

CAPABILITY STATEMENT:
METALLURGY

From ore behaviour to better processing decisions.

Metallurgical test work, process engineering, and plant performance insight that connect ore characteristics with recovery, capital, operating costs, and the decisions that shape project value.

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A PROCESS ROUTE IS ONLY AS SOUND AS THE ASSUMPTIONS BEHIND IT.

A change in ore characteristics can alter recovery, plant capacity, and operating costs. A design choice can shift capital requirements. A gap between design intent and actual performance can weaken the business case.



USING METALLURGICAL EVIDENCE TO MAKE A CLEARER DECISION

Our role is to connect test work, process engineering and plant performance with geological, mining and commercial context. The objective is to clarify options, explain trade-offs and establish a sound basis for investment and improvement.

01

RECOVERY & YIELD

02

CAPITAL & COST

03

PLANT PERFORMANCE

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START WITH THE ORE.
TEST WITH A PURPOSE.

Credible processing decisions begin with representative data. VBKOM develops sampling and metallurgical test work programmes for greenfield and brownfield projects, matched to the orebody, study objectives and level of confidence required.

EVIDENCE BEFORE ASSUMPTIONS

From ore characterisation to commodity-specific investigations, test work should answer the questions that matter at the relevant project stage.

THE TEST WORK DECISION PATH

VBKOM designs programmes and manages specialist laboratory test work in collaboration with laboratories and experienced associates.

ORE CHARACTERISATION	Understand the material and its variability.
SAMPLING & PROGRAMME DESIGN	Set relevant tests and study requirements.
LABORATORY TEST WORK	Manage investigations and interpret results.
STUDY EVIDENCE	Inform process selection and feasibility.

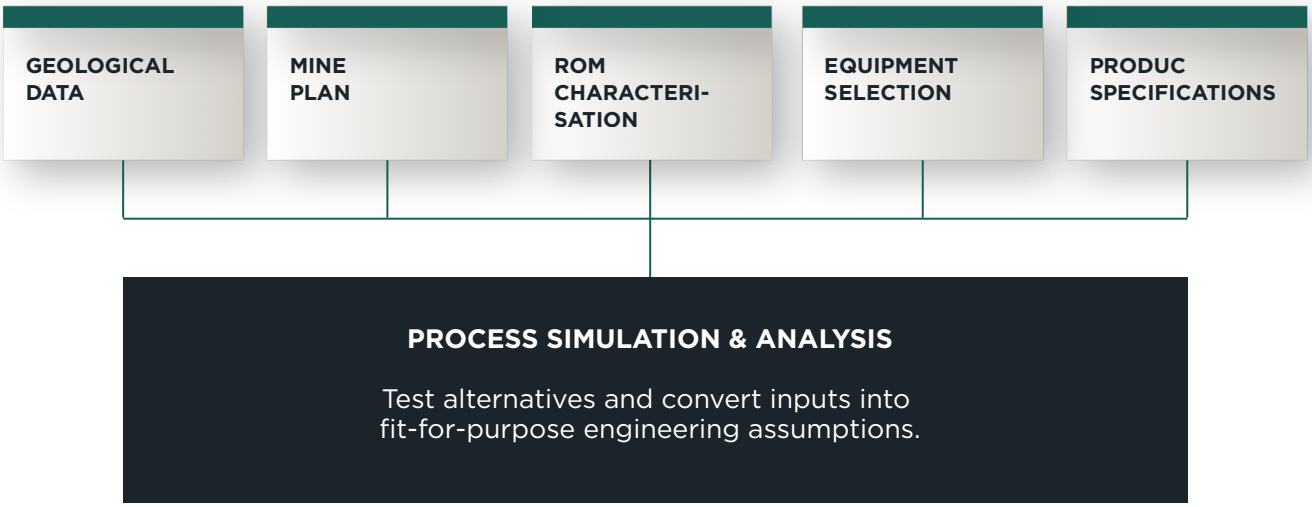


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DESIGN AROUND THE REAL CONSTRAINTS.

Process engineering turns a complex set of geological, mining, and operating inputs into design options that can be tested. VBKOM uses simulations, trade-off studies, and sensitivity analysis to assess implications for plant capacity, yields, recoveries, and costs.

CONNECT THE INPUTS



THE OUTPUTS THAT INFORM THE NEXT DECISION

PROCESS DEFINITION

- Process design criteria (PDCs)
- Sizing envelopes
- Block and process flow diagrams
- Mass and energy balances

PERFORMANCE & EQUIPMENT

- Yields and recovery estimates
- Plant capacity analysis
- Equipment lists and sizing
- Metallurgical process models

IMPLEMENTATION & ECONOMICS

- Piping & instrumentation diagrams
- Control philosophies and manuals
- Plant capital estimates (CAPEX)
- Plant operating estimates (OPEX)

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READ THE PLANT, NOT JUST THE REPORT.

The difference between design and operating performance often reveals the next improvement opportunity. Independent audits compare production and metal accounting outcomes with design key performance indicators and relevant standards.

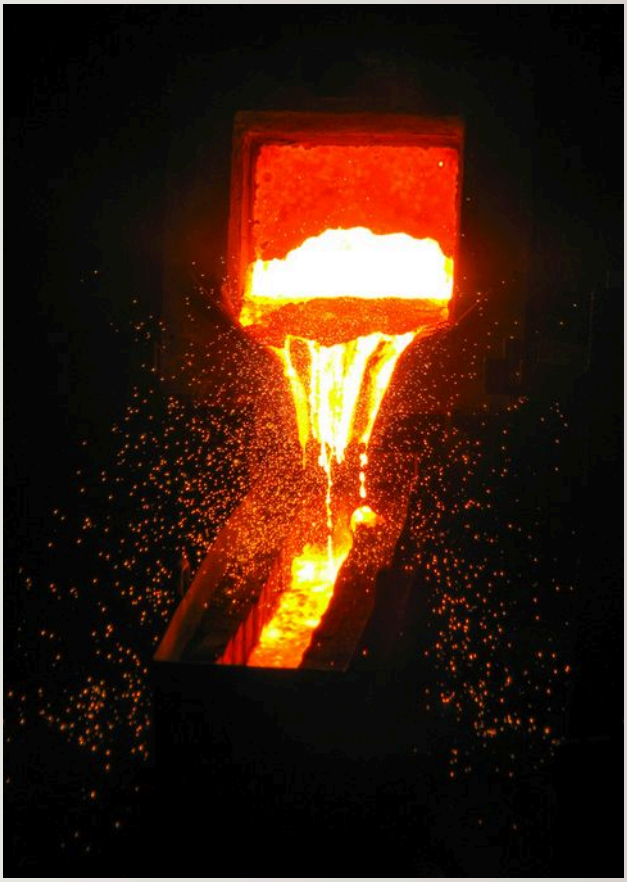
REVIEW WHAT THE PLANT IS TELLING US

VBKOM provides independent production and metal accounting audits, with findings that inform troubleshooting, debottlenecking and process optimisation.

01 Compare actual performance with design KPI

02 Identify constraints and performance gaps

03 Prioritise practical improvement opportunities



FROM FINDINGS TO PRACTICAL ACTION

A clear audit does more than identify variance. It explains where performance is strong, where the risk sits, and which interventions merit closer assessment.

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STAY CONNECTED FROM STUDY TO COMMISSIONING.

Metallurgical assumptions evolve as a project advances. VBKOM supports studies, techno-economic and due diligence assessments, design development, and construction and commissioning support as the technical and commercial questions change.

DECISION SUPPORT ACROSS THE PROJECT

01 CONCEPT

Early processing options

02 PEA

Initial technical and economic assessment

03 PFS

Refine alternatives and assumptions

04 BFS

Support a more detailed investment case

05 DESIGN

From process concept to detail

06 COMMISSION

Support construction and start-up

COMMODITY EXPOSURE

Working with experienced associates where required, the metallurgical team supports a broad range of commodities, including:

- Bauxite
- Coal
- Cobalt
- Chrome
- Copper
- Diamonds
- Fluorspar
- Gold
- Graphite
- Heavy Mineral Sands
- Iron Ore
- Lead
- Lithium
- Manganese
- Nickel
- Phosphates
- Platinum Group Metals
- Rare Earths
- Uranium
- Vanadium
- Zinc

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MAKE THE NEXT PROCESSING DECISION ON A SOUND TECHNICAL BASIS.

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Whether you are selecting a process route, testing a plant design, or investigating a performance gap, speak to VBKOM about the metallurgical evidence and trade-offs behind the decision.

LET'S TALK ABOUT YOUR NEXT PROCESSING DECISION

Connect with VBKOM to establish what the process data means for project viability, design choices, and operating performance.

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