BMT WBM has a proven record in addressing today’s engineering and environmental issues. We aim to continue to enhance our services, capabilities and areas of application to meet the community’s future development and environmental protection needs.
The Problem

Maintenance downtime equals a loss of valuable production time.

Draglines today are a key component of many surface mining operations, and often the largest single asset at the site. Since availability and utilization of the machine is a critical priority, operators are increasingly pushed for more production and less downtime.

Understanding what operations actually contribute most toward failures can be a tough problem to understand.

- Are we overloading the machine?
- Which operators produce more payload with less damage?
- Is our machine under-designed?
- How do we re-train less skilled operators to be more effective?
- Are we nearing the end of the machine’s “Design Life”?
- How do we extend the useful life of our machine?
- Are we mining conditions different from other dragline users?
- How do our failures compare with other sites equipment?

The Solution

The PULSE TerraMetrix DL was developed over 15 years ago to help dragline owners reduce structural failures on their draglines while helping to simultaneously increase production.

WBM’s unique approach to dragline monitoring gives the operator real-time information to understand what situations cause high stress, allowing them to continuously improve their skill and techniques to achieve the highest production with the least amount of damage. WBM’s extensive research on operator performance and machine damage has led to the implementation of discreet, event-based alarms. These real-time alarms provide excellent training tools to constantly improve operator performance.

Time-stamped data is constantly recorded to provide mine management with the necessary information to improve the operations where the operators cannot.

Installing a PULSE TerraMetrix DL system on your machine can be accomplished in as little as 12 hours by WBM engineers.

Benefits of PTM Management

Production Monitoring
- Advanced payload measurement
- GPS machine location and heading, dig and dump locations
- Down time, dig times, swing times, cycle times, propel times, etc.
- Operator Logins, crew schedules, delay codes
- Management KPI’s including Operator Effectiveness

Health Monitoring
- Finite Element Model (FEM) driven inspection planning
- “Event” alarms based on known poor operating practices
- Inertial swing rate and pad grade detection vs. structural stress

Centralized Information
- Fleet Manager, Machine Manager & Mine Plan Manager
- Real-time view of the operator’s HMI
- Training documentation, Report Archives
- Daily distributed reports

A typical emailed report presents information on production and structural health seamlessly by operator.