

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN081723\  
 Data File : VN078918.D  
 Acq On : 17 Aug 2023 11:50  
 Operator : JC\MD  
 Sample : VSTDICC100  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC100

Quant Time: Aug 18 05:02:38 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N081723W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Aug 18 05:01:29 2023  
 Response via : Initial Calibration

### Manual Integrations APPROVED

Reviewed By : John Carlone 08/18/2023  
 Supervised By : Semsettin Yesilyurt 08/18/2023

| Compound                     | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|------------------------------|--------|-------|----------|----------|--------|----------|
| -----                        |        |       |          |          |        |          |
| Internal Standards           |        |       |          |          |        |          |
| 1) Bromochloromethane        | 7.824  | 128   | 46688    | 30.000   | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene      | 9.106  | 114   | 262095   | 30.000   | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 11.870 | 117   | 238370   | 30.000   | ug/l   | 0.00     |
| System Monitoring Compounds  |        |       |          |          |        |          |
| 27) 1,2-Dichloroethane-d4    | 8.582  | 65    | 111269   | 29.417   | ug/l   | 0.00     |
| Spiked Amount                | 30.000 | Range | 91 - 110 | Recovery | =      | 98.067%  |
| 60) 4-Bromofluorobenzene     | 12.853 | 95    | 110004   | 31.636   | ug/l   | 0.00     |
| Spiked Amount                | 30.000 | Range | 63 - 112 | Recovery | =      | 105.467% |
| 63) Toluene-d8               | 10.571 | 98    | 328784   | 29.536   | ug/l   | 0.00     |
| Spiked Amount                | 30.000 | Range | 91 - 112 | Recovery | =      | 98.467%  |
| Target Compounds             |        |       |          |          |        |          |
|                              |        |       |          |          | Qvalue |          |
| 2) Dichlorodifluoromethane   | 2.124  | 85    | 288918   | 98.068   | ug/l   | 99       |
| 3) Chloromethane             | 2.365  | 50    | 331544   | 93.902   | ug/l   | 96       |
| 4) Vinyl Chloride            | 2.512  | 62    | 339619   | 97.187   | ug/l   | 99       |
| 5) Bromomethane              | 2.936  | 94    | 198678   | 92.108   | ug/l   | 100      |
| 6) Chloroethane              | 3.106  | 64    | 210935   | 92.888   | ug/l   | 98       |
| 7) Trichlorofluoromethane    | 3.489  | 101   | 457859   | 97.280   | ug/l   | 99       |
| 8) Diethyl Ether             | 3.959  | 74    | 181000   | 102.248  | ug/l   | 93       |
| 9) 1,1,2-Trichlorotrifluo... | 4.371  | 101   | 240259   | 97.847   | ug/l   | 92       |
| 10) 1,1-Dichloroethene       | 4.336  | 96    | 246772   | 99.091   | ug/l # | 88       |
| 11) Methyl Iodide            | 4.589  | 142   | 325838   | 109.187  | ug/l   | 94       |
| 12) Methyl Acetate           | 5.030  | 43    | 555069   | 95.758   | ug/l   | 100      |
| 13) Acrolein                 | 4.183  | 56    | 164948   | 408.258  | ug/l   | 97       |
| 14) Acrylonitrile            | 5.724  | 53    | 755284   | 495.673  | ug/l # | 92       |
| 15) Acetone                  | 4.430  | 58    | 312999   | 668.873  | ug/l   | 93       |
| 16) Carbon Disulfide         | 4.712  | 76    | 689783   | 97.076   | ug/l   | 96       |
| 17) Allyl chloride           | 5.024  | 41    | 451319   | 101.593  | ug/l   | 96       |
| 18) Methylene Chloride       | 5.277  | 84    | 287074   | 97.103   | ug/l # | 88       |
| 19) trans-1,2-Dichloroethene | 5.783  | 96    | 272867   | 98.038   | ug/l   | 97       |
| 20) Diisopropyl ether        | 6.677  | 45    | 1044661  | 105.951  | ug/l   | 91       |
| 21) 1,1-Dichloroethane       | 6.571  | 63    | 547506   | 100.071  | ug/l   | 95       |
| 22) cis-1,2-Dichloroethene   | 7.494  | 96    | 320792   | 100.703  | ug/l   | 98       |
| 23) tert-Butyl Alcohol       | 5.530  | 59    | 270047   | 475.115  | ug/l # | 100      |
| 24) Methyl tert-Butyl Ether  | 5.794  | 73    | 898577   | 102.312  | ug/l   | 99       |
| 25) Chloroform               | 7.971  | 83    | 543759   | 98.656   | ug/l   | 95       |
| 26) Cyclohexane              | 8.265  | 56    | 405621   | 101.350  | ug/l # | 98       |
| 29) 1,1-Dichloropropene      | 8.377  | 75    | 418346   | 104.926  | ug/l   | 99       |
| 30) 2-Butanone               | 7.488  | 43    | 1317908  | 564.643  | ug/l   | 99       |
| 31) 2,2-Dichloropropane      | 7.494  | 77    | 477752   | 108.422  | ug/l   | 99       |
| 32) 1,1,1-Trichloroethane    | 8.171  | 97    | 473353   | 99.441   | ug/l   | 99       |
| 33) Carbon Tetrachloride     | 8.365  | 117   | 421275   | 102.174  | ug/l   | 98       |
| 34) Benzene                  | 8.612  | 78    | 1199946  | 100.430  | ug/l   | 99       |
| 35) Methacrylonitrile        | 7.782  | 41    | 238980   | 96.065   | ug/l   | 96       |
| 36) 1,2-Dichloroethane       | 8.677  | 62    | 450347   | 100.652  | ug/l   | 96       |
| 37) Trichloroethene          | 9.359  | 130   | 301381   | 101.335  | ug/l   | 93       |
| 38) Methylcyclohexane        | 9.606  | 83    | 340223   | 96.925   | ug/l   | 97       |
| 39) 1,2-Dichloropropane      | 9.624  | 63    | 324423   | 100.804  | ug/l   | 99       |
| 40) Dibromomethane           | 9.712  | 93    | 209938   | 97.315   | ug/l   | 98       |
| 41) Bromodichloromethane     | 9.894  | 83    | 442915   | 102.092  | ug/l   | 98       |
| 42) Vinyl Acetate            | 6.606  | 43    | 3435804  | 522.103  | ug/l   | 99       |

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 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC100

Quant Time: Aug 18 05:02:38 2023  
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Manual Integrations  
 APPROVED

Reviewed By : John Carlone 08/18/2023  
 Supervised By : Semsettin Yesilyurt 08/18/2023

| Compound                      | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|-------------------------------|--------|------|----------|----------|-------|----------|
| 43) Ethyl Acetate             | 7.565  | 43   | 434181   | 97.818   | ug/l  | 97       |
| 44) Isopropyl Acetate         | 8.694  | 43   | 784234   | 98.291   | ug/l  | 100      |
| 45) 1,4-Dioxane               | 9.700  | 88   | 117719   | 1960.649 | ug/l  | 97       |
| 46) Methyl methacrylate       | 9.688  | 41   | 374338   | 106.487  | ug/l  | 90       |
| 47) n-amyl Acetate            | 12.500 | 43   | 692388   | 113.086  | ug/l  | 100      |
| 48) t-1,3-Dichloropropene     | 10.841 | 75   | 503842   | 109.042  | ug/l  | 100      |
| 49) cis-1,3-Dichloropropene   | 10.318 | 75   | 526149   | 106.193  | ug/l  | 97       |
| 50) 1,1,2-Trichloroethane     | 11.018 | 97   | 287414   | 98.588   | ug/l  | 97       |
| 51) Ethyl methacrylate        | 10.876 | 69   | 487064   | 107.943  | ug/l  | 97       |
| 52) 1,3-Dichloropropane       | 11.165 | 76   | 525567   | 100.652  | ug/l  | 100      |
| 53) Dibromochloromethane      | 11.365 | 129  | 329650   | 103.314  | ug/l  | 97       |
| 54) 1,2-Dibromoethane         | 11.476 | 107  | 303014   | 101.240  | ug/l  | 94       |
| 55) 2-Chloroethyl vinyl ether | 10.165 | 63   | 1040755  | 499.017  | ug/l  | 99       |
| 56) Bromoform                 | 12.582 | 173  | 241830   | 107.421  | ug/l  | 99       |
| 58) 4-Methyl-2-Pentanone      | 10.447 | 43   | 2325716  | 491.763  | ug/l  | 99       |
| 59) 2-Hexanone                | 11.200 | 43   | 1863488  | 537.786  | ug/l  | 100      |
| 61) Tetrachloroethene         | 11.106 | 164  | 228854   | 99.156   | ug/l  | 98       |
| 62) Toluene                   | 10.635 | 91   | 1305328  | 100.303  | ug/l  | 98       |
| 64) Chlorobenzene             | 11.894 | 112  | 781252   | 99.845   | ug/l  | 94       |
| 65) 1,1,1,2-Tetrachloroethane | 11.965 | 131  | 300748   | 100.522  | ug/l  | 97       |
| 66) Ethyl Benzene             | 11.970 | 91   | 1428239  | 104.921  | ug/l  | 98       |
| 67) m/p-Xylenes               | 12.076 | 106  | 1078417  | 212.473  | ug/l  | 99       |
| 68) o-Xylene                  | 12.400 | 106  | 529903   | 105.886  | ug/l  | 99       |
| 69) Styrene                   | 12.417 | 104  | 899846   | 110.659  | ug/l  | 98       |
| 70) Isopropylbenzene          | 12.700 | 105  | 1272450  | 104.938  | ug/l  | 98       |
| 71) 1,1,2,2-Tetrachloroethane | 12.941 | 83   | 439057   | 96.590   | ug/l  | 100      |
| 72) 1,2,3-Trichloropropane    | 13.000 | 75   | 362759m  | 91.071   | ug/l  |          |
| 73) Bromobenzene              | 12.982 | 156  | 322405   | 104.439  | ug/l  | 98       |
| 74) n-propylbenzene           | 13.041 | 91   | 1473704  | 107.238  | ug/l  | 100      |
| 75) 2-Chlorotoluene           | 13.129 | 91   | 913532   | 104.786  | ug/l  | 100      |
| 76) 1,3,5-Trimethylbenzene    | 13.176 | 105  | 998674   | 103.896  | ug/l  | 100      |
| 77) t-1,4-Dichloro-2-butene   | 12.741 | 75   | 156162   | 112.686  | ug/l  | 88       |
| 78) 4-Chlorotoluene           | 13.229 | 91   | 929410   | 111.276  | ug/l  | 100      |
| 79) tert-butylbenzene         | 13.441 | 119  | 834248   | 102.707  | ug/l  | 97       |
| 80) 1,2,4-Trimethylbenzene    | 13.488 | 105  | 1016910  | 107.591  | ug/l  | 100      |
| 81) sec-Butylbenzene          | 13.623 | 105  | 1094106  | 102.064  | ug/l  | 98       |
| 82) p-Isopropyltoluene        | 13.735 | 119  | 914853   | 104.529  | ug/l  | 99       |
| 83) 1,3-Dichlorobenzene       | 13.735 | 146  | 558331   | 112.071  | ug/l  | 97       |
| 84) 1,4-Dichlorobenzene       | 13.817 | 146  | 564033   | 115.315  | ug/l  | 98       |
| 85) n-Butylbenzene            | 14.059 | 91   | 773163   | 112.319  | ug/l  | 99       |
| 86) Hexachloroethane          | 14.341 | 117  | 180404   | 100.739  | ug/l  | 94       |
| 87) 1,2-Dichlorobenzene       | 14.111 | 146  | 548220   | 107.439  | ug/l  | 99       |
| 88) 1,2-Dibromo-3-Chloropr... | 14.723 | 75   | 83475    | 102.315  | ug/l  | 93       |
| 89) 1,2,4-Trichlorobenzene    | 15.847 | 180  | 225975   | 112.108  | ug/l  | 99       |
| 90) Hexachlorobutadiene       | 15.505 | 225  | 95343    | 90.875   | ug/l  | 97       |
| 91) Naphthalene               | 15.647 | 128  | 763092   | 131.290  | ug/l  | 98       |
| 92) 1,2,3-Trichlorobenzene    | 15.847 | 180  | 225975   | 112.137  | ug/l  | 99       |

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

