

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN071519\  
 Data File : VN056708.D  
 Acq On : 15 Jul 2019 13:43  
 Operator : JC/SP  
 Sample : K3591-08  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 LOQ-WATER-02-QT3-2019

Manual Integrations  
 APPROVED

MMDadoda  
 7/17/2019 1:31:34 AM

Quant Time: Jul 16 07:06:03 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N071519W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jul 16 06:46:10 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 319347   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 502613   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 427541   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 142216   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 181512   | 51.38 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.76% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 154372   | 49.35 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.70%  |      |
| 50) Toluene-d8            | 10.09  | 98  | 583599   | 48.31 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.62%  |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 167428   | 41.10 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 82.20%  |      |

## Target Compounds

|                               |      |     |       |       |        | Qvalue |
|-------------------------------|------|-----|-------|-------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 3096  | 1.032 | ug/l   | 96     |
| 3) Chloromethane              | 2.06 | 50  | 4424  | 1.097 | ug/l # | 86     |
| 4) Vinyl Chloride             | 2.18 | 62  | 4108  | 1.058 | ug/l   | 98     |
| 5) Bromomethane               | 2.55 | 94  | 3046  | 1.334 | ug/l   | 98     |
| 6) Chloroethane               | 2.70 | 64  | 2435  | 1.076 | ug/l   | 96     |
| 7) Trichlorofluoromethane     | 3.01 | 101 | 5007  | 1.005 | ug/l   | 94     |
| 8) Diethyl Ether              | 3.41 | 74  | 1999  | 1.029 | ug/l   | 88     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.75 | 101 | 3052  | 1.020 | ug/l # | 62     |
| 10) Methyl Iodide             | 3.95 | 142 | 3142  | 0.785 | ug/l # | 86     |
| 11) Tert butyl alcohol        | 4.79 | 59  | 2858  | 4.861 | ug/l # | 73     |
| 12) 1,1-Dichloroethene        | 3.73 | 96  | 3177m | 1.058 | ug/l   |        |
| 13) Acrolein                  | 3.62 | 56  | 1501  | 7.034 | ug/l   | 95     |
| 14) Allyl chloride            | 4.32 | 41  | 5379m | 1.036 | ug/l   |        |
| 15) Acrylonitrile             | 4.99 | 53  | 8184  | 4.820 | ug/l # | 90     |
| 16) Acetone                   | 3.82 | 43  | 7822  | 4.805 | ug/l   | 89     |
| 17) Carbon Disulfide          | 4.05 | 76  | 8128  | 1.025 | ug/l   | 97     |
| 18) Methyl Acetate            | 4.34 | 43  | 6981  | 1.599 | ug/l   | 96     |
| 19) Methyl tert-butyl Ether   | 5.04 | 73  | 9152  | 0.957 | ug/l # | 90     |
| 20) Methylene Chloride        | 4.55 | 84  | 4509m | 1.268 | ug/l   |        |
| 21) trans-1,2-Dichloroethene  | 5.04 | 96  | 3364  | 1.060 | ug/l   | 90     |
| 22) Diisopropyl ether         | 5.95 | 45  | 10061 | 0.982 | ug/l # | 62     |
| 23) Vinyl Acetate             | 5.91 | 43  | 36359 | 4.378 | ug/l   | 95     |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 5940  | 1.000 | ug/l # | 83     |
| 25) 2-Butanone                | 6.85 | 43  | 10696 | 4.494 | ug/l   | 99     |
| 26) 2,2-Dichloropropane       | 6.82 | 77  | 3856  | 0.900 | ug/l # | 71     |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 3696  | 1.012 | ug/l   | 53     |
| 28) Bromochloromethane        | 7.20 | 49  | 2796  | 1.001 | ug/l # | 98     |
| 29) Tetrahydrofuran           | 7.22 | 42  | 7426  | 4.784 | ug/l   | 98     |
| 30) Chloroform                | 7.37 | 83  | 6399  | 1.076 | ug/l   | 98     |
| 31) Cyclohexane               | 7.66 | 56  | 10711 | 1.897 | ug/l # | 38     |
| 32) 1,1,1-Trichloroethane     | 7.58 | 97  | 4455m | 0.947 | ug/l   |        |
| 36) 1,1-Dichloropropene       | 7.79 | 75  | 4716  | 1.014 | ug/l   | 93     |
| 37) Ethyl Acetate             | 6.93 | 43  | 3892  | 0.849 | ug/l # | 80     |
| 38) Carbon Tetrachloride      | 7.78 | 117 | 4520  | 1.036 | ug/l # | 82     |

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 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 5112     | 0.890  | ug/l   | 90       |
| 40) Benzene                    | 8.04  | 78   | 13428    | 0.942  | ug/l   | 97       |
| 41) Methacrylonitrile          | 7.18  | 41   | 1393m    | 0.692  | ug/l   |          |
| 42) 1,2-Dichloroethane         | 8.13  | 62   | 4994     | 1.109  | ug/l   | 90       |
| 43) Isopropyl Acetate          | 8.17  | 43   | 6916     | 0.960  | ug/l # | 92       |
| 44) Trichloroethene            | 8.84  | 130  | 3600     | 0.930  | ug/l   | 100      |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 3713     | 0.981  | ug/l   | 94       |
| 46) Dibromomethane             | 9.21  | 93   | 2465     | 1.050  | ug/l   | 94       |
| 47) Bromodichloromethane       | 9.40  | 83   | 3785     | 0.849  | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.20  | 41   | 3369     | 0.967  | ug/l   | 99       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 1258     | 17.592 | ug/l # | 80       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 21941    | 4.701  | ug/l   | 98       |
| 52) Toluene                    | 10.16 | 92   | 8640     | 1.021  | ug/l   | 97       |
| 53) t-1,3-Dichloropropene      | 10.39 | 75   | 3536     | 0.760  | ug/l   | 93       |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 4537     | 0.840  | ug/l   | 95       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 3091     | 0.871  | ug/l # | 81       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 4121     | 0.807  | ug/l   | 92       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 5820     | 1.004  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 10034    | 4.085  | ug/l   | 98       |
| 59) 2-Hexanone                 | 10.75 | 43   | 14665    | 4.379  | ug/l   | 97       |
| 60) Dibromochloromethane       | 10.90 | 129  | 2844     | 0.815  | ug/l   | 92       |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 3062     | 0.868  | ug/l   | 96       |
| 64) Tetrachloroethene          | 10.63 | 164  | 4249     | 1.152  | ug/l   | 95       |
| 65) Chlorobenzene              | 11.43 | 112  | 8970     | 1.026  | ug/l   | 91       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 2780     | 0.864  | ug/l # | 62       |
| 67) Ethyl Benzene              | 11.51 | 91   | 14599    | 0.950  | ug/l   | 91       |
| 68) m/p-Xylenes                | 11.62 | 106  | 10737    | 1.870  | ug/l   | 97       |
| 69) o-Xylene                   | 11.94 | 106  | 4782     | 0.847  | ug/l   | 86       |
| 70) Styrene                    | 11.96 | 104  | 7626     | 0.836  | ug/l   | 99       |
| 71) Bromoform                  | 12.12 | 173  | 1912     | 0.781  | ug/l # | 94       |
| 73) Isopropylbenzene           | 12.25 | 105  | 13138    | 1.146  | ug/l   | 99       |
| 74) N-amyl acetate             | 12.07 | 43   | 4219     | 0.988  | ug/l # | 93       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 4998     | 1.296  | ug/l   | 93       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 4021m    | 1.293  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 3679     | 1.227  | ug/l   | 96       |
| 78) n-propylbenzene            | 12.59 | 91   | 13762    | 1.081  | ug/l   | 98       |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 9202     | 1.168  | ug/l   | 97       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 10941    | 1.126  | ug/l   | 95       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 810m     | 0.804  | ug/l   |          |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 8496     | 1.137  | ug/l   | 92       |
| 83) tert-Butylbenzene          | 12.99 | 119  | 9428     | 1.115  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 10006    | 1.054  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 12109    | 1.121  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 10138    | 1.036  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 5068     | 1.031  | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 5244m    | 1.097  | ug/l   |          |
| 89) n-Butylbenzene             | 13.61 | 91   | 6586     | 0.836  | ug/l   | 98       |
| 90) Hexachloroethane           | 13.88 | 117  | 1368     | 0.865  | ug/l   | 87       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 5633     | 1.121  | ug/l   | 97       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.26 | 75   | 489      | 0.795  | ug/l   | 84       |

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| Internal Standards         | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|----------------------------|-------|------|----------|-------|--------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 1814     | 0.788 | ug/l   | 85       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 2151     | 1.202 | ug/l   | 99       |
| 95) Naphthalene            | 15.14 | 128  | 4626     | 0.749 | ug/l # | 91       |
| 96) 1,2,3-Trichlorobenzene | 15.31 | 180  | 2050     | 0.862 | ug/l   | 93       |

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

