

## Maiden JORC Mineral Resource for Epanko Prospect

### Resource estimate exceeds expectations

#### HIGHLIGHTS:

- Inferred JORC Mineral Resource estimated at 14.9Mt, grading 10.5% TGC, for 1,560,000t of contained graphite
- JORC Resource estimate exceeds internal expectations
- Grade exceeds all known current and historic graphite Mineral Resources in Tanzania
- Resource estimate covers only a small footprint within the 100% owned KNL Epanko prospect – significant potential exists for Resource growth as mineralisation remains open
- Resource provides sound technical basis for commissioning a Scoping Study
- Subject to the terms of reference, the Epanko prospect could support an initial operation producing 20,000t per annum of high-grade flake graphite.

**Kibaran Resources Limited (ASX: KNL) is pleased to announce that a Maiden Inferred JORC Mineral Resource has been estimated for the Epanko Prospect – a key graphite target within the Mahenge Graphite Project in Tanzania, Africa. Measuring 14.9 million tonnes (Mt), grading 10.5 % Total Graphitic Carbon (TGC), for 1,560,000t of contained graphite, the Mineral Resource estimate has outperformed internal expectations.**

The Mineral Resource estimate was carried out by CSA Global Pty Ltd, an independent and internationally recognised mineral industry consultancy group, and was based on data sets compiled through drilling, trenching and other geological activity. Further, the Mineral Resource estimate has been classified in accordance with the JORC (2004) Code (Refer Table 1 below).

The maiden Mineral Resource estimate now provides Kibaran with a sound technical basis to advance the Epanko Prospect towards Scoping Study stage.

**Table 1 – Mineral Resource Estimate**

Mineral Resource Classification	Tonnage (Mt)	Grade (%TGC)	Contained Graphite (t)
Inferred	14.9	10.5	1,560,000

**Notes for table 1:**

- Tonnage figures contained within Table 1 have been rounded to nearest 1000. % TGC grades are rounded to 1 decimal figure.
- The Mineral Resource is quoted from blocks where the TGC (%) grade is greater than 8%.
- Abbreviations used: Mt = 1,000,000 tonnes

The Directors of Kibaran are extremely pleased with the result, as it has far exceeded internal expectations.

The Company believes that the Mineral Resource estimate is the highest grade graphite resource yet to be delineated in Tanzania. Furthermore, the prospect appears to be either comparable or better than other past graphite producing operations in the East African region. Notable comparisons include:

- Tanzania: 8.3% TGC from the Merelani Tanzania Mine
- Mozambique: 9.5% TGC from the Ancuabe Mine

Importantly, the Mineral Resource estimate represents only a very small footprint (20%) of the known Epanko project area. As mineralisation remains open in all directions, there is significant potential for further Resource growth. Recent trenching activity has supported this potential. Trenching assays released 13 May 2013 found that near-surface mineralisation extends north along strike, a further 500 metres than what was previously defined. (Refer Figure 1).

In addition, the results support the conceptual Exploration Target for the Epanko Prospect announced during the previous quarter.

CSA Global estimated an Exploration Target between 60Mt-110Mt graphitic schist, grading between 8.0% and 11.0% TGC.

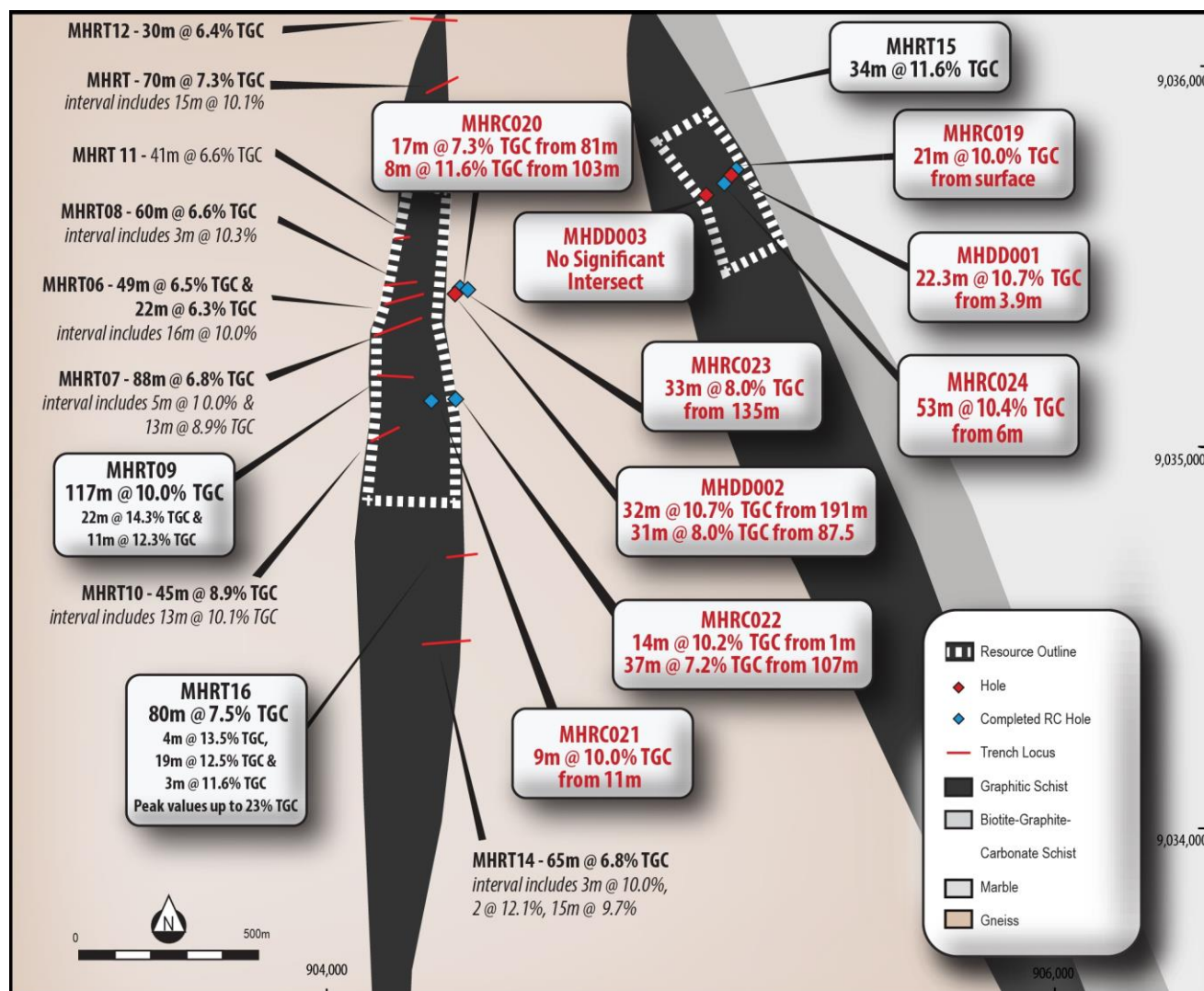


Figure 1 – Epanko Deposit showing the area of the Mineral Resource estimate footprint.

### MINERAL RESOURCE ESTIMATE

Mineral Resource modelling for the Epanko Prospect was undertaken by CSA Global Pty Ltd (“CSA”), an independent and internationally recognised mining and resource consultancy group. Modelling was based on information compiled by Kibaran’s geologists and included geological and drilling data derived from six Reverse Circulation (RC) drill holes and three diamond drill holes. The deposit comprises an Eastern Zone and a Western Zone of mineralisation. Both zones have been mapped at surface from natural outcrop. The Resource estimate is also supported by the significant amount of trenching activity that has been carried out across the strike of both zones. Trenching has demonstrated both grade and strike continuity outside the resource limits.

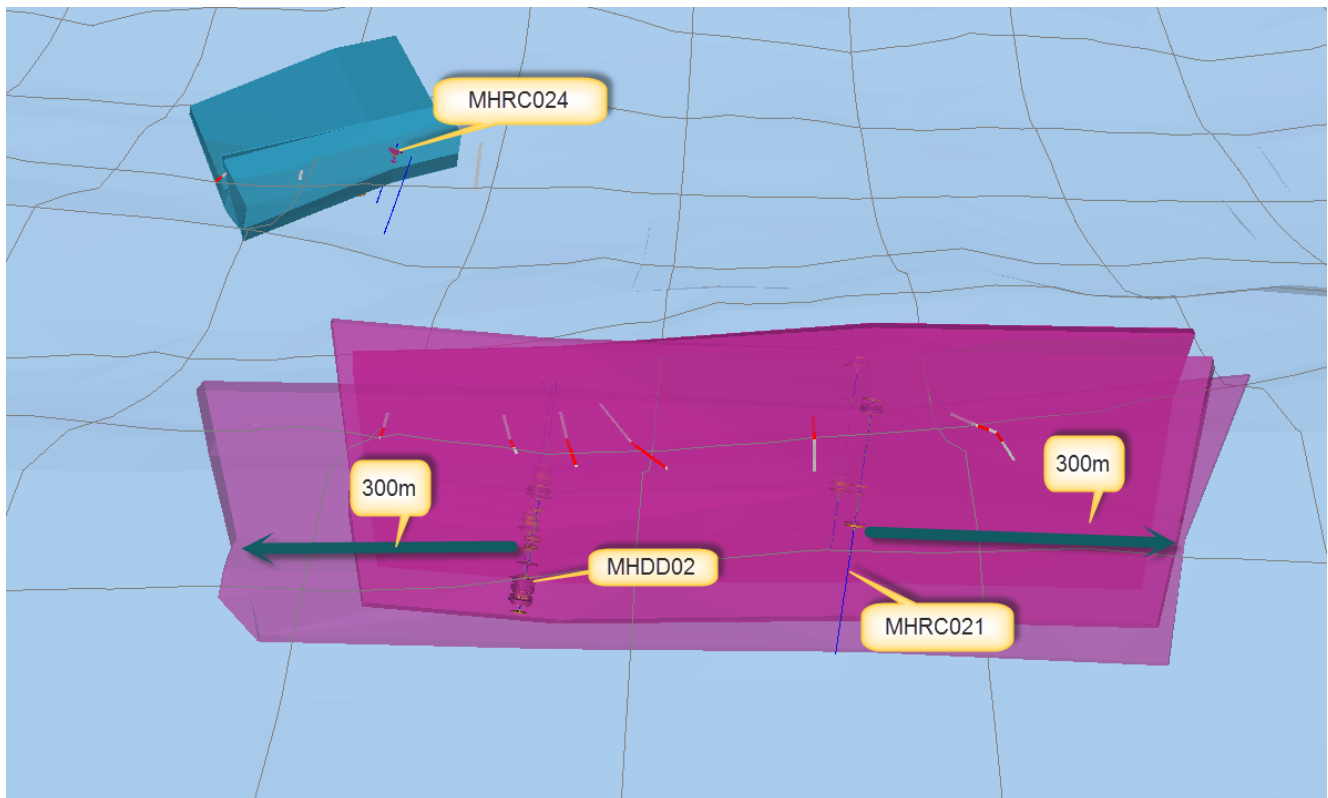
The Western Zone lodges have a strike length of 800 to 900 metres, while the Eastern Zone has a strike length of 300 metres. The down dip extent of Western Zone is 50 metres below the deepest mineralisation intercept. The Western Zone was extrapolated along strike beyond the two lines of drilling by a distance of 300m to the

north and south. Up to two thirds of the total Mineral Resource in the Western Zone is contained within the extrapolated volumes, as demonstrated in Figure 2. The extrapolation of the Mineral Resource away from the drill fences is based upon the mapped occurrence of graphitic mineralisation within trenches, excavated across the strike of the mineralisation, up to 700m to the north and south of the Mineral Resource domains.

The Western Zone exhibits steeply dipping stratigraphy (80° East), while the Eastern Zone has more moderate dips (30° west). The graphitic mineralisation is open at depth in both zones.

3D modelling of the Epanko graphite mineralisation was undertaken by CSA and block grades were estimated using Ordinary Kriging.

A density value of 2.58t/m<sup>3</sup> was applied to the Mineral Resource, based upon density measurements from samples sourced from several of the trenches. Drill samples were assayed by a reputable independent assay laboratory in South Africa.



**Figure 2** – Longitudinal view, looking to East. Mineralised trenches used to guide continuity along strike are clipped from diagram, to north and south.

## SCOPING STUDY

The Mineral Resource estimate will now underpin a Scoping Study which will assess the potential viability for the Epanko Prospect. Subject to the terms of reference for the study, Epanko prospect could support an initial operation producing 20,000 tonnes per annum (tpa) of high-grade flake graphite, but more importantly could support increased production as future demand for graphite rises.

The Company now awaits results from its metallurgical programs it has under way, as reported on 7 May 2013 and will provide updates as results are received.

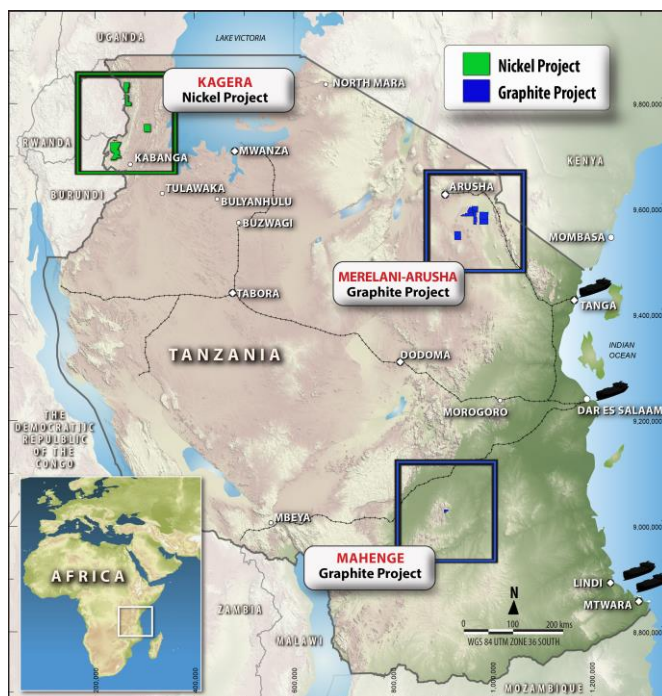
**ABOUT KIBARAN RESOURCES LIMITED**

*Kibaran Resources Limited (ASX: KNL or “Kibaran”) is an ASX-listed exploration company with highly prospective graphite and nickel projects located in Tanzania.*

*The Company acquired the rights to the Mahenge and Merelani-Arusha Projects which are considered to be highly prospective for commercial graphite.*

*Graphite is regarded as a critical material for future global industrial growth, destined for industrial and technology applications including nuclear reactors, lithium-ion battery manufacturing and a source of graphene.*

*In addition, the Kagera Nickel Project remains underexplored and is located along strike of the Kabanga nickel deposit, owned by Xstrata, which is considered to be the largest undeveloped, high grade nickel sulphide deposit in the world.*



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The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Andrew Spinks, who is a Member of The Australasian Institute of Mining and Metallurgy included in a list promulgated by the ASX from time to time. Andrew Spinks is a director of Kibaran Resources Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 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 Exploration Results and Mineral Resources is based on information compiled by Mr David Williams, who is a Member of The Australasian Institute of Mining and Metallurgy included in a list promulgated by the ASX from time to time. David Williams is employed by CSA Global Pty Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 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.

Information that relates to exploration and production targets refers to targets that are conceptual in nature, where there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.