

Data Path : Z:\voasrv\HPCHEM1\MSVOA N\Data\VN091419\  
 Data File : VN058003.D  
 Acq On : 13 Sep 2019 9:12  
 Operator : JC/SP  
 Sample : VSTDCCC020  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 LabSampleId :  
 VSTDCCC020

Quant Time: Sep 14 01:27:01 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N090919W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Mon Sep 09 12:14:07 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                    | Amount  | Calc.   | %Dev  | Area% | Dev(min) |
|------|-----------------------------|---------|---------|-------|-------|----------|
| 1 I  | Bromochloromethane          | 30.000  | 30.000  | 0.0   | 115   | 0.00     |
| 2 M  | Dichlorodifluoromethane     | 20.000  | 20.675  | -3.4  | 121   | 0.00     |
| 3 M  | Chloromethane               | 20.000  | 17.638  | 11.8  | 102   | 0.00     |
| 4 M  | Vinyl Chloride              | 20.000  | 17.216  | 13.9  | 98    | 0.00     |
| 5 M  | Bromomethane                | 20.000  | 16.560  | 17.2  | 91    | 0.00     |
| 6 M  | Chloroethane                | 20.000  | 17.783  | 11.1  | 100   | 0.00     |
| 7 M  | Trichlorofluoromethane      | 20.000  | 18.381  | 8.1   | 93    | 0.00     |
| 8 T  | Diethyl Ether               | 20.000  | 19.748  | 1.3   | 115   | 0.00     |
| 9    | 1,1,2-Trichlorotrifluoroeth | 20.000  | 20.319  | -1.6  | 117   | 0.00     |
| 10 M | 1,1-Dichloroethene          | 20.000  | 19.335  | 3.3   | 114   | 0.00     |
| 11   | Methyl Iodide               | 20.000  | 16.354  | 18.2  | 97    | 0.00     |
| 12   | Methyl Acetate              | 20.000  | 19.249  | 3.8   | 110   | 0.00     |
| 13 M | Acrolein                    | 100.000 | 3.873   | 96.1# | 5     | 0.00     |
| 14 M | Acrylonitrile               | 100.000 | 94.214  | 5.8   | 109   | 0.00     |
| 15 M | Acetone                     | 100.000 | 109.342 | -9.3  | 117   | 0.00     |
| 16 M | Carbon Disulfide            | 20.000  | 17.167  | 14.2  | 106   | 0.00     |
| 17   | Allyl chloride              | 20.000  | 19.191  | 4.0   | 116   | 0.00     |
| 18 M | Methylene Chloride          | 20.000  | 19.406  | 3.0   | 114   | 0.00     |
| 19 M | trans-1,2-Dichloroethene    | 20.000  | 19.994  | 0.0   | 118   | 0.00     |
| 20 T | Diisopropyl ether           | 20.000  | 19.647  | 1.8   | 116   | 0.00     |
| 21 M | 1,1-Dichloroethane          | 20.000  | 20.066  | -0.3  | 116   | 0.00     |
| 22 M | cis-1,2-Dichloroethene      | 20.000  | 20.213  | -1.1  | 119   | 0.00     |
| 23 M | tert-Butyl Alcohol          | 100.000 | 88.064  | 11.9  | 100   | -0.01    |
| 24 M | Methyl tert-Butyl Ether     | 20.000  | 19.159  | 4.2   | 112   | 0.00     |
| 25 M | Chloroform                  | 20.000  | 20.101  | -0.5  | 118   | 0.00     |
| 26   | Cyclohexane                 | 20.000  | 19.537  | 2.3   | 116   | 0.00     |
| 27 s | 1,2-Dichloroethane-d4       | 30.000  | 30.276  | -0.9  | 111   | 0.00     |
| 28 I | 1,4-Difluorobenzene         | 30.000  | 30.000  | 0.0   | 109   | 0.00     |
| 29   | 1,1-Dichloropropene         | 20.000  | 20.028  | -0.1  | 116   | 0.00     |
| 30 M | 2-Butanone                  | 100.000 | 106.025 | -6.0  | 119   | 0.00     |
| 31   | 2,2-Dichloropropane         | 20.000  | 19.381  | 3.1   | 116   | 0.00     |
| 32 M | 1,1,1-Trichloroethane       | 20.000  | 19.578  | 2.1   | 113   | 0.00     |
| 33 M | Carbon Tetrachloride        | 20.000  | 19.136  | 4.3   | 115   | 0.00     |
| 34 M | Benzene                     | 20.000  | 20.082  | -0.4  | 115   | 0.00     |
| 35   | Methacrylonitrile           | 20.000  | 17.247  | 13.8  | 108   | 0.00     |
| 36 M | 1,2-Dichloroethane          | 20.000  | 20.524  | -2.6  | 118   | 0.00     |
| 37 M | Trichloroethene             | 20.000  | 20.100  | -0.5  | 117   | 0.00     |
| 38   | Methylcyclohexane           | 20.000  | 19.770  | 1.2   | 116   | 0.00     |
| 39 M | 1,2-Dichloropropane         | 20.000  | 20.243  | -1.2  | 118   | 0.00     |
| 40   | Dibromomethane              | 20.000  | 20.669  | -3.3  | 118   | 0.00     |
| 41 M | Bromodichloromethane        | 20.000  | 19.576  | 2.1   | 118   | 0.00     |
| 42 M | Vinyl Acetate               | 100.000 | 103.943 | -3.9  | 113   | 0.00     |
| 43   | Ethyl Acetate               | 20.000  | 18.823  | 5.9   | 106   | 0.00     |
| 44   | Isopropyl Acetate           | 20.000  | 21.187  | -5.9  | 127   | 0.00     |
| 45 T | 1,4-Dioxane                 | 400.000 | 369.364 | 7.7   | 109   | 0.00     |

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 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                    | Amount  | Calc.   | %Dev | Area% | Dev(min) |
|------|-----------------------------|---------|---------|------|-------|----------|
| 46   | Methyl methacrylate         | 20.000  | 18.851  | 5.7  | 113   | 0.00     |
| 47   | n-amyl Acetate              | 20.000  | 17.901  | 10.5 | 110   | 0.00     |
| 48 M | t-1,3-Dichloropropene       | 20.000  | 18.721  | 6.4  | 117   | 0.00     |
| 49 T | cis-1,3-Dichloropropene     | 20.000  | 19.205  | 4.0  | 118   | 0.00     |
| 50 M | 1,1,2-Trichloroethane       | 20.000  | 19.843  | 0.8  | 114   | 0.00     |
| 51   | Ethyl methacrylate          | 20.000  | 18.168  | 9.2  | 110   | 0.00     |
| 52   | 1,3-Dichloropropane         | 20.000  | 20.320  | -1.6 | 118   | 0.00     |
| 53 M | Dibromochloromethane        | 20.000  | 17.560  | 12.2 | 113   | 0.00     |
| 54 M | 1,2-Dibromoethane           | 20.000  | 18.897  | 5.5  | 112   | 0.00     |
| 55 M | 2-Chloroethyl vinyl ether   | 100.000 | 88.039  | 12.0 | 98    | 0.00     |
| 56 M | Bromoform                   | 20.000  | 16.382  | 18.1 | 109   | 0.00     |
| 57 I | Chlorobenzene-d5            | 30.000  | 30.000  | 0.0  | 110   | 0.00     |
| 58 M | 4-Methyl-2-Pentanone        | 100.000 | 104.270 | -4.3 | 111   | 0.00     |
| 59 M | 2-Hexanone                  | 100.000 | 104.425 | -4.4 | 115   | 0.00     |
| 60 S | 4-Bromofluorobenzene        | 30.000  | 29.703  | 1.0  | 112   | 0.00     |
| 61 M | Tetrachloroethene           | 20.000  | 20.511  | -2.6 | 118   | 0.00     |
| 62 M | Toluene                     | 20.000  | 20.578  | -2.9 | 116   | 0.00     |
| 63 S | Toluene-d8                  | 30.000  | 30.023  | -0.1 | 108   | 0.00     |
| 64 M | Chlorobenzene               | 20.000  | 19.978  | 0.1  | 115   | 0.00     |
| 65   | 1,1,1,2-Tetrachloroethane   | 20.000  | 19.524  | 2.4  | 118   | 0.00     |
| 66 M | Ethyl Benzene               | 20.000  | 20.929  | -4.6 | 116   | 0.00     |
| 67 M | m/p-Xylenes                 | 40.000  | 40.134  | -0.3 | 117   | 0.00     |
| 68 M | o-Xylene                    | 20.000  | 19.500  | 2.5  | 116   | 0.00     |
| 69 M | Styrene                     | 20.000  | 19.656  | 1.7  | 116   | 0.00     |
| 70   | Isopropylbenzene            | 20.000  | 20.719  | -3.6 | 115   | 0.00     |
| 71 M | 1,1,2,2-Tetrachloroethane   | 20.000  | 19.867  | 0.7  | 116   | 0.00     |
| 72   | 1,2,3-Trichloropropane      | 20.000  | 18.349  | 8.3  | 108   | 0.00     |
| 73   | Bromobenzene                | 20.000  | 19.553  | 2.2  | 119   | 0.00     |
| 74   | n-propylbenzene             | 20.000  | 21.375  | -6.9 | 117   | 0.00     |
| 75   | 2-Chlorotoluene             | 20.000  | 20.192  | -1.0 | 119   | 0.00     |
| 76   | 1,3,5-Trimethylbenzene      | 20.000  | 20.705  | -3.5 | 118   | 0.00     |
| 77   | t-1,4-Dichloro-2-butene     | 20.000  | 15.212  | 23.9 | 108   | 0.00     |
| 78   | 4-Chlorotoluene             | 20.000  | 20.247  | -1.2 | 121   | 0.00     |
| 79   | tert-butylbenzene           | 20.000  | 19.811  | 0.9  | 114   | 0.00     |
| 80   | 1,2,4-Trimethylbenzene      | 20.000  | 20.643  | -3.2 | 118   | 0.00     |
| 81   | sec-Butylbenzene            | 20.000  | 20.472  | -2.4 | 117   | 0.00     |
| 82   | p-Isopropyltoluene          | 20.000  | 20.365  | -1.8 | 116   | 0.00     |
| 83 M | 1,3-Dichlorobenzene         | 20.000  | 19.792  | 1.0  | 119   | 0.00     |
| 84 M | 1,4-Dichlorobenzene         | 20.000  | 19.727  | 1.4  | 121   | 0.00     |
| 85   | n-Butylbenzene              | 20.000  | 19.938  | 0.3  | 115   | 0.00     |
| 86 T | Hexachloroethane            | 20.000  | 17.077  | 14.6 | 114   | 0.00     |
| 87 M | 1,2-Dichlorobenzene         | 20.000  | 19.909  | 0.5  | 120   | 0.00     |
| 88   | 1,2-Dibromo-3-Chloropropane | 20.000  | 16.807  | 16.0 | 106   | 0.00     |
| 89   | 1,2,4-Trichlorobenzene      | 20.000  | 19.152  | 4.2  | 120   | 0.00     |
| 90   | Hexachlorobutadiene         | 20.000  | 19.239  | 3.8  | 113   | 0.00     |

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

|      | Compound               | Amount | Calc.  | %Dev | Area% | Dev(min) |
|------|------------------------|--------|--------|------|-------|----------|
| 91 M | Naphthalene            | 20.000 | 18.169 | 9.2  | 109   | 0.00     |
| 92   | 1,2,3-Trichlorobenzene | 20.000 | 19.358 | 3.2  | 118   | 0.00     |

(#) = Out of Range

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