

**DESIGN ACTIVITY FOR REMOVAL OVERBURDEN
IN COAL MINING PIT M MIDDLE ROTO
PT BUKIT MAKMUR MANDIRI UTAMA
BATU SOPANG SUBDISTRICT, PASER DISTRICT
EAST KALIMANTAN PROVINCE
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ABSTRACT

The study was conducted at PT Bukit Makmur Mandiri Utama jobsite KIDECO located in District Batu Sopang, Paser Regency, East Kalimantan Province. The purpose of this study is to design activities of overburden stripping which are from loader unit selection, sequence of mining, as well as the design of tool pair (*fleet*) which is based on a target production in May 2015 of 277,608 tonnes of coal and overburden 2,612,778 BCM with a stripping ratio of 1: 9.41.

In May 2015 plan 7 loader units consisting of 2 units of Komatsu PC 4000, 1 unit of Hitachi EX 3600, 2 units of Komatsu PC 2000 and 2 units of PC 1250 are set up with a total production capacity of 2,903,219.71 BCM/Month.

Designing the sequence of mine in May divided over 7 locations in accordance with the number of loading tool and production capacity, which cutback in is aimed to strip from the east and south locations of pit M with the purpose to expose the coal seams of 15,16, and 17 which are the upper east side. Cutback is also aimed to strip on the east side of the middle and lower south pit which is aimed in time until the decreasing elevation to get the coal seams of 12. The results of the mining sequence using the reserve minescape software version 4.118 extract tons of coal 300,456.05 with recovery of 90% and 2,725,524.31 BCM overburden with SR 1 :9.07. Based on data coal price in January 2016 the calculation result BESR (economic) stripping ratio 1:3,1 is obtained, so that be needed reducing distance transportation to save the cost overburden stripping.

To perform the removal of overburden material to the disposal site M pit area located in the south of Pit M, then the design of the tool pair (*fleet*) in stripping overburden is based on data obtaining use 7 fleet. To gain the purpose is carried by using three types of hauler of Caterpillar OHT 789 C, Caterpillar 785 D and Komatsu HD OHT 785.

Keyword : *overburden, fleet, sequence, stripping ratio*