

BUREAU VERITAS METALS AND MINERALS

INDUSTRY LEADING SOLUTIONS FOR
THE AFRICAN EXPLORATION & MINING COMMUNITY



**BUREAU
VERITAS**

BUREAU VERITAS GLOBAL

MINING AND EXPLORATION COMPANIES FACE ONE PRIORITY ABOVE ALL: TO ENSURE THEIR PROJECTS' COMMERCIAL, TECHNICAL AND OPERATIONAL VIABILITY.

They must also ensure shipment quality. For traders, certainty in the value of commercial settlements is a key concern. Across the entire life cycle, from early stage exploration through trading to smelting and recycling, companies seek to minimise risk while attaining high industry standards.

HOW WE SUPPORT YOU

Working in major world ports and global mining and refining locations, Bureau Veritas has the infrastructure and expertise to minimise your commercial risk through upstream and trade services.

Exploration & Mining

Bureau Veritas enables companies to identify viable resources and optimise efficiency during extraction.

We analyse all forms of minerals as well as iron-based, non-ferrous, and precious metals, using methods such as trace-level analysis, high-precision assaying and laboratory testing.

Widest range of Metals & Minerals

Our specialist laboratories and technicians provide analysis of most of the metals and minerals used in industrial and consumer products. These range from the raw materials used to make steel and aluminium, to coal, non-ferrous metals, and precious metals such as gold, silver and platinum group metals. We also analyse recycled products such as electronic scrap and auto catalysts.

Created in 1828, Bureau Veritas is a global leader in Testing, Inspection and Certification (TIC), delivering high quality services to help clients meet the growing challenges of quality, safety, environmental protection, and social responsibility.

140 countries

| 1,600 offices & labs

| 84,00 employees



OUR COMMITMENT TO QUALITY

Bureau Veritas Metals & Minerals (Bureau Veritas) is proud to be ISO 9001 compliant and for selected methods, ISO 17025 compliant. Our extensive Quality Assurance/Quality Control programme has been developed using advanced computer technology to ensure that the client receives consistently high quality data.

OUR CLIENTS BENEFITS

- Ensure compliance with regulations and standards globally
- Reduce risk throughout production or construction and life cycle of products, equipment or assets
- Minimise maintenance costs and downtime
- Contribute to sustainable development
- Fulfill technical requirements
- Ensure optimal performance and reliability of installations, equipment and processes
- Bring products to worldwide markets faster and more cost effectively
- Monitor performance and quality of products, processes and staff
- Secure a competitive advantage through certification



OUR SERVICES

Bureau Veritas Metals & Minerals (Bureau Veritas) is a global full service provider for exploration, metallurgical and mining analytical testing.

Exploration	Development	Operations	Remediation-Closure
<ul style="list-style-type: none"> • Trace and Ore Grade Assays • Ultra Trace Geochemistry • Litho geochemistry 	<ul style="list-style-type: none"> • Ore Characterisation • Mineralogy • Geometallurgy • Pilot Plant Assessment • Kinetic Testwork 	<ul style="list-style-type: none"> • Process Optimisation • Mine Site Lab Services • Product Quality • Baseline Environmental Assessment 	<ul style="list-style-type: none"> • Acid Mine Drainage • Tailings Testing • Water Monitoring

METALLURGICAL TESTING

Bureau Veritas offers a complete investigative package from the early exploration phase through scoping, pre-feasibility and feasibility to process development for flow-sheet design and bankable feasibility.

MINERALOGICAL STUDIES

They are critical to successful geological exploration and the processing of ores. Bureau Veritas offers a full range of packages including: bulk mineralogical analysis (BMA), particle mineralogical analysis (PMA), trace mineral search (TMS), FieldScan (FS) using QEMSCAN, MLA Express and optical mineralogy for both thin and polished sections.

ENVIRONMENTAL SERVICES

Bureau Veritas can offer all environmental needs including soil and waste analysis, toxicity evaluation, ultra trace contaminant analysis (HRMS), water quality testing and other specialised services.

MINE SITE LABORATORY SERVICES

Bureau Veritas offers customised solutions for your project's needs depending on geography, commodity, production capacity, and site capabilities. From design, to implementation, to daily operations, your on-site lab will meet Bureau Veritas' standards and benefit from Bureau Veritas' expertise.

NEUTRON ACTIVATION

Becquerel is a leader in elemental analysis using radioactivity to analyse both radioactive and non-radioactive materials. We provide custom analysis for difficult matrices such as high purity quartz, coal, diamonds and more.

RESEARCH INITIATIVES

We strive to stay at the cutting edge of the analytical sciences to provide the highest quality analyses targeted at the most up to date exploration methods.



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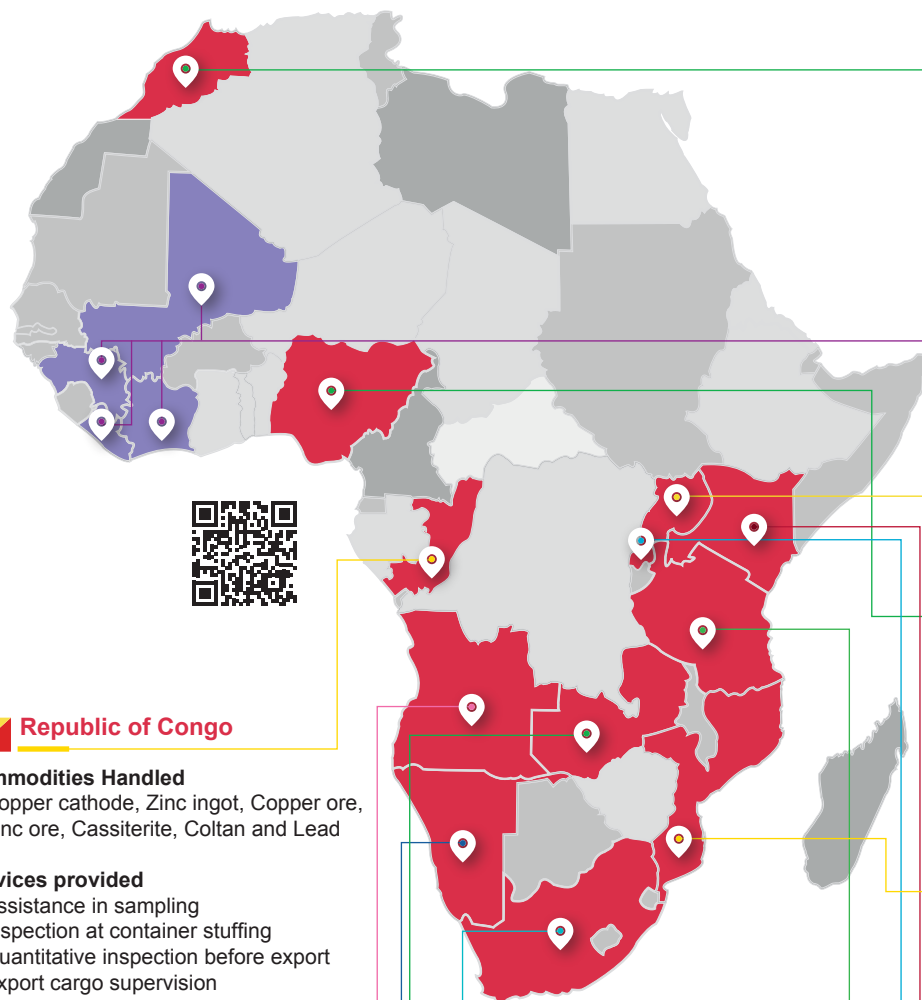
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WHYALLA

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BUREAU VERITAS MINERAL CAPABILITIES AFRICA



Republic of Congo

Commodities Handled

- | Copper cathode, Zinc ingot, Copper ore, Zinc ore, Cassiterite, Coltan and Lead

Services provided

- | Assistance in sampling
- | Inspection at container stuffing
- | Quantitative inspection before export
- | Export cargo supervision

Angola

Commodities Handled

- | Iron Ore

Services provided

- | Loading and weighing supervision

Namibia

Commodities Handled

- | Iron Ore, Copper Concentrate, Pyrite (gold) concentrate, Petcoke, Coal

Services provided

- | Supervision sampling and sample preparation

Zambia

Commodities Handled

- | Copper and Cobalt

Services provided

- | Sampling, preparation and analysis

South Africa

Commodities Handled

- | Copper Concentrate, Chrome Concentrate, Coal, Gold Concentrate, Pig Iron, Manganese Ore, Fluorspar, Andalusite, Bentonite, Chloride slag, Sulfate slag, Rutile, Ilmenite, Zircon, Pig Iron, Fluorspar, Iron ore, Water, Metallurgical Coke; Anthracite, Heavy Mineral Sand, Graphite, Chrome Concentrate, Platinum

Services provided

- | Loading and weighing supervision, sampling, preparation, various physical testing, analytical testing

Zambia

Commodities Handled

- | Copper, nickel, cobalt, coal, zinc, lead

Services provided

- | Sampling, inspections, analysis

Morocco

Commodities Handled

- | Rock, minerals and Water
- | Fertilisers and Gypsum

Services provided

- | Visual inspection, tally and draft survey, sampling and sample preparation

ECOWAS

Ivory Coast, Guinea, Mali, Liberia

Commodities Handled

- | Gold, Iron Ore and Aluminium

Services provided

- | Sample preparation
- | Sample analysis
- | Shipping to other labs

Nigeria

Commodities Handled

- | Lead, Zinc, Copper, Lithium, Zircon Sand, Manganese, Tin

Services provided

- | Physical sampling, weighing, stuffing supervision and sample prep/moisture determination

Mozambique

Commodities Handled

- | Coal, Iron Ore - Under Setup, Coal, Water and Oil Lab

Services provided

- | Stock pile sampling, vessel sampling, truck sampling, train sampling, mechanical sampling and sample preparation

Kenya

Commodities Handled

- | Cassiterite, Copper Ore, Tin Ore, Manganese Ore

Services provided

- | Weight verification and stuffing survey

Rwanda

Commodities Handled

- | Tin Ore, Tungsten, Niobium-Tantalum, Gold, Tin, Tungsten, Coltan, and Gemstones

Services provided

- | Loading supervision

Uganda

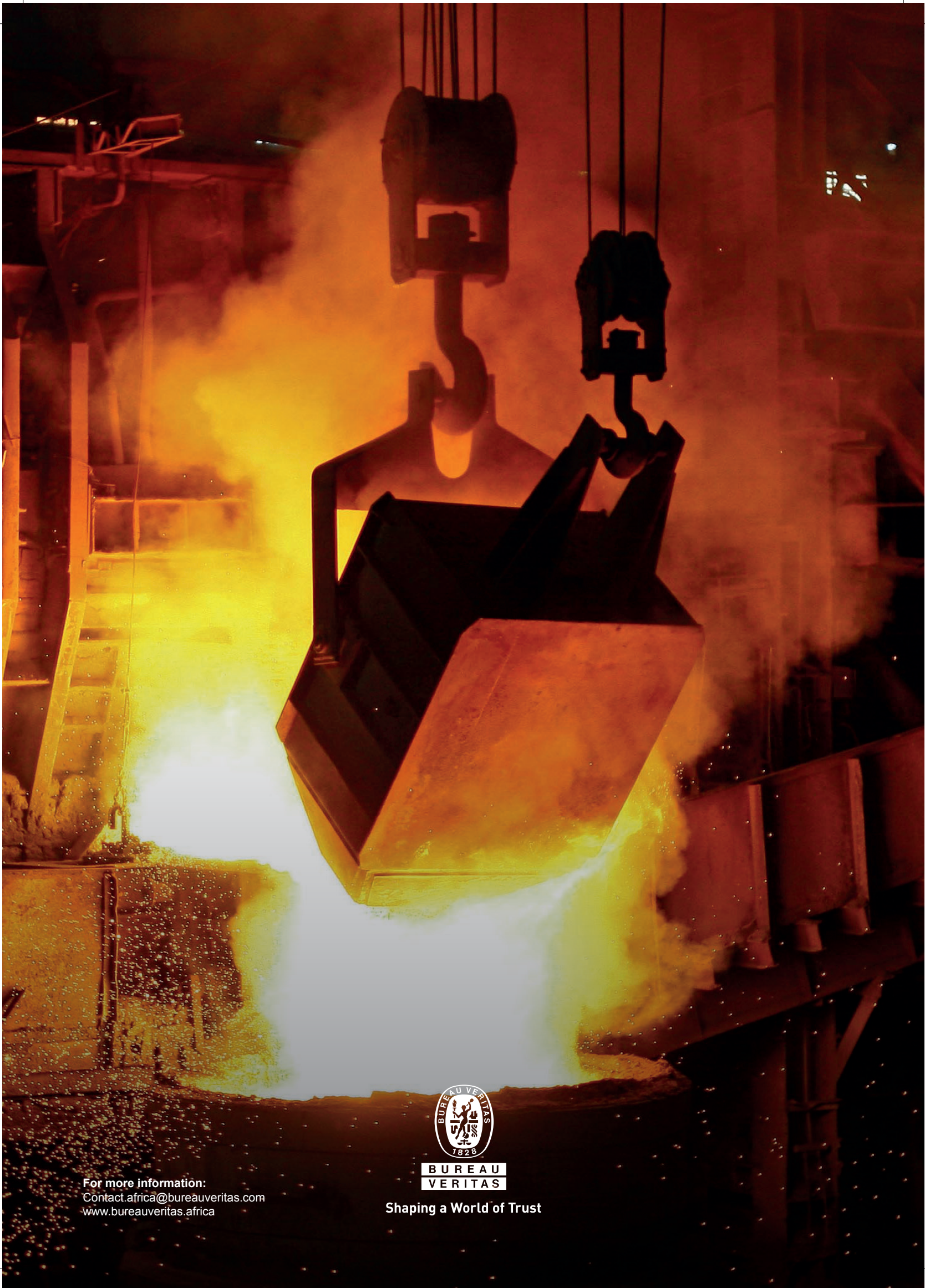
Commodities Handled

- | Copper Ore, Tin Ore, Zinc Ore, Lead Ore, Nickel Ore

Services provided

- | Weight Verification and Stuffing Survey
- | Preliminary Pre-Exploration Field Survey





**BUREAU
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Shaping a World of Trust