

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_N\DATA\VN031219\  
 Data File : VN054162.D  
 Acq On : 12 Mar 2019 12:14  
 Operator : JC/SP  
 Sample : VSTDIC150  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDIC150

Manual Integrations  
 APPROVED

MMDadoda  
 3/13/2019 11:49:22 AM

Quant Time: Mar 13 03:29:55 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N031219W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Mar 13 02:32:37 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.66  | 168  | 1610762  | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 2385360  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 2176849  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 1116129  | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |        |         |      |
|---------------------------|--------|-----|----------|--------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 2471762  | 144.49 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 288.98% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 2282062  | 148.33 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 296.66% |      |
| 50) Toluene-d8            | 10.09  | 98  | 8570128  | 150.84 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 301.68% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 3135090  | 157.70 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 315.40% |      |

## Target Compounds

|                               |      |     |          |         |        | Qvalue |
|-------------------------------|------|-----|----------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 2333645  | 152.866 | ug/l   | 99     |
| 3) Chloromethane              | 2.06 | 50  | 2035949  | 137.296 | ug/l   | 100    |
| 4) Vinyl Chloride             | 2.19 | 62  | 2372838  | 139.999 | ug/l   | 100    |
| 5) Bromomethane               | 2.55 | 94  | 1576221  | 134.275 | ug/l   | 98     |
| 6) Chloroethane               | 2.70 | 64  | 1359872  | 132.607 | ug/l   | 99     |
| 7) Trichlorofluoromethane     | 3.02 | 101 | 3006558  | 133.422 | ug/l   | 100    |
| 8) Diethyl Ether              | 3.41 | 74  | 1504295  | 146.491 | ug/l   | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.75 | 101 | 2444284  | 144.749 | ug/l   | 99     |
| 10) Methyl Iodide             | 3.94 | 142 | 3634933  | 148.535 | ug/l   | 99     |
| 11) Tert butyl alcohol        | 4.81 | 59  | 907062   | 770.345 | ug/l # | 85     |
| 12) 1,1-Dichloroethene        | 3.73 | 96  | 2425558  | 144.948 | ug/l   | 100    |
| 13) Acrolein                  | 3.60 | 56  | 795193   | 715.585 | ug/l   | 100    |
| 14) Allyl chloride            | 4.31 | 41  | 3323752  | 154.806 | ug/l   | 99     |
| 15) Acrylonitrile             | 4.99 | 53  | 3805391  | 789.966 | ug/l   | 100    |
| 16) Acetone                   | 3.82 | 43  | 3264216  | 666.447 | ug/l   | 98     |
| 17) Carbon Disulfide          | 4.04 | 76  | 6726700  | 160.352 | ug/l   | 99     |
| 18) Methyl Acetate            | 4.33 | 43  | 1604066  | 161.874 | ug/l   | 100    |
| 19) Methyl tert-butyl Ether   | 5.05 | 73  | 6353596  | 153.178 | ug/l   | 100    |
| 20) Methylene Chloride        | 4.55 | 84  | 2345070  | 145.814 | ug/l   | 99     |
| 21) trans-1,2-Dichloroethene  | 5.03 | 96  | 2384547  | 148.723 | ug/l   | 99     |
| 22) Diisopropyl ether         | 5.96 | 45  | 6739944  | 157.288 | ug/l   | 96     |
| 23) Vinyl Acetate             | 5.90 | 43  | 25658790 | 812.132 | ug/l   | 99     |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 4090004  | 148.653 | ug/l   | 100    |
| 25) 2-Butanone                | 6.84 | 43  | 4635178  | 806.304 | ug/l   | 100    |
| 26) 2,2-Dichloropropane       | 6.82 | 77  | 3603895  | 148.948 | ug/l   | 100    |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 2717252  | 151.911 | ug/l   | 100    |
| 28) Bromochloromethane        | 7.19 | 49  | 1649994  | 146.692 | ug/l   | 99     |
| 29) Tetrahydrofuran           | 7.22 | 42  | 2880120  | 779.214 | ug/l   | 99     |
| 30) Chloroform                | 7.37 | 83  | 4288501  | 149.370 | ug/l   | 100    |
| 31) Cyclohexane               | 7.65 | 56  | 3785896  | 149.625 | ug/l   | 99     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 3950240  | 152.346 | ug/l   | 99     |
| 36) 1,1-Dichloropropene       | 7.79 | 75  | 3372868  | 153.541 | ug/l   | 100    |
| 37) Ethyl Acetate             | 6.94 | 43  | 1997263  | 154.104 | ug/l   | 99     |
| 38) Carbon Tetrachloride      | 7.77 | 117 | 3577914  | 155.315 | ug/l   | 99     |

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 Acq On : 12 Mar 2019 12:14  
 Operator : JC/SP  
 Sample : VSTDICC150  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC150

Manual Integrations  
 APPROVED

MMDadoda  
 3/13/2019 11:49:22 AM

Quant Time: Mar 13 03:29:55 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N031219W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Mar 13 02:32:37 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|-------|------|----------|----------|-------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 4246950  | 157.132  | ug/l  | 99       |
| 40) Benzene                    | 8.04  | 78   | 9737317  | 154.902  | ug/l  | 99       |
| 41) Methacrylonitrile          | 7.17  | 41   | 1096636  | 158.232  | ug/l  | 96       |
| 42) 1,2-Dichloroethane         | 8.12  | 62   | 3191152  | 150.364  | ug/l  | 100      |
| 43) Isopropyl Acetate          | 8.17  | 43   | 3674731  | 165.863  | ug/l  | 98       |
| 44) Trichloroethene            | 8.83  | 130  | 2949617  | 151.048  | ug/l  | 100      |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 2419231  | 154.990  | ug/l  | 100      |
| 46) Dibromomethane             | 9.21  | 93   | 1615705  | 153.200  | ug/l  | 99       |
| 47) Bromodichloromethane       | 9.40  | 83   | 3367278  | 159.264  | ug/l  | 99       |
| 48) Methyl methacrylate        | 9.20  | 41   | 1875714  | 166.828  | ug/l  | 98       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 521282   | 3277.755 | ug/l  | 100      |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 9889513  | 843.480  | ug/l  | 98       |
| 52) Toluene                    | 10.16 | 92   | 6334852  | 158.935  | ug/l  | 99       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 3754736  | 151.088  | ug/l  | 99       |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 4076458  | 165.455  | ug/l  | 99       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 2265718  | 155.680  | ug/l  | 99       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 3026119  | 174.381  | ug/l  | 97       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 3768236  | 158.347  | ug/l  | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 6085259  | 770.699  | ug/l  | 100      |
| 59) 2-Hexanone                 | 10.75 | 43   | 6730559  | 862.720  | ug/l  | 98       |
| 60) Dibromochloromethane       | 10.90 | 129  | 2799461  | 170.895  | ug/l  | 100      |
| 61) 1,2-Dibromoethane          | 11.01 | 107  | 2410311  | 162.971  | ug/l  | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 2899358  | 137.758  | ug/l  | 99       |
| 65) Chlorobenzene              | 11.43 | 112  | 7322557  | 153.199  | ug/l  | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 2744868  | 158.081  | ug/l  | 100      |
| 67) Ethyl Benzene              | 11.51 | 91   | 12186109 | 153.801  | ug/l  | 100      |
| 68) m/p-Xylenes                | 11.62 | 106  | 9660830  | 311.963  | ug/l  | 95       |
| 69) o-Xylene                   | 11.95 | 106  | 4685080  | 155.194  | ug/l  | 99       |
| 70) Styrene                    | 11.96 | 104  | 7745297  | 163.590  | ug/l  | 100      |
| 71) Bromoform                  | 12.13 | 173  | 2070501  | 151.424  | ug/l  | # 100    |
| 73) Isopropylbenzene           | 12.25 | 105  | 12288428 | 137.613  | ug/l  | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 3203887  | 161.641  | ug/l  | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 2768605  | 145.522  | ug/l  | 99       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 2142253m | 128.822  | ug/l  |          |
| 77) Bromobenzene               | 12.53 | 156  | 3385802  | 143.287  | ug/l  | 99       |
| 78) n-propylbenzene            | 12.59 | 91   | 13862713 | 143.072  | ug/l  | 99       |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 8193398  | 140.637  | ug/l  | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 10490704 | 141.238  | ug/l  | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 854308   | 151.992  | ug/l  | 94       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 8596757  | 147.778  | ug/l  | 100      |
| 83) tert-Butylbenzene          | 12.99 | 119  | 9465979  | 138.458  | ug/l  | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 10689505 | 146.695  | ug/l  | 100      |
| 85) sec-Butylbenzene           | 13.17 | 105  | 12414328 | 140.018  | ug/l  | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 11302755 | 145.309  | ug/l  | 100      |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 6017702  | 151.137  | ug/l  | 100      |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 5935529  | 151.721  | ug/l  | 100      |
| 89) n-Butylbenzene             | 13.61 | 91   | 9582973  | 162.145  | ug/l  | 100      |
| 90) Hexachloroethane           | 13.88 | 117  | 2027123  | 157.388  | ug/l  | 99       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 5680503  | 145.938  | ug/l  | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 456265   | 154.979  | ug/l  | 98       |

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Acq On : 12 Mar 2019 12:14  
Operator : JC/SP  
Sample : VSTDICC150  
Misc : 5.00mL/MSVOA\_N/WATER  
ALS Vial : 8 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VSTDICC150

Manual Integrations  
APPROVED

MMDadoda  
3/13/2019 11:49:22 AM

Quant Time: Mar 13 03:29:55 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N031219W.M  
Quant Title : SW846 8260  
QLast Update : Wed Mar 13 02:32:37 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|----------------------------|-------|------|----------|---------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 3699448  | 152.019 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 1997493  | 134.727 | ug/l  | 100      |
| 95) Naphthalene            | 15.13 | 128  | 7877268  | 153.216 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.31 | 180  | 3543993  | 171.363 | ug/l  | 99       |

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

