

AllScan provides operators real time quality control of ore grading

The Case: AllScan | Bauxite, Ore Management

The Challenge.

Out-of-specification product poses costly challenges for operations, leading to the unnecessary waste of time, resources and money with hefty penalties applied for non-compliance. To date, the most effective means of mitigating against this has been through sampling. Traditional laboratory testing was accurate but had a turn-around of two to three days, rendering the data obsolete in this specific context. This is what led our customer to work with RTI in developing an in-situ, online, real-time sampling analysis solution.

The Purpose.

To enable full-spectrum visibility of elemental composition, RTI worked with our customer to deliver highly-accurate data, minute by minute. This informed an ability to achieve the specific, desired outcome, to maintain a specific alumina level, while simultaneously limiting silicon dioxide levels.

The Discovery.

Working with our customer, RTI's Research and Development team found the AllScan to have a unique advantage in addressing the challenge, in providing real-time analysis of the product to deliver accurate estimates for the alumina and silicon levels, empowering operators to make key decisions.

The Result.

The AllScan allowed operators to respond to product deviations, in real time, according to the data available to them. This enabled the maintenance of product to specification. The Data collected when the MoistScan analyser was initially installed, showed alumina value regularly falling below sites limits. Six months later, having had visibility and control over moisture levels, the site reported an **increase of almost 60% in Good Alumina** recorded and a **reduction in reject product from 56% to zero**.

Other Potential Commodity Applications.

The challenges faced in the context of alumina are applicable in across a number of ores and bulk materials. Where product quality and elemental composition are key variables in an operations cost and grade control, there is a proven application for AllScan technology.



RTI's AllScan cf-252 elemental analyser on site.

	Initial Data	6-Month data
Good Al	11%	70%
Penalty Al	32%	30%
Reject Al	56%	0%