

ABSTRACT

PT. Indonesia Riau Sri Avantika (PT. IRSA) is one of coal mining company in Indonesia which has a job site located in Bukit Berlian village, Napal Putih District, Bengkulu Utara Regency, Bengkulu Province. In conducting mining activities, PT. Indonesia Riau Sri Avantika uses a surface mining system.

The research area is one of pits operated by PT. IRSA, Site Napal Putih, with the research area limited to 8,98 hectares in Mei 2013 and 4.184.292 bcm overburden and 1.256.159 tons coal reserves. Based on the data from PT. Indonesia Riau Sri Avantika, Site Napal Putih has 1 coal seam (A) and in general the pattern of coal distribution at Site Napal Putih has a circular coal seam from Nort West to South East with a coal seam inclination of 3° and coal thickness from 0.3 to 7 m.

PT. IRSA needs technical plan of overburden stripping with SR of 5: 1 and the coal stripping production target of 50,000 ton / month within 6 months which are June 2013, July 2013, August 2013, September 2013, October 2013, dan November 2013

Mining slope geometries are 8 m height, 5 m width, 60° single slope inclination, and 48° overall slope inclination. Haul road width is 13 m for straight road and 17 m for curve road with 7,8 m radius and 25% (14°) for the haul road inclination.

Overburden production plan and coal/month exposure at the research area are scheduled for 6 months. The first month of production of overburden stripping is 153.546 bcm and the coal which will be opened is 68.924 tones with stripping ratio (SR) 2,2. The second month of production of overburden stripping is 151.045 bcm and the coal which will be opened is 42.031 tones with stripping ratio (SR) 3,6. The Third month of production of overburden stripping is 150.962 bcm and the coal which will be opened is 67.647 tones with stripping ratio (SR) 2,2. The fourth month of production of overburden stripping is 157.135 bcm and the coal which will be opened is 99.429 tones with stripping ratio (SR) 1,6. The five month of production of overburden stripping is 152.630 bcm and the coal which will be opened is 55.547 tones with stripping ratio (SR) 2,7. The sixth month of production of overburden stripping is 150.930 bcm and the coal which will be opened is 45.087 tones with stripping ratio (SR) 3,3.

Waste dump is created only at 1 location which is inipit dump Site Napal Putih located at northern sidewall inside the Site Napal Putih area which has been mined out its coal. Types of excavators used for overburden stripping is Caterpillar tipe 325B and Types of dump truck used for hauling overburden is Volvo tipe A25C.