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HYDROCHEMICAL STUDY OF DIBDIBBA DESERT SHALLOW WELLS SOUTHERN IRAQ

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Abstract

Fifty hunddug wells randomly distributed within Dibdibba Desert were firstly sampled. Five well were selected in the light of regional hydrochemical survey. One hundred water samples wee collected monthly from these wells over one year. The water samples were analysed for Ca, Mg, Na, K, Si, NO_3, HCO_3, Cl, Total dissolved solid as well as, pH, Electrical conductivity, and dissolved oxygen were also insitu measured. The hydrochemical analysis shows that the water samples of the study area are of high salinity. The water is very hard with slightly alkaline medium and is of sodium chloride type. The spatial and seasonal variations in the measured components were attributed to geologic, hydrologic and environment impacts. The water under consideration is found to be not suitable drinking purposes because oh high chloride, nitrate and sulphate concentrations besides Total Dissolved Solid, nevertheless, it is suitable for sheep drinking and irrigation.