

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN100719\  
 Data File : VN058590.D  
 Acq On : 8 Oct 2019 00:09  
 Operator : JC/SP  
 Sample : K5197-09  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 35 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: Oct 08 14:10:16 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N092719W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Sep 30 08:07:38 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.65  | 168  | 473780   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 746145   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 658570   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 279605   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.01  | 65   | 318512   | 46.00 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 92.00%  |          |
| 35) Dibromofluoromethane    | 7.58  | 113  | 227131   | 49.67 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 99.34%  |          |
| 50) Toluene-d8              | 10.08 | 98   | 920003   | 51.36 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 102.72% |          |
| 62) 4-Bromofluorobenzene    | 12.41 | 95   | 314185   | 48.50 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.00%  |          |

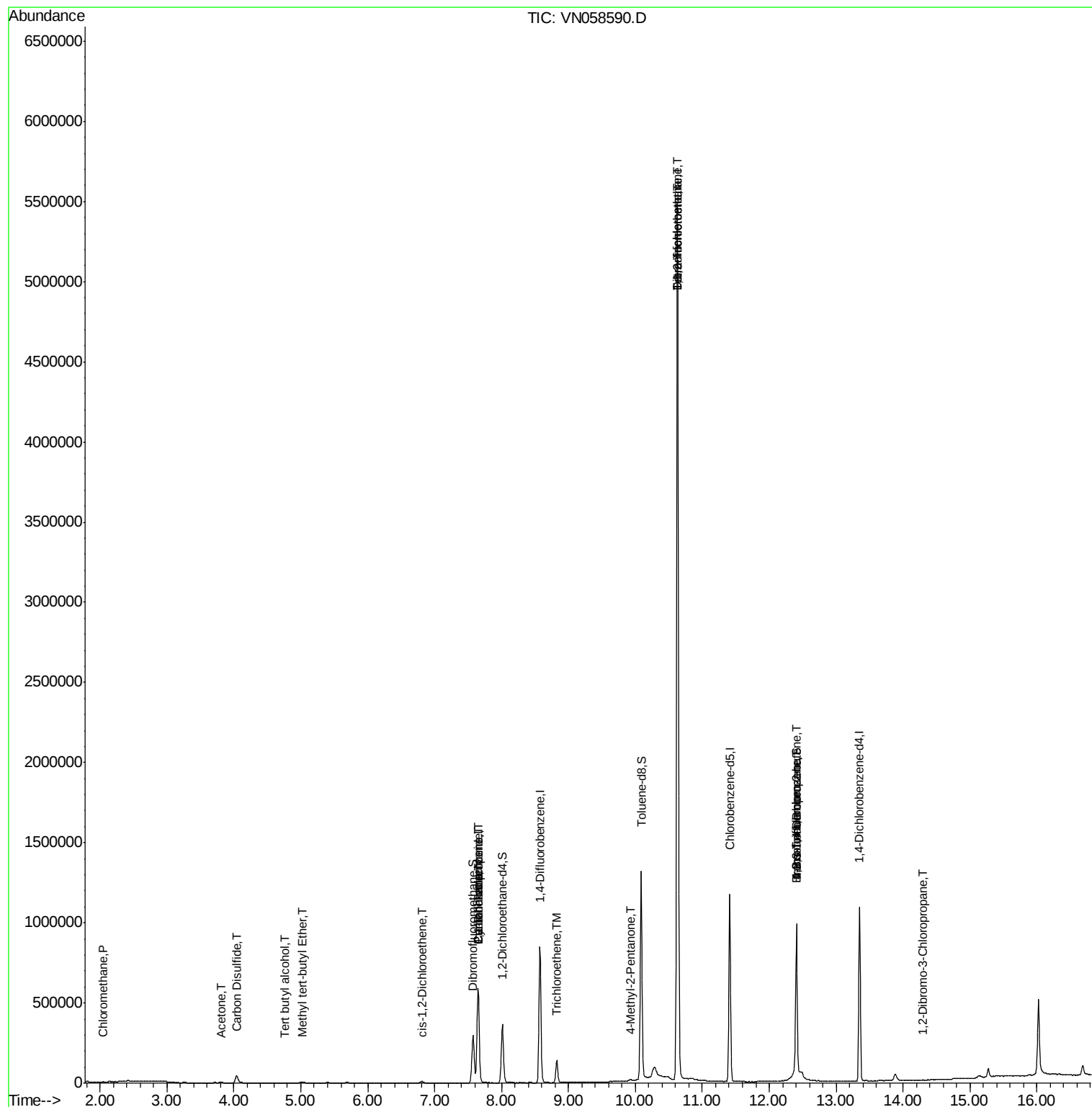
| Target Compounds               | R.T.  | QIon | Response | Conc    | Units  | Qvalue |
|--------------------------------|-------|------|----------|---------|--------|--------|
| 3) Chloromethane               | 2.04  | 50   | 2706     | 0.474   | ug/l   | 97     |
| 11) Tert butyl alcohol         | 4.75  | 59   | 807      | 1.049   | ug/l # | 71     |
| 16) Acetone                    | 3.81  | 43   | 9406     | 3.985   | ug/l   | 96     |
| 17) Carbon Disulfide           | 4.03  | 76   | 5626     | 0.478   | ug/l # | 87     |
| 19) Methyl tert-butyl Ether    | 5.02  | 73   | 11769    | 0.746   | ug/l   | 92     |
| 27) cis-1,2-Dichloroethene     | 6.81  | 96   | 4417     | 0.760   | ug/l   | 87     |
| 31) Cyclohexane                | 7.65  | 56   | 10988    | 1.147   | ug/l # | 7      |
| 36) 1,1-Dichloropropene        | 7.65  | 75   | 37732    | 5.289   | ug/l # | 51     |
| 38) Carbon Tetrachloride       | 7.65  | 117  | 48421    | 7.519   | ug/l # | 16     |
| 44) Trichloroethene            | 8.82  | 130  | 49972    | 9.868   | ug/l   | 99     |
| 51) 4-Methyl-2-Pentanone       | 9.93  | 43   | 4673     | 0.800   | ug/l # | 37     |
| 55) 1,1,2-Trichloroethane      | 10.63 | 97   | 12666    | 2.695   | ug/l # | 8      |
| 60) Dibromochloromethane       | 10.63 | 129  | 1166168  | 241.715 | ug/l # | 11     |
| 64) Tetrachloroethene          | 10.63 | 164  | 1241799  | 296.789 | ug/l   | 99     |
| 71) Bromoform                  | 12.39 | 173  | 222      | 0.767   | ug/l # | 29     |
| 76) 1,2,3-Trichloropropane     | 12.41 | 75   | 165275   | 32.362  | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.41 | 75   | 165275   | 98.289  | ug/l # | 7      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.29 | 75   | 317      | 0.294   | ug/l # | 5      |

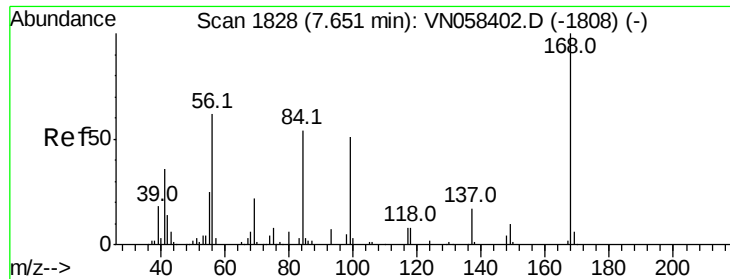
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA N\DATA\VN100719\  
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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_N\METHODS\82N092719W.M  
Quant Title : SW846 8260  
QLast Update : Mon Sep 30 08:07:38 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.65 min Scan# 1828

Delta R.T. 0.00 min

Lab File: VN058590.D

Acq: 8 Oct 2019 00:09

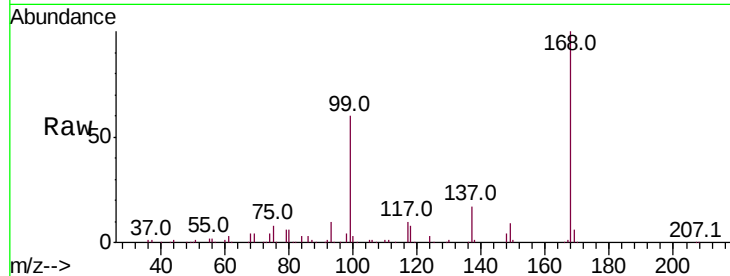
Instrument :  
MSVOA\_N  
ClientSampleId :

Tot Ion:168 Resp: 473780

Ion Ratio Lower Upper

168 100

99 60.2 47.7 71.5



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN

7.65

200000

150000

100000

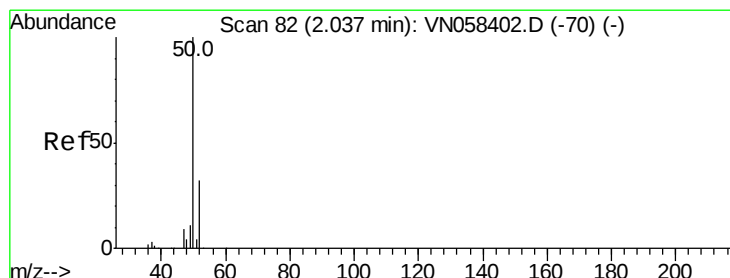
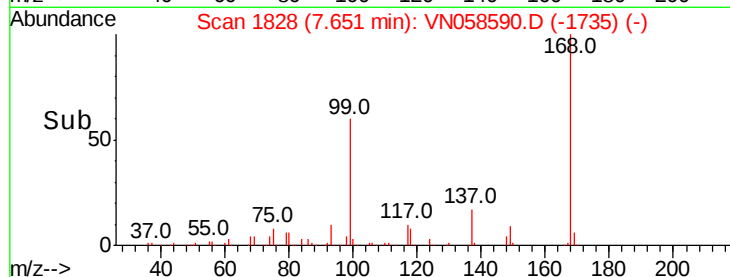
50000

0

7.60

7.70

Time-->



#3

Chloromethane

Concen: 0.474 ug/l

RT: 2.04 min Scan# 84

Delta R.T. 0.01 min

Lab File: VN058590.D

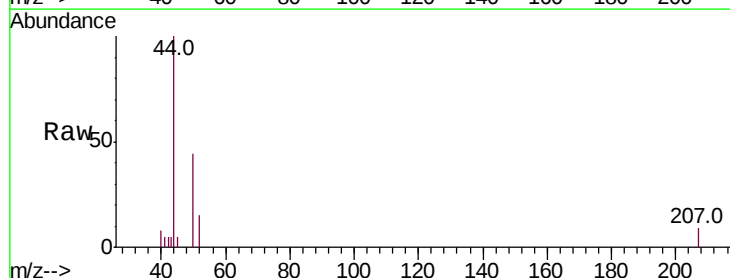
Acq: 8 Oct 2019 00:09

Tgt Ion: 50 Resp: 2706

Ion Ratio Lower Upper

50 100

52 33.9 25.9 38.9



Abundance Ion 49.90 (49.60 to 50.60): VN

Ion 51.90 (51.60 to 52.60): VN

2.04

2000

1500

1000

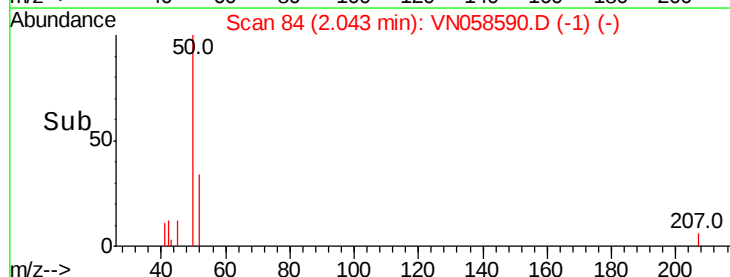
500

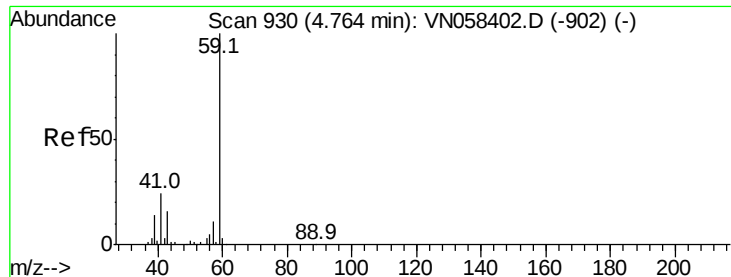
0

2.00

2.05

Time-->





#11

Tert butyl alcohol

Concen: 1.049 ug/l

RT: 4.75 min Scan# 927

Delta R.T. -0.01 min

Lab File: VN058590.D

Acq: 8 Oct 2019 00:09

Instrument :

MSVOA\_N

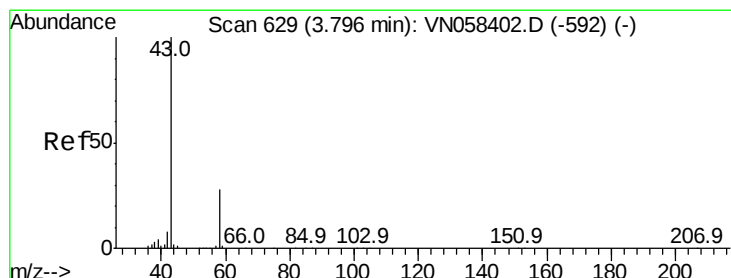
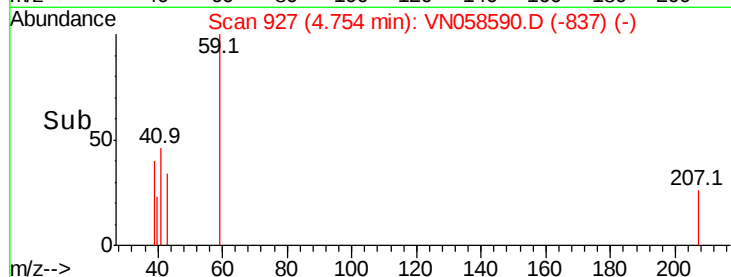
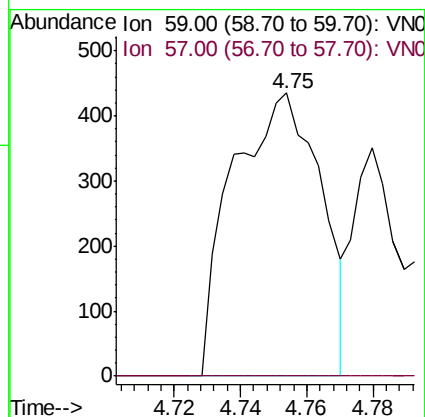
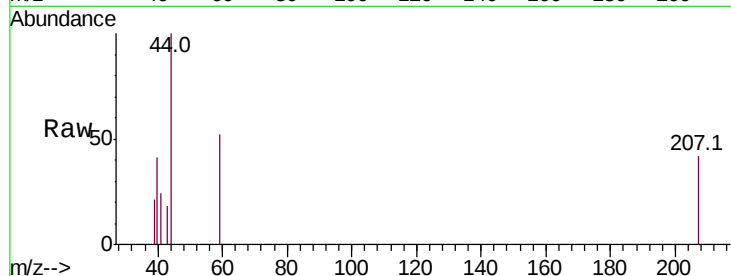
ClientSampleId :

Tot Ion: 59 Resp: 807

Ion Ratio Lower Upper

59 100

57 0.0 9.0 13.4#



#16

Acetone

Concen: 3.985 ug/l

RT: 3.81 min Scan# 632

Delta R.T. 0.01 min

Lab File: VN058590.D

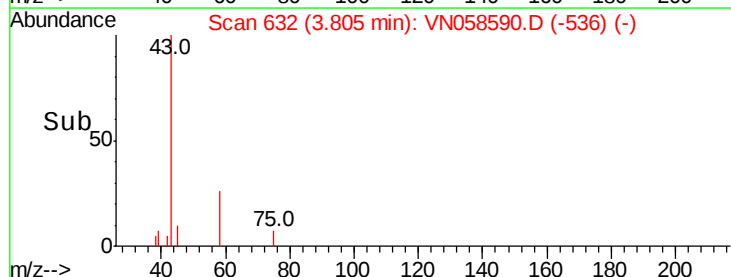
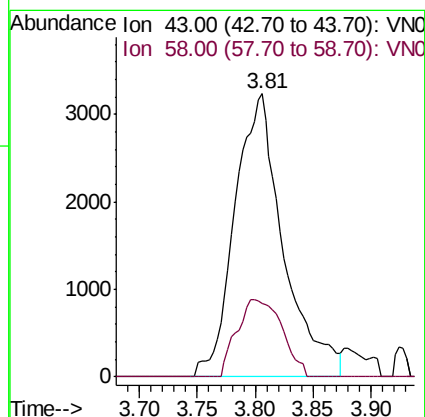
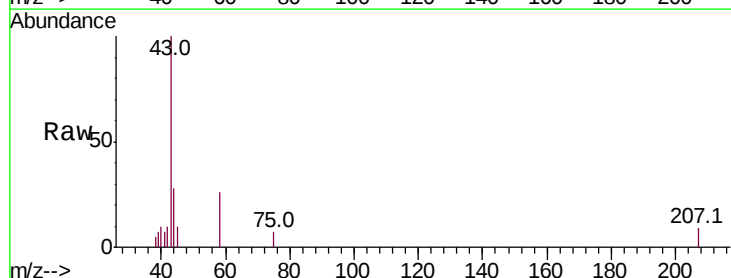
Acq: 8 Oct 2019 00:09

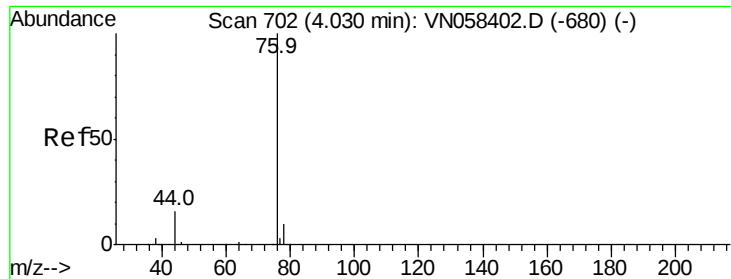
Tgt Ion: 43 Resp: 9406

Ion Ratio Lower Upper

43 100

58 25.8 22.4 33.6





#17

Carbon Disulfide

Concen: 0.478 ug/l

RT: 4.03 min Scan# 701

Delta R.T. -0.00 min

Lab File: VN058590.D

Acq: 8 Oct 2019 00:09

Instrument :

MSVOA\_N

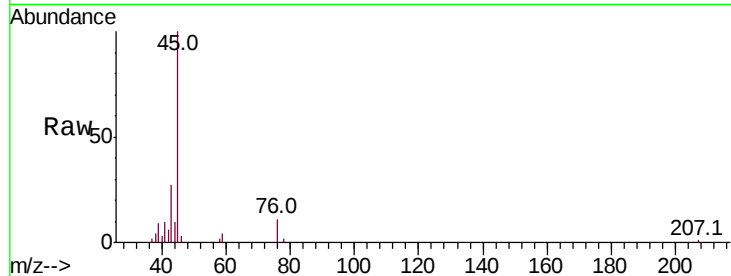
ClientSampleId :

Tot Ion: 76 Resp: 5626

Ion Ratio Lower Upper

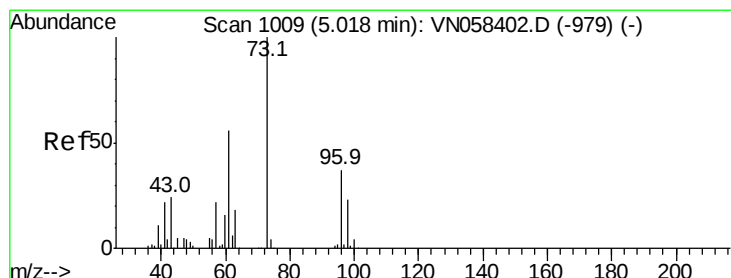
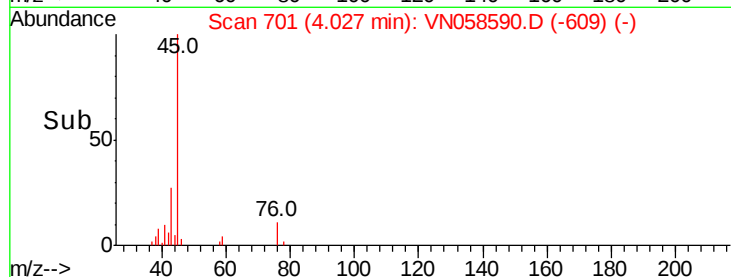
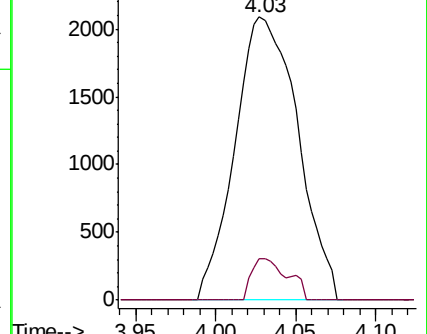
76 100

78 14.5 7.7 11.5#



Abundance Ion 75.90 (75.60 to 76.60): VN0

Ion 77.90 (77.60 to 78.60): VN0



#19

Methyl tert-butyl Ether

Concen: 0.746 ug/l

RT: 5.02 min Scan# 1010

Delta R.T. 0.00 min

Lab File: VN058590.D

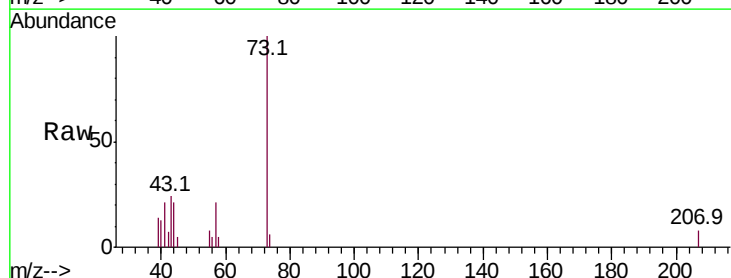
Acq: 8 Oct 2019 00:09

Tgt Ion: 73 Resp: 11769

Ion Ratio Lower Upper

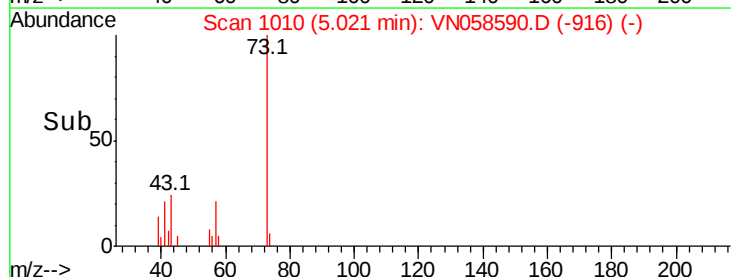
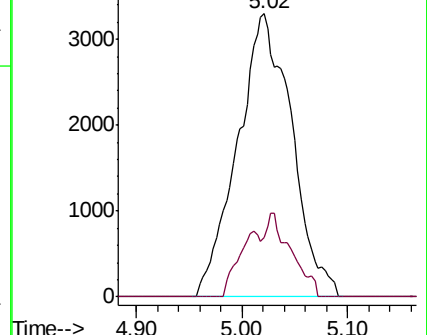
73 100

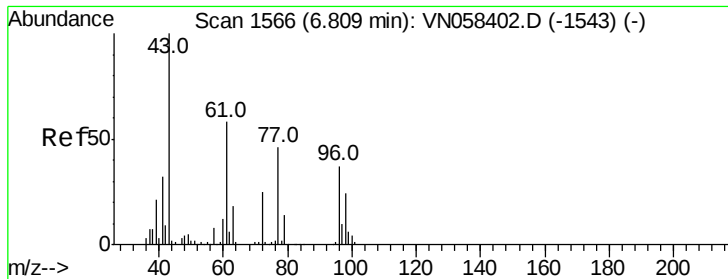
57 25.6 17.6 26.4



Abundance Ion 73.00 (72.70 to 73.70): VN0

Ion 57.00 (56.70 to 57.70): VN0





#27

cis-1,2-Dichloroethene

Concen: 0.760 ug/l

RT: 6.81 min Scan# 1568

Delta R.T. 0.01 min

Lab File: VN058590.D

Acq: 8 Oct 2019 00:09

Instrument :

MSVOA\_N

ClientSampled :

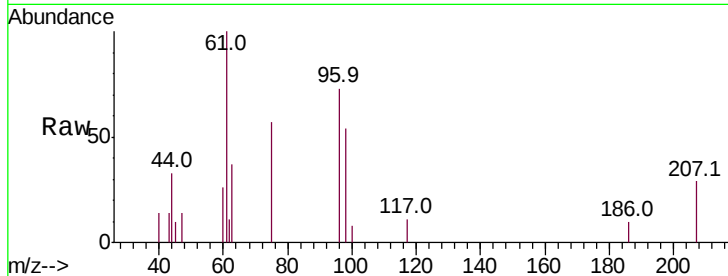
Tot Ion: 96 Resp: 4417

Ion Ratio Lower Upper

96 100

61 136.4 0.0 318.8

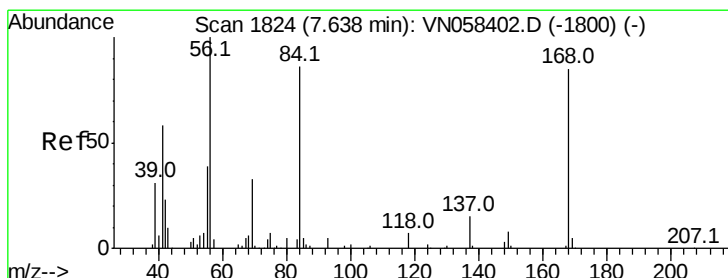
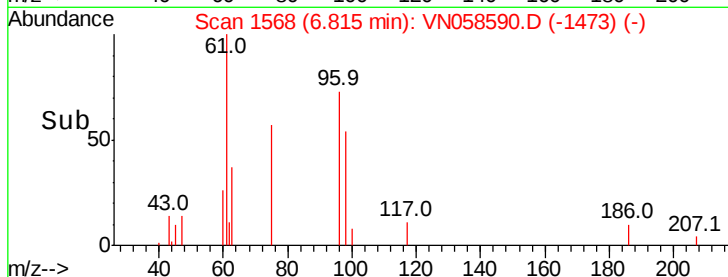
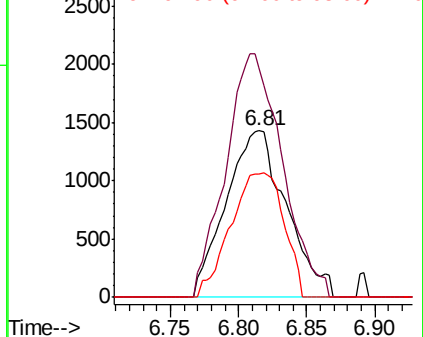
98 65.4 0.0 129.8



Abundance Ion 95.90 (95.60 to 96.60): VN0

Ion 60.90 (60.60 to 61.60): VN0

Ion 97.90 (97.60 to 98.60): VN0



#31

Cyclohexane

Concen: 1.147 ug/l

RT: 7.65 min Scan# 1828

Delta R.T. 0.01 min

Lab File: VN058590.D

Acq: 8 Oct 2019 00:09

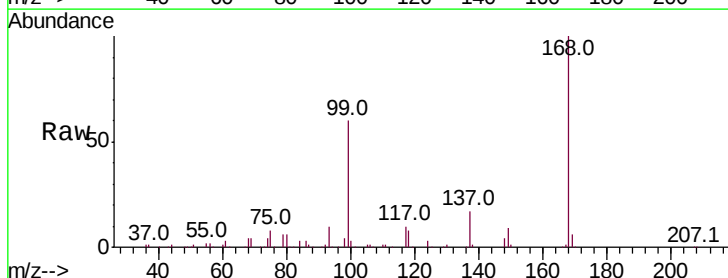
Tgt Ion: 56 Resp: 10988

Ion Ratio Lower Upper

56 100

69 179.0 26.2 39.4#

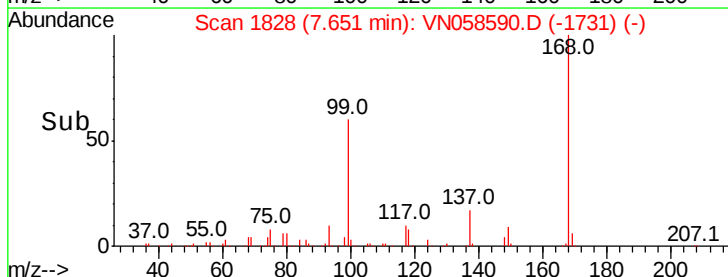
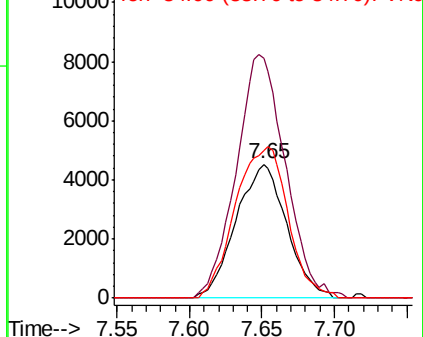
84 110.2 67.6 101.4#

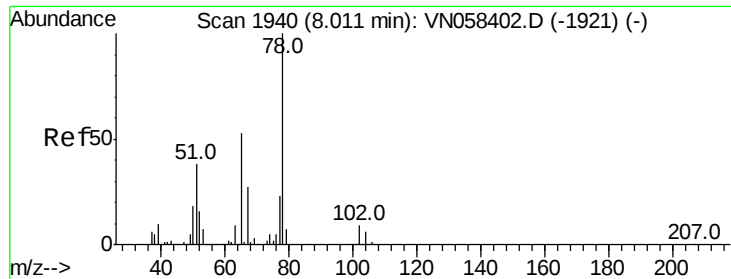


Abundance Ion 56.00 (55.70 to 56.70): VN0

Ion 69.00 (68.70 to 69.70): VN0

Ion 84.00 (83.70 to 84.70): VN0





#33

1,2-Dichloroethane-d4

Concen: 46.004 ug/l

RT: 8.01 min Scan# 1940

Delta R.T. 0.00 min

Lab File: VN058590.D

Acq: 8 Oct 2019 00:09

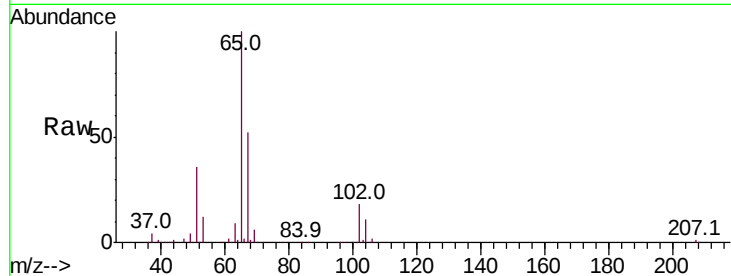
Instrument :  
MSVOA\_N  
ClientSampleId :

Tot Ion: 65 Resp: 318512

Ion Ratio Lower Upper

65 100

67 51.3 0.0 102.4



Abundance Ion 64.90 (64.60 to 65.60): VN058402.D (-1921) (-)

Ion 66.90 (66.60 to 67.60): VN058402.D (-1921) (-)

8.01

150000

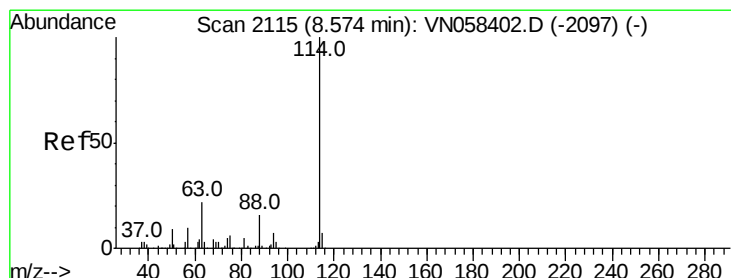
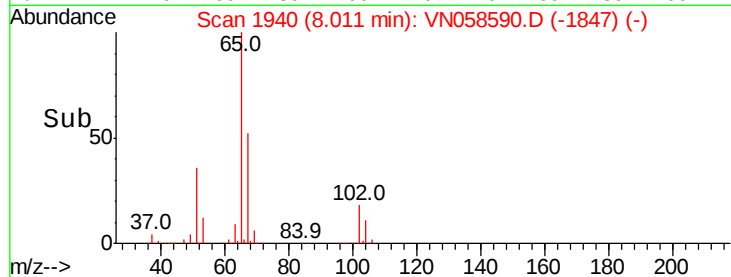
100000

50000

0

7.90 8.00 8.10

Time-->



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.57 min Scan# 2115

Delta R.T. 0.00 min

Lab File: VN058590.D

Acq: 8 Oct 2019 00:09

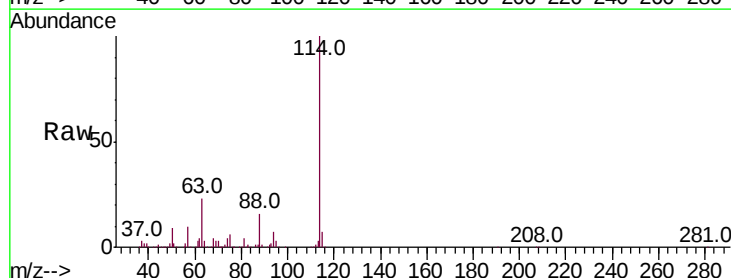
Tgt Ion: 114 Resp: 746145

Ion Ratio Lower Upper

114 100

63 22.8 0.0 45.0

88 16.2 0.0 32.2



Abundance Ion 113.90 (113.60 to 114.60): VN058402.D (-2097) (-)

Ion 63.00 (62.70 to 63.70): VN058402.D (-2097) (-)

Ion 87.90 (87.60 to 88.60): VN058402.D (-2097) (-)

8.57

400000

300000

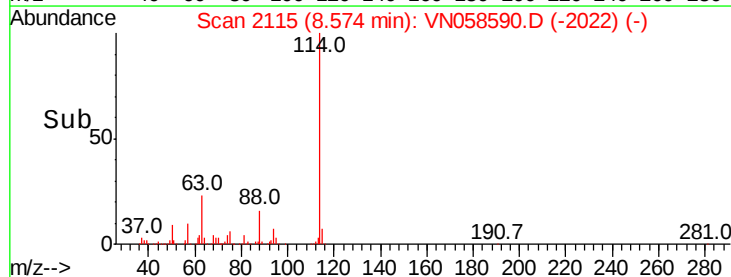
200000

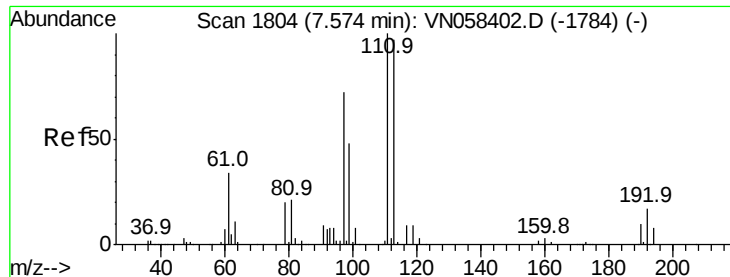
100000

0

8.50 8.60 8.70

Time-->

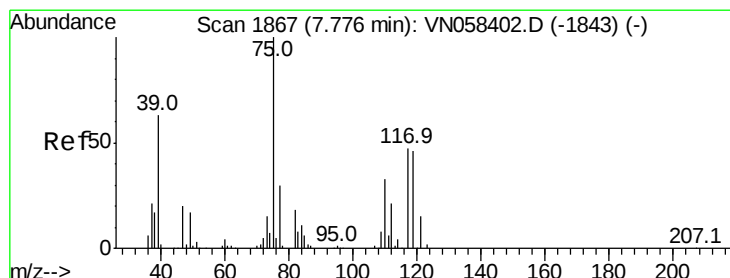
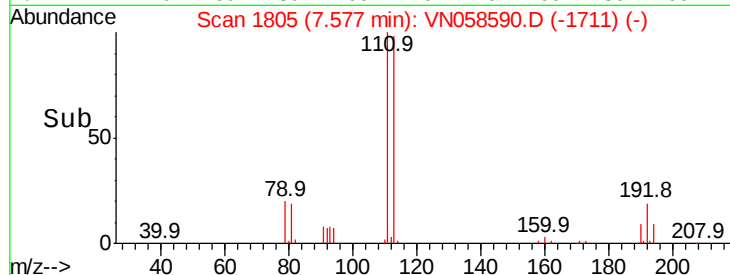
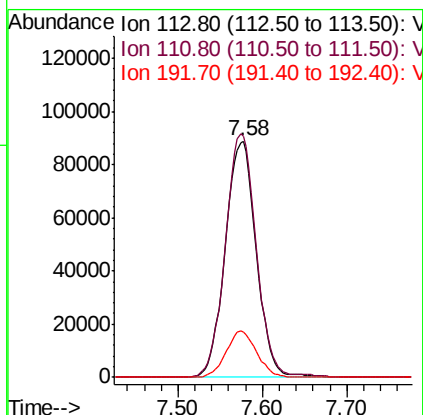
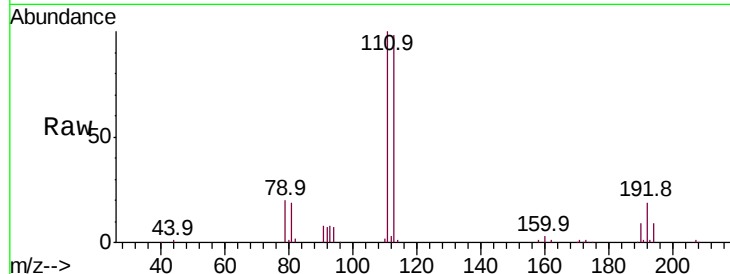




#35  
 Dibromofluoromethane  
 Concen: 49.667 ug/l  
 RT: 7.58 min Scan# 1805  
 Delta R.T. 0.00 min  
 Lab File: VN058590.D  
 Acq: 8 Oct 2019 00:09

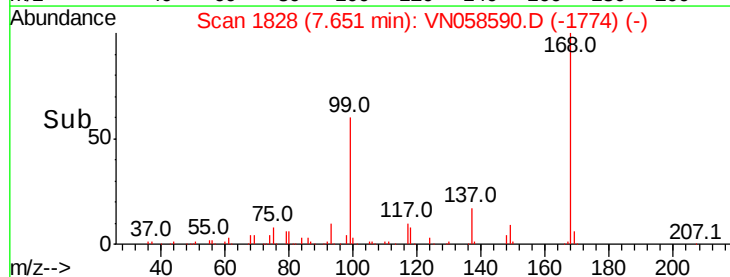
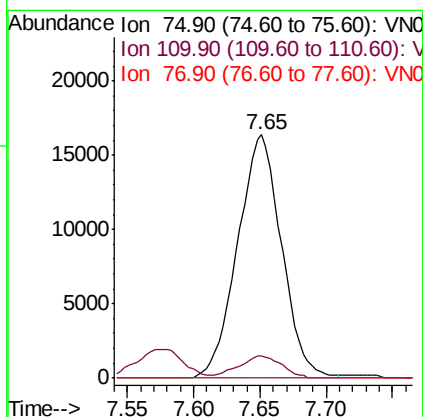
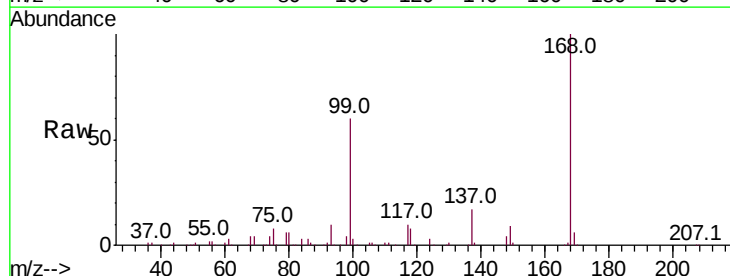
Instrument :  
 MSVOA\_N  
 ClientSampleId :

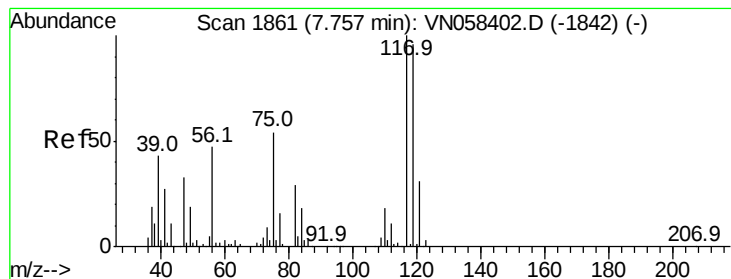
Tot Ion:113 Resp: 227131  
 Ion Ratio Lower Upper  
 113 100  
 111 102.0 83.4 125.2  
 192 19.3 14.9 22.3



#36  
 1,1-Dichloropropene  
 Concen: 5.289 ug/l  
 RT: 7.65 min Scan# 1828  
 Delta R.T. -0.13 min  
 Lab File: VN058590.D  
 Acq: 8 Oct 2019 00:09

Tgt Ion: 75 Resp: 37732  
 Ion Ratio Lower Upper  
 75 100  
 110 8.9 16.4 49.2#  
 77 0.0 24.3 36.5#





#38

Carbon Tetrachloride

Concen: 7.519 ug/l

RT: 7.65 min Scan# 1827

Delta R.T. -0.11 min

Lab File: VN058590.D

Acq: 8 Oct 2019 00:09

Instrument :

MSVOA\_N

ClientSampleId :

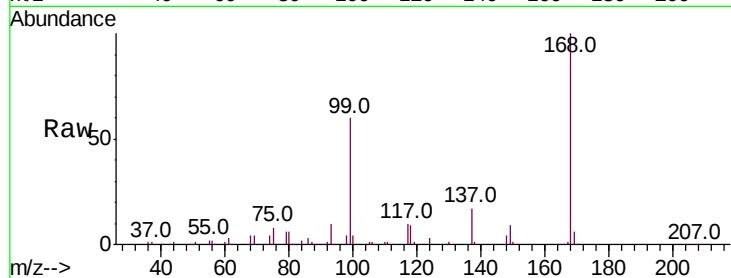
Tot Ion:117 Resp: 48421

Ion Ratio Lower Upper

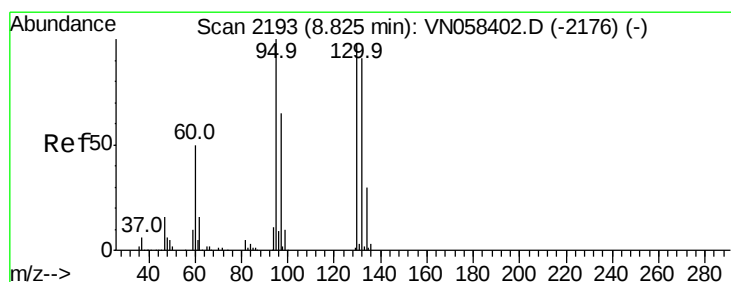
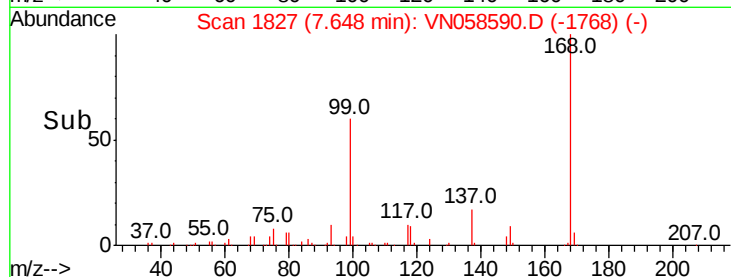
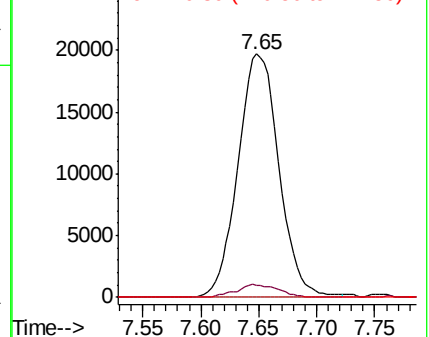
117 100

119 5.1 76.6 115.0#

121 0.0 24.7 37.1#



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



#44

Trichloroethene

Concen: 9.868 ug/l

RT: 8.82 min Scan# 2193

Delta R.T. 0.00 min

Lab File: VN058590.D

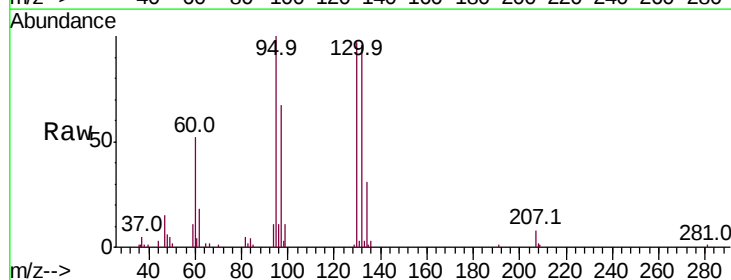
Acq: 8 Oct 2019 00:09

Tgt Ion:130 Resp: 49972

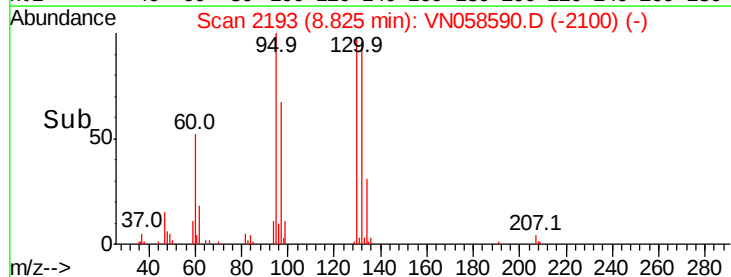
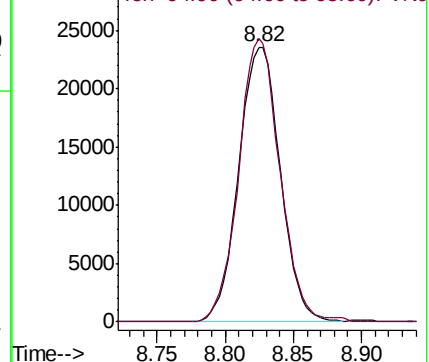
Ion Ratio Lower Upper

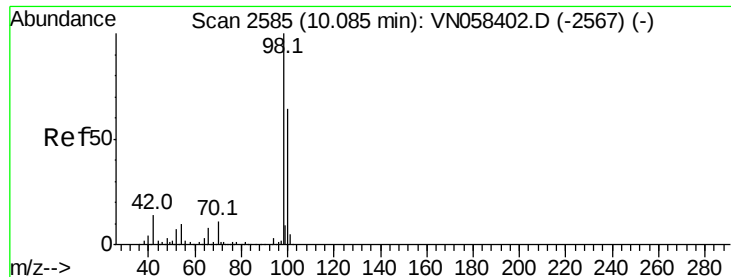
130 100

95 102.9 0.0 204.2



Abundance Ion 129.80 (129.50 to 130.50): V  
Ion 94.90 (94.60 to 95.60): V





#50

Toluene-d8

Concen: 51.355 ug/l

RT: 10.08 min Scan# 2585

Delta R.T. 0.00 min

Lab File: VN058590.D

Acq: 8 Oct 2019 00:09

Instrument :

MSVOA\_N

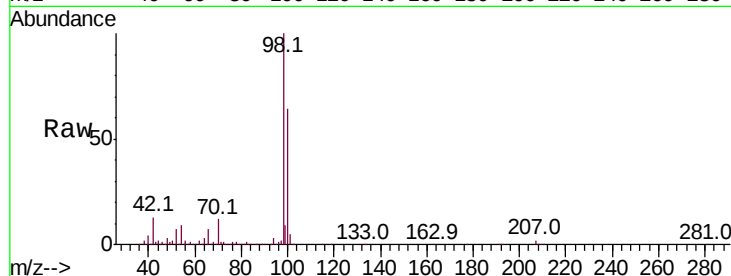
ClientSampled :

Tot Ion: 98 Resp: 920003

Ion Ratio Lower Upper

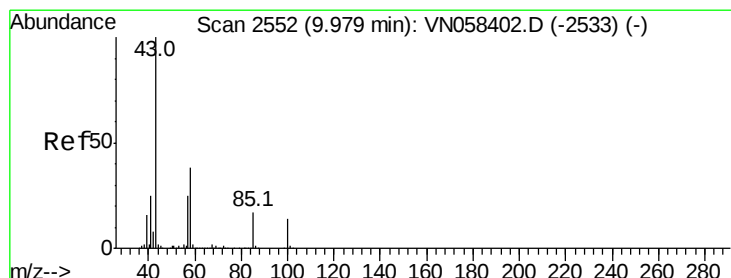
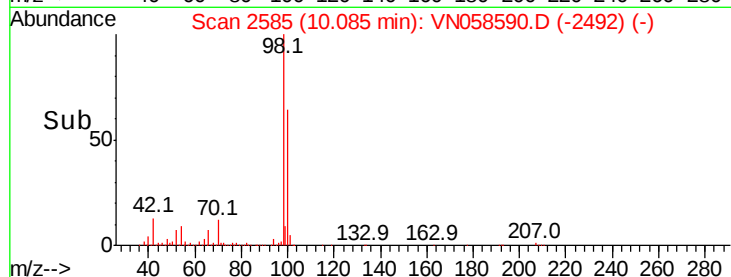
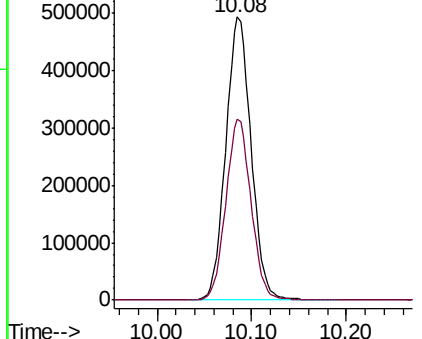
98 100

100 63.6 51.0 76.6



Abundance Ion 98.00 (97.70 to 98.70): VN0

Ion 100.00 (99.70 to 100.70): VN



#51

4-Methyl-2-Pentanone

Concen: 0.800 ug/l

RT: 9.93 min Scan# 2536

Delta R.T. -0.05 min

Lab File: VN058590.D

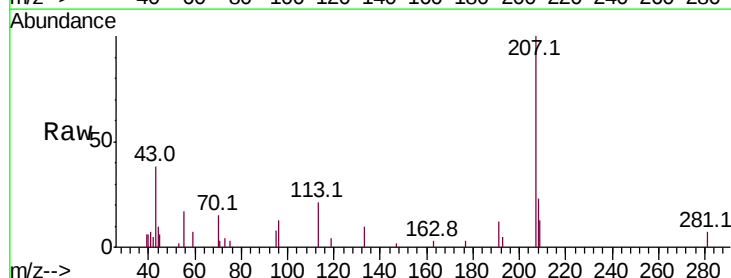
Acq: 8 Oct 2019 00:09

Tgt Ion: 43 Resp: 4673

Ion Ratio Lower Upper

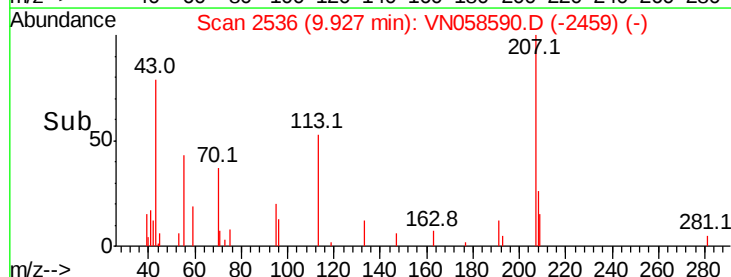
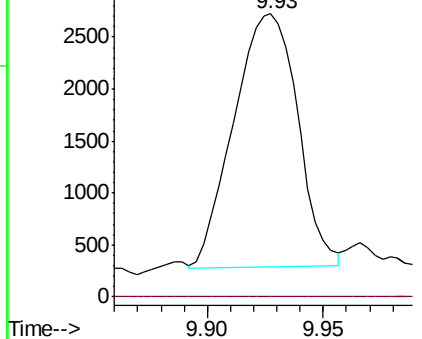
43 100

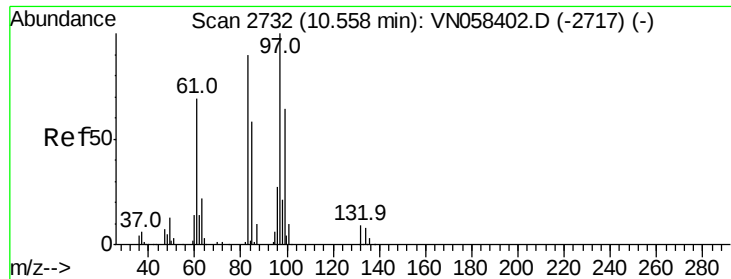
58 0.0 30.2 45.2#



Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0





#55

1,1,2-Trichloroethane

Concen: 2.695 ug/l

RT: 10.63 min Scan# 2754

Delta R.T. 0.07 min

Lab File: VN058590.D

Acq: 8 Oct 2019 00:09

Instrument :

MSVOA\_N

ClientSampleId :

Tot Ion: 97 Resp: 12666

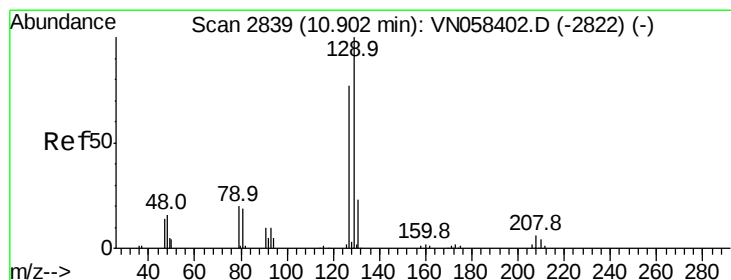
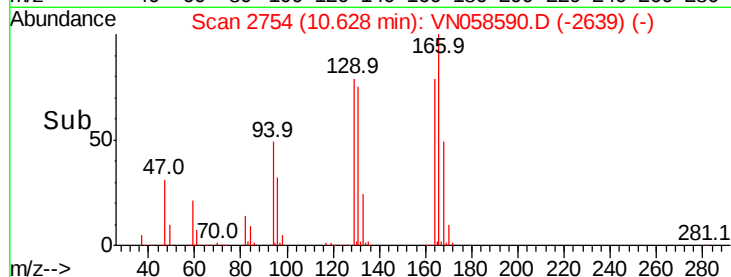
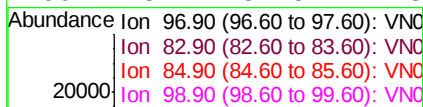
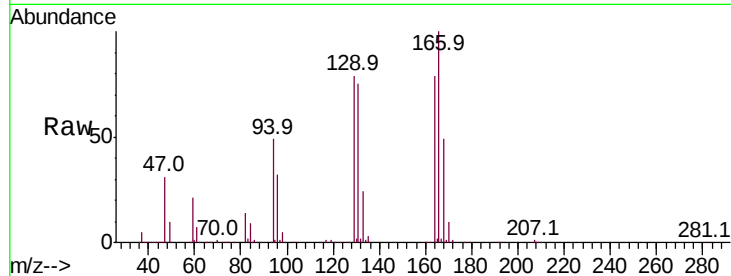
Ion Ratio Lower Upper

97 100

83 230.4 71.8 107.6#

85 32.6 46.6 69.8#

99 13.2 51.5 77.3#



#60

Dibromochloromethane

Concen: 241.715 ug/l

RT: 10.63 min Scan# 2754

Delta R.T. -0.27 min

Lab File: VN058590.D

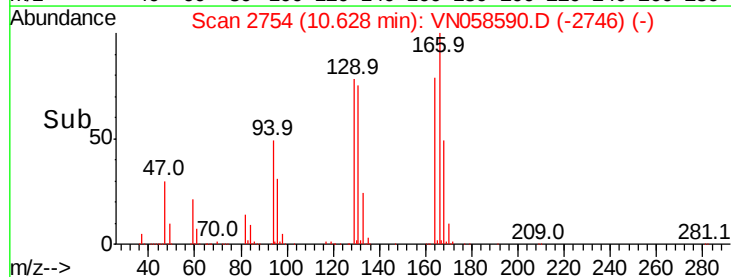
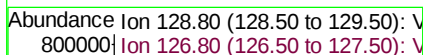
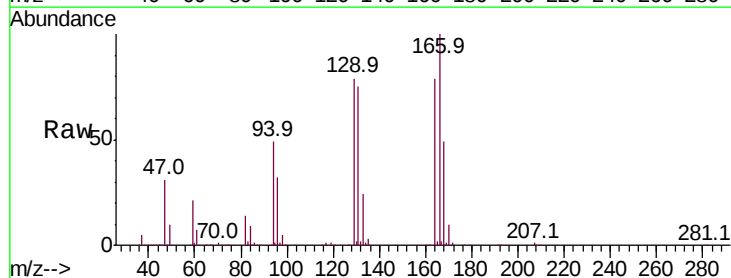
Acq: 8 Oct 2019 00:09

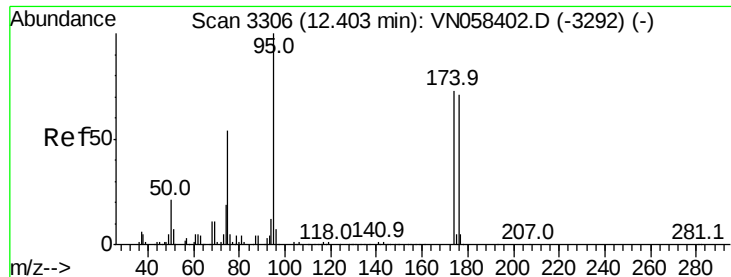
Tgt Ion: 129 Resp: 1166168

Ion Ratio Lower Upper

129 100

127 0.0 38.3 114.8#





#62

4-Bromofluorobenzene

Concen: 48.504 ug/l

RT: 12.41 min Scan# 3307

Delta R.T. 0.00 min

Lab File: VN058590.D

Acq: 8 Oct 2019 00:09

Instrument :

MSVOA\_N

ClientSampled :

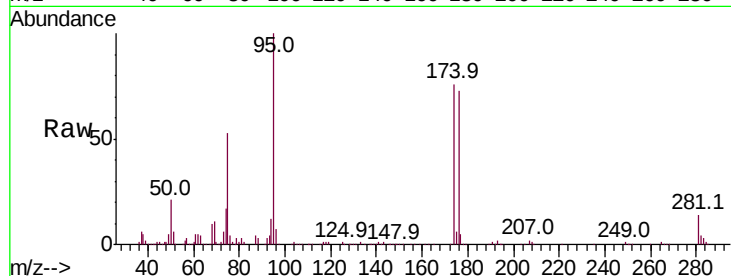
Tot Ion: 95 Resp: 314185

Ion Ratio Lower Upper

95 100

174 76.8 0.0 150.6

176 73.7 0.0 146.2



Abundance Ion 94.90 (94.60 to 95.60): VN058402.D (-3292) (-)

Ion 173.80 (173.50 to 174.50): VN058402.D (-3292) (-)

Ion 175.80 (175.50 to 176.50): VN058402.D (-3292) (-)

12.41

250000

200000

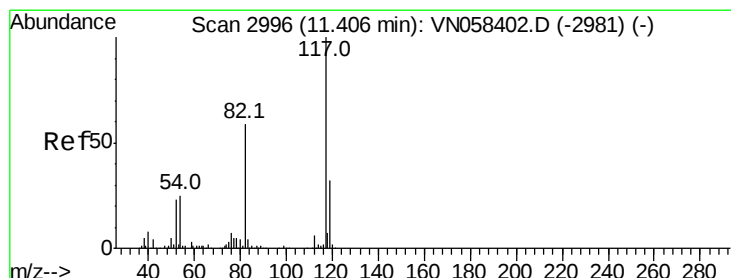
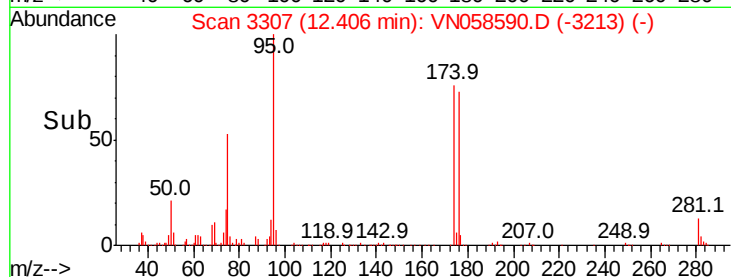
150000

100000

50000

0

Time-->



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.41 min Scan# 2997

Delta R.T. 0.00 min

Lab File: VN058590.D

Acq: 8 Oct 2019 00:09

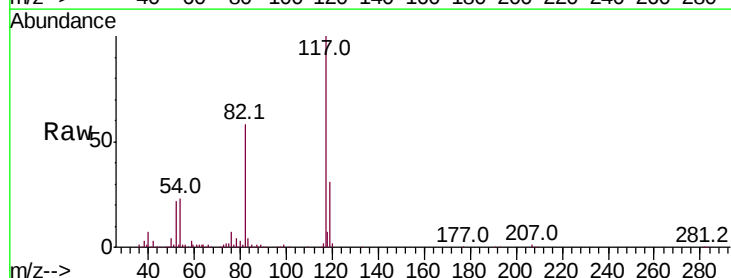
Tgt Ion: 117 Resp: 658570

Ion Ratio Lower Upper

117 100

82 58.0 47.4 71.0

119 31.4 25.5 38.3



Abundance Ion 116.90 (116.60 to 117.60): VN058402.D (-2981) (-)

Ion 82.00 (81.70 to 82.70): VN058402.D (-2981) (-)

Ion 118.90 (118.60 to 119.60): VN058402.D (-2981) (-)

11.41

500000

400000

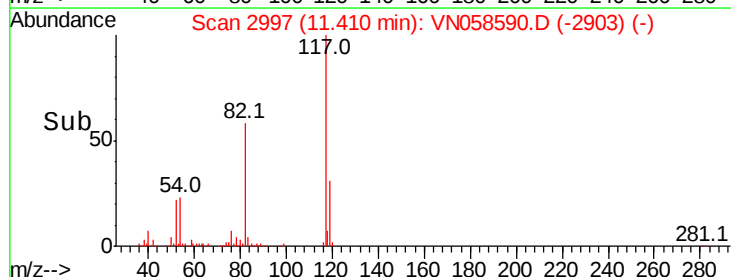
300000

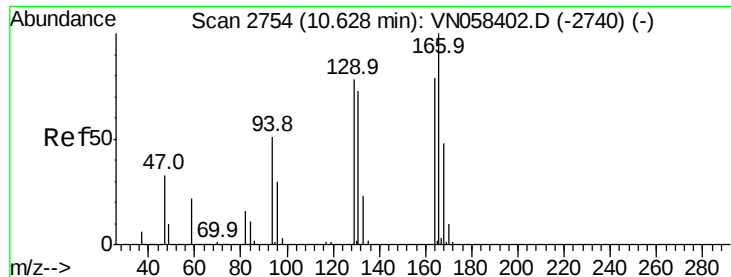
200000

100000

0

Time-->





#64

Tetrachloroethene

Concen: 296.789 ug/l

RT: 10.63 min Scan# 2754

Delta R.T. 0.00 min

Lab File: VN058590.D

Acq: 8 Oct 2019 00:09

Instrument :

MSVOA\_N

ClientSampleId :

Tot Ion:164 Resp: 1241799

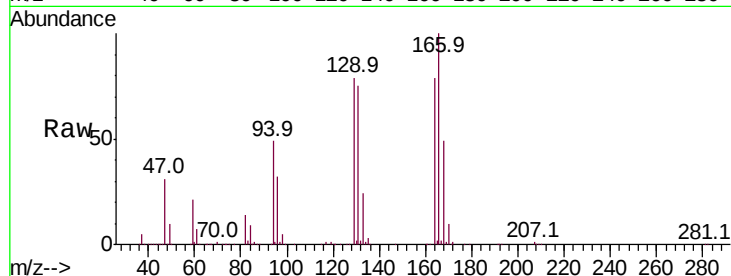
Ion Ratio Lower Upper

164 100

166 126.3 101.1 151.7

129 99.2 79.2 118.8

131 95.4 74.1 111.1



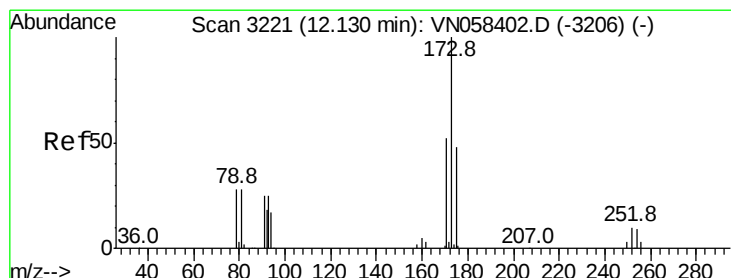
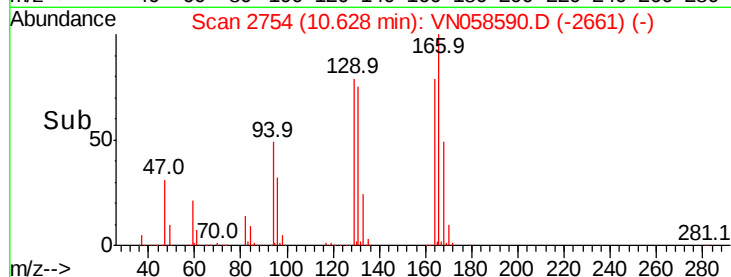
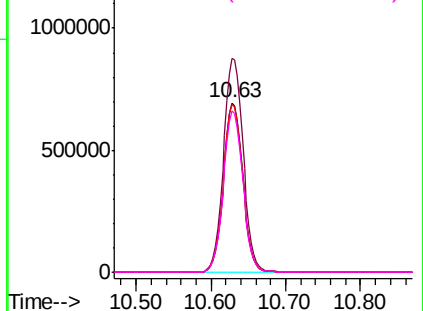
Abundance

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: 0.767 ug/l

RT: 12.39 min Scan# 3303

Delta R.T. 0.26 min

Lab File: VN058590.D

Acq: 8 Oct 2019 00:09

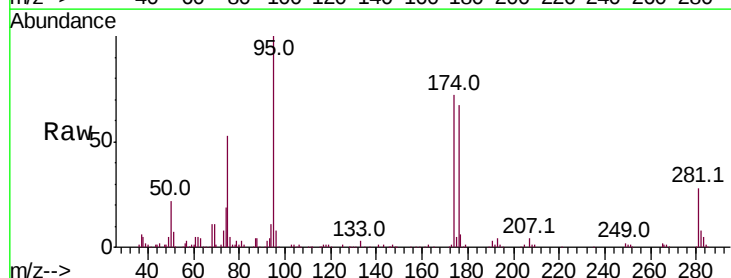
Tgt Ion:173 Resp: 222

Ion Ratio Lower Upper

173 100

175 0.0 24.3 73.0#

254 0.0 0.1 0.1#

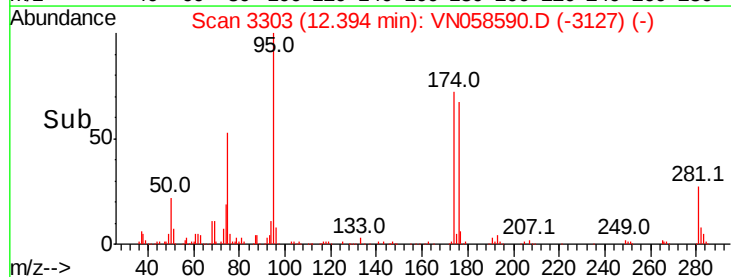
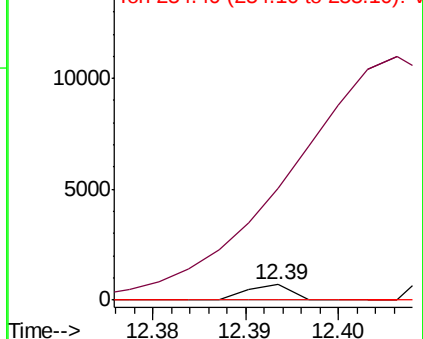


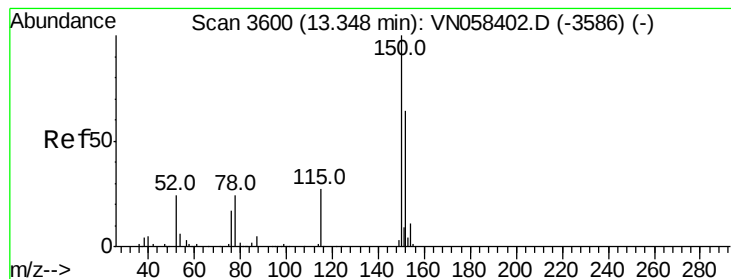
Abundance

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: 13.35 min Scan# 3600

Delta R.T. 0.00 min

Lab File: VN058590.D

Acq: 8 Oct 2019 00:09

Instrument :

MSVOA\_N

ClientSampleId :

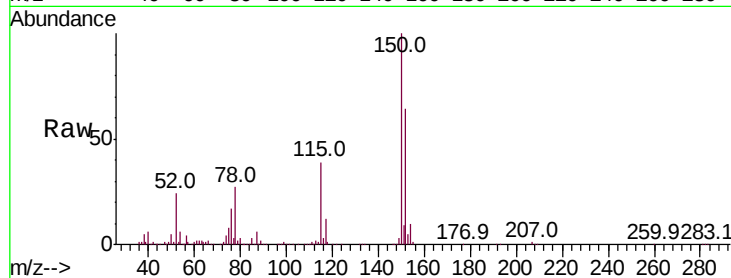
Tot Ion:152 Resp: 279605

Ion Ratio Lower Upper

152 100

115 60.7 30.0 90.0

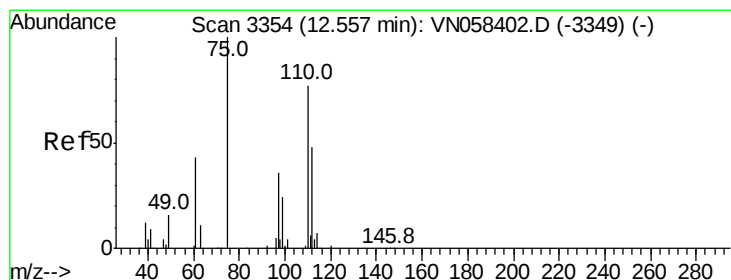
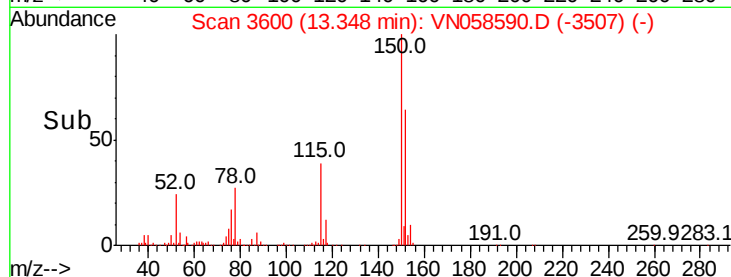
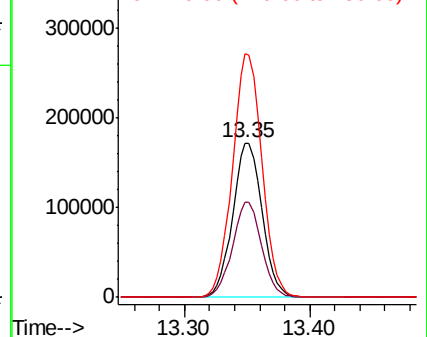
150 157.8 0.0 348.2



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: 32.362 ug/l

RT: 12.41 min Scan# 3307

Delta R.T. -0.15 min

Lab File: VN058590.D

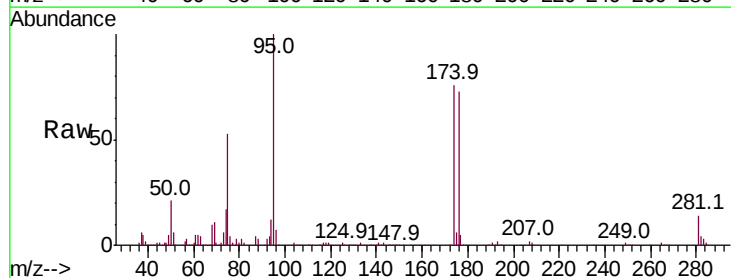
Acq: 8 Oct 2019 00:09

Tgt Ion: 75 Resp: 165275

Ion Ratio Lower Upper

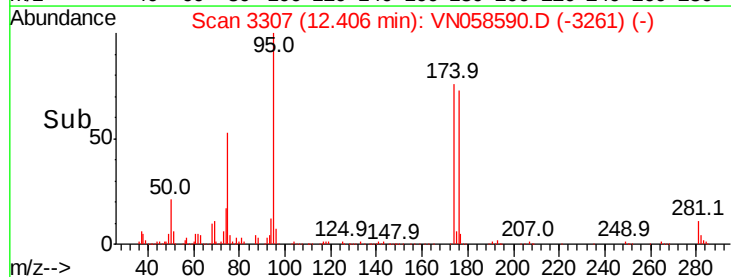
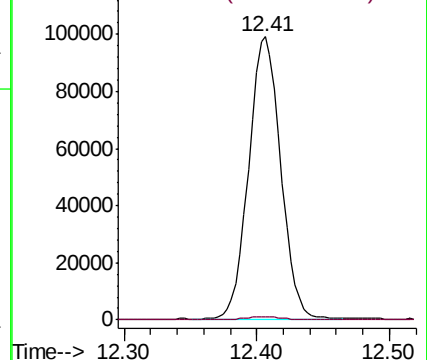
75 100

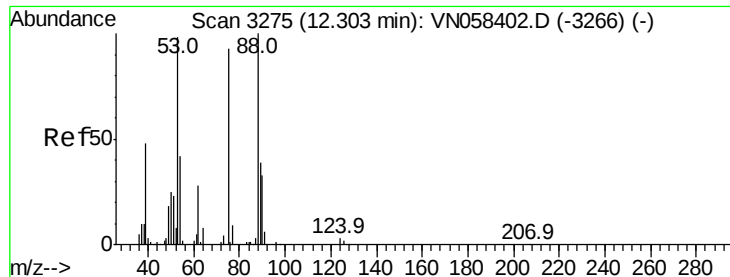
77 1.4 0.0 0.0#



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: 98.289 ug/l

RT: 12.41 min Scan# 3307

Delta R.T. 0.10 min

Lab File: VN058590.D

Acq: 8 Oct 2019 00:09

Instrument :

MSVOA\_N

ClientSampled :

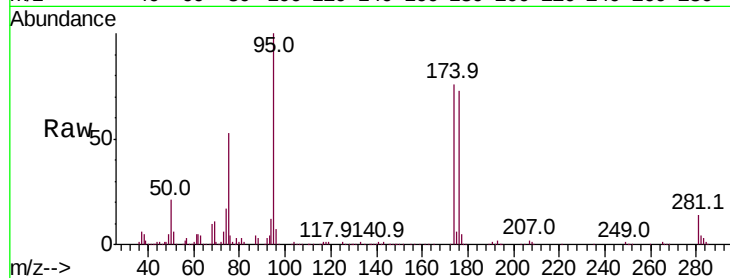
Tot Ion: 75 Resp: 165275

Ion Ratio Lower Upper

75 100

53 0.0 85.4 128.0#

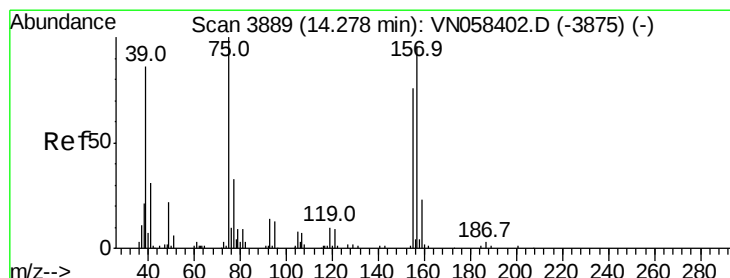
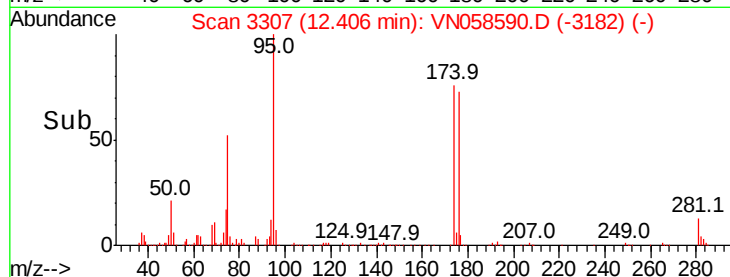
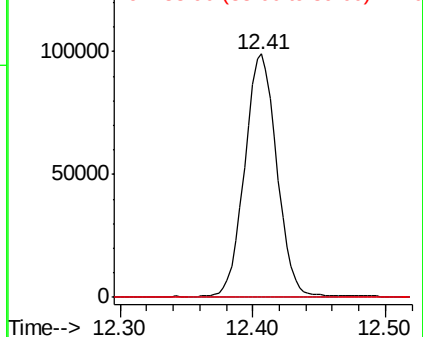
89 0.2 35.0 52.4#



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 53.00 (52.70 to 53.70): VN0

Ion 88.90 (88.60 to 89.60): VN0



#92

1,2-Dibromo-3-Chloropropane

Concen: 0.294 ug/l

RT: 14.29 min Scan# 3893

Delta R.T. 0.01 min

Lab File: VN058590.D

Acq: 8 Oct 2019 00:09

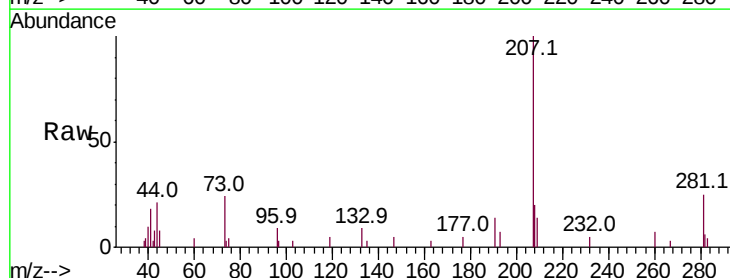
Tgt Ion: 75 Resp: 317

Ion Ratio Lower Upper

75 100

155 0.0 39.2 117.6#

157 0.0 48.7 146.1#



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 154.80 (154.50 to 155.50): V

Ion 156.80 (156.50 to 157.50): V

