

## THE ROCK FACTORY

Maptek<sup>™</sup> BlastLogic<sup>™</sup> provides mining operations with a strategic tool to ensure the most efficient use of equipment for processing ore.



The same pattern with slightly different views illustrates how the charge plan varied from waste to ore, and wet to dry holes. An optimal charge plan will achieve blast objectives like good fragmentation and minimal material movement between ore boundaries.

A mine is like a factory for rocks. Inefficient processes in any part cost money. Quality control must be applied at every stage - blast, grade control, mining, blending - if your rock factory is to be productive and profitable.

Discovering at the smelter stage that your ore has a lot of impurities will mean more processing and more energy consumed. Similarly, oversize material at the crusher means spiralling electricity costs.

Blasting is one of the highest cost areas. This critical first process in the rock factory often involves trial and error, which affects processes downstream. When designing a blast, no software algorithm can reliably be used to accurately predict the material size, as there are too many variables.

Blastlogic immediately appeals to mining operations as a strategic tool for managing blasts. Better decisions can be made by taking into account the history of blasting at the site and matching it to the processing outcomes. For example, you can track how material size affects the teeth of the shovel, as well as the truck load and haul costs.

## APPLYING BLASTLOGIC TO THE FIRST STAGE - DRILL & BLAST - ALLOWS ENERGY CONSUMPTION AT THE CRUSHER TO BE BETTER MANAGED.

Imagine you are the operations manager reviewing energy consumption for your plant over a specific period, and notice a spike.

With BlastLogic you can easily recall historical blasts that correlate with the material being processed, which are attributed to the spike.

A searchable data repository ties drill design, as-drilled, dipping, backfill, charge plan, as-loaded and observed blast performance data with videos, third-party reports and laser surveys to each blast. Easy access and analysis of blast data provides the mechanism for continuous improvement.

Another key benefit of BlastLogic is that immediate access to drill and blast data identifies potential issues early on, minimising their downstream impact.

BlastLogic has streamlined routine tasks and increased blast performance at several metallurgical coal operations in Queensland, Australia.

- Improved allocation of assets: immediate recognition of short holes after drill validation means less tramming of rigs over long distances to redrill.
- Improved wall control: better accuracy of drill angle and bearing, especially on pre-splits, ensures correct placing and separation of holes, and that drilling is on the correct plane.
- Ease of access: all the data is in one place and everyone is using the same data.
- Improved charge design: charge per hole based on actual data instead of design data, has resulted in better blast performance.
- Immediate access to data: quick validation of drilling to coordinate dipping requirements; faster location of clusters for redrills in a pattern after dipping.
- Ease of use: multiple charge rules and powder factors can be easily applied to patterns.
- Improved process: efficiencies due to identifying drill set-up errors that help to reduce the incidence of oversize rock and poor blast digability.

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