

Data Path : Z:\VOASRV\HPCHEM1\MSVOA V\DATA\VV121019\  
 Data File : VV014002.D  
 Acq On : 10 Dec 2019 21:28  
 Operator : SY/MD  
 Sample : VSTDCCC050EC  
 Misc : 5.0mL/MSVOA V/WATER  
 ALS Vial : 28 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD05076

Manual Integrations  
 APPROVED

apatel  
 12/11/2019 3:57:41 PM

Quant Time: Dec 11 03:14:19 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOMVLM120219WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Wed Dec 11 00:25:42 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.66  | 114  | 636176   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.89  | 117  | 594955   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.29 | 152  | 315793   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |         |       |          |          |      |        |
|--------------------------------|---------|-------|----------|----------|------|--------|
| 4) Vinyl Chloride-d3           | 1.32    | 65    | 167066   | 45.41    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 90.82% |
| 7) Chloroethane-d5             | 1.57    | 69    | 177631   | 46.25    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 92.50% |
| 11) 1,1-Dichloroethene-d2      | 2.13    | 63    | 388734   | 47.78    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 95.56% |
| 21) 2-Butanone-d5              | 3.92    | 46    | 246520   | 95.19    | ug/L | 0.00   |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 95.19% |
| 24) Chloroform-d               | 4.39    | 84    | 358531   | 46.40    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 92.80% |
| 26) 1,2-Dichloroethane-d4      | 5.07    | 65    | 220262   | 44.99    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 89.98% |
| 32) Benzene-d6                 | 5.09    | 84    | 706279   | 45.81    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 91.62% |
| 36) 1,2-Dichloropropane-d6     | 6.11    | 67    | 211837   | 45.78    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 91.56% |
| 41) Toluene-d8                 | 7.35    | 98    | 635325   | 45.20    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 90.40% |
| 43) trans-1,3-Dichloropropene- | 7.66    | 79    | 95180    | 42.27    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 84.54% |
| 47) 2-Hexanone-d5              | 8.13    | 63    | 161850   | 93.66    | ug/L | 0.00   |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 93.66% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.25   | 84    | 293008   | 43.73    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 87.46% |
| 64) 1,2-Dichlorobenzene-d4     | 11.67   | 152   | 275885   | 44.48    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 88.96% |

## Target Compounds

| Target Compounds               | R.T. | QIon | Response | Conc   | Units | Ovalue |
|--------------------------------|------|------|----------|--------|-------|--------|
| 2) Dichlorodifluoromethane     | 1.14 | 85   | 246830   | 43.575 | ug/L  | 99     |
| 3) Chloromethane               | 1.25 | 50   | 269214   | 51.985 | ug/L  | 99     |
| 5) Vinyl chloride              | 1.32 | 62   | 271238   | 50.218 | ug/L  | 98     |
| 6) Bromomethane                | 1.51 | 94   | 151932   | 46.525 | ug/L  | 100    |
| 8) Chloroethane                | 1.59 | 64   | 183317   | 51.009 | ug/L  | 100    |
| 9) Trichlorofluoromethane      | 1.76 | 101  | 423778   | 50.446 | ug/L  | 99     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.13 | 101  | 237427   | 49.623 | ug/L  | 99     |
| 12) 1,1-Dichloroethene         | 2.14 | 96   | 233262   | 50.471 | ug/L  | 94     |
| 13) Acetone                    | 2.18 | 43   | 259957   | 68.498 | ug/L  | 99     |
| 14) Carbon disulfide           | 2.31 | 76   | 627399   | 51.477 | ug/L  | 99     |
| 15) Methyl Acetate             | 2.45 | 43   | 269825   | 57.690 | ug/L  | 99     |
| 16) Methylene chloride         | 2.53 | 84   | 279509   | 58.076 | ug/L  | 97     |
| 17) trans-1,2-Dichloroethene   | 2.79 | 96   | 221863   | 49.078 | ug/L  | 96     |
| 18) Methyl tert-butyl Ether    | 2.80 | 73   | 686557   | 52.334 | ug/L  | 99     |
| 19) 1,1-Dichloroethane         | 3.22 | 63   | 389312   | 47.801 | ug/L  | 99     |
| 20) cis-1,2-Dichloroethene     | 3.96 | 96   | 233370m  | 47.670 | ug/L  | 99     |
| 22) 2-Butanone                 | 4.00 | 43   | 311185   | 85.428 | ug/L  | 95     |

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 Quant Title : VOC Analysis  
 QLast Update : Wed Dec 11 00:25:42 2019  
 Response via : Initial Calibration

| Internal Standards              | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|---------------------------------|-------|------|----------|---------|-------|----------|
| 23) Bromochloromethane          | 4.29  | 128  | 130800   | 48.360  | uq/L  | 97       |
| 25) Chloroform                  | 4.42  | 83   | 418749   | 48.093  | uq/L  | 100      |
| 27) 1,2-Dichloroethane          | 5.17  | 62   | 306573   | 48.864  | uq/L  | 100      |
| 29) Cyclohexane                 | 4.72  | 56   | 336375   | 48.392  | uq/L  | 99       |
| 30) 1,1,1-Trichloroethane       | 4.65  | 97   | 357951   | 49.837  | uq/L  | 100      |
| 31) Carbon tetrachloride        | 4.87  | 117  | 314526   | 49.023  | uq/L  | 99       |
| 33) Benzene                     | 5.14  | 78   | 895026   | 50.516  | uq/L  | 100      |
| 34) Trichloroethene             | 5.96  | 95   | 242578   | 51.047  | uq/L  | 99       |
| 35) Methylcyclohexane           | 6.17  | 83   | 340147   | 47.706  | uq/L  | 98       |
| 37) 1,2-Dichloropropane         | 6.22  | 63   | 227006   | 52.937  | uq/L  | 100      |
| 38) Bromodichloromethane        | 6.55  | 83   | 311392   | 51.204  | uq/L  | 99       |
| 39) cis-1,3-Dichloropropene     | 7.06  | 75   | 331972   | 49.176  | uq/L  | 98       |
| 40) 4-Methyl-2-pentanone        | 7.26  | 43   | 575739   | 103.250 | uq/L  | 99       |
| 42) Toluene                     | 7.43  | 91   | 921780   | 50.423  | uq/L  | 98       |
| 44) trans-1,3-Dichloropropene   | 7.69  | 75   | 289454   | 47.350  | uq/L  | 99       |
| 45) 1,1,2-Trichloroethane       | 7.88  | 97   | 224327   | 52.702  | uq/L  | 98       |
| 46) Tetrachloroethene           | 8.01  | 164  | 205654   | 47.959  | uq/L  | 95       |
| 48) 2-Hexanone                  | 8.18  | 43   | 447727   | 100.373 | uq/L  | 94       |
| 49) Dibromochloromethane        | 8.29  | 129  | 259765   | 49.925  | uq/L  | 100      |
| 50) 1,2-Dibromoethane           | 8.39  | 107  | 239607   | 51.100  | uq/L  | 99       |
| 51) Chlorobenzene               | 8.92  | 112  | 625650   | 49.607  | uq/L  | 98       |
| 52) Ethylbenzene                | 9.05  | 91   | 1008718  | 50.054  | uq/L  | 100      |
| 53) m,p-Xylene                  | 9.18  | 106  | 393253   | 50.461  | uq/L  | 98       |
| 54) o-xylene                    | 9.58  | 106  | 388843   | 51.031  | uq/L  | 98       |
| 55) Styrene                     | 9.60  | 104  | 659347   | 50.154  | uq/L  | 98       |
| 56) Isopropylbenzene            | 9.97  | 105  | 1016910  | 49.650  | uq/L  | 99       |
| 58) 1,1,1,2,2-Tetrachloroethane | 10.28 | 83   | 325612   | 46.990  | uq/L  | 99       |
| 59) 1,2,3-Trichloropropane      | 10.31 | 75   | 286166   | 49.314  | uq/L  | 99       |
| 61) Bromoform                   | 9.77  | 173  | 207116   | 53.615  | uq/L  | 99       |
| 62) 1,3-Dichlorobenzene         | 11.22 | 146  | 504812   | 48.718  | uq/L  | 99       |
| 63) 1,4-Dichlorobenzene         | 11.31 | 146  | 498808   | 46.564  | uq/L  | 98       |
| 65) 1,2-Dichlorobenzene         | 11.68 | 146  | 507780   | 48.990  | uq/L  | 100      |
| 66) 1,2-Dibromo-3-chloropropan  | 12.47 | 75   | 68465    | 47.529  | uq/L  | 97       |
| 67) 1,3,5-Trichlorobenzene      | 12.69 | 180  | 382484   | 45.454  | uq/L  | 99       |
| 68) 1,2,4-trichlorobenzene      | 13.31 | 180  | 287083   | 37.811  | uq/L  | 100      |
| 69) Naphthalene                 | 13.55 | 128  | 487493   | 24.453  | uq/L  | 99       |
| 70) 1,2,3-Trichlorobenzene      | 13.79 | 180  | 311391   | 39.217  | uq/L  | 99       |

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

