

ABSTRACT

PT. Madhani Talatah Nusantara is a contractors company in the field of coal mining. Mining sites located in the Village Mulawarman, District Tenggarong Seberang, Kutai regency, East Kalimantan province. PT. Madhani Talatah Nusantara (PT.MTN) working on the coal mining business of PT. Kayan Putra Utama Coal since mid-August 2009 with a mining area of 651 ha.

Overburden stripping activities carried out by using 3 units backhoe Hitachi 3600 and 2 units backhoe Hitachi 2500. As for hauling equipments using 15 units Caterpillar 785C and 16 units Caterpillar 777D. Production targets to be achieved is 3.261.654 BCM/month. Actual production of a series of equipments that only 2.489.615 BCM /month, so there is still a shortage of 772,039 BCM. This is due to time constraints which cause a reduction in effective working time of equipments. Work efficiency of loading equipment is 69,4% and 73.7% of transport equipment. Work efficiency values are categorized in categories that are not profitable.

Efforts are made to achieve production targets and increase work efficiency value by improving the effective working time of loading and hauling equipments. Improvement efforts are done in 2 stages. Stage 1 is done by reducing the time constraints that can be avoided, but without reducing the barriers of time waiting for the truck. Improvements stage 2 is done by reducing the time constraints due to waiting trucks. Improvements stage 2 will be done if stage 1 improvements have not be able to produce the achievement of production targets and have not be able to increase the categories of work efficiency of loading and hauling equipments.

The results obtained after stage 1 of repairing effective working time is increased the amount of production to be 2.563.189,5 BCM. The average efficiency of work equipments increased to be 71.6% loading, while for hauling equipments to be 76%. The work efficiency of the loading equipments is still classified in categories that are not profitable. Yet the achievement of production targets and low work efficiency of loading equipments caused the need for work effective repair stage 2.

Repair of work time effectively stage 2 is done by reducing the barriers of time due to waiting trucks. This is done by adding 11 units of dumptruck Caterpillar 777D from another project of PT.MTN that will be depleted mine age. With this, the achievement of production increased to 3,370,053 BCM / month. Value of work efficiency of loading equipments has increased to 75,82%, this value can already be categorized in the category of medium. With this, it can be show that the effective working time of loading equipments and hauling equipments has risen to medium categories and production target has successfully achieve.