# Thermo Scientific Customer Testimonial

# Thermo Scientific Niton XRF Analyzers Create the Right Blend at ELG Haniel Metals

"[Thermo Scientific Niton analyzers] are an invaluable tool for our business because of their speed and the immediate information they provide." —Paul Brown, Operations Director, ELG Haniel Metals







Sorting and grading alloys

Niton XL2

**Total quality service** 

#### **ELG Haniel Metals**

Established in 1981, ELG Haniel Metals uses handheld Thermo Scientific Niton x-ray fluorescence (XRF) analyzers to identify and sort scrap metals received at its Sheffield, United Kingdom, headquarters and its eight feeder depots across the UK.

The company purchases scrap metal, principally stainless and nickel alloys, plus other high-grade alloys such as titanium (Ti), tungsten (W), and cobalt (Co) bearing scrap. Deliveries are weighed, then checked with a magnet and with a Thermo Scientific Niton XRF analyzer, the latter for quality and grade. All of the metals collected at the feeder depots are then trucked to ELG Haniel's headquarters at Templeborough in Sheffield. Here, the materials are again re-checked with the Thermo Scientific Niton XRF instruments to verify the grade and quality of the materials, before being blended to produce homogenous mixes for stainless steel manufacturers.

#### Ease of Use, Fast Results

Before ELG started using the XRF analyzers in 2003, scrap materials had to be tested the "old-fashioned" way, by cutting samples and testing on a spectroscope. The use of Thermo Scientific Niton analyzers thus creates a major benefit for ELG's suppliers, allowing much faster identification and enabling ELG to make prompt payment for materials.

Paul Brown, operations director at ELG Haniel comments, "We could not operate as we do without the [Thermo Scientific] Niton analyzers. They are an invaluable tool for our business because of their speed and the immediate information they provide."

ELG Haniel uses a large number of Thermo Scientific Niton XLt 898 models and have also begun to invest in the value-leading Niton<sup>®</sup> XL2 instrument, which provides improved display functions and even faster analysis times as well as having a specially designed, tough and durable outer casing.

An example of where these handheld XRF instruments come into their own is with the latest influx of 200 series stainless steels. Here, identification of the low nickel (Ni) content and higher manganese (Mn) and copper (Cu) contents is only possible by use of the Thermo Scientific Niton instrument or a



## Thermo Scientific Niton XL2 Analyzer Benefits

- Point-and-shoot simplicity
- Rapid sorting with reliable results
- Standard analysis range of up to 25 elements
- Integrated library of 400+ alloy grades
- Ruggedized with sealed construction

full laboratory test. The alternative materials are visually very similar and would previously have required a section to be taken and sent to a laboratory for full analysis. Results can be easily obtained using the Thermo Scientific Niton analyzers, even on small items. While ELG Haniel does have its own comprehensive laboratory facilities, which is essential for its business, the laboratory requirements are reduced.

Paul Brown continues, "All of our staff are fully trained in the use of [Thermo Scientific] Niton instruments and receive a refresher course every two years. Indeed, this knowledge has become an integral part of our induction program for new employees, as much as manual handling and other health and safety requirements."

For further information on ELG Haniel Metals, please visit www.elg.co.uk.

For more information on Thermo Scientific Niton XRF analyzers and how they can help meet your elemental analysis needs, contact your local Thermo Scientific Niton Analyzer representative or visit our website at www.thermoscientific.com/niton.



Fast, accurate, easy alloy identification

#### The Thermo Scientific Niton XL2 Analyzer

#### The Niton XL2 analyzer provides many distinct benefits:

- Very easy to use even by non-technical personnel
- Rugged design for real-world industrial environments
- Truly nondestructive test with near instantaneous results
- From turn on to trigger pull to results in seconds
- Confident analysis from the pioneer in handheld XRF instrumentation

#### These features make it the ideal choice to:

- Analyze metal alloys for scrap recycling or final ٠ product QC
- Carry out grade control, plant operations, and near-mine exploration
- Screen electronics and consumer goods for lead, cadmium, and other toxic metals

## **Technical Specifications**

Weight: 3 lbs. 5.8 oz. (1.53 kg)

Dimensions: 10.25 x 11 x 4 in. (256 x 275 x 100 mm)

Tube: Ag anode 45 kV maximum, 80 µA maximum

Detector: High-performance semiconductor

System Electronics: 400 MHz ARM 11 CPU 300 MHz dedicated DSP 80 MHz ASICS DSP for signal processing 4096 channel MCA

64 MB internal system memory/128 MB internal user storage

Display: Fixed angle, color, touch-screen display

Standard Analytical Range: >25 elements from S to U (varies by application)

Data Transfer: USB, Bluetooth<sup>™</sup>, and RS-232 serial communication

Alloy Modes: Metal Alloy, Electronics Alloy, Precious Metals

Bulk Modes: Mining, Soil

Plastics Modes: RoHS Plastics, Toys & Consumer Goods Plastics, TestAll™, Painted Products

Custom Modes: Upon request (based on application feasibility)

Data Entry: Touch-screen keyboard, user-programmable pick lists, optional wireless remote barcode reader

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