

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\U100118\  
 Data File : VU027319.D  
 Acq On : 01 Oct 2018 13:22  
 Operator : MD/SY  
 Sample : VSTDICV050  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 ICVVU100118

Manual Integrations  
 APPROVED

MMDadoda  
 10/3/2018 11:41:44 AM

Quant Time: Oct 02 07:39:23 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U100118W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Oct 02 02:04:34 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.98  | 168  | 122873   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.89  | 114  | 206215   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.09  | 117  | 192751   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 96889    | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 5.31   | 65  | 90297    | 44.01 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 88.02% |      |
| 35) Dibromofluoromethane  | 4.88   | 113 | 64873    | 45.90 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 91.80% |      |
| 50) Toluene-d8            | 7.57   | 98  | 255415   | 48.29 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.58% |      |
| 62) 4-Bromofluorobenzene  | 10.31  | 95  | 93172    | 47.40 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 94.80% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.21 | 85  | 98423   | 55.560  | ug/l | 100    |
| 3) Chloromethane              | 1.33 | 50  | 122058  | 50.893  | ug/l | 100    |
| 4) Vinyl Chloride             | 1.40 | 62  | 115822  | 51.374  | ug/l | 100    |
| 5) Bromomethane               | 1.61 | 94  | 46446   | 47.611  | ug/l | 99     |
| 6) Chloroethane               | 1.69 | 64  | 64820   | 47.847  | ug/l | 98     |
| 7) Trichlorofluoromethane     | 1.88 | 101 | 120322  | 52.600  | ug/l | 99     |
| 8) Diethyl Ether              | 2.10 | 74  | 51315   | 48.698  | ug/l | 100    |
| 9) 1,1,2-Trichlorotrifluoroet | 2.29 | 101 | 71508   | 53.828  | ug/l | 99     |
| 10) Methyl Iodide             | 2.41 | 142 | 46560   | 41.709  | ug/l | 100    |
| 11) Tert butyl alcohol        | 2.83 | 59  | 106384  | 246.221 | ug/l | 100    |
| 12) 1,1-Dichloroethene        | 2.28 | 96  | 67233   | 51.801  | ug/l | 100    |
| 13) Acrolein                  | 2.19 | 56  | 83599   | 230.587 | ug/l | 99     |
| 14) Allyl chloride            | 2.59 | 41  | 154817  | 50.231  | ug/l | 99     |
| 15) Acrylonitrile             | 2.94 | 53  | 281037  | 249.909 | ug/l | 99     |
| 16) Acetone                   | 2.32 | 43  | 281191  | 231.986 | ug/l | 100    |
| 17) Carbon Disulfide          | 2.48 | 76  | 232260  | 49.617  | ug/l | 100    |
| 18) Methyl Acetate            | 2.61 | 43  | 133774  | 48.379  | ug/l | 100    |
| 19) Methyl tert-butyl Ether   | 3.00 | 73  | 264618  | 50.883  | ug/l | 99     |
| 20) Methylene Chloride        | 2.70 | 84  | 83422   | 49.409  | ug/l | 98     |
| 21) trans-1,2-Dichloroethene  | 2.98 | 96  | 75057   | 51.509  | ug/l | 99     |
| 22) Diisopropyl ether         | 3.57 | 45  | 323990  | 51.719  | ug/l | 99     |
| 23) Vinyl Acetate             | 3.52 | 43  | 1423356 | 260.176 | ug/l | 100    |
| 24) 1,1-Dichloroethane        | 3.45 | 63  | 162438  | 50.440  | ug/l | 100    |
| 25) 2-Butanone                | 4.26 | 43  | 414435  | 250.733 | ug/l | 99     |
| 26) 2,2-Dichloropropane       | 4.23 | 77  | 134113  | 50.682  | ug/l | 100    |
| 27) cis-1,2-Dichloroethene    | 4.22 | 96  | 83827   | 50.304  | ug/l | 99     |
| 28) Bromochloromethane        | 4.55 | 49  | 76967   | 49.538  | ug/l | 100    |
| 29) Tetrahydrofuran           | 4.64 | 42  | 260438  | 250.019 | ug/l | 99     |
| 30) Chloroform                | 4.67 | 83  | 145530  | 50.863  | ug/l | 100    |
| 31) Cyclohexane               | 5.00 | 56  | 161500  | 49.073  | ug/l | 98     |
| 32) 1,1,1-Trichloroethane     | 4.92 | 97  | 123030  | 51.055  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 5.14 | 75  | 115328  | 51.508  | ug/l | 100    |
| 37) Ethyl Acetate             | 4.38 | 43  | 144861  | 50.061  | ug/l | 100    |
| 38) Carbon Tetrachloride      | 5.13 | 117 | 104959  | 51.895  | ug/l | 96     |

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 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 10 Sample Multiplier: 1

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 10/3/2018 11:41:44 AM

Quant Time: Oct 02 07:39:23 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U100118W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Oct 02 02:04:34 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 6.42  | 83   | 141243   | 53.965   | ug/l   | 99       |
| 40) Benzene                    | 5.39  | 78   | 334988   | 51.363   | ug/l   | 100      |
| 41) Methacrylonitrile          | 4.54  | 41   | 84261    | 51.518   | ug/l   | 100      |
| 42) 1,2-Dichloroethane         | 5.40  | 62   | 124556   | 51.450   | ug/l   | 99       |
| 43) Isopropyl Acetate          | 5.55  | 43   | 232627   | 51.761   | ug/l   | 99       |
| 44) Trichloroethene            | 6.19  | 130  | 74650    | 51.331   | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 6.43  | 63   | 98122    | 52.160   | ug/l   | 96       |
| 46) Dibromomethane             | 6.56  | 93   | 56258    | 52.951   | ug/l   | 99       |
| 47) Bromodichloromethane       | 6.76  | 83   | 114505   | 51.939   | ug/l   | 98       |
| 48) Methyl methacrylate        | 6.62  | 41   | 118974   | 53.234   | ug/l   | 100      |
| 49) 1,4-Dioxane                | 6.61  | 88   | 43387    | 1128.288 | ug/l   | 95       |
| 51) 4-Methyl-2-Pentanone       | 7.46  | 43   | 762561   | 261.113  | ug/l   | 100      |
| 52) Toluene                    | 7.64  | 92   | 202648   | 52.495   | ug/l   | 98       |
| 53) t-1,3-Dichloropropene      | 7.88  | 75   | 137820   | 53.319   | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 7.27  | 75   | 148446   | 53.422   | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 8.07  | 97   | 79520    | 51.955   | ug/l   | 99       |
| 56) Ethyl methacrylate         | 8.02  | 69   | 139509   | 47.707   | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 8.24  | 76   | 151716   | 51.061   | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 7.13  | 63   | 387911   | 241.294  | ug/l   | 100      |
| 59) 2-Hexanone                 | 8.36  | 43   | 593969   | 262.187  | ug/l   | 99       |
| 60) Dibromochloromethane       | 8.48  | 129  | 81453    | 53.061   | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 8.59  | 107  | 83907    | 51.561   | ug/l   | 100      |
| 64) Tetrachloroethene          | 8.23  | 164  | 63544    | 52.957   | ug/l   | 99       |
| 65) Chlorobenzene              | 9.12  | 112  | 209194   | 51.560   | ug/l   | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 9.21  | 131  | 73398    | 52.403   | ug/l   | 98       |
| 67) Ethyl Benzene              | 9.25  | 91   | 383517   | 53.353   | ug/l   | 100      |
| 68) m/p-Xylenes                | 9.38  | 106  | 286444   | 108.940  | ug/l   | 100      |
| 69) o-Xylene                   | 9.78  | 106  | 137653   | 55.090   | ug/l   | 99       |
| 70) Styrene                    | 9.79  | 104  | 230334   | 49.346   | ug/l   | 100      |
| 71) Bromoform                  | 9.96  | 173  | 58661    | 52.056   | ug/l # | 99       |
| 73) Isopropylbenzene           | 10.17 | 105  | 374736   | 53.253   | ug/l   | 100      |
| 74) N-amyl acetate             | 10.02 | 43   | 213037   | 52.882   | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 10.46 | 83   | 137552   | 49.782   | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 10.49 | 75   | 126071m  | 50.196   | ug/l   |          |
| 77) Bromobenzene               | 10.45 | 156  | 83989    | 51.357   | ug/l   | 99       |
| 78) n-propylbenzene            | 10.59 | 91   | 459867   | 54.385   | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 10.66 | 91   | 264154   | 51.739   | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 10.77 | 105  | 308797   | 53.900   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 10.51 | 75   | 47520m   | 49.516   | ug/l   |          |
| 82) 4-Chlorotoluene            | 10.77 | 91   | 307113   | 53.008   | ug/l   | 99       |
| 83) tert-Butylbenzene          | 11.10 | 119  | 298346   | 53.867   | ug/l   | 100      |
| 84) 1,2,4-Trimethylbenzene     | 11.15 | 105  | 319708   | 54.630   | ug/l   | 100      |
| 85) sec-Butylbenzene           | 11.32 | 105  | 383937   | 55.018   | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 11.48 | 119  | 329679   | 55.177   | ug/l   | 100      |
| 87) 1,3-Dichlorobenzene        | 11.42 | 146  | 158597   | 51.215   | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 11.51 | 146  | 158863   | 50.202   | ug/l   | 99       |
| 89) n-Butylbenzene             | 11.89 | 91   | 316190   | 49.873   | ug/l   | 100      |
| 90) Hexachloroethane           | 12.15 | 117  | 58311    | 51.775   | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 11.88 | 146  | 157397   | 52.217   | ug/l   | 100      |
| 92) 1,2-Dibromo-3-Chloropropan | 12.66 | 75   | 30947    | 50.536   | ug/l   | 99       |

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Misc : 5.0mL/MSVOA U/WATER  
ALS Vial : 10 Sample Multiplier: 1

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Quant Time: Oct 02 07:39:23 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U100118W.M  
Quant Title : SW846 8260  
QLast Update : Tue Oct 02 02:04:34 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 13.50 | 180  | 107594   | 55.164 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 13.69 | 225  | 52580    | 53.357 | ug/l  | 100      |
| 95) Naphthalene            | 13.74 | 128  | 359996   | 49.174 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 13.99 | 180  | 109941   | 54.105 | ug/l  | 99       |

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

