

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_X\Data\VX112823\  
 Data File : VX039044.D  
 Acq On : 28 Nov 2023 09:52  
 Operator : JC/MD  
 Sample : VSTDCCC020  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDCCC020

Manual Integrations  
 APPROVED

Reviewed By :John  
 Carlone

Quant Time: Nov 29 01:26:15 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\624X112423W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Mon Nov 27 03:22:25 2023  
 Response via : Initial Calibration

| Compound                     | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|------------------------------|--------|-------|----------|----------|--------|----------|
| -----                        |        |       |          |          |        |          |
| Internal Standards           |        |       |          |          |        |          |
| 1) Bromochloromethane        | 4.891  | 128   | 9838     | 30.000   | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene      | 6.757  | 114   | 78201    | 30.000   | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 10.049 | 117   | 96964    | 30.000   | ug/l   | 0.00     |
| System Monitoring Compounds  |        |       |          |          |        |          |
| 27) 1,2-Dichloroethane-d4    | 5.946  | 65    | 42209    | 31.361   | ug/l   | 0.00     |
| Spiked Amount                | 30.000 | Range | 91 - 110 | Recovery | =      | 104.533% |
| 60) 4-Bromofluorobenzene     | 11.079 | 95    | 62842    | 29.672   | ug/l   | 0.00     |
| Spiked Amount                | 30.000 | Range | 63 - 112 | Recovery | =      | 98.900%  |
| 63) Toluene-d8               | 8.647  | 98    | 115306   | 30.078   | ug/l   | 0.00     |
| Spiked Amount                | 30.000 | Range | 91 - 112 | Recovery | =      | 100.267% |
| Target Compounds             |        |       |          |          |        |          |
|                              |        |       |          |          |        | Qvalue   |
| 2) Dichlorodifluoromethane   | 1.166  | 85    | 30099    | 20.441   | ug/l   | 100      |
| 3) Chloromethane             | 1.294  | 50    | 35198    | 20.876   | ug/l   | 97       |
| 4) Vinyl Chloride            | 1.374  | 62    | 35119    | 20.632   | ug/l   | 100      |
| 5) Bromomethane              | 1.611  | 94    | 25418    | 24.415   | ug/l   | 99       |
| 6) Chloroethane              | 1.691  | 64    | 21378    | 21.567   | ug/l   | 100      |
| 7) Trichlorofluoromethane    | 1.892  | 101   | 51835    | 22.064   | ug/l   | 95       |
| 8) Diethyl Ether             | 2.130  | 74    | 19798    | 21.954   | ug/l   | 98       |
| 9) 1,1,2-Trichlorotrifluo... | 2.331  | 101   | 27622    | 20.807   | ug/l   | 98       |
| 10) 1,1-Dichloroethene       | 2.319  | 96    | 27620    | 20.640   | ug/l   | 93       |
| 11) Methyl Iodide            | 2.453  | 142   | 29129    | 19.864   | ug/l   | 95       |
| 12) Methyl Acetate           | 2.697  | 43    | 87450    | 20.953   | ug/l   | 98       |
| 13) Acrolein                 | 2.233  | 56    | 44686    | 122.218  | ug/l   | 100      |
| 14) Acrylonitrile            | 3.056  | 53    | 108310   | 106.104  | ug/l   | 98       |
| 15) Acetone                  | 2.373  | 58    | 40606    | 109.435  | ug/l   | 95       |
| 16) Carbon Disulfide         | 2.514  | 76    | 83995    | 20.725   | ug/l   | 97       |
| 17) Allyl chloride           | 2.660  | 41    | 58611    | 22.063   | ug/l   | 96       |
| 18) Methylene Chloride       | 2.788  | 84    | 33955    | 21.406   | ug/l   | 98       |
| 19) trans-1,2-Dichloroethene | 3.087  | 96    | 32271    | 21.322   | ug/l   | 94       |
| 20) Diisopropyl ether        | 3.751  | 45    | 109573   | 21.674   | ug/l   | 98       |
| 21) 1,1-Dichloroethane       | 3.605  | 63    | 60382    | 21.482   | ug/l   | 98       |
| 22) cis-1,2-Dichloroethene   | 4.483  | 96    | 37025    | 21.109   | ug/l   | 99       |
| 23) tert-Butyl Alcohol       | 2.940  | 59    | 52062    | 92.127   | ug/l # | 100      |
| 24) Methyl tert-Butyl Ether  | 3.105  | 73    | 105399   | 21.381   | ug/l   | 97       |
| 25) Chloroform               | 5.086  | 83    | 60002    | 21.269   | ug/l   | 97       |
| 26) Cyclohexane              | 5.464  | 56    | 54677m   | 21.492   | ug/l   |          |
| 29) 1,1-Dichloropropene      | 5.684  | 75    | 46750    | 21.326   | ug/l   | 97       |
| 30) 2-Butanone               | 4.544  | 43    | 167185   | 101.293  | ug/l   | 100      |
| 31) 2,2-Dichloropropane      | 4.471  | 77    | 54057    | 21.567   | ug/l # | 78       |
| 32) 1,1,1-Trichloroethane    | 5.379  | 97    | 53463    | 21.100   | ug/l   | 98       |
| 33) Carbon Tetrachloride     | 5.672  | 117   | 44526    | 20.862   | ug/l   | 98       |
| 34) Benzene                  | 6.031  | 78    | 132781   | 20.793   | ug/l   | 97       |
| 35) Methacrylonitrile        | 4.903  | 41    | 30120    | 20.602   | ug/l   | 97       |
| 36) 1,2-Dichloroethane       | 6.080  | 62    | 49810    | 21.257   | ug/l   | 99       |
| 37) Trichloroethene          | 7.123  | 130   | 33777    | 20.840   | ug/l   | 92       |
| 38) Methylcyclohexane        | 7.373  | 83    | 57656    | 21.108   | ug/l   | 98       |
| 39) 1,2-Dichloropropane      | 7.427  | 63    | 36233    | 21.514   | ug/l   | 98       |
| 40) Dibromomethane           | 7.580  | 93    | 24138    | 20.285   | ug/l   | 98       |
| 41) Bromodichloromethane     | 7.818  | 83    | 48375    | 21.161   | ug/l   | 99       |
| 42) Vinyl Acetate            | 3.715  | 43    | 424972   | 108.103  | ug/l   | 100      |

11/29/2023  
 Supervised By :Mahesh  
 Radoda

11/29/2023

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 Acq On : 28 Nov 2023 09:52  
 Operator : JC/MD  
 Sample : VSTDCCC020  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDCCC020

Manual Integrations  
 APPROVED

Reviewed By :John  
 Carlone

Quant Time: Nov 29 01:26:15 2023  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_X\Method\624X112423W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Mon Nov 27 03:22:25 2023  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |                       |
|-------------------------------|--------|------|----------|---------|-------|----------|-----------------------|
| 43) Ethyl Acetate             | 4.702  | 43   | 55960    | 19.707  | ug/l  | 99       | 11/29/2023            |
| 44) Isopropyl Acetate         | 6.330  | 43   | 92882    | 20.750  | ug/l  | 99       | Supervised By :Mahesh |
| 45) 1,4-Dioxane               | 7.653  | 88   | 17726    | 387.907 | ug/l  | 98       | Dadoda                |
| 46) Methyl methacrylate       | 7.683  | 41   | 52592    | 20.549  | ug/l  | 99       |                       |
| 47) n-amyl Acetate            | 10.841 | 43   | 74970    | 19.788  | ug/l  | 100      |                       |
| 48) t-1,3-Dichloropropene     | 8.976  | 75   | 53535    | 20.196  | ug/l  | 97       |                       |
| 49) cis-1,3-Dichloropropene   | 8.360  | 75   | 56814    | 20.777  | ug/l  | 95       | 11/29/2023            |
| 50) 1,1,2-Trichloroethane     | 9.147  | 97   | 33349    | 20.631  | ug/l  | 96       |                       |
| 51) Ethyl methacrylate        | 9.110  | 69   | 41948    | 20.731  | ug/l  | 96       |                       |
| 52) 1,3-Dichloropropane       | 9.305  | 76   | 56406    | 20.350  | ug/l  | 99       |                       |
| 53) Dibromochloromethane      | 9.518  | 129  | 34965    | 20.141  | ug/l  | 99       |                       |
| 54) 1,2-Dibromoethane         | 9.604  | 107  | 36073    | 20.349  | ug/l  | 99       |                       |
| 55) 2-Chloroethyl vinyl ether | 8.238  | 63   | 128959   | 100.547 | ug/l  | 99       |                       |
| 56) Bromoform                 | 10.799 | 173  | 24404    | 19.477  | ug/l  | 98       |                       |
| 58) 4-Methyl-2-Pentanone      | 8.567  | 43   | 300109   | 102.064 | ug/l  | 99       |                       |
| 59) 2-Hexanone                | 9.427  | 43   | 245479   | 101.706 | ug/l  | 99       |                       |
| 61) Tetrachloroethene         | 9.269  | 164  | 26325    | 20.882  | ug/l  | 96       |                       |
| 62) Toluene                   | 8.714  | 91   | 145307   | 21.108  | ug/l  | 99       |                       |
| 64) Chlorobenzene             | 10.073 | 112  | 87216    | 20.828  | ug/l  | 97       |                       |
| 65) 1,1,1,2-Tetrachloroethane | 10.159 | 131  | 30939    | 20.515  | ug/l  | 99       |                       |
| 66) Ethyl Benzene             | 10.189 | 91   | 162423   | 20.720  | ug/l  | 98       |                       |
| 67) m/p-Xylenes               | 10.299 | 106  | 120918   | 41.744  | ug/l  | 100      |                       |
| 68) o-Xylene                  | 10.640 | 106  | 58230    | 20.753  | ug/l  | 100      |                       |
| 69) Styrene                   | 10.652 | 104  | 85191    | 20.515  | ug/l  | 99       |                       |
| 70) Isopropylbenzene          | 10.957 | 105  | 156878   | 20.897  | ug/l  | 100      |                       |
| 71) 1,1,2,2-Tetrachloroethane | 11.207 | 83   | 56764    | 20.254  | ug/l  | 99       |                       |
| 72) 1,2,3-Trichloropropane    | 11.238 | 75   | 51026m   | 21.516  | ug/l  |          |                       |
| 73) Bromobenzene              | 11.195 | 156  | 34728    | 20.318  | ug/l  | 98       |                       |
| 74) n-propylbenzene           | 11.305 | 91   | 192626   | 20.942  | ug/l  | 99       |                       |
| 75) 2-Chlorotoluene           | 11.360 | 91   | 112684   | 20.882  | ug/l  | 99       |                       |
| 76) 1,3,5-Trimethylbenzene    | 11.451 | 105  | 136913   | 21.170  | ug/l  | 99       |                       |
| 77) t-1,4-Dichloro-2-butene   | 11.018 | 75   | 18670    | 19.868  | ug/l  | 92       |                       |
| 78) 4-Chlorotoluene           | 11.451 | 91   | 134352   | 21.176  | ug/l  | 100      |                       |
| 79) tert-butylbenzene         | 11.713 | 119  | 129684   | 21.088  | ug/l  | 99       |                       |
| 80) 1,2,4-Trimethylbenzene    | 11.750 | 105  | 134873   | 20.837  | ug/l  | 99       |                       |
| 81) sec-Butylbenzene          | 11.890 | 105  | 161018   | 20.711  | ug/l  | 99       |                       |
| 82) p-Isopropyltoluene        | 12.006 | 119  | 136251   | 20.679  | ug/l  | 99       |                       |
| 83) 1,3-Dichlorobenzene       | 11.969 | 146  | 67949    | 20.773  | ug/l  | 98       |                       |
| 84) 1,4-Dichlorobenzene       | 12.042 | 146  | 70327    | 20.954  | ug/l  | 99       |                       |
| 85) n-Butylbenzene            | 12.329 | 91   | 133538   | 20.523  | ug/l  | 99       |                       |
| 86) Hexachloroethane          | 12.536 | 117  | 25107    | 20.110  | ug/l  | 98       |                       |
| 87) 1,2-Dichlorobenzene       | 12.335 | 146  | 66169    | 21.037  | ug/l  | 98       |                       |
| 88) 1,2-Dibromo-3-Chloropr... | 12.939 | 75   | 14406    | 20.099  | ug/l  | 98       |                       |
| 89) 1,2,4-Trichlorobenzene    | 13.585 | 180  | 42817    | 20.532  | ug/l  | 97       |                       |
| 90) Hexachlorobutadiene       | 13.725 | 225  | 15308    | 20.558  | ug/l  | 98       |                       |
| 91) Naphthalene               | 13.774 | 128  | 152054   | 19.771  | ug/l  | 99       |                       |
| 92) 1,2,3-Trichlorobenzene    | 13.963 | 180  | 41992    | 20.789  | ug/l  | 98       |                       |

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

Reviewed By :John  
Carlone

Abundance TIC: VX039044.D\data.ms

**Abstract**

