

**Core Resources has over 150 years of combined flotation expertise including designing and carrying out testwork, flowsheet development, modelling and simulation, full plant design and layout, equipment sizing and selection, flotation plant engineering and scoping and PFS studies.**

We can assist with the review of the performance of existing operations for making investment decisions and can provide site-based expertise in commissioning, plant operations and optimisation.

Over the past 18 years Core has successfully developed projects across base metals, precious metals, battery metals and industrial minerals – if it floats we have floated it, and at all levels of complexity.

Core can carry out bench-scale, locked cycle and pilot scale testwork as well as Jameson Cell, NovaCell™, CPS, concentrate regrinding, geometallurgical and future ore testing, and can then go on to develop an optimised flowsheet based on the testwork results.

## **Equipment and facilities available for laboratory and pilot scale testing**

Core's dedicated flotation laboratory can deliver large-scale flotation programs for our clients. The laboratory houses all of the equipment needed to complete flotation tests including primary mills, regrind mills, particle size analysers and filters.

Core's bench-scale and pilot-scale equipment includes:

- Laboratory flotation cells (capacity: 1 to 10 L)
- Pilot flotation cells (4 x 60 L Denver, 700 L Tank cell)
- Pilot Jameson Cell (J300)
- Pilot NovaCell™ Coarse Flotation Cell
- Laboratory and pilot scale mills, screens and cyclones

## **Analytical Analysis**

Core's in-house analytical laboratory supports our flotation testwork providing precise, fast-turnaround results allowing us to optimise metallurgical performance. We use advanced analytical methods to accurately assess flotation behaviour and recovery efficiency. Our laboratory can manage high-volume assay work for pilot plant trials and we also develop specialised methods for complex matrices, delivering reliable results for a large range of minerals.



# FLOTATION PROJECT EXPERIENCE

Project Location	Sample Type	Process Scale & Mode	Technical Objective
Africa	Fluorspar	Bench	Reagent scheme development.
Armenia	Refractory Gold Sulphide Ore	Pilot	Produce bulk concentrate sample for leach pilot plant.
Europe	Graphite	Bench & Pilot	Develop flotation conditions for upgrading graphite concentrate by UFG and Jameson cell technology.
Mexico	Gold Sulphide Tailings	Pilot	Evaluate Jameson cell flotation.
USA	Coal	Pilot	Large scale pilot production including roughing, cleaning, Jameson, ultrafine regrinding.
NSW	Antimony	Bench & Pilot	Reagent scheme development and production of bulk concentrate.
Queensland	Copper Sulphide Tailings	Bench & Pilot	Reagent scheme development + bulk concentrate sample for leach pilot plant.
Mexico	Copper / Lead / Zinc	Bench	Reagent scheme development for differential flotation of Cu, Pb and Zn rich concentrates.
Queensland	Copper Sulphide and Oxide	Bench	Reagent scheme development including CPS.
Western Australia	Rare Earth Oxide	Bench	Develop breakthrough approach to flotation to upgrade feed concentrate to leach circuit study.
Queensland	Vanadium	Bench & Pilot	Develop vanadium beneficiation flowsheet including bench and pilot testing.
Papua New Guinea	Gold	Bench	Geometallurgy programme including leaching.
Queensland	Phosphate	Bench & Pilot	Evaluate flotation performance including Jameson cell.
India	Lead / Zinc / Silver Tailings	Bench	Evaluate metal recovery from tailings.
Indonesia	Copper / Gold	Bench & Pilot	Flowsheet development for new flotation circuit.
Australia	Copper	Bench & Pilot	NovaCell coarse particle flotation.



## 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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