



December 3, 2004

Office of Water Quality Water-Quality Information Note 2005.05

Subject: Definitions—Correction to the dissolved-solids concentration definition used in the annual water-data report

The purpose of this Note is to let everyone know that there was a typographic error in the conversion factor given in the definition for dissolved-solids concentration used in the annual Water Resources Data reports for water years 1999 through 2003.

The current definition for dissolved-solids concentration was first used in the 1999 annual reports and at that time, the last sentence concerning the use of an alkalinity conversion was added. Apparently in retyping of the definition, the conversion factor for converting the bicarbonate value to carbonate was mistakenly changed from 0.492 to 0.4926. There was no apparent reason for the change. The NWIS software uses 0.4917 (which was rounded to 0.492 for the original definition) to convert bicarbonate to carbonate for parameter code 70301; therefore, there is no need to correct any historical data. The corrected definition will use the conversion factor of 0.4917 to be consistent with what is used in NWIS.

The definition that will be used in the annual data reports for water years 2004 and beyond will be corrected to read as follows:

“Dissolved-solids concentration in water is the quantity of dissolved material in a sample of water. It is determined either analytically by the “residue-on-evaporation” method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4917 to convert it to carbonate. Alternatively, alkalinity concentration (as mg/L CaCO₃) can be converted to carbonate concentration by multiplying by 0.60.”

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