

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL073021\  
 Data File : VL037289.D  
 Acq On : 30 Jul 2021 17:58  
 Operator : SY/AP  
 Sample : VSTDIC002  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC002

Manual Integrations  
 APPROVED

MMDadoda  
 8/2/2021 8:57:30 AM

Quant Time: Jul 30 23:00:48 2021  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL073021AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Jul 30 2021  
 QLast Update : Fri Jul 30 22:49:48 2021  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.67  | 49   | 1299716  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.18  | 114  | 4022242  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.09 | 117  | 3973480  | 10.00 | ppbv  | 0.00     |

| System Monitoring Compounds |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.43  | 95    | 2781054  | 9.33     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 93.30% |

| Target Compounds               | R.T. | QIon | Response | Conc  | Units  | Ovalue |
|--------------------------------|------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.04 | 85   | 383704   | 1.772 | ppbv   | 99     |
| 3) Chlorodifluoromethane       | 2.98 | 51   | 544586   | 2.145 | ppbv   | 99     |
| 4) Chloromethane               | 3.14 | 50   | 193869   | 2.289 | ppbv   | 99     |
| 5) Vinyl Chloride              | 3.25 | 62   | 194112   | 2.088 | ppbv   | 96     |
| 6) Bromomethane                | 3.47 | 94   | 116199   | 2.100 | ppbv   | 96     |
| 7) Chloroethane                | 3.55 | 64   | 68541    | 2.060 | ppbv   | 89     |
| 8) Dichlorotetrafluoroethane   | 3.18 | 85   | 456359   | 1.973 | ppbv   | 96     |
| 9) Propene                     | 3.01 | 41   | 176173   | 2.173 | ppbv   | 94     |
| 10) Heptane                    | 8.13 | 43   | 437861   | 2.219 | ppbv   | 99     |
| 11) Trichlorofluoromethane     | 3.95 | 101  | 484728   | 2.029 | ppbv   | 98     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.49 | 101  | 361389   | 2.127 | ppbv   | 99     |
| 13) Ethanol                    | 3.61 | 45   | 40297m   | 3.111 | ppbv   |        |
| 14) Bromoethene                | 3.74 | 108  | 156781   | 2.197 | ppbv   | 99     |
| 15) Acetone                    | 3.85 | 43   | 601752   | 4.056 | ppbv # | 78     |
| 16) 1,3-Butadiene              | 3.32 | 39   | 182055   | 2.111 | ppbv   | 97     |
| 17) tert-Butyl alcohol         | 4.29 | 59   | 322095   | 2.377 | ppbv   | 99     |
| 18) 1,1-Dichloroethene         | 4.29 | 96   | 152501   | 2.018 | ppbv   | 99     |
| 19) Isopropyl Alcohol          | 3.97 | 45   | 201750m  | 2.281 | ppbv   |        |
| 20) Methylene Chloride         | 4.34 | 84   | 172022   | 1.859 | ppbv   | 96     |
| 21) Allyl Chloride             | 4.41 | 41   | 223047   | 2.019 | ppbv   | 99     |
| 22) trans-1,2-Dichloroethene   | 4.88 | 96   | 143818   | 1.906 | ppbv   | 97     |
| 23) Vinyl Acetate              | 5.07 | 43   | 425897   | 2.070 | ppbv # | 98     |
| 24) 1,1-Dichloroethane         | 5.01 | 63   | 318762   | 1.927 | ppbv   | 96     |
| 25) Ethyl Acetate              | 5.68 | 43   | 715077   | 2.212 | ppbv   | 99     |
| 26) Hexane                     | 5.69 | 57   | 392266   | 2.365 | ppbv   | 98     |
| 27) Carbon Disulfide           | 4.55 | 76   | 319521   | 2.042 | ppbv   | 98     |
| 28) Methyl tert-Butyl Ether    | 5.04 | 73   | 349613   | 1.879 | ppbv   | 99     |
| 29) Chloroform                 | 5.75 | 83   | 544470   | 2.188 | ppbv   | 94     |
| 30) Cyclohexane                | 7.13 | 84   | 306708   | 2.261 | ppbv   | 88     |
| 31) cis-1,2-Dichloroethene     | 5.55 | 61   | 328273   | 2.202 | ppbv   | 97     |
| 32) 1,1,1-Trichloroethane      | 6.51 | 97   | 536075   | 2.020 | ppbv   | 99     |
| 34) 2-Butanone                 | 5.25 | 43   | 386862   | 2.475 | ppbv # | 88     |
| 35) Carbon Tetrachloride       | 7.02 | 117  | 566329   | 2.119 | ppbv   | 98     |
| 36) Benzene                    | 6.90 | 78   | 742312   | 2.275 | ppbv   | 97     |
| 37) 1,2-Dichloroethane         | 6.31 | 62   | 380092   | 2.033 | ppbv   | 98     |
| 38) Trichloroethene            | 7.84 | 130  | 320667   | 2.058 | ppbv   | 96     |
| 39) 1,2-Dichloropropane        | 7.62 | 63   | 278145   | 2.303 | ppbv   | 97     |
| 40) 1,4-Dioxane                | 7.85 | 88   | 74728m   | 2.272 | ppbv   |        |
| 41) Tetrahydrofuran            | 6.06 | 42   | 153218   | 2.109 | ppbv   | 97     |
| 42) Bromodichloromethane       | 7.80 | 83   | 541652   | 2.099 | ppbv   | 100    |
| 43) Methyl Methacrylate        | 8.02 | 69   | 242587m  | 2.163 | ppbv   |        |

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 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.87  | 57   | 1208000  | 2.205 | ppbv   | 100      |
| 45) t-1,3-Dichloropropene     | 9.28  | 75   | 187788   | 1.923 | ppbv   | 100      |
| 46) cis-1,3-Dichloropropene   | 8.71  | 75   | 288326   | 2.152 | ppbv   | 98       |
| 47) 1,1,2-Trichloroethane     | 9.48  | 97   | 307917   | 2.224 | ppbv   | 93       |
| 48) Dibromochloromethane      | 10.31 | 129  | 482113   | 2.216 | ppbv   | 99       |
| 49) Bromoform                 | 13.05 | 173  | 388536m  | 2.365 | ppbv   |          |
| 50) 4-Methyl-2-Pentanone      | 8.76  | 43   | 505427   | 2.375 | ppbv   | 100      |
| 51) 2-Hexanone                | 10.16 | 43   | 234427   | 2.266 | ppbv # | 99       |
| 52) Tetrachloroethene         | 11.23 | 164  | 316555   | 2.084 | ppbv   | 97       |
| 53) Toluene                   | 9.81  | 91   | 876621   | 2.243 | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.62 | 107  | 440064   | 2.216 | ppbv   | 96       |
| 56) 1,1,1,2-Tetrachloroethane | 12.13 | 131  | 367799   | 2.129 | ppbv # | 1        |
| 57) Chlorobenzene             | 12.16 | 112  | 712428   | 2.210 | ppbv   | 96       |
| 58) Ethyl Benzene             | 12.72 | 91   | 1182113  | 2.170 | ppbv   | 98       |
| 59) m/p-Xylene                | 13.00 | 91   | 2040588m | 4.420 | ppbv   |          |
| 60) o-Xylene                  | 13.70 | 91   | 988855   | 2.246 | ppbv   | 98       |
| 61) Styrene                   | 13.54 | 104  | 502674   | 2.217 | ppbv   | 98       |
| 62) Isopropylbenzene          | 14.67 | 105  | 1368999  | 2.182 | ppbv   | 97       |
| 63) 1,1,2,2-Tetrachloroethane | 13.69 | 83   | 656405   | 2.222 | ppbv   | 99       |
| 64) n-propylbenzene           | 15.57 | 120  | 359783   | 2.284 | ppbv   | 92       |
| 65) tert-Butylbenzene         | 16.75 | 119  | 1304612  | 2.329 | ppbv   | 99       |
| 66) Benzyl Chloride           | 17.00 | 91   | 51803m   | 2.005 | ppbv   |          |
| 67) sec-Butylbenzene          | 17.30 | 105  | 1728934  | 2.313 | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 17.66 | 119  | 1502438  | 2.378 | ppbv   | 99       |
| 70) n-Butylbenzene            | 18.56 | 91   | 1416096  | 2.422 | ppbv   | 99       |
| 71) 2-Chlorotoluene           | 15.46 | 91   | 999298   | 2.274 | ppbv   | 98       |
| 72) 4-Ethyltoluene            | 15.85 | 105  | 1150192  | 2.271 | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.01 | 105  | 1071244  | 2.197 | ppbv   | 98       |
| 74) 1,2,4-Trimethylbenzene    | 16.77 | 105  | 1209260  | 2.409 | ppbv   | 97       |
| 75) 1,3-Dichlorobenzene       | 17.00 | 146  | 712664   | 2.317 | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.15 | 146  | 733481m  | 2.372 | ppbv   |          |
| 77) 1,2-Dichlorobenzene       | 17.82 | 146  | 691054   | 2.314 | ppbv   | 98       |
| 78) Hexachloro-1,3-Butadiene  | 23.39 | 225  | 537580m  | 2.143 | ppbv   |          |
| 79) Naphthalene               | 22.21 | 128  | 1048297  | 2.591 | ppbv   | 98       |
| 80) Naphthalene, 2-methyl-    | 24.98 | 142  | 332040   | 3.145 | ppbv # | 91       |
| 81) 1,2,4-Trichlorobenzene    | 21.94 | 180  | 612386   | 2.584 | ppbv   | 99       |

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

