

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN051820\  
 Data File : VN061428.D  
 Acq On : 18 May 2020 11:37  
 Operator : JC/MD  
 Sample : VSTDIC020  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDIC020

Manual Integrations  
 APPROVED

MMDadoda  
 5/19/2020 4:25:30 PM

Quant Time: May 18 12:41:51 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N051820W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon May 18 12:26:39 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.63  | 168  | 275077   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.55  | 114  | 503896   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.38 | 117  | 469937   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.32 | 152  | 213052   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 7.99   | 65  | 81770    | 19.37 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 38.74% |      |
| 35) Dibromofluoromethane  | 7.55   | 113 | 55469    | 21.91 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 43.82% |      |
| 50) Toluene-d8            | 10.06  | 98  | 235346   | 18.82 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 37.64% |      |
| 62) 4-Bromofluorobenzene  | 12.37  | 95  | 85876    | 18.61 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 37.22% |      |

## Target Compounds

|                               |      |     |        |         |        | Qvalue |
|-------------------------------|------|-----|--------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 43951  | 19.749  | ug/l   | 99     |
| 3) Chloromethane              | 2.03 | 50  | 72139  | 16.598  | ug/l   | 99     |
| 4) Vinyl Chloride             | 2.16 | 62  | 106795 | 16.039  | ug/l   | 100    |
| 5) Bromomethane               | 2.54 | 94  | 57701  | 15.991  | ug/l   | 99     |
| 6) Chloroethane               | 2.67 | 64  | 71197  | 15.072  | ug/l   | 97     |
| 7) Trichlorofluoromethane     | 2.98 | 101 | 123018 | 15.052  | ug/l   | 96     |
| 8) Diethyl Ether              | 3.37 | 74  | 35651  | 19.353  | ug/l   | 100    |
| 9) 1,1,2-Trichlorotrifluoroet | 3.72 | 101 | 51644  | 19.836  | ug/l   | 99     |
| 10) Methyl Iodide             | 3.91 | 142 | 60163  | 18.564  | ug/l   | 99     |
| 11) Tert butyl alcohol        | 4.73 | 59  | 44864  | 140.902 | ug/l # | 83     |
| 12) 1,1-Dichloroethene        | 3.70 | 96  | 53149  | 19.061  | ug/l   | 97     |
| 13) Acrolein                  | 3.57 | 56  | 33145  | 91.945  | ug/l   | 92     |
| 14) Allyl chloride            | 4.27 | 41  | 91267  | 18.463  | ug/l   | 98     |
| 15) Acrylonitrile             | 4.93 | 53  | 136213 | 100.158 | ug/l   | 99     |
| 16) Acetone                   | 3.77 | 43  | 110647 | 103.838 | ug/l   | 98     |
| 17) Carbon Disulfide          | 4.01 | 76  | 143865 | 20.048  | ug/l   | 97     |
| 18) Methyl Acetate            | 4.28 | 43  | 55921  | 17.934  | ug/l   | 99     |
| 19) Methyl tert-butyl Ether   | 4.99 | 73  | 200785 | 18.393  | ug/l   | 99     |
| 20) Methylene Chloride        | 4.50 | 84  | 61902  | 18.406  | ug/l   | 98     |
| 21) trans-1,2-Dichloroethene  | 4.99 | 96  | 60786  | 18.026  | ug/l   | 96     |
| 22) Diisopropyl ether         | 5.90 | 45  | 198681 | 18.068  | ug/l   | 96     |
| 23) Vinyl Acetate             | 5.84 | 43  | 811817 | 90.691  | ug/l   | 99     |
| 24) 1,1-Dichloroethane        | 5.80 | 63  | 116016 | 18.472  | ug/l   | 99     |
| 25) 2-Butanone                | 6.78 | 43  | 176484 | 100.053 | ug/l   | 100    |
| 26) 2,2-Dichloropropane       | 6.77 | 77  | 109589 | 20.377  | ug/l   | 98     |
| 27) cis-1,2-Dichloroethene    | 6.78 | 96  | 72862  | 18.606  | ug/l   | 99     |
| 28) Bromochloromethane        | 7.15 | 49  | 53927  | 19.554  | ug/l   | 97     |
| 29) Tetrahydrofuran           | 7.17 | 42  | 118997 | 99.381  | ug/l   | 100    |
| 30) Chloroform                | 7.33 | 83  | 122744 | 18.621  | ug/l   | 99     |
| 31) Cyclohexane               | 7.61 | 56  | 110154 | 17.866  | ug/l   | 97     |
| 32) 1,1,1-Trichloroethane     | 7.53 | 97  | 109084 | 18.591  | ug/l   | 100    |
| 36) 1,1-Dichloropropene       | 7.75 | 75  | 90753  | 18.052  | ug/l   | 99     |
| 37) Ethyl Acetate             | 6.88 | 43  | 77876  | 18.582  | ug/l   | 99     |
| 38) Carbon Tetrachloride      | 7.73 | 117 | 83297  | 19.328  | ug/l   | 97     |

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 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.05  | 83   | 111486   | 18.634  | ug/l   | 99       |
| 40) Benzene                    | 8.00  | 78   | 271507   | 18.350  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.13  | 41   | 38440    | 19.766  | ug/l   | 93       |
| 42) 1,2-Dichloroethane         | 8.09  | 62   | 100440   | 18.885  | ug/l   | 98       |
| 43) Isopropyl Acetate          | 8.13  | 43   | 140831   | 17.477  | ug/l   | 99       |
| 44) Trichloroethene            | 8.80  | 130  | 69894    | 18.281  | ug/l   | 97       |
| 45) 1,2-Dichloropropane        | 9.08  | 63   | 70611    | 18.945  | ug/l   | 96       |
| 46) Dibromomethane             | 9.17  | 93   | 47354    | 18.894  | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.37  | 83   | 102228   | 18.788  | ug/l   | 97       |
| 48) Methyl methacrylate        | 9.17  | 41   | 63210    | 17.335  | ug/l   | 99       |
| 49) 1,4-Dioxane                | 9.17  | 88   | 13610    | 575.434 | ug/l # | 93       |
| 51) 4-Methyl-2-Pentanone       | 9.95  | 43   | 402093   | 92.667  | ug/l   | 98       |
| 52) Toluene                    | 10.12 | 92   | 169737   | 18.073  | ug/l   | 97       |
| 53) t-1,3-Dichloropropene      | 10.35 | 75   | 110174   | 18.515  | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene    | 9.81  | 75   | 118334   | 18.855  | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 10.53 | 97   | 66048    | 18.901  | ug/l   | 99       |
| 56) Ethyl methacrylate         | 10.40 | 69   | 103395   | 18.097  | ug/l   | 97       |
| 57) 1,3-Dichloropropane        | 10.68 | 76   | 114672   | 18.835  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.66  | 63   | 215206   | 89.177  | ug/l   | 98       |
| 59) 2-Hexanone                 | 10.72 | 43   | 280158   | 94.252  | ug/l   | 99       |
| 60) Dibromochloromethane       | 10.87 | 129  | 71714    | 18.459  | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 10.98 | 107  | 69744    | 18.976  | ug/l   | 98       |
| 64) Tetrachloroethene          | 10.60 | 164  | 67531    | 18.355  | ug/l   | 99       |
| 65) Chlorobenzene              | 11.41 | 112  | 178878   | 18.340  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.48 | 131  | 65398    | 18.996  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.48 | 91   | 338828   | 18.753  | ug/l   | 100      |
| 68) m/p-Xylenes                | 11.59 | 106  | 253112   | 37.290  | ug/l   | 100      |
| 69) o-Xylene                   | 11.92 | 106  | 122221   | 18.564  | ug/l   | 100      |
| 70) Styrene                    | 11.94 | 104  | 201888   | 18.264  | ug/l   | 100      |
| 71) Bromoform                  | 12.10 | 173  | 45118    | 18.608  | ug/l # | 99       |
| 73) Isopropylbenzene           | 12.22 | 105  | 326358   | 18.820  | ug/l   | 99       |
| 74) N-amyl acetate             | 12.04 | 43   | 119040   | 17.552  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.48 | 83   | 91588    | 18.529  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.53 | 75   | 87125m   | 19.580  | ug/l   |          |
| 77) Bromobenzene               | 12.50 | 156  | 69711    | 18.367  | ug/l   | 97       |
| 78) n-propylbenzene            | 12.56 | 91   | 380004   | 18.799  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.65 | 91   | 218408   | 18.430  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.71 | 105  | 269604   | 18.577  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.27 | 75   | 31541    | 18.538  | ug/l   | 97       |
| 82) 4-Chlorotoluene            | 12.75 | 91   | 227330   | 18.257  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 12.97 | 119  | 229889   | 18.569  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 13.01 | 105  | 272415   | 18.811  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.15 | 105  | 315928   | 18.906  | ug/l   | 98       |
| 86) p-Isopropyltoluene         | 13.26 | 119  | 277956   | 19.162  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.26 | 146  | 130202   | 18.918  | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene        | 13.34 | 146  | 128250   | 18.145  | ug/l   | 98       |
| 89) n-Butylbenzene             | 13.59 | 91   | 252883   | 19.212  | ug/l   | 99       |
| 90) Hexachloroethane           | 13.85 | 117  | 37950    | 18.988  | ug/l   | 97       |
| 91) 1,2-Dichlorobenzene        | 13.63 | 146  | 125458   | 19.068  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.25 | 75   | 18728    | 19.706  | ug/l   | 98       |

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|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.88 | 180  | 67474    | 18.703 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 14.98 | 225  | 30082    | 21.652 | ug/l  | 99       |
| 95) Naphthalene            | 15.10 | 128  | 221530   | 18.961 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.28 | 180  | 68330    | 18.951 | ug/l  | 99       |

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

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