31 July 2017 **ASX Announcement**

JUNE 2017 QUARTERLY ACTIVITIES REPORT

Updated Feasibility Study catalyst for Debt Financing for Epanko Graphite Project

Quarterly Highlights

- **Updated 60ktpa Bankable Feasibility Study completed on Epanko Graphite Project**
- **Study found Epanko will be economically and technically robust**
- **Bank-appointed Independent Engineers SRK Consulting confirmed all technical areas of the project conform to the requirements of international project financing standards**
- **Commencement of debt financing discussions with German, South African and Australian financial institutions**
- **Testwork confirms ability to produce a higher grade graphite product of 99% carbon from fresh ore with no additional milling or cleaning stages**
- **Negotiations in progress with leading German industry groups for sale of downstream processed products**
- **Feasibility Study on production of battery-grade spherical graphite set to be completed this quarter**
- **Appointment of Mr Nicholas Katris as Company Secretary**

Activities Subsequent to Quarter end include:

- **Tanzanian Government passed a number of amendments to legislation governing the natural resources sector**
- **Appointment of Mr Howard Rae as Chief Financial Officer and joint Company Secretary, appointment to bolster project financing capabilities**
- **Cash on hand at 30 June of A$2.1m with R&D cash refund of A$0.96m received 10 July**

EPANKO GRAPHITE PROJECT – TANZANIA (100% Kibaran)

Kibaran Resources Limited ("**Kibaran**" or the "**Company**") (ASX: KNL), is pleased to report on another quarter of strong progress as the Company advances its Epanko Graphite Project ("Epanko") in Tanzania towards a decision to mine.

The completion during the quarter of the Updated Bankable Feasibility Study ("BFS") (*refer to ASX announcement 21 June 2017)* based on an expanded 60,000tpa production profile was another major milestone for the Company and is a key catalyst to advance debt financing for Epanko.

The decision to increase the production profile in the BFS by 50 per cent was taken in response to the growing demand for Epanko graphite.

The key results of the BFS were:

- 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
- Payback Period of 3.4 years

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The BFS, which incorporated conservative design parameters, was subjected to a rigorous due diligence process by bank-appointed Independent Engineers SRK Consulting (UK) Limited ("SRK Consulting"). SRK Consulting confirmed that all technical areas had been significantly advanced to satisfy the requirements of international project financing standards. The BFS also includes Environmental and Social Management Planning programs, together with supporting impact assessments, that all conform with Tanzanian legislation, International Finance Corporation ("IFC") Performance Standards and World Bank Group Environmental Health and Safety Guidelines.

As a result of the positive outcome of SRK's due-diligence process, the Company has initiated a debt financing program to determine the optimum structure, quantum and terms of the debt facilities. During the quarter Kibaran commenced discussions with Germany's KfW IPEX-Bank, South Africa's Nedbank Limited (acting through its Corporate & Investment Banking Division, Nedbank CIB) and Australia's Export Finance and Insurance Corporation to enable the Company to develop a multi-party debt solution for Epanko.

In addition to the debt program, discussions have also commenced with a number of strategic equity investors, including industry participants and private equity groups, who have expressed interest in participating in the Epanko development. The Company is advancing these discussions in parallel with the debt financing process to determine the final project debt and equity funding structure.

Subsequent to the end of the quarter, the Tanzanian Government passed a number of amendments to legislation governing the natural resources sector (*refer to ASX Announcements 5 & 12 July 2017*). Although the majority of changes are unlikely to impact the proposed development of Epanko and are directed towards the mining and export of precious metals and metals concentrates, Kibaran is presently awaiting the release of more detailed regulations, specifically in relation to the structuring of international finance arrangements and potential Government participation in the Tanzanian minerals sector.

Announcements in recent weeks indicate that the focus of the changes are existing arrangements governing the export of precious metals and that the Tanzanian Government remains supportive of new investment, such as the US$345m World Bank Group participation in the expansion of port facilities in Dar es Salaam.

Capital and Operating Costs

Results from the BFS highlighted an improved capital efficiency with a 24% reduction in capital intensity from US$1,937/t to US$1,482/t of product. The capital cost estimate was re-quoted to 2017 market prices.

The study estimated a C1 FOB cost of US$500/t and an All-In Sustaining Cost (AISC) of US$572/t, significantly lower than the estimate produced by the July 2015 study (C1 FOB US$570/t, AISC US$622/t). This is primarily due to lower costs arising from accessing grid power after 2019 and increased ore throughput.

Mining costs have been based on a contractor mining scenario, with lower costs resulting from an improved strip ratio compared to the figures used in the previous study (0.4 versus 1:1 waste to ore).

The following tables compare the Pre-production Capital Costs and Operating Costs for Epanko resulting from the recently completed BFS with the July 2015 study.

Table 1: 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
Owner's Cost	7.6	1.9
Total	**88.9**	**77.5**

Table 2: 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).*

The key operating outcomes for Epanko are contained in the following table:

Table 3: 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

Ore Reserve Statement

The estimated Proven and Probable Ore Reserve as part of the upgraded BFS was based on and inclusive of the Measured and Indicated Mineral Resource. A 5% cut-off grade was reported due to a reduction in the economic cut-off grade determined in the BFS.

The updated Ore Reserve of 11.7Mt grading 8.32% TGC for 971Kt graphite supports the 60ktpa production rate for an 18 year LOM.

Table 4: 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**

Mineral Resource Estimate

The Mineral Resource Estimate for Epanko was upgraded in the previous quarter (*refer to ASX announcement 31 March 2017*). The upgraded Mineral Resource Estimate delivered a significant 40% increase to the previous reported estimate in 2015.

Table 5: March 2017 - Mineral Resource Estimate for the Epanko Deposit > 8% TGC

JORC Classification	Tonnage (Mt)	Grade (% TGC)	Contained Graphite (t)
Measured	7.5	9.8	738,900
Indicated	12.8	10.0	1,280,000
Inferred	10.4	9.9	1,030,600
Total	**30.7**	**9.9**	**3,049,500**

Notes for Tables 4 & 5: Tonnage figures contained within Table 4 have been rounded to nearest 100,000. % TGC grades in Table 5 are rounded to 1 decimal figure. Abbreviations used: Mt = 1,000,000 tonnes. Rounding errors may occur.

Social & Environmental

Complying with the IFC Environmental & Social Performance Standards and the Equator Principles builds on the Company's commitment to ensure global best practice in community relations and environmental management. The environmental and social program conducted to comply with these requirements was assisted by UK based Zyl Consulting. The program consisted of an intensive on-ground process and environmental review and social engagement, which involved the Company's in-house social development and community relations team. Experienced resettlement, social and environmental professionals such as independent valuers, surveyors, planners, architects and engineers were also involved in the program.

In addition to the Company's Resettlement Policy Framework and Social Engagement Plan, a comprehensive environmental and social strategy has been developed, all in accordance with the Equator Principles.

The Relocation Action Plan has progressed significantly and is nearing completion.

Production of Battery Grade Graphite

Kibaran is currently finalising the Feasibility Study on the production of battery-grade spherical graphite. The study is due to be finished this quarter and is based on a staged integration with the ramp–up of graphite production at Epanko. The initial results support the Company's strategy to become a key participant in the supply chain for the growing lithium-ion battery market.

A plan to adopt a modular process route enables the Company to progressively increase the production of spherical graphite products to meet market demand.

MERELANI-ARUSHA GRAPHITE PROJECT – TANZANIA (100% Kibaran)

The Merelani-Arusha Graphite Project, located in Tanzania, provides the Company with a potential second source of graphite production.

No activity was undertaken on the Merelani-Arusha Graphite Project, however the process work undertaken in the Epanko Graphite Project Feasibility Study, coupled with the upgrade of the Merelani East resource and its metallurgical characteristics, will provide the foundation for a future Pre-Feasibility Study on Merelani East.

CORPORATE

Capital Structure & Cash Position

The Company's summarised capital structure as at 30 June 2017 is as follows:

Cash at Bank:	A$2,078,730
Issued Fully Paid Ordinary Shares:	243,202,394
Unlisted Options:	
• Exercisable at $0.174 expiring 26 October 2017	1,050,000
• Exercisable at $0.40 expiring 29 October 2017	4,000,000
• Exercisable at $0.30 expiring 31 December 2018	1,000,000
• Exercisable at $0.228 expiring 2 June 2019	1,000,000
• Exercisable at $0.23 expiring 6 March 2020	1,050,000

Research & Development Cash Refunds

In addition to the cash balance above, subsequent to the end of the quarter, an amount of A$963,000 was received by the Company (*refer to ASX announcement 12 July 2017)* relating to its expenditures on research and development activities for the financial year ended 30 June 2016. The submission in relation to the year ended 30 June 2017 is well advanced and is expected to result in a similar cash refund in coming months.

These amounts, together with existing cash deposits, are forecast to provide the Company with sufficient cash reserves to undertake its planned Project debt and equity financing program.

Company Secretary

The Company appointed Mr Nicholas Katris as Company Secretary on 22 June 2017. Mr Katris is a qualified Chartered Accountant with over 10 years' of accounting and finance experience working with ASX listed mining and resource companies.

Chief Financial Officer

Following the successful delivery of the Bankable Feasibility Study, Mr Howard Rae has been appointed as Chief Financial Officer to assist the Company execute the debt and equity financing plan for the Epanko Graphite Project (*refer to ASX announcement 18 July 2017*). Mr Rae is a Chartered Accountant with over 20 years' experience across the resources industry in Australia, Asia and Africa, focussing on business development and financing new mining operations.

He has also been appointed as a joint Company Secretary with Mr Katris.

Mr Robert Hodby has resigned from his position as Chief Financial Officer and will provide consulting services to the Company until December 2017.

SCHEDULE OF TENEMENTS

Pursuant to ASX Listing Rule 5.3.3 the Company reports as follows in relation to mining tenements held at the end of the quarter and acquired or disposed of during the quarter, together with their location.

Ministry ID	Area (sq. km)	Project Location
ML 548/2015	9.62	Mahenge
PL 7906/2012	59.24	Merelani-Arusha
PL 7907/2012	26.42	Merelani-Arusha
PL 7915/2012	41.47	Merelani-Arusha
PL 9306/2013	35.31	Mahenge
PL 9331/2013	2.76	Mahenge
PL 9537/2014	84.00	Tanga
PL 10090/2014	44.88	Merelani-Arusha
PL 10091/2014	114.22	Merelani-Arusha
PL 10092/2014	23.23	Merelani-Arusha
PL 10388/2014	2.57	Mahenge
PL 10390/2014	2.81	Mahenge
PL 10394/2014	9.74	Mahenge
PL 10752/2016	23.45	Mahenge
PL 10868/2016	72.82	Merelani-Arusha
PL 10869/2016	29.95	Merelani-Arusha
PL 10872/2016	2.6	Merelani-Arusha
PL 10972/2016	3.83	Mahenge
PL 11081/2017	2.08	Merelani-Arusha
PL 11082/2017	20.77	Merelani-Arusha
PL 11083/2017	50.73	Merelani-Arusha

Number disposed during the quarter: Nil

Number acquired during the quarter: Two
PL 9306/2013 & PL 9331/2013

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.

Forward Looking Statement

This announcement may contain some references to forecasts, estimates, assumptions and other forward-looking statements. Although the Company believes that its expectations, estimates and forecast outcomes are based on reasonable assumptions, it can give no assurance that they will be achieved. They may be affected by a variety of variables and changes in underlying assumptions that are subject to risk factors associated with the nature of the business, which could cause actual results to differ materially from those expressed herein. All references to dollars ($) and cents in this announcement are to Australian currency, unless otherwise stated.

Investors should make and rely upon their own enquiries before deciding to acquire or deal in the Company's securities.

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.*	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

Criteria	Explanation	Commentary
	• *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, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	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 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*	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.

Criteria	Explanation	Commentary
	Resource and Ore Reserve estimation procedure(s) and classifications applied. • *Whether sample compositing has been applied.*	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.

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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth*	Sample and drill hole coordinates are provided in market announcement previously released.

Criteria	Explanation	Commentary
	o *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.*	
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.
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. 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.

Criteria	Explanation	Commentary
		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

Criteria	Explanation	Commentary
		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 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*	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.

Criteria	Explanation	Commentary
	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.	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 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*	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.

Criteria	Explanation	Commentary
	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.*	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.* • *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.*	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 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*	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.

Criteria	Explanation	Commentary
	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.*	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. 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*	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.

Criteria	Explanation	Commentary
	commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	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^{o}C is up to 150^{o}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.

Criteria	Explanation	Commentary
		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.* • *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.*	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.
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.