

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN091420\  
 Data File : VN063350.D  
 Acq On : 14 Sep 2020 18:31  
 Operator : JC/MD  
 Sample : L3988-15  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 22 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 SA-PZ163I-20200909

Quant Time: Sep 15 05:13:32 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  | 381184   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.55  | 114  | 713995   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.38 | 117  | 686907   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.32 | 152  | 283759   | 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   | 290519   | 48.51 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.02%  |          |
| 35) Dibromofluoromethane    | 7.55  | 113  | 226509   | 49.18 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 98.36%  |          |
| 50) Toluene-d8              | 10.06 | 98   | 915734   | 51.88 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.76% |          |
| 62) 4-Bromofluorobenzene    | 12.38 | 95   | 336422   | 51.60 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.20% |          |

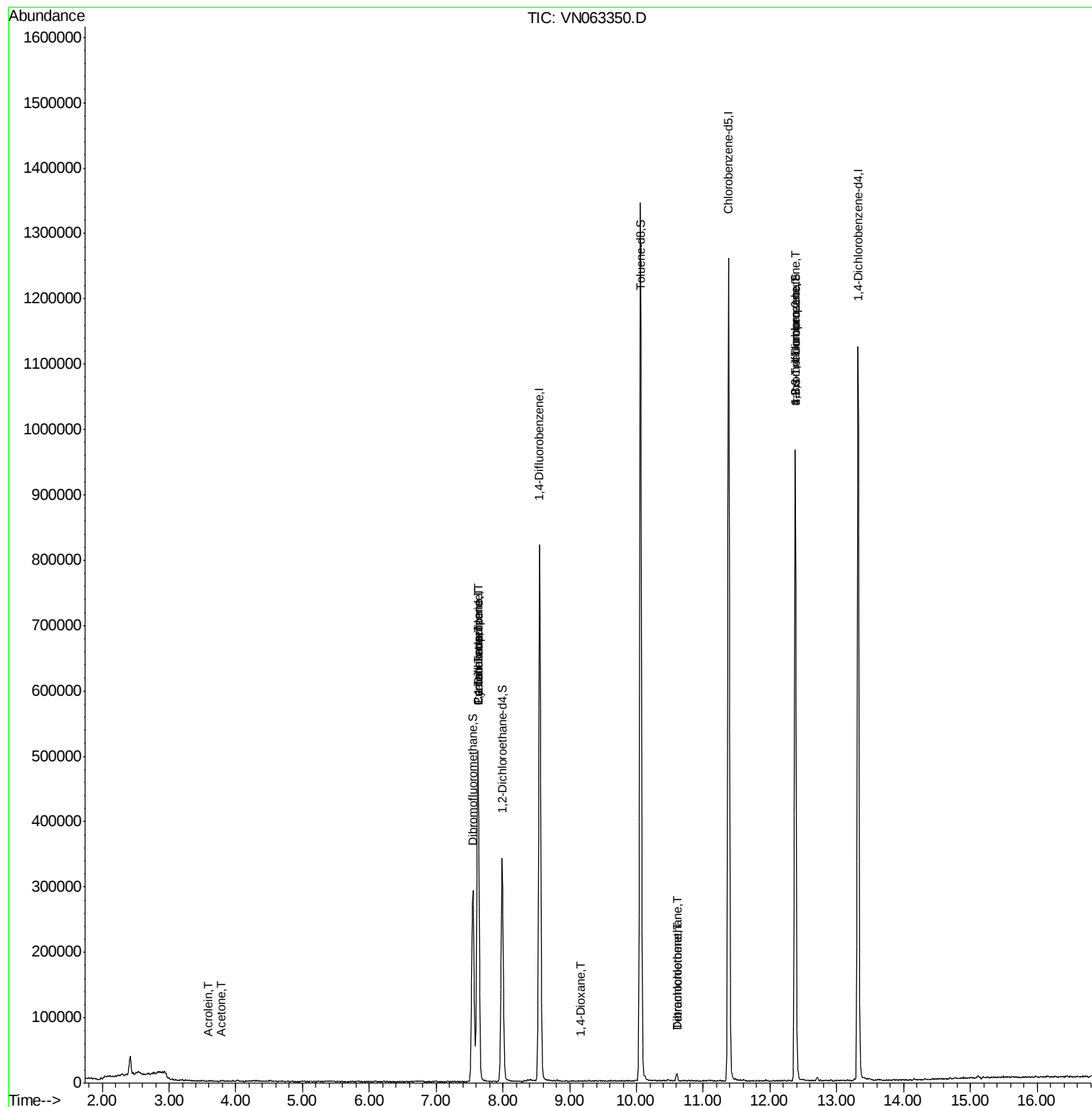
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 3) Chloromethane               | 2.03  | 50   | 1943     | Below Cal | #      | 76     |
| 13) Acrolein                   | 3.59  | 56   | 31       | 32.520    | ug/l # | 14     |
| 16) Acetone                    | 3.78  | 43   | 881      | 0.426     | ug/l   | 95     |
| 17) Carbon Disulfide           | 4.01  | 76   | 673      | Below Cal | #      | 75     |
| 20) Methylene Chloride         | 4.50  | 84   | 723      | Below Cal | #      | 56     |
| 31) Cyclohexane                | 7.62  | 56   | 11111    | 1.323     | ug/l # | 16     |
| 36) 1,1-Dichloropropene        | 7.63  | 75   | 32661    | 4.450     | ug/l # | 51     |
| 38) Carbon Tetrachloride       | 7.63  | 117  | 41575    | 5.756     | ug/l # | 17     |
| 49) 1,4-Dioxane                | 9.17  | 88   | 108      | 1.196     | ug/l # | 1      |
| 60) Dibromochloromethane       | 10.61 | 129  | 2308     | 0.419     | ug/l # | 10     |
| 64) Tetrachloroethene          | 10.61 | 164  | 2194     | 0.390     | ug/l   | 90     |
| 76) 1,2,3-Trichloropropane     | 12.38 | 75   | 185641   | 29.654    | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.38 | 75   | 185641   | 79.676    | ug/l # | 9      |
| 88) 1,4-Dichlorobenzene        | 13.34 | 146  | 2527     | Below Cal | #      | 25     |
| 95) Naphthalene                | 15.10 | 128  | 1197     | Below Cal | #      | 77     |
| 96) 1,2,3-Trichlorobenzene     | 15.30 | 180  | 224      | Below Cal | #      | 35     |

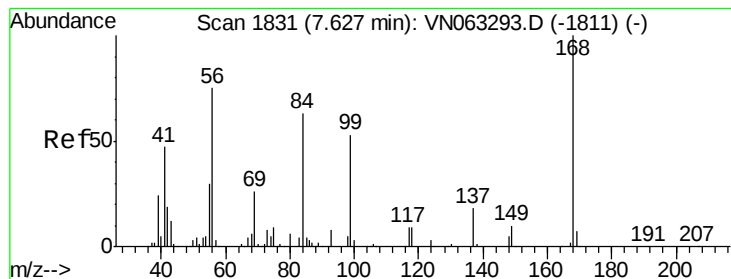
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA N\DATA\VN091420\  
Data File : VN063350.D  
Acq On : 14 Sep 2020 18:31  
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Sample : L3988-15  
Misc : 5.00mL/MSVOA N/WATER  
ALS Vial : 22 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
SA-PZ163I-20200909

Quant Time: Sep 15 05:13:32 2020  
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: VN063350.D

Acq: 14 Sep 2020 18:31

Instrument :

MSVOA\_N

ClientSampleId :

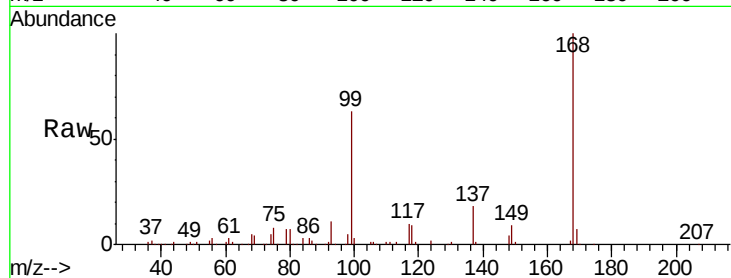
SA-PZ1631-20200909

Tot Ion:168 Resp: 381184

Ion Ratio Lower Upper

168 100

99 63.0 51.1 76.7



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN

7.63

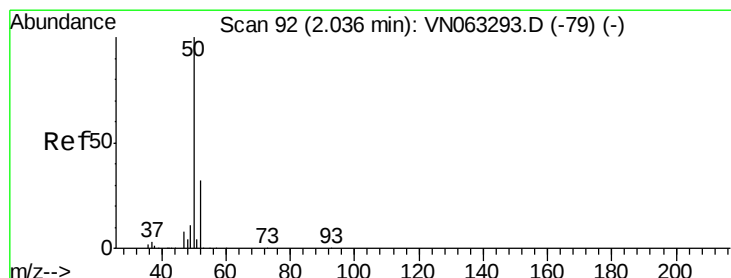
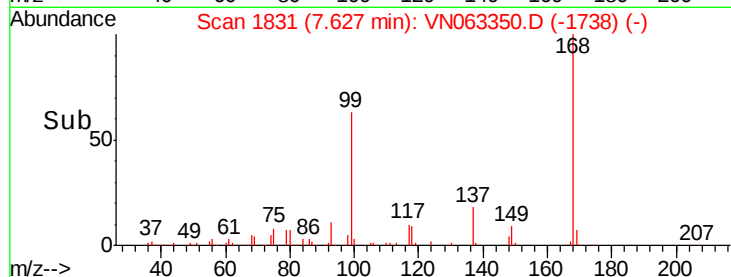
150000

100000

50000

0

Time--> 7.50 7.60 7.70



#3

Chloromethane

Concen: Below Cal

RT: 2.03 min Scan# 91

Delta R.T. -0.00 min

Lab File: VN063350.D

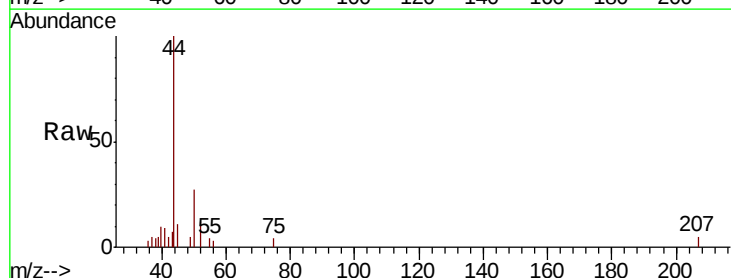
Acq: 14 Sep 2020 18:31

Tgt Ion: 50 Resp: 1943

Ion Ratio Lower Upper

50 100

52 45.4 25.4 38.2#



Abundance Ion 49.90 (49.60 to 50.60): VN

Ion 51.90 (51.60 to 52.60): VN

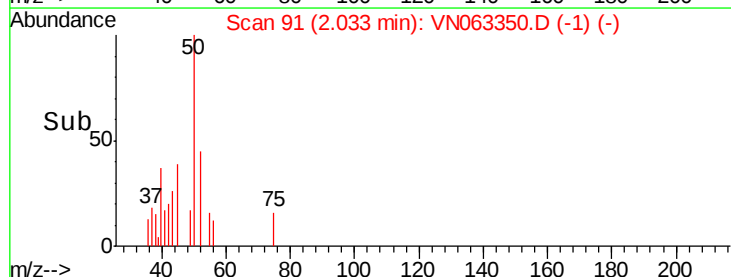
2.03

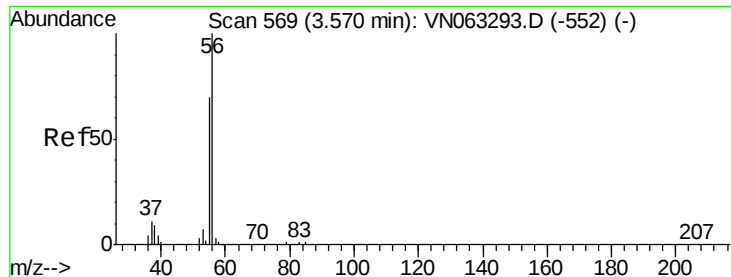
1000

500

0

Time--> 2.00 2.05





#13

Acrolein

Concen: 32.520 ug/l

RT: 3.59 min Scan# 574

Delta R.T. 0.02 min

Lab File: VN063350.D

Acq: 14 Sep 2020 18:31

Instrument :

MSVOA\_N

ClientSampleId :

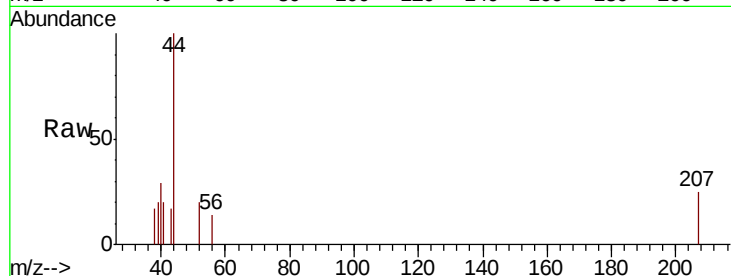
SA-PZ163I-20200909

Tot Ion: 56 Resp: 31

Ion Ratio Lower Upper

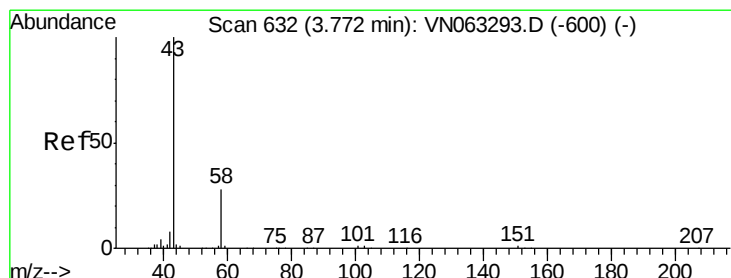
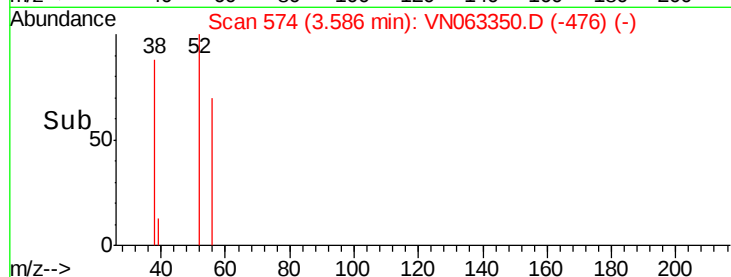
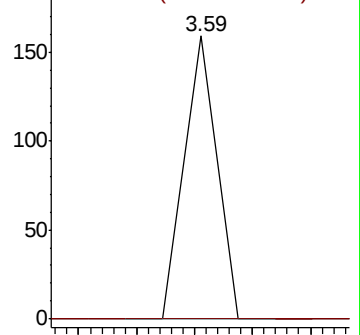
56 100

55 0.0 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: 0.426 ug/l

RT: 3.78 min Scan# 634

Delta R.T. 0.01 min

Lab File: VN063350.D

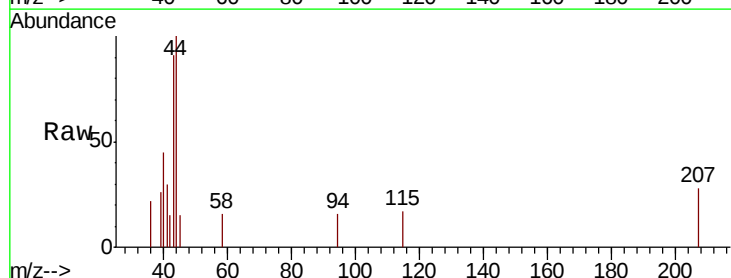
Acq: 14 Sep 2020 18:31

Tgt Ion: 43 Resp: 881

Ion Ratio Lower Upper

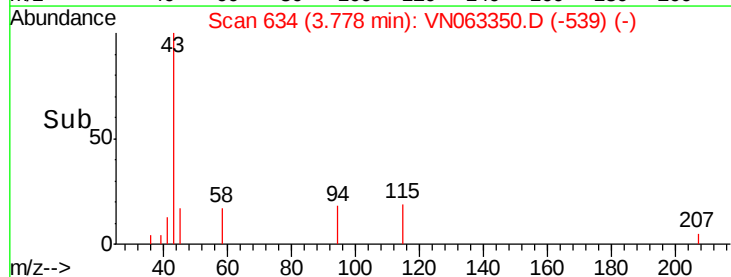
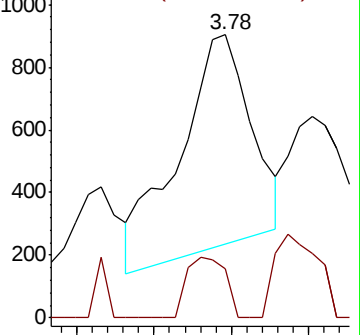
43 100

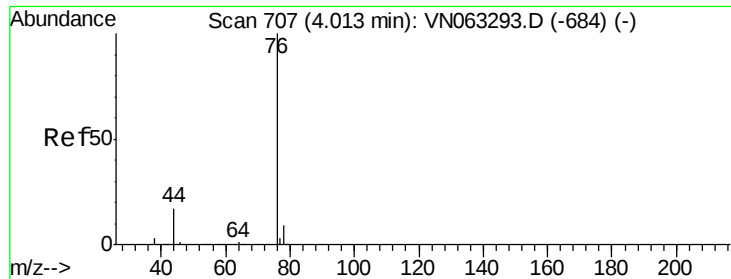
58 25.9 22.6 34.0



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: 4.01 min Scan# 706

Delta R.T. -0.00 min

Lab File: VN063350.D

Acq: 14 Sep 2020 18:31

Instrument :

MSVOA\_N

ClientSampleId :

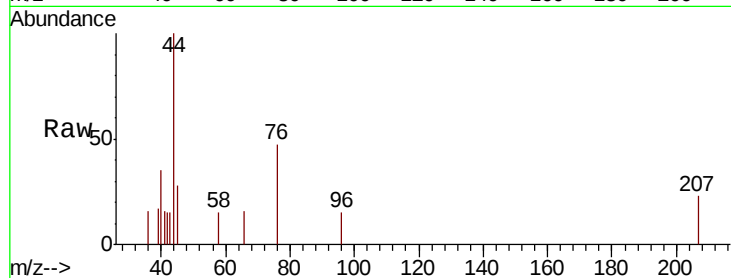
SA-PZ163I-20200909

Tot Ion: 76 Resp: 673

Ion Ratio Lower Upper

76 100

78 0.0 7.2 10.8#



Abundance Ion 75.90 (75.60 to 76.60): VNO

Ion 77.90 (77.60 to 78.60): VNO

4.01

500

400

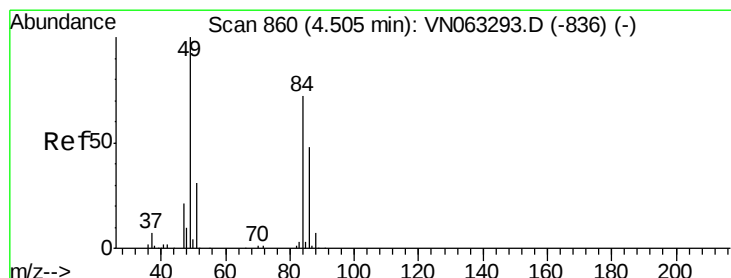
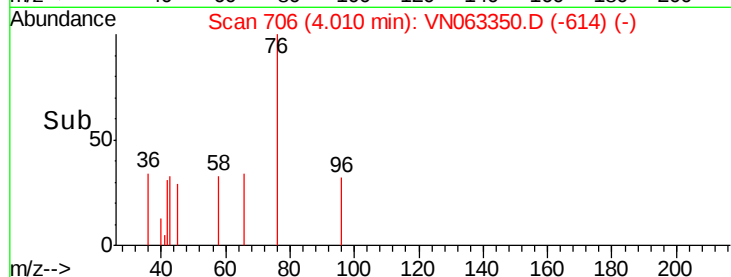
300

200

100

0

Time-->



#20

Methylene Chloride

Concen: Below Cal

RT: 4.50 min Scan# 858

Delta R.T. -0.01 min

Lab File: VN063350.D

Acq: 14 Sep 2020 18:31

Tgt Ion: 84 Resp: 723

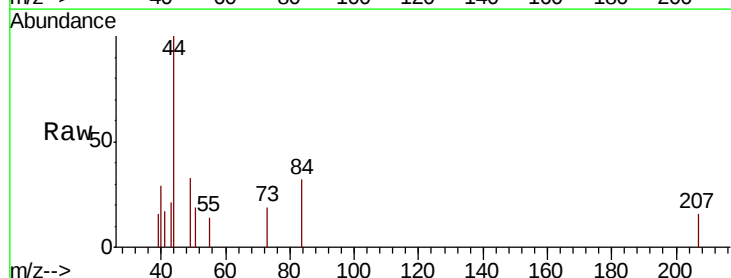
Ion Ratio Lower Upper

84 100

49 102.2 111.1 166.7#

51 59.1 34.3 51.5#

86 0.0 52.9 79.3#



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

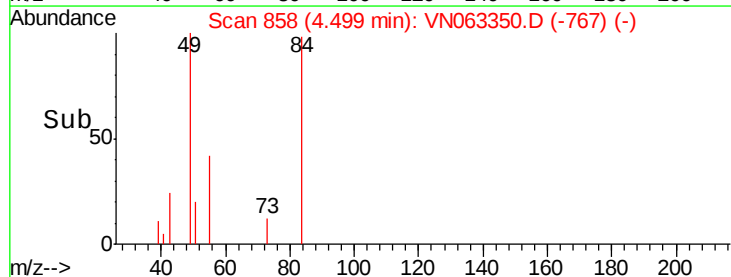
4.50

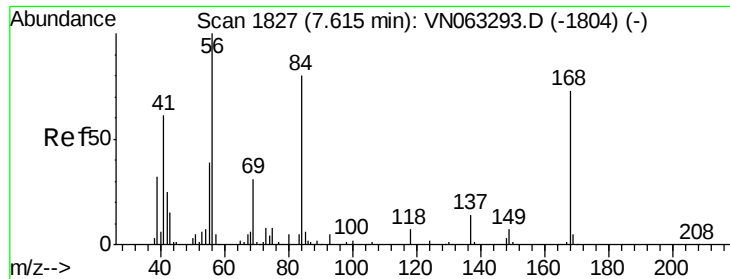
400

200

0

Time-->

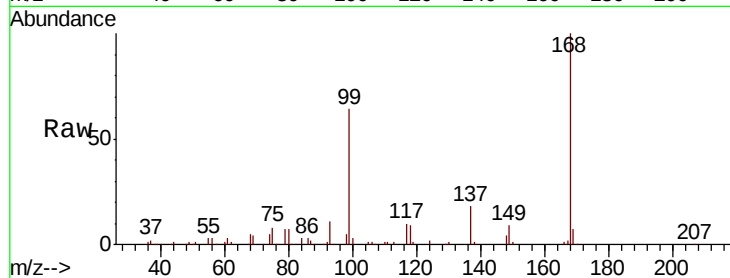




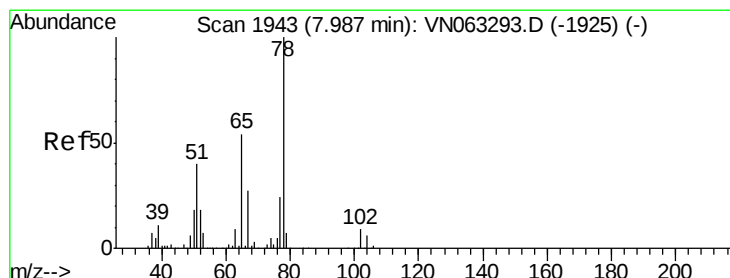
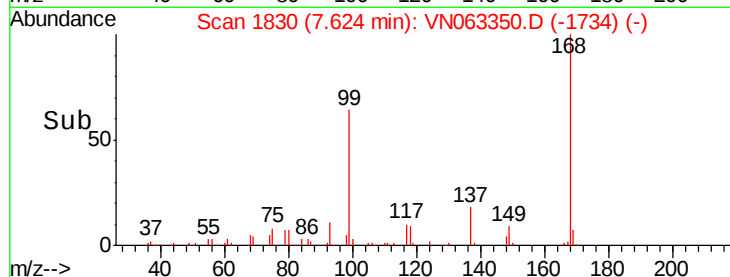
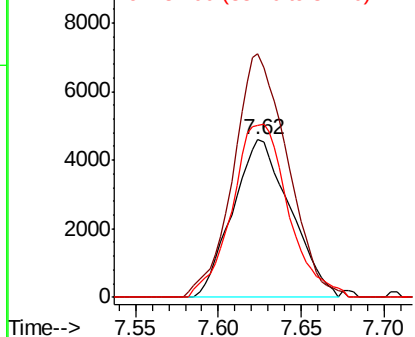
#31  
Cyclohexane  
Concen: 1.323 ug/l  
RT: 7.62 min Scan# 1830  
Delta R.T. 0.01 min  
Lab File: VN063350.D  
Acq: 14 Sep 2020 18:31

Instrument :  
MSVOA\_N  
ClientSampleId :  
SA-PZ163I-20200909

Tot Ion: 56 Resp: 11111  
Ion Ratio Lower Upper  
56 100  
69 150.7 25.1 37.7#  
84 109.2 64.2 96.2#

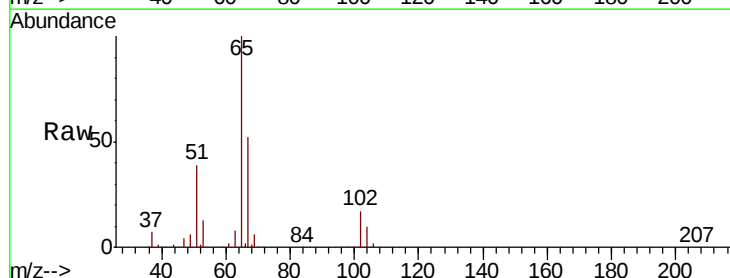


Abundance Ion 56.00 (55.70 to 56.70): VN0  
Ion 69.00 (68.70 to 69.70): VN0  
Ion 84.00 (83.70 to 84.70): VN0

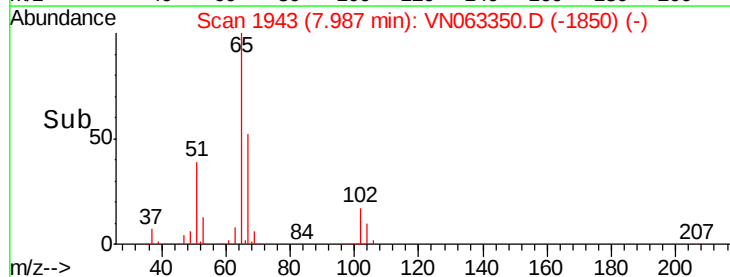
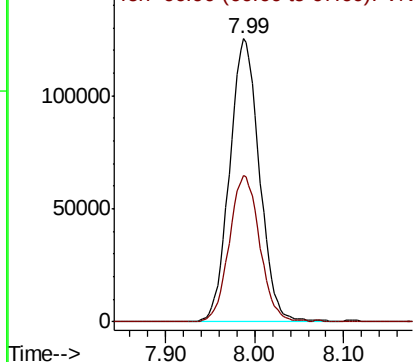


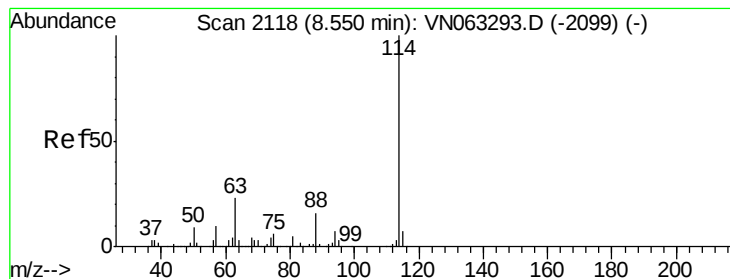
#33  
1,2-Dichloroethane-d4  
Concen: 48.509 ug/l  
RT: 7.99 min Scan# 1943  
Delta R.T. -0.00 min  
Lab File: VN063350.D  
Acq: 14 Sep 2020 18:31

Tgt Ion: 65 Resp: 290519  
Ion Ratio Lower Upper  
65 100  
67 52.7 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: VN063350.D

Acq: 14 Sep 2020 18:31

Instrument :

MSVOA\_N

ClientSampleId :

SA-PZ163I-20200909

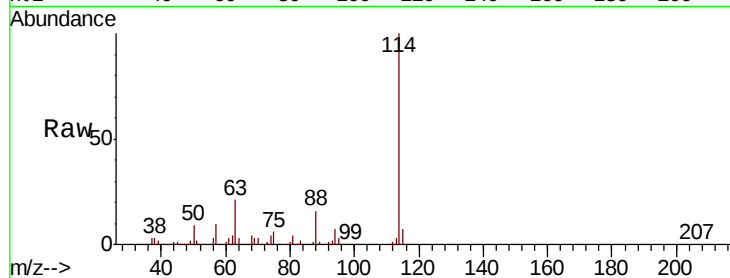
Tot Ion:114 Resp: 713995

Ion Ratio Lower Upper

114 100

63 21.4 0.0 46.0

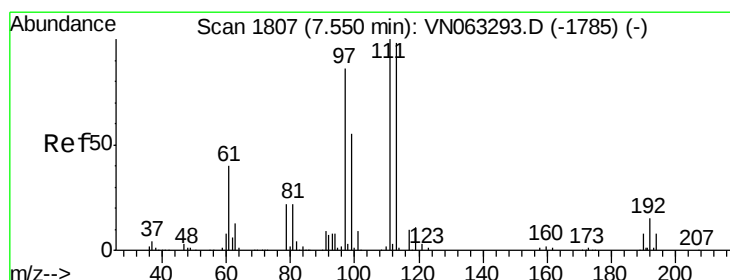
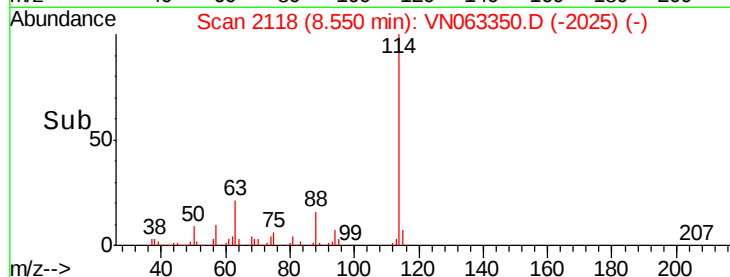
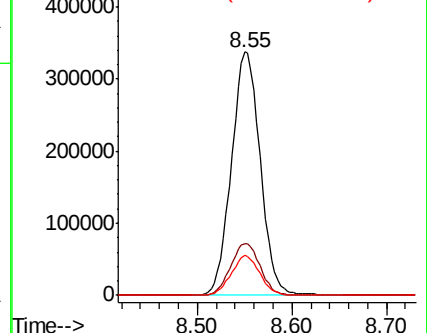
88 16.2 0.0 32.8



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: 49.175 ug/l

RT: 7.55 min Scan# 1807

Delta R.T. -0.00 min

Lab File: VN063350.D

Acq: 14 Sep 2020 18:31

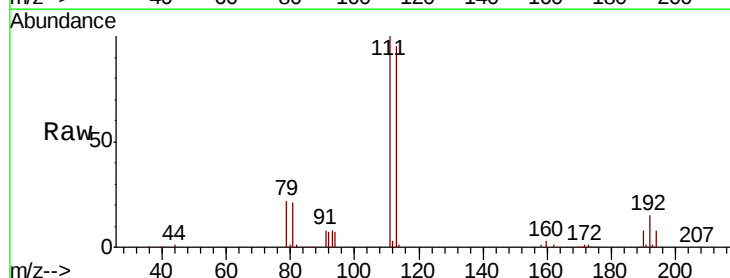
Tgt Ion:113 Resp: 226509

Ion Ratio Lower Upper

113 100

111 102.9 82.2 123.2

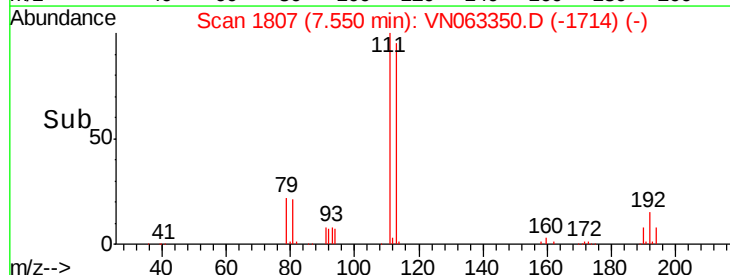
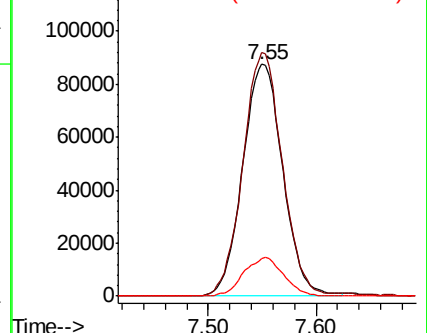
192 16.6 12.9 19.3

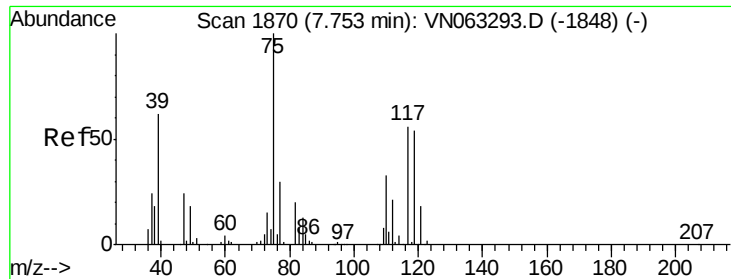


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V

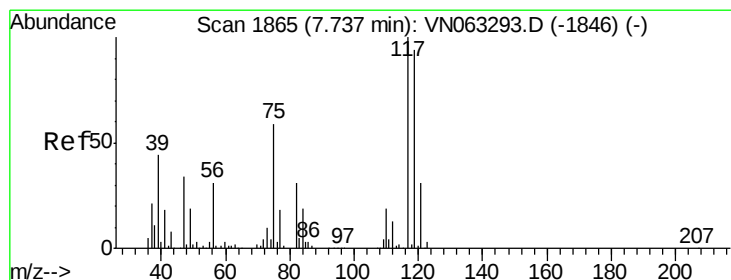
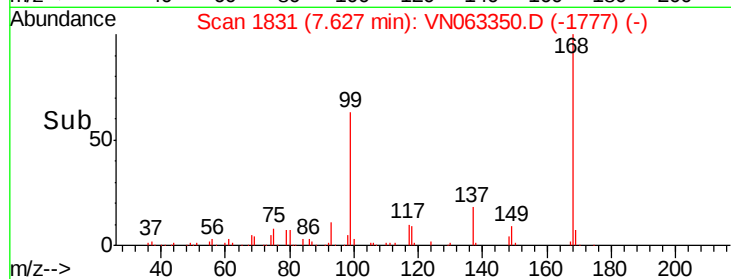
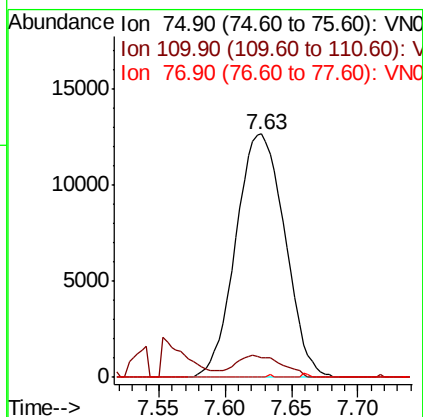
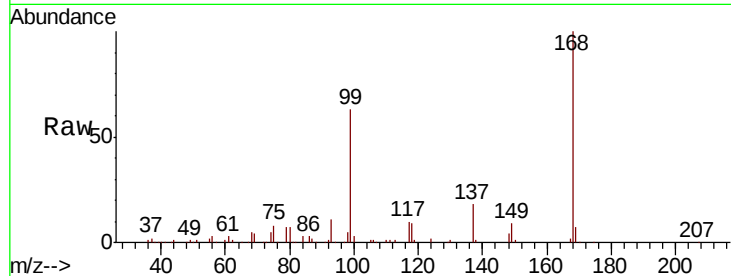




#36  
 1,1-Dichloropropene  
 Concen: 4.450 ug/l  
 RT: 7.63 min Scan# 1831  
 Delta R.T. -0.13 min  
 Lab File: VN063350.D  
 Acq: 14 Sep 2020 18:31

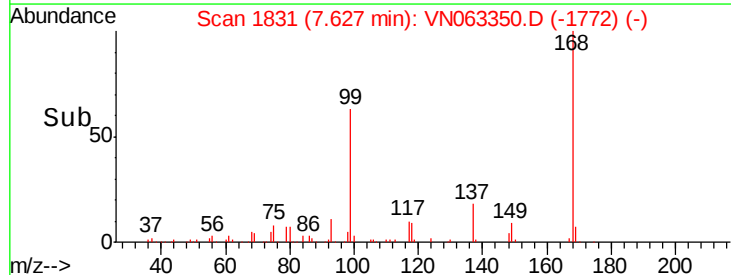
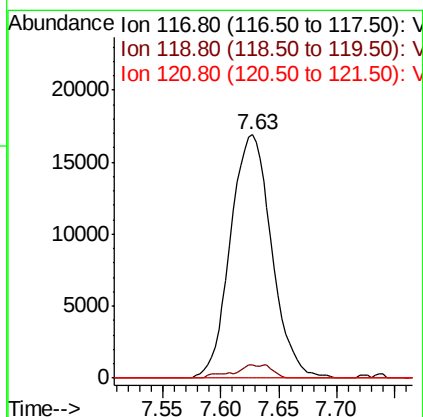
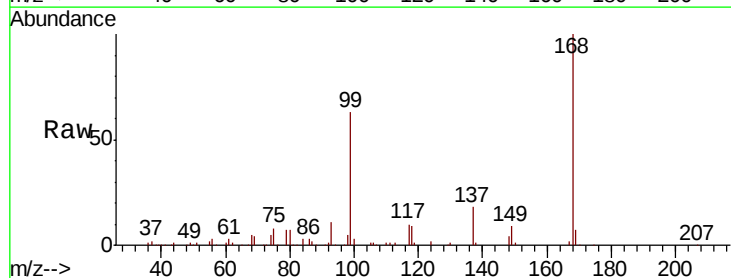
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 SA-PZ1631-20200909

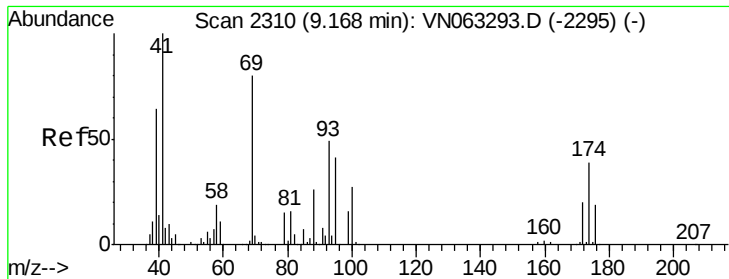
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 8.6   | 16.4  | 49.4# |
| 77      | 0.1   | 24.8  | 37.2# |



#38  
 Carbon Tetrachloride  
 Concen: 5.756 ug/l  
 RT: 7.63 min Scan# 1831  
 Delta R.T. -0.11 min  
 Lab File: VN063350.D  
 Acq: 14 Sep 2020 18:31

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 5.4   | 75.3  | 112.9# |
| 121     | 0.0   | 24.6  | 37.0#  |

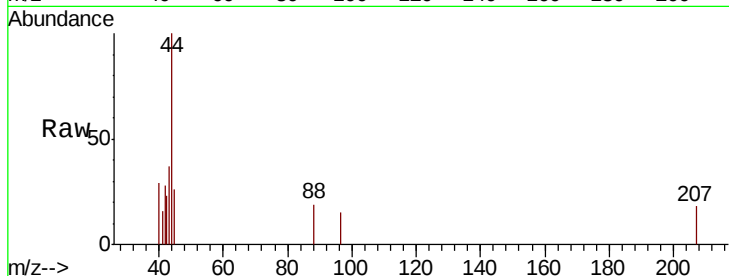




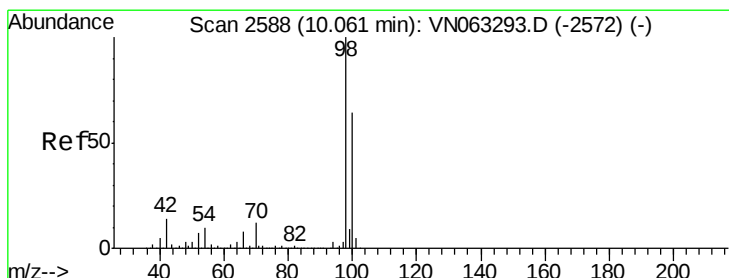
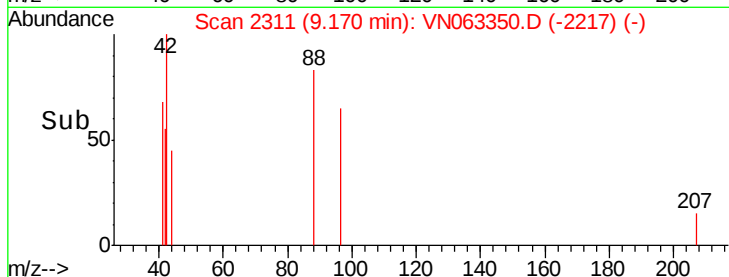
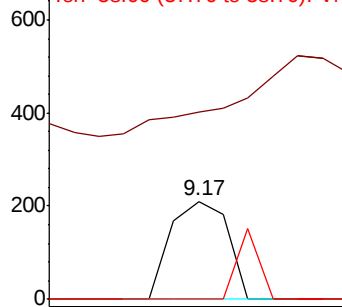
#49  
1,4-Dioxane  
Concen: 1.196 ug/l  
RT: 9.17 min Scan# 2311  
Delta R.T. 0.00 min  
Lab File: VN063350.D  
Acq: 14 Sep 2020 18:31

Instrument :  
MSVOA\_N  
ClientSampleId :  
SA-PZ163I-20200909

Tot Ion: 88 Resp: 108  
Ion Ratio Lower Upper  
88 100  
43 457.4 30.5 45.7#  
58 27.8 58.9 88.3#

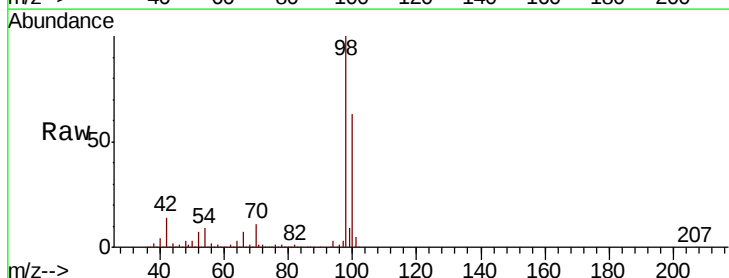


Abundance Ion 88.00 (87.70 to 88.70): VN0  
Ion 43.00 (42.70 to 43.70): VN0  
Ion 58.00 (57.70 to 58.70): VN0

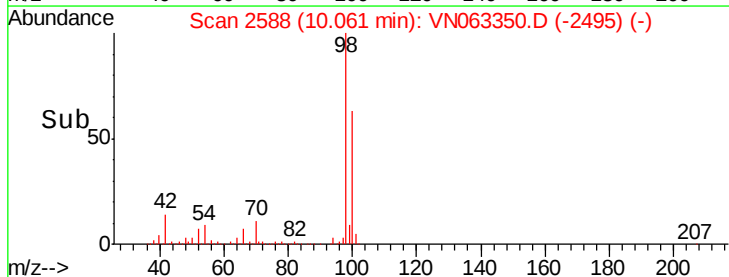
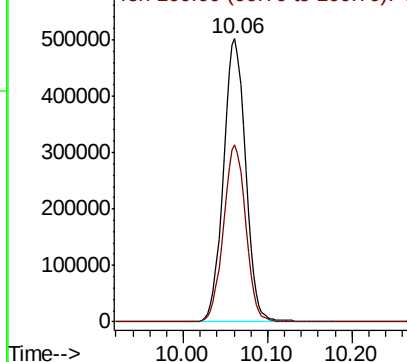


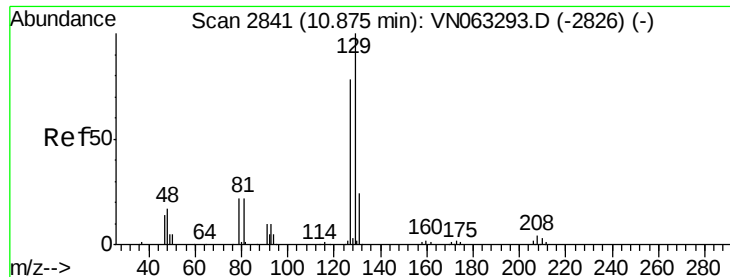
#50  
Toluene-d8  
Concen: 51.877 ug/l  
RT: 10.06 min Scan# 2588  
Delta R.T. -0.00 min  
Lab File: VN063350.D  
Acq: 14 Sep 2020 18:31

Tgt Ion: 98 Resp: 915734  
Ion Ratio Lower Upper  
98 100  
100 62.5 50.7 76.1



Abundance Ion 98.00 (97.70 to 98.70): VN0  
Ion 100.00 (99.70 to 100.70): VN0





#60

Dibromochloromethane

Concen: 0.419 ug/l

RT: 10.61 min Scan# 2758

Delta R.T. -0.27 min

Lab File: VN063350.D

Acq: 14 Sep 2020 18:31

Instrument :

MSVOA\_N

ClientSampleId :

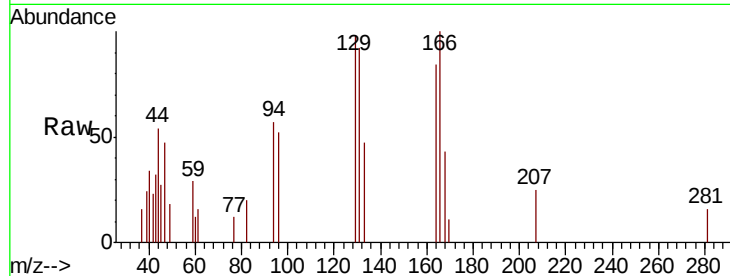
SA-PZ163I-20200909

Tot Ion:129 Resp: 2308

Ion Ratio Lower Upper

129 100

127 0.0 39.0 117.0#



Abundance Ion 128.80 (128.50 to 129.50): V

Ion 126.80 (126.50 to 127.50): V

10.61

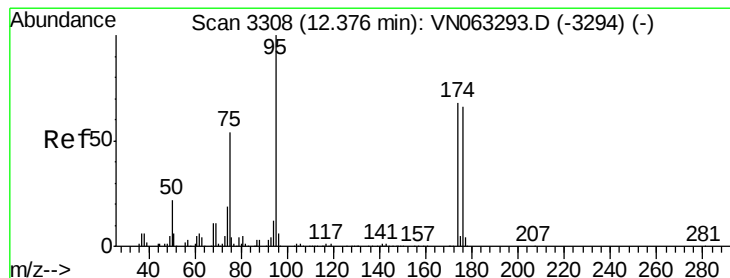
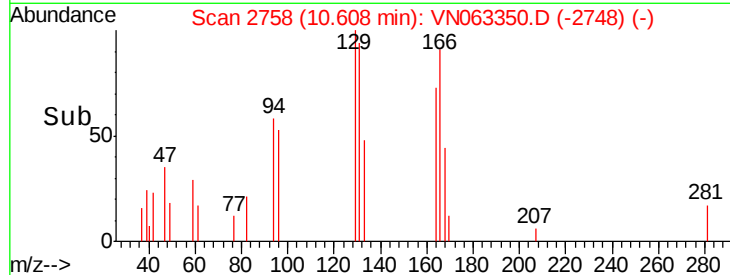
1500

1000

500

0

Time-->



#62

4-Bromofluorobenzene

Concen: 51.600 ug/l

RT: 12.38 min Scan# 3309

Delta R.T. 0.00 min

Lab File: VN063350.D

Acq: 14 Sep 2020 18:31

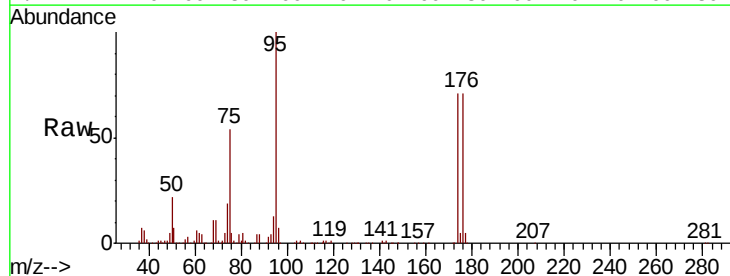
Tgt Ion: 95 Resp: 336422

Ion Ratio Lower Upper

95 100

174 70.9 0.0 136.6

176 69.2 0.0 132.8



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

250000

200000

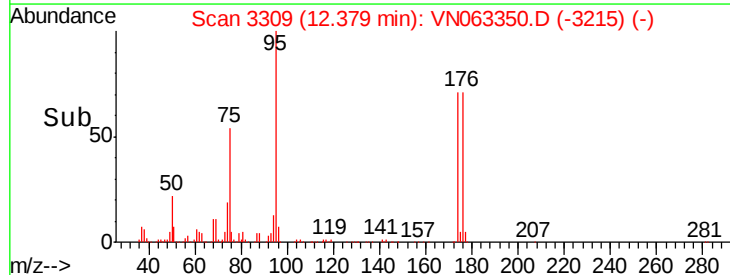
150000

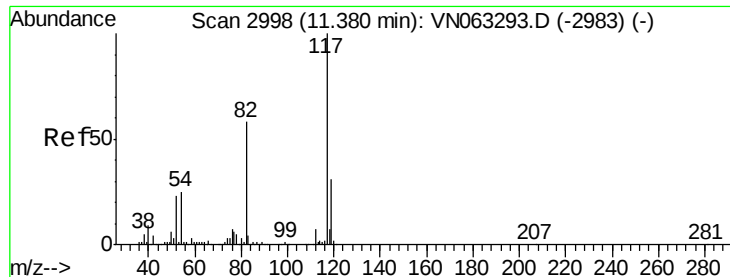
100000

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: VN063350.D

Acq: 14 Sep 2020 18:31

Instrument :

MSVOA\_N

ClientSampleId :

SA-PZ163I-20200909

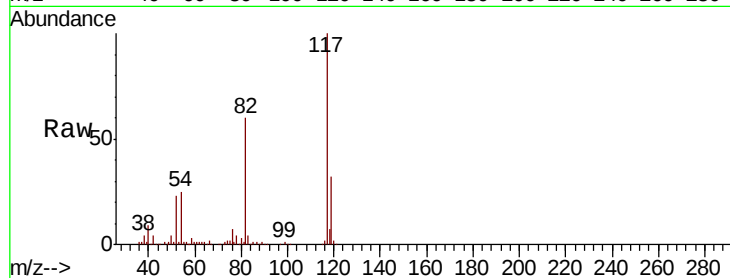
Tot Ion:117 Resp: 686907

Ion Ratio Lower Upper

117 100

82 59.6 46.4 69.6

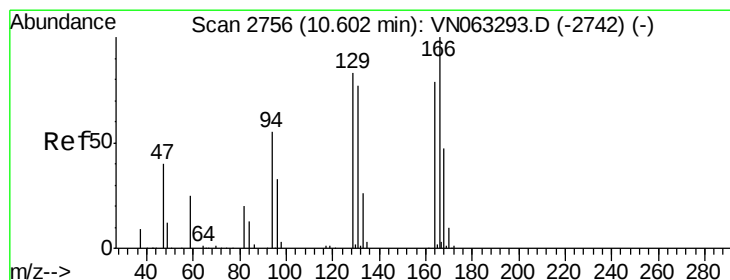
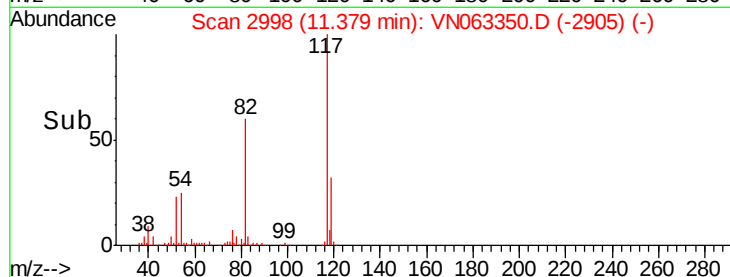
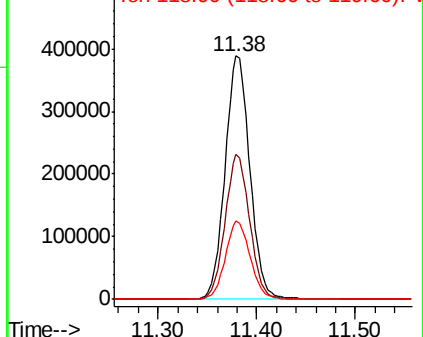
119 32.1 24.8 37.2



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: 0.390 ug/l

RT: 10.61 min Scan# 2758

Delta R.T. 0.01 min

Lab File: VN063350.D

Acq: 14 Sep 2020 18:31

Tgt Ion:164 Resp: 2194

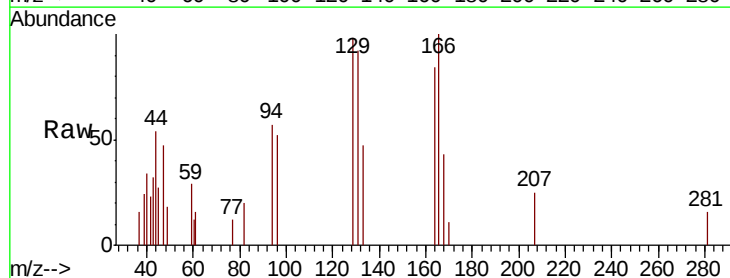
Ion Ratio Lower Upper

164 100

166 119.4 101.3 151.9

129 117.2 83.7 125.5

131 110.3 78.2 117.4

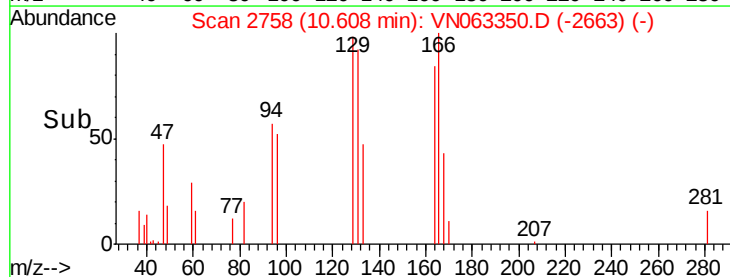
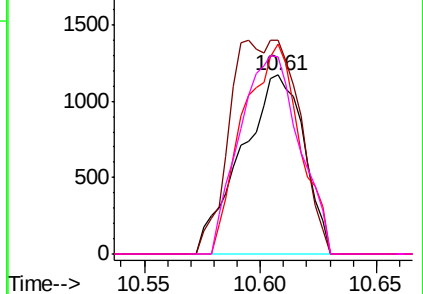


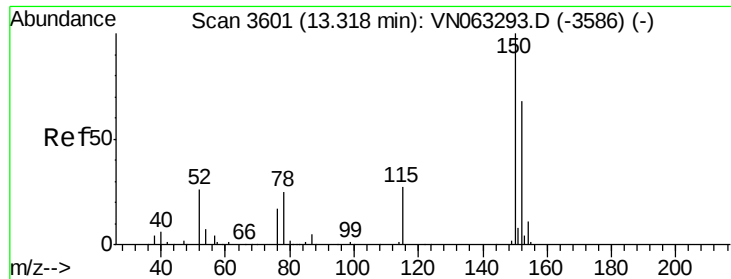
Abundance Ion 163.80 (163.50 to 164.50): V

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





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.32 min Scan# 3601

Delta R.T. -0.00 min

Lab File: VN063350.D

Acq: 14 Sep 2020 18:31

Instrument :

MSVOA\_N

ClientSampleId :

SA-PZ163I-20200909

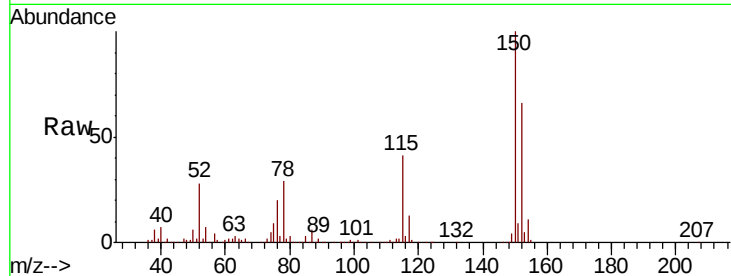
Tot Ion:152 Resp: 283759

Ion Ratio Lower Upper

152 100

115 63.0 31.5 94.5

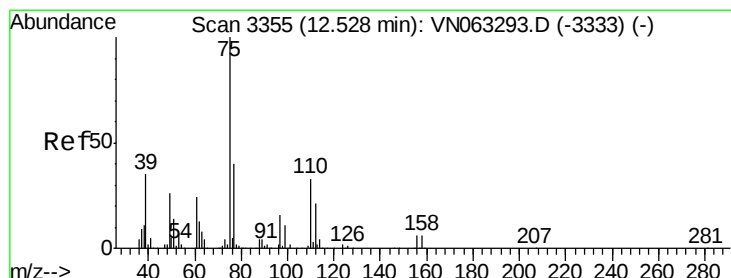
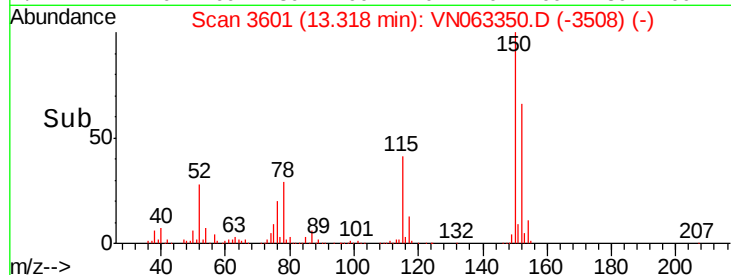
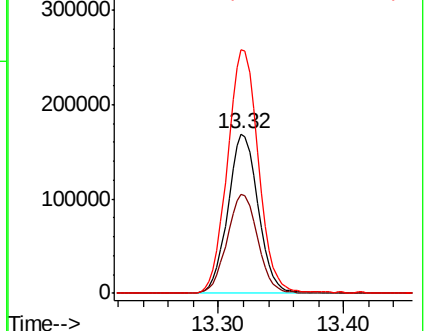
150 156.0 0.0 344.0



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: 29.654 ug/l

RT: 12.38 min Scan# 3308

Delta R.T. -0.15 min

Lab File: VN063350.D

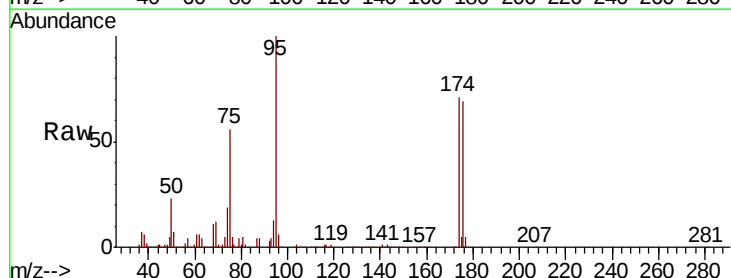
Acq: 14 Sep 2020 18:31

Tgt Ion: 75 Resp: 185641

Ion Ratio Lower Upper

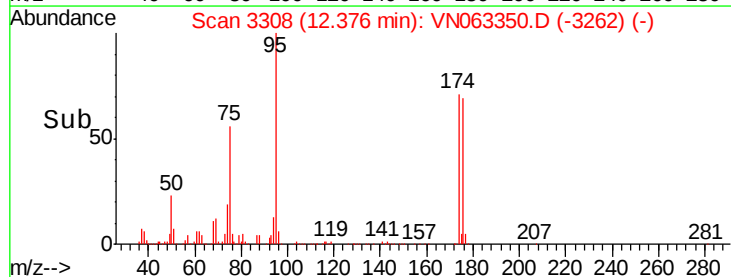
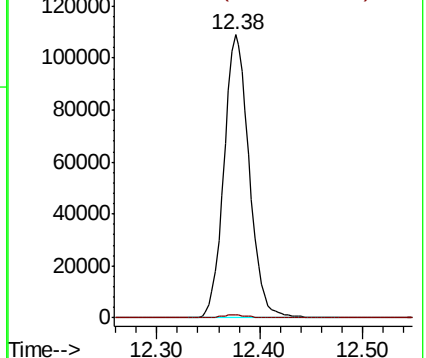
75 100

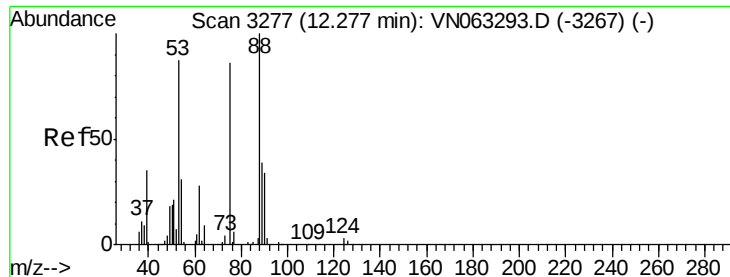
77 1.1 0.0 0.0#



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: 79.676 ug/l

RT: 12.38 min Scan# 3308

Delta R.T. 0.10 min

Lab File: VN063350.D

Acq: 14 Sep 2020 18:31

Instrument :

MSVOA\_N

ClientSampleId :

SA-PZ163I-20200909

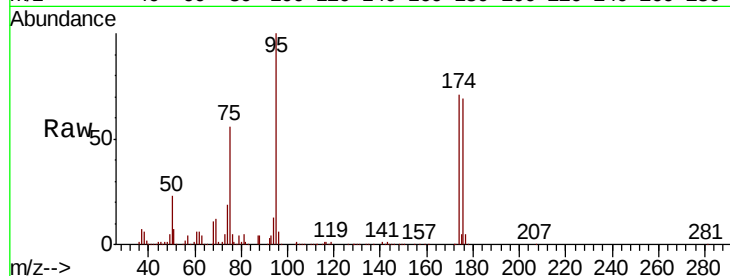
Tot Ion: 75 Resp: 185641

Ion Ratio Lower Upper

75 100

53 0.1 81.8 122.8#

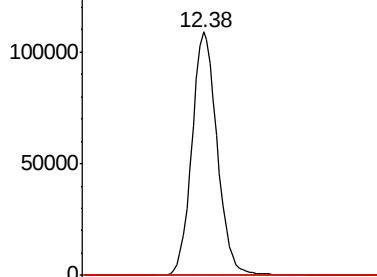
89 0.0 36.7 55.1#



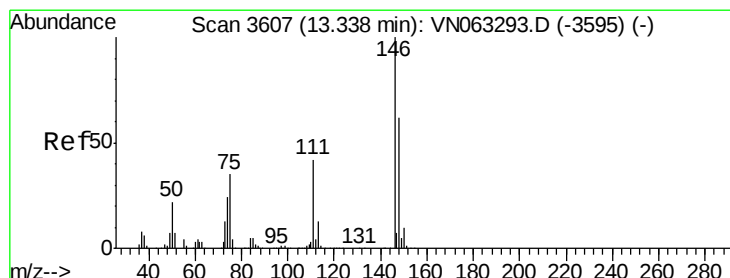
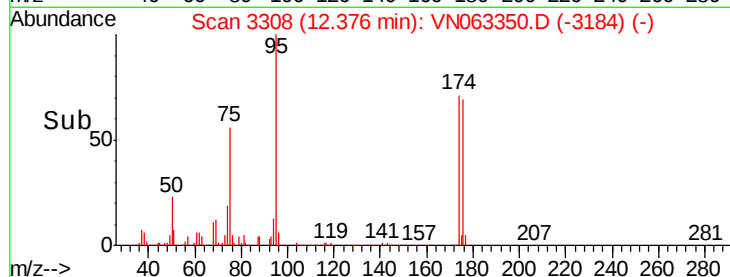
Abundance Ion 74.90 (74.60 to 75.60): VN063350.D (-3184) (-)

Ion 53.00 (52.70 to 53.70): VN063350.D (-3184) (-)

Ion 88.90 (88.60 to 89.60): VN063350.D (-3184) (-)



Time-->



#88

1,4-Dichlorobenzene

Concen: Below Cal

RT: 13.34 min Scan# 3608

Delta R.T. 0.00 min

Lab File: VN063350.D

Acq: 14 Sep 2020 18:31

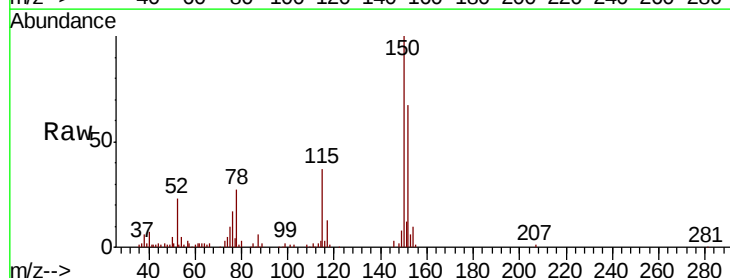
Tgt Ion: 146 Resp: 2527

Ion Ratio Lower Upper

146 100

111 0.0 21.3 64.0#

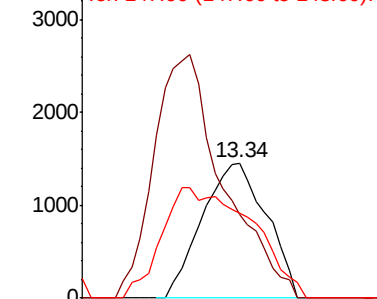
148 0.0 31.5 94.5#



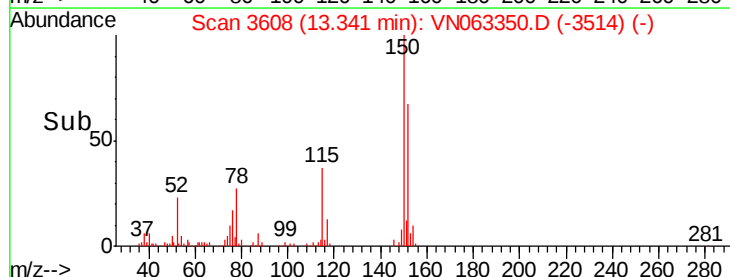
Abundance Ion 145.90 (145.60 to 146.60): VN063350.D (-3514) (-)

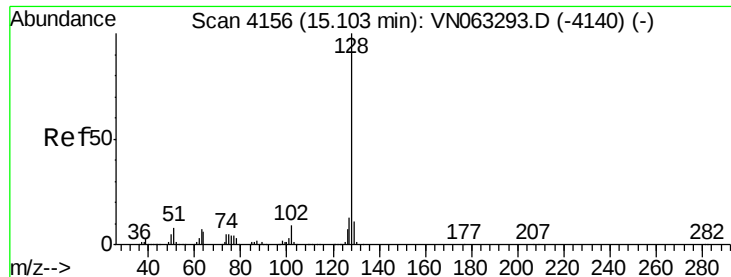
Ion 110.90 (110.60 to 111.60): VN063350.D (-3514) (-)

Ion 147.90 (147.60 to 148.60): VN063350.D (-3514) (-)



Time-->





#95

Naphthalene

Concen: Below Cal

RT: 15.10 min Scan# 4156

Delta R.T. 0.00 min

Lab File: VN063350.D

Acq: 14 Sep 2020 18:31

Instrument :

MSVOA\_N

ClientSampleId :

SA-PZ163I-20200909

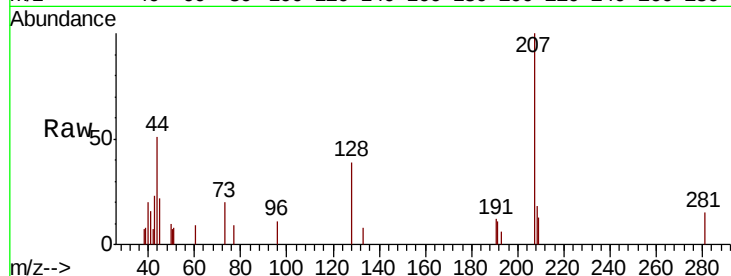
Tot Ion:128 Resp: 1197

Ion Ratio Lower Upper

128 100

127 5.4 10.3 15.5#

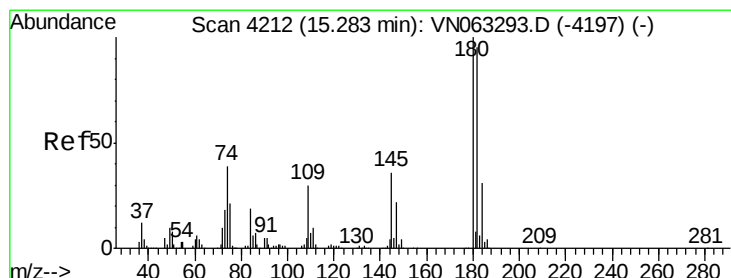
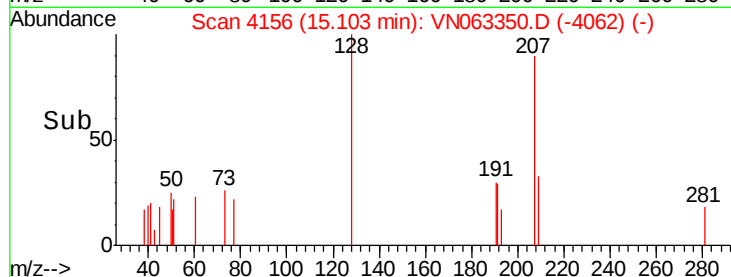
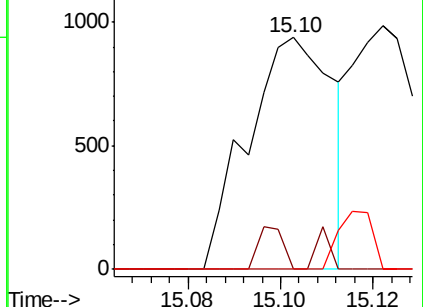
129 0.0 8.6 12.8#



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: 15.30 min Scan# 4217

Delta R.T. 0.02 min

Lab File: VN063350.D

Acq: 14 Sep 2020 18:31

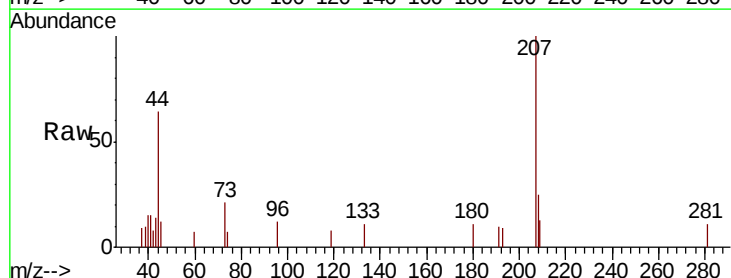
Tgt Ion:180 Resp: 224

Ion Ratio Lower Upper

180 100

182 29.9 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

