

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX120719\  
 Data File : VX0137844.D  
 Acq On : 07 Dec 2019 16:35  
 Operator : JC/SP  
 Sample : VSTDCCC020  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Dec 09 03:05:47 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X111119W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Tue Nov 12 01:16:13 2019  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 20% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

|      | Compound                    | AvqRF | CCRF   | %Dev  | Area% | Dev(min) |
|------|-----------------------------|-------|--------|-------|-------|----------|
| 1 I  | Bromochloromethane          | 1.000 | 1.000  | 0.0   | 80    | 0.00     |
| 2 M  | Dichlorodifluoromethane     | 2.248 | 2.160  | 3.9   | 80    | 0.00     |
| 3 M  | Chloromethane               | 2.450 | 2.305  | 5.9   | 79    | 0.00     |
| 4 M  | Vinyl Chloride              | 2.784 | 2.666  | 4.2   | 81    | 0.00     |
| 5 M  | Bromomethane                | 1.673 | 1.105  | 34.0# | 63    | 0.00     |
| 6 M  | Chloroethane                | 1.530 | 1.486  | 2.9   | 84    | 0.00     |
| 7 M  | Trichlorofluoromethane      | 2.997 | 2.822  | 5.8   | 82    | 0.00     |
| 8 T  | Diethyl Ether               | 1.368 | 1.337  | 2.3   | 85    | 0.00     |
| 9    | 1,1,2-Trichlorotrifluoroeth | 1.803 | 1.803  | 0.0   | 86    | 0.00     |
| 10 M | 1,1-Dichloroethene          | 1.853 | 1.800  | 2.9   | 85    | 0.00     |
| 11   | Methyl Iodide               | 2.288 | 1.228  | 46.3# | 49    | 0.00     |
| 12   | Methyl Acetate              | 3.247 | 3.148  | 3.0   | 84    | 0.00     |
| 13 M | Acrolein                    | 0.345 | 0.342  | 0.9   | 86    | 0.00     |
| 14 M | Acrylonitrile               | 1.194 | 1.084  | 9.2   | 79    | 0.00     |
| 15 M | Acetone                     | 0.362 | 0.285  | 21.3  | 60    | 0.00     |
| 16 M | Carbon Disulfide            | 5.168 | 4.631  | 10.4  | 79    | 0.00     |
| 17   | Allyl chloride              | 3.412 | 3.138  | 8.0   | 80    | 0.00     |
| 18 M | Methylene Chloride          | 2.102 | 2.075  | 1.3   | 87    | 0.00     |
| 19 M | trans-1,2-Dichloroethene    | 1.980 | 1.862  | 6.0   | 83    | 0.00     |
| 20 T | Diisopropyl ether           | 6.564 | 6.507  | 0.9   | 86    | 0.00     |
| 21 M | 1,1-Dichloroethane          | 3.575 | 3.512  | 1.8   | 86    | 0.00     |
| 22 M | cis-1,2-Dichloroethene      | 2.258 | 2.193  | 2.9   | 85    | 0.00     |
| 23 M | tert-Butyl Alcohol          | 0.575 | 0.406  | 29.4  | 65    | 0.00     |
| 24 M | Methyl tert-Butyl Ether     | 6.132 | 5.932  | 3.3   | 84    | 0.00     |
| 25 M | Chloroform                  | 3.500 | 3.419  | 2.3   | 85    | 0.00     |
| 26   | Cyclohexane                 | 3.247 | 3.117  | 4.0   | 85    | 0.00     |
| 27 s | 1,2-Dichloroethane-d4       | 2.215 | 2.111  | 4.7   | 79    | 0.00     |
| 28 I | 1,4-Difluorobenzene         | 1.000 | 1.000  | 0.0   | 80    | 0.00     |
| 29   | 1,1-Dichloropropene         | 0.458 | 0.459  | -0.2  | 85    | 0.00     |
| 30 M | 2-Butanone                  | 0.302 | 0.268  | 11.3  | 71    | 0.00     |
| 31   | 2,2-Dichloropropane         | 0.496 | 0.492  | 0.8   | 82    | 0.00     |
| 32 M | 1,1,1-Trichloroethane       | 0.509 | 0.511  | -0.4  | 84    | 0.00     |
| 33 M | Carbon Tetrachloride        | 0.442 | 0.433  | 2.0   | 81    | 0.00     |
| 34 M | Benzene                     | 1.390 | 1.437  | -3.4  | 86    | 0.00     |
| 35   | Methacrylonitrile           | 0.302 | 0.298  | 1.3   | 81    | 0.00     |
| 36 M | 1,2-Dichloroethane          | 0.486 | 0.494  | -1.6  | 84    | 0.00     |
| 37 M | Trichloroethene             | 0.372 | 0.375  | -0.8  | 85    | 0.00     |
| 38   | Methylcyclohexane           | 0.562 | 0.555  | 1.2   | 83    | 0.00     |
| 39 M | 1,2-Dichloropropane         | 0.359 | 0.367  | -2.2  | 86    | 0.00     |
| 40   | Dibromomethane              | 0.239 | 0.241  | -0.8  | 84    | 0.00     |
| 41 M | Bromodichloromethane        | 0.467 | 0.456  | 2.4   | 81    | 0.00     |
| 42 M | Vinyl Acetate               | 0.952 | 0.948  | 0.4   | 83    | 0.00     |
| 43   | Ethyl Acetate               | 0.552 | 0.517  | 6.3   | 77    | 0.00     |
| 44   | Isopropyl Acetate           | 0.887 | 0.857  | 3.4   | 82    | 0.00     |
| 45 T | 1,4-Dioxane                 | 0.010 | 0.006# | 40.0# | 53    | 0.00     |

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 Max. RRF Dev : 30% Max. Rel. Area : 150%

|      | Compound                    | AvqRF | CCRF  | %Dev | Area% | Dev(min) |
|------|-----------------------------|-------|-------|------|-------|----------|
| 46   | Methyl methacrylate         | 0.441 | 0.424 | 3.9  | 82    | 0.00     |
| 47   | n-amyl Acetate              | 0.778 | 0.754 | 3.1  | 84    | 0.00     |
| 48 M | t-1,3-Dichloropropene       | 0.524 | 0.497 | 5.2  | 83    | 0.00     |
| 49 T | cis-1,3-Dichloropropene     | 0.574 | 0.564 | 1.7  | 83    | 0.00     |
| 50 M | 1,1,2-Trichloroethane       | 0.354 | 0.353 | 0.3  | 82    | 0.00     |
| 51   | Ethyl methacrylate          | 0.583 | 0.573 | 1.7  | 85    | 0.00     |
| 52   | 1,3-Dichloropropane         | 0.605 | 0.619 | -2.3 | 84    | 0.00     |
| 53 M | Dibromochloromethane        | 0.375 | 0.370 | 1.3  | 85    | 0.00     |
| 54 M | 1,2-Dibromoethane           | 0.378 | 0.376 | 0.5  | 82    | 0.00     |
| 55 M | 2-Chloroethyl vinyl ether   | 0.249 | 0.212 | 14.9 | 70    | 0.00     |
| 56 M | Bromoform                   | 0.298 | 0.271 | 9.1  | 81    | 0.00     |
| 57 I | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0  | 80    | 0.00     |
| 58 M | 4-Methyl-2-Pentanone        | 0.627 | 0.606 | 3.3  | 80    | 0.00     |
| 59 M | 2-Hexanone                  | 0.496 | 0.462 | 6.9  | 76    | 0.00     |
| 60 S | 4-Bromofluorobenzene        | 0.482 | 0.481 | 0.2  | 81    | 0.00     |
| 61 M | Tetrachloroethene           | 0.370 | 0.371 | -0.3 | 85    | 0.00     |
| 62 M | Toluene                     | 1.671 | 1.713 | -2.5 | 84    | 0.00     |
| 63 S | Toluene-d8                  | 1.357 | 1.365 | -0.6 | 80    | 0.00     |
| 64 M | Chlorobenzene               | 1.045 | 1.085 | -3.8 | 88    | 0.00     |
| 65   | 1,1,1,2-Tetrachloroethane   | 0.391 | 0.393 | -0.5 | 85    | 0.00     |
| 66 M | Ethyl Benzene               | 1.836 | 1.887 | -2.8 | 86    | 0.00     |
| 67 M | m/p-Xylenes                 | 0.708 | 0.718 | -1.4 | 85    | 0.00     |
| 68 M | o-Xylene                    | 0.683 | 0.706 | -3.4 | 88    | 0.00     |
| 69 M | Styrene                     | 1.167 | 1.175 | -0.7 | 85    | 0.00     |
| 70   | Isopropylbenzene            | 1.801 | 1.866 | -3.6 | 86    | 0.00     |
| 71 M | 1,1,2,2-Tetrachloroethane   | 0.645 | 0.648 | -0.5 | 84    | 0.00     |
| 72   | 1,2,3-Trichloropropane      | 0.544 | 0.582 | -7.0 | 96    | 0.00     |
| 73   | Bromobenzene                | 0.475 | 0.486 | -2.3 | 87    | 0.00     |
| 74   | n-propylbenzene             | 2.047 | 2.109 | -3.0 | 87    | 0.00     |
| 75   | 2-Chlorotoluene             | 1.217 | 1.246 | -2.4 | 86    | 0.00     |
| 76   | 1,3,5-Trimethylbenzene      | 1.514 | 1.536 | -1.5 | 86    | 0.00     |
| 77   | t-1,4-Dichloro-2-butene     | 0.220 | 0.189 | 14.1 | 77    | 0.00     |
| 78   | 4-Chlorotoluene             | 1.394 | 1.415 | -1.5 | 87    | 0.00     |
| 79   | tert-butylbenzene           | 1.527 | 1.548 | -1.4 | 85    | 0.00     |
| 80   | 1,2,4-Trimethylbenzene      | 1.508 | 1.534 | -1.7 | 86    | 0.00     |
| 81   | sec-Butylbenzene            | 1.742 | 1.782 | -2.3 | 87    | 0.00     |
| 82   | p-Isopropyltoluene          | 1.605 | 1.619 | -0.9 | 86    | 0.00     |
| 83 M | 1,3-Dichlorobenzene         | 0.835 | 0.845 | -1.2 | 88    | 0.00     |
| 84 M | 1,4-Dichlorobenzene         | 0.829 | 0.849 | -2.4 | 89    | 0.00     |
| 85   | n-Butylbenzene              | 1.386 | 1.385 | 0.1  | 87    | 0.00     |
| 86 T | Hexachloroethane            | 0.295 | 0.277 | 6.1  | 84    | 0.00     |
| 87 M | 1,2-Dichlorobenzene         | 0.835 | 0.852 | -2.0 | 87    | 0.00     |
| 88   | 1,2-Dibromo-3-Chloropropane | 0.144 | 0.132 | 8.3  | 81    | 0.00     |
| 89   | 1,2,4-Trichlorobenzene      | 0.576 | 0.572 | 0.7  | 88    | 0.00     |
| 90   | Hexachlorobutadiene         | 0.276 | 0.254 | 8.0  | 80    | 0.00     |

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|      | Compound               | AvgRF | CCRF  | %Dev | Area% | Dev(min) |
|------|------------------------|-------|-------|------|-------|----------|
| 91 M | Naphthalene            | 1.823 | 1.791 | 1.8  | 85    | 0.00     |
| 92   | 1,2,3-Trichlorobenzene | 0.582 | 0.576 | 1.0  | 86    | 0.00     |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0