

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN112719\  
 Data File : VN059423.D  
 Acq On : 27 Nov 2019 14:28  
 Operator : JC/SP  
 Sample : VSTDIC150  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDIC150

Manual Integrations  
 APPROVED

apatel  
 12/2/2019 10:08:56 AM

Quant Time: Nov 27 16:42:31 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N112719W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Nov 27 16:27:42 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.65  | 168  | 342178   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 537976   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 488683   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 234315   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |        |         |      |
|---------------------------|--------|-----|----------|--------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.01   | 65  | 619471   | 154.55 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 309.10% |      |
| 35) Dibromofluoromethane  | 7.57   | 113 | 515002   | 157.16 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 314.32% |      |
| 50) Toluene-d8            | 10.08  | 98  | 2028701  | 155.37 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 310.74% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 738410   | 162.42 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 324.84% |      |

## Target Compounds

|                               |      |     |         |         |        | Qvalue |
|-------------------------------|------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 660893  | 164.100 | ug/l   | 99     |
| 3) Chloromethane              | 2.04 | 50  | 779791  | 158.513 | ug/l   | 100    |
| 4) Vinyl Chloride             | 2.17 | 62  | 764625  | 161.745 | ug/l   | 99     |
| 5) Bromomethane               | 2.53 | 94  | 449816  | 158.036 | ug/l   | 98     |
| 6) Chloroethane               | 2.67 | 64  | 422005  | 159.214 | ug/l   | 99     |
| 7) Trichlorofluoromethane     | 2.99 | 101 | 895793  | 159.088 | ug/l   | 96     |
| 8) Diethyl Ether              | 3.39 | 74  | 372524  | 162.558 | ug/l   | 100    |
| 9) 1,1,2-Trichlorotrifluoroet | 3.73 | 101 | 547284  | 157.812 | ug/l   | 99     |
| 10) Methyl Iodide             | 3.93 | 142 | 766431  | 169.795 | ug/l   | 99     |
| 11) Tert butyl alcohol        | 4.76 | 59  | 566268  | 815.512 | ug/l # | 85     |
| 12) 1,1-Dichloroethene        | 3.71 | 96  | 555425  | 163.541 | ug/l   | 99     |
| 13) Acrolein                  | 3.58 | 56  | 594005  | 876.340 | ug/l   | 97     |
| 14) Allyl chloride            | 4.29 | 41  | 1027236 | 163.083 | ug/l   | 100    |
| 15) Acrylonitrile             | 4.95 | 53  | 1655530 | 855.627 | ug/l   | 100    |
| 16) Acetone                   | 3.79 | 43  | 1490864 | 780.748 | ug/l   | 100    |
| 17) Carbon Disulfide          | 4.03 | 76  | 1780589 | 152.779 | ug/l   | 100    |
| 18) Methyl Acetate            | 4.29 | 43  | 817154  | 157.144 | ug/l   | 100    |
| 19) Methyl tert-butyl Ether   | 5.01 | 73  | 1836049 | 167.765 | ug/l   | 98     |
| 20) Methylene Chloride        | 4.53 | 84  | 606639  | 156.348 | ug/l   | 98     |
| 21) trans-1,2-Dichloroethene  | 5.01 | 96  | 593013  | 160.263 | ug/l   | 98     |
| 22) Diisopropyl ether         | 5.92 | 45  | 1950273 | 166.615 | ug/l   | 99     |
| 23) Vinyl Acetate             | 5.87 | 43  | 7584590 | 803.169 | ug/l # | 94     |
| 24) 1,1-Dichloroethane        | 5.82 | 63  | 1092757 | 162.256 | ug/l   | 99     |
| 25) 2-Butanone                | 6.81 | 43  | 2239237 | 852.416 | ug/l   | 99     |
| 26) 2,2-Dichloropropane       | 6.80 | 77  | 914710  | 159.596 | ug/l   | 99     |
| 27) cis-1,2-Dichloroethene    | 6.81 | 96  | 662286  | 163.653 | ug/l   | 99     |
| 28) Bromochloromethane        | 7.17 | 49  | 439502  | 188.867 | ug/l   | 100    |
| 29) Tetrahydrofuran           | 7.19 | 42  | 1479577 | 846.869 | ug/l   | 100    |
| 30) Chloroform                | 7.35 | 83  | 1037546 | 153.094 | ug/l   | 100    |
| 31) Cyclohexane               | 7.63 | 56  | 1057082 | 156.571 | ug/l   | 98     |
| 32) 1,1,1-Trichloroethane     | 7.55 | 97  | 905318  | 163.351 | ug/l   | 99     |
| 36) 1,1-Dichloropropene       | 7.77 | 75  | 849619  | 164.228 | ug/l   | 100    |
| 37) Ethyl Acetate             | 6.90 | 43  | 903791  | 165.120 | ug/l   | 99     |
| 38) Carbon Tetrachloride      | 7.75 | 117 | 816987  | 167.334 | ug/l   | 100    |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN112719\  
 Data File : VN059423.D  
 Acq On : 27 Nov 2019 14:28  
 Operator : JC/SP  
 Sample : VSTDICC150  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC150

Manual Integrations  
 APPROVED

apatel  
 12/2/2019 10:08:56 AM

Quant Time: Nov 27 16:42:31 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N112719W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Nov 27 16:27:42 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.07  | 83   | 1062484  | 171.666  | ug/l   | 99       |
| 40) Benzene                    | 8.02  | 78   | 2473410  | 161.021  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.16  | 41   | 444524m  | 172.007  | ug/l   |          |
| 42) 1,2-Dichloroethane         | 8.10  | 62   | 800553   | 164.360  | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.15  | 43   | 1451371  | 174.543  | ug/l   | 100      |
| 44) Trichloroethene            | 8.82  | 130  | 633317   | 161.697  | ug/l   | 100      |
| 45) 1,2-Dichloropropane        | 9.11  | 63   | 660141   | 164.301  | ug/l   | 99       |
| 46) Dibromomethane             | 9.20  | 93   | 412025   | 166.175  | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.39  | 83   | 834208   | 166.347  | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.19  | 41   | 657385   | 178.195  | ug/l   | 99       |
| 49) 1,4-Dioxane                | 9.19  | 88   | 181619   | 3370.846 | ug/l   | 98       |
| 51) 4-Methyl-2-Pentanone       | 9.98  | 43   | 3854183  | 799.100  | ug/l   | 93       |
| 52) Toluene                    | 10.15 | 92   | 1524894  | 166.166  | ug/l   | 97       |
| 53) t-1,3-Dichloropropene      | 10.37 | 75   | 998150   | 173.217  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 9.83  | 75   | 1081460  | 173.853  | ug/l   | 100      |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 587752   | 163.631  | ug/l   | 99       |
| 56) Ethyl methacrylate         | 10.42 | 69   | 988883   | 188.741  | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.70 | 76   | 1032117  | 166.252  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.69  | 63   | 2011168  | 1306.777 | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.75 | 43   | 2985443  | 834.748  | ug/l   | 96       |
| 60) Dibromochloromethane       | 10.90 | 129  | 664554   | 177.242  | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 628671   | 170.801  | ug/l   | 100      |
| 64) Tetrachloroethene          | 10.63 | 164  | 557287   | 154.179  | ug/l   | 99       |
| 65) Chlorobenzene              | 11.43 | 112  | 1588493  | 160.564  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 590753   | 164.663  | ug/l   | 100      |
| 67) Ethyl Benzene              | 11.51 | 91   | 2780155  | 159.990  | ug/l   | 95       |
| 68) m/p-Xylenes                | 11.62 | 106  | 2170788  | 334.591  | ug/l   | 89       |
| 69) o-Xylene                   | 11.95 | 106  | 1041999  | 167.467  | ug/l   | 97       |
| 70) Styrene                    | 11.96 | 104  | 1752167  | 179.628  | ug/l   | 100      |
| 71) Bromoform                  | 12.13 | 173  | 491260   | 179.830  | ug/l # | 100      |
| 73) Isopropylbenzene           | 12.25 | 105  | 2668633  | 153.737  | ug/l   | 97       |
| 74) N-amyl acetate             | 12.07 | 43   | 1191468  | 182.522  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 866058   | 152.994  | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 813292m  | 150.255  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 673187   | 158.404  | ug/l   | 99       |
| 78) n-propylbenzene            | 12.59 | 91   | 3089652  | 154.458  | ug/l   | 97       |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 1878590  | 157.083  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 2290746  | 156.994  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 348071   | 168.720  | ug/l   | 98       |
| 82) 4-Chlorotoluene            | 12.78 | 91   | 1941354  | 157.618  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 12.99 | 119  | 1974552  | 157.598  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 2286768  | 159.984  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 2634195  | 158.322  | ug/l   | 98       |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 2398271  | 159.443  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 1205835  | 160.103  | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 1198314  | 158.476  | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.62 | 91   | 2198317  | 167.190  | ug/l   | 97       |
| 90) Hexachloroethane           | 13.88 | 117  | 455365   | 158.390  | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.66 | 146  | 1139645  | 154.425  | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 190619   | 148.280  | ug/l   | 99       |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN112719\  
Data File : VN059423.D  
Acq On : 27 Nov 2019 14:28  
Operator : JC/SP  
Sample : VSTDICC150  
Misc : 5.00mL/MSVOA N/WATER  
ALS Vial : 8 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC150

Manual Integrations  
APPROVED

apatel  
12/2/2019 10:08:56 AM

Quant Time: Nov 27 16:42:31 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N112719W.M  
Quant Title : SW846 8260  
QLast Update : Wed Nov 27 16:27:42 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|----------------------------|-------|------|----------|---------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 795967   | 173.511 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 404476   | 143.873 | ug/l  | 99       |
| 95) Naphthalene            | 15.13 | 128  | 2212246  | 170.680 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.30 | 180  | 789764   | 161.624 | ug/l  | 99       |

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

