ABSTRAK

Rancangan Geometri Peledakan Untuk mendapatkan Ukuran Fragmentasi 40 cm di Front V Bukit Karang Putih PT. Semen Padang

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PT. Semen Padang is a company engaged in the field of limestone mining. To break the limestone from its main rock by using blasting method. Based on field observations resulting from the blasting process at Front V PT. Semen Padang is not optimum because there are still many fragmentation results of the material size > 100 cm, while for the maximum size of fragmentation in the crusher is 40 cm. Although the type of crusher used for crushing limestone can accommodate material that is 100 cm, but the material size > 40 cm will aggravate and slow the crusher work. Then performed geometry improvement using theory according to R. L. Ash and C. J. Konya, so get result of fragmentation according to target. With the result of calculation of blasting geometry according to R. L. Ash obtained burden 4.75 meters, spacing 4.75 meters, the depth of hole 12.82 meters, tall height 11.4 meters, stemming 3.32 meters, subdrilling 1.42 meters, powder charge 9.5 meters and powder factor 0.49 kg / and calculation results according to CJ Konya burden 3.70 meters, spacing 4.6 meters, stemming 2.59 meters, subdrilling 1.11 meters, the depth of hole 12.11 meters , tall height 10 meters, powder charge 9.52 meters, and powder factor 0.70 kg / m3. After the calculation, then the calculation of geometry according to the theory R. L. Ash with average fragmentation 40,35 cm and percentage of material > 40 cm as much as 50,83 % and geometry calculations according to theory CJ Konya with average fragmentation 30,61% and percentage of material > 40 cm as much 36.60%.

Keywords: Limestone, Blasting geometry, fragmentation, percentage of material.