

INDUSTRIES



mining



chemicals



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MEASURING MOISTURE IN NICKEL ORE

Application Note

Customer

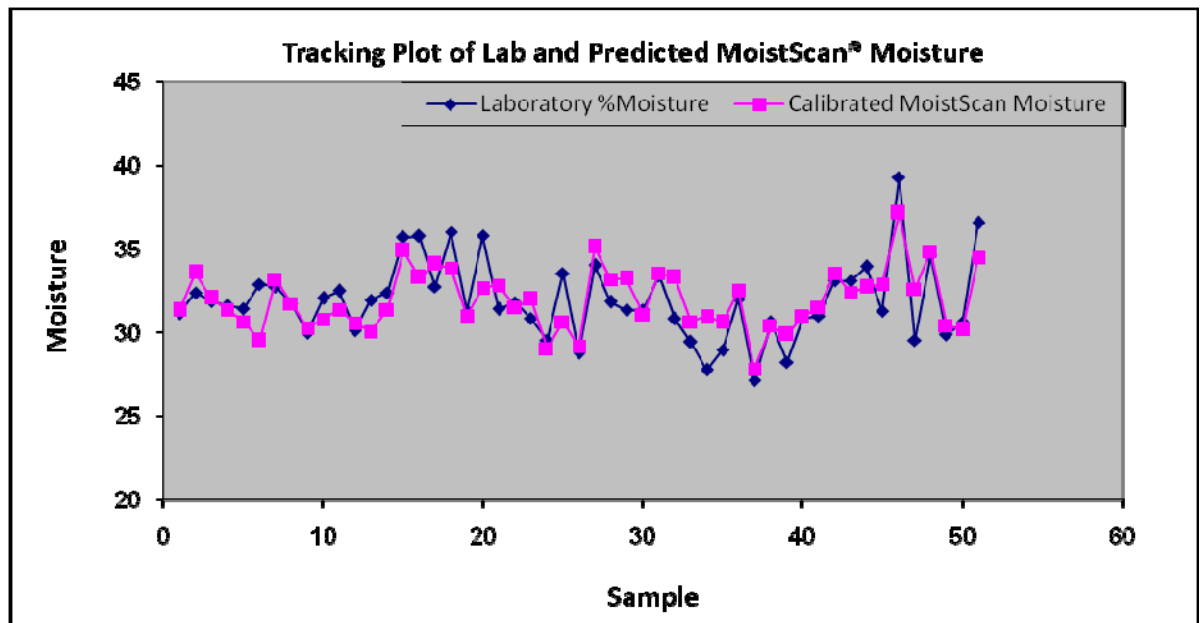
The customer is one of the world's largest miners of nickel ore and producers of nickel products. At their Australian refinery in North Queensland raw nickel ore sourced from various locations, is refined into high grade nickel products in the form of compacts, briquettes and powders. Approximately 30,000 tonnes of nickel products are produced annually.

Installation

The MoistScan® MA-500 online microwave moisture analyser is installed on the conveyor feed to a rotary kiln dryer.

Benefit

The customer is particularly concerned with the energy cost associated with operating the rotary kiln dryer. Significant cost savings can be realised by better understanding the moisture of the feed ore and subsequent regulation of the residence time in the dryer. The MoistScan® provides continuous real time moisture data to the dryer control operators who manually adjust a number of key dryer parameters based on the data from the MoistScan®.



Application Summary

Material	Nickel Ore
Instrument	MA-500
Location	On Entry to Rotary Dryer
Bed Depth	175mm (average)
Particle Size	NA

Moisture	25 - 37%
Belt Speed	NA
Temperature	Ambient
Precision	0.48% (1SD)
Use	Monitoring data to assist with dryer control