

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD121318\  
 Data File : VD060555.D  
 Acq On : 13 Dec 2018 12:28  
 Operator : VA/AP  
 Sample : VD1213SBS01  
 Misc : 5.00g/5ml/MSVOA D/SOIL  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 VD1213SBS01

Manual Integrations  
 APPROVED

MMDadoda  
 12/14/2018 11:25:34 AM

Quant Time: Dec 14 01:28:58 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D120518S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Dec 06 01:49:20 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 6.40  | 168  | 1657540  | 50.00 | ug/l  | -0.02    |
| 34) 1,4-Difluorobenzene    | 7.43  | 114  | 2332032  | 50.00 | ug/l  | -0.02    |
| 63) Chlorobenzene-d5       | 11.27 | 117  | 1840902  | 50.00 | ug/l  | -0.01    |
| 72) 1,4-Dichlorobenzene-d4 | 13.37 | 152  | 936224   | 50.00 | ug/l  | -0.01    |

## System Monitoring Compounds

|                           |        |     |          |       |        |       |
|---------------------------|--------|-----|----------|-------|--------|-------|
| 33) 1,2-Dichloroethane-d4 | 6.77   | 65  | 567635   | 48.31 | ug/l   | -0.02 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.62% |       |
| 35) Dibromofluoromethane  | 6.31   | 113 | 830184   | 48.47 | ug/l   | -0.02 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.94% |       |
| 50) Toluene-d8            | 9.44   | 98  | 2452142  | 49.47 | ug/l   | -0.02 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.94% |       |
| 62) 4-Bromofluorobenzene  | 12.41  | 95  | 851210   | 47.99 | ug/l   | -0.02 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.98% |       |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.61 | 85  | 430247  | 23.836  | ug/l | 98     |
| 3) Chloromethane              | 1.77 | 50  | 388138  | 22.791  | ug/l | 99     |
| 4) Vinyl Chloride             | 1.87 | 62  | 315997  | 23.249  | ug/l | 98     |
| 5) Bromomethane               | 2.16 | 94  | 49172   | 14.461  | ug/l | 85     |
| 6) Chloroethane               | 2.27 | 64  | 74487   | 15.926  | ug/l | 100    |
| 7) Trichlorofluoromethane     | 2.51 | 101 | 322116  | 20.525  | ug/l | 100    |
| 8) Diethyl Ether              | 2.84 | 74  | 58581   | 21.610  | ug/l | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.09 | 101 | 219230  | 21.529  | ug/l | 99     |
| 10) Methyl Iodide             | 3.25 | 142 | 246668  | 20.723  | ug/l | 100    |
| 11) Tert butyl alcohol        | 3.98 | 59  | 48859   | 102.363 | ug/l | 97     |
| 12) 1,1-Dichloroethene        | 3.08 | 96  | 178239  | 21.514  | ug/l | 95     |
| 13) Acrolein                  | 2.99 | 56  | 50127   | 96.112  | ug/l | 91     |
| 14) Allyl chloride            | 3.54 | 41  | 344417  | 21.911  | ug/l | 97     |
| 15) Acrylonitrile             | 4.09 | 53  | 293296  | 108.219 | ug/l | 95     |
| 16) Acetone                   | 3.16 | 43  | 189472  | 100.612 | ug/l | 98     |
| 17) Carbon Disulfide          | 3.32 | 76  | 565619  | 21.018  | ug/l | 100    |
| 18) Methyl Acetate            | 3.55 | 43  | 94784   | 21.177  | ug/l | 94     |
| 19) Methyl tert-butyl Ether   | 4.13 | 73  | 493126  | 21.463  | ug/l | 99     |
| 20) Methylene Chloride        | 3.72 | 84  | 398453  | 20.395  | ug/l | 97     |
| 21) trans-1,2-Dichloroethene  | 4.10 | 96  | 381989  | 21.196  | ug/l | 98     |
| 22) Diisopropyl ether         | 4.84 | 45  | 1205692 | 21.363  | ug/l | 95     |
| 23) Vinyl Acetate             | 4.79 | 43  | 2989498 | 106.912 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 4.75 | 63  | 626642  | 21.373  | ug/l | 99     |
| 25) 2-Butanone                | 5.61 | 43  | 388024  | 104.729 | ug/l | 100    |
| 26) 2,2-Dichloropropane       | 5.58 | 77  | 495847  | 21.892  | ug/l | 99     |
| 27) cis-1,2-Dichloroethene    | 5.58 | 96  | 396557  | 21.642  | ug/l | 97     |
| 28) Bromochloromethane        | 5.92 | 49  | 248661  | 19.145  | ug/l | 92     |
| 29) Tetrahydrofuran           | 5.95 | 42  | 233824  | 111.447 | ug/l | 97     |
| 30) Chloroform                | 6.09 | 83  | 624560  | 21.144  | ug/l | 99     |
| 31) Cyclohexane               | 6.36 | 56  | 588623  | 21.277  | ug/l | 97     |
| 32) 1,1,1-Trichloroethane     | 6.28 | 97  | 518494  | 21.352  | ug/l | 97     |
| 36) 1,1-Dichloropropene       | 6.51 | 75  | 475611  | 20.865  | ug/l | 99     |
| 37) Ethyl Acetate             | 5.69 | 43  | 201354  | 20.368  | ug/l | 98     |
| 38) Carbon Tetrachloride      | 6.49 | 117 | 429550  | 20.990  | ug/l | 98     |

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 Misc : 5.00g/5ml/MSVOA D/SOIL  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleID :  
 VD1213SBS01

Manual Integrations  
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 12/14/2018 11:25:34 AM

Quant Time: Dec 14 01:28:58 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D120518S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Dec 06 01:49:20 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 8.02  | 83   | 557489   | 21.453  | ug/l   | 99       |
| 40) Benzene                    | 6.78  | 78   | 1245776  | 21.384  | ug/l   | 99       |
| 41) Methacrylonitrile          | 5.91  | 41   | 97378m   | 18.273  | ug/l   |          |
| 42) 1,2-Dichloroethane         | 6.88  | 62   | 317680   | 21.447  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 8.33  | 43   | 262288   | 21.493  | ug/l # | 99       |
| 44) Trichloroethene            | 7.73  | 130  | 366189   | 21.033  | ug/l   | 97       |
| 45) 1,2-Dichloropropane        | 8.08  | 63   | 300188   | 20.834  | ug/l   | 99       |
| 46) Dibromomethane             | 8.20  | 93   | 173619   | 20.856  | ug/l   | 98       |
| 47) Bromodichloromethane       | 8.48  | 83   | 417732   | 21.148  | ug/l   | 98       |
| 48) Methyl methacrylate        | 8.23  | 41   | 163400   | 22.629  | ug/l   | 97       |
| 49) 1,4-Dioxane                | 8.22  | 88   | 29304    | 447.776 | ug/l # | 90       |
| 51) 4-Methyl-2-Pentanone       | 9.32  | 43   | 810717   | 106.799 | ug/l   | 100      |
| 52) Toluene                    | 9.53  | 92   | 789722   | 21.688  | ug/l   | 98       |
| 53) t-1,3-Dichloropropene      | 9.90  | 75   | 350686   | 21.607  | ug/l   | 97       |
| 54) cis-1,3-Dichloropropene    | 9.09  | 75   | 454982   | 21.336  | ug/l   | 100      |
| 55) 1,1,2-Trichloroethane      | 10.17 | 97   | 213058   | 21.011  | ug/l   | 99       |
| 56) Ethyl methacrylate         | 10.01 | 69   | 195309   | 21.282  | ug/l   | 99       |
| 57) 1,3-Dichloropropane        | 10.36 | 76   | 330459   | 21.082  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 8.91  | 63   | 602401   | 109.706 | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.47 | 43   | 573363   | 108.060 | ug/l   | 97       |
| 60) Dibromochloromethane       | 10.62 | 129  | 269139   | 21.229  | ug/l   | 98       |
| 61) 1,2-Dibromoethane          | 10.74 | 107  | 219761   | 21.266  | ug/l   | 98       |
| 64) Tetrachloroethene          | 10.24 | 164  | 339526   | 20.829  | ug/l   | 99       |
| 65) Chlorobenzene              | 11.30 | 112  | 838534   | 21.531  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.41 | 131  | 278999   | 22.226  | ug/l   | 96       |
| 67) Ethyl Benzene              | 11.42 | 91   | 1474512  | 22.197  | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.56 | 106  | 1081350  | 44.000  | ug/l   | 97       |
| 69) o-Xylene                   | 11.92 | 106  | 513770   | 21.936  | ug/l   | 93       |
| 70) Styrene                    | 11.94 | 104  | 823674   | 21.910  | ug/l   | 95       |
| 71) Bromoform                  | 12.11 | 173  | 168298   | 20.096  | ug/l # | 94       |
| 73) Isopropylbenzene           | 12.26 | 105  | 1402897  | 21.176  | ug/l   | 99       |
| 74) N-amyl acetate             | 12.13 | 43   | 342869   | 21.414  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.55 | 83   | 222381   | 20.967  | ug/l   | 100      |
| 76) 1,2,3-Trichloropropane     | 12.59 | 75   | 220554   | 20.791  | ug/l   | 99       |
| 77) Bromobenzene               | 12.53 | 156  | 370676   | 21.286  | ug/l   | 95       |
| 78) n-propylbenzene            | 12.63 | 91   | 1819147  | 21.722  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.70 | 91   | 989046   | 21.764  | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.79 | 105  | 1106744  | 21.862  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.33 | 75   | 61714    | 20.859  | ug/l   | 99       |
| 82) 4-Chlorotoluene            | 12.80 | 91   | 1105795  | 21.665  | ug/l   | 91       |
| 83) tert-Butylbenzene          | 13.03 | 119  | 1254302  | 22.098  | ug/l   | 92       |
| 84) 1,2,4-Trimethylbenzene     | 13.08 | 105  | 1134679  | 21.647  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.21 | 105  | 1533312  | 21.674  | ug/l   | 97       |
| 86) p-Isopropyltoluene         | 13.33 | 119  | 1198591  | 21.373  | ug/l   | 96       |
| 87) 1,3-Dichlorobenzene        | 13.30 | 146  | 657639   | 20.857  | ug/l   | 96       |
| 88) 1,4-Dichlorobenzene        | 13.38 | 146  | 662067   | 21.404  | ug/l   | 94       |
| 89) n-Butylbenzene             | 13.63 | 91   | 1293556  | 20.774  | ug/l   | 97       |
| 90) Hexachloroethane           | 13.85 | 117  | 291378   | 20.723  | ug/l   | 96       |
| 91) 1,2-Dichlorobenzene        | 13.65 | 146  | 570347   | 22.135  | ug/l   | 97       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.21 | 75   | 27341    | 21.275  | ug/l   | 98       |

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Acq On : 13 Dec 2018 12:28  
Operator : VA/AP  
Sample : VD1213SBSD01  
Misc : 5.00g/5ml/MSVOA D/SOIL  
ALS Vial : 5 Sample Multiplier: 1

Instrument :  
MSVOA\_D  
ClientSampleId :  
VD1213SBSD01

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MMDadoda  
12/14/2018 11:25:34 AM

Quant Time: Dec 14 01:28:58 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_D\METHOD\82D120518S.M  
Quant Title : SW846 8260  
QLast Update : Thu Dec 06 01:49:20 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.77 | 180  | 419340   | 20.818 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 14.87 | 225  | 308498   | 20.758 | ug/l  | 100      |
| 95) Naphthalene            | 14.96 | 128  | 504290   | 21.044 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.11 | 180  | 333614   | 20.786 | ug/l  | 99       |

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

