

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW090418\  
 Data File : VW005104.D  
 Acq On : 05 Sep 2018 03:26  
 Operator : SY/AP  
 Sample : VW0904SBSD02  
 Misc : 5.00G/5ML/MSVOA W/SOIL  
 ALS Vial : 33 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 VW0904SBSD02

Manual Integrations  
 APPROVED

apatel  
 9/5/2018 10:03:00 AM

Quant Time: Sep 05 05:27:24 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W090118S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Sep 01 03:35:05 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 470127   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.85  | 114  | 680479   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 678644   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.57 | 152  | 385637   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.31   | 65  | 204542   | 52.49 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.98% |      |
| 35) Dibromofluoromethane  | 7.89   | 113 | 204612   | 52.03 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.06% |      |
| 50) Toluene-d8            | 10.33  | 98  | 945536   | 52.18 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.36% |      |
| 62) 4-Bromofluorobenzene  | 12.62  | 95  | 344407   | 53.90 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 107.80% |      |

## Target Compounds

|                               |      |     |        |        |      | Qvalue |
|-------------------------------|------|-----|--------|--------|------|--------|
| 2) Dichlorodifluoromethane    | 2.00 | 85  | 81673  | 21.56  | ug/l | 99     |
| 3) Chloromethane              | 2.21 | 50  | 115603 | 21.03  | ug/l | 100    |
| 4) Vinyl Chloride             | 2.36 | 62  | 111320 | 20.82  | ug/l | 99     |
| 5) Bromomethane               | 2.74 | 94  | 81096  | 22.19  | ug/l | 98     |
| 6) Chloroethane               | 2.90 | 64  | 68449  | 20.57  | ug/l | 94     |
| 7) Trichlorofluoromethane     | 3.25 | 101 | 126370 | 21.01  | ug/l | 100    |
| 8) Diethyl Ether              | 3.68 | 74  | 46206  | 21.24  | ug/l | 100    |
| 9) 1,1,2-Trichlorotrifluoroet | 4.06 | 101 | 84988  | 20.57  | ug/l | 98     |
| 10) Methyl Iodide             | 4.27 | 142 | 103022 | 19.23  | ug/l | 99     |
| 11) Tert butyl alcohol        | 5.15 | 59  | 35832  | 163.39 | ug/l | 95     |
| 12) 1,1-Dichloroethene        | 4.04 | 96  | 78255  | 20.59  | ug/l | 99     |
| 13) Acrolein                  | 3.89 | 56  | 24699  | 97.64  | ug/l | 100    |
| 14) Allyl chloride            | 4.67 | 41  | 120122 | 20.21  | ug/l | 100    |
| 15) Acrylonitrile             | 5.37 | 53  | 102239 | 111.40 | ug/l | 99     |
| 16) Acetone                   | 4.12 | 43  | 91915  | 117.60 | ug/l | 99     |
| 17) Carbon Disulfide          | 4.38 | 76  | 278734 | 21.04  | ug/l | 100    |
| 18) Methyl Acetate            | 4.67 | 43  | 61815  | 26.89  | ug/l | 99     |
| 19) Methyl tert-butyl Ether   | 5.42 | 73  | 205920 | 22.31  | ug/l | 99     |
| 20) Methylene Chloride        | 4.92 | 84  | 165376 | 29.75  | ug/l | 97     |
| 21) trans-1,2-Dichloroethene  | 5.43 | 96  | 96567  | 20.85  | ug/l | 98     |
| 22) Diisopropyl ether         | 6.32 | 45  | 265925 | 21.27  | ug/l | 98     |
| 23) Vinyl Acetate             | 6.26 | 43  | 667938 | 101.69 | ug/l | 99     |
| 24) 1,1-Dichloroethane        | 6.22 | 63  | 161775 | 20.70  | ug/l | 98     |
| 25) 2-Butanone                | 7.17 | 43  | 151451 | 111.72 | ug/l | 100    |
| 26) 2,2-Dichloropropane       | 7.17 | 77  | 120947 | 18.83  | ug/l | 99     |
| 27) cis-1,2-Dichloroethene    | 7.17 | 96  | 107740 | 21.26  | ug/l | 98     |
| 28) Bromochloromethane        | 7.52 | 49  | 64998  | 20.66  | ug/l | 95     |
| 29) Tetrahydrofuran           | 7.54 | 42  | 77441  | 111.80 | ug/l | 99     |
| 30) Chloroform                | 7.68 | 83  | 167306 | 20.97  | ug/l | 99     |
| 31) Cyclohexane               | 7.96 | 56  | 154109 | 20.13  | ug/l | 92     |
| 32) 1,1,1-Trichloroethane     | 7.88 | 97  | 145756 | 20.98  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 8.09 | 75  | 136975 | 21.14  | ug/l | 99     |
| 37) Ethyl Acetate             | 7.26 | 43  | 54503  | 22.49  | ug/l | 99     |
| 38) Carbon Tetrachloride      | 8.07 | 117 | 130531 | 21.18  | ug/l | 99     |

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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W090118S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Sep 01 03:35:05 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|-------|------|----------|--------|-------|----------|
| 39) Methylcyclohexane          | 9.34  | 83   | 155868   | 19.89  | ug/l  | 99       |
| 40) Benzene                    | 8.33  | 78   | 417095   | 21.02  | ug/l  | 98       |
| 41) Methacrylonitrile          | 7.49  | 41   | 31178    | 22.20  | ug/l  | 96       |
| 42) 1,2-Dichloroethane         | 8.40  | 62   | 104506   | 21.52  | ug/l  | 99       |
| 43) Isopropyl Acetate          | 8.43  | 43   | 93930    | 21.30  | ug/l  | 99       |
| 44) Trichloroethene            | 9.10  | 130  | 115661   | 21.61  | ug/l  | 95       |
| 45) 1,2-Dichloropropane        | 9.37  | 63   | 104492   | 21.56  | ug/l  | 99       |
| 46) Dibromomethane             | 9.46  | 93   | 50884    | 21.96  | ug/l  | 99       |
| 47) Bromodichloromethane       | 9.65  | 83   | 126973   | 21.76  | ug/l  | 95       |
| 48) Methyl methacrylate        | 9.44  | 41   | 45221    | 21.29  | ug/l  | 96       |
| 49) 1,4-Dioxane                | 9.45  | 88   | 18220    | 486.13 | ug/l  | 95       |
| 51) 4-Methyl-2-Pentanone       | 10.21 | 43   | 333148   | 112.71 | ug/l  | 99       |
| 52) Toluene                    | 10.39 | 92   | 287617   | 21.39  | ug/l  | 99       |
| 53) t-1,3-Dichloropropene      | 10.61 | 75   | 120570   | 21.03  | ug/l  | 98       |
| 54) cis-1,3-Dichloropropene    | 10.08 | 75   | 149874   | 21.49  | ug/l  | 98       |
| 55) 1,1,2-Trichloroethane      | 10.79 | 97   | 79672    | 22.20  | ug/l  | 98       |
| 56) Ethyl methacrylate         | 10.65 | 69   | 89816    | 21.94  | ug/l  | 99       |
| 57) 1,3-Dichloropropane        | 10.93 | 76   | 129128   | 21.86  | ug/l  | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.93  | 63   | 210649   | 108.59 | ug/l  | 99       |
| 59) 2-Hexanone                 | 10.98 | 43   | 229949   | 115.02 | ug/l  | 98       |
| 60) Dibromochloromethane       | 11.13 | 129  | 87271    | 21.51  | ug/l  | 100      |
| 61) 1,2-Dibromoethane          | 11.24 | 107  | 71505    | 22.07  | ug/l  | 98       |
| 64) Tetrachloroethene          | 10.87 | 164  | 117688   | 22.10  | ug/l  | 97       |
| 65) Chlorobenzene              | 11.66 | 112  | 321019   | 21.01  | ug/l  | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.74 | 131  | 99131    | 21.23  | ug/l  | 98       |
| 67) Ethyl Benzene              | 11.74 | 91   | 535126   | 20.72  | ug/l  | 99       |
| 68) m/p-Xylenes                | 11.85 | 106  | 443916   | 42.93  | ug/l  | 99       |
| 69) o-Xylene                   | 12.17 | 106  | 202681   | 21.20  | ug/l  | 98       |
| 70) Styrene                    | 12.19 | 104  | 342163   | 21.66  | ug/l  | 100      |
| 71) Bromoform                  | 12.35 | 173  | 54094    | 21.86  | ug/l  | # 99     |
| 73) Isopropylbenzene           | 12.47 | 105  | 535030   | 19.68  | ug/l  | 100      |
| 74) N-amyl acetate             | 12.28 | 43   | 92016    | 19.65  | ug/l  | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.72 | 83   | 87651    | 21.17  | ug/l  | 99       |
| 76) 1,2,3-Trichloropropane     | 12.77 | 75   | 56844m   | 19.64  | ug/l  |          |
| 77) Bromobenzene               | 12.75 | 156  | 137084   | 20.46  | ug/l  | 99       |
| 78) n-propylbenzene            | 12.81 | 91   | 657159   | 20.02  | ug/l  | 100      |
| 79) 2-Chlorotoluene            | 12.90 | 91   | 386324   | 20.17  | ug/l  | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.95 | 105  | 475712   | 20.23  | ug/l  | 100      |
| 81) trans-1,4-Dichloro-2-buten | 12.52 | 75   | 23403    | 19.46  | ug/l  | 99       |
| 82) 4-Chlorotoluene            | 12.99 | 91   | 403369   | 19.95  | ug/l  | 98       |
| 83) tert-Butylbenzene          | 13.21 | 119  | 386125   | 19.66  | ug/l  | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.26 | 105  | 488988   | 20.42  | ug/l  | 100      |
| 85) sec-Butylbenzene           | 13.39 | 105  | 575143   | 19.93  | ug/l  | 100      |
| 86) p-Isopropyltoluene         | 13.51 | 119  | 512486   | 20.06  | ug/l  | 100      |
| 87) 1,3-Dichlorobenzene        | 13.51 | 146  | 285526   | 20.75  | ug/l  | 100      |
| 88) 1,4-Dichlorobenzene        | 13.58 | 146  | 282360   | 20.68  | ug/l  | 99       |
| 89) n-Butylbenzene             | 13.83 | 91   | 464581   | 19.62  | ug/l  | 99       |
| 90) Hexachloroethane           | 14.10 | 117  | 83466    | 19.67  | ug/l  | 100      |
| 91) 1,2-Dichlorobenzene        | 13.88 | 146  | 256371   | 21.37  | ug/l  | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.49 | 75   | 14032    | 21.69  | ug/l  | 98       |

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| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.14 | 180  | 166922   | 20.75 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.24 | 225  | 103098   | 20.61 | ug/l  | 99       |
| 95) Naphthalene            | 15.38 | 128  | 258580   | 21.10 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.57 | 180  | 146292   | 21.25 | ug/l  | 99       |

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

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