

## ABSTRAK

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Program Studi : Teknik Pertambangan

Judul : Analisis Target Produksi Agregat Batu Split Andesit Hasil *Crushing Plant* Untuk Kebutuhan *Asphalt Mixing Plant* Pada CV.Padmas

CV. Padmas menghasilkan 5 produk dari proses pengolahan bahan galian yaitu abu batu, split 1-2, split 2-3, split 1-1 (*screen*) dan limbah pasir. Target produksi masing masing produk sebesar 800 m<sup>3</sup>/hari. Komposisi agregat untuk campuran aspal AC-WC yaitu abu batu 45%, batu split 1-1 (*screen*) 45%, dan batu split 1-2 10%. Kebutuhan agregat batu split untuk campuran *asphalt mixing plant* yaitu 222 m<sup>3</sup>/hari.

Penelitian ini menggunakan metode kuantitatif dengan teknik pengambilan data berupa data primer dan data sekunder. Mencari nilai produksi aktual tiap produk dengan menggunakan ember sampai terisi penuh.

Maka didapatkan rata rata produksi harian abu batu 157 m<sup>3</sup>, batu split 1-2 143 m<sup>3</sup>, batu split 2-3 138 m<sup>3</sup>, batu split 1-1 (*screen*) 90 m<sup>3</sup> dan limbah pasir 197m<sup>3</sup>. Ketercapaian target produksi tiap produk untuk abu batu 20%, batu split 1-2 18%, batu split 2-3 17 %, batu split 1-1 (*screen*) 11 % dan limbah pasir 25%. Nilai Kesediaan alat mekanis (MA) 81%, Kesediaan Fisik (FA) 83%, Kesediaan Penggunaan (UA) 89%. Dengan waktu efektif 74%. Kebutuhan harian komposisi agregat batu split untuk campuran *hotmix* laston AC-WC pada CV. Padmas adalah abu batu 100 m<sup>3</sup>, split 1-2 22 m<sup>3</sup>, batu split 1-1 (*screen*) 100 m<sup>3</sup>. Rata-rata harian produk abu batu, 157 m<sup>3</sup>, batu split 1-2 143 m<sup>3</sup> dan batu split 1-1 (*Screen*) 90 m<sup>3</sup>, sehingga produksi agregat batu split untuk campuran *hotmix* yang terpenuhi yaitu abu batu, dan split 1-2. Sedangkan untuk kebutuhan batu split 1-1 hanya dapat terpenuhi 90% dimana penyebab utamanya adalah karena sering terjadi kerusakan pada *screen*.

Maka dari itu perlu perawatan yang baik atau penggantian pada *screen* 1-1 untuk memenuhi kebutuhan komposisi agregat batu split untuk *asphalt mixing*

*plant*. Target produksi yang ditetapkan oleh perusahaan terlalu besar, tidak sesuai dengan kemampuan peralatan produksi yang tersedia.

**Kata Kunci:** Produktivitas *Crusher*, Komposisi agregat batu split untuk kebutuhan *asphalt mixing plant*, Waktu kerja Efektif.



## ABSTRACT

Name : Iqbal Maolana

Study Program : Mining Engineering

Title : Target Analysis Of Andesite Stone Split Aggregate Production From Crushing Plant For Asphalt Mixing Plant In CV. Padmas.

CV. Padmas produces 5 products from the mineral processing process, namely rock ash, split 1-2, split 2-3, split 1-1 (screen) and waste sand. The production target of each product is 800 m<sup>3</sup>/day. The aggregate composition for the AC-WC asphalt mixture is 45% stone ash, 45% split 1-1 (screen) stone, and 1-2 10% split stone. The need for split rock aggregate for asphalt mixing plant is 222 m<sup>3</sup>/day.

This study uses quantitative methods with data collection techniques in the form of primary data and secondary data. Getting the actual production value of each product was using the bucket until it is full.

Then the average daily production of stone ash is 157 m<sup>3</sup>, split stone 1-2 is 143 m<sup>3</sup>, split stone 2-3 is 138 m<sup>3</sup>, split stone 1-1 (screen) is 90 m<sup>3</sup> and sand waste is 197 m<sup>3</sup>. Achievement of production targets for each product for 20% stone ash, 1-2 18% split stone, 17% split stone 2-3, 11% split stone (screen) and 25% sand waste. Availability of mechanical equipment (MA) 81%, Physical Availability (FA) 83%, Willingness to Use (UA) 89%. With an effective time (UA) of 74%. The daily requirement of split rock aggregate composition for hot mix laston AC-WC at CV. Padmas is stone ash 100 m<sup>3</sup>, split 1-2 22 m<sup>3</sup>, rock split 1-1 (screen) 100 m<sup>3</sup>. The daily average production of stone ash product is 157 m<sup>3</sup>, split stone 1-2 is 143 m<sup>3</sup> and stone split 1-1 (Screen) is 90 m<sup>3</sup>, so that the production of split stone aggregates for hot mix mixtures that are fulfilled are rock ash, and split 1-2. As for the need for stone split 1-1 can be met 90% of the requirement majorly caused by frequent damage of the screen.

Therefore, it needs good maintenance or replacement on screen 1-1 to meet the needs of split rock aggregate composition for asphalt mixing plant. The

*production target set by the company is too large, not in accordance with the capabilities of the available production equipment.*

*Keywords: Crusher Productivity, Composition of split rock aggregate for asphalt mixing plant needs, Effective Working Time.*

