



Resistivity method for groundwater exploration in Katras area

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Katras area is situated in famous Jharia coalfield of Dhanbad district, Jharkhand state of India. This area is famous for coal mining activities, where mining of coking grade of coal is in progress either by opencast or underground mining methods. Mining activities in this important area is not only destroy the natural geological/hydro-geological parameters but also responsible for decline of water table or shortage of waters. The entire population of the area faces acute shortage of drinking water. Keeping in view of the scarcity of drinking water in the study area, resistivity survey have been carried out for groundwater exploration. From this survey at different VES points, different resistivity values were calculated and it was interpreted that a low values in the range of 60 to 100 ohm.m deciphering a good water containing aquifers. Layers of low resistivity are interpreted semi weathered/weathered zones. The thickness of the weathered layers are quite variable. At some places semi weathered/weathered rocks underlain the fractured layers and provided good aquifer conditions. On the basis of the interpretations of different resistivity values at different locations some good sites are proposed for locating tube wells (K-2, K-5, K-8, K-9 and K-11), which are having sufficient water.