Surface Teleremote Operation

Dion Hurn
Haulage Supervisor, Mining
August 22, 2011

bhpbilliton

resourcing the future

Background

Background
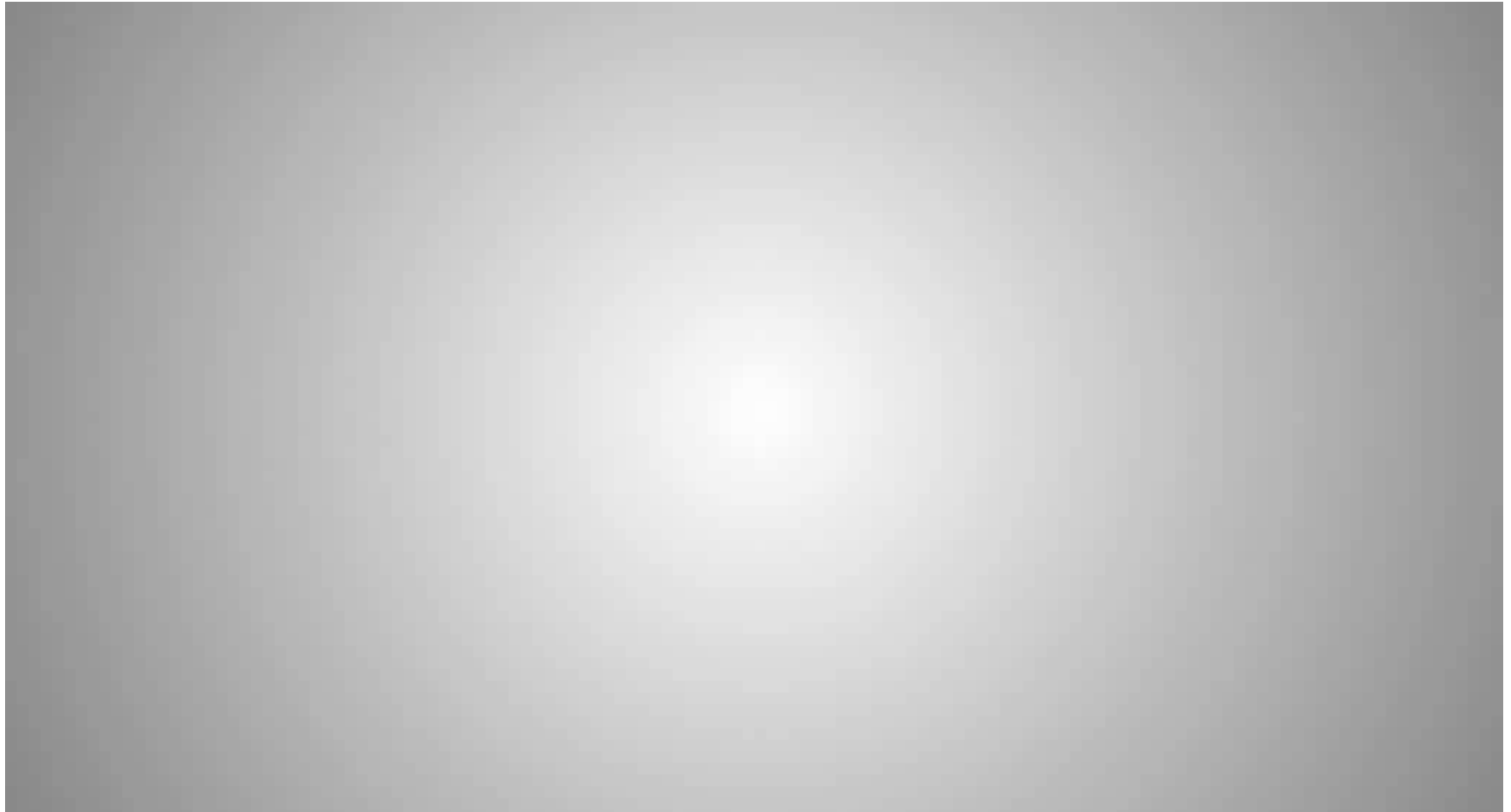
Underground Teleremote Operation

- Previously in place at Cannington Mine.
- Operator was 200 – 300 metres from operating machinery.
- Operator was still underground and exposed to hazards.

The Initiative

The Projects Team began discussing the possibility of building on the existing site Teleremote Capabilities.

Major step in protecting employee health and increasing safety.

The Solution

Initial investigations

- An external organisation was consulted.
- The vendor was provided with concerns and requirements for development of a Surface Teleremote Operation.

The Solution

Implementation

- Phase 1 - underground loaders were operated from the surface mining administration building.
- Phase 2 - introduction of a guidance system.

The Solution

The Surface Teleremote Operator was developed with:

- a wireless control system
- distributed antenna infrastructure.

The system includes a power supply health monitoring circuit with a battery back up.
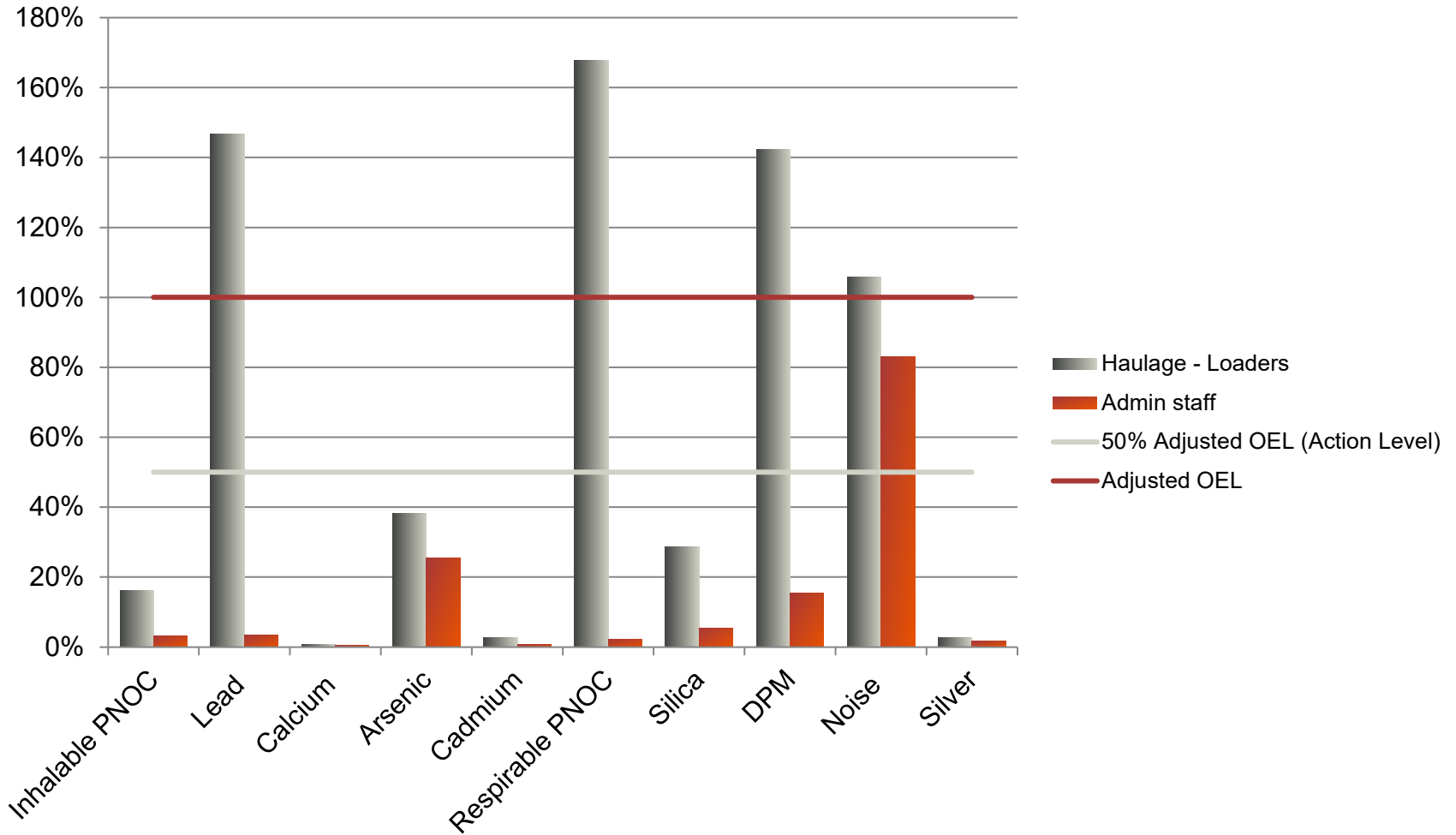
The Solution

The Solution

Cost

- Development and installation of the initial system and console: $227,000.
- Additional consoles: $167,000.
- Benefit of increased productivity as operations can continue through blasting.

The Solution

Benefits/ Effects

Benefits/ Effects

Transferability

- Custom designed system.
- Potential to continue to revolutionise an inherently dangerous work environment.
- The system can and has already been adopted in various surface mine operations.

Innovation

- The innovation sets a leading example of improving relationships with individuals, departments and external contractors.
- System unique to Cannington.
- Best practice remote technology.

Innovation

- First step in taking people out of underground mining environment.
- Efficient operation still functioning in underground environment.
- Inherent risk reduced dramatically.
- Modified an existing system to enable safe production.
- Improves and enhances our Teleremote fleet capabilities.

Discussion and Questions