



Job Report Surface Mining

# 2100 SM: Selective mining of limestone in the plant Dalavoi/India



## Wirtgen Surface Mining:

### 2100 SM: Selective mining without blasting in a limestone quarry (India Cement, India)

Harald Lissberg, Windhagen, 3 Nov. 2004

#### Situation:

The limestone deposit consists of a mixture of different material qualities.

To reach unique material quality for the cement making process selective mining and blending is necessary.

India Cement opened the Dalavoi cement factory and the associated mines in 1996.

Therefore mining with Surface Miners was chosen.

The operation was started using two Wirtgen 2100 SM. These machines produce a total of 6,000 t/day of limestone in a two-shift operation.

The production capabilities of the two machines were sufficient to fulfil the customer's production demand. However, blending requirements of material from different pits required another Surface Miner. This machine was deployed in 1999.

#### Material data:

Material:	Limestone
Density:	2,2 t/bcum
Uniaxial compressive strength:	30 to 40 MPa
Structure:	The limestone is mainly massive without visible structures.

#### Production data:

Trucks with capacities of 25 t payload were loaded.

The machine had the following production performance:

Cutting performance:	on average: 299 t/h
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With this set-up India Cement is able to reach the targets of production performance and quality standards.





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