

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN121018\  
 Data File : VN052769.D  
 Acq On : 10 Dec 2018 23:37  
 Operator : MD\SY  
 Sample : VN1210WBS03  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 33 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN1210WBS03

Manual Integrations  
 APPROVED

MMDadoda  
 12/11/2018 12:46:57 PM

Quant Time: Dec 11 03:22:57 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N112718W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Dec 03 03:24:02 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 943021   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 1478747  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 1310392  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 613224   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 534499   | 52.06 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.12% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 407509   | 44.70 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 89.40%  |      |
| 50) Toluene-d8            | 10.09  | 98  | 1816558  | 51.19 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.38% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 625311   | 52.44 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.88% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 139182  | 15.763  | ug/l | 98     |
| 3) Chloromethane              | 2.06 | 50  | 189803  | 16.285  | ug/l | 99     |
| 4) Vinyl Chloride             | 2.19 | 62  | 199962  | 16.701  | ug/l | 100    |
| 5) Bromomethane               | 2.58 | 94  | 120441  | 16.122  | ug/l | 100    |
| 6) Chloroethane               | 2.71 | 64  | 126259  | 17.409  | ug/l | 97     |
| 7) Trichlorofluoromethane     | 3.03 | 101 | 270340  | 18.382  | ug/l | 99     |
| 8) Diethyl Ether              | 3.42 | 74  | 106696  | 19.645  | ug/l | 97     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.77 | 101 | 166395  | 18.132  | ug/l | 98     |
| 10) Methyl Iodide             | 3.96 | 142 | 193651  | 15.843  | ug/l | 99     |
| 11) Tert butyl alcohol        | 4.78 | 59  | 62549   | 121.683 | ug/l | 99     |
| 12) 1,1-Dichloroethene        | 3.74 | 96  | 161307  | 18.261  | ug/l | 96     |
| 13) Acrolein                  | 3.61 | 56  | 28534   | 31.939  | ug/l | 96     |
| 14) Allyl chloride            | 4.33 | 41  | 275863  | 18.119  | ug/l | 97     |
| 15) Acrylonitrile             | 4.99 | 53  | 331918  | 102.006 | ug/l | 99     |
| 16) Acetone                   | 3.82 | 43  | 224513  | 82.900  | ug/l | 98     |
| 17) Carbon Disulfide          | 4.06 | 76  | 407010  | 14.641  | ug/l | 100    |
| 18) Methyl Acetate            | 4.33 | 43  | 165869  | 21.352  | ug/l | 97     |
| 19) Methyl tert-butyl Ether   | 5.05 | 73  | 492792  | 20.967  | ug/l | 98     |
| 20) Methylene Chloride        | 4.56 | 84  | 195754  | 18.471  | ug/l | 97     |
| 21) trans-1,2-Dichloroethene  | 5.05 | 96  | 175872  | 18.641  | ug/l | 95     |
| 22) Diisopropyl ether         | 5.95 | 45  | 627743  | 19.629  | ug/l | 99     |
| 23) Vinyl Acetate             | 5.90 | 43  | 1833519 | 92.049  | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 5.86 | 63  | 350328  | 19.186  | ug/l | 99     |
| 25) 2-Butanone                | 6.83 | 43  | 373876  | 97.398  | ug/l | 97     |
| 26) 2,2-Dichloropropane       | 6.83 | 77  | 218977  | 17.326  | ug/l | 98     |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 214379  | 19.507  | ug/l | 97     |
| 28) Bromochloromethane        | 7.20 | 49  | 168196  | 20.167  | ug/l | 96     |
| 29) Tetrahydrofuran           | 7.21 | 42  | 249780  | 100.884 | ug/l | 97     |
| 30) Chloroform                | 7.37 | 83  | 348462  | 19.128  | ug/l | 97     |
| 31) Cyclohexane               | 7.66 | 56  | 300654  | 16.769  | ug/l | 92     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 287060  | 19.888  | ug/l | 98     |
| 36) 1,1-Dichloropropene       | 7.80 | 75  | 254070  | 18.194  | ug/l | 98     |
| 37) Ethyl Acetate             | 6.93 | 43  | 171431  | 20.116  | ug/l | 99     |
| 38) Carbon Tetrachloride      | 7.78 | 117 | 245848  | 19.448  | ug/l | 100    |

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N112718W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Dec 03 03:24:02 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 284550   | 16.765  | ug/l   | 98       |
| 40) Benzene                    | 8.04  | 78   | 793846   | 19.075  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.17  | 41   | 103533   | 22.221  | ug/l # | 91       |
| 42) 1,2-Dichloroethane         | 8.12  | 62   | 250180   | 19.854  | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.17  | 43   | 324358   | 22.490  | ug/l   | 96       |
| 44) Trichloroethene            | 8.84  | 130  | 212310   | 19.917  | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 216947   | 19.608  | ug/l   | 98       |
| 46) Dibromomethane             | 9.21  | 93   | 125344   | 20.465  | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.40  | 83   | 264067   | 19.830  | ug/l   | 98       |
| 48) Methyl methacrylate        | 9.20  | 41   | 152041   | 20.218  | ug/l   | 97       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 37948    | 486.223 | ug/l   | 97       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 865315   | 106.936 | ug/l   | 99       |
| 52) Toluene                    | 10.16 | 92   | 488147   | 19.742  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 252411   | 19.703  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 295536   | 19.250  | ug/l   | 100      |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 182751   | 21.012  | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 234157   | 21.037  | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 313704   | 20.427  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 664941   | 105.361 | ug/l   | 100      |
| 59) 2-Hexanone                 | 10.75 | 43   | 574843   | 105.847 | ug/l   | 99       |
| 60) Dibromochloromethane       | 10.90 | 129  | 195679   | 20.715  | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 11.01 | 107  | 176262   | 20.404  | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.63 | 164  | 225099   | 22.156  | ug/l   | 98       |
| 65) Chlorobenzene              | 11.44 | 112  | 542555   | 20.080  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 192705   | 20.511  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 928272   | 19.618  | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 702679   | 39.891  | ug/l   | 98       |
| 69) o-Xylene                   | 11.95 | 106  | 345507   | 20.198  | ug/l   | 99       |
| 70) Styrene                    | 11.97 | 104  | 560068   | 20.557  | ug/l   | 99       |
| 71) Bromoform                  | 12.13 | 173  | 130396   | 20.962  | ug/l # | 99       |
| 73) Isopropylbenzene           | 12.25 | 105  | 920966   | 19.142  | ug/l   | 99       |
| 74) N-amyl acetate             | 12.07 | 43   | 260087   | 21.398  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 211181   | 19.296  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 187232m  | 19.800  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 234846   | 19.749  | ug/l   | 97       |
| 78) n-propylbenzene            | 12.59 | 91   | 1035317  | 18.942  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 620009   | 19.049  | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 745100   | 19.418  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 52719    | 18.618  | ug/l   | 98       |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 624124   | 19.026  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 12.99 | 119  | 660459   | 19.307  | ug/l   | 100      |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 752462   | 19.568  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 890274   | 19.108  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 760735   | 19.170  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 407647   | 19.597  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 404732   | 19.753  | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.62 | 91   | 623490   | 18.892  | ug/l   | 99       |
| 90) Hexachloroethane           | 13.88 | 117  | 124554   | 18.537  | ug/l   | 97       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 402557   | 20.256  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 32300    | 20.635  | ug/l   | 96       |

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|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 217159   | 21.648 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 118841   | 18.588 | ug/l  | 98       |
| 95) Naphthalene            | 15.13 | 128  | 459424   | 21.963 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.32 | 180  | 200374   | 21.653 | ug/l  | 99       |

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

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