

Documentation for the Text Format Data File “text.xls”

This document provides information on how to use the Excel 5.0 spreadsheet titled *text.xls*. Detailed descriptions of “text.xls” column headings are also given below. This spreadsheet contains uncensored baseline water quality data compiled by Ground Water Monitoring and Assessment Program (GWMAP) staff. All entries are in text format.

For your convenience, we have prepared an alternate, censored version of this data set in numeric format (number.xls). Furthermore, you can create your own censored version of the “text.xls” file by the following procedure. This procedure sets all non-detect values to zero. Data from “text.xls” can be converted to numerical format in the following manner:

1. In a new column, write a formula (=0+(source cell)).
2. Copy the formula to all the target cells.
3. Copy (paste special) the target cells as values to eliminate the formula format.

Once the data are converted to numerical format, they can be saved on a user’s personal directory to an earlier version of EXCEL, as a text file, or as a *.DBF file. These formats may be desirable for using the data within other software applications. For example:

- EXCEL 3.0 files are read directly by SPSS (statistics);
- Text files are read by SURFER (contouring);
- *.DBF files are read by Microsoft ACCESS (database).

Saving to other formats will not retain formatting of the original document (e.g. font, column widths, alignment, etc.).

Uncensored data means the nondetections in the data are indicated with a “<” sign.

Reporting limits are indicated in MPCA, 1998.

The total number of samples was 954. Concentrations for most parameters are in mg/L (parts per million or ppm) or ug/L (parts per billion or ppb).

The following columns are found in the spreadsheet.

Detailed Descriptions of “text.xls” Column Headings

- A. ID Number : Four-digit GWMAP code, preceded by the GWMAP label.
- B. Universal Trans Mercator-East : Zone 15 UTM Easting.
- C. Universal Trans Mercator-North : Zone 15 UTM Northing.
- D. County : County name.
- E. MPCA Region : Minnesota Pollution Control Agency Region.
- F. Well use : Well use code (domestic, commercial, irrigation, public supply, municipal, multiple dwelling, observation, industrial).
- G. Well diameter : Well diameter in inches.
- H. CWI Aquifer Code : Indicates aquifers. See reference for Wahl and Tipping (1991) and description in MPCA (1998) for aquifer descriptions.
- I. Aquifer : Indicates aquifers.
- J. Aquifer Group : Indicates aquifer group. See reference for Wahl and Tipping (1991) and description in MPCA (1998) for aquifer descriptions. Aquifer groups include Cambrian, Devonian, Cretaceous, Ordovician, Precambrian, buried Quaternary, and surficial Quaternary.
- K. Well Depth : well depth drilled, in feet. Does not consider casing length or screened interval.
- L. Water Level : Static water level, in feet. This represents the depth from the land surface to the top of the water in the well casing. For a confined well the value represents the

- depth to the potentiometric surface for the aquifer of concern at the location of that well. For an unconfined well the value represents the depth to the water table.
- M. Sampling Date : sampling data. Month/day/year format.
 - N. Voc detected : Code to identify if one or more volatile organic compounds (VOCs) was detected. yes=detected and no=not detected.
 - O. Alkalinity : field-measured alkalinity, in mg/L as CaCO₃ equivalent. This parameter was also measured in the lab (not included).
 - P. Aluminum : concentration in ug/L.
 - Q. Antimony : antimony concentration in ug/L.
 - R. Arsenic : arsenic concentration in ug/L.
 - S. Barium : barium concentration in mg/L.
 - T. Beryllium : beryllium concentration in ug/L.
 - U. Bismuth : bismuth concentration in ug/L.
 - V. Boron : boron concentration in mg/L.
 - W. Bromide : bromide concentration in mg/L.
 - X. Cadmium : cadmium concentration in ug/L.
 - Y. Calcium : calcium concentration in mg/L.
 - Z. Cesium : cesium concentration in ug/L.
 - AA. Chloride : chloride concentration in mg/L.
 - AB. Chromium : total chromium concentration in ug/L.
 - AC. Cobalt : cobalt concentration in ug/L.
 - AD. Copper : copper concentration in mg/L.
 - AE. Dissolved oxygen : dissolved oxygen concentration in mg/L.
 - AF. Eh : Oxidation-reduction potential referenced to standard hydrogen electrode, in mV.
 - AG. Fluoride : fluoride concentration in mg/L.
 - AH. Iron : iron concentration in mg/L.
 - AI. Lead : lead concentration in ug/L.
 - AJ. Lithium : lithium concentration in mg/L.
 - AK. Magnesium : magnesium concentration in mg/L.
 - AL. Manganese : manganese concentration in mg/L.
 - AM. Mercury : mercury concentration in ug/L.
 - AN. Molybdenum : molybdenum concentration in mg/L.
 - AO. Nickel : nickel concentration in mg/L.
 - AP. Nitrate-N : nitrate concentration as nitrogen, in mg/L.
 - AQ. Orthophosphate-P : orthophosphate concentration as phosphorus in mg/L.
 - AR. Oxidation-reduction potential : oxidation-reduction potential relative to the silver:silver chloride reference electrode, in mV.
 - AS. pH : negative log of the hydrogen ion concentration.
 - AT. Total Phosphorus : phosphorus concentration in mg/L.
 - AU. Potassium : potassium concentration in mg/L.
 - AV. Rubidium : rubidium concentration in mg/L.
 - AW. Selenium : selenium concentration in ug/L.
 - AX. Silica : silica concentration in mg/L.
 - AY. Silver : silver concentration in ug/L.
 - AZ. Sodium : sodium concentration in mg/L.
 - BA. Specific Conductance : electrical conductivity, in millimhos/cm.
 - BB. Strontium : strontium concentration in mg/L.
 - BC. Sulfate-S : sulfate concentration as sulfur in mg/L.
 - BD. Total Sulfur : sulfur concentration in mg/L.
 - BE. Temperature : water temperature in degrees Celsius.

- BF. Thallium : thallium concentration in ug/L.
- BG. Tin : tin concentration in ug/L.
- BH. Titanium : titanium concentration in ug/L
- BI. Total dissolved solids : total dissolved solid concentration in mg/L.
- BJ. Total organic carbon : total organic carbon concentration in mg/L.
- BK. Total phosphate-P : total phosphate concentration as phosphorus in mg/L.
- BL. Total suspended solids : total suspended solid concentration in mg/L.
- BM. Vanadium : vanadium concentration in mg/L.
- BN. Zinc : zinc concentration in mg/L.
- BO. Zirconium : zirconium concentration in ug/L.

References

Minnesota Pollution Control Agency. 1998. *Baseline Water Quality of Minnesota's Principal Aquifers*.

Wahl, T.E., and R.G. Tipping. *Ground-water data management - The County Well Index*. 38 p.