

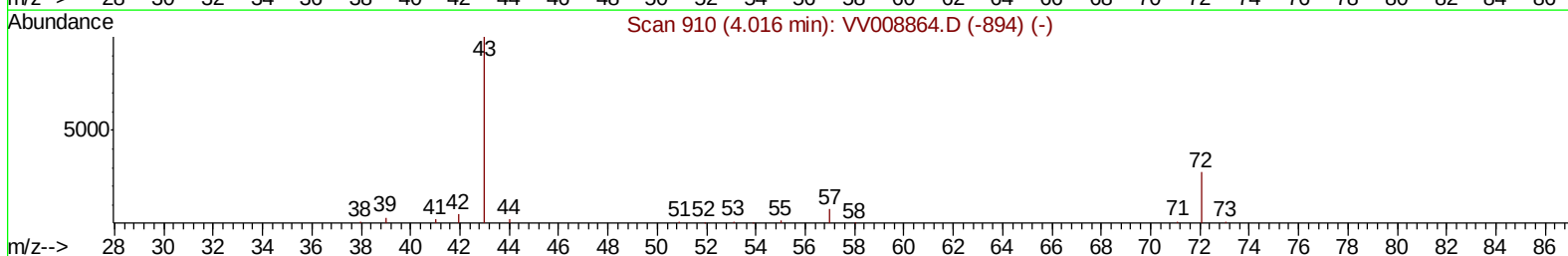
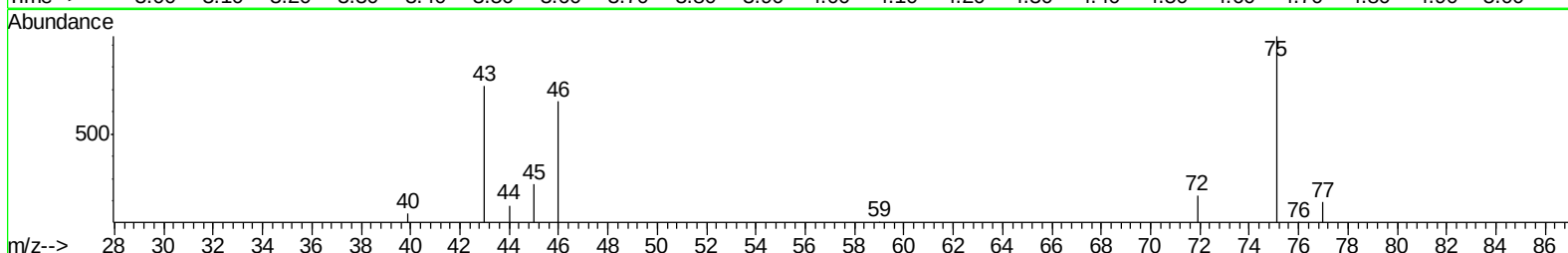
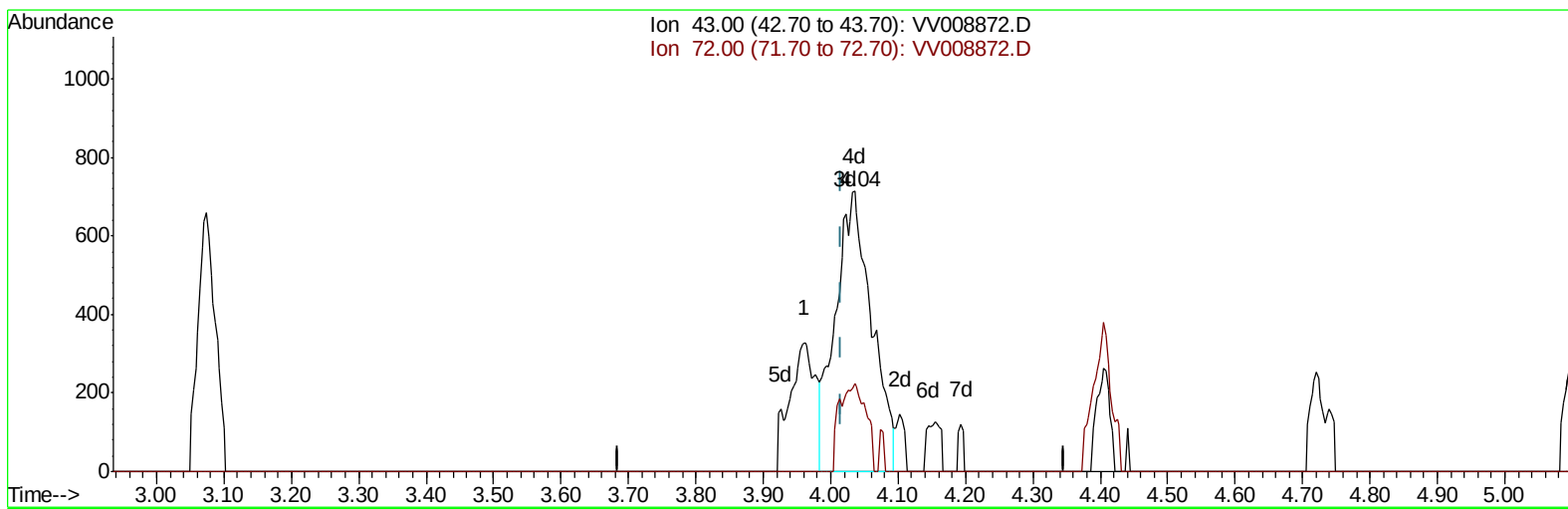
Data Path : Z:\voasrv\HPCHEM1\MSVOA\_V\Data\VV120618\  
Data File : VV008872.D  
Acq On : 06 Dec 2018 23:01  
Operator : SY/MD  
Sample : MDL07  
Misc : 5.00g/10.0 mL/MSVOA\_V/SOIL  
ALS Vial : 23 Sample Multiplier: 1

Instrument :  
MSVOA\_V  
ClientSampleId :  
MDL07

Manual Integrations  
APPROVED

sam  
12/11/2018 4:25:33 PM

Quant Time: Dec 07 02:07:11 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM120618S.M  
Quant Title : VOC Analysis  
QLast Update : Fri Dec 07 01:37:11 2018  
Response via : Initial Calibration



TIC: VV008872.D

(21) 2-Butanone

4.035min (+0.019) 2.71ug/L m

response 2667

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 43.00 | 100   | 100   |
| 72.00 | 27.40 | 4.54# |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_V\Data\VV120618\  
 Data File : VV008872.D  
 Acq On : 06 Dec 2018 23:01  
 Operator : SY/MD  
 Sample : MDL07  
 Misc : 5.00g/10.0 mL/MSVOA\_V/SOIL  
 ALS Vial : 23 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 MDL07

Manual Integrations  
 APPROVED

sam  
 12/11/2018 4:25:33 PM

Quant Time: Dec 07 15:58:53 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM120618S.M  
 Quant Title : VOC Analysis  
 QLast Update : Fri Dec 07 01:37:11 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.67  | 114  | 189230   | 25.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 8.90  | 117  | 166343   | 25.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.30 | 152  | 71825    | 25.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.32   | 65    | 53477    | 27.31    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 109.24% |
| 7) Chloroethane-d5             | 1.58   | 69    | 39773    | 27.49    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 150 | Recovery | =    | 109.96% |
| 10) 1,1-Dichloroethene-d2      | 2.13   | 63    | 110293   | 22.53    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 110 | Recovery | =    | 90.12%  |
| 20) 2-Butanone-d5              | 3.93   | 46    | 45393    | 63.67    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 127.34% |
| 24) Chloroform-d               | 4.40   | 84    | 116100   | 25.52    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 40 - 150 | Recovery | =    | 102.08% |
| 26) 1,2-Dichloroethane-d4      | 5.08   | 65    | 68276    | 27.50    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 130 | Recovery | =    | 110.00% |
| 29) Benzene-d6                 | 5.10   | 84    | 243676   | 26.23    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 20 - 135 | Recovery | =    | 104.92% |
| 33) 1,2-Dichloropropane-d6     | 6.12   | 67    | 70101    | 26.95    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 70 - 120 | Recovery | =    | 107.80% |
| 37) Toluene-d8                 | 7.36   | 98    | 218157   | 25.37    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 130 | Recovery | =    | 101.48% |
| 38) trans-1,3-Dichloropropene- | 7.67   | 79    | 28817    | 25.22    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 30 - 135 | Recovery | =    | 100.88% |
| 39) 2-Hexanone-d5              | 8.13   | 63    | 28880    | 60.61    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 20 - 135 | Recovery | =    | 121.22% |
| 48) 1,1,2,2-Tetrachloroethane- | 10.26  | 84    | 57624    | 26.41    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 45 - 120 | Recovery | =    | 105.64% |
| 61) 1,2-Dichlorobenzene-d4     | 11.68  | 152   | 69411    | 25.75    | ug/L | 0.00    |
| Spiked Amount                  | 25.000 | Range | 75 - 120 | Recovery | =    | 103.00% |

## Target Compounds

|                                |      |     |       |              | Qvalue |
|--------------------------------|------|-----|-------|--------------|--------|
| 2) Dichlorodifluoromethane     | 1.14 | 85  | 3735  | 1.204 ug/L # | 83     |
| 3) Chloromethane               | 1.25 | 50  | 2696  | 1.265 ug/L   | 89     |
| 5) Vinyl chloride              | 1.32 | 62  | 2901  | 1.219 ug/L # | 55     |
| 6) Bromomethane                | 1.53 | 94  | 1588  | 1.388 ug/L   | 86     |
| 8) Chloroethane                | 1.60 | 64  | 1715  | 1.287 ug/L   | 100    |
| 9) Trichlorofluoromethane      | 1.77 | 101 | 5333  | 1.308 ug/L   | 88     |
| 11) 1,1,2-Trichloro-1,2,2-trif | 2.14 | 101 | 4355  | 1.558 ug/L # | 74     |
| 12) 1,1-Dichloroethene         | 2.14 | 96  | 3711  | 1.521 ug/L # | 1      |
| 13) Acetone                    | 2.20 | 43  | 3647  | 3.472 ug/L   | 76     |
| 14) Carbon disulfide           | 2.32 | 76  | 8367  | 1.068 ug/L   | 96     |
| 15) Methyl Acetate             | 2.46 | 43  | 1830  | 1.374 ug/L # | 87     |
| 16) Methylene chloride         | 2.53 | 84  | 9296  | 2.917 ug/L   | 94     |
| 17) Methyl tert-butyl Ether    | 2.80 | 73  | 6203  | 1.119 ug/L # | 87     |
| 18) trans-1,2-Dichloroethene   | 2.79 | 96  | 2850  | 1.081 ug/L   | 95     |
| 19) 1,1-Dichloroethane         | 3.23 | 63  | 4636  | 1.085 ug/L   | 92     |
| 21) 2-Butanone                 | 4.04 | 43  | 1053m | 1.070 ug/L   |        |
| 22) cis-1,2-Dichloroethene     | 3.96 | 96  | 3175  | 1.155 ug/L   | 94     |

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_V\Data\VV120618\  
 Data File : VV008872.D  
 Acq On : 06 Dec 2018 23:01  
 Operator : SY/MD  
 Sample : MDL07  
 Misc : 5.00g/10.0 mL/MSVOA\_V/SOIL  
 ALS Vial : 23 Sample Multiplier: 1

Instrument :  
 MSVOA\_V  
 ClientSampleId :  
 MDL07

Manual Integrations  
 APPROVED

sam  
 12/11/2018 4:25:33 PM

Quant Time: Dec 07 15:58:53 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_V\METHOD\SOM2VLM120618S.M  
 Quant Title : VOC Analysis  
 QLast Update : Fri Dec 07 01:37:11 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|-------|--------|----------|
| -----                          |       |      |          |       |        |          |
| 23) Bromochloromethane         | 4.30  | 128  | 1423m    | 1.099 | ug/L   |          |
| 25) Chloroform                 | 4.43  | 83   | 6956     | 1.517 | ug/L   | 78       |
| 27) 1,2-Dichloroethane         | 5.19  | 62   | 3807     | 1.219 | ug/L # | 88       |
| 30) Cyclohexane                | 4.73  | 56   | 4386     | 1.047 | ug/L   | 88       |
| 31) 1,1,1-Trichloroethane      | 4.66  | 97   | 4566     | 1.065 | ug/L   | 100      |
| 32) Carbon tetrachloride       | 4.88  | 117  | 4024     | 1.028 | ug/L   | 99       |
| 34) Benzene                    | 5.15  | 78   | 10745    | 1.078 | ug/L   | 100      |
| 35) Trichloroethene            | 5.96  | 95   | 3591     | 1.195 | ug/L   | 98       |
| 36) Methylcyclohexane          | 6.18  | 83   | 5364     | 1.119 | ug/L   | 99       |
| 40) 1,2-Dichloropropane        | 6.22  | 63   | 2610     | 1.091 | ug/L # | 85       |
| 41) Bromodichloromethane       | 6.55  | 83   | 3195m    | 1.013 | ug/L   |          |
| 42) cis-1,3-Dichloropropene    | 7.07  | 75   | 3744     | 1.069 | ug/L   | 99       |
| 43) 4-Methyl-2-pentanone       | 7.28  | 43   | 4971     | 3.075 | ug/L # | 90       |
| 44) Toluene                    | 7.43  | 91   | 12165    | 1.164 | ug/L   | 97       |
| 45) trans-1,3-Dichloropropene  | 7.69  | 75   | 3337m    | 1.093 | ug/L   |          |
| 46) 1,1,2-Trichloroethane      | 7.89  | 97   | 1974     | 0.990 | ug/L   | 94       |
| 47) Tetrachloroethene          | 8.02  | 164  | 2747     | 1.124 | ug/L   | 93       |
| 49) 2-Hexanone                 | 8.19  | 43   | 4527     | 3.385 | ug/L # | 93       |
| 50) Dibromochloromethane       | 8.29  | 129  | 2243     | 0.982 | ug/L   | 95       |
| 51) 1,2-Dibromoethane          | 8.40  | 107  | 2170     | 1.084 | ug/L # | 95       |
| 52) Chlorobenzene              | 8.93  | 112  | 7667     | 1.127 | ug/L   | 96       |
| 53) Ethylbenzene               | 9.06  | 91   | 11946    | 1.054 | ug/L   | 97       |
| 54) m,p-Xylene                 | 9.18  | 106  | 4581     | 1.067 | ug/L   | 94       |
| 55) o-xylene                   | 9.59  | 106  | 3903     | 0.978 | ug/L   | 84       |
| 56) Styrene                    | 9.60  | 104  | 5632     | 0.875 | ug/L   | 90       |
| 57) Isopropylbenzene           | 9.98  | 105  | 11204    | 1.033 | ug/L   | 96       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.29 | 83   | 2890     | 1.341 | ug/L # | 93       |
| 59) 1,2,3-Trichloropropane     | 10.32 | 75   | 2201     | 1.181 | ug/L   | 99       |
| 62) Bromoform                  | 9.78  | 173  | 1270     | 0.979 | ug/L # | 96       |
| 63) 1,3-Dichlorobenzene        | 11.23 | 146  | 5208     | 1.125 | ug/L   | 96       |
| 64) 1,4-Dichlorobenzene        | 11.32 | 146  | 5557     | 1.167 | ug/L   | 96       |
| 65) 1,2-Dichlorobenzene        | 11.69 | 146  | 5328     | 1.249 | ug/L   | 95       |
| 66) 1,2-Dibromo-3-chloropropan | 12.48 | 75   | 314m     | 0.898 | ug/L   |          |
| 67) 1,3,5-Trichlorobenzene     | 12.70 | 180  | 3373     | 1.009 | ug/L   | 94       |
| 68) 1,2,4-trichlorobenzene     | 13.31 | 180  | 1996     | 0.852 | ug/L   | 95       |
| 69) Naphthalene                | 13.56 | 128  | 2940     | 0.729 | ug/L   | 98       |
| 70) 1,2,3-Trichlorobenzene     | 13.80 | 180  | 1781     | 0.823 | ug/L   | 99       |
| -----                          |       |      |          |       |        |          |

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

