

Data Path : Z:\voasrv\HPCHEM1\MSVOA V\Data\VV033019\  
 Data File : VV010016.D  
 Acq On : 30 Mar 2019 12:45  
 Operator : SY/MD  
 Sample : VSTDCCC025  
 Misc : 5.00G/10mL/MSVOA V/SOIL  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02574

Quant Time: Mar 30 23:24:14 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM032619S.M  
 Quant Title : VOC Analysis  
 QLast Update : Sat Mar 30 04:13:13 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.66  | 114  | 188142   | 25.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.89  | 117  | 180866   | 25.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.30 | 152  | 89294    | 25.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.32   | 65    | 80127    | 20.99    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 83.96%  |
| 7) Chloroethane-d5             | 1.57   | 69    | 88996    | 21.58    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 86.32%  |
| 10) 1,1-Dichloroethene-d2      | 2.13   | 63    | 255579   | 24.47    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 110 | Recovery | =    | 97.88%  |
| 20) 2-Butanone-d5              | 3.94   | 46    | 33441    | 47.00    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 94.00%  |
| 24) Chloroform-d               | 4.40   | 84    | 123799   | 25.83    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 40 - 150 | Recovery | =    | 103.32% |
| 26) 1,2-Dichloroethane-d4      | 5.08   | 65    | 72208    | 25.03    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 130 | Recovery | =    | 100.12% |
| 29) Benzene-d6                 | 5.10   | 84    | 246487   | 25.95    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 20 - 135 | Recovery | =    | 103.80% |
| 33) 1,2-Dichloropropane-d6     | 6.12   | 67    | 73193    | 26.34    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 120 | Recovery | =    | 105.36% |
| 37) Toluene-d8                 | 7.36   | 98    | 234764   | 26.11    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 130 | Recovery | =    | 104.44% |
| 38) trans-1,3-Dichloropropene- | 7.66   | 79    | 30334    | 26.68    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 135 | Recovery | =    | 106.72% |
| 39) 2-Hexanone-d5              | 8.13   | 63    | 25800    | 49.74    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 99.48%  |
| 48) 1,1,2,2-Tetrachloroethane- | 10.26  | 84    | 67181    | 24.42    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 120 | Recovery | =    | 97.68%  |
| 61) 1,2-Dichlorobenzene-d4     | 11.67  | 152   | 84212    | 24.77    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 75 - 120 | Recovery | =    | 99.08%  |

## Target Compounds

| Target Compounds               | R.T. | QIon | Response | Conc   | Units | Ovalue |
|--------------------------------|------|------|----------|--------|-------|--------|
| 2) Dichlorodifluoromethane     | 1.14 | 85   | 66880    | 22.961 | ug/L  | 99     |
| 3) Chloromethane               | 1.25 | 50   | 71450    | 21.225 | ug/L  | 99     |
| 5) Vinyl chloride              | 1.33 | 62   | 101366   | 23.159 | ug/L  | 100    |
| 6) Bromomethane                | 1.51 | 94   | 93524    | 21.423 | ug/L  | 98     |
| 8) Chloroethane                | 1.59 | 64   | 76167    | 20.200 | ug/L  | 99     |
| 9) Trichlorofluoromethane      | 1.76 | 101  | 233344   | 24.999 | ug/L  | 99     |
| 11) 1,1,2-Trichloro-1,2,2-trif | 2.14 | 101  | 134631   | 24.815 | ug/L  | 98     |
| 12) 1,1-Dichloroethene         | 2.14 | 96   | 117595   | 25.550 | ug/L  | 95     |
| 13) Acetone                    | 2.18 | 43   | 42493    | 39.449 | ug/L  | 99     |
| 14) Carbon disulfide           | 2.32 | 76   | 137684   | 22.111 | ug/L  | 99     |
| 15) Methyl Acetate             | 2.46 | 43   | 26277    | 20.826 | ug/L  | 94     |
| 16) Methylene chloride         | 2.53 | 84   | 60145    | 19.412 | ug/L  | 99     |
| 17) Methyl tert-butyl Ether    | 2.80 | 73   | 132022   | 21.984 | ug/L  | 99     |
| 18) trans-1,2-Dichloroethene   | 2.79 | 96   | 58096    | 23.566 | ug/L  | 90     |
| 19) 1,1-Dichloroethane         | 3.23 | 63   | 105387   | 23.376 | ug/L  | 97     |
| 21) 2-Butanone                 | 4.01 | 43   | 37207    | 38.784 | ug/L  | 95     |
| 22) cis-1,2-Dichloroethene     | 3.96 | 96   | 64674    | 23.760 | ug/L  | 96     |

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 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02574

Quant Time: Mar 30 23:24:14 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM032619S.M  
 Quant Title : VOC Analysis  
 QLast Update : Sat Mar 30 04:13:13 2019  
 Response via : Initial Calibration

| Internal Standards              | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|---------------------------------|-------|------|----------|--------|--------|----------|
| -----                           |       |      |          |        |        |          |
| 23) Bromochloromethane          | 4.30  | 128  | 30144    | 23.984 | ug/L   | 95       |
| 25) Chloroform                  | 4.42  | 83   | 124843   | 25.045 | ug/L   | 100      |
| 27) 1,2-Dichloroethane          | 5.18  | 62   | 84074    | 23.805 | ug/L   | 98       |
| 30) Cyclohexane                 | 4.72  | 56   | 93571    | 25.658 | ug/L   | 100      |
| 31) 1,1,1-Trichloroethane       | 4.65  | 97   | 103765   | 28.668 | ug/L   | 98       |
| 32) Carbon tetrachloride        | 4.87  | 117  | 90969    | 28.915 | ug/L   | 97       |
| 34) Benzene                     | 5.14  | 78   | 251593   | 25.332 | ug/L   | 100      |
| 35) Trichloroethene             | 5.96  | 95   | 67258    | 25.673 | ug/L   | 97       |
| 36) Methylcyclohexane           | 6.17  | 83   | 108789   | 26.467 | ug/L   | 97       |
| 40) 1,2-Dichloropropane         | 6.22  | 63   | 60486    | 24.372 | ug/L # | 95       |
| 41) Bromodichloromethane        | 6.55  | 83   | 80331    | 26.027 | ug/L   | 100      |
| 42) cis-1,3-Dichloropropene     | 7.07  | 75   | 91175    | 25.198 | ug/L   | 97       |
| 43) 4-Methyl-2-pentanone        | 7.27  | 43   | 78736    | 44.457 | ug/L   | 100      |
| 44) Toluene                     | 7.43  | 91   | 276940   | 25.293 | ug/L   | 100      |
| 45) trans-1,3-Dichloropropene   | 7.69  | 75   | 73111    | 24.683 | ug/L   | 96       |
| 46) 1,1,2-Trichloroethane       | 7.88  | 97   | 48735    | 23.743 | ug/L   | 98       |
| 47) Tetrachloroethene           | 8.02  | 164  | 51258    | 24.795 | ug/L   | 91       |
| 49) 2-Hexanone                  | 8.18  | 43   | 56450    | 47.160 | ug/L   | 96       |
| 50) Dibromochloromethane        | 8.29  | 129  | 51810    | 24.343 | ug/L   | 94       |
| 51) 1,2-Dibromoethane           | 8.40  | 107  | 46661    | 23.412 | ug/L # | 95       |
| 52) Chlorobenzene               | 8.92  | 112  | 181485   | 24.898 | ug/L   | 99       |
| 53) Ethylbenzene                | 9.05  | 91   | 306364   | 25.365 | ug/L   | 97       |
| 54) m,p-Xylene                  | 9.18  | 106  | 117307   | 24.728 | ug/L   | 88       |
| 55) o-xylene                    | 9.59  | 106  | 112932   | 24.526 | ug/L   | 93       |
| 56) Styrene                     | 9.60  | 104  | 196398   | 24.832 | ug/L   | 96       |
| 57) Isopropylbenzene            | 9.97  | 105  | 309287   | 25.892 | ug/L   | 99       |
| 58) 1,1,1,2,2-Tetrachloroethane | 10.29 | 83   | 61325    | 22.165 | ug/L # | 98       |
| 59) 1,2,3-Trichloropropane      | 10.32 | 75   | 45189    | 22.630 | ug/L   | 97       |
| 62) Bromoform                   | 9.78  | 173  | 26262    | 22.865 | ug/L   | 96       |
| 63) 1,3-Dichlorobenzene         | 11.23 | 146  | 132839   | 24.052 | ug/L   | 99       |
| 64) 1,4-Dichlorobenzene         | 11.32 | 146  | 139712   | 23.277 | ug/L   | 99       |
| 65) 1,2-Dichlorobenzene         | 11.69 | 146  | 127907   | 23.466 | ug/L   | 99       |
| 66) 1,2-Dibromo-3-chloropropan  | 12.48 | 75   | 7600     | 22.309 | ug/L   | 93       |
| 67) 1,3,5-Trichlorobenzene      | 12.69 | 180  | 97841    | 24.945 | ug/L   | 98       |
| 68) 1,2,4-trichlorobenzene      | 13.31 | 180  | 72188    | 24.950 | ug/L   | 97       |
| 69) Naphthalene                 | 13.55 | 128  | 102345   | 21.280 | ug/L   | 98       |
| 70) 1,2,3-Trichlorobenzene      | 13.79 | 180  | 66516    | 24.178 | ug/L   | 98       |
| -----                           |       |      |          |        |        |          |

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

