ABSTRACT

Tunaiki Harukadol: Evaluation of Blasting Geometry Design to Optimize Blasting Results in Andesite Mining at PT. Bintang Sumatera Pacific Pangkalan Koto Baru Regency 50 City, West Sumatra Province.

Blasting activities carried out by PT. Bintang Sumatera *Pacific* produces quite large> 60 cm (> 15%), while the *bucket* capacity of Hitachi Zaxis 200 digger is 1.09 m3 in *size*. Blasting geometry is one of the *factor*s causing the large amount of fragmentation produced. So the blasting fragmentation analysis was carried out using the *kuz-ram* equation and the blasting geometry improvement was done using R.L Ash and C.J. Konya. As a result of the research the following conclusions were drawn. First, rock fragmentation from the proposed blasting geometry, the average fargmentation of the rocks that passes is <60 cm in *size* with *split desktop software*, which is 100% of 1 blasting. Second, based on calculations using the RL Ash formula for the proposed blasting geometry I, II, III, IV and calculations using the CJ Konya formula for the proposed blasting geometry V. Then the blasting geometry proposal I is selected using the RL Ash formula with a space value (S) of 2 meters, *burden* (B) 2 meters, depth (H) 5.5 meters, height (L) 5 meters, *Stemming* (T) 2 meters, *Subdrilling* (J) 0.5 meters, average filling column 3.5 meters. Third, the production yield obtained from one trial of proposed blasting is 5977 tonnes.

Keywords: Fragmetation, *Kuz-ram*, *Split desktop*, blasting geometry, RL Ash and C.J Konya.