

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL091219\  
 Data File : VL034162.D  
 Acq On : 12 Sep 2019 17:49  
 Operator : SY/AP  
 Sample : VL0912ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0912ABS01

Manual Integrations  
 APPROVED

MMDadoda  
 9/14/2019 12:09:47 AM

Quant Time: Sep 13 02:04:13 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL090519AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Sep 0  
 QLast Update : Thu Sep 05 10:21:45 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.70  | 49   | 1252600  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.23  | 114  | 2231974  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.17 | 117  | 2465706m | 10.00 | ppbv  | 0.00     |

## System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.51  | 95    | 1916339  | 9.51     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 95.10% |

## Target Compounds

|                                |      |     |         |        | Ovalue    |
|--------------------------------|------|-----|---------|--------|-----------|
| 2) Dichlorodifluoromethane     | 3.03 | 85  | 1486022 | 7.192  | ppbv 97   |
| 3) Chlorodifluoromethane       | 2.97 | 51  | 1456608 | 10.432 | ppbv 99   |
| 4) Chloromethane               | 3.13 | 50  | 800548  | 9.171  | ppbv 94   |
| 5) Vinyl Chloride              | 3.25 | 62  | 724217  | 9.108  | ppbv 99   |
| 6) Bromomethane                | 3.47 | 94  | 363293  | 9.258  | ppbv 99   |
| 7) Chloroethane                | 3.55 | 64  | 258281  | 9.534  | ppbv 89   |
| 8) Dichlorotetrafluoroethane   | 3.18 | 85  | 1487861 | 8.947  | ppbv 99   |
| 9) Propene                     | 3.00 | 41  | 700074  | 8.961  | ppbv 99   |
| 10) Heptane                    | 8.18 | 43  | 1851229 | 9.131  | ppbv 99   |
| 11) Trichlorofluoromethane     | 3.95 | 101 | 1561025 | 9.265  | ppbv 97   |
| 12) 1,1,2-Trichlorotrifluoroet | 4.50 | 101 | 1050159 | 9.316  | ppbv 98   |
| 13) Ethanol                    | 3.60 | 45  | 173252  | 11.321 | ppbv 98   |
| 14) Bromoethene                | 3.74 | 108 | 434490  | 8.903  | ppbv 99   |
| 15) Acetone                    | 3.85 | 43  | 1327113 | 8.791  | ppbv 99   |
| 16) 1,3-Butadiene              | 3.32 | 39  | 719091  | 9.406  | ppbv 97   |
| 17) tert-Butyl alcohol         | 4.30 | 59  | 1178269 | 10.751 | ppbv 99   |
| 18) 1,1-Dichloroethene         | 4.30 | 96  | 475293  | 9.229  | ppbv 98   |
| 19) Isopropyl Alcohol          | 3.97 | 45  | 1101088 | 10.806 | ppbv 100  |
| 20) Methylene Chloride         | 4.35 | 84  | 432389  | 8.663  | ppbv 96   |
| 21) Allyl Chloride             | 4.42 | 41  | 912339  | 9.167  | ppbv 100  |
| 22) trans-1,2-Dichloroethene   | 4.91 | 96  | 464456  | 9.010  | ppbv 90   |
| 23) Vinyl Acetate              | 5.10 | 43  | 2383101 | 9.305  | ppbv 99   |
| 24) 1,1-Dichloroethane         | 5.03 | 63  | 1558779 | 9.170  | ppbv 98   |
| 25) Ethyl Acetate              | 5.71 | 43  | 2809155 | 8.477  | ppbv 100  |
| 26) Hexane                     | 5.72 | 57  | 1248521 | 8.474  | ppbv 97   |
| 27) Carbon Disulfide           | 4.56 | 76  | 1237783 | 9.309  | ppbv 99   |
| 28) Methyl tert-Butyl Ether    | 5.05 | 73  | 1933190 | 8.955  | ppbv 99   |
| 29) Chloroform                 | 5.79 | 83  | 1810321 | 9.110  | ppbv 97   |
| 30) Cyclohexane                | 7.18 | 84  | 962883  | 9.040  | ppbv 96   |
| 31) cis-1,2-Dichloroethene     | 5.58 | 61  | 1313541 | 9.310  | ppbv 95   |
| 32) 1,1,1-Trichloroethane      | 6.56 | 97  | 1701128 | 9.061  | ppbv 97   |
| 34) 2-Butanone                 | 5.27 | 43  | 2038259 | 9.499  | ppbv 98   |
| 35) Carbon Tetrachloride       | 7.07 | 117 | 1667507 | 9.583  | ppbv 98   |
| 36) Benzene                    | 6.94 | 78  | 2329315 | 9.130  | ppbv 98   |
| 37) 1,2-Dichloroethane         | 6.35 | 62  | 1565871 | 10.005 | ppbv 99   |
| 38) Trichloroethene            | 7.90 | 130 | 773237  | 8.122  | ppbv 93   |
| 39) 1,2-Dichloropropane        | 7.67 | 63  | 1041590 | 9.540  | ppbv 96   |
| 40) 1,4-Dioxane                | 7.89 | 88  | 357884  | 8.920  | ppbv # 99 |
| 41) Tetrahydrofuran            | 6.09 | 42  | 1235882 | 9.607  | ppbv 98   |
| 42) Bromodichloromethane       | 7.85 | 83  | 1992020 | 9.766  | ppbv 100  |
| 43) Methyl Methacrylate        | 8.07 | 69  | 1029576 | 9.796  | ppbv 95   |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL091219\  
 Data File : VL034162.D  
 Acq On : 12 Sep 2019 17:49  
 Operator : SY/AP  
 Sample : VL0912ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VL0912ABS01

Manual Integrations  
 APPROVED

MMDadoda  
 9/14/2019 12:09:47 AM

Quant Time: Sep 13 02:04:13 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL090519AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Sep 0  
 QLast Update : Thu Sep 05 10:21:45 2019  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.92  | 57   | 4215967  | 8.963  | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.35  | 75   | 1226343  | 9.928  | ppbv   | 99       |
| 46) cis-1,3-Dichloropropene   | 8.77  | 75   | 1432304  | 9.531  | ppbv   | 99       |
| 47) 1,1,2-Trichloroethane     | 9.55  | 97   | 929873   | 9.348  | ppbv   | 95       |
| 48) Dibromochloromethane      | 10.38 | 129  | 1496238  | 10.081 | ppbv   | 97       |
| 49) Bromoform                 | 13.13 | 173  | 1249772  | 9.604  | ppbv   | 99       |
| 50) 4-Methyl-2-Pentanone      | 8.80  | 43   | 2995993  | 9.150  | ppbv   | 99       |
| 51) 2-Hexanone                | 10.20 | 43   | 2579408  | 9.119  | ppbv # | 98       |
| 52) Tetrachloroethene         | 11.30 | 164  | 736935m  | 8.192  | ppbv   |          |
| 53) Toluene                   | 9.88  | 91   | 2581834  | 9.150  | ppbv   | 99       |
| 54) 1,2-Dibromoethane         | 10.69 | 107  | 1424924  | 9.616  | ppbv   | 97       |
| 56) 1,1,1,2-Tetrachloroethane | 12.21 | 131  | 992078   | 9.381  | ppbv # | 59       |
| 57) Chlorobenzene             | 12.23 | 112  | 1830304  | 8.629  | ppbv   | 100      |
| 58) Ethyl Benzene             | 12.79 | 91   | 3492793  | 8.639  | ppbv   | 100      |
| 59) m/p-Xylene                | 13.05 | 91   | 5632851m | 17.078 | ppbv   |          |
| 60) o-Xylene                  | 13.78 | 91   | 2845334  | 8.661  | ppbv   | 99       |
| 61) Styrene                   | 13.62 | 104  | 2111141  | 8.591  | ppbv   | 98       |
| 62) Isopropylbenzene          | 14.75 | 105  | 3700034  | 8.656  | ppbv   | 100      |
| 63) 1,1,2,2-Tetrachloroethane | 13.77 | 83   | 2117581  | 7.910  | ppbv   | 100      |
| 64) n-propylbenzene           | 15.65 | 120  | 976519   | 9.120  | ppbv   | 97       |
| 65) tert-Butylbenzene         | 16.84 | 119  | 3137297  | 8.505  | ppbv   | 98       |
| 66) Benzyl Chloride           | 17.09 | 91   | 1237479  | 9.099  | ppbv   | 98       |
| 67) sec-Butylbenzene          | 17.39 | 105  | 4584957  | 8.643  | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 17.74 | 119  | 3712039  | 8.746  | ppbv   | 99       |
| 70) n-Butylbenzene            | 18.65 | 91   | 4254253m | 8.810  | ppbv   |          |
| 71) 2-Chlorotoluene           | 15.55 | 91   | 3084591  | 8.834  | ppbv   | 100      |
| 72) 4-Ethyltoluene            | 15.93 | 105  | 3250088  | 8.769  | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.09 | 105  | 3142459  | 8.723  | ppbv   | 100      |
| 74) 1,2,4-Trimethylbenzene    | 16.86 | 105  | 3116131  | 8.401  | ppbv   | 96       |
| 75) 1,3-Dichlorobenzene       | 17.09 | 146  | 1685421  | 8.575  | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.23 | 146  | 1744770  | 8.470  | ppbv   | 100      |
| 77) 1,2-Dichlorobenzene       | 17.91 | 146  | 1723835m | 8.567  | ppbv   |          |
| 78) Hexachloro-1,3-Butadiene  | 23.47 | 225  | 1121754  | 8.172  | ppbv   | 99       |
| 79) Naphthalene               | 22.32 | 128  | 2987772  | 8.910  | ppbv   | 98       |
| 80) Naphthalene, 2-methyl-    | 25.05 | 142  | 555823   | 4.775  | ppbv   | 99       |
| 81) 1,2,4-Trichlorobenzene    | 22.05 | 180  | 1506652  | 8.257  | ppbv   | 100      |

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

