

Black Rock Mining Ltd

Well advanced for a low capex, high margin/return project

Black Rock Mining Ltd (ASX:BKT) is developing the Mahenge natural graphite project in Tanzania, eastern Africa and is well advanced in defining and planning a low capex, high margin, high return operation. The company holds an 84% interest in Mahenge with the Tanzanian government retaining a free-carried 16% stake. Mahenge is one of the largest JORC-compliant flake graphite resources globally and is well positioned to benefit from growing global demand for natural graphite from use in Li-ion batteries. The resource is 213mn tonnes at 7.8% total graphitic carbon (TGC) and ore reserves of 70mn tonnes at 8.5% TGC. Black Rock Mining has completed its Front-end Engineering Design (FEED) and an updated enhanced Definitive Feasibility Study (eDFS) which identified a modular development approach to the project, greater throughput in the first five years and substantial potential upside with an NPV post tax, post free-carry of A\$2.1bn or US\$1.4bn. BKT is now in the process of advancing credit-approved term sheets for debt funding for the first module of the project. The initial stage has a capital cost of US\$182m, which would see 1.0mtpa processed to produce 89ktpa of graphite. BKT is targeting up to 50% debt via traditional project finance and is anticipating first production from Module 1 in CY2024.

Project description

Black Rock Mining is developing the Mahenge graphite project in Tanzania in eastern Africa. The project, spread across 324 square kilometres of exploration tenements in Tanzania's Ulanga district which lies 250km north of the Mozambique border, has a 213mt resource, making it the fourth largest graphite resource in the world. Low deleterious impurities and favourable metallurgy means that Mahenge will be able to produce up to 99% TGC concentrate purity using conventional flotation processing. The project also has the advantage of having access to key infrastructure including grid power, rail, airstrip, water and tailings disposal as well as proximity to processing facilities. Black Rock's FEED and DFS updates confirm an all-in-sustaining cost over the first 10 years of operation of US\$518/t compared with an average forecasted price of US\$1,709/t. The initial operating life of the mine is anticipated to be 26 years.

Aiming for first production in CY2024

Black Rock Mining is moving through its production checklist apace and remains committed to delivering first production from Module 1 in CY2024. The company recently signed an MOU for rail transport from Mahenge to the Port of Dar es Salaam, a high-volume container port, which delivers optionality for key customer destinations. Mahenge has also locked in grid power supply with an MOU with the Tanzania Electric Supply Company to collaborate on the construction of a 220kV transmission line to the project and local towns nearby. This will deliver access to low-cost grid power sourced from hydro and natural gas, ensuring that Mahenge remains at the lower end of the cost curve. Black Rock is exploring options to ensure construction of the power line aligns with first production from Module 1. Finalisation of debt funding in the current quarter and the signing of a full off-take agreement with POSCO should allow Black Rock to greenlight construction of this first stage before the end of Q3 CY2023 to enable first production in CY2024.

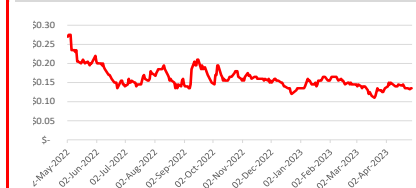
Delivering a critical mineral at a critical time

Battery demand for graphite is forecast to reach a tipping point in 2023 driven by the strong uptake of electric vehicles and for decarbonisation. Natural graphite, a less energy intensive and less expensive material with greater energy density than synthetic graphite, is expected to outstrip synthetic graphite usage in lithium-ion batteries in 2025. Supply of natural graphite remains constrained with a supply deficit forecast in 2023. Mahenge's target for first production in CY2024 could prove timely on the current outlook.

Share Details

ASX code	BKT
Share price	\$0.135
Market capitalisation	\$138M
Number of shares	986M
Options and performance rights	61.9M
Net cash at 31-Dec-2022	\$11.0M

Share Price Performance (12 months)



Upside Case

- Further cost savings identified to improve its current first quartile position on the cost curve
- Strong tailwinds for global graphite demand
- Backed by largest (ex-China) anode producer POSCO through shareholding and offtake agreement

Downside Case

- Fails to secure debt funding to proceed with the project
- Company is subject to takeover offers before shareholders secure sufficient returns of their investment
- Alternative sources of supply emerge

Catalysts

- Debt funding finalised in Q2 CY2023
- Full off-take agreement with POSCO signed
- Construction commences on project
- First production from module 1 commences (89ktpa)

Comparative Companies (Australia & NZ)

IG6, SVM, TLG

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FINANCIAL SERVICES GUIDE

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