

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN092718\  
 Data File : VN051543.D  
 Acq On : 26 Sep 2018 18:43  
 Operator : MD\SY  
 Sample : VN0927WBSD01  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0927WBSD01

Manual Integrations  
 APPROVED

MMDadoda  
 9/27/2018 3:18:43 PM

Quant Time: Sep 27 08:23:00 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N092318W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Sep 24 06:41:32 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 493096   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 742464   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 659597   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 326552   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.03   | 65  | 347203   | 56.21 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 112.42% |      |
| 35) Dibromofluoromethane  | 7.59   | 113 | 309620   | 52.15 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.30% |      |
| 50) Toluene-d8            | 10.09  | 98  | 1109154  | 49.61 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.22%  |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 361501   | 49.98 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.96%  |      |

## Target Compounds

|                               |      |     |         |         | Qvalue |     |
|-------------------------------|------|-----|---------|---------|--------|-----|
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 74734   | 16.245  | ug/l   | 98  |
| 3) Chloromethane              | 2.06 | 50  | 129255  | 17.650  | ug/l   | 98  |
| 4) Vinyl Chloride             | 2.18 | 62  | 135393  | 16.751  | ug/l   | 99  |
| 5) Bromomethane               | 2.56 | 94  | 76712   | 15.878  | ug/l   | 98  |
| 6) Chloroethane               | 2.70 | 64  | 90208   | 17.911  | ug/l   | 98  |
| 7) Trichlorofluoromethane     | 3.01 | 101 | 181402  | 17.134  | ug/l   | 98  |
| 8) Diethyl Ether              | 3.41 | 74  | 64063   | 17.498  | ug/l   | 94  |
| 9) 1,1,2-Trichlorotrifluoroet | 3.76 | 101 | 105626  | 17.678  | ug/l   | 99  |
| 10) Methyl Iodide             | 3.95 | 142 | 101110  | 12.945  | ug/l   | 99  |
| 11) Tert butyl alcohol        | 4.80 | 59  | 46218   | 132.578 | ug/l   | 97  |
| 12) 1,1-Dichloroethene        | 3.74 | 96  | 92045   | 16.777  | ug/l   | 97  |
| 13) Acrolein                  | 3.61 | 56  | 29640   | 85.623  | ug/l   | 96  |
| 14) Allyl chloride            | 4.33 | 41  | 172829  | 18.776  | ug/l   | 96  |
| 15) Acrylonitrile             | 4.99 | 53  | 220817  | 116.441 | ug/l   | 100 |
| 16) Acetone                   | 3.82 | 43  | 158855  | 101.430 | ug/l   | 96  |
| 17) Carbon Disulfide          | 4.05 | 76  | 242458  | 15.042  | ug/l   | 100 |
| 18) Methyl Acetate            | 4.33 | 43  | 121371  | 25.800  | ug/l   | 99  |
| 19) Methyl tert-butyl Ether   | 5.05 | 73  | 297789  | 21.049  | ug/l   | 100 |
| 20) Methylene Chloride        | 4.55 | 84  | 119263  | 19.512  | ug/l   | 95  |
| 21) trans-1,2-Dichloroethene  | 5.04 | 96  | 100904  | 17.979  | ug/l   | 97  |
| 22) Diisopropyl ether         | 5.96 | 45  | 391056  | 21.979  | ug/l   | 99  |
| 23) Vinyl Acetate             | 5.90 | 43  | 1257649 | 107.664 | ug/l   | 99  |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 218896  | 20.619  | ug/l   | 98  |
| 25) 2-Butanone                | 6.84 | 43  | 249692  | 118.102 | ug/l   | 96  |
| 26) 2,2-Dichloropropane       | 6.83 | 77  | 162915  | 19.659  | ug/l   | 99  |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 120789  | 19.615  | ug/l   | 97  |
| 28) Bromochloromethane        | 7.20 | 49  | 107799  | 21.989  | ug/l   | 98  |
| 29) Tetrahydrofuran           | 7.22 | 42  | 166779  | 124.481 | ug/l   | 97  |
| 30) Chloroform                | 7.37 | 83  | 215983  | 20.532  | ug/l   | 97  |
| 31) Cyclohexane               | 7.66 | 56  | 170979  | 17.579  | ug/l   | 97  |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 180220  | 20.040  | ug/l   | 100 |
| 36) 1,1-Dichloropropene       | 7.80 | 75  | 149333  | 17.369  | ug/l   | 99  |
| 37) Ethyl Acetate             | 6.94 | 43  | 116571  | 23.581  | ug/l   | 99  |
| 38) Carbon Tetrachloride      | 7.78 | 117 | 155597  | 17.302  | ug/l   | 99  |

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 Operator : MD\SY  
 Sample : VN0927WBSD01  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0927WBSD01

Manual Integrations  
 APPROVED

MMDadoda  
 9/27/2018 3:18:43 PM

Quant Time: Sep 27 08:23:00 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N092318W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Sep 24 06:41:32 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 157405   | 15.661  | ug/l   | 96       |
| 40) Benzene                    | 8.04  | 78   | 475983   | 18.854  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.18  | 41   | 62790    | 22.959  | ug/l   | 90       |
| 42) 1,2-Dichloroethane         | 8.13  | 62   | 159102   | 19.682  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 8.17  | 43   | 207816   | 23.248  | ug/l   | 98       |
| 44) Trichloroethene            | 8.84  | 130  | 120140   | 17.917  | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 135905   | 19.804  | ug/l   | 96       |
| 46) Dibromomethane             | 9.21  | 93   | 76003    | 19.601  | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.40  | 83   | 165688   | 19.309  | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.20  | 41   | 97621    | 21.904  | ug/l   | 95       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 25172    | 460.859 | ug/l # | 91       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 579564   | 117.889 | ug/l   | 98       |
| 52) Toluene                    | 10.16 | 92   | 287965   | 18.355  | ug/l   | 98       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 160890   | 18.572  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 185379   | 18.453  | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 113901   | 20.542  | ug/l   | 99       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 139221   | 20.537  | ug/l   | 100      |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 191573   | 20.158  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 361406   | 110.853 | ug/l   | 98       |
| 59) 2-Hexanone                 | 10.75 | 43   | 370183   | 116.155 | ug/l   | 95       |
| 60) Dibromochloromethane       | 10.90 | 129  | 126131   | 19.280  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.01 | 107  | 106321   | 19.753  | ug/l   | 100      |
| 64) Tetrachloroethene          | 10.63 | 164  | 109498   | 18.292  | ug/l   | 99       |
| 65) Chlorobenzene              | 11.44 | 112  | 309405   | 18.283  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 119758   | 18.574  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 503780   | 17.664  | ug/l   | 98       |
| 68) m/p-Xylenes                | 11.62 | 106  | 394590   | 35.769  | ug/l   | 99       |
| 69) o-Xylene                   | 11.95 | 106  | 190610   | 17.973  | ug/l   | 97       |
| 70) Styrene                    | 11.97 | 104  | 302013   | 17.972  | ug/l   | 99       |
| 71) Bromoform                  | 12.13 | 173  | 86091    | 19.678  | ug/l # | 99       |
| 73) Isopropylbenzene           | 12.25 | 105  | 507092   | 18.405  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 153862   | 22.257  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 147420   | 22.945  | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 125463m  | 23.144  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 129442   | 18.558  | ug/l   | 92       |
| 78) n-propylbenzene            | 12.59 | 91   | 575303   | 18.527  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 353986   | 19.044  | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 421339   | 18.754  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 35980    | 20.409  | ug/l   | 100      |
| 82) 4-Chlorotoluene            | 12.77 | 91   | 352820   | 19.018  | ug/l   | 98       |
| 83) tert-Butylbenzene          | 12.99 | 119  | 371546   | 18.580  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 431148   | 19.045  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.17 | 105  | 504524   | 18.650  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 421530   | 18.008  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 222961   | 18.472  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 217605   | 18.737  | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.62 | 91   | 330812   | 17.186  | ug/l   | 98       |
| 90) Hexachloroethane           | 13.87 | 117  | 86492    | 18.544  | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 226392   | 19.331  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 22111    | 24.115  | ug/l   | 94       |

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Sample : VN0927WBSD01  
Misc : 5.00mL/MSVOA N/WATER  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :  
VN0927WBSD01

Manual Integrations  
APPROVED

MMDadoda  
9/27/2018 3:18:43 PM

Quant Time: Sep 27 08:23:00 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N092318W.M  
Quant Title : SW846 8260  
QLast Update : Mon Sep 24 06:41:32 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 91881    | 18.793 | ug/l  | 100      |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 80040    | 18.064 | ug/l  | 99       |
| 95) Naphthalene            | 15.14 | 128  | 177033   | 20.279 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.31 | 180  | 99595    | 17.721 | ug/l  | 99       |

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

