

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN071719\  
 Data File : VN056792.D  
 Acq On : 17 Jul 2019 13:24  
 Operator : JC/SP  
 Sample : K3847-08  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: Jul 18 01:05:27 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N071519W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jul 16 07:03:34 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 250593   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 450852   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 465835   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 160022   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.03  | 65   | 149544   | 53.95 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 107.90% |          |
| 35) Dibromofluoromethane    | 7.59  | 113  | 132304   | 47.15 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 94.30%  |          |
| 50) Toluene-d8              | 10.09 | 98   | 566072   | 52.24 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 104.48% |          |
| 62) 4-Bromofluorobenzene    | 12.40 | 95   | 200016   | 54.73 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 109.46% |          |

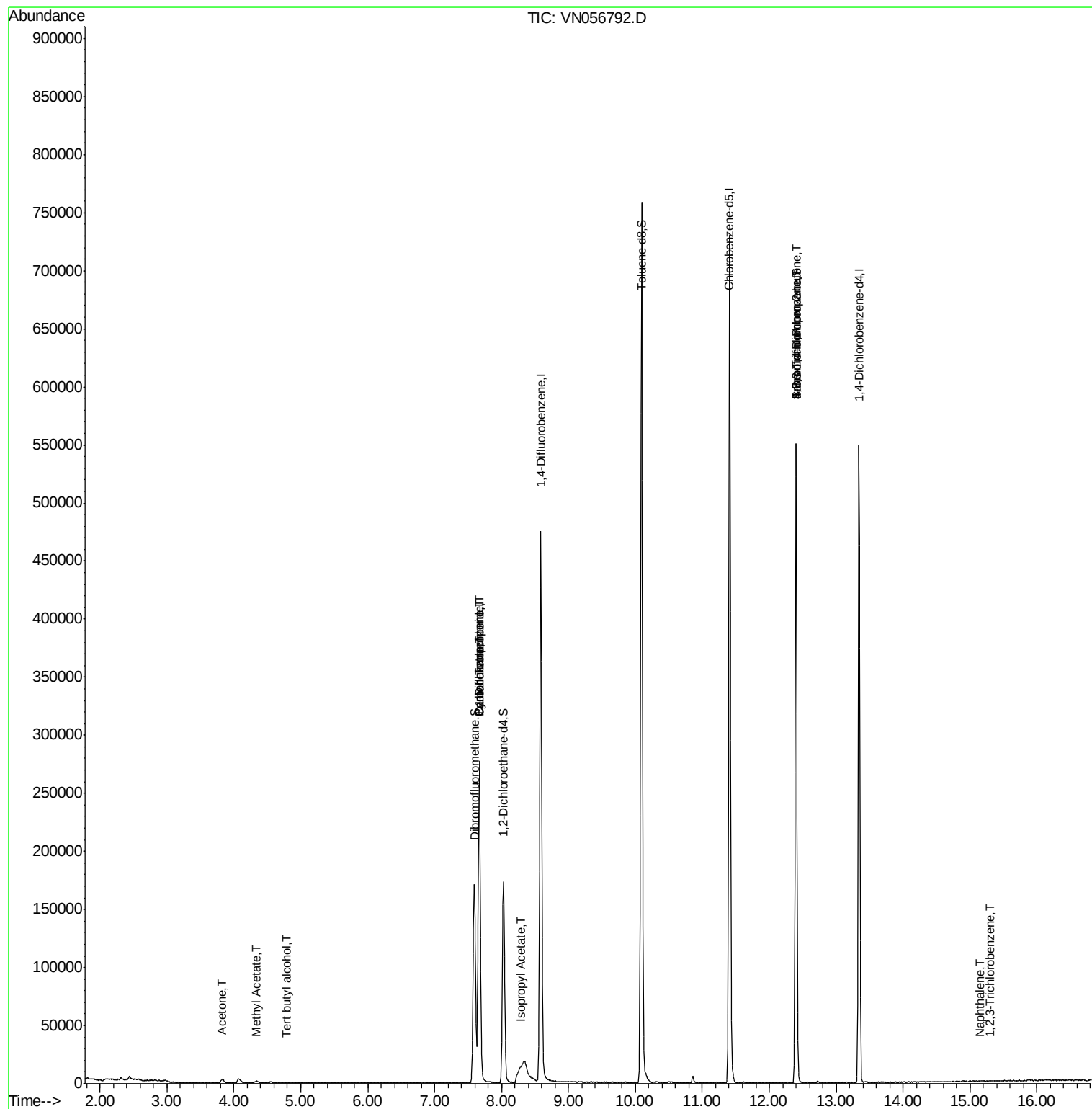
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 11) Tert butyl alcohol         | 4.79  | 59   | 468      | 1.014     | ug/l # | 73     |
| 16) Acetone                    | 3.83  | 43   | 6679     | 5.229     | ug/l   | 99     |
| 18) Methyl Acetate             | 4.34  | 43   | 3693     | 0.320     | ug/l # | 85     |
| 31) Cyclohexane                | 7.66  | 56   | 3685     | 0.832     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 7.67  | 75   | 15862    | 3.802     | ug/l # | 49     |
| 38) Carbon Tetrachloride       | 7.67  | 117  | 21645    | 5.532     | ug/l # | 15     |
| 43) Isopropyl Acetate          | 8.28  | 43   | 16364    | 2.531     | ug/l # | 53     |
| 71) Bromoform                  | 12.40 | 173  | 1404     | 0.526     | ug/l # | 1      |
| 76) 1,2,3-Trichloropropane     | 12.40 | 75   | 93174    | 26.622    | ug/l # | 100    |
| 79) 2-Chlorotoluene            | 12.40 | 91   | 551      | Below Cal | #      | 39     |
| 81) trans-1,4-Dichloro-2-buten | 12.40 | 75   | 93174    | 82.217    | ug/l # | 13     |
| 95) Naphthalene                | 15.14 | 128  | 316      | 4.559     | ug/l # | 69     |
| 96) 1,2,3-Trichlorobenzene     | 15.31 | 180  | 143      | 3.366     | ug/l # | 30     |

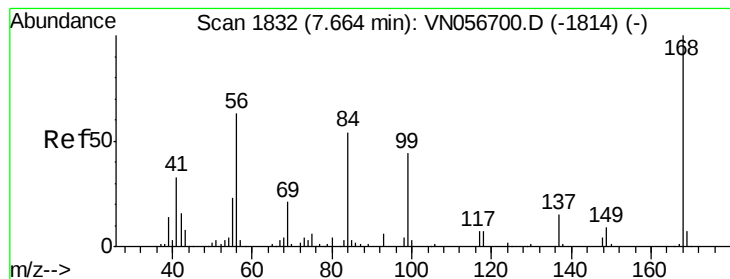
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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MSVOA\_N  
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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_N\METHODS\82N071519W.M  
Quant Title : SW846 8260  
QLast Update : Tue Jul 16 07:03:34 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.67 min Scan# 1833

Delta R.T. 0.00 min

Lab File: VN056792.D

Acq: 17 Jul 2019 13:24

Instrument :

MSVOA\_N

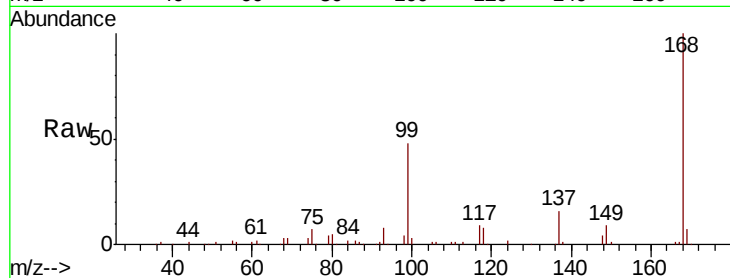
ClientSampleId :

Tot Ion:168 Resp: 250593

Ion Ratio Lower Upper

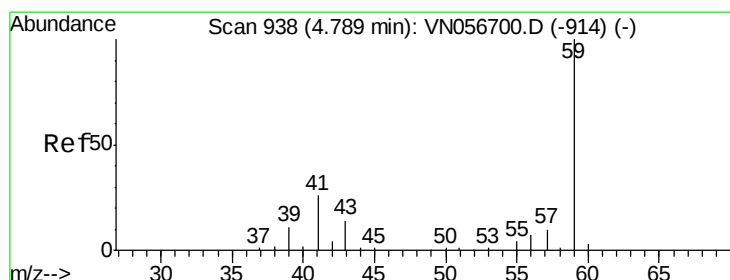
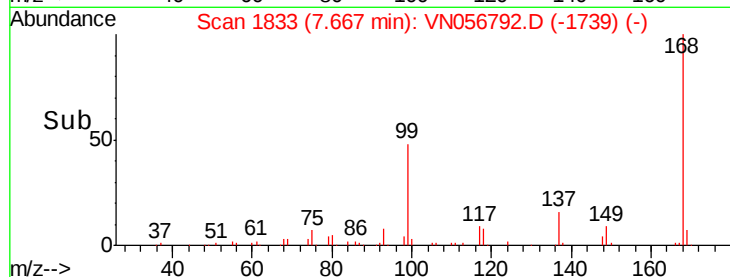
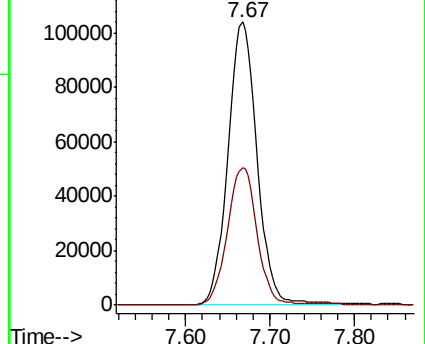
168 100

99 48.5 39.4 59.2



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN



#11

Tert butyl alcohol

Concen: 1.014 ug/l

RT: 4.79 min Scan# 939

Delta R.T. 0.00 min

Lab File: VN056792.D

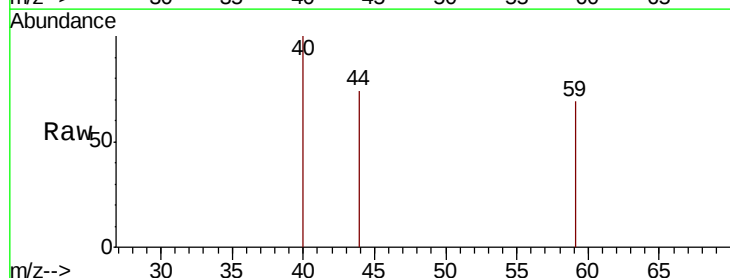
Acq: 17 Jul 2019 13:24

Tgt Ion: 59 Resp: 468

Ion Ratio Lower Upper

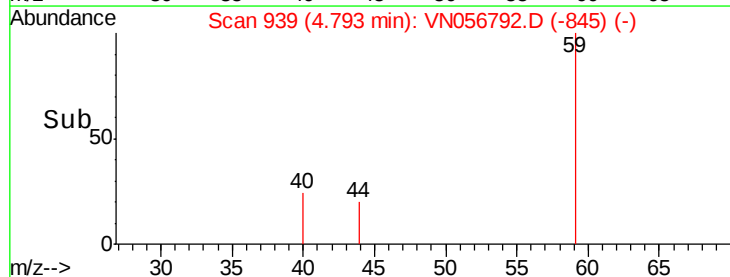
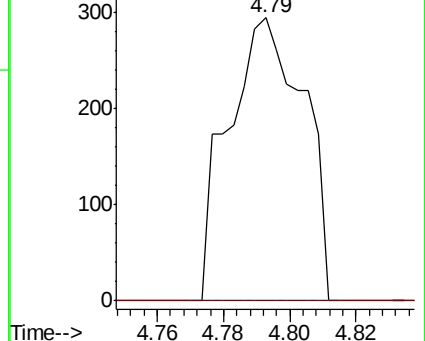
59 100

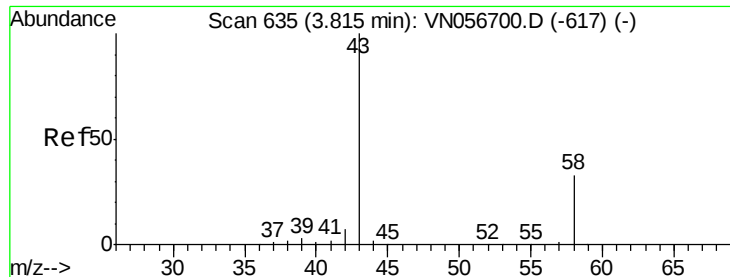
57 0.0 8.0 12.0#



Abundance Ion 59.00 (58.70 to 59.70): VN

Ion 57.00 (56.70 to 57.70): VN





#16

Acetone

Concen: 5.229 ug/l

RT: 3.83 min Scan# 639

Delta R.T. 0.01 min

Lab File: VN056792.D

Acq: 17 Jul 2019 13:24

Instrument :

MSVOA\_N

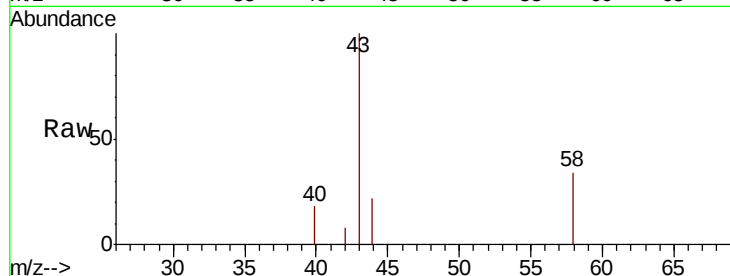
ClientSampleId :

Tot Ion: 43 Resp: 6679

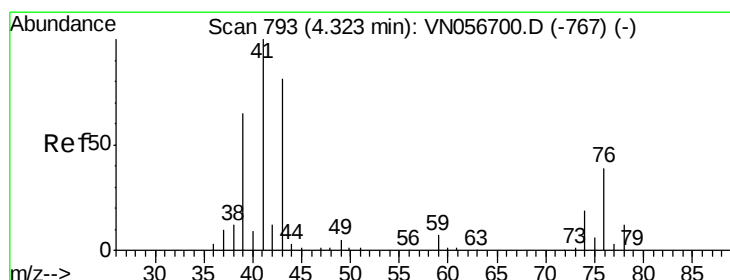
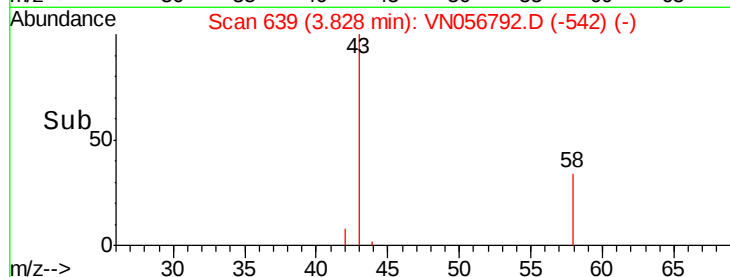
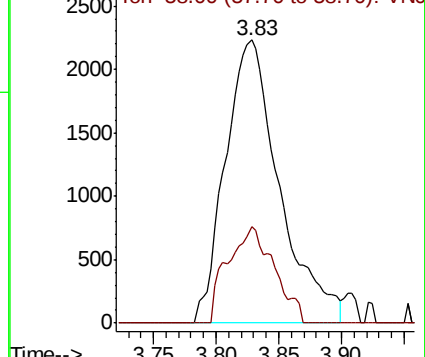
Ion Ratio Lower Upper

43 100

58 34.0 26.7 40.1



Abundance Ion 43.00 (42.70 to 43.70): VN056792.D (-542) (-)



#18

Methyl Acetate

Concen: 0.320 ug/l

RT: 4.34 min Scan# 797

Delta R.T. 0.01 min

Lab File: VN056792.D

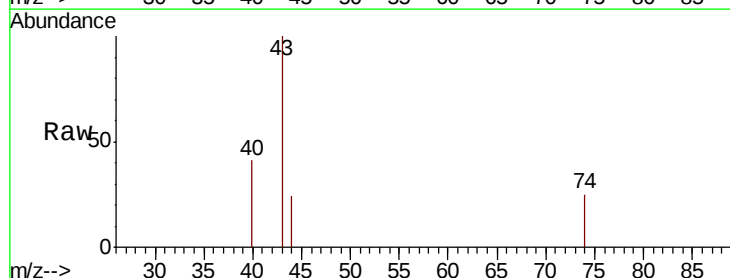
Acq: 17 Jul 2019 13:24

Tgt Ion: 43 Resp: 3693

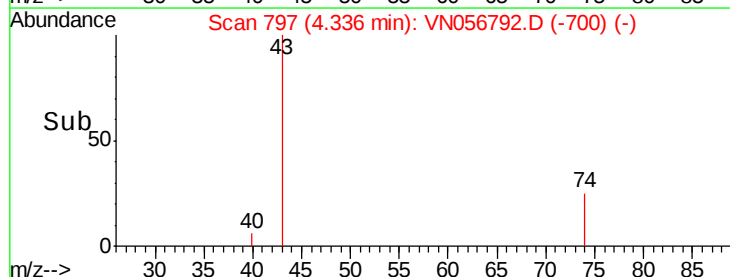
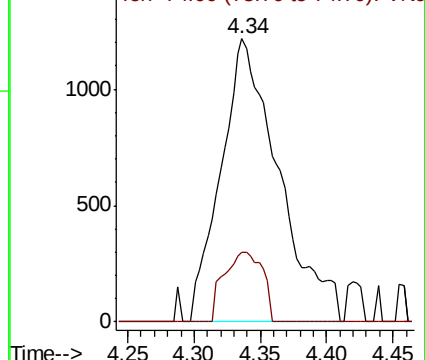
Ion Ratio Lower Upper

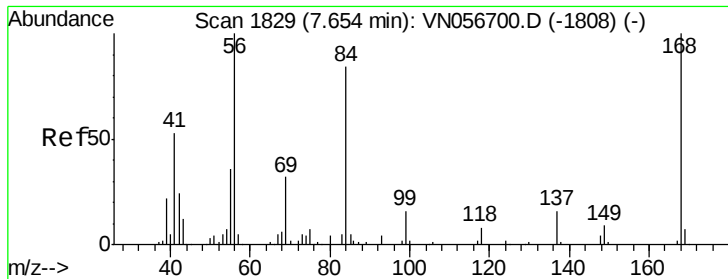
43 100

74 16.4 18.9 28.3#



Abundance Ion 43.00 (42.70 to 43.70): VN056792.D (-700) (-)

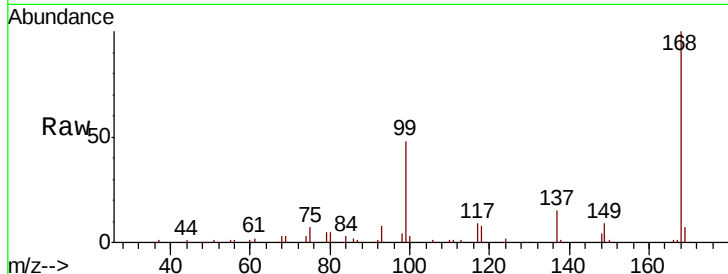




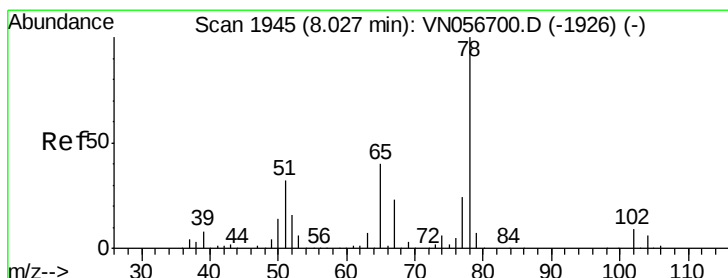
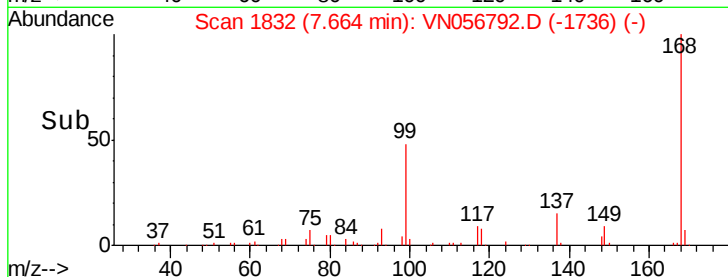
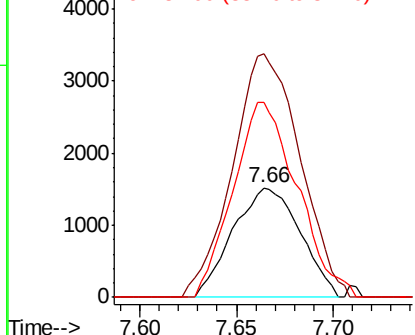
#31  
Cyclohexane  
Concen: 0.832 ug/l  
RT: 7.66 min Scan# 1832  
Delta R.T. 0.01 min  
Lab File: VN056792.D  
Acq: 17 Jul 2019 13:24

Instrument :  
MSVOA\_N  
ClientSampled :

Tot Ion: 56 Resp: 3685  
Ion Ratio Lower Upper  
56 100  
69 210.9 25.8 38.8#  
84 178.0 67.4 101.0#

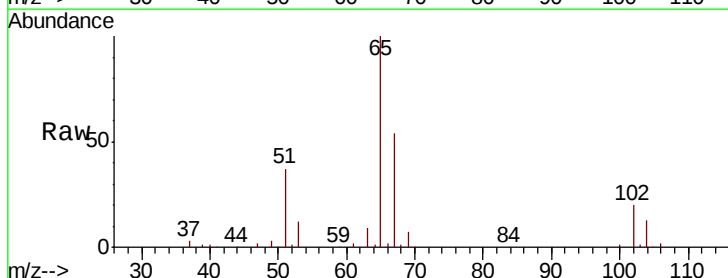


Abundance Ion 56.00 (55.70 to 56.70): VN0  
Ion 69.00 (68.70 to 69.70): VN0  
Ion 84.00 (83.70 to 84.70): VN0

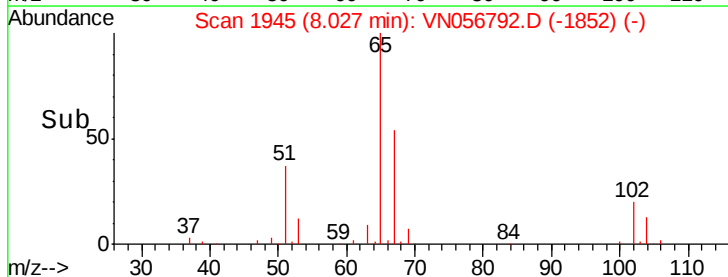
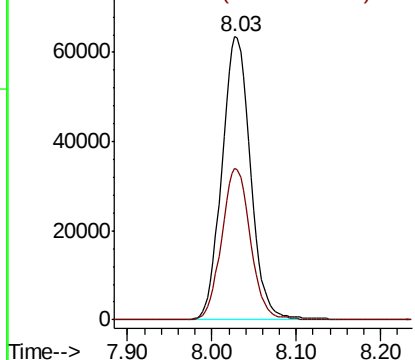


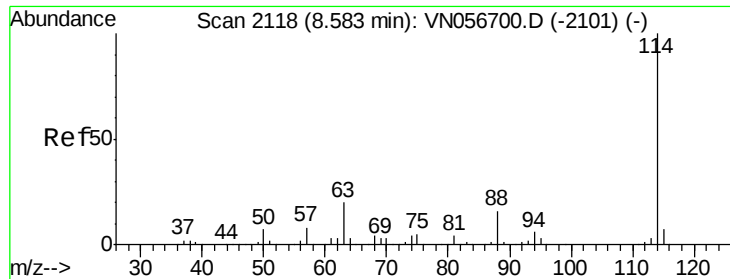
#33  
1,2-Dichloroethane-d4  
Concen: 53.950 ug/l  
RT: 8.03 min Scan# 1945  
Delta R.T. 0.00 min  
Lab File: VN056792.D  
Acq: 17 Jul 2019 13:24

Tgt Ion: 65 Resp: 149544  
Ion Ratio Lower Upper  
65 100  
67 53.7 0.0 109.0



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

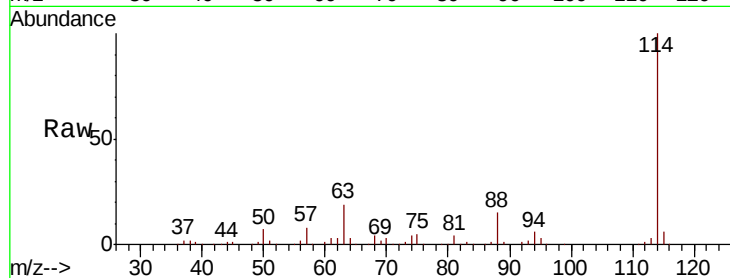




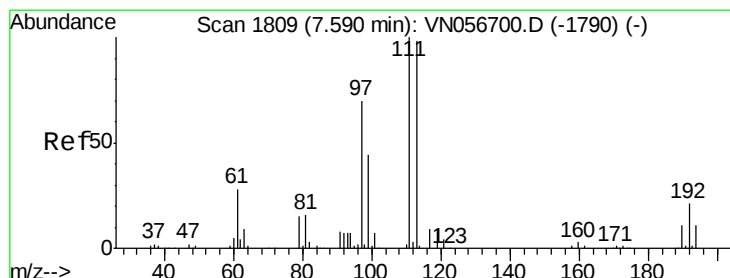
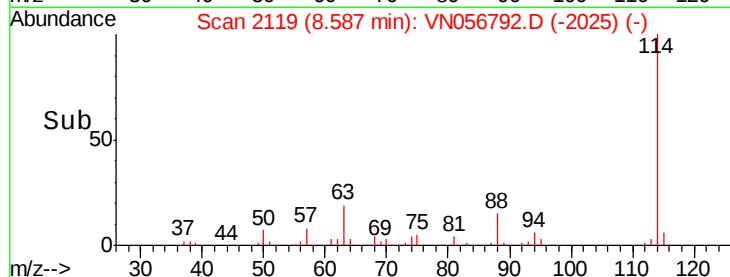
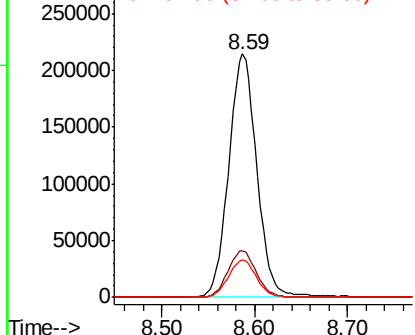
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.59 min Scan# 2119  
 Delta R.T. 0.00 min  
 Lab File: VN056792.D  
 Acq: 17 Jul 2019 13:24

Instrument :  
 MSVOA\_N  
 ClientSampled :

Tot Ion:114 Resp: 450852  
 Ion Ratio Lower Upper  
 114 100  
 63 19.3 0.0 39.4  
 88 15.4 0.0 31.2

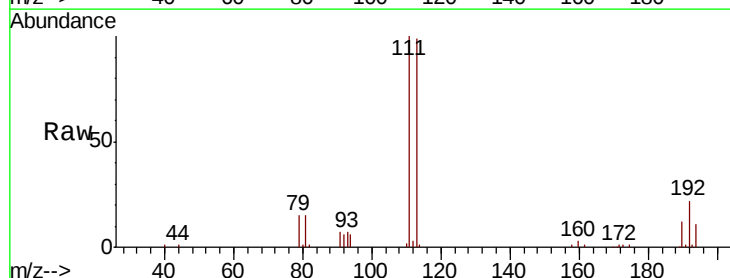


Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): V  
 Ion 87.90 (87.60 to 88.60): V

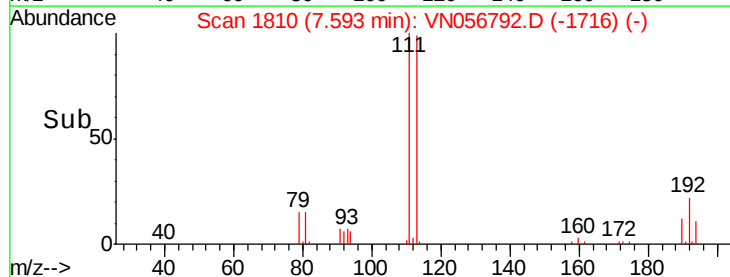
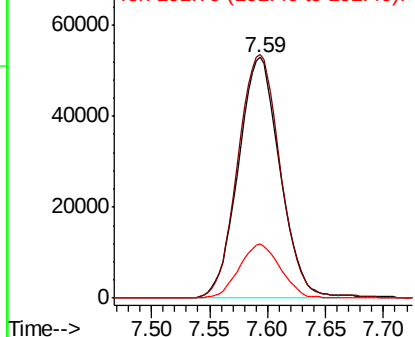


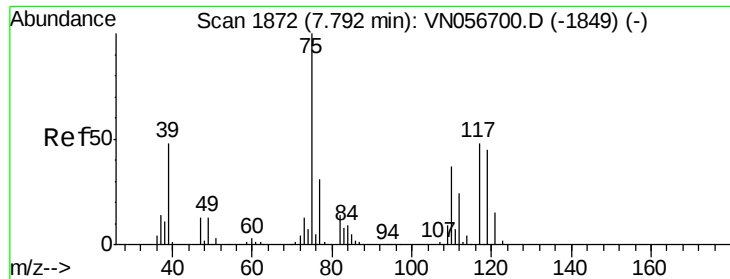
#35  
 Dibromofluoromethane  
 Concen: 47.155 ug/l  
 RT: 7.59 min Scan# 1810  
 Delta R.T. 0.00 min  
 Lab File: VN056792.D  
 Acq: 17 Jul 2019 13:24

Tgt Ion:113 Resp: 132304  
 Ion Ratio Lower Upper  
 113 100  
 111 103.8 81.8 122.6  
 192 22.2 17.5 26.3



Abundance Ion 112.80 (112.50 to 113.50): V  
 Ion 110.80 (110.50 to 111.50): V  
 Ion 191.70 (191.40 to 192.40): V

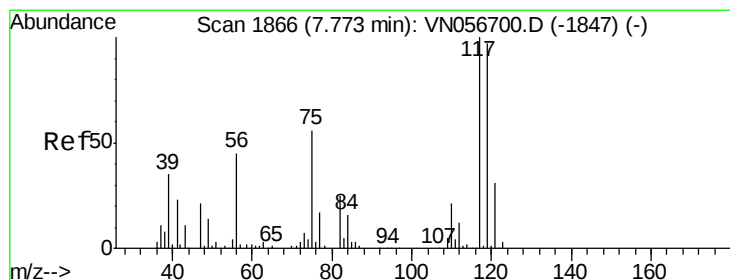
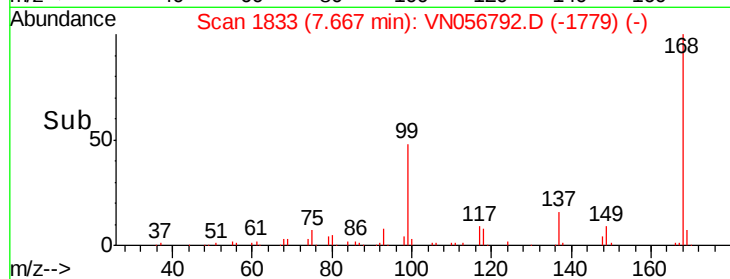
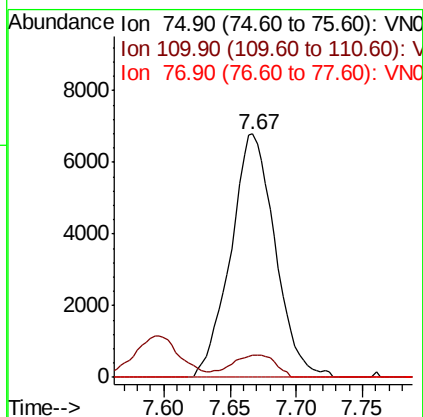
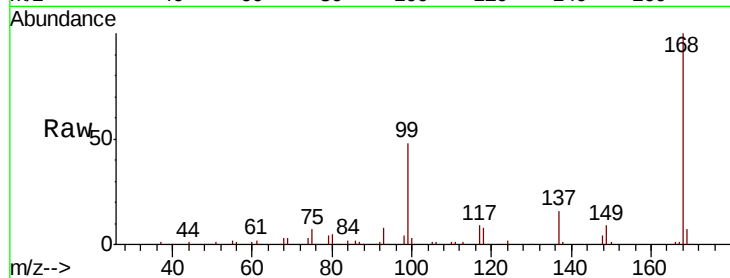




#36  
 1,1-Dichloropropene  
 Concen: 3.802 ug/l  
 RT: 7.67 min Scan# 1833  
 Delta R.T. -0.13 min  
 Lab File: VN056792.D  
 Acq: 17 Jul 2019 13:24

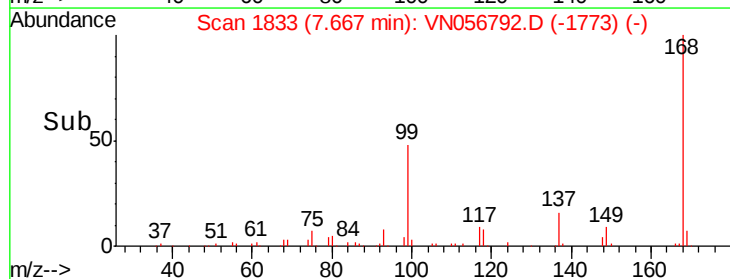
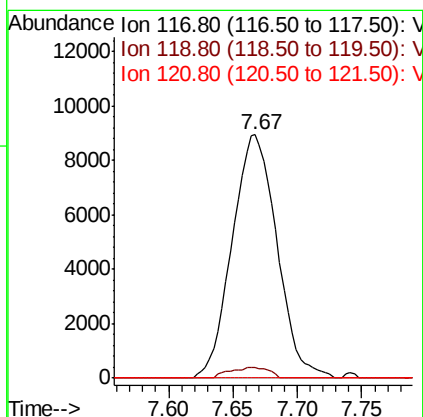
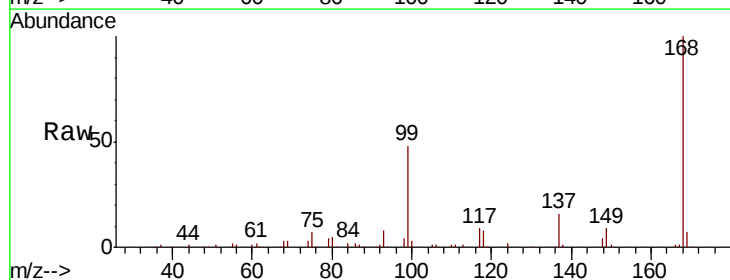
Instrument :  
 MSVOA\_N  
 ClientSampleId :

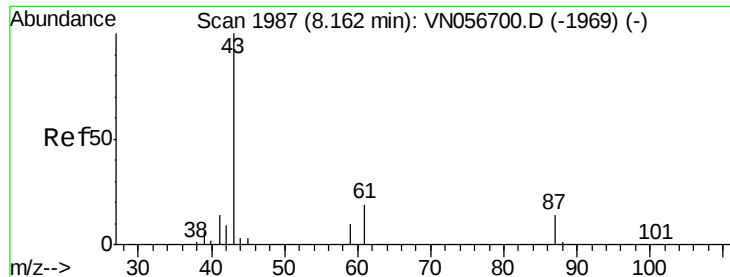
| Tot Ion   | 75    | Resp  | 15862 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 75        | 100   |       |       |
| 110       | 9.1   | 18.4  | 55.4# |
| 77        | 0.0   | 24.6  | 36.8# |



#38  
 Carbon Tetrachloride  
 Concen: 5.532 ug/l  
 RT: 7.67 min Scan# 1833  
 Delta R.T. -0.11 min  
 Lab File: VN056792.D  
 Acq: 17 Jul 2019 13:24

| Tgt Ion                                           | 117   | Resp  | 21645  |
|---------------------------------------------------|-------|-------|--------|
| Ion Ratio <td>Lower</td> <td>Upper</td> <td></td> | Lower | Upper |        |
| 117                                               | 100   |       |        |
| 119                                               | 4.2   | 77.5  | 116.3# |
| 121                                               | 0.0   | 24.7  | 37.1#  |





#43

Isopropyl Acetate

Concen: 2.531 ug/l

RT: 8.28 min Scan# 2024

Delta R.T. 0.12 min

Lab File: VN056792.D

Acq: 17 Jul 2019 13:24

Instrument :

MSVOA\_N

ClientSampleId :

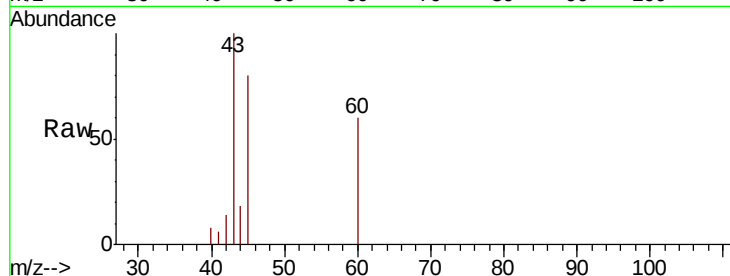
Tot Ion: 43 Resp: 16364

Ion Ratio Lower Upper

43 100

61 0.0 22.3 33.5#

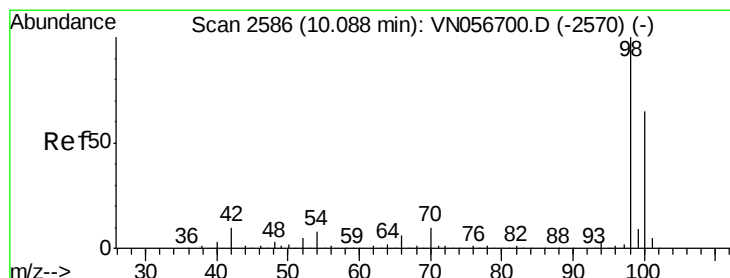
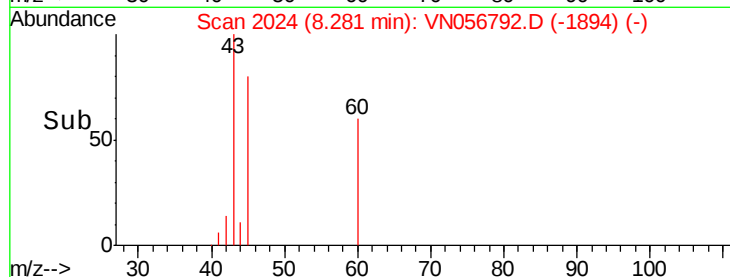
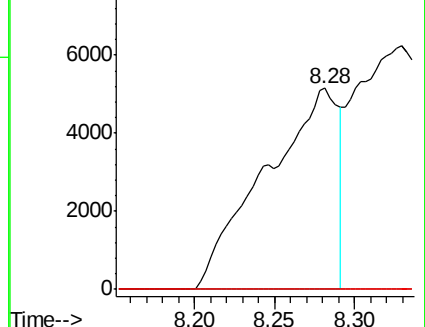
87 0.0 11.1 16.7#



Abundance Ion 43.00 (42.70 to 43.70): VN056792.D (-2493) (-)

Ion 61.00 (60.70 to 61.70): VN056792.D (-2493) (-)

Ion 87.00 (86.70 to 87.70): VN056792.D (-2493) (-)



#50

Toluene-d8

Concen: 52.238 ug/l

RT: 10.09 min Scan# 2587

Delta R.T. 0.00 min

Lab File: VN056792.D

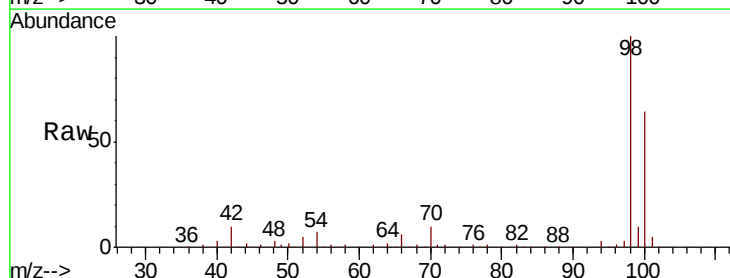
Acq: 17 Jul 2019 13:24

Tgt Ion: 98 Resp: 566072

Ion Ratio Lower Upper

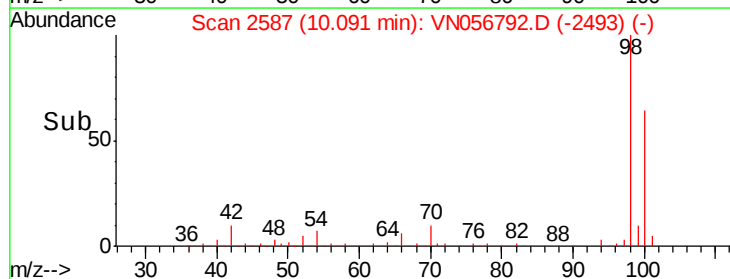
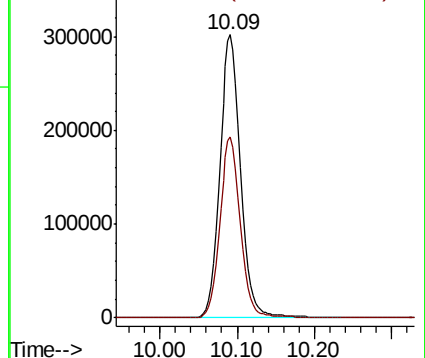
98 100

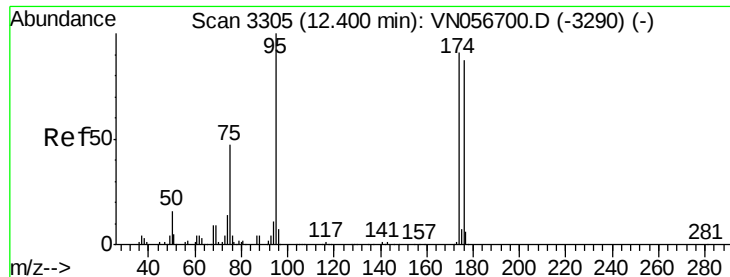
100 63.2 52.0 78.0



Abundance Ion 98.00 (97.70 to 98.70): VN056792.D (-2493) (-)

Ion 100.00 (99.70 to 100.70): VN056792.D (-2493) (-)





#62

4-Bromofluorobenzene

Concen: 54.733 ug/l

RT: 12.40 min Scan# 3305

Delta R.T. 0.00 min

Lab File: VN056792.D

Acq: 17 Jul 2019 13:24

Instrument :

MSVOA\_N

ClientSampleId :

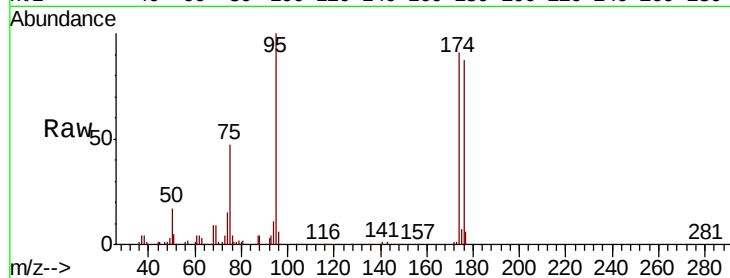
Tot Ion: 95 Resp: 200016

Ion Ratio Lower Upper

95 100

174 89.7 0.0 180.0

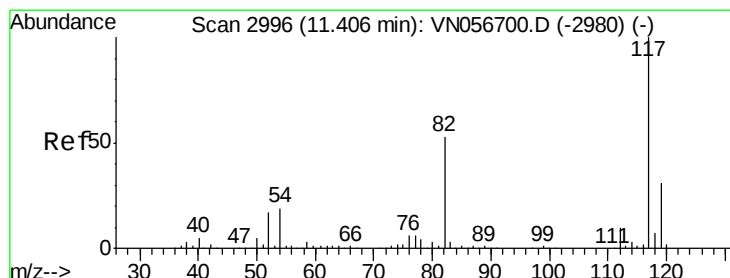
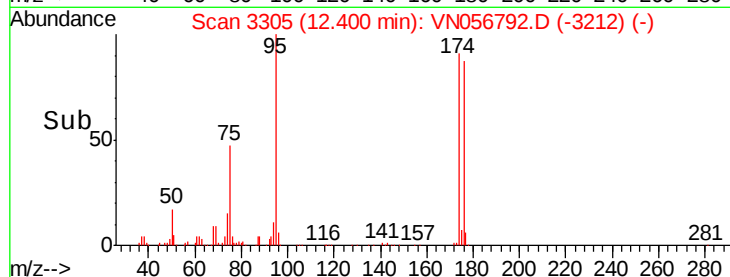
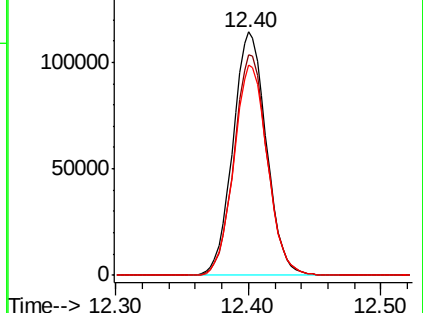
176 86.8 0.0 173.2



Abundance Ion 94.90 (94.60 to 95.60): VN056792.D (-2903) (-)

Ion 173.80 (173.50 to 174.50): VN056792.D (-2903) (-)

Ion 175.80 (175.50 to 176.50): VN056792.D (-2903) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.41 min Scan# 2996

Delta R.T. 0.00 min

Lab File: VN056792.D

Acq: 17 Jul 2019 13:24

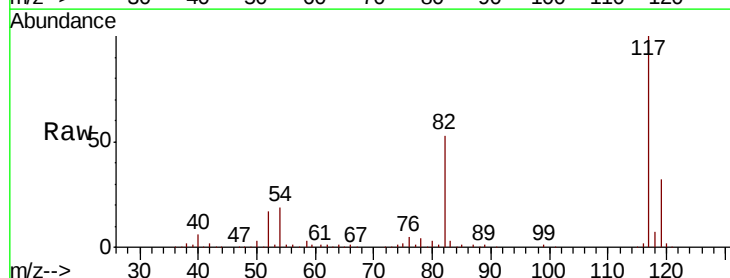
Tgt Ion: 117 Resp: 465835

Ion Ratio Lower Upper

117 100

82 53.2 42.2 63.2

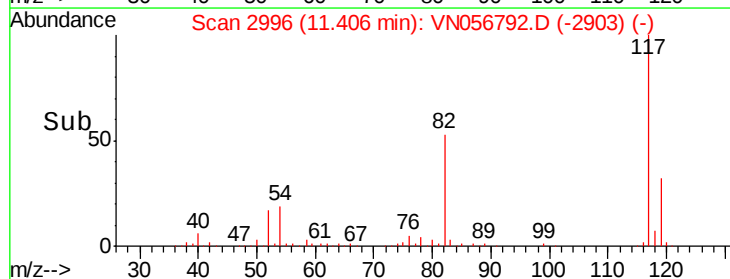
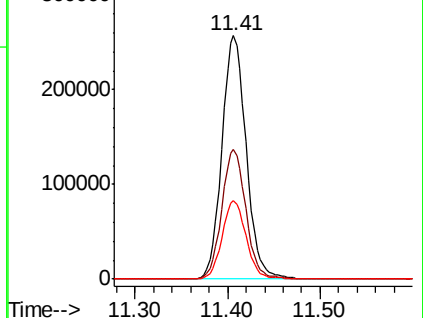
119 32.2 25.2 37.8

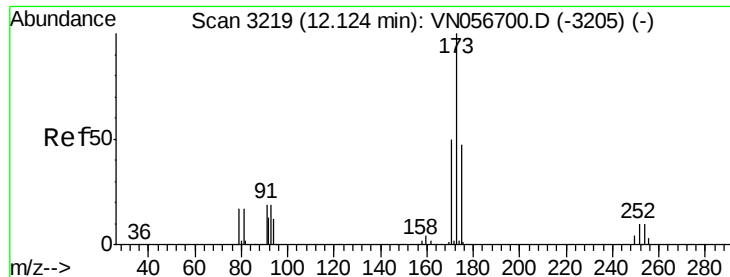


Abundance Ion 116.90 (116.60 to 117.60): VN056792.D (-2903) (-)

Ion 82.00 (81.70 to 82.70): VN056792.D (-2903) (-)

Ion 118.90 (118.60 to 119.60): VN056792.D (-2903) (-)

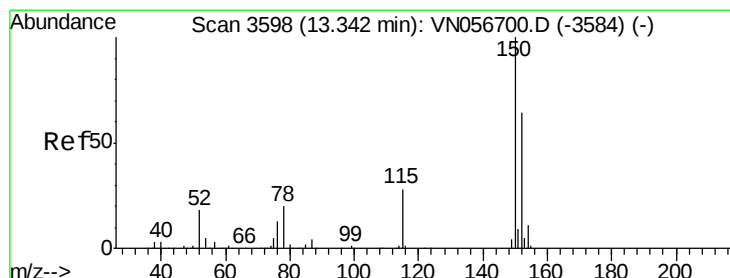
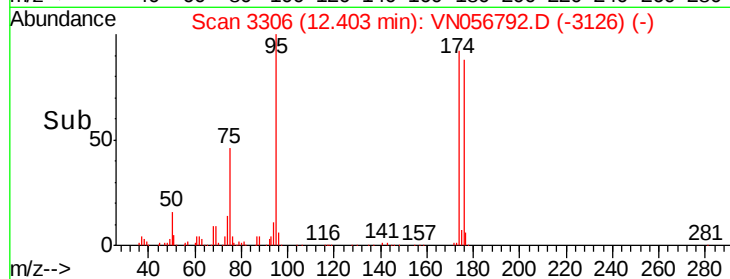
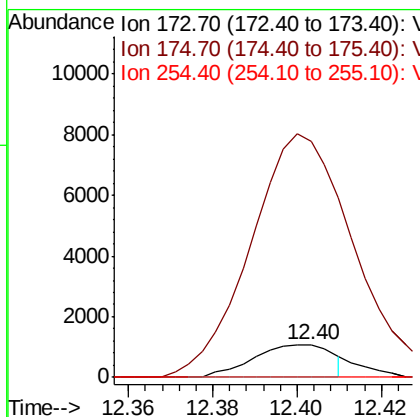
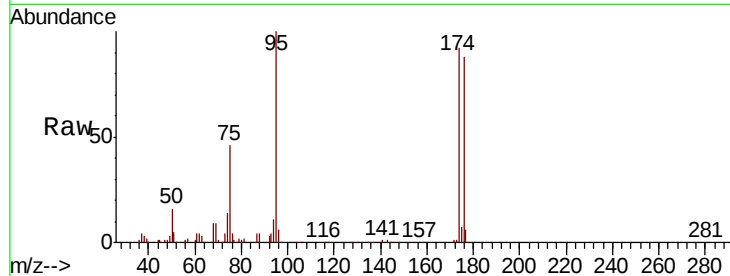




#71  
Bromoform  
Concen: 0.526 ug/l  
RT: 12.40 min Scan# 3306  
Delta R.T. 0.28 min  
Lab File: VN056792.D  
Acq: 17 Jul 2019 13:24

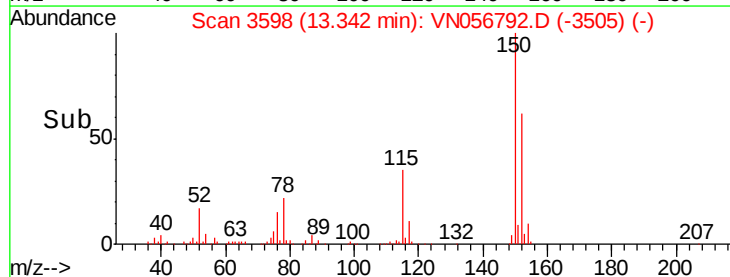
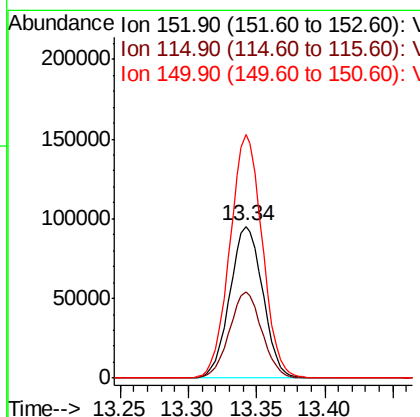
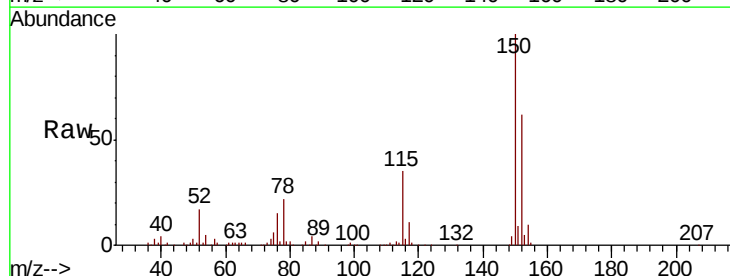
Instrument :  
MSVOA\_N  
ClientSampled :

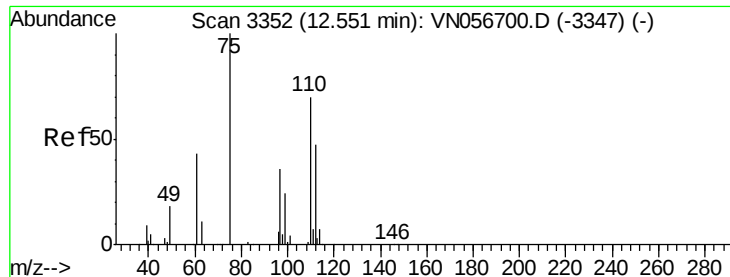
Tot Ion:173 Resp: 1404  
Ion Ratio Lower Upper  
173 100  
175 778.1 23.8 71.4#  
254 0.0 0.0 0.0



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.34 min Scan# 3598  
Delta R.T. 0.00 min  
Lab File: VN056792.D  
Acq: 17 Jul 2019 13:24

Tgt Ion:152 Resp: 160022  
Ion Ratio Lower Upper  
152 100  
115 56.0 28.2 84.7  
150 157.9 0.0 345.8





#76

1,2,3-Trichloropropane

Concen: 26.622 ug/l

RT: 12.40 min Scan# 3305

Delta R.T. -0.15 min

Lab File: VN056792.D

Acq: 17 Jul 2019 13:24

Instrument :

MSVOA\_N

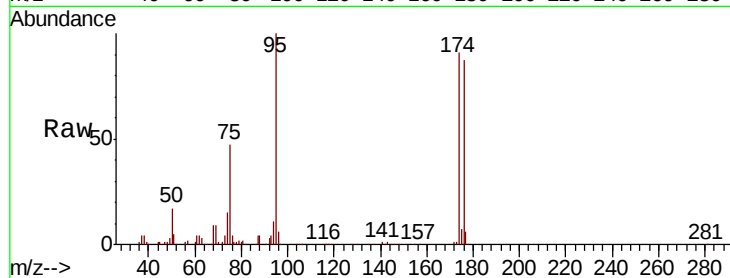
ClientSampled :

Tot Ion: 75 Resp: 93174

Ion Ratio Lower Upper

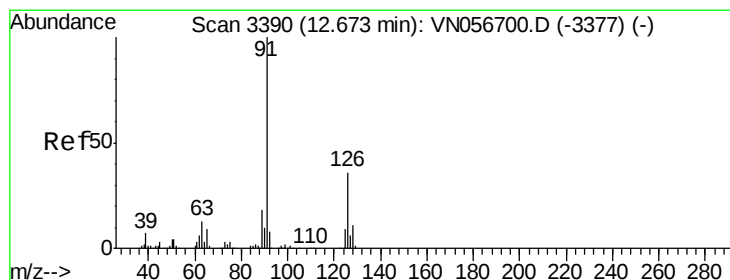
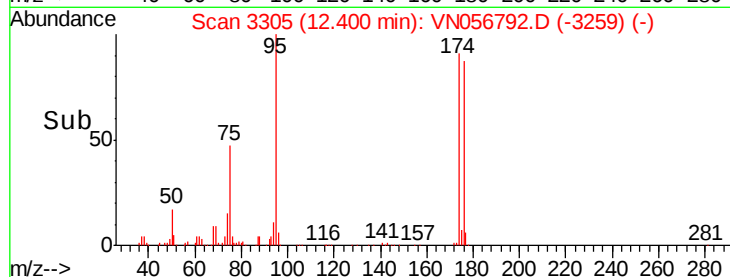
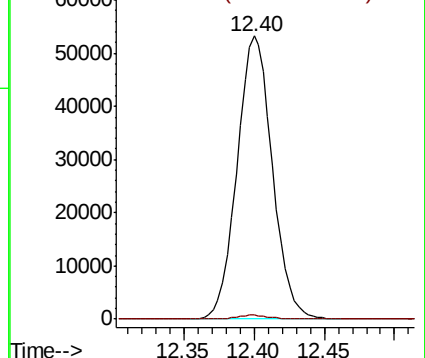
75 100

77 1.2 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 77.00 (76.70 to 77.70): VN0



#79

2-Chlorotoluene

Concen: Below Cal

RT: 12.40 min Scan# 3306

Delta R.T. -0.27 min

Lab File: VN056792.D

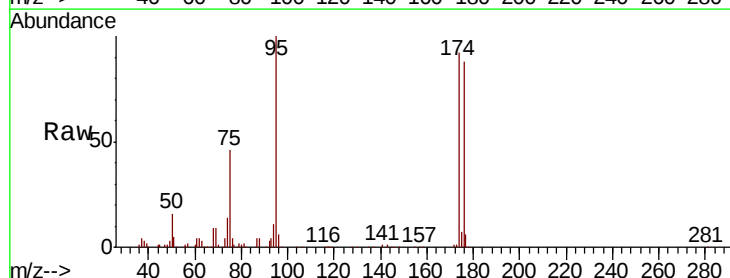
Acq: 17 Jul 2019 13:24

Tgt Ion: 91 Resp: 551

Ion Ratio Lower Upper

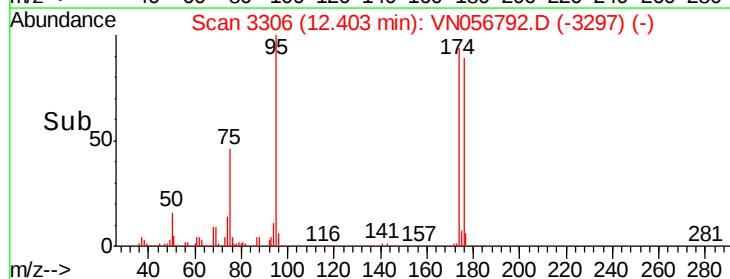
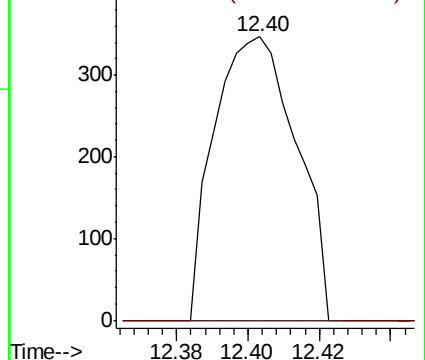
91 100

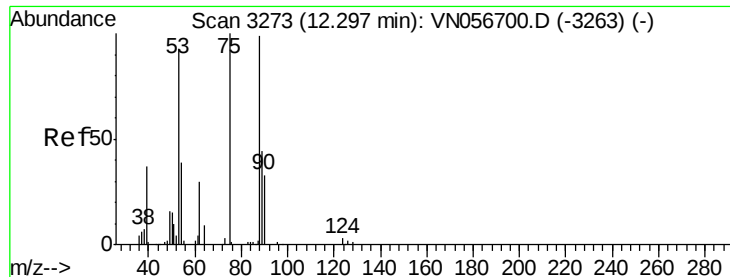
126 0.0 17.9 53.7#



Abundance Ion 91.00 (90.70 to 91.70): VN0

Ion 125.90 (125.60 to 126.60): V





#81

trans-1,4-Dichloro-2-butene

Concen: 82.217 ug/l

RT: 12.40 min Scan# 3305

Delta R.T. 0.10 min

Lab File: VN056792.D

Acq: 17 Jul 2019 13:24

Instrument :

MSVOA\_N

ClientSampleId :

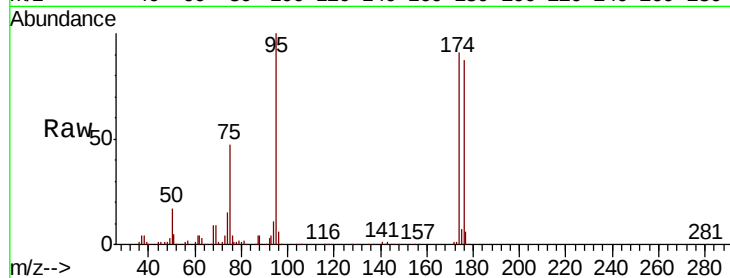
Tot Ion: 75 Resp: 93174

Ion Ratio Lower Upper

75 100

53 0.0 73.7 110.5#

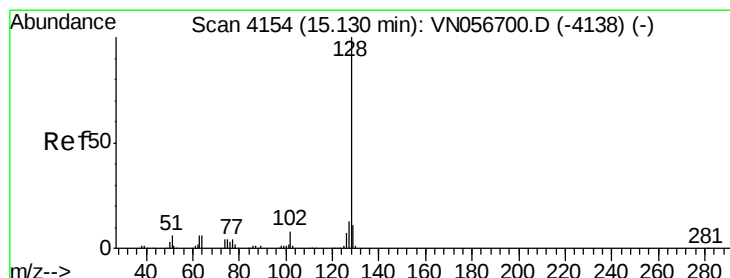
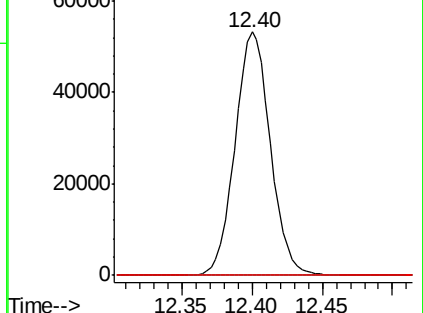
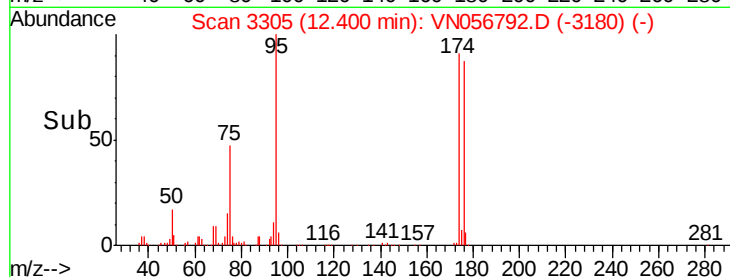
89 0.0 36.2 54.2#



Abundance Ion 74.90 (74.60 to 75.60): VN056792.D (-3180) (-)

Ion 53.00 (52.70 to 53.70): VN056792.D (-3180) (-)

Ion 88.90 (88.60 to 89.60): VN056792.D (-3180) (-)



#95

Naphthalene

Concen: 4.559 ug/l

RT: 15.14 min Scan# 4157

Delta R.T. 0.01 min

Lab File: VN056792.D

Acq: 17 Jul 2019 13:24

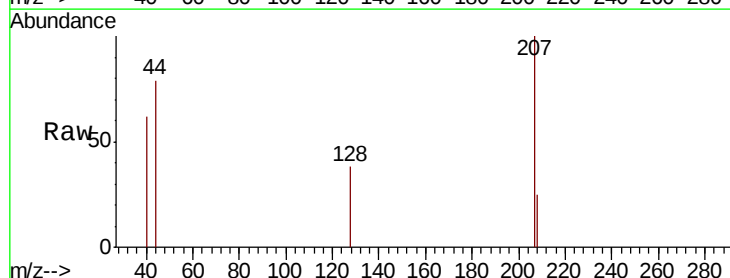
Tgt Ion: 128 Resp: 316

Ion Ratio Lower Upper

128 100

127 0.0 10.3 15.5#

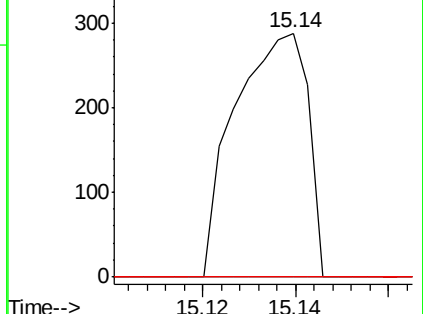
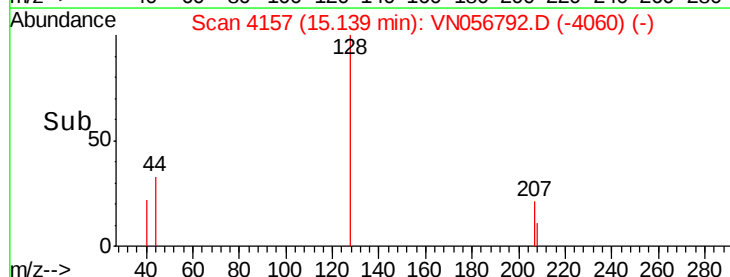
129 0.0 8.7 13.1#

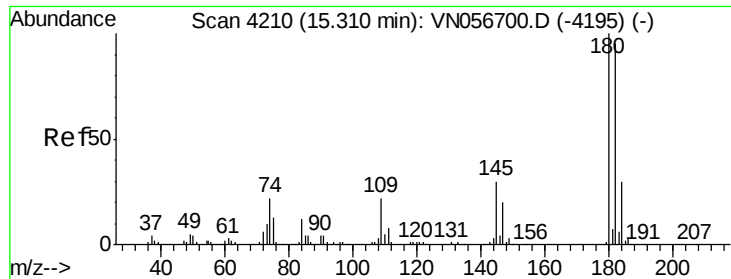


Abundance Ion 128.00 (127.70 to 128.70): VN056792.D (-4060) (-)

Ion 127.00 (126.70 to 127.70): VN056792.D (-4060) (-)

Ion 129.00 (128.70 to 129.70): VN056792.D (-4060) (-)

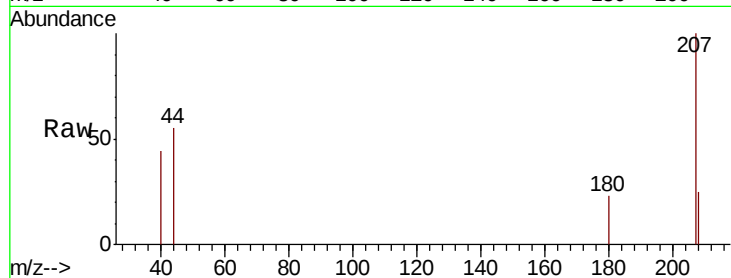




#96  
 1,2,3-Trichlorobenzene  
 Concen: 3.366 ug/l  
 RT: 15.31 min Scan# 4211  
 Delta R.T. 0.00 min  
 Lab File: VN056792.D  
 Acq: 17 Jul 2019 13:24

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Tot Ion:180 Resp: 143  
 Ion Ratio Lower Upper  
 180 100  
 182 21.7 47.1 141.3#  
 145 0.0 15.0 45.1#



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

