

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN100720\  
 Data File : VN063943.D  
 Acq On : 7 Oct 2020 15:19  
 Operator : JC/MD  
 Sample : L4293-02  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 GW-DUP-1

Quant Time: Oct 08 05:00:58 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N093020W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Oct 01 01:46:38 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.63  | 168  | 224088   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.55  | 114  | 400404   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.38 | 117  | 414982   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.32 | 152  | 172169   | 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   | 194373   | 52.50 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 105.00% |          |
| 35) Dibromofluoromethane    | 7.55  | 113  | 140276   | 50.49 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 100.98% |          |
| 50) Toluene-d8              | 10.06 | 98   | 516419   | 49.03 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 98.06%  |          |
| 62) 4-Bromofluorobenzene    | 12.38 | 95   | 196582   | 49.65 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 99.30%  |          |

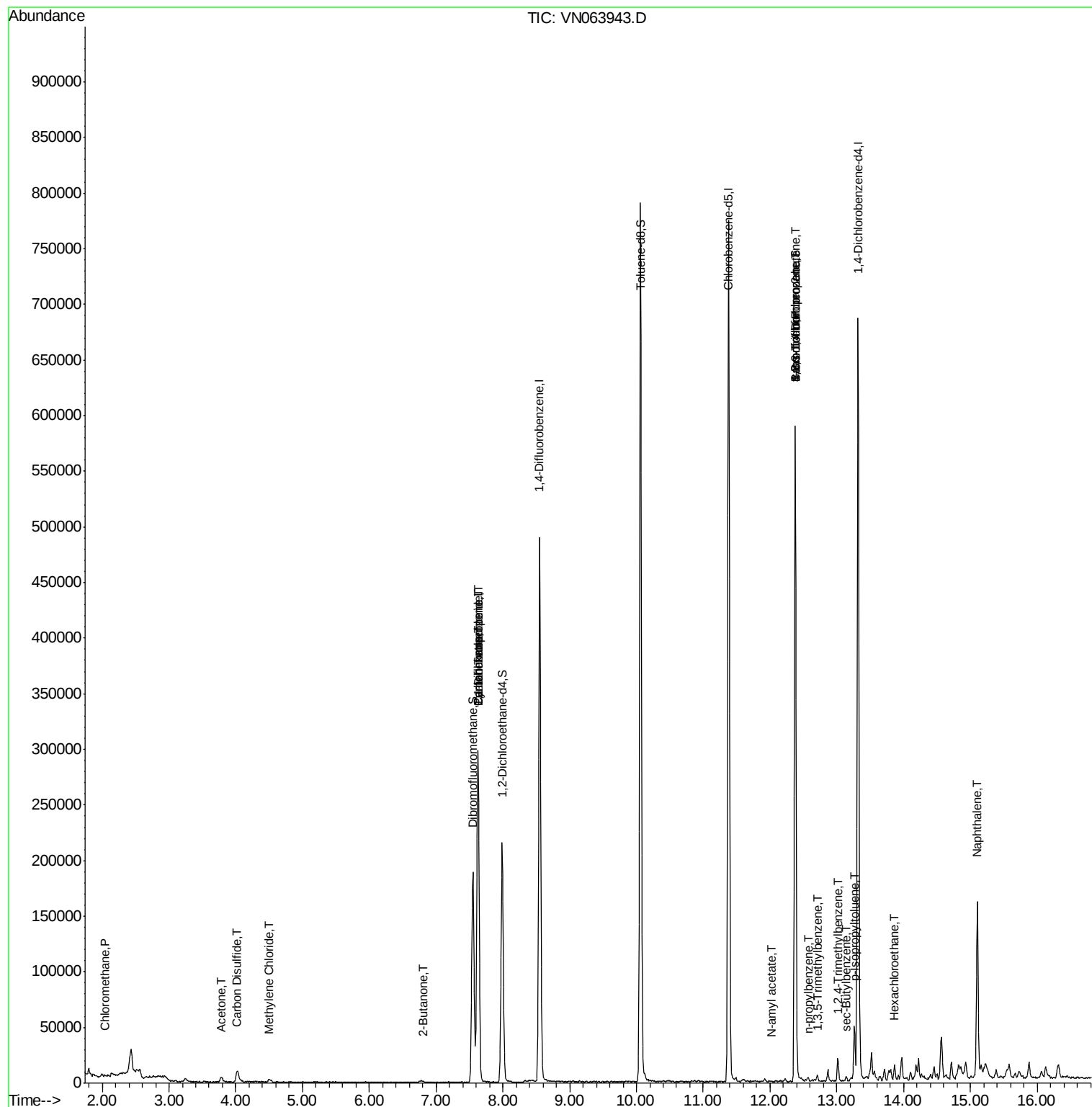
| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 3) Chloromethane               | 2.04  | 50   | 1466     | 0.528  | ug/l   | 99     |
| 16) Acetone                    | 3.78  | 43   | 6868     | 6.027  | ug/l   | 92     |
| 17) Carbon Disulfide           | 4.01  | 76   | 1111     | 0.880  | ug/l # | 76     |
| 20) Methylene Chloride         | 4.50  | 84   | 2083     | 0.894  | ug/l # | 77     |
| 25) 2-Butanone                 | 6.80  | 43   | 496      | 0.307  | ug/l # | 51     |
| 31) Cyclohexane                | 7.62  | 56   | 6084     | 1.416  | ug/l # | 17     |
| 36) 1,1-Dichloropropene        | 7.62  | 75   | 19754    | 4.870  | ug/l # | 51     |
| 38) Carbon Tetrachloride       | 7.63  | 117  | 23740    | 5.219  | ug/l # | 15     |
| 71) Bromoform                  | 12.38 | 173  | 858      | 0.344  | ug/l # | 1      |
| 74) N-amyl acetate             | 12.04 | 43   | 78       | 2.229  | ug/l # | 1      |
| 76) 1,2,3-Trichloropropane     | 12.38 | 75   | 109431   | 28.833 | ug/l # | 100    |
| 78) n-propylbenzene            | 12.57 | 91   | 3178     | 0.217  | ug/l   | 85     |
| 80) 1,3,5-Trimethylbenzene     | 12.71 | 105  | 2220     | 0.211  | ug/l   | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.38 | 75   | 109431   | 83.045 | ug/l # | 6      |
| 84) 1,2,4-Trimethylbenzene     | 13.02 | 105  | 10325    | 0.982  | ug/l   | 95     |
| 85) sec-Butylbenzene           | 13.15 | 105  | 2614     | 0.231  | ug/l   | 90     |
| 86) p-Isopropyltoluene         | 13.26 | 119  | 26003    | 2.597  | ug/l   | 98     |
| 90) Hexachloroethane           | 13.86 | 117  | 509      | 0.262  | ug/l # | 14     |
| 95) Naphthalene                | 15.11 | 128  | 132852   | 15.675 | ug/l   | 99     |

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

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Quant Time: Oct 08 05:00:58 2020  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_N\METHODS\82N093020W.M  
Quant Title : SW846 8260  
QLast Update : Thu Oct 01 01:46:38 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: VN063943.D

Acq: 7 Oct 2020 15:19

Instrument :

MSVOA\_N

ClientSampled :

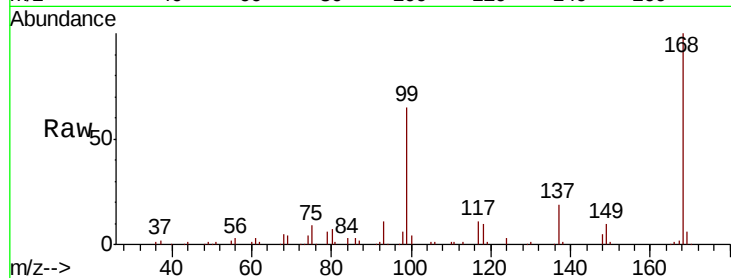
GW-DUP-1

Tot Ion:168 Resp: 224088

Ion Ratio Lower Upper

168 100

99 64.7 51.8 77.6



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VNO

7.63

100000

80000

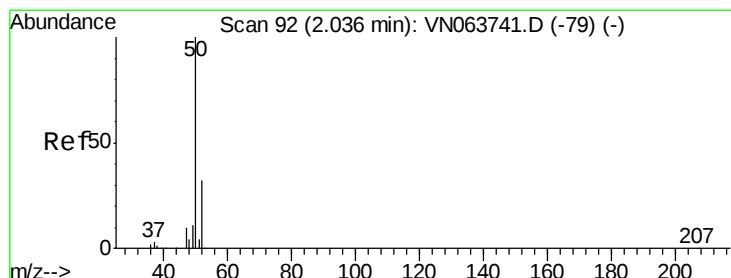
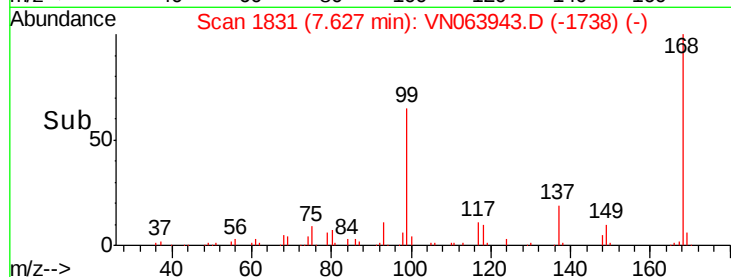
60000

40000

20000

0

Time--> 7.50 7.60 7.70



#3

Chloromethane

Concen: 0.528 ug/l

RT: 2.04 min Scan# 93

Delta R.T. 0.00 min

Lab File: VN063943.D

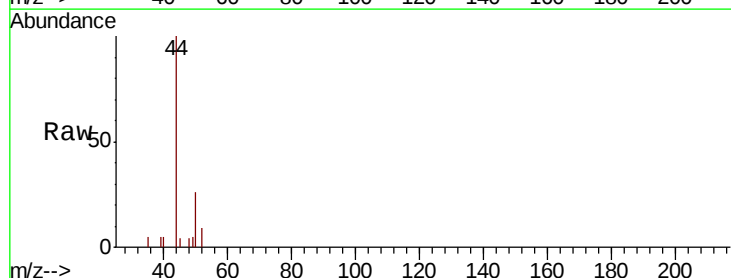
Acq: 7 Oct 2020 15:19

Tgt Ion: 50 Resp: 1466

Ion Ratio Lower Upper

50 100

52 33.1 25.8 38.8



Abundance Ion 49.90 (49.60 to 50.60): VNO

Ion 51.90 (51.60 to 52.60): VNO

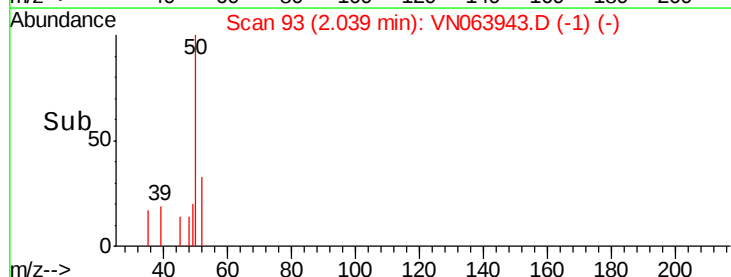
2.04

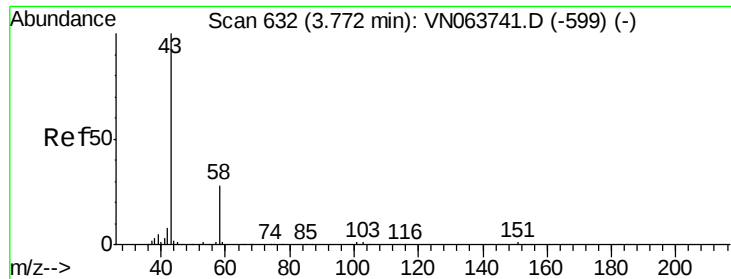
1000

500

0

Time--> 2.00 2.02 2.04 2.06





#16

Acetone

Concen: 6.027 ug/l

RT: 3.78 min Scan# 634

Delta R.T. 0.01 min

Lab File: VN063943.D

Acq: 7 Oct 2020 15:19

Instrument :

MSVOA\_N

ClientSampled :

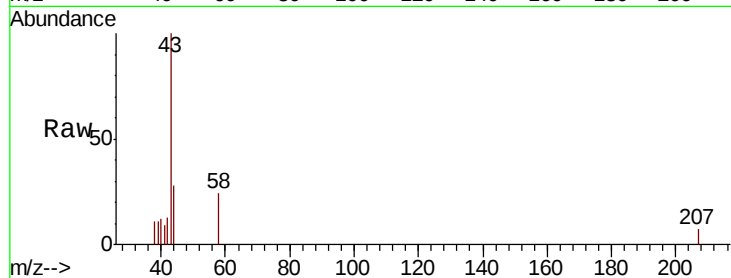
GW-DUP-1

Tot Ion: 43 Resp: 6868

Ion Ratio Lower Upper

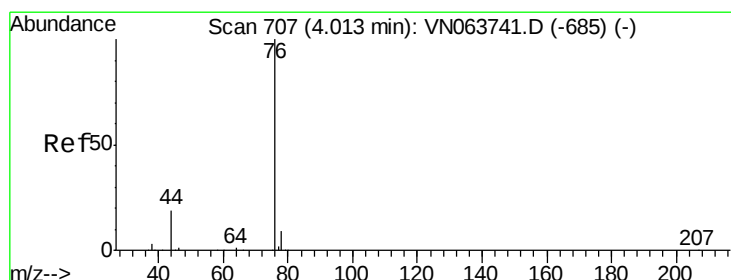
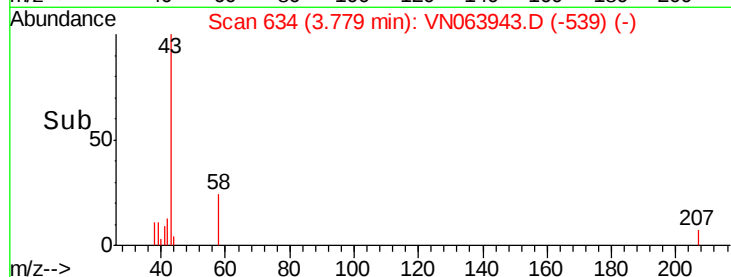
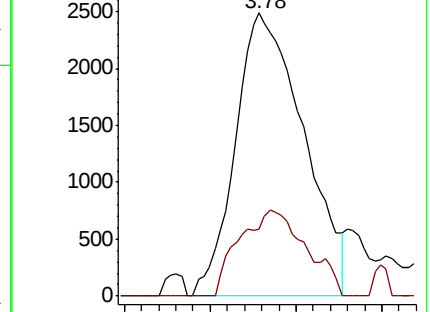
43 100

58 23.8 22.3 33.5



Abundance Ion 43.00 (42.70 to 43.70): VN063943.D (-539) (-)

Ion 58.00 (57.70 to 58.70): VN063943.D (-539) (-)



#17

Carbon Disulfide

Concen: 0.880 ug/l

RT: 4.01 min Scan# 706

Delta R.T. -0.00 min

Lab File: VN063943.D

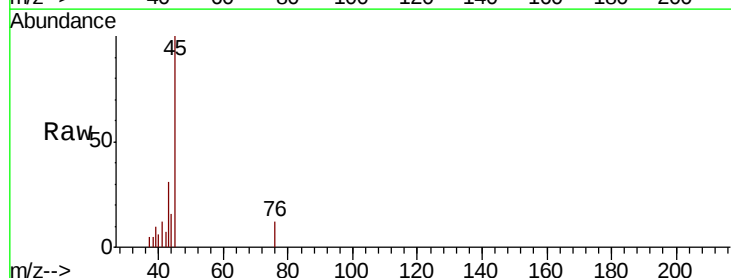
Acq: 7 Oct 2020 15:19

Tgt Ion: 76 Resp: 1111

Ion Ratio Lower Upper

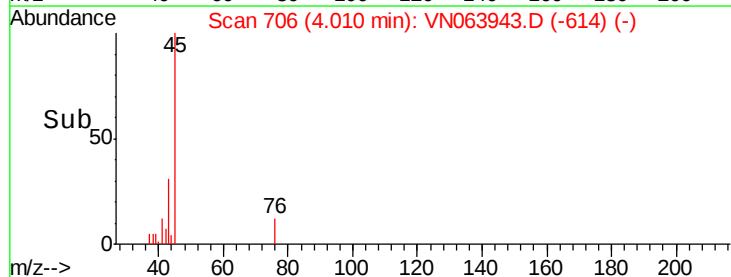
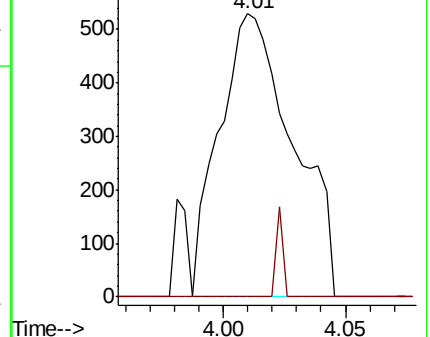
76 100

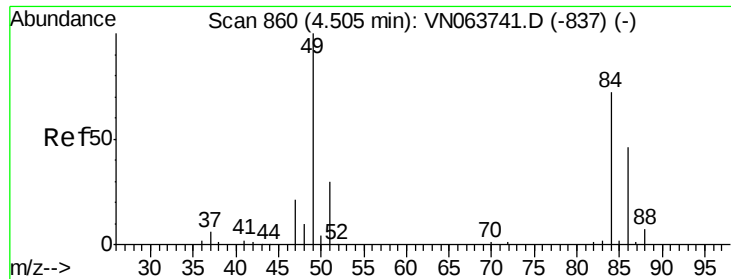
78 0.0 7.0 10.4#



Abundance Ion 75.90 (75.60 to 76.60): VN063943.D (-614) (-)

Ion 77.90 (77.60 to 78.60): VN063943.D (-614) (-)

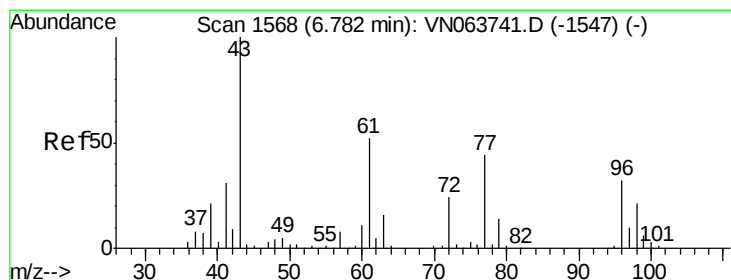
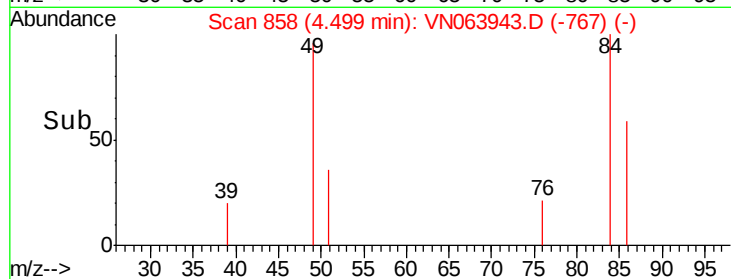
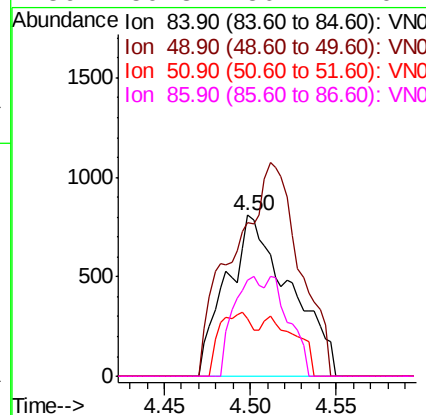
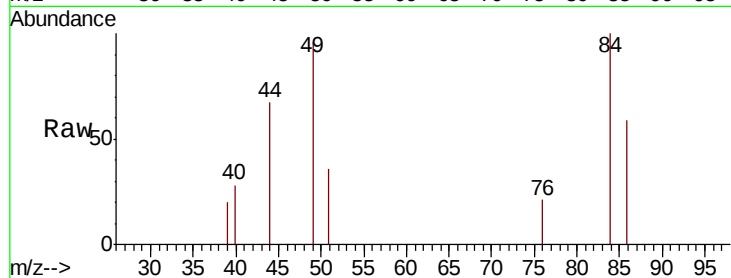




#20  
Methvlene Chloride  
Concen: 0.894 ug/l  
RT: 4.50 min Scan# 858  
Delta R.T. -0.01 min  
Lab File: VN063943.D  
Acq: 7 Oct 2020 15:19

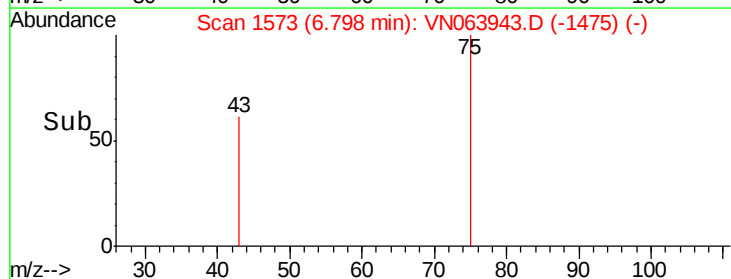
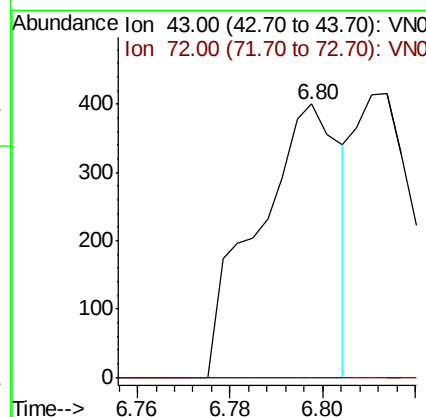
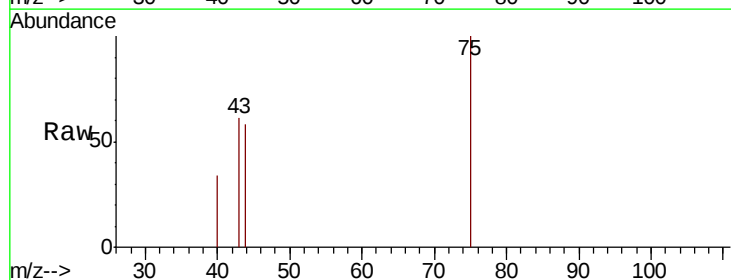
Instrument :  
MSVOA\_N  
ClientSampleId :  
GW-DUP-1

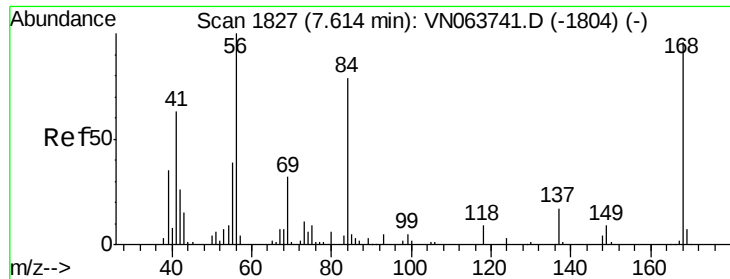
|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 84    | Resp: | 2083   |
| Ion      | Ratio | Lower | Upper  |
| 84       | 100   |       |        |
| 49       | 95.6  | 110.4 | 165.6# |
| 51       | 35.7  | 33.3  | 49.9   |
| 86       | 59.3  | 50.7  | 76.1   |



#25  
2-Butanone  
Concen: 0.307 ug/l  
RT: 6.80 min Scan# 1573  
Delta R.T. 0.02 min  
Lab File: VN063943.D  
Acq: 7 Oct 2020 15:19

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 496   |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 72       | 0.0   | 19.3  | 28.9# |

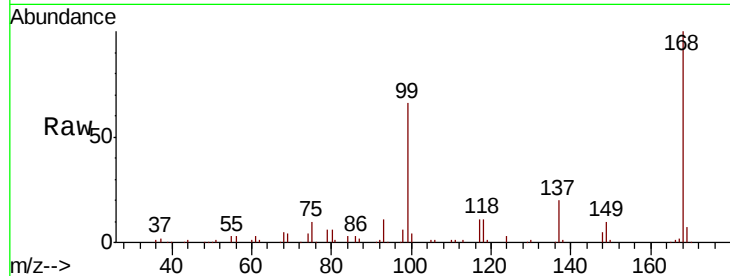




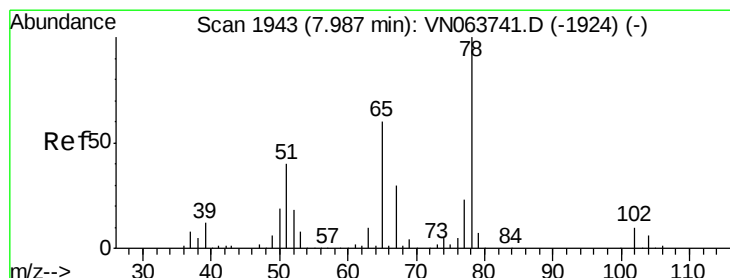
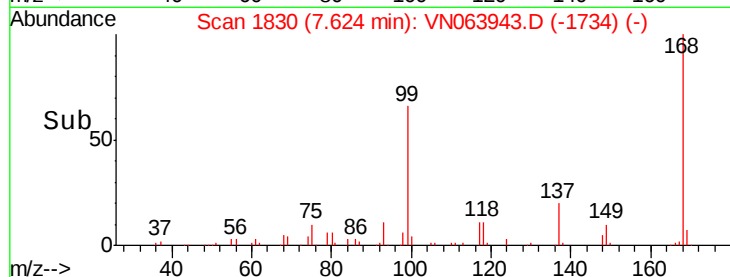
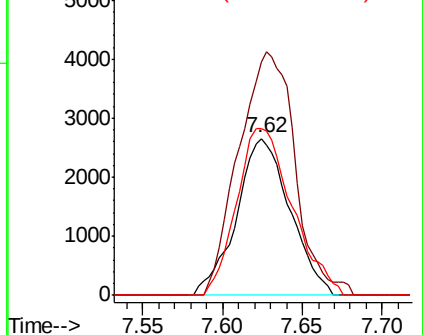
#31  
Cyclohexane  
Concen: 1.416 ug/l  
RT: 7.62 min Scan# 1830  
Delta R.T. 0.01 min  
Lab File: VN063943.D  
Acq: 7 Oct 2020 15:19

Instrument :  
MSVOA\_N  
ClientSampleId :  
GW-DUP-1

Tot Ion: 56 Resp: 6084  
Ion Ratio Lower Upper  
56 100  
69 149.0 25.4 38.2#  
84 106.7 63.3 94.9#

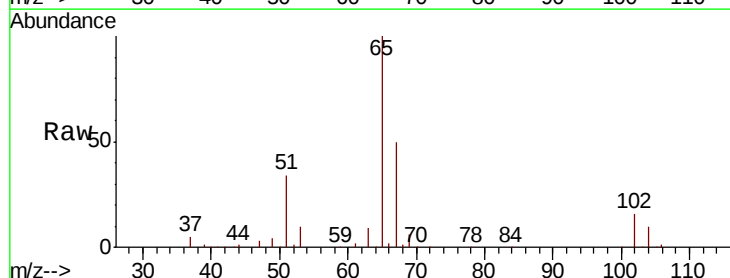


Abundance Ion 56.00 (55.70 to 56.70): VN0  
Ion 69.00 (68.70 to 69.70): VN0  
Ion 84.00 (83.70 to 84.70): VN0

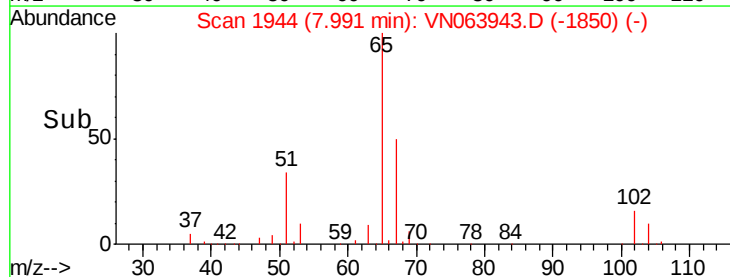
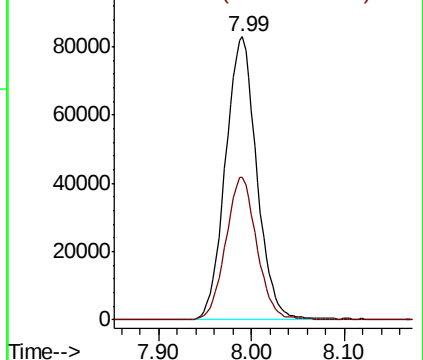


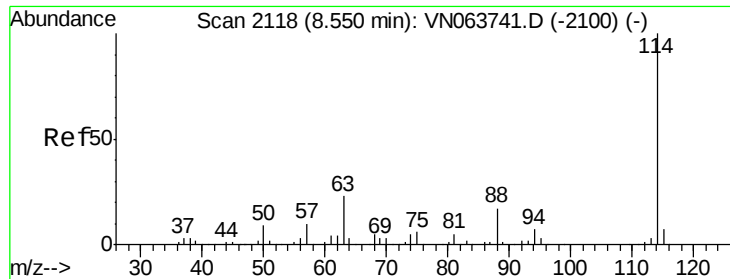
#33  
1,2-Dichloroethane-d4  
Concen: 52.504 ug/l  
RT: 7.99 min Scan# 1944  
Delta R.T. 0.00 min  
Lab File: VN063943.D  
Acq: 7 Oct 2020 15:19

Tgt Ion: 65 Resp: 194373  
Ion Ratio Lower Upper  
65 100  
67 50.2 0.0 99.6



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: VN063943.D

Acq: 7 Oct 2020 15:19

Instrument :

MSVOA\_N

ClientSampleId :

GW-DUP-1

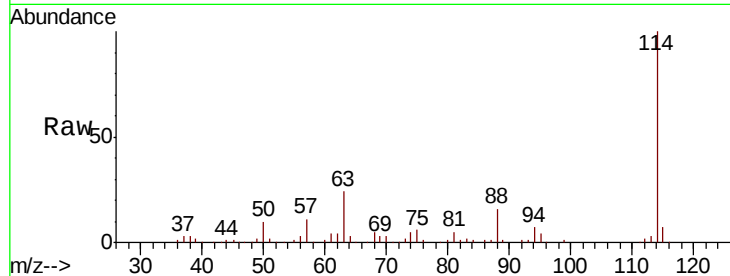
Tot Ion:114 Resp: 400404

Ion Ratio Lower Upper

114 100

63 23.5 0.0 45.0

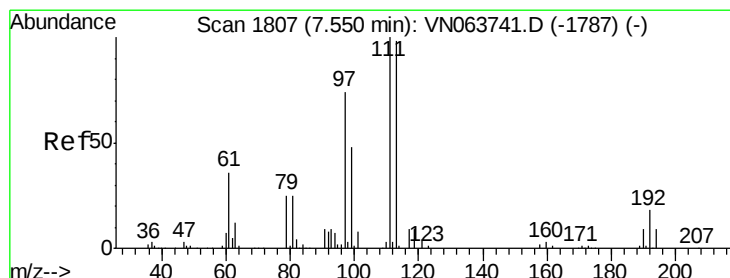
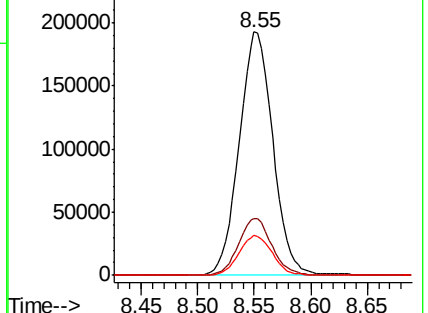
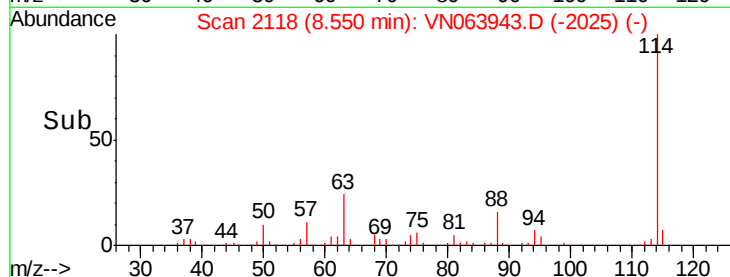
88 16.2 0.0 34.0



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VN0

Ion 87.90 (87.60 to 88.60): VN0



#35

Dibromofluoromethane

Concen: 50.490 ug/l

RT: 7.55 min Scan# 1807

Delta R.T. 0.00 min

Lab File: VN063943.D

Acq: 7 Oct 2020 15:19

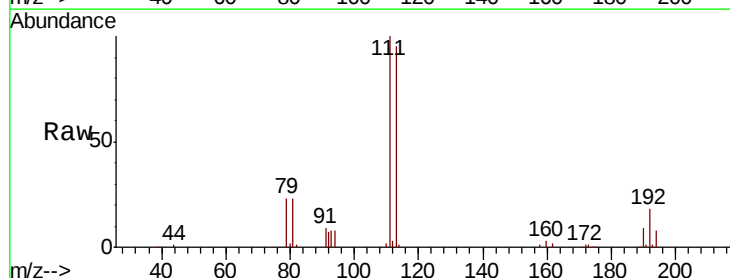
Tgt Ion:113 Resp: 140276

Ion Ratio Lower Upper

113 100

111 104.5 81.8 122.8

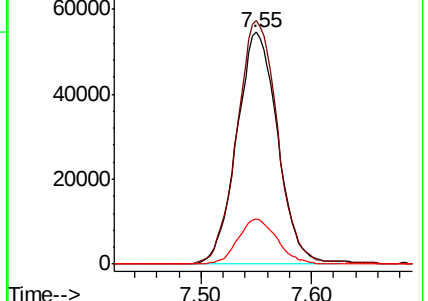
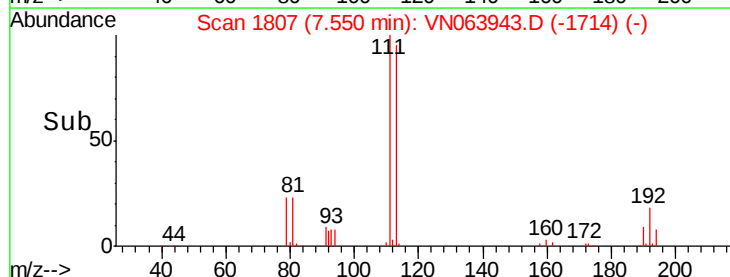
192 18.5 14.2 21.2

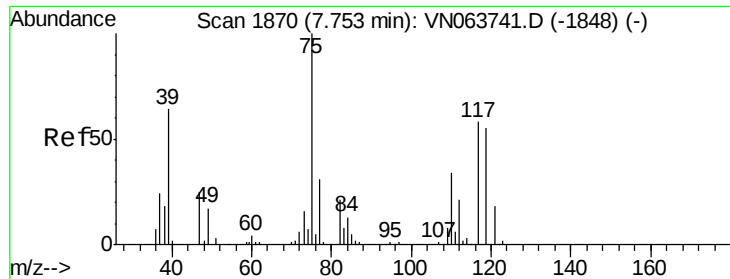


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V





#36

1,1-Dichloropropene

Concen: 4.870 ug/l

RT: 7.62 min Scan# 1830

Delta R.T. -0.13 min

Lab File: VN063943.D

Acq: 7 Oct 2020 15:19

Instrument :

MSVOA\_N

ClientSampleId :

GW-DUP-1

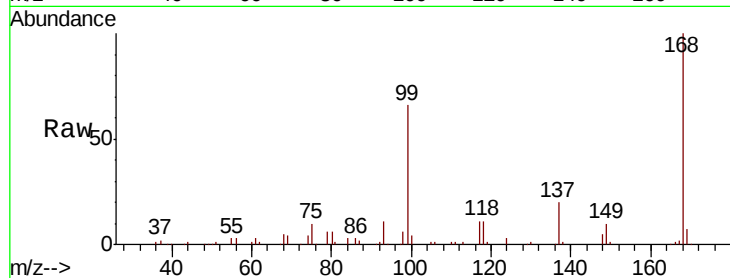
Tot Ion: 75 Resp: 19754

Ion Ratio Lower Upper

75 100

110 9.3 16.9 50.6#

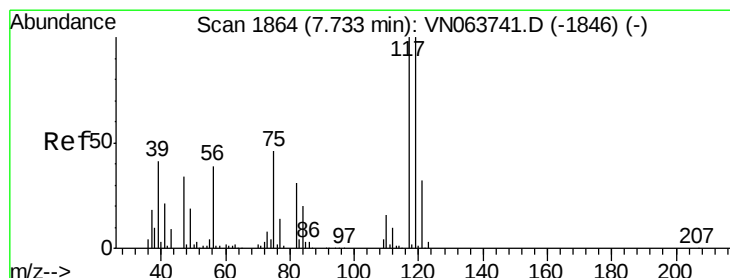
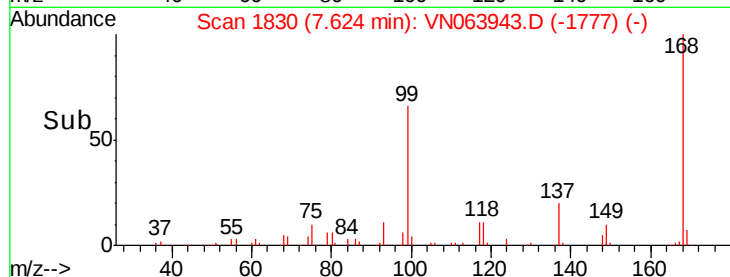
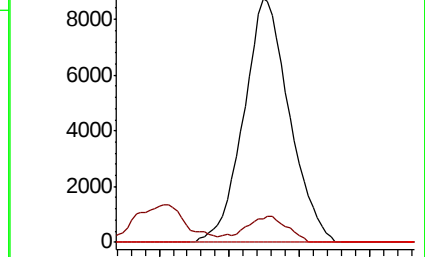
77 0.0 24.5 36.7#



Abundance Ion 74.90 (74.60 to 75.60): VN063741.D (-1848) (-)

Ion 109.90 (109.60 to 110.60): VN063741.D (-1848) (-)

Ion 76.90 (76.60 to 77.60): VN063741.D (-1848) (-)



#38

Carbon Tetrachloride

Concen: 5.219 ug/l

RT: 7.63 min Scan# 1831

Delta R.T. -0.11 min

Lab File: VN063943.D

Acq: 7 Oct 2020 15:19

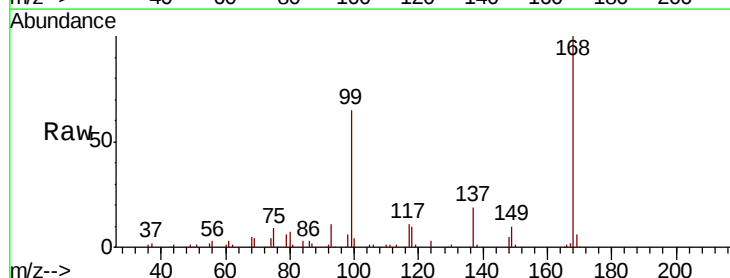
Tgt Ion: 117 Resp: 23740

Ion Ratio Lower Upper

117 100

119 6.7 80.1 120.1#

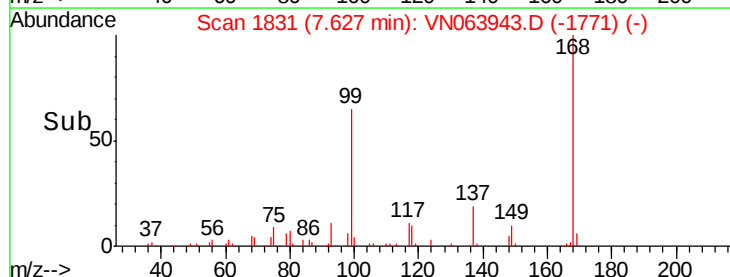
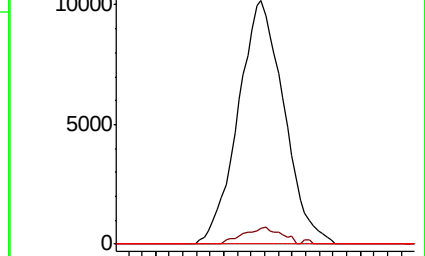
121 0.0 25.7 38.5#

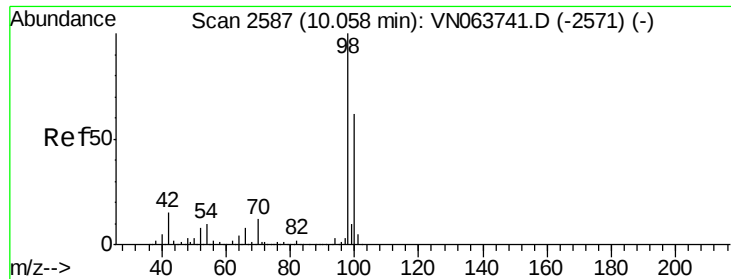


Abundance Ion 116.80 (116.50 to 117.50): VN063741.D (-1846) (-)

Ion 118.80 (118.50 to 119.50): VN063741.D (-1846) (-)

Ion 120.80 (120.50 to 121.50): VN063741.D (-1846) (-)





#50

Toluene-d8

Concen: 49.032 ug/l

RT: 10.06 min Scan# 2587

Delta R.T. 0.00 min

Lab File: VN063943.D

Acq: 7 Oct 2020 15:19

Instrument :

MSVOA\_N

ClientSampleId :

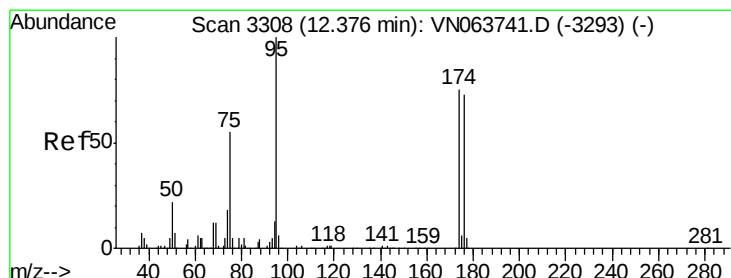
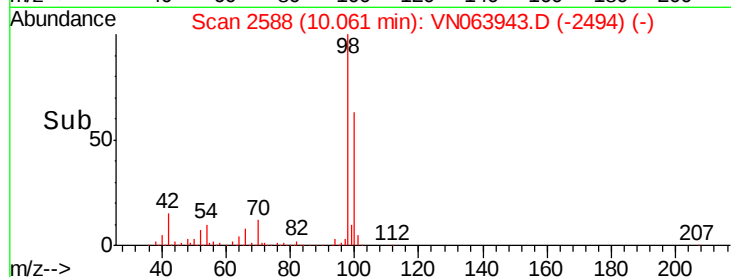
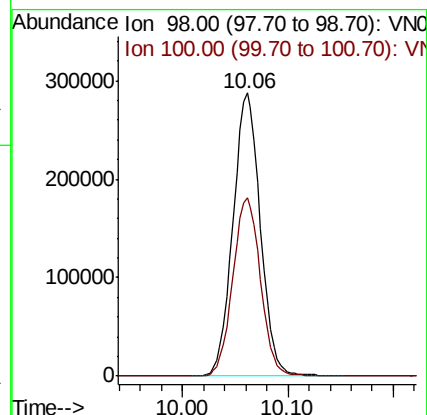
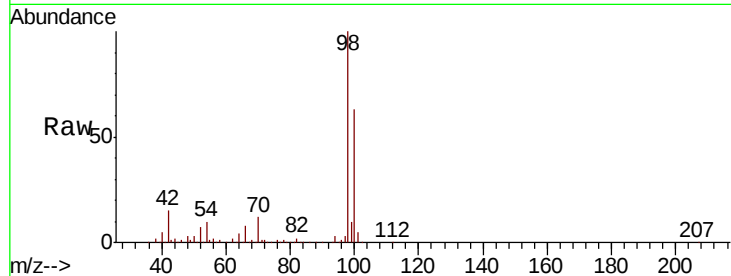
GW-DUP-1

Tot Ion: 98 Resp: 516419

Ion Ratio Lower Upper

98 100

100 63.6 49.8 74.6



#62

4-Bromofluorobenzene

Concen: 49.652 ug/l

RT: 12.38 min Scan# 3308

Delta R.T. 0.00 min

Lab File: VN063943.D

Acq: 7 Oct 2020 15:19

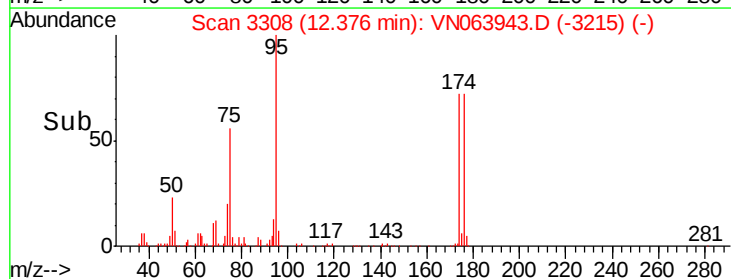
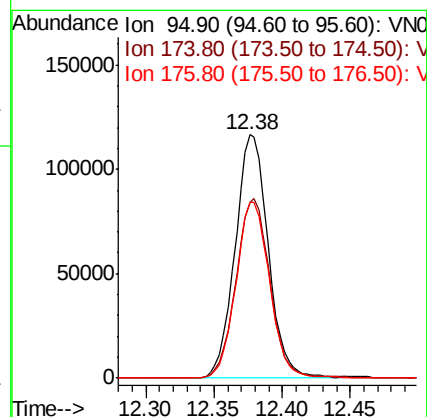
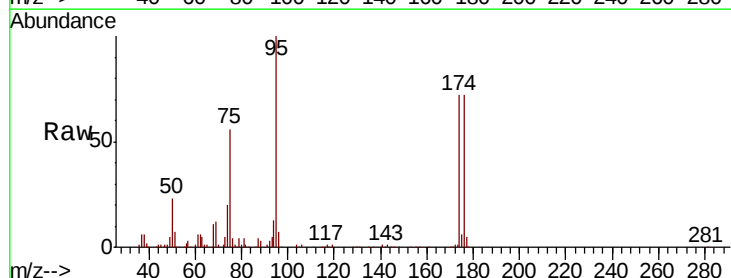
Tgt Ion: 95 Resp: 196582

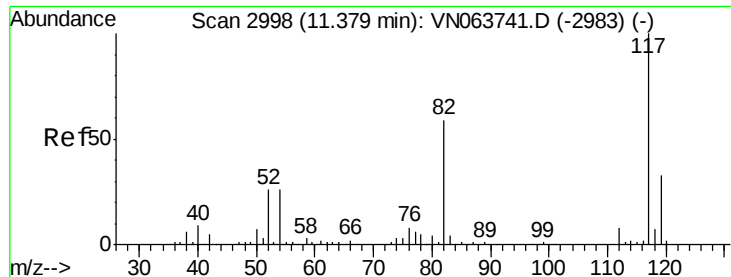
Ion Ratio Lower Upper

95 100

174 75.5 0.0 150.6

176 73.3 0.0 145.4

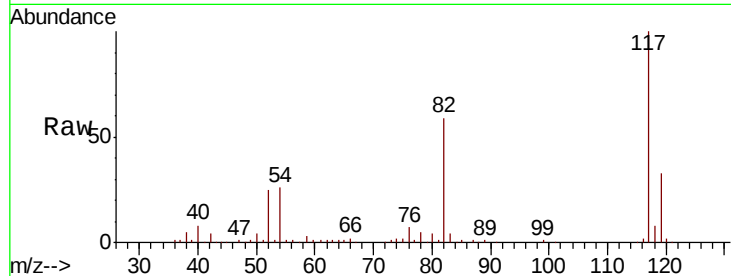




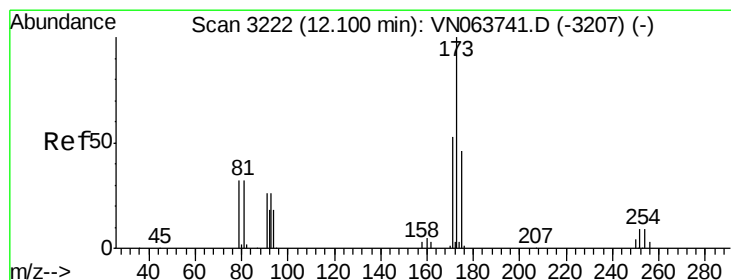
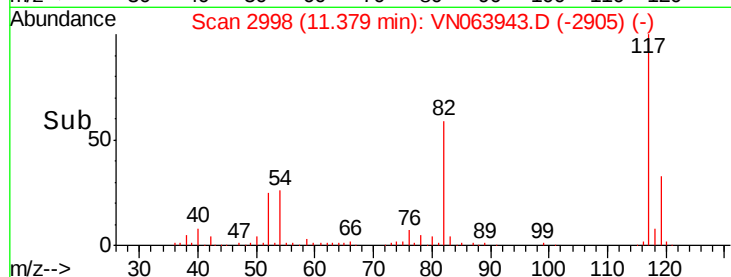
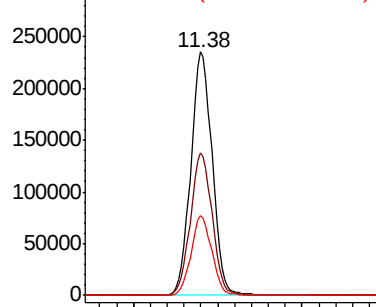
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.38 min Scan# 2998  
Delta R.T. 0.00 min  
Lab File: VN063943.D  
Acq: 7 Oct 2020 15:19

Instrument :  
MSVOA\_N  
ClientSampleId :  
GW-DUP-1

Tot Ion:117 Resp: 414982  
Ion Ratio Lower Upper  
117 100  
82 58.6 47.4 71.2  
119 33.0 26.4 39.6

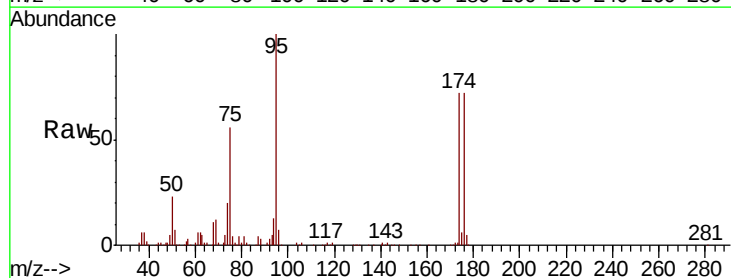


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): V  
Ion 118.90 (118.60 to 119.60): V

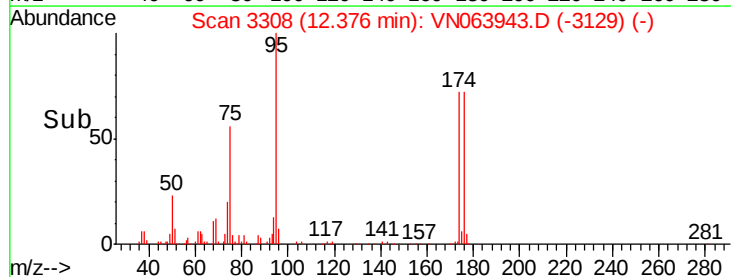
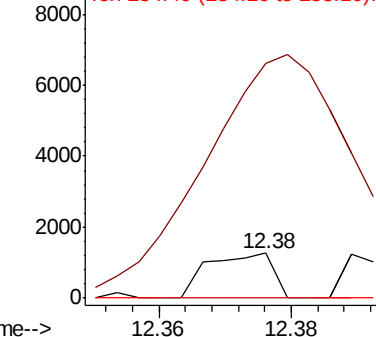


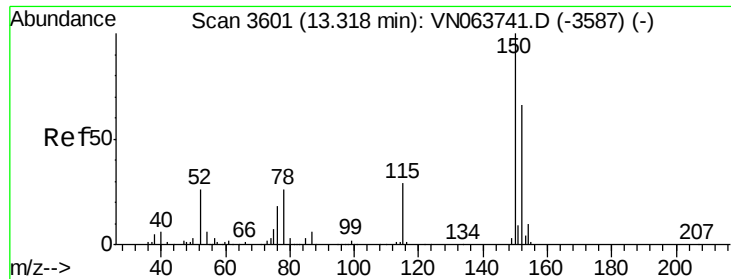
#71  
Bromoform  
Concen: 0.344 ug/l  
RT: 12.38 min Scan# 3308  
Delta R.T. 0.28 min  
Lab File: VN063943.D  
Acq: 7 Oct 2020 15:19

Tgt Ion:173 Resp: 858  
Ion Ratio Lower Upper  
173 100  
175 1033.4 23.5 70.5#  
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# 3601

Delta R.T. 0.00 min

Lab File: VN063943.D

Acq: 7 Oct 2020 15:19

Instrument :

MSVOA\_N

ClientSampleId :

GW-DUP-1

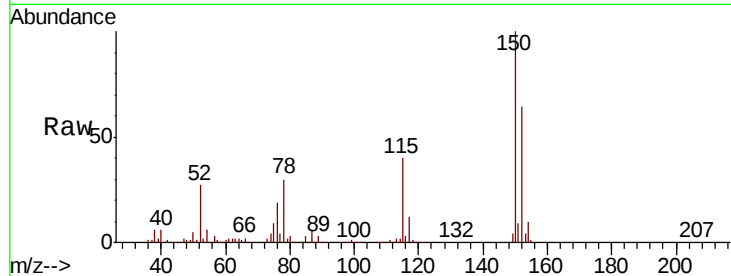
Tot Ion:152 Resp: 172169

Ion Ratio Lower Upper

152 100

115 62.5 31.3 93.8

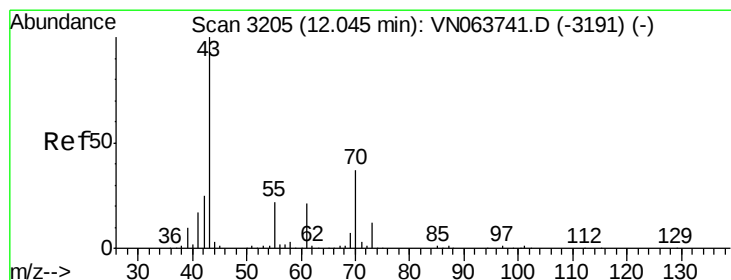
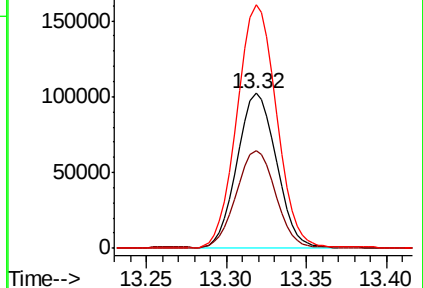
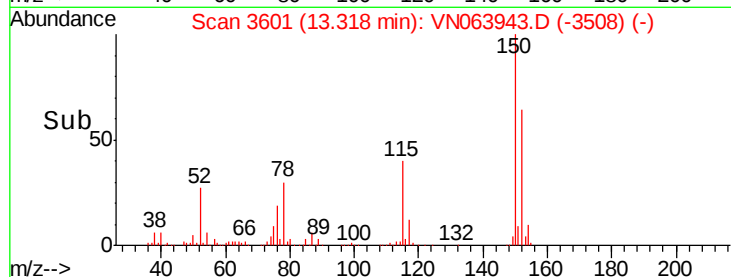
150 158.4 0.0 341.8



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-ethyl acetate

Concen: 2.229 ug/l

RT: 12.04 min Scan# 3202

Delta R.T. -0.01 min

Lab File: VN063943.D

Acq: 7 Oct 2020 15:19

Tgt Ion: 43 Resp: 78

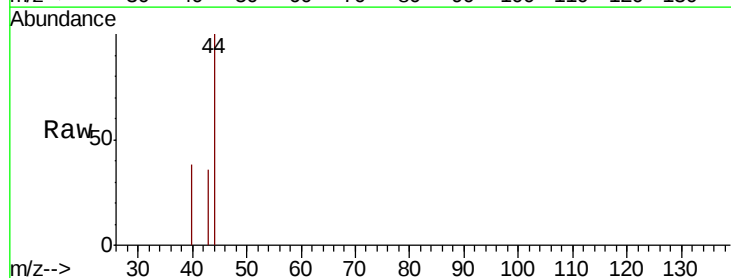
Ion Ratio Lower Upper

43 100

70 0.0 29.8 44.8#

55 126.9 17.9 26.9#

61 0.0 17.0 25.4#

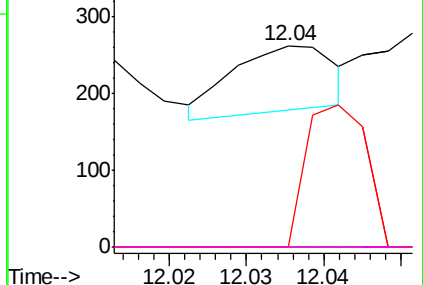
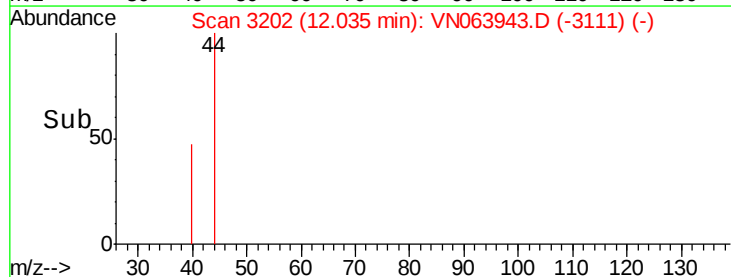


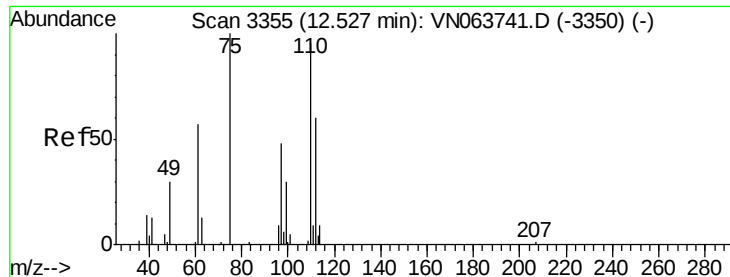
Abundance Ion 43.00 (42.70 to 43.70): V

Ion 70.00 (69.70 to 70.70): V

Ion 55.00 (54.70 to 55.70): V

Ion 61.00 (60.70 to 61.70): V





#76

1,2,3-Trichloropropane

Concen: 28.833 ug/l

RT: 12.38 min Scan# 3308

Delta R.T. -0.15 min

Lab File: VN063943.D

Acq: 7 Oct 2020 15:19

Instrument :

MSVOA\_N

ClientSampleId :

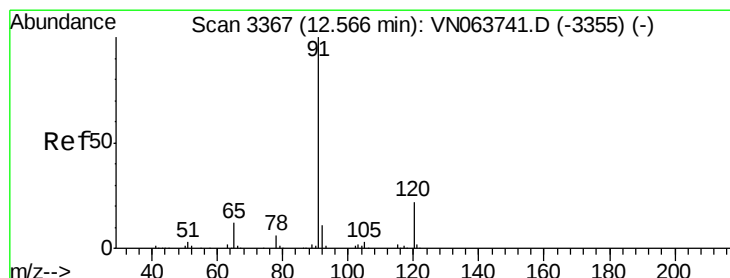
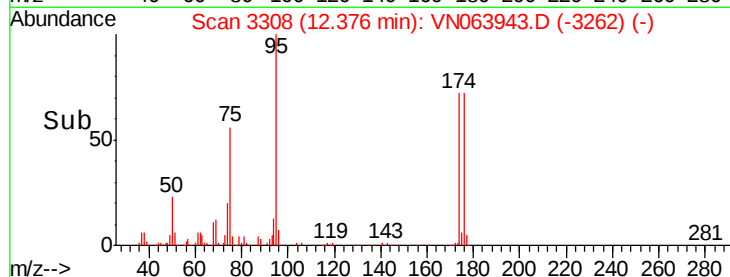
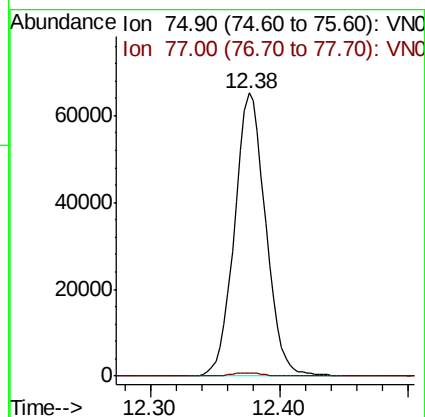
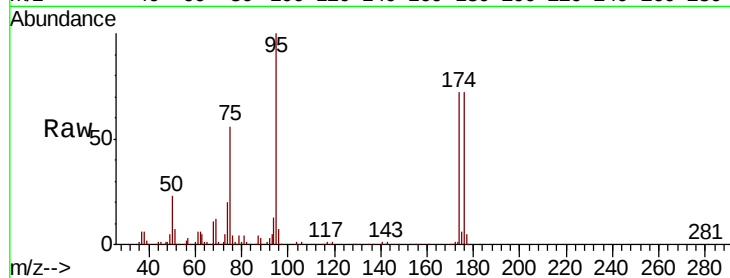
GW-DUP-1

Tot Ion: 75 Resp: 109431

Ion Ratio Lower Upper

75 100

77 1.1 0.0 0.0#



#78

n-propylbenzene

Concen: 0.217 ug/l

RT: 12.57 min Scan# 3367

Delta R.T. 0.00 min

Lab File: VN063943.D

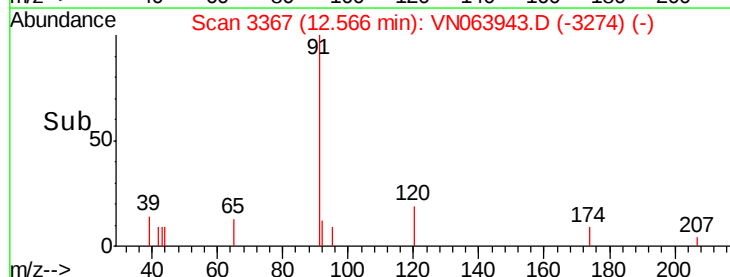
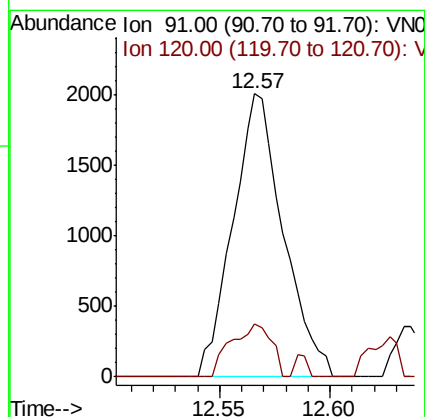
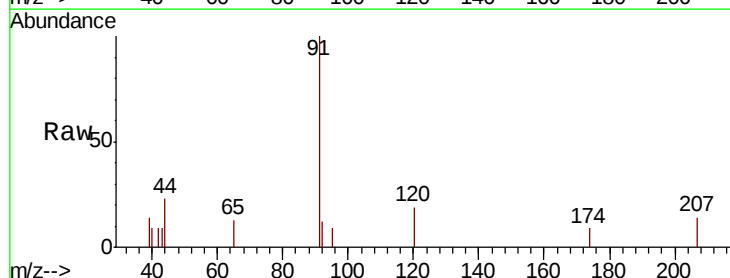
Acq: 7 Oct 2020 15:19

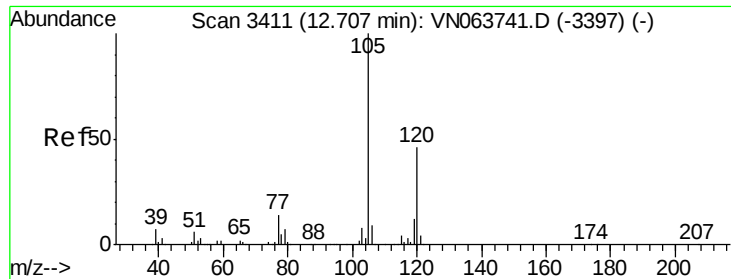
Tgt Ion: 91 Resp: 3178

Ion Ratio Lower Upper

91 100

120 14.9 11.1 33.1

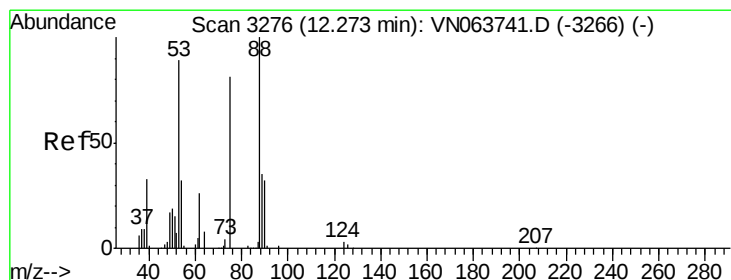
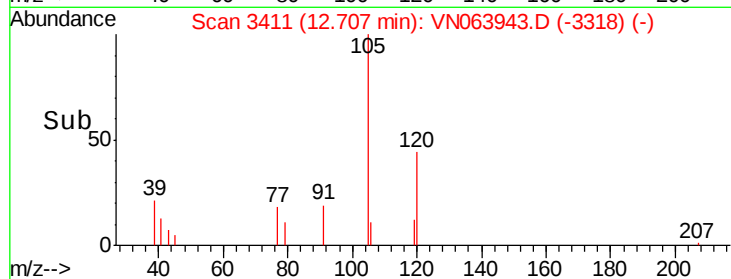
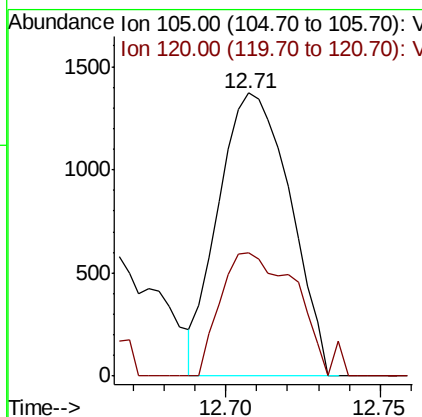
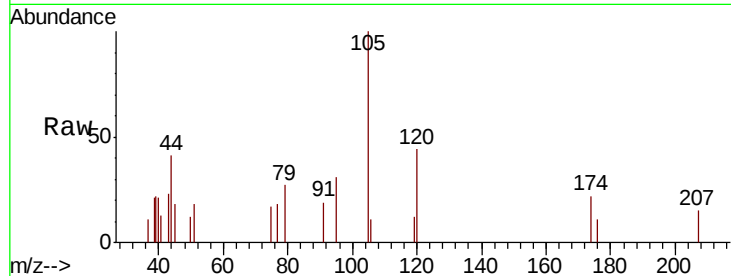




#80  
 1,3,5-Trimethylbenzene  
 Concen: 0.211 ug/l  
 RT: 12.71 min Scan# 3411  
 Delta R.T. 0.00 min  
 Lab File: VN063943.D  
 Acq: 7 Oct 2020 15:19

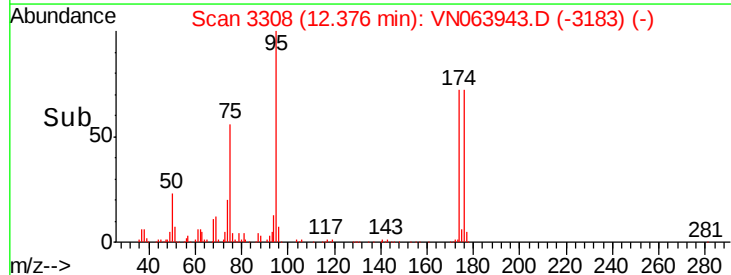
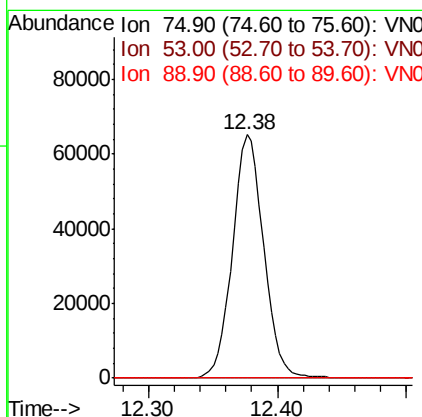
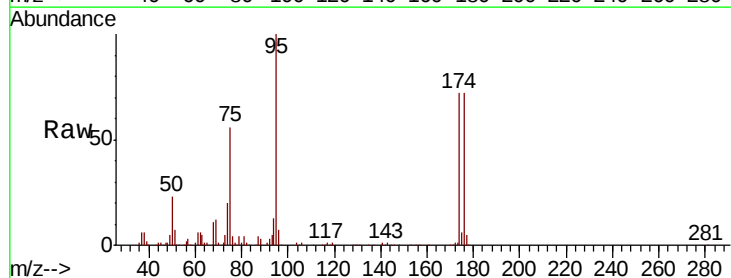
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 GW-DUP-1

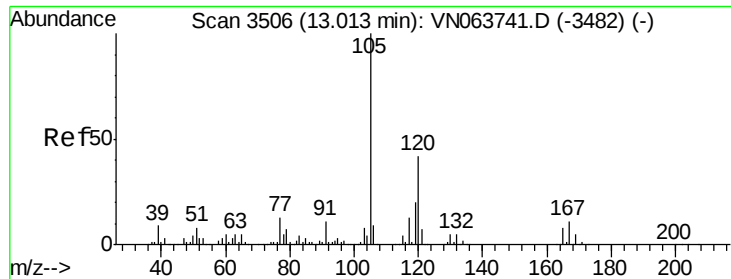
Tot Ion:105 Resp: 2220  
 Ion Ratio Lower Upper  
 105 100  
 120 46.7 23.3 69.9



#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 83.045 ug/l  
 RT: 12.38 min Scan# 3308  
 Delta R.T. 0.10 min  
 Lab File: VN063943.D  
 Acq: 7 Oct 2020 15:19

Tgt Ion: 75 Resp: 109431  
 Ion Ratio Lower Upper  
 75 100  
 53 0.3 88.2 132.2#  
 89 0.0 36.0 54.0#

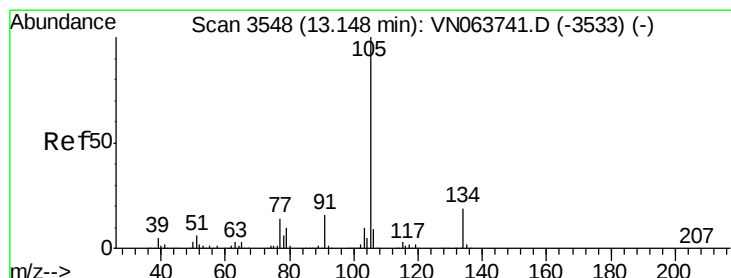
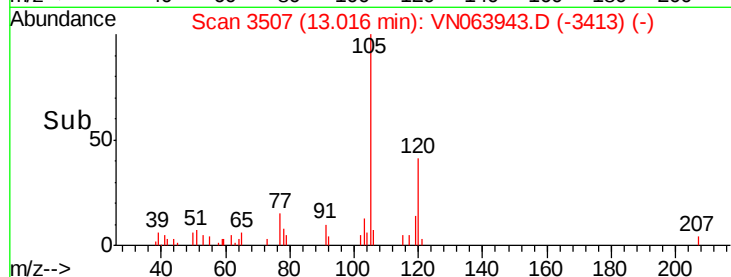
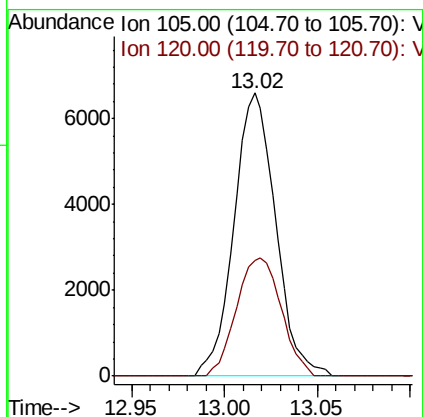
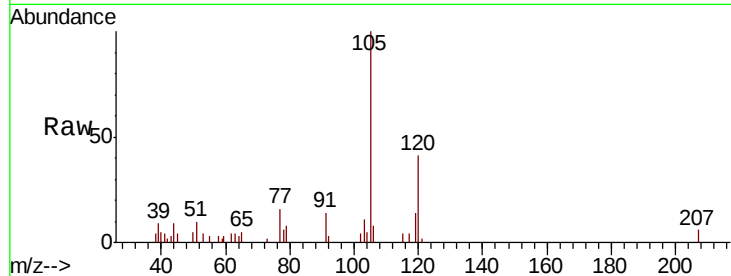




#84  
1,2,4-Trimethylbenzene  
Concen: 0.982 ug/l  
RT: 13.02 min Scan# 3507  
Delta R.T. 0.00 min  
Lab File: VN063943.D  
Acq: 7 Oct 2020 15:19

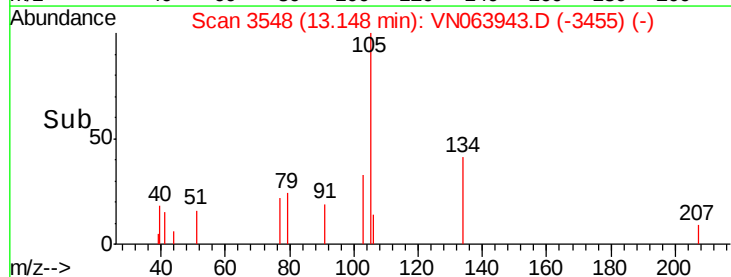
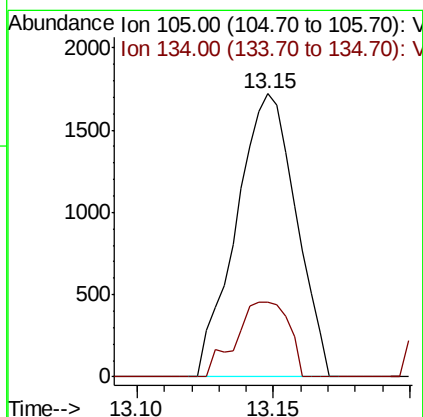
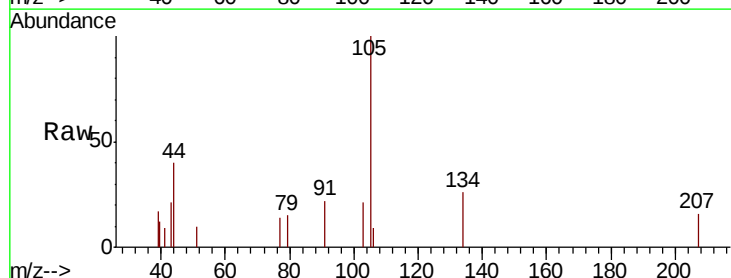
Instrument :  
MSVOA\_N  
ClientSampled :  
GW-DUP-1

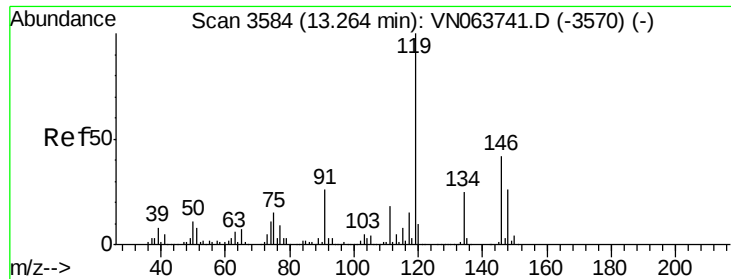
Tot Ion:105 Resp: 10325  
Ion Ratio Lower Upper  
105 100  
120 44.9 20.9 62.7



#85  
sec-Butylbenzene  
Concen: 0.231 ug/l  
RT: 13.15 min Scan# 3548  
Delta R.T. 0.00 min  
Lab File: VN063943.D  
Acq: 7 Oct 2020 15:19

Tgt Ion:105 Resp: 2614  
Ion Ratio Lower Upper  
105 100  
134 23.4 9.5 28.5

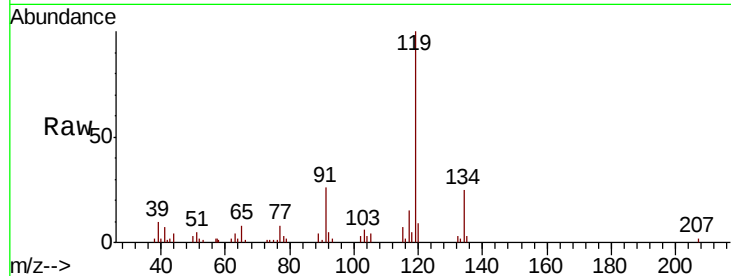




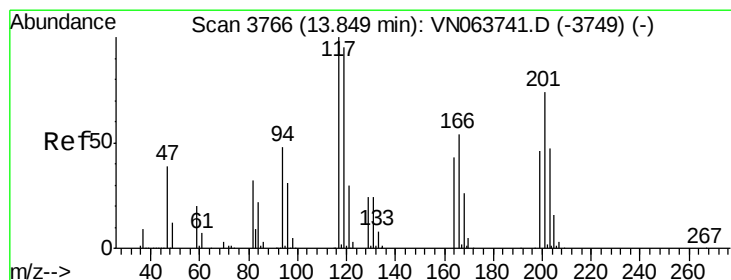
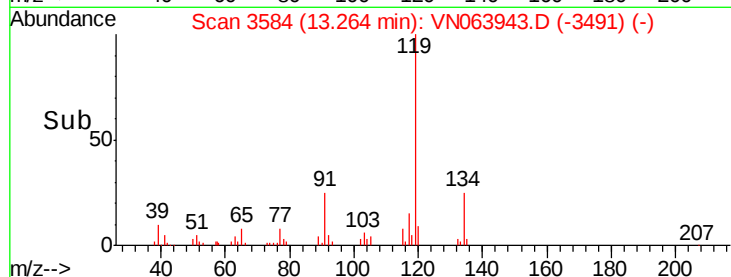
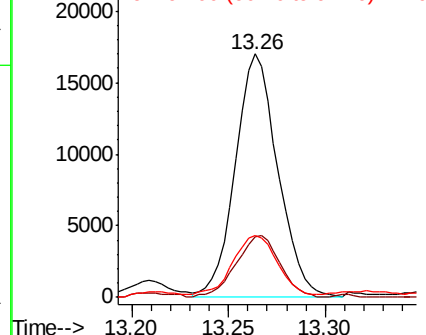
#86  
 p-Isopropyltoluene  
 Concen: 2.597 ug/l  
 RT: 13.26 min Scan# 3584  
 Delta R.T. 0.00 min  
 Lab File: VN063943.D  
 Acq: 7 Oct 2020 15:19

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 GW-DUP-1

Tot Ion:119 Resp: 26003  
 Ion Ratio Lower Upper  
 119 100  
 134 26.0 12.6 37.8  
 91 27.7 13.4 40.2

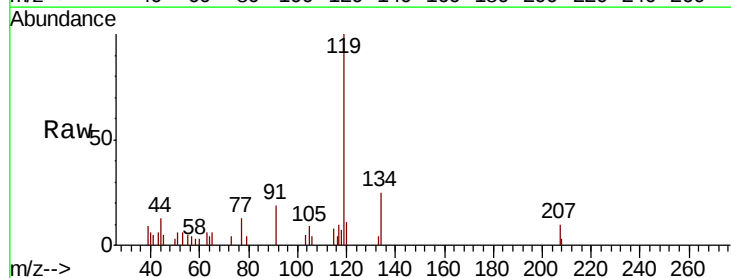


Abundance Ion 119.00 (118.70 to 119.70): V  
 Ion 134.00 (133.70 to 134.70): V  
 Ion 91.00 (90.70 to 91.70): V

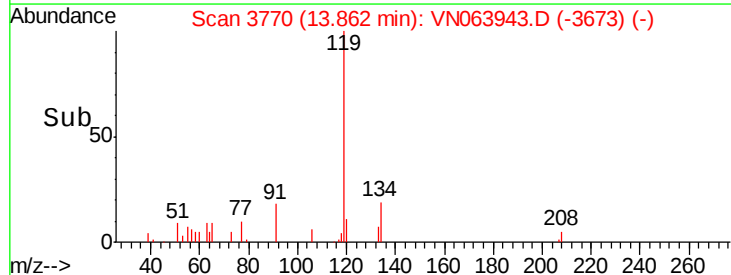
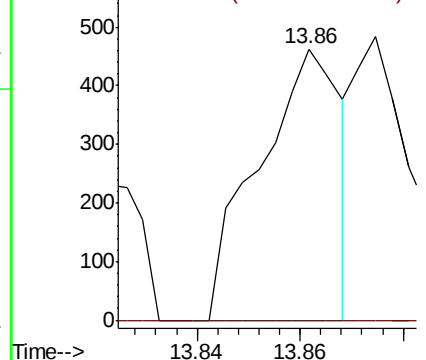


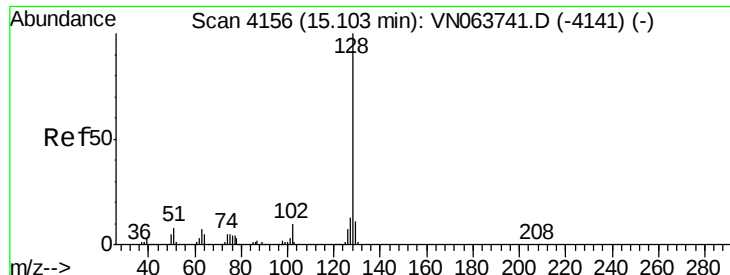
#90  
 Hexachloroethane  
 Concen: 0.262 ug/l  
 RT: 13.86 min Scan# 3770  
 Delta R.T. 0.01 min  
 Lab File: VN063943.D  
 Acq: 7 Oct 2020 15:19

Tgt Ion:117 Resp: 509  
 Ion Ratio Lower Upper  
 117 100  
 201 0.0 36.0 108.0#



Abundance Ion 116.80 (116.50 to 117.50): V  
 Ion 200.70 (200.40 to 201.40): V





#95

Naphthalene

Concen: 15.675 ug/l

RT: 15.11 min Scan# 4157

Delta R.T. 0.00 min

Lab File: VN063943.D

Acq: 7 Oct 2020 15:19

Instrument :

MSVOA\_N

ClientSampleId :

GW-DUP-1

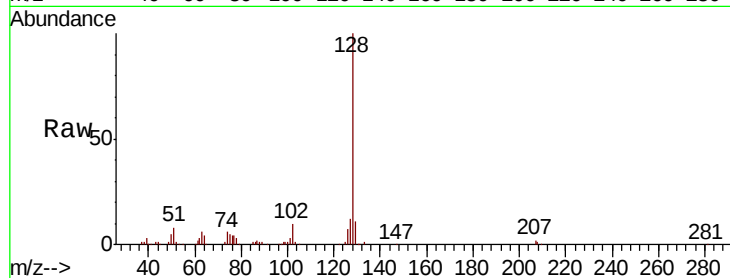
Tot Ion:128 Resp: 132852

Ion Ratio Lower Upper

128 100

127 12.7 10.5 15.7

129 10.5 8.7 13.1



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

