

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN021220\  
 Data File : VN060068.D  
 Acq On : 12 Feb 2020 12:05  
 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  
 2/13/2020 10:37:05 AM

Quant Time: Feb 12 14:04:40 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N021220W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Feb 12 12:49:56 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.64  | 168  | 199169   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 310923   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.40 | 117  | 288273   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 138237   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 8.00   | 65  | 46505    | 19.47 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 38.94% |      |
| 35) Dibromofluoromethane  | 7.57   | 113 | 36394    | 19.62 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 39.24% |      |
| 50) Toluene-d8            | 10.08  | 98  | 145280   | 19.75 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 39.50% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 50894    | 19.27 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 38.54% |      |

## Target Compounds

|                               |      |     |        |         |        | Qvalue |
|-------------------------------|------|-----|--------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 41870  | 21.066  | ug/l   | 97     |
| 3) Chloromethane              | 2.04 | 50  | 47440  | 19.701  | ug/l   | 99     |
| 4) Vinyl Chloride             | 2.17 | 62  | 54654  | 20.004  | ug/l   | 99     |
| 5) Bromomethane               | 2.55 | 94  | 32283  | 17.816  | ug/l   | 94     |
| 6) Chloroethane               | 2.69 | 64  | 26782  | 19.481  | ug/l   | 93     |
| 7) Trichlorofluoromethane     | 3.00 | 101 | 68825  | 19.584  | ug/l   | 98     |
| 8) Diethyl Ether              | 3.39 | 74  | 23084  | 20.126  | ug/l   | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.74 | 101 | 37693  | 19.296  | ug/l   | 99     |
| 10) Methyl Iodide             | 3.93 | 142 | 46581  | 21.162  | ug/l   | 98     |
| 11) Tert butyl alcohol        | 4.73 | 59  | 35219  | 100.806 | ug/l # | 89     |
| 12) 1,1-Dichloroethene        | 3.72 | 96  | 37197  | 19.904  | ug/l   | 98     |
| 13) Acrolein                  | 3.58 | 56  | 32769  | 97.105  | ug/l   | 96     |
| 14) Allyl chloride            | 4.30 | 41  | 53402  | 19.171  | ug/l   | 97     |
| 15) Acrylonitrile             | 4.94 | 53  | 87164  | 103.197 | ug/l   | 99     |
| 16) Acetone                   | 3.78 | 43  | 114684 | 128.850 | ug/l   | 99     |
| 17) Carbon Disulfide          | 4.03 | 76  | 108908 | 19.143  | ug/l   | 99     |
| 18) Methyl Acetate            | 4.29 | 43  | 38073  | 19.706  | ug/l   | 100    |
| 19) Methyl tert-butyl Ether   | 5.00 | 73  | 121989 | 19.378  | ug/l   | 99     |
| 20) Methylene Chloride        | 4.52 | 84  | 41066  | 19.423  | ug/l   | 95     |
| 21) trans-1,2-Dichloroethene  | 5.01 | 96  | 40079  | 21.893  | ug/l   | 97     |
| 22) Diisopropyl ether         | 5.92 | 45  | 116921 | 19.663  | ug/l   | 99     |
| 23) Vinyl Acetate             | 5.86 | 43  | 497891 | 100.987 | ug/l   | 100    |
| 24) 1,1-Dichloroethane        | 5.82 | 63  | 71438  | 19.451  | ug/l   | 100    |
| 25) 2-Butanone                | 6.80 | 43  | 136444 | 106.571 | ug/l   | 98     |
| 26) 2,2-Dichloropropane       | 6.80 | 77  | 67923  | 19.414  | ug/l   | 99     |
| 27) cis-1,2-Dichloroethene    | 6.80 | 96  | 46976  | 22.140  | ug/l   | 99     |
| 28) Bromochloromethane        | 7.17 | 49  | 30598  | 23.840  | ug/l   | 97     |
| 29) Tetrahydrofuran           | 7.18 | 42  | 80273  | 101.421 | ug/l   | 99     |
| 30) Chloroform                | 7.35 | 83  | 74640  | 19.386  | ug/l   | 100    |
| 31) Cyclohexane               | 7.63 | 56  | 66890  | 19.019  | ug/l   | 98     |
| 32) 1,1,1-Trichloroethane     | 7.55 | 97  | 69008  | 19.667  | ug/l   | 99     |
| 36) 1,1-Dichloropropene       | 7.77 | 75  | 56363  | 19.584  | ug/l   | 100    |
| 37) Ethyl Acetate             | 6.90 | 43  | 53275  | 21.081  | ug/l   | 99     |
| 38) Carbon Tetrachloride      | 7.75 | 117 | 61692  | 19.757  | ug/l   | 98     |

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N021220W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Feb 12 12:49:56 2020  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| -----                          |       |      |          |         |        |          |
| 39) Methylcyclohexane          | 9.07  | 83   | 70557    | 19.785  | ug/l   | 98       |
| 40) Benzene                    | 8.02  | 78   | 166209   | 19.316  | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.14  | 41   | 17094    | 10.312  | ug/l # | 100      |
| 42) 1,2-Dichloroethane         | 8.10  | 62   | 59302    | 19.906  | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.14  | 43   | 88275    | 20.352  | ug/l   | 99       |
| 44) Trichloroethene            | 8.82  | 130  | 46438    | 19.451  | ug/l   | 94       |
| 45) 1,2-Dichloropropane        | 9.10  | 63   | 42474    | 20.125  | ug/l   | 97       |
| 46) Dibromomethane             | 9.19  | 93   | 29754    | 20.061  | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.39  | 83   | 59804    | 19.873  | ug/l   | 97       |
| 48) Methyl methacrylate        | 9.18  | 41   | 37721    | 19.613  | ug/l   | 99       |
| 49) 1,4-Dioxane                | 9.18  | 88   | 13898    | 430.662 | ug/l   | 99       |
| 51) 4-Methyl-2-Pentanone       | 9.97  | 43   | 256928   | 103.020 | ug/l   | 99       |
| 52) Toluene                    | 10.14 | 92   | 106006   | 19.525  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 10.37 | 75   | 67321    | 20.222  | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene    | 9.82  | 75   | 71785    | 20.174  | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 10.55 | 97   | 41973    | 19.680  | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.42 | 69   | 59232    | 20.876  | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.70 | 76   | 68627    | 19.462  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.68  | 63   | 135301   | 101.144 | ug/l   | 100      |
| 59) 2-Hexanone                 | 10.74 | 43   | 199298   | 104.764 | ug/l   | 100      |
| 60) Dibromochloromethane       | 10.89 | 129  | 48120    | 20.165  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 43974    | 20.056  | ug/l   | 100      |
| 64) Tetrachloroethene          | 10.62 | 164  | 43567    | 19.266  | ug/l   | 98       |
| 65) Chlorobenzene              | 11.43 | 112  | 114543   | 19.413  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.50 | 131  | 43858    | 19.860  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 205922   | 19.401  | ug/l   | 100      |
| 68) m/p-Xylenes                | 11.62 | 106  | 155648   | 39.405  | ug/l   | 99       |
| 69) o-Xylene                   | 11.94 | 106  | 74355    | 19.588  | ug/l   | 98       |
| 70) Styrene                    | 11.96 | 104  | 118466   | 20.117  | ug/l   | 99       |
| 71) Bromoform                  | 12.12 | 173  | 34992    | 20.641  | ug/l # | 97       |
| 73) Isopropylbenzene           | 12.25 | 105  | 203550   | 19.254  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 72482    | 20.095  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.50 | 83   | 60266    | 20.134  | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 55408m   | 14.747  | ug/l   |          |
| 77) Bromobenzene               | 12.52 | 156  | 51130    | 19.647  | ug/l   | 99       |
| 78) n-propylbenzene            | 12.59 | 91   | 228481   | 19.051  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.67 | 91   | 134381   | 18.983  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 170123   | 19.497  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 21037    | 20.251  | ug/l   | 96       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 138916   | 19.382  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 12.99 | 119  | 145312   | 18.519  | ug/l   | 100      |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 169906   | 19.919  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 197582   | 19.249  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.28 | 119  | 178355   | 19.401  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 89740    | 19.744  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 88830    | 19.701  | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.61 | 91   | 158350   | 19.888  | ug/l   | 99       |
| 90) Hexachloroethane           | 13.87 | 117  | 33071    | 19.340  | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 87319    | 19.391  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 12713    | 17.761  | ug/l   | 97       |

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|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 52692    | 20.998 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 30148    | 19.051 | ug/l  | 98       |
| 95) Naphthalene            | 15.13 | 128  | 145233   | 21.931 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.31 | 180  | 52717    | 20.757 | ug/l  | 100      |

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

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