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21 JUNE 2017 **ASX ANNOUNCEMENT**

Updated 60ktpa Bankable Feasibility Study

Completion of BFS opens door to securing project financing

Kibaran Resources Limited (ASX: KNL), is pleased to announce the completion of its updated Bankable Feasibility Study ('BFS') and associated Environmental and Social Planning for its 100% owned Epanko Graphite Project ('Epanko') in Tanzania. The BFS, which incorporates conservative design parameters, has been subjected to rigorous due diligence by bank appointed Independent Engineers SRK Consulting (UK) Limited ('SRK Consulting') who confirms as follows: all technical areas have been significantly advanced to conform with the requirements of international project financing standards; and the Environmental and Social Management Planning and supporting impact assessments conform to relevant Tanzanian legislation, International Finance Corporation ('IFC') Performance Standards and World Bank Group Environmental Health and Safety Guidelines.

HIGHLIGHTS

- **The BFS is based on an increased production rate of 60ktpa to support new demand**
- **Key BFS results:**
  - **Pre-tax NPV_{10} of US$211m**
  - **Internal rate of return: 38.9%**
  - **Capital cost of US$88.9m**
  - **Annual EBITDA of US$44.5m (A$59.3m)**
  - **Payback period of 3.4 years**
- **Study subject to technical due diligence by bank appointed Independent Engineers SRK Consulting covering all study parameters and disciplines**
- **Project conforms with Environmental & Social Management Planning and the supporting impact assessments conform to relevant Tanzanian legislation, IFC Performance Standards and World Bank Group Environmental Health and Safety Guidelines**
- **Positive initial review and commencement of debt financing program under the leadership of Germany's KfW IPEX-Bank ('KfW')**
- **Executed marketing strategy with binding sales and offtake agreements in place covering production of 44ktpa, an additional 16ktpa is under negotiation with existing partners and leading German carbon groups**
- **Project benefits from opportunity to connect to grid power and proximity to established transport corridor for market access**
- **Testwork confirms ability to produce a higher grade graphite product of 99% carbon from fresh ore with no additional milling or cleaning stages**
- **Upgraded BFS economics do not include sales into the high-growth lithium-ion battery markets or value-added products from the proposed downstream processing facility**
- **Negotiations in progress with leading German industry groups for sale of downstream processed products**
- **Opportunities for further on-strike exploration to extend mine life beyond 18 years and for other savings on implementation due to conservative design and costings**

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The BFS has demonstrated a highly robust business case for a 60ktpa operation at Epanko and has also substantially enhanced and de-risked the project's development. Discussions are progressing with both existing and new blue-chip German industry partners for the sale of additional products. These arrangements will support the downstream processing of Epanko graphite to produce spherical graphite products for the high growth battery market, which has the potential to provide significant additional value and increase margin capture. A separate feasibility study on the production of battery grade spherical graphite and value add graphite products is currently being finalised and is expected to be released in Q3 2017.

Kibaran Managing Director Andrew Spinks commented: "This detailed updated feasibility study shows that Epanko is a world-class graphite project in every respect. The outstanding quality of the deposit underpins the project's extremely robust economics, demonstrated by the strong alliance the project has managed to secure with a range of German industrial groups. Passing this milestone was the key catalyst to advance debt financing and allows Kibaran and its sales partners, industry groups and private equity groups that have previously expressed interest, to commence project financing discussions in detail.

The support of such partners has facilitated the increase in production to 60ktpa and underpins the commercial development of the downstream processing facility. This places Kibaran in the ideal position for the enormous growth forecast for graphite demand, on the back of the increased electrical vehicle and renewable energy battery boom. The downstream processing plant is expected to provide the Company with another source of substantial cash flow generation by supplying our products to lithium battery manufacturers."

BANKABLE FEASIBILITY STUDY SUMMARY

SCOPE OF WORK

In order to achieve the highest standard required by our lenders and to accommodate an upgrade in production, Kibaran has undertaken a 12 month program of work recommended by SRK which encompassed almost every facet of the projects metrics, costing over US$8m and involving leading consulting teams from Australia, Africa and Europe. The quality of the BFS has been significantly enhanced through the involvement of SRK Consulting. Their diligence and rigour has resulted in a bankable level of project definition. Potential value adding opportunities have also been identified and will be incorporated as the project is progressed.

SRK Consulting, appointed as Independent Engineers for KfW, to perform KfW's technical due diligence on the project concluded with the following:

- The additional work SRK required to be undertaken by Kibaran to update the 2015 Feasibility Study has been completed in its entirety
- All technical areas have been significantly advanced to conform with the requirements of international project financing standards
- The Environmental and Social Management Planning and supporting impact assessments conform to relevant Tanzanian legislation, IFC Performance Standards and World Bank Group Environmental Health and Safety Guidelines

Achieving this positive outcome is the catalyst for securing debt financing for the Epanko project and Kibaran is now engaged with a number of lenders. Following a positive initial review, the Company has commenced an international debt financing program under the leadership of KfW, a leading German bank which has extensive experience in the successful financing of development projects around the world.

TECHNICAL

Over 8,000m of resource drilling was completed, together with a new program of geophysics and structural geology that has increased resource confidence levels, extended the scale of resource and importantly confirmed the continuity of graphite mineralisation along strike, which provides the potential to extend forecast mine life beyond the current 18 year plan.

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This drilling and associated testwork provided data for hydrological studies, geotechnical programs and the design and optimisation of new mining pits and a new mining schedule.

Additional metallurgical testwork was undertaken on both drill samples and on a 200 tonne bulk sample. The bulk sample was successfully processed through a commercial scale graphite plant to produce final processing parameters and provide credible production scale samples for assessment by key offtake partners.

During the study Kibaran explored the potential to generate a higher carbon grade product from <150 micron material for use as spherical graphite feedstock. Importantly, starting with high grade and large flake provides significant flexibility in process flowsheet design. Fresh material which comprises 28% of the Ore Reserve and 72% of the Mineral Resource produces a product grade of 99% carbon with no modifications to the process flowsheet. Both the Eastern and Western pits remain open at depth and any conversion of Mineral Resources to Ore Reserves will be fresh material.

GR Engineering have utilised this mining and processing data to refine designs for the mine processing flowsheet and optimise the overall mine configuration to provide the most effective and efficient operating plan for Epanko. This has included additional studies for all required infrastructure, associated access roads and minesite facilities.

SOCIAL, ENVIRONMENTAL AND SAFETY

Over US$2m of the total US$8m expenditure was directed to the environmental and social disciplines, in order to conform with IFC Environmental & Social Performance Standards and the Equator Principles and to progress the Resettlement Action Plan to near completion. This builds on the Company's commitment to ensure global best practice in community relations and environmental management. The Kibaran team has a strong track record in community relations and environmental management with a previous project in which they were involved receiving two Presidential Awards in Tanzania for environmental excellence and with Mr Grant Pierce, our in-country Executive Director, receiving the Order of Australia Medal for his contribution to rural communities in Tanzania.

The environmental and social program was assisted by UK based Zyl Consulting and consisted of an intensive on-ground process of environmental review and social engagement involving the Company's in-house social development and community relations team, together with experienced resettlement, social and environmental professionals such as independent valuers, surveyors, planners, architects and engineers.

In addition to the Company's Resettlement Policy Framework and Social Engagement Plan which have been made public via the Kibaran website, a comprehensive environmental and social strategy has been developed in accordance with the Equator Principles and is supported by a suite of 14 detailed management plans to ensure impacts and risks are identified and managed in accordance with leading global standards.

KEY OUTCOMES

The BFS evaluated both a 40ktpa and 60ktpa graphite operation at Epanko, with the 60ktpa case delivering superior capital efficiency and financial outcomes under updated inputs.

Pre-production capital costs are estimated to be US$88.9m, including a US$7.1m contingency. The BFS results deliver an improved capital efficiency compared to the July 2015 study, as demonstrated by the 24% reduction in capital intensity from US$1,937/t to US$1,482/t concentrate. Capital cost estimates were re-quoted to reflect Q1 2017 market prices and monetary terms.

The BFS estimates a C1 Free-On-Board (FOB) operating cost of US$500/t and an All In Sustaining Cost (AISC) of US$572/t. The C1 FOB operating cost is significantly lower than the estimate in the July 2015 study of US$570/t (and AISC of US$622/t). The improvement is primarily due to lower power costs arising from accessing grid power after 2019 and the increased ore throughput delivering process cost efficiencies. Mining costs are based on a contractor mining scenario with the lower costs driven by the lower strip ratio compared to the July 2015 BFS (0.4 versus 1.1 waste to ore). Operating cost estimates were re-quoted to reflect Q1 2017 market prices and monetary terms.

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Table 1: Summary BFS Outcomes

Input	Unit	
Graphite Production	(Kt)	60,000
Operating Cost (C1-FOB)	(US$/t sold)	500
All in Sustaining Cost (AISC)*	(US$/t sold)	572
Pre-Production Capital	(US$m)	88.9
NPV_{10}	(US$m)	211
IRR	%	38.9

** Includes royalties (US$39/t), sustaining capital (US$15/t), off-site corporate functions (US$10/t) and rehabilitation (US$8/t).*

PROJECT FINANCING

A positive outcome of the technical due diligence of the updated Epanko BFS by the Independent Engineer SRK Consulting has been the catalyst to facilitate credit approvals by debt financiers. Following a positive initial review, a debt financing program has commenced under the leadership of Germany's KfW to determine the optimum structure, quantum and terms of the debt facilities.

In conjunction with the KfW process, the Company is also working through assessment processes with Nedbank Limited, acting through its Corporate & Investment Banking Division ('Nedbank CIB'), one of the largest banks in South Africa and a key lender across the African continent, together with Australia's Export Finance and Insurance Corporation ('EFIC'). Both institutions have indicated potential support for the proposed development and following completion of the BFS, the Company and the international banking group are currently preparing a detailed, multi-party program to complete all project requirements and secure debt financing facilities.

A number of strategic equity investors, including both industry participants and private equity groups, have also expressed interest in potential investment in the project and the downstream processing value adding initiatives. The Company is progressing these discussions in parallel with the debt financing program in order to determine the preferred debt and equity funding structure.

MARKETING AGREEMENTS AND ADDITIONAL CUSTOMER SUPPORT

The executed marketing strategy for the Epanko project is focused on the supply of high quality graphite products into specific geographic markets which are seeking a diversified and consistent long term supply partnership.

As a result, the project has secured strong support from German, Japanese and South Korean markets with existing sales and binding offtake agreements for 44ktpa of planned graphite production. The Company is in discussion with its key partners and other leading German carbon groups for the sale of an additional 16ktpa of graphite products. Negotiations are well advanced and the Company expects to formalise agreements in due course.

In addition, the Company has also received positive support for its proposed value adding downstream processing initiatives, including for the purchase of both battery grade (spherical) graphite production and by-products (fines), together with co-investment in the planned downstream processing facilities.

The BFS is based on the conservative assumption that all products are sold into the German, Japanese and Korean markets for use in traditional graphite applications, primarily as refractory products in the production of steel and iron materials.

Kibaran firmly believes that near term to medium term demand growth for graphite will be a function of Electric Vehicle ('EV') penetration rates (for which numerous independent forecasts are available). The interest in our battery grade graphite samples has significantly increased since the Company commenced its separate feasibility study with additional German support further aligning the Company strategy with German industry, which is expected to experience significant growth through participation in the EV supply chain.

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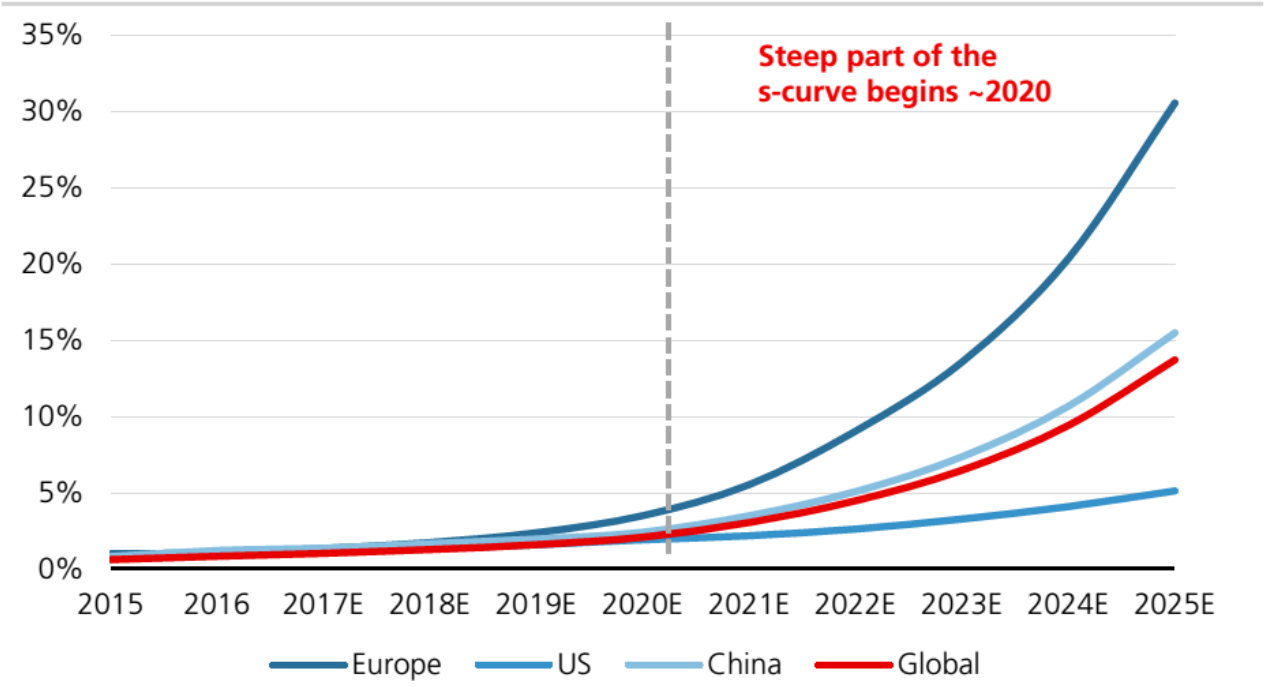
Figure 1: Forecast Global EV penetration rates by region



Source: UBS, May 2017

DOWNSTREAM PROCESSING

Consistent with the demand outlook, Kibaran is nearing the completion of the feasibility study for the production of battery grade spherical graphite targeting value capture of high quality Epanko graphite in the battery anode supply chain and other value added products. The study is due to be completed in Q3 2017 and is based on a staged integration with the ramp-up of graphite production at Epanko. The initial downstream processing throughput of 10ktpa to deliver approximately 6ktpa spherical graphite with testwork supporting a 50% yield which is superior to existing feedstock.

It is planned to adopt a modular process route, enabling the Company to progressively scale the production of spherical graphite products in accordance with market demand. Preliminary results include:

- Positive feedback from end users on product suitability from the industrial scale production of spherical graphite in testing facilities
- Key properties, including particle size distribution, tap density and impurity levels are in-line with and meet leading battery anode manufacturer specifications
- Design and work for micronisation and spherical shaping has been completed, with the purification process flowsheet nearing completion
- Battery testing is continuing at leading testing facilities, with the results expected shortly

The initial results support the Company's strategy to become a key player in the supply chain for the growing battery market, which is planned to be progressed through Kibaran's existing binding agreement and partnership with Sojitz Corporation of Japan, supported by on-going discussions with key anode manufacturers.

Downstream processing is expected to provide a floor price for mine gate products, given the access to the value added markets through the additional processing facility.

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LEADERSHIP IN GRAPHITE PROJECT DEVELOPMENT

Accomplishing the positive outcomes of the BFS and the associated marketing and downstream processing progress provides the Epanko Graphite Project with a number of key competitive benefits in terms of early mover advantage.

Kibaran is the only listed graphite Company globally that has completed a BFS with Environmental and Social Planning which conforms with IFC Performance Standards and World Bank Group Environmental Health and Safety Guidelines. This status will be a significant advantage, given the emerging new markets for graphite, including batteries, are seeking to ensure graphite supply from sources which conform with such standards.

Key Competitive Advantages

- Rigorous Independent Engineer's due diligence significantly de-risks the project
- Compliance with IFC Performance Standards and World Bank Group Environmental Health and Safety Guidelines provides green and social credentials which are now becoming pre-requisites for sales and partnerships
- Secured sales and offtake agreements with established and credible partners in both Europe and Asia
- Executed marketing strategy with strong alignment to German industry and the battery supply chain in Japan, Korea and Taiwan
- Access to grid power and close proximity to road and rail infrastructure
- Favourable gangue mineralogy with high degree of metamorphism which determines the graphite crystallinity
- High proportion of large flake graphite products with high *in-situ* ore grade
- Representative commercial scale testwork completed successfully, with a 200t bulk sample processed through an operating graphite plant providing samples to support process design testwork and marketing

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BANKABLE FEASIBILITY STUDY PROGRAM AND RESULTS

SCOPE OF WORK

GR Engineering Services Ltd (ASX:GNG), ('GR Engineering') completed the BFS based on the upgraded Mineral Resource Estimate undertaken by CSA Global Pty Ltd ('CSA Global') and the outstanding results from the metallurgical testwork. Conservative pricing estimates for flake graphite fractions were adopted by Kibaran using both current pricing and forecast demand by Roskill. The BFS capital and operating cost estimates are to a level of accuracy of ±10%.

The Environmental and Social Planning aspects of the BFS were completed to conform with IFC Performance Standards and World Bank Group Environmental Health and Safety Guidelines, a core requirement to enable project financing of emerging market domiciled projects such as Epanko.

This outcome needed to be reached as a prerequisite to securing project debt financing from Germany's KfW and other lenders.

The BFS scope was determined in conjunction with feedback from the debt providers to target the delivery of a financeable project and a viable business model under prevailing graphite market conditions whilst also conforming with IFC Performance Standards and World Bank Group Environmental Health and Safety Guidelines.

The significant work program over the last 12 months is summarised below:

- Programs of structural geology and further geological modelling
- 8,000 metres of drilling, geological, geotechnical and structural logging and sampling
- Ground electromagnetic surveys and aerial VTEM and magnetics with identification of new targets for new high grade mineralisation
- Update of mineral resource and mining ore reserves, with 40% increase in drilled Mineral Resources
- Detailed mineralogical studies with consultants and with Australian Research Organisation, CSIRO
- New pits designs and optimisations for expanded production
- Detailed geotechnical studies for pit slope design parameters
- Further metallurgical studies including variability and locked cycle testwork, additional flotation and comminution work to support 60ktpa case
- Full scale 200 tonne bulk sample processed through a commercial scale plant providing staged samples for equipment specific testwork
- Engineering design for tailings, roads, power and infrastructure
- Design of processing plant for scope change to 60ktpa graphite product
- Rebidding of capital equipment for 60ktpa design
- New social and environmental baseline studies
- Completion of 14 Social, Environmental and Safety management plans
- Completion of Resettlement Policy Framework
- Completion of Stakeholder Engagement Plan
- Relocation Action Plan costed and nearing completion
- New capital and operating cost estimates for scope change to 60ktpa of product
- Completion of road survey and safety study
- Independent pricing study commissioned from Roskill
- Project development and marketing program securing further sales support

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Figure 2: Epanko Location Plan

STUDY TEAM

The BFS was managed by GR Engineering utilising industry leading experts in relevant disciplines including:

GR Engineering Services	Study Manager and Engineering Design
CSA Global	Mineral Resource and Geology
Knight Piésold	Hydrology and Infrastructure
ECG Engineering	Power and Electrical Engineering
independent Metallurgical Operations	Metallurgy
Intermine Engineers	Mining and Ore Reserves
George Orr & Associates	Geotechnical Mine Design
Trinity Promotions	Social and Community
Bollore Logistics	Transportation planning and road safety assessment
Zyl Consulting	Resettlement planning, stakeholder engagement program, E&S risk assessment and development of ESMPs
PML (Tanzania)	Registered land surveys and valuers
IMMMA/DLA Piper (Tanzania)	Legal advisors for land access and resettlement programs
MTL (Tanzania)	EIA consultants
SELCA (Tanzania)	Planning and architectural design of resettlement buildings

All of the consultants have previously worked on African based projects, including in Tanzania. The BFS also had significant technical input from Mr Christoph Frey, Kibaran's Director and specialist graphite consultant.

ORE RESERVE STATEMENT

The Proven and Probable Ore Reserve estimated as part of the upgraded BFS is based on and inclusive of the Measured and Indicated Mineral Resource.

Table 2: Ore Reserve Statement >5% TGC

JORC Classification	Proven			Probable			Total		
	Tonnes (Mt)	% TGC	Cont (Kt)	Tonnes (Mt)	% TGC	Cont (Kt)	Tonnes (Mt)	% TGC	Cont (Kt)
Oxide	4.2	8.48	356	3.0	7.54	227	7.2	8.09	583
Transitional	0.5	7.99	43	0.6	8.96	55	1.1	8.51	97
Fresh	1.0	8.36	85	2.3	8.95	206	3.3	8.77	291
Total	**5.7**	**8.41**	**483**	**5.9**	**8.23**	**488**	**11.7**	**8.32**	**971**

Notes: for Table 2 & 3
Tonnage figures contained within tables have been rounded to nearest 100,000. % TGC grades are rounded to 1 decimal figure.
Abbreviations used: Mt = 1,000,000 tonnes. Rounding errors may occur in tables.

The Ore Reserve has been reported at a 5% cut-off grade due to a reduction in the economic cut-off grade determined by the BFS.

MINERAL RESOURCE ESTIMATE

The Ore Reserve forms part of a significantly larger JORC resource of 30.7Mt grading 9.9% TGC for 3,049kt graphite (67% classed as M&I). The extent of mineralisation in the resource envelope plus the potential for strike and depth extensions, highlights the potential to both increased production rates as market demand allows and extend the LOM.

A substantial amount of graphite mineralisation exists within the reported Mineral Resource at lower TGC grade at 5% TGC as follows, 113.3Mt at 7.2% TGC for 8.1Mt contained graphite (refer *ASX release 31 March 2017, Epanko Mineral Resource Upgrade*).

Table 3: Mineral Resource Estimate for Epanko Deposit > 8% TGC

JORC Classification	Tonnage (Mt)	Grade (% TGC)	Contained Graphite (Kt)
Measured	7.5	9.8	738.9
Indicated	12.8	10.0	1,280.0
Inferred	10.4	9.9	1,030.6
Total	**30.7**	**9.9**	**3,049.5**

MINING

Mining operations will commence in the Eastern Pit and move to the Western Pit in Year 6 through to the scheduled reserve exhaustion in Year 16. The average LOM strip ratio is expected to be 0.4:1 (waste to ore).

Mining will be undertaken via conventional drill and blast with the fleet comprising of an 80t backhoe excavator and 40t off-highway haul trucks. The BFS is based on a mining contractor scenario.

The Western Deposit consists of mining a strike length of 1,360m along the top of the ridge to a depth of 210m in the south, and the Eastern Deposit sits partially over a hill within a small valley and will be mined to a depth of 125m and the pit will have a strike extent of 350m.

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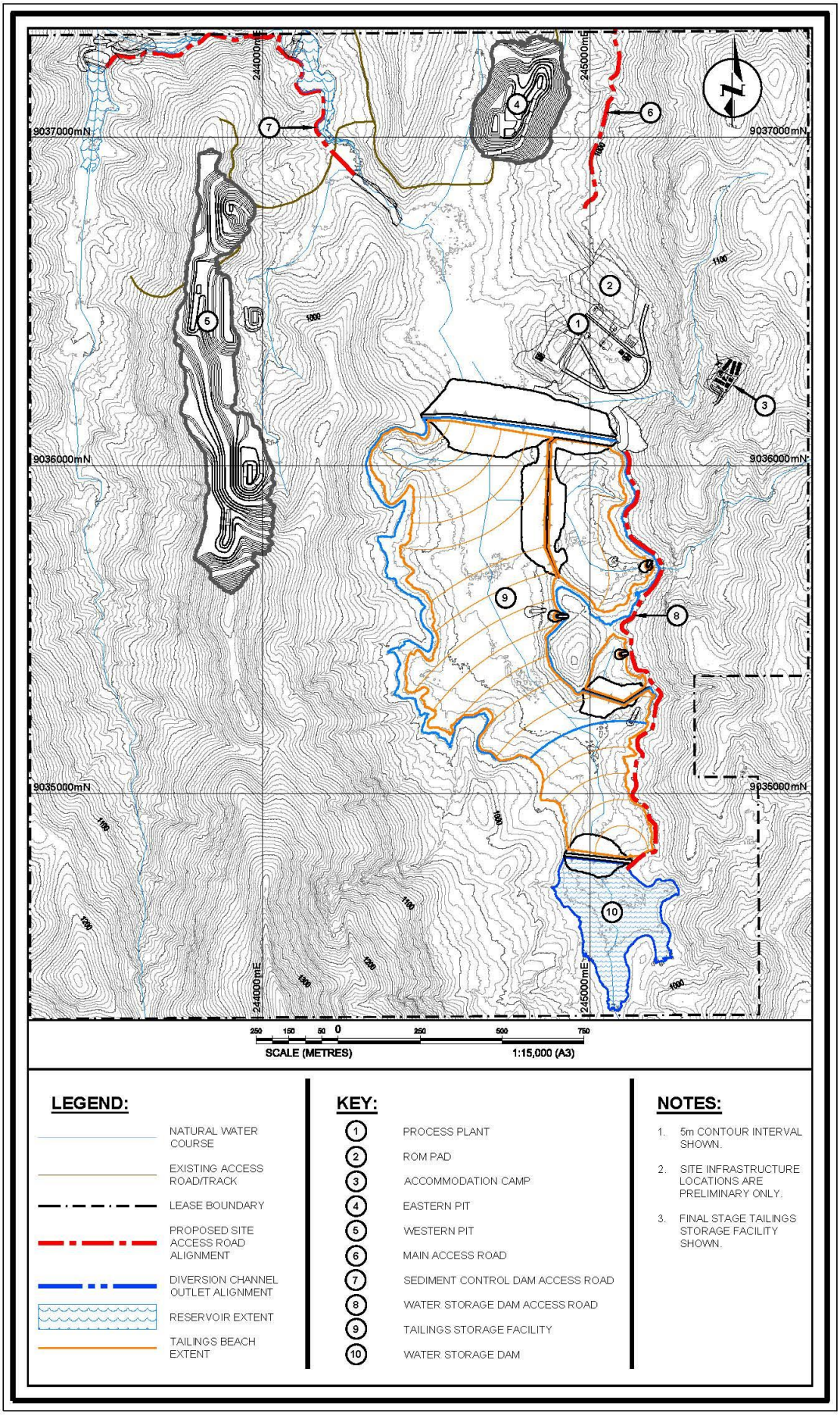
Figure 3: Epanko Pits and Site Layout



PROCESSING AND METALLURGY

The process plant is designed with a throughput capacity of 720ktpa for an average TGC grade of 96% and average annual production of 60ktpa. The process plant is based on a crush and grind comminution circuit (two stage crushing circuit with single stage rod mill) followed by rougher flotation. The tailings are reground in a ball mill before they enter the scavenger flotation. The rougher and scavenger concentrates are combined and fed into the primary cleaner section, consisting out of polishing mills and cleaner flotation banks. The concentrate is than screened into two size fractions, with subsequent polishing and four stage cleaning applied with no further milling required in the cleaning circuit. Product is then dewatered, dried and screened into saleable size fractions. The flowsheet is optimised for a high yield of large flakes, however it could be easily modified to get higher carbon content by flotation if required.

Table 4: Significant variability testwork was completed on the various ore types and built into the model

Flake Size			Western Oxide		Western Fresh		Eastern Oxide		Eastern Fresh	
Name	Micron	Mesh	Mass (%)	Carbon Grade (%)	Mass (%)	Carbon Grade (%)	Mass (%)	Carbon Grade (%)	Mass (%)	Carbon Grade (%)
Jumbo	>500	>35	1.4	97.2	1.8	98.7	5.3	96.5	0.2	98.5
	>300	>50	16.8	97.5	15.9	98.9	292	96.4	10.4	98.5
Large	>180	>80	31.8	97.1	26.7	99.0	35.6	96.4	30.9	98.5
Medium	>150	>100	13.4	96.9	11.7	99.0	13.3	96.4	15.5	98.5
	>106	>150	17.1	96.2	13.0	99.0	10.2	96.2	16.9	98.4
Small	>75	>200	8.7	95.4	9.2	98.9	3.0	96.2	10.5	98.3
	<75	<200	10.8	92.8	21.8	95.2	3.4	95.3	15.6	97.5

Table 5: The combined weighted life of mine distribution

Name	Micron	Mesh	Mass (%)	Carbon Grade (%)
Jumbo	>500	>35	2.1	97.5
	>300	>50	18.3	97.7
Large	>180	>80	31.2	97.5
Medium	>150	>100	13.1	97.4
	>106	>150	14.9	97.0
Small	>75	>200	8.0	96.6
	<75	<200	12.5	94.2

Notes for table 4 & 5. 1mm=1000 micron and fixed carbon content determined by Loss on Ignition method (LOI)

During the study Kibaran explored the potential to generate a higher carbon grade product from <150 material for use as spherical graphite feedstock. Importantly starting with high grade and large flake provides significant flexibility in process flowsheet design. Key findings included:

- Fresh material which comprises 28% of the current Ore Reserve and 72% of the Mineral Resource produces an average product carbon grade of 98.2% and 99.0% carbon grade for the Western Pit with no modifications to the process flowsheet. Both the Eastern and Western pits remain open at depth and any potential additions below the current pit floor will be fresh material.
- Potential to introduce low capital additional attritioning stages into the flowsheet to produce a higher grade carbon content product in <150 micron material for use in technology applications

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Figure 4: Epanko Simplified Process Flowsheet

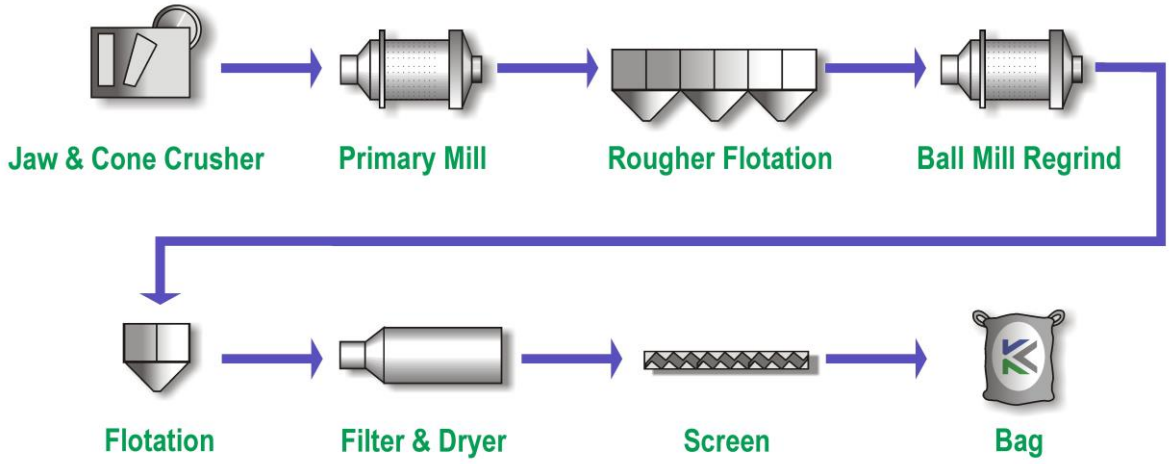
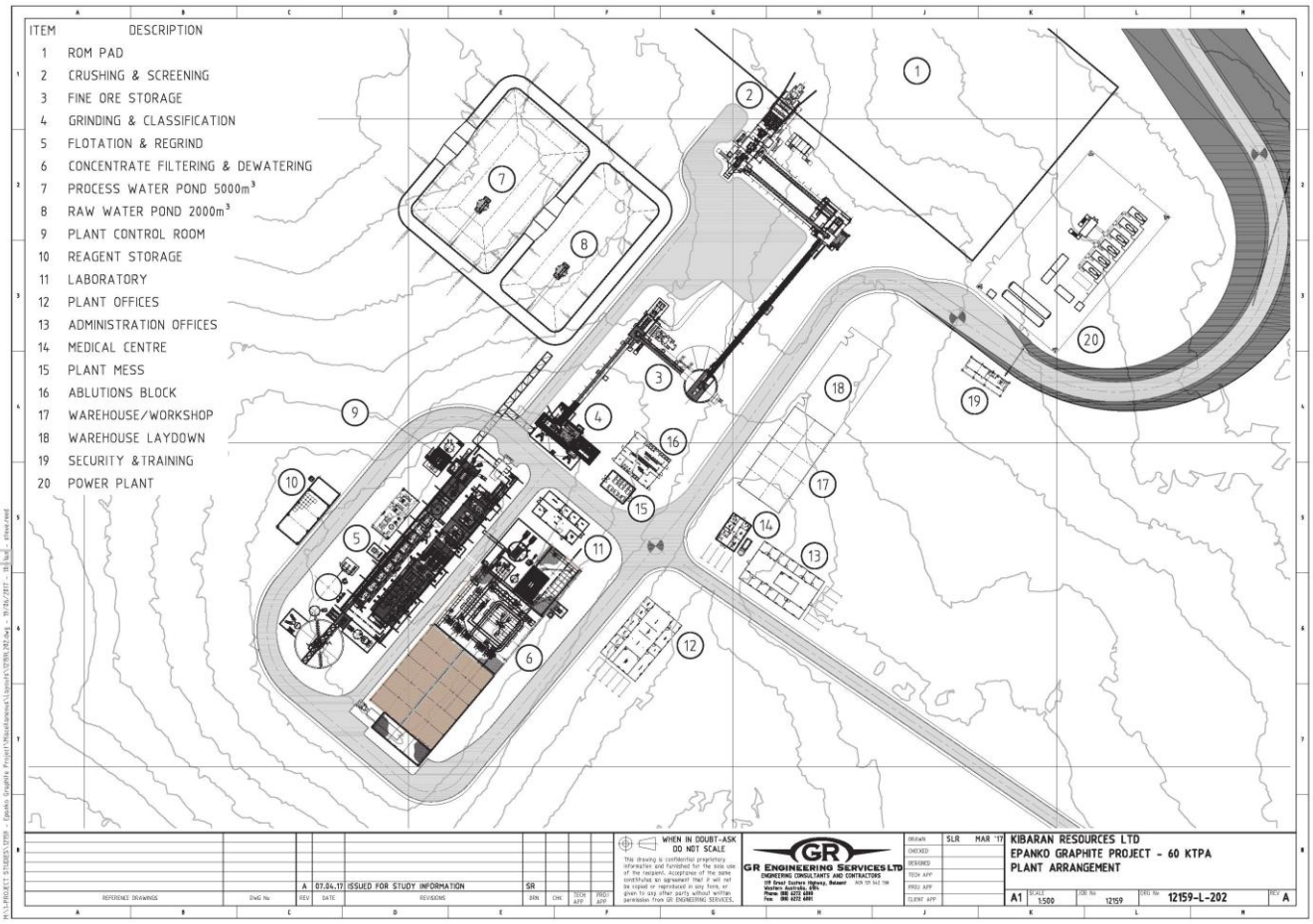


Figure 5: Detailed Plant Design



INFRASTRUCTURE

Tailings Storage facility

The waste output (tailings) from the flotation process will be pumped from the processing plant to a Tailings Storage Facility (TSF).

The TSF design allows for an 18 year life of mine, at an average production rate of 60ktpa graphite product delivering an annual average of 660ktpa of tailings to the TSF.

Power

Epanko is expected to have installed power of 2.8MW and a maximum power draw of 2.4MW. The study has assumed on site diesel generation for project construction and the first years of production. From Year 2 power is expected to be sourced from the TANESCO grid through a dedicated 33kv powerline from an upgraded Ifakara Substation to Epanko.

Water

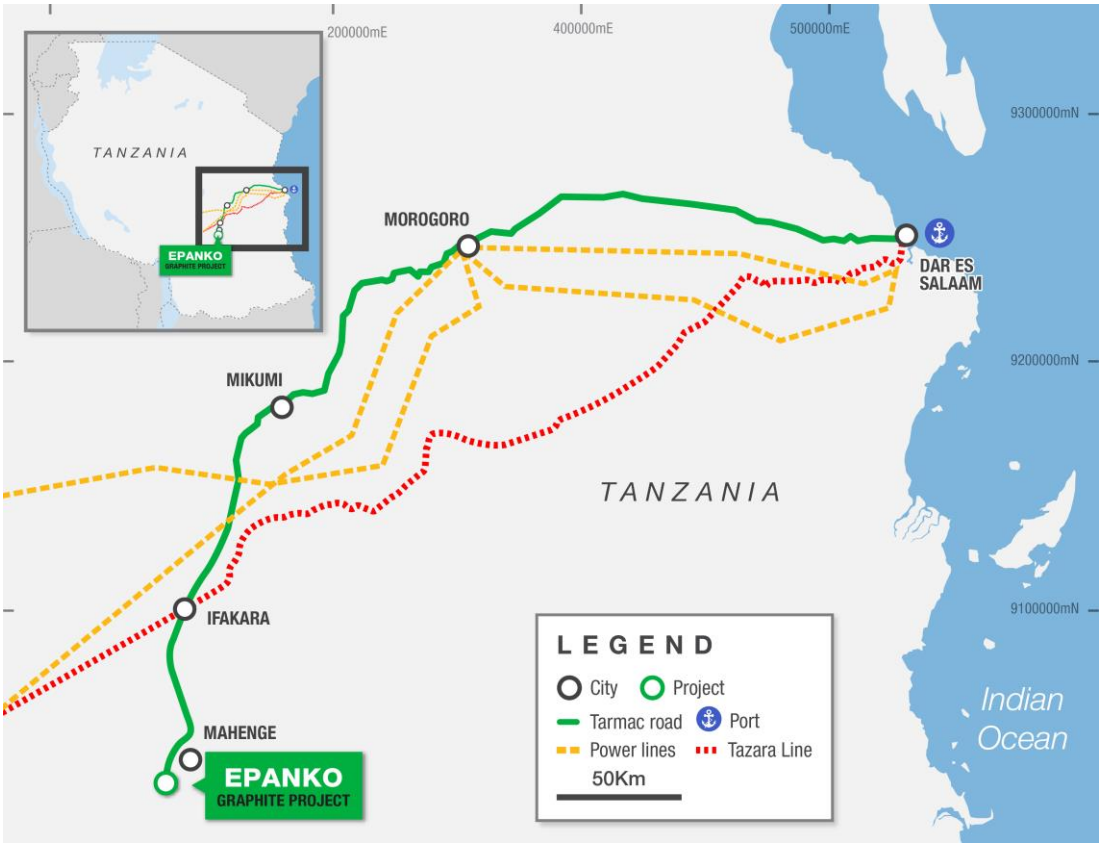
Process water supply for the main process will be sourced from the tailings storage facility and supernatant water storage. Raw water supply will be sourced from pit dewatering and the raw water supply borefield. The borefield will comprise two bores with sufficient capacity to supply the necessary volume required for the project infrastructure requirements.

Logistics

The Epanko project site can be accessed from the existing national road network to the chosen export port of Dar es Salaam. The transport route runs from Dar es Salaam to Epanko. The road from Dar es Salam to Ifakara is bitumen, and the 120km road from Ifakara to Epanko is predominantly compacted laterite.

The BFS assumes road haulage to the port of Dar es Salaam in bulk bags, however, as production increases a combined road-rail link may be utilised. Epanko is located ~120km from the Ifakara rail siding which links to Dar es Salaam.

Figure 6: Transport Logistics Epanko – Dar es Salaam



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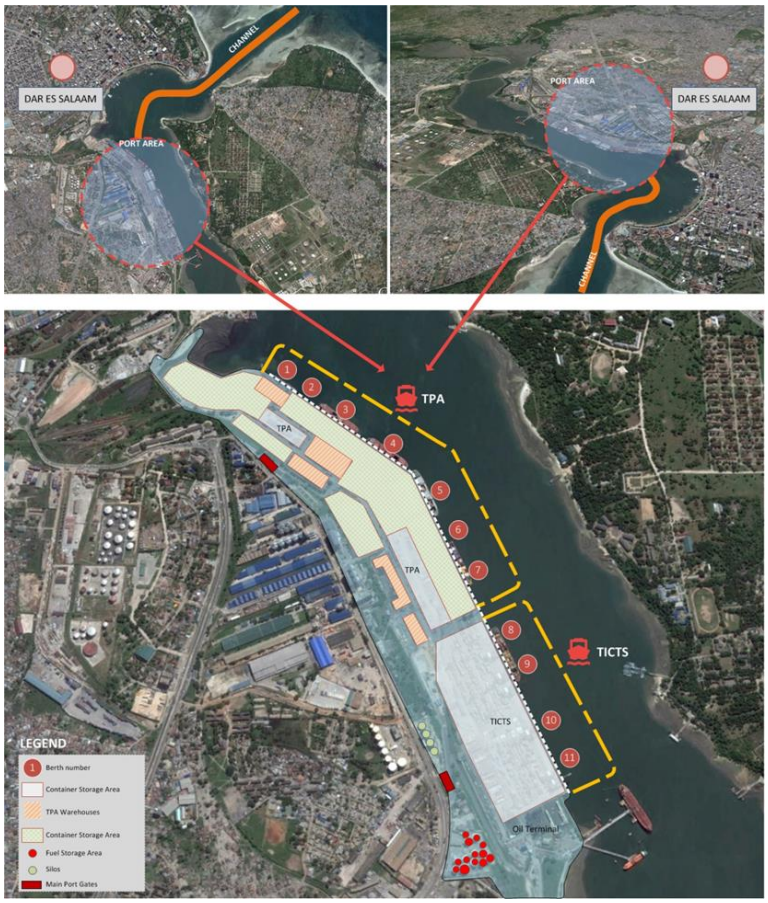
Graphite product will be shipped from the port of Dar es Salaam. The port has an estimated capacity of 3.1Mt general cargo, 1Mt container cargo and 6.0Mt of liquid bulk cargo with 7 deep water berths.

Figure 7: Dar es Salaam Port Layout



REGULATORY, SOCIAL AND ENVIRONMENTAL

The IFC Performance Standards and World Bank Group Environmental Health and Safety Guidelines are recognised as the global standard for assessing and managing environmental and social risks for projects domiciled in emerging markets. These guidelines have been adopted by leading financial institutions worldwide and compliance is a pre-requisite by all development banks and other leading international financial institutions for project financing. Kibaran have undertaken a comprehensive suite of Environmental, Social and Resettlement studies and prepared documentation which conforms with these guidelines.

Finalisation of Environmental and Social documentation including completion of ESIA, RPF, Stakeholder Engagement Plan and development of comprehensive suite of Environmental and Social Management Plans has been a critical element of the upgraded BFS.

Environmental Management Plans

EMP01	Air Quality and GHG Management Plan
EMP02	Noise and Vibration Management Plan
EMP03	Water Resources and Erosion Con Management Plan
EMP04	Biodiversity Ecosystems and Land Use
EMP05	Waste Management Plan
EMP06	Materials Management Plan
EMP07	Tailings Storage Facility Operating Manual

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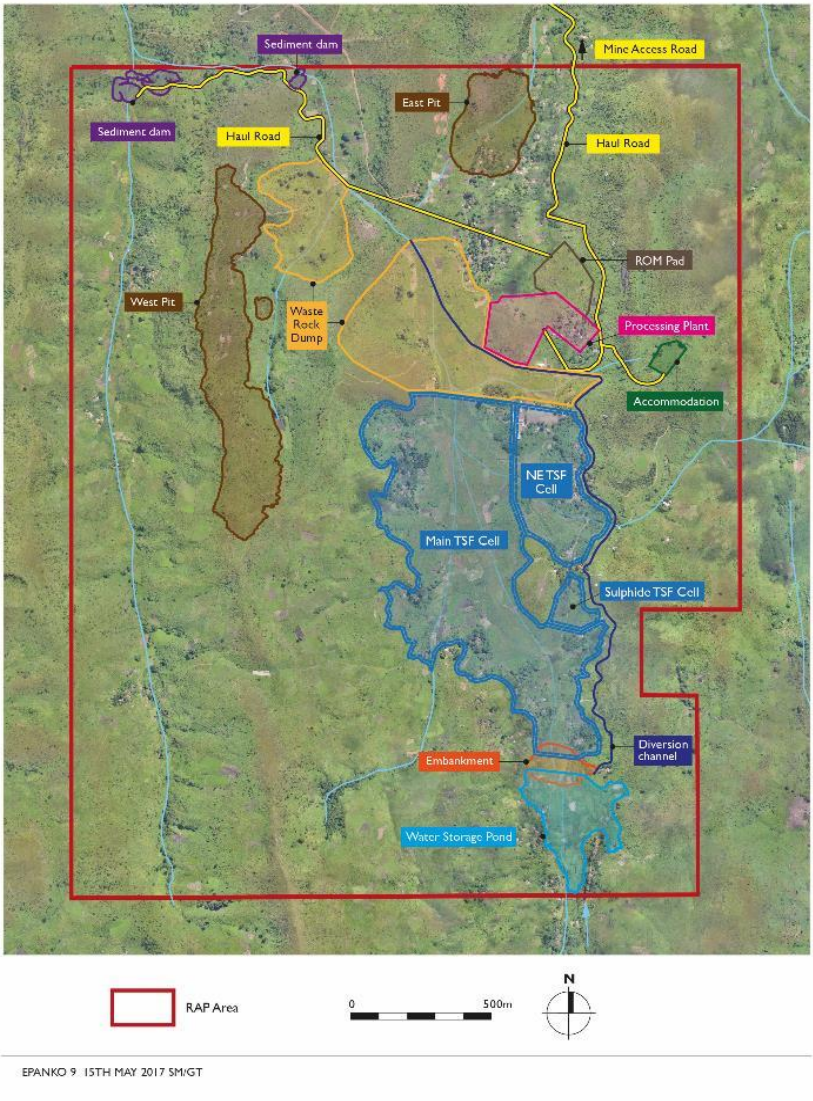
Social Management Plans

RPF	Resettlement Policy Framework
SMP01	Stakeholder Engagement Plan
SMP02	Community Health Management Plan
SMP03	Artisanal and Small Scale Mining Interface Management Plan
SMP04	Traffic and Road Safety Management Plan
SMP05	Cultural Heritage Management Plan
SMP06	Labour Management Plan
SMP07	Social Development Plan (updated baseline studies)

The mine area impacts the hamlets of Epanko A, Kazimoto, Itatira, Mbera, Epanko B and Luli. Resettlement planning activities have been significantly progressed during the last 12 months, including public disclosure of the Resettlement Policy Framework (RPF), completion of survey and valuation program, establishment of the Resettlement Working Group, determination of entitlements and identification of the resettlement site. The Resettlement Action Plan (RAP) and design of the resettlement village is due for completion in July with public disclosure to follow.

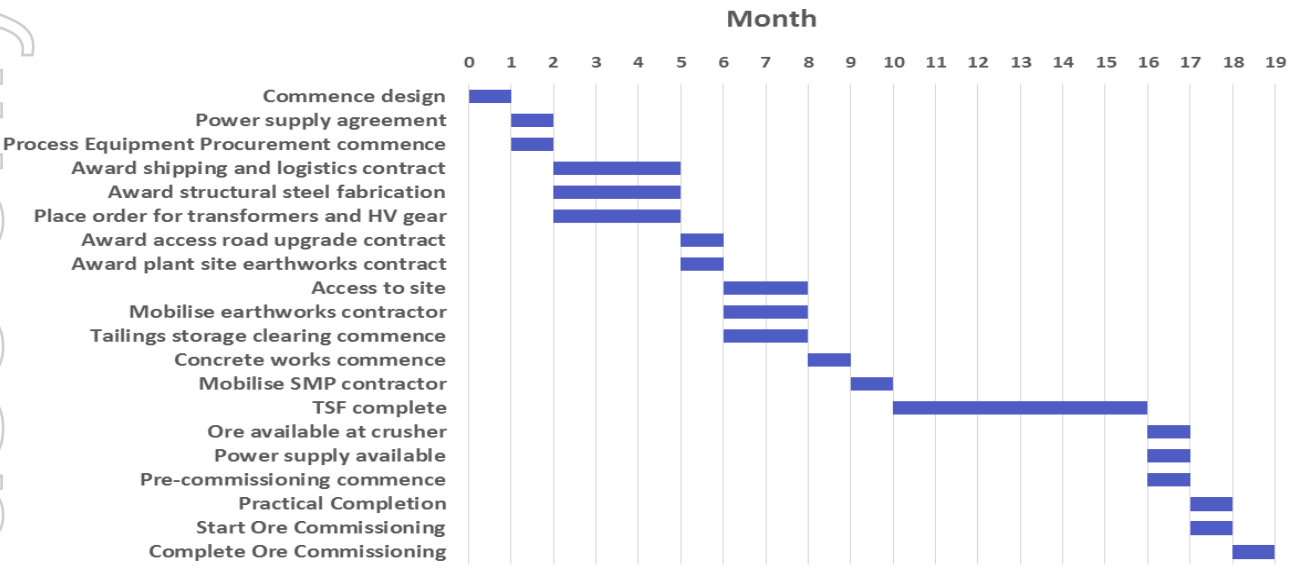
Figure 8: Communities within Mine RAP Area



PROJECT IMPLEMENTATION SCHEDULE

An overall Project schedule has been updated as part of this Study. The schedule has based on specific design requirements, preliminary vendor nominated manufacturing and delivery periods and in-house experience with similar projects. Some of the more significant schedule milestones are listed below:

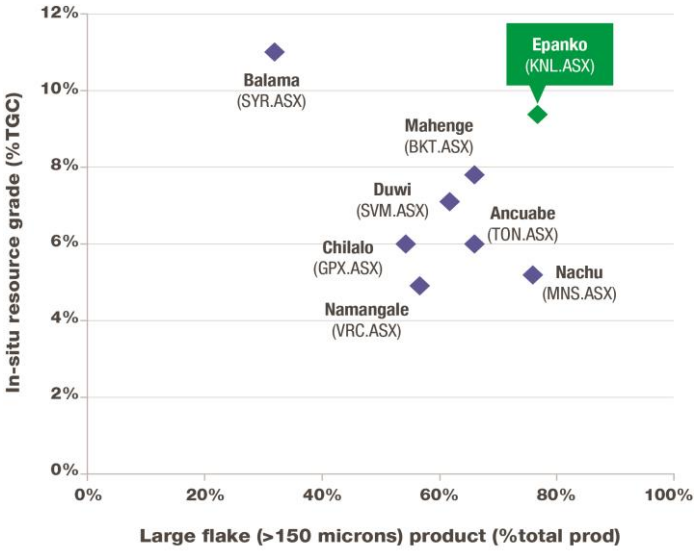
Figure 9: Implementation Schedule



PRODUCT SPECIFICATION AND MARKETING

The high proportion of >150micron flake size product and high graphitic carbon product grades allows Kibaran to sell product into established markets. Kibaran has demonstrated a high quality product, relative to incumbent production sources from China, through the securing of pre-production offtake agreements with ThyssenKrupp, European Trading Group and Sojitz Corporation which covers 73% of Epanko production once name plate capacity has been reached.

Figure 10: Epanko Flake Size distribution and in-situ grade



Source: Company exchange releases

Product specifications including carbon content and sizing has been developed in discussions with our binding sales and offtake partners and discussions with established graphite users and traders across both industrial and technology (battery) markets. The average carbon content of Epanko product envisaged by the BFS is >96% carbon grade across 4 size fractions to meet market demand which is currently dominated by traditional industries and is expected to maintain the majority of market share during the initial years of production.

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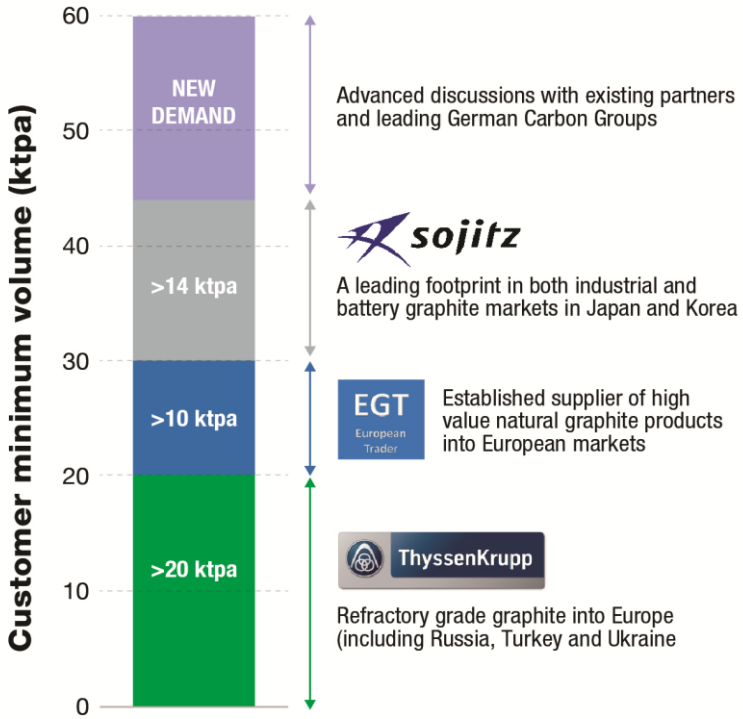
ADDITIONAL SALES SUPPORT AND DOWNSTREAM PROCESSING ARRANGEMENTS

In support of the expanded production rate of 60ktpa Kibaran has experienced additional demand from European and Southern Asian graphite markets. Discussions are well advanced and it is expected that this interest will be developed through additional sales agreements.

The Company has also received positive market support for its proposed value adding downstream processing initiatives, including for the purchase of both battery grade (spherical) graphite production and by-products (fines), together with co-investment in the planned downstream processing facilities.

Figure 11: Kibaran's World Distribution

Figure 12: Epanko Product Sales Agreements



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EPANKO PRICING

Kibaran engaged leading independent industrial minerals forecaster Roskill Consulting ('Roskill') to provide updated graphite product pricing forecasts, based on Industrial Minerals quoted prices.

Kibaran expects to produce a portion of larger flake size and higher carbon content products than is quoted by leading forecasters and therefore Kibaran has made adjustments to capture the expected prices for its higher quality Epanko product. Roskill prices are based on a CIF basis.

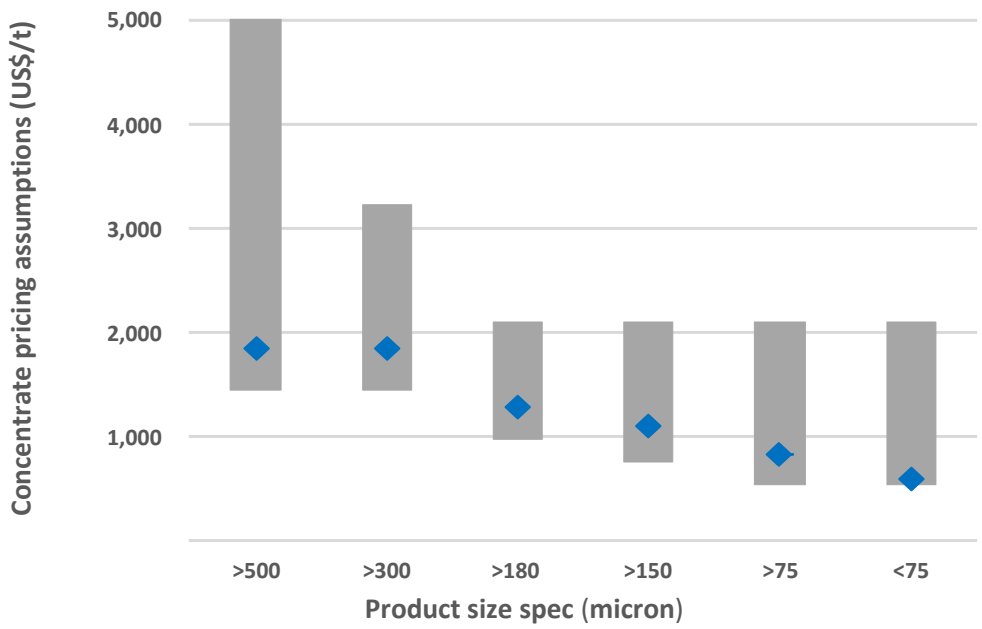
Summary BFS Life of Mine Pricing Model including adjustments and reference to Roskill Pricing Data

Micron/Mesh Sizing	Classification	Epanko Distribution (%)	Carbon Grade (%)	Adjustment	2017 Price (US$/t)
+300/+50	Jumbo	20.34	97.5	+60% to average large flake pricing to reflect jumbo flake size	1,864
+180/+80	Large	31.18	97.5	+10% due to higher carbon content relative to Roskill pricing range (94-97% TGC) for large flake	1,282
+150/+100	Medium	13.14	97.4	+10% due to higher carbon content relative to Roskill pricing range (94-97% TGC) for large flake	1,093
-150/-100	Fine	35.36	95.9	No adjustment	823

The assumed 2017 basket price, after adjusting for CIF deductions, is US$1,181/t in the BFS and represents an 18% reduction to June 2015 study basket price of US$1,446/t.

Kibaran has not reflected any potential pricing dynamics from high growth markets in the BFS, including spherical and expandable graphite, however it is expected that graphite demand growth will be a function of Electric Vehicle penetration rates (for which numerous independent forecasts are available). Kibaran has demonstrated that Epanko product is desirable as a feedstock for spherical graphite and has superior expansion properties, which provides excellent suitability for production of expandable graphite.

Figure 13: Range of Pricing Outcomes amongst peer projects



CAPITAL AND OPERATING COSTS

Pre-production capital costs are estimated to be US$88.9m, including a US$7.1m contingency. The BFS results deliver an improved capital efficiency compared to the July 2015 study, as demonstrated by the 24% reduction in capital intensity from US$1,937/t to US$1,482/t. Capital cost estimates were re-quoted to reflect 2017 market prices.

Table 6: 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**

The study estimates a C1 FOB cost of US$500/t and an All In Sustaining Cost (AISC) of US$572/t. This is significantly lower than the estimate in the July 2015 study of C1 FOB cost of US$570/t (and AISC of US$622/t) primarily due to lower power costs arising from accessing grid power after 2019 and the increased ore throughput delivering process cost efficiencies. Mining costs are based on a contractor mining scenario with the lower costs driven by the lower strip ratio compared to the July 2015 study (0.4 versus 1.1 waste to ore). Operating cost estimates were re-quoted to reflect Q1 2017 market prices and monetary terms.

Table 7: 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).*

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Key operating outcomes of the Epanko project are reported in the table below:

Table 8: Key Operating Metric Summary

Input	Unit	June 2017	July 2015
Development period	(months)	19	18
Mine life	(years)	18	25
Average annual throughput	(t)	695,000	434,000
Strip ratio	(waste to ore)	0.4:1	1:1
Average feed grade	(% TGC)	8.3	8.6
Graphite recovery	(%)	94.7	93.3
Average product carbon grade	(%)	96	96
Graphite production	(Kt)	60,000	40,000
Mining cost	(US$/t processed)	7.93	9.83
Processing cost	(US$/t processed)	19.61	23.25
General & Administration cost	(US$/t processed)	4.75	6.23
Transport and port charges	(US$/t sold)	107	102
C1 FOB cost	(US$/t sold)	500	570
AII In Sustaining Cost	(US$/t sold)	572	622
Pre-production capital cost	(US$m)	88.9	77.5

EPANKO OPERATING OUTCOMES

Ore Reserve and Mineral Resource Estimate

The updated Epanko Ore Reserve of 11.7Mt grading 8.32% TGC for 971Kt graphite (2015 estimate 10.9Mt grading 8.7% TGC for 938Kt contained graphite) supports the 60ktpa production rate for an 18 year LOM. An additional 64 holes for 7,644m were completed as part of the BFS update including 43 diamond holes of 5,899m and included in the Ore Reserve model. The Ore Reserve estimate was completed by Intermine Mining Consultants.

The quality of Epanko Graphite is driven by two geological aspects, firstly the dominant host gangue mineral is a calc silicate mineral with very little deleterious elements and the Epanko rocks have undergone extremely high metamorphic pressure and temperature creating a very high crystallinity.

The degree of metamorphism determines the graphite crystallinity and it is important to recognise this provides its physical and industrial properties. A favourable mineralogy ultimately determines recovery and quality which drives strong project economics.

The commercial benefit of these combined geological aspects is an easily liberated graphite flakes from a low cost simple flotation process that is saleable high quality graphite without further processing steps.

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A 200t bulk sample has outperformed the block model with assays reconciling the Ore Reserve block model grades. This positive reconciliation not only fully supports the integrity of the model but demonstrates the overall robust nature and significant upside of the Epanko Mineral Resource Estimate undertaken by CSA Global. Consistent positive reconciliations from both mineralised zones have been demonstrated.

FINANCIAL OUTCOMES

Key financial return outcomes of the Epanko project are reported in the table below. The pre–tax NPV_{10} of US$211m compares to the 2015 study estimate of US$197m.

Table 9: Key Financial Parameters

Input	Unit	June 2017	July 2015
Average product price	(US/t FOB)	1,181	1,446
Pre-tax geared NPV_{10}	(US$m)	211	197
Pre-tax geared IRR	(%)	38.9	41.2
Post tax geared NPV_{10}	(US$m)	147	124
Post tax geared IRR	(%)	25.7	30.0
Payback period post construction	(%)	3.4	2.7

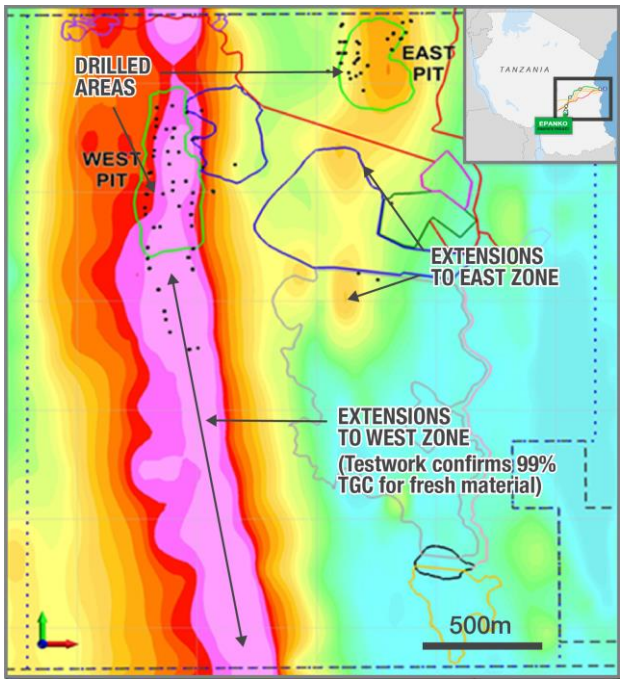
** Corporate taxation rate 30%*
** Financing assumption 55% debt (2015: 75%)*

PROJECT ENHANCEMENT OPPORTUNITIES

Significant opportunities for further value enhancement including extension of mine life beyond 18 years, incorporation of high grade graphite (>10%) encountered outside current pit design and other savings on implementation due to conservative design and costings.

Project economics do not include product sales into the high growth lithium-ion battery markets through downstream processing.

Figure 14: Electro Magnetic Survey showing substantial mineralisation



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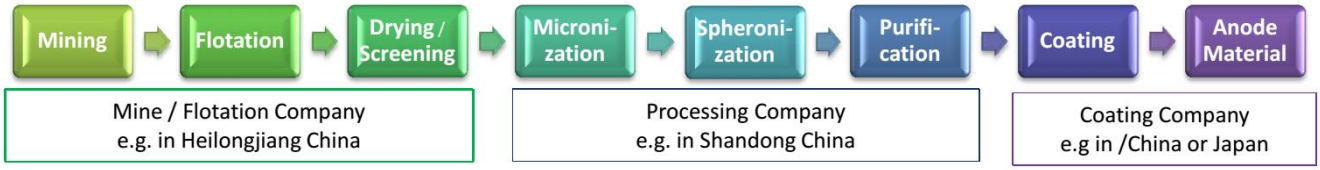
SPHERICAL GRAPHITE PRODUCTION AND DOWNSTREAM STUDY

Kibaran is nearing the completion of a feasibility study for the production of uncoated spherical graphite to capture the forecast demand growth in graphite anodes for lithium-ion batteries. The study is expected to be completed in Q3 2017.

Due to the high metamorphic gradient, Epanko graphite has a highly ordered crystal structure. This is supported by testwork indicating a D002 measure of 0.3356nm which compares to perfect crystallinity of 0.3354nm. A high level of crystallinity is important for battery applications.

The study has considered a number of potential milling and purification flowsheets, including site visits to spherical graphite production plants and potential equipment vendors outside of current producing facilities.

Figure 15: Current natural graphite process chain to anode material by process and geography



Source: ProGraphite 2017 - Industrial Minerals Conference in Berlin

The initial findings favour a grinding and shaping (which are mechanical processes) flowsheet based on Chinese technology. The favoured purification (chemical) flowsheet design is based on Korean technology which is less acid intensive and therefore more environmentally sustainable than other technologies.

Key parameters of the study include:

- Staged integration with the ramp up of production at Epanko
- Initial production of 10ktpa value-added product, consisting of 6ktpa spherical graphite and 4ktpa of other value-added products, mainly specially screened and blended products, together with micronized products
- Yield to spherical graphite of ~50%

The ability of bringing the downstream processing into production has been significantly strengthened given advanced discussion with leading German Carbon groups for the purchase of both battery grade (spherical) graphite production and by-products (fines), together with co-investment in the planned downstream processing facilities.

The Company expects that the completion of the feasibility study will result in the Company accessing a number of funding opportunities to develop the downstream processing project.

PROJECT FUNDING

Completion of the Epanko BFS and successful completion of the technical due diligence by the Independent Engineer SRK Consulting were the key catalysts to facilitate a positive credit assessment of the project by debt financiers.

SRK Consulting have confirmed that in addition to satisfying the scope of work agreed in 2016, all technical components of the BFS have been appropriately addressed in terms of project finance standards and that the Environmental and Social Planning conforms with the IFC Performance Standards and World Bank Group Environmental Health and Safety Guidelines.

Achieving this positive outcome ensures that the proposed development of Epanko has established a platform which conforms with the Equator Principles, a global risk management framework adopted by the world's leading financial institutions for the assessment of environmental and social aspects of project funding submissions.

Following the positive initial review, a debt financing program has commenced under the leadership of KfW to determine the optimum structure, quantum and terms of debt facilities to enable, subject to all necessary approvals, a final investment decision to allow the commencement of mine construction.

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The focus of this funding process is to secure, with the support of KfW, an Untied Loan Guarantee from the Federal Republic of Germany, which supports the development of businesses that can supply products deemed to be important to the future of German industry. This guarantee provides political and commercial risk insurance cover for applicable loan funds advanced to such qualified projects facilitating the provision of loan funding from KfW under terms and conditions more favourable than ordinarily available through other lending institutions.

As previously reported, the Company has received a Letter of Interest confirming "*in-principle eligibility for cover*" under the Untied Loan Guarantee scheme and the process to obtain Final Approval involves:

- Submission by KfW of a request for Preliminary Approval by the German Inter-Ministerial Committee, which will incorporate, inter alia, the term sheet for the proposed loan funding, a detailed project information memorandum, environmental and social impact assessment, base case financial model, together with key marketing, technical, insurance, legal and taxation reports.
- Following the Preliminary Approval, completion and submission of final due diligence reports and other documents as required.

In conjunction with the KfW process, the Company is also working with Nedbank CIB, one of the largest banks in South Africa and a key lender across the African continent, together with Australia's Export Finance and Insurance Corporation ('EFIC'). Following recent discussions with KfW, Nedbank and EFIC, the parties are considering the potential to progress the project financing program on a joint basis so that the preparation of project assessments, key agreements and the finalisation of credit commitments and supporting loan documentation can be progressed expeditiously.

A number of strategic equity investors, including both industry participants and private equity groups, have also expressed interest in potential investment in the project and the downstream processing value adding initiatives. The Company is progressing these discussions in parallel with the debt financing program in order to determine the preferred debt and equity funding structure for the proposed development.

Competent Person Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Andrew Spinks, a Competent Person, who is a Member of The Australasian Institute of Mining and Metallurgy. Andrew Spinks is employed by Kibaran Resources Limited. Mr Spinks 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 this report of the matters based on his information in the form and context that the information appears.

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JORC Code, 2012 Edition – Table 1

Section 1: Sampling Techniques and Data (Criteria in this section apply to all succeeding sections)

Criteria	Explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information*	The Epanko deposit was sampled by reverse circulation (RC) holes, diamond core drilling and trenching. Sampling is guided by Kibaran's protocols and quality assurance procedures. RC samples are collected by a riffle splitter using a face sampling hammer diameter approximately 140 mm. Diamond core (if competent) is cut using a core saw. Where the material is too soft it is left in the tray and a knife is used to quarter the core for sampling. ¼ core was collected over nominal 1 metre intervals, but with +/- variation to fit to lithological boundaries. Trenches were sampled at 1 m intervals. These intervals were speared and submitted for analyses. All samples were sent to Bureau Veritas laboratory in Rustenburg for preparation and LECO analyses. All samples are crushed using LM2 mill to –4 mm and pulverised to nominal 80% passing –75 µm.
Drilling Techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	RC drilling holes were complete at a diameter of 5 ¼" using a face sampling hammer. All RC samples were collected dry and riffle split after passing through the cyclone. Diamond hole were drilled at PQ3 diameter for the broken, weathered zones, before reducing to HQ3 for the fresh, more competent. Where possible diamond core was orientated using a Ezi-Ori tool allowing orientated structural measurements to be taken Where terrain allowed, holes we designed to hit mineralisation orthogonally.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	The RC rig sampling systems are routinely cleaned to minimize the potential for contamination. Drilling methods are focused on sample quality. Diamond drilling (triple Tubed HQ diameter core) was used to maximise sample recovery when used. The selection of RC drilling company, having a water drilling background enables far greater control on any water present in the system; ensuring wet samples were kept to a minimum. RC and Diamond holes were all assessed for the quality of samples. This data was recorded for each interval in the logging template. Sample techniques were chosen to ensure the all remained highly representative of the parent interval, for example by using a 3-tier riffle splitter. Sample quality and recovery was recorded for all intervals. No relationship exists between sample recovery and grade.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	All RC holes were geologically logged using the detailed company template, based on industry standards. All diamond holes were geological and structurally logged using the same template in addition to geotechnical logging using a separate industry standard template. Logged data is both qualitative and quantitative depending on field being logged. Core photography was also captured for every tray of diamond core.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected,*	All RC holes were geologically logged using the detail company template, based on industry standards. All diamond holes were geological and structurally logged using the same template in addition to geotechnical logging using a separate industry standard template. Logged data is both qualitative and quantitative depending on field being logged. Core photography was also captured for every tray of diamond core. Trench samples were representatively collected across each 1m interval by 3-tier riffle splitter in a dry environment where ground conditions allowed. Diamond samples were cut to ¼ core using a core saw. The same ¼ for each interval was samples throughout the length of all holes. All samples were submitted for assay. Sample preparation at the Bureau Veritas laboratory involves the original sample being dried at 80° for up to 24 hours and weighed on submission to

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Criteria	Explanation	Commentary
	including for instance results for field duplicate/second-half sampling. • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	laboratory. Crushing to nominal –4 mm. Sample is split to less than 2 kg through linear splitter and excess retained. Sample splits are weighed at a frequency of 1/20 and entered into the job results file. Pulverising is completed using LM2 mill to 90% passing –75 µm. QAQC protocols were followed, including the use of field duplicate samples to test the primary sampling step for the RC drilling along with certified reference material and blanks. Sample sizes are considered appropriate with regard to the grain size of the sampled material.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	Drill samples were sent to Bureau Veritas Rustenburg (South Africa) for preparation and assaying. The following methodology is used by Bureau Veritas for Total Graphitic Carbon (TGC) analyses. Total carbon is measured using LECO technique. The sample is combusted in the oxygen atmosphere and the IR used to measure the amount of CO_2 produced. The calibration of the LECO instrument is done by using certified reference materials. For the analysis of Graphitic Carbon, a 0.3g sample is weighed and roasted at 550°C to remove any organic carbon. The sample is then heated with diluted hydrochloric acid to remove carbonates. After cooling the sample is filtered and the residue rinsed and dried at 75°C prior to analysis by the LECO instrument. The analyses by LECO are done by total combustion of sample in the oxygen atmosphere and using IR absorption from the resulting CO_2 produced. Laboratory certificates were sent via email from the assay laboratory to Kibaran. The assay data was provided to CSA Global in the form of Microsoft Excel files and assay laboratory certificates. The files were imported into Datamine. QAQC samples are inserted at 10% frequency with Standards, Blanks and Field Duplicates evenly comprising that 10%.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	Senior Kibaran geological personnel supervised the sampling, and alternative personnel verified the sampling locations. Five RC holes were twinned with diamond drill holes. Primary data are captured on paper in the field and then re-entered into spreadsheet format by the supervising geologist, to then be loaded into the company's database. All digital logging templates contain in-built data QAQC functionality to prevent incorrect data entry. No adjustments are made to any assay data.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	Drill hole collar locations surveyed using a licensed surveyor with Differential GPS equipment. UTM Zone 37 South was the grid system used. No coordinate transformation was applied to the data. Downhole surveys were completed using Reflex Ezi-Shot tool. Data was collected via multi-shot for diamond holes and single-shot for RC. Topographic DTM was from a LIDAR survey flown in 2015.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	Spacing's are sufficient for estimation and reporting of a Mineral Resource. Drill hole locations are at a nominal 50 m (Y) by 25 m (X) spacing's. Drill lines were completed on an East-West basis. Data spacing and distribution are sufficient to establish the degree of geological and grade continuity. No compositing has been applied to exploration data.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	Most holes have been orientated towards an azimuth so as to be able intersect the graphitic mineralisation in a perpendicular manner. Drill pad accessibility has required an adjustment to drill hole orientation to a few holes. Holes were drilled at dips ranging from -50 to -90 degrees, to best intercept the targeted geology given constraints of topography and access. Varying orientation of drill holes was taken into consideration when interpreting the results.
Sample security	• *The measures taken to ensure sample security.*	Samples were stored at the company's secure field camp prior to dispatch to Bureau Veritas Dar es Salaam by a privately contracted transport company, who maintained security of the samples.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	Sampling procedures were independently reviewed by CSA Global as part of the preparation of the Mineral Resource estimate. Kibaran senior geological personnel reviewed sampling procedures on a regular basis. All drill hole results were collated and stored within a Microsoft Access database. A random selection of assays from the database was cross referenced against the laboratory certificates.

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Section 2: Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section)

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	The tenement is 100% owned by Kibaran's wholly owned subsidiary TanzGraphite (TZ) Limited The Epanko deposit lies within granted mining license ML548/2015.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Historical reports exist for the project area as the region was first recognised for graphite potential in 1914 and 1959. No more recent information exists.
Geology	• *Deposit type, geological setting and style of mineralisation.*	The Mahenge Project is hosted within a quartz–feldspar graphitic schist, part of a Neoproterozoic metasediment package, including marble and gneissic units. Two zones of graphitic schist have been mapped, named the Eastern Zone and the Western Zone. Mineralisation is believed to be the product of pre-existing carbonaceous sediments subjected to regional metamorphism induced by a north-south regional thrusting event. The graphitic schists contain between 3% and 25% Total Graphitic Carbon.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		Sample and drill hole coordinates are provided in market announcement previously released.

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	No high-grade cuts were considered necessary. Aggregating was made for intervals that reported over 1% TGC (Total graphitic carbon). The purpose of this is to report intervals that may be significant to future metallurgical work. There is no implication about economic significance. Intervals reporting above 8% TGC are intended to highlight a significant higher grade component of graphite; there is no implication of economic significance. No equivalents were used because they are not relevant to graphite Mineral Resource estimates.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	All drill holes have been orientated towards an azimuth so as to be able intersect the graphitic mineralisation orthogonally, where possible. Terrain constraint restricted this on occasion. All interpretation considers the orientation of the drill hole and the intercepted units. Given dip variations are mapped down hole length are reported, true width not known from the exploration results.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	See main body of Mineral Resource Report.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	Results are presented in the body of this report.

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Criteria	Explanation	Commentary
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	Field mapping was conducted early in the geological assessment of the license area to define the geological boundaries of the graphitic schist with other geological formations. Geological mapping of trenches cut across the strike of the host geological units provided important information used to compile the Mineral Resource estimate. Details of metallurgical test work are detailed in the body of this report, and in Section 3 of this Table.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	No further drilling is planned at present although geological fieldwork will continue during the next field season.

Section 3: Estimation & Reporting of Mineral Resources (Criteria listed in section 1, and where relevant in section 2, also apply to this section)

Criteria	Explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	Data used in the Mineral Resource estimate is sourced from an MS Access database, maintained by Kibaran. The data has been normalised and referential integrity between tables has been set through table relationships and key fields to ensure unique identifiers, which are consistent throughout. Relevant tables from the data base were exported to MS Excel format and converted to csv format for import into Datamine Studio RM software for use in the Mineral Resource estimate. The Kibaran database was validated by CSA Global and the database was found to be fit for purpose to support the Mineral Resource estimate. Validation of the data import include checks for overlapping intervals, missing survey data, missing assay data, missing lithological data, and missing collars. The Total Graphitic Carbon (TGC) grade was cross checked against the Total Carbon (C) grade to ensure TGC<=C.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	The Competent Person (Mineral Resources) visited site in March 2014. The RC drilling rig was in operation and the CP was able to review drilling and sampling procedures. Outcrop showing mineralisation was examined and geologically assessed. Planned drill sites were examined and assessed with respect to strike and dip of the interpreted geological model. Trenches were examined and a re-enactment of sampling procedures was presented by the Kibaran geological staff. Sample storage facilities were inspected. There were no negative outcomes from any of the above items, and all samples and geological data were deemed fit for use in the preparation of the Mineral Resource estimate.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	There is a high level of confidence in the geological interpretation, based upon lithological and structural logging of diamond drill core, and lithological logging of RC chips. Trenches cut orthogonal to the strike of the geology demonstrated the geometry of the deposit, and clearly showed graphitic mineralisation. Deposit scale geological mapping provide a geological framework for the interpretation. Geophysical models (VTEM) support the geological interpretation. Drill hole intercept logging and assay results (RC and diamond core), structural interpretations from drill core and geological logs of trenches have formed the basis for the geological interpretation. Assumptions were made on depth and strike extension of the graphitic schists, using drill hole and trench sample assays as anchor points at depth and at intervals along strike. Geological mapping also support the geological interpretation which supports the Mineral Resource estimate. No alternative interpretations were considered because the exposed geology in outcrop supports the current interpretation. Graphitic mineralisation is hosted within graphitic schist, which is mapped along its strike within the license area. Total graphitic carbon is assumed to be likewise continuous with the host rock unit. Metallurgical characteristics, principally flake size, has been observed to be of a consistent nature when observed in outcrop, trench exposure and diamond drill core at numerous locations within the license area. The graphitic schist is open along strike and down dip in Epanko West. The Epanko East deposit is interpreted to be a recumbent fold, open along strike to the north and south. A sub-vertical shear zone offsets the stratigraphy down dip along the lower fold limb. The TGC mineralisation domains are contained within the graphitic schist lithological domain.

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Criteria	Explanation	Commentary
		Weathering domains representing oxide, transitional and fresh were modelled and were used during grade interpolation to constrain grade interpolation, and were allocated different density values. Lithological domains representing schists, gneisses and marble were interpreted and modelled. Major structural features, mainly sub-vertical shears and faults, were modelled and used to assess drill data during preparation of the Mineral Resource estimate.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The Epanko West Mineral Resource estimate is approximately 2,150 m in strike, 250 m in plan width and reaches 450 m depth below surface. The Epanko East Mineral Resource is approximately 320 m in strike, 400 m in plan width and reaches 160 m depth below surface.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	The geological models were interpreted and prepared by Kibaran using Surpac software. Datamine Studio RM software was used for block modelling, grade interpolation, mineral resource classification and reporting. GeoAccess Professional and Snowden Supervisor were used for geostatistical analyses of data. The TGC domain is coincident with the graphitic schist lithological domain, and is based upon a nominal 3% lower TGC cut-off grade. The graphitic schist interpretations were based upon geological interpretations of mineralised outcrop and trenches and logging of diamond drill core and RC chips. The Mineral Resource model consists of 3 domains of TGC mineralisation, with 1 domain in the Western Zone and 2 zones in the Eastern Zone. Mineralisation domains were encapsulated by means of 3D wireframed envelopes. Domains were extrapolated along strike or down plunge to half section spacing or if a barren hole cut the plunge extension before this limit. Top cuts were not used to constrain extreme grade values because the TGC grade distribution did not warrant their use. All samples were composited to 1 m intervals, following a review of sample length distribution that most sample lengths were 1m. All drill hole data (RC and Diamond) and trench assays were utilised in the grade interpolation. A twin drilling programme confirmed the RC drill holes could be used with the diamond core samples as part of the grade interpolation. A statistical study of the trench assay data demonstrated a slightly higher grade TGC population to the conventional drilling sample assay results, and a decision was made to limit the influence of the trench sample data to the Oxide weathering zone. Two block models were prepared, for the Epanko West and Epanko East zones, with parent cell sizes 10 m E x 25 m N x 20 m RL for each, compared to typical drill spacing of 25 m x 50 m in the well drilled areas. Grade estimation was by Ordinary Kriging (OK), and Inverse Distance Squared (IDS) estimation was concurrently run as a check estimate. The composited drill sample data were statistically analysed, examining the relationship between TGC and weathering profiles, hole types, and structural domains. A variography study was also carried out examining the influence of structural domains (principally the impact of the D2 faults in the Western Zone). Within the oxide domain there was a population difference noted, but no discernible population differences were noted in the fresh rock domain. Variogram models present a very low relative nugget effect (<15%) for the Western and Eastern zones, with ranges typically between 90m and 170m. Short ranges at the first sill were also modelled. Due to the low nugget effect, a low number of samples were required for grade interpolation, with a minimum of 4 and maximum of 12 composited samples were used in any one block estimate for the Western and Eastern Zones. A maximum of 5 composited samples per drill hole were used in any one block estimate. Cell Discretisation of 5 x 5 x 5 was used. Grade interpolation was run within the individual mineralisation domains (Epanko East), acting as hard boundaries. The Base of Complete Oxidation acted as a hard boundary for both Western and Eastern deposits. The current Mineral Resource was checked against the previously reported Mineral Resource (June 2015) and showed an increase in global tonnage, with a 41% increase in Measured and Indicated tonnes, but with negligible change in TGC % grade. The stability of the TGC grade following more drilling demonstrates the low variability of TGC within the host units. No depletion of the Mineral Resource due to mining activity was required due to no mining having occurred historically. The Mineral Resource was truncated at Northing 9,037,320 m N (UTM37S), this being the northern boundary of the license area. No by products were modelled. No selective mining units were assumed in this model. The grade model was validated by 1) creating slices of the model and

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Criteria	Explanation	Commentary
		comparing to drill holes on the same slice; 2) swath plots comparing average block grades with average sample grades on nominated easting, northing and RL slices; and 3) mean grades per domain for estimated blocks and flagged drill hole samples. Each validation step complemented the others. The Mineral Resource estimation process was peer reviewed within CSA Global. Kibaran reported (13 April 2016) the results from 200 tonne bulk samples from the Western and Eastern Zones, with both samples reconciling favourably with the local estimated block grades.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages are estimated on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	A reporting cut-off grade of 8% TGC is used to report the Mineral Resource. A series of grade tonnage reports were prepared for Kibaran and an example presented in the body of this announcement.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	It is assumed the deposit, if mined, will be developed using open pit mining methods. Geotechnical drilling, logging and rock strength and shear strength analyses have completed. Preliminary wall angles have been recommended for use in the pit optimisations. Wall angles will be review by the Mining and geotechnical consultants prior to the mine planning and scheduling stages.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	During 2016-2017 a series of comminution and flotation tests have been conducted on composite samples selected from the oxide, transition and primary zones of both deposits. These have been done at a range of grades between 5%TGC and 8.9%TGC to determine whether there is any variability of recovery to concentrate in the weathering zones of each deposit. In addition two locked cycle tests are in progress to determine ultimate recoveries from the East and West fresh material. Batch variability flotation testwork was completed. The recovered flake graphite is clean, with no visible natural mineral impurities. The graphite concentrate is amenable to standard metallurgical recovery processes. The recovered product is considered marketable, with a binding offtake and partnership agreements with several European and Japanese graphite trader.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	Preliminary designs for a valley fill tails dam and waste dumps with a life of up to 19 years have been produced Epanko is located in a sub-equatorial region of Tanzania and is subject to heavy seasonal rainfall, with rapid growth of vegetation in season. A strategy for both subsurface, surface water and decant water management has been prepared for the BFS study.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	Density was calculated using wet immersion techniques, conducted both by analytical laboratories and by Kibaran field staff. Significant additional testwork has been conducted since the previous Mineral Resource estimate was announced. Particularly in the Eastern Zone fresh material which was previously not identified. The Epanko West density database is based upon 267 diamond core samples, and Epanko East based upon 25 diamond core samples, with samples wax coated prior to immersion in a water bath. Density samples were loaded into Datamine drill hole files and flagged against lithological, mineralisation, weathering and structural domains. A statistical study resulted in assignment of mean density values according to lithology and weathering. Density values of 1.92 t/m3, 2.33 t/m3 and 2.84 t/m3 were applied to the oxide, transitional and fresh weathering domains respectively for the Mineral Resource located in the Western Zone. Density

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Criteria	Explanation	Commentary
		values of 1.76 t/m3, 2.43 t/m3and 2.79 t/m3 were applied to the oxide, transitional and fresh weathering domains respectively for the graphitic schist domain in the Eastern Zone.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	Classification of the Mineral Resource estimates was carried out taking into account the geological understanding of the deposit, quality of the sample data, quality of the local block estimates, quality of density data, and drill hole spacing. Metallurgical results related to flake size and sample purity, as well as marketing agreements in place supported the classification, as per Clause 49 (JORC 2012). The Mineral Resource is classified as Measured, Indicated and Inferred, with geological evidence sufficient to confirm geological and grade (and quality) continuity within the Measured volumes, between points of observation where data and samples are gathered. The Indicated classification level was applied to the volumes where geological evidence is sufficient to assume geological, grade and quality continuity. The Inferred classification level was applied to the volumes where geological evidence is sufficient to imply but not verify geological, grade and quality continuity. Mineral Resource classification was carried out by stepping through both the West and East models, and creating 3D wireframe surfaces constraining the resource classification levels (Western Zone) or by applying northing and easting limits (Eastern Zone). Weathering profiles also controlled the classification, with the oxide weathering zone generally classified at the same or higher level to the adjacent blocks in transitional and fresh zones, due to high confidence in the geological continuity of graphitic schist as observed in outcrop and from trench data. All available data was assessed and the competent person's relative confidence in the data was used to assist in the classification of the Mineral Resource. The current classification assignment appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	An independent due diligence review of the current Mineral Resource is being undertaken at the time of preparation of this announcement.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource 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 resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that 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.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	An inverse distance estimation algorithm was used in parallel with the ordinary kriging interpolation. Results were very similar between the methods. No other estimation method or geostatistical analysis has been performed. The Mineral Resource is a local estimate, whereby the drill hole data was geologically domained, resulting in fewer drill hole samples to interpolate the block model than the complete drill hole dataset, which would comprise a global estimate. Relevant tonnages and grade above nominated cut-off grades for TGC are provided in the body of this report. Tonnages were calculated by filtering all blocks above the cut-off grade and sub-setting the resultant data into bins by mineralisation domain. The volumes of all the collated blocks were multiplied by the dry density value to derive the tonnages. The graphite metal values (g) for each block were calculated by multiplying the TGC grades (%) by the block tonnage. The total sum of all metal for the deposit for the filtered blocks was divided by 100 to derive the reportable tonnages of graphite metal. No production data is available to reconcile results with, apart from bulk sample results discussed earlier.

Section 4: Estimating & Reporting of Ore Reserve

Criteria	Explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	The JORC 2012 compliant Mineral Resource models for the Epanko deposits have been developed by CSA Global and Associates and the Ore Reserve has been determined based on these models. The stated Mineral Resource is inclusive of the Ore Reserve.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	A site visit was not undertaken by the Competent Person as a site visit would not materially affect the determination of the Reserve. The Competent Person has relied on reports from other independent consultants and site surveys in determining the viability of the Reserve.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.*	Studies undertaken and the modifying factors applied to enable the Mineral Resource to be converted to an Ore Reserve are based on a Bankable Feasibility level estimation of costs, modifying factors and parameters that

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Criteria	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.*	the resulting mine plan is technically achievable and economic.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	The cut-off grade applied is based on the profitability of the resource block after modifying factors and the metallurgical and mass recovery are applied to the insitu tgc grade. The nominal cut-off grade for processing is around 2.6% tgc. However to maintain concentrate output a raised cut-off grade of 6.25% tgc for the Western zone and 4% tgc for the Eastern zone has been applied to ensure the concentrate production target of 60kt per year is achieved within the plant limit of 720kt per year.
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).* • *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.* • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	Mining dilution and ore loss factors were applied based on weathering and the expected influence of blasting in these profiles. The mineralisation zones consisting of graphitic schist are up to 75m wide in the Eastern and Western zones Geotechnical parameters applied to the designs are based on investigations by George Orr and Associates. The detailed mine designs have been reviewed by George Orr and Associates. Installation of hydraulic monitoring and depressurisation bores with ongoing geotechnical review will be required to ensure the long term stability of final walls. Minimum mining widths have been considered in the Western pit design. The optimisation was undertaken using only the Measured and Indicated resource classifications. Inferred resource has been treated as waste. The Ore Reserve has been determined constrained by the detailed pit designs. The mining infrastructure will consist of the contractor laydown, offices and workshops with haulage roads to access the top of the eastern and western mining areas. All waste will be used in the TSF construction. A low grade dump will be constructed over the life of mine. Infrastructure is not detrimental in determining the Reserve.
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.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	Processing will consist of a grinding, flotation and concentrator to produce a high quality graphite concentrate. The process is a proven method for the extraction of the graphene to a concentrate. Metallurgical factors applied by weathering and zone based on testing undertaken by IMO in conjunction with GRES. During 2016-2017 a series of comminution and flotation tests have been conducted on composite samples selected from the oxide, transition and primary zones of both deposits. These have been done at a range of grades between 5%TGC and 8.9%TGC to determine whether there is any variability of recovery to concentrate in the weathering zones of each deposit. In addition, two locked cycle tests were completed to determine ultimate recoveries from the East and West fresh material. The recovered flake graphite is clean, with no visible natural mineral impurities. The graphite concentrate is amenable to standard metallurgical recovery processes. The recovered product is considered marketable, with a binding offtake and partnership agreements with several European and Japanese graphite traders.
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	Environmental and social management plans have been implemented An Environmental certificate has been received Designs for a valley fill TSF years have been completed by Knights Piésold for the processing life of 19 years. The deposit is located within and surrounding the area of the Epanko village farming area, and Kibaran are holding ongoing discussions with local landholders and community groups to keep them well informed of the status and future planned directions of the project.

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Criteria	Explanation	Commentary
		Relocation discussions for the families directly impacted by the project are well advanced. Epanko is located in a sub-equatorial region of Tanzania and is subject to heavy seasonal rainfall, with rapid growth of vegetation in season. A strategy for both subsurface, surface water and decant water management has been prepared for the Bankable Feasibility Study. Acid forming waste rock occurs in both zones. As all waste rock will be required for the construction of the TSF measures will be taken to encapsulate it within the construction of the TSF.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	Land acquisition, purchase and rental agreements for the areas affected by mining and siting of process plant and infrastructure are currently being finalised through the RAP process. The concentrate will be transported by a public access road to be upgraded before connecting to the main road network at Mahenge. Labour and accommodation for the majority of the workforce will be available in the major regional centre of Mahenge. The camp is being built on site for senior staff.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* • *The allowances made for royalties payable, both Government and private.*	Mine operating costs are based on haulage distances and monthly total movement targets that were used in unit cost estimation by contractor MCC Mining from South Africa. Mine administration and ancillary costs have been based on current market levels. Processing costs include allowances for crushing, beneficiation, processing, administration and transport. These costs have been costed by GRES. Deleterious elements are not a factor. All quotes are in US dollars. Quotes for transport and port handling have been used. Royalties have been included as government takes 3.3% value of saleable concentrate.
Revenue factors	• *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.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	The concentrate price of is based on a basket price as determined by the percentage of size fractions of the concentrate product was applied in the Reserve determination.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the 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.*	In accordance with Clause 49 of the JORC Code (2012), the product specifications and general product marketability were considered in order to support the Mineral Resource Estimate for Industrial Minerals. The following metallurgical characteristics are considered exceptional and provide Epanko with significant competitive and commercial advantages: The expansion rates for Jumbo (+50 mesh) flake is 490 ml/g which is up to 30% higher than graphite produced in China. An ultra-high purity of 99.98% Carbon is achievable. The ash melting point of 1,305°C is up to 150°C higher than graphite produced in China. The resource has a very low percentage of fine flake (< 75 micron), with only 15.8% reporting to this size fraction. The extremely high percentage of large flake provides higher basket prices and revenue from sales. Test work has confirmed the graphite mineralisation is suitable for the 'expanded' and 'spherical' battery market and has no limitations on its uses.
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.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs*.	The Reserve estimate is based on inputs from open cut operations, processing, transportation, capital and contingencies to generate a life of mine financial model. Economic inputs have been sourced from contractors and suppliers. The NPV has been calculated using a discount rate of 10%. Inflation has not been included in the optimisation. The NPV of the project is positive at the commodity price used. The sensitivity of the market price is a driving factor of the projects viability. Sensitivities of +/- 10% were assessed.
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	Kibaran has engaged in local stakeholder negotiation and was covered as part of the ESIA certificate the company received.
Other	• *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.*	No natural occurring risks have been identified at this stage that will affect the project operation. A formal process to mitigate risks will be completed prior to project implementation. A mining licence over the mine area has been granted. ML 548/2015.

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Criteria	Explanation	Commentary
	• *The status of material legal agreements and marketing arrangements.* • *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.*	
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	Only Measured and Indicated Resource within the LOM designs have all been converted respectively to a Proven and Probable Ore Reserve. No Probable ore reserve has been derived from a Measured Mineral Resource. No Inferred Resource has been considered or included in the Reserve. The result appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	An independent due diligence review of the current Reserve is being undertaken at the time of preparation of this announcement The Reserve estimate has been reviewed internally by Kibaran personnel and is considered to appropriately reflect the results of the application of the modifying factors to the Mineral Resource.
Discussion of relative accuracy/ confidence	• *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 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*.	The design, schedule and financial model on which the Ore Reserve is based has been completed to a feasibility standard. A degree of uncertainty is associated with geological estimates and the Reserve classification reflects the level of confidence in the Resource. Modifying mining factors, revenue prices, geotechnical and processing parameters are of a confidence level reflecting the level of the study and the Reserve estimate would remain economically viable with any negative impacts applied to the factors or parameters.

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