

Blast Intelligence Automating the Analysis of Drill Data to Optimize Blasting Operations



DataCloud advances orebody knowledge to help blasting crews improve performance. MinePortal analyzes Measurements While Drilling (MWD) and integrates operational data to optimize blasting.

CHALLENGE

Blast plans created from outdated and limited orebody knowledge produce suboptimal outcomes that cause poor performance downstream.

- Blast plans are generic regardless of variations in downhole hardness
- Planning software does not handle complex geology
- Integrating data from different drill manufacture systems is challenging
- The volume of new data that needs to be analyzed to update orebody knowledge is overwhelming to handle



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SOLUTION

Automate the process of analyzing MWD, so blast crews plan with updated, extensive orebody knowledge.

- Tailor explosives loading to downhole hardness, even for complex geology
- Integrate multiple drill systems' data
- Automate hardness zone modeling
- Isolate subdrill for next bench down hardness predictions

Add fleet management and explosive loading data to adjust blast designs for optimal dig rates.

Add crusher data to measure blast fragmentation and predict mill performance.



Blast Intelligence ting the Analysis of Drill Data





BLAST INTELLIGENCE

With limited time on the job and a narrow breadth of analytic skills, drill and blast teams operate without a holistic look at the orebody. There are plenty of data points during the production cycle to offer them an updated and detailed account of the orebody, but the data is unprocessed and siloed. DataCloud processes it, integrates it, and delivers the insights in a user-friendly 3D viewer.

MinePortal connects to a mine's databases to analyze the rock's properties and its historical performance. Cloud computing power allows MinePortal to ingest and process high volumes of information in real-time while applying geostatistical and machine learning algorithms to identify trends. Drill and blast crews make more informed decisions when equipped with a visualization of the orebody as it stands today and awareness of its predicted performance.

OUR HYBRID APPROACH

We develop digital solutions, we apply data science, and we know mining. Our hybrid approach is key to our clients' success.

No matter how far along you are on your digital transformation path, we can assist. We complete all projects with our geostatisticians, machine learning geologists, data integration specialists, mining engineers, and industry experts.



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