Electric Motors, Copper Mine
Chesterton Lubricants/MRO Chemicals

Challenge

Background
Electric motor reliability is critical in ore processing operations where the motor bearings are usually subjected to dust, heat, water, and aggressive chemicals. The plant was replacing 24-30 motors per year @ $5,000-$27,500 USD each.

Goal
Due to reduced manpower and increased automation, the mine’s management needed Chesterton to implement a program to efficiently lubricate electric motors throughout the plant.

Solution

Electric Motor Reliability

All the motors were converted to Chesterton 615 HTG #2 (High Temperature Grease) applied via Lubri-Cup™ EM Automatic Grease Dispensers.

- The 250 cc grease pack used was dispensed evenly over 6 months
- Once a week, the units were visually inspected to ensure proper operation
- The grease pack and battery were replaced on a 6-month interval

Results

Savings & Improved Reliability

- Plant realized a 90% reduction in electric motor failure – dramatically improving the reliability and productivity of the ore processing lines
- After 5 years, the mine replaces only 3-4 motors per year – and none due to bearings failure
- Labor costs greatly reduced

Annual Savings: $425,000

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