

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_U\DATA\VU121518\  
 Data File : VU028682.D  
 Acq On : 14 Dec 2018 14:50  
 Operator : MD/SY  
 Sample : VU1215WBS01  
 Misc : 5.0mL/MSVOA\_U/WATER  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VU1215WBS01

Manual Integrations  
 APPROVED

MMDadoda  
 12/17/2018 9:48:40 AM

Quant Time: Dec 15 00:54:36 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U120618W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Dec 07 00:39:42 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.98  | 168  | 60372    | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.88  | 114  | 101073   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.09  | 117  | 94469    | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 44026    | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 5.31   | 65  | 29319    | 31.82 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 63.64% |      |
| 35) Dibromofluoromethane  | 4.88   | 113 | 20804    | 32.71 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 65.42% |      |
| 50) Toluene-d8            | 7.56   | 98  | 78951    | 31.38 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 62.76% |      |
| 62) 4-Bromofluorobenzene  | 10.30  | 95  | 27465    | 29.20 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 58.40% |      |

## Target Compounds

|                               |      |     |        |        |        | Qvalue |
|-------------------------------|------|-----|--------|--------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.21 | 85  | 8523   | 10.533 | ug/l   | 96     |
| 3) Chloromethane              | 1.33 | 50  | 15295  | 10.281 | ug/l   | 100    |
| 4) Vinyl Chloride             | 1.40 | 62  | 11019  | 10.263 | ug/l   | 100    |
| 5) Bromomethane               | 1.61 | 94  | 4733   | 10.944 | ug/l   | 98     |
| 6) Chloroethane               | 1.69 | 64  | 6778   | 11.152 | ug/l   | 99     |
| 7) Trichlorofluoromethane     | 1.88 | 101 | 12468  | 11.038 | ug/l   | 100    |
| 8) Diethyl Ether              | 2.10 | 74  | 5638   | 10.668 | ug/l   | 96     |
| 9) 1,1,2-Trichlorotrifluoroet | 2.28 | 101 | 7391   | 10.940 | ug/l   | 97     |
| 10) Methyl Iodide             | 2.41 | 142 | 7518   | 14.183 | ug/l   | 97     |
| 11) Tert butyl alcohol        | 2.82 | 59  | 12348  | 60.156 | ug/l   | 95     |
| 12) 1,1-Dichloroethene        | 2.28 | 96  | 7155   | 10.645 | ug/l   | 95     |
| 13) Acrolein                  | 2.19 | 56  | 15606  | 95.370 | ug/l   | 98     |
| 14) Allyl chloride            | 2.59 | 41  | 19359  | 12.174 | ug/l   | 90     |
| 15) Acrylonitrile             | 2.94 | 53  | 32858  | 57.658 | ug/l   | 97     |
| 16) Acetone                   | 2.32 | 43  | 36233  | 60.268 | ug/l   | 98     |
| 17) Carbon Disulfide          | 2.48 | 76  | 24642  | 10.176 | ug/l   | 100    |
| 18) Methyl Acetate            | 2.61 | 43  | 20551  | 13.187 | ug/l   | 95     |
| 19) Methyl tert-butyl Ether   | 3.00 | 73  | 28372  | 11.134 | ug/l   | 98     |
| 20) Methylene Chloride        | 2.70 | 84  | 9499   | 10.718 | ug/l   | 95     |
| 21) trans-1,2-Dichloroethene  | 2.98 | 96  | 7989   | 10.556 | ug/l   | 92     |
| 22) Diisopropyl ether         | 3.57 | 45  | 34634  | 11.200 | ug/l   | 91     |
| 23) Vinyl Acetate             | 3.52 | 43  | 138959 | 54.480 | ug/l   | 99     |
| 24) 1,1-Dichloroethane        | 3.44 | 63  | 17751  | 10.966 | ug/l   | 98     |
| 25) 2-Butanone                | 4.26 | 43  | 47349  | 57.630 | ug/l   | 97     |
| 26) 2,2-Dichloropropane       | 4.22 | 77  | 14443  | 11.261 | ug/l   | 96     |
| 27) cis-1,2-Dichloroethene    | 4.22 | 96  | 9229   | 10.774 | ug/l   | 97     |
| 28) Bromochloromethane        | 4.55 | 49  | 7611   | 10.343 | ug/l # | 98     |
| 29) Tetrahydrofuran           | 4.64 | 42  | 29781  | 56.439 | ug/l   | 98     |
| 30) Chloroform                | 4.67 | 83  | 16280  | 11.540 | ug/l   | 90     |
| 31) Cyclohexane               | 4.99 | 56  | 17629  | 10.208 | ug/l   | 94     |
| 32) 1,1,1-Trichloroethane     | 4.91 | 97  | 13340  | 11.385 | ug/l   | 97     |
| 36) 1,1-Dichloropropene       | 5.13 | 75  | 11749  | 10.623 | ug/l   | 98     |
| 37) Ethyl Acetate             | 4.38 | 43  | 16138  | 11.287 | ug/l   | 98     |
| 38) Carbon Tetrachloride      | 5.13 | 117 | 10431  | 11.701 | ug/l   | 94     |

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 Operator : MD/SY  
 Sample : VU1215WBS01  
 Misc : 5.0mL/MSVOA\_U/WATER  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleID :  
 VU1215WBS01

Manual Integrations  
 APPROVED

MMDadoda  
 12/17/2018 9:48:40 AM

Quant Time: Dec 15 00:54:36 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U120618W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Dec 07 00:39:42 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 6.41  | 83   | 13985    | 10.364  | ug/l   | 98       |
| 40) Benzene                    | 5.39  | 78   | 38474    | 11.811  | ug/l   | 94       |
| 41) Methacrylonitrile          | 4.54  | 41   | 9067     | 11.580  | ug/l   | 98       |
| 42) 1,2-Dichloroethane         | 5.40  | 62   | 14124    | 12.387  | ug/l   | 97       |
| 43) Isopropyl Acetate          | 5.55  | 43   | 26607    | 11.765  | ug/l   | 97       |
| 44) Trichloroethene            | 6.19  | 130  | 8305     | 11.466  | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 6.43  | 63   | 10838    | 11.831  | ug/l   | 92       |
| 46) Dibromomethane             | 6.56  | 93   | 6486     | 11.934  | ug/l   | 99       |
| 47) Bromodichloromethane       | 6.76  | 83   | 12661    | 11.971  | ug/l   | 95       |
| 48) Methyl methacrylate        | 6.62  | 41   | 13021    | 11.578  | ug/l   | 96       |
| 49) 1,4-Dioxane                | 6.61  | 88   | 4133     | 232.746 | ug/l   | 96       |
| 51) 4-Methyl-2-Pentanone       | 7.46  | 43   | 83661    | 58.655  | ug/l   | 98       |
| 52) Toluene                    | 7.64  | 92   | 21197    | 11.057  | ug/l   | 96       |
| 53) t-1,3-Dichloropropene      | 7.88  | 75   | 14322    | 11.370  | ug/l   | 97       |
| 54) cis-1,3-Dichloropropene    | 7.27  | 75   | 15169    | 11.100  | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 8.07  | 97   | 9108     | 12.019  | ug/l   | 98       |
| 56) Ethyl methacrylate         | 8.02  | 69   | 13870    | 10.688  | ug/l   | 97       |
| 57) 1,3-Dichloropropane        | 8.24  | 76   | 16308    | 11.593  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 7.13  | 63   | 33644    | 50.615  | ug/l   | 98       |
| 59) 2-Hexanone                 | 8.36  | 43   | 65289    | 57.751  | ug/l   | 98       |
| 60) Dibromochloromethane       | 8.48  | 129  | 8549     | 11.522  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 8.58  | 107  | 9551     | 12.018  | ug/l   | 97       |
| 64) Tetrachloroethene          | 8.22  | 164  | 6633     | 10.526  | ug/l   | 93       |
| 65) Chlorobenzene              | 9.12  | 112  | 22110    | 10.983  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 9.21  | 131  | 7907     | 12.300  | ug/l   | 96       |
| 67) Ethyl Benzene              | 9.25  | 91   | 39574    | 10.694  | ug/l   | 97       |
| 68) m/p-Xylenes                | 9.37  | 106  | 28280    | 21.002  | ug/l   | 94       |
| 69) o-Xylene                   | 9.78  | 106  | 13936    | 10.650  | ug/l   | 98       |
| 70) Styrene                    | 9.79  | 104  | 22296    | 10.296  | ug/l   | 98       |
| 71) Bromoform                  | 9.96  | 173  | 6483     | 11.855  | ug/l # | 97       |
| 73) Isopropylbenzene           | 10.17 | 105  | 36392    | 10.772  | ug/l   | 99       |
| 74) N-amyl acetate             | 10.01 | 43   | 21896    | 11.236  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 10.46 | 83   | 16348    | 12.597  | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 10.49 | 75   | 13247m   | 11.783  | ug/l   |          |
| 77) Bromobenzene               | 10.45 | 156  | 9340     | 11.821  | ug/l   | 98       |
| 78) n-propylbenzene            | 10.58 | 91   | 45123    | 10.749  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 10.66 | 91   | 27912    | 11.543  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 10.77 | 105  | 30880    | 11.043  | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 10.51 | 75   | 5873m    | 13.234  | ug/l   |          |
| 82) 4-Chlorotoluene            | 10.77 | 91   | 31541    | 11.007  | ug/l   | 98       |
| 83) tert-Butylbenzene          | 11.10 | 119  | 30409    | 11.282  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 11.15 | 105  | 31652    | 10.983  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 11.32 | 105  | 38002    | 10.975  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 11.48 | 119  | 31662    | 10.764  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 11.42 | 146  | 16397    | 10.991  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 11.51 | 146  | 16347    | 10.591  | ug/l   | 95       |
| 89) n-Butylbenzene             | 11.89 | 91   | 29454    | 9.894   | ug/l   | 99       |
| 90) Hexachloroethane           | 12.14 | 117  | 5604     | 12.605  | ug/l   | 95       |
| 91) 1,2-Dichlorobenzene        | 11.88 | 146  | 16748    | 11.223  | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 12.66 | 75   | 3427     | 12.198  | ug/l   | 97       |

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Acq On : 14 Dec 2018 14:50  
Operator : MD/SY  
Sample : VU1215WBS01  
Misc : 5.0mL/MSVOA\_U/WATER  
ALS Vial : 4 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
VU1215WBS01

Manual Integrations  
APPROVED

MMDadoda  
12/17/2018 9:48:40 AM

Quant Time: Dec 15 00:54:36 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\82U120618W.M  
Quant Title : SW846 8260  
QLast Update : Fri Dec 07 00:39:42 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 13.50 | 180  | 9741     | 10.182 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 13.69 | 225  | 5268     | 10.777 | ug/l  | 96       |
| 95) Naphthalene            | 13.74 | 128  | 33300    | 9.299  | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 13.99 | 180  | 10071    | 9.985  | ug/l  | 95       |

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

