

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN080418\  
 Data File : VN050360.D  
 Acq On : 4 Aug 2018 12:28  
 Operator : MD\SY  
 Sample : VN0804WBSD01  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0804WBSD01

Manual Integrations  
 APPROVED

MMDadoda  
 8/6/2018 11:39:57 AM

Quant Time: Aug 06 02:08:09 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N072418W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Jul 26 18:10:10 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 504681   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 765373   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 710760   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 373439   | 50.00 | ug/l  | 0.00     |

|                             |        |     |          |       |         |      |
|-----------------------------|--------|-----|----------|-------|---------|------|
| System Monitoring Compounds |        |     |          |       |         |      |
| 33) 1,2-Dichloroethane-d4   | 8.03   | 65  | 367073   | 52.13 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 104.26% |      |
| 35) Dibromofluoromethane    | 7.59   | 113 | 321195   | 51.40 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 102.80% |      |
| 50) Toluene-d8              | 10.09  | 98  | 1154814  | 50.27 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 100.54% |      |
| 62) 4-Bromofluorobenzene    | 12.40  | 95  | 390805   | 51.66 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 103.32% |      |

|                               |      |     |         |        |      |     |
|-------------------------------|------|-----|---------|--------|------|-----|
| Target Compounds              |      |     |         | Qvalue |      |     |
| 2) Dichlorodifluoromethane    | 1.85 | 85  | 122777  | 16.93  | ug/l | 100 |
| 3) Chloromethane              | 2.06 | 50  | 130232  | 16.52  | ug/l | 97  |
| 4) Vinyl Chloride             | 2.18 | 62  | 133995  | 16.14  | ug/l | 99  |
| 5) Bromomethane               | 2.56 | 94  | 74684   | 15.51  | ug/l | 96  |
| 6) Chloroethane               | 2.70 | 64  | 83333   | 16.72  | ug/l | 100 |
| 7) Trichlorofluoromethane     | 3.01 | 101 | 183804  | 17.09  | ug/l | 98  |
| 8) Diethyl Ether              | 3.41 | 74  | 71680   | 20.00  | ug/l | 98  |
| 9) 1,1,2-Trichlorotrifluoroet | 3.76 | 101 | 114615  | 17.72  | ug/l | 99  |
| 10) Methyl Iodide             | 3.95 | 142 | 60181   | 7.25   | ug/l | 97  |
| 11) Tert butyl alcohol        | 4.80 | 59  | 53543   | 103.34 | ug/l | 99  |
| 12) 1,1-Dichloroethene        | 3.73 | 96  | 98228   | 16.89  | ug/l | 98  |
| 13) Acrolein                  | 3.61 | 56  | 69184   | 166.20 | ug/l | 97  |
| 14) Allyl chloride            | 4.32 | 41  | 166627  | 18.47  | ug/l | 99  |
| 15) Acrylonitrile             | 5.00 | 53  | 235417  | 104.15 | ug/l | 99  |
| 16) Acetone                   | 3.82 | 43  | 183408  | 108.12 | ug/l | 99  |
| 17) Carbon Disulfide          | 4.05 | 76  | 251419  | 14.11  | ug/l | 98  |
| 18) Methyl Acetate            | 4.33 | 43  | 170698  | 25.67  | ug/l | 98  |
| 19) Methyl tert-butyl Ether   | 5.05 | 73  | 322904  | 20.83  | ug/l | 97  |
| 20) Methylene Chloride        | 4.55 | 84  | 133493  | 20.65  | ug/l | 98  |
| 21) trans-1,2-Dichloroethene  | 5.04 | 96  | 107467  | 17.44  | ug/l | 100 |
| 22) Diisopropyl ether         | 5.96 | 45  | 382465  | 21.39  | ug/l | 98  |
| 23) Vinyl Acetate             | 5.90 | 43  | 1182123 | 93.53  | ug/l | 99  |
| 24) 1,1-Dichloroethane        | 5.85 | 63  | 224154  | 19.17  | ug/l | 99  |
| 25) 2-Butanone                | 6.84 | 43  | 277029  | 103.15 | ug/l | 99  |
| 26) 2,2-Dichloropropane       | 6.83 | 77  | 174238  | 19.58  | ug/l | 100 |
| 27) cis-1,2-Dichloroethene    | 6.83 | 96  | 131637  | 19.84  | ug/l | 99  |
| 28) Bromochloromethane        | 7.20 | 49  | 119953  | 22.49  | ug/l | 100 |
| 29) Tetrahydrofuran           | 7.22 | 42  | 179856  | 103.63 | ug/l | 99  |
| 30) Chloroform                | 7.37 | 83  | 235285  | 19.72  | ug/l | 100 |
| 31) Cyclohexane               | 7.66 | 56  | 158118  | 16.26  | ug/l | 92  |
| 32) 1,1,1-Trichloroethane     | 7.57 | 97  | 189482  | 18.56  | ug/l | 99  |
| 36) 1,1-Dichloropropene       | 7.80 | 75  | 150567  | 17.46  | ug/l | 99  |
| 37) Ethyl Acetate             | 6.93 | 43  | 116663  | 19.40  | ug/l | 99  |
| 38) Carbon Tetrachloride      | 7.78 | 117 | 162160  | 17.72  | ug/l | 99  |

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 8/6/2018 11:39:57 AM

Quant Time: Aug 06 02:08:09 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N072418W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Jul 26 18:10:10 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| 39) Methylcyclohexane          | 9.08  | 83   | 142292   | 16.04  | ug/l   | 94       |
| 40) Benzene                    | 8.04  | 78   | 498764   | 19.01  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.18  | 41   | 58919    | 20.53  | ug/l   | 87       |
| 42) 1,2-Dichloroethane         | 8.13  | 62   | 172025   | 19.65  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 8.17  | 43   | 225581   | 19.21  | ug/l   | 98       |
| 44) Trichloroethene            | 8.84  | 130  | 126002   | 17.87  | ug/l   | 100      |
| 45) 1,2-Dichloropropane        | 9.12  | 63   | 138627   | 19.95  | ug/l   | 97       |
| 46) Dibromomethane             | 9.21  | 93   | 87086    | 20.18  | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.40  | 83   | 179776   | 19.74  | ug/l   | 100      |
| 48) Methyl methacrylate        | 9.20  | 41   | 105732   | 20.42  | ug/l   | 99       |
| 49) 1,4-Dioxane                | 9.20  | 88   | 31097    | 441.32 | ug/l   | 97       |
| 51) 4-Methyl-2-Pentanone       | 9.99  | 43   | 625778   | 105.88 | ug/l   | 99       |
| 52) Toluene                    | 10.16 | 92   | 305315   | 19.71  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 172617   | 20.08  | ug/l   | 96       |
| 54) cis-1,3-Dichloropropene    | 9.84  | 75   | 197590   | 20.12  | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 127306   | 20.72  | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 152311   | 19.59  | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 208958   | 20.89  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.70  | 63   | 342817   | 93.69  | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.75 | 43   | 422420   | 100.43 | ug/l   | 98       |
| 60) Dibromochloromethane       | 10.90 | 129  | 139730   | 20.54  | ug/l   | 98       |
| 61) 1,2-Dibromoethane          | 11.01 | 107  | 122176   | 20.04  | ug/l   | 97       |
| 64) Tetrachloroethene          | 10.63 | 164  | 119211   | 17.45  | ug/l   | 98       |
| 65) Chlorobenzene              | 11.44 | 112  | 334815   | 18.65  | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 133991   | 19.42  | ug/l   | 98       |
| 67) Ethyl Benzene              | 11.51 | 91   | 531949   | 18.44  | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 419765   | 38.48  | ug/l   | 99       |
| 69) o-Xylene                   | 11.95 | 106  | 202763   | 19.50  | ug/l   | 98       |
| 70) Styrene                    | 11.97 | 104  | 334999   | 18.70  | ug/l   | 99       |
| 71) Bromoform                  | 12.13 | 173  | 94555    | 18.84  | ug/l # | 98       |
| 73) Isopropylbenzene           | 12.25 | 105  | 527144   | 18.20  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 168974   | 19.09  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 167838   | 20.66  | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 12.55 | 75   | 142147m  | 20.48  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 147270   | 18.35  | ug/l   | 98       |
| 78) n-propylbenzene            | 12.59 | 91   | 593902   | 18.35  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 377435   | 18.81  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.73 | 105  | 440000   | 19.31  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 40870    | 18.68  | ug/l   | 95       |
| 82) 4-Chlorotoluene            | 12.78 | 91   | 379739   | 19.11  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 12.99 | 119  | 373961   | 18.81  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.04 | 105  | 454809   | 19.81  | ug/l   | 100      |
| 85) sec-Butylbenzene           | 13.17 | 105  | 495702   | 18.66  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 427455   | 19.10  | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 13.28 | 146  | 256955   | 18.88  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.36 | 146  | 252048   | 19.00  | ug/l   | 98       |
| 89) n-Butylbenzene             | 13.62 | 91   | 335907   | 18.25  | ug/l   | 99       |
| 90) Hexachloroethane           | 13.88 | 117  | 75547    | 15.20  | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 261443   | 19.22  | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.27 | 75   | 25988    | 19.65  | ug/l   | 97       |

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Quant Title : SW846 8260  
QLast Update : Thu Jul 26 18:10:10 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.91 | 180  | 126179   | 19.50 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.01 | 225  | 75829    | 18.21 | ug/l  | 99       |
| 95) Naphthalene            | 15.13 | 128  | 279894   | 19.38 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.32 | 180  | 127323   | 19.53 | ug/l  | 99       |

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

