ABSTRACT

PT. Gemilang Batu Utama is located in Gunungtua Village, Gunungtua Subdistrict, Subang Regency, West Java. The andesite potentials in the area will be utilized by PT. Gemilang Batu Utama by opening the mine. The absence of supporting data to stating the distribution and andesite resources at the location of PT. Gemilang Batu Utama encourages to do the exploration. Exploration activities were carried out by measuring 2 dimensional geoltiric resistivity using the 9-lane Wenner-Schlumberger configuration, covering 70% of the research area. The subsurface sections of the 2 dimensional resistivity measurements are combined for 3 dimensional modeling. 3-dimensional modeling is used to estimate the existing andesite resources at the research sites. Modeling is done by assuming every geoelectric measurement point. This research aims to determine the thickness of the andesite in the 2 Dimensional resistivity cross section in each path. Determine the distribution of Andesite indication at the research location. Calculates the volume of andesite resources at the research location.

The basis of the calculation of the block method uses Inverse Distance Squared which assumes that the value of an integer from a point affects the estimated point. 2. Based on the horizontal distribution in the 3 Dimensional section in the southwest and southeast as if not encountered andesite. The reality in the location is encountered in andesite, this explains that in the south-east and southeast parts it is not in the path of resistivity measurement.

Based on the results of the research, the potential of andesite is present in each measurement path with a minimum resistivity value is 120 Ωm. Andesite resource estimation based on geoelectric data of 3 dimension model with Geosoft Oasis Montaj program stated in volume is 4,512,125 m3. At the location of research in Subang Regency, it is suggested that the measurement of geolistrik of 2 dimensional resisitivity method should be longer length of trajectory so that the maximum depth of measurement can be obtained deeper.