

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_W\DATA\VW112118\  
 Data File : VW006973.D  
 Acq On : 20 Nov 2018 13:48  
 Operator : SY/AP  
 Sample : VSTDIC005  
 Misc : 5.00G/5ML/MSVOA\_W/SOIL  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VSTDIC005

Manual Integrations  
 APPROVED

MMDadoda  
 11/21/2018 11:32:32 AM

Quant Time: Nov 21 03:03:17 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W112118S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Nov 21 02:56:06 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 119570   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.85  | 114  | 187661   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 177433   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.56 | 152  | 90807    | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |      |        |      |
|---------------------------|--------|-----|----------|------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 8.31   | 65  | 5879     | 5.02 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 10.04% |      |
| 35) Dibromofluoromethane  | 7.88   | 113 | 4982     | 4.70 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 9.40%  |      |
| 50) Toluene-d8            | 10.33  | 98  | 23120    | 4.94 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 9.88%  |      |
| 62) 4-Bromofluorobenzene  | 12.62  | 95  | 9336     | 5.07 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 10.14% |      |

## Target Compounds

|                               |      |     |       |       |        | Qvalue |
|-------------------------------|------|-----|-------|-------|--------|--------|
| 2) Dichlorodifluoromethane    | 2.00 | 85  | 5469  | 4.63  | ug/l   | 94     |
| 3) Chloromethane              | 2.21 | 50  | 4342  | 4.41  | ug/l   | 96     |
| 4) Vinyl Chloride             | 2.36 | 62  | 4582  | 4.73  | ug/l   | 92     |
| 5) Bromomethane               | 2.78 | 94  | 2702  | 5.23  | ug/l   | 97     |
| 6) Chloroethane               | 2.93 | 64  | 2591  | 4.86  | ug/l   | 92     |
| 7) Trichlorofluoromethane     | 3.26 | 101 | 8761  | 4.60  | ug/l   | 86     |
| 8) Diethyl Ether              | 3.70 | 74  | 3119  | 5.09  | ug/l   | 99     |
| 9) 1,1,2-Trichlorotrifluoroet | 4.06 | 101 | 6509  | 5.27  | ug/l   | 96     |
| 10) Methyl Iodide             | 4.28 | 142 | 5866  | 4.15  | ug/l   | 99     |
| 11) Tert butyl alcohol        | 5.21 | 59  | 1966m | 26.17 | ug/l   |        |
| 12) 1,1-Dichloroethene        | 4.04 | 96  | 5400  | 4.99  | ug/l   | 97     |
| 13) Acrolein                  | 3.91 | 56  | 1794  | 22.92 | ug/l   | 99     |
| 14) Allyl chloride            | 4.68 | 41  | 8718  | 4.86  | ug/l   | 98     |
| 15) Acrylonitrile             | 5.38 | 53  | 5389  | 23.38 | ug/l   | 99     |
| 16) Acetone                   | 4.15 | 43  | 4435  | 26.09 | ug/l   | 90     |
| 17) Carbon Disulfide          | 4.39 | 76  | 15544 | 4.44  | ug/l # | 94     |
| 18) Methyl Acetate            | 4.69 | 43  | 3670  | 6.06  | ug/l   | 97     |
| 19) Methyl tert-butyl Ether   | 5.43 | 73  | 13290 | 4.70  | ug/l   | 99     |
| 20) Methylene Chloride        | 4.92 | 84  | 13523 | 8.05  | ug/l   | 98     |
| 21) trans-1,2-Dichloroethene  | 5.44 | 96  | 6353  | 5.04  | ug/l   | 86     |
| 22) Diisopropyl ether         | 6.32 | 45  | 16629 | 4.76  | ug/l   | 97     |
| 23) Vinyl Acetate             | 6.26 | 43  | 40533 | 21.85 | ug/l   | 99     |
| 24) 1,1-Dichloroethane        | 6.23 | 63  | 10533 | 4.96  | ug/l   | 98     |
| 25) 2-Butanone                | 7.18 | 43  | 7467  | 25.65 | ug/l   | 98     |
| 26) 2,2-Dichloropropane       | 7.18 | 77  | 10145 | 5.31  | ug/l   | 99     |
| 27) cis-1,2-Dichloroethene    | 7.17 | 96  | 6450  | 4.80  | ug/l   | 93     |
| 28) Bromochloromethane        | 7.52 | 49  | 4199  | 5.29  | ug/l # | 97     |
| 29) Tetrahydrofuran           | 7.54 | 42  | 4594  | 24.37 | ug/l   | 95     |
| 30) Chloroform                | 7.68 | 83  | 11786 | 5.22  | ug/l   | 92     |
| 31) Cyclohexane               | 7.96 | 56  | 12916 | 5.73  | ug/l # | 84     |
| 32) 1,1,1-Trichloroethane     | 7.88 | 97  | 10032 | 4.93  | ug/l   | 99     |
| 36) 1,1-Dichloropropene       | 8.09 | 75  | 9514  | 5.19  | ug/l   | 99     |
| 37) Ethyl Acetate             | 7.27 | 43  | 3285  | 4.94  | ug/l # | 97     |
| 38) Carbon Tetrachloride      | 8.07 | 117 | 8682  | 4.94  | ug/l   | 95     |

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 Sample : VSTDIC005  
 Misc : 5.00G/5ML/MSVOA\_W/SOIL  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleID :  
 VSTDIC005

Manual Integrations  
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MMDadoda  
 11/21/2018 11:32:32 AM

Quant Time: Nov 21 03:03:17 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W112118S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Nov 21 02:56:06 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|-------|--------|----------|
| 39) Methylcyclohexane          | 9.34  | 83   | 11185    | 4.87  | ug/l   | 98       |
| 40) Benzene                    | 8.33  | 78   | 24200    | 4.89  | ug/l   | 93       |
| 41) Methacrylonitrile          | 7.50  | 41   | 1963     | 4.76  | ug/l   | 98       |
| 42) 1,2-Dichloroethane         | 8.40  | 62   | 7364     | 5.12  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 8.43  | 43   | 5848     | 4.62  | ug/l   | 98       |
| 44) Trichloroethene            | 9.10  | 130  | 6998     | 5.04  | ug/l   | 95       |
| 45) 1,2-Dichloropropane        | 9.38  | 63   | 6079     | 4.98  | ug/l # | 84       |
| 46) Dibromomethane             | 9.46  | 93   | 2923     | 4.78  | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.65  | 83   | 8041     | 4.99  | ug/l # | 88       |
| 48) Methyl methacrylate        | 9.45  | 41   | 3025     | 4.95  | ug/l   | 89       |
| 49) 1,4-Dioxane                | 9.48  | 88   | 865      | 95.24 | ug/l # | 56       |
| 51) 4-Methyl-2-Pentanone       | 10.21 | 43   | 15825    | 24.73 | ug/l   | 100      |
| 52) Toluene                    | 10.39 | 92   | 16650    | 4.94  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 10.61 | 75   | 7119     | 4.56  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 10.07 | 75   | 8821     | 4.68  | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 10.79 | 97   | 4628     | 5.15  | ug/l   | 91       |
| 56) Ethyl methacrylate         | 10.65 | 69   | 4530     | 4.34  | ug/l   | 97       |
| 57) 1,3-Dichloropropane        | 10.94 | 76   | 7161     | 4.75  | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.93  | 63   | 14075    | 25.81 | ug/l   | 97       |
| 59) 2-Hexanone                 | 10.98 | 43   | 10015    | 22.85 | ug/l   | 99       |
| 60) Dibromochloromethane       | 11.13 | 129  | 4631     | 4.52  | ug/l   | 98       |
| 61) 1,2-Dibromoethane          | 11.24 | 107  | 3853     | 4.68  | ug/l   | 97       |
| 64) Tetrachloroethene          | 10.87 | 164  | 5898     | 5.17  | ug/l   | 96       |
| 65) Chlorobenzene              | 11.66 | 112  | 17809    | 4.81  | ug/l   | 97       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.73 | 131  | 5351     | 4.78  | ug/l   | 95       |
| 67) Ethyl Benzene              | 11.73 | 91   | 33635    | 4.94  | ug/l   | 98       |
| 68) m/p-Xylenes                | 11.84 | 106  | 26345    | 9.87  | ug/l   | 100      |
| 69) o-Xylene                   | 12.17 | 106  | 12685    | 5.04  | ug/l   | 94       |
| 70) Styrene                    | 12.18 | 104  | 18955    | 4.73  | ug/l   | 99       |
| 71) Bromoform                  | 12.35 | 173  | 2372     | 4.49  | ug/l # | 99       |
| 73) Isopropylbenzene           | 12.47 | 105  | 33639    | 4.77  | ug/l   | 99       |
| 74) N-amyl acetate             | 12.28 | 43   | 5165     | 4.37  | ug/l   | 96       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.72 | 83   | 4610     | 4.91  | ug/l   | 93       |
| 76) 1,2,3-Trichloropropane     | 12.77 | 75   | 4356m    | 3.71  | ug/l   |          |
| 77) Bromobenzene               | 12.75 | 156  | 7309     | 4.82  | ug/l   | 97       |
| 78) n-propylbenzene            | 12.81 | 91   | 41449    | 4.85  | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 12.90 | 91   | 24253    | 4.92  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.95 | 105  | 29612    | 4.85  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.52 | 75   | 1251     | 4.40  | ug/l   | 96       |
| 82) 4-Chlorotoluene            | 12.99 | 91   | 25100    | 4.85  | ug/l   | 98       |
| 83) tert-Butylbenzene          | 13.21 | 119  | 25851    | 4.89  | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 13.26 | 105  | 28716    | 4.72  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.39 | 105  | 36026    | 4.83  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 13.50 | 119  | 32365    | 4.91  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.51 | 146  | 15695    | 5.07  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.58 | 146  | 15269    | 4.95  | ug/l   | 92       |
| 89) n-Butylbenzene             | 13.83 | 91   | 28803    | 4.65  | ug/l   | 99       |
| 90) Hexachloroethane           | 14.10 | 117  | 4569     | 4.75  | ug/l   | 91       |
| 91) 1,2-Dichlorobenzene        | 13.88 | 146  | 13540    | 4.99  | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.49 | 75   | 605      | 3.81  | ug/l   | 91       |

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Operator : SY/AP  
Sample : VSTDICC005  
Misc : 5.00G/5ML/MSVOA\_W/SOIL  
ALS Vial : 3 Sample Multiplier: 1

Instrument :  
MSVOA\_W  
ClientSampleId :  
VSTDICC005

Manual Integrations  
APPROVED

MMDadoda  
11/21/2018 11:32:32 AM

Quant Time: Nov 21 03:03:17 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W112118S.M  
Quant Title : SW846 8260  
QLast Update : Wed Nov 21 02:56:06 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.14 | 180  | 8459     | 4.73 | ug/l  | 96       |
| 94) Hexachlorobutadiene    | 15.24 | 225  | 4812     | 4.95 | ug/l  | 99       |
| 95) Naphthalene            | 15.38 | 128  | 15063    | 4.64 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.57 | 180  | 6913     | 4.66 | ug/l  | 99       |

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

