

Professional paper

UDC: 622.332 (497.6 Banja Luka)

DOI: 10.7251/ajts.2013.0509.035K

## CALCULATION OF DRILLING AND BLASTING PARAMETERS FOR QUARRY "DOBRNJA" NEAR BANJA LUKA

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### ABSTRACT

Using of explosives in modern mining is very important for the good, efficient and rational organization for obtaining of solid minerals, especially in the exploitation of mineral resources on mines with large capacities. Technological phases of drilling and blasting in the exploitation process are very important in this case, and the analysis in this paper, because specific working environment and technical construction-limestone, where performance and capacities for further technological stages largely depends on the granularity of blasted materials (capacities of bulldozers, capacities of loaders-excavators, capacities of trucks and equipment for stone crushing and grinding). Objective of this paper is to get the best drilling and blasting parameters with different combinations of explosives, to get an optimum combination that will be continuously used.

**Key words:** exploitation, blasting, explosives

### INTRODUCTION

In the modern mining industry, for the proper efficient and rational organization of obtaining solid minerals, using of explosives is essential, especially in the exploitation of mineral resources in large-scale mining with large capacities. Drilling-blasting operations are one of the most influential factors on the cost of mineral resources exploitation because using of explosives in the process of obtaining minerals create the conditions for the application of other modern mining techniques.

Technological phases of drilling and blasting in this process of exploitation are very important in this case and the analysis in this paper, because specific working environment and technical construction limestone, where performance and capacity for further technological stages largely depend on the particle size of blasted materials (capacities of bulldozers, loading units, trucks and equipment for crushing and grinding) [1].

Analysis of physical, mechanical and technical characteristics of the rock that makes the working environment at quarry "Dobrnja" in Banja Luka, defined the way selection and definition drilling and blasting parameters and the choice sets for drilling and explosives.

According to well-established and accepted methods of choice and calculation drilling-blasting parameters, the paper elaborated different types (combinations) of explosives and their impact on other parameters (geometry of drilling, distance between blastholes, construction of blastholes, etc.). The

# Calculation Of Drilling And Blasting Parameters For Quarry

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