

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_U\DATA\VU081319\  
 Data File : VU033786.D  
 Acq On : 13 Aug 2019 17:09  
 Operator : JC/SP  
 Sample : MDL07  
 Misc : 5.0mL/MSVOA\_U/WATER  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 MDL07

Manual Integrations  
 APPROVED

MMDadoda  
 8/14/2019 10:44:48 AM

Quant Time: Aug 14 04:42:23 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SFAMULM081319W.M  
 Quant Title : VOC Analysis  
 QLast Update : Wed Aug 14 04:23:45 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.86  | 114  | 388814   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.07  | 117  | 385884   | 50.00 | ug/L  | 0.00     |
| 58) 1,4-Dichlorobenzene-d4 | 11.47 | 152  | 183051   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |         |       |          |          |      |         |
|--------------------------------|---------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.39    | 65    | 179056   | 48.49    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 96.98%  |
| 7) Chloroethane-d5             | 1.67    | 69    | 169550   | 49.30    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 98.60%  |
| 11) 1,1-Dichloroethene-d2      | 2.26    | 63    | 233836   | 38.77    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 77.54%  |
| 21) 2-Butanone-d5              | 4.16    | 46    | 219589   | 106.89   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 106.89% |
| 24) Chloroform-d               | 4.62    | 84    | 283618   | 49.18    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 98.36%  |
| 26) 1,2-Dichloroethane-d4      | 5.29    | 65    | 187723   | 52.58    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 105.16% |
| 32) Benzene-d6                 | 5.32    | 84    | 580130   | 52.48    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 104.96% |
| 36) 1,2-Dichloropropane-d6     | 6.31    | 67    | 186758   | 52.28    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 104.56% |
| 41) Toluene-d8                 | 7.55    | 98    | 520255   | 50.47    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 100.94% |
| 43) trans-1,3-Dichloropropene- | 7.83    | 79    | 85895    | 50.38    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 100.76% |
| 47) 2-Hexanone-d5              | 8.30    | 63    | 149387   | 104.50   | ug/L | 0.00    |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 104.50% |
| 56) 1,1,2,2-Tetrachloroethane- | 10.41   | 84    | 252830   | 49.59    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 99.18%  |
| 66) 1,2-Dichlorobenzene-d4     | 11.84   | 152   | 201573   | 54.51    | ug/L | 0.00    |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 109.02% |

## Target Compounds

|                                |      |     |        |              | Qvalue |
|--------------------------------|------|-----|--------|--------------|--------|
| 2) Dichlorodifluoromethane     | 1.20 | 85  | 11489  | 2.964 ug/L   | 99     |
| 3) Chloromethane               | 1.32 | 50  | 12066  | 2.998 ug/L   | 97     |
| 5) Vinyl chloride              | 1.39 | 62  | 13640  | 3.130 ug/L # | 71     |
| 6) Bromomethane                | 1.62 | 94  | 8618   | 2.694 ug/L   | 93     |
| 8) Chloroethane                | 1.69 | 64  | 8967   | 2.879 ug/L   | 99     |
| 9) Trichlorofluoromethane      | 1.87 | 101 | 16525  | 2.951 ug/L   | 100    |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.27 | 101 | 10306  | 3.761 ug/L # | 84     |
| 12) 1,1-Dichloroethene         | 2.27 | 96  | 9608   | 3.563 ug/L # | 1      |
| 13) Acetone                    | 2.32 | 43  | 11444  | 6.116 ug/L   | 97     |
| 14) Carbon disulfide           | 2.46 | 76  | 26035  | 3.050 ug/L   | 100    |
| 15) Methyl Acetate             | 2.61 | 43  | 8956   | 2.863 ug/L   | 98     |
| 16) Methylene chloride         | 2.68 | 84  | 9726   | 3.160 ug/L   | 91     |
| 17) trans-1,2-Dichloroethene   | 2.96 | 96  | 8829   | 3.146 ug/L   | 92     |
| 18) Methyl tert-butyl Ether    | 2.98 | 73  | 24320  | 2.916 ug/L # | 92     |
| 19) 1,1-Dichloroethane         | 3.42 | 63  | 16408  | 3.043 ug/L   | 97     |
| 20) cis-1,2-Dichloroethene     | 4.20 | 96  | 8994   | 2.919 ug/L   | 90     |
| 22) 2-Butanone                 | 4.25 | 43  | 11483m | 5.052 ug/L   |        |

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 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|-------|--------|----------|
| 23) Bromochloromethane         | 4.53  | 128  | 4952     | 3.102 | ug/L   | 92       |
| 25) Chloroform                 | 4.65  | 83   | 18772    | 3.350 | ug/L   | 93       |
| 27) 1,2-Dichloroethane         | 5.39  | 62   | 12889    | 2.961 | ug/L   | 95       |
| 29) Cyclohexane                | 4.97  | 56   | 11647    | 2.746 | ug/L   | 98       |
| 30) 1,1,1-Trichloroethane      | 4.89  | 97   | 14154    | 2.990 | ug/L   | 98       |
| 31) Carbon tetrachloride       | 5.11  | 117  | 12721    | 3.026 | ug/L   | 98       |
| 33) Benzene                    | 5.37  | 78   | 34775    | 2.946 | ug/L   | 100      |
| 34) Trichloroethene            | 6.17  | 95   | 9372     | 2.996 | ug/L   | 93       |
| 35) Methylcyclohexane          | 6.40  | 83   | 12872    | 2.824 | ug/L   | 98       |
| 37) 1,2-Dichloropropane        | 6.41  | 63   | 10057    | 3.126 | ug/L   | 100      |
| 38) Bromodichloromethane       | 6.74  | 83   | 12277    | 2.958 | ug/L   | 91       |
| 39) cis-1,3-Dichloropropene    | 7.25  | 75   | 13806    | 2.907 | ug/L   | 100      |
| 40) 4-Methyl-2-pentanone       | 7.44  | 43   | 21543    | 5.382 | ug/L   | 99       |
| 42) Toluene                    | 7.62  | 91   | 36592    | 2.935 | ug/L   | 97       |
| 44) trans-1,3-Dichloropropene  | 7.87  | 75   | 12793    | 2.958 | ug/L   | 97       |
| 45) 1,1,2-Trichloroethane      | 8.05  | 97   | 9269     | 3.053 | ug/L   | 96       |
| 46) Tetrachloroethene          | 8.21  | 164  | 7049     | 2.874 | ug/L   | 96       |
| 48) 2-Hexanone                 | 8.35  | 43   | 23081    | 7.534 | ug/L   | 98       |
| 49) Dibromochloromethane       | 8.46  | 129  | 9986     | 2.946 | ug/L   | 93       |
| 50) 1,2-Dibromoethane          | 8.57  | 107  | 9379     | 2.945 | ug/L   | 99       |
| 51) Chlorobenzene              | 9.10  | 112  | 24300    | 2.995 | ug/L   | 97       |
| 52) Ethylbenzene               | 9.23  | 91   | 36519    | 2.783 | ug/L   | 99       |
| 53) m,p-Xylene                 | 9.36  | 106  | 12294    | 2.507 | ug/L   | 87       |
| 54) o-xylene                   | 9.76  | 106  | 12248    | 2.538 | ug/L   | 96       |
| 55) Styrene                    | 9.78  | 104  | 19269    | 2.353 | ug/L   | 91       |
| 57) 1,1,2,2-Tetrachloroethane  | 10.44 | 83   | 15207    | 2.995 | ug/L # | 95       |
| 59) Bromoform                  | 9.94  | 173  | 7179     | 3.070 | ug/L   | 93       |
| 60) 1,2,3-Trichloropropane     | 10.48 | 75   | 12414    | 3.370 | ug/L   | 96       |
| 61) Isopropylbenzene           | 10.15 | 105  | 31329    | 2.765 | ug/L   | 99       |
| 62) 1,3,5-Trimethylbenzene     | 10.76 | 105  | 23431    | 2.561 | ug/L   | 97       |
| 63) 1,2,4-Trimethylbenzene     | 11.13 | 105  | 22020    | 2.426 | ug/L   | 95       |
| 64) 1,3-Dichlorobenzene        | 11.40 | 146  | 17547    | 3.086 | ug/L   | 96       |
| 65) 1,4-Dichlorobenzene        | 11.49 | 146  | 19120    | 3.281 | ug/L   | 96       |
| 67) 1,2-Dichlorobenzene        | 11.86 | 146  | 19463    | 3.369 | ug/L   | 95       |
| 68) 1,2-Dibromo-3-chloropropan | 12.65 | 75   | 2962     | 2.884 | ug/L   | 89       |
| 69) 1,3,5-Trichlorobenzene     | 12.88 | 180  | 11552    | 2.690 | ug/L   | 99       |
| 70) 1,2,4-trichlorobenzene     | 13.50 | 180  | 8049     | 2.260 | ug/L   | 95       |
| 71) Naphthalene                | 13.74 | 128  | 19013    | 1.793 | ug/L   | 96       |
| 72) 1,2,3-Trichlorobenzene     | 13.98 | 180  | 9265     | 2.482 | ug/L   | 91       |

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



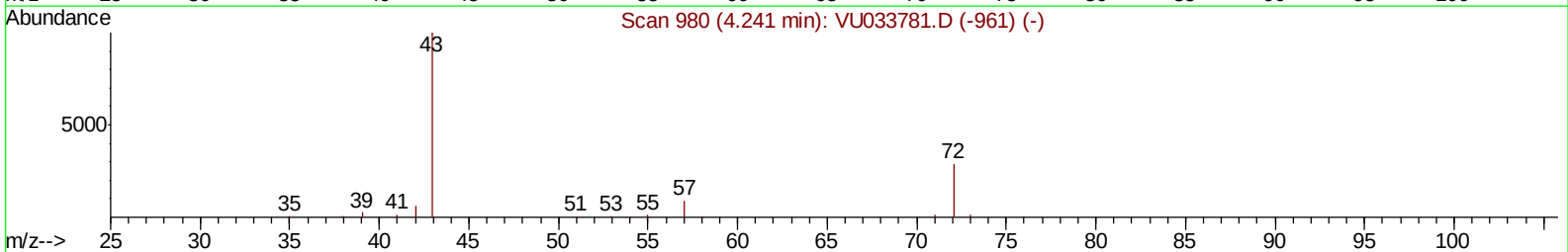
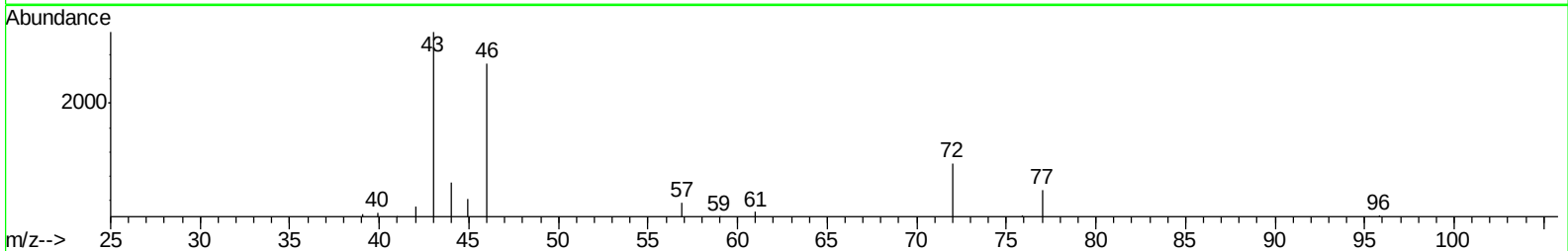
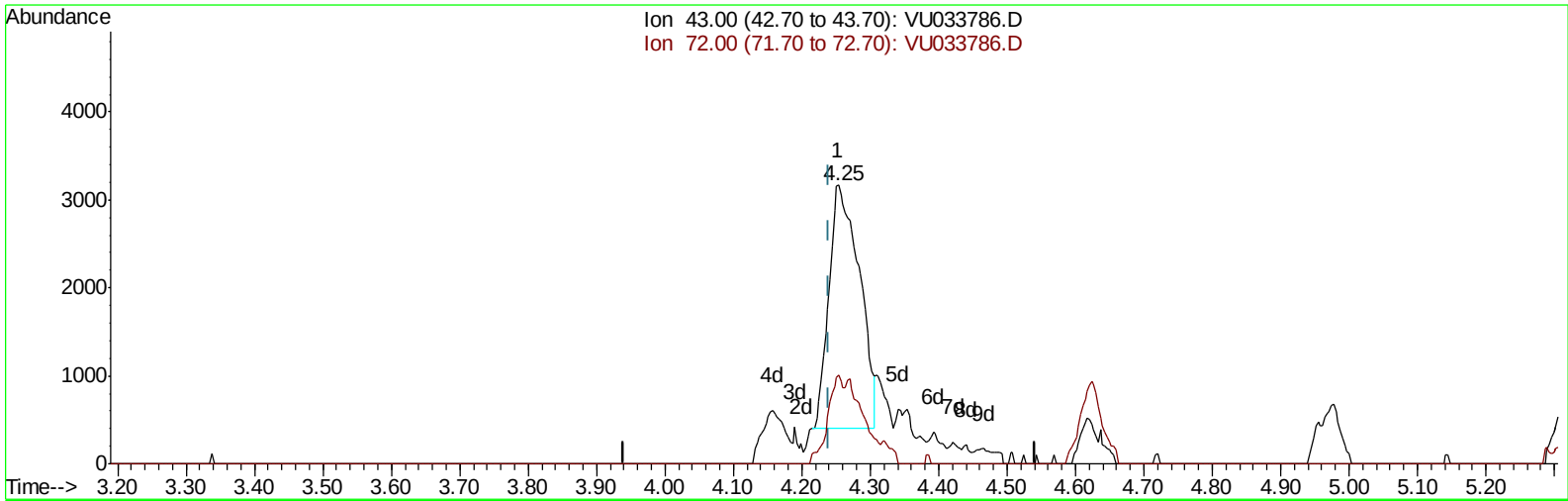
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Response via : Initial Calibration



TIC: VU033786.D

(22) 2-Butanone (T)  
4.254min (+0.013) 3.77ug/L

response 8576

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 43.00 | 100   | 100   |
| 72.00 | 29.00 | 18.11 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

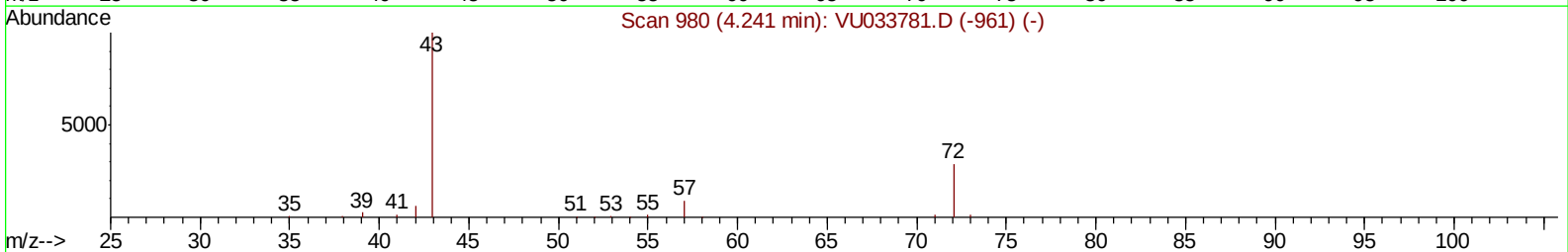
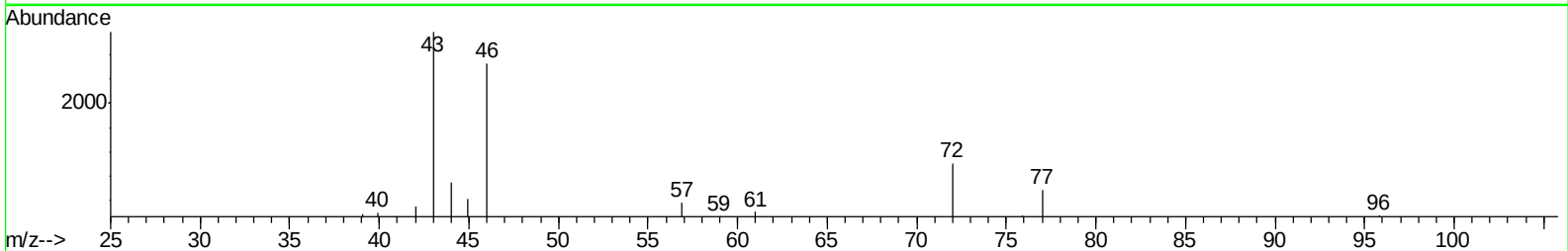
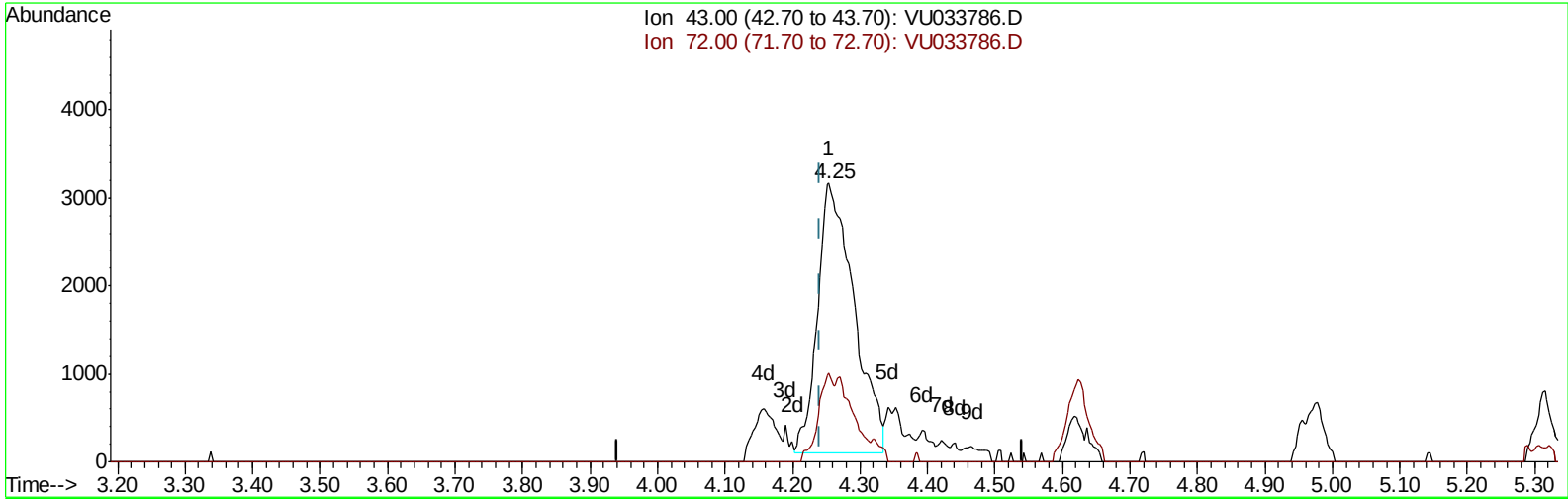
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TIC: VU033786.D

(22) 2-Butanone (T)  
4.254min (+0.013) 5.05ug/L m  
response 11483

| Ion   | Exp%  | Act%   |
|-------|-------|--------|
| 43.00 | 100   | 100    |
| 72.00 | 29.00 | 13.52# |
| 0.00  | 0.00  | 0.00   |
| 0.00  | 0.00  | 0.00   |