

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW052419\  
 Data File : VW010547.D  
 Acq On : 24 May 2019 13:42  
 Operator : SY/VA  
 Sample : VW0524SBSD01  
 Misc : 5.00G/5ML/MSVOA W/SOIL  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VW0524SBSD01

Manual Integrations  
 APPROVED

MMDadoda  
 5/28/2019 12:01:21 PM

Quant Time: May 25 01:54:35 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W052019S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue May 21 06:38:43 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 142449   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 245395   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 217788   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.56 | 152  | 104190   | 50.00 | ug/l  | 0.00     |

|                             |        |     |          |       |         |      |
|-----------------------------|--------|-----|----------|-------|---------|------|
| System Monitoring Compounds |        |     |          |       |         |      |
| 33) 1,2-Dichloroethane-d4   | 8.31   | 65  | 71660    | 48.74 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 97.48%  |      |
| 35) Dibromofluoromethane    | 7.88   | 113 | 76136    | 51.13 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 102.26% |      |
| 50) Toluene-d8              | 10.32  | 98  | 290056   | 50.99 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 101.98% |      |
| 62) 4-Bromofluorobenzene    | 12.62  | 95  | 111620   | 49.26 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 98.52%  |      |

| Target Compounds              |      |     |        |         |        | Qvalue |
|-------------------------------|------|-----|--------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 2.00 | 85  | 21186  | 16.507  | ug/l   | 97     |
| 3) Chloromethane              | 2.21 | 50  | 23954  | 16.005  | ug/l   | 97     |
| 4) Vinyl Chloride             | 2.36 | 62  | 27322  | 15.760  | ug/l   | 94     |
| 5) Bromomethane               | 2.75 | 94  | 20749  | 17.397  | ug/l   | 100    |
| 6) Chloroethane               | 2.91 | 64  | 19414  | 17.445  | ug/l   | 96     |
| 7) Trichlorofluoromethane     | 3.25 | 101 | 50723  | 19.818  | ug/l   | 99     |
| 8) Diethyl Ether              | 3.68 | 74  | 17133  | 21.117  | ug/l   | 99     |
| 9) 1,1,2-Trichlorotrifluoroet | 4.05 | 101 | 32521  | 20.632  | ug/l   | 98     |
| 10) Methyl Iodide             | 4.27 | 142 | 30059  | 16.684  | ug/l   | 98     |
| 11) Tert butyl alcohol        | 5.18 | 59  | 17849  | 134.960 | ug/l # | 90     |
| 12) 1,1-Dichloroethene        | 4.03 | 96  | 29963  | 19.914  | ug/l   | 96     |
| 13) Acrolein                  | 3.89 | 56  | 8352   | 94.501  | ug/l   | 98     |
| 14) Allyl chloride            | 4.67 | 41  | 41977  | 19.274  | ug/l   | 98     |
| 15) Acrylonitrile             | 5.37 | 53  | 30671  | 90.265  | ug/l   | 98     |
| 16) Acetone                   | 4.12 | 43  | 29047  | 96.783  | ug/l   | 97     |
| 17) Carbon Disulfide          | 4.38 | 76  | 80767  | 17.997  | ug/l   | 100    |
| 18) Methyl Acetate            | 4.67 | 43  | 15120  | 20.599  | ug/l   | 99     |
| 19) Methyl tert-butyl Ether   | 5.42 | 73  | 77099  | 20.100  | ug/l   | 99     |
| 20) Methylene Chloride        | 4.92 | 84  | 40901  | 20.204  | ug/l   | 96     |
| 21) trans-1,2-Dichloroethene  | 5.42 | 96  | 35164  | 20.375  | ug/l   | 96     |
| 22) Diisopropyl ether         | 6.31 | 45  | 89112  | 19.954  | ug/l   | 100    |
| 23) Vinyl Acetate             | 6.26 | 43  | 256507 | 96.155  | ug/l   | 99     |
| 24) 1,1-Dichloroethane        | 6.21 | 63  | 55095  | 20.674  | ug/l   | 98     |
| 25) 2-Butanone                | 7.17 | 43  | 44703  | 104.080 | ug/l   | 100    |
| 26) 2,2-Dichloropropane       | 7.17 | 77  | 57731  | 22.742  | ug/l   | 96     |
| 27) cis-1,2-Dichloroethene    | 7.17 | 96  | 39374  | 20.985  | ug/l   | 96     |
| 28) Bromochloromethane        | 7.51 | 49  | 18618  | 19.512  | ug/l   | 92     |
| 29) Tetrahydrofuran           | 7.53 | 42  | 26120  | 89.872  | ug/l   | 97     |
| 30) Chloroform                | 7.67 | 83  | 60412  | 21.016  | ug/l   | 97     |
| 31) Cyclohexane               | 7.95 | 56  | 54288  | 19.447  | ug/l   | 97     |
| 32) 1,1,1-Trichloroethane     | 7.87 | 97  | 56676  | 20.628  | ug/l   | 99     |
| 36) 1,1-Dichloropropene       | 8.08 | 75  | 47732  | 20.880  | ug/l   | 99     |
| 37) Ethyl Acetate             | 7.26 | 43  | 18351  | 18.878  | ug/l   | 99     |
| 38) Carbon Tetrachloride      | 8.07 | 117 | 50963  | 20.666  | ug/l   | 98     |

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 Operator : SY/VA  
 Sample : VW0524SBSD01  
 Misc : 5.00G/5ML/MSVOA W/SOIL  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VW0524SBSD01

Manual Integrations  
 APPROVED

MMDadoda  
 5/28/2019 12:01:21 PM

Quant Time: May 25 01:54:35 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W052019S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue May 21 06:38:43 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.34  | 83   | 62540    | 20.420  | ug/l   | 97       |
| 40) Benzene                    | 8.32  | 78   | 132365   | 20.833  | ug/l   | 99       |
| 41) Methacrylonitrile          | 7.48  | 41   | 11220    | 19.425  | ug/l   | 91       |
| 42) 1,2-Dichloroethane         | 8.40  | 62   | 37546    | 20.675  | ug/l   | 100      |
| 43) Isopropyl Acetate          | 8.43  | 43   | 35926    | 18.499  | ug/l   | 99       |
| 44) Trichloroethene            | 9.09  | 130  | 40178    | 21.300  | ug/l   | 97       |
| 45) 1,2-Dichloropropane        | 9.37  | 63   | 30854    | 20.447  | ug/l   | 99       |
| 46) Dibromomethane             | 9.46  | 93   | 18572    | 21.045  | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.65  | 83   | 45173    | 20.369  | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.44  | 41   | 16270    | 18.312  | ug/l   | 95       |
| 49) 1,4-Dioxane                | 9.45  | 88   | 4692     | 325.469 | ug/l # | 92       |
| 51) 4-Methyl-2-Pentanone       | 10.21 | 43   | 91469    | 92.948  | ug/l   | 99       |
| 52) Toluene                    | 10.39 | 92   | 89461    | 20.966  | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.60 | 75   | 45130    | 20.093  | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 10.07 | 75   | 52772    | 20.573  | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 10.79 | 97   | 26837    | 21.148  | ug/l   | 97       |
| 56) Ethyl methacrylate         | 10.65 | 69   | 32814    | 18.749  | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.93 | 76   | 44030    | 20.713  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.92  | 63   | 74245    | 95.773  | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.97 | 43   | 64005    | 91.176  | ug/l   | 99       |
| 60) Dibromochloromethane       | 11.13 | 129  | 32799    | 20.422  | ug/l   | 98       |
| 61) 1,2-Dibromoethane          | 11.24 | 107  | 26475    | 20.595  | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.86 | 164  | 31909    | 21.018  | ug/l   | 99       |
| 65) Chlorobenzene              | 11.66 | 112  | 99538    | 21.445  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.73 | 131  | 35508    | 21.355  | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.73 | 91   | 172859   | 21.094  | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.84 | 106  | 134636   | 41.887  | ug/l   | 100      |
| 69) o-Xylene                   | 12.16 | 106  | 63862    | 20.970  | ug/l   | 100      |
| 70) Styrene                    | 12.18 | 104  | 107784   | 20.860  | ug/l   | 99       |
| 71) Bromoform                  | 12.35 | 173  | 17377    | 18.978  | ug/l # | 96       |
| 73) Isopropylbenzene           | 12.46 | 105  | 175209   | 21.192  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.27 | 43   | 32941    | 17.387  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.71 | 83   | 29494    | 19.613  | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane     | 12.77 | 75   | 23900m   | 22.598  | ug/l   |          |
| 77) Bromobenzene               | 12.75 | 156  | 40132    | 21.691  | ug/l   | 98       |
| 78) n-propylbenzene            | 12.80 | 91   | 198714   | 20.624  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.90 | 91   | 117231   | 20.981  | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.94 | 105  | 146378   | 20.904  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.51 | 75   | 8776     | 17.318  | ug/l   | 97       |
| 82) 4-Chlorotoluene            | 12.99 | 91   | 121886   | 21.016  | ug/l   | 100      |
| 83) tert-Butylbenzene          | 13.21 | 119  | 127819   | 20.897  | ug/l   | 100      |
| 84) 1,2,4-Trimethylbenzene     | 13.26 | 105  | 145773   | 20.902  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.38 | 105  | 177155   | 20.696  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.50 | 119  | 161173   | 20.803  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.50 | 146  | 76988    | 21.209  | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene        | 13.58 | 146  | 77632    | 21.316  | ug/l   | 98       |
| 89) n-Butylbenzene             | 13.83 | 91   | 147853   | 20.063  | ug/l   | 100      |
| 90) Hexachloroethane           | 14.10 | 117  | 30111    | 20.079  | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene        | 13.87 | 146  | 69156    | 20.909  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.49 | 75   | 4839     | 17.305  | ug/l   | 98       |

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Operator : SY/VA  
Sample : VW0524SBSD01  
Misc : 5.00G/5ML/MSVOA W/SOIL  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
MSVOA\_W  
ClientSampleId :  
VW0524SBSD01

Manual Integrations  
APPROVED

MMDadoda  
5/28/2019 12:01:21 PM

Quant Time: May 25 01:54:35 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W052019S.M  
Quant Title : SW846 8260  
QLast Update : Tue May 21 06:38:43 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.14 | 180  | 44114    | 19.603 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.24 | 225  | 23886    | 19.869 | ug/l  | 96       |
| 95) Naphthalene            | 15.37 | 128  | 86313    | 18.272 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.56 | 180  | 38193    | 19.724 | ug/l  | 99       |

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

