

PERANCANGAN (*DESIGN*) PIT EF PADA PENAMBANGAN BATUBARA DI PT MILAGRO INDONESIA MINING, DESA SUNGAI MERDEKA , KECAMATAN SAMBOJA, KABUPATEN KUTAI KARTANEGARA, KALIMANTAN TIMUR

SARI

Daerah penelitian berada di Desa Sungai Merdeka, Kecamatan Samboja, Kabupaten Kutai Kartanegara Provinsi Kalimantan Timur merupakan daerah yang memiliki potensi bahan galian batubara. Dalam upaya optimalisasi perusahaan pertambangan dengan dibuatnya perancangan *pit*.

Perancangan *pit* di PT Milagro Indonesia Mining menggunakan bantuan perangkat lunak komputer, adapun parameter yang diperlukan untuk merancang *pit* EF tersebut, yaitu: data pemodelan batubara, geometri lereng tambang, batas penambangan (*pit limit*), jalan tambang (*ramp*), *stripping ratio* yang ekonomis untuk di tambang.

Berdasarkan hasil perhitungan *BESR II* (*Break Even Stripping Ratio*) di PT Milagro Indonesia Mining diperoleh *BESR II* yaitu 9,8 : 1. Sedangkan *SR* (*Stripping Ratio*) ekonomis 6,9 : 1.

Pit EF dirancang dengan luas lubang bukaan tambang 6,03 Ha dan elevasi lantai tambang 60 mdpl. Berdasarkan optimasi desain *pit*, maka didapat cadangan tertambang batubara pada *pit* EF adalah 200.657 ton dengan volume *overburden* 1.344.574 BCM dengan *SR* 6,7 : 1.

Kata kunci : batubara, potensi, *SR* ekonomis

DESIGN PIT EF COAL MINING IN PT MILAGRO INDONESIA MINING, SUNGAI MERDEKA VILLAGE, DISTRICT SAMBOJA KUTAI KARTANEGARA REGENCY, EAST KALIMANTAN

ABSTRACT

The research area located in Sungai Merdeka, District of Samboja, Kutai Regency of East Kalimantan Province is an area that has a potential of coal mining material. In an effort to optimize the mining development a pit design has been prepared.

The pit design in PT Milagro Indonesia Mining uses a help of computer software, as for the parameters to design the pit EF, namely; coal modelling data, mine slope geometry, boundary mining (pit limit), mine haul road (ramp), stripping ratio that is economical to mine.

Based on calculations BESR II (Break Even Stripping Ratio) in PT Milagro Indonesia Mining, BESR II acquires 9.8: 1 while for economical SR (Stripping Ratio) is 6.9: 1.

Pit EF has been designed with wide opening 6.03 Ha and the elevation of quarry floor is 60 meters above sea level. Based on the optimization of pit design, the obtained coal in the EF pit mineable reserves is 200.657 tonnes with overburden volume of 1,344,574 BCM and SR of 6.7: 1.

Keywords: coal, potency, economical SR.