

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\U110218\  
 Data File : VU027909.D  
 Acq On : 01 Nov 2018 20:45  
 Operator : MD/SY  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 ICVVU110218

Manual Integrations  
 APPROVED

MMDadoda  
 11/2/2018 9:00:26 AM

Quant Time: Nov 02 01:33:40 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U110218W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Nov 02 02:28:20 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.99  | 168  | 188184   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.89  | 114  | 325109   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.09  | 117  | 304541   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 150838   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 5.31   | 65  | 135879   | 48.57 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.14% |      |
| 35) Dibromofluoromethane  | 4.88   | 113 | 100737   | 49.14 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.28% |      |
| 50) Toluene-d8            | 7.57   | 98  | 387080   | 48.88 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.76% |      |
| 62) 4-Bromofluorobenzene  | 10.31  | 95  | 143714   | 49.21 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.42% |      |

## Target Compounds

|                               |      |     |         |         | Qvalue   |
|-------------------------------|------|-----|---------|---------|----------|
| 2) Dichlorodifluoromethane    | 1.21 | 85  | 129443  | 54.133  | ug/l 98  |
| 3) Chloromethane              | 1.33 | 50  | 151119  | 52.255  | ug/l 98  |
| 4) Vinyl Chloride             | 1.40 | 62  | 151701  | 52.852  | ug/l 98  |
| 5) Bromomethane               | 1.61 | 94  | 65796   | 54.656  | ug/l 97  |
| 6) Chloroethane               | 1.69 | 64  | 85198   | 51.508  | ug/l 100 |
| 7) Trichlorofluoromethane     | 1.88 | 101 | 166310  | 50.142  | ug/l 95  |
| 8) Diethyl Ether              | 2.11 | 74  | 71016   | 50.005  | ug/l 99  |
| 9) 1,1,2-Trichlorotrifluoroet | 2.29 | 101 | 99880   | 50.692  | ug/l 98  |
| 10) Methyl Iodide             | 2.41 | 142 | 83232   | 46.617  | ug/l 99  |
| 11) Tert butyl alcohol        | 2.83 | 59  | 178266  | 240.679 | ug/l 100 |
| 12) 1,1-Dichloroethene        | 2.28 | 96  | 98503   | 49.944  | ug/l 95  |
| 13) Acrolein                  | 2.20 | 56  | 67007   | 245.827 | ug/l 98  |
| 14) Allyl chloride            | 2.59 | 41  | 229250  | 47.559  | ug/l 97  |
| 15) Acrylonitrile             | 2.94 | 53  | 447723  | 246.081 | ug/l 99  |
| 16) Acetone                   | 2.32 | 43  | 401080  | 231.053 | ug/l 98  |
| 17) Carbon Disulfide          | 2.48 | 76  | 332770  | 51.620  | ug/l 99  |
| 18) Methyl Acetate            | 2.62 | 43  | 219334  | 45.932  | ug/l 98  |
| 19) Methyl tert-butyl Ether   | 3.00 | 73  | 393398  | 49.462  | ug/l 99  |
| 20) Methylene Chloride        | 2.70 | 84  | 123228  | 48.620  | ug/l 99  |
| 21) trans-1,2-Dichloroethene  | 2.98 | 96  | 110607  | 48.595  | ug/l 99  |
| 22) Diisopropyl ether         | 3.58 | 45  | 485825  | 48.818  | ug/l 100 |
| 23) Vinyl Acetate             | 3.53 | 43  | 2136121 | 249.758 | ug/l 99  |
| 24) 1,1-Dichloroethane        | 3.45 | 63  | 238618  | 48.138  | ug/l 99  |
| 25) 2-Butanone                | 4.27 | 43  | 676631  | 245.013 | ug/l 99  |
| 26) 2,2-Dichloropropane       | 4.23 | 77  | 175230  | 47.106  | ug/l 99  |
| 27) cis-1,2-Dichloroethene    | 4.23 | 96  | 129021  | 50.549  | ug/l 99  |
| 28) Bromochloromethane        | 4.55 | 49  | 116828  | 50.274  | ug/l 100 |
| 29) Tetrahydrofuran           | 4.64 | 42  | 438979  | 238.053 | ug/l 99  |
| 30) Chloroform                | 4.67 | 83  | 217451  | 47.844  | ug/l 99  |
| 31) Cyclohexane               | 5.00 | 56  | 242328  | 49.811  | ug/l 100 |
| 32) 1,1,1-Trichloroethane     | 4.92 | 97  | 179966  | 49.743  | ug/l 99  |
| 36) 1,1-Dichloropropene       | 5.14 | 75  | 169424  | 49.758  | ug/l 99  |
| 37) Ethyl Acetate             | 4.39 | 43  | 242929  | 48.692  | ug/l 100 |
| 38) Carbon Tetrachloride      | 5.14 | 117 | 147154  | 48.767  | ug/l 99  |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\U110218\  
 Data File : VU027909.D  
 Acq On : 01 Nov 2018 20:45  
 Operator : MD/SY  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 ICVVU110218

Manual Integrations  
 APPROVED

MMDadoda  
 11/2/2018 9:00:26 AM

Quant Time: Nov 02 01:33:40 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U110218W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Nov 02 02:28:20 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 6.42  | 83   | 207858   | 50.613   | ug/l   | 98       |
| 40) Benzene                    | 5.39  | 78   | 517137   | 49.675   | ug/l   | 99       |
| 41) Methacrylonitrile          | 4.55  | 41   | 134717   | 50.598   | ug/l   | 97       |
| 42) 1,2-Dichloroethane         | 5.40  | 62   | 177893   | 48.074   | ug/l   | 99       |
| 43) Isopropyl Acetate          | 5.55  | 43   | 383982   | 49.125   | ug/l   | 99       |
| 44) Trichloroethene            | 6.19  | 130  | 113025   | 50.509   | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 6.43  | 63   | 148356   | 49.414   | ug/l   | 99       |
| 46) Dibromomethane             | 6.56  | 93   | 87642    | 50.786   | ug/l   | 97       |
| 47) Bromodichloromethane       | 6.76  | 83   | 167773   | 50.448   | ug/l   | 99       |
| 48) Methyl methacrylate        | 6.62  | 41   | 192433   | 50.239   | ug/l   | 98       |
| 49) 1,4-Dioxane                | 6.61  | 88   | 65121    | 1042.063 | ug/l   | 98       |
| 51) 4-Methyl-2-Pentanone       | 7.46  | 43   | 1268451  | 242.997  | ug/l   | 99       |
| 52) Toluene                    | 7.64  | 92   | 306753   | 50.122   | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 7.88  | 75   | 200907   | 48.743   | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 7.27  | 75   | 216072   | 52.704   | ug/l   | 97       |
| 55) 1,1,2-Trichloroethane      | 8.07  | 97   | 122706   | 49.281   | ug/l   | 97       |
| 56) Ethyl methacrylate         | 8.02  | 69   | 227172   | 51.736   | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 8.24  | 76   | 225517   | 49.721   | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 7.13  | 63   | 585072   | 248.785  | ug/l   | 99       |
| 59) 2-Hexanone                 | 8.36  | 43   | 993721   | 246.133  | ug/l   | 99       |
| 60) Dibromochloromethane       | 8.48  | 129  | 123056   | 52.227   | ug/l   | 98       |
| 61) 1,2-Dibromoethane          | 8.59  | 107  | 134028   | 50.658   | ug/l   | 100      |
| 64) Tetrachloroethene          | 8.23  | 164  | 96737    | 48.988   | ug/l   | 97       |
| 65) Chlorobenzene              | 9.12  | 112  | 323782   | 50.322   | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 9.21  | 131  | 108961   | 49.580   | ug/l   | 98       |
| 67) Ethyl Benzene              | 9.25  | 91   | 595211   | 50.258   | ug/l   | 100      |
| 68) m/p-Xylenes                | 9.38  | 106  | 431984   | 100.527  | ug/l   | 99       |
| 69) o-Xylene                   | 9.78  | 106  | 213293   | 49.155   | ug/l   | 100      |
| 70) Styrene                    | 9.79  | 104  | 357623   | 51.581   | ug/l   | 98       |
| 71) Bromoform                  | 9.96  | 173  | 93839    | 50.949   | ug/l # | 98       |
| 73) Isopropylbenzene           | 10.17 | 105  | 573384   | 49.069   | ug/l   | 100      |
| 74) N-amyl acetate             | 10.01 | 43   | 354890   | 50.226   | ug/l   | 100      |
| 75) 1,1,2,2-Tetrachloroethane  | 10.46 | 83   | 226385   | 48.029   | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 10.49 | 75   | 175375m  | 42.506   | ug/l   |          |
| 77) Bromobenzene               | 10.45 | 156  | 136085   | 50.788   | ug/l   | 98       |
| 78) n-propylbenzene            | 10.59 | 91   | 700984   | 50.116   | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 10.66 | 91   | 409510   | 48.844   | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 10.77 | 105  | 480502   | 49.639   | ug/l   | 100      |
| 81) trans-1,4-Dichloro-2-buten | 10.51 | 75   | 90432m   | 54.701   | ug/l   |          |
| 82) 4-Chlorotoluene            | 10.77 | 91   | 471638   | 49.552   | ug/l   | 100      |
| 83) tert-Butylbenzene          | 11.10 | 119  | 462516   | 47.795   | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 11.15 | 105  | 490219   | 50.293   | ug/l   | 99       |
| 85) sec-Butylbenzene           | 11.32 | 105  | 598503   | 50.854   | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 11.48 | 119  | 495993   | 50.413   | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 11.42 | 146  | 248296   | 50.164   | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 11.51 | 146  | 248511   | 48.984   | ug/l   | 99       |
| 89) n-Butylbenzene             | 11.89 | 91   | 490101   | 52.415   | ug/l   | 100      |
| 90) Hexachloroethane           | 12.15 | 117  | 87318    | 49.849   | ug/l   | 96       |
| 91) 1,2-Dichlorobenzene        | 11.88 | 146  | 249031   | 50.030   | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 12.66 | 75   | 50904    | 51.253   | ug/l   | 98       |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU110218\  
Data File : VU027909.D  
Acq On : 01 Nov 2018 20:45  
Operator : MD/SY  
Sample : VSTDICV050  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
ICVVU110218

Manual Integrations  
APPROVED

MMDadoda  
11/2/2018 9:00:26 AM

Quant Time: Nov 02 01:33:40 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U110218W.M  
Quant Title : SW846 8260  
QLast Update : Fri Nov 02 02:28:20 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 13.50 | 180  | 172647   | 49.464 | ug/l  | 100      |
| 94) Hexachlorobutadiene    | 13.69 | 225  | 82539    | 52.174 | ug/l  | 98       |
| 95) Naphthalene            | 13.74 | 128  | 629464   | 50.878 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 13.99 | 180  | 182330   | 54.589 | ug/l  | 99       |

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

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU110218\  
Data File : VU027909.D  
Acq On : 01 Nov 2018 20:45  
Operator : MD/SY  
Sample : VSTDICV050  
Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
ICVVU110218

Manual Integrations  
APPROVED

MMDadoda  
11/2/2018 9:00:26 AM

Quant Time: Nov 02 01:33:40 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\82U110218W.M  
Quant Title : SW846 8260  
QLast Update : Fri Nov 02 02:28:20 2018  
Response via : Initial Calibration

