

ABSTRACT

Wonosari region, in the regency of Gunung Kidul, Special region of Yogyakarta is one of the areas having the potential of natural resources in the form of limestone. The optimal management is needed so as to change the potential of natural resources to be a source of income for the region.

The estimation of limestone resources in Pokerso mountain (hill) managed by PT. Sugih Alamnugroho, Ltd is meant to identify the amount of limestone resources on that mountain. Estimation was implemented with two methods namely cross section and contour methods. The measurement of the extent was conducted using *Autocad*.

Based on the available data those were topographic map, drill data, and chemical analysis data of the available limestone in the site of research, it was know that the limestone in the site of research contained 54,11% CaO, 96,38% CaCO₃, 0,3% MgO, 0,048% SiO₂ and 0,12% Fe₂O₃. The limestone in the site of research would be utilized as raw material for paint industry.

The result or reserve estimation with cross section method showed that measured resources which were obtained were 2.428.783 tons, while based on contour method, measure resources obtained were 2.464.815 tons. There were difference as many as 36.032 tons. Both methods used *rule of gradual change* or the guidelines of gradual change so that the distance between the contours was considered srainght.