Kibaran Resources Limited: Updated Bankable Feasibility Study

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The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Andrew Spinks, who is a Member of The Australasian Institute of Mining and Metallurgy included in a list promulgated by the ASX from time to time. Andrew Spinks is a director of Kibaran Resources Ltd. and 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 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Andrew Spinks consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources is based on information compiled by Mr David Williams, a Competent Person, who is a Member of The Australasian Institute of Mining and Metallurgy. David Williams is employed by CSA Global Pty Ltd, an independent consulting company. Mr Williams 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 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". David Williams consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Ore Reserve has been compiled by Mr Steve O'Grady. Mr O'Grady, who is a Member of the Australasian Institute of Mining and Metallurgy, is a full time employee of Intermine Engineering and produced the Mining Reserve estimate based on data and geological information supplied by Mr Williams. Mr O'Grady has sufficient experience that is relevant to the estimation, assessment, evaluation and economic extraction of Ore Reserve that he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves". Mr O'Grady consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

OUR VISION

"To become a high margin producer of premium quality large flake graphite in Tanzania and a long- term

stable supplier of graphite for the high growth battery market"

THE RIGHT TEAM TO ADVANCE EPANKO

BOARD & KEY MANAGEMENT	A STRONG MIX OF MINING, COMMERICAL AND G
Robert Pett (Non-Executive Chairman)	Minerals Economist with over 30 years' experience in Africa. Founding Chairman of Resolute Mining with a leadership in listed companies.
Andrew Spinks (Managing Director)	Geologist with over 25 years' experience. Expertise in of commodities and geographies. Former resident of
Grant Pierce OAM (Executive Director)	Mining engineer, over 25 years' experience, including and Edikan. Order of Australia Medal 2003 for social
Christoph Frey (Non-Executive Director)	German-based graphite industry professional with ove Africa and China. Direct experience in both traditional of spherical graphite.
John Condi (Non-Executive Director)	Member CPA with 14 years of experience acquiring, Significant experience in acquiring and developing tec
Dr Jaka Mgwabi Mwambi (Director, TanzGraphite (TZ) Limited)	Served as Vice Chairman of the National Environmen Commissioner of four regions and more recently Tanz

CAPITAL STRUCTURE (KNL:ASX, FMK:FSE)	
Shares on Issue	243.2m
Share Price (23 June 2017)	$0.19
Market Capitalisation	$46.2m
Net Cash (31 March 2017)	$4.5m
Unlisted Options - Various Expiries & Exercise Prices	12.1m
Top 20 Shareholders	42.3%

OVERVIEW - THE CASE FOR KIBARAN

Epanko is positioned as one of the most advanced graphite projects globally

- Increased Bankable Feasibility Study (BFS) production case to 60ktpa to support new demand
- BFS conforms with international project financing standards, IFC Performance Standards (Equator Principles) and World Bank Environmental, Health & Safety Guidelines
- Positive initial review by KfW and launch of debt financing process

Robust marketing strategy

- High percentage of large flake products from simple processing differentiates Epanko
- Offtake and sales agreements secured with blue-chip European and Japanese graphite and lithium-ion battery industry participants ensures sale of all production
- Strategy matches the "reality" of prevailing graphite markets

Growth opportunities to enhance project returns

- Conversion of flake graphite to spherical graphite at Epanko has the potential to add significant value - feasibility study advanced and due for
- Project economics do not include product sales into the high growth lithium-ion battery markets where significant increases in demand and value is expected

- Abundant mineralisation provides ample scope for production growth

BFS KEY HIGHLIGHTS

- 50% increase in production to 60ktpa over an 18 year life of mine positions Kibaran to be a major baseload supplier of high value graphite products to traditional and emerging graphite markets

- Low pre-production capital of US$88.9m

- C1 operating costs FOB Dar es Salaam of US$500/t

- BFS delivers a high returning project:

- Pre-tax NPV10 of US$211m, internal rate of return:38.9%

- Annual EBITDA of US$44.5m (A$59.3m)

- Economics do not include sales into the high-growth lithium-ion battery markets

- Metallurgical test work demonstrates potential to produce a 99% carbon concentrate from fresh ore with no additional milling or cleaning stages

- BFS signed off by bank appointed Independent Engineer ('SRK') after rigorous due diligence

- Project conforms with stringent IFC and World Bank Social, Environmental and Safety Standards

- Executed marketing strategy with strong alignment to German industry and the battery supply chain in Japan, Korea and Taiwan

- 44ktpa - binding sales and offtake agreements in place covering initial production

- 16ktpa - under negotiation with existing partners and leading German carbon groups

- Debt financing program commenced under the leadership of Germany's KfW IPEX-Bank ('KfW')

- Feasibility study on production of battery grade graphite to add further value and due Q3 2017

HIGH RETURNING 60 KTPA BFS POSTIONS KIBARAN AT THE FRONT OF THE DEVELOPMENT PIPELINE

- Robust technical and financial BFS completed, conforming with IFC standards

- Average production of 60ktpa graphite concentrate over 18 year LOM

- High proportion of >150 micron concentrate at carbon grades demanded by the market

- Potential to produce a 99% carbon concentrate from <150 micron flake to supply high growth battery anode market

- BFS utilised industry leading consultants

- Including GR Engineering, Knight Piesold, CSA Global and IMO Metallurgy

- Technical due diligence completed by independent bank appointed engineer SRK

- BFS economics are based on sale into refractory and other established markets

- Significant upside potential through access to high value markets including spherical and expandable graphite #

Refer to ASX Announcement 14 September 2015 for further details

Summary BFS Outcomes

Input	Unit	June 2017
Development period	(months)	19
Mine life	(years)	18
Average annual throughput	(t)	695,000
Strip ratio	(waste to ore)	0.4:1
Average feed grade	(% TGC)	8.3
Graphite recovery	(%)	94.7
Average product carbon grade	(%)	96
Graphite production	(Kt)	60,000
Mining cost	(US$/t processed)	7.93
Processing cost	(US$/t processed)	19.61
General & Administration cost	(US$/t processed)	4.75
Transport and port charges	(US$/t sold)	107
C1 FOB cost	(US$/t sold)	500
AII In Sustaining Cost	(US$/t sold)	572
Pre-production capital cost	(US$m)	88.9

CAPITAL AND OPERATING COSTS

- Pre-production capital costs US$88.9m

- 60ktpa case delivers a significantly improved capital efficiency

- US$1,482/t from US$1,937/t

- Rigorous operating cost estimates

- Power costs assume diesel power for 2 years of operations with connection to the Tanzanian power grid in year 3

- Mining costs assume contractor mining

- Capital and operating costs re-quoted to reflect Q1 2017 market prices

Summary Pre-Production Capital Costs (US$m)

	June 2017 60ktpa	July 2015 40ktpa
Mining	0.7	2.4
Process Plant	48.8	45.1
Infrastructure	13.2	10.9
EPC	11.5	11.0
Contingency	7.1	6.2
Owners Cost	7.6	1.9
Total	88.9	77.5

Summary Operating Costs (US$/t FOB Dar es Salaam)

	June 2017	July 2015
Mining	96	117
Processing	239	277
Transport & Port Charges	107	102
General & Administration	58	74
C1 cost FOB Dar es Salaam	500	570
Royalties	39	43
Other sustaining costs*	33	9
All in sustaining cost	572	622

* June 2017 estimates include sustaining capital (US$15/t), off-site corporate functions (US$10/t) and rehabilitation (US$8/t)

A FUNDING STRATEGY WITH SUPPORTIVE PARTNERS

- Completed BFS is a key catalyst, with bank financing demanding the highest technical, social and environmental standards

- Commencement of debt financing program under the leadership of Germany's KfW, together with:

- South Africa's Nedbank Limited

- Australia's Export Finance and Insurance Corporation ('EFIC')

- Key focus is to secure, with the support of KfW, an Untied Loan Guarantee ('UFK') from the German Government

- UFK application commenced with submission to include term sheet for the proposed loan funding, project information memorandum, environmental & social impact assessment, base case financial model and key

marketing, technical, insurance, legal and taxation reports.

- In parallel with debt financing process, progressing discussions with strategic equity investors, including sales partners, industry participants and private equity groups to determine preferred debt and equity funding structure for the proposed development

EPANKO SUPPORTED BY EXISTING INFRASTRUCTURE

- Existing road access to Mahenge provides an effective logistics solution to Dar es Salaam

- Construction of bridge across the Kilombero River, linking Ifakara and Ulanga Districts nearing completion and simplifies project logistics

- Freeway flyover constructed to provide efficient access to Dar es Salaam port

- Proximity to the Ifakara Rail siding provides a long term strategic logistics option as Epanko production increases

- Concentrate to be exported from the port of Dar es Salaam

- Diesel power for first 2 years of operation prior to connection to grid power at the Ifakara sub station

- Grid power costs expected to be US$0.09kwh vs diesel costs of US$0.30kwh

A HIGH QUALITY GRAPHITE DEPOSIT WITH SCALE

- Mineral resource supports potential for depth and strike extensions of the Ore Reserve pit shells

- Mineralisation commences at surface with minimal cover

- Average LOM strip ratio 0.4:1

- Favourable mineralogy delivers quality and drives robust project economics

- High proportion of large flake sizes

- Graphite is easily liberated and delivers high yield

- Higher carbon grade achieved through simple processing

- Low levels of in-situ deleterious elements

Epanko Mineral Resource Estimate >8% TGC

JORC Classification	Tonnage (Mt)	Contained Graphite (t)
Measured	7.5	738,900
Indicated	12.8	1,280,000
Inferred	10.4	1,030,600

Total	30.7	3,049,500

Epanko Drill Core Rock Texture

Epanko rocks have undergone extremely high metamorphic pressure and temperature forces that have created unique 'cheetah' like rock textures.

VTEM SHOWS HIGHLY CONDUCTIVE UNDRILLED WESTERN ZONE WITH SIGNIFICANT POTENTIAL

- Significant mineralisation exists outside of the Mineral Resource estimate modelled on an 8% TGC cut-off compared to the 5% TGC cut-off utilised for the Ore Reserve

- Mineral Resource at lower 5% TGC is 113.3Mt at 7.2% TGC grade for 8.1Mt contained graphite

- Importantly the 7.2% TGC grade under the 5% TGC cut- off above is higher than comparable Tanzanian deposits of relative scale

- High conductivity identified in VTEM survey highlights the potential for the delineation of additional mineralisation along strike and at depth

- Only 1.13km of the 4km strike identified by VTEM survey has been drilled on the West Pit

- Remains open at depth with the deepest reported graphite intersection at 200m

- Potential to provide significant tonnages of additional graphite mineralisation

HIGH GRADE, LARGE FLAKE PROVIDES FLEXIBILITY IN PROCESS FLOWSHEET DESIGN AND PRODUCTS

- Process flowsheet based on established industry processes and equipment

- High level of independent testwork to support BFS including 200t bulk sample

- Bulk sample was toll treated through an operating graphite production plant

- High level of variability testwork completed

- Confirmed the potential to produce a 99% carbon concentrate for <150 micron flake from fresh ore

- Increased understanding of flowsheet dynamics to produce desirable properties for both industrial uses and high growth markets

- Epanko has the highest proportion of >150 micron flake and has designed a flowsheet to preserve flake size in this product range

GRADE AND FLAKE SIZE COMPARISON

- Grade combined with flake size determines value

- High grade with high proportion of large flake size (>150 micron) provides high margins

GRAPHITE PRICING ASSUMPTIONS IN CONTEXT OF PEER GROUP

- Kibaran has not made "heroic" pricing assumptions in determining base case basket pricing

- Epanko has the highest portion of high value >150 micron flake

- Epanko project returns driven by realistic concentrate sales volumes without further value capture from downstream processing and sale of spherical graphite

MARKETING STRATEGY THAT HAS DELIVERED TANGIBLE RESULTS

Supplier of choice - Full and long term conversion to support potential LOM extensions and expansion

Commitment to purchase- Enter into initial sales arrangements

Evaluation - Over 100 Epanko samples have been submitted in various product forms

Engagement - Dialogue with customers to assess product specification requirements and demand

Product awareness - Highlight the superior quality of Epanko natural graphite v incumbent production

Prospect - Identify addressable market and prospective customers

S P H E R I C A L G R A P H I T E D E V E L O P M E N T P R O G R A M

- Production of spherical graphite for anode battery market has the potential to capture significant margins in the battery minerals supply chain

- Spherical graphite scoping study released August 2015 supporting the potential for production of spherical graphite at Epanko

- Feasibility study commenced by GR Engineering with results expected Q3 2017, key parameters include:

- Staged integration with the ramp up of concentrate production at Epanko in line with market demand as electric vehicle penetration rates increase

- Examine various milling options and trade offs to increase concentrate purity across <100/150 micron material to further enhance margins of spherical production

- Vendor selection from shortlisted leading Japanese and European mill manufacturers

- Discussions in progress for distribution of by-product from spherical graphite production

BATTERY GRADE (SPHERICAL) GRAPHITE

Natural Flake Graphite for Lithium-Ion Batteries
Conversion of flake graphite with 95% purity into spherical graphite with 99.95% purity required

Currently 100 % of Battery Grade Graphite is produced in China!

SPHERICAL GRAPHITE FROM EPANKO CONCENTRATE DEMONSTRATED

- Spherical graphite has been produced from bulk sample of Epanko concentrate

- Positive feedback from end users on suitability

- Physical properties meet customer specifications, in particular

- Tap Density1, BET2 and reversible capacity3

- Demonstrated deleterious impurity levels below specified levels, namely

- Iron, silicon and ash content

- Supporting testwork includes XRF, XRD, SEM analysis

- D002 testing confirms the high degree of graphitisation of Epanko graphite

- Value returned 0.3356nm which compares extremely favourable to the perfect crystal structure value of 0.3354nm

- 50% yield achieved via current testwork

Epanko Spherical Graphite Properties

Measure	Unit	Outcome
Particle size distribution:		
D10	(micron)	10.3
D50	(micron)	15.0
D90	(micron)	22.1
D002	(nm)	0.3356
Tap Density	(g/cc)	0.98
BET	m²/g	7.4
Reversible Capacity	mAh/g	367
Irreversible Capacity at	mAh/g	5
Fe	ppm	12
Si	ppm	19
Ash Content	%	0.01
Moisture Content	%	0.01

Source: 1.Tap density should be high and indicates how much active material (graphite) can be put into the battery, 2. BET should be low to reduce active material losses during the formation of the battery, 3.

Reversible capacity should be as close as possible to the theoretical maximum of 372 mAh/g and irreversible capacity (loss of active material) should be as low as possible.

POSITIVE MARKET BACKDROP TO DELIVER EPANKO

- Structural shift in graphite demand and supply fundamentals is looming large

- Batteries represented ~10% graphite demand in 2016

- Kibaran's testwork has demonstrated Epanko spherical graphite has superior performance

- Key to establishing an early mover advantage in the anode market is a project with robust financial metrics prior to 2025

On the cusp of a structural demand shift

Units			2016	2025 Scenario A	2025 Scenario B	2025 Scenario C
Number of cards produced in 2025		#m	94	110	110	110
Electric vehicle penetration rate	%		0.8	5	10	15
Number of EV's produced in 2025		#m	0.8	5.5	11	16.5
Average battery size		GWh	50	50	50	50
Total battery capacity for EV		GWh	39	275	550	825
Anode material per KWh		X:X	1:1	1:1	1:1	1:1
Anode material demand		Kt	43	303	605	908
Natural graphite share of anode	%	market	50	50	50	50
Spherical graphite yield from natural graphite	%		50	50	50	50
Natural flake feedstock demand		Kt	43	303	605	908

Source: UBS/Pro Graphite June 2017

EARLY MOVER ADVANTAGE AND VALUE DRIVERS

UPGRADED BFS TO 60KTPA
- 60ktpa over an 18 year life of mine positions Kibaran to be a significant and high margin graphite producer

FURTHER AGREEMENTS
- Discussions with leading German carbon groups for both natural flake products and downstream processed products

DEBT FINANCING
- Commencement of debt financing program under the leadership of Germany's KfW IPEX-Bank together with South Africa's Nedbank Limited and Australia's EFIC

DOWNSTREAM FEASIBILITY STUDY
- Value-add strategies to produce a premium spherical graphite product for the global battery market

IN SUMMARY

Well positioned to be a significant graphite producer

PRODUCT

- Epanko high quality graphite concentrate

- Value-add strategies to produce a premium spherical graphite product for the global battery market

PROJECT

- Tanzania - an established mining jurisdiction with supporting infrastructure

- BFS reviewed by bank appointed Independent Engineers SRK with environmental & social planning conforming to IFC Performance Standards and World Bank Environmental Health & Safety Guidelines

PARTNERS

- Offtake and sales agreements secured with blue-chip partners - ThyssenKrupp AG + Sojitz + EGT

- Debt finance commenced with KfW IPEX-Bank + Nedbank Limited + EFIC

PEOPLE

- Proven management team with a track record of mine development and relevant experience in graphite production and markets

LATEST NEWS - GERMANY

29 March 2017: Daimler Accelerates Electric Car Program

Mercedes-Benz owner Daimler stated it is accelerating its electric car program. The company expects to bring more than 10 new electric cars to market by 2022 through US$10.8 billion of investment, having previously aimed to achieve the target by 2025. Source: Reuters

Kibaran continues to deepen its relationship with Germany Inc building a partnership for funding and product sales for traditional graphite applications and new technology battery markets.

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