

POTENTIAL FIRE AND \$1,980,000 IN REPAIRS PREVENTED WITH PROACTIVE SHOVEL INSPECTIONS

THROUGH MOBIL SERV | RIG'S EMBEDDED TECHNICIAN PROGRAM

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Case Study

SYNOPSIS

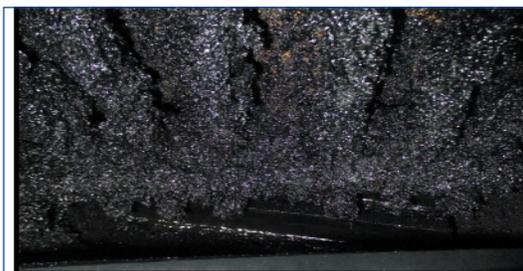
An inspection of two Caterpillar electrical shovels revealed multiple maintenance concerns that, if left unaddressed, would leave the shovels vulnerable to breakdown. Most importantly, a housing flooded with grease and oil was discovered. This poses a serious fire risk and needed to be addressed immediately.

By addressing these maintenance issues up-front, an estimated \$1,980,000 in damages was prevented. This does not include the prevention of a major fire, which could have resulted in a total shovel loss and loss of life.

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Front Load Roller Broken Bolt



Flooded Hoist Gear Housing

INTRODUCTION

Mobil ServSM | RIG[®] has an embedded shovel inspector program that performs inspections at client sites. During a recent inspection of two Caterpillar electric shovels, the following issues were identified:

- Critically dry point sheaves
- Grease injectors throttled to less than 10% of required lubrication
- Contaminated house roller
- Interior compartment flooded with oil and grease due to a leaky hoist
- Various failed injectors
- A broken bolt on the front load roller

The flooded housing is particularly concerning because the accumulated grease and oil poses a serious fire hazard that could total the shovel and seriously injure or kill the operator.

IMPACT & COST SAVINGS

The reported issues were submitted for repair before they cause more expensive damage and downtime. Low cost repairs now will save the mine operator an estimated \$1,980,000:

- \$300,000 by preventing repairs to point sheaves
- \$150,000 in component damage prevented with injector adjustments
- \$1,500,000 saved by cleaning the house rollers instead of replacing the train
- \$30,000 in additional savings by restoring proper lubrication

Additional savings in downtime, safety and man hours are not quantified. In addition, by correcting the flooded housing and preventing a fire, a total loss of shovel was at the cost of \$37,000,000 was prevented.

CONCLUSION

Our embedded inspector program plays a critical role in finding real cost savings by preventing equipment failure and managing lubricants to keep machinery running and peak performance. The Mobil ServSM |RIG[®] embedded technician program hire personnel with the right experience to fit your sites inspection, maintenance, and lubrication management needs. Our program offers resources for:

- Shovel inspectors
- Lubrication specialists
- Reclamation technicians
- Maintenance team extensions

We customize the services and programs to fit your needs, timeline and budget. [Learn more here](#) or contact us today: [1-800-770-4510](tel:1-800-770-4510)

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