

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_N\DATA\VN091619\  
 Data File : VN058130.D  
 Acq On : 16 Sep 2019 19:25  
 Operator : JC/SP  
 Sample : K4871-02MS  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 30 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VE-4-11MS

Manual Integrations  
 APPROVED

MMDadoda  
 9/18/2019 2:56:34 PM

Quant Time: Sep 17 08:40:31 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N091019W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Sep 10 03:02:13 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.65  | 168  | 319449   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.57  | 114  | 520045   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 502788   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.35 | 152  | 310964   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.01   | 65  | 341718   | 52.81 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 105.62% |      |
| 35) Dibromofluoromethane  | 7.58   | 113 | 251114   | 52.32 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.64% |      |
| 50) Toluene-d8            | 10.08  | 98  | 972539   | 52.19 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.38% |      |
| 62) 4-Bromofluorobenzene  | 12.40  | 95  | 363132   | 51.13 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.26% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 222154  | 50.285  | ug/l | 97     |
| 3) Chloromethane              | 2.04 | 50  | 190658  | 42.343  | ug/l | 100    |
| 4) Vinyl Chloride             | 2.17 | 62  | 198455  | 41.644  | ug/l | 99     |
| 5) Bromomethane               | 2.54 | 94  | 105400  | 39.942  | ug/l | 100    |
| 6) Chloroethane               | 2.68 | 64  | 129984  | 42.805  | ug/l | 98     |
| 7) Trichlorofluoromethane     | 3.00 | 101 | 277444  | 46.262  | ug/l | 100    |
| 8) Diethyl Ether              | 3.39 | 74  | 132288  | 52.887  | ug/l | 99     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.74 | 101 | 199731  | 52.794  | ug/l | 99     |
| 10) Methyl Iodide             | 3.93 | 142 | 207140  | 49.202  | ug/l | 99     |
| 11) Tert butyl alcohol        | 4.76 | 59  | 204689  | 261.383 | ug/l | 99     |
| 12) 1,1-Dichloroethene        | 3.72 | 96  | 166883  | 49.061  | ug/l | 98     |
| 13) Acrolein                  | 3.59 | 56  | 42762   | 64.364  | ug/l | 100    |
| 14) Allyl chloride            | 4.30 | 41  | 330495  | 49.647  | ug/l | 99     |
| 15) Acrylonitrile             | 4.96 | 53  | 612985  | 284.788 | ug/l | 99     |
| 16) Acetone                   | 3.79 | 43  | 549392  | 259.019 | ug/l | 97     |
| 17) Carbon Disulfide          | 4.03 | 76  | 228528  | 43.188  | ug/l | 99     |
| 18) Methyl Acetate            | 4.30 | 43  | 333633  | 58.994  | ug/l | 99     |
| 19) Methyl tert-butyl Ether   | 5.02 | 73  | 802887  | 56.717  | ug/l | 98     |
| 20) Methylene Chloride        | 4.53 | 84  | 230807  | 57.341  | ug/l | 99     |
| 21) trans-1,2-Dichloroethene  | 5.02 | 96  | 186689  | 50.771  | ug/l | 99     |
| 22) Diisopropyl ether         | 5.93 | 45  | 878662  | 56.285  | ug/l | 100    |
| 23) Vinyl Acetate             | 5.87 | 43  | 3149181 | 284.645 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 5.83 | 63  | 461373  | 54.077  | ug/l | 99     |
| 25) 2-Butanone                | 6.81 | 43  | 847167  | 275.959 | ug/l | 99     |
| 26) 2,2-Dichloropropane       | 6.81 | 77  | 292984  | 43.393  | ug/l | 100    |
| 27) cis-1,2-Dichloroethene    | 6.81 | 96  | 261823  | 53.132  | ug/l | 99     |
| 28) Bromochloromethane        | 7.17 | 49  | 228842  | 53.689  | ug/l | 98     |
| 29) Tetrahydrofuran           | 7.19 | 42  | 538563  | 284.700 | ug/l | 99     |
| 30) Chloroform                | 7.36 | 83  | 487729  | 54.673  | ug/l | 100    |
| 31) Cyclohexane               | 7.64 | 56  | 306293  | 52.807  | ug/l | 99     |
| 32) 1,1,1-Trichloroethane     | 7.55 | 97  | 382533  | 54.068  | ug/l | 100    |
| 36) 1,1-Dichloropropene       | 7.78 | 75  | 301352  | 49.966  | ug/l | 99     |
| 37) Ethyl Acetate             | 6.91 | 43  | 337453  | 54.155  | ug/l | 100    |
| 38) Carbon Tetrachloride      | 7.76 | 117 | 305208  | 55.428  | ug/l | 99     |

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 ClientSampleId :  
 VE-4-11MS

Manual Integrations  
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Quant Time: Sep 17 08:40:31 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N091019W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Sep 10 03:02:13 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.07  | 83   | 297544   | 46.930  | ug/l   | 96       |
| 40) Benzene                    | 8.03  | 78   | 959202   | 52.826  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.16  | 41   | 169309   | 59.856  | ug/l   | 95       |
| 42) 1,2-Dichloroethane         | 8.11  | 62   | 402758   | 55.462  | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.15  | 43   | 633897   | 60.492  | ug/l   | 98       |
| 44) Trichloroethene            | 8.82  | 130  | 231067   | 51.884  | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 9.11  | 63   | 292479   | 55.356  | ug/l   | 99       |
| 46) Dibromomethane             | 9.20  | 93   | 181428   | 56.824  | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.40  | 83   | 374056   | 58.669  | ug/l   | 98       |
| 48) Methyl methacrylate        | 9.19  | 41   | 294053   | 55.318  | ug/l   | 99       |
| 49) 1,4-Dioxane                | 9.19  | 88   | 84567    | 940.761 | ug/l   | 97       |
| 51) 4-Methyl-2-Pentanone       | 9.98  | 43   | 1891469  | 305.019 | ug/l   | 100      |
| 52) Toluene                    | 10.15 | 92   | 602959   | 52.723  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 10.38 | 75   | 386050   | 57.500  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 9.83  | 75   | 408854   | 55.156  | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 10.56 | 97   | 280491   | 57.901  | ug/l   | 99       |
| 56) Ethyl methacrylate         | 10.43 | 69   | 420857   | 57.691  | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.71 | 76   | 469925   | 56.288  | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.75 | 43   | 1375572  | 295.949 | ug/l   | 100      |
| 60) Dibromochloromethane       | 10.90 | 129  | 271804   | 60.422  | ug/l   | 100      |
| 61) 1,2-Dibromoethane          | 11.00 | 107  | 264745   | 57.807  | ug/l   | 98       |
| 64) Tetrachloroethene          | 10.63 | 164  | 182781   | 49.236  | ug/l   | 99       |
| 65) Chlorobenzene              | 11.43 | 112  | 700110   | 53.207  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.51 | 131  | 265124   | 58.067  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.51 | 91   | 1255523  | 54.445  | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.62 | 106  | 919166   | 108.815 | ug/l   | 100      |
| 69) o-Xylene                   | 11.95 | 106  | 462425   | 55.066  | ug/l   | 99       |
| 70) Styrene                    | 11.97 | 104  | 801109   | 55.432  | ug/l   | 99       |
| 71) Bromoform                  | 12.13 | 173  | 172689   | 60.664  | ug/l # | 98       |
| 73) Isopropylbenzene           | 12.25 | 105  | 1282314  | 53.142  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.07 | 43   | 583253   | 55.541  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.51 | 83   | 432729   | 53.262  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.56 | 75   | 414034m  | 58.857  | ug/l   |          |
| 77) Bromobenzene               | 12.53 | 156  | 304525   | 50.619  | ug/l   | 99       |
| 78) n-propylbenzene            | 12.59 | 91   | 1505677  | 54.340  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.68 | 91   | 906022   | 51.735  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.74 | 105  | 1108386  | 54.364  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.30 | 75   | 104505   | 52.278  | ug/l   | 96       |
| 82) 4-Chlorotoluene            | 12.78 | 91   | 955131   | 53.110  | ug/l   | 100      |
| 83) tert-Butylbenzene          | 13.00 | 119  | 963908   | 53.186  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 13.05 | 105  | 1130309  | 54.547  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.18 | 105  | 1309390  | 54.510  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.29 | 119  | 1162234  | 54.913  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.29 | 146  | 586504   | 53.113  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.37 | 146  | 587238   | 52.391  | ug/l   | 100      |
| 89) n-Butylbenzene             | 13.62 | 91   | 1064688  | 53.268  | ug/l   | 100      |
| 90) Hexachloroethane           | 13.88 | 117  | 178475   | 56.701  | ug/l   | 100      |
| 91) 1,2-Dichlorobenzene        | 13.66 | 146  | 588948   | 53.386  | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 14.28 | 75   | 81881    | 61.027  | ug/l   | 99       |
| 93) 1,2,4-Trichlorobenzene     | 14.92 | 180  | 374303   | 51.909  | ug/l   | 99       |

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Quant Title : SW846 8260  
QLast Update : Tue Sep 10 03:02:13 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 94) Hexachlorobutadiene    | 15.02 | 225  | 157898   | 51.657 | ug/l  | 99       |
| 95) Naphthalene            | 15.13 | 128  | 1100590  | 60.798 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.30 | 180  | 357223   | 56.613 | ug/l  | 98       |

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

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