## **Technical Information:**

Date:February 2006Subject:Water Treatment - TDSTopic :Total Dissolved Solids



The term TDS refers to "Total Dissolved Solids ". It is a term used to describe the total amount of <u>dissolved</u> matter present in water. This matter consisting of minerals, salts, metals, cations and anions dissolved in the water.

It is normally expressed in units as mg / litre or PPM.

There are two ways this can be determined, precisely in a lab by the evaporative method or quickly (not so accurately) by measurement of the conductivity and dividing by a "factor".

For the evaporative method, a sample of the water to be tested is taken. This sample is filtered. With a known volume of the water sample, the water is evaporated off and the mass of the remaining residue weighed. From this the mg / litre of residue can be determined and so, the TDS.

By measuring the conductivity there is an approximate relationship between the conductivity of a solution and the TDS. It is not as exact as the evaporation method but most handheld TDS meters use conductivity measurement and a factor to display the TDS.

TDS = Conductivity / Factor.

This factor is approximately 1.5 - 1.6 but may differ between manufacturers.

These handheld devices will display the TDS as mg / litre or PPM.

For drinking water in Ontario, the AO ( aesthetic objective ) is to be less than 500 mg/l