

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD030320\  
 Data File : VD065387.D  
 Acq On : 03 Mar 2020 11:47  
 Operator : VA/SY  
 Sample : VD0303SBS01  
 Misc : 5.00G/5.00ml/MSVOA D/SOIL  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 VD0303SBS01

Manual Integrations  
 APPROVED

MMDadoda  
 3/4/2020 2:01:24 PM

Quant Time: Mar 04 05:02:55 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D021820S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Feb 19 03:26:54 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.98  | 168  | 460684   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.87  | 114  | 668745   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.65 | 117  | 608472   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.58 | 152  | 308636   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.34   | 65  | 194441   | 46.92 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 93.84%  |      |
| 35) Dibromofluoromethane  | 7.92   | 113 | 206277   | 50.59 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 101.18% |      |
| 50) Toluene-d8            | 10.34  | 98  | 803067   | 51.52 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.04% |      |
| 62) 4-Bromofluorobenzene  | 12.64  | 95  | 257525   | 52.15 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.30% |      |

## Target Compounds

|                               |      |     |        |         |        | Qvalue |
|-------------------------------|------|-----|--------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.99 | 85  | 68889  | 17.829  | ug/l   | 96     |
| 3) Chloromethane              | 2.21 | 50  | 89430  | 18.184  | ug/l   | 97     |
| 4) Vinyl Chloride             | 2.35 | 62  | 91139  | 18.224  | ug/l   | 98     |
| 5) Bromomethane               | 2.76 | 94  | 58926  | 19.488  | ug/l   | 98     |
| 6) Chloroethane               | 2.92 | 64  | 57436  | 18.815  | ug/l   | 96     |
| 7) Trichlorofluoromethane     | 3.27 | 101 | 144973 | 20.248  | ug/l   | 100    |
| 8) Diethyl Ether              | 3.71 | 74  | 44543  | 20.610  | ug/l   | 96     |
| 9) 1,1,2-Trichlorotrifluoroet | 4.08 | 101 | 95725  | 21.171  | ug/l   | 99     |
| 10) Methyl Iodide             | 4.30 | 142 | 96793  | 20.618  | ug/l   | 99     |
| 11) Tert butyl alcohol        | 5.24 | 59  | 28859  | 116.531 | ug/l # | 93     |
| 12) 1,1-Dichloroethene        | 4.06 | 96  | 85977  | 20.129  | ug/l   | 94     |
| 13) Acrolein                  | 3.92 | 56  | 32142  | 86.867  | ug/l   | 100    |
| 14) Allyl chloride            | 4.71 | 41  | 136172 | 19.632  | ug/l   | 97     |
| 15) Acrylonitrile             | 5.43 | 53  | 101600 | 106.181 | ug/l   | 99     |
| 16) Acetone                   | 4.16 | 43  | 89930  | 88.769  | ug/l   | 99     |
| 17) Carbon Disulfide          | 4.40 | 76  | 263451 | 18.398  | ug/l   | 99     |
| 18) Methyl Acetate            | 4.71 | 43  | 52940  | 23.235  | ug/l   | 99     |
| 19) Methyl tert-butyl Ether   | 5.48 | 73  | 179003 | 20.097  | ug/l   | 99     |
| 20) Methylene Chloride        | 4.96 | 84  | 105376 | 20.660  | ug/l   | 92     |
| 21) trans-1,2-Dichloroethene  | 5.47 | 96  | 98524  | 20.291  | ug/l   | 97     |
| 22) Diisopropyl ether         | 6.37 | 45  | 273309 | 20.440  | ug/l   | 98     |
| 23) Vinyl Acetate             | 6.31 | 43  | 717620 | 97.351  | ug/l   | 98     |
| 24) 1,1-Dichloroethane        | 6.27 | 63  | 168171 | 20.277  | ug/l   | 97     |
| 25) 2-Butanone                | 7.23 | 43  | 120485 | 93.999  | ug/l   | 98     |
| 26) 2,2-Dichloropropane       | 7.21 | 77  | 147711 | 20.527  | ug/l   | 99     |
| 27) cis-1,2-Dichloroethene    | 7.21 | 96  | 102281 | 19.886  | ug/l   | 98     |
| 28) Bromochloromethane        | 7.55 | 49  | 56622  | 18.402  | ug/l   | 96     |
| 29) Tetrahydrofuran           | 7.57 | 42  | 78107  | 104.001 | ug/l   | 100    |
| 30) Chloroform                | 7.71 | 83  | 172129 | 20.600  | ug/l   | 99     |
| 31) Cyclohexane               | 7.98 | 56  | 158428 | 19.442  | ug/l   | 98     |
| 32) 1,1,1-Trichloroethane     | 7.91 | 97  | 156514 | 20.936  | ug/l   | 99     |
| 36) 1,1-Dichloropropene       | 8.11 | 75  | 137032 | 21.059  | ug/l   | 99     |
| 37) Ethyl Acetate             | 7.30 | 43  | 54857  | 20.167  | ug/l   | 99     |
| 38) Carbon Tetrachloride      | 8.10 | 117 | 145590 | 21.979  | ug/l   | 95     |

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 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
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 3/4/2020 2:01:24 PM

Quant Time: Mar 04 05:02:55 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D021820S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Feb 19 03:26:54 2020  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.36  | 83   | 157404   | 20.576  | ug/l   | 98       |
| 40) Benzene                    | 8.36  | 78   | 390923   | 21.285  | ug/l   | 98       |
| 41) Methacrylonitrile          | 7.54  | 41   | 34436m   | 21.925  | ug/l   |          |
| 42) 1,2-Dichloroethane         | 8.43  | 62   | 107223   | 21.236  | ug/l   | 98       |
| 43) Isopropyl Acetate          | 8.46  | 43   | 102162   | 20.653  | ug/l   | 98       |
| 44) Trichloroethene            | 9.11  | 130  | 110500   | 21.705  | ug/l   | 95       |
| 45) 1,2-Dichloropropane        | 9.39  | 63   | 96876    | 21.212  | ug/l   | 95       |
| 46) Dibromomethane             | 9.48  | 93   | 50884    | 21.655  | ug/l   | 98       |
| 47) Bromodichloromethane       | 9.67  | 83   | 134168   | 21.666  | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.46  | 41   | 47389    | 20.726  | ug/l   | 92       |
| 49) 1,4-Dioxane                | 9.47  | 88   | 11106    | 402.982 | ug/l   | 93       |
| 51) 4-Methyl-2-Pentanone       | 10.24 | 43   | 267565   | 106.496 | ug/l   | 100      |
| 52) Toluene                    | 10.41 | 92   | 252055   | 22.171  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 10.63 | 75   | 122763   | 21.388  | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene    | 10.09 | 75   | 147845   | 21.330  | ug/l   | 96       |
| 55) 1,1,2-Trichloroethane      | 10.81 | 97   | 73784    | 22.309  | ug/l   | 98       |
| 56) Ethyl methacrylate         | 10.67 | 69   | 81071    | 21.237  | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 10.95 | 76   | 123973   | 22.024  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 9.95  | 63   | 117957   | 98.010  | ug/l   | 98       |
| 59) 2-Hexanone                 | 10.99 | 43   | 184576   | 102.628 | ug/l   | 96       |
| 60) Dibromochloromethane       | 11.14 | 129  | 92664    | 21.890  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.25 | 107  | 69166    | 22.088  | ug/l   | 99       |
| 64) Tetrachloroethene          | 10.88 | 164  | 96396    | 22.337  | ug/l   | 93       |
| 65) Chlorobenzene              | 11.67 | 112  | 264710   | 21.679  | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.75 | 131  | 100859   | 22.135  | ug/l   | 98       |
| 67) Ethyl Benzene              | 11.75 | 91   | 456770   | 21.359  | ug/l   | 99       |
| 68) m/p-Xylenes                | 11.86 | 106  | 363911   | 44.478  | ug/l   | 97       |
| 69) o-Xylene                   | 12.18 | 106  | 156340   | 21.568  | ug/l   | 99       |
| 70) Styrene                    | 12.20 | 104  | 287843   | 22.366  | ug/l   | 99       |
| 71) Bromoform                  | 12.37 | 173  | 56631    | 22.397  | ug/l # | 97       |
| 73) Isopropylbenzene           | 12.48 | 105  | 433390   | 21.210  | ug/l   | 100      |
| 74) N-amyl acetate             | 12.30 | 43   | 90076    | 19.839  | ug/l   | 95       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.74 | 83   | 79543    | 21.570  | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.78 | 75   | 60363m   | 22.987  | ug/l   |          |
| 77) Bromobenzene               | 12.77 | 156  | 109470   | 21.575  | ug/l   | 99       |
| 78) n-propylbenzene            | 12.83 | 91   | 532027   | 21.667  | ug/l   | 98       |
| 79) 2-Chlorotoluene            | 12.91 | 91   | 294891   | 21.437  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.97 | 105  | 367625   | 21.844  | ug/l   | 98       |
| 81) trans-1,4-Dichloro-2-buten | 12.53 | 75   | 25268    | 20.776  | ug/l   | 94       |
| 82) 4-Chlorotoluene            | 13.01 | 91   | 312131   | 21.373  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 13.23 | 119  | 302244   | 21.428  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.27 | 105  | 359988   | 21.371  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.41 | 105  | 433740   | 21.340  | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.53 | 119  | 402299   | 21.644  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.53 | 146  | 211770   | 21.589  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.60 | 146  | 207381   | 21.421  | ug/l   | 97       |
| 89) n-Butylbenzene             | 13.86 | 91   | 363494   | 21.223  | ug/l   | 100      |
| 90) Hexachloroethane           | 14.12 | 117  | 81862    | 21.691  | ug/l   | 100      |
| 91) 1,2-Dichlorobenzene        | 13.90 | 146  | 181828   | 21.589  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.52 | 75   | 11838    | 20.831  | ug/l   | 99       |

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

Instrument :  
MSVOA\_D  
ClientSampleId :  
VD0303SBSD01

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Quant Time: Mar 04 05:02:55 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D021820S.M  
Quant Title : SW846 8260  
QLast Update : Wed Feb 19 03:26:54 2020  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.18 | 180  | 120678   | 21.905 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.28 | 225  | 79588    | 22.520 | ug/l  | 99       |
| 95) Naphthalene            | 15.41 | 128  | 190126   | 21.229 | ug/l  | 98       |
| 96) 1,2,3-Trichlorobenzene | 15.61 | 180  | 106131   | 22.058 | ug/l  | 99       |

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

