

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU082119\  
 Data File : VU033897.D  
 Acq On : 22 Aug 2019 01:41  
 Operator : JC/SP  
 Sample : VSTDCCC050EC  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 38 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05049

Quant Time: Aug 22 07:24:54 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM081619WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Thu Aug 22 07:18:35 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.86  | 114  | 379317   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.07  | 117  | 386046   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.47 | 152  | 208403   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |         |       |          |          |      |         |
|--------------------------------|---------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.39    | 65    | 128335   | 37.61    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 75.22%  |
| 7) Chloroethane-d5             | 1.67    | 69    | 119805   | 37.53    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 75.06%  |
| 11) 1,1-Dichloroethene-d2      | 2.26    | 63    | 234695   | 41.15    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 82.30%  |
| 21) 2-Butanone-d5              | 4.15    | 46    | 196325   | 109.70   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 109.70% |
| 24) Chloroform-d               | 4.62    | 84    | 258354   | 47.03    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 94.06%  |
| 26) 1,2-Dichloroethane-d4      | 5.29    | 65    | 162224   | 47.21    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 94.42%  |
| 32) Benzene-d6                 | 5.31    | 84    | 470058   | 43.70    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 87.40%  |
| 36) 1,2-Dichloropropane-d6     | 6.31    | 67    | 158055   | 45.08    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 90.16%  |
| 41) Toluene-d8                 | 7.55    | 98    | 427263   | 42.75    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 85.50%  |
| 43) trans-1,3-Dichloropropene- | 7.83    | 79    | 69368    | 42.43    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 84.86%  |
| 47) 2-Hexanone-d5              | 8.29    | 63    | 138590   | 107.33   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 107.33% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.41   | 84    | 255870   | 52.80    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 105.60% |
| 64) 1,2-Dichlorobenzene-d4     | 11.84   | 152   | 188077   | 45.28    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 90.56%  |

## Target Compounds

|                                |      |     |        |         | Ovalue    |
|--------------------------------|------|-----|--------|---------|-----------|
| 2) Dichlorodifluoromethane     | 1.20 | 85  | 177775 | 47.802  | ug/L 100  |
| 3) Chloromethane               | 1.32 | 50  | 153007 | 40.003  | ug/L 98   |
| 5) Vinyl chloride              | 1.39 | 62  | 215854 | 50.665  | ug/L # 78 |
| 6) Bromomethane                | 1.61 | 94  | 53841  | 16.715  | ug/L 98   |
| 8) Chloroethane                | 1.68 | 64  | 135429 | 45.886  | ug/L 92   |
| 9) Trichlorofluoromethane      | 1.87 | 101 | 282553 | 50.009  | ug/L 99   |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.27 | 101 | 130697 | 48.322  | ug/L 100  |
| 12) 1,1-Dichloroethene         | 2.27 | 96  | 130305 | 49.706  | ug/L 95   |
| 13) Acetone                    | 2.31 | 43  | 144385 | 82.086  | ug/L 98   |
| 14) Carbon disulfide           | 2.46 | 76  | 400511 | 48.449  | ug/L 99   |
| 15) Methyl Acetate             | 2.60 | 43  | 153806 | 53.024  | ug/L 99   |
| 16) Methylene chloride         | 2.68 | 84  | 154483 | 50.853  | ug/L 97   |
| 17) trans-1,2-Dichloroethene   | 2.96 | 96  | 133706 | 48.926  | ug/L 98   |
| 18) Methyl tert-butyl Ether    | 2.98 | 73  | 411183 | 51.558  | ug/L 99   |
| 19) 1,1-Dichloroethane         | 3.42 | 63  | 266814 | 50.737  | ug/L 98   |
| 20) cis-1,2-Dichloroethene     | 4.20 | 96  | 154972 | 52.422  | ug/L 99   |
| 22) 2-Butanone                 | 4.23 | 43  | 214070 | 105.754 | ug/L 98   |

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 ALS Vial : 38 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05049

Quant Time: Aug 22 07:24:54 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM081619WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Thu Aug 22 07:18:35 2019  
 Response via : Initial Calibration

| Internal Standards              | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|---------------------------------|-------|------|----------|---------|-------|----------|
| 23) Bromochloromethane          | 4.52  | 128  | 83316    | 51.691  | ug/L  | 98       |
| 25) Chloroform                  | 4.65  | 83   | 275417   | 50.395  | ug/L  | 100      |
| 27) 1,2-Dichloroethane          | 5.38  | 62   | 217535   | 52.501  | ug/L  | 99       |
| 29) Cyclohexane                 | 4.97  | 56   | 206404   | 49.903  | ug/L  | 99       |
| 30) 1,1,1-Trichloroethane       | 4.89  | 97   | 232895   | 50.112  | ug/L  | 100      |
| 31) Carbon tetrachloride        | 5.11  | 117  | 206445   | 48.814  | ug/L  | 100      |
| 33) Benzene                     | 5.36  | 78   | 594191   | 50.953  | ug/L  | 100      |
| 34) Trichloroethene             | 6.16  | 95   | 150031   | 48.206  | ug/L  | 99       |
| 35) Methylcyclohexane           | 6.40  | 83   | 214391   | 47.041  | ug/L  | 100      |
| 37) 1,2-Dichloropropane         | 6.41  | 63   | 163446   | 51.183  | ug/L  | 99       |
| 38) Bromodichloromethane        | 6.74  | 83   | 211322   | 51.111  | ug/L  | 99       |
| 39) cis-1,3-Dichloropropene     | 7.25  | 75   | 223144   | 47.945  | ug/L  | 98       |
| 40) 4-Methyl-2-pentanone        | 7.44  | 43   | 408349   | 108.932 | ug/L  | 100      |
| 42) Toluene                     | 7.62  | 91   | 644101   | 52.247  | ug/L  | 100      |
| 44) trans-1,3-Dichloropropene   | 7.86  | 75   | 208764   | 48.809  | ug/L  | 99       |
| 45) 1,1,2-Trichloroethane       | 8.05  | 97   | 150545   | 50.227  | ug/L  | 98       |
| 46) Tetrachloroethene           | 8.21  | 164  | 121174   | 48.564  | ug/L  | 98       |
| 48) 2-Hexanone                  | 8.34  | 43   | 321828   | 109.488 | ug/L  | 99       |
| 49) Dibromochloromethane        | 8.46  | 129  | 175488   | 51.852  | ug/L  | 99       |
| 50) 1,2-Dibromoethane           | 8.57  | 107  | 165027   | 51.711  | ug/L  | 100      |
| 51) Chlorobenzene               | 9.10  | 112  | 404133   | 49.632  | ug/L  | 98       |
| 52) Ethylbenzene                | 9.23  | 91   | 674296   | 51.624  | ug/L  | 99       |
| 53) m,p-Xylene                  | 9.36  | 106  | 257741   | 52.717  | ug/L  | 98       |
| 54) o-xylene                    | 9.76  | 106  | 255487   | 53.929  | ug/L  | 98       |
| 55) Styrene                     | 9.77  | 104  | 445429   | 54.874  | ug/L  | 99       |
| 56) Isopropylbenzene            | 10.15 | 105  | 650665   | 52.529  | ug/L  | 100      |
| 58) 1,1,1,2,2-Tetrachloroethane | 10.44 | 83   | 266862   | 55.009  | ug/L  | 100      |
| 59) 1,2,3-Trichloropropane      | 10.48 | 75   | 208351   | 53.866  | ug/L  | 100      |
| 61) Bromoform                   | 9.94  | 173  | 130201   | 50.164  | ug/L  | 99       |
| 62) 1,3-Dichlorobenzene         | 11.40 | 146  | 323988   | 49.541  | ug/L  | 99       |
| 63) 1,4-Dichlorobenzene         | 11.49 | 146  | 329984   | 48.741  | ug/L  | 98       |
| 65) 1,2-Dichlorobenzene         | 11.86 | 146  | 329679   | 50.290  | ug/L  | 98       |
| 66) 1,2-Dibromo-3-chloropropan  | 12.64 | 75   | 55710    | 51.110  | ug/L  | 99       |
| 67) 1,3,5-Trichlorobenzene      | 12.87 | 180  | 235687   | 46.721  | ug/L  | 99       |
| 68) 1,2,4-trichlorobenzene      | 13.49 | 180  | 194680   | 47.131  | ug/L  | 99       |
| 69) Naphthalene                 | 13.73 | 128  | 616387   | 54.066  | ug/L  | 100      |
| 70) 1,2,3-Trichlorobenzene      | 13.97 | 180  | 217898   | 50.827  | ug/L  | 98       |

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

