

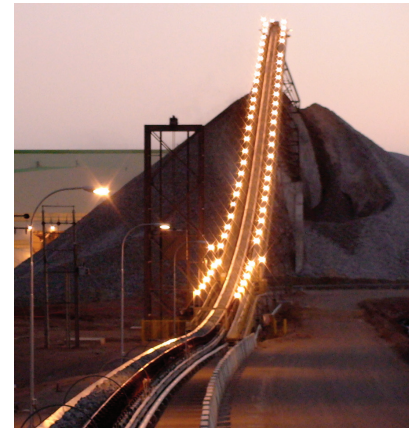
Company: Minera San Cristobal
Application: Largest Mining Operation in Bolivia



Scope:

Commodity Metals: 443 million ounces of silver, 8.4 billion pounds of zinc and 2.9 billion pounds of lead

Production: 40,000 tons per day transported over 65 kilometers by rail from the mine site to the port in Mejillones for export shipping



Background:

Minera San Cristobal SA is the largest mining company in Bolivia and is one of the largest silver-zinc-lead development projects in the world. Its key challenges illustrate the significant trends in the mining industry today, including the need to not only automate the laboratory, but to provide for rapid data capture and analysis of sample data through the integration of analytical instruments and enterprise systems with laboratory software.



Challenges:

- Automate all laboratory processes to eliminate manual transcription of data and reporting to reduce operational costs and improve productivity
- Enable management to have real time data around the clock
- Ensure that the highest quality output is delivered to downstream refineries
- Ensure compliance with ISO 17025 for all environmental concerns, occupational health and equipment maintenance

Solution Components:

Thermo Scientific SampleManager LIMS

- Automates all processes from sample registration to sample report
- Provides certification of test methods to Bolivian Accreditation Bureau

Integration with all laboratory instrumentation across Minera San Cristobal labs

- Provides audit trail for ISO compliance across lab operations
- Dramatic reduction in paper-based systems and documentation

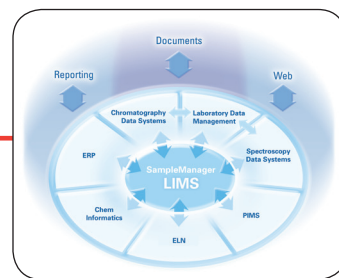
Integration with Minera San Cristobal ERP and PIMS systems

- Facilitates organization-wide knowledge management
- Enables faster decision-making at management level
- Provides dashboard views of key business metrics

Results:

The ability of SampleManager LIMS to interface with enterprise systems such as ERP and PIMS, as well as analytical instruments, has dramatically increased the speed of processing reports and managing the large volumes of laboratory data generated across Minera San Cristobal's mining operation. All laboratory managers have the information they need when they need it, improving decision making, operational efficiencies and reducing costs. Standardization of commonly used reports has minimized the number of different formats being used so management has an increased level of understanding of the data being generated. The operation now has complete audit trails for all ISO 17025 requirements and has improved operations overall by reducing equipment failure and down time due to the LIMS managing the data management system for quality, administrative and technical operations.

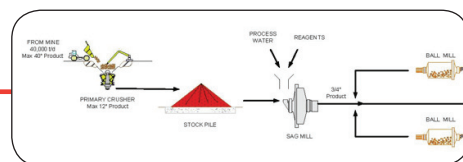
CONNECTS Integration



Thermo Scientific SampleManager LIMS



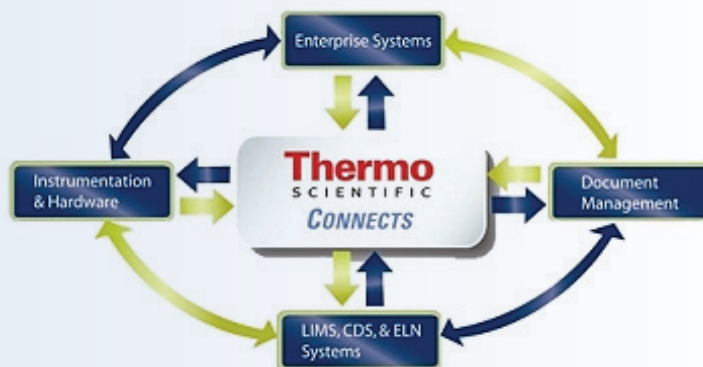
Integration with all laboratory instrumentation across Minera San Cristobal labs



Integration with Minera San Cristobal ERP and PIMS systems

About Thermo Scientific CONNECTS

Thermo Scientific CONNECTS is aimed at bridging the gaps between laboratory generated data and the enterprise level information that is required for mission critical management decisions. A broad product offering allows us to help our customers expand the business of science from the laboratory throughout the enterprise, providing both the integration of instruments and systems, and interoperability necessary to transforming data into relevant business drivers for companies across the broadest spectrum of industries.



For more information, visit www.thermoscientific.com/connects