

ABSTRACT

PT. Adaro Indonesia (PT. AI) is coal mining company, the company was established since 1982. The mining system that is applied in PT. AI is by open-pit mining system, which consists of 3 main Pit; namely Pit Parangin, Wara, and Tutupan. PT. AI use drilling and blasting method to breaking the overburden. The production target of overburden in 2016 was 5,012 million bcm / month, and for coal target is 1,298 million ton / month with a stripping ratio of 4: 1.

The blasting successfully can be seen from some of parameters time digging excavator, blasting recovery and also the value of velocity of detonation (VOD). Therefore this research about location of primer in blasting hole. Observations and direct trial was performed to compare the effect of the primary position at the time on the bottom (bottom priming), with the primary position of 1.5 m from the bottom of the hole (middle priming), the time digging excavator, blasting recovery value, and the amount of value VOD.

From the observations and experiments, bottom primary method is the optimum position to decrease digging time of excavator because the data of first layer digging time gained an average of 11.3 seconds, 12.7 seconds and the second layer, while for middle priming obtained an average time for the first layer 12.4 seconds and 14.5 seconds for the second layer. Blasting recovery values for bottom priming method is 79% and 74% for middle priming method. But, all of the methods don't reached the target of 95%. The good primary position to obtain proper VOD value is bottom priming method, because VOD value is 5,409 m/s. This value is greater than middle priming method (VOD = 4,560 m/s).