

## ABSTRACT

PT. Masindo Prima Resources is an andesite mining company which located in Watusampu village, Palu city. PT. Masindo Prima Resources have two locations of WIUP, both of them located nearby. The first location is Northern WIUP which is research area A and Southern WIUP which is research area B. In research area A mining activities are still running. In research area B mining activities will be starting after exploration activity done. Model of andesite rock from exploration activity is needed to make mine plan and design in research area B.

In this case, Vertical electric sounding method with Schlumberger configuration and Electrical Resistivity 2D with Dipole-dipole configuration are used to get data of andesite rock. Resistivity and coordinates of data can be known by the methods. Furthermore, it can also support to distinguish material, so that a model of Andesite rock can be made.

From research with Vertical electric sounding method, the research area A and B have a same condition, there is found andesite rock which have average grade of *resistivity* (500-800) Ohm.m and -2 m depth from the surface which have thickness 5-8 m. Moreover, it also found andesite rock which have average grade of *resistivity* >800 Ohm.m and depth -30 m from the surface which have unknown thickness. In Electrical Resistivity 2D method, andesite rock known in upper layer which haven't massive body and dominated with boulders. The Andesite have variation of depth between -2 m until -4 m from the surface and 7 m until 10 m in thickness.

Keywords : *Resistivity, andesite rock, modelling*