

# Exceptional 99.1% TGC purity achieved for Ulanzi bulk sample



21 June 2016

## Highlights

- Optimisation work on the Ulanzi bulk sample delivers significant incremental improvements to graphite purity
- 99.2% purity achieved for 180 $\mu$  and 300 $\mu$  size fraction, which represents 53.1% of concentrate. Flake distribution is biased towards coarser (premium) flake
- Entire +75 $\mu$  size fraction returned a weighted average of 99.1% TGC for 86% of the entire sample, indicating that Mahenge flake graphite is a premium product across the size range
- Results are from a conventional flotation circuit which offers more optimisation potential
- Allows for acid free processing

Screen Size Microns	TGC Assay %	Distribution %	Cumulative distribution %	Weighted Av. grade %
+500 $\mu$ m	98.3	1.1	1.1	98.3
+300 $\mu$ m	99.2	17.9	19.0	99.1
+180 $\mu$ m	99.2	35.2	54.3	99.2
+150 $\mu$ m	98.9	9.5	63.8	99.1
+106 $\mu$ m	99.0	12.9	76.6	99.1
+75 $\mu$ m	98.9	9.3	86.0	99.1
+25 $\mu$ m	97.5	8.8	94.8	98.9
-25 $\mu$ m	81.5	5.2	100.0	98.0

Table 1. Ulanzi bulk sample assay results by size fraction and %TGC. TGC assays are by double LOI method.

**Black Rock Mining Limited (ASX:BKT)** ("**Black Rock Mining**" or "**the Company**") is pleased to announce new metallurgical testwork results from the ongoing process optimisation program. The metallurgical team has surpassed 99.1% concentrate purity through a relatively simple adjustment to the flowsheet.

The entire +75 to +500 micron portion of flake graphite is now achieving 99.1% TGC purity and this represents 86% of the sample by weight. Over the next test phase, there is scope to further improve the concentrate purities with additional cleaner work.

The key outcome from this test is that exceptionally high purities in the 99% range can be achieved in a straightforward processing circuit whilst preserving flake size. Graphite at this high purity level will be sought after for battery graphite and other applications and is expected to attract a price premium.

New metallurgical samples will be sent from Tanzania over the coming months to comprehensively test additional portions of the Ulanzi and Cascade lodes. Two more bulk surface samples and drill core samples from Ulanzi and Cascades are being prepared for shipping and will be processed with the amended process circuit.

Spherical graphite test work is underway in Europe to determine the suitability of Mahenge graphite for battery applications with results expected in late July. The metallurgical programme is expected to continue for the next four to six months, in parallel with the Pre Feasibility and Definitive feasibility studies.

*Managing Director of Black Rock Mining Steven Tambanis commented: "This is an excellent result from our metallurgical team. Achieving >99% purities across the size range is an exceptional result for the project and we look forward to applying our processing improvements to new metallurgical samples expected from site next month. The ability to produce graphite concentrates at high levels of purity enhances our potential to sell into the premium flake graphite market. This importantly allows Black Rock Mining to brand and market its flake graphite product being processed acid free."*

**For further information please contact:**

**Mr. Steven Tambanis**

**Managing Director**

Office: +61 8 9320 7550

Email: [st@blackrockmining.com.au](mailto:st@blackrockmining.com.au)

**Mr Gabriel Chiappini**

**Director**

+61 8 9320 7550

Email: [gabriel@blackrockmining.com.au](mailto:gabriel@blackrockmining.com.au)

**About Black Rock Mining**

*Black Rock Mining Limited is an Australian based company listed on the Australian Securities Exchange. The Company has graphite tenure in the Mahenge region, Tanzania, a Country which hosts world-class graphite mineralisation. The Company announced its Mahenge JORC compliant resource on 29 February 2016, which is the largest and highest grade resource in Tanzania and the 4<sup>th</sup> largest globally.*

*The company is building a skill and knowledge base to become a developer and diversified holder of graphite resources.*

*Shareholder value will be added by:*

- ✓ identifying and securing graphite projects with economic potential
- ✓ focussing on tenure with scale potential that can be commercialised by converting into a JORC compliant resource; and
- developing the resource into a producing mine

*Our current focus is on completing technical and financial studies to take the Mahenge Project into production.*

**Competent Person Statements**

The information in this report that relates to Exploration Results is based on information compiled by Steven Tambanis, who is a member of the AusIMM. He is an employee of Black Rock Mining Limited. Steven Tambanis has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 and 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Steven Tambanis consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

The information in this report that relates to Metallurgical test work and results is based on information compiled by Mr David Pass, a Competent Person who is a member of Australian Institute of Mining and Metallurgy. Mr Pass is a full time employee of Battery Limits Pty Ltd, a specialist metallurgical consultancy and an independent consultant to Black Rock Mining Limited. Mr Pass has sufficient experience that is relevant to the style of mineralogy and type of deposit under consideration and the typical beneficiation thereof. Mr Pass consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.