## Geophysical Signatures of Hot Springs over Konkan Coastal Belt in Deccan Traps, Maharshtra, India

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The Deccan Volcanic Province of India is characterized by superficial thermal manifestations represented by a cluster of hot springs with varied temperatures (30-80°C). An attempt has been made to study the possible geothermal sources and to establish the subsurface structure and aquifer system over three hot springs in Deccan trap covered region of western Maharashtra based on the analysis of vertical electrical resistivity soundings (VES) and ground magnetic data. Resistivity contouring has been carried out for different electrode spacing which provides the variation of resistivity at different horizons. A low apparent resistivity of the order of 10-40  $\Omega$ -m is prominent at shallow depth of 5m (between 17.2 to 17.25 latitude), which coincides with the location of Tural hot spring. This feature is also observed at other depths. The Aravali hot spring is characterized by a minor low apparent resistivity at all the depths. The 2-D geoelectrical sections delineated the geometry of the aquifer bodies associated with the hot springs. A close grid magnetic study carried out over and around the Tural spring revealed low values of magnetic field associated with fracture zones. Ground magnetic data was also acquired along a linear profile covering all the hot springs, which showed the subsurface features.

Key words: Resistivity, magnetic, hot spring, aquifer, Konkan, Maharashtra