

SEPTEMBER 2019 QUARTERLY ACTIVITIES REPORT

HIGHLIGHTS

- Financing Activity
- SPG Production Trial Delivers Industry Leading Results
- Mahenge Project DFS Enhanced
- John de Vries Promoted to Managing Director
- Corporate Social Responsibility activities
- A\$3m Placement Completed

Tanzanian graphite developer Black Rock Mining Limited (BKT: ASX) ("Black Rock" or the "Company") is pleased to provide its September 2019 Quarterly Activities Report.

Financing Activity

Financing activities are ongoing, and managed through Black Rock's debt advisors, ICA Partners (ICA).

CA continues to prepare documentation and protocols on a financing round which will commence in the coming months. A number of options are being evaluated including project level equity, conventional African-domiciled debt financing, convertible/hybrid structures and offtake-related financing proposals.

Black Rock is also pleased to see that the Tanzanian Government have taken concrete steps to resolve the long impasse with Acacia Mining plc (now managed by Barrick Gold Corp.), including an agreement for the Government to acquire a free-carried shareholding of 16%. Black Rock notes that this is a positive and an important step in our financing process. The Company looks forward to working with the Tanzanian Government on a framework for participation in the Mahenge Graphite Project.

SPG Production Trial Delivers Industry Leading Results

in August 2019, the Company completed a large-scale spheronising and purification trial using 400kg of sub-80 mesh concentrate that was generated during the March 2019 Pilot Plant run (refer ASX release 3 April 2019). The objectives of the trial were to:

- Validate Black Rock's Mahenge graphite product in the Chinese market
- Replicate industry leading spheronising yields achieved previously in Western laboratory trials (refer to ASX release 7 June 2017) conducted as part of the Mahenge Pre-Feasibility Study
- Ensure that industry leading results obtained in the laboratory were achievable at scale in standard industrial processes; and
- Demonstrate that the proposed mill flowsheet tested in the March 2019 Chinese Pilot Plant run (refer to ASX release 3 April 2019) does not damage the flake

The trial demonstrated a yield to final product of 48% and 53%, and final purity of 99.98% Total Graphite Content (TGC by Loss on Ignition) using commercial scale equipment in commercial processing conditions and in dedicated research facilities. These outcomes significantly exceed Chinese industry benchmark yields of 35-45% and purity of 99.95% TGC while using standard equipment and techniques. Spherical Purified Graphite (SPG) produced from the trials has been sent to interested parties for further testing.

The trials were conducted at Inner Mongolia Ruisheng New Material Co Ltd (a commercial producer), and at Wuhan University of Technology (a Chinese research facility). Using both a commercial producer and a Chinese research facility ensured



comparability between Western and Chinese laboratory results (given previous German laboratory testing conducted in 2017), and also provided confirmation that the product would perform when scaled up in a commercial facility typical of Black Rock's potential customer base.

Table 1 | Summary Trial Data

		Yantai Pilot Plant Enhanced Definitive Feasibility Study (eDFS) (2019)			
		Chinese Inner Mongolia Ruisheng Graphite Industry New Material Co - Acid Purified + Benchmark Thermal & Reshaped Wuhan Univ			
Purification Process		Acid	Acid/Thermal	Thermal	
Process yield to SPG	%	35% - 45%	53%^	48%	
Final purity	%	99.95%	99.98%	99.98%	

^{^ 53%} achieved after Acid Bath, but before Thermal * Total Graphitic Carbon as reported by Loss on Ignition





Figures 1 & 2 | Airflow turbine crushing and shaping system

Mahenge Project DFS Enhanced

Black Rock released its Mahenge Graphite Project Enhanced DFS (eDFS) in July 2019, building on the original DFS released in October 2018. The DFS was enhanced to include a fourth production module, a compressed development schedule and an increased schedule contingency, which is now subject to financing and confirmation of the 16% Tanzanian government free carried interest.

The eDFS was completed in response to product demand and feedback from customers and financial markets for a more aggressive production schedule and de-risked commissioning plan. It includes the provision for a fourth production module of 85k tonnes capacity, increasing eventual steady state production to 340 – 350k tonnes of concentrate per annum. The



development schedule now considers four production modules each coming online annually after the first module, rather than three modules, every two years in the original DFS.

The Mahenge Graphite Project business model is scalable in that capacity can be added incrementally via the Four Modules which ensures we do not over capitalise the asset with excessive redundant capacity, but can respond to changes in demand, in an effective and efficient manner. This approach ensures the asset is not developed unless market demand is present.

Table 2 | Summary of Mahenge Graphite Project Definitive Feasibility Study Financial Metrics - October 2018 vs Enhanced July 2019

	ahenge Graphite Project Definitive Fea ics – October 2018 vs Enhanced July 20	
MAHENGE DEFINIT	TIVE FEASIBILITY STUDY FINANCIAL ME	TRICS
Metric	Oct 2018 DFS	Jul 2019 Enhanced DFS
Post-tax, unlevered NPV ₁₀	US\$895m	US\$1.16bn
Post-tax, unlevered IRR	42.80%	44.80%
Forecast Capex for Module One*** (85k tonnes per annum; includes 10% contingency)	US\$115m (excludes HV Power Connection Provision)	US\$116m (excludes HV Power Connection Provision)
Forecast Capex for Module Two *** (85k tonnes per annum; includes 10% contingency)	US\$69.5m	US\$69.5m
Forecast Capex for Module Three*** (85k tonnes per annum; includes 10% contingency)	US\$84.2m	US\$85.3m
Forecast Capex for Module Four *** (85k tonnes per annum; includes 10% contingency)	n/a	US\$67.1m
Life of Mine C1 Costs, FOB Dar	US\$401/t	US\$397/t
Life of Mine All in Sustaining Costs, FOB Dar*	US\$473/t	US\$494/t
Concentrate basket FOB Dar es Salaam**	US\$1,301/t	US\$1,301/t
Life of Mine	32 years	26 years
Average steady state production rate	250k tonnes per annum	340k tonnes per annum
Total Life of Mine Concentrate production	6.6m tonnes	7.4m tonnes
Ore reserves	70m tonnes @ 8.5% TGC****	70m tonnes @ 8.5% TGC****
Reserve life	23 years	16 years
Resources	212m tonnes @ 7.8% TGC****	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 Forecast Capex has been classified as a Class 3 estimate with accuracy of ±10% as defined by AACE Total Graphitic Carbon by Loss on lightion

John de Vries Promoted to Managing Director

Black Rock Chief Executive Officer, Mr John de Vries, was appointed to the role of Managing Director in September 2019, now holding the title Managing Director & CEO.

Black Rock Chairman, Richard Crookes, added that since John's appointment as Black Rock's CEO in April 2017, he had demonstrated strong leadership and strategic thinking which has led to the achievement of a number of key milestones for the Mahenge Graphite Project.

The Company is now well positioned to advance the Mahenge Graphite project under John's leadership and the Board is currently working with him in the near term to finalise the Tanzanian Government shareholder agreement and project financing for the Mahenge Graphite Project.

Corporate Social Responsibility activities

Mahenge Resources Limited, under its Corporate Social Responsibility program, continued to establish a long term business to the benefit of all local stakeholders.



- National Torch Parade For the second consecutive year, the Company provided tracksuits to over 350 students in the Ulanga district who performed during the National Torch visit patriotic parade in Ulanga. 5,000 national flags were also provided to be used on an ongoing basis at national events taking place in Ulanga such as the National Torch and Prime Minister's visits.
- **Mdindo Village Office** Mobilized the Mdindo village community to assist in the completion of the construction of amenities for the village office previously built by Black Rock.
- *Kisewe And Nawenge Offices* Planning phase now completed for the construction of the Kisewe and Nawenge village offices. The Company is now working with the local community on implementation, which is currently scheduled for the next quarter.

A\$3m Placement Completed

In August 2019, Black Rock successfully completed an equity placement to raise A\$3 million via the issuance of 42,857,143 new shares at an issue price of A\$0.07 per share (a modest 7.9% discount to prior last closing price).

Funds raised are being used to progress the project financing activities that is supported by debt advisors, ICA, and also toward the completion of commercial and permitting activities for Black Rock's 100% owned Mahenge Graphite Project in Tanzania

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 Ore Reserves of 70m tonnes at 8.5% TGC. The Ore Reserves support a mine life of up to 350k tonnes of graphite per annum for a reserve life of 16 years. Since the release of the Mineral Resource Estimate, the Company confirms that it is not aware of any new information or data that materially affects the Mineral Resource Estimate.

In October 2018, the Company released a Definitive Feasibility Study (DFS) for the Project, which was based on strong customer demand. This DFS was enhanced in July 2019, and demonstrates exceptional financial metrics including:

- Low Capex: Lowest peak capital expenditure of US\$116M for phase one*;
- High Margin: AISC margin of 63.1%;
- Low Technical Risk: Substantial pilot plant operations run of 110 tonnes; and
- Superior Economics: IRR of 44.8% with NPV₁₀ of US\$1.16bn (A\$1.65bn**)

Following release of the Enhanced DFS in July 2019, the Company confirms that it is not aware of any new data or information that materially affects the results of the Enhanced 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 February 2019, the Company announced receipt of its mining licence for the DFS project. In May 2019, the Company announced it had substantially allocated planned production with up to 255k tonnes per annum of graphite committed to sale by year three of production, through Pricing Framework Agreements. The company is progressing these agreements into binding offtake commitments.

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

JORC Compliant Mineral Resource Estimate and Ore Reserve				
Ore Reserves	Tonnes (Mt)	Grade (% TGC)	Contained Graphite (Mt)	
- Proven	0	0.0	0.0	
- Probable	70	8.5	6.0	
Total Ore Reserves	70	8.5	6.0	
Mineral 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	



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

^{*} Forecast Capex has been classified as a Class 3 estimate with accuracy of $\pm 10\%$ as defined by AACE ** \$AUD/USD 0.70

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

Name of entity

ABN Quarter ended ("current quarter")
59 094 551 336 30 September 2019

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	-	-
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(269)	(269)
	(e) administration and corporate costs	(250)	(250)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	1	1
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Research and development refunds	-	-
1.8	Project financing	(147)	(147)
1.9	Product market studies	(15)	(15)
1.9	Marketing	(202)	(202)
1.10	Foreign subsidiary compliance	(198)	(198)
1.13	Net cash from / (used in) operating activities	(1,080)	(1,080)

Conso	lidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
2.	Cash flows from investing activities		
2.1	Payments to acquire:		
	(a) property, plant and equipment	(4)	(4)
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Exploration and Evaluation expenditure	(511)	(511)
2.6	(Payments of)/ proceeds from security bonds	-	-
2.6	Net cash from / (used in) investing activities	(515)	(515)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of shares	2,590	2,590
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	(129)	(129)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	2,461	2,461

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period (note 1)	1,907	1,907
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,080)	(1,080)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(515)	(515)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	2,461	2,461
4.5	Effect of movement in exchange rates on cash held	1	1
4.6	Cash and cash equivalents at end of period	2,774	2,774

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	194	194
5.2	Call deposits	2,535	2,535
5.3	Bank overdrafts	-	-
5.4	Cash backing credit cards	45	45
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	2,774	2,774

6.	Payments to directors of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to these parties included in item 1.2	145
6.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-

6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

Payments relate to executive director salary, non- executive director fees and company secretary fee.

7.	Payments to related entities of the entity ar	nd their associates	Current quarter \$A'000		
7.1	Aggregate amount of payments to these parties included in item 1.2				
7.2	Aggregate amount of cash flow from loans to these p	parties included in item 2.3	-		
7.3	Include below any explanation necessary to underst	and the transactions included	d in items 7.1 and 7.2		
Not ap	oplicable				
8.	Financing facilities available Add notes as necessary for an understanding of the position	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000		
8.1	Loan facilities	-	-		
8.2	Credit standby arrangements	-	-		
8.3	Other (please specify)	-	-		
8.4	Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.				
Not ap	pplicable				

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9.	Estimated net cash flows for next quarter	\$A'000
9.1	Exploration and evaluation	(968)
9.2	Development	-
9.3	Production	-
9.4	Staff costs	(254)
9.5	Administration and corporate costs	(253)
9.6	Project Financing	(205)
9.7	Product Market Studies	(107)
9.8	Marketing	(144)
9.9	Foreign subsidiary compliance	(198)
9.10	Placement	400
9.10	Interest received	3
9.12	Total estimated net cash flows	(1,726)

10.	Changes in tenements (items 2.1(b) and 2.2(b) above)	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
10.1	Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	-	-	-	-
10.2	Interests in mining tenements and petroleum tenements acquired or increased	-	-	-	-

11. Performance securities

11.1 Unlisted options	
Options \$0.10: expiring 31 August 2020	25,000,000
Options \$0.20: expiring 19 April 2020	5,000,000
Options \$0.10: expiring 31 October 2021	1,000,000
Options \$0.10: expiring 7 November 2021	13,000,000
Options \$0.10: expiring 18 December 2021	3,000,000
Options \$0.07: expiring 9 July 2021	5,000,000
Options \$0.20: expiring 14 March 2021	5,000,000
	57,000,000

Upon exercise, each unlisted option converts to one (1) ordinary share in Black Rock Mining Ltd.

Compliance statement

- This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Print name: Gabriel Chiappini (Non- executive Director and Company Secretary)

Date: 29 October 2019

Notes

- 1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
- 2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.