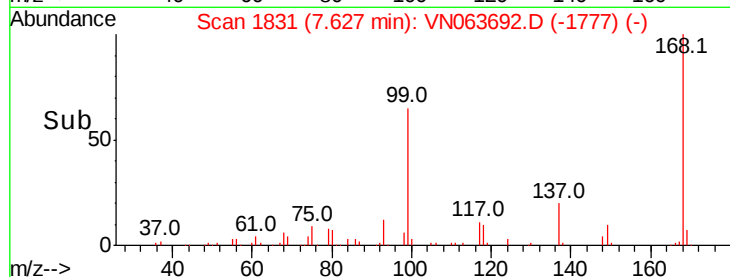
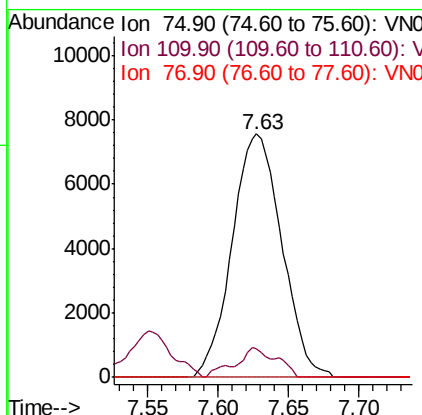
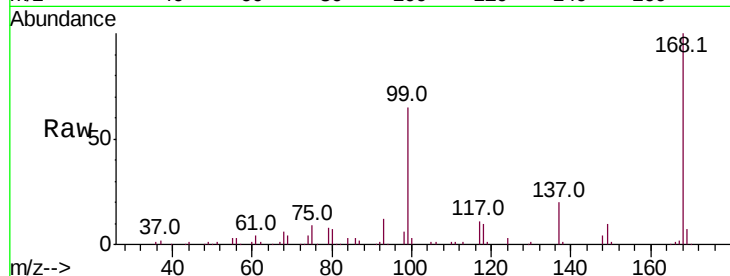




#36  
 1,1-Dichloropropene  
 Concen: 4.766 ug/l  
 RT: 7.63 min Scan# 1831  
 Delta R.T. -0.13 min  
 Lab File: VN063692.D  
 Acq: 25 Sep 2020 20:42

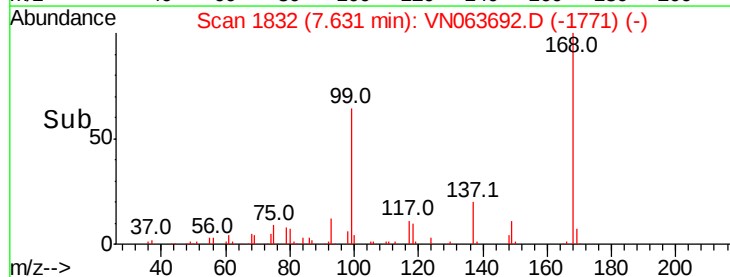
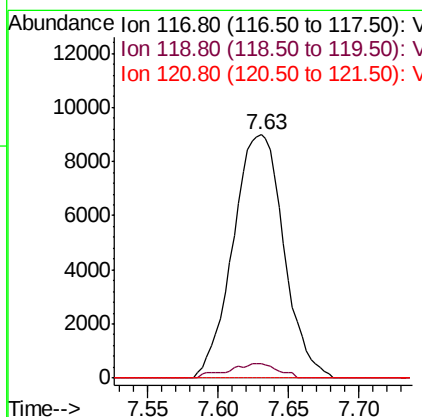
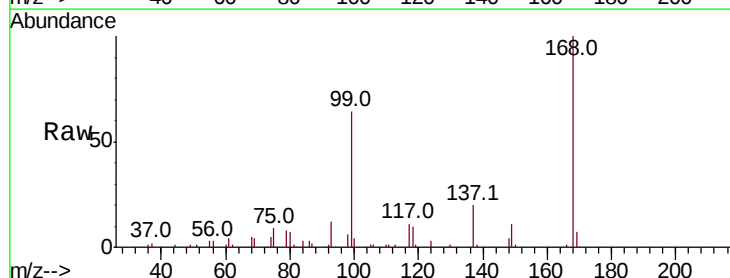
Instrument :  
 MSVOA\_N  
 ClientSampleID :  
 MW1D

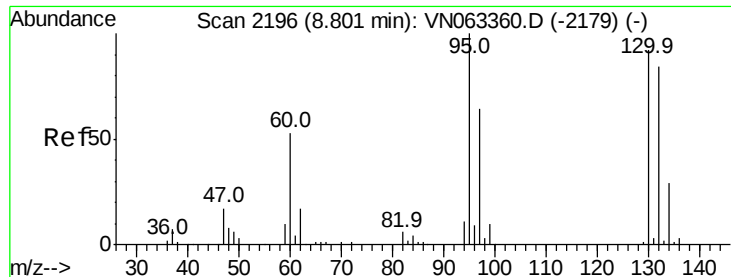
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 8.2   | 16.5  | 49.5# |
| 77      | 0.0   | 24.6  | 36.8# |



#38  
 Carbon Tetrachloride  
 Concen: 5.688 ug/l  
 RT: 7.63 min Scan# 1832  
 Delta R.T. -0.10 min  
 Lab File: VN063692.D  
 Acq: 25 Sep 2020 20:42

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 5.7   | 74.5  | 111.7# |
| 121     | 0.0   | 24.1  | 36.1#  |





#44

Trichloroethene

Concen: 16.066 ug/l

RT: 8.80 min Scan# 2197

Delta R.T. 0.00 min

Lab File: VN063692.D

Acq: 25 Sep 2020 20:42

Instrument :

MSVOA\_N

ClientSampleId :

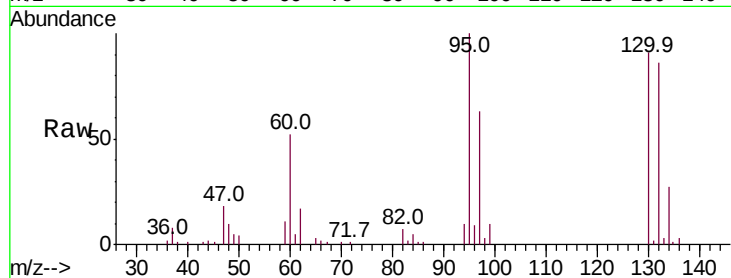
MW1D

Tot Ion:130 Resp: 43368

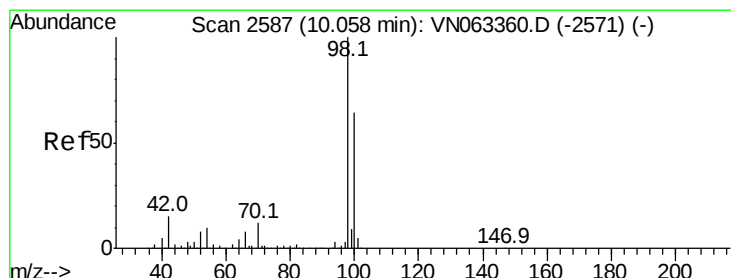
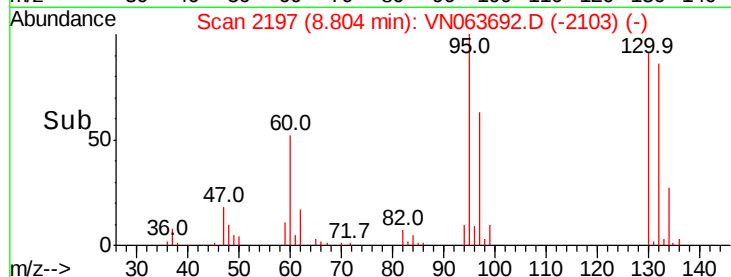
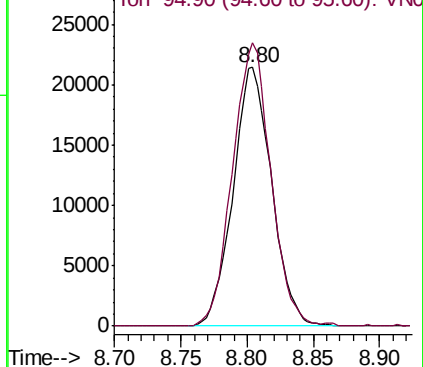
Ion Ratio Lower Upper

130 100

95 109.4 0.0 217.4



Abundance Ion 129.80 (129.50 to 130.50): VN063360.D (-2179) (-)



#50

Toluene-d8

Concen: 49.547 ug/l

RT: 10.06 min Scan# 2588

Delta R.T. 0.00 min

Lab File: VN063692.D

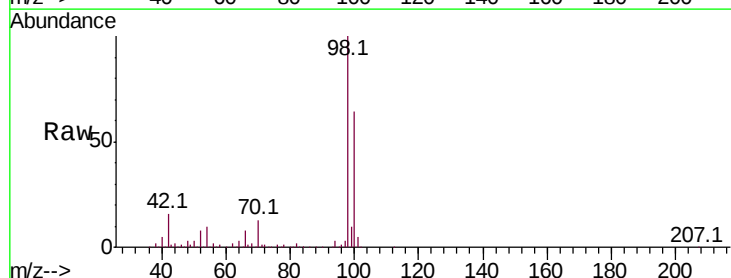
Acq: 25 Sep 2020 20:42

Tgt Ion: 98 Resp: 471984

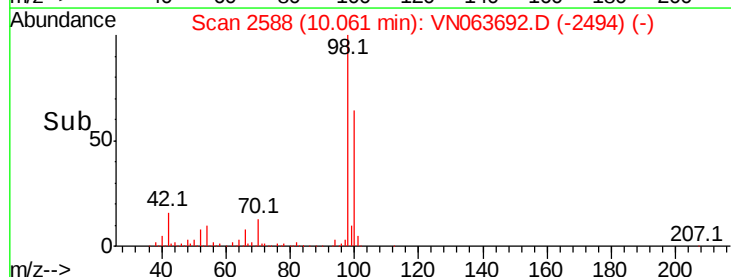
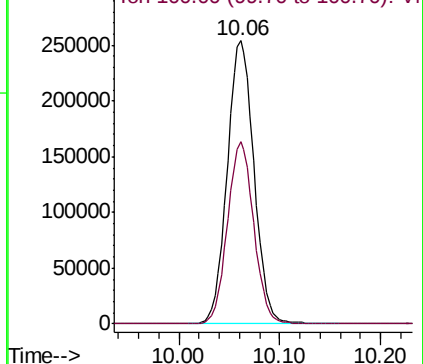
Ion Ratio Lower Upper

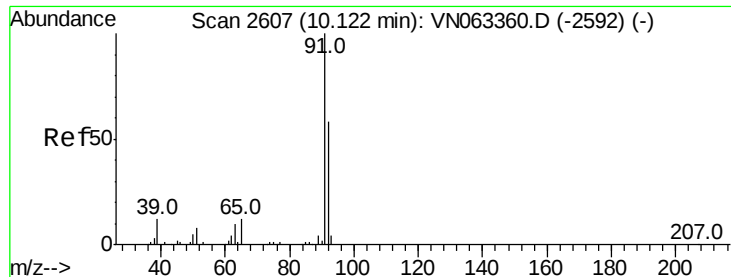
98 100

100 62.9 50.7 76.1



Abundance Ion 98.00 (97.70 to 98.70): VN063360.D (-2571) (-)





#52

Toluene

Concen: 0.367 ug/l

RT: 10.13 min Scan# 2608

Delta R.T. 0.00 min

Lab File: VN063692.D

Acq: 25 Sep 2020 20:42

Instrument :

MSVOA\_N

ClientSampleId :

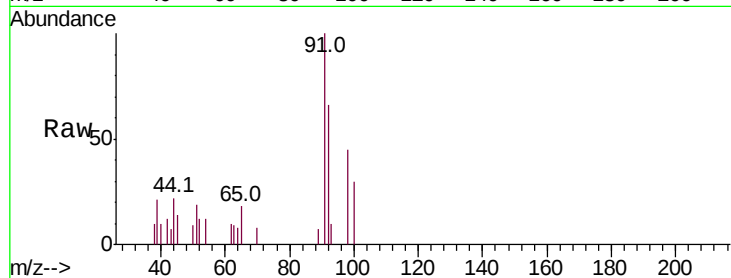
MW1D

Tot Ion: 92 Resp: 2458

Ion Ratio Lower Upper

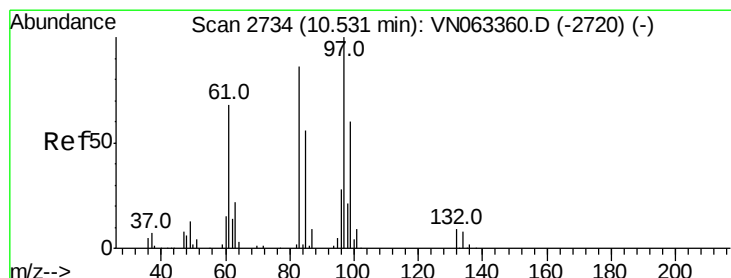
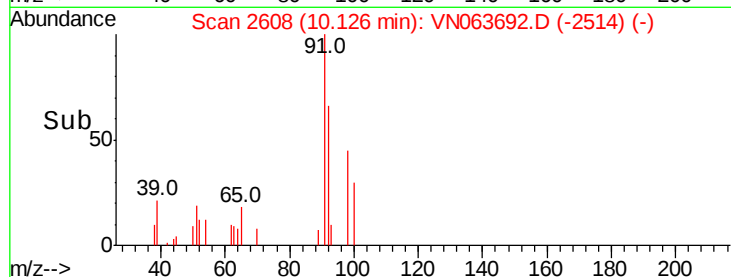
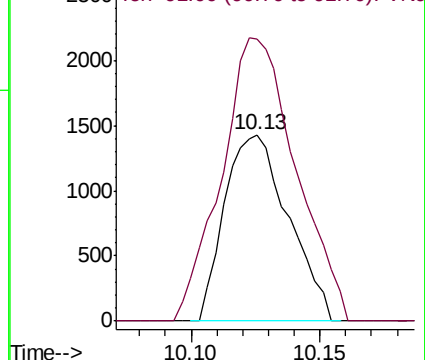
92 100

91 178.0 139.7 209.5



Abundance Ion 92.00 (91.70 to 92.70): VN063360.D (-2592) (-)

Ion 91.00 (90.70 to 91.70): VN063360.D (-2592) (-)



#55

1,1,2-Trichloroethane

Concen: 4.958 ug/l

RT: 10.60 min Scan# 2757

Delta R.T. 0.07 min

Lab File: VN063692.D

Acq: 25 Sep 2020 20:42

Tgt Ion: 97 Resp: 13178

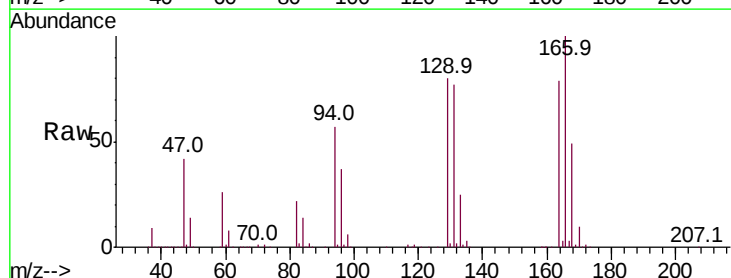
Ion Ratio Lower Upper

97 100

83 228.7 68.9 103.3#

85 44.3 44.8 67.2#

99 19.2 47.8 71.8#

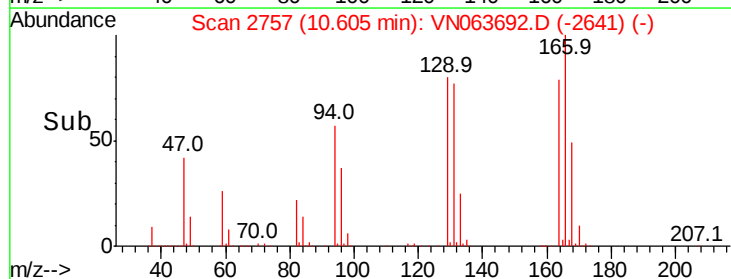
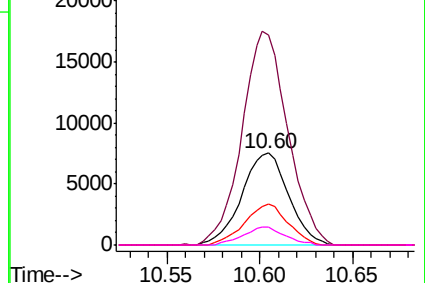


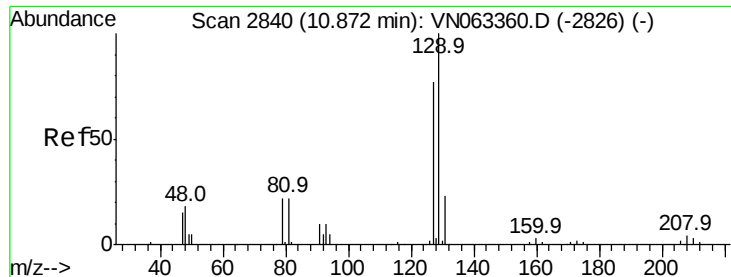
Abundance Ion 96.90 (96.60 to 97.60): VN063360.D (-2720) (-)

Ion 82.90 (82.60 to 83.60): VN063360.D (-2720) (-)

Ion 84.90 (84.60 to 85.60): VN063360.D (-2720) (-)

Ion 98.90 (98.60 to 99.60): VN063360.D (-2720) (-)





#60

Dibromochloromethane

Concen: 399.556 ug/l

RT: 10.60 min Scan# 2757

Delta R.T. -0.27 min

Lab File: VN063692.D

Acq: 25 Sep 2020 20:42

Instrument :

MSVOA\_N

ClientSampleId :

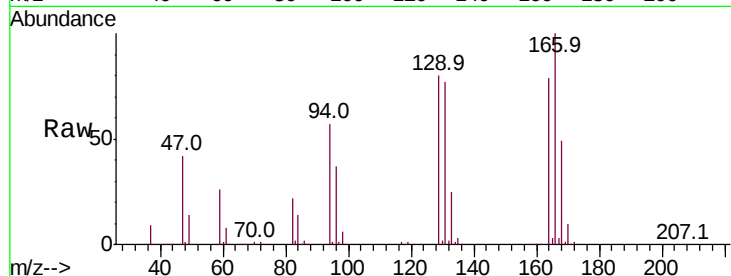
MW1D

Tot Ion:129 Resp: 1199723

Ion Ratio Lower Upper

129 100

127 0.1 39.1 117.3#



Abundance Ion 128.80 (128.50 to 129.50): V

Ion 126.80 (126.50 to 127.50): V

10.60

800000

600000

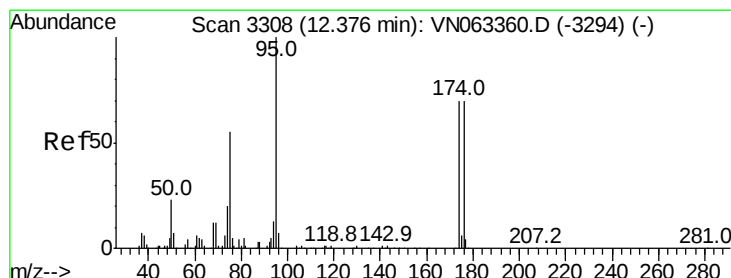
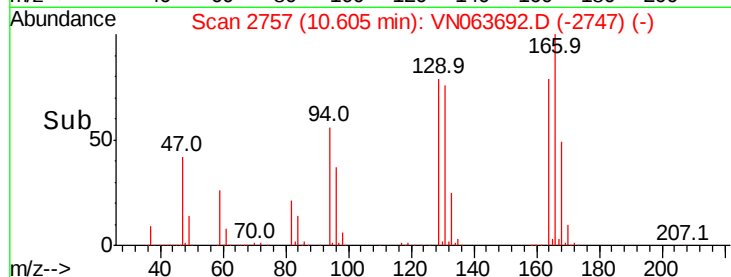
400000

200000

0

Time-->

10.55 10.60 10.65 10.70



#62

4-Bromofluorobenzene

Concen: 53.568 ug/l

RT: 12.38 min Scan# 3308

Delta R.T. -0.00 min

Lab File: VN063692.D

Acq: 25 Sep 2020 20:42

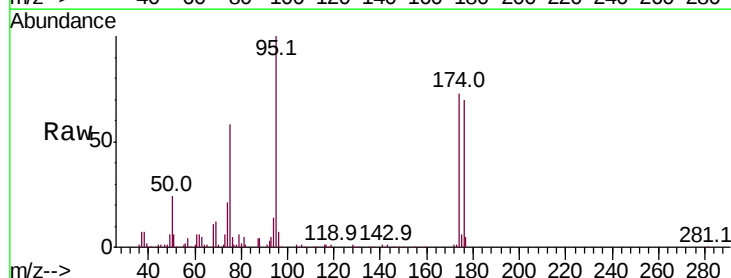
Tgt Ion: 95 Resp: 187063

Ion Ratio Lower Upper

95 100

174 72.9 0.0 140.8

176 70.1 0.0 137.6



Abundance Ion 94.90 (94.60 to 95.60): VN0

Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V

150000

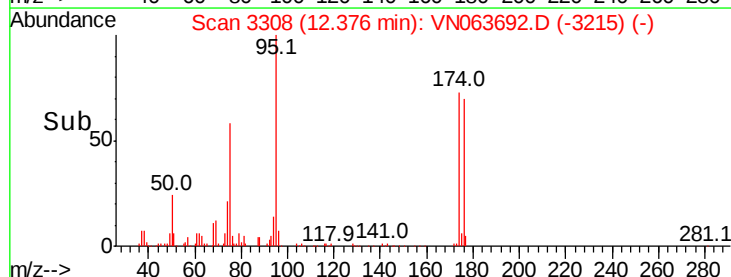
100000

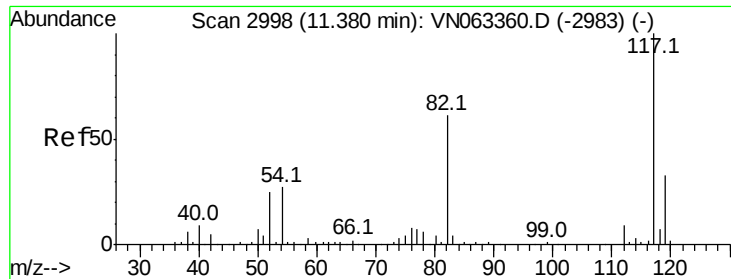
50000

0

Time-->

12.30 12.35 12.40 12.45

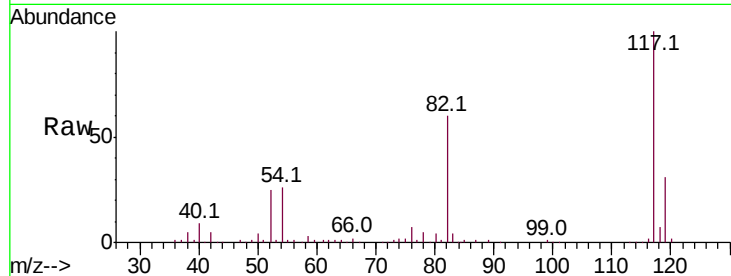




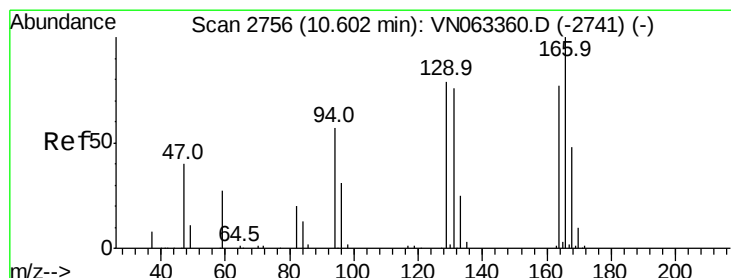
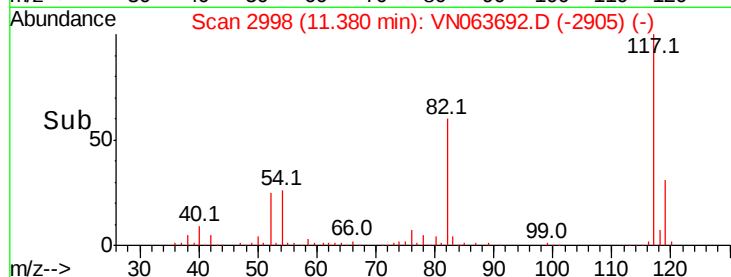
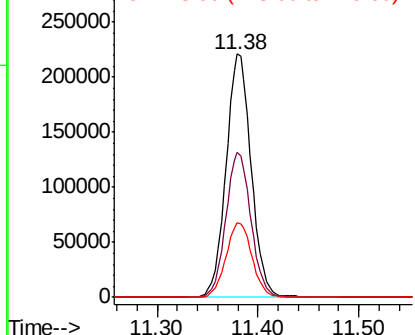
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.38 min Scan# 2998  
Delta R.T. -0.00 min  
Lab File: VN063692.D  
Acq: 25 Sep 2020 20:42

Instrument :  
MSVOA\_N  
ClientSampleId :  
MW1D

Tot Ion:117 Resp: 384016  
Ion Ratio Lower Upper  
117 100  
82 59.6 49.2 73.8  
119 30.6 26.2 39.4

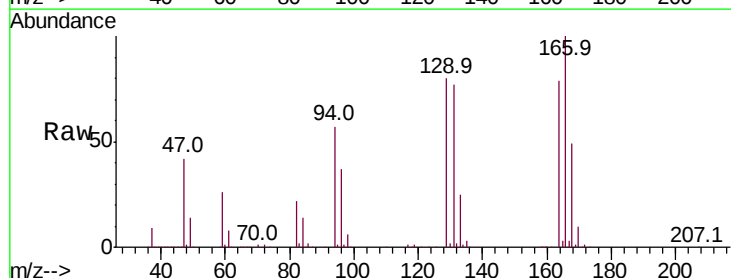


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): V  
Ion 118.90 (118.60 to 119.60): V

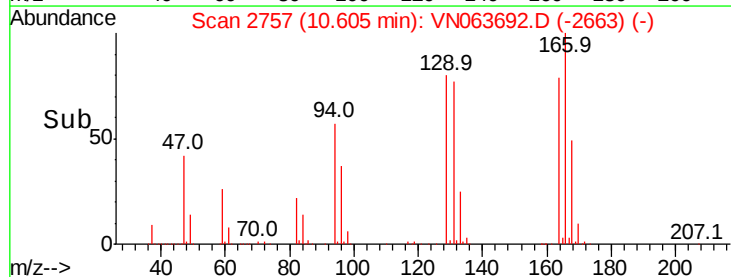
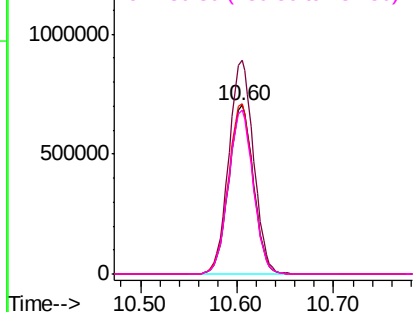


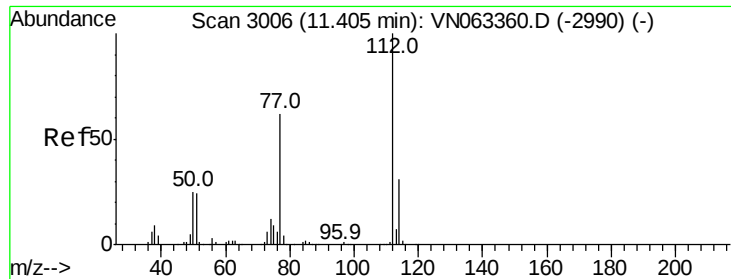
#64  
Tetrachloroethene  
Concen: 476.648 ug/l  
RT: 10.60 min Scan# 2757  
Delta R.T. 0.00 min  
Lab File: VN063692.D  
Acq: 25 Sep 2020 20:42

Tgt Ion:164 Resp: 1246373  
Ion Ratio Lower Upper  
164 100  
166 126.8 103.4 155.0  
129 100.9 81.8 122.6  
131 97.1 78.2 117.4



Abundance Ion 163.80 (163.50 to 164.50): V  
Ion 165.80 (165.50 to 166.50): V  
Ion 128.80 (128.50 to 129.50): V  
Ion 130.80 (130.50 to 131.50): V

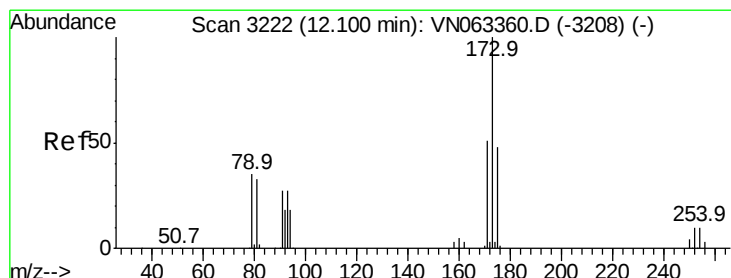
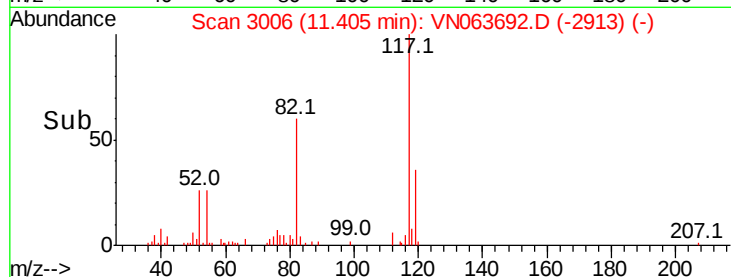
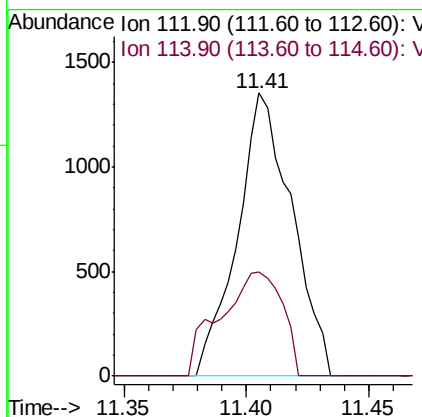
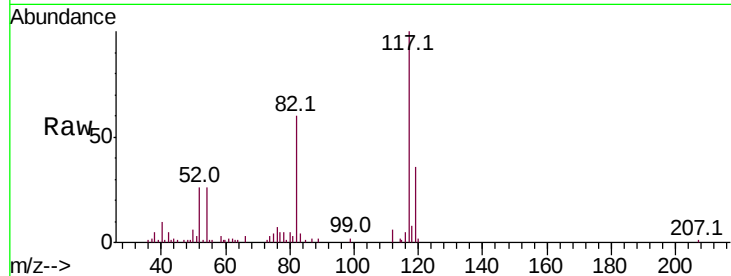




#65  
Chlorobenzene  
Concen: 0.257 ug/l  
RT: 11.41 min Scan# 3006  
Delta R.T. -0.00 min  
Lab File: VN063692.D  
Acq: 25 Sep 2020 20:42

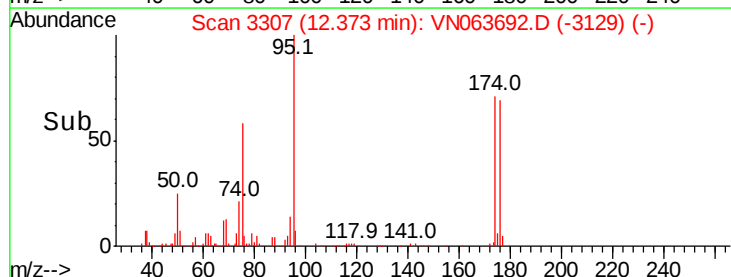
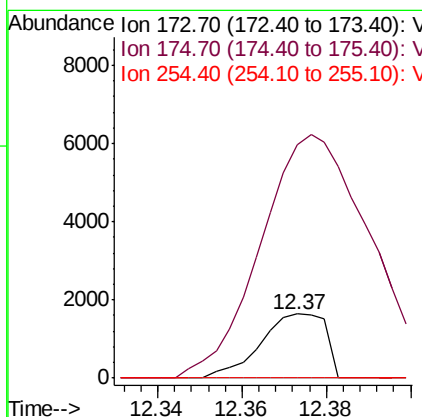
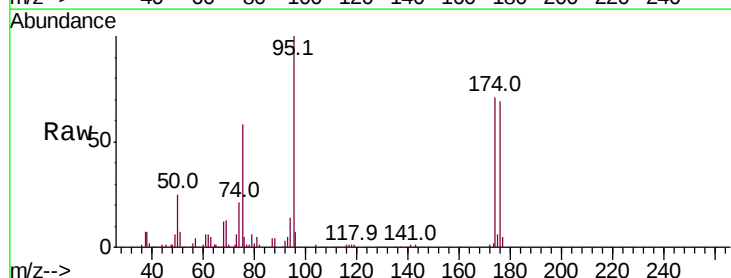
Instrument :  
MSVOA\_N  
ClientSampleId :  
MW1D

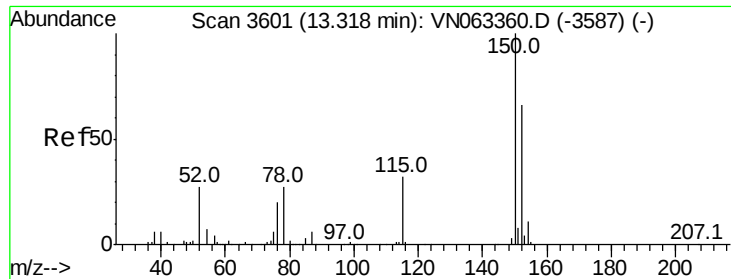
Tot Ion:112 Resp: 2096  
Ion Ratio Lower Upper  
112 100  
114 36.7 25.0 37.6



#71  
Bromoform  
Concen: 0.790 ug/l  
RT: 12.37 min Scan# 3307  
Delta R.T. 0.27 min  
Lab File: VN063692.D  
Acq: 25 Sep 2020 20:42

Tgt Ion:173 Resp: 1758  
Ion Ratio Lower Upper  
173 100  
175 500.0 24.0 72.0#  
254 0.0 0.0 0.0





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.32 min Scan# 3601

Delta R.T. -0.00 min

Lab File: VN063692.D

Acq: 25 Sep 2020 20:42

Instrument :

MSVOA\_N

ClientSampleId :

MW1D

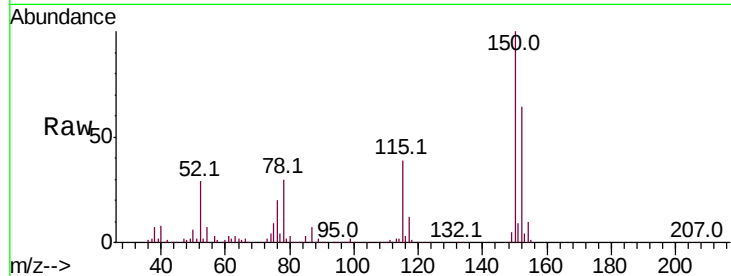
Tot Ion:152 Resp: 161204

Ion Ratio Lower Upper

152 100

115 61.5 32.2 96.6

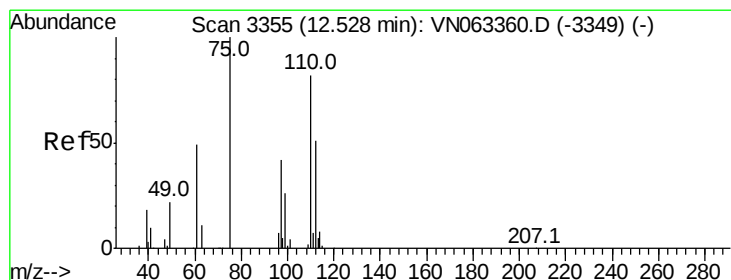
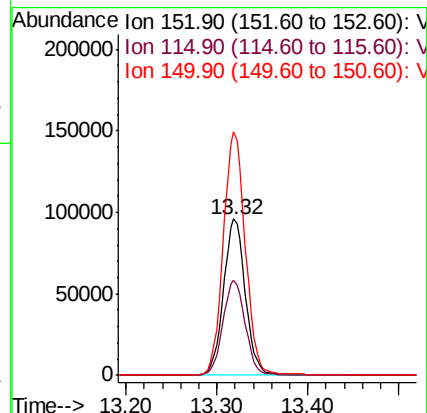
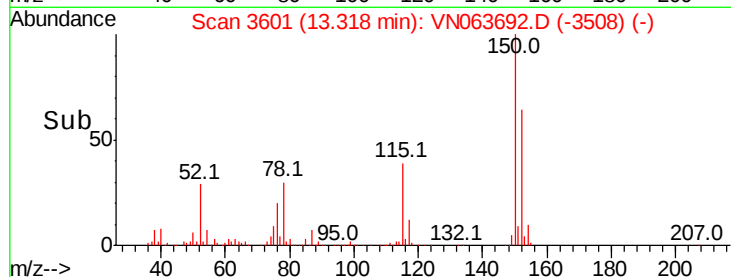
150 155.0 0.0 343.4



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: 27.099 ug/l

RT: 12.38 min Scan# 3308

Delta R.T. -0.15 min

Lab File: VN063692.D

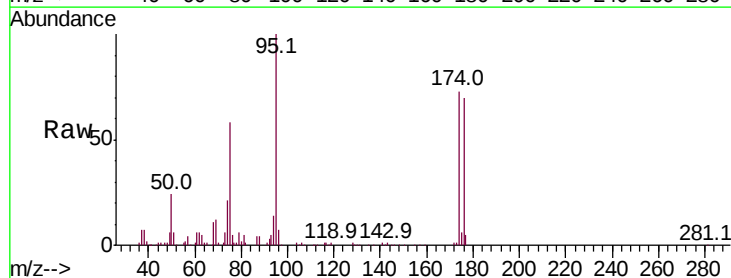
Acq: 25 Sep 2020 20:42

Tgt Ion: 75 Resp: 108125

Ion Ratio Lower Upper

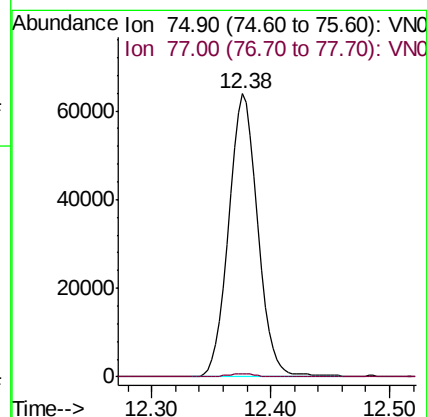
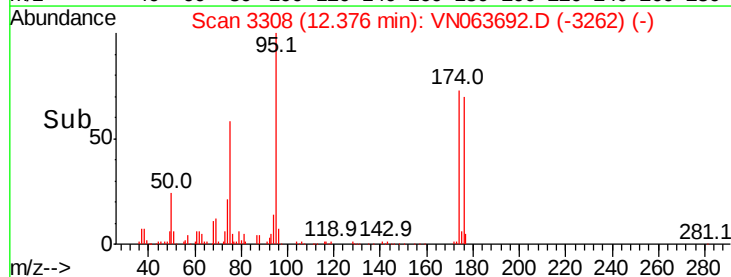
75 100

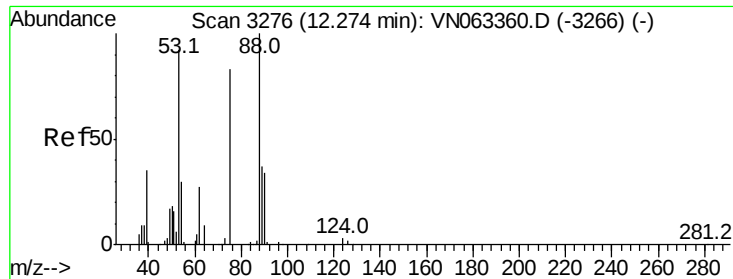
77 1.1 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): V

Ion 77.00 (76.70 to 77.70): V





#81

trans-1,4-Dichloro-2-butene

Concen: 74.295 ug/l

RT: 12.38 min Scan# 3308

Delta R.T. 0.10 min

Lab File: VN063692.D

Acq: 25 Sep 2020 20:42

Instrument :

MSVOA\_N

ClientSampleId :

MW1D

Tot Ion: 75 Resp: 108125

Ion Ratio Lower Upper

75 100

53 0.0 85.7 128.5#

89 0.0 38.0 57.0#

