

# CORE

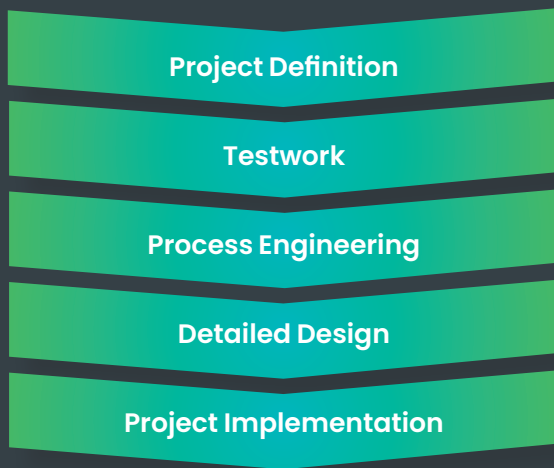


YOUR RESOURCE DEVELOPMENT PARTNER

# VANADIUM CAPABILITY

# STATEMENT

Core develops innovative and sustainable solutions to complex metallurgical problems allowing our partners to realise the value of their projects. With a strong focus on finding solutions that work, Core provides expertise across the entire Vanadium Project Cycle:



## PROCESS ENGINEERING AND DESIGN

Core's team of Metallurgists and Process Engineers are experts in vanadium flowsheet development and capabilities include:

- Process modelling using METSIM, HSC and Excel based models
- Techno-economic evaluations
- Process options analyses
- Design, commissioning and execution of pilot and demonstration plants
- Conceptual or desktop studies, Scoping Studies, PFS to DFS
- Owners representative for Feasibility Studies
- Project Due Diligence

## PROJECT IMPLEMENTATION

Core can offer the full range of Project Implementation services including:

- Process commissioning
- Process optimisation and plant surveys
- Plant availability analysis and optimisation
- Process debottlenecking
- Supply of Site operating staff from Process Manager to Operator

## PROJECT DEFINITION

Core has wide experience in the review of vanadium project geology and mine planning and their influence on the metallurgy of the ore. Understanding this ore geometallurgy is critical for the design of testwork and the circuit flowsheet. Core can provide expertise for the selection of composite samples for testwork and the mineralogical analysis of the ore.

## TESTWORK

Core can offer the full range of metallurgical testwork for vanadium ores. The testwork includes:

- Sample preparation
- Crushing, scrubbing and fine grinding
- Beneficiation including cyclone separation and screening
- Flotation including Jameson Cell
- Dewatering including thickening and filtration
- Acid/Alkaline leaching
- Roasting
- Solvent extraction
- Ion Exchange

## VANADIUM PROJECT EXPERIENCE

Project Location	Core Scope
Australia	<ul style="list-style-type: none"> <li>• Project Definition and Implementation Study and Process Design</li> <li>• Testwork for vanadium flowsheet development</li> </ul>
Australia	<ul style="list-style-type: none"> <li>• Update of Process Plant Cost Estimate</li> <li>• Scouting vanadium leach testwork</li> </ul>
Australia	<ul style="list-style-type: none"> <li>• Beneficiation and flotation testwork including bench and pilot scale testing</li> <li>• Leaching testwork and review of process flowsheet</li> </ul>
South Africa	<ul style="list-style-type: none"> <li>• Removal of vanadium from calcine tails using ion exchange</li> </ul>
Australia	<ul style="list-style-type: none"> <li>• Process Due Diligence for Qld vanadium project</li> </ul>

### Interested to find out more?

Contact: [info@coreresources.com.au](mailto:info@coreresources.com.au)

**About Core Resources:** Core Resources is an award-winning process engineering and metallurgical testing business based in Brisbane, Australia. Core Resources services a global customer base, enabling the world's mining projects with innovative metallurgical flowsheet solutions.



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