

# COAL MINING (USA)

## Dragline wire ropes and fairleads

### Castrol Molub-Alloy® 902 SF Light

**ANNUAL SAVINGS: \$123,600**



#### THE SITUATION

A mining company was using 1 3/8" diameter wire ropes. Hoist cable life cycle was about 2000 hrs, and it was changed twice a year. Drag cable life cycle was less than 1000 hrs, and it was changed 4 times a year. Changing a rope takes 3-4 people about 4-6 hours.

Each time a rope is changed the following is encountered:

- Lost production time – 4-6 hrs.
- Downtime cost - \$8,000 per hour.
- Labor to replace ropes – 20 man-hours (4 people x 5 hrs) at \$60 per man-hour.

The company was looking for ways to significantly increase the service life of the wire ropes.

#### BEFORE

Annual cost calculations:

Labor cost - \$7,200

Cost of lost production – \$240,000

Replacement wire rope cost is unknown

**Total annual labor and downtime cost of wire ropes replacements - \$247,200**

#### AFTER

Annual cost calculations:

Labor cost - \$3,600

Cost of lost production – \$120,000

**Total annual labor and downtime cost of wire ropes replacements - \$123,600**

#### THE SOLUTION

- During the lube system inspection, Castrol Application Engineering determined that fairlead, sheave bearings and wire ropes were under lubricated.
- According to Castrol Engineering recommendations, two (2) SL-1 additional injectors were installed to each fairlead lube line.
- Molub-Alloy 902 SF Light wire rope lubricant was recommended for this application to provide additional protection and extend wire rope life.

## RECOMMENDATIONS

### Molub-Alloy 902 SF Light Wire Rope Lubricant

Used for lubrication of wire ropes typically found in coal, cement and phosphate mining operations and construction industries:

- Solvent Free
- Viscosity: 870 cSt @ 40C
- Excellent Anti-Wear
- Extreme Pressure Characteristics
- Protection against Corrosion & Weathering
- Easily sprayable
- Also protects Sheaves and Drums

## CONCLUSION

The unique properties of Molub-Alloy 902 SF Light have extended the life of the wire ropes over 50%.

### SAVINGS:

- **Actual savings per one machine:**  
**\$123,600**

### Notes:

- Replacement wire rope cost is not included.
- Wire ropes must be kept out of the overburden in dig face to achieve this.



## OTHER POTENTIAL APPLICATIONS

Molub-Alloy 902 SF Light Wire Rope Lubricant also protects sheaves and drums of mining equipment.