

ABSTRACT

PT. Bukit Asam (Persero) Tbk., is a state company engaged in coal mining, located in Merapi Timur sub-district, Lahat district, South Sumatera. Mining plan will be implemented in Muara Tiga Besar Utara (MTBU) with covering area is 229 Ha. In conduct mining activities, PT. Bukit Asam (Persero) Tbk., Using surface mining system.

Mineable coal reserves in Muara Tiga Besar Utara is 15.140.045 tons by stripping the overburden material at 45.416.249 BCM with overall stripping ratio is 3:1. Mining activities conducted on A1,A2 and B coal seam with mine life for 3 years.

The Geometry of the slope mining is 9 m of bench height, 15 m of the bench width, 34 ° of single bench angle and 18 ° of overall bench angle. The width of hauling road is 24 m for straight one and 28 m for turning ones with superelevasi value 4% from the road width.

In the first year of mining can unload as much 17.038.749,67 BCM of overburden and 5.011.396,96 tons coal with stripping ratio 3,4: 1. The second year of mining can unload as much 15.108.749,67 BCM of overburden and 4.721.484,27 tons coal with stripping ratio 3,2 : 1. The third year of mining can unload as much 13.268.746,66 BCM of overburden and 5.407.163,77 tons coal with stripping ratio 2,45:1

The digging and loading equipment that will be use for stripping the overburden materials is Komatsu PC 1250SP-8 needed as much as 6 units in the first and second year, 5 units in third year. The digging and loading equipment that will be used for loading the coal is backhoe excavator komatsu PC 400LC SE-7 needed as much as 2 unit in first and second year, 3 units in third year. The hauler equipment that will be used for carrying overburden materials is komatsu HD 465-7 needed as much as 37 units in first year, 23 units in second year, and 21 units in third year. The hauler equipment that will be used for carrying coal is HINO FM 260JD needed as much as 16 units in first and second year, and 18 units in third year.