

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL052819\  
 Data File : VL033800.D  
 Acq On : 28 May 2019 11:08  
 Operator : SY/AP  
 Sample : VL0528ABS01  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 VL0528ABS01

Manual Integrations  
 APPROVED

apatel  
 5/29/2019 12:39:53 PM

Quant Time: May 29 04:49:09 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   | 936501   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.29  | 114  | 2269906  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.23 | 117  | 2396549  | 10.00 | ppbv  | 0.00     |

## System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.57  | 95    | 1884821  | 9.70     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 97.00% |

## Target Compounds

|                                |      |     |         |             | Ovalue |
|--------------------------------|------|-----|---------|-------------|--------|
| 2) Dichlorodifluoromethane     | 3.07 | 85  | 1494241 | 7.571 ppbv  | 98     |
| 3) Chlorodifluoromethane       | 3.01 | 51  | 991318  | 9.241 ppbv  | 100    |
| 4) Chloromethane               | 3.17 | 50  | 588807  | 9.597 ppbv  | 98     |
| 5) Vinyl Chloride              | 3.29 | 62  | 584546  | 9.353 ppbv  | 100    |
| 6) Bromomethane                | 3.51 | 94  | 366607  | 9.613 ppbv  | 93     |
| 7) Chloroethane                | 3.60 | 64  | 221837  | 9.987 ppbv  | 98     |
| 8) Dichlorotetrafluoroethane   | 3.22 | 85  | 1508811 | 9.482 ppbv  | 100    |
| 9) Propene                     | 3.03 | 41  | 434298  | 9.518 ppbv  | 100    |
| 10) Heptane                    | 8.24 | 43  | 1223213 | 9.467 ppbv  | 99     |
| 11) Trichlorofluoromethane     | 4.00 | 101 | 1746196 | 9.270 ppbv  | 97     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.54 | 101 | 1186075 | 9.017 ppbv  | 99     |
| 13) Ethanol                    | 3.65 | 45  | 97846   | 6.635 ppbv  | 99     |
| 14) Bromoethene                | 3.78 | 108 | 482070  | 9.969 ppbv  | 99     |
| 15) Acetone                    | 3.89 | 43  | 1090168 | 8.390 ppbv  | 99     |
| 16) 1,3-Butadiene              | 3.36 | 39  | 514507  | 9.944 ppbv  | 99     |
| 17) tert-Butyl alcohol         | 4.35 | 59  | 1057944 | 10.069 ppbv | 100    |
| 18) 1,1-Dichloroethene         | 4.35 | 96  | 526373  | 9.481 ppbv  | 98     |
| 19) Isopropyl Alcohol          | 4.02 | 45  | 790022  | 9.430 ppbv  | 99     |
| 20) Methylene Chloride         | 4.40 | 84  | 444222  | 8.879 ppbv  | 97     |
| 21) Allyl Chloride             | 4.47 | 41  | 747463  | 9.223 ppbv  | 100    |
| 22) trans-1,2-Dichloroethene   | 4.96 | 96  | 538396  | 9.461 ppbv  | 98     |
| 23) Vinyl Acetate              | 5.15 | 43  | 1680240 | 9.808 ppbv  | 99     |
| 24) 1,1-Dichloroethane         | 5.08 | 63  | 1207721 | 9.274 ppbv  | 99     |
| 25) Ethyl Acetate              | 5.76 | 43  | 2127750 | 9.322 ppbv  | 100    |
| 26) Hexane                     | 5.77 | 57  | 942807  | 9.608 ppbv  | 100    |
| 27) Carbon Disulfide           | 4.61 | 76  | 1302689 | 9.677 ppbv  | 99     |
| 28) Methyl tert-Butyl Ether    | 5.11 | 73  | 1563927 | 9.777 ppbv  | 99     |
| 29) Chloroform                 | 5.84 | 83  | 1616496 | 8.943 ppbv  | 97     |
| 30) Cyclohexane                | 7.24 | 84  | 805585  | 9.765 ppbv  | 100    |
| 31) cis-1,2-Dichloroethene     | 5.63 | 61  | 937317  | 9.634 ppbv  | 97     |
| 32) 1,1,1-Trichloroethane      | 6.62 | 97  | 1602533 | 8.879 ppbv  | 99     |
| 34) 2-Butanone                 | 5.32 | 43  | 1345609 | 9.564 ppbv  | 100    |
| 35) Carbon Tetrachloride       | 7.13 | 117 | 1718257 | 9.450 ppbv  | 99     |
| 36) Benzene                    | 7.00 | 78  | 1901753 | 9.210 ppbv  | 98     |
| 37) 1,2-Dichloroethane         | 6.41 | 62  | 1201475 | 9.020 ppbv  | 100    |
| 38) Trichloroethene            | 7.96 | 130 | 818667  | 10.685 ppbv | 98     |
| 39) 1,2-Dichloropropane        | 7.73 | 63  | 742720  | 9.648 ppbv  | 97     |
| 40) 1,4-Dioxane                | 7.95 | 88  | 302840  | 9.404 ppbv  | # 100  |
| 41) Tetrahydrofuran            | 6.14 | 42  | 753805  | 9.562 ppbv  | 99     |
| 42) Bromodichloromethane       | 7.91 | 83  | 1784216 | 9.785 ppbv  | 98     |
| 43) Methyl Methacrylate        | 8.13 | 69  | 800797  | 10.538 ppbv | 98     |

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|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.98  | 57   | 3356409  | 9.618  | ppbv   | 100      |
| 45) t-1,3-Dichloropropene     | 9.41  | 75   | 1026102  | 10.651 | ppbv   | 98       |
| 46) cis-1,3-Dichloropropene   | 8.83  | 75   | 1162299  | 10.304 | ppbv   | 97       |
| 47) 1,1,2-Trichloroethane     | 9.61  | 97   | 819194   | 9.367  | ppbv   | 98       |
| 48) Dibromochloromethane      | 10.44 | 129  | 1521527  | 10.041 | ppbv   | 99       |
| 49) Bromoform                 | 13.20 | 173  | 1402608  | 11.001 | ppbv   | 100      |
| 50) 4-Methyl-2-Pentanone      | 8.86  | 43   | 2056395  | 9.502  | ppbv   | 100      |
| 51) 2-Hexanone                | 10.26 | 43   | 1708271  | 10.114 | ppbv # | 100      |
| 52) Tetrachloroethene         | 11.36 | 164  | 751074   | 10.348 | ppbv   | 98       |
| 53) Toluene                   | 9.94  | 91   | 2326266  | 10.445 | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.75 | 107  | 1296408  | 9.714  | ppbv   | 99       |
| 56) 1,1,1,2-Tetrachloroethane | 12.27 | 131  | 1012473  | 9.130  | ppbv   | 97       |
| 57) Chlorobenzene             | 12.29 | 112  | 1768255  | 8.964  | ppbv   | 99       |
| 58) Ethyl Benzene             | 12.86 | 91   | 3272961  | 10.313 | ppbv   | 100      |
| 59) m/p-Xylene                | 13.15 | 91   | 5450057m | 19.645 | ppbv   |          |
| 60) o-Xylene                  | 13.84 | 91   | 2668888  | 9.543  | ppbv   | 99       |
| 61) Styrene                   | 13.68 | 104  | 2006462  | 10.656 | ppbv   | 100      |
| 62) Isopropylbenzene          | 14.82 | 105  | 3719180  | 9.875  | ppbv   | 100      |
| 63) 1,1,2,2-Tetrachloroethane | 13.83 | 83   | 1868643m | 9.188  | ppbv   |          |
| 64) n-propylbenzene           | 15.71 | 120  | 975229   | 10.011 | ppbv   | 99       |
| 65) tert-Butylbenzene         | 16.90 | 119  | 3399673  | 9.887  | ppbv   | 100      |
| 66) Benzyl Chloride           | 17.15 | 91   | 1731108  | 10.570 | ppbv   | 100      |
| 67) sec-Butylbenzene          | 17.45 | 105  | 4771979  | 9.915  | ppbv   | 100      |
| 69) p-Isopropyltoluene        | 17.81 | 119  | 3977132  | 9.998  | ppbv   | 100      |
| 70) n-Butylbenzene            | 18.71 | 91   | 4179541  | 9.798  | ppbv   | 100      |
| 71) 2-Chlorotoluene           | 15.61 | 91   | 2852677  | 10.209 | ppbv   | 100      |
| 72) 4-Ethyltoluene            | 15.99 | 105  | 3389616  | 10.601 | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.15 | 105  | 3330543  | 10.675 | ppbv   | 97       |
| 74) 1,2,4-Trimethylbenzene    | 16.92 | 105  | 3282067  | 9.666  | ppbv   | 99       |
| 75) 1,3-Dichlorobenzene       | 17.16 | 146  | 1925515  | 9.255  | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.30 | 146  | 1897905  | 9.598  | ppbv   | 99       |
| 77) 1,2-Dichlorobenzene       | 17.98 | 146  | 1843829  | 9.431  | ppbv   | 99       |
| 78) Hexachloro-1,3-Butadiene  | 23.54 | 225  | 1062122  | 7.186  | ppbv   | 99       |
| 79) Naphthalene               | 22.40 | 128  | 2470499  | 7.834  | ppbv   | 98       |
| 80) Naphthalene, 2-methyl-    | 25.11 | 142  | 647705   | 5.405  | ppbv   | 95       |
| 81) 1,2,4-Trichlorobenzene    | 22.13 | 180  | 1449771  | 7.851  | ppbv   | 100      |

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

