

ABSTRAK

CV. Central Stone Perkasa merupakan perusahaan yang bergerak di bidang industri penambangan andesit yang terletak di Desa Hargorejo, Kecamatan Kokap, Kabupaten Kulon Progo, Daerah Istimewa Yogyakarta. CV. Central Stone Perkasa memiliki IUP seluas 30 Ha menggunakan sistem tambang terbuka metode kuari *side hill type*.

Kegiatan penambangan andesit di CV. Central Stone Perkasa membutuhkan suatu perancangan *push back* selama 5 tahun mengacu pada target produksi sebesar 91.500 BCM/tahun serta jalan tambang selama 5 tahun penambangan. Selama berjalannya penambangan, jumlah alat belum mencukupi target produksi selama setahun.

Dilakukan perancangan *push back* selama 5 tahun dengan geometri jalan. Kemajuan tambang dimulai dari elevasi 137 mdpl hingga elevasi 225 mdpl dengan arah penambangan ke arah Barat dan Selatan. Total andesit yang tertambang sebesar 462.263,28 BCM. Pembongkaran andesit menggunakan *rock breaker* Doosan DX 225 LCA dengan LCA dengan *attachment rock breaker* Dongyang DYB 800. Alat muat yang digunakan *backhoe* Komatsu PC 160 LC. Alat angkut yang digunakan *dump truck* Hino Dutro 130HD. Jumlah alat yang direkomendasikan yaitu 3 unit alat bongkar, 2 unit alat muat, 28 unit alat angkut dengan nilai *match factor* sebesar 0,69.

Kata kunci: *push back*, jalan angkut, *match factor*

ABSTRACT

CV. Central Stone Perkasa is a company engaged in the andesite mining industry located in Hargorejo Village, Kokap District, Kulon Progo Regency, Special Region of Yogyakarta. CV. Central Stone Perkasa has an IUP covering an area of 30 hectares using an open-pit mining system using the side hill type quarry method.

Mining activities in CV. Central Stone Perkasa requires a push back design for 5 years referring to a production target of 91,500 BCM/year and a mining road for 5 years of mining. During the mining process, the number of tools did not meet the production target for a year.

The push back design was carried out for 5 years with the geometry of the road. Mining progress starts from an elevation of 137 meters above sea level to an elevation of 225 meters above sea level with mining directions to the west and south. The total andesite mined is 462,263.28 BCM. Andesite mining is using rock breaker Doosan DX 225 LCA with LCA with Dongyang DYB 800 rock breaker attachment. Loading tool used backhoe Komatsu PC 160 LC. The conveyance used Hino Dutro 130HD dump truck. The recommended number of tools are 3 units of breaker equipment, 2 units of loading equipment, 28 units of transporting equipment with a match factor value of 0.69.

Keywords: push back, mining roads, match factor