

BKT REPLICATES INDUSTRY LEADING CONCENTRATE GRADES IN CHINESE PILOT PLANT TESTWORKS

HIGHLIGHTS

- Chinese pilot plant testworks validates and improves on Canadian pilot plant results
- Steady state results from oxide ore from pilot plant include industry leading:
 - Final concentrate grade 98.7% TGC
 - Metallurgical recovery to concentrate of 95.5%
 - Flake distribution of + 100 mesh 56%
- Pilot plant testworks operated at a rate of 380kg/hr

Tanzanian graphite developer Black Rock Mining Limited (BKT: ASX) (“Black Rock” or “the Company”) is pleased to announce final metallurgical performance results from steady state operations from its 18 tonne Chinese pilot plant testworks. The industry leading results replicated and improved upon the Company’s 90 tonne pilot plant testworks performed in Canada.

A summary of the results are presented below:

Table 1: Summary of 18 tonne Pilot Plant Testworks at Steady State Operation – April 2019

Product	Particle size	Individual segment reporting	Fixed carbon grade	Cumulative size distribution
Concentrate	+32	0.4%	98.75%	0.4%
	-32+50	9.6%	98.73%	10.0%
	-50+80	33.0%	98.72%	43.0%
	-80+100	13.2%	98.69%	56.2%
	-100	43.9%	98.62%	100.0%
	Total / Ave	100.00%	98.67%	

Commenting on the metallurgical results, Black Rock’s CEO, John de Vries, said

“We are very excited to have replicated and enhanced our industry leading processing performance from our second substantial pilot plant run. The 18 tonne pilot plant in China built on the earlier 90 tonne pilot plant run in Canada. Importantly we were able to deliver a higher specification material of +98% TGC while maintaining our target of +60% greater than #100 mesh. We also increased our recovery rate to 95.5%. All of this was delivered in front of our customers, partners and potential investors.

These outstanding results were achieved from Mahenge oxide ore. We anticipate that with the absence of weathering effects, primary material will produce even better outcomes. The above results were delivered over a 5 day operating period inclusive of ramp up and training of operators on ore behaviour. This gives us a lot of confidence around a smooth ramp up of our final processing module.

A key objective of the plant operation was to enable representatives from China, Korea and Japan the opportunity to validate the remarkable metallurgy that characterises our Mahenge graphite. We are pleased to say feedback was very positive and we look forward to progressing discussions resulting from the review."

Pilot Plant Operations

Over the course of the pilot plant operations a number of processing scenarios were tested. Scenarios were directed at determining the trade-off between size and final concentrate. The trade-off analysis was directed at determining the maximum concentrate price achievable as a function of diminishing basket size relative to increasing concentrate grade.

Final steady state operations were based on explicit customer feedback to target >98% TGC. Final pilot plant operations were targeted to produce Mahenge Premium branded concentrate and to determine the capacity to sustain >98% TGC on a steady state basis. Particle size distribution at steady state is set out in table 1.

The second objective was to enable the Company's Chinese EPC partners, Yantai, an ability to value engineer the DFS process route with the objective of reducing capex and increasing operational efficiencies to enhance the current Mahenge Definitive Feasibility Study financial metrics presented below. Yantai has advised it is pleased with the results and is confident of reducing capex and increasing operational efficiency.

The pilot plant results will be included in the FEED (Front End Engineering Design) process currently underway and due for delivery in the coming months.

Table 2: Summary of Mahenge Graphite Project Definitive Feasibility Study Financial Metrics – October 2018

MAHENGE DEFINITIVE FEASIBILITY STUDY FINANCIAL METRICS	
Post-tax, unlevered NPV ₁₀	US\$895m
Post-tax, unlevered IRR	42.80%
Capex for Phase One (83k tonnes per annum)	US\$115m (including 10% contingency)
Capex for Phase Two (83k tonnes per annum)	US\$69.5m (including 10% contingency)
Capex for Phase Three (83k tonnes per annum)	US\$84.2m (including 10% contingency)
Life of Mine C1 Costs, FOB Dar	US\$401 /t
Life of Mine All in Sustaining Costs, FOB Dar*	US\$473 /t
Concentrate basket FOB Dar es Salaam**	USD \$1,301/t
Life of Mine	32 years
Average steady state production rate	250k tonnes per annum
Total Life of Mine Concentrate production	6.6m tonnes
Ore reserves	70m tonnes @ 8.5% TGC
Reserve life	23 years
Resources	212m tonnes @ 7.8% TGC

* AISC includes all post start up capex including module 2&3 expansion

**Basket is LOM average price for 97.5% LOI sized concentrate packed in 1 tonne bulka bags

ENDS

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About Black Rock Mining

Black Rock Mining Limited is an Australian based company listed on the Australian Securities Exchange (ASX:BKT). The Company has a 100% interest in the Mahenge Graphite Project (the "Project") located in Tanzania. The Project has a JORC compliant Mineral Resource Estimate of 212m tonnes at 7.8% TGC. It also has Reserves of 70m tonnes at 8.5% TGC. The Reserve supports a mine life of 250k tonnes of graphite per annum for 25 years. Since the release of the Resource Estimate, the Company confirms that it is not aware of any new information or data that materially affects the resources estimate.

In October 2018, the Company released a Definitive Feasibility Study for the Project demonstrating exceptional financial metrics including:

- *Low Capex:* Lowest peak capital expenditure of US\$115M for phase one;
- *High Margin:* AISC margin of 63.6%;
- *Low Technical Risk:* Substantial pilot plant run of 90 tonnes delivering eight tonnes of product; and
- *Superior Economics:* IRR of 42.8% with NPV₁₀ of US\$895m

Following release of the DFS, the Company confirms that it is not aware of any new data or information that materially affects the results of the DFS and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. In January 2019 the Company announced it had substantially sold out of production with up to 205k tonnes per annum of graphite committed to sale by year three of production, through binding agreements to enter into offtake agreements. In February 2019 it also announced receipt of its mining licence for the DFS project.

The Company is currently progressing financing discussions and detailed engineering with a view to commencing construction of the mine in 2019.

JORC Compliant Mineral Resource Estimate and Reserve			
Reserves	Tonnes (Mt)	Grade (% TGC)	Contained Graphite (Mt)
- Proven	0	0.0	0.0
- Probable	70	8.5	6.0
Total Reserves	70	8.5	6.0
Resources			
- Measured	25.5	8.6	2.2
- Indicated	88.1	7.9	6.9
Total M&I	113.6	8.1	9.1
- Inferred	98.3	7.6	7.4
Total M, I&I	211.9	7.8	16.6



Location of Black Rock's Mahenge Graphite Project in Tanzania

For further information on Black Rock Mining Ltd, please visit www.blackrockmining.com.au

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Issued Capital
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