

## **ABSTRACT**

*PT. Adaro Indonesia is a mine company engaged in coal mining. The research located in South 5-6 (S5-6) disposal area, Pit South Tutupan, PT. Adaro Indonesia with 3,215 hectares of area. The dumped overburden might cause uneven surface of the slope formed and it cause erosion.*

*Research carried out by made 3 boxes erosion on S5-6 slope disposal as box sampling and the data used USLE Equation. As the result, 59.942,3467 tons/hectares/year in Box 1, 44.188,7614 tons/hectares/year in Box 2, and 32.925,8762 tons/hectares/year in Box 3. It shows that the erosion level in S5-6 slope disposal is very heavy. Therefore, the land management is needed to minimalized the erosion's effects.*

*Land management is done by erosion and sedimentation controlling, and combined the mechanic and vegetative methods. Erosion controlling in mechanic method done by making bench terrace and drainage, while vegetative method done with revegetation the main plant by manual cultivation or hydroseeding the LCC. The bench terrace dimension are 1-3% slope of the field leading to the channel width are 13,85 m, 16,65 m and 20 m. Overall field processing with planting distance 3 m x 3 m reuires of a total 3.808 plants. The drainage dimension are 60<sup>0</sup>, 1,4 m channel surface width, 0,7 depth with 0,1 m heigh of safety. The dimension of embankment are 0,5 m and 1 m.*

*After the reclamation, the Box 1 erosion decrease into 13,5220tons/hectares/year, the Box 2 erosion decrease into 27,5305tons/hectares/year, the Box 3 erosion decrease into 13,0768tons/hectares/year, the erosion level in S5-6 slope disposal is very small.*

*Key words: erosion. Land management, bench terrace*