

ABSTRACT

The Andesite mining company experienced a deviation of 12.46% between demand and actual delivery. One of the reasons for the unmet production target was the reduced effectiveness of machinery, necessitating research to maximize production capacity for optimal company delivery. This study employed the Overall Equipment Effectiveness (OEE) method. Measuring the performance of a maintenance system was followed by the Maintenance Value Stream Mapping (MVSM) method to improve and enhance maintenance, visualize the flow of the maintenance process, and ensure facilities operate according to their functions. The research results indicated that the OEE value before improvement was 39.72%, which increased to 85.74% post-improvement. This improvement was attributed to the implementation of MVSM, which also influenced the Value Added (VA) metric. For the maintenance activities on the Conveyor gearbox, the initial VA value of 10.32% increased to 57.91%, the maintenance of the Motor Feeder went from an initial VA of 18.04% to 61.04%, and the Screen sieve replacement for 1-2 experienced an increase from an initial VA of 17.04% to 32.50%. The Conveyor small roller bearings maintenance maintained a constant VA value of 62.39%, while the Screen sieve replacement for 3-5 increased from an initial VA of 17.62% to 33.07%. The maintenance of Screen sieve replacement for 2-3 increased from an initial VA of 17.02% to 32.56%. The maintenance of the Jaw setting maintained a constant VA value of 20.78%, and the maintenance of the Conveyor large roller bearings also maintained a constant VA value of 41.78%.

Keywords : Andesite, Mining, OEE, MVSM

UNIVERSITAS
MERCU BUANA

ABSTRAK

Suatu perusahaan pertambangan Andesit mengalami selisih antara permintaan dan aktual pengiriman sebesar 12,46% yang disebabkan target produksi sering tidak tercapai. Penyebab utama tidak tercapainya target produksi adalah frekuensi kerusakan mesin yang cukup tinggi yang berakibat efektivitas mesin yang menurun. Penelitian ini bertujuan untuk mengatasi kedua masalah tersebut agar kapasitas produksi kembali meningkat. Penelitian ini menggunakan metode OEE dan MVSM. Hasil penelitian menunjukkan nilai OEE sebelum perbaikan sebesar 39,72% meningkat menjadi 85,74%. Hal tersebut dikarenakan penerapan MVSM juga mempengaruhi nilai Value added. Untuk kegiatan perawatan Conveyor gear box nilai VA awal 10,32% menjadi 57,91%, kegiatan perawatan Motor Feeder nilai VA awal 18,04% menjadi 61,04%, kegiatan Screen pergantian ayakan 1-2 nilai VA awal 17,04% menjadi 32,50%, kegiatan perawatan Conveyor bearing rol kecil nilai VA awal 62,39% tetap 62,39%, kegiatan perawatan Screen pergantian ayakan 3-5 nilai VA awal 17,62% menjadi 33,07%, kegiatan perawatan Screen pergantian ayakan 2-3 nilai VA awal 17,02% menjadi 32,56%, kegiatan perawatan Jaw setting per nilai VA awal 20,78% tetap 20,78%, kegiatan perawatan Conveyor bearing rol besar nilai VA awal 41,78% tetap 41,78%.

Kata Kunci : Andesit, Tambang, OEE, MVSM

UNIVERSITAS
MERCU BUANA