

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_U\DATA\VU071819\  
 Data File : VU033330.D  
 Acq On : 18 Jul 2019 20:12  
 Operator : JC/SP  
 Sample : VSTDCCC050EC  
 Misc : 5.0mL/MSVOA\_U/WATER  
 ALS Vial : 31 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05052

Quant Time: Jul 19 01:50:13 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM071219WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Fri Jul 19 01:43:14 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.86  | 114  | 379155   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.07  | 117  | 363984   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.47 | 152  | 191360   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |         |       |          |          |      |         |
|--------------------------------|---------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.39    | 65    | 102126   | 35.58    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 71.16%  |
| 7) Chloroethane-d5             | 1.67    | 69    | 93076    | 37.96    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 75.92%  |
| 11) 1,1-Dichloroethene-d2      | 2.26    | 63    | 203288   | 39.05    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 78.10%  |
| 21) 2-Butanone-d5              | 4.15    | 46    | 189603   | 104.26   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 104.26% |
| 24) Chloroform-d               | 4.62    | 84    | 209124   | 43.48    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 86.96%  |
| 26) 1,2-Dichloroethane-d4      | 5.28    | 65    | 129088   | 41.84    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 83.68%  |
| 32) Benzene-d6                 | 5.32    | 84    | 398720   | 44.65    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 89.30%  |
| 36) 1,2-Dichloropropane-d6     | 6.31    | 67    | 130415   | 45.59    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 91.18%  |
| 41) Toluene-d8                 | 7.55    | 98    | 371560   | 44.13    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 88.26%  |
| 43) trans-1,3-Dichloropropene- | 7.83    | 79    | 64336    | 45.87    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 91.74%  |
| 47) 2-Hexanone-d5              | 8.29    | 63    | 135371   | 104.98   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 104.98% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.41   | 84    | 207554   | 47.94    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 95.88%  |
| 64) 1,2-Dichlorobenzene-d4     | 11.84   | 152   | 160204   | 46.94    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 93.88%  |

## Target Compounds

|                                |      |     |        |        | Qvalue   |
|--------------------------------|------|-----|--------|--------|----------|
| 2) Dichlorodifluoromethane     | 1.20 | 85  | 169310 | 45.061 | ug/L 99  |
| 3) Chloromethane               | 1.32 | 50  | 171177 | 46.243 | ug/L 99  |
| 5) Vinyl chloride              | 1.40 | 62  | 186097 | 43.495 | ug/L 99  |
| 6) Bromomethane                | 1.61 | 94  | 116168 | 43.553 | ug/L 97  |
| 8) Chloroethane                | 1.68 | 64  | 114878 | 44.390 | ug/L 97  |
| 9) Trichlorofluoromethane      | 1.87 | 101 | 246231 | 43.766 | ug/L 99  |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.27 | 101 | 118842 | 45.945 | ug/L 95  |
| 12) 1,1-Dichloroethene         | 2.27 | 96  | 117633 | 46.482 | ug/L 87  |
| 13) Acetone                    | 2.31 | 43  | 147790 | 65.042 | ug/L 99  |
| 14) Carbon disulfide           | 2.46 | 76  | 333910 | 43.141 | ug/L 99  |
| 15) Methyl Acetate             | 2.60 | 43  | 146894 | 49.505 | ug/L 99  |
| 16) Methylene chloride         | 2.68 | 84  | 136598 | 47.274 | ug/L 96  |
| 17) trans-1,2-Dichloroethene   | 2.96 | 96  | 122814 | 46.955 | ug/L 99  |
| 18) Methyl tert-butyl Ether    | 2.98 | 73  | 405372 | 50.211 | ug/L 98  |
| 19) 1,1-Dichloroethane         | 3.42 | 63  | 234569 | 46.655 | ug/L 99  |
| 20) cis-1,2-Dichloroethene     | 4.20 | 96  | 143268 | 48.561 | ug/L 95  |
| 22) 2-Butanone                 | 4.23 | 43  | 217039 | 85.983 | ug/L 100 |

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 ALS Vial : 31 Sample Multiplier: 1

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 MSVOA\_U  
 ClientSampleId :  
 VSTD05052

Quant Time: Jul 19 01:50:13 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM071219WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Fri Jul 19 01:43:14 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 23) Bromochloromethane         | 4.52  | 128  | 72999    | 48.321  | ug/L   | 97       |
| 25) Chloroform                 | 4.65  | 83   | 242102   | 45.276  | ug/L   | 100      |
| 27) 1,2-Dichloroethane         | 5.38  | 62   | 191182   | 46.172  | ug/L   | 100      |
| 29) Cyclohexane                | 4.97  | 56   | 202974   | 51.176  | ug/L   | 99       |
| 30) 1,1,1-Trichloroethane      | 4.89  | 97   | 206294   | 48.580  | ug/L   | 99       |
| 31) Carbon tetrachloride       | 5.11  | 117  | 182117   | 49.007  | ug/L   | 99       |
| 33) Benzene                    | 5.36  | 78   | 529432   | 49.877  | ug/L   | 100      |
| 34) Trichloroethene            | 6.16  | 95   | 134923   | 48.603  | ug/L   | 97       |
| 35) Methylcyclohexane          | 6.40  | 83   | 213989   | 50.321  | ug/L   | 99       |
| 37) 1,2-Dichloropropane        | 6.41  | 63   | 141001   | 48.981  | ug/L   | 100      |
| 38) Bromodichloromethane       | 6.74  | 83   | 175687   | 47.313  | ug/L   | 98       |
| 39) cis-1,3-Dichloropropene    | 7.25  | 75   | 220433   | 49.943  | ug/L   | 99       |
| 40) 4-Methyl-2-pentanone       | 7.44  | 43   | 408197   | 105.703 | ug/L   | 99       |
| 42) Toluene                    | 7.62  | 91   | 582067   | 50.863  | ug/L   | 100      |
| 44) trans-1,3-Dichloropropene  | 7.86  | 75   | 199104   | 50.020  | ug/L   | 99       |
| 45) 1,1,2-Trichloroethane      | 8.05  | 97   | 135172   | 49.649  | ug/L   | 98       |
| 46) Tetrachloroethene          | 8.21  | 164  | 113316   | 52.729  | ug/L   | 97       |
| 48) 2-Hexanone                 | 8.34  | 43   | 322132   | 102.392 | ug/L   | 99       |
| 49) Dibromochloromethane       | 8.46  | 129  | 148595   | 48.928  | ug/L   | 99       |
| 50) 1,2-Dibromoethane          | 8.57  | 107  | 147415   | 49.660  | ug/L # | 100      |
| 51) Chlorobenzene              | 9.10  | 112  | 374712   | 50.165  | ug/L   | 98       |
| 52) Ethylbenzene               | 9.23  | 91   | 635928   | 51.931  | ug/L   | 99       |
| 53) m,p-Xylene                 | 9.36  | 106  | 246307   | 53.103  | ug/L   | 99       |
| 54) o-xylene                   | 9.76  | 106  | 242209   | 52.590  | ug/L   | 96       |
| 55) Styrene                    | 9.77  | 104  | 408560   | 52.324  | ug/L   | 99       |
| 56) Isopropylbenzene           | 10.15 | 105  | 620097   | 52.323  | ug/L   | 99       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.44 | 83   | 235427   | 49.229  | ug/L   | 99       |
| 59) 1,2,3-Trichloropropane     | 10.48 | 75   | 185614   | 49.529  | ug/L   | 100      |
| 61) Bromoform                  | 9.94  | 173  | 111526   | 47.720  | ug/L   | 98       |
| 62) 1,3-Dichlorobenzene        | 11.40 | 146  | 296093   | 50.266  | ug/L   | 99       |
| 63) 1,4-Dichlorobenzene        | 11.49 | 146  | 301159   | 48.897  | ug/L   | 98       |
| 65) 1,2-Dichlorobenzene        | 11.86 | 146  | 302409   | 50.058  | ug/L   | 96       |
| 66) 1,2-Dibromo-3-chloropropan | 12.64 | 75   | 51011    | 44.241  | ug/L   | 95       |
| 67) 1,3,5-Trichlorobenzene     | 12.87 | 180  | 225154   | 52.890  | ug/L   | 99       |
| 68) 1,2,4-trichlorobenzene     | 13.49 | 180  | 200881   | 54.023  | ug/L   | 99       |
| 69) Naphthalene                | 13.73 | 128  | 647959   | 54.347  | ug/L   | 99       |
| 70) 1,2,3-Trichlorobenzene     | 13.97 | 180  | 208565   | 51.664  | ug/L   | 98       |

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

