ABSTRAK

IDENTIFIKASI PERSEBARAN DAN VOLUME BATUAN ANDESIT BERDASARKAN PEMODELAN 2D DAN INTERPOLASI 3D DATA 2D RESISTIVITAS DI DESA WAY LAGA KECAMATAN SUKABUMI KOTA BANDAR LAMPUNG PROVINSI LAMPUNG

Oleh

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Provinsi Lampung termasuk wilayah yang memiliki sumberdaya alam beragam salah satunya adalah batuan beku andesit. Batuan andesit dapat dimanfaatkan sebagai bahan bangunan seperti pondasi jalan, batu belah dan bangunan. Pada penelitian ini, telah dilakukan identifikasi persebaran dan volume batuan andesit dengan metode resistivitas 2D konfigurasi *wenner-wenner* di desa way laga kecamatan sukabumi yang terdiri dari 5 lintasan yaitu A-E dengan spasi antar elektroda 5 meter dengan panjang bentangan sekitar 155 meter. Metode resistivitas digunakan untuk menentukan mengkaji potensi air tanah, prospeksi panas bumi dan eksplorasi mineral berdasarkan sifat tahanan jenis lapisan batuan. Berdasarkan model penampang 2D, nilai resistivitas tinggi berkisar antara 155-315 Ωm diidentifikasi sebagai batuan andesit yang dicitrakan dengan warna merah sampai dengan warna ungu dan volumetrik batuan andesit berdasarkan interpolasi 3D untuk luasan ± 65.000m^2 adalah 297.529m^3

Kata kunci: resistivitas, konfigurasi *wenner-wenner*, interpolasi, volumetrik batuan andesit.

ABSTRACT

IDENTIFICATION OF DISTRIBUTION AND VOLUME OF ANDESITE ROCK BASED ON 2D MODELING AND 3D INTERPOLATION OF 2D RESISTIVITY DATA IN WAY LAGA VILLAGE, SUKABUMI DISTRICT, BANDAR LAMPUNG CITY, LAMPUNG PROVINCE.

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The province of Lampung is a region that possesses diverse natural resources, one of which is andesite igneous rock. Andesite rock can be utilized as a construction material such as for road foundations, split stones, and buildings. In this study, the distribution and volume of andesite rock were identified using the 2D resistivity method with the Wenner-Wenner configuration in Way Laga village, Sukabumi district. The study consisted of 5 profiles, labeled A-E, with electrode spacing of 5 meters and a total length of approximately 155 meters. The resistivity method was used to assess the potential of groundwater, geothermal prospects, and mineral exploration based on the resistivity characteristics of rock layers. Based on the 2D cross-sectional model, high resistivity values ranging from 155-315 Ωm were identified as andesite rock, depicted by colors ranging from red to purple. The volumetric estimate of andesite rock, based on 3D interpolation for an area of approximately ±65,000m^2, is 297,529m^3.

Keywords: Resistivity, Wenner-Wenner configuration, Interpolation, Volumetric estimation of andesite rock