

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL052319\  
 Data File : VL033769.D  
 Acq On : 23 May 2019 10:25  
 Operator : SY/AP  
 Sample : VSTDCCC010  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

Manual Integrations  
 APPROVED

MMDadoda  
 5/28/2019 2:53:15 AM

Quant Time: May 24 04:42:10 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051719AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri May 1  
 QLast Update : Fri May 17 08:15:41 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.76  | 49   | 923100   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.29  | 114  | 2172776  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.23 | 117  | 2331950  | 10.00 | ppbv  | 0.00     |

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| System Monitoring Compounds |        |       |          |          |      |        |
| 68) 1-Bromo-4-Fluorobenzene | 14.57  | 95    | 1833059  | 9.70     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 97.00% |

| Target Compounds               | R.T. | QIon | Response | Conc   | Units  | Ovalue |
|--------------------------------|------|------|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.07 | 85   | 1540925  | 7.921  | ppbv   | 99     |
| 3) Chlorodifluoromethane       | 3.01 | 51   | 1089649  | 10.305 | ppbv   | 99     |
| 4) Chloromethane               | 3.16 | 50   | 621057   | 10.269 | ppbv   | 98     |
| 5) Vinyl Chloride              | 3.29 | 62   | 631458   | 10.250 | ppbv   | 99     |
| 6) Bromomethane                | 3.51 | 94   | 401313   | 10.676 | ppbv   | 96     |
| 7) Chloroethane                | 3.60 | 64   | 235683   | 10.765 | ppbv   | 100    |
| 8) Dichlorotetrafluoroethane   | 3.21 | 85   | 1620248  | 10.331 | ppbv   | 100    |
| 9) Propene                     | 3.03 | 41   | 469768   | 10.445 | ppbv   | 100    |
| 10) Heptane                    | 8.24 | 43   | 1329110  | 10.436 | ppbv   | 99     |
| 11) Trichlorofluoromethane     | 4.00 | 101  | 1925431  | 10.370 | ppbv   | 99     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.55 | 101  | 1299456  | 10.022 | ppbv   | 100    |
| 13) Ethanol                    | 3.65 | 45   | 77891    | 5.358  | ppbv   | 94     |
| 14) Bromoethene                | 3.78 | 108  | 521055   | 10.931 | ppbv   | 99     |
| 15) Acetone                    | 3.89 | 43   | 1192732  | 9.313  | ppbv   | 99     |
| 16) 1,3-Butadiene              | 3.36 | 39   | 557731   | 10.935 | ppbv   | 100    |
| 17) tert-Butyl alcohol         | 4.35 | 59   | 1005431  | 9.708  | ppbv   | 100    |
| 18) 1,1-Dichloroethene         | 4.34 | 96   | 572278   | 10.457 | ppbv   | 99     |
| 19) Isopropyl Alcohol          | 4.02 | 45   | 714696   | 8.655  | ppbv # | 98     |
| 20) Methylene Chloride         | 4.40 | 84   | 487914   | 9.894  | ppbv   | 96     |
| 21) Allyl Chloride             | 4.47 | 41   | 836459   | 10.471 | ppbv   | 100    |
| 22) trans-1,2-Dichloroethene   | 4.96 | 96   | 592722   | 10.566 | ppbv   | 97     |
| 23) Vinyl Acetate              | 5.15 | 43   | 1832933  | 10.854 | ppbv   | 99     |
| 24) 1,1-Dichloroethane         | 5.09 | 63   | 1297273  | 10.106 | ppbv   | 99     |
| 25) Ethyl Acetate              | 5.76 | 43   | 2242405  | 9.967  | ppbv   | 100    |
| 26) Hexane                     | 5.77 | 57   | 977826   | 10.110 | ppbv   | 98     |
| 27) Carbon Disulfide           | 4.62 | 76   | 1464063  | 11.033 | ppbv   | 99     |
| 28) Methyl tert-Butyl Ether    | 5.11 | 73   | 1633418  | 10.359 | ppbv   | 100    |
| 29) Chloroform                 | 5.84 | 83   | 1681235  | 9.436  | ppbv   | 99     |
| 30) Cyclohexane                | 7.24 | 84   | 828360   | 10.187 | ppbv   | 100    |
| 31) cis-1,2-Dichloroethene     | 5.63 | 61   | 1012836  | 10.561 | ppbv   | 98     |
| 32) 1,1,1-Trichloroethane      | 6.61 | 97   | 1714145  | 9.636  | ppbv   | 99     |
| 34) 2-Butanone                 | 5.32 | 43   | 1449680  | 10.764 | ppbv   | 100    |
| 35) Carbon Tetrachloride       | 7.13 | 117  | 1848489  | 10.620 | ppbv   | 99     |
| 36) Benzene                    | 7.00 | 78   | 2012766  | 10.184 | ppbv   | 99     |
| 37) 1,2-Dichloroethane         | 6.41 | 62   | 1303952  | 10.227 | ppbv   | 100    |
| 38) Trichloroethene            | 7.96 | 130  | 859197   | 11.715 | ppbv   | 98     |
| 39) 1,2-Dichloropropane        | 7.73 | 63   | 774767   | 10.514 | ppbv   | 96     |
| 40) 1,4-Dioxane                | 7.95 | 88   | 285057   | 9.248  | ppbv # | 95     |
| 41) Tetrahydrofuran            | 6.14 | 42   | 804665   | 10.664 | ppbv   | 100    |
| 42) Bromodichloromethane       | 7.91 | 83   | 1930909  | 11.062 | ppbv   | 95     |
| 43) Methyl Methacrylate        | 8.13 | 69   | 858066   | 11.797 | ppbv   | 99     |

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 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.98  | 57   | 3619903  | 10.837 | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.41  | 75   | 1098798  | 11.916 | ppbv   | 99       |
| 46) cis-1,3-Dichloropropene   | 8.83  | 75   | 1240409  | 11.488 | ppbv   | 96       |
| 47) 1,1,2-Trichloroethane     | 9.61  | 97   | 857275   | 10.241 | ppbv   | 99       |
| 48) Dibromochloromethane      | 10.44 | 129  | 1565762  | 10.795 | ppbv   | 99       |
| 49) Bromoform                 | 13.19 | 173  | 1502761  | 12.313 | ppbv   | 99       |
| 50) 4-Methyl-2-Pentanone      | 8.86  | 43   | 2195384  | 10.598 | ppbv   | 100      |
| 51) 2-Hexanone                | 10.26 | 43   | 1805609  | 11.168 | ppbv # | 99       |
| 52) Tetrachloroethene         | 11.36 | 164  | 770616   | 11.092 | ppbv   | 97       |
| 53) Toluene                   | 9.94  | 91   | 2378312  | 11.156 | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.75 | 107  | 1341486  | 10.501 | ppbv   | 99       |
| 56) 1,1,1,2-Tetrachloroethane | 12.27 | 131  | 1065694  | 9.876  | ppbv   | 98       |
| 57) Chlorobenzene             | 12.29 | 112  | 1866034  | 9.721  | ppbv   | 97       |
| 58) Ethyl Benzene             | 12.86 | 91   | 3334144  | 10.797 | ppbv   | 100      |
| 59) m/p-Xylene                | 13.14 | 91   | 5845864m | 21.656 | ppbv   |          |
| 60) o-Xylene                  | 13.84 | 91   | 2861613  | 10.516 | ppbv   | 99       |
| 61) Styrene                   | 13.68 | 104  | 2133650  | 11.646 | ppbv   | 99       |
| 62) Isopropylbenzene          | 14.82 | 105  | 3787529  | 10.335 | ppbv   | 100      |
| 63) 1,1,2,2-Tetrachloroethane | 13.83 | 83   | 2023144  | 10.223 | ppbv   | 99       |
| 64) n-propylbenzene           | 15.72 | 120  | 980681   | 10.345 | ppbv   | 98       |
| 65) tert-Butylbenzene         | 16.90 | 119  | 3493004  | 10.440 | ppbv   | 99       |
| 66) Benzyl Chloride           | 17.15 | 91   | 1784288  | 11.196 | ppbv   | 100      |
| 67) sec-Butylbenzene          | 17.45 | 105  | 4857591  | 10.372 | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 17.81 | 119  | 3984052  | 10.293 | ppbv   | 99       |
| 70) n-Butylbenzene            | 18.70 | 91   | 4104946  | 9.889  | ppbv   | 100      |
| 71) 2-Chlorotoluene           | 15.60 | 91   | 2876777  | 10.581 | ppbv   | 100      |
| 72) 4-Ethyltoluene            | 15.99 | 105  | 3320633  | 10.673 | ppbv   | 100      |
| 73) 1,3,5-Trimethylbenzene    | 16.15 | 105  | 3178390  | 10.470 | ppbv   | 97       |
| 74) 1,2,4-Trimethylbenzene    | 16.92 | 105  | 3337283  | 10.101 | ppbv   | 98       |
| 75) 1,3-Dichlorobenzene       | 17.15 | 146  | 1922302  | 9.495  | ppbv   | 100      |
| 76) 1,4-Dichlorobenzene       | 17.30 | 146  | 1882628  | 9.784  | ppbv   | 100      |
| 77) 1,2-Dichlorobenzene       | 17.98 | 146  | 1848194  | 9.715  | ppbv   | 99       |
| 78) Hexachloro-1,3-Butadiene  | 23.53 | 225  | 1375554  | 9.564  | ppbv   | 99       |
| 79) Naphthalene               | 22.40 | 128  | 2784591  | 9.074  | ppbv   | 99       |
| 80) Naphthalene, 2-methyl-    | 25.10 | 142  | 1237710  | 10.615 | ppbv   | 99       |
| 81) 1,2,4-Trichlorobenzene    | 22.12 | 180  | 1568916  | 8.731  | ppbv   | 99       |

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

