

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN061418\  
 Data File : VN049235.D  
 Acq On : 14 Jun 2018 18:25  
 Operator : MD\SY  
 Sample : VN0614WBSD01  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 21 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0614WBSD01

Manual Integrations  
 APPROVED

MMDadoda  
 6/15/2018 1:15:28 PM

Quant Time: Jun 15 05:43:11 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N061318W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Jun 14 05:15:23 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 880469   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 1401572  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 1272432  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 605913   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 687084   | 48.33 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.66% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 563325   | 48.56 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.12% |      |
| 50) Toluene-d8            | 10.09  | 98  | 2143280  | 47.49 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 94.98% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 696050   | 46.47 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 92.94% |      |

## Target Compounds

|                               |      |     |         |         |        | Qvalue |
|-------------------------------|------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 233990  | 18.450  | ug/l   | 99     |
| 3) Chloromethane              | 2.06 | 50  | 230731  | 17.805  | ug/l   | 99     |
| 4) Vinyl Chloride             | 2.18 | 62  | 239271  | 18.006  | ug/l   | 100    |
| 5) Bromomethane               | 2.57 | 94  | 104528  | 12.950  | ug/l   | 97     |
| 6) Chloroethane               | 2.70 | 64  | 160428  | 17.878  | ug/l   | 94     |
| 7) Trichlorofluoromethane     | 3.01 | 101 | 339713  | 18.157  | ug/l   | 98     |
| 8) Diethyl Ether              | 3.41 | 74  | 144523  | 20.801  | ug/l   | 97     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.75 | 101 | 241468  | 19.937  | ug/l   | 98     |
| 10) Methyl Iodide             | 3.95 | 142 | 183107  | 15.549  | ug/l   | 94     |
| 11) Tert butyl alcohol        | 4.81 | 59  | 86754   | 111.948 | ug/l # | 70     |
| 12) 1,1-Dichloroethene        | 3.73 | 96  | 221754  | 20.165  | ug/l   | 99     |
| 13) Acrolein                  | 3.61 | 56  | 105397  | 99.891  | ug/l   | 100    |
| 14) Allyl chloride            | 4.32 | 41  | 413063  | 20.001  | ug/l   | 91     |
| 15) Acrylonitrile             | 5.00 | 53  | 437862  | 104.977 | ug/l   | 100    |
| 16) Acetone                   | 3.82 | 43  | 349208  | 102.797 | ug/l   | 95     |
| 17) Carbon Disulfide          | 4.05 | 76  | 700065  | 18.660  | ug/l   | 100    |
| 18) Methyl Acetate            | 4.33 | 43  | 230147  | 21.489  | ug/l   | 100    |
| 19) Methyl tert-butyl Ether   | 5.05 | 73  | 625393  | 20.871  | ug/l   | 98     |
| 20) Methylene Chloride        | 4.55 | 84  | 262008  | 18.992  | ug/l   | 98     |
| 21) trans-1,2-Dichloroethene  | 5.04 | 96  | 233812  | 19.178  | ug/l   | 98     |
| 22) Diisopropyl ether         | 5.96 | 45  | 857705  | 20.807  | ug/l   | 99     |
| 23) Vinyl Acetate             | 5.90 | 43  | 2863043 | 105.072 | ug/l   | 99     |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 492955  | 20.067  | ug/l   | 98     |
| 25) 2-Butanone                | 6.84 | 43  | 515616  | 106.001 | ug/l   | 100    |
| 26) 2,2-Dichloropropane       | 6.82 | 77  | 378624  | 20.554  | ug/l   | 98     |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 266589  | 20.079  | ug/l   | 98     |
| 28) Bromochloromethane        | 7.20 | 49  | 228709  | 19.616  | ug/l   | 98     |
| 29) Tetrahydrofuran           | 7.22 | 42  | 339105  | 108.363 | ug/l   | 99     |
| 30) Chloroform                | 7.37 | 83  | 471853  | 19.991  | ug/l   | 100    |
| 31) Cyclohexane               | 7.66 | 56  | 435873  | 20.394  | ug/l   | 97     |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 397451  | 19.550  | ug/l   | 99     |
| 36) 1,1-Dichloropropene       | 7.79 | 75  | 354619  | 20.251  | ug/l   | 99     |
| 37) Ethyl Acetate             | 6.94 | 43  | 231169  | 20.912  | ug/l   | 99     |
| 38) Carbon Tetrachloride      | 7.77 | 117 | 342132  | 19.394  | ug/l   | 97     |

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 Operator : MD\SY  
 Sample : VN0614WBSD01  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 21 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleID :  
 VN0614WBSD01

Manual Integrations  
 APPROVED

MMDadoda  
 6/15/2018 1:15:28 PM

Quant Time: Jun 15 05:43:11 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N061318W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Jun 14 05:15:23 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.09  | 83   | 359857   | 19.894  | ug/l   | 99       |
| 40) Benzene                    | 8.04  | 78   | 1056530  | 19.914  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.18  | 41   | 130400   | 20.851  | ug/l # | 100      |
| 42) 1,2-Dichloroethane         | 8.13  | 62   | 344185   | 19.657  | ug/l   | 98       |
| 43) Isopropyl Acetate          | 8.17  | 43   | 441329   | 21.714  | ug/l   | 98       |
| 44) Trichloroethene            | 8.84  | 130  | 256763   | 19.382  | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 289308   | 19.826  | ug/l   | 100      |
| 46) Dibromomethane             | 9.21  | 93   | 162779   | 20.191  | ug/l   | 97       |
| 47) Bromodichloromethane       | 9.40  | 83   | 359957   | 19.823  | ug/l   | 97       |
| 48) Methyl methacrylate        | 9.20  | 41   | 192426   | 19.376  | ug/l   | 92       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 46256    | 394.404 | ug/l   | 97       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 1146714  | 105.938 | ug/l   | 98       |
| 52) Toluene                    | 10.16 | 92   | 632011   | 20.475  | ug/l   | 98       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 342309   | 19.828  | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 408165   | 20.402  | ug/l   | 94       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 227622   | 20.093  | ug/l   | 97       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 286600   | 20.986  | ug/l   | 94       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 391270   | 20.141  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 447492   | 94.906  | ug/l   | 100      |
| 59) 2-Hexanone                 | 10.76 | 43   | 711690   | 105.517 | ug/l   | 98       |
| 60) Dibromochloromethane       | 10.90 | 129  | 245760   | 19.562  | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 11.01 | 107  | 212550   | 20.287  | ug/l   | 98       |
| 64) Tetrachloroethene          | 10.63 | 164  | 257955   | 20.234  | ug/l   | 97       |
| 65) Chlorobenzene              | 11.44 | 112  | 648628   | 19.760  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 247249   | 19.802  | ug/l   | 98       |
| 67) Ethyl Benzene              | 11.51 | 91   | 1152809  | 20.357  | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 877401   | 42.370  | ug/l   | 97       |
| 69) o-Xylene                   | 11.95 | 106  | 413380   | 20.728  | ug/l   | 100      |
| 70) Styrene                    | 11.97 | 104  | 660017   | 20.904  | ug/l   | 100      |
| 71) Bromoform                  | 12.13 | 173  | 155793   | 19.964  | ug/l # | 99       |
| 73) Isopropylbenzene           | 12.25 | 105  | 1111740  | 19.103  | ug/l   | 98       |
| 74) N-amyl acetate             | 12.07 | 43   | 318769   | 19.228  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 271491   | 21.205  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.56 | 75   | 250023m  | 23.713  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 264618   | 20.557  | ug/l   | 98       |
| 78) n-propylbenzene            | 12.59 | 91   | 1272523  | 19.683  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 774647   | 18.999  | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 901537   | 20.204  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 69329    | 19.117  | ug/l   | 94       |
| 82) 4-Chlorotoluene            | 12.78 | 91   | 752843   | 19.466  | ug/l   | 100      |
| 83) tert-Butylbenzene          | 13.00 | 119  | 747894   | 19.456  | ug/l   | 100      |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 900881   | 20.312  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 1011477  | 19.738  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 841051   | 20.264  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 442106   | 19.418  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.37 | 146  | 431365   | 19.236  | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.62 | 91   | 633705   | 18.457  | ug/l   | 99       |
| 90) Hexachloroethane           | 13.88 | 117  | 173592   | 19.644  | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene        | 13.66 | 146  | 442024   | 19.736  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 39257    | 19.393  | ug/l   | 98       |

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Sample : VN0614WBSD01  
Misc : 5.00mL/MSVOA N/WATER  
ALS Vial : 21 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0614WBSD01

Manual Integrations  
APPROVED

MMDadoda  
6/15/2018 1:15:28 PM

Quant Time: Jun 15 05:43:11 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N061318W.M  
Quant Title : SW846 8260  
QLast Update : Thu Jun 14 05:15:23 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 141556   | 17.809 | ug/l  | 100      |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 123781   | 18.276 | ug/l  | 99       |
| 95) Naphthalene            | 15.14 | 128  | 314163   | 18.728 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.32 | 180  | 156027   | 17.640 | ug/l  | 99       |

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

