

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_N\DATA\VN110419\  
 Data File : VN059079.D  
 Acq On : 4 Nov 2019 12:18  
 Operator : JC/SP  
 Sample : VN1104WBS02  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN1104WBS02

Manual Integrations  
 APPROVED

MMDadoda  
 11/5/2019 2:00:07 PM

Quant Time: Nov 05 03:10:34 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N110119W.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Nov 02 05:43:23 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.64  | 168  | 502270   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 782773   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.40 | 117  | 695666   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 313237   | 50.00 | ug/l  | 0.00     |

|                             |        |     |          |       |        |      |
|-----------------------------|--------|-----|----------|-------|--------|------|
| System Monitoring Compounds |        |     |          |       |        |      |
| 33) 1,2-Dichloroethane-d4   | 8.00   | 65  | 313447   | 47.12 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 94.24% |      |
| 35) Dibromofluoromethane    | 7.57   | 113 | 236015   | 46.74 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 93.48% |      |
| 50) Toluene-d8              | 10.08  | 98  | 936912   | 47.65 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 95.30% |      |
| 62) 4-Bromofluorobenzene    | 12.40  | 95  | 319038   | 45.14 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 90.28% |      |

| Target Compounds              |      |     |         |        |      | Qvalue |
|-------------------------------|------|-----|---------|--------|------|--------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 100152  | 18.442 | ug/l | 99     |
| 3) Chloromethane              | 2.04 | 50  | 130830  | 17.767 | ug/l | 100    |
| 4) Vinyl Chloride             | 2.17 | 62  | 131363  | 18.379 | ug/l | 97     |
| 5) Bromomethane               | 2.54 | 94  | 74618   | 17.658 | ug/l | 100    |
| 6) Chloroethane               | 2.68 | 64  | 78833   | 18.009 | ug/l | 99     |
| 7) Trichlorofluoromethane     | 3.00 | 101 | 157799  | 18.579 | ug/l | 100    |
| 8) Diethyl Ether              | 3.39 | 74  | 59922   | 18.066 | ug/l | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.74 | 101 | 93573   | 18.692 | ug/l | 99     |
| 10) Methyl Iodide             | 3.93 | 142 | 107488  | 17.665 | ug/l | 98     |
| 11) Tert butyl alcohol        | 4.75 | 59  | 107892  | 87.637 | ug/l | 100    |
| 12) 1,1-Dichloroethene        | 3.71 | 96  | 90854   | 18.249 | ug/l | 99     |
| 13) Acrolein                  | 3.58 | 56  | 66362   | 85.426 | ug/l | 99     |
| 14) Allyl chloride            | 4.30 | 41  | 178568  | 18.100 | ug/l | 99     |
| 15) Acrylonitrile             | 4.95 | 53  | 281343  | 91.099 | ug/l | 100    |
| 16) Acetone                   | 3.79 | 43  | 324579  | 96.382 | ug/l | 99     |
| 17) Carbon Disulfide          | 4.03 | 76  | 270611  | 17.097 | ug/l | 99     |
| 18) Methyl Acetate            | 4.30 | 43  | 143587  | 16.830 | ug/l | 100    |
| 19) Methyl tert-butyl Ether   | 5.01 | 73  | 307050  | 18.108 | ug/l | 98     |
| 20) Methylene Chloride        | 4.52 | 84  | 105767  | 17.941 | ug/l | 99     |
| 21) trans-1,2-Dichloroethene  | 5.01 | 96  | 97480   | 18.238 | ug/l | 99     |
| 22) Diisopropyl ether         | 5.92 | 45  | 356320  | 18.962 | ug/l | 98     |
| 23) Vinyl Acetate             | 5.87 | 43  | 1459234 | 97.498 | ug/l | 100    |
| 24) 1,1-Dichloroethane        | 5.82 | 63  | 197470  | 18.381 | ug/l | 100    |
| 25) 2-Butanone                | 6.81 | 43  | 412540  | 91.999 | ug/l | 99     |
| 26) 2,2-Dichloropropane       | 6.80 | 77  | 167950  | 18.011 | ug/l | 100    |
| 27) cis-1,2-Dichloroethene    | 6.81 | 96  | 111469  | 18.522 | ug/l | 99     |
| 28) Bromochloromethane        | 7.17 | 49  | 63201   | 19.061 | ug/l | 100    |
| 29) Tetrahydrofuran           | 7.19 | 42  | 262278  | 92.679 | ug/l | 99     |
| 30) Chloroform                | 7.35 | 83  | 186702  | 18.173 | ug/l | 98     |
| 31) Cyclohexane               | 7.63 | 56  | 186298  | 18.180 | ug/l | 97     |
| 32) 1,1,1-Trichloroethane     | 7.55 | 97  | 162137  | 18.654 | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 7.77 | 75  | 143144  | 18.399 | ug/l | 99     |
| 37) Ethyl Acetate             | 6.90 | 43  | 161167  | 18.645 | ug/l | 99     |
| 38) Carbon Tetrachloride      | 7.75 | 117 | 142180  | 18.752 | ug/l | 97     |

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Quant Time: Nov 05 03:10:34 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N110119W.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Nov 02 05:43:23 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| -----                          |       |      |          |         |        |          |
| 39) Methylcyclohexane          | 9.07  | 83   | 165444   | 18.398  | ug/l   | 96       |
| 40) Benzene                    | 8.02  | 78   | 433345   | 18.769  | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.15  | 41   | 63183    | 16.904  | ug/l # | 100      |
| 42) 1,2-Dichloroethane         | 8.11  | 62   | 151306   | 18.870  | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.14  | 43   | 244467   | 18.085  | ug/l   | 97       |
| 44) Trichloroethene            | 8.82  | 130  | 106055   | 18.669  | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 9.10  | 63   | 118381   | 18.959  | ug/l   | 98       |
| 46) Dibromomethane             | 9.19  | 93   | 72429    | 18.768  | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.39  | 83   | 145011   | 18.554  | ug/l   | 100      |
| 48) Methyl methacrylate        | 9.18  | 41   | 110258   | 17.888  | ug/l   | 99       |
| 49) 1,4-Dioxane                | 9.18  | 88   | 39254    | 390.421 | ug/l   | 99       |
| 51) 4-Methyl-2-Pentanone       | 9.97  | 43   | 782166   | 99.604  | ug/l   | 97       |
| 52) Toluene                    | 10.15 | 92   | 260183   | 19.232  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 10.37 | 75   | 161668   | 17.889  | ug/l   | 96       |
| 54) cis-1,3-Dichloropropene    | 9.83  | 75   | 180115   | 18.895  | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 10.55 | 97   | 102766   | 18.648  | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.42 | 69   | 152794   | 17.588  | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 10.70 | 76   | 179189   | 18.697  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.68  | 63   | 317095   | 94.858  | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.75 | 43   | 584881   | 98.040  | ug/l   | 98       |
| 60) Dibromochloromethane       | 10.90 | 129  | 108169   | 18.213  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 105658   | 18.925  | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 94253    | 19.395  | ug/l   | 98       |
| 65) Chlorobenzene              | 11.43 | 112  | 270687   | 18.958  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 100715   | 19.173  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 483718   | 19.571  | ug/l   | 100      |
| 68) m/p-Xylenes                | 11.62 | 106  | 362872   | 39.317  | ug/l   | 98       |
| 69) o-Xylene                   | 11.95 | 106  | 170301   | 19.323  | ug/l   | 100      |
| 70) Styrene                    | 11.96 | 104  | 271275   | 18.994  | ug/l   | 99       |
| 71) Bromoform                  | 12.13 | 173  | 75946    | 18.678  | ug/l # | 100      |
| 73) Isopropylbenzene           | 12.25 | 105  | 464894   | 20.174  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 192563   | 18.785  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 156847   | 19.107  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 143929m  | 19.417  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 111464   | 19.345  | ug/l   | 98       |
| 78) n-propylbenzene            | 12.59 | 91   | 543646   | 20.369  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 327637   | 19.770  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 389167   | 19.871  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 51524    | 17.819  | ug/l   | 94       |
| 82) 4-Chlorotoluene            | 12.78 | 91   | 325391   | 19.239  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 13.00 | 119  | 335462   | 20.163  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 392481   | 20.624  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 446470   | 20.476  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 398890   | 20.291  | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 13.29 | 146  | 194550   | 19.004  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.37 | 146  | 192609   | 19.020  | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.62 | 91   | 339053   | 19.794  | ug/l   | 100      |
| 90) Hexachloroethane           | 13.88 | 117  | 72474    | 18.546  | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.66 | 146  | 194657   | 19.109  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.28 | 75   | 31612    | 17.829  | ug/l   | 99       |

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|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.92 | 180  | 101210   | 18.421 | ug/l  | 100      |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 64067    | 19.429 | ug/l  | 99       |
| 95) Naphthalene            | 15.13 | 128  | 274589   | 18.062 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.30 | 180  | 103505   | 18.510 | ug/l  | 98       |

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

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