

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN051719\  
 Data File : VN055635.D  
 Acq On : 18 May 2019 1:48  
 Operator : JC/SP  
 Sample : VSTDCCC050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 42 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

MMDadoda  
 5/20/2019 9:08:27 AM

Quant Time: May 18 04:34:07 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N051719W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri May 17 23:54:12 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 314754   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 489462   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 432136   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 201090   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 175686   | 50.92 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 101.84% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 159193   | 51.20 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.40% |      |
| 50) Toluene-d8            | 10.09  | 98  | 590472   | 50.22 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.44% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 208259   | 51.30 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.60% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 109959  | 45.405  | ug/l | 99     |
| 3) Chloromethane              | 2.06 | 50  | 152190  | 47.115  | ug/l | 99     |
| 4) Vinyl Chloride             | 2.18 | 62  | 170202  | 48.660  | ug/l | 98     |
| 5) Bromomethane               | 2.56 | 94  | 112262  | 50.361  | ug/l | 99     |
| 6) Chloroethane               | 2.70 | 64  | 97822   | 50.369  | ug/l | 100    |
| 7) Trichlorofluoromethane     | 3.03 | 101 | 219580  | 48.988  | ug/l | 100    |
| 8) Diethyl Ether              | 3.41 | 74  | 91109   | 50.598  | ug/l | 99     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.77 | 101 | 128181  | 46.908  | ug/l | 100    |
| 10) Methyl Iodide             | 3.96 | 142 | 196629  | 49.912  | ug/l | 99     |
| 11) Tert butyl alcohol        | 4.77 | 59  | 171984  | 267.294 | ug/l | 98     |
| 12) 1,1-Dichloroethene        | 3.74 | 96  | 138042  | 48.023  | ug/l | 99     |
| 13) Acrolein                  | 3.61 | 56  | 79015   | 240.798 | ug/l | 99     |
| 14) Allyl chloride            | 4.33 | 41  | 226322  | 48.771  | ug/l | 99     |
| 15) Acrylonitrile             | 4.99 | 53  | 377867  | 263.963 | ug/l | 99     |
| 16) Acetone                   | 3.81 | 43  | 311644  | 221.328 | ug/l | 99     |
| 17) Carbon Disulfide          | 4.06 | 76  | 378112  | 47.317  | ug/l | 100    |
| 18) Methyl Acetate            | 4.32 | 43  | 154952  | 51.331  | ug/l | 99     |
| 19) Methyl tert-butyl Ether   | 5.04 | 73  | 478280  | 50.294  | ug/l | 98     |
| 20) Methylene Chloride        | 4.56 | 84  | 158085  | 49.195  | ug/l | 98     |
| 21) trans-1,2-Dichloroethene  | 5.05 | 96  | 150137  | 49.030  | ug/l | 98     |
| 22) Diisopropyl ether         | 5.95 | 45  | 450395  | 48.980  | ug/l | 100    |
| 23) Vinyl Acetate             | 5.90 | 43  | 1952067 | 250.185 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 269190  | 49.927  | ug/l | 100    |
| 25) 2-Butanone                | 6.83 | 43  | 499935  | 253.932 | ug/l | 100    |
| 26) 2,2-Dichloropropane       | 6.83 | 77  | 168439  | 35.200  | ug/l | 97     |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 175891  | 49.328  | ug/l | 97     |
| 28) Bromochloromethane        | 7.20 | 49  | 120890  | 51.538  | ug/l | 98     |
| 29) Tetrahydrofuran           | 7.21 | 42  | 335207  | 256.995 | ug/l | 99     |
| 30) Chloroform                | 7.37 | 83  | 272569  | 49.249  | ug/l | 100    |
| 31) Cyclohexane               | 7.66 | 56  | 234602  | 45.846  | ug/l | 99     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 242417  | 48.834  | ug/l | 98     |
| 36) 1,1-Dichloropropene       | 7.80 | 75  | 205097  | 46.999  | ug/l | 99     |
| 37) Ethyl Acetate             | 6.93 | 43  | 205971  | 52.305  | ug/l | 98     |
| 38) Carbon Tetrachloride      | 7.78 | 117 | 218647  | 46.888  | ug/l | 99     |

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 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 231901   | 44.083   | ug/l   | 98       |
| 40) Benzene                    | 8.04  | 78   | 627121   | 48.859   | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.18  | 41   | 97546m   | 57.940   | ug/l   |          |
| 42) 1,2-Dichloroethane         | 8.13  | 62   | 207105   | 49.828   | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.16  | 43   | 338080   | 49.356   | ug/l   | 99       |
| 44) Trichloroethene            | 8.84  | 130  | 180154   | 49.741   | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 165081   | 48.821   | ug/l   | 97       |
| 46) Dibromomethane             | 9.21  | 93   | 109338   | 49.405   | ug/l   | 97       |
| 47) Bromodichloromethane       | 9.40  | 83   | 223003   | 48.078   | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.20  | 41   | 155107   | 50.661   | ug/l   | 98       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 67672    | 1112.343 | ug/l   | 99       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 1009348  | 251.206  | ug/l   | 100      |
| 52) Toluene                    | 10.16 | 92   | 394250   | 48.972   | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 239827   | 48.041   | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 258033   | 47.181   | ug/l   | 100      |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 163488   | 49.328   | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 252229   | 48.752   | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 260701   | 49.665   | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 544425   | 247.656  | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.75 | 43   | 719913   | 254.487  | ug/l   | 99       |
| 60) Dibromochloromethane       | 10.90 | 129  | 190575   | 50.735   | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.01 | 107  | 167124   | 50.397   | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 170667   | 50.072   | ug/l   | 99       |
| 65) Chlorobenzene              | 11.44 | 112  | 429024   | 49.085   | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 170337   | 48.443   | ug/l   | 100      |
| 67) Ethyl Benzene              | 11.51 | 91   | 742581   | 47.692   | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 566864   | 96.406   | ug/l   | 99       |
| 69) o-Xylene                   | 11.95 | 106  | 277574   | 48.265   | ug/l   | 98       |
| 70) Styrene                    | 11.96 | 104  | 476800   | 49.862   | ug/l   | 99       |
| 71) Bromoform                  | 12.13 | 173  | 152773   | 51.269   | ug/l # | 99       |
| 73) Isopropylbenzene           | 12.25 | 105  | 726851   | 51.585   | ug/l   | 99       |
| 74) N-amyl acetate             | 12.07 | 43   | 278126   | 49.256   | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 229830   | 52.114   | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 189975m  | 46.298   | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 199479   | 48.302   | ug/l   | 95       |
| 78) n-propylbenzene            | 12.59 | 91   | 795729   | 44.560   | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 484385   | 50.708   | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 607048   | 50.372   | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 68074    | 42.646   | ug/l   | 98       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 486859   | 46.273   | ug/l   | 100      |
| 83) tert-Butylbenzene          | 12.99 | 119  | 522000   | 51.065   | ug/l   | 100      |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 599700   | 49.816   | ug/l   | 100      |
| 85) sec-Butylbenzene           | 13.17 | 105  | 677263   | 50.394   | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 622071   | 49.688   | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 330310   | 48.374   | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 324726   | 49.806   | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.62 | 91   | 501917   | 45.486   | ug/l   | 100      |
| 90) Hexachloroethane           | 13.87 | 117  | 121775   | 50.962   | ug/l   | 97       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 326812   | 48.013   | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 45786    | 50.171   | ug/l   | 97       |

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|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 190073   | 54.858 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 106725   | 51.099 | ug/l  | 98       |
| 95) Naphthalene            | 15.13 | 128  | 537952   | 51.394 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.31 | 180  | 189828   | 52.399 | ug/l  | 99       |

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

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