

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_N\DATA\VN080919\  
 Data File : VN057157.D  
 Acq On : 9 Aug 2019 19:35  
 Operator : JC/SP  
 Sample : K4290-07  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 24 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 WP-4

Quant Time: Aug 10 02:15:14 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N080719W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Aug 08 06:49:25 2019  
 Response via : Initial Calibration

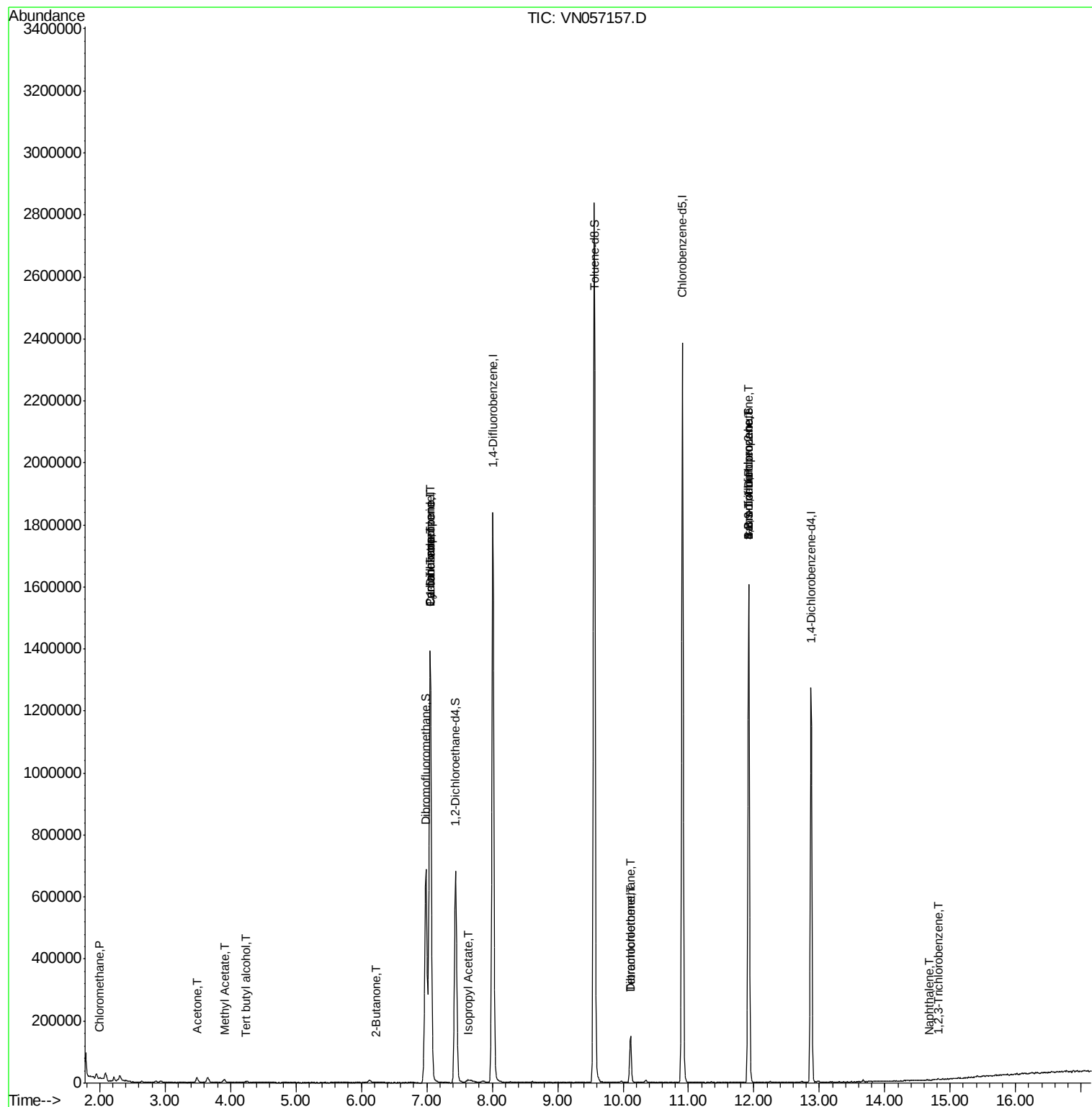
| Internal Standards             | R.T.   | QIon | Response | Conc      | Units  | Dev(Min) |
|--------------------------------|--------|------|----------|-----------|--------|----------|
| 1) Pentafluorobenzene          | 7.05   | 168  | 1331355  | 50.00     | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene        | 8.01   | 114  | 1849549  | 50.00     | ug/l   | 0.00     |
| 63) Chlorobenzene-d5           | 10.91  | 117  | 1530845  | 50.00     | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4     | 12.88  | 152  | 376692   | 50.00     | ug/l   | 0.00     |
| System Monitoring Compounds    |        |      |          |           |        |          |
| 33) 1,2-Dichloroethane-d4      | 7.44   | 65   | 617542   | 45.10     | ug/l   | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 90.20% |          |
| 35) Dibromofluoromethane       | 6.99   | 113  | 556121   | 47.92     | ug/l   | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 95.84% |          |
| 50) Toluene-d8                 | 9.56   | 98   | 2145620  | 48.32     | ug/l   | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 96.64% |          |
| 62) 4-Bromofluorobenzene       | 11.92  | 95   | 552650   | 38.63     | ug/l   | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 77.26% |          |
| Target Compounds               |        |      |          |           |        |          |
|                                |        |      |          |           | Qvalue |          |
| 3) Chloromethane               | 2.00   | 50   | 4298     | 0.302     | ug/l   | 94       |
| 11) Tert butyl alcohol         | 4.24   | 59   | 1988     | 1.020     | ug/l # | 73       |
| 16) Acetone                    | 3.48   | 43   | 21303    | 5.152     | ug/l   | 94       |
| 18) Methyl Acetate             | 3.91   | 43   | 16984    | 0.731     | ug/l   | 92       |
| 25) 2-Butanone                 | 6.23   | 43   | 2969     | 0.470     | ug/l # | 87       |
| 31) Cyclohexane                | 7.05   | 56   | 18965    | 0.955     | ug/l # | 1        |
| 36) 1,1-Dichloropropene        | 7.05   | 75   | 81341    | 5.341     | ug/l # | 48       |
| 38) Carbon Tetrachloride       | 7.05   | 117  | 114138   | 7.192     | ug/l # | 17       |
| 43) Isopropyl Acetate          | 7.63   | 43   | 8061     | 0.376     | ug/l # | 51       |
| 60) Dibromochloromethane       | 10.11  | 129  | 30726    | 2.486     | ug/l # | 11       |
| 64) Tetrachloroethene          | 10.11  | 164  | 38892    | 3.055     | ug/l   | 98       |
| 71) Bromoform                  | 11.92  | 173  | 4196     | 0.497     | ug/l # | 1        |
| 73) Isopropylbenzene           | 11.77  | 105  | 61       | Below Cal | #      | 48       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.92  | 83   | 65       | Below Cal | #      | 1        |
| 76) 1,2,3-Trichloropropane     | 11.92  | 75   | 258351   | 34.203    | ug/l # | 100      |
| 79) 2-Chlorotoluene            | 12.17  | 91   | 67       | Below Cal | #      | 39       |
| 81) trans-1,4-Dichloro-2-buten | 11.92  | 75   | 258351   | 100.843   | ug/l # | 14       |
| 90) Hexachloroethane           | 13.53  | 117  | 85       | Below Cal | #      | 1        |
| 95) Naphthalene                | 14.68  | 128  | 380      | 2.841     | ug/l # | 69       |
| 96) 1,2,3-Trichlorobenzene     | 14.81  | 180  | 65       | 5.731     | ug/l # | 12       |

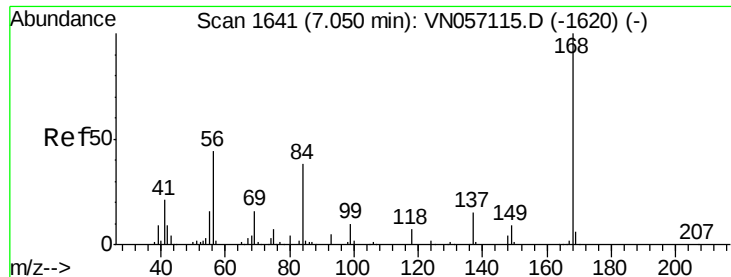
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Thu Aug 08 06:49:25 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.05 min Scan# 1642

Delta R.T. 0.00 min

Lab File: VN057157.D

Acq: 9 Aug 2019 19:35

Instrument :

MSVOA\_N

ClientSampled :

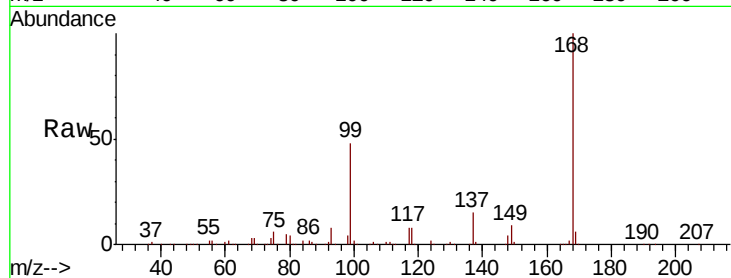
WP-4

Tgt Ion:168 Resp: 1331355

Ion Ratio Lower Upper

168 100

99 48.1 38.6 57.8



Abundance Ion 167.90 (167.60 to 168.60): VN057115.D (-1620) (-)

Ion 98.90 (98.60 to 99.60): VN057115.D (-1620) (-)

7.05

600000

500000

400000

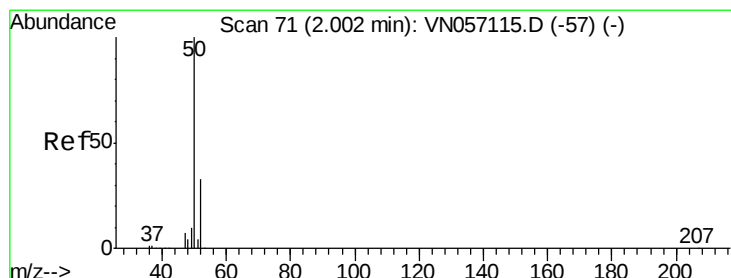
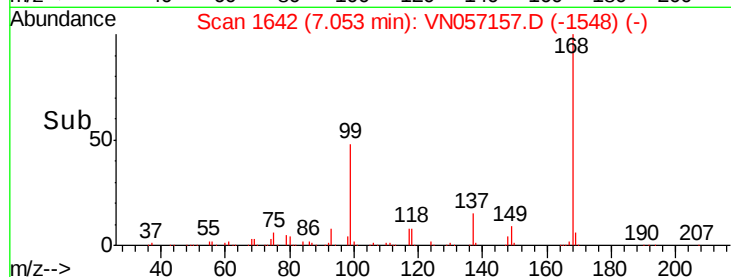
300000

200000

100000

0

Time-->



#3

Chloromethane

Concen: 0.302 ug/l

RT: 2.00 min Scan# 71

Delta R.T. 0.00 min

Lab File: VN057157.D

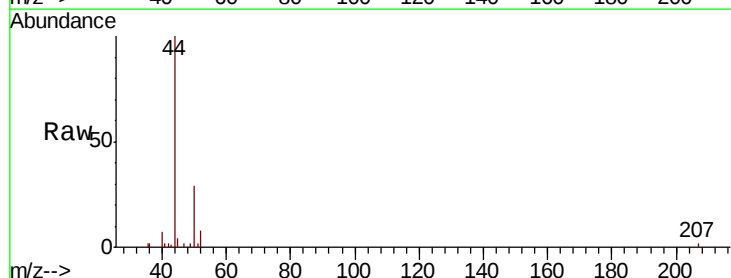
Acq: 9 Aug 2019 19:35

Tgt Ion: 50 Resp: 4298

Ion Ratio Lower Upper

50 100

52 29.1 26.1 39.1



Abundance Ion 49.90 (49.60 to 50.60): VN057115.D (-57) (-)

Ion 51.90 (51.60 to 52.60): VN057115.D (-57) (-)

2.00

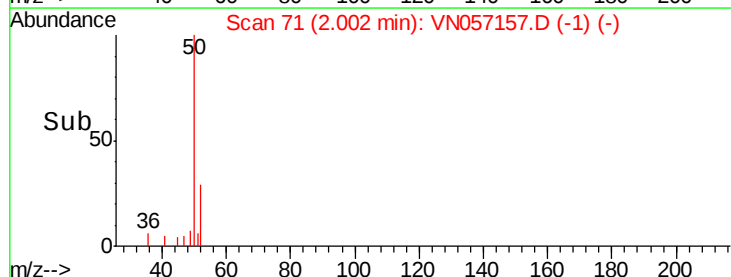
3000

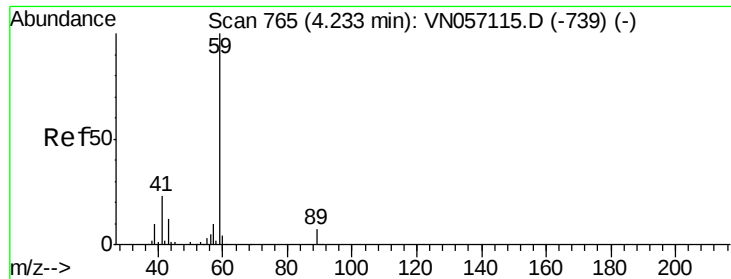
2000

1000

0

Time-->

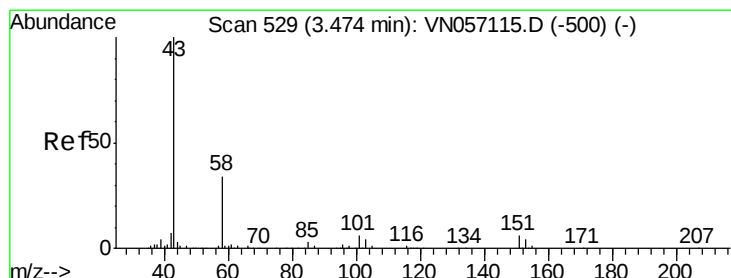
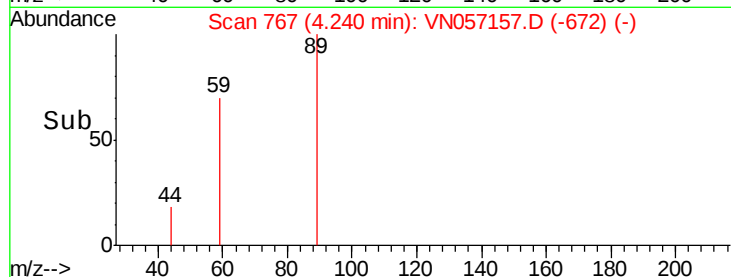
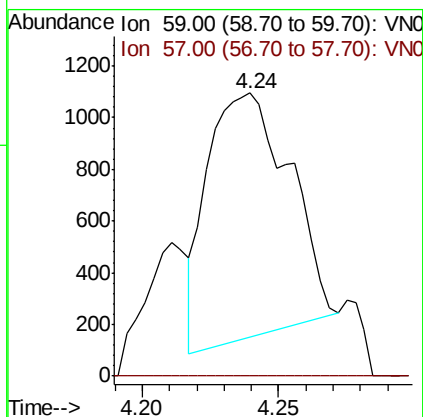
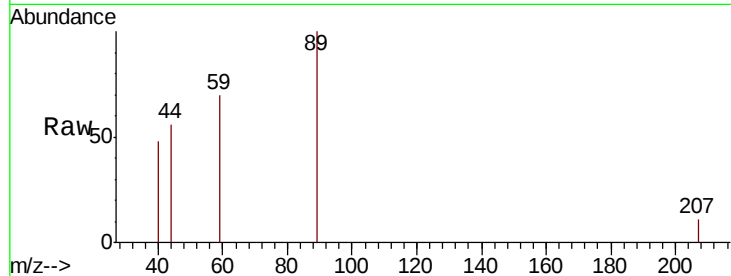




#11  
Tert butyl alcohol  
Concen: 1.020 ug/l  
RT: 4.24 min Scan# 767  
Delta R.T. 0.01 min  
Lab File: VN057157.D  
Acq: 9 Aug 2019 19:35

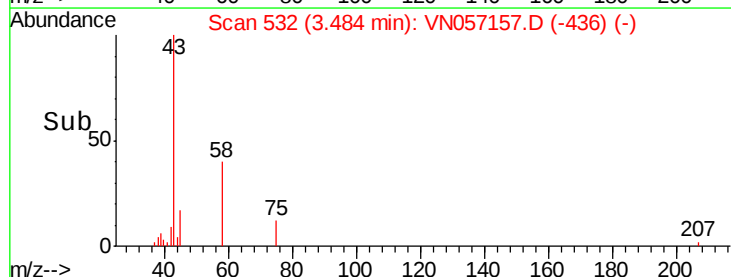
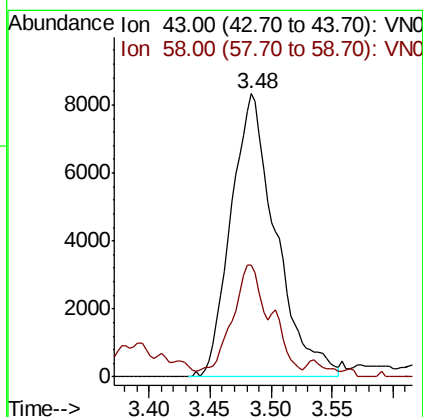
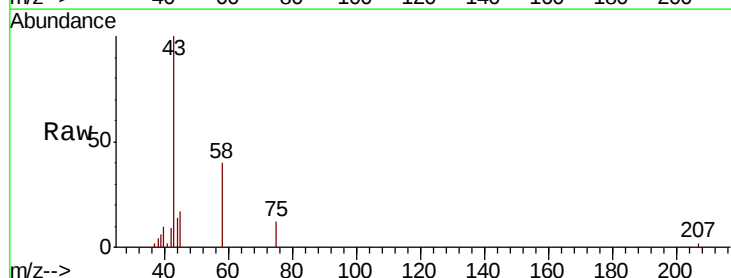
Instrument :  
MSVOA\_N  
ClientSampled :  
WP-4

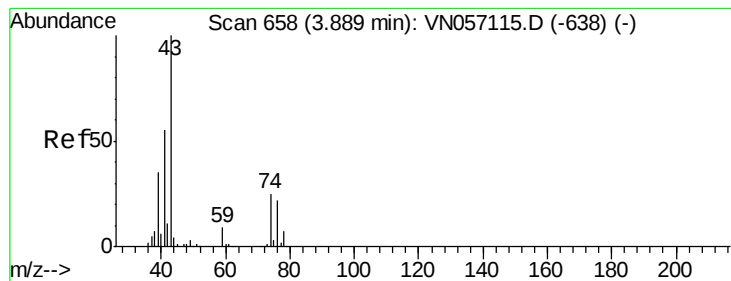
Tgt Ion: 59 Resp: 1988  
Ion Ratio Lower Upper  
59 100  
57 0.0 7.9 11.9#



#16  
Acetone  
Concen: 5.152 ug/l  
RT: 3.48 min Scan# 532  
Delta R.T. 0.01 min  
Lab File: VN057157.D  
Acq: 9 Aug 2019 19:35

Tgt Ion: 43 Resp: 21303  
Ion Ratio Lower Upper  
43 100  
58 37.6 27.4 41.2





#18

Methyl Acetate

Concen: 0.731 ug/l

RT: 3.91 min Scan# 664

Delta R.T. 0.02 min

Lab File: VN057157.D

Acq: 9 Aug 2019 19:35

Instrument :

MSVOA\_N

ClientSampled :

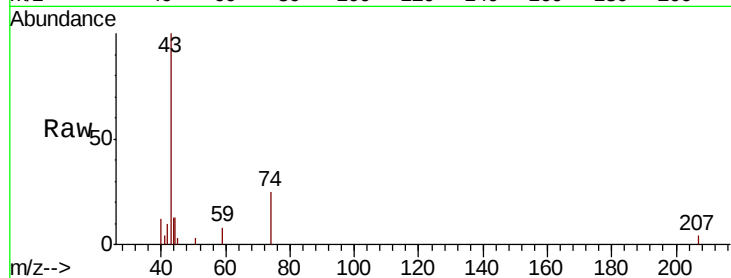
WP-4

Tgt Ion: 43 Resp: 16984

Ion Ratio Lower Upper

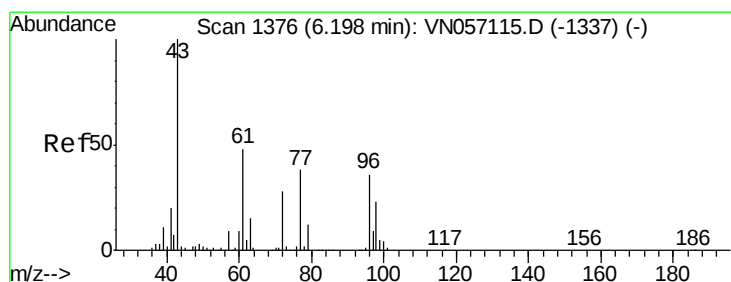
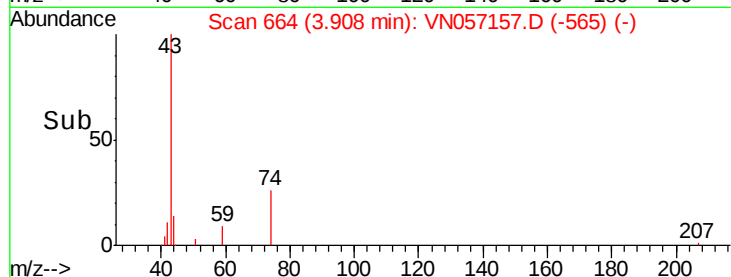
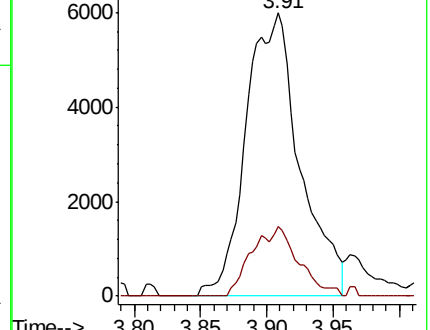
43 100

74 21.2 20.2 30.4



Abundance Ion 43.00 (42.70 to 43.70): VN057115.D (-638) (-)

Ion 74.00 (73.70 to 74.70): VN057115.D (-638) (-)



#25

2-Butanone

Concen: 0.470 ug/l

RT: 6.23 min Scan# 1385

Delta R.T. 0.03 min

Lab File: VN057157.D

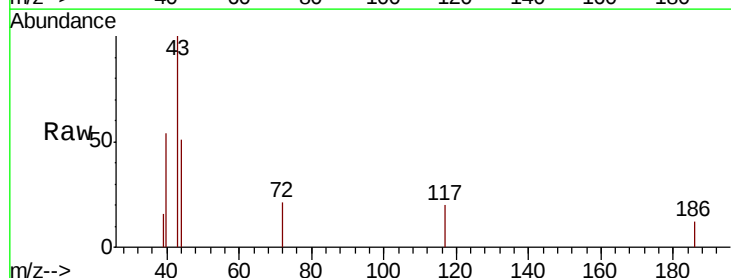
Acq: 9 Aug 2019 19:35

Tgt Ion: 43 Resp: 2969

Ion Ratio Lower Upper

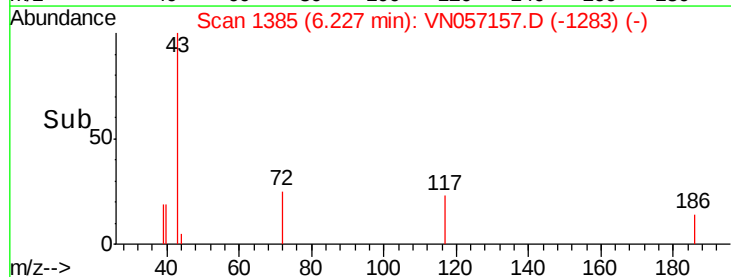
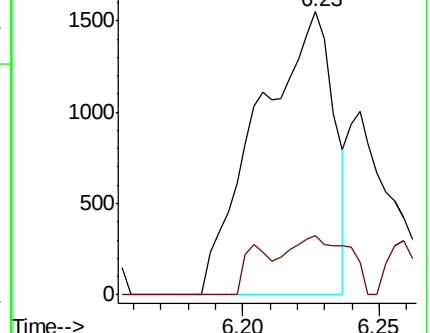
43 100

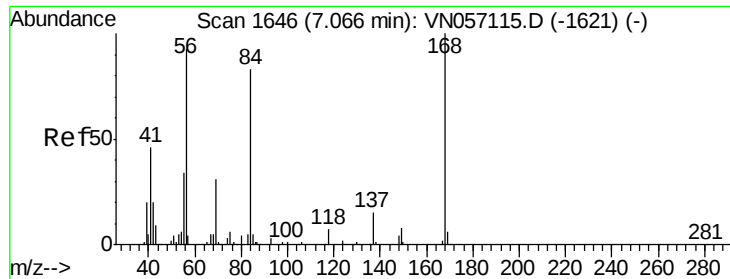
72 20.8 22.2 33.4#



Abundance Ion 43.00 (42.70 to 43.70): VN057115.D (-1337) (-)

Ion 72.00 (71.70 to 72.70): VN057115.D (-1337) (-)

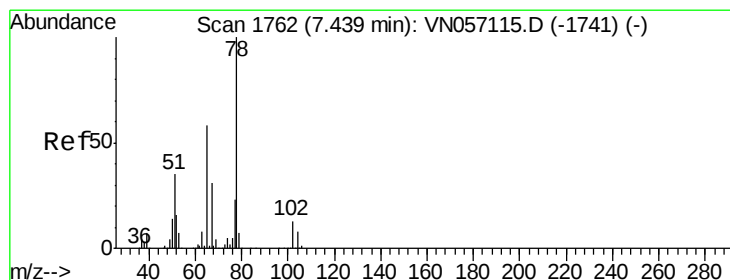
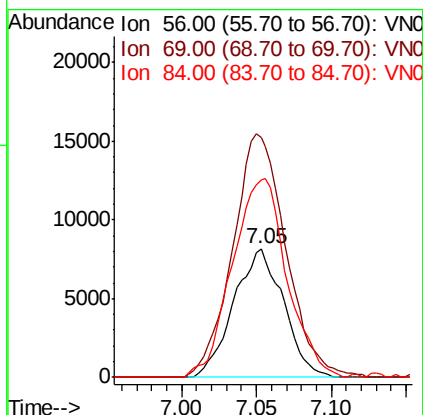
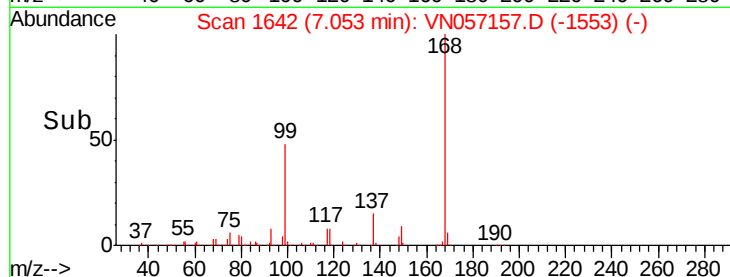
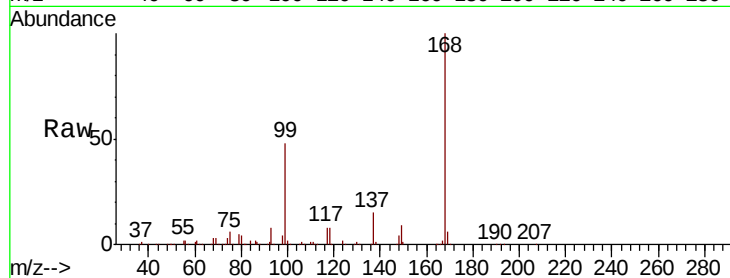




#31  
Cyclohexane  
Concen: 0.955 ug/l  
RT: 7.05 min Scan# 1642  
Delta R.T. -0.01 min  
Lab File: VN057157.D  
Acq: 9 Aug 2019 19:35

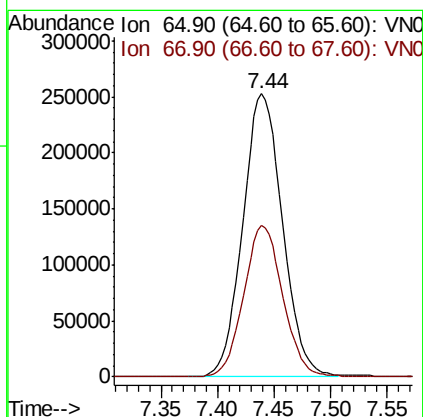
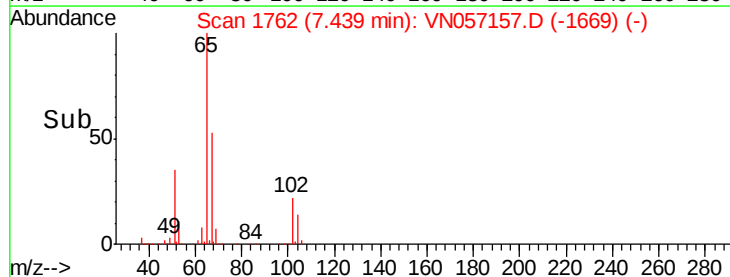
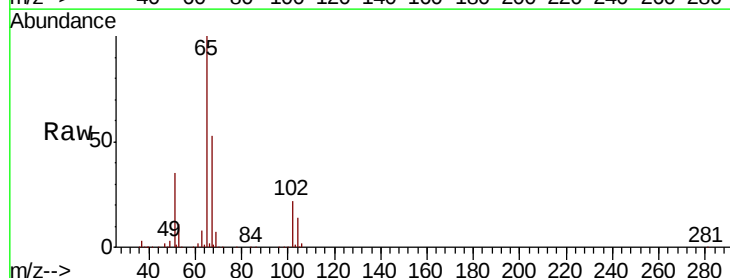
Instrument :  
MSVOA\_N  
ClientSampled :  
WP-4

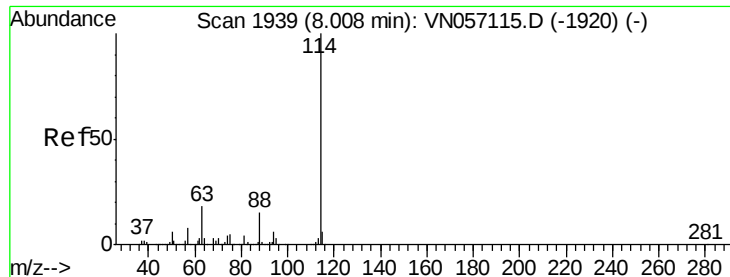
Tgt Ion: 56 Resp: 18965  
Ion Ratio Lower Upper  
56 100  
69 184.3 26.9 40.3#  
84 151.3 71.9 107.9#



#33  
1,2-Dichloroethane-d4  
Concen: 45.102 ug/l  
RT: 7.44 min Scan# 1762  
Delta R.T. 0.00 min  
Lab File: VN057157.D  
Acq: 9 Aug 2019 19:35

Tgt Ion: 65 Resp: 617542  
Ion Ratio Lower Upper  
65 100  
67 52.7 0.0 108.2

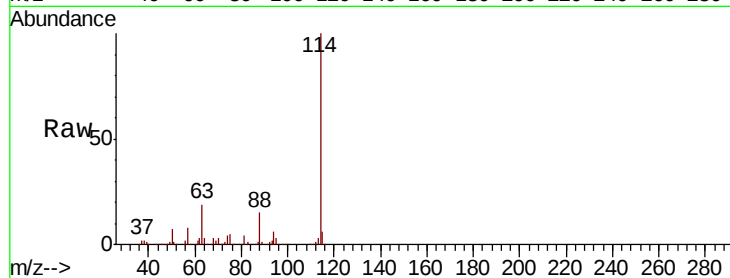




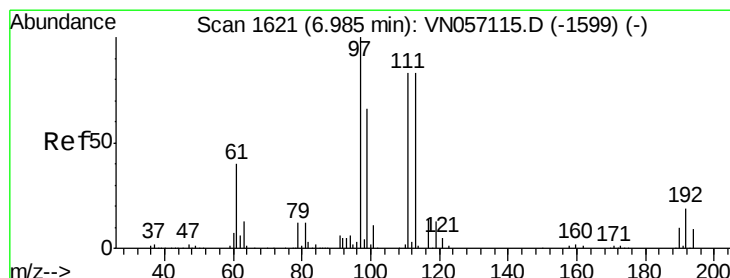
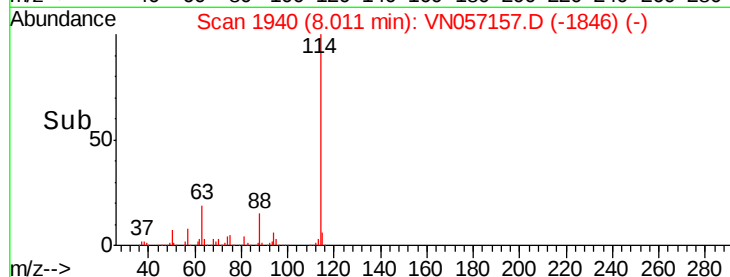
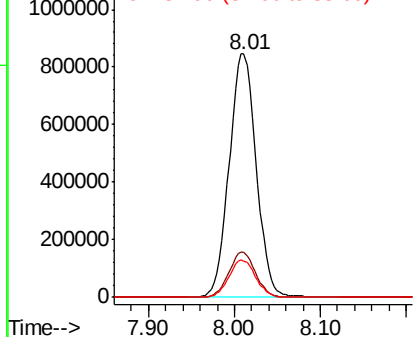
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.01 min Scan# 1940  
 Delta R.T. 0.00 min  
 Lab File: VN057157.D  
 Acq: 9 Aug 2019 19:35

Instrument :  
 MSVOA\_N  
 ClientSampled :  
 WP-4

Tgt Ion:114 Resp: 1849549  
 Ion Ratio Lower Upper  
 114 100  
 63 18.5 0.0 36.2  
 88 15.1 0.0 30.0

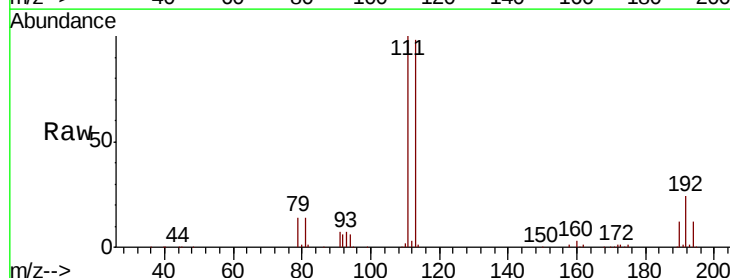


Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): VN  
 Ion 87.90 (87.60 to 88.60): VN

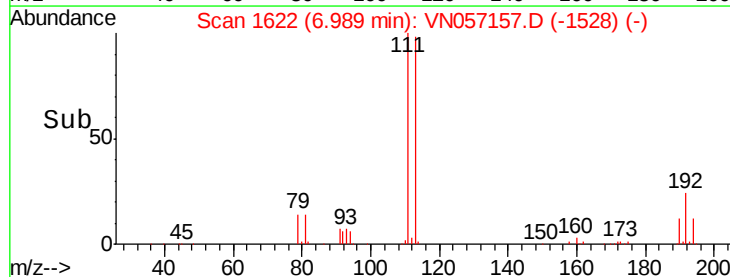
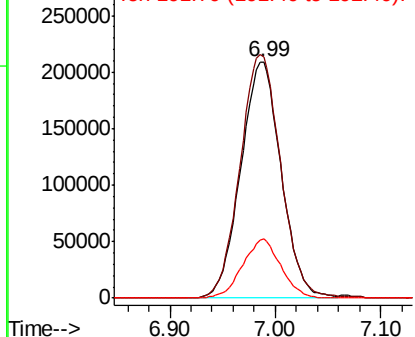


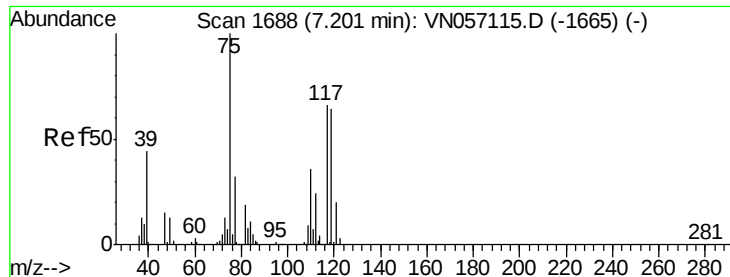
#35  
 Dibromofluoromethane  
 Concen: 47.916 ug/l  
 RT: 6.99 min Scan# 1622  
 Delta R.T. 0.00 min  
 Lab File: VN057157.D  
 Acq: 9 Aug 2019 19:35

Tgt Ion:113 Resp: 556121  
 Ion Ratio Lower Upper  
 113 100  
 111 104.2 81.3 121.9  
 192 23.7 19.0 28.4



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: 5.341 ug/l

RT: 7.05 min Scan# 1642

Delta R.T. -0.15 min

Lab File: VN057157.D

Acq: 9 Aug 2019 19:35

Instrument :

MSVOA\_N

ClientSampled :

WP-4

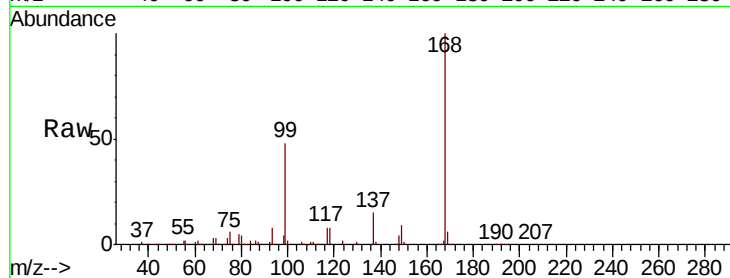
Tgt Ion: 75 Resp: 81341

Ion Ratio Lower Upper

75 100

110 8.5 18.7 56.1#

77 0.0 25.0 37.4#

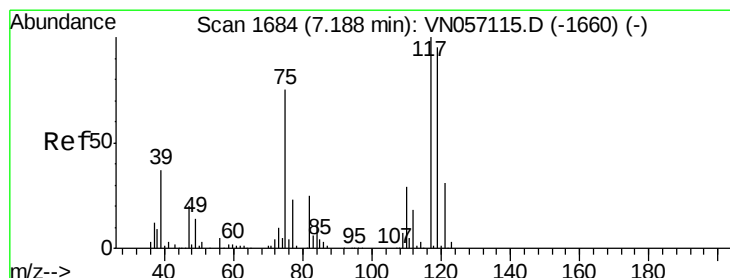
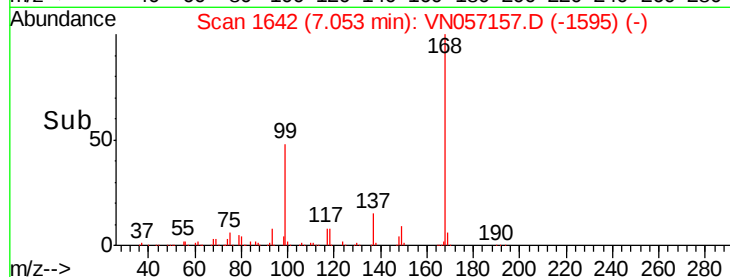


Abundance Ion 74.90 (74.60 to 75.60): VN057115.D (-1665) (-)

Ion 109.90 (109.60 to 110.60): VN057115.D (-1665) (-)

Ion 76.90 (76.60 to 77.60): VN057115.D (-1665) (-)

Time-->



#38

Carbon Tetrachloride

Concen: 7.192 ug/l

RT: 7.05 min Scan# 1641

Delta R.T. -0.14 min

Lab File: VN057157.D

Acq: 9 Aug 2019 19:35

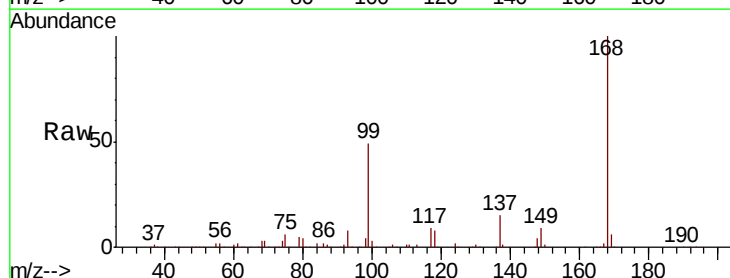
Tgt Ion: 117 Resp: 114138

Ion Ratio Lower Upper

117 100

119 5.4 75.8 113.6#

121 0.0 24.4 36.6#

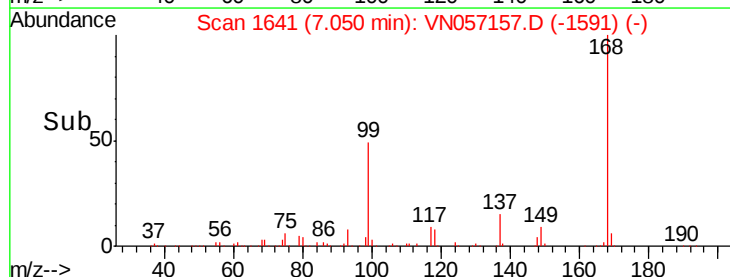


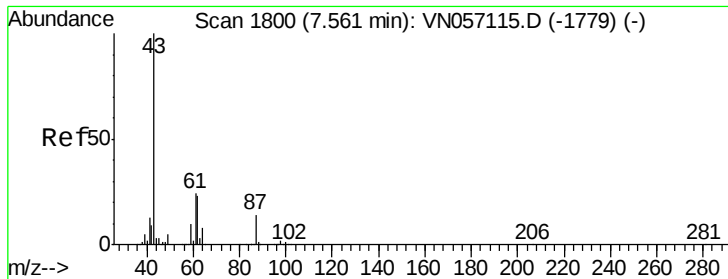
Abundance Ion 116.80 (116.50 to 117.50): VN057115.D (-1660) (-)

Ion 118.80 (118.50 to 119.50): VN057115.D (-1660) (-)

Ion 120.80 (120.50 to 121.50): VN057115.D (-1660) (-)

Time-->





#43

Isopropyl Acetate

Concen: 0.376 ug/l

RT: 7.63 min Scan# 1822

Delta R.T. 0.07 min

Lab File: VN057157.D

Acq: 9 Aug 2019 19:35

Instrument :

MSVOA\_N

ClientSampleId :

WP-4

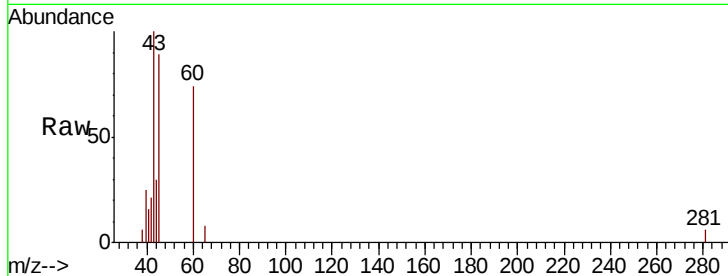
Tgt Ion: 43 Resp: 8061

Ion Ratio Lower Upper

43 100

61 0.0 24.2 36.2#

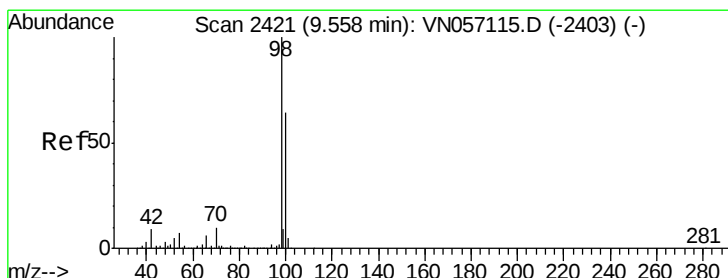
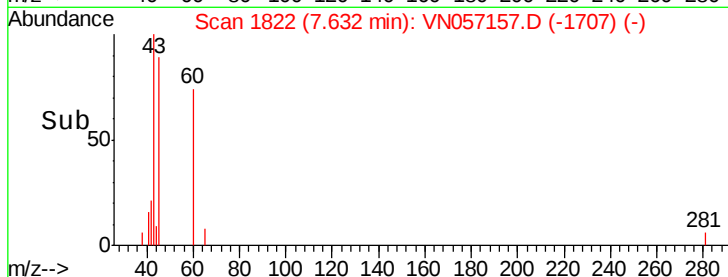
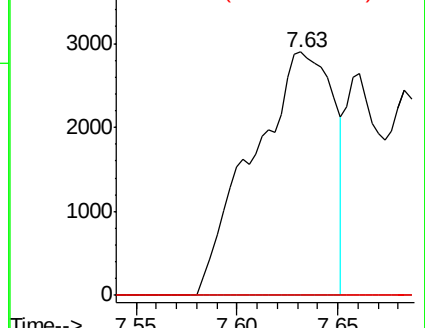
87 0.0 11.8 17.8#



Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 61.00 (60.70 to 61.70): VN0

Ion 87.00 (86.70 to 87.70): VN0



#50

Toluene-d8

Concen: 48.321 ug/l

RT: 9.56 min Scan# 2422

Delta R.T. 0.00 min

Lab File: VN057157.D

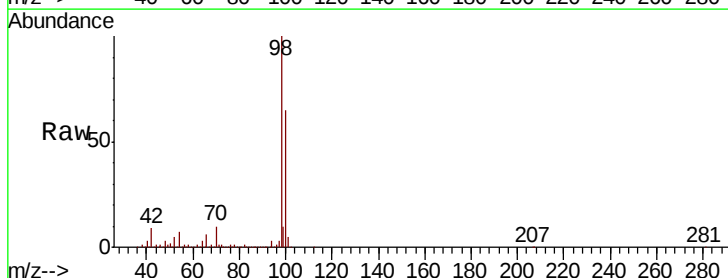
Acq: 9 Aug 2019 19:35

Tgt Ion: 98 Resp: 2145620

Ion Ratio Lower Upper

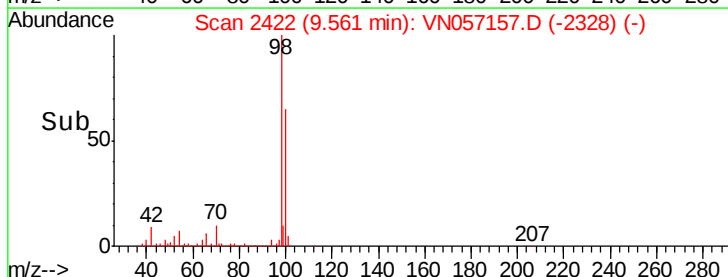
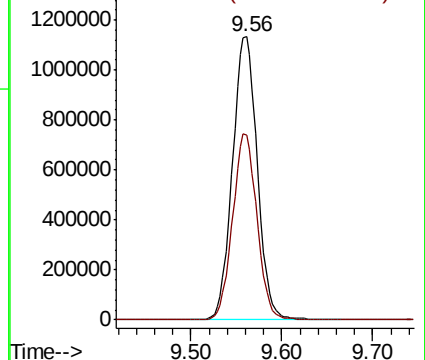
98 100

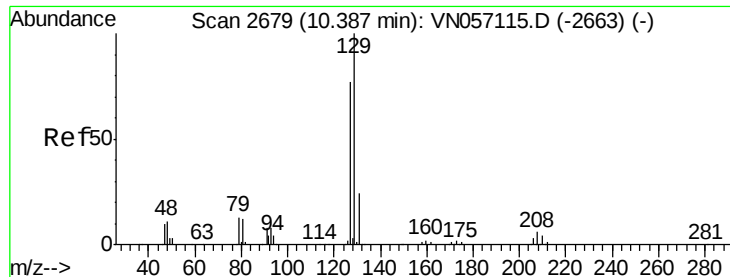
100 64.6 51.2 76.8



Abundance Ion 98.00 (97.70 to 98.70): VN0

Ion 100.00 (99.70 to 100.70): VN0





#60

Dibromochloromethane

Concen: 2.486 ug/l

RT: 10.11 min Scan# 2594

Delta R.T. -0.27 min

Lab File: VN057157.D

Acq: 9 Aug 2019 19:35

Instrument :

MSVOA\_N

ClientSampleId :

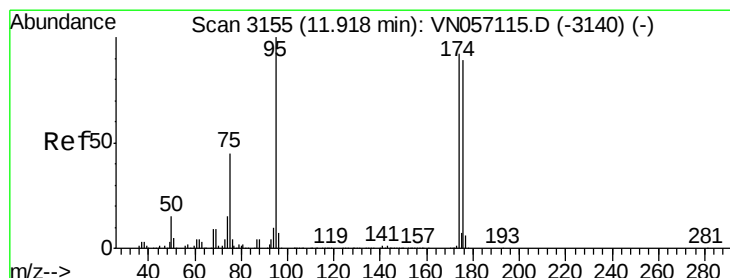
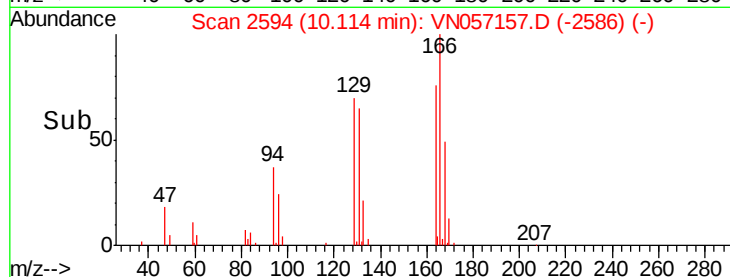
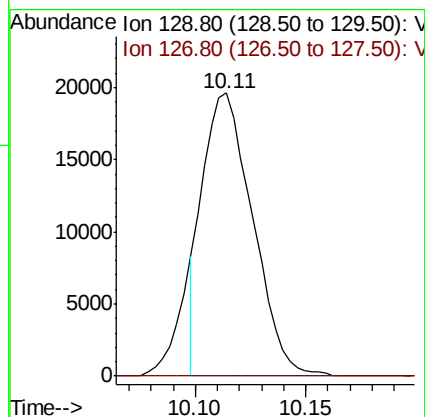
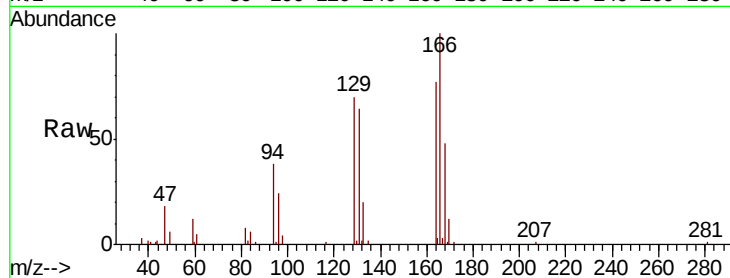
WP-4

Tgt Ion:129 Resp: 30726

Ion Ratio Lower Upper

129 100

127 0.0 38.6 116.0#



#62

4-Bromofluorobenzene

Concen: 38.628 ug/l

RT: 11.92 min Scan# 3156

Delta R.T. 0.00 min

Lab File: VN057157.D

Acq: 9 Aug 2019 19:35

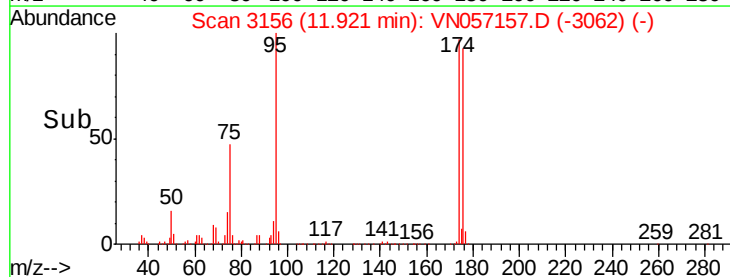
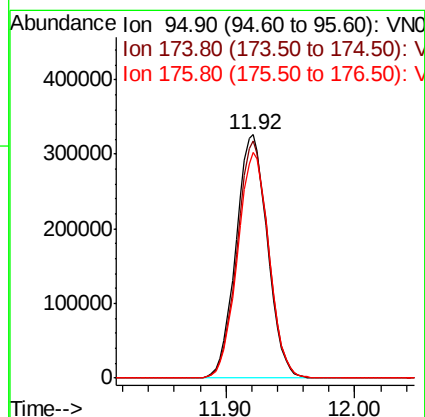
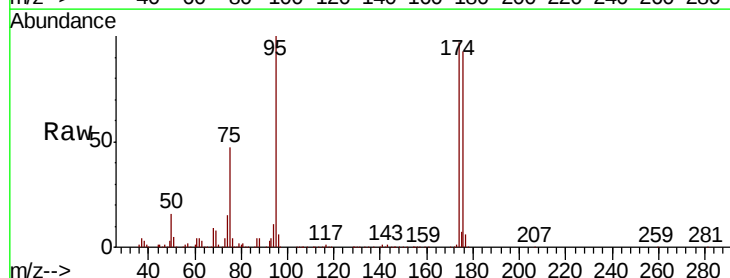
Tgt Ion: 95 Resp: 552650

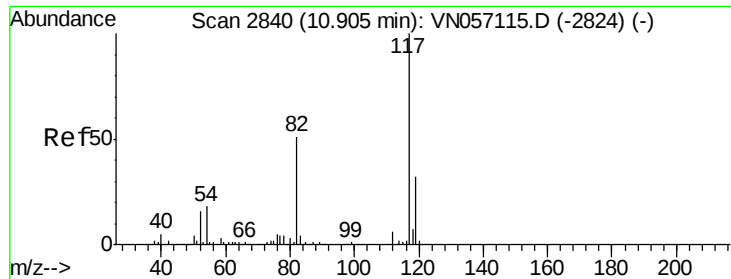
Ion Ratio Lower Upper

95 100

174 96.7 0.0 185.0

176 93.1 0.0 181.2

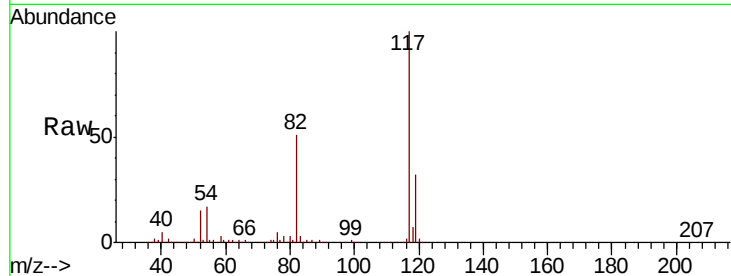




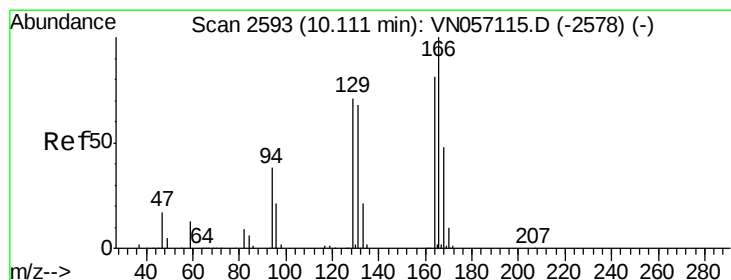
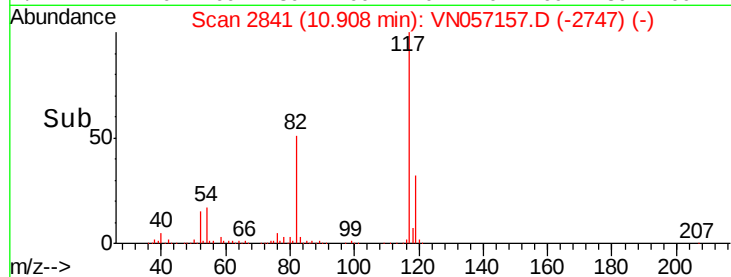
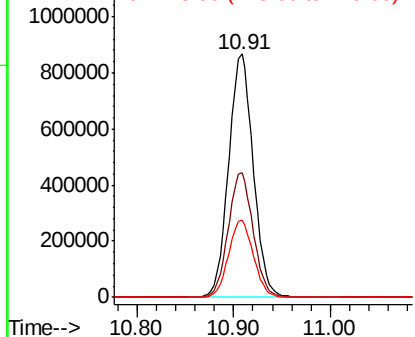
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.91 min Scan# 2841  
Delta R.T. 0.00 min  
Lab File: VN057157.D  
Acq: 9 Aug 2019 19:35

Instrument :  
MSVOA\_N  
ClientSampleId :  
WP-4

Tgt Ion:117 Resp: 1530845  
Ion Ratio Lower Upper  
117 100  
82 51.2 40.8 61.2  
119 31.7 25.7 38.5

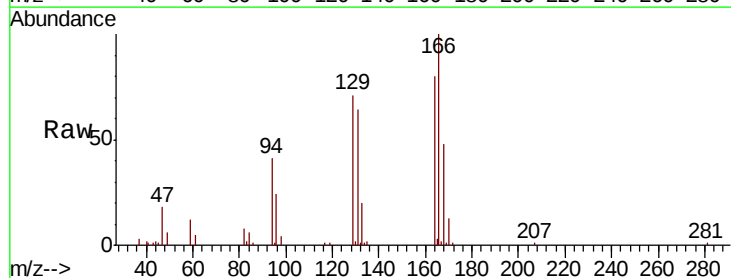


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): V  
Ion 118.90 (118.60 to 119.60): V

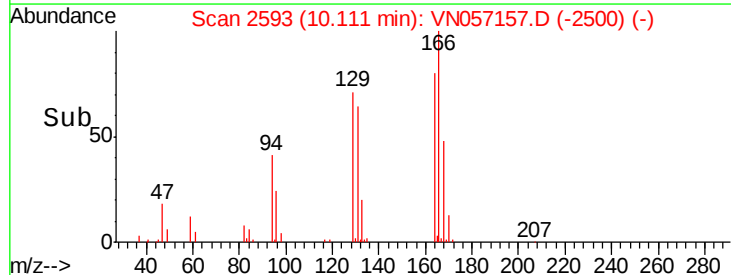
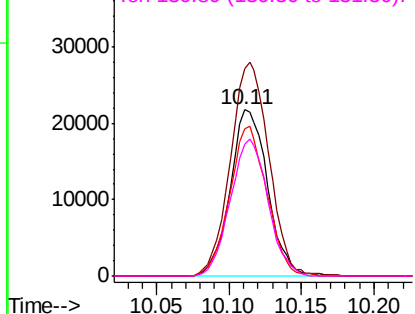


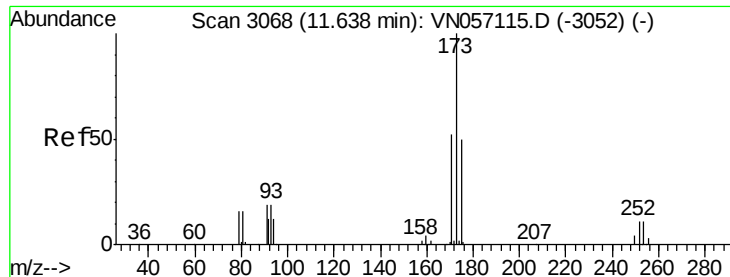
#64  
Tetrachloroethene  
Concen: 3.055 ug/l  
RT: 10.11 min Scan# 2593  
Delta R.T. 0.00 min  
Lab File: VN057157.D  
Acq: 9 Aug 2019 19:35

Tgt Ion:164 Resp: 38892  
Ion Ratio Lower Upper  
164 100  
166 124.6 98.3 147.5  
129 88.6 69.8 104.6  
131 79.4 66.8 100.2



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





#71

Bromoform

Concen: 0.497 ug/l

RT: 11.92 min Scan# 3156

Delta R.T. 0.28 min

Lab File: VN057157.D

Acq: 9 Aug 2019 19:35

Instrument :

MSVOA\_N

ClientSampleId :

WP-4

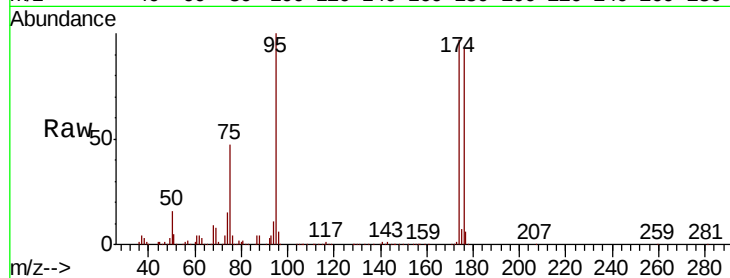
Tgt Ion:173 Resp: 4196

Ion Ratio Lower Upper

173 100

175 628.0 24.6 73.8#

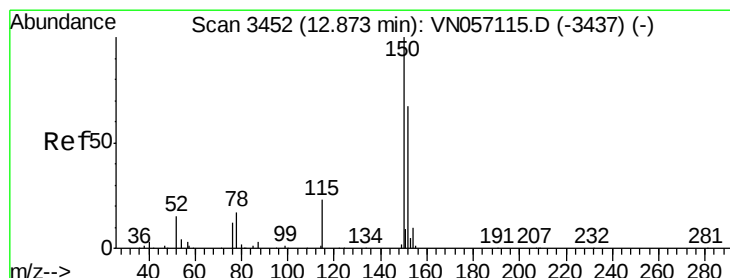
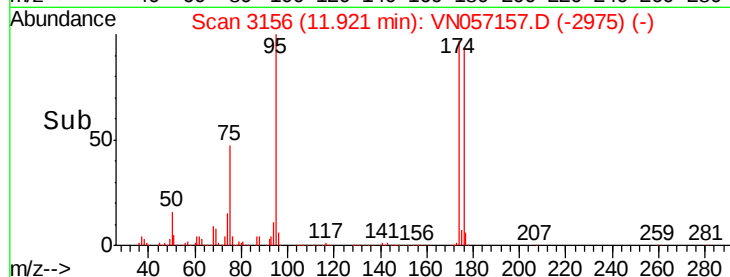
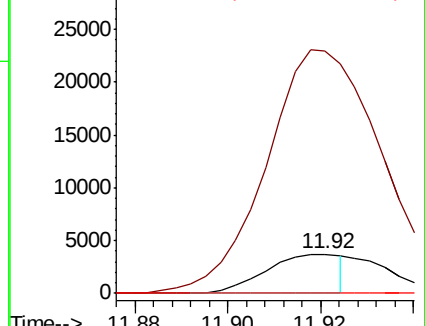
254 0.0 0.1 0.1#



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: 12.88 min Scan# 3453

Delta R.T. 0.00 min

Lab File: VN057157.D

Acq: 9 Aug 2019 19:35

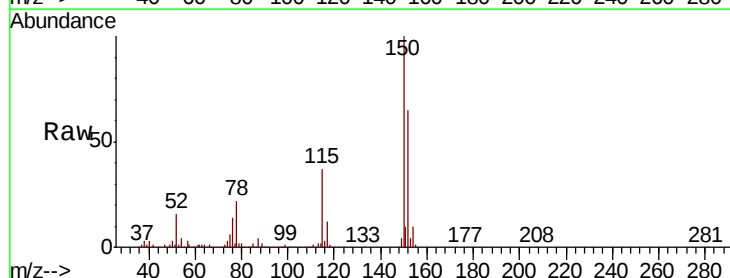
Tgt Ion:152 Resp: 376692

Ion Ratio Lower Upper

152 100

115 57.2 27.5 82.5

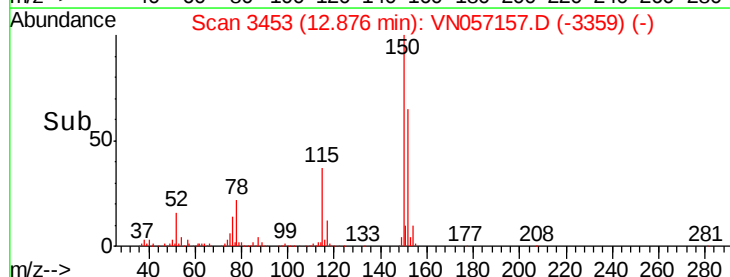
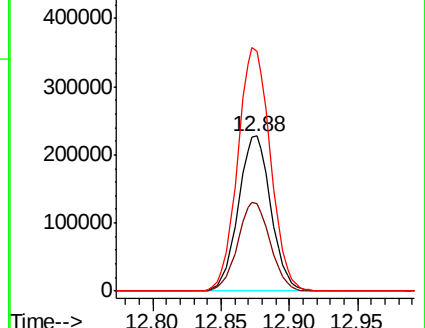
150 157.7 0.0 341.6

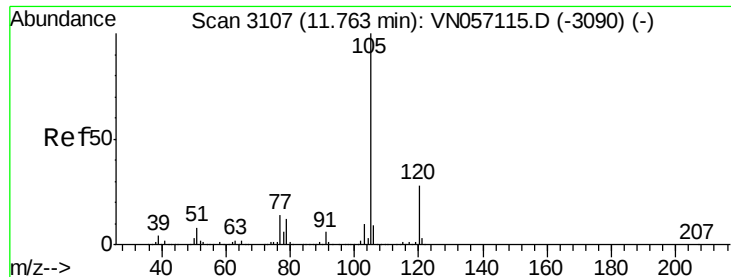


Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V





#73

Isopropylbenzene

Concen: Below Cal

RT: 11.77 min Scan# 3109

Delta R.T. 0.01 min

Lab File: VN057157.D

Acq: 9 Aug 2019 19:35

Instrument :

MSVOA\_N

ClientSampleId :

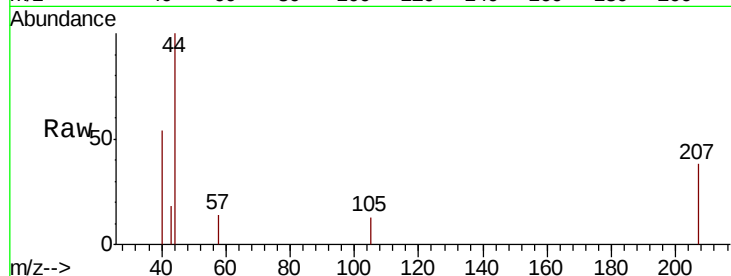
WP-4

Tgt Ion: 105 Resp: 61

Ion Ratio Lower Upper

105 100

120 0.0 13.7 41.0#



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V

11.77

150

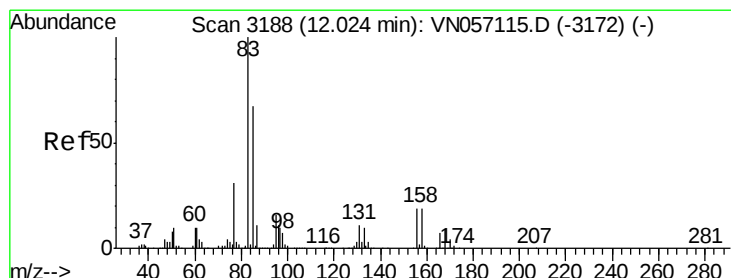
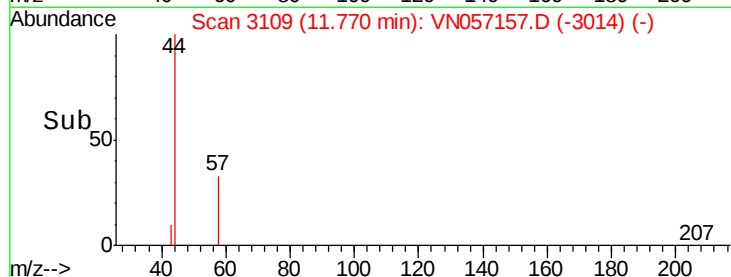
100

50

0

Time-->

11.76 11.77 11.78



#75

1,1,2,2-Tetrachloroethane

Concen: Below Cal

RT: 11.92 min Scan# 3156

Delta R.T. -0.10 min

Lab File: VN057157.D

Acq: 9 Aug 2019 19:35

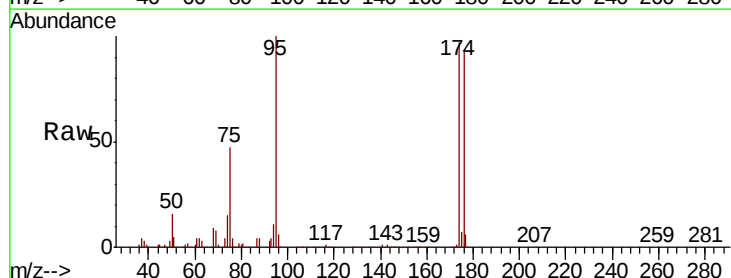
Tgt Ion: 83 Resp: 65

Ion Ratio Lower Upper

83 100

131 1132.3 5.5 16.4#

85 0.0 32.4 97.0#



Abundance Ion 82.90 (82.60 to 83.60): V

Ion 130.80 (130.50 to 131.50): V

Ion 84.90 (84.60 to 85.60): V

600

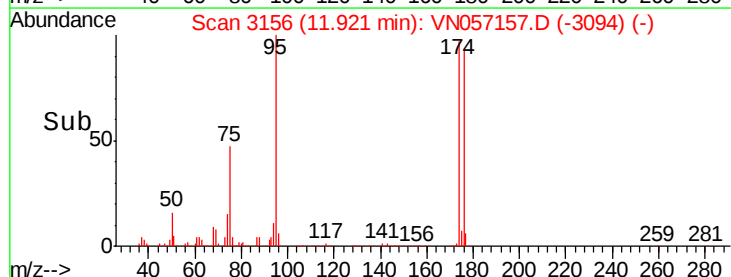
400

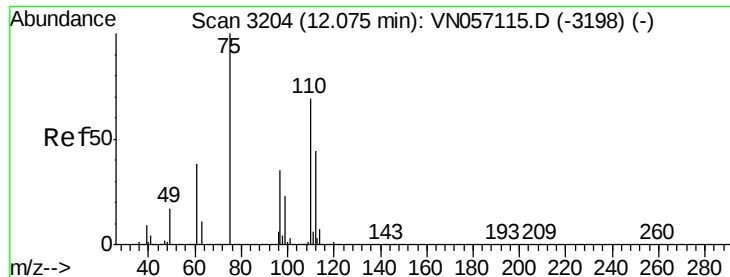
200

0

Time-->

11.92 11.93





#76

1,2,3-Trichloropropane

Concen: 34.203 ug/l

RT: 11.92 min Scan# 3156

Delta R.T. -0.15 min

Lab File: VN057157.D

Acq: 9 Aug 2019 19:35

Instrument :

MSVOA\_N

ClientSampled :

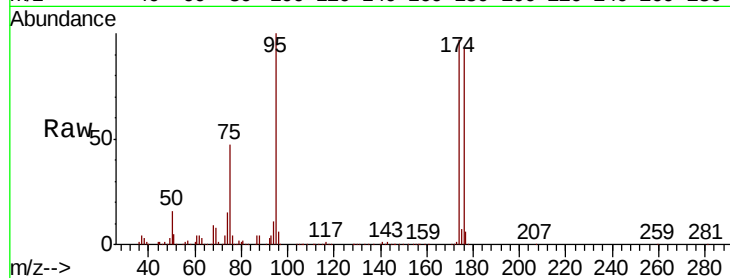
WP-4

Tgt Ion: 75 Resp: 258351

Ion Ratio Lower Upper

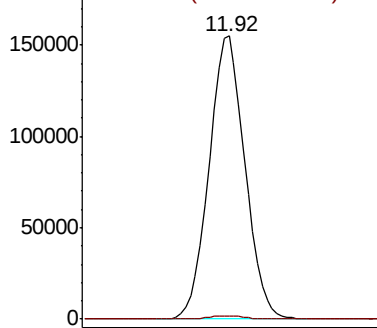
75 100

77 1.1 0.0 0.0#

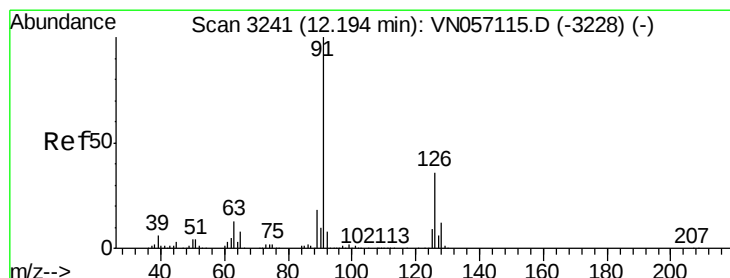
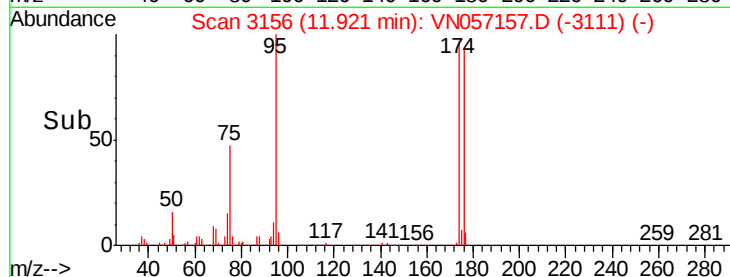


Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 77.00 (76.70 to 77.70): VN0



Time-->



#79

2-Chlorotoluene

Concen: Below Cal

RT: 12.17 min Scan# 3232

Delta R.T. -0.03 min

Lab File: VN057157.D

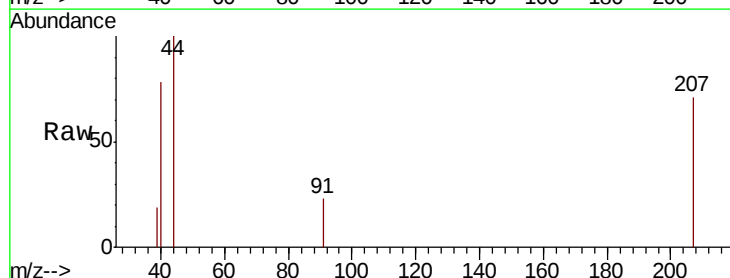
Acq: 9 Aug 2019 19:35

Tgt Ion: 91 Resp: 67

Ion Ratio Lower Upper

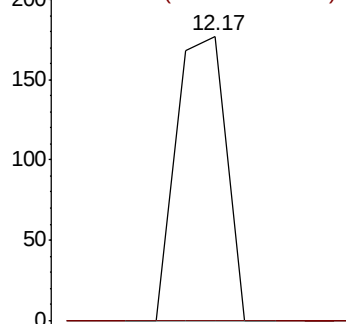
91 100

126 0.0 18.1 54.3#

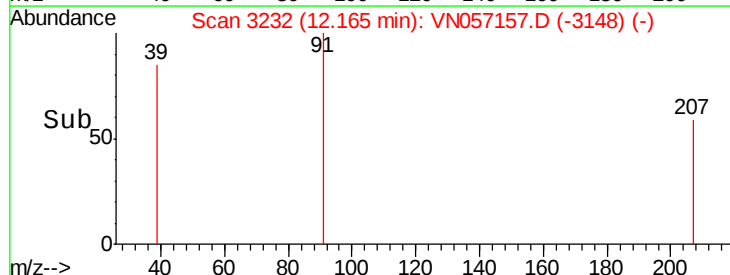


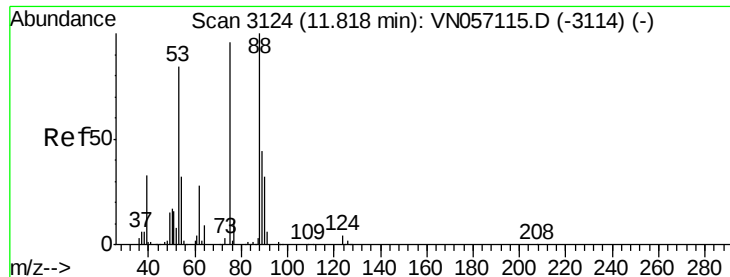
Abundance Ion 91.00 (90.70 to 91.70): VN0

Ion 125.90 (125.60 to 126.60): V



Time-->





#81

trans-1,4-Dichloro-2-butene

Concen: 100.843 ug/l

RT: 11.92 min Scan# 3156

Delta R.T. 0.10 min

Lab File: VN057157.D

Acq: 9 Aug 2019 19:35

Instrument :

MSVOA\_N

ClientSampled :

WP-4

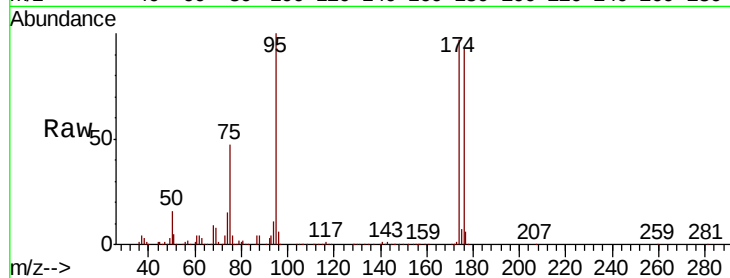
Tgt Ion: 75 Resp: 258351

Ion Ratio Lower Upper

75 100

53 0.0 70.6 106.0#

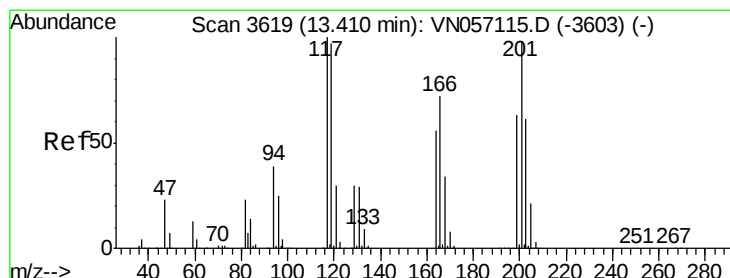
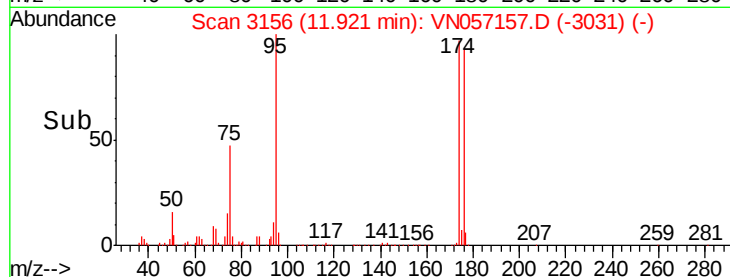
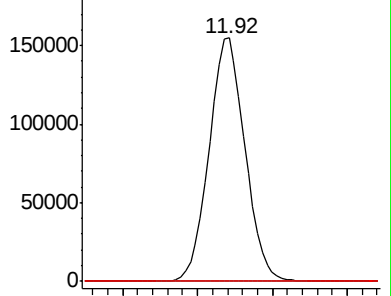
89 0.1 36.4 54.6#



Abundance Ion 74.90 (74.60 to 75.60): VN057115.D (-3114) (-)

Ion 53.00 (52.70 to 53.70): VN057115.D (-3114) (-)

Ion 88.90 (88.60 to 89.60): VN057115.D (-3114) (-)



#90

Hexachloroethane

Concen: Below Cal

RT: 13.53 min Scan# 3657

Delta R.T. 0.12 min

Lab File: VN057157.D

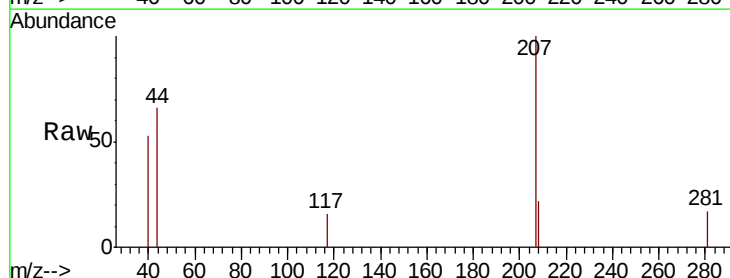
Acq: 9 Aug 2019 19:35

Tgt Ion: 117 Resp: 85

Ion Ratio Lower Upper

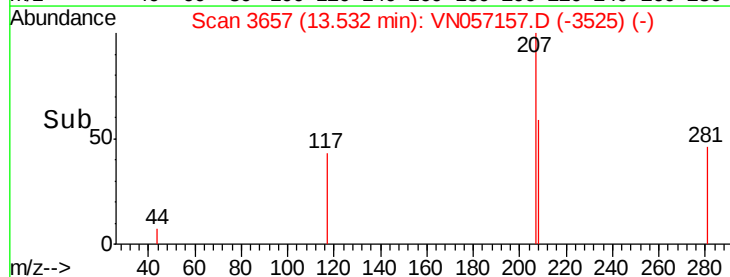
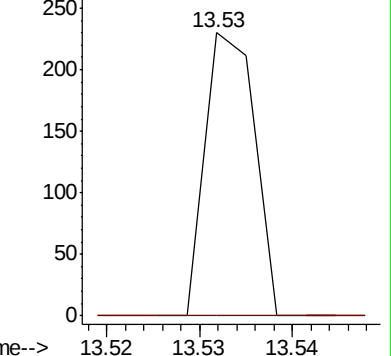
117 100

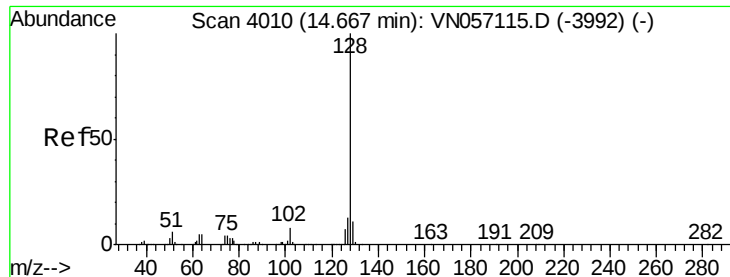
201 0.0 49.3 147.8#



Abundance Ion 116.80 (116.50 to 117.50): VN057115.D (-3603) (-)

Ion 200.70 (200.40 to 201.40): VN057115.D (-3603) (-)





#95

Naphthalene

Concen: 2.841 ug/l

RT: 14.68 min Scan# 4013

Delta R.T. 0.01 min

Lab File: VN057157.D

Acq: 9 Aug 2019 19:35

Instrument :

MSVOA\_N

ClientSampled :

WP-4

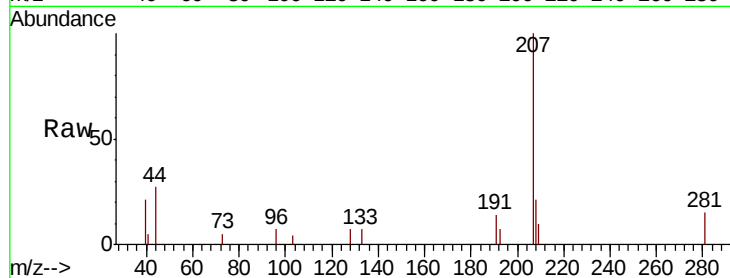
Tgt Ion:128 Resp: 380

Ion Ratio Lower Upper

128 100

127 0.0 10.3 15.5#

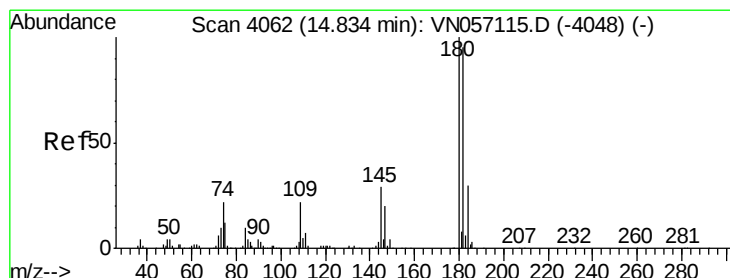
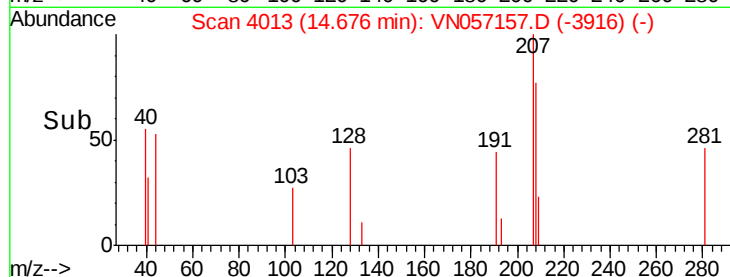
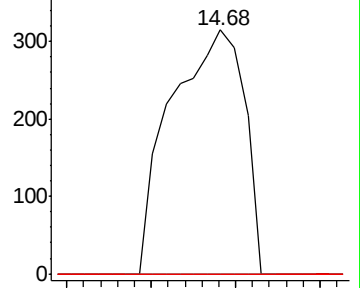
129 0.0 8.8 13.2#



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: 5.731 ug/l

RT: 14.81 min Scan# 4054

Delta R.T. -0.03 min

Lab File: VN057157.D

Acq: 9 Aug 2019 19:35

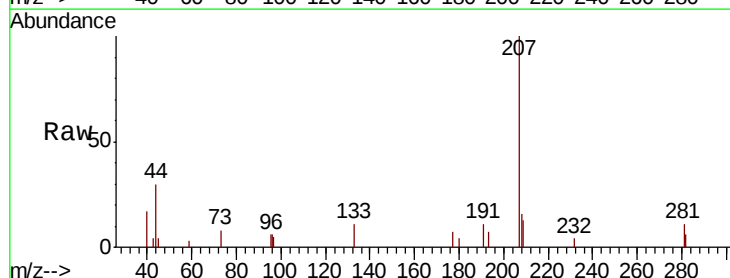
Tgt Ion:180 Resp: 65

Ion Ratio Lower Upper

180 100

182 0.0 48.3 144.8#

145 0.0 14.9 44.5#



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

