

Data Path : W:\HPCHEM1\MSVOA N\DATA\VN091515\  
 Data File : VN027180.D  
 Acq On : 15 Sep 2015 23:20  
 Operator : MD\FY  
 Sample : VN0915WBS01  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VN0915WBS01

Manual Integrations  
 APPROVED

MMDadoda  
 9/16/2015 11:47:38 AM

Quant Time: Sep 16 01:34:22 2015  
 Quant Method : W:\HPCHEM1\MSVOA\_N\METHODS\82N091515W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Sep 15 21:12:09 2015  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.75  | 168  | 565842   | 50.00 | ug/l  | 0.00     |
| 35) 1,4-Difluorobenzene    | 8.68  | 114  | 1076083  | 50.00 | ug/l  | 0.00     |
| 64) Chlorobenzene-d5       | 11.52 | 117  | 913507   | 50.00 | ug/l  | 0.00     |
| 73) 1,4-Dichlorobenzene-d4 | 13.47 | 152  | 346594   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 34) 1,2-Dichloroethane-d4 | 8.12   | 65  | 547081   | 47.19 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 94.38% |      |
| 36) Dibromofluoromethane  | 7.68   | 113 | 350253   | 46.96 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 93.92% |      |
| 51) Toluene-d8            | 10.19  | 98  | 1338172  | 45.82 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 91.64% |      |
| 63) 4-Bromofluorobenzene  | 12.52  | 95  | 469051   | 45.25 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 90.50% |      |

## Target Compounds

|                                |      |     |          |        |        | Qvalue |
|--------------------------------|------|-----|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane     | 1.80 | 85  | 136854   | 20.21  | ug/l   | 99     |
| 3) Chlorodifluoromethane       | 1.81 | 51  | 159355   | 20.34  | ug/l   | 94     |
| 4) Chloromethane               | 2.01 | 50  | 156229   | 21.25  | ug/l   | 98     |
| 5) Vinyl Chloride              | 2.14 | 62  | 160918   | 20.12  | ug/l   | 98     |
| 6) Bromomethane                | 2.54 | 94  | 78932    | 21.06  | ug/l   | 99     |
| 7) Chloroethane                | 2.69 | 64  | 106858   | 19.66  | ug/l   | 98     |
| 8) Trichlorofluoromethane      | 3.02 | 101 | 239795   | 19.85  | ug/l   | 100    |
| 9) Diethyl Ether               | 3.43 | 74  | 111407   | 20.04  | ug/l   | 86     |
| 10) 1,1,2-Trichlorotrifluoroet | 3.79 | 101 | 147693   | 19.47  | ug/l   | 96     |
| 11) Methyl Iodide              | 3.99 | 142 | 152835   | 20.73  | ug/l   | 93     |
| 12) Tert butyl alcohol         | 4.80 | 59  | 112432   | 99.17  | ug/l # | 90     |
| 13) 1,1-Dichloroethene         | 3.77 | 96  | 147883   | 20.36  | ug/l   | 99     |
| 14) Acrolein                   | 3.62 | 56  | 117790   | 88.44  | ug/l   | 98     |
| 15) Allyl chloride             | 4.37 | 41  | 287759   | 19.61  | ug/l # | 85     |
| 16) Acrylonitrile              | 5.03 | 53  | 377921   | 101.94 | ug/l   | 99     |
| 17) Acetone                    | 3.83 | 43  | 302648   | 96.82  | ug/l   | 96     |
| 18) Carbon Disulfide           | 4.11 | 76  | 462806   | 19.56  | ug/l   | 99     |
| 19) Methyl Acetate             | 4.36 | 43  | 467081   | 20.63  | ug/l   | 95     |
| 20) Methyl tert-butyl Ether    | 5.12 | 73  | 584876   | 20.05  | ug/l   | 94     |
| 21) Methylene Chloride         | 4.60 | 84  | 172640   | 19.83  | ug/l   | 95     |
| 22) trans-1,2-Dichloroethene   | 5.13 | 96  | 158401   | 20.16  | ug/l   | 97     |
| 23) Diisopropyl ether          | 6.04 | 45  | 617017   | 20.04  | ug/l # | 85     |
| 24) Vinyl Acetate              | 5.98 | 43  | 1054655m | 103.49 | ug/l   |        |
| 25) 1,1-Dichloroethane         | 5.93 | 63  | 353284   | 19.75  | ug/l   | 99     |
| 26) 2-Butanone                 | 6.92 | 43  | 466247   | 99.05  | ug/l   | 98     |
| 27) 2,2-Dichloropropane        | 6.92 | 77  | 269356   | 17.36  | ug/l   | 96     |
| 28) cis-1,2-Dichloroethene     | 6.92 | 96  | 187871   | 20.84  | ug/l   | 98     |
| 29) Bromochloromethane         | 7.29 | 49  | 133864   | 19.28  | ug/l   | 95     |
| 30) Tetrahydrofuran            | 7.32 | 42  | 312245   | 96.25  | ug/l   | 91     |
| 31) Chloroform                 | 7.46 | 83  | 333327   | 20.63  | ug/l   | 98     |
| 32) Cyclohexane                | 7.77 | 56  | 337755   | 20.67  | ug/l   | 93     |
| 33) 1,1,1-Trichloroethane      | 7.67 | 97  | 291734   | 20.25  | ug/l   | 96     |
| 37) 1,1-Dichloropropene        | 7.89 | 75  | 247780   | 19.67  | ug/l   | 99     |
| 38) Ethyl Acetate              | 7.02 | 43  | 219011   | 19.81  | ug/l   | 100    |

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 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
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 ClientSampleId :  
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 9/16/2015 11:47:38 AM

Quant Time: Sep 16 01:34:22 2015  
 Quant Method : W:\HPCHEM1\MSVOA\_N\METHODS\82N091515W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Sep 15 21:12:09 2015  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| 39) Carbon Tetrachloride       | 7.88  | 117  | 233179   | 19.69  | ug/l   | 98       |
| 40) Methylcyclohexane          | 9.19  | 83   | 295305   | 19.25  | ug/l   | 99       |
| 41) Benzene                    | 8.14  | 78   | 724647   | 19.72  | ug/l   | 98       |
| 42) Methacrylonitrile          | 7.24  | 41   | 122986   | 20.20  | ug/l # | 91       |
| 43) 1,2-Dichloroethane         | 8.22  | 62   | 291988   | 19.72  | ug/l   | 96       |
| 44) Isopropyl Acetate          | 8.25  | 43   | 399332   | 19.84  | ug/l   | 98       |
| 45) Trichloroethene            | 8.94  | 130  | 147585   | 19.99  | ug/l   | 92       |
| 46) 1,2-Dichloropropane        | 9.22  | 63   | 205617   | 19.45  | ug/l   | 99       |
| 47) Dibromomethane             | 9.31  | 93   | 122756   | 19.77  | ug/l   | 92       |
| 48) Bromodichloromethane       | 9.49  | 83   | 259407   | 19.83  | ug/l   | 99       |
| 49) Methyl methacrylate        | 9.29  | 41   | 196086   | 19.55  | ug/l # | 90       |
| 50) 1,4-Dioxane                | 9.30  | 88   | 45577    | 387.48 | ug/l   | 95       |
| 52) 4-Methyl-2-Pentanone       | 10.07 | 43   | 1049500  | 98.61  | ug/l   | 100      |
| 53) Toluene                    | 10.26 | 92   | 417917   | 19.41  | ug/l   | 99       |
| 54) t-1,3-Dichloropropene      | 10.47 | 75   | 278502   | 18.95  | ug/l   | 99       |
| 55) cis-1,3-Dichloropropene    | 9.93  | 75   | 304810   | 19.07  | ug/l   | 92       |
| 56) 1,1,2-Trichloroethane      | 10.66 | 97   | 164574   | 20.34  | ug/l   | 99       |
| 57) Ethyl methacrylate         | 10.52 | 69   | 265697   | 19.49  | ug/l # | 91       |
| 58) 1,3-Dichloropropane        | 10.81 | 76   | 297175   | 19.79  | ug/l   | 98       |
| 59) 2-Chloroethyl Vinyl ether  | 9.78  | 63   | 633403   | 101.18 | ug/l   | 97       |
| 60) 2-Hexanone                 | 10.84 | 43   | 710790   | 98.09  | ug/l   | 100      |
| 61) Dibromochloromethane       | 11.00 | 129  | 160957   | 19.48  | ug/l   | 100      |
| 62) 1,2-Dibromoethane          | 11.11 | 107  | 154205   | 19.40  | ug/l   | 99       |
| 65) Tetrachloroethene          | 10.74 | 164  | 118187   | 20.23  | ug/l   | 95       |
| 66) Chlorobenzene              | 11.54 | 112  | 417948   | 19.38  | ug/l   | 98       |
| 67) 1,1,1,2-Tetrachloroethane  | 11.62 | 131  | 146326   | 19.89  | ug/l   | 99       |
| 68) Ethyl Benzene              | 11.62 | 91   | 791867   | 19.36  | ug/l   | 100      |
| 69) m/p-Xylenes                | 11.73 | 106  | 551511   | 39.09  | ug/l   | 91       |
| 70) o-Xylene                   | 12.06 | 106  | 274359   | 19.40  | ug/l   | 89       |
| 71) Styrene                    | 12.07 | 104  | 450105   | 19.71  | ug/l   | 95       |
| 72) Bromoform                  | 12.24 | 173  | 100133   | 19.57  | ug/l # | 98       |
| 74) Isopropylbenzene           | 12.36 | 105  | 739255   | 19.36  | ug/l   | 100      |
| 75) N-amyl acetate             | 12.17 | 43   | 332765   | 19.52  | ug/l   | 99       |
| 76) 1,1,2,2-Tetrachloroethane  | 12.61 | 83   | 220276   | 20.29  | ug/l   | 97       |
| 77) 1,2,3-Trichloropropane     | 12.66 | 75   | 187619m  | 17.91  | ug/l   |          |
| 78) Bromobenzene               | 12.64 | 156  | 143043   | 19.10  | ug/l   | 90       |
| 79) n-propylbenzene            | 12.71 | 91   | 868859   | 19.34  | ug/l   | 98       |
| 80) 2-Chlorotoluene            | 12.79 | 91   | 520521   | 19.29  | ug/l   | 96       |
| 81) 1,3,5-Trimethylbenzene     | 12.85 | 105  | 594717   | 19.38  | ug/l   | 96       |
| 82) trans-1,4-Dichloro-2-buten | 12.40 | 75   | 77608    | 18.20  | ug/l   | 89       |
| 83) 4-Chlorotoluene            | 12.89 | 91   | 509455   | 19.22  | ug/l   | 96       |
| 84) tert-Butylbenzene          | 13.11 | 119  | 484760   | 19.15  | ug/l   | 91       |
| 85) 1,2,4-Trimethylbenzene     | 13.16 | 105  | 592500   | 19.23  | ug/l   | 96       |
| 86) sec-Butylbenzene           | 13.29 | 105  | 715697   | 19.30  | ug/l   | 100      |
| 87) p-Isopropyltoluene         | 13.41 | 119  | 543207   | 19.02  | ug/l   | 94       |
| 88) 1,3-Dichlorobenzene        | 13.41 | 146  | 251102   | 19.59  | ug/l   | 96       |
| 89) 1,4-Dichlorobenzene        | 13.49 | 146  | 248175   | 19.12  | ug/l   | 94       |
| 90) n-Butylbenzene             | 13.74 | 91   | 528967   | 19.08  | ug/l   | 98       |
| 91) Hexachloroethane           | 14.01 | 117  | 116762   | 18.68  | ug/l   | 92       |
| 92) 1,2-Dichlorobenzene        | 13.78 | 146  | 252968   | 19.97  | ug/l   | 97       |

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Misc : 5.00mL/MSVOA N/WATER  
ALS Vial : 14 Sample Multiplier: 1

Instrument :  
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9/16/2015 11:47:38 AM

Quant Time: Sep 16 01:34:22 2015  
Quant Method : W:\HPCHEM1\MSVOA\_N\METHODS\82N091515W.M  
Quant Title : SW846 8260  
QLast Update : Tue Sep 15 21:12:09 2015  
Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|--------------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2-Dibromo-3-Chloropropan | 14.40 | 75   | 46614    | 20.56 | ug/l  | 83       |
| 94) 1,2,4-Trichlorobenzene     | 15.05 | 180  | 132310   | 19.34 | ug/l  | 98       |
| 95) Hexachlorobutadiene        | 15.16 | 225  | 72188    | 20.03 | ug/l  | 99       |
| 96) Naphthalene                | 15.29 | 128  | 383063   | 19.10 | ug/l  | 100      |
| 97) 1,2,3-Trichlorobenzene     | 15.47 | 180  | 132839   | 19.53 | ug/l  | 96       |

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

