

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN052419\  
 Data File : VN055782.D  
 Acq On : 24 May 2019 9:21  
 Operator : JC/SP  
 Sample : VSTDCCC050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

MMDadoda  
 5/28/2019 10:35:04 AM

Quant Time: May 24 11:11:48 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N052319W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri May 24 06:41:54 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.66  | 168  | 370752   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.58  | 114  | 525630   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 474086   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 217221   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.02   | 65  | 185340   | 48.41 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.82%  |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 166283   | 50.04 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.08% |      |
| 50) Toluene-d8            | 10.09  | 98  | 638655   | 50.10 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.20% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 224414   | 51.34 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.68% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 111706  | 44.768  | ug/l | 99     |
| 3) Chloromethane              | 2.06 | 50  | 159479  | 45.617  | ug/l | 98     |
| 4) Vinyl Chloride             | 2.18 | 62  | 170653  | 45.766  | ug/l | 100    |
| 5) Bromomethane               | 2.53 | 94  | 114845  | 49.230  | ug/l | 98     |
| 6) Chloroethane               | 2.68 | 64  | 107412  | 47.845  | ug/l | 99     |
| 7) Trichlorofluoromethane     | 3.00 | 101 | 228212  | 46.682  | ug/l | 99     |
| 8) Diethyl Ether              | 3.40 | 74  | 102634  | 46.842  | ug/l | 96     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.74 | 101 | 144606  | 47.386  | ug/l | 99     |
| 10) Methyl Iodide             | 3.94 | 142 | 230413  | 51.645  | ug/l | 100    |
| 11) Tert butyl alcohol        | 4.81 | 59  | 182117  | 248.943 | ug/l | 99     |
| 12) 1,1-Dichloroethene        | 3.72 | 96  | 146661  | 46.513  | ug/l | 96     |
| 13) Acrolein                  | 3.60 | 56  | 116978  | 223.313 | ug/l | 99     |
| 14) Allyl chloride            | 4.31 | 41  | 246965  | 45.688  | ug/l | 99     |
| 15) Acrylonitrile             | 4.99 | 53  | 398245  | 237.071 | ug/l | 100    |
| 16) Acetone                   | 3.82 | 43  | 441609  | 262.383 | ug/l | 98     |
| 17) Carbon Disulfide          | 4.04 | 76  | 398512  | 44.484  | ug/l | 100    |
| 18) Methyl Acetate            | 4.32 | 43  | 163053  | 47.593  | ug/l | 98     |
| 19) Methyl tert-butyl Ether   | 5.05 | 73  | 494704  | 47.042  | ug/l | 98     |
| 20) Methylene Chloride        | 4.54 | 84  | 168918  | 46.343  | ug/l | 99     |
| 21) trans-1,2-Dichloroethene  | 5.03 | 96  | 160171  | 47.283  | ug/l | 96     |
| 22) Diisopropyl ether         | 5.95 | 45  | 484538  | 46.088  | ug/l | 96     |
| 23) Vinyl Acetate             | 5.89 | 43  | 2126804 | 235.945 | ug/l | 100    |
| 24) 1,1-Dichloroethane        | 5.84 | 63  | 282394  | 46.134  | ug/l | 99     |
| 25) 2-Butanone                | 6.84 | 43  | 573300  | 243.901 | ug/l | 100    |
| 26) 2,2-Dichloropropane       | 6.82 | 77  | 246253  | 46.484  | ug/l | 100    |
| 27) cis-1,2-Dichloroethene    | 6.82 | 96  | 187809  | 47.521  | ug/l | 99     |
| 28) Bromochloromethane        | 7.19 | 49  | 138965  | 47.682  | ug/l | 96     |
| 29) Tetrahydrofuran           | 7.21 | 42  | 344368  | 231.347 | ug/l | 98     |
| 30) Chloroform                | 7.37 | 83  | 287993  | 47.177  | ug/l | 98     |
| 31) Cyclohexane               | 7.65 | 56  | 262595  | 45.693  | ug/l | 96     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 255065  | 46.822  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 7.79 | 75  | 216760  | 47.321  | ug/l | 99     |
| 37) Ethyl Acetate             | 6.93 | 43  | 213714  | 48.273  | ug/l | 100    |
| 38) Carbon Tetrachloride      | 7.77 | 117 | 226768  | 47.527  | ug/l | 98     |

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 Sample : VSTDCCC050  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
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 ClientSampleID :  
 VSTDCCC050

Manual Integrations  
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MMDadoda  
 5/28/2019 10:35:04 AM

Quant Time: May 24 11:11:48 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N052319W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri May 24 06:41:54 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 273062   | 48.139  | ug/l   | 98       |
| 40) Benzene                    | 8.04  | 78   | 667342   | 48.340  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.17  | 41   | 107280   | 47.965  | ug/l   | 99       |
| 42) 1,2-Dichloroethane         | 8.12  | 62   | 216865   | 48.074  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 8.17  | 43   | 349424   | 46.975  | ug/l # | 92       |
| 44) Trichloroethene            | 8.83  | 130  | 193767   | 50.347  | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 172657   | 48.002  | ug/l   | 100      |
| 46) Dibromomethane             | 9.21  | 93   | 116544   | 49.407  | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.40  | 83   | 231903   | 47.945  | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.20  | 41   | 171469   | 50.017  | ug/l   | 99       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 70314    | 986.988 | ug/l   | 99       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 1079564  | 245.737 | ug/l   | 99       |
| 52) Toluene                    | 10.16 | 92   | 426761   | 49.152  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 254038   | 49.204  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 282288   | 49.354  | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 173952   | 50.011  | ug/l   | 99       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 271390   | 50.485  | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 280152   | 49.550  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.69  | 63   | 498663   | 242.736 | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.75 | 43   | 780452   | 250.422 | ug/l   | 99       |
| 60) Dibromochloromethane       | 10.90 | 129  | 202072   | 49.869  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 181716   | 50.367  | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 193382   | 48.363  | ug/l   | 98       |
| 65) Chlorobenzene              | 11.43 | 112  | 468025   | 49.314  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 181829   | 48.037  | ug/l   | 100      |
| 67) Ethyl Benzene              | 11.51 | 91   | 824234   | 48.429  | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 637165   | 99.028  | ug/l   | 99       |
| 69) o-Xylene                   | 11.95 | 106  | 312440   | 48.944  | ug/l   | 100      |
| 70) Styrene                    | 11.96 | 104  | 523973   | 50.686  | ug/l   | 100      |
| 71) Bromoform                  | 12.13 | 173  | 159979   | 49.550  | ug/l # | 99       |
| 73) Isopropylbenzene           | 12.25 | 105  | 825778   | 53.636  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 294284   | 50.031  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 235918   | 51.661  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 215445m  | 58.111  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 221167   | 47.714  | ug/l   | 96       |
| 78) n-propylbenzene            | 12.59 | 91   | 886979   | 46.981  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 533307   | 52.574  | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 688825   | 53.121  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 75866    | 46.992  | ug/l   | 99       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 526871   | 47.475  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 12.99 | 119  | 598481   | 53.442  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 679443   | 52.440  | ug/l   | 98       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 772117   | 52.941  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 711811   | 47.186  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 359145   | 48.932  | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 345205   | 49.469  | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.61 | 91   | 561566   | 48.585  | ug/l   | 100      |
| 90) Hexachloroethane           | 13.87 | 117  | 130197   | 45.344  | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 349428   | 47.718  | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 42562    | 44.221  | ug/l   | 95       |

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Sample : VSTDCCC050  
Misc : 5.00mL/MSVOA N/WATER  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
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ClientSampleId :  
VSTDCCC050

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5/28/2019 10:35:04 AM

Quant Time: May 24 11:11:48 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N052319W.M  
Quant Title : SW846 8260  
QLast Update : Fri May 24 06:41:54 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 193144   | 46.146 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 132443   | 51.445 | ug/l  | 99       |
| 95) Naphthalene            | 15.13 | 128  | 521462   | 51.895 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.31 | 180  | 201499   | 52.055 | ug/l  | 99       |

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

