

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN061720\  
 Data File : VN061840.D  
 Acq On : 17 Jun 2020 11:41  
 Operator : JC/MD  
 Sample : VN0617WBL01  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0617WBL01

Quant Time: Jun 18 03:51:21 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N061620W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jun 17 01:19:44 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.62  | 168  | 152192   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.55  | 114  | 271336   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.38 | 117  | 251201   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.32 | 152  | 97507    | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 7.98   | 65  | 95088    | 46.59 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 93.18%  |      |
| 35) Dibromofluoromethane  | 7.54   | 113 | 87103    | 50.18 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.36% |      |
| 50) Toluene-d8            | 10.06  | 98  | 331917   | 48.64 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.28%  |      |
| 62) 4-Bromofluorobenzene  | 12.37  | 95  | 106098   | 45.32 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 90.64%  |      |

## Target Compounds

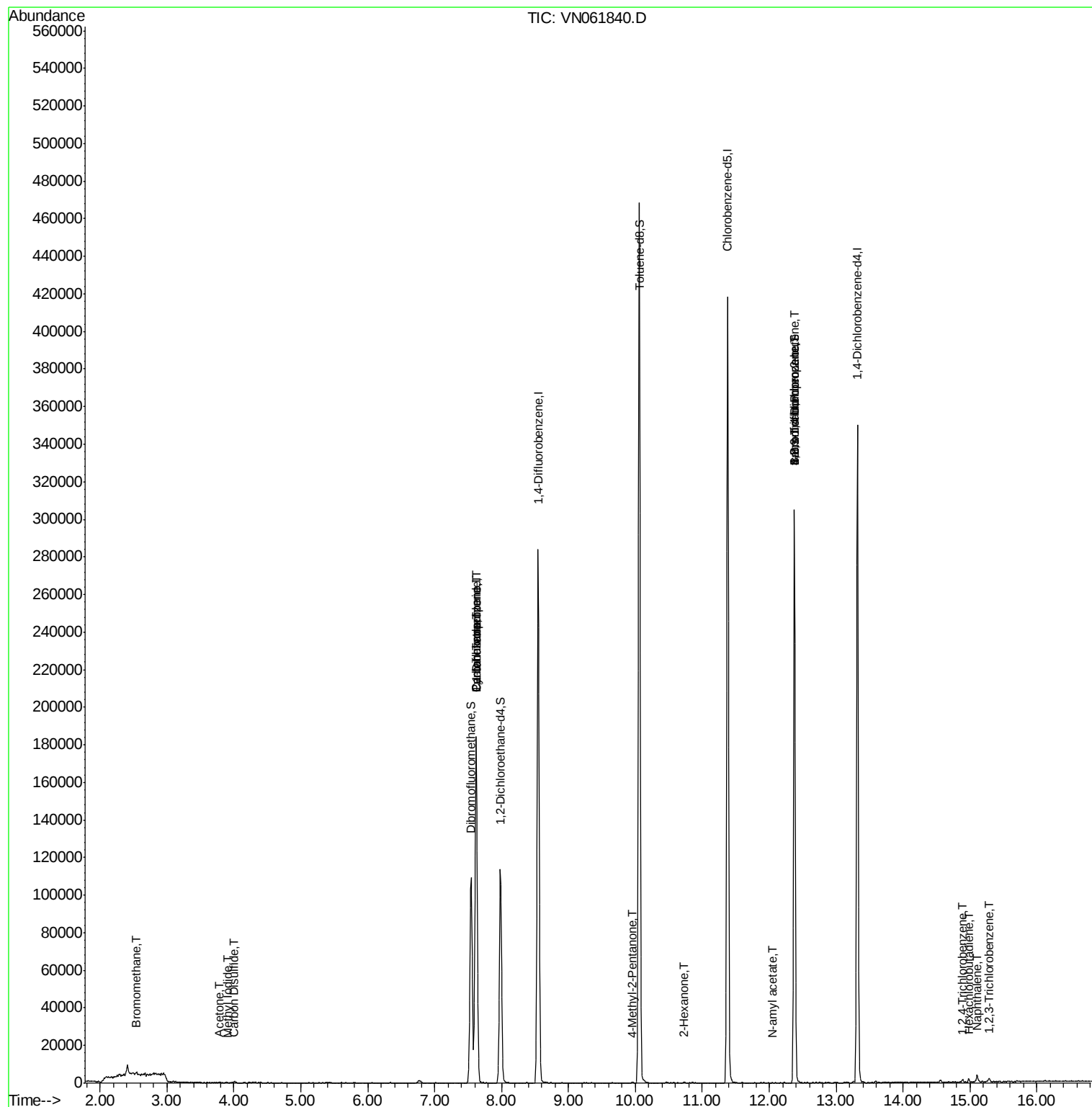
|                                |       |     |       |        |        | Qvalue |
|--------------------------------|-------|-----|-------|--------|--------|--------|
| 5) Bromomethane                | 2.54  | 94  | 460   | 0.238  | ug/l # | 71     |
| 10) Methyl Iodide              | 3.91  | 142 | 135   | 5.384  | ug/l # | 42     |
| 16) Acetone                    | 3.77  | 43  | 157   | 0.260  | ug/l # | 40     |
| 17) Carbon Disulfide           | 4.00  | 76  | 1107  | 0.245  | ug/l # | 75     |
| 31) Cyclohexane                | 7.62  | 56  | 3067  | 1.140  | ug/l # | 25     |
| 36) 1,1-Dichloropropene        | 7.62  | 75  | 11390 | 4.602  | ug/l # | 48     |
| 38) Carbon Tetrachloride       | 7.62  | 117 | 15138 | 6.177  | ug/l # | 17     |
| 51) 4-Methyl-2-Pentanone       | 9.95  | 43  | 495   | 0.257  | ug/l # | 33     |
| 59) 2-Hexanone                 | 10.72 | 43  | 487   | 13.706 | ug/l # | 54     |
| 71) Bromoform                  | 12.38 | 173 | 720   | 0.534  | ug/l # | 1      |
| 74) N-amyl acetate             | 12.05 | 43  | 64    | 3.088  | ug/l # | 38     |
| 76) 1,2,3-Trichloropropane     | 12.37 | 75  | 52982 | 27.677 | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.37 | 75  | 52982 | 75.486 | ug/l # | 14     |
| 93) 1,2,4-Trichlorobenzene     | 14.89 | 180 | 791   | 0.546  | ug/l # | 83     |
| 94) Hexachlorobutadiene        | 14.99 | 225 | 445   | 0.780  | ug/l   | 83     |
| 95) Naphthalene                | 15.11 | 128 | 4260  | 4.300  | ug/l # | 88     |
| 96) 1,2,3-Trichlorobenzene     | 15.28 | 180 | 878   | 0.612  | ug/l # | 84     |

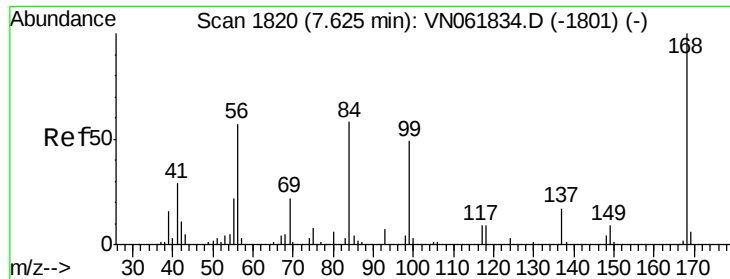
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN061720\  
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Acq On : 17 Jun 2020 11:41  
Operator : JC/MD  
Sample : VN0617WBL01  
Misc : 5.00mL/MSVOA N/WATER  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0617WBL01

Quant Time: Jun 18 03:51:21 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N061620W.M  
Quant Title : SW846 8260  
QLast Update : Wed Jun 17 01:19:44 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.62 min Scan# 1819

Delta R.T. -0.00 min

Lab File: VN061840.D

Acq: 17 Jun 2020 11:41

Instrument :

MSVOA\_N

ClientSampleId :

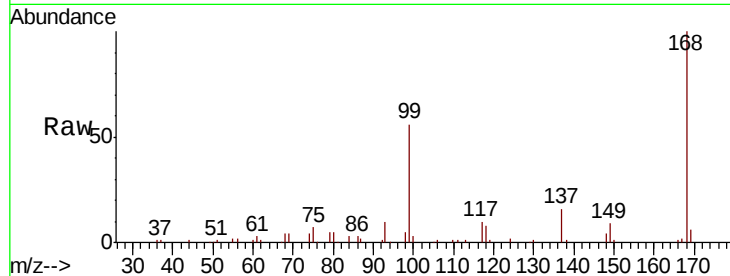
VN0617WBL01

Tot Ion:168 Resp: 152192

Ion Ratio Lower Upper

168 100

99 56.0 44.6 67.0



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN

7.62

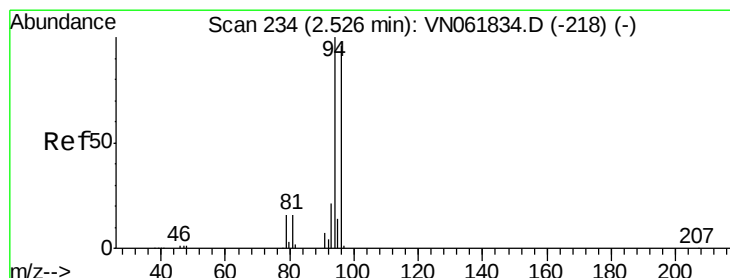
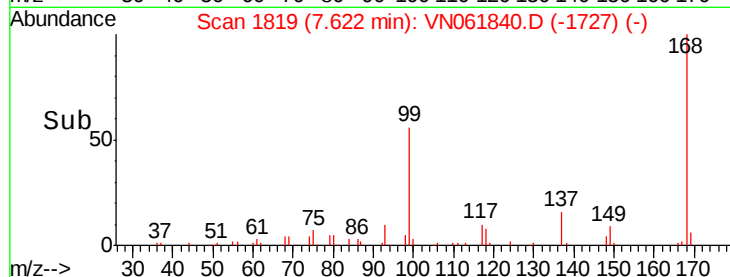
60000

40000

20000

0

Time--> 7.50 7.60 7.70



#5

Bromomethane

Concen: 0.238 ug/l

RT: 2.54 min Scan# 239

Delta R.T. 0.02 min

Lab File: VN061840.D

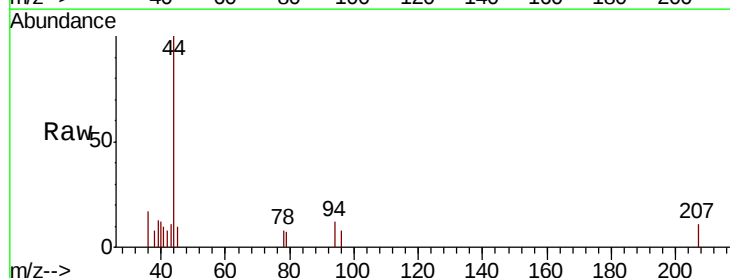
Acq: 17 Jun 2020 11:41

Tgt Ion: 94 Resp: 460

Ion Ratio Lower Upper

94 100

96 67.3 76.7 115.1#



Abundance Ion 93.90 (93.60 to 94.60): VN

Ion 95.90 (95.60 to 96.60): VN

2.54

300

250

200

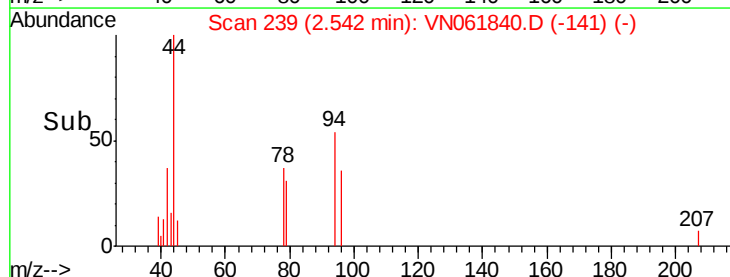
150

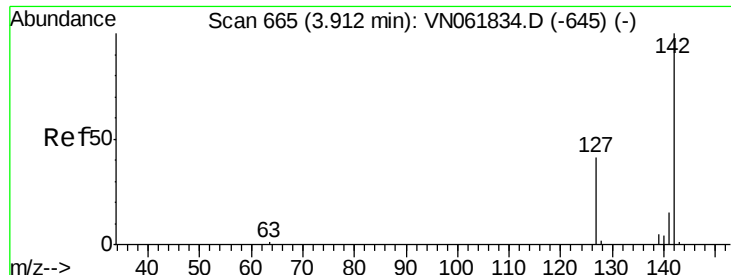
100

50

0

Time--> 2.52 2.54 2.56 2.58

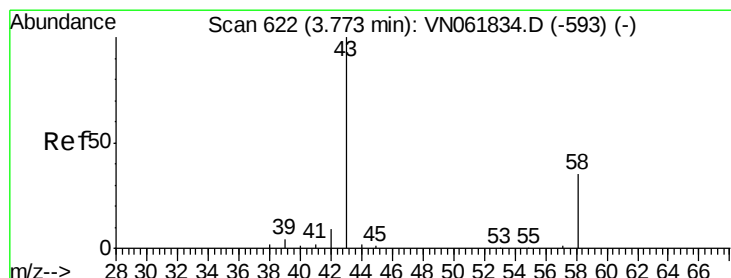
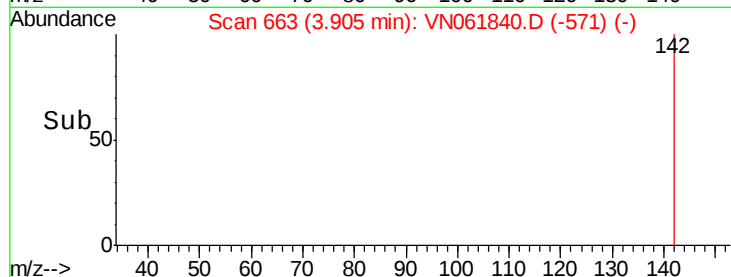
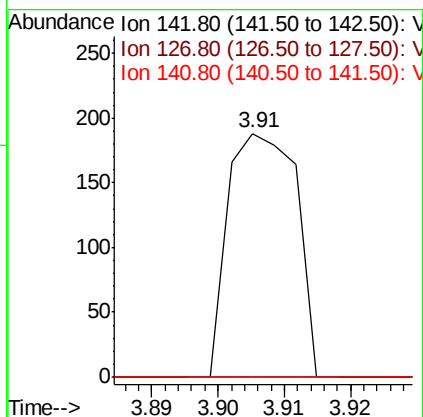
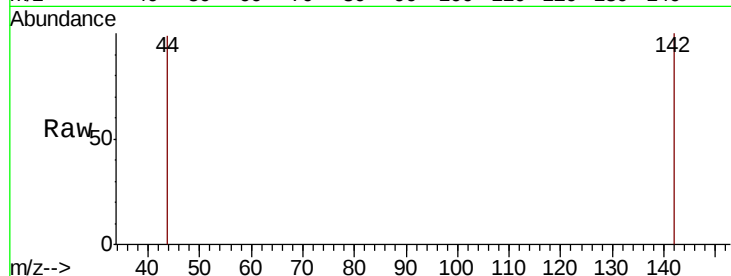




#10  
Methyl Iodide  
Concen: 5.384 ug/l  
RT: 3.91 min Scan# 663  
Delta R.T. -0.01 min  
Lab File: VN061840.D  
Acq: 17 Jun 2020 11:41

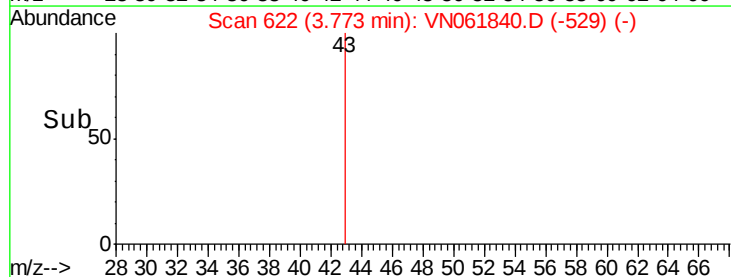
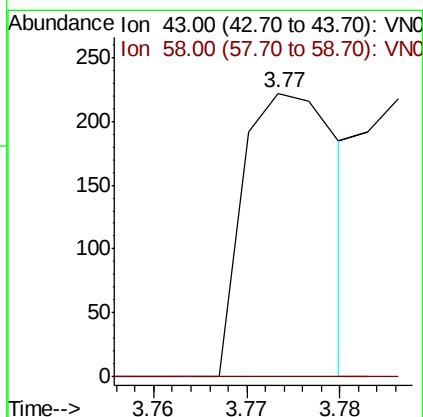
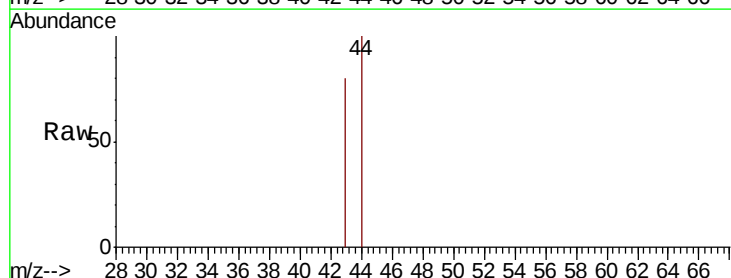
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0617WBL01

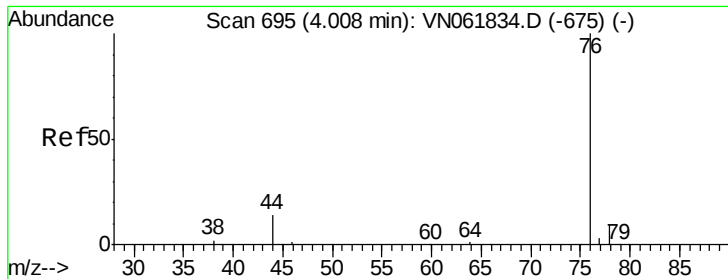
Tot Ion:142 Resp: 135  
Ion Ratio Lower Upper  
142 100  
127 0.0 33.4 50.0#  
141 0.0 11.3 16.9#



#16  
Acetone  
Concen: 0.260 ug/l  
RT: 3.77 min Scan# 622  
Delta R.T. 0.00 min  
Lab File: VN061840.D  
Acq: 17 Jun 2020 11:41

Tgt Ion: 43 Resp: 157  
Ion Ratio Lower Upper  
43 100  
58 0.0 27.8 41.8#

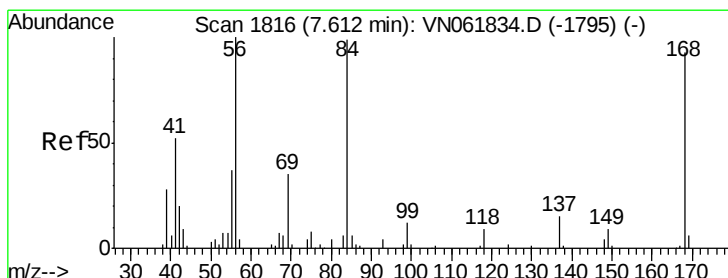
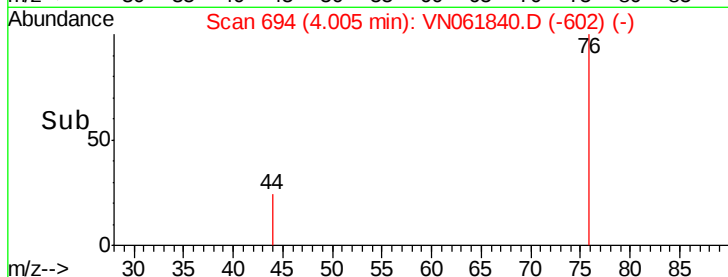
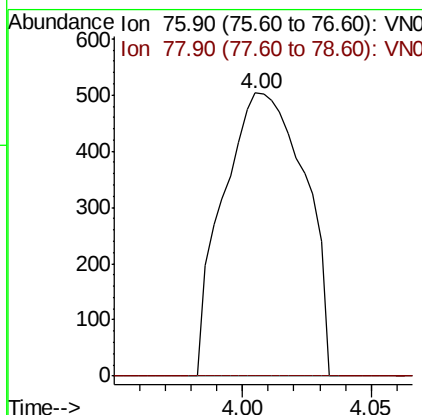
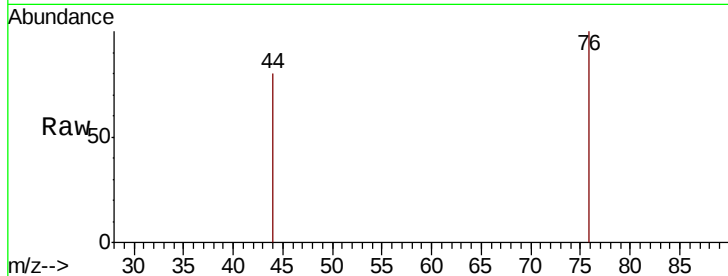




#17  
Carbon Disulfide  
Concen: 0.245 ug/l  
RT: 4.00 min Scan# 694  
Delta R.T. -0.00 min  
Lab File: VN061840.D  
Acq: 17 Jun 2020 11:41

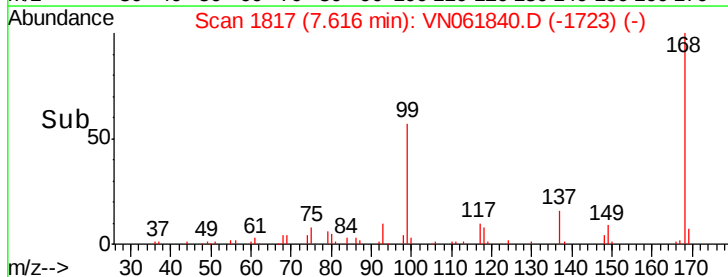
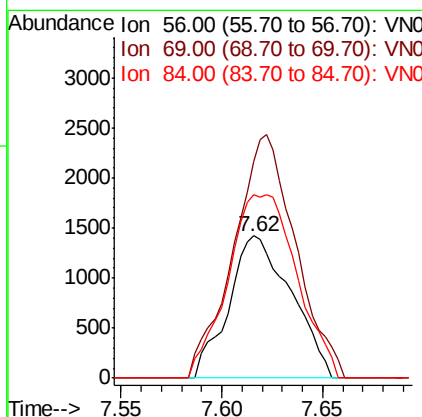
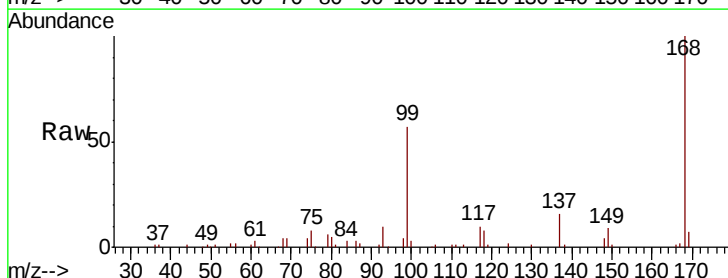
Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0617WBL01

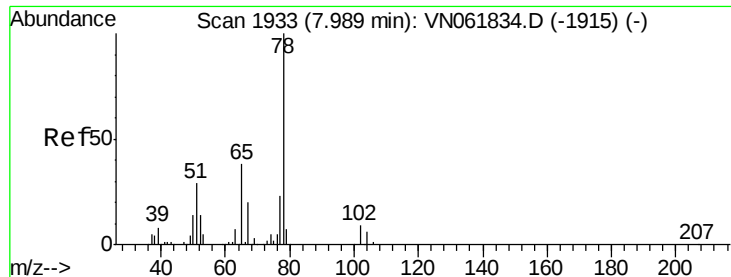
Tot Ion: 76 Resp: 1107  
Ion Ratio Lower Upper  
76 100  
78 0.0 7.3 10.9#



#31  
Cyclohexane  
Concen: 1.140 ug/l  
RT: 7.62 min Scan# 1817  
Delta R.T. 0.00 min  
Lab File: VN061840.D  
Acq: 17 Jun 2020 11:41

Tgt Ion: 56 Resp: 3067  
Ion Ratio Lower Upper  
56 100  
69 152.1 27.7 41.5#  
84 128.7 79.1 118.7#





#33

1,2-Dichloroethane-d4

Concen: 46.586 ug/l

RT: 7.98 min Scan# 1931

Delta R.T. -0.01 min

Lab File: VN061840.D

Acq: 17 Jun 2020 11:41

Instrument :

MSVOA\_N

ClientSampleId :

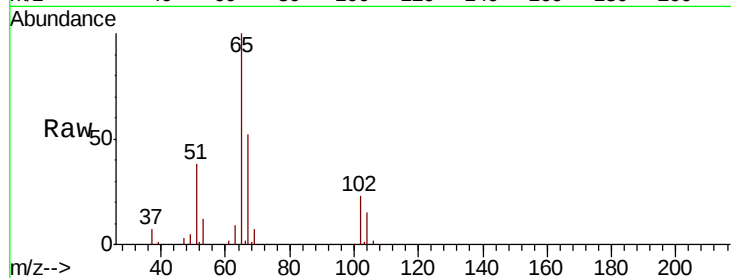
VN0617WBL01

Tot Ion: 65 Resp: 95088

Ion Ratio Lower Upper

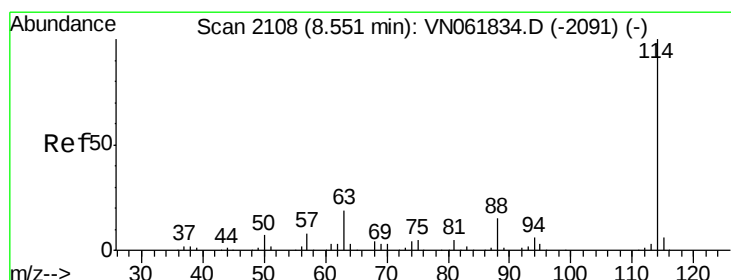
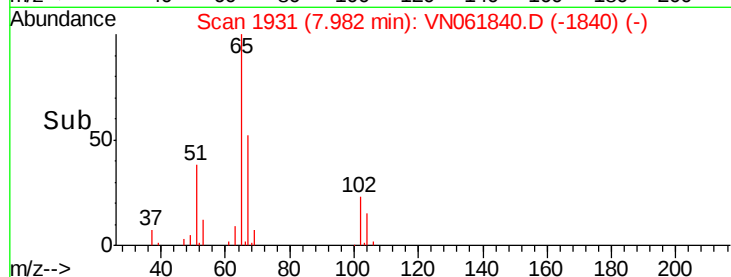
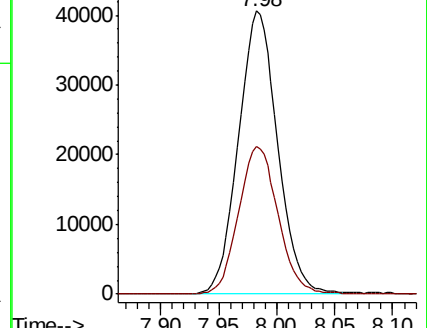
65 100

67 52.5 0.0 106.2



Abundance Ion 64.90 (64.60 to 65.60): VN061834.D (-1915) (-)

Ion 66.90 (66.60 to 67.60): VN061834.D (-1915) (-)



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.55 min Scan# 2107

Delta R.T. -0.00 min

Lab File: VN061840.D

Acq: 17 Jun 2020 11:41

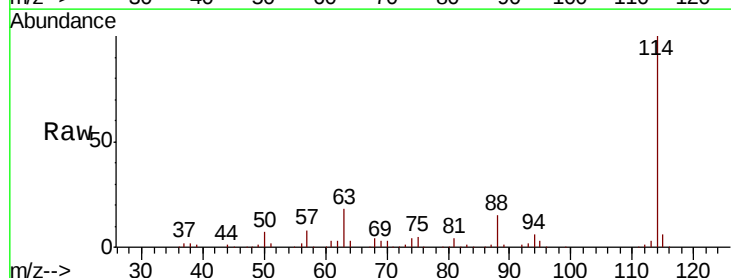
Tgt Ion: 114 Resp: 271336

Ion Ratio Lower Upper

114 100

63 18.4 0.0 37.6

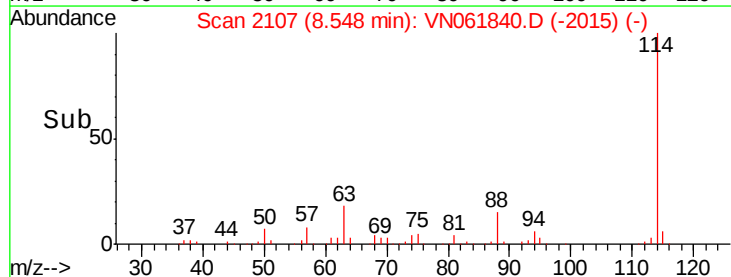
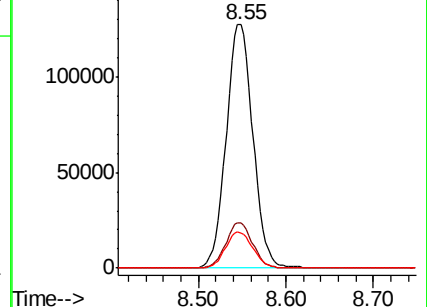
88 14.6 0.0 31.0

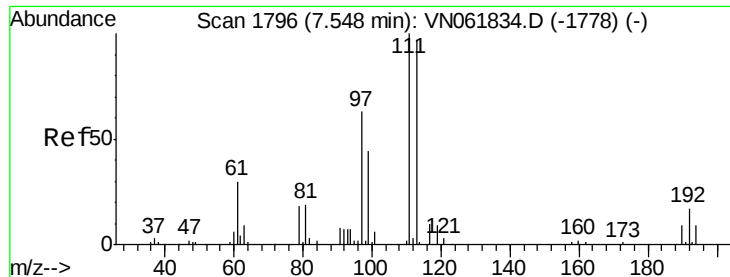


Abundance Ion 113.90 (113.60 to 114.60): VN061834.D (-2091) (-)

Ion 63.00 (62.70 to 63.70): VN061834.D (-2091) (-)

Ion 87.90 (87.60 to 88.60): VN061834.D (-2091) (-)





#35

Dibromofluoromethane

Concen: 50.178 ug/l

RT: 7.54 min Scan# 1795

Delta R.T. -0.00 min

Lab File: VN061840.D

Acq: 17 Jun 2020 11:41

Instrument :

MSVOA\_N

ClientSampleId :

VN0617WBL01

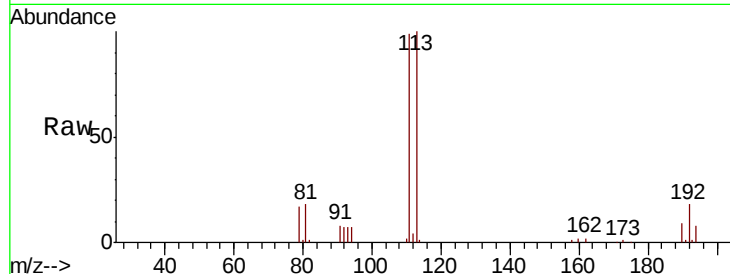
Tot Ion:113 Resp: 87103

Ion Ratio Lower Upper

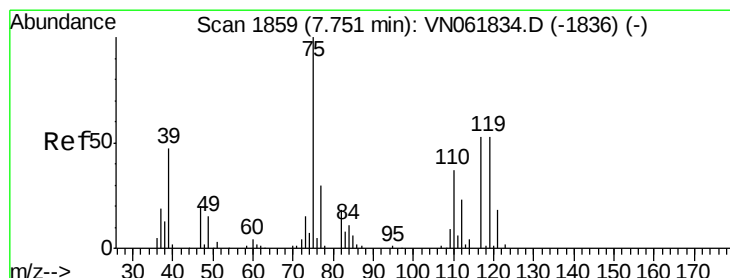
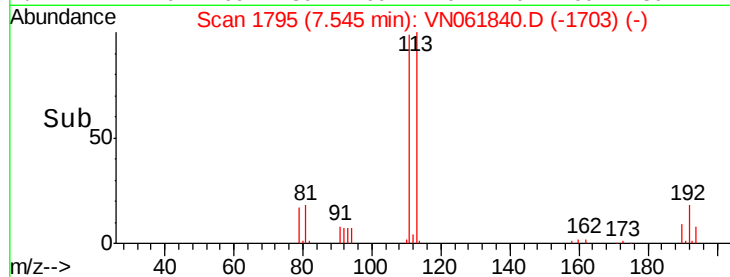
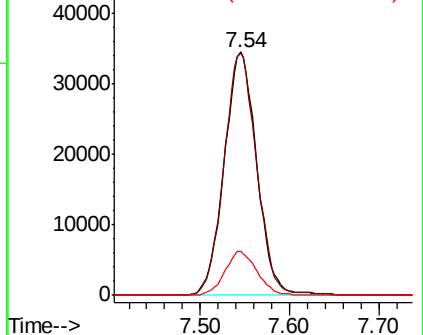
113 100

111 99.1 83.7 125.5

192 17.6 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: 4.602 ug/l

RT: 7.62 min Scan# 1818

Delta R.T. -0.13 min

Lab File: VN061840.D

Acq: 17 Jun 2020 11:41

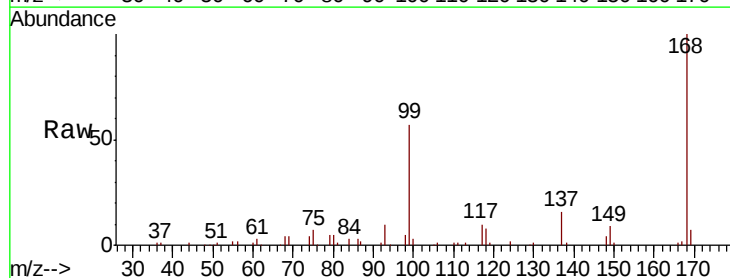
Tgt Ion: 75 Resp: 11390

Ion Ratio Lower Upper

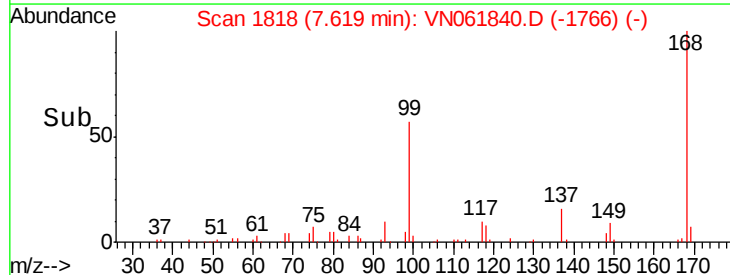
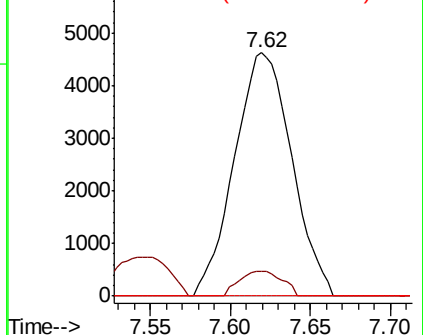
75 100

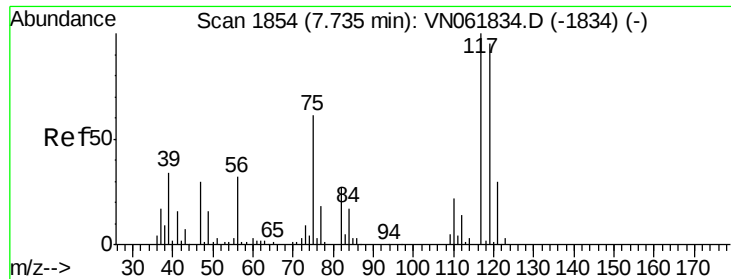
110 7.6 18.2 54.6#

77 0.0 24.2 36.4#



Abundance Ion 74.90 (74.60 to 75.60): V  
Ion 109.90 (109.60 to 110.60): V  
Ion 76.90 (76.60 to 77.60): V

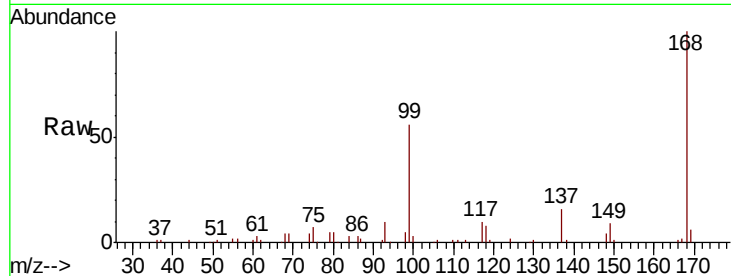




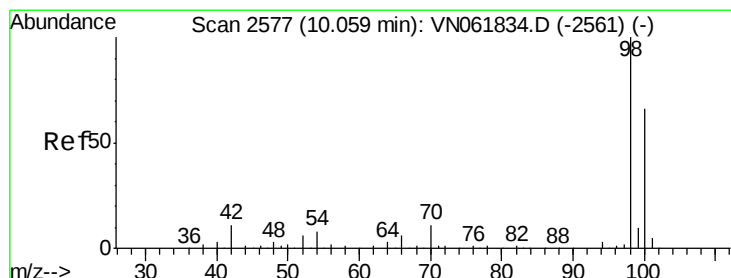
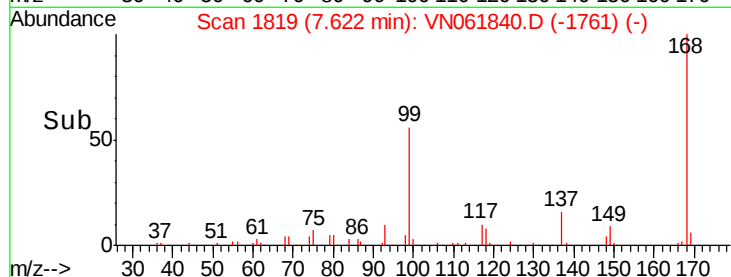
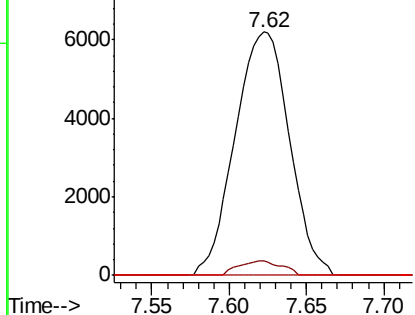
#38  
Carbon Tetrachloride  
Concen: 6.177 ug/l  
RT: 7.62 min Scan# 1819  
Delta R.T. -0.11 min  
Lab File: VN061840.D  
Acq: 17 Jun 2020 11:41

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0617WBL01

Tot Ion:117 Resp: 15138  
Ion Ratio Lower Upper  
117 100  
119 5.7 75.8 113.6#  
121 0.0 23.8 35.6#

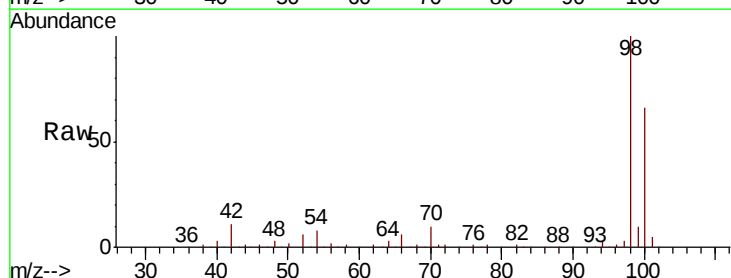


Abundance Ion 116.80 (116.50 to 117.50): V  
Ion 118.80 (118.50 to 119.50): V  
Ion 120.80 (120.50 to 121.50): V

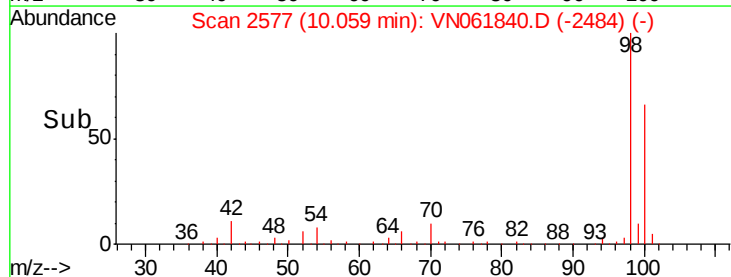
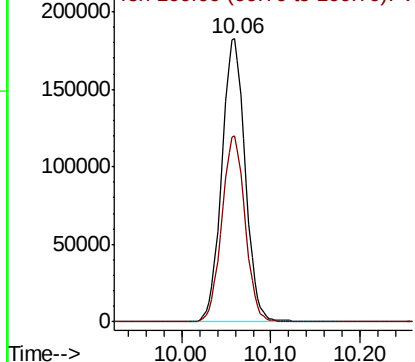


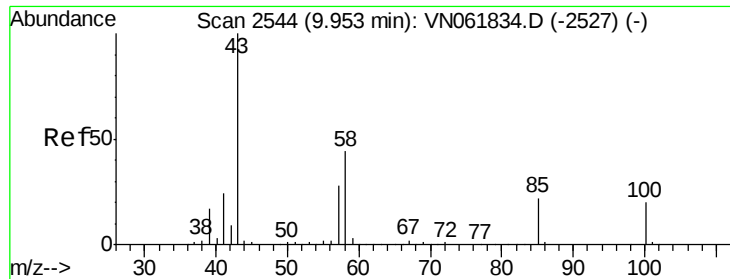
#50  
Toluene-d8  
Concen: 48.637 ug/l  
RT: 10.06 min Scan# 2577  
Delta R.T. 0.00 min  
Lab File: VN061840.D  
Acq: 17 Jun 2020 11:41

Tgt Ion: 98 Resp: 331917  
Ion Ratio Lower Upper  
98 100  
100 65.2 52.7 79.1



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

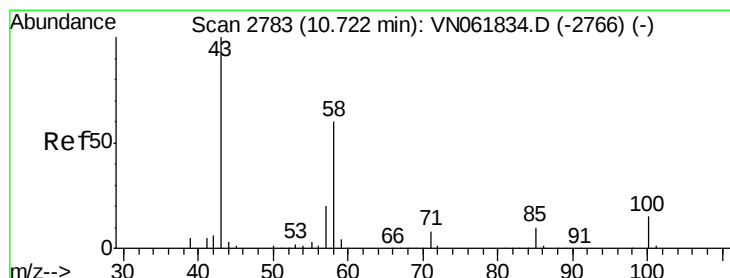
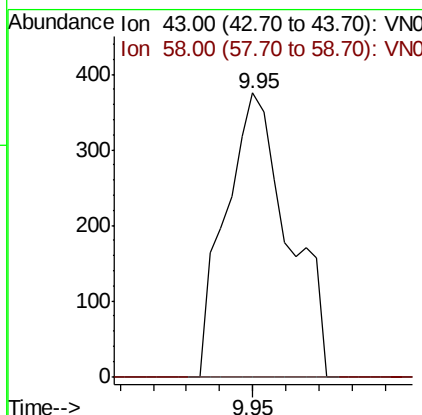
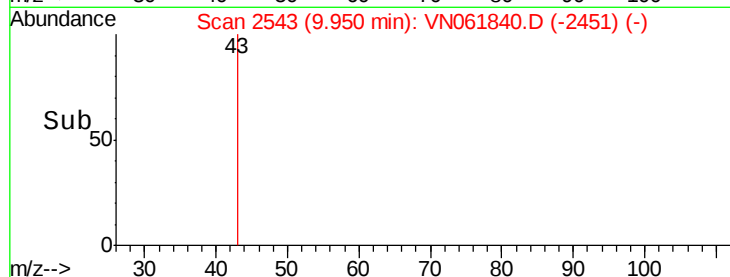
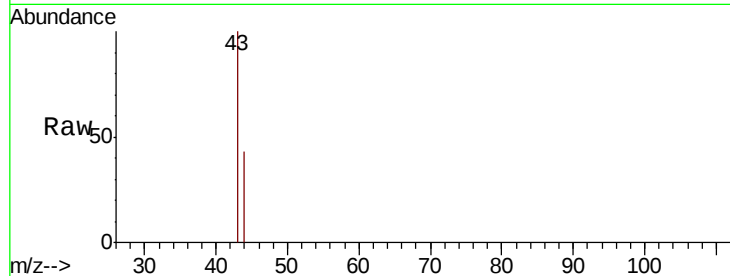




#51  
 4-Methyl-2-Pentanone  
 Concen: 0.257 ug/l  
 RT: 9.95 min Scan# 2543  
 Delta R.T. -0.00 min  
 Lab File: VN061840.D  
 Acq: 17 Jun 2020 11:41

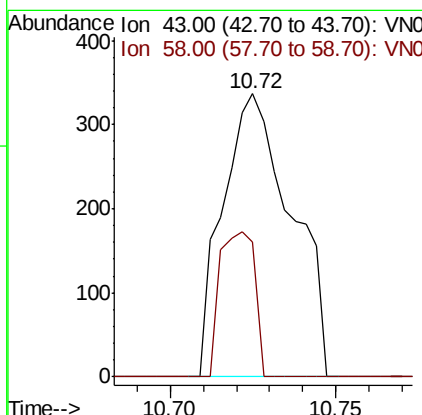
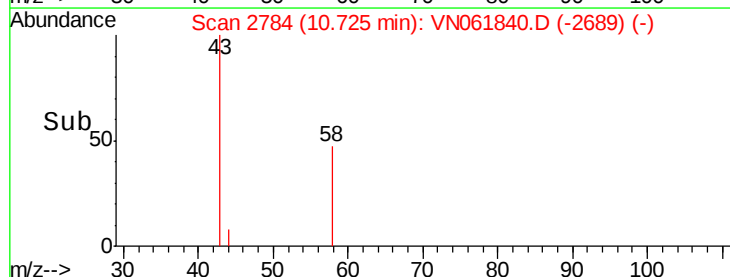
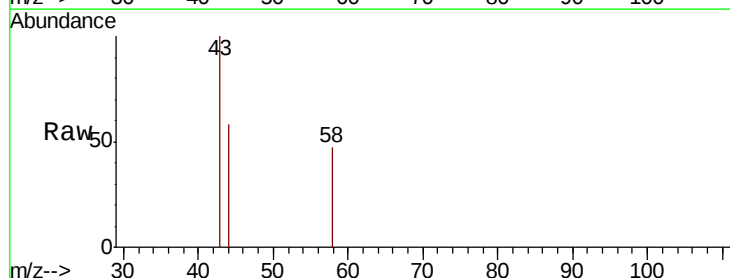
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0617WBL01

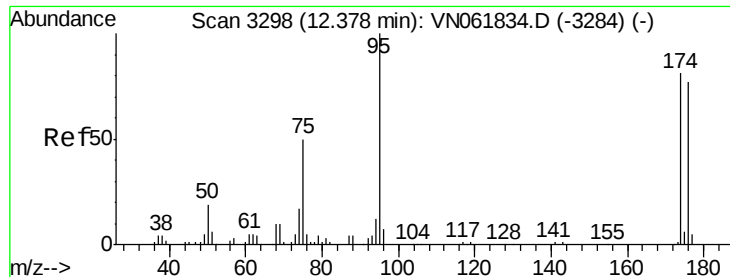
Tot Ion: 43 Resp: 495  
 Ion Ratio Lower Upper  
 43 100  
 58 0.0 34.6 52.0#



#59  
 2-Hexanone  
 Concen: 13.706 ug/l  
 RT: 10.72 min Scan# 2784  
 Delta R.T. 0.00 min  
 Lab File: VN061840.D  
 Acq: 17 Jun 2020 11:41

Tgt Ion: 43 Resp: 487  
 Ion Ratio Lower Upper  
 43 100  
 58 25.7 30.1 90.5#

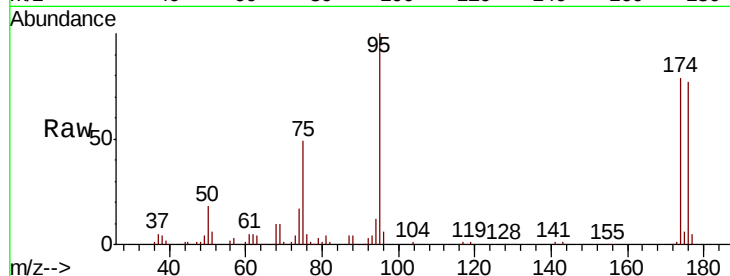




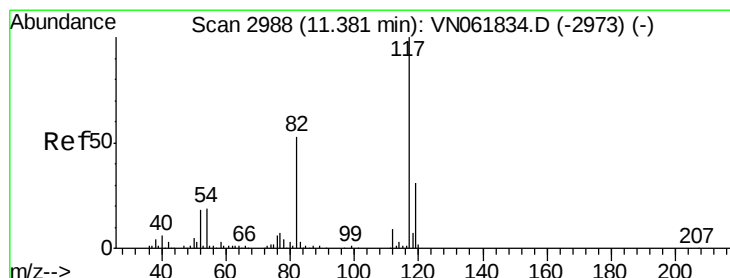
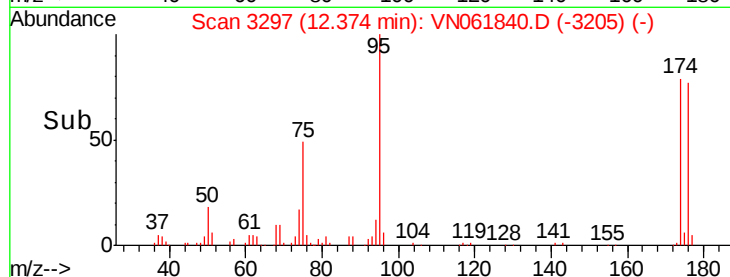
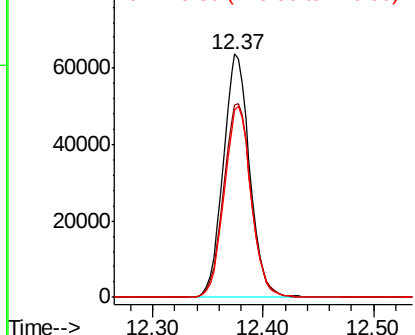
#62  
 4-Bromofluorobenzene  
 Concen: 45.324 ug/l  
 RT: 12.37 min Scan# 3297  
 Delta R.T. -0.00 min  
 Lab File: VN061840.D  
 Acq: 17 Jun 2020 11:41

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0617WBL01

Tot Ion: 95 Resp: 106098  
 Ion Ratio Lower Upper  
 95 100  
 174 82.7 0.0 158.6  
 176 79.4 0.0 152.0

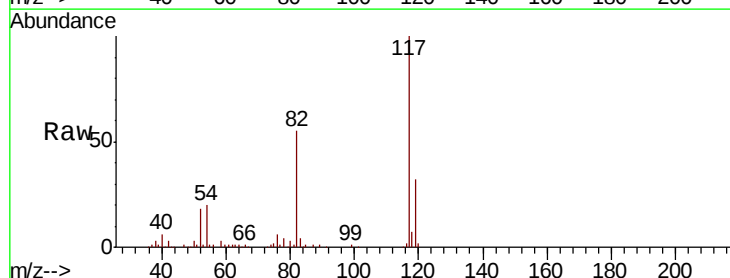


Abundance Ion 94.90 (94.60 to 95.60): VN061834.D (-3284) (-)  
 Ion 173.80 (173.50 to 174.50): VN061834.D (-3284) (-)  
 Ion 175.80 (175.50 to 176.50): VN061834.D (-3284) (-)

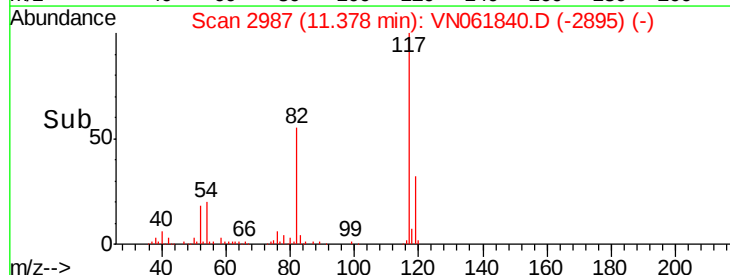
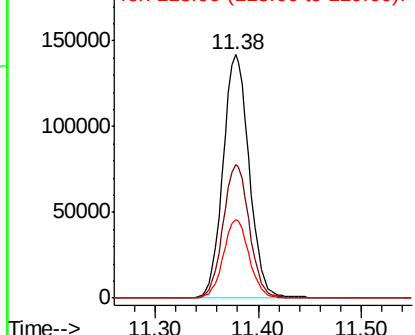


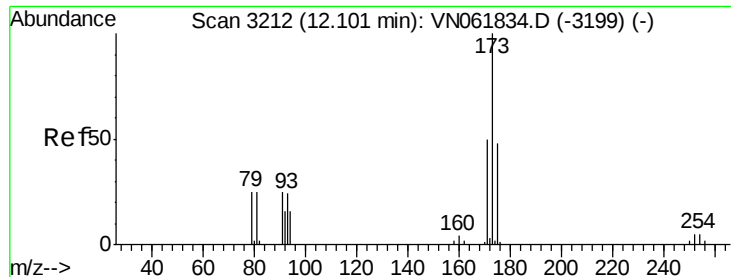
#63  
 Chlorobenzene-d5  
 Concen: 50.000 ug/l  
 RT: 11.38 min Scan# 2987  
 Delta R.T. -0.00 min  
 Lab File: VN061840.D  
 Acq: 17 Jun 2020 11:41

Tgt Ion: 117 Resp: 251201  
 Ion Ratio Lower Upper  
 117 100  
 82 54.7 42.6 64.0  
 119 32.3 24.7 37.1



Abundance Ion 116.90 (116.60 to 117.60): VN061834.D (-2973) (-)  
 Ion 82.00 (81.70 to 82.70): VN061834.D (-2973) (-)  
 Ion 118.90 (118.60 to 119.60): VN061834.D (-2973) (-)





#71

Bromoform

Concen: 0.534 ug/l

RT: 12.38 min Scan# 3298

Delta R.T. 0.28 min

Lab File: VN061840.D

Acq: 17 Jun 2020 11:41

Instrument :

MSVOA\_N

ClientSampleId :

VN0617WBL01

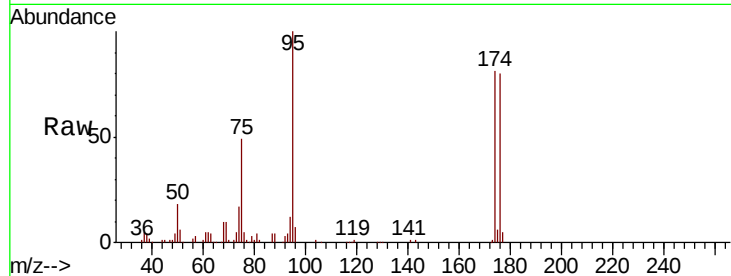
Tot Ion:173 Resp: 720

Ion Ratio Lower Upper

173 100

175 812.2 23.9 71.7#

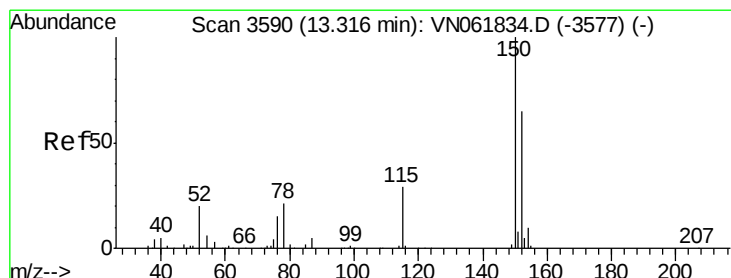
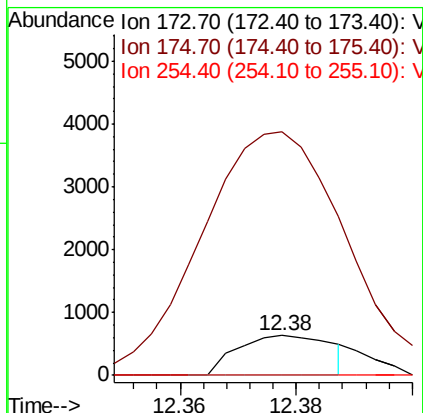
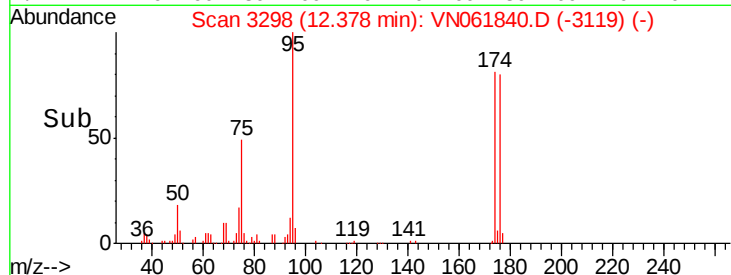
254 0.0 0.0 0.0



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: 13.32 min Scan# 3590

Delta R.T. 0.00 min

Lab File: VN061840.D

Acq: 17 Jun 2020 11:41

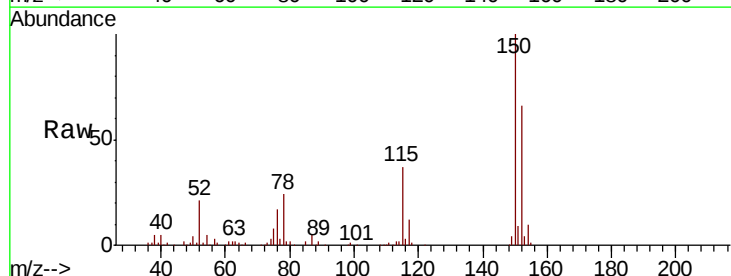
Tgt Ion:152 Resp: 97507

Ion Ratio Lower Upper

152 100

115 57.4 29.1 87.3

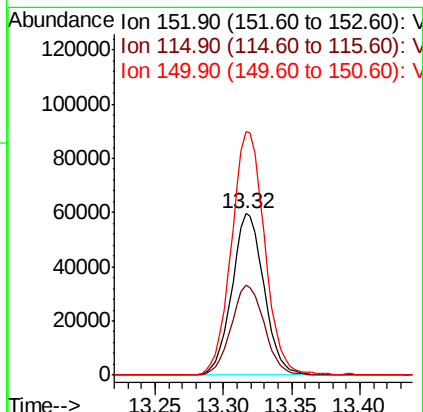
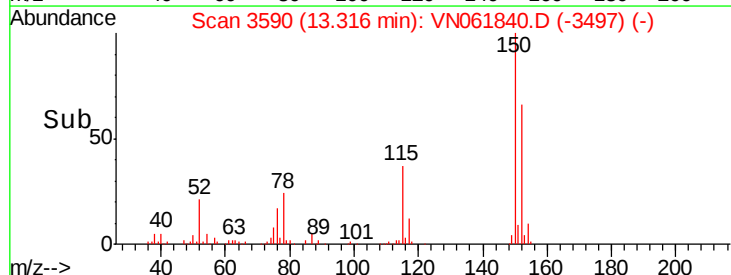
150 155.6 0.0 347.6

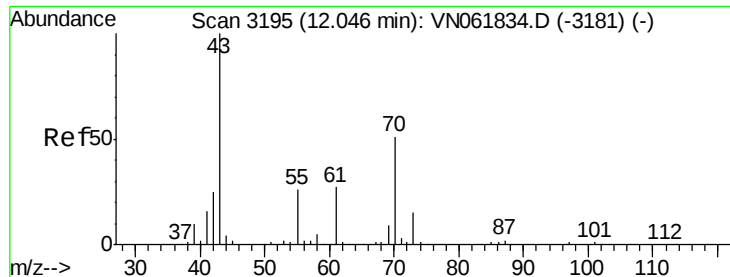


Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V





#74

N-amyl acetate

Concen: 3.088 ug/l

RT: 12.05 min Scan# 3195

Delta R.T. 0.00 min

Lab File: VN061840.D

Acq: 17 Jun 2020 11:41

Instrument :

MSVOA\_N

ClientSampled :

VN0617WBL01

Tot Ion: 43 Resp: 64

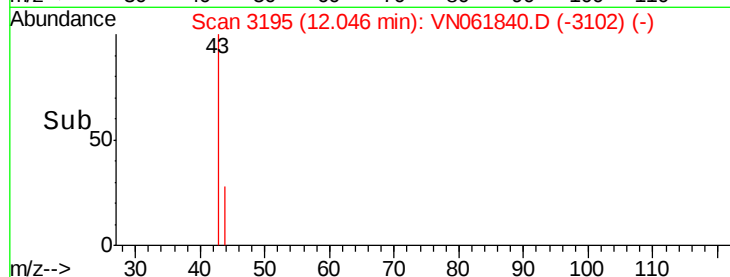
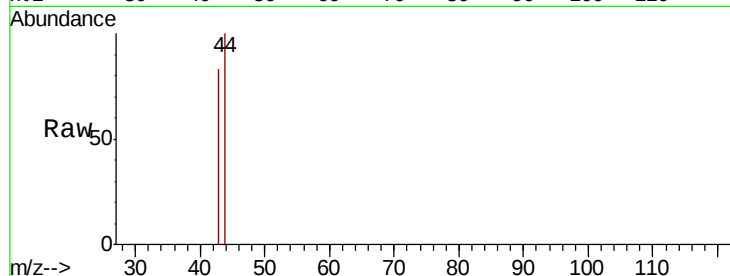
Ion Ratio Lower Upper

43 100

70 0.0 40.6 60.8#

55 0.0 21.5 32.3#

61 0.0 21.6 32.4#

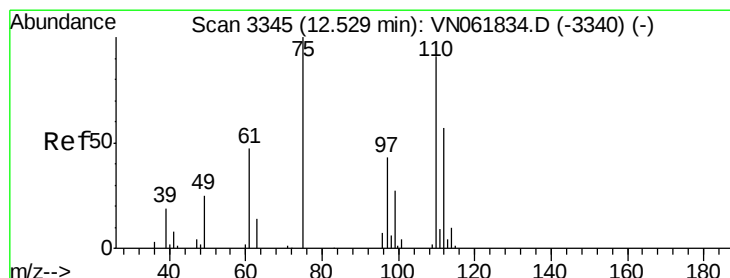
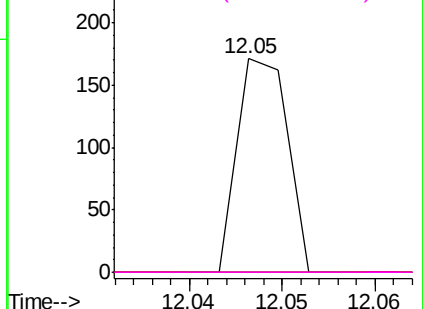


Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 70.00 (69.70 to 70.70): VN0

Ion 55.00 (54.70 to 55.70): VN0

Ion 61.00 (60.70 to 61.70): VN0



#76

1,2,3-Trichloropropane

Concen: 27.677 ug/l

RT: 12.37 min Scan# 3297

Delta R.T. -0.15 min

Lab File: VN061840.D

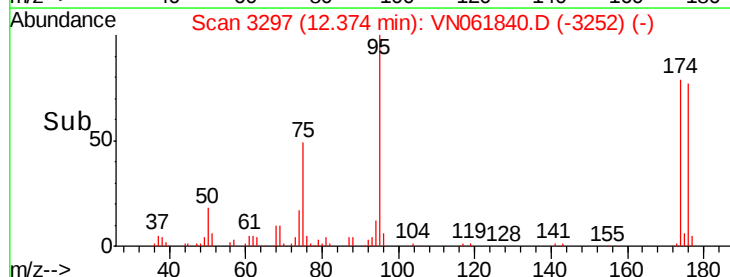
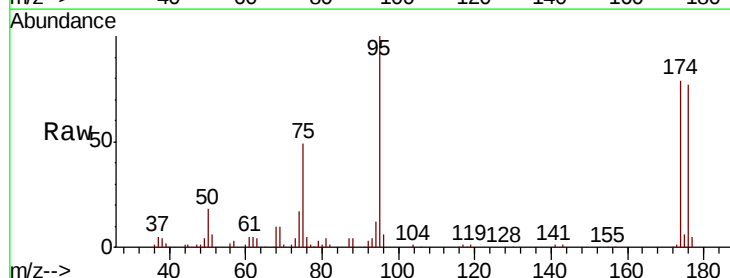
Acq: 17 Jun 2020 11:41

Tgt Ion: 75 Resp: 52982

Ion Ratio Lower Upper

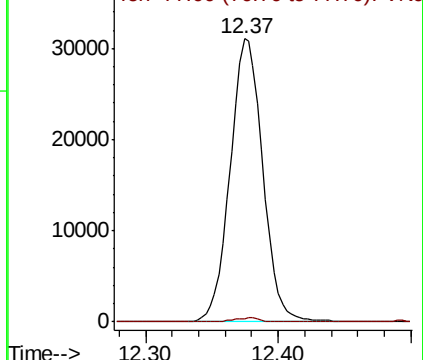
75 100

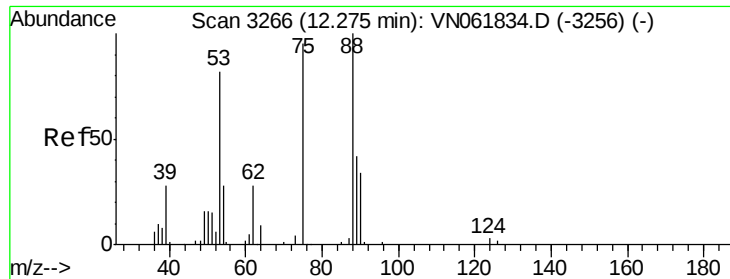
77 1.1 0.0 0.0#



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: 75.486 ug/l

RT: 12.37 min Scan# 3297

Delta R.T. 0.10 min

Lab File: VN061840.D

Acq: 17 Jun 2020 11:41

Instrument :

MSVOA\_N

ClientSampleId :

VN0617WBL01

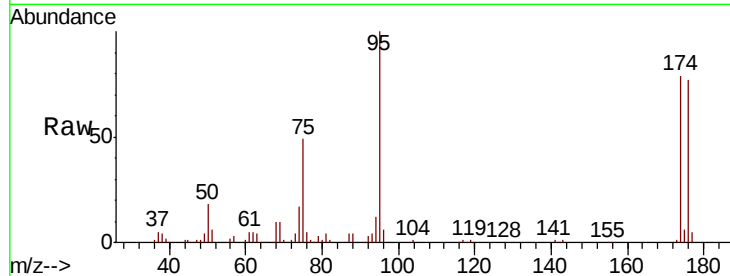
Tot Ion: 75 Resp: 52982

Ion Ratio Lower Upper

75 100

53 0.0 70.4 105.6#

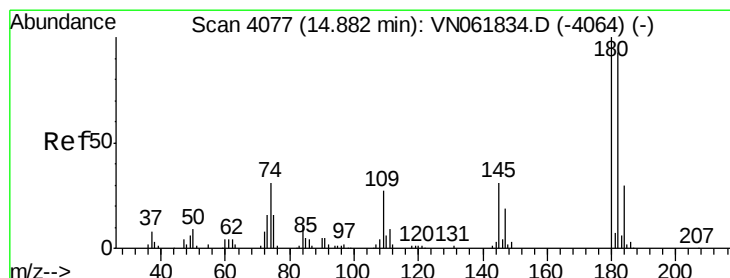
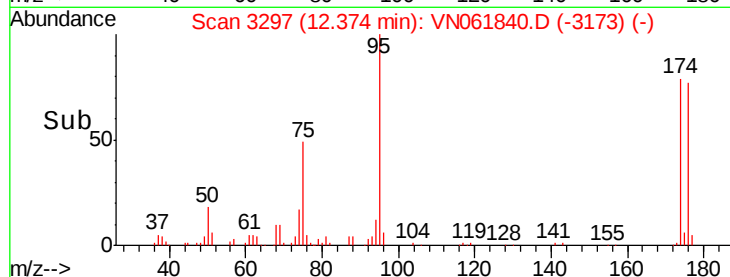
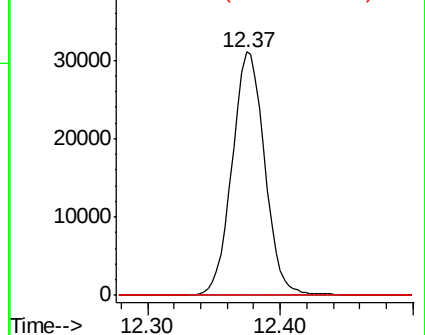
89 0.0 36.0 54.0#



Abundance Ion 74.90 (74.60 to 75.60): VN061834.D (-3256) (-)

Ion 53.00 (52.70 to 53.70): VN061834.D (-3256) (-)

Ion 88.90 (88.60 to 89.60): VN061834.D (-3256) (-)



#93

1,2,4-Trichlorobenzene

Concen: 0.546 ug/l

RT: 14.89 min Scan# 4079

Delta R.T. 0.01 min

Lab File: VN061840.D

Acq: 17 Jun 2020 11:41

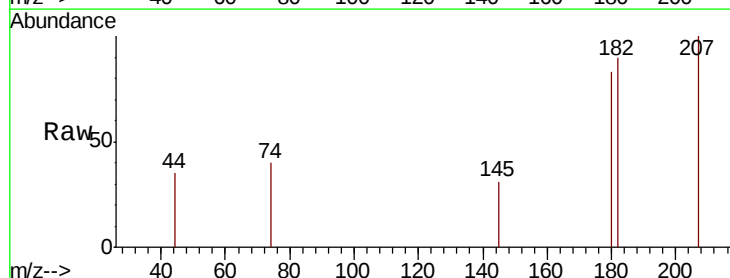
Tgt Ion: 180 Resp: 791

Ion Ratio Lower Upper

180 100

182 86.1 47.0 141.2

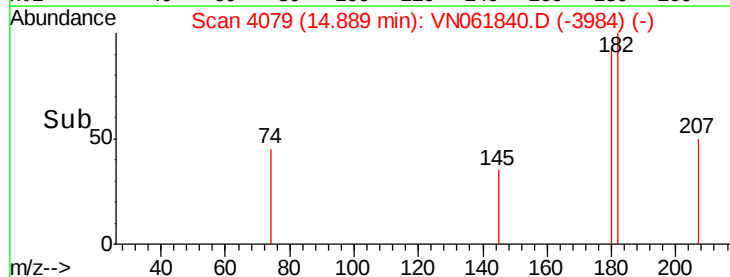
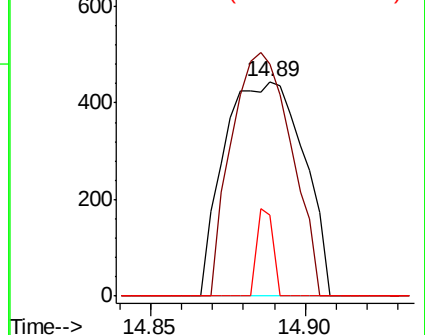
145 8.5 15.8 47.3#

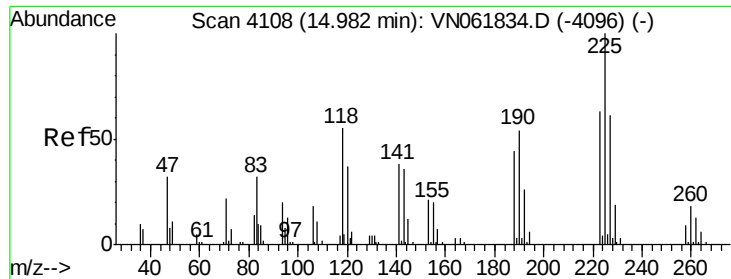


Abundance Ion 179.80 (179.50 to 180.50): VN061834.D (-4064) (-)

Ion 181.80 (181.50 to 182.50): VN061834.D (-4064) (-)

Ion 144.80 (144.50 to 145.50): VN061834.D (-4064) (-)





#94

Hexachlorobutadiene

Concen: 0.780 ug/l

RT: 14.99 min Scan# 4109

Delta R.T. 0.00 min

Lab File: VN061840.D

Acq: 17 Jun 2020 11:41

Instrument :

MSVOA\_N

ClientSampleId :

VN0617WBL01

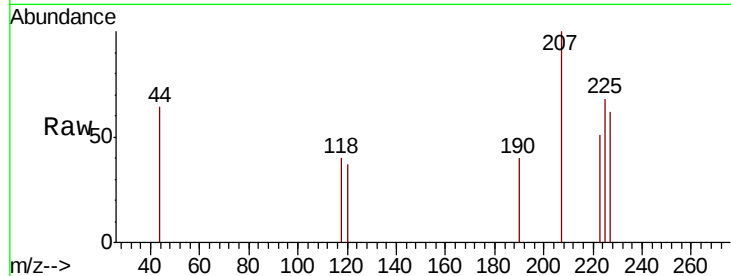
Tot Ion:225 Resp: 445

Ion Ratio Lower Upper

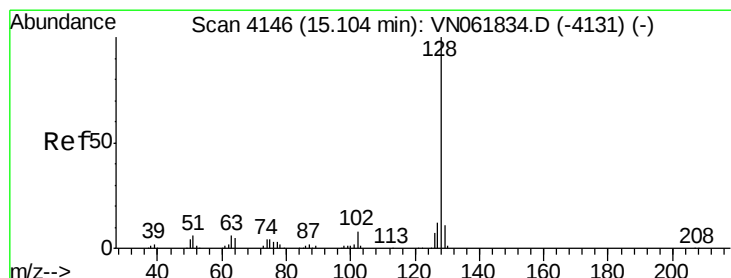
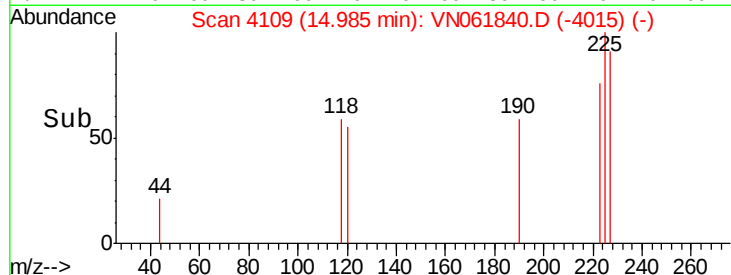
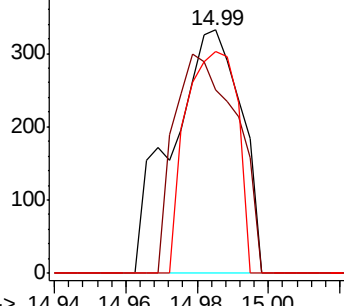
225 100

223 81.6 31.7 95.1

227 68.3 30.1 90.3



Abundance Ion 224.70 (224.40 to 225.40): V  
Ion 222.70 (222.40 to 223.40): V  
Ion 226.70 (226.40 to 227.40): V



#95

Naphthalene

Concen: 4.300 ug/l

RT: 15.11 min Scan# 4147

Delta R.T. 0.00 min

Lab File: VN061840.D

Acq: 17 Jun 2020 11:41

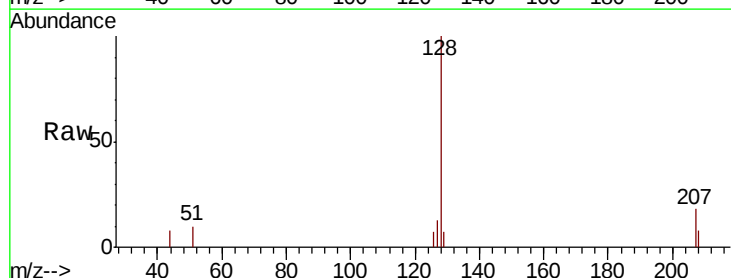
Tgt Ion:128 Resp: 4260

Ion Ratio Lower Upper

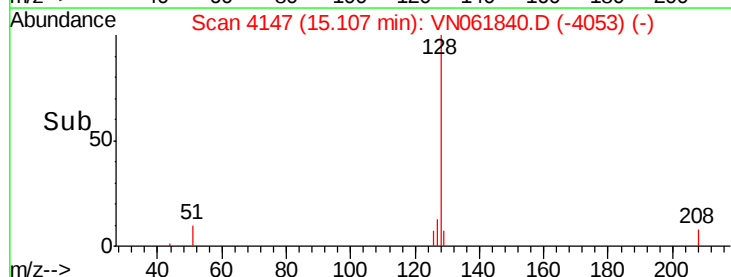
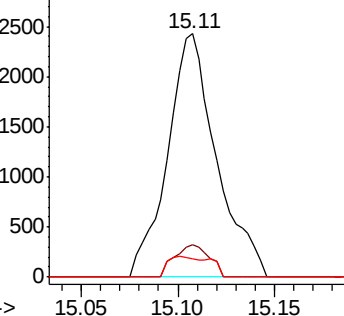
128 100

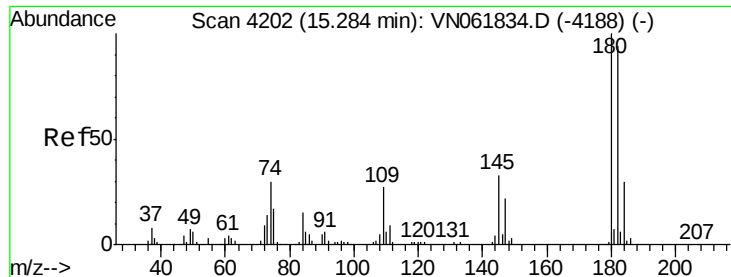
127 9.5 10.3 15.5#

129 5.0 8.6 13.0#



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





#96  
 1,2,3-Trichlorobenzene  
 Concen: 0.612 ug/l  
 RT: 15.28 min Scan# 4202  
 Delta R.T. 0.00 min  
 Lab File: VN061840.D  
 Acq: 17 Jun 2020 11:41

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0617WBL01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 106.8 | 47.9  | 143.6 |
| 145     | 16.1  | 16.5  | 49.5  |

