

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW071618\  
 Data File : VW003950.D  
 Acq On : 16 Jul 2018 14:07  
 Operator : VA/AP  
 Sample : VSTDICC100  
 Misc : 5.00G/5ML/MSVOA W/SOIL  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VSTDICC100

Manual Integrations  
 APPROVED

apatel  
 7/17/2018 10:11:16 AM

Quant Time: Jul 16 14:29:38 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W071618S.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Jul 16 14:22:59 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 285883   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.85  | 114  | 445651   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 408308   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.57 | 152  | 211448   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |        |         |      |
|---------------------------|--------|-----|----------|--------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.31   | 65  | 335261   | 103.46 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 206.92% |      |
| 35) Dibromofluoromethane  | 7.88   | 113 | 294991   | 102.32 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 204.64% |      |
| 50) Toluene-d8            | 10.33  | 98  | 1148254  | 102.05 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 204.10% |      |
| 62) 4-Bromofluorobenzene  | 12.62  | 95  | 418025   | 103.35 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 206.70% |      |

## Target Compounds

|                               |      |     |         |        |      | Qvalue |
|-------------------------------|------|-----|---------|--------|------|--------|
| 2) Dichlorodifluoromethane    | 2.00 | 85  | 159462  | 106.48 | ug/l | 99     |
| 3) Chloromethane              | 2.21 | 50  | 195338  | 88.95  | ug/l | 99     |
| 4) Vinyl Chloride             | 2.36 | 62  | 272339  | 90.42  | ug/l | 100    |
| 5) Bromomethane               | 2.76 | 94  | 175967  | 91.63  | ug/l | 99     |
| 6) Chloroethane               | 2.92 | 64  | 161131  | 91.50  | ug/l | 98     |
| 7) Trichlorofluoromethane     | 3.24 | 101 | 108537  | 85.11  | ug/l | 98     |
| 8) Diethyl Ether              | 3.67 | 74  | 138984  | 100.40 | ug/l | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 4.04 | 101 | 263934  | 97.41  | ug/l | 98     |
| 10) Methyl Iodide             | 4.26 | 142 | 399626  | 99.41  | ug/l | 100    |
| 11) Tert butyl alcohol        | 5.18 | 59  | 122389  | 604.02 | ug/l | 99     |
| 12) 1,1-Dichloroethene        | 4.03 | 96  | 265471  | 99.72  | ug/l | 98     |
| 13) Acrolein                  | 3.89 | 56  | 110658  | 487.33 | ug/l | 96     |
| 14) Allyl chloride            | 4.65 | 41  | 455434  | 98.42  | ug/l | 99     |
| 15) Acrylonitrile             | 5.36 | 53  | 387792  | 553.53 | ug/l | 99     |
| 16) Acetone                   | 4.12 | 43  | 381078  | 535.93 | ug/l | 99     |
| 17) Carbon Disulfide          | 4.37 | 76  | 837091  | 97.37  | ug/l | 100    |
| 18) Methyl Acetate            | 4.67 | 43  | 197751  | 112.83 | ug/l | 100    |
| 19) Methyl tert-butyl Ether   | 5.43 | 73  | 562346  | 106.41 | ug/l | 98     |
| 20) Methylene Chloride        | 4.92 | 84  | 302153  | 63.71  | ug/l | 98     |
| 21) trans-1,2-Dichloroethene  | 5.41 | 96  | 294357  | 96.16  | ug/l | 99     |
| 22) Diisopropyl ether         | 6.31 | 45  | 920915  | 96.85  | ug/l | 98     |
| 23) Vinyl Acetate             | 6.25 | 43  | 3152636 | 537.93 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 6.21 | 63  | 547469  | 95.69  | ug/l | 99     |
| 25) 2-Butanone                | 7.18 | 43  | 564757  | 573.50 | ug/l | 97     |
| 26) 2,2-Dichloropropane       | 7.17 | 77  | 291944  | 89.14  | ug/l | 100    |
| 27) cis-1,2-Dichloroethene    | 7.17 | 96  | 322726  | 97.54  | ug/l | 99     |
| 28) Bromochloromethane        | 7.51 | 49  | 212130  | 87.01  | ug/l | 99     |
| 29) Tetrahydrofuran           | 7.53 | 42  | 358798  | 581.11 | ug/l | 100    |
| 30) Chloroform                | 7.67 | 83  | 541720  | 94.60  | ug/l | 99     |
| 31) Cyclohexane               | 7.95 | 56  | 484976  | 91.38  | ug/l | 95     |
| 32) 1,1,1-Trichloroethane     | 7.87 | 97  | 421749  | 94.69  | ug/l | 100    |
| 36) 1,1-Dichloropropene       | 8.08 | 75  | 442933  | 96.27  | ug/l | 99     |
| 37) Ethyl Acetate             | 7.26 | 43  | 241673  | 113.28 | ug/l | 100    |
| 38) Carbon Tetrachloride      | 8.07 | 117 | 416186  | 97.05  | ug/l | 96     |

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W071618S.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Jul 16 14:22:59 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.34  | 83   | 546552   | 103.61  | ug/l   | 99       |
| 40) Benzene                    | 8.32  | 78   | 1231868  | 95.90   | ug/l   | 98       |
| 41) Methacrylonitrile          | 7.49  | 41   | 129710   | 107.20  | ug/l   | 97       |
| 42) 1,2-Dichloroethane         | 8.40  | 62   | 386845   | 98.75   | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.43  | 43   | 457495   | 113.76  | ug/l   | 98       |
| 44) Trichloroethene            | 9.09  | 130  | 319842   | 97.23   | ug/l   | 96       |
| 45) 1,2-Dichloropropane        | 9.37  | 63   | 320158   | 97.45   | ug/l   | 99       |
| 46) Dibromomethane             | 9.46  | 93   | 171694   | 102.04  | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.65  | 83   | 415228   | 99.21   | ug/l   | 98       |
| 48) Methyl methacrylate        | 9.44  | 41   | 224594   | 116.25  | ug/l   | 99       |
| 49) 1,4-Dioxane                | 9.45  | 88   | 59131    | 2326.07 | ug/l   | 97       |
| 51) 4-Methyl-2-Pentanone       | 10.21 | 43   | 1223941  | 572.20  | ug/l   | 99       |
| 52) Toluene                    | 10.39 | 92   | 767843   | 96.16   | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.61 | 75   | 452127   | 104.69  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 10.07 | 75   | 505884   | 102.16  | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 10.79 | 97   | 231729   | 97.32   | ug/l   | 100      |
| 56) Ethyl methacrylate         | 10.65 | 69   | 345876   | 115.06  | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.93 | 76   | 419191   | 101.31  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.93  | 63   | 729633   | 503.70  | ug/l   | 100      |
| 59) 2-Hexanone                 | 10.98 | 43   | 874740   | 585.10  | ug/l   | 100      |
| 60) Dibromochloromethane       | 11.13 | 129  | 285647   | 103.51  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.24 | 107  | 233891   | 104.63  | ug/l   | 98       |
| 64) Tetrachloroethene          | 10.87 | 164  | 274063   | 96.45   | ug/l   | 99       |
| 65) Chlorobenzene              | 11.66 | 112  | 838075   | 96.10   | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.74 | 131  | 296107   | 97.90   | ug/l   | 100      |
| 67) Ethyl Benzene              | 11.74 | 91   | 1526628  | 99.99   | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.85 | 106  | 1156294  | 198.06  | ug/l   | 99       |
| 69) o-Xylene                   | 12.17 | 106  | 544267   | 100.43  | ug/l   | 99       |
| 70) Styrene                    | 12.19 | 104  | 933046   | 102.96  | ug/l   | 99       |
| 71) Bromoform                  | 12.35 | 173  | 181158   | 108.84  | ug/l # | 99       |
| 73) Isopropylbenzene           | 12.47 | 105  | 1484812  | 100.13  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.28 | 43   | 435000   | 115.23  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.72 | 83   | 297786   | 106.07  | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 12.77 | 75   | 208774m  | 96.89   | ug/l   |          |
| 77) Bromobenzene               | 12.76 | 156  | 349743   | 98.70   | ug/l   | 99       |
| 78) n-propylbenzene            | 12.81 | 91   | 1812979  | 99.23   | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.90 | 91   | 1022616  | 98.94   | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.95 | 105  | 1239609  | 98.69   | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.52 | 75   | 103498   | 116.03  | ug/l   | 98       |
| 82) 4-Chlorotoluene            | 12.99 | 91   | 1064395  | 96.26   | ug/l   | 99       |
| 83) tert-Butylbenzene          | 13.21 | 119  | 1057877  | 100.85  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.26 | 105  | 1283633  | 99.48   | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.39 | 105  | 1535970  | 98.14   | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.51 | 119  | 1365163  | 99.47   | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 13.51 | 146  | 684993   | 96.10   | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 13.59 | 146  | 678445   | 94.91   | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.84 | 91   | 1335368  | 98.97   | ug/l   | 99       |
| 90) Hexachloroethane           | 14.10 | 117  | 245858   | 97.20   | ug/l   | 100      |
| 91) 1,2-Dichlorobenzene        | 13.88 | 146  | 614187   | 96.62   | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.49 | 75   | 54650    | 110.97  | ug/l   | 100      |

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| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.15 | 180  | 442168   | 100.08 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.25 | 225  | 243696   | 95.81  | ug/l  | 99       |
| 95) Naphthalene            | 15.38 | 128  | 918051   | 115.52 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.57 | 180  | 396171   | 101.73 | ug/l  | 100      |

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

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