

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_L\Data\VL102323\  
 Data File : VL040786.D  
 Acq On : 23 Oct 2023 19:53  
 Operator : SY/MD  
 Sample : 04699-15 0.1 MDL  
 Misc : 400mL/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 MDL-AIR-03-QT4-2023DL

Manual Integrations  
 APPROVED

Reviewed By :Semsettin Yesilyurt 10/25/2023  
 Supervised By :Mahesh Dadoda 10/25/2023

Quant Time: Oct 24 16:12:29 2023

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL101123AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LFri Aug 2

QLast Update : Tue Oct 24 16:11:15 2023

Response via : Initial Calibration

| Compound                | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|-------------------------|--------|------|----------|--------|-------|----------|
| -----                   |        |      |          |        |       |          |
| Internal Standards      |        |      |          |        |       |          |
| 1) Bromochloromethane   | 5.182  | 49   | 861853   | 10.000 | ppbv  | -0.03    |
| 33) 1,4-Difluorobenzene | 6.639  | 114  | 2461969  | 10.000 | ppbv  | -0.03    |
| 55) Chlorobenzene-d5    | 11.446 | 117  | 1300102m | 10.000 | ppbv  | -0.03    |

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene 13.757 95 1687609 17.641 ppbv -0.03  
 Spiked Amount 10.000 Range 65 - 135 Recovery = 176.400%#

Target Compounds

|                               |       |     |        |       |        | Qvalue |
|-------------------------------|-------|-----|--------|-------|--------|--------|
| 2) Dichlorodifluoromethane    | 2.739 | 85  | 17978  | 0.118 | ppbv   | 97     |
| 3) Chlorodifluoromethane      | 2.684 | 51  | 14743  | 0.116 | ppbv   | 98     |
| 4) Chloromethane              | 2.822 | 50  | 5989   | 0.120 | ppbv # | 83     |
| 5) Vinyl Chloride             | 2.925 | 62  | 5926   | 0.115 | ppbv # | 73     |
| 6) Bromomethane               | 3.121 | 94  | 2795m  | 0.131 | ppbv   |        |
| 7) Chloroethane               | 3.202 | 64  | 1869m  | 0.111 | ppbv   |        |
| 8) Dichlorotetrafluoroethane  | 2.867 | 85  | 14012  | 0.122 | ppbv   | 94     |
| 9) Propene                    | 2.706 | 41  | 7099   | 0.151 | ppbv   | 92     |
| 10) Heptane                   | 7.562 | 43  | 12382  | 0.105 | ppbv   | 93     |
| 11) Trichlorofluoromethane    | 3.565 | 101 | 14748  | 0.126 | ppbv   | 88     |
| 12) 1,1,2-Trichlorotrifluo... | 4.063 | 101 | 10510m | 0.126 | ppbv   |        |
| 13) Ethanol                   | 3.266 | 45  | 2968m  | 0.279 | ppbv   |        |
| 14) Bromoethene               | 3.372 | 108 | 4274m  | 0.119 | ppbv   |        |
| 15) Acetone                   | 3.494 | 43  | 23087m | 0.259 | ppbv   |        |
| 16) 1,3-Butadiene             | 2.989 | 39  | 6098   | 0.130 | ppbv   | 91     |
| 17) tert-Butyl alcohol        | 3.906 | 59  | 12573m | 0.138 | ppbv   |        |
| 18) 1,1-Dichloroethene        | 3.877 | 96  | 4735m  | 0.126 | ppbv   |        |
| 19) Isopropyl Alcohol         | 3.607 | 45  | 9290m  | 0.162 | ppbv   |        |
| 20) Methylene Chloride        | 3.935 | 84  | 11780  | 0.317 | ppbv # | 76     |
| 21) Allyl Chloride            | 3.993 | 41  | 7642m  | 0.130 | ppbv   |        |
| 22) trans-1,2-Dichloroethene  | 4.439 | 96  | 4957m  | 0.124 | ppbv   |        |
| 23) Vinyl Acetate             | 4.639 | 43  | 13434m | 0.118 | ppbv   |        |
| 24) 1,1-Dichloroethane        | 4.555 | 63  | 10088  | 0.118 | ppbv # | 89     |
| 25) Ethyl Acetate             | 5.211 | 43  | 22825  | 0.117 | ppbv # | 97     |
| 26) Hexane                    | 5.208 | 57  | 15601  | 0.175 | ppbv   | 83     |
| 27) Carbon Disulfide          | 4.124 | 76  | 11449m | 0.116 | ppbv   |        |
| 28) Methyl tert-Butyl Ether   | 4.603 | 73  | 8562m  | 0.123 | ppbv   |        |
| 29) Chloroform                | 5.269 | 83  | 16332m | 0.127 | ppbv   |        |
| 30) Cyclohexane               | 6.590 | 84  | 7822m  | 0.103 | ppbv   |        |
| 31) cis-1,2-Dichloroethene    | 5.076 | 61  | 8522   | 0.104 | ppbv   | 98     |
| 32) 1,1,1-Trichloroethane     | 5.992 | 97  | 13586  | 0.099 | ppbv # | 89     |
| 34) 2-Butanone                | 4.806 | 43  | 15900m | 0.143 | ppbv   |        |
| 35) Carbon Tetrachloride      | 6.481 | 117 | 14555m | 0.105 | ppbv   |        |
| 36) Benzene                   | 6.359 | 78  | 22395m | 0.118 | ppbv   |        |
| 37) 1,2-Dichloroethane        | 5.800 | 62  | 12526m | 0.129 | ppbv   |        |
| 38) Trichloroethene           | 7.285 | 130 | 9553m  | 0.114 | ppbv   |        |
| 39) 1,2-Dichloropropane       | 7.053 | 63  | 9265m  | 0.125 | ppbv   |        |
| 40) 1,4-Dioxane               | 7.324 | 88  | 4400m  | 0.157 | ppbv   |        |
| 41) Tetrahydrofuran           | 5.587 | 42  | 8446m  | 0.109 | ppbv   |        |
| 42) Bromodichloromethane      | 7.234 | 83  | 14116  | 0.097 | ppbv # | 98     |
| 43) Methyl Methacrylate       | 7.471 | 69  | 8134m  | 0.107 | ppbv   |        |
| 44) 2,2,4-Trimethylpentane    | 7.314 | 57  | 35965m | 0.112 | ppbv   |        |
| 45) t-1,3-Dichloropropene     | 8.693 | 75  | 4269m  | 0.071 | ppbv   |        |

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Quant Time: Oct 24 16:12:29 2023

Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_L\methods\VL101123AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 2

QLast Update : Tue Oct 24 16:11:15 2023

Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| 46) cis-1,3-Dichloropropene   | 8.140  | 75   | 6099m    | 0.083 | ppbv  |          |
| 47) 1,1,2-Trichloroethane     | 8.880  | 97   | 9087m    | 0.117 | ppbv  |          |
| 48) Dibromochloromethane      | 9.696  | 129  | 12205m   | 0.094 | ppbv  |          |
| 49) Bromoform                 | 12.388 | 173  | 8408m    | 0.079 | ppbv  |          |
| 50) 4-Methyl-2-Pentanone      | 8.201  | 43   | 19125m   | 0.100 | ppbv  |          |
| 51) 2-Hexanone                | 9.581  | 43   | 11783m   | 0.081 | ppbv  |          |
| 52) Tetrachloroethene         | 10.597 | 164  | 8407m    | 0.109 | ppbv  |          |
| 53) Toluene                   | 9.205  | 91   | 21814    | 0.097 | ppbv  | 92       |
| 54) 1,2-Dibromoethane         | 9.995  | 107  | 12098m   | 0.111 | ppbv  |          |
| 56) 1,1,1,2-Tetrachloroethane | 11.481 | 131  | 8998m    | 0.170 | ppbv  |          |
| 57) Chlorobenzene             | 11.507 | 112  | 20159m   | 0.216 | ppbv  |          |
| 58) Ethyl Benzene             | 12.069 | 91   | 30057    | 0.184 | ppbv  | 95       |
| 59) m/p-Xylene                | 12.352 | 91   | 48420m   | 0.359 | ppbv  |          |
| 60) o-Xylene                  | 13.034 | 91   | 23913m   | 0.186 | ppbv  |          |
| 61) Styrene                   | 12.870 | 104  | 11745m   | 0.165 | ppbv  |          |
| 62) Isopropylbenzene          | 14.011 | 105  | 37907m   | 0.192 | ppbv  |          |
| 63) 1,1,2,2-Tetrachloroethane | 13.037 | 83   | 19995m   | 0.208 | ppbv  |          |
| 64) n-propylbenzene           | 14.892 | 120  | 7958m    | 0.150 | ppbv  |          |
| 65) tert-Butylbenzene         | 16.072 | 119  | 33062m   | 0.186 | ppbv  |          |
| 66) Benzyl Chloride           | 16.326 | 91   | 1737m    | 0.097 | ppbv  |          |
| 67) sec-Butylbenzene          | 16.619 | 105  | 49222m   | 0.202 | ppbv  |          |
| 69) p-Isopropyltoluene        | 16.976 | 119  | 37059m   | 0.181 | ppbv  |          |
| 70) n-Butylbenzene            | 17.870 | 91   | 33698m   | 0.168 | ppbv  |          |
| 71) 2-Chlorotoluene           | 14.786 | 91   | 28791m   | 0.194 | ppbv  |          |
| 72) 4-Ethyltoluene            | 15.179 | 105  | 27480m   | 0.183 | ppbv  |          |
| 73) 1,3,5-Trimethylbenzene    | 15.333 | 105  | 23481m   | 0.177 | ppbv  |          |
| 74) 1,2,4-Trimethylbenzene    | 16.092 | 105  | 29280m   | 0.202 | ppbv  |          |
| 75) 1,3-Dichlorobenzene       | 16.307 | 146  | 18302m   | 0.204 | ppbv  |          |
| 76) 1,4-Dichlorobenzene       | 16.458 | 146  | 18713m   | 0.210 | ppbv  |          |
| 77) 1,2-Dichlorobenzene       | 17.124 | 146  | 18973m   | 0.215 | ppbv  |          |
| 78) Hexachloro-1,3-Butadiene  | 22.612 | 225  | 13185m   | 0.209 | ppbv  |          |
| 79) Naphthalene               | 21.374 | 128  | 8938m    | 0.076 | ppbv  |          |
| 81) 1,2,4-Trichlorobenzene    | 21.120 | 180  | 7051m    | 0.110 | ppbv  |          |

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

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