

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL050720\  
 Data File : VL034979.D  
 Acq On : 7 May 2020 22:32  
 Operator : SY/AP  
 Sample : L2182-15 0.4  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 MDL-AIR-01-QT2-2020

Manual Integrations  
 APPROVED

MMDadoda  
 5/8/2020 5:22:51 PM

Quant Time: May 08 15:14:23 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed May 0  
 QLast Update : Wed May 06 14:49:39 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.66  | 49   | 1012222  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.19  | 114  | 2361508  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.12 | 117  | 2149003  | 10.00 | ppbv  | 0.00     |

## System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.46  | 95    | 1817149  | 10.45    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 104.50% |

## Target Compounds

| Target Compounds               | R.T. | QIon | Response | Conc  | Units  | Ovalue |
|--------------------------------|------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.01 | 85   | 93885    | 0.654 | ppbv   | 92     |
| 3) Chlorodifluoromethane       | 2.95 | 51   | 53517    | 0.463 | ppbv   | 97     |
| 4) Chloromethane               | 3.10 | 50   | 29550    | 0.446 | ppbv   | 100    |
| 5) Vinyl Chloride              | 3.22 | 62   | 29063    | 0.450 | ppbv # | 76     |
| 6) Bromomethane                | 3.44 | 94   | 17179    | 0.445 | ppbv   | 94     |
| 7) Chloroethane                | 3.53 | 64   | 10923m   | 0.471 | ppbv   |        |
| 8) Dichlorotetrafluoroethane   | 3.15 | 85   | 76186    | 0.512 | ppbv   | 100    |
| 9) Propene                     | 2.97 | 41   | 19206    | 0.383 | ppbv   | 94     |
| 10) Heptane                    | 8.14 | 43   | 39756    | 0.316 | ppbv   | 96     |
| 11) Trichlorofluoromethane     | 3.93 | 101  | 73391m   | 0.495 | ppbv   |        |
| 12) 1,1,2-Trichlorotrifluoroet | 4.47 | 101  | 52412    | 0.497 | ppbv   | 96     |
| 13) Ethanol                    | 3.59 | 45   | 8379m    | 0.506 | ppbv   |        |
| 14) Bromoethene                | 3.72 | 108  | 19543    | 0.448 | ppbv # | 97     |
| 15) Acetone                    | 3.84 | 43   | 71941    | 0.538 | ppbv   | 92     |
| 16) 1,3-Butadiene              | 3.29 | 39   | 23266m   | 0.404 | ppbv   |        |
| 17) tert-Butyl alcohol         | 4.29 | 59   | 47507m   | 0.399 | ppbv   |        |
| 18) 1,1-Dichloroethene         | 4.27 | 96   | 21352m   | 0.467 | ppbv   |        |
| 19) Isopropyl Alcohol          | 3.96 | 45   | 39812m   | 0.446 | ppbv   |        |
| 20) Methylene Chloride         | 4.32 | 84   | 24074    | 0.543 | ppbv # | 78     |
| 21) Allyl Chloride             | 4.40 | 41   | 31957    | 0.423 | ppbv   | 94     |
| 22) trans-1,2-Dichloroethene   | 4.88 | 96   | 19408    | 0.428 | ppbv # | 87     |
| 23) Vinyl Acetate              | 5.07 | 43   | 59700m   | 0.352 | ppbv   |        |
| 24) 1,1-Dichloroethane         | 5.00 | 63   | 59209m   | 0.453 | ppbv   |        |
| 25) Ethyl Acetate              | 5.68 | 43   | 91365    | 0.406 | ppbv   | 98     |
| 26) Hexane                     | 5.68 | 57   | 35090    | 0.360 | ppbv # | 75     |
| 27) Carbon Disulfide           | 4.54 | 76   | 43380    | 0.378 | ppbv # | 80     |
| 28) Methyl tert-Butyl Ether    | 5.04 | 73   | 50528    | 0.340 | ppbv   | 91     |
| 29) Chloroform                 | 5.75 | 83   | 74214    | 0.465 | ppbv   | 95     |
| 30) Cyclohexane                | 7.14 | 84   | 27324m   | 0.363 | ppbv   |        |
| 31) cis-1,2-Dichloroethene     | 5.54 | 61   | 31950m   | 0.336 | ppbv   |        |
| 32) 1,1,1-Trichloroethane      | 6.52 | 97   | 62995    | 0.437 | ppbv   | 97     |
| 34) 2-Butanone                 | 5.25 | 43   | 49974    | 0.340 | ppbv   | 94     |
| 35) Carbon Tetrachloride       | 7.03 | 117  | 63307m   | 0.425 | ppbv   |        |
| 36) Benzene                    | 6.90 | 78   | 64788    | 0.333 | ppbv   | 94     |
| 37) 1,2-Dichloroethane         | 6.31 | 62   | 54178    | 0.451 | ppbv   | 97     |
| 38) Trichloroethene            | 7.85 | 130  | 27132m   | 0.360 | ppbv   |        |
| 39) 1,2-Dichloropropane        | 7.63 | 63   | 32050m   | 0.411 | ppbv   |        |
| 40) 1,4-Dioxane                | 7.88 | 88   | 11224m   | 0.354 | ppbv   |        |
| 41) Tetrahydrofuran            | 6.08 | 42   | 23344m   | 0.302 | ppbv   |        |
| 42) Bromodichloromethane       | 7.81 | 83   | 66287    | 0.409 | ppbv # | 85     |
| 43) Methyl Methacrylate        | 8.03 | 69   | 22776    | 0.277 | ppbv   | 92     |

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 QLast Update : Wed May 06 14:49:39 2020  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.88  | 57   | 119233   | 0.344 | ppbv # | 93       |
| 45) t-1,3-Dichloropropene     | 9.30  | 75   | 20175m   | 0.243 | ppbv   |          |
| 46) cis-1,3-Dichloropropene   | 8.73  | 75   | 27516m   | 0.270 | ppbv   |          |
| 47) 1,1,2-Trichloroethane     | 9.50  | 97   | 34866m   | 0.423 | ppbv   |          |
| 48) Dibromochloromethane      | 10.33 | 129  | 45495    | 0.359 | ppbv   | 96       |
| 49) Bromoform                 | 13.09 | 173  | 38389m   | 0.352 | ppbv   |          |
| 50) 4-Methyl-2-Pentanone      | 8.78  | 43   | 64287    | 0.307 | ppbv   | 96       |
| 51) 2-Hexanone                | 10.18 | 43   | 45142m   | 0.276 | ppbv   |          |
| 52) Tetrachloroethene         | 11.25 | 164  | 24990m   | 0.361 | ppbv   |          |
| 53) Toluene                   | 9.83  | 91   | 50510    | 0.245 | ppbv   | 96       |
| 54) 1,2-Dibromoethane         | 10.64 | 107  | 45254m   | 0.374 | ppbv   |          |
| 56) 1,1,1,2-Tetrachloroethane | 12.16 | 131  | 40969m   | 0.423 | ppbv   |          |
| 57) Chlorobenzene             | 12.18 | 112  | 81835    | 0.481 | ppbv # | 87       |
| 58) Ethyl Benzene             | 12.75 | 91   | 78510m   | 0.295 | ppbv   |          |
| 59) m/p-Xylene                | 13.03 | 91   | 172177m  | 0.736 | ppbv   |          |
| 60) o-Xylene                  | 13.73 | 91   | 78543m   | 0.340 | ppbv   |          |
| 61) Styrene                   | 13.57 | 104  | 34169m   | 0.234 | ppbv   |          |
| 62) Isopropylbenzene          | 14.71 | 105  | 121906   | 0.354 | ppbv   | 98       |
| 63) 1,1,2,2-Tetrachloroethane | 13.72 | 83   | 87426m   | 0.481 | ppbv   |          |
| 64) n-propylbenzene           | 15.61 | 120  | 29599m   | 0.335 | ppbv   |          |
| 65) tert-Butylbenzene         | 16.80 | 119  | 95430m   | 0.319 | ppbv   |          |
| 66) Benzyl Chloride           | 17.04 | 91   | 32061m   | 0.316 | ppbv   |          |
| 67) sec-Butylbenzene          | 17.34 | 105  | 148253m  | 0.348 | ppbv   |          |
| 69) p-Isopropyltoluene        | 17.71 | 119  | 104242   | 0.302 | ppbv   | 95       |
| 70) n-Butylbenzene            | 18.61 | 91   | 119292m  | 0.325 | ppbv   |          |
| 71) 2-Chlorotoluene           | 15.50 | 91   | 81522m   | 0.314 | ppbv   |          |
| 72) 4-Ethyltoluene            | 15.88 | 105  | 79540m   | 0.309 | ppbv   |          |
| 73) 1,3,5-Trimethylbenzene    | 16.04 | 105  | 77036m   | 0.308 | ppbv   |          |
| 74) 1,2,4-Trimethylbenzene    | 16.81 | 105  | 97068m   | 0.355 | ppbv   |          |
| 75) 1,3-Dichlorobenzene       | 17.05 | 146  | 76533m   | 0.477 | ppbv   |          |
| 76) 1,4-Dichlorobenzene       | 17.19 | 146  | 64504m   | 0.423 | ppbv   |          |
| 77) 1,2-Dichlorobenzene       | 17.88 | 146  | 64440m   | 0.426 | ppbv   |          |
| 78) Hexachloro-1,3-Butadiene  | 23.44 | 225  | 48765m   | 0.378 | ppbv   |          |
| 79) Naphthalene               | 22.28 | 128  | 34233m   | 0.161 | ppbv   |          |
| 81) 1,2,4-Trichlorobenzene    | 22.01 | 180  | 32155m   | 0.249 | ppbv   |          |

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

