

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN091120\  
 Data File : VN063311.D  
 Acq On : 11 Sep 2020 13:54  
 Operator : JC/MD  
 Sample : L3988-07  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 TB04-20200909

Quant Time: Sep 12 00:40:13 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N091020W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Sep 11 06:02:56 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.63  | 168  | 378953   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.55  | 114  | 713510   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.38 | 117  | 684412   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.32 | 152  | 278007   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 7.99  | 65   | 288458   | 48.45 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.90%  |          |
| 35) Dibromofluoromethane    | 7.55  | 113  | 225835   | 49.06 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 98.12%  |          |
| 50) Toluene-d8              | 10.06 | 98   | 896883   | 50.84 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 101.68% |          |
| 62) 4-Bromofluorobenzene    | 12.38 | 95   | 336513   | 51.65 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.30% |          |

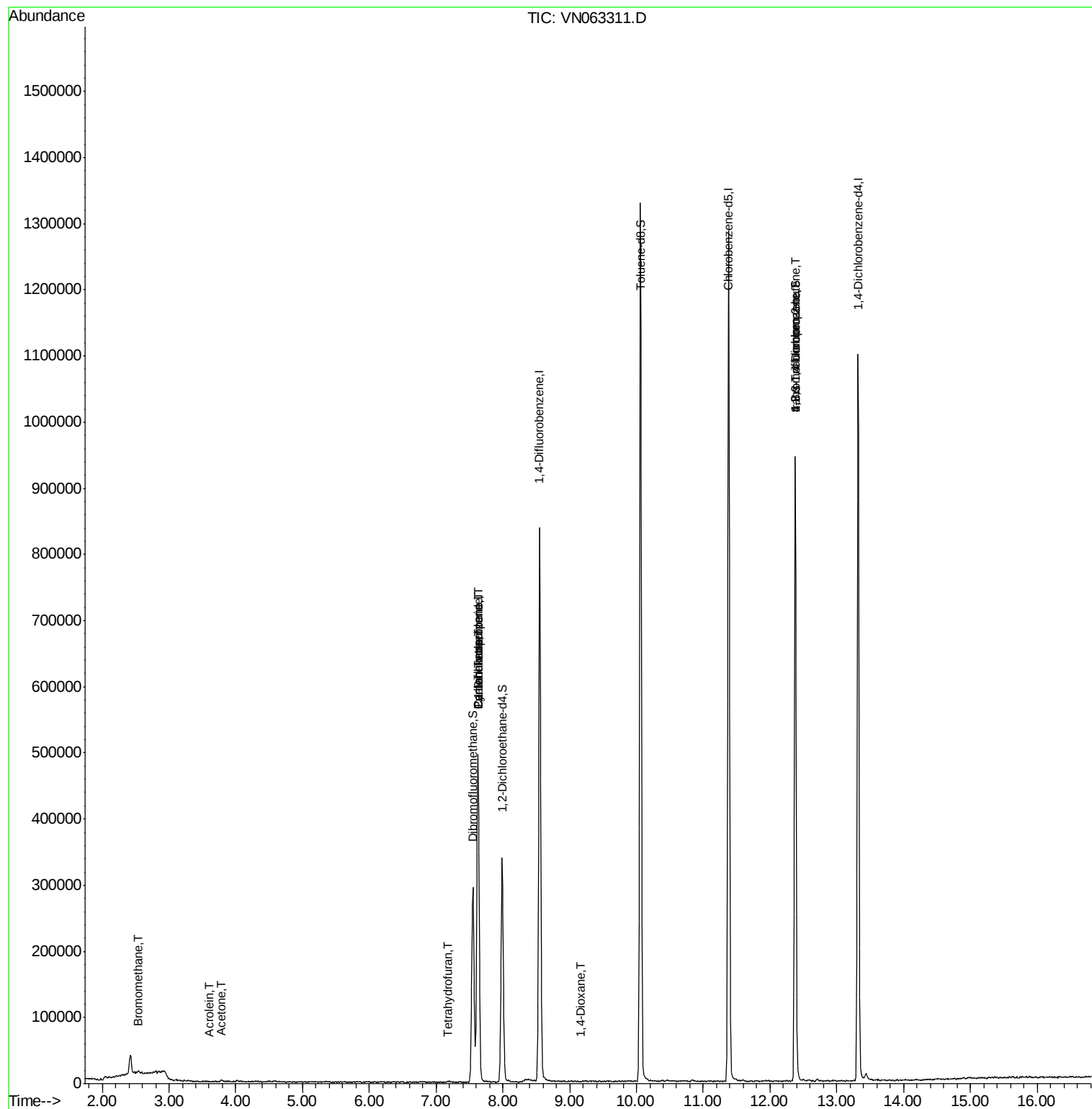
| Target Compounds               | R.T.  | QIon | Response | Conc          | Units | Qvalue |
|--------------------------------|-------|------|----------|---------------|-------|--------|
| 3) Chloromethane               | 2.04  | 50   | 1827     | Below Cal     |       | 99     |
| 5) Bromomethane                | 2.54  | 94   | 1334     | 0.371 ug/l #  |       | 52     |
| 13) Acrolein                   | 3.59  | 56   | 133      | 32.727 ug/l # |       | 40     |
| 16) Acetone                    | 3.77  | 43   | 806      | 0.392 ug/l    |       | 99     |
| 17) Carbon Disulfide           | 4.00  | 76   | 286      | Below Cal #   |       | 75     |
| 20) Methylene Chloride         | 4.51  | 84   | 130      | Below Cal #   |       | 24     |
| 29) Tetrahydrofuran            | 7.18  | 42   | 644      | 0.326 ug/l #  |       | 44     |
| 31) Cyclohexane                | 7.63  | 56   | 10746    | 1.287 ug/l #  |       | 37     |
| 36) 1,1-Dichloropropene        | 7.63  | 75   | 32330    | 4.408 ug/l #  |       | 51     |
| 38) Carbon Tetrachloride       | 7.63  | 117  | 41804    | 5.791 ug/l #  |       | 17     |
| 49) 1,4-Dioxane                | 9.17  | 88   | 72       | 0.798 ug/l #  |       | 1      |
| 76) 1,2,3-Trichloropropane     | 12.38 | 75   | 183695   | 29.951 ug/l # |       | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.38 | 75   | 183695   | 80.472 ug/l # |       | 9      |
| 88) 1,4-Dichlorobenzene        | 13.34 | 146  | 331      | Below Cal #   |       | 25     |
| 94) Hexachlorobutadiene        | 14.99 | 225  | 30       | Below Cal #   |       | 19     |
| 95) Naphthalene                | 15.11 | 128  | 575      | Below Cal #   |       | 69     |
| 96) 1,2,3-Trichlorobenzene     | 15.31 | 180  | 29       | Below Cal #   |       | 1      |

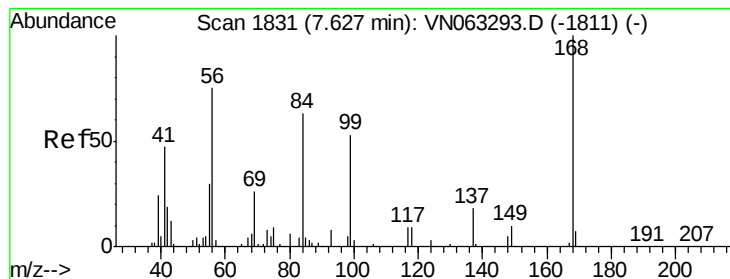
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA N\DATA\VN091120\  
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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_N\METHODS\82N091020W.M  
Quant Title : SW846 8260  
QLast Update : Fri Sep 11 06:02:56 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: VN063311.D

Acq: 11 Sep 2020 13:54

Instrument :

MSVOA\_N

ClientSampleId :

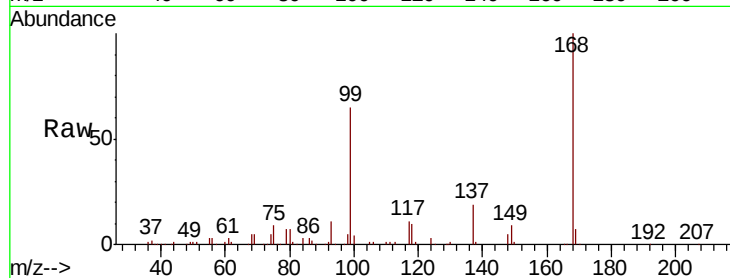
TB04-20200909

Tot Ion:168 Resp: 378953

Ion Ratio Lower Upper

168 100

99 65.4 51.1 76.7



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VNO

7.63

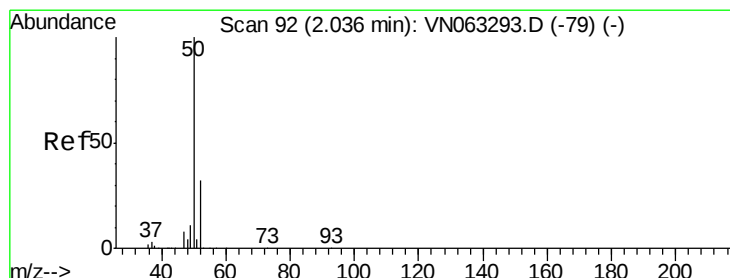
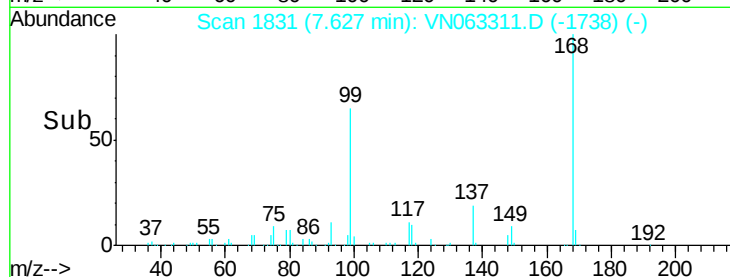
150000

100000

50000

0

Time-->



#3

Chloromethane

Concen: Below Cal

RT: 2.04 min Scan# 92

Delta R.T. 0.00 min

Lab File: VN063311.D

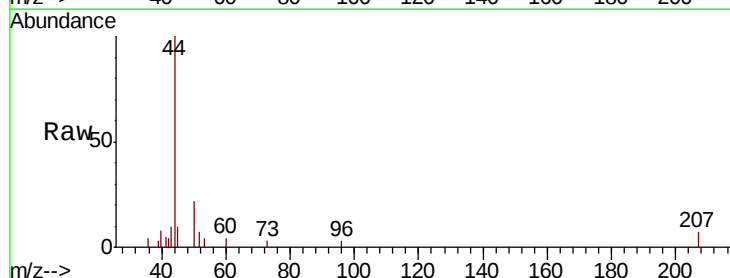
Acq: 11 Sep 2020 13:54

Tgt Ion: 50 Resp: 1827

Ion Ratio Lower Upper

50 100

52 32.2 25.4 38.2



Abundance Ion 49.90 (49.60 to 50.60): VNO

Ion 51.90 (51.60 to 52.60): VNO

2.04

1200

1000

800

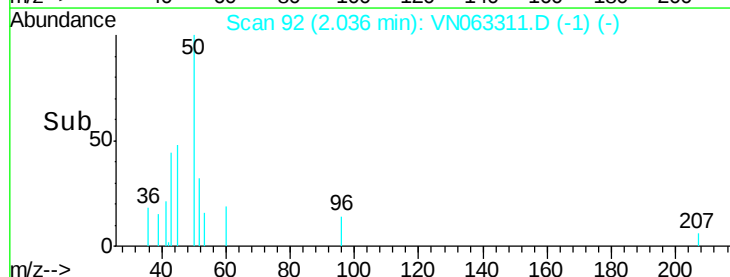
600

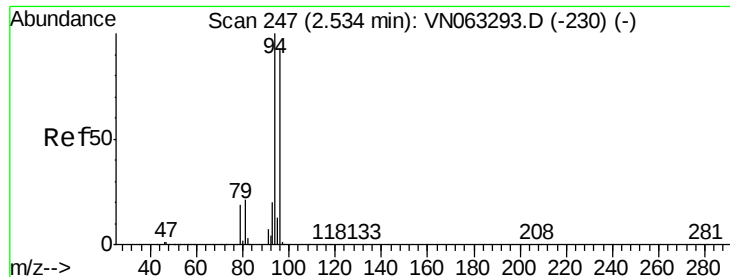
400

200

0

Time-->





#5

Bromomethane

Concen: 0.371 ug/l

RT: 2.54 min Scan# 249

Delta R.T. 0.01 min

Lab File: VN063311.D

Acq: 11 Sep 2020 13:54

Instrument :

MSVOA\_N

ClientSampled :

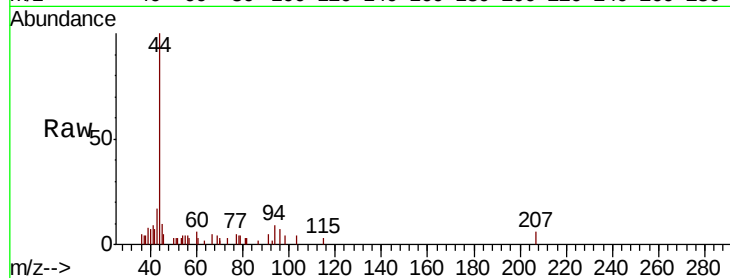
TB04-20200909

Tot Ion: 94 Resp: 1334

Ion Ratio Lower Upper

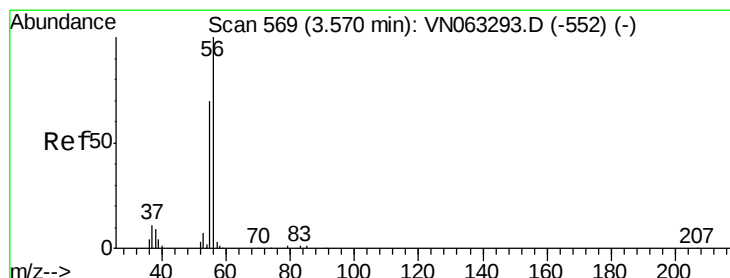
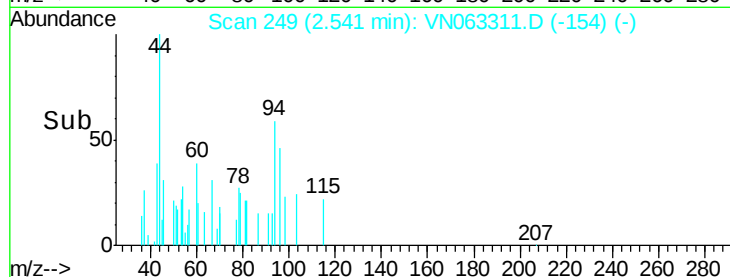
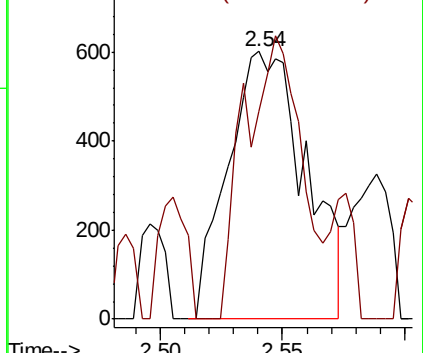
94 100

96 46.5 74.3 111.5#



Abundance Ion 93.90 (93.60 to 94.60): VN0

Ion 95.90 (95.60 to 96.60): VN0



#13

Acrolein

Concen: 32.727 ug/l

RT: 3.59 min Scan# 574

Delta R.T. 0.02 min

Lab File: VN063311.D

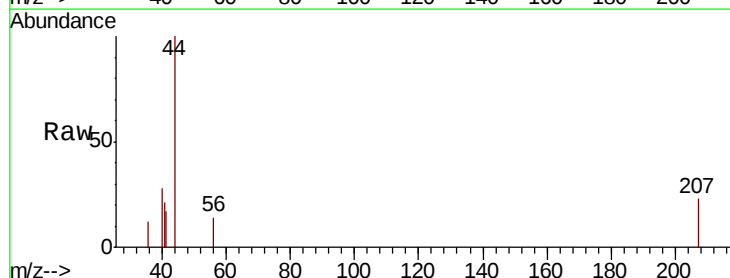
Acq: 11 Sep 2020 13:54

Tgt Ion: 56 Resp: 133

Ion Ratio Lower Upper

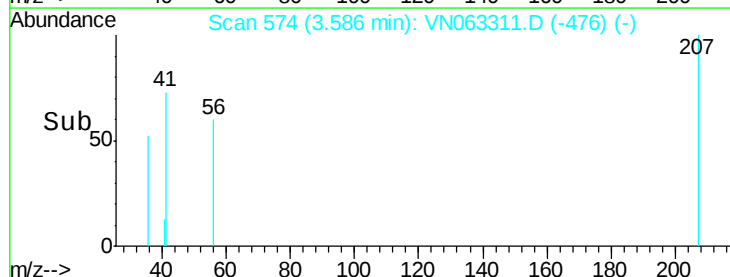
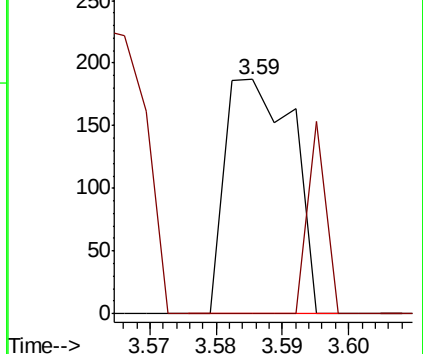
56 100

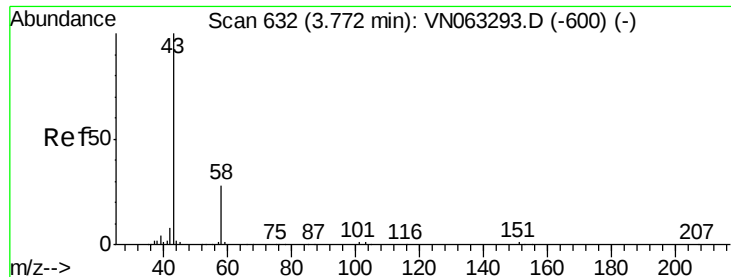
55 21.8 57.2 85.8#



Abundance Ion 56.00 (55.70 to 56.70): VN0

Ion 55.00 (54.70 to 55.70): VN0





#16

Acetone

Concen: 0.392 ug/l

RT: 3.77 min Scan# 631

Delta R.T. -0.00 min

Lab File: VN063311.D

Acq: 11 Sep 2020 13:54

Instrument :

MSVOA\_N

ClientSampleId :

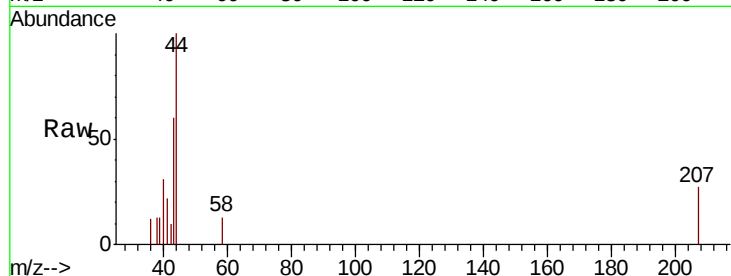
TB04-20200909

Tot Ion: 43 Resp: 806

Ion Ratio Lower Upper

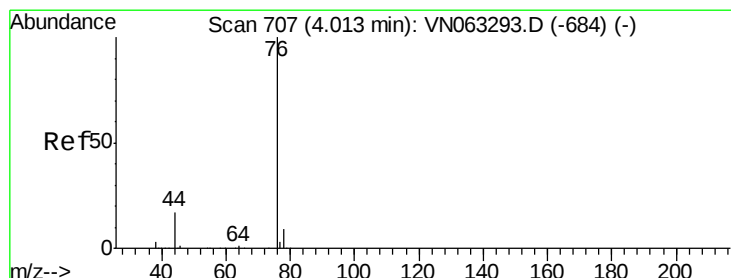
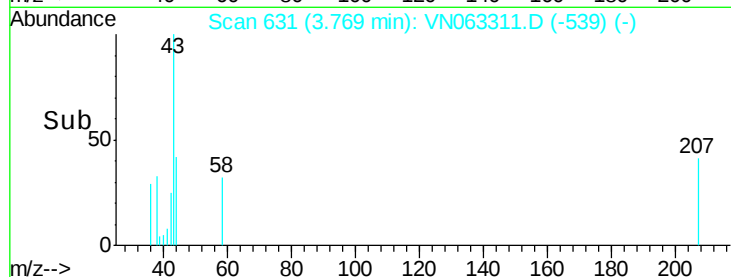
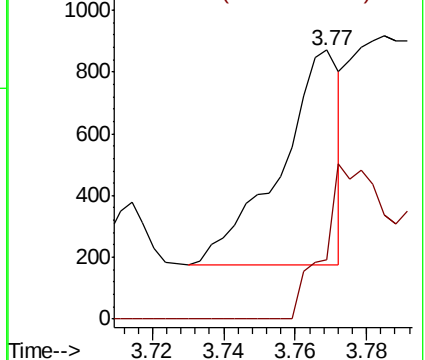
43 100

58 27.6 22.6 34.0



Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0



#17

Carbon Disulfide

Concen: Below Cal

RT: 4.00 min Scan# 702

Delta R.T. -0.02 min

Lab File: VN063311.D

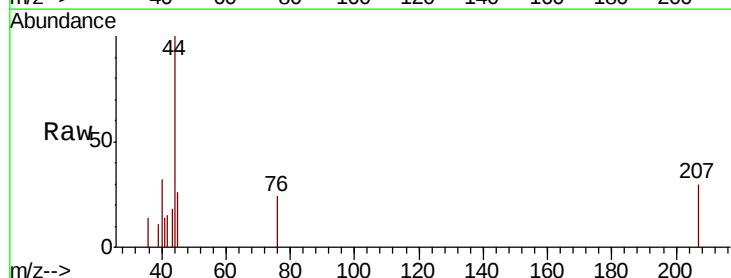
Acq: 11 Sep 2020 13:54

Tgt Ion: 76 Resp: 286

Ion Ratio Lower Upper

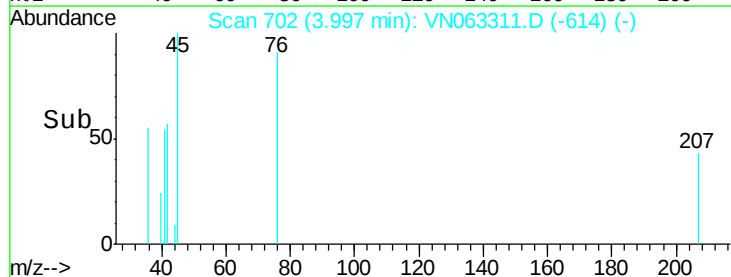
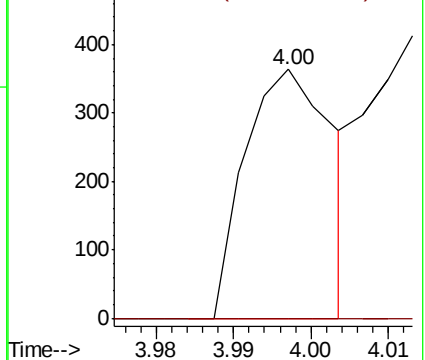
76 100

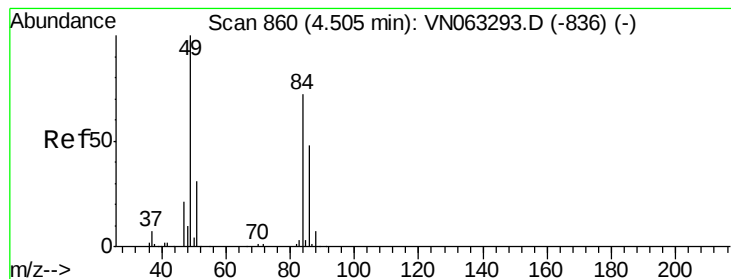
78 0.0 7.2 10.8#



Abundance Ion 75.90 (75.60 to 76.60): VN0

Ion 77.90 (77.60 to 78.60): VN0





#20

Methylene Chloride

Concen: Below Cal

RT: 4.51 min Scan# 862

Delta R.T. 0.01 min

Lab File: VN063311.D

Acq: 11 Sep 2020 13:54

Instrument :

MSVOA\_N

ClientSampleId :

TB04-20200909

Tot Ion: 84 Resp: 130

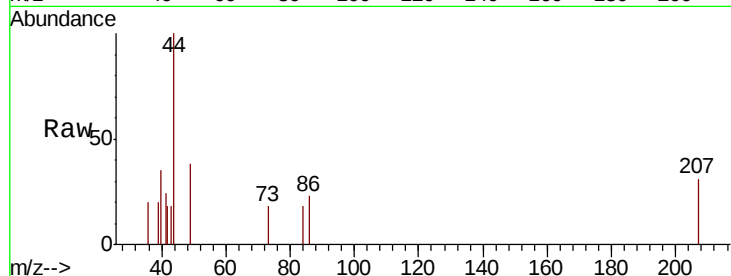
Ion Ratio Lower Upper

84 100

49 41.4 111.1 166.7#

51 0.0 34.3 51.5#

86 124.2 52.9 79.3#

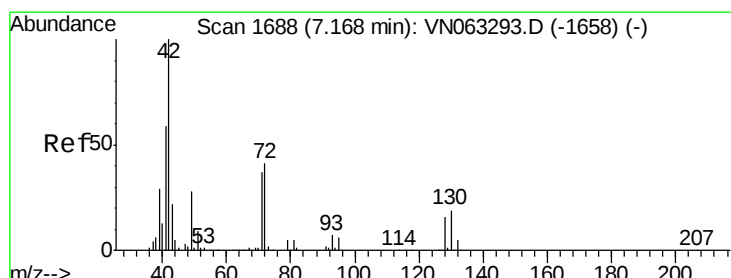
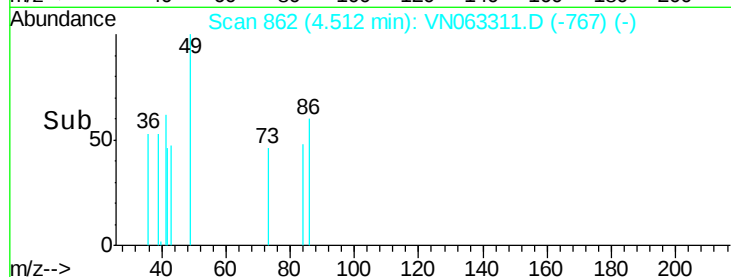
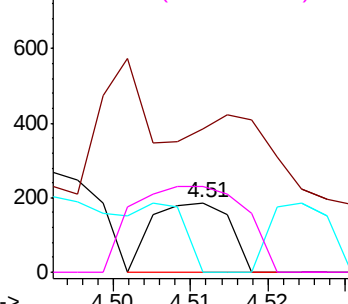


Abundance Ion 83.90 (83.60 to 84.60): VN0

Ion 48.90 (48.60 to 49.60): VN0

Ion 50.90 (50.60 to 51.60): VN0

Ion 85.90 (85.60 to 86.60): VN0



#29

Tetrahydrofuran

Concen: 0.326 ug/l

RT: 7.18 min Scan# 1691

Delta R.T. 0.01 min

Lab File: VN063311.D

Acq: 11 Sep 2020 13:54

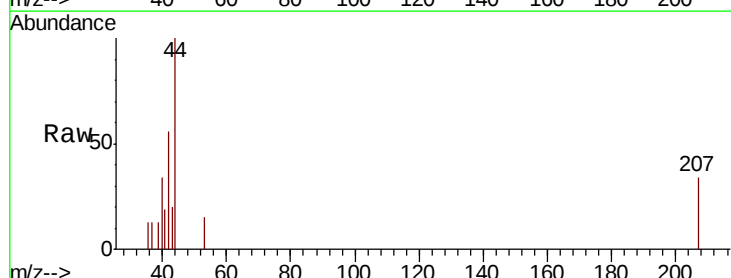
Tgt Ion: 42 Resp: 644

Ion Ratio Lower Upper

42 100

72 9.3 31.4 47.2#

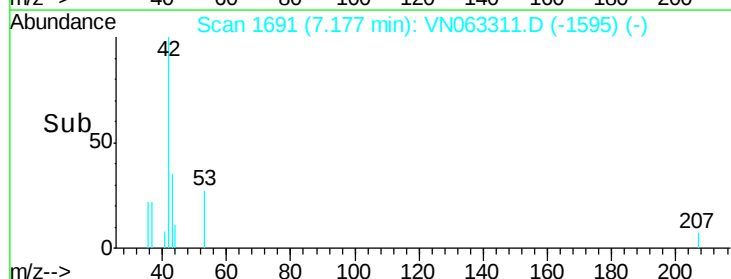
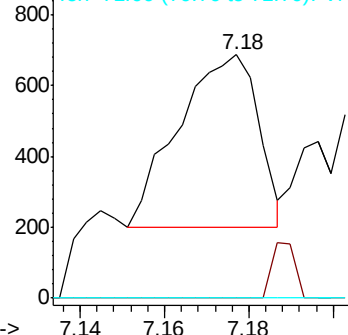
71 0.0 30.0 45.0#

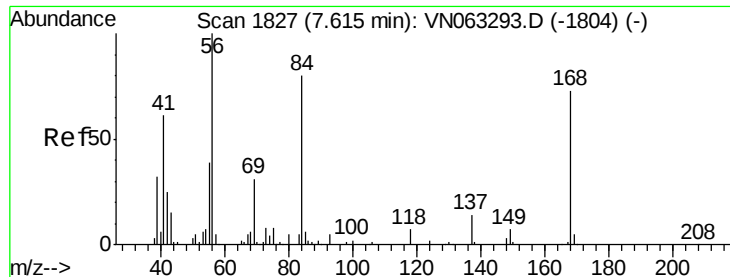


Abundance Ion 42.00 (41.70 to 42.70): VN0

Ion 72.00 (71.70 to 72.70): VN0

Ion 71.00 (70.70 to 71.70): VN0

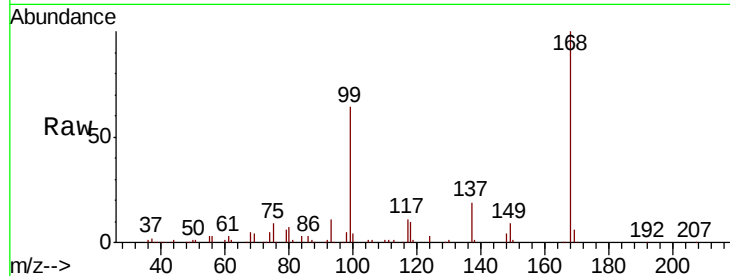




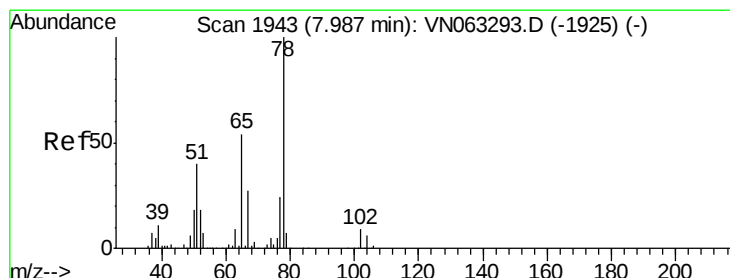
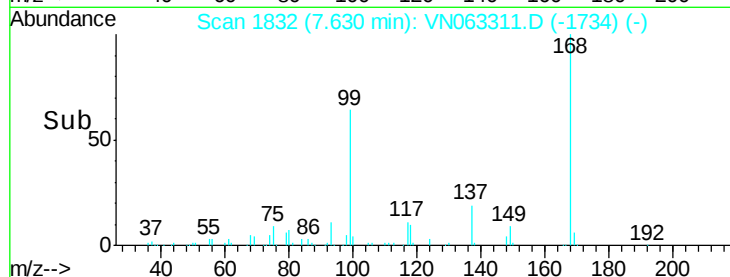
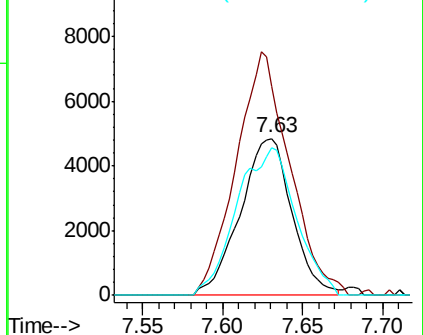
#31  
Cyclohexane  
Concen: 1.287 ug/l  
RT: 7.63 min Scan# 1832  
Delta R.T. 0.02 min  
Lab File: VN063311.D  
Acq: 11 Sep 2020 13:54

Instrument :  
MSVOA\_N  
ClientSampleId :  
TB04-20200909

Tot Ion: 56 Resp: 10746  
Ion Ratio Lower Upper  
56 100  
69 133.3 25.1 37.7#  
84 94.2 64.2 96.2

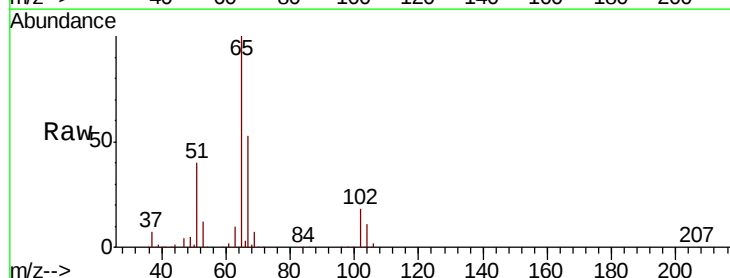


Abundance Ion 56.00 (55.70 to 56.70): VN0  
Ion 69.00 (68.70 to 69.70): VN0  
Ion 84.00 (83.70 to 84.70): VN0

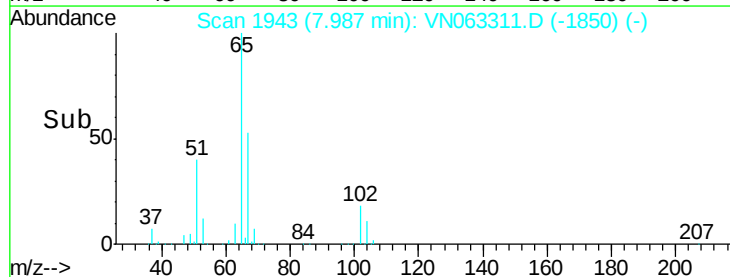
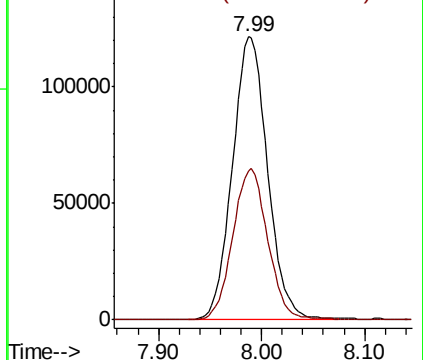


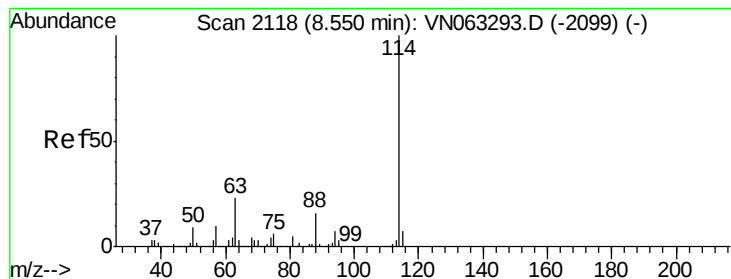
#33  
1,2-Dichloroethane-d4  
Concen: 48.449 ug/l  
RT: 7.99 min Scan# 1943  
Delta R.T. -0.00 min  
Lab File: VN063311.D  
Acq: 11 Sep 2020 13:54

Tgt Ion: 65 Resp: 288458  
Ion Ratio Lower Upper  
65 100  
67 52.9 0.0 104.6



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





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.55 min Scan# 2118

Delta R.T. -0.00 min

Lab File: VN063311.D

Acq: 11 Sep 2020 13:54

Instrument :

MSVOA\_N

ClientSampleId :

TB04-20200909

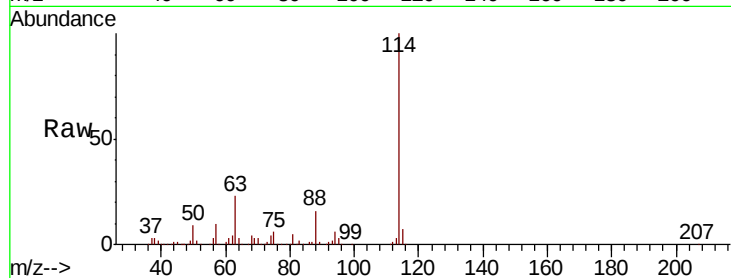
Tot Ion:114 Resp: 713510

Ion Ratio Lower Upper

114 100

63 23.0 0.0 46.0

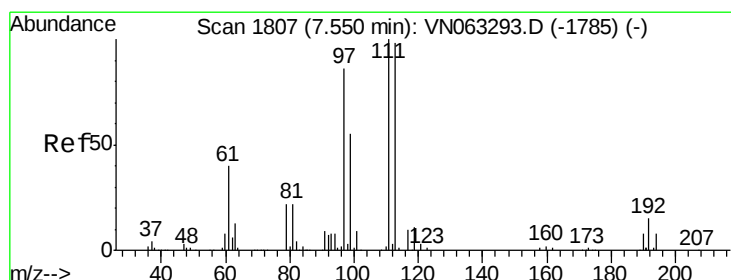
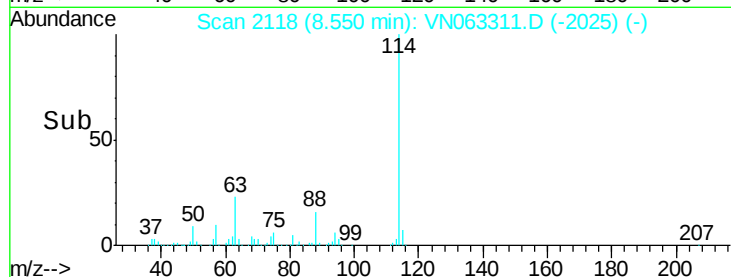
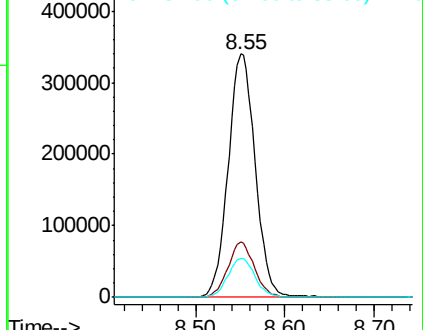
88 16.2 0.0 32.8



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VN

Ion 87.90 (87.60 to 88.60): VN



#35

Dibromofluoromethane

Concen: 49.062 ug/l

RT: 7.55 min Scan# 1807

Delta R.T. -0.00 min

Lab File: VN063311.D

Acq: 11 Sep 2020 13:54

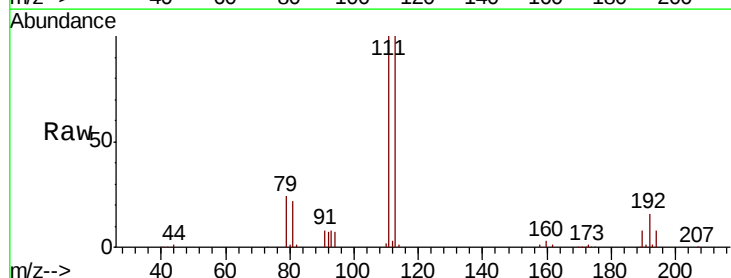
Tgt Ion:113 Resp: 225835

Ion Ratio Lower Upper

113 100

111 103.0 82.2 123.2

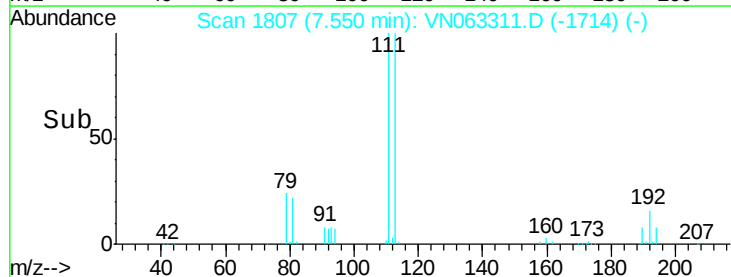
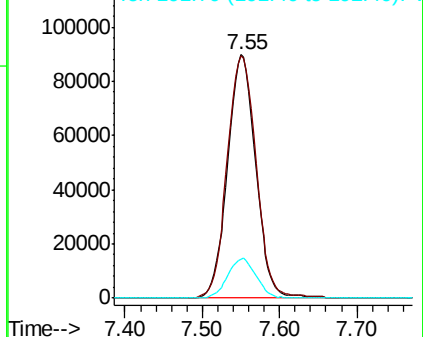
192 16.4 12.9 19.3

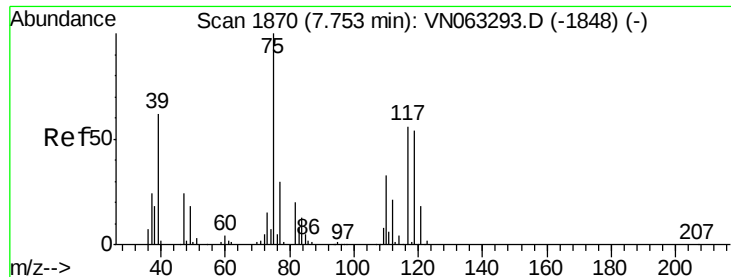


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V

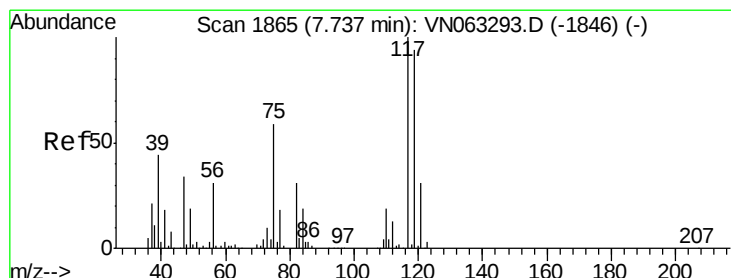
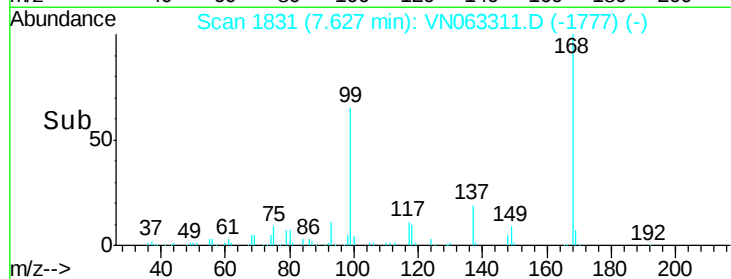
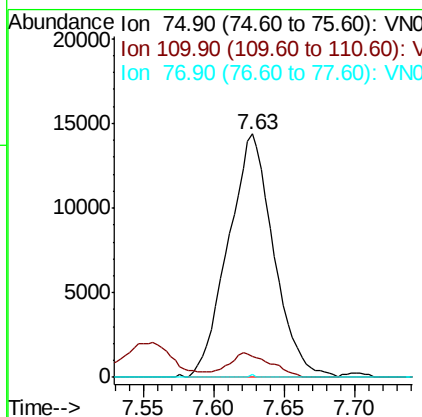
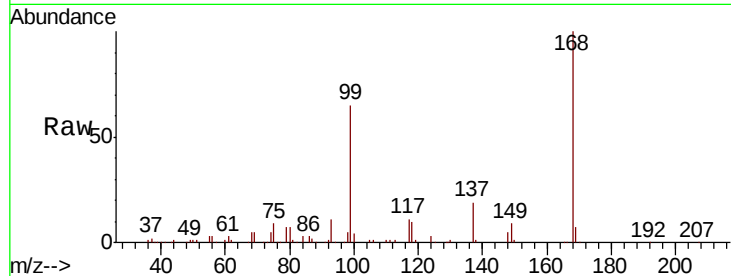




#36  
 1,1-Dichloropropene  
 Concen: 4.408 ug/l  
 RT: 7.63 min Scan# 1831  
 Delta R.T. -0.13 min  
 Lab File: VN063311.D  
 Acq: 11 Sep 2020 13:54

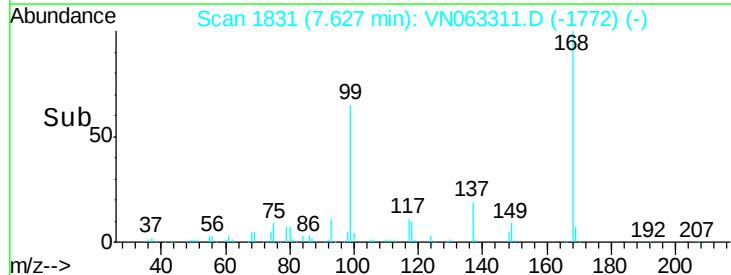
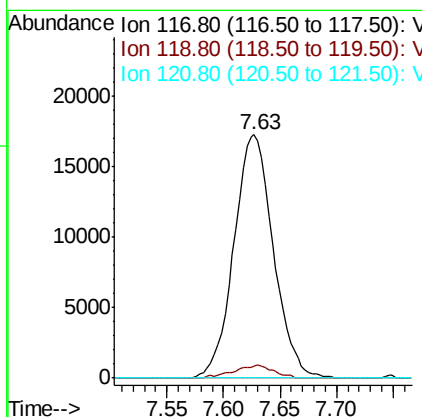
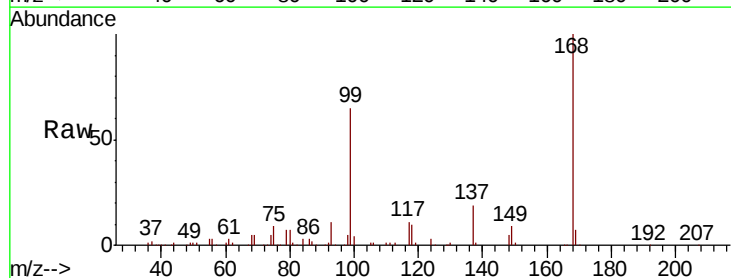
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 TB04-20200909

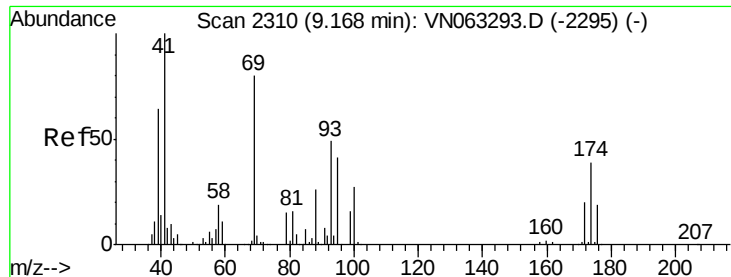
| Tot Ion   | 75  | Resp  | 32330 |
|-----------|-----|-------|-------|
| Ion Ratio | 100 | Lower | Upper |
| 110       | 9.5 | 16.4  | 49.4# |
| 77        | 0.1 | 24.8  | 37.2# |



#38  
 Carbon Tetrachloride  
 Concen: 5.791 ug/l  
 RT: 7.63 min Scan# 1831  
 Delta R.T. -0.11 min  
 Lab File: VN063311.D  
 Acq: 11 Sep 2020 13:54

| Tgt Ion                                              | 117 | Resp  | 41804  |
|------------------------------------------------------|-----|-------|--------|
| Ion Ratio <td>100</td> <td>Lower</td> <td>Upper</td> | 100 | Lower | Upper  |
| 119                                                  | 5.1 | 75.3  | 112.9# |
| 121                                                  | 0.0 | 24.6  | 37.0#  |

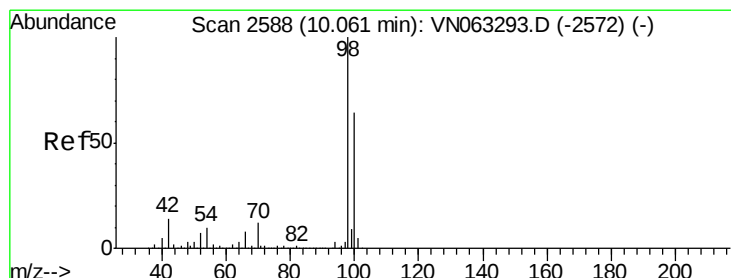
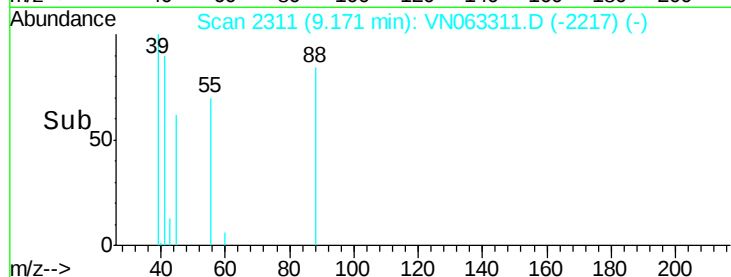
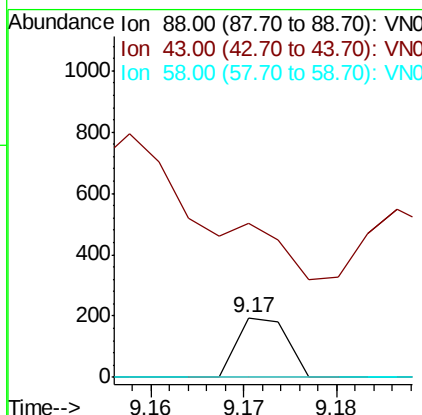
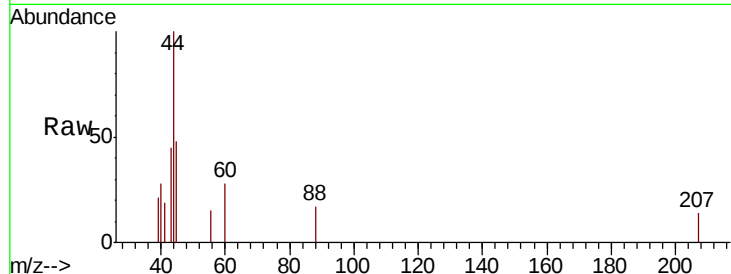




#49  
1,4-Dioxane  
Concen: 0.798 ug/l  
RT: 9.17 min Scan# 2311  
Delta R.T. 0.00 min  
Lab File: VN063311.D  
Acq: 11 Sep 2020 13:54

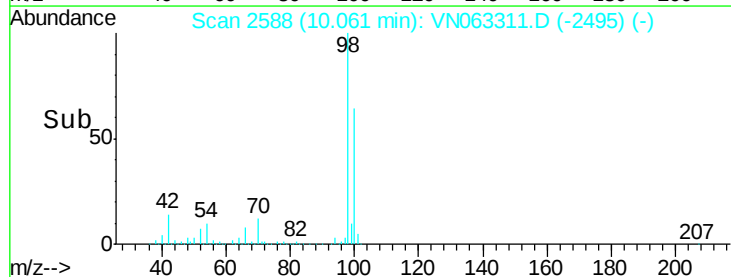
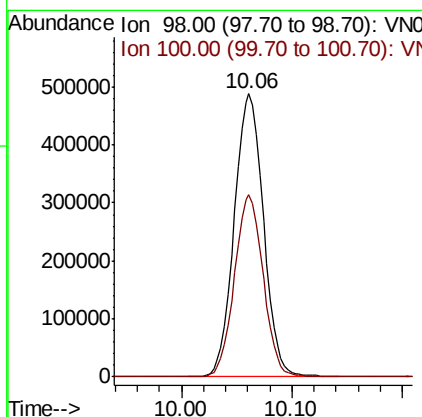
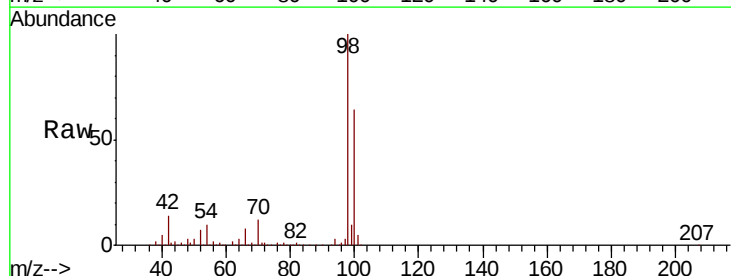
Instrument :  
MSVOA\_N  
ClientSampleId :  
TB04-20200909

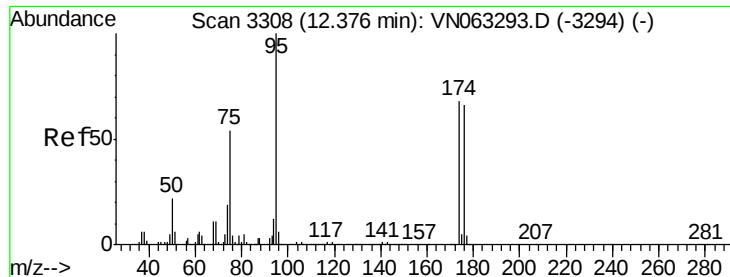
Tot Ion: 88 Resp: 72  
Ion Ratio Lower Upper  
88 100  
43 758.3 30.5 45.7#  
58 0.0 58.9 88.3#



#50  
Toluene-d8  
Concen: 50.844 ug/l  
RT: 10.06 min Scan# 2588  
Delta R.T. -0.00 min  
Lab File: VN063311.D  
Acq: 11 Sep 2020 13:54

Tgt Ion: 98 Resp: 896883  
Ion Ratio Lower Upper  
98 100  
100 63.6 50.7 76.1





#62

4-Bromofluorobenzene

Concen: 51.649 ug/l

RT: 12.38 min Scan# 3309

Delta R.T. 0.00 min

Lab File: VN063311.D

Acq: 11 Sep 2020 13:54

Instrument :

MSVOA\_N

ClientSampled :

TB04-20200909

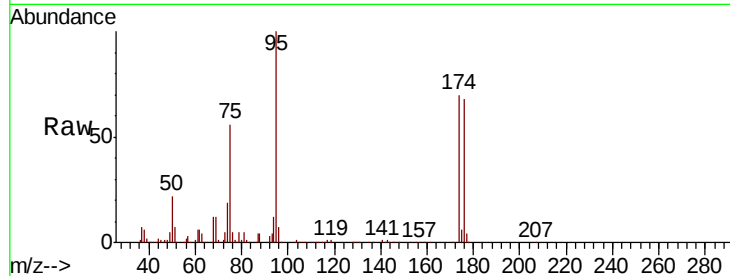
Tot Ion: 95 Resp: 336513

Ion Ratio Lower Upper

95 100

174 69.1 0.0 136.6

176 66.9 0.0 132.8



Abundance Ion 94.90 (94.60 to 95.60): VN063311.D (-3215) (-)

Ion 173.80 (173.50 to 174.50): VN063311.D (-3215) (-)

Ion 175.80 (175.50 to 176.50): VN063311.D (-3215) (-)

12.38

250000

200000

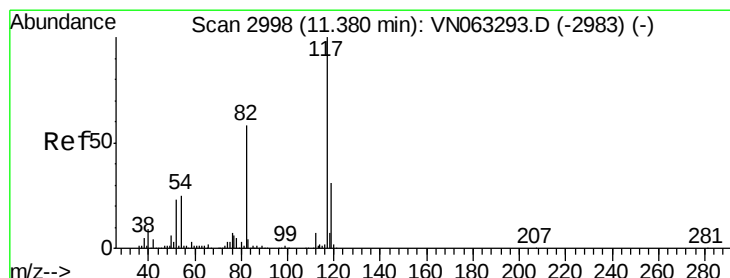
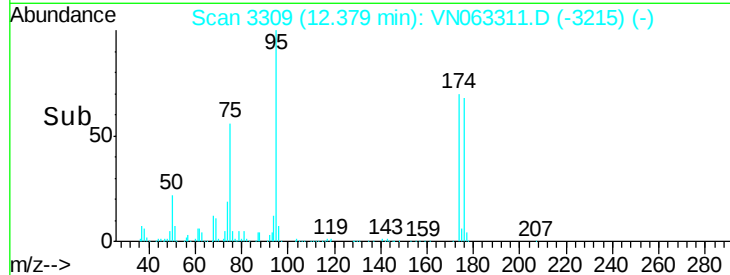
150000

100000

50000

0

Time-->



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.38 min Scan# 2998

Delta R.T. -0.00 min

Lab File: VN063311.D

Acq: 11 Sep 2020 13:54

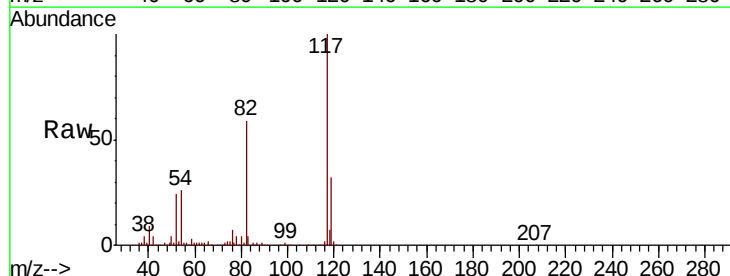
Tgt Ion: 117 Resp: 684412

Ion Ratio Lower Upper

117 100

82 59.1 46.4 69.6

119 31.9 24.8 37.2



Abundance Ion 116.90 (116.60 to 117.60): VN063311.D (-2905) (-)

Ion 82.00 (81.70 to 82.70): VN063311.D (-2905) (-)

Ion 118.90 (118.60 to 119.60): VN063311.D (-2905) (-)

11.38

500000

400000

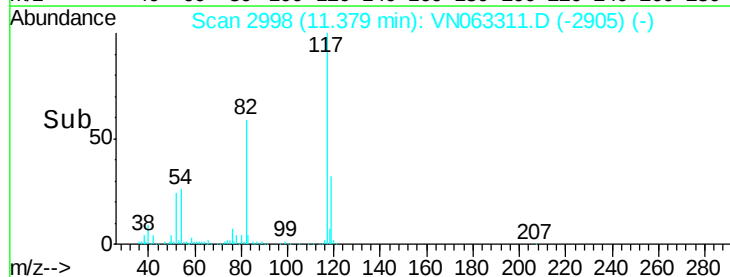
300000

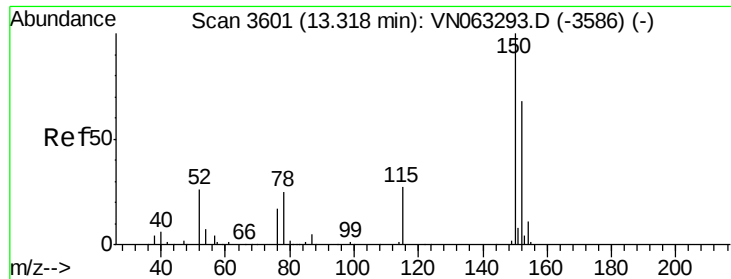
200000

100000

0

Time-->





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.32 min Scan# 3602

Delta R.T. 0.00 min

Lab File: VN063311.D

Acq: 11 Sep 2020 13:54

Instrument :

MSVOA\_N

ClientSampleId :

TB04-20200909

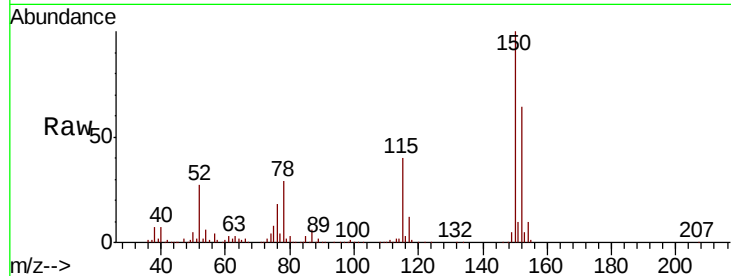
Tot Ion:152 Resp: 278007

Ion Ratio Lower Upper

152 100

115 63.1 31.5 94.5

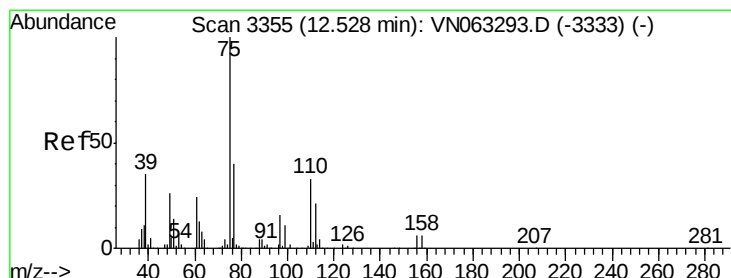
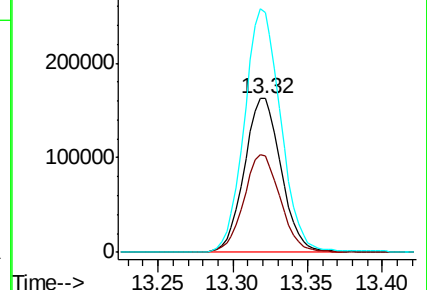
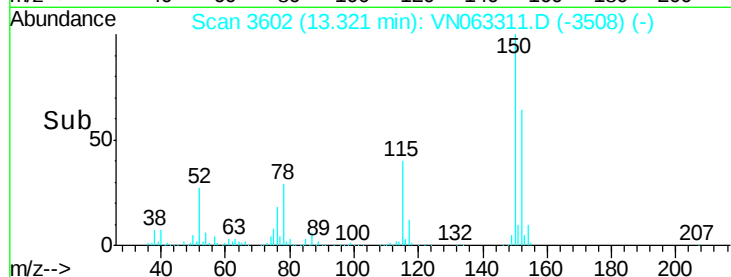
150 157.4 0.0 344.0



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: 29.951 ug/l

RT: 12.38 min Scan# 3309

Delta R.T. -0.15 min

Lab File: VN063311.D

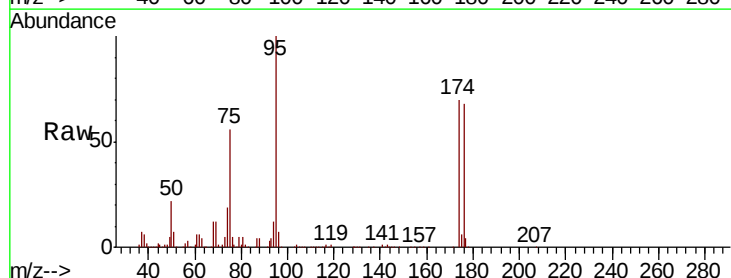
Acq: 11 Sep 2020 13:54

Tgt Ion: 75 Resp: 183695

Ion Ratio Lower Upper

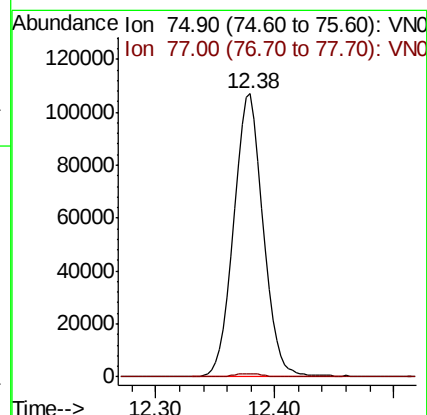
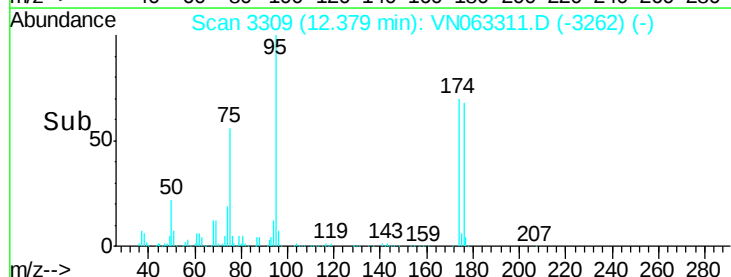
75 100

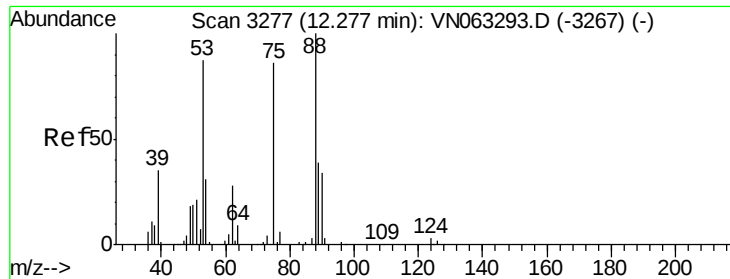
77 1.2 0.0 0.0#



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: 80.472 ug/l

RT: 12.38 min Scan# 3309

Delta R.T. 0.10 min

Lab File: VN063311.D

Acq: 11 Sep 2020 13:54

Instrument :

MSVOA\_N

ClientSampleId :

TB04-20200909

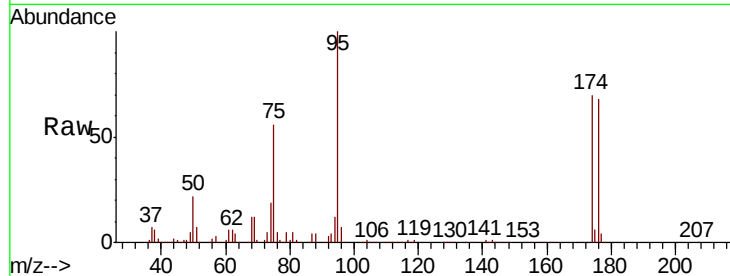
Tot Ion: 75 Resp: 183695

Ion Ratio Lower Upper

75 100

53 0.0 81.8 122.8#

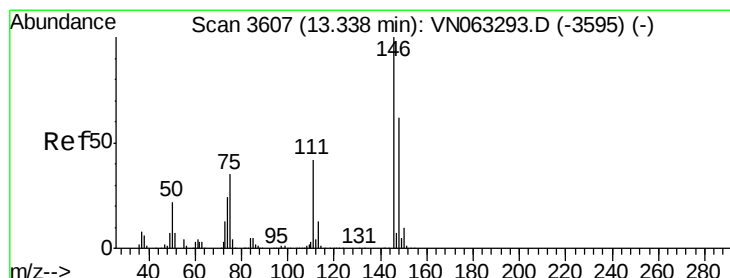
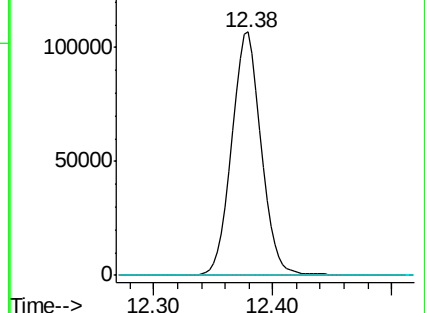
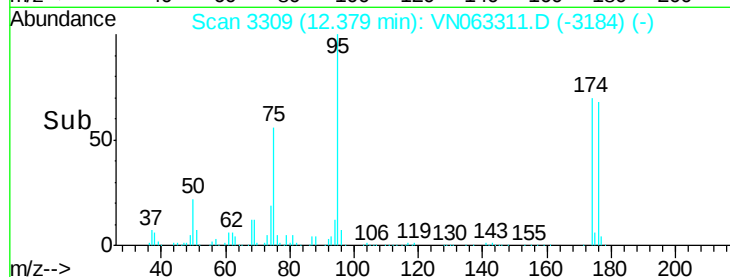
89 0.0 36.7 55.1#



Abundance Ion 74.90 (74.60 to 75.60): VN063311.D (-3184) (-)

Ion 53.00 (52.70 to 53.70): VN063311.D (-3184) (-)

Ion 88.90 (88.60 to 89.60): VN063311.D (-3184) (-)



#88

1,4-Dichlorobenzene

Concen: Below Cal

RT: 13.34 min Scan# 3608

Delta R.T. 0.00 min

Lab File: VN063311.D

Acq: 11 Sep 2020 13:54

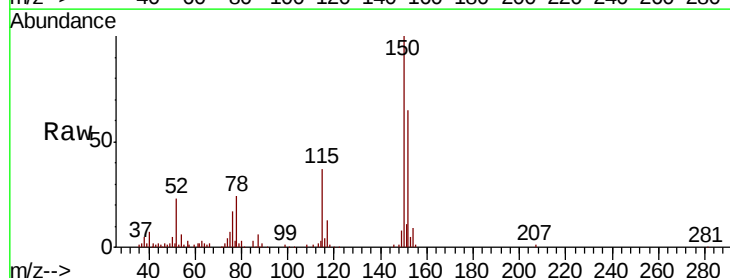
Tgt Ion: 146 Resp: 331

Ion Ratio Lower Upper

146 100

111 0.0 21.3 64.0#

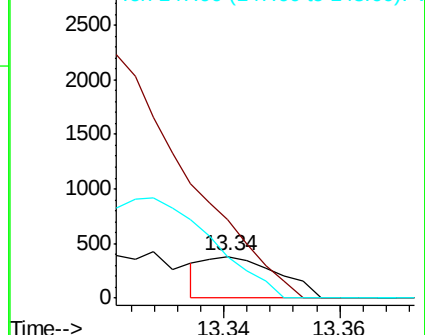
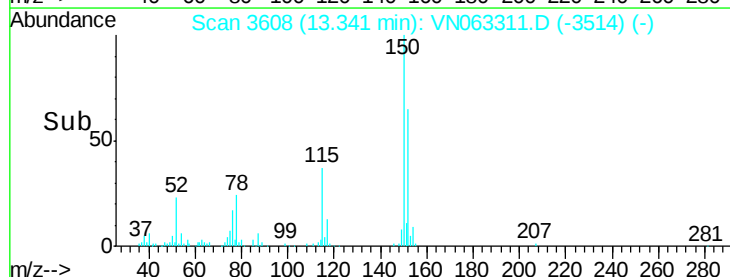
148 0.0 31.5 94.5#

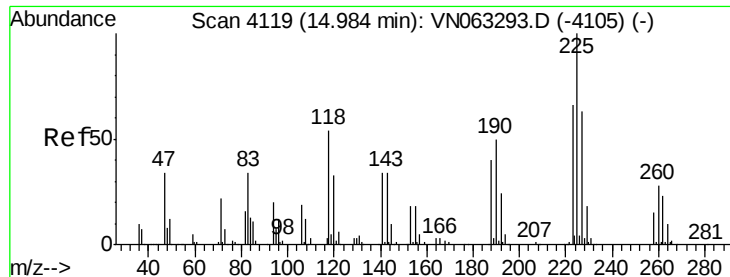


Abundance Ion 145.90 (145.60 to 146.60): VN063311.D (-3514) (-)

Ion 110.90 (110.60 to 111.60): VN063311.D (-3514) (-)

Ion 147.90 (147.60 to 148.60): VN063311.D (-3514) (-)

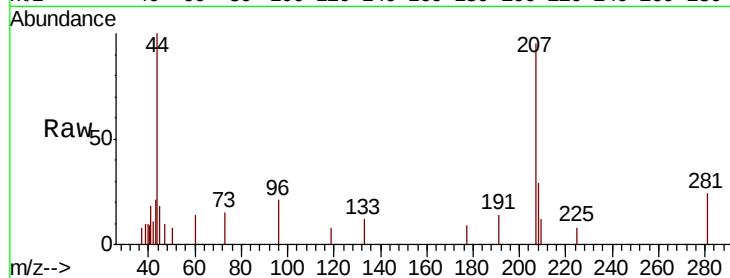




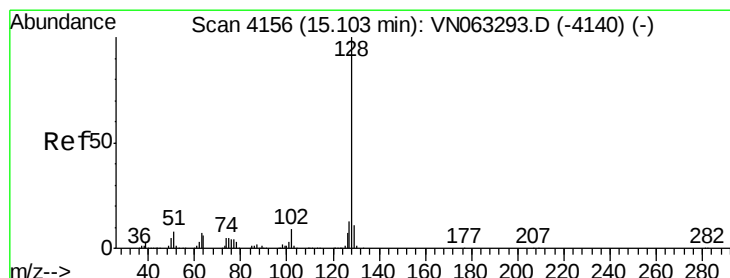
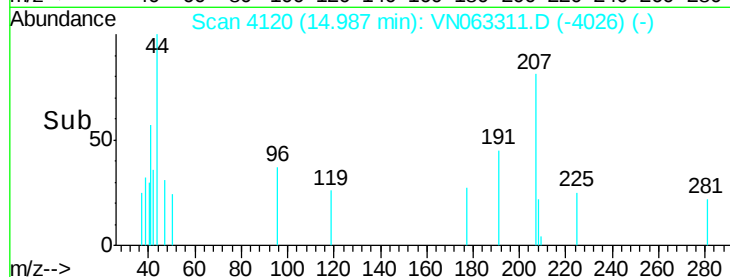
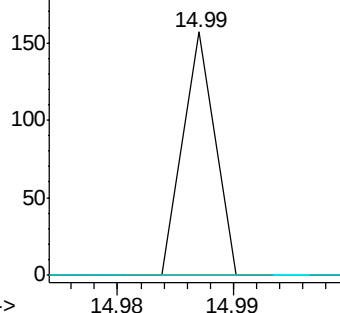
#94  
Hexachlorobutadiene  
Concen: Below Cal  
RT: 14.99 min Scan# 4120  
Delta R.T. 0.00 min  
Lab File: VN063311.D  
Acq: 11 Sep 2020 13:54

Instrument :  
MSVOA\_N  
ClientSampleId :  
TB04-20200909

Tot Ion:225 Resp: 30  
Ion Ratio Lower Upper  
225 100  
223 0.0 31.3 93.9#  
227 0.0 31.2 93.6#

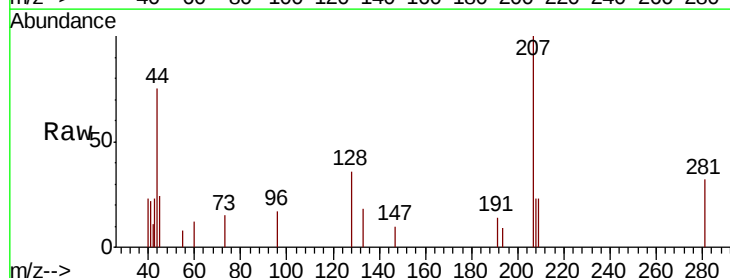


Abundance Ion 224.70 (224.40 to 225.40): V  
Ion 222.70 (222.40 to 223.40): V  
Ion 226.70 (226.40 to 227.40): V

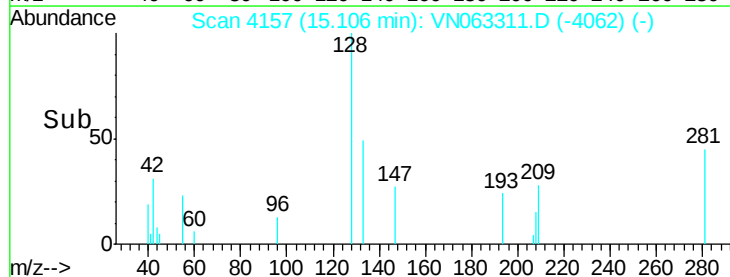
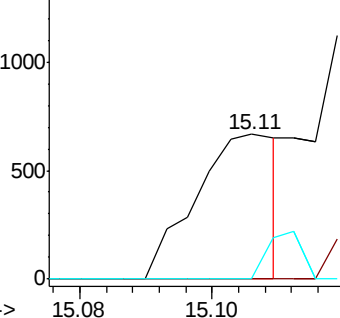


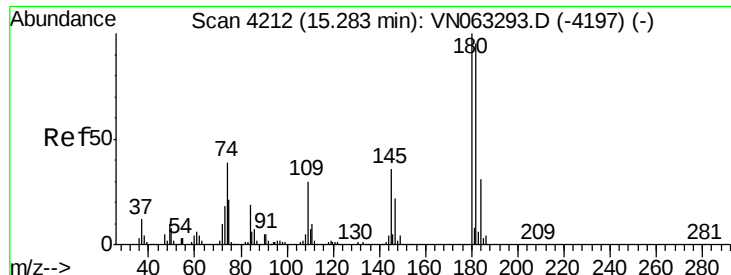
#95  
Naphthalene  
Concen: Below Cal  
RT: 15.11 min Scan# 4157  
Delta R.T. 0.00 min  
Lab File: VN063311.D  
Acq: 11 Sep 2020 13:54

Tgt Ion:128 Resp: 575  
Ion Ratio Lower Upper  
128 100  
127 0.0 10.3 15.5#  
129 0.0 8.6 12.8#



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

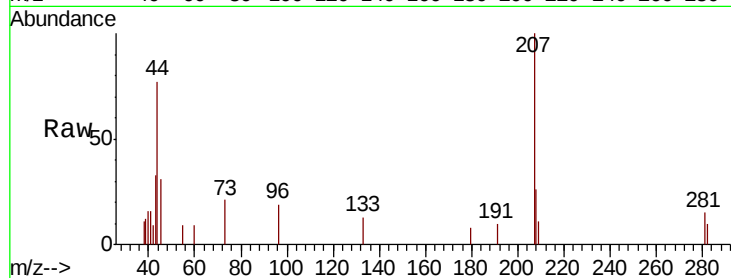




#96  
 1,2,3-Trichlorobenzene  
 Concen: Below Cal  
 RT: 15.31 min Scan# 4219  
 Delta R.T. 0.02 min  
 Lab File: VN063311.D  
 Acq: 11 Sep 2020 13:54

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 TB04-20200909

| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 180     | 100   |       |        |
| 182     | 448.3 | 47.4  | 142.3# |
| 145     | 0.0   | 17.2  | 51.6#  |



Abundance Ion 179.80 (179.50 to 180.50): V  
 Ion 181.80 (181.50 to 182.50): V  
 Ion 144.90 (144.60 to 145.60): V

