



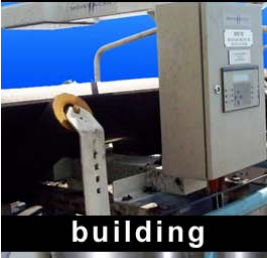
INDUSTRIES



mining



chemicals



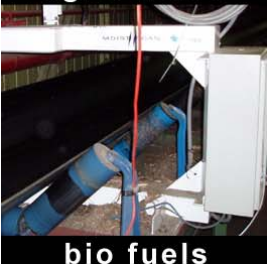
building



food



agriculture



bio fuels

MEASURING MOISTURE IN NICKEL ORE

Application Note

Customer

The customer, a major producer of ferronickel, operates four nickel mines and one smelter in New Caledonia.

Installation

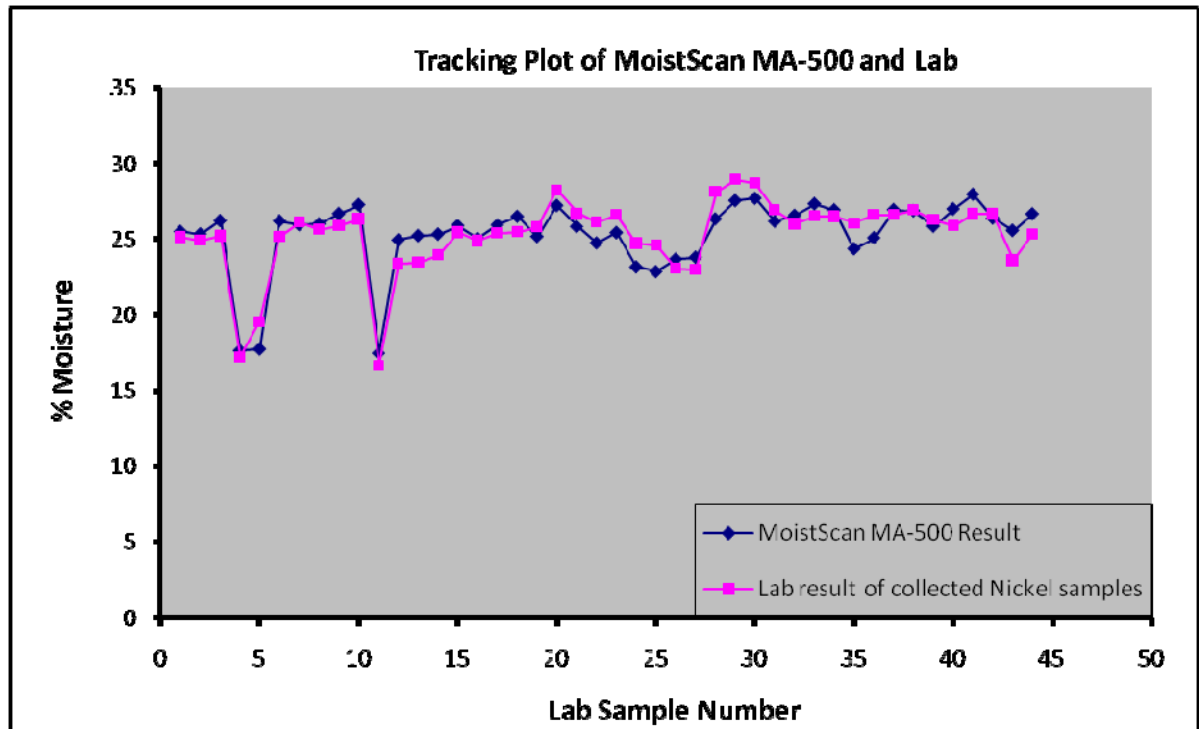
MoistScan[®] MA-500 online microwave moisture analysers are integrated with a bank of rotary drying kilns. Installed on the feed conveyors to each kiln the MA-500's determine the moisture variation in the raw ore.



MA-500 installed on conveyor

Benefit

Moisture data from the analysers is output in real time as an analogue signal representing percentage moisture. This signal is integrated into a PID process loop to control the residence time of the ore in the dryer. The MA-500's are instrumental in maximising energy efficiency of the plant.



Application Summary

Material	Nickel Ore
Instrument	MA-500
Location	On Conveyor
Bed Depth	50 – 150mm

Moisture	15 - 25%
Belt Speed	2.5m/s
Temperature	60°C
Precision	0.8% (1SD)
Use	Control residence time of ore in the dryer