



Chemical and Physical Properties of De-Mineralized Water Compared to Ground Water and Rainwater with Respect to Local and International Standards

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Abstract: The present study was carried out from 2007 to 2008. Water samples were collected from different stations in Tarhona valley 90 Km from Tripoli, Libya. Water samples were studied including 4 samples from desalination stations, 5 of house roofs rain water, 5 of direct rain water, 5 samples of state wells and 8 of private public wells. The study covers total dissolved solids (TDS), pH, alkaline ions and heavy metals. The desalination water samples showed 74 ppm of mineral salts, these amounts are not enough as required for health aspect. The state as well as the private public water samples shows high amounts of TDS in average of 1500 ppm, the amounts of magnesium, nitrate, sulphate, carbonate and chloride are in average of 125, 45, 400, 500 and 350 ppm respectively. All these results were found not agreed with local and International levels for drinking water. The study also includes investigation of physical properties of all samples.

Keywords: *D-mineralized water, ground water, rain water*

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