GEOELECTRIC sounding and HYDROCHEMICAL investigations for groundwater potentiality in the area west of the river Nile, Assiut, Egypt

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Abstract:

Surface geophysical investigations, in addition to hydrochemical measurements were made on some locations at the western part of the River Nile, Assiut. All the geoelectrical sounding measurements were made using the D.C. resistivity method. The geophysical results were integrated with all available geological and hydrogeological information in order to recognize the probability of presence of water-bearing formations, either fresh (low resistivity) or polluted (extremely low resistivity). Two conductive wet zones (shallow and/or deep) were detected. Also, two extremely high resistive zones can be recognized; the first represents the surface dry zone (consisting of dry sands and gravels), whereas the second is deeper in the entire surveyed area and may represent the bed rock (e.g. limestone). Only one extremely conductive zone (}

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