

Data Path : W:\HPCHEM1\MSVOA X\DATA\VX050718\  
 Data File : VX001461.D  
 Acq On : 07 May 2018 11:25  
 Operator : JC/MD  
 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

MMDadoda  
 5/9/2018 5:47:31 PM

Quant Time: May 08 06:41:43 2018  
 Quant Method : W:\HPCHEM1\MSVOA\_X\METHOD\82X050518W.M  
 Quant Title : SW846 8260  
 QLast Update : Sun May 06 07:59:25 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 307556   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.87  | 114  | 382772   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 363765   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.09 | 152  | 269765   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 6.07   | 65  | 215859   | 48.83 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.66%  |      |
| 35) Dibromofluoromethane  | 5.51   | 113 | 177516   | 52.14 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.28% |      |
| 50) Toluene-d8            | 8.72   | 98  | 659677   | 53.08 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 106.16% |      |
| 62) 4-Bromofluorobenzene  | 11.14  | 95  | 253883   | 53.22 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 106.44% |      |

## Target Compounds

|                               |      |     |         |        |      | Qvalue |
|-------------------------------|------|-----|---------|--------|------|--------|
| 2) Dichlorodifluoromethane    | 1.20 | 85  | 204887  | 49.49  | ug/l | 99     |
| 3) Chloromethane              | 1.32 | 50  | 180258  | 44.70  | ug/l | 99     |
| 4) Vinyl Chloride             | 1.41 | 62  | 191876  | 45.60  | ug/l | 100    |
| 5) Bromomethane               | 1.64 | 94  | 98395   | 51.17  | ug/l | 99     |
| 6) Chloroethane               | 1.72 | 64  | 119057  | 42.80  | ug/l | 99     |
| 7) Trichlorofluoromethane     | 1.93 | 101 | 295583  | 46.67  | ug/l | 100    |
| 8) Diethyl Ether              | 2.19 | 74  | 106790  | 43.02  | ug/l | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 2.39 | 101 | 175044  | 47.14  | ug/l | 100    |
| 10) Methyl Iodide             | 2.51 | 142 | 250868  | 46.83  | ug/l | 98     |
| 11) Tert butyl alcohol        | 3.07 | 59  | 186256  | 199.84 | ug/l | 100    |
| 12) 1,1-Dichloroethene        | 2.37 | 96  | 153277  | 45.04  | ug/l | 96     |
| 13) Acrolein                  | 2.29 | 56  | 34449   | 184.44 | ug/l | 92     |
| 14) Allyl chloride            | 2.73 | 41  | 283763  | 44.72  | ug/l | 98     |
| 15) Acrylonitrile             | 3.15 | 53  | 421483  | 200.12 | ug/l | 99     |
| 16) Acetone                   | 2.45 | 43  | 430822  | 214.63 | ug/l | 100    |
| 17) Carbon Disulfide          | 2.57 | 76  | 392898  | 45.36  | ug/l | 100    |
| 18) Methyl Acetate            | 2.78 | 43  | 216146  | 40.99  | ug/l | 99     |
| 19) Methyl tert-butyl Ether   | 3.21 | 73  | 525811  | 44.38  | ug/l | 98     |
| 20) Methylene Chloride        | 2.86 | 84  | 166900  | 41.99  | ug/l | 98     |
| 21) trans-1,2-Dichloroethene  | 3.17 | 96  | 163212  | 42.97  | ug/l | 96     |
| 22) Diisopropyl ether         | 3.87 | 45  | 547359  | 46.17  | ug/l | 99     |
| 23) Vinyl Acetate             | 3.82 | 43  | 2308831 | 233.68 | ug/l | 100    |
| 24) 1,1-Dichloroethane        | 3.70 | 63  | 297741  | 44.96  | ug/l | 99     |
| 25) 2-Butanone                | 4.71 | 43  | 614417  | 211.75 | ug/l | 99     |
| 26) 2,2-Dichloropropane       | 4.59 | 77  | 256684  | 50.19  | ug/l | 100    |
| 27) cis-1,2-Dichloroethene    | 4.60 | 96  | 185155  | 45.77  | ug/l | 97     |
| 28) Bromochloromethane        | 5.03 | 49  | 146873  | 51.15  | ug/l | 98     |
| 29) Tetrahydrofuran           | 5.17 | 42  | 378640  | 203.96 | ug/l | 100    |
| 30) Chloroform                | 5.22 | 83  | 314473  | 46.10  | ug/l | 96     |
| 31) Cyclohexane               | 5.58 | 56  | 273507  | 48.08  | ug/l | 97     |
| 32) 1,1,1-Trichloroethane     | 5.50 | 97  | 286528  | 48.06  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 5.80 | 75  | 237436  | 48.77  | ug/l | 100    |
| 37) Ethyl Acetate             | 4.87 | 43  | 231915  | 43.45  | ug/l | 99     |
| 38) Carbon Tetrachloride      | 5.79 | 117 | 263249  | 50.69  | ug/l | 99     |

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 Sample : VSTDCCC050  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

MMDadoda  
 5/9/2018 5:47:31 PM

Quant Time: May 08 06:41:43 2018  
 Quant Method : W:\HPCHEM1\MSVOA\_X\METHOD\82X050518W.M  
 Quant Title : SW846 8260  
 QLast Update : Sun May 06 07:59:25 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| 39) Methylcyclohexane          | 7.46  | 83   | 299795   | 52.08  | ug/l   | 99       |
| 40) Benzene                    | 6.15  | 78   | 687930   | 48.37  | ug/l   | 99       |
| 41) Methacrylonitrile          | 5.06  | 41   | 135951   | 44.52  | ug/l   | 99       |
| 42) 1,2-Dichloroethane         | 6.20  | 62   | 261271   | 47.80  | ug/l   | 100      |
| 43) Isopropyl Acetate          | 6.47  | 43   | 384028   | 46.87  | ug/l   | 99       |
| 44) Trichloroethene            | 7.21  | 130  | 215650   | 49.61  | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 7.52  | 63   | 172207   | 48.57  | ug/l   | 97       |
| 46) Dibromomethane             | 7.67  | 93   | 118877   | 47.36  | ug/l   | 99       |
| 47) Bromodichloromethane       | 7.90  | 83   | 233067   | 50.17  | ug/l   | 100      |
| 48) Methyl methacrylate        | 7.78  | 41   | 207297   | 46.46  | ug/l   | 99       |
| 49) 1,4-Dioxane                | 7.76  | 88   | 82599    | 856.94 | ug/l   | 98       |
| 51) 4-Methyl-2-Pentanone       | 8.65  | 43   | 1242302  | 228.17 | ug/l   | 100      |
| 52) Toluene                    | 8.79  | 92   | 465457   | 50.05  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 8.44  | 75   | 278814   | 53.11  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 9.04  | 75   | 258694   | 47.77  | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 9.22  | 97   | 178590   | 47.67  | ug/l   | 99       |
| 56) Ethyl methacrylate         | 9.18  | 69   | 261128   | 48.35  | ug/l   | 100      |
| 57) 1,3-Dichloropropane        | 9.38  | 76   | 292832   | 47.27  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 8.32  | 63   | 604911   | 228.37 | ug/l   | 100      |
| 59) 2-Hexanone                 | 9.50  | 43   | 952102   | 228.36 | ug/l   | 100      |
| 60) Dibromochloromethane       | 9.59  | 129  | 196767   | 51.29  | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 9.68  | 107  | 190644   | 48.47  | ug/l   | 99       |
| 64) Tetrachloroethene          | 9.34  | 164  | 253193   | 49.94  | ug/l   | 98       |
| 65) Chlorobenzene              | 10.14 | 112  | 522707   | 49.00  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 10.23 | 131  | 195161   | 51.14  | ug/l   | 100      |
| 67) Ethyl Benzene              | 10.26 | 91   | 876421   | 50.12  | ug/l   | 100      |
| 68) m/p-Xylenes                | 10.36 | 106  | 711151   | 102.93 | ug/l   | 98       |
| 69) o-Xylene                   | 10.70 | 106  | 340021   | 50.64  | ug/l   | 99       |
| 70) Styrene                    | 10.71 | 104  | 563188   | 51.63  | ug/l   | 99       |
| 71) Bromoform                  | 10.86 | 173  | 158538   | 43.68  | ug/l   | 100      |
| 73) Isopropylbenzene           | 11.02 | 105  | 924528   | 49.51  | ug/l   | 100      |
| 74) N-amyl acetate             | 6.47  | 43   | 384028   | 45.27  | ug/l # | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.27 | 83   | 248673   | 45.08  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 11.30 | 75   | 253865m  | 46.40  | ug/l   |          |
| 77) Bromobenzene               | 11.26 | 156  | 257342   | 47.40  | ug/l   | 98       |
| 78) n-propylbenzene            | 11.37 | 91   | 1045011  | 51.39  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 11.43 | 91   | 604935   | 48.34  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 11.51 | 105  | 784719   | 50.47  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 11.08 | 75   | 72429    | 42.88  | ug/l   | 99       |
| 82) 4-Chlorotoluene            | 11.51 | 91   | 719549   | 49.84  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 11.77 | 119  | 766567   | 49.55  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 11.81 | 105  | 807529   | 50.53  | ug/l   | 100      |
| 85) sec-Butylbenzene           | 11.95 | 105  | 962238   | 51.82  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 12.07 | 119  | 898717   | 52.76  | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 12.03 | 146  | 476012   | 49.05  | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 12.10 | 146  | 482572   | 48.75  | ug/l   | 100      |
| 89) n-Butylbenzene             | 12.39 | 91   | 752871   | 53.34  | ug/l   | 100      |
| 90) Hexachloroethane           | 12.60 | 117  | 134157   | 52.30  | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 12.40 | 146  | 471266   | 47.73  | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 13.01 | 75   | 56346    | 46.50  | ug/l   | 99       |

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Misc : 5.0mL/MSVOA X/WATER  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC050

Manual Integrations  
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MMDadoda  
5/9/2018 5:47:31 PM

Quant Time: May 08 06:41:43 2018  
Quant Method : W:\HPCHEM1\MSVOA\_X\METHOD\82X050518W.M  
Quant Title : SW846 8260  
QLast Update : Sun May 06 07:59:25 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 13.65 | 180  | 373405   | 51.68 | ug/l  | 100      |
| 94) Hexachlorobutadiene    | 13.79 | 225  | 202979   | 51.34 | ug/l  | 99       |
| 95) Naphthalene            | 13.84 | 128  | 979727   | 49.03 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 14.02 | 180  | 370026   | 49.91 | ug/l  | 99       |

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

