

## ABSTRACT

PT. Eksekutif Putra Utama is a mining company that provides mining services for PT. Sinamarinda Lintas Nusantara in the coal mining in the village of West Sumatra Sinamar Dharmasraya District. The mining systems used is open pit mining with overburden stripping method that so called back filling method.

Stripping of the overburden is done by using backhoe. The backhoes that used are Komatsu PC 300 for serving five units of CWB Nissan dump truck, CAT 329-D for serving 4 units of dump trucks Nissan CWB, SK330B for serving 4 units of dump trucks and Nissan CWB, and SK330C for serving 4 units of dump trucks Nissan CWB . Working time is provided for 15.85 hours / day with 2 shifts.

The target of overburden stripping is 120,000 bcm / month. The actual production of overburden is 117,654.91 bcm / month. Based on the availability of mechanical devices that work on overburden stripping activities, the resulting production should exceed predetermined targets. This is caused by the reduction the effective working time due to the existence of barriers that can reduce the predetermined working time. The working efficiency of Komatsu PC 300 is 78.50% in the 1<sup>st</sup> shift and 47.75% in the 2<sup>nd</sup> shift with the efficiency of dump trucks is 78.47% in the 1<sup>st</sup> shift and 46.62% in the 2<sup>nd</sup> shift, the match factor is 0,85. Caterpillar 329D Work efficiency is 83.33% in the 1<sup>st</sup> shift and 49% in the 2<sup>nd</sup> shift with the working efficiency of dump trucks is 83.33% in the 1<sup>st</sup> shift and 48.50% in the 2<sup>nd</sup> shift, the match factor is 0.79. Kobelco SK330B Work efficiency is 82.44% in the 1<sup>st</sup> shift and 44% in the 2<sup>nd</sup> shift with the efficiency of dump trucks is 82.32% in the 1<sup>st</sup> shift and 43.37% in the 2<sup>nd</sup> shift , the match factor is 0.51. Kobelco SK330C Work efficiency is 80.53% in the 1<sup>st</sup> shift and 40% in the 2<sup>nd</sup> shift with the working efficiency of dump truck is 79.89% in the 1<sup>st</sup> shift and 39.37% in the 2<sup>nd</sup> shift , the match factor is 0.51.

Efforts is made to increase the production by increasing the effective working time. This is done by reducing the time barriers that occurs in overburden stripping activities and Kobelco SK330C is on standby. The reduction of time barriers will directly improve the working efficiency of mechanical equipment. The working efficiency of Komatsu PC 300 becomes 80.53% in the 1<sup>st</sup> shift and 72.25% in the 2<sup>nd</sup> shift and working efficiency of dump truck is 80.53% in the 1<sup>st</sup> shift and 71.5% in the 2<sup>nd</sup> shift, the match factor is 0, 81. The working efficiency Caterpillar 329D is 84.35% in the 1<sup>st</sup> shift and 71.63% in the 2<sup>nd</sup> shift and working efficiency of dump truck is 84.35% in the 1<sup>st</sup> shift and 71% in the 2<sup>nd</sup> shift, the match factor is 0.84. The working efficiency of Kobelco SK330B is 84.86% in the 1<sup>st</sup> shift and 72.5% in the 2<sup>nd</sup> shift and the working efficiency of dump truck is 84.61% in the 1<sup>st</sup> shift and 71.87% in the 2<sup>nd</sup> shift, the match factor is 0.91 .