

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\WV122618\  
 Data File : VW007904.D  
 Acq On : 24 Dec 2018 23:12  
 Operator : SY/AP  
 Sample : VSTDIC005  
 Misc : 5.00G/5ML/MSVOA W/SOIL  
 ALS Vial : 29 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VSTDIC005

Manual Integrations  
 APPROVED

apatel  
 12/27/2018 11:17:05 AM

Quant Time: Dec 25 03:51:27 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W122618S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Dec 25 03:37:20 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 77591    | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 133729   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 121269   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.57 | 152  | 59661    | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |      |       |      |
|---------------------------|--------|-----|----------|------|-------|------|
| 33) 1,2-Dichloroethane-d4 | 8.31   | 65  | 4326     | 4.94 | ug/l  | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 9.88% |      |
| 35) Dibromofluoromethane  | 7.88   | 113 | 3868     | 4.70 | ug/l  | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 9.40% |      |
| 50) Toluene-d8            | 10.32  | 98  | 14716    | 4.73 | ug/l  | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 9.46% |      |
| 62) 4-Bromofluorobenzene  | 12.62  | 95  | 5985     | 4.98 | ug/l  | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 9.96% |      |

## Target Compounds

|                               |      |     |       |        | Qvalue |
|-------------------------------|------|-----|-------|--------|--------|
| 2) Dichlorodifluoromethane    | 2.01 | 85  | 2794m | 4.096  | ug/l   |
| 3) Chloromethane              | 2.21 | 50  | 2653  | 5.922  | ug/l   |
| 4) Vinyl Chloride             | 2.37 | 62  | 3532  | 6.242  | ug/l   |
| 5) Bromomethane               | 2.78 | 94  | 2171  | 5.557  | ug/l   |
| 6) Chloroethane               | 2.93 | 64  | 1726  | 5.670  | ug/l   |
| 7) Trichlorofluoromethane     | 3.25 | 101 | 2162  | 3.900  | ug/l   |
| 8) Diethyl Ether              | 3.68 | 74  | 2105  | 5.973  | ug/l   |
| 9) 1,1,2-Trichlorotrifluoroet | 4.06 | 101 | 4027  | 4.859  | ug/l   |
| 10) Methyl Iodide             | 4.26 | 142 | 6585  | 4.978  | ug/l   |
| 11) Tert butyl alcohol        | 5.17 | 59  | 2498  | 41.902 | ug/l # |
| 12) 1,1-Dichloroethene        | 4.03 | 96  | 3702  | 4.804  | ug/l   |
| 13) Acrolein                  | 3.88 | 56  | 1202  | 26.724 | ug/l   |
| 14) Allyl chloride            | 4.66 | 41  | 5839  | 5.602  | ug/l   |
| 15) Acrylonitrile             | 5.37 | 53  | 4580  | 29.948 | ug/l   |
| 16) Acetone                   | 4.12 | 43  | 4603  | 28.850 | ug/l   |
| 17) Carbon Disulfide          | 4.37 | 76  | 10801 | 4.582  | ug/l   |
| 18) Methyl Acetate            | 4.67 | 43  | 2548  | 6.298  | ug/l # |
| 19) Methyl tert-butyl Ether   | 5.43 | 73  | 6857  | 5.974  | ug/l   |
| 20) Methylene Chloride        | 4.90 | 84  | 10699 | 10.764 | ug/l   |
| 21) trans-1,2-Dichloroethene  | 5.42 | 96  | 4368  | 5.136  | ug/l   |
| 22) Diisopropyl ether         | 6.31 | 45  | 12461 | 6.350  | ug/l # |
| 23) Vinyl Acetate             | 6.25 | 43  | 32817 | 28.444 | ug/l # |
| 24) 1,1-Dichloroethane        | 6.21 | 63  | 7957  | 5.616  | ug/l   |
| 25) 2-Butanone                | 7.17 | 43  | 5867  | 30.296 | ug/l   |
| 26) 2,2-Dichloropropane       | 7.15 | 77  | 5515  | 5.421  | ug/l   |
| 27) cis-1,2-Dichloroethene    | 7.17 | 96  | 4905  | 5.371  | ug/l   |
| 28) Bromochloromethane        | 7.51 | 49  | 2925  | 6.014  | ug/l # |
| 29) Tetrahydrofuran           | 7.52 | 42  | 3441  | 29.409 | ug/l   |
| 30) Chloroform                | 7.67 | 83  | 8532  | 5.381  | ug/l   |
| 31) Cyclohexane               | 7.95 | 56  | 8175  | 6.339  | ug/l # |
| 32) 1,1,1-Trichloroethane     | 7.87 | 97  | 7161  | 5.001  | ug/l   |
| 36) 1,1-Dichloropropene       | 8.08 | 75  | 6208  | 4.825  | ug/l   |
| 37) Ethyl Acetate             | 7.26 | 43  | 2720  | 5.957  | ug/l   |
| 38) Carbon Tetrachloride      | 8.07 | 117 | 6364  | 4.272  | ug/l   |

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 Quant Title : SW846 8260  
 QLast Update : Tue Dec 25 03:37:20 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| 39) Methylcyclohexane          | 9.33  | 83   | 7728     | 4.827  | ug/l   | 93       |
| 40) Benzene                    | 8.32  | 78   | 17198    | 4.963  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.48  | 41   | 1632     | 6.103  | ug/l   | 90       |
| 42) 1,2-Dichloroethane         | 8.40  | 62   | 6059     | 5.236  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 8.43  | 43   | 5251     | 5.731  | ug/l   | 97       |
| 44) Trichloroethene            | 9.09  | 130  | 4823     | 4.654  | ug/l   | 100      |
| 45) 1,2-Dichloropropane        | 9.37  | 63   | 4103     | 5.286  | ug/l   | 94       |
| 46) Dibromomethane             | 9.46  | 93   | 2385     | 5.066  | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.64  | 83   | 5703     | 4.613  | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.44  | 41   | 2368     | 5.161  | ug/l   | 93       |
| 49) 1,4-Dioxane                | 9.45  | 88   | 692      | 91.829 | ug/l # | 80       |
| 51) 4-Methyl-2-Pentanone       | 10.21 | 43   | 12397    | 28.451 | ug/l   | 97       |
| 52) Toluene                    | 10.39 | 92   | 12231    | 5.277  | ug/l   | 98       |
| 53) t-1,3-Dichloropropene      | 10.61 | 75   | 5796     | 4.683  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 10.07 | 75   | 6791     | 4.967  | ug/l   | 96       |
| 55) 1,1,2-Trichloroethane      | 10.79 | 97   | 3451     | 5.263  | ug/l   | 91       |
| 56) Ethyl methacrylate         | 10.65 | 69   | 3979     | 5.120  | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 10.93 | 76   | 5832     | 5.333  | ug/l   | 97       |
| 58) 2-Chloroethyl Vinyl ether  | 9.92  | 63   | 10057    | 28.122 | ug/l   | 100      |
| 59) 2-Hexanone                 | 10.97 | 43   | 7901     | 25.888 | ug/l   | 97       |
| 60) Dibromochloromethane       | 11.13 | 129  | 3753     | 4.396  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.24 | 107  | 3181     | 4.800  | ug/l   | 98       |
| 64) Tetrachloroethene          | 10.87 | 164  | 4094     | 4.760  | ug/l   | 96       |
| 65) Chlorobenzene              | 11.66 | 112  | 13411    | 5.093  | ug/l   | 97       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.73 | 131  | 4156     | 4.444  | ug/l   | 96       |
| 67) Ethyl Benzene              | 11.73 | 91   | 22478    | 4.960  | ug/l   | 100      |
| 68) m/p-Xylenes                | 11.84 | 106  | 17690    | 10.104 | ug/l   | 99       |
| 69) o-Xylene                   | 12.17 | 106  | 8715     | 5.299  | ug/l   | 92       |
| 70) Styrene                    | 12.18 | 104  | 13583    | 5.020  | ug/l   | 96       |
| 71) Bromoform                  | 12.35 | 173  | 1923     | 4.032  | ug/l # | 92       |
| 73) Isopropylbenzene           | 12.47 | 105  | 22605    | 4.975  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.27 | 43   | 4322     | 5.321  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.72 | 83   | 3745     | 5.425  | ug/l   | 96       |
| 76) 1,2,3-Trichloropropane     | 12.77 | 75   | 3516m    | 7.414  | ug/l   |          |
| 77) Bromobenzene               | 12.75 | 156  | 5148     | 4.954  | ug/l   | 98       |
| 78) n-propylbenzene            | 12.81 | 91   | 26881    | 5.080  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.90 | 91   | 16065    | 5.185  | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.94 | 105  | 19918    | 5.082  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.52 | 75   | 1024     | 4.642  | ug/l   | 99       |
| 82) 4-Chlorotoluene            | 12.99 | 91   | 16789    | 5.112  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 13.21 | 119  | 17336    | 5.042  | ug/l   | 97       |
| 84) 1,2,4-Trimethylbenzene     | 13.26 | 105  | 20164    | 5.096  | ug/l   | 100      |
| 85) sec-Butylbenzene           | 13.39 | 105  | 24009    | 5.073  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.50 | 119  | 21217    | 4.939  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.51 | 146  | 10764    | 5.209  | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene        | 13.58 | 146  | 10532    | 5.113  | ug/l   | 91       |
| 89) n-Butylbenzene             | 13.83 | 91   | 19527    | 4.955  | ug/l   | 99       |
| 90) Hexachloroethane           | 14.10 | 117  | 3135     | 4.213  | ug/l   | 95       |
| 91) 1,2-Dichlorobenzene        | 13.88 | 146  | 9669     | 5.230  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.49 | 75   | 651      | 4.635  | ug/l   | 91       |

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Quant Title : SW846 8260  
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| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.14 | 180  | 6095     | 4.773 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 15.24 | 225  | 3127     | 4.591 | ug/l  | 97       |
| 95) Naphthalene            | 15.37 | 128  | 11042    | 4.614 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.57 | 180  | 5088     | 4.632 | ug/l  | 95       |

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

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