

Data File : VV013467.D  
Acq On : 01 Nov 2019 14:30  
Operator : SY/MD  
Sample : MDL01  
Misc : 5.00G/10.0ML/MSVOA\_V/SOIL  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
MDL01

Manual Integrations  
APPROVED

MMDadoda  
11/4/2019 12:38:27 PM

Quant Time: Nov 02 03:20:43 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM110119S.M  
Quant Title : VOC Analysis  
QLast Update : Sat Nov 02 04:17:15 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.66  | 114  | 647579   | 25.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.89  | 117  | 616504   | 25.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.29 | 152  | 305995   | 25.00 | ug/L  | 0.00     |

#### System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.32   | 65    | 258665   | 28.37    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 113.48% |
| 7) Chloroethane-d5             | 1.58   | 69    | 193170   | 29.03    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 116.12% |
| 10) 1,1-Dichloroethene-d2      | 2.13   | 63    | 329804   | 20.80    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 110 | Recovery | =    | 83.20%  |
| 20) 2-Butanone-d5              | 3.95   | 46    | 234465   | 54.81    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 109.62% |
| 24) Chloroform-d               | 4.39   | 84    | 469230   | 25.58    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 40 - 150 | Recovery | =    | 102.32% |
| 26) 1,2-Dichloroethane-d4      | 5.08   | 65    | 281558   | 26.82    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 130 | Recovery | =    | 107.28% |
| 29) Benzene-d6                 | 5.09   | 84    | 988912   | 27.32    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 20 - 135 | Recovery | =    | 109.28% |
| 33) 1,2-Dichloropropane-d6     | 6.11   | 67    | 299083   | 27.08    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 120 | Recovery | =    | 108.32% |
| 37) Toluene-d8                 | 7.35   | 98    | 882201   | 27.20    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 130 | Recovery | =    | 108.80% |
| 38) trans-1,3-Dichloropropene- | 7.66   | 79    | 122482   | 25.52    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 135 | Recovery | =    | 102.08% |
| 39) 2-Hexanone-d5              | 8.13   | 63    | 121007   | 51.24    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 102.48% |
| 48) 1,1,2,2-Tetrachloroethane- | 10.26  | 84    | 264394   | 26.13    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 120 | Recovery | =    | 104.52% |
| 61) 1,2-Dichlorobenzene-d4     | 11.67  | 152   | 337094   | 28.19    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 75 - 120 | Recovery | =    | 112.76% |

#### Target Compounds

|                                |      |     |        |              | Qvalue |
|--------------------------------|------|-----|--------|--------------|--------|
| 2) Dichlorodifluoromethane     | 1.14 | 85  | 11850  | 1.173 ug/L   | 91     |
| 3) Chloromethane               | 1.25 | 50  | 11233  | 1.091 ug/L   | 100    |
| 5) Vinyl chloride              | 1.32 | 62  | 11693  | 1.160 ug/L # | 30     |
| 6) Bromomethane                | 1.53 | 94  | 5436   | 1.147 ug/L   | 89     |
| 8) Chloroethane                | 1.60 | 64  | 4962   | 0.887 ug/L   | 95     |
| 9) Trichlorofluoromethane      | 1.77 | 101 | 13773  | 0.998 ug/L   | 99     |
| 11) 1,1,2-Trichloro-1,2,2-trif | 2.13 | 101 | 12151m | 1.475 ug/L   |        |
| 12) 1,1-Dichloroethene         | 2.14 | 96  | 10573m | 1.358 ug/L   |        |
| 13) Acetone                    | 2.21 | 43  | 18777  | 3.755 ug/L   | 100    |
| 14) Carbon disulfide           | 2.32 | 76  | 29530  | 0.978 ug/L # | 93     |
| 15) Methyl Acetate             | 2.47 | 43  | 8421m  | 1.119 ug/L   |        |
| 16) Methylene chloride         | 2.53 | 84  | 27252  | 2.261 ug/L   | 97     |
| 17) Methyl tert-butyl Ether    | 2.80 | 73  | 23233  | 0.909 ug/L   | 95     |
| 18) trans-1,2-Dichloroethene   | 2.79 | 96  | 10281  | 0.990 ug/L   | 92     |
| 19) 1,1-Dichloroethane         | 3.23 | 63  | 18630  | 0.984 ug/L   | 98     |
| 21) 2-Butanone                 | 4.05 | 43  | 13041m | 2.529 ug/L   |        |
| 22) cis-1,2-Dichloroethene     | 3.96 | 96  | 9215   | 0.844 ug/L # | 66     |

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Quant Title : VOC Analysis  
QLast Update : Sat Nov 02 04:17:15 2019  
Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|-------|--------|----------|
| -----                          |       |      |          |       |        |          |
| 23) Bromochloromethane         | 4.30  | 128  | 4879     | 0.932 | ug/L # | 87       |
| 25) Chloroform                 | 4.42  | 83   | 34604    | 1.786 | ug/L   | 84       |
| 27) 1,2-Dichloroethane         | 5.18  | 62   | 12306    | 0.915 | ug/L   | 98       |
| 30) Cyclohexane                | 4.72  | 56   | 16892    | 1.015 | ug/L   | 94       |
| 31) 1,1,1-Trichloroethane      | 4.65  | 97   | 16161    | 1.033 | ug/L   | 94       |
| 32) Carbon tetrachloride       | 4.87  | 117  | 13520m   | 0.970 | ug/L   |          |
| 34) Benzene                    | 5.14  | 78   | 39213    | 0.970 | ug/L   | 100      |
| 35) Trichloroethene            | 5.96  | 95   | 11967    | 1.096 | ug/L   | 98       |
| 36) Methylcyclohexane          | 6.17  | 83   | 16268    | 0.952 | ug/L   | 98       |
| 40) 1,2-Dichloropropane        | 6.22  | 63   | 10402    | 1.021 | ug/L # | 89       |
| 41) Bromodichloromethane       | 6.55  | 83   | 12107    | 0.924 | ug/L   | 95       |
| 42) cis-1,3-Dichloropropene    | 7.07  | 75   | 12510    | 0.828 | ug/L   | 94       |
| 43) 4-Methyl-2-pentanone       | 7.28  | 43   | 20621    | 2.193 | ug/L   | 95       |
| 44) Toluene                    | 7.43  | 91   | 44576    | 1.079 | ug/L   | 95       |
| 45) trans-1,3-Dichloropropene  | 7.69  | 75   | 11570    | 0.894 | ug/L   | 97       |
| 46) 1,1,2-Trichloroethane      | 7.88  | 97   | 8704     | 1.067 | ug/L   | 87       |
| 47) Tetrachloroethene          | 8.02  | 164  | 10050    | 1.086 | ug/L   | 86       |
| 49) 2-Hexanone                 | 8.18  | 43   | 27746    | 4.054 | ug/L # | 86       |
| 50) Dibromochloromethane       | 8.29  | 129  | 9007     | 0.923 | ug/L   | 91       |
| 51) 1,2-Dibromoethane          | 8.40  | 107  | 8320     | 0.986 | ug/L # | 96       |
| 52) Chlorobenzene              | 8.92  | 112  | 26613    | 0.952 | ug/L   | 92       |
| 53) Ethylbenzene               | 9.05  | 91   | 41270    | 0.906 | ug/L   | 96       |
| 54) m,p-Xylene                 | 9.18  | 106  | 16636    | 0.971 | ug/L   | 87       |
| 55) o-xylene                   | 9.59  | 106  | 14772    | 0.912 | ug/L   | 92       |
| 56) Styrene                    | 9.60  | 104  | 22843    | 0.813 | ug/L   | 100      |
| 57) Isopropylbenzene           | 9.97  | 105  | 36429    | 0.834 | ug/L   | 95       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.28 | 83   | 11085    | 1.059 | ug/L # | 94       |
| 59) 1,2,3-Trichloropropane     | 10.32 | 75   | 9248     | 1.054 | ug/L   | 95       |
| 62) Bromoform                  | 9.77  | 173  | 5825     | 0.961 | ug/L # | 97       |
| 63) 1,3-Dichlorobenzene        | 11.22 | 146  | 23117    | 1.094 | ug/L   | 98       |
| 64) 1,4-Dichlorobenzene        | 11.32 | 146  | 25531    | 1.182 | ug/L   | 95       |
| 65) 1,2-Dichlorobenzene        | 11.68 | 146  | 23574    | 1.201 | ug/L   | 96       |
| 66) 1,2-Dibromo-3-chloropropan | 12.48 | 75   | 2377     | 1.316 | ug/L   | 98       |
| 67) 1,3,5-Trichlorobenzene     | 12.69 | 180  | 19001    | 1.137 | ug/L   | 98       |
| 68) 1,2,4-trichlorobenzene     | 13.31 | 180  | 16623    | 1.167 | ug/L   | 94       |
| 69) Naphthalene                | 13.55 | 128  | 27743    | 1.007 | ug/L # | 93       |
| 70) 1,2,3-Trichlorobenzene     | 13.79 | 180  | 14272    | 1.071 | ug/L # | 96       |
| -----                          |       |      |          |       |        |          |

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

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