#### ASX ANNOUNCEMENT

28 February 2019

WALKABOUT RESOURCES LTD ACN 119 670 370

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#### DIRECTORS

Chairman:Trevor BensonExec:Allan MulliganTech:Andrew CunninghamNon Exec:Tom MurrellNon Exec:Mike Elliott

ORDINARY SHARES 304,249,748

LISTED OPTIONS 40,664,321

UNLISTED OPTIONS 7,000,000

PROJECTS

Lindi Jumbo Graphite Project Tanzania (70% - 100%)

Northern Ireland Gold and Base Metals (50% - 100%)

Eureka Lithium Project Namibia (100%)

Scotland Base Metal Projects (Farm-in to earn 75%)

Takatokwane Coal Project Botswana (40% - 70%)

## Updated Ore Reserve delivers 17.9% graphite grade

🔨 🖉 walkabout

### Highlights:

- Increase in Proven and Probable Ore Reserves to 5.5 million tonnes @ 17.9% TGC.
- **11% increase in Life of Mine grade** from 16.1% to 17.9%, representing **highest grade reserve in peer group**.
- 10% increase in Ore Reserve tonnes.
- 22% increase in Total Graphitic Content.
- Increased grade delivers greater operational efficiency with a 13% reduction in required throughput while maintaining annual production of 40,000 tonnes of flake graphite.

Emerging African graphite producer Walkabout Resources (ASX:WKT) is pleased to announce a substantial upgrade to the Ore Reserve for its highgrade Lindi Jumbo graphite project. There is a high degree of confidence in the Reserve with only Measured and Indicated Resources being used in the calculation. The potential for further upside in the resource endowment is inherent in both the Inferred Resources and recent discovery to the south of the pit (announcement dated 19 Dec 2018).

The upgraded Ore Reserve forms the basis of review and improved outcomes for the Definitive Feasibility Study (DFS), which is due to be released shortly.

#### **Executive Director, Allan Mulligan commented;**

"In the mining industry 'grade is king' and we have successfully delivered our objective to validate Lindi Jumbo as the highest-grade graphite project in our peer group."

"The super-high-grade mill feed means that Lindi Jumbo is an incredibly robust project and positions the Company to deliver the largest margins in the Industry. This gives Walkabout the ability to take advantage of opportunities for increased market share as well as providing a meaningful downside protection. Our goal continues to be the non-China producer-of-choice for premium large-flake natural graphite."

"Importantly, we see the potential for further upside in several areas, including the ability to produce and sell more graphite than designed for and also expanding into not-yet utilised high-grade deposits to the south and bringing those to account."



## Ore Reserve

The Resources considered for mining are based on the JORC 2012 Mineral Resource Estimate *(see ASX announcement of 19 December 2018)*. The Ore Reserve is based only on the Measured and Indicated Mineral Resources in the current mining schedule which is summarised in Table 1. Thus, the Inferred Resource zone to the south of the mining pit is not currently included in the mine design reserves and remains available for further consideration or potential expansion opportunities. The Ore Reserve estimate was prepared and signed off by and independent consultancy, Bara International of Johannesburg, South Africa.

#### Table 1: Lindi Jumbo Project Ore Reserve.

Ore Reserves					
Category	Tonnes (million)	TGC %	Contained Graphite (tonnes)		
Proven Ore Reserves	2.54	19.3	489,000		
Probable Ore Reserves	2.97	16.7	498,000		
Total Ore Reserves	5.51	17.9	987,000		

Note: Totals may not add up due to rounding.

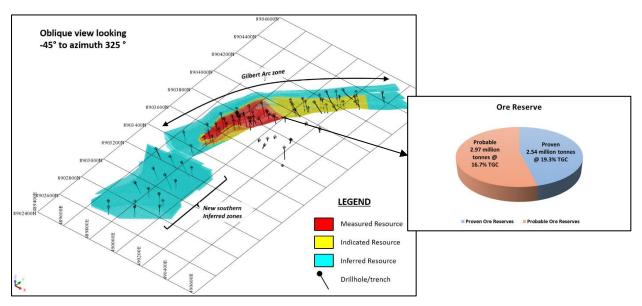


Figure 1: Ore Reserve based on 37% of the 2018 Measured and Indicated Resource.

The latest Ore Reserve is based on 37% of the tonnages of the Measured and Indicated Resource (*Figure 1*) and is a 10% increase in tonnages from the Maiden Ore Reserve (*ASX March 2017*) and a 11.2% increase in grade to a **spectacular 17.9% TGC** making this the highest-grade mineable Ore Reserve of all the reported graphite reserves in East Africa.

## Mining

The additional Resource tonnes announced to the ASX 19 December 2018 has resulted in the modelling of a completely new mine-pit design. The orebody outcrops on surface and is well suited to conventional open pit mining, using excavators and trucks for loading and hauling. The mine design considered only measured and indicated mineral resources and the limit of the mine design was determined through pit optimisation exercises.



The mining operation at Lindi will be outsourced to a contract mining company. Weathered ore and waste will be excavated using a hydraulic shovel and loaded onto dump trucks for hauling out of the pit to the RoM stockpile or waste dumps. Where the weathered material requires ripping by dozer before excavating this will require a tracked dozer. Fresh ore and waste will be drilled and blasted before being loaded and hauled in a similar manner.

The waste rock will be used for the construction of the outer wall of the tailings dam and during early mining and site construction a limited amount of waste will be used as construction material and fill.

Ore will be transported to the run of mine (RoM) pad adjacent to the processing plant in preparation for feeding to the plant. Ore will be placed in specific low and high grade stock pile areas on the RoM pad. The ore will be fed into the primary crusher using a front end loader. Blending of the ore and feeding of the crusher will be the responsibility of the plant operations personnel.

Waste and ore will be transported from the pit to the waste dump, RoM pad or stockpile with dump trucks of 30 tonne capacity. Loading and hauling of waste will be a 12-hour operation of 11 effective hours. Mining will only be carried out on day shift, to allow effective grade control to be maintained.

## Peer comparisons

The combination of the very high-grade mineable Reserve and the unique large flake distribution in concentrate is the single most important differentiator of the Lindi Jumbo Graphite project to its peers in the industry. The high-grade zones that extend to surface and the current and predicted premium prices for larger flake graphite concentrate will be major contributors to maintaining operating costs in the lowest quartile while receiving a higher basket price for graphite sold.

Figure 2 indicates the standout position of the Lindi Jumbo graphite project amongst its peers in East Africa.

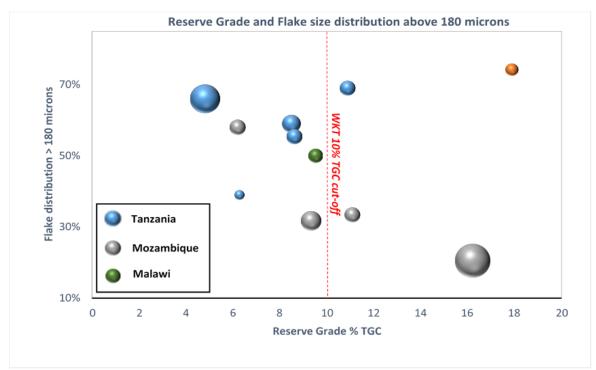


Figure 2: The Lindi Jumbo Graphite position amongst its ASX listed peers in East Africa. The chart is based on publicly available information on ASX listed graphite companies that have reported Ore Reserves and feasibility studies. The size of the bubble represents the annual production target.



## Selected Modifying Factors

#### Cut-off grade

A range of cut-off grades were applied during the pit optimisation exercise in order to test the sensitivity of the total operating cost (US\$ per tonne of graphite in concentrate) to cut-off grade. The analysis showed that the operating cost was minimised when the cut-off grade reaches approximately 10% TGC, in-situ grade, after which the gradient of the cost line is fairly flat.

Considering this, a grade of 10% TGC was selected as the cut-off grade and an optimum pit was selected from the nested pit shells produced when applying this cut-off grade.

#### **Dilution and ore loss**

Mining dilution of 5% was allowed for in the mine design and schedule. Considering the width of the orebody, typically 2 to 10m wide, mining envelopes will be accurately controlled and conducive to selective mining of high-grade ore, low grade ore and waste.

The ore and waste are visibly distinguishable. All these factors contribute to facilitating accurate mining of the Lindi high grade ore.

An allowance was made for ore loss to account for ore not recovered during the mining process. This may be due to inefficient grade control, discontinuity or inaccurate mining.

Based on experience from other open pit operations with similar geometry, ore loss was set at 5%, or conversely 95% ore recovery.

#### Mine design

The selected pit shell from the pit optimisation exercise formed the basis of the final pit shell in the pit design. This defines the extent of the final pit at the end of the mine life.

In order to estimate mined tonnages more accurately, a practical pit design and schedule needs to be developed. This design will incorporate the mine life through a selection of different pit design stages, or cut-backs. These are intermediary pit designs, all falling within the final pit shell, which are mined sequentially to minimise the amount of waste mined early in the life of mine and to smooth the mining cost over the life of mine.

In addition, the practical pit design includes the design of haul roads, safety berms and any other design items required, which may affect the strip ratio or mining cost.

A set of design criteria was developed which was applied to the depletion design of the open pit.

#### Production Rate, Mining Sequence and Schedule

The pit depletion has been scheduled into four sequential stages. Stage 1 and Stage 2 focus on the near surface, high grade, weathered ore and are mined first. Stages 3 and 4 progress the pit deeper to the final depth of 80 m below surface (Figure 3).



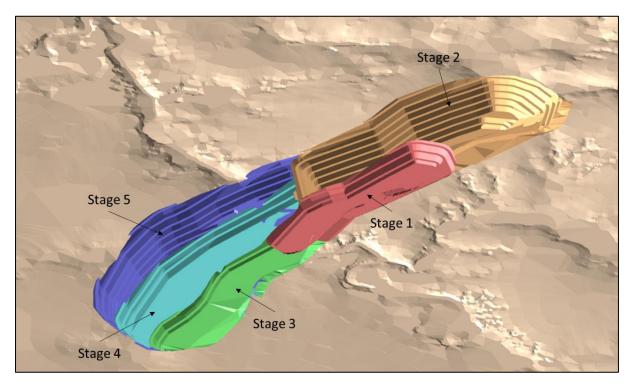


Figure 3: Illustrating the progression of the pit by stages. It highlights the focus on the shallower, high grade material in the early years with the deepening of the pit taking place later in the life of mine.

The production rate from the mine is currently planned at around 20,000 to 22,000 tonnes of RoM ore per month, or 240,000 tonnes per annum relating to a decrease of around 13% of material to be milled and treated through the plant when compared to the previous mine design.

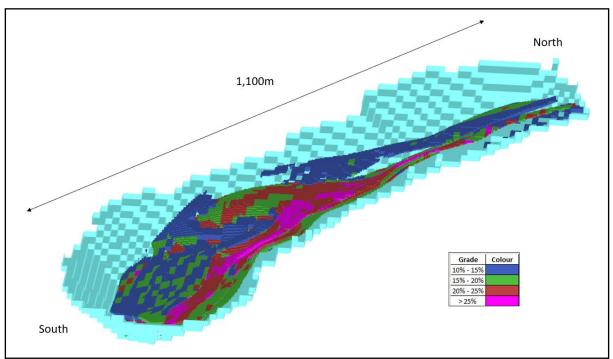


Figure 4: Block depletion model indicating high grade zones

Allan Mulligan Executive Director



#### About WKT

Walkabout is developing the high-grade Lindi Jumbo Graphite Project in South East Tanzania to take advantage of forecast market conditions for Large and Jumbo flake graphite products.

The Company holds 100% of a Mining Licence and between 70% and 100% of adjacent graphite prospecting licences at Lindi Jumbo with an enduring option to acquire the remaining 30% share. A high-grade graphite Mineral Reserve has been delineated within the Mining Licence Application area.

In addition to the Lindi Jumbo Project, Walkabout is also exploring in southern Namibia at the Eureka Lithium Project.

The Company has also acquired an exciting exploration portfolio for gold and base metals in Northern Ireland and Scotland and is participating in the Tyrone Joint Venture where cobalt, copper and silver occurrences are being explored.

Details of Walkabout Resources' projects are available at the Company's website, <u>www.wkt.com.au</u>.

END



#### **CERTIFICATE OF COMPETENT PERSON**

I, Clive Wyndham Brown, consent to the filing of this ore reserve statement and do hereby certify that:

- 1. I am currently employed as Principal Consultant (Mining) by: Bara International Ltd
- 2. I hold the following qualifications and affiliations:
  - a. Degree in Mining Engineering from the University of Witwatersrand, B.Sc. Eng. (Mining).
  - b. Registered as a Professional Engineer (Pr. Eng.) with the Engineering Council for South Africa (ECSA).
  - c. Fellow in good standing of the Southern African Institute of Mining and Metallurgy (FSAIMM).
- 3. I have been involved in the mining industry for 28 years in various roles including production, project development and consulting. I consider myself by reason of my education, my affiliations and my experience to be a Competent Person as defined in the definitions of the JORC Code.
- 4. I confirm that I have not had any prior involvement with this property.
- 5. I have visited the site.
- 6. I am responsible for the internal review of this report and have overall supervision.
- 7. I have disclosed to Walkabout Resources Ltd the full nature of the relationship between myself and Company
- 8. I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Ore Reserves.
- 9. I have read the JORC Code 2012 edition, and consider that the Ore Reserve Estimate has been prepared in accordance with the Code.

Clive Wyndham Brown B.Sc. Eng. (Mining), Pr. Eng. FSAIMM

26 February 2019



# JORC Code, 2012 Edition – Table 1 – Lindi Jumbo Graphite Project

# **ORE** as at 26<sup>th</sup> February, 2019

### **Section 4 Estimation and Reporting of Ore Reserves**

(Criteria listed in section 1, and where relevant in section 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary					
Mineral Resource estimate for conversion to Ore reserves	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are</li> </ul>	A JORC 2012 Mineral Resource Estimate (MRE) was issued on 19th December 2018 by Wkt. The reported MRE and its classification are consistent with the Competent Person's (CP) view of the deposit. The CP was responsible for determining the resource classification. The Table below presented the Lindi Jumbo Graphite project MRE as at 19 December 2019. GILBERT ARC GRAPHITE DEPOSIT (LINDI JUMBO PROJECT) DECEMBER 2018 MINERAL RESOURCE ESTIMATE USING A 5% TGC CUT-OFF					
		Classification	Domain	Tonnes (millions)	TGC %	Contained Graphite (tonnes)	
		Gilbert Arc					
		Measured	1	3.9	7.1	277,500	
			3	0.8	13.1	111,200	
			7 (HG)	0.5	20.7	96,000	
			8 (HG)	0.5	24.8	124,800	
			9 (HG)	0.7	24.2	172,400	
		Subtotal		6.5	12.1	781,800	
		Indicated	1	5.5	6.9	378,000	



Criteria	JORC Code explanation	Commentary				
			3	1.4	13.1	183,900
			6	-		-
			7 (HG)	0.4	21.3	78,700
			8 (HG)	0.3	21.8	73,600
			9 (HG)	0.8	21.0	173,100
		Subtotal		8.4	10.5	887,300
		Inferred	1	5.5	6.6	363,500
			3	2.5	12.8	314,200
			6	4.4	13.1	579,300
			7 (HG)	0.5	19.8	96,200
			8 (HG)	0.3	22.8	62,200
			9 (HG)	1.1	24.1	253,500
		Subtotal		14.2	11.8	1,668,800
		Subtotal	Measured	6.5	12.1	781,800
		Gilbert Arc	Indicated	8.4	10.5	887,300
			Inferred	14.2	11.8	1,668,800
				29.1	11.5	3,337,900
			South	ern Domains	1	



Criteria	JORC Code explanation	Commentary				
		Inferred	11	1.0	5.7	57,200
			12	0.2	5.3	8,700
			13	1.8	7.6	136,800
			14	3.3	9.2	300,900
			15	5.3	10.8	568,600
			16	1.3	7.6	96,600
		Subtotal				
		Southern Domains		12.8	9.2	1,168,800
		GRAND TOTAL	Measured	6.5	12.1	781,800
			Indicated	8.4	10.5	887,300
			Inferred	26.9	10.5	2,837,600
			Total	41.8	10.8	4,506,700
		The Mineral Resources	are declared inclusive of	Ore Reserves.		
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits.		rom 23rd to 26 <sup>th</sup> July 20: Il engineer, the Walkabo			
	<ul> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	Managers.				
Study Status	• The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.		tudy level mine developr y and February 2019 to i which includes:			



Criteria	JORC Code explanation	Commentary
	• The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	<ul> <li>A revised mine plan based on the latest resource data. An additional drilling campaign completed during 2018 has allowed an update of the mineral resource to be issued.</li> <li>Refinements to the capital cost estimate for the project achieved during front end engineering phase of project development which is currently in progress.</li> <li>Changes to the product prices based on latest market information and forecasts.</li> <li>The 2017 Revised Feasibility Study along with the latest amendments to the Mine Development Plan have demonstrated that the project is technically achievable and financially viable and sustainable based on the modifying factors described in the Plan.</li> </ul>
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	Analysis carried out as part of the revised mine plan showed that project value is optimised by the application of a cut-off grade of 10% TGC. This results in a low grade stockpile being accumulated with an average grade of 6% TGC, which has the potential to be processed or sold at a later stage. The low grade material does not form part of the revenue stream used in the economic valuation used to support the Ore Reserve declaration.
Mining factors or assumptions	• The method and assumptions used as reported in the Pre- Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).	<ul> <li>Pit optimisations were carried out for the Lindi Graphite Project using Whittle optimisation software.</li> <li>The following process was followed for each of the optimisations undertaken:</li> <li>A block model was provided by Walkabout Resources for the site and imported into the optimisation software. The veracity and suitability of the models for use with the Whittle software was checked before work commenced.</li> </ul>
	• The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.	• A techno-economic data set was generated on which to base the pit optimisations. As the optimisations occur early in the design process, input data preliminary estimates are used as the basis of the optimisation. The data set included the following parameters:
	• The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre- production drilling.	<ul> <li>Geotechnical data, based on work completed by Bara.</li> <li>Modifying factors, based on work completed during the definitive feasibility study and</li> </ul>
	• The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	<ul> <li>agreed upon with Walkabout Resources.</li> <li>✓ Mining operating costs, based on contractor estimates from work completed in the feasibility</li> </ul>
	• The mining dilution factors used.	<ul><li>study and revised to December 2018 base date.</li><li>✓ Processing costs, provided by Walkabout Resources</li></ul>
	<ul> <li>The mining recovery factors used.</li> <li>Any minimum mining widths used</li> </ul>	✓ Financial assumptions, provided by Walkabout Resources.
	• Any minimum mining widths used.	The data set was input into the optimisation model and the geological model was evaluated on



Criteria	JORC Code explanation	Commentary					
	<ul> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	ore tonnag optimal pit Geotechnical pa into four sector Overall slope ar Whittle optimis	from Whittle is a set of e, waste tonnage, graph shell was selected. This arameters were applied for the calculation of sl ngles for each material ty ation. The Table below s	ite content and optimal pit she based on work o ope angles. ype within each	strip ratio. In co Il formed the bas completed by Ba sector were calc	njunction with sis for the pit o ra. The mining ulated for app	n Walkabout, the design work. garea was split plication in the
		and sector.	GEO	TECHNICAL SLC	]		
				Sector 1, 3	& 4		-
			Material	Free-Dig	Weathered	Fresh	-
			Berm Width	5.5	5.5	5.5	-
			Bench Height	5	10	10	-
			Bench Face Angle	60	60	80	-
			Benches	1	1	5	-
			Stack Angle	30.8	41.6	54.0	
			Sector 2				-
			Material	Free-Dig	Weathered	Fresh	-
			Berm Width	5.5	5.5	5.5	-
			Bench Height	5	10	10	-



ria	JORC Code explanation	Commentary			
		Bench Face Angle	60	60	60
		Benches	1	1	5
		Stack Angle	30.8	41.6	41.6
		Mining modifying factors were applie Resources based on testwork comple optimisation and mine design are sun	ted to date. The n	nodifying factors	
		Description		Value	Unit
		Description		Value	Unit
		Mining Dilution		5.0%	%
		Mining Recovery	1	5.0%	%
		Process Recover	y -Weathered	95.0%	%
		Process Recover	y - Fresh	90.0%	%
		Cut-off Grade		10%	TGC
		Mining costs were calculated based o completed in the feasibility study. The December 2018. Different mining cos dig material in the upper regions. <b>Err</b> costs provided by TNR and applied du	e unit rates were i ts were applied fo o <b>r! Reference s</b>	evised to bring tl or ore and waste, ource not four	nem to the varying to



Criteria	JORC Code explanation	Commentary				
			MINING COSTS			
			Description	Value	Unit	-
			Waste Base Cost	4.39	\$/BCM	_
			Ore Base Cost	6.84	\$/BCM	-
			Drilling	2.68	\$/BCM	-
			Blasting	1.98	\$/BCM	-
			Free-dig Waste Mining Cost	4.39	\$/BCM	-
			Blasted Waste Mining Cost	9.04	\$/BCM	-
			Free-dig Ore Mining Cost	6.84	\$/BCM	-
			Blasted Ore Mining Cost	11.49	\$/BCM	-
			Waste MCAF	0.02	\$/BCM/m	-
			Ore MCAF	0.03	\$/BCM/m	-
		Processing costs were	provided by Walkabout based PROCESSING		ork completed i	in the DFS.
			Description	Value	Unit	
			Processing Cost	17.63	\$/tonne	
			G&A Cost	9.93	\$/tonne	
			Total Processing Cost	27.56	\$/tonne	



Criteria	JORC Code explanation	Commentary
		An average basket price of \$1,515 per tonne of concentrate was used in the pit optimisation. In order to estimate the mined tonnages more accurately throughout the mine life a practical pit design and schedule was developed. This design incorporated the selection of pit design stages, or cut-backs. These are intermediary pit designs, all falling within the final pit shell, which are mined sequentially to minimise the amount of waste mined early in the life of mine and to smooth the mining cost over the life of mine. The pit will consist of benches of 10 m height. The orebody will be mined in flitches of 5.0 m in order to minimise dilution. It is not anticipated that regular drilling and blasting will be required in the first 5 m of weathered material. Thereafter drilling and blasting of all waste and ore is envisaged. Blasting will make use of industry standard controlled blasting techniques to ensure minimal movement of the blasted muckpile and is described elsewhere in the study. Loading will then be carried out in flitches of 5.0 m using hydraulic shovels. The face angle or batter angle for each bench will be based on the geotechnical recommendations and will be dependent on the geozone that the bench is in, 60 degrees in fresh material (fist bench), 80 degrees in Sectors 1, 3 and 4 in fresh material and 60 degrees in fresh material in Sector 2. The pit access ramps will be at an inclination of 10% or 5.7 degrees. This is the standard inclination for ramps in pits where rigid bodied dump trucks are used. The ramps will be 18 m wide to allow for the use of 40 tonne dump trucks of the class of the Bell 40D, which is 4.2 m wide. Ramps should be wide enough for trucks to pass safely and for a safety berm on the pit side of the road. Only measured and indicated mineral resources have been considered in the mine plan. Inferred resources were not considered as ore. Although inferred and unclassified material was included in the block model, this was not included in the mine design and mining inventory. Capital and
		<ul> <li>Power supply and reticulation – Electrical supply will be from diesel driven generators, located on site.</li> </ul>
		• Water supply and reticulation – Make-up water will be supplied from bore-fields located on site.
		Accommodation and feeding – a camp will be established on site which will house skilled
		workers. Semi-skilled workers will be locally recruited and will live at home, off site.
		<ul><li>Offices</li><li>Workshops and stores</li></ul>
		Access and haul roads



Criteria	JC	DRC Code explanation	Commentary				
			Ancillary vehicle fleet (non-mining equipment)				
Metallurgical factors or assumptions	•	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. Whether the metallurgical process is well-tested technology or novel in nature. The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements.	Extensive metallurgical testwork has been carried out of the material in independent laboratories in Australia, Germany and China. Following extensive metallurgical testwork of existing and new flowsheet applications for graphite, the Company has adopted a process flowsheet very similar to the used successfully in a previous graphite mining operation in Africa. Further attritioning optimisation of this flowsheet in order to preserve natural flake sizes has been proven in test work by the Company. The combined use of the proven flowsheet application and the optimised attritioning regime have resulted in flake size retention into concentrate amongst the best in the industry. The plant has been sized for a feed of 300 thousand tons per annum (ktpa) of ore with a grade of 159 Total Graphitic Carbon (TGC), to produce 40 ktpa of graphite flake concentrate with an average grade of 96% TGC. This corresponds to a graphitic carbon recovery of 90%. The processing plant design has been developed based on testwork results and on fundamental considerations of the nature of the ore and the need to interface with mining operations.				
	<ul> <li>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</li> </ul>	Two metallurgical domains have been identified as Ore type	shown in the tab	le below.			
			Weathered ore	95%			
			Fresh ore	90%			
			The final graphite proportions averaged for the ore <b>Product</b>	types as tabled I	below. Weighted Ave Ore		
			Super Jumbo (+500µm) Size Fraction		14.8%		
			Jumbo (+300µm / -500µm) Size Fraction		34.5%		
			Large (+180μm / -300 μm) Size Fraction		25.0%		
			Blended (-180µm) Size Fraction		25.7%		
Environmental	•	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock	An Environmental Scoping Document has been Management Council of Tanzania. Furthermore	• •			



Criteria	JORC Code explanation	Commentary
	characterisation and the consideration of potential sites, status of design options considered and, where applicable,	been approved by the NEMC and has undergone due process.
	the status of approvals for process residue storage and waste dumps should be reported.	The test work completed on both ore and waste rock indicate that it has acid making potential. This has been accounted for in the mine design, with all waste rock being incorporated into the rock wall of the tailings facility. Appropriate lining and water collection designs have been included in the feasibility study level design which has been completed for the tailings storage facility.
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour,	An assessment of public infrastructure has been carried out. On mine infrastructure has been designed according to industry practice and firm quotations received. Power will be generated on site by diesel driven generators. Make-up water will be sourced from
	accommodation; or the ease with which the infrastructure can be provided, or accessed.	a bore field on site. A hydrological study has been completed which had identified potential drill sites and estimated the water yields. A number of holes have been drilled and developed which will be used to supply water for operational purposes.
		The current access road to the site will be rerouted to avoid the village of Matambalale. The cost of the access road has been accounted for.
		A camp will be established on site which will house most of the work force. The camp will be constructed and operated by a specialist accommodation and services service provider. Medical and training facilities will also be provided by this service provider.
		The manpower plan includes a limited number of ex-patriate personnel with the vast majority of the employees being recruited from within Tanzania. Semi-skilled labour will be sourced locally from the villages around the mine site.
Costs	• The derivation of, or assumptions made, regarding	Capital estimates have been developed using tender submissions by suppliers.
00010	projected capital costs in the study.	The Capital cost estimate includes:
	• The methodology used to estimate operating costs.	• The cost of the processing plant, which includes all infrastructure related to processing the
	• Allowances made for the content of deleterious elements.	ROM ore and disposing of the tailings based on a firm tender response.
	• The source of exchange rates used in the study.	• The cost of mine support infrastructure, including infrastructure required for explosives, in pit
	• Derivation of transportation charges.	power and pumping.
	• The basis for forecasting or source of treatment and	The cost for the mobilisation of the mining contractor.
	refining charges, penalties for failure to meet specification,	Costs for the relocation action plan (RAP)
	etc.	<ul> <li>Indirect project costs, such as engineering costs, freight and contingency.</li> </ul>
	The allowances made for royalties payable, both	



Criteria	JORC Code explanation	Commentary
	Government and private.	Operating Costs have been defined as the cost of all ongoing mining, processing and operational activities. Operating costs therefore comprise:
		<ul> <li>The cost of mining the ore and waste material from the open pit, including the cost of man power, consumables and bulk supply.</li> </ul>
		<ul> <li>The cost of processing the ore to saleable products, including the cost of man power, consumables and bulk supply.</li> </ul>
		• The cost of shared services for the support of the operation, including the cost of on-site labour, infrastructure, camp costs and bulk supply.
		• The cost of transporting the ore to the point of initial sale.
		Mining and shared services operating costs have been determined through quotes from selected contractors, while processing costs were estimated from first principles during feasibility study work. The costs presented have a base date of December 2018, are presented in United States Dollars.
		The operating costs do not make provision for the following:
		Head office costs.
		Off-site costs, other than concentrate transport.
		Social responsibility costs.
		The costs presented are real costs and are exclusive of escalation. The Company believes that on- site operating costs will be within the lower quartile of the industry peer group. The basis for this assumption is the ability to discretely mine high grade Resource Domains 7,8 and 9 which enable a very high mill head feed grade (circa 17%TGC), and the very low cost of mining due to the surficial nature of the mineral deposit. The mining operation is simple and small requiring only 20,000 tonnes per month of feed grade material.
Revenue facto	• The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.	Revenue is a function of graphite prices. The Company has established the characteristics of the expected final product through extensive test work programs in Perth, China and Europe. Price forecasts have been assumed from an examination of other studies, discussion with end users and market forecasts. The split of product ranges from test work is tabled below.
	The device time of accurations useds of motel or commendity	

• The derivation of assumptions made of metal or commodity



JORC Code explanation	Commenta	iry					
price(s), for the principal metals, minerals and co-products.	The Company and its consultants have considered several issues when establishing a benchmar product revenue for the valuation. The following factors were considered:						
	• Potential product specifications supported by metallurgical test work and discounted,						
	Specialist commodity analysts forecasts						
	•	Current prices a	cross severa	l product speci	fications,		
	<ul> <li>Discussions with various end-users, traders and industry specialists which led to th "Consensus Forecast".</li> </ul>						
			PROD	UCT PRICE BEN	CHMARKING		
	Industry	-	ts US\$ per	+500μm	+300µm	+180µm	<180 µm
		Spot Prices BMI 2016 Nov			1,250	850	675
	Stormcrow Forecast 2018		2,596	811	650*	414	
	Stormcrow Forecast 2019		3,573	947	728*	508	
	Stormcrow Forecast 2020		6,175	1,165	841*	517	
	Consensus Forecast beyond 2020		2,350	1,850	1,200	890	
	Life of Mine Modelled Ratio Average Lowest Highest		14.8%	34.5%	25%	25.7%	
			2,450	1,820	1,175	890	
			1,579	1,450	974	611	
			2,540	2,264	1,444	1,328	
	in di	Low	1,133	1,580	1,450	970	610
		Base Case	1,515	2,350	1,850	1,200	890
	Jumbo	High	1,857	2,540	2,260	1,440	1,330
• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect	concentrate product into the list derived from the above. <i>lar</i> The international graphite market is expected to expand significantly					y over the next	: 5 years. Mu
<ul> <li>A customer and competitor analysis along with the</li> </ul>	end-user and trading house participant			s and has beer	informed that	the product is	marketable a
	<ul> <li>price(s), for the principal metals, minerals and co-products.</li> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> </ul>	price(s), for the principal metals, minerals and co-products.       The Comparison product responsible to the product response to the product r	price(s), for the principal metals, minerals and co-products.       The Company and its consproduct revenue for the value         • Potential produ       • Specialist comm         • Current prices a       • Discussions wit         • Current prices a       • Discussions wit         • Consensus For       • Industry Technical Analys         • size Category       Spot Prices BMI 2016 Nov         Stormcrow Forecast 2019       Stormcrow Forecast 2019         Stormcrow Forecast 2019       Stormcrow Forecast 2020         Consensus Forecast 2020       Consensus Forecast 2020         Consensus Forecast 2019       Stormcrow Forecast 2020         Consensus Forecast 2020       Consensus Forecast 2020         Consensus Forecast beyond       Life of Mine Modelled Ratio         Average       Low         Low       Base Case         Jumbo       Base Case         Jumbo       Base Case         Stormcrow represent product into the         Stormcrow represent product into the       The international graphite market attention has been consumer and trading house on end-user and trading house	price(s), for the principal metals, minerals and co-products.The Company and its consultants have product revenue for the valuation. The f• Potential product specificati• Specialist commodity analys• Current prices across severa• Discussions with various e "Consensus Forecast".• Discussions with various e "Consensus Forecast".• Potontial analysts US\$ per size Category Spot Prices BMI 2016 Nov Stormcrow Forecast 2019 Stormcrow Forecast 2020 Consensus Forecast 2020 Life of Mine Modelled Ratio Average Lowest High 1,857• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.The international graphite market is em arket attention has been dedicated to 	price(s), for the principal metals, minerals and co-products.The Company and its consultants have considered s product revenue for the valuation. The following factor <ul><li>Potential product specifications supported</li><li>Specialist commodity analysts forecasts,</li><li>Current prices across several product specifications with various end-users, tradi</li><li>Discussions with various end-users, tradi</li><li>Consensus Forecast".</li></ul> <ul><li>Industry Technical Analysts US\$ per</li><li>Hoopum</li><li>Spot Prices BMI 2016 Nov</li><li>Stormcrow Forecast 2018</li><li>2,596</li><li>Stormcrow Forecast 2019</li><li>3,573</li><li>Stormcrow Forecast 2020</li><li>6,175</li><li>Consensus Forecast 2020</li><li>2,350</li><li>Life of Mine Modelled Ratio</li><li>14.8%</li><li>Average</li><li>2,450</li><li>Lindit</li><li>Low</li><li>1,133</li><li>1,580</li><li>Lowest</li><li>1,515</li><li>2,350</li><li>Highest</li><li>2,240</li><li>The Company then developed a template of the abov concentrate product into the list derived from the abov</li><li>Consensuity, consumption trends and factors likely to affect supply and demand into the future.</li></ul>	price(s), for the principal metals, minerals and co-products.The Company and its consultants have considered several issues w product revenue for the valuation. The following factors were consider• Potential product specifications supported by metallurgica• Specialist commodity analysts forecasts,• Current prices across several product specifications,• Discussions with various end-users, traders and industr "Consensus Forecast".• Discussions with various end-users, traders and industr "Consensus Forecast".• Discussions with various end-users, traders and industr "Consensus Forecast".• Discussions with various end-users, traders and industr "Consensus Forecast 2018• Spet Prices BMI 2016 Nov• 1,250Stormcrow Forecast 2018• 2,5968111Stormcrow Forecast 2019• 3,573947Stormcrow Forecast 2019• 1,155Consensus Forecast beyond 20200,3501,480Uffe of Mine Modelled Ratio1,48%4,450Highst2,5401,5731,450High1,8572,5402,260The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.The international graphite market is expected to expand significanth market attention has been dedicated to this matter. The Company has end-user and trading house participants and has been informed that within specification. The Commany has asseed users and trading thouse participants and has been	price(s), for the principal metals, minerals and co-products.The Company and its consultants have considered several issues when establishin product revenue for the valuation. The following factors were considered:• Potential product specifications supported by metallurgical test work and • Specialist commodity analysts forecasts, • Current prices across several product specifications, • Discussions with various end-users, traders and industry specialists w "Consensus Forecast". <b>PRODUCT PRICE BENCHMARKING</b> Industry Technical Analysts US per stre Category + 4500µm + 100µm + 1180µm size Category + 4500µm + 100µm + 1180µm size Category + 4500µm + 100µm + 1180µm Spot Prices BNI 2016 Nov Stormcrow Forecast 2019 - 3,573 - 947 - 722* Stormcrow Forecast 2019 - 3,573 - 1,450 - 1,200 Life of Mine Modelled Ratio - 14,48% - 34,5% - 25% Average - 2,450 - 1,450 - 1,200 Life of Mine Modelled Ratio - 14,48% - 34,5% - 25% Average - 2,450 - 1,450 - 970 High - 1,857 - 2,540 - 2,260 - 1,440The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.The international graphite market is expected to expand significantly over the next market attention has been dedicated to this matter. The Company has tested its



Criteria	JORC Code explanation	Commentary
	identification of likely market windows for the product.	
	• Price and volume forecasts and the basis for these forecasts.	
	• For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	
Economic	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.	<ul> <li>The costs presented are real costs and are exclusive of escalation.</li> <li>The financial model has assumed the following financial parameters;</li> <li>Life of Mine modelling – 24 years of production</li> <li>Discount Rate – 10% considered appropriate for mid-scale East African projectsTax</li> </ul>
	<ul> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	<ul> <li>Rate – 30% engaged after capital allowance has been reached.</li> <li>Royalty Rate – 3% as per other projects.</li> </ul>
		<ul> <li>Contingency – 7.5% calculated as a function of accuracy of cost and quantity.</li> </ul>
		• Tanzanian Government Free Carry – Dividend of 16 %.
		• Clearance Tax – 1% of revenues.
		• Equity – 100%.
		A discount rate of 10% has been used for financial modelling. This number was selected as a generic cost of capital and considered a prudent and suitable discount rate for project funding and economic forecasts in Africa. Sensitivity calculations were derived for the main economic drivers, capital, operating costs and revenue. The model was tested by a 30% variation to both the negative and positive. The outcome of

revenue. The model was tested by a 30% variation to both the negative and positive. The outcome of this modelling is that the highest sensitivity is to revenue, although a 30% reduction in revenue still yields a post tax NPV10 of over US\$100m.



iteria	JORC Code explanation	Commentary
		300
		250
		3 200
		0TAdN XE 150
		100
		50
		0
		-30% -20% -10% 0% 10% 20% 30% Variance [%]
		Capital Cost O perating Cost Revenue

Other

- reements with key stai matters leading to social licence to operate.
- To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:
- Any identified material naturally occurring risks.
- The status of material legal agreements and marketing arrangements.

General acceptance of the project is good. No material risks have been identified in this regard. The Relocation Action Plan (RAP) has been approved.

Fund raising for the full project capital value is ongoing. Securing of the funding required to develop the project remains as a risk to the project.

No finalised off-take agreement is in place for the sale of product from Lindi Jumbo, however heads of agreement for the offtake of up to 31,000 tpa are currently under negotiation, while a memorandum of understanding is in place for a further 12,500 tpa.



Criteria	JORC Code explanation Commentary						
	•	The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	There are no other known r	naturally occurring materia	Il risks to the Lind	li Jumbo Graphite Project.	
Classification	• The basis for the classification of the Ore Reserves into		The classification of the Ore	Reserves is tabled below			
		varying confidence categories.	SUMMARY OF ORE RESER	RVES - LINDI JUMBO GRPA	AHITE PROJECT A	S AT 26 FEBRUARY 2019	
	٠	Whether the result appropriately reflects the Competent Person's view of the deposit.	Category	Tonnes (million)	TGC (%)	TGC (million tonnes)	
	<ul> <li>The proportion of Probable Ore Reserves that have bee derived from Measured Mineral Resources (if any).</li> </ul>		Proven Ore Reserves	2.540	19.3	0.489	
			Probable Ore Reserves	2.972	16.7	0.498	
		5	Total Ore Reserves	5.513	17.9	0.987	
			In estimating Ore Reserves, ore from the Measured Resources category has been included as Pro Ore Reserves and ore from the Indicated Resources category is included as Probable Ore Reserves The confidence level of the declared Ore Reserves reflects the Competent Person's view of deposit.				
Audits or reviews	•	The results of any audits or reviews of Ore Reserve estimates.	The mining and processing and infrastructure components of the DFS study were independently reviewed by Walkabout specialist consultants. No material issues were identified by the reviewer				
Discussion of relative	• Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a		The accuracy and confidence level of the selected modifying factors are commensurate wit definitive feasibility study.				
accuracy/ confidence			The accuracy and confider quotations from contractor with most within the accur December 2018.	s and suppliers is estimat	ed to be in the u	pper limit of feasibility accu	



Criteria	JORC Code explanation	Commentary
	qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.	
	• The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	
	• Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.	
	• It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	