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An investigation of groundwater condition using geoelectrical resistivity method: A case study from some parts of Kaushambi district (U.P.) India

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Abstract

Twelve Vertical Electrical Sounding (VES) were carried out using Schlumberger configuration in parts of Kaushambi district (latitude 25o 15' 8'' and 25o 39' 55'' N. and longitude 81o 17' 5'' and 81o 31' 5'' E) Uttar Pradesh to determine the nature and thickness of aquifer zone and necessary geoelectrical parameters. The data were interpreted with the help of three and two layer master curves and auxiliary point charts. Sounding curve suggests number of three layer geoelectrical sections H, A, K, Q type and some of four layer section of the KHA, QHA, HA, types. The study indicates that average depth of the top of the aquifer is 35 m and average thickness of the aquifer is 53 m. The bedrock is encountered at an average depth of 89m. This study indicates that the groundwater reservoirs are mainly confined to the alluvial aquifer.

Keywords

Groundwater; Vertical Electrical Sounding; VES; Resistivity

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