

## ABSTRACT

PT. Sari Bhumi Khatulistiwa is located in Hargomulyo Village, Kokap Subdistrict, Kulon Progo Regency, Special Region Of Yogyakarta. Andesite potential existing in the area want to be used PT.Sari Bhumi Khatulistiwa by opening the mine. The absence of distribution and andesite resources data on the PT.Sari Bhumi Khatulistiwa location drive to do exploration.

Exploration activities carried out by doing the 2 dimensional resistivity measurement using Wenner-Schlumberger configuration with 7 lines that cover 70% of the research area. The cross-section below the surface of the measurement results are combined to make 3 dimensional model. The model made is used to estimate the andesite resources. Modelling is done by assuming each measurement point into a block. Block model use Inverse Distance Squared for the basic calculation.

Based on the results of research, andesite potential is discovered in each lines with minimal resistivity value of  $100 \Omega\text{m}$ . Andesite resources estimation based on geoelectric data with 3 dimensional model made by Geosoft Oasis Montaj program have volume of  $1.443.420 \text{ m}^3$ .