

ELECTRICAL TESTING GROUP



INDUCOR

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MV & HV CABLE TESTING TECHNOLOGY

ON SITE CABLE COMMISSIONING

UNDERGROUND FAULT LOCATION

NEWS LETTER MARCH 2010

INDUCOR INGENIERIA WAS DESIGNED TO CARRY OUT THE DIAGNOSTIC ON FAILURES IN DISTRIBUTION LINES OD CODELCO ANDINA'S MINING COMPANY

Los Andes – Chile - March 2010:

Located 80km to the north-east of Santiago de Chile, between 3.700 and 4.200mts, over the level of the sea, the division Andina of Codelco realizes the exploitation of minerals in the underground mine off Rio Blanco, and in the opened sky mine off Sur-Sur.

Andina produces approximately 209.722 metric annual tons of copper, that are a fundamental raw material, to obtain the refined metal, and in addition it places on the markets 2.163 metric tons of molybdenum a year.

From the S.E Cordillera, and with an extension of approximately 8km, the called Electric Loop that crosses the interior of the underground mine, supported in the ceiling of the cavern, was presenting multiple faults from his putting in service, in spite of possessing a minor exage to 2 years.

INDUCOR INGENIERIA was designed to carry out the tasks of analysis and diagnostic of the reasons of the repeated faults, by means of the forensic analysis of the damaged samples in their laboratory, applying technology of X-Rays, digital microscopy and dimensional tests.

A second stage refered to the diagnosis in-situ, using techniques of partial discharge, VLF and UHF directional, tending to determine the electrical functional condition of the system.

The conclusions were not late in indicate a wrong combination between the selected materials and the technology used for the confection of the unions, added to the system of those, all this in presence in place with constant vibrations..

The final report performed by INDUCOR INGENIERIA, will be used in other CODELCO's divisions, as a guide to anticipate this type of anomalies in the future projects of the company.



CODELCO DIVISION ANDINA - ANALISIS DE FALLAS EN REDES



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