

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_V\DATA\VV030819\  
 Data File : VV009560.D  
 Acq On : 09 Mar 2019 00:41  
 Operator : SY/MD  
 Sample : VSTDCCC025EC  
 Misc : 5.00G/10ML/MSVOA\_V/SOIL  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 VSTD02573

Quant Time: Mar 09 02:29:27 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM030519S.M  
 Quant Title : VOC Analysis  
 QLast Update : Sat Mar 09 01:24:39 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.67  | 114  | 147916   | 25.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.90  | 117  | 145573   | 25.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.30 | 152  | 74809    | 25.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.32   | 65    | 36463    | 20.48    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 81.92%  |
| 7) Chloroethane-d5             | 1.57   | 69    | 42738    | 16.60    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 66.40%  |
| 10) 1,1-Dichloroethene-d2      | 2.13   | 63    | 104341   | 22.52    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 110 | Recovery | =    | 90.08%  |
| 20) 2-Butanone-d5              | 3.94   | 46    | 29769    | 49.06    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 98.12%  |
| 24) Chloroform-d               | 4.40   | 84    | 96778    | 27.46    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 40 - 150 | Recovery | =    | 109.84% |
| 26) 1,2-Dichloroethane-d4      | 5.08   | 65    | 57974    | 28.92    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 130 | Recovery | =    | 115.68% |
| 29) Benzene-d6                 | 5.10   | 84    | 186819   | 25.91    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 20 - 135 | Recovery | =    | 103.64% |
| 33) 1,2-Dichloropropane-d6     | 6.12   | 67    | 59182    | 27.82    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 120 | Recovery | =    | 111.28% |
| 37) Toluene-d8                 | 7.36   | 98    | 183587   | 26.12    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 130 | Recovery | =    | 104.48% |
| 38) trans-1,3-Dichloropropene- | 7.66   | 79    | 26281    | 25.49    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 135 | Recovery | =    | 101.96% |
| 39) 2-Hexanone-d5              | 8.13   | 63    | 24659    | 49.66    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 99.32%  |
| 48) 1,1,2,2-Tetrachloroethane- | 10.26  | 84    | 59089    | 26.06    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 120 | Recovery | =    | 104.24% |
| 61) 1,2-Dichlorobenzene-d4     | 11.67  | 152   | 71952    | 26.35    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 75 - 120 | Recovery | =    | 105.40% |

## Target Compounds

|                                |      |     |        |             | Qvalue |
|--------------------------------|------|-----|--------|-------------|--------|
| 2) Dichlorodifluoromethane     | 1.14 | 85  | 37082  | 21.773 ug/L | 96     |
| 3) Chloromethane               | 1.25 | 50  | 43472  | 23.950 ug/L | 99     |
| 5) Vinyl chloride              | 1.32 | 62  | 44795  | 22.385 ug/L | 97     |
| 6) Bromomethane                | 1.52 | 94  | 47197  | 18.946 ug/L | 97     |
| 8) Chloroethane                | 1.59 | 64  | 34344  | 15.444 ug/L | 95     |
| 9) Trichlorofluoromethane      | 1.76 | 101 | 93621  | 22.807 ug/L | 99     |
| 11) 1,1,2-Trichloro-1,2,2-trif | 2.14 | 101 | 53633  | 23.334 ug/L | 97     |
| 12) 1,1-Dichloroethene         | 2.14 | 96  | 47112  | 23.957 ug/L | 94     |
| 13) Acetone                    | 2.19 | 43  | 19895  | 32.250 ug/L | 99     |
| 14) Carbon disulfide           | 2.32 | 76  | 112070 | 22.483 ug/L | 99     |
| 15) Methyl Acetate             | 2.46 | 43  | 21356  | 21.377 ug/L | 95     |
| 16) Methylene chloride         | 2.53 | 84  | 51083  | 26.315 ug/L | 97     |
| 17) Methyl tert-butyl Ether    | 2.81 | 73  | 120993 | 27.475 ug/L | 98     |
| 18) trans-1,2-Dichloroethene   | 2.79 | 96  | 44292  | 25.074 ug/L | 100    |
| 19) 1,1-Dichloroethane         | 3.23 | 63  | 84509  | 27.151 ug/L | 98     |
| 21) 2-Butanone                 | 4.02 | 43  | 28375  | 36.445 ug/L | 95     |
| 22) cis-1,2-Dichloroethene     | 3.96 | 96  | 54838  | 27.499 ug/L | 99     |

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 Quant Title : VOC Analysis  
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 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|-------|------|----------|--------|-------|----------|
| 23) Bromochloromethane         | 4.30  | 128  | 25746    | 27.999 | ug/L  | 90       |
| 25) Chloroform                 | 4.43  | 83   | 98278    | 28.294 | ug/L  | 98       |
| 27) 1,2-Dichloroethane         | 5.18  | 62   | 67997    | 28.186 | ug/L  | 100      |
| 30) Cyclohexane                | 4.73  | 56   | 64670    | 20.932 | ug/L  | 97       |
| 31) 1,1,1-Trichloroethane      | 4.66  | 97   | 76487    | 23.504 | ug/L  | 98       |
| 32) Carbon tetrachloride       | 4.87  | 117  | 61461    | 22.339 | ug/L  | 100      |
| 34) Benzene                    | 5.15  | 78   | 195054   | 25.931 | ug/L  | 100      |
| 35) Trichloroethene            | 5.96  | 95   | 52609    | 24.337 | ug/L  | 98       |
| 36) Methylcyclohexane          | 6.18  | 83   | 73100    | 20.758 | ug/L  | 99       |
| 40) 1,2-Dichloropropane        | 6.22  | 63   | 49928    | 25.743 | ug/L  | 98       |
| 41) Bromodichloromethane       | 6.56  | 83   | 73061    | 27.909 | ug/L  | 95       |
| 42) cis-1,3-Dichloropropene    | 7.07  | 75   | 81756    | 27.152 | ug/L  | 98       |
| 43) 4-Methyl-2-pentanone       | 7.27  | 43   | 67075    | 43.872 | ug/L  | 98       |
| 44) Toluene                    | 7.43  | 91   | 219488   | 25.814 | ug/L  | 100      |
| 45) trans-1,3-Dichloropropene  | 7.69  | 75   | 68824    | 26.172 | ug/L  | 97       |
| 46) 1,1,2-Trichloroethane      | 7.88  | 97   | 41985    | 26.056 | ug/L  | 97       |
| 47) Tetrachloroethene          | 8.02  | 164  | 38947    | 23.754 | ug/L  | 95       |
| 49) 2-Hexanone                 | 8.18  | 43   | 47653    | 41.219 | ug/L  | 97       |
| 50) Dibromochloromethane       | 8.29  | 129  | 49932    | 25.596 | ug/L  | 100      |
| 51) 1,2-Dibromoethane          | 8.40  | 107  | 42015    | 25.237 | ug/L  | 100      |
| 52) Chlorobenzene              | 8.93  | 112  | 147824   | 26.230 | ug/L  | 97       |
| 53) Ethylbenzene               | 9.05  | 91   | 246253   | 25.310 | ug/L  | 98       |
| 54) m,p-Xylene                 | 9.18  | 106  | 94621    | 25.695 | ug/L  | 94       |
| 55) o-xylene                   | 9.59  | 106  | 95107    | 26.784 | ug/L  | 93       |
| 56) Styrene                    | 9.60  | 104  | 163295   | 27.952 | ug/L  | 100      |
| 57) Isopropylbenzene           | 9.98  | 105  | 243797   | 24.892 | ug/L  | 99       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.29 | 83   | 57103    | 25.098 | ug/L  | 96       |
| 59) 1,2,3-Trichloropropane     | 10.32 | 75   | 38849    | 23.687 | ug/L  | 99       |
| 62) Bromoform                  | 9.77  | 173  | 26551    | 21.871 | ug/L  | 98       |
| 63) 1,3-Dichlorobenzene        | 11.23 | 146  | 116620   | 24.957 | ug/L  | 99       |
| 64) 1,4-Dichlorobenzene        | 11.32 | 146  | 117593   | 24.627 | ug/L  | 98       |
| 65) 1,2-Dichlorobenzene        | 11.69 | 146  | 113039   | 25.940 | ug/L  | 100      |
| 66) 1,2-Dibromo-3-chloropropan | 12.48 | 75   | 8529     | 19.540 | ug/L  | 96       |
| 67) 1,3,5-Trichlorobenzene     | 12.69 | 180  | 81427    | 24.293 | ug/L  | 98       |
| 68) 1,2,4-trichlorobenzene     | 13.31 | 180  | 67611    | 25.194 | ug/L  | 98       |
| 69) Naphthalene                | 13.55 | 128  | 123760   | 21.895 | ug/L  | 99       |
| 70) 1,2,3-Trichlorobenzene     | 13.79 | 180  | 62123    | 25.163 | ug/L  | 97       |

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

