Capability Statement

Coal Beneficiation

Coal beneficiation involves improving the quality of raw coal by removing inorganic impurities through the application of metallurgical separation processing methods and unit operations.

VBKOM's metallurgical consulting services focus on optimising the extraction of minerals, identifying niche markets and supplying independent, fit-for-purpose solutions to maximise value for our clients across multiple commodities. Our multi-skilled team offers solutions spanning the value chain from exploration to final metal/mineral extraction. In collaboration with associates, the VBKOM metallurgical team can offer value to clients within the coal industry by offering comprehensive metallurgical processing services in the comminution and mineral processing of coal.

Processing Services

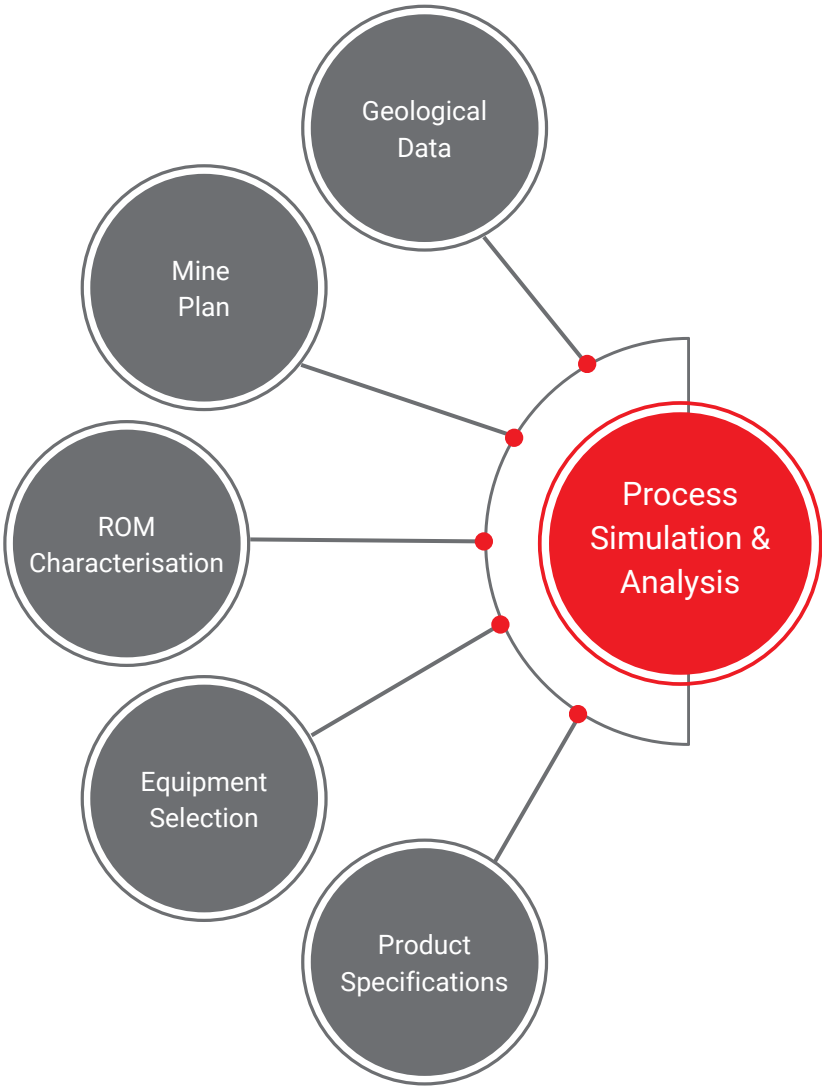
The VBKOM team adopts a holistic approach to generate innovative solutions to challenges. Our services include:

- Conducting studies ranging from conceptual studies, preliminary economic assessments (PEA), pre-feasibility studies (PFS) and bankable feasibility studies (BFS)
- Developing metallurgical test work and sampling programmes
- Test work management (in collaboration with laboratories)
- Trade-off studies (Techno-economic assessments)
- Due diligence studies
- Plant designs (Concept to Detail designs)
- Metallurgical process simulations
- Plant auditing, performance reviews, metal accounting auditing
- Process optimisation
- Construction and commissioning support

Process Engineering

VBKOM utilises leading software to develop green and brownfields simulations of coal beneficiation plants to optimise yield and ensure final product quality.

The VBKOM process engineering services consider geological, mining, process and ore characterisation data to produce design outputs that are used to conduct trade-off studies, sensitivity analysis and financial modelling.



- PDCs
- Sizing Envelopes
- BFDs
- Mass & Energy Balances
- PFDs
- Yields
- Equipment lists/sizing
- Plant capacity analysis
- P&IDs
- Control Philosophy
- Plant OPEX
- Plant CAPEX
- Operating manuals

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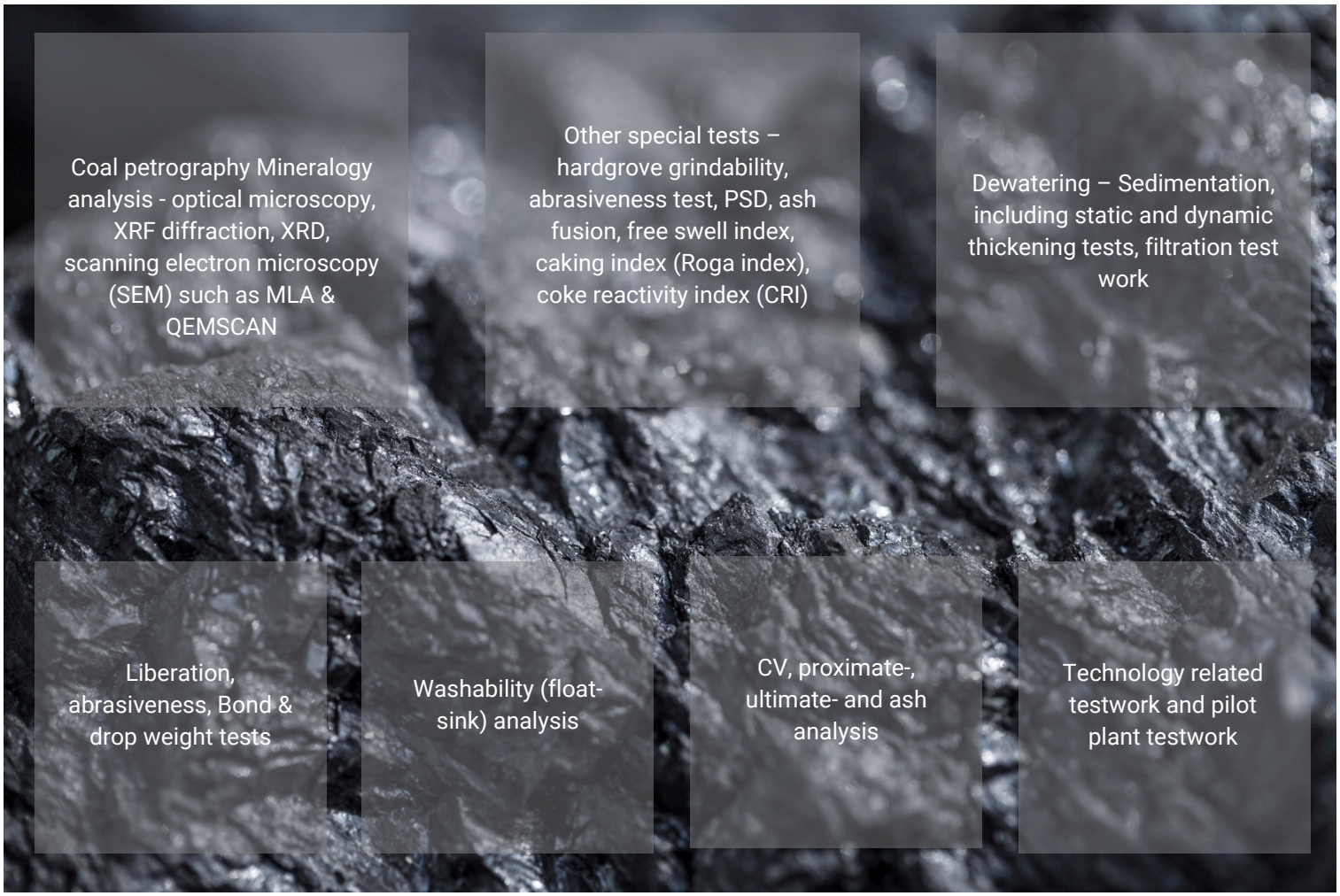
Test Work Programme Development and Management

The availability of adequate test work data is essential for feasibility studies and assists in determining whether investment into a project is justifiable on a techno-economic basis.

VBKOM's metallurgical team understands the value of credible study test work data and can design test work programs for green and brownfield operations that are tailored for the level of study to enable informed decision-making.

TYPES OF COAL TEST WORK



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Plant Auditing & Review

VBKOM offers plant auditing services that allow operations to benefit from an unbiased review from a neutral third party. The audit aims are:

- To review current performance against design KPIs and standards, to highlight improvement areas and acknowledge well performing areas
- To assist in troubleshooting/debottlenecking
- To identify areas for optimization

Our capabilities include:

- Plant Production Audits
- Metal Accounting Audits (in compliance with ISO standards and AMIRA P754 Code of Practice for Metal Accounting)

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The VBKOM Value Proposition

VBKOM is a provider of innovative business and technical consulting services and solutions for the mining and capital-intensive industries. We challenge ourselves to apply fresh thinking and to utilise our experience and technology in pioneering new ways to deliver forward-thinking solutions.

We offer complete multi-disciplinary economic studies for blue-chip mining houses, junior miners and financial institutions across the full range of mineral commodities. Due to VBKOM's diverse pool of expertise, we can offer our clients specialised skills within a one-stop-shop culture. Our engineering, risk, and project management capabilities as well as simulation and decision support expertise, make us an ideal partner to the mining, petrochemical, agricultural, and construction industries.

Our focus on long-term client relationships combined with our technical skills ensures that our clients can fully optimise their value chain.

At VBKOM the quality of our work is guided by a simple philosophy – our success is driven only by the success of our clients and the achievement of our professionals. By using cutting-edge technology and the most advanced computer modelling systems on the market our technical expertise comes unrivalled. Our capacity and continuity have earned us the trust of some of the world's most prestigious mineral resource companies. By staying true to our core values; by utilizing our vast project-specific experience and qualifications; along with applying proven world-class methodologies and processes the VBKOM team is a dynamic, flexible and innovative team with a track record standing as solid proof of our competitive edge in our field.

VBKOM has been successful in providing solutions of an independent nature to a range of clients in the mining industry. Our consultants have developed a good understanding of the needs and opportunities of both open pit and underground studies and operations and we look forward to adding value to your company. We believe that independent consultants can provide optimal solutions to the Client without any risk of providing a solution with an inherent conflict of interest. The VBKOM strategy is to form part of the owner's team to define and protect the owner's interest within our area of influence and control. VBKOM is committed to adding value to each client through innovative, practical, and trustworthy engineering solutions.

Visit VBKOM website and social media for more information:

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