SAFETY IS A VALUE!

"Use of Borehole Probes"

Category : All Surface
Mine Type: Blasting

Balancing the amount of explosive energy to the volume of material being blasted is critical to a successful blast. The blaster must know the location of the bore holes within the material to be blasted, in order to determine the volume of material that each explosive charge will affect.

Blast holes often deviate. This deviation can lead to either too much, or too little burden. (See drawing)


The inaccurate determination of burden is a major cause of flyer. Therefore, to successfully design, load and detonate a blast for safety and production purposes, the actual location of blast holes must be determined throughout the material to be blasted.

The blaster often strives to determine hole location from the surface of the blast pattern by locating the collar of the holes, then assumes the holes are vertical and plumb. Experience has taught us however, that rarely is this the case. Holes often deviate from the planned drilling scheme. Any deviation of a blast hole can greatly reduce or increase the volume of material that an explosive charge is expected to affect. This deviation will greatly affect the results of the blast.

Technology provides a solution to this dilemma in the form of a "bore hole probe." The probe MEASURES the location of the bore hole within the material to be blasted and determines any deviation that may occur. Knowing this information, the blaster can adjust the explosive charge accordingly from hole-to-hole, or even within portions of the same hole. Using a bore hole probe in combination with a face profiler, (see remedy: Balance your Explosives - Face Profiling), a blaster can actually measure the volume of material that each explosive charge is expected to affect. This way, charges can be adjusted accordingly from hole to hole, or even within the same hole.

This technology can reduce the occurrence of flyrock.

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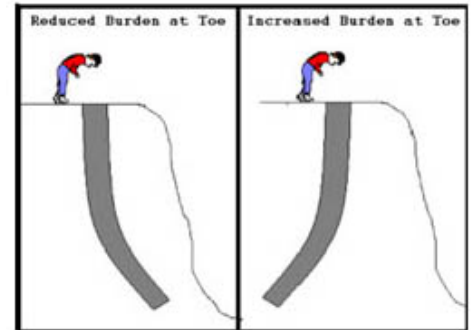
Remember – Safety is a Value that you can LIVE with!