ABSTRACT

To meet the needs of limestone as the main raw material of cement, then PT. Semen Indonesia (Persero) Tbk. Tuban plant will expand on the block pongpongan mining region, thus the need to block pongpongan estimated mineable reserves of limestone in order to provide the estimated quantity (tonnage) of limestone reserves, as well as determine the remaining life of the mine based on mining limits.

Based on the analysis of the data supporting the existing drilling at PT. Semen Indonesia (Persero) Tbk. Tuban plant, seen spreading limestone sediment in the study area, there are high levels of limestone with an average CaO content of 55.69%, limestone CaO levels are at an average level of 53.14%, and low levels of limestone with an average CaO content MgO content of 51.01% and 0.21%. From the analysis it is known that the deposition of limestone in the study area in accordance with the quality standards set by PT. Semen Indonesia (Persero) Tbk. Tuban plant, the content of ≥ 52% CaO and MgO content of ≤ 2.0%. Thus precipitated limestone blocks in the area to be mined and decent Pongpongan used as raw material for making cement.

Estimating results reserve drawn limestones restricted to a height 30 meters above the sea surface and geometry slope with high 6 meters; 3 meters of width, slope 80o and overalls pit slope 57o. Limestones reserves estimation conducted using cross section methods and contour methods. Cross section metodhs done by making cross section 2 (incision), namely 42 incision for direction incision south to north with gap between incision 100 meters and 38 incision for direction incision west to east with gap between incision 50 meters. The limestones reserve estimation by cross section methods obtained 388.078.784,6 tons to distance among incision 100 meters with direction incision south to north and 376.932.158,4 tons to distance among incision 50 meters to direction incision west while by using centrifugal contour of 395.832.942 tons.

The production target of limestones PT. Semen Indonesia (Persero) tbk. Factory tuban of 14 million tons per year. Based on the estimate reserve drawn with the cross section methods obtained 27.7 years mine ages with the distance incision 100 meters and old mines 27 years in the range of 50 meters, an incision meanwhile, with the contour methods obtained 28,3 years mine ages.