

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_N\DATA\VN112818\  
 Data File : VN052506.D  
 Acq On : 28 Nov 2018 9:04  
 Operator : MD\SY  
 Sample : VSTDCCC050  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 2 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

MMDadoda  
 11/29/2018 9:33:58 AM

Quant Time: Nov 28 13:38:02 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N112718W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Nov 28 01:11:38 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.66  | 168  | 1161861  | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.58  | 114  | 1767433  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 1573827  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 733588   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.02   | 65  | 601119   | 47.52 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.04%  |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 534632   | 49.07 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.14%  |      |
| 50) Toluene-d8            | 10.09  | 98  | 2112421  | 49.80 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.60%  |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 725428   | 50.90 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 101.80% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 491367  | 45.167  | ug/l | 98     |
| 3) Chloromethane              | 2.06 | 50  | 631694  | 43.989  | ug/l | 100    |
| 4) Vinyl Chloride             | 2.19 | 62  | 661072  | 44.814  | ug/l | 99     |
| 5) Bromomethane               | 2.57 | 94  | 400705  | 43.535  | ug/l | 98     |
| 6) Chloroethane               | 2.71 | 64  | 394318  | 44.130  | ug/l | 100    |
| 7) Trichlorofluoromethane     | 3.02 | 101 | 830188  | 45.816  | ug/l | 99     |
| 8) Diethyl Ether              | 3.41 | 74  | 305406  | 45.641  | ug/l | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.76 | 101 | 533652  | 47.198  | ug/l | 99     |
| 10) Methyl Iodide             | 3.96 | 142 | 733940  | 48.737  | ug/l | 99     |
| 11) Tert butyl alcohol        | 4.77 | 59  | 144869  | 228.745 | ug/l | 99     |
| 12) 1,1-Dichloroethene        | 3.74 | 96  | 495530  | 45.530  | ug/l | 98     |
| 13) Acrolein                  | 3.61 | 56  | 205033  | 193.327 | ug/l | 100    |
| 14) Allyl chloride            | 4.33 | 41  | 824383  | 43.949  | ug/l | 95     |
| 15) Acrylonitrile             | 4.98 | 53  | 894951  | 223.235 | ug/l | 99     |
| 16) Acetone                   | 3.81 | 43  | 832533  | 249.507 | ug/l | 100    |
| 17) Carbon Disulfide          | 4.06 | 76  | 1533273 | 44.767  | ug/l | 99     |
| 18) Methyl Acetate            | 4.32 | 43  | 419537  | 43.833  | ug/l | 97     |
| 19) Methyl tert-butyl Ether   | 5.04 | 73  | 1331857 | 45.994  | ug/l | 100    |
| 20) Methylene Chloride        | 4.55 | 84  | 563451  | 43.152  | ug/l | 99     |
| 21) trans-1,2-Dichloroethene  | 5.05 | 96  | 540054  | 46.461  | ug/l | 97     |
| 22) Diisopropyl ether         | 5.95 | 45  | 1815750 | 46.083  | ug/l | 100    |
| 23) Vinyl Acetate             | 5.89 | 43  | 5659789 | 230.622 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 1026614 | 45.633  | ug/l | 100    |
| 25) 2-Butanone                | 6.83 | 43  | 1120593 | 236.940 | ug/l | 98     |
| 26) 2,2-Dichloropropane       | 6.82 | 77  | 745736  | 47.891  | ug/l | 98     |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 618932  | 45.710  | ug/l | 99     |
| 28) Bromochloromethane        | 7.19 | 49  | 469044  | 45.647  | ug/l | 98     |
| 29) Tetrahydrofuran           | 7.21 | 42  | 667078  | 218.681 | ug/l | 99     |
| 30) Chloroform                | 7.37 | 83  | 1001879 | 44.637  | ug/l | 98     |
| 31) Cyclohexane               | 7.65 | 56  | 995539  | 45.689  | ug/l | 99     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 833795  | 46.886  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 7.79 | 75  | 798789  | 47.859  | ug/l | 99     |
| 37) Ethyl Acetate             | 6.92 | 43  | 443665  | 43.556  | ug/l | 99     |
| 38) Carbon Tetrachloride      | 7.77 | 117 | 722218  | 47.800  | ug/l | 100    |

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 Operator : MD\SY  
 Sample : VSTDCCC050  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 2 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 ClientSampleID :  
 VSTDCCC050

Manual Integrations  
 APPROVED

MMDadoda  
 11/29/2018 9:33:58 AM

Quant Time: Nov 28 13:38:02 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N112718W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Nov 28 01:11:38 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 1003011  | 49.442  | ug/l   | 99       |
| 40) Benzene                    | 8.04  | 78   | 2356831  | 47.383  | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.17  | 41   | 237359   | 42.623  | ug/l   | 93       |
| 42) 1,2-Dichloroethane         | 8.12  | 62   | 707123   | 46.951  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 8.16  | 43   | 799909   | 46.404  | ug/l   | 99       |
| 44) Trichloroethene            | 8.83  | 130  | 619022   | 48.585  | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 628964   | 47.562  | ug/l   | 98       |
| 46) Dibromomethane             | 9.21  | 93   | 346949   | 47.393  | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.40  | 83   | 758080   | 47.629  | ug/l   | 100      |
| 48) Methyl methacrylate        | 9.20  | 41   | 420508   | 46.784  | ug/l   | 99       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 92867    | 995.541 | ug/l   | 98       |
| 51) 4-Methyl-2-Pentanone       | 9.98  | 43   | 2272056  | 234.920 | ug/l   | 100      |
| 52) Toluene                    | 10.16 | 92   | 1451729  | 49.123  | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 764134   | 49.904  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 906809   | 49.419  | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 497099   | 47.819  | ug/l   | 99       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 637567   | 44.482  | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 869720   | 47.383  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.69  | 63   | 1817033  | 240.885 | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.75 | 43   | 1628235  | 250.840 | ug/l   | 99       |
| 60) Dibromochloromethane       | 10.90 | 129  | 553573   | 49.030  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.01 | 107  | 495931   | 48.033  | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 587699   | 48.163  | ug/l   | 99       |
| 65) Chlorobenzene              | 11.43 | 112  | 1571305  | 48.419  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 546713   | 48.451  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 2806432  | 49.383  | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 2098856  | 99.208  | ug/l   | 99       |
| 69) o-Xylene                   | 11.95 | 106  | 1016306  | 49.469  | ug/l   | 100      |
| 70) Styrene                    | 11.96 | 104  | 1660307  | 50.739  | ug/l   | 99       |
| 71) Bromoform                  | 12.13 | 173  | 365738   | 48.953  | ug/l # | 98       |
| 73) Isopropylbenzene           | 12.25 | 105  | 2746501  | 47.720  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 690864   | 47.513  | ug/l   | 100      |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 578269   | 44.168  | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 494338m  | 43.699  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 668711   | 47.007  | ug/l   | 99       |
| 78) n-propylbenzene            | 12.59 | 91   | 3184286  | 48.701  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 1840535  | 47.270  | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 2216395  | 48.285  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 163039   | 48.131  | ug/l   | 100      |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 1875821  | 47.802  | ug/l   | 100      |
| 83) tert-Butylbenzene          | 12.99 | 119  | 1947219  | 47.584  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 2237948  | 48.649  | ug/l   | 100      |
| 85) sec-Butylbenzene           | 13.17 | 105  | 2712142  | 48.660  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 2321228  | 48.896  | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 1189621  | 47.806  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 1176399  | 47.995  | ug/l   | 100      |
| 89) n-Butylbenzene             | 13.62 | 91   | 2046743  | 51.842  | ug/l   | 100      |
| 90) Hexachloroethane           | 13.88 | 117  | 381760   | 47.493  | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 1129968  | 47.529  | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 85231    | 45.517  | ug/l   | 100      |

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Sample : VSTDCCC050  
Misc : 5.00mL/MSVOA\_N/WATER  
ALS Vial : 2 Sample Multiplier: 28

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDCCC050

Manual Integrations  
APPROVED

MMDadoda  
11/29/2018 9:33:58 AM

Quant Time: Nov 28 13:38:02 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N112718W.M  
Quant Title : SW846 8260  
QLast Update : Wed Nov 28 01:11:38 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 602096   | 46.444 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 364836   | 47.702 | ug/l  | 99       |
| 95) Naphthalene            | 15.14 | 128  | 1213662  | 44.358 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.32 | 180  | 544729   | 45.737 | ug/l  | 100      |

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

