

## SHAREHOLDER PRESENTATION

**Tanzanian graphite developer Black Rock Mining Limited** (BKT: ASX) ("Black Rock" or "the Company") is pleased to attach its most recent shareholder and investor presentation. This presentation was due to be presented at the Mining Journal Select event in Sydney next week, however the event has since been cancelled.

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This announcement has been authorised by the board of directors.

## 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 resources estimate.

In October 2018, the Company released a Definitive Feasibility Study (DFS) for the Project, which was based on strong customer demand. The DFS was enhanced in July 2019 (refer to ASX release 25 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 NPV<sub>10</sub> of US\$1.16bn (A\$1.65bn\*\*)

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 (refer to ASX release 8 May 2019). The Company is progressing these agreements into binding offtake commitments.

In August 2019, the company announced that a trial producing spheronised purified graphite from Mahenge concentrate had been completed demonstrating results exceeding industry standards (refer to ASX release 15 August 2019).

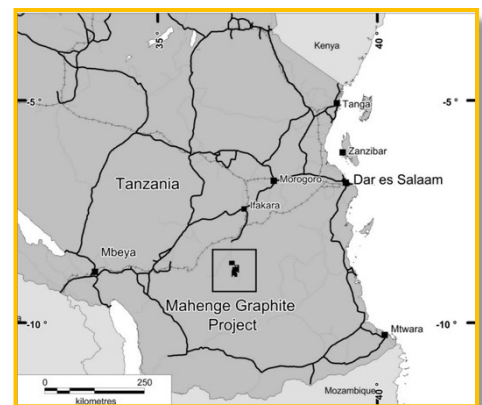
Following release of the enhanced DFS (eDFS) in July 2019, the Company confirms that it is not aware of any new data or information that materially affects the results of the eDFS and that all material assumptions and, in the case of estimates of Mineral Resources or Ore Reserves, technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

The estimated Ore Reserves and Mineral Resources underpinning the production target has been prepared by competent persons in accordance with the requirements in Appendix 5A (JORC Code).

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

### JORC Compliant Mineral Resource Estimate and Reserve

Reserves	Tonnes (Mt)	Grade (% TGC)	Contained Graphite (Mt)
- Proven	0	0.0	0.0
- Probable	79.6	8.5	6.0
<b>Total Reserves</b>	<b>79.6</b>	<b>8.5</b>	<b>6.0</b>
Resources			
- Measured	25.5	8.6	2.2
- Indicated	88.1	7.9	6.9
<b>Total M&amp;I</b>	<b>113.6</b>	<b>8.1</b>	<b>9.1</b>
- Inferred	98.3	7.6	7.4
<b>Total M, I&amp;I</b>	<b>211.9</b>	<b>7.8</b>	<b>16.6</b>



Location of Black Rock's Mahenge Graphite Project in Tanzania

For further information on Black Rock Mining Ltd, please visit [www.blackrockmining.com.au](http://www.blackrockmining.com.au)

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 ACN 094 551 336  
 ASX:BKT

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 69m Options

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 Richard Crookes  
 John de Vries  
 Gabriel Chiappini  
 Ian Murray

# Black Rock Mining and the Mahenge Project

## Best-In-Class Graphite Mine Development

Mining Journal Select, Sydney

March 2020



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# Important notices

This presentation has been prepared by Black Rock Mining Limited (**Black Rock or the Company**).

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## Competent Person(s) Statement

The information in this report that relates to Exploration Results and Mineral Resource Statements is based on information compiled by John de Vries, who is a member of the AusIMM. He is an employee of Black Rock. John de Vries 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'.

The information that relates to Mineral Resources is based on and fairly represents information compiled by Mr Lauritz Barnes, (Consultant with Trepanier Pty Ltd) and Mr Aidan Patel (Consultant with Patel Consulting Pty Ltd). Mr Barnes and Mr Patel are members of the Australian Institute of Mining and Metallurgy and have sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Barnes, Mr Patel and Mr de Vries consent to the inclusion in this report of the matters based on their information in the form and context in which they appear.

The Ore Reserves have been compiled by Black Rock, under the direction of Mr John de Vries, who is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy. Mr de Vries is a full-time employee of Black Rock and holds performance rights in the company as part of his total remuneration package. Mr de Vries has sufficient experience in Ore Reserve estimation relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves".

## Forward Looking Statements

Various statements in this presentation constitute statements relating to intentions, future acts and events. Such statements are generally classified as "forward looking statements" and involve known and unknown risks, uncertainties and other important factors that could cause those future acts, events and circumstances to differ materially from what is presented or implicitly portrayed herein. Words such as "anticipates", "expects", "intends", "plans", "believes", "seeks", "estimates" and similar expressions are intended to identify forward-looking statements. Black Rock cautions shareholders and prospective shareholders not to place undue reliance on these forward looking statements, which reflect the view of Black Rock only as of the date of this presentation. The forward looking statements made in this presentation relate only to events as of the date on which the statements are made.



# Black Rock at a glance

## Emerging premium graphite player

Australian-listed company (ASX: BKT)

100%-owner of Mahenge Graphite Project

Located in Tanzania

Mineral Resource of 212Mt at 7.8% TGC<sup>1</sup>

Ore Reserve of 70Mt at 8.5% TGC<sup>1</sup>

Long-life project producing high-purity,  
coarse distribution graphite concentrate

Outstanding forecast economics

Construction-ready subject to RAP, financing  
and confirmation of Tanzanian agreement

## Capital structure

ASX ticker	BKT
Share price (9 March 2020)	\$0.033
Shares on issue	628.9 M
Options and performance rights	69.0 M
Market capitalisation (undiluted)	A\$21 M
Cash (31 December 2019)	A\$2.2 M
Debt (31 December 2019)	Nil

## Major shareholders

Copulos Group	21.2%
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<sup>1</sup> For further detail on Mineral Resource and Ore Reserve estimates refer to Appendix slides.

# The leaders to deliver

Proven mine  
development, project  
finance and African  
operating experience

## Board

### **John de Vries, Managing Director and CEO**

- Mining Engineer with over 35 years' experience in mine development and operations; professional experience spans Africa, the Pacific, the Former Soviet Union, North and South America and Australia
- Previously General Manager Technical Services with St Barbara, integral in the 2014 turnaround; earlier operational management roles at BHP Nickel West and Orica Mining Services

### **Richard Crookes, Non-Executive Chairman**

- Geologist with over 30 years' executive experience in the resources and finance industries; raised capital and financed a number of projects globally, including across Africa
- Prior roles include Investment Director at Mining PE Fund EMR Capital, Executive Director in Macquarie's Metals & Energy Capital and Chief Geologist / Mining Manager at Ernest Henry Mining

### **Ian Murray, Non-Executive Director**

- Finance Executive with over 20 years' corporate experience in the publicly listed resources sector; led highly successful project developments, major acquisitions, company restructures and stock exchange listings
- Previous roles include CEO of Gold Road Resources, CEO and CFO of DRDGold Ltd, Director of Rand Refinery Ltd and GoldMoney.com, and senior positions at KPMG, PwC and Bioclones

### **Gabriel Chiappini, Non-Executive Director & Company Secretary**

- Chartered Accountant with over 20 years' experience in the commercial sector; assisted a number of companies to list on the ASX and involved with total equity and debt raised of over A\$400M
- Over the last 15 years has held positions of Director, Company Secretary and Chief Financial Officer in both public and private companies with operations in Australia, the UK and the US

## Executive management

### **Raymond Hekima, Vice President – Corporate (Tanzania)**

- Qualifications in Environmental Sciences and Management with over 13 years' experience in the government and corporate sectors, including significant specific permitting expertise
- Responsible for overall business and operations in Tanzania and key relationships and interactions with national government, local government, NGO's and community relations



# What has been learnt?

Industrial minerals (graphite) is customer driven, not commodity driven

**Financing requires preparation**  
In our case, this started with the DFS and pilot plants

## Relatively small terminal markets

- Economies-of-scale disrupt markets and are counter-productive
- Little intermediation - no hedging – capital investors have no offset to basket prices
- Entry size - small enough to be fundable but large enough to be meaningful / investable

**Sampling for Resource and Reserve estimation**  
very large samples are required for product and mill validation are in addition to Resource estimation



## Product goes into specific-use, manufactured goods

- Manufacturers have unique demand profiles
- QA/QC controls are similar to a smelter or refinery

**Clearing off-spec product destroys brand;** mills must be designed with reprocessing capability

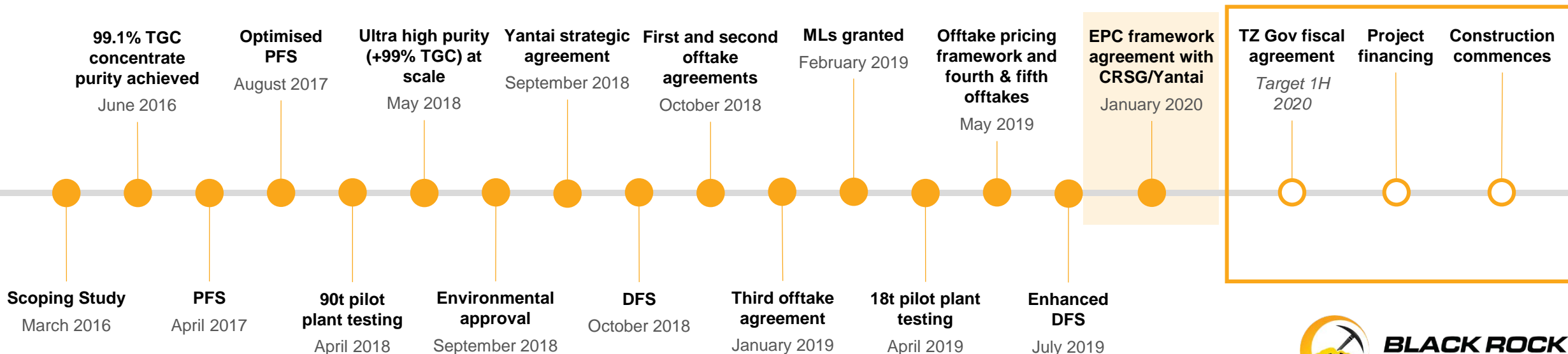
## Customers are manufacturers

- Product must meet specification from Day 1
- No creeping perfection as plant settles down

# What we have delivered to date

## A sector-leading approach to managing project and market risks

- Largest pilot plant run of any graphite development project globally
- Highest TGC\* purity achieved at commercial scale through simple flotation
- Diverse portfolio of credible offtake partners
- Detailed offtake pricing framework agreed
- Right-sized market entry profile and modularised scalability
- Enhanced DFS level of project definition
- Sector-first EPC framework agreement with SOE China Railway Seventh
- Environmental approval and MLs granted



\* Total Graphitic Carbon as defined by Loss on Ignition



# A snapshot of the Mahenge Graphite Project

Simple open pit mine development with outstanding forecast returns

**US\$1.2B**

Post-tax, ungeared, real NPV<sub>10</sub>

**45%**

Post-tax, ungeared, real IRR

**83ktpa**

Phase 1 output (1Mtpa ROM)

**US\$116M**

Phase 1 development capex

**350ktpa**

Phase 4 output (4Mtpa ROM)

**95 – 99%+ TGC purity**  
**59% +80 mesh, 41% -80**  
Concentrate product

**US\$1,301/t**

Basket graphite price (net FOB)

**US\$494/t**

LOM All-In-Sustaining-Cost

**26 years**

Initial operating life

Following release of the Enhanced Definitive Feasibility Study (DFS) on the Mahenge Graphite Project in July 2019 (see Black Rock ASX release dated 25 July 2019, *Mahenge Enhanced DFS with Executive Summary*), Black Rock confirms that it is not aware of any new data or information that materially affects the results of the Enhanced DFS. All material assumptions and technical parameters, including in the estimation of Mineral Resources or Ore Reserves, underpinning the estimates in the Enhanced DFS continue to apply and have not materially changed. The estimated Ore Reserves and Mineral Resources underpinning the production and financial forecasts in the Enhanced DFS were prepared by Competent Persons in accordance with the requirements in Appendix 5A (JORC Code).

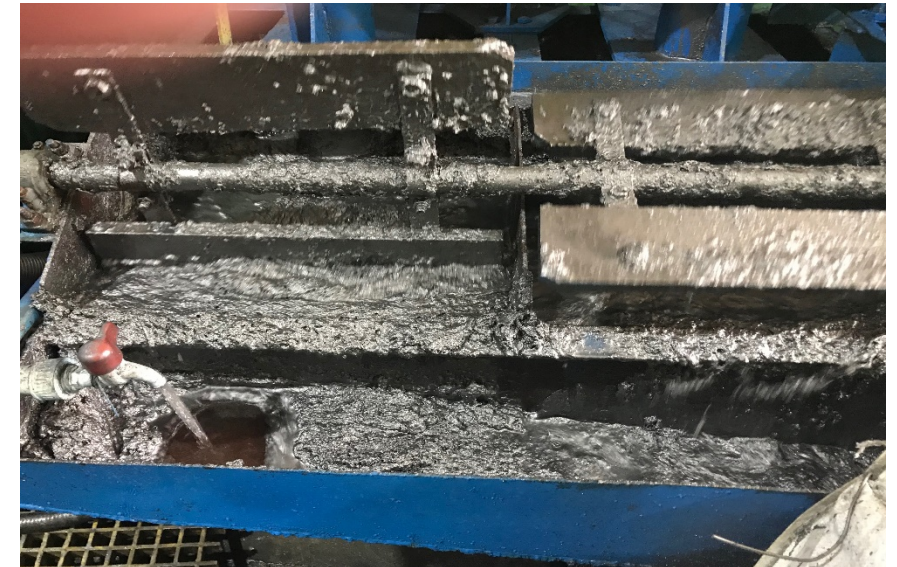


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# Deep work at commercial scale

Strong knowledge of our full project proposition

- Graphite is far from homogeneous
- We have done the work needed to truly understand our deposit properties, mine and process parameters, and key product streams
- Our testwork results have been delivered at **commercial scale**
- Two major pilot plant runs totalling almost 110 tonnes of material
  - 90t at SGS Lakefield (Canada); Ulanzi deposit
  - 18t at Yantai Jinyuan (China); Ulanzi deposit
- 400kg spheronising and purification trial (48% & 53% yields to 99.98% LOI)
- 300-cycle battery charge/discharge testing (94% recharge rate)



# A small, sustainable footprint with large impact

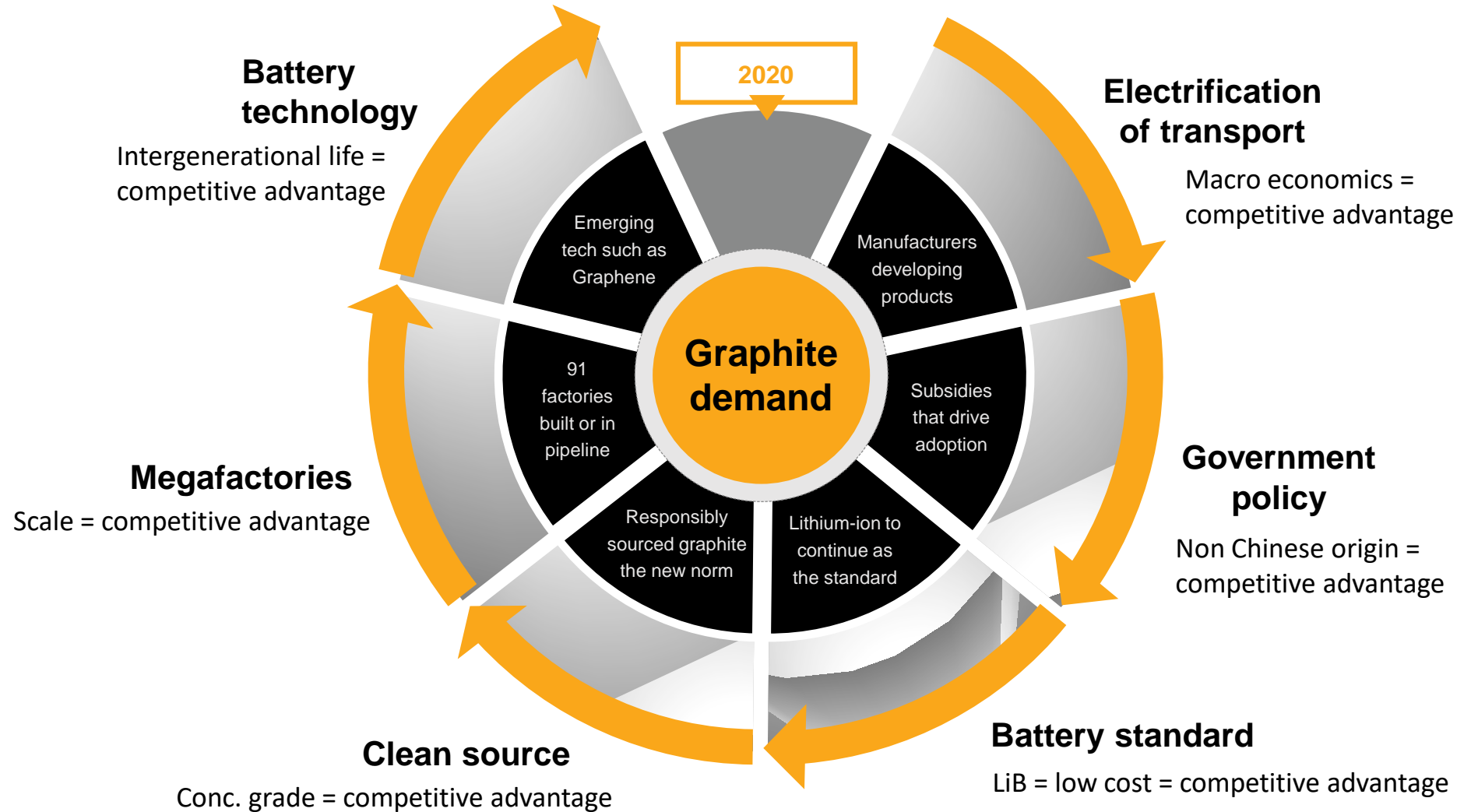
Whole of community  
engagement with a  
lasting skills and  
economic legacy

- Resettlement Action Plan (RAP)
  - Ongoing, relationship-led, well supported by affected people
  - Front-end strategy of community engagement well received
- Logistics
  - Road/rail combination reduces vehicle risk
  - Rail access to port leverages national infrastructure
- Energy
  - Access to low cost hydro grid power delivers small carbon footprint
- Dry stack residue disposal
  - No wet dam failure risk and not competing for water
  - Long term chemical stability



# Graphite market dynamics

Black Rock is aligned to how the market is moving



# Black Rock and the Mahenge Project

## The leading graphite development proponent

- **Simple open pit project with outstanding forecast returns**
- **Sector-leading product purity and residual chemistry proven at commercial scale**
- **Premier project location and logistics**
- **Risk-appropriate and achievable funding, project execution, market entry and growth strategies**
- **Realistic, transparent pricing outlook and agreed framework**
- **Responsibly sourced, sustainable supply and superior stakeholder engagement**





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# Appendix A: The Premier Graphite Exposure



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# Black Rock: The premier graphite exposure

A world-class deposit with a superior development strategy

**01**

Upstream focus with highly economic mine project

**02**

Deep evaluation work at real commercial scale

**03**

Leading product purity and residual chemistry

**04**

Sensible market entry and growth strategy

**05**

Realistic and transparent graphite price views

**06**

Premier location and logistics options

**07**

Fit-for-purpose project execution plan

**08**

Responsibly sourced, sustainable graphite

**09**

Blended, risk-adjusted finance process

**10**

Superior stakeholder engagement



01

# Upstream focus with highly economic mine project

Leveraging our experience and expertise in the right places

- Core upstream, mine development strategy at Mahenge
- Strongly differentiated from many of our graphite development peers
- Key competitive advantage is our resource and its properties
- Focussed on where our experience and expertise lets us extract value
- No downstream 'backfill' or attempted market creation/insertion
- Seeking to supply our customers, not compete with them
- Large deposits drive 25+ year mine life at expanded production rates
- Enhanced DFS evidences outstanding forecast economics



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02

# Deep work at real commercial scale

Provides strong  
knowledge of our  
project proposition

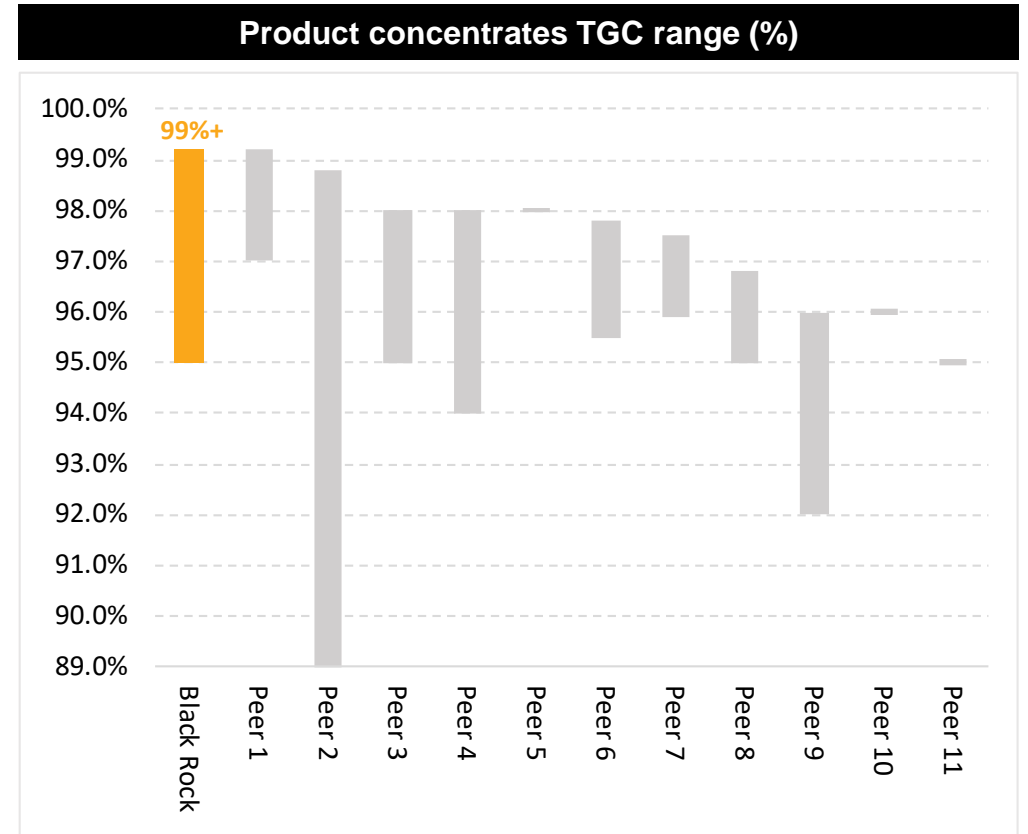
- Graphite is far from homogeneous
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  - 18t at Yantai Jinyuan (China); Ulanzi deposit
- 400kg spheronising and purification trial (48% & 53% yields to 99.98% LOI)
- 300-cycle battery charge/discharge testing (94% recharge rate)



# Leading product purity and residual chemistry

## A critical differentiator

- No overprint mineralisation = ability to deliver superior product purity and residual chemistry
- Enables 99%+ TGC concentrate purity with solely conventional flotation processing (at commercial scale)
- Highest grade and cleanest graphite concentrate globally; as recognised by leading market experts
- Achieved without excessive polishing = maintaining coarse flake size distribution
- Superior value-in-use properties
- Nature of residual chemistry particularly critical
- Distinct, and now widely recognised, Mahenge deposit signatures



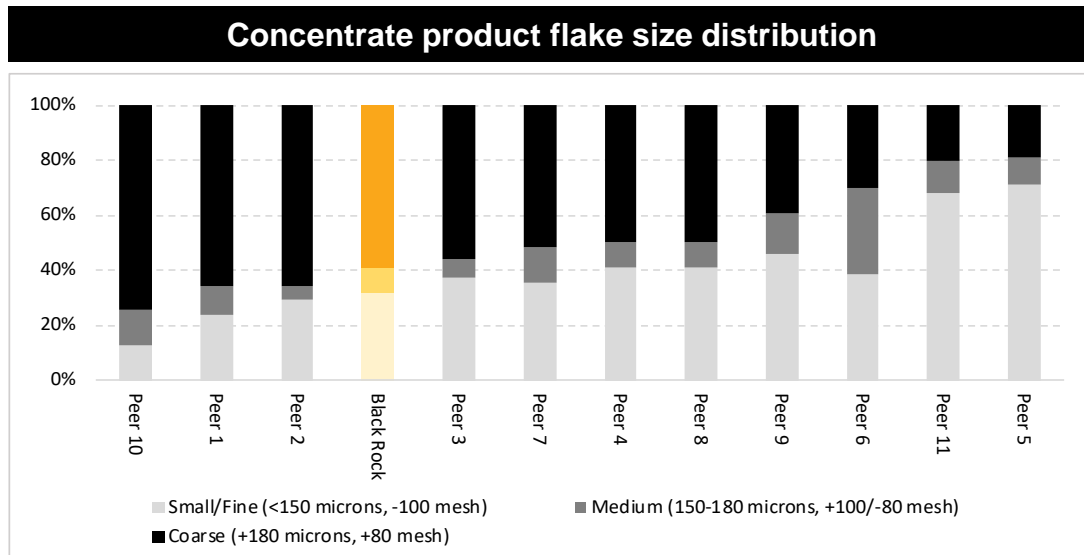
Source: Publicly available company data, October 2019

Peer basket comprises the following ASX-listed graphite project developers: BAT, BEM, EGR, GPX, HXG, MNS, SYR, SVM, TON, VRC, WKT

- Deep pilot plant testing via composite orebody sampling – superior process de-risking and highly representative product samples
- Sensible Module 1 entry size (~85ktpa): limited enough to allow product market integration but significant enough to deliver meaningful returns
- Coarse distribution of Mahenge enables an effective dual project:
  - Approx. 60% coarse flake (+80 mesh; +180 microns) for premium large flake markets of limited competition and demanding product
  - Approx. 40% medium and fine flake (-80 mesh; -180 microns) for traditional graphite markets and EV battery usage
- Diversity of offtake partners (now at 5) reduces counterparty/contract risk
- Modularised further growth driven by customer demand and market pull

# 04 Sensible market entry and growth strategy

Right-sized and hitting the premium segments



Initial offtake (tonnes, graphite concentrate)	Year 1
Heilongjiang Bohao	20,000
Qingdao Fujin	10,000
Taihe Soar	20,000
Qingdao Yujinxi	20,000
Yantai Jinyuan	15,000
<b>TOTAL</b>	<b>85,000</b>

For full details on existing offtake arrangements refer to Black Rock ASX releases dated 22 October 2018, 29 October 2018, 7 January 2019 and 8 May 2019

Chart source: Publicly available company data, October 2019

Peer basket comprises the following ASX-listed graphite project developers: BAT, BEM, EGR, GPX, HXG, MNS, SYR, SVM, TON, VRC, WKT



05

# Realistic, transparent price views

Reflective of actual  
market dynamics  
and trends

- Balanced approach relative to peers
  - Lower relative large flake prices given less liquid markets and significance to basket price calculation
  - Higher relative medium/fine flake prices given observed purity premium and Mahenge concentrate grades
- Based on:
  - Prevailing Refwin (China) and Lone Star Tech (ex-China) price data
  - Roskill forecast price deck (2018)
  - Agreed customer offtake pricing framework<sup>1</sup>

Enhanced DFS segments (Mesh #)	Segment pricing (US\$/t)	Basket weight (%)	Shipping (US\$/t)	Channel & agent (US\$/t)	Contract discounts (US\$/t)	Basket FOB (US\$/t)
+32	1,579	5	1.65	1.97	1.97	73
+50	1,449	18	5.96	6.52	6.52	242
+80	1,444	36	11.89	12.98	12.97	481
+100	1,378	9	3.06	3.19	3.19	118
-100	1,314	32	10.52	10.44	10.44	386
	<b>1,404</b>	<b>100</b>	<b>33.08</b>	<b>35.10</b>	<b>35.10</b>	<b>1,301</b>

Prices based on average concentrate purity of 98% graphite by LOI



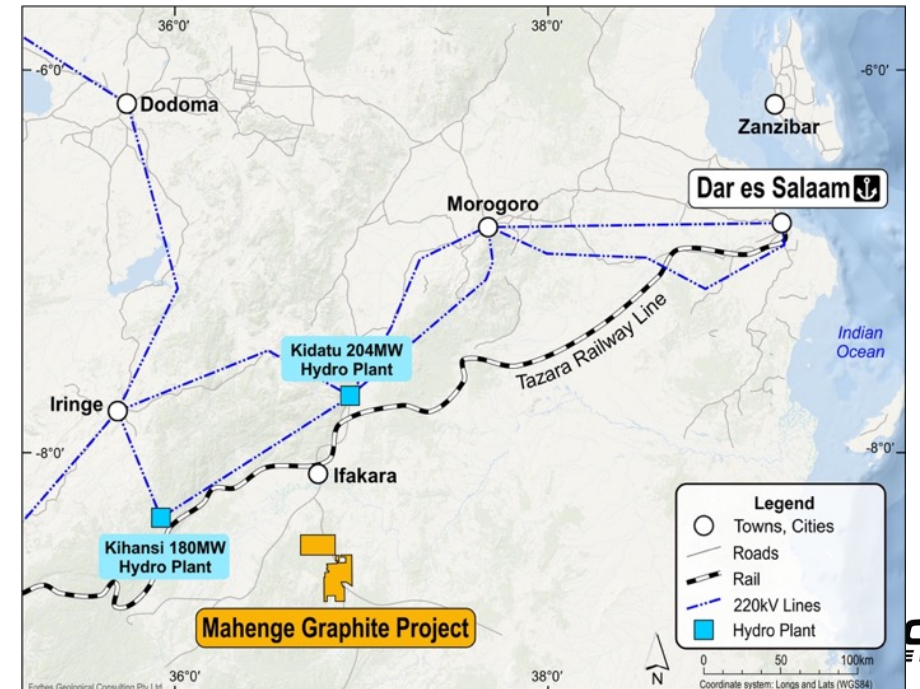
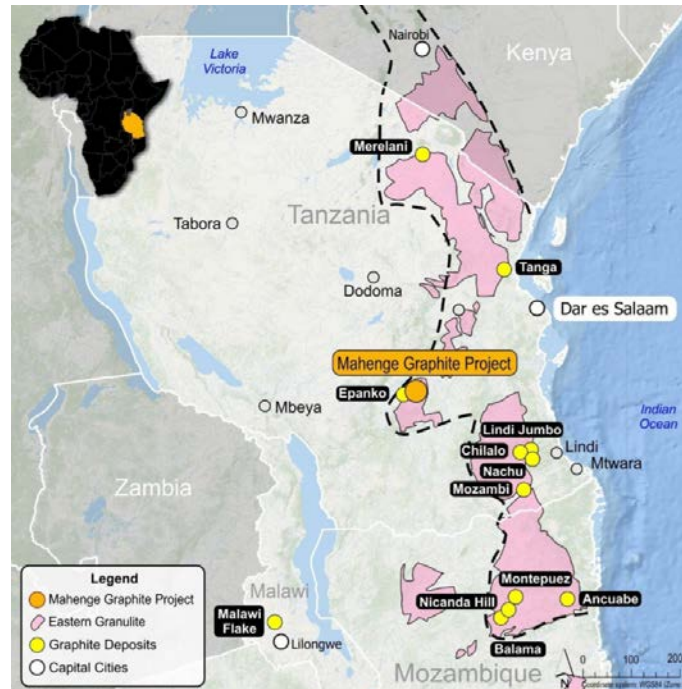
<sup>1</sup> For full details on agreed customer offtake pricing framework refer to Black Rock ASX release dated 8 May 2019, *BKT Delivers Offtake Framework Pricing Agreements*

06

# Premier location and logistics

A key differentiator that drives value

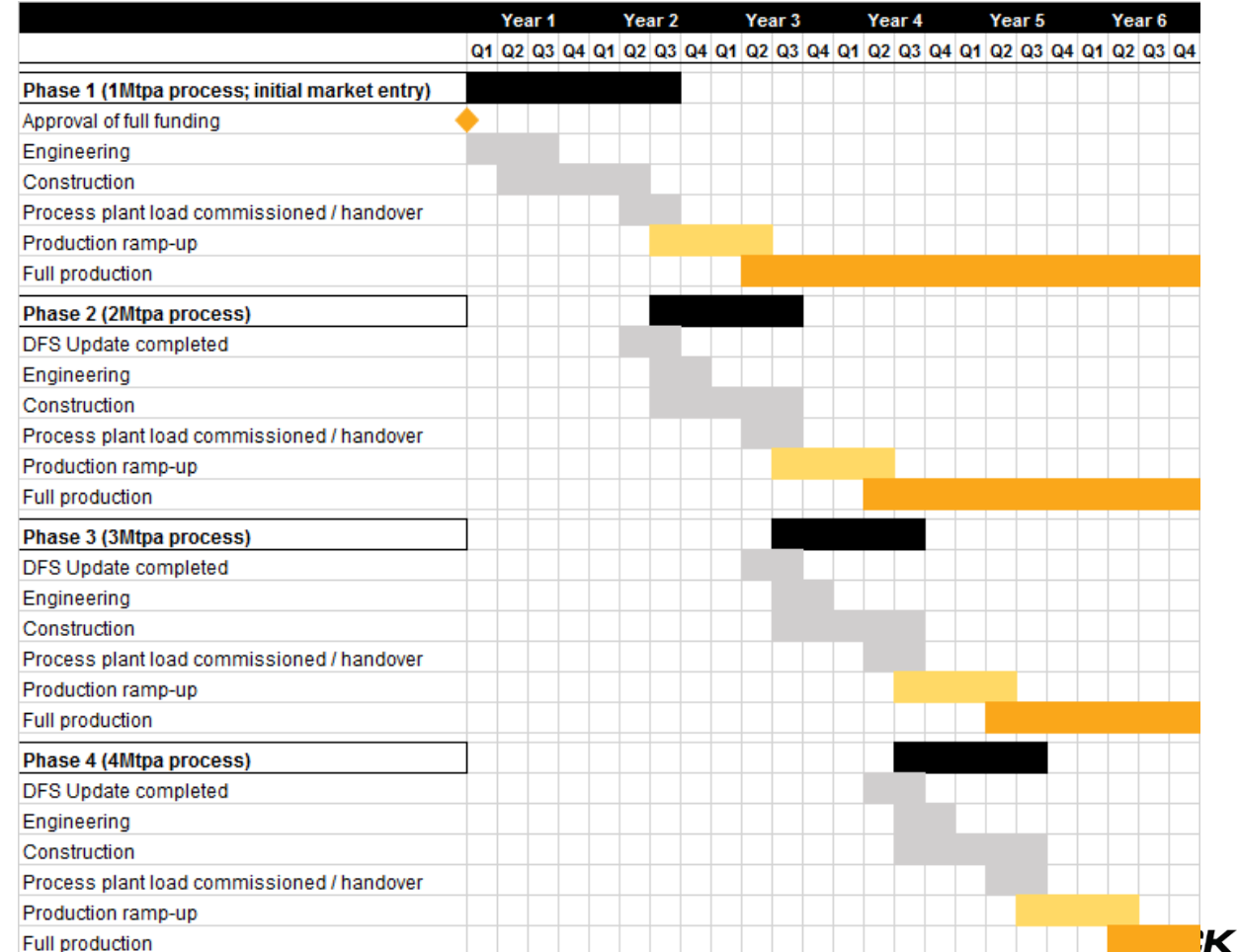
- Northern location of Mahenge offers significant competitive cost advantage
- Proximity and access to rail and major port at Dar es Salaam
- Dar es Salaam the premier coastal export option
  - High-volume container port, superior logistics, no seasonal interruption and greater service area (versus Mtwara, Pemba, Nacala)
  - Lower working capital requirements and easier inventory management
  - Minimises frictional costs and erosion of FOB value – key drivers
- Ready pathway to grid power and excellent trucking supply route/logistics



# Fit-for-purpose project execution plan

## Low risk build and a plant design dedicated to product consistency

- Major fabrication of plant components prior to shipping and on-site construction
- Initial diesel genset power generation to minimise start-up and early supply risk
- High level of plant automation and multiple reprocess points ensures consistency of product
- Greater certainty, lower build risk via non-binding EPC framework agreement with Africa-focussed SOE China Railway Seventh Group and Yantai
  - Deferred (+30%) payment terms
  - Typical performance warranties, guarantees
  - Project financing assistance
- Modular growth execution driven by demand pull; market-focussed approach to FID points



- Equator Principles framework fully employed
- Complete traceability of supply chain and proof of ethical sourcing
- Strong community support and predominant use of local workforce
- Access to hydro grid power (low emissions footprint)
- Large grind size permits dry stack tailings management: eliminates dam failure risk, neutral water balance (ie no net draw), reduced footprint
- Ultra high purity concentrate product = low consumer downstream acid use
- Resource scale delivers long-life asset



08

# Responsibly sourced, sustainable graphite

Ethical supply chain requirements met or exceeded

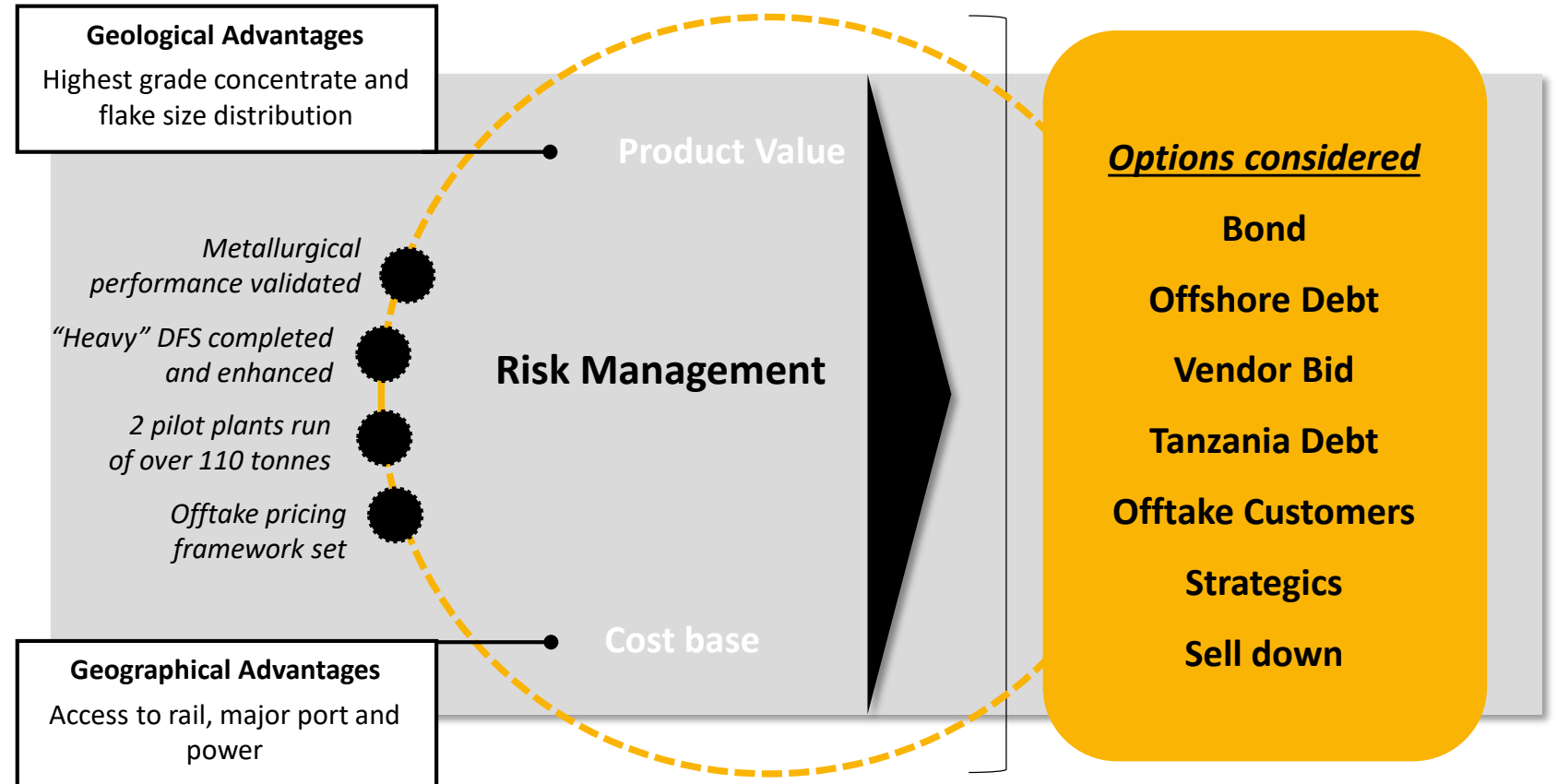


09

# Blended, risk- adjusted finance process

To secure the right  
funding mix

- Targeting a blended project financing model
- Matching risks to participants best placed to manage them
- Key potential finance stakeholders include EPC vendor, offtake counterparties and Tanzanian government
- ICA Partners mandated as finance adviser



# 10 Superior stakeholder engagement

Establishing a long-term business to the benefit of all local stakeholders

- Focus on building appropriate, long-term sustainable relationships
- Tanzania remains an excellent domicile – stable and LT conflict-free
- All Mahenge permits received under new Mining Code requirements:
  - Environmental permit and Mining Licence(s)
  - Resettlement Policy Framework – approved – RAP in progress
- Current process to formalise Tanzanian ownership (16% free carry interest) and fiscal agreement; target completion 1H 2020
  - Black Rock highly pro-active approach post Acacia/Barrick resolution
  - Positioning Mahenge to be utilised as mining industry permitting model
- Local workforce and strong community support



# Appendix B: Mahenge Project Detail



# Mineral Resource and Ore Reserve estimates

Category	Tonnes (Mt)	Grade (%TGC)	Contained Graphite (Mt)
<b>Ore Reserves</b>			
Proven	0	0	0
Probable	69.6	8.5	6.0
<b>Total Ore Reserves</b>	<b>69.6</b>	<b>8.5</b>	<b>6.0</b>
<b>Mineral Resources</b>			
Measured	25.5	8.6	2.2
Indicated	88.1	7.9	6.9
<b>Total Measured and Indicated Resources (M&amp;I)</b>	<b>113.6</b>	<b>16.5</b>	<b>9.1</b>
Inferred	98.3	7.6	7.4
<b>Total Measured, Indicated and Inferred Resources (M, I &amp; I)</b>	<b>211.9</b>	<b>7.8</b>	<b>16.6</b>



Following release of the Enhanced Definitive Feasibility Study (DFS) on the Mahenge Graphite Project in July 2019 (see Black Rock ASX release dated 25 July 2019, *Mahenge Enhanced DFS with Executive Summary*), Black Rock confirms that it is not aware of any new data or information that materially affects the results of the Enhanced DFS. All material assumptions and technical parameters, including in the estimation of Mineral Resources or Ore Reserves, underpinning the estimates in the Enhanced DFS continue to apply and have not materially changed. The estimated Ore Reserves and Mineral Resources underpinning the production and financial forecasts in the Enhanced DFS were prepared by Competent Persons in accordance with the requirements in Appendix 5A (JORC Code).

# Enhanced DFS: Projected economics

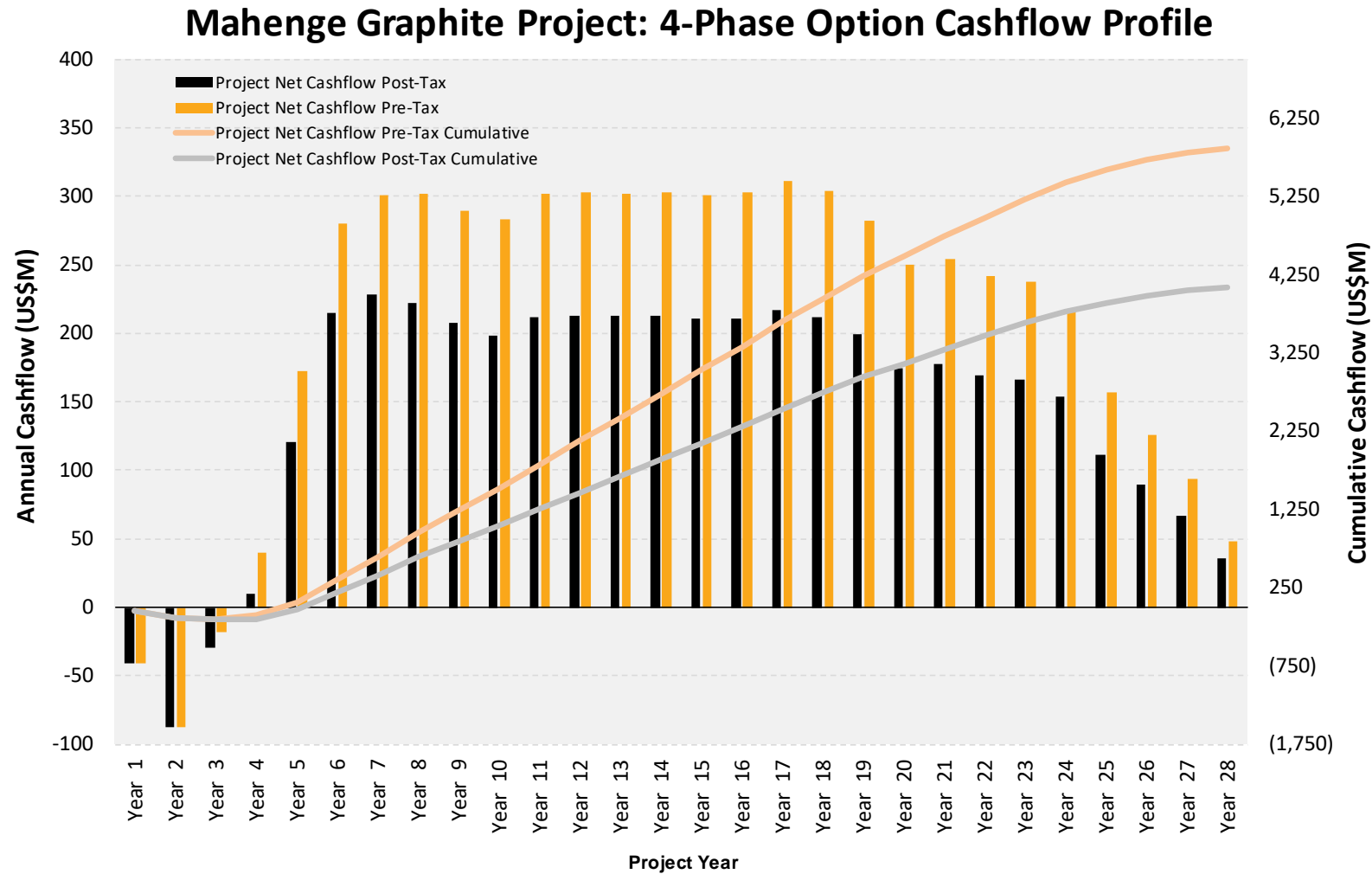
Financial performance summary	Unit	LOM
Project life	Years	27.5
Operating life	Years	26.0
Total LOM net revenue	US\$M, real	9,619
Graphite price (real)	US\$/t	1,301
Total project development capital costs *	US\$M	337
C1 cost: real (including withholding tax)	US\$/t	397
C3 cost: real (including withholding tax)	US\$/t	494
Stable state EBITDA (after year 5)	US\$M, real	306
Project NPV @ 10.0% - post tax, ungeared after 16% free carry	US\$M, real	1,161
Project NPV @ 8.0% - post tax, ungeared after 16% free carry	US\$M, real	1,489
Project IRR – post tax, ungeared after 16% free carry	%, nominal	44.8
Maximum project drawdown	US\$M, real	199.1
Maximum cash draw period – from construction start	Years	3.5
Breakeven graphite price (constant real price so NPV=0)	US\$/t	576

\* Forecast Capex has been classified as a Class 3 estimate with accuracy of  $\pm 10\%$  as defined by AACE



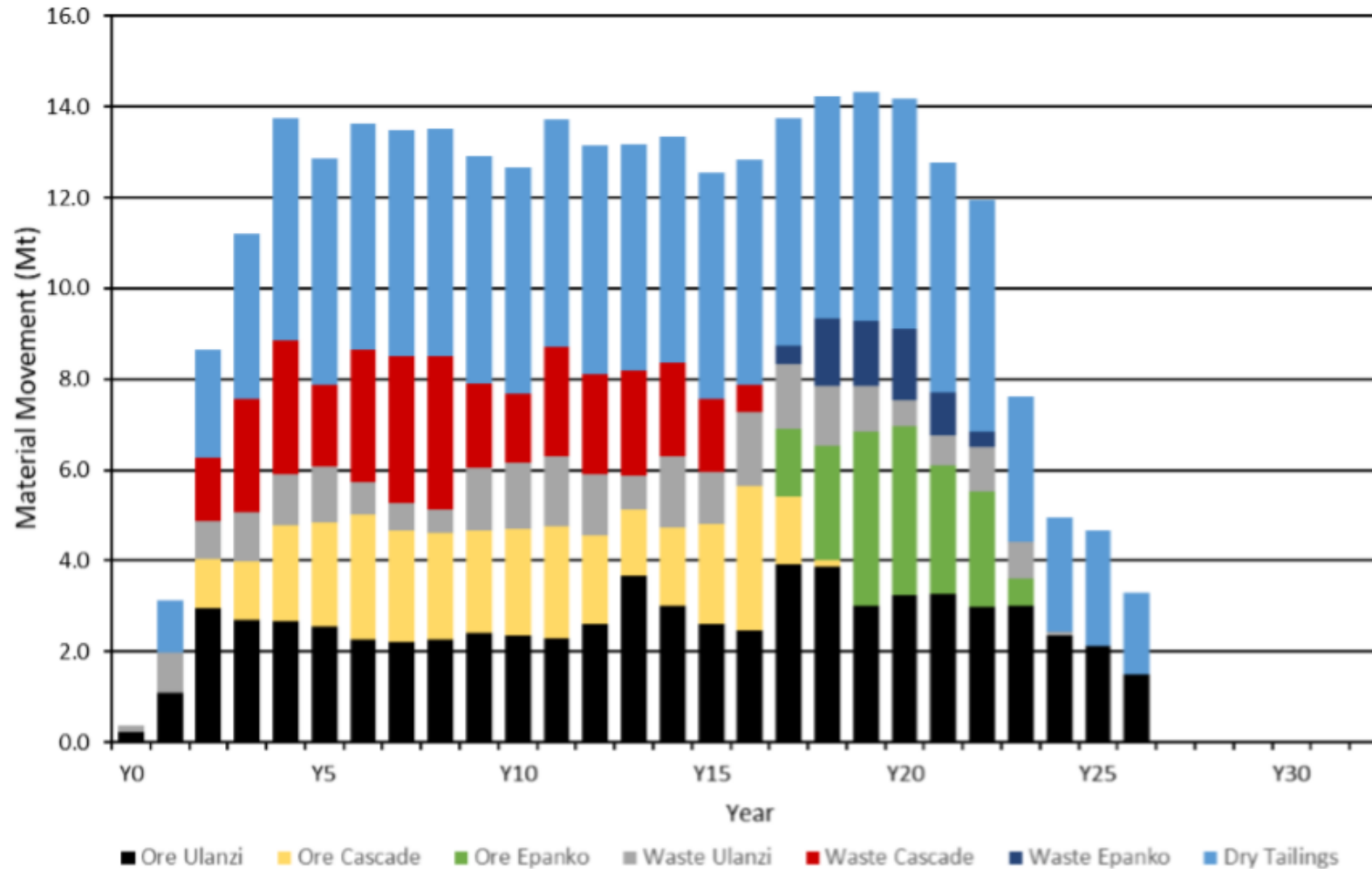
Following release of the Enhanced Definitive Feasibility Study (DFS) on the Mahenge Graphite Project in July 2019 (see Black Rock ASX release dated 25 July 2019, *Mahenge Enhanced DFS with Executive Summary*), Black Rock confirms that it is not aware of any new data or information that materially affects the results of the Enhanced DFS. All material assumptions and technical parameters, including in the estimation of Mineral Resources or Ore Reserves, underpinning the estimates in the Enhanced DFS continue to apply and have not materially changed. The estimated Ore Reserves and Mineral Resources underpinning the production and financial forecasts in the Enhanced DFS were prepared by Competent Persons in accordance with the requirements in Appendix 5A (JORC Code).

# Enhanced DFS: Forecast cashflow profile



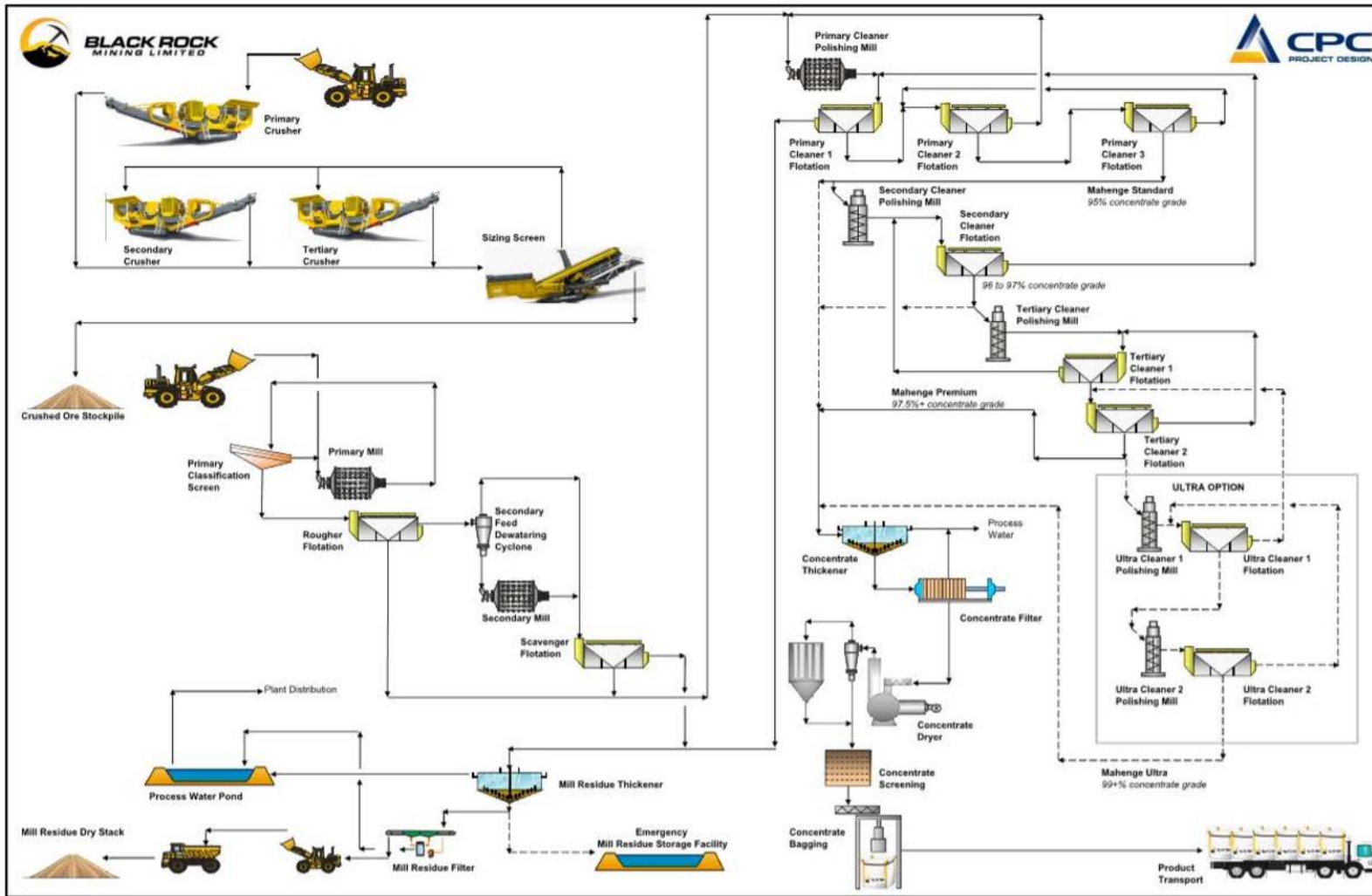
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# Enhanced DFS: Mining profile



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# Enhanced DFS: Process flowsheet



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# Enhanced DFS: Operating cost estimates

Cost	Unit	Onsite power generation (rental)	Grid power (TANESCO)
Charge to provide services (fixed cost)	US\$/month	176,000	70,118
Power supply (variable cost)	US\$/kWh	0.263	0.067

Area	LOM average		
	US\$M pa	US\$/t ore feed	US\$/t graphite product
Mining	30.3	8.28	<b>106.38</b>
Processing	48.1	13.16	<b>169.08</b>
Administration	4.9	1.34	<b>17.26</b>
Logistics (Black Rock)	6.8	1.87	<b>24.04</b>
Transport and Freight	21.6	5.92	<b>75.99</b>
<b>Total</b>	<b>111.7</b>	<b>30.58</b>	<b>392.76</b>



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# Enhanced DFS: Capital cost estimates\*

Area (WBS Level 1)*	Stage 1 '000 US\$	Stage 2 '000 US\$	Stage 3 '000 US\$	Stage 4 '000 US\$	Total '000 US\$
Mining	10,165	-	-	-	10,165
Ifakara	1,366	1,041	727	682	3,816
Infrastructure	14,315	3,325	53,705	40,976	112,321
Process plant	50,877	45,300	4,737	4,293	105,207
Site support (temporary services)	1,767	194	194	194	2,349
Indirects	9,904	6,955	8,468	6,955	32,282
Owners Costs	16,174	5,160	6,294	5,160	32,788
Contingency	11,000	7,500	11,200	8,800	38,500
<b>Total</b>	<b>115,569</b>	<b>69,474</b>	<b>85,324</b>	<b>67,060</b>	<b>337,428</b>

\* Forecast Capex has been classified as a Class 3 estimate with accuracy of  $\pm 10\%$  as defined by AACE

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# Enhanced DFS: Graphite pricing (at 98% LOI)

Enhanced DFS price deck segments (Mesh #)	Segment pricing (US\$/t)	Basket weight (%)	Shipping (US\$/t)	Channel & agent (US\$/t)	Contract discounts (US\$/t)	Basket FOB (US\$/t)
+32	1,579	5	1.65	1.97	1.97	73
+50	1,449	18	5.96	6.52	6.52	242
+80	1,444	36	11.89	12.98	12.97	481
+100	1,378	9	3.06	3.19	3.19	118
-100	1,314	32	10.52	10.44	10.44	386
	<b>1,404</b>	<b>100</b>	<b>33.08</b>	<b>35.10</b>	<b>35.10</b>	<b>1,301</b>

Prices based on average concentrate purity of 98% graphite by LOI

Customer offtake pricing framework	Regular	Premium	Ultra
Nominal Graphite Grade (TGC)	94.5% - 95.5%	97.5% - 98.25%	>99%
CIF China (ex-duty) (US\$/tonne)	\$1,117	\$1,490	\$2,161
Reference exchange rate	RMB/USD 6.71		
Rise & fall pricing reference US\$/tonne	95% TGC - #100 mesh Benchmark Minerals \$950/t as at Nov 2018		

For full details on the agreed customer offtake pricing framework refer to Black Rock ASX release dated 8 May 2019, *BKT Delivers Offtake Framework Pricing Agreements*



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