ABSTRACT

PT. Gunungbayan Pratama Coal Block I operates a coal mine located Muara Muntai, District Kutai Kartanegara East Kalimantan. Mining area of PT. Gunungbayan Pratama Coal Block I approximately ± 8.365 Ha wide with coal production is 29.500 tonnes / month. Block Keham mining areas have not been performed a mining activities, but from the design pit map found that some overall slope in unsafe conditions, it is necessary to analyze and design the mining slopes to prevent failure on a mine site.

PT. Gunungbayan Pratama Coal Blok I apply to mining slope design based on the material compose the slope mining. Physical and mechanical parameters obtained by the test material to be analyzed, the test was conducted in the laboratory TEKMIRA Bandung.

Block Keham current conditions there are some designs that mine openings in unsafe conditions. Laboratory test results on the top and then determined the value that can represent these values were then used as data in the analysis of slope stability. The value of the physical and mechanical properties that is used is the average value of the results of laboratory tests. The average value is used for sample rocks that tested each drill hole may not represent the condition of the existing material characteristics.

Based on the simulation analysis showed a single slope with silt stone material have SF 2,76, claystone have SF 2,72, sandstone have SF 4,29 and soil have SF 1,99. Single slope analysis of simulation results can be said to be in a safe condition with FK values ≥ 1.3. Analysis for the overall slope geometry created several versions using a single slopes are 10 m high and 70 ° tilt. Then the high slope whole match to be mined coal seams (coal seam target). Recommendations overall slope for each incision can use on the slopes of the entirety of each drill hole nearest the incision.