

Case study

Mine Hoist Control System
Ontario, Canada

Gold mine life extension upgrade with minimal effect on production

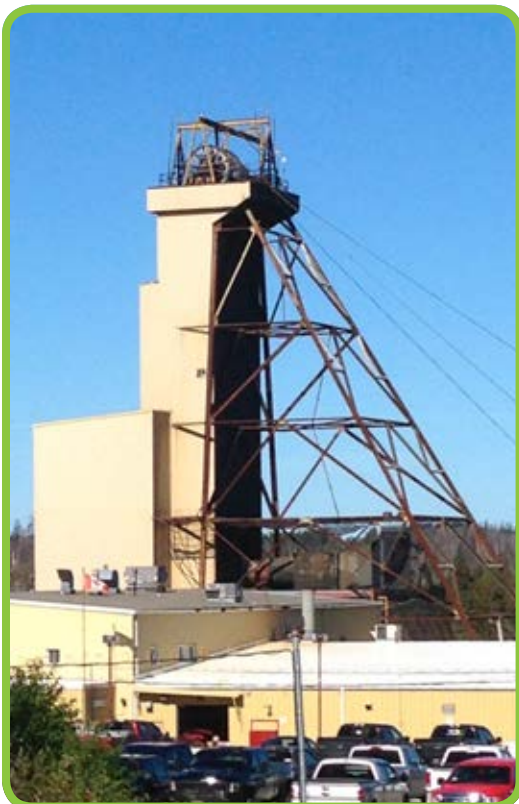
Project Summary

Client: Ontario, Canada gold mine

Application: Mine Production Hoist Control System Upgrade

Nidec's role

Nidec provided 2 new 3,000 Ampere DC drives, field supplies, Avtron Encoders, drive isolation transformers, high speed DC loop breakers, air core reactors, diagnostics, field service start up, commissioning and training.



The Challenge:

Customer wanted to extend the life of the mine and funding for the expansion was contingent on maintaining reliable production. Customer had obsolete drive equipment and could not tolerate an extended shut down. The existing analog controls were based on a card rack/connector/wire wrap topology. Not only were the components obsolete but card rack connections had become unreliable and intermittent with age. Customer also wanted to retain the existing hoist motors to reduce capital cost and shorten installation time.

Working with the customer, Nidec developed an optimized solution to upgrade the entire system in a minimal timeframe. Nidec was able to provide an upgrade path based on previous hoist upgrades, enabling the customer to save hundreds of thousands of dollars in gold production.

The Solution:

Based on multiple previous hoist upgrades, Nidec was able to work with the installation contractor to install much of the hardware ahead of the scheduled shut down, thereby reducing the required downtime. Nidec was also able to retain the existing hoist motors which saved the customer capital expense and weeks of lost production. The analog system was replaced with a digital system which is less prone to drift or the need for periodic recalibration. With the upgrade to the new drive system, Nidec can dial in to the machine over the internet and provide instant support, even though the mine is located in a remote part of Northern Ontario.

Nidec met the customer's expedited start up window and provided a reliable and supportable hoist system.

Existing 3,000 hp DC Hoist Motor

