

Company Announcements Office  
Australian Securities Exchange

27 November 2014

(ASX Code GRK)

## Wide graphite zones from Cascade and a new graphite mineralised zone at Kituti

### Highlights

#### CASCADE PROSPECT

- Green Rock is pleased to report recent trenching results from its current exploration programme at the Cascade area, Mahenge
- TREPC01 – extended from 75m to 201m with further significant zones of graphite mineralisation reported
- Total trench interval: 186m @ 5.95% TGC, including two higher grade intervals of:

24m@7.89% TGC (previously reported) and

86m@8.34% TGC from 115m to 201m (trench ended in graphite mineralisation)

- This trench still remains open ended in graphitic mineralisation (7.5% TGC) and will be extended to the east and west. The Cascade mineralised zone is 400m x 1,000m with good potential to be further extended to the south. Detailed mapping and sampling is planned for the New Year

#### KITUTI PROSPECT

- A new zone of graphite mineralisation has been mapped in the Mahenge Southwest tenement, interpreted to be 18km in strike length. Rock chip mapping indicates that the Kituti zone potentially contains higher graphite grades than those encountered at Epanko North. To date only one outcrop sample has been returned from the laboratory, grading 12.15% TGC (released 27/10/2014). Additional sampling is underway
- The northern 5km of the Kituti zone is being trenched over the next month to determine continuity, widths and grades

## Background

Green Rock has received the first assay results from its current field programme. The Company is mapping and trenching three zones; Cascade, Epanko North and Kituti. Work has begun on preparing drill pads at Epanko and Kituti.

### Cascade Prospect

The initial 75m trench, TREPC01, at Cascade was lengthened by 126m to 201m during October.

The Company is pleased to report that the extended trenching at Cascade has yielded a wide zone of graphitic mineralisation with a combined cross strike with of 186m @ 5.95% TGC. This includes:

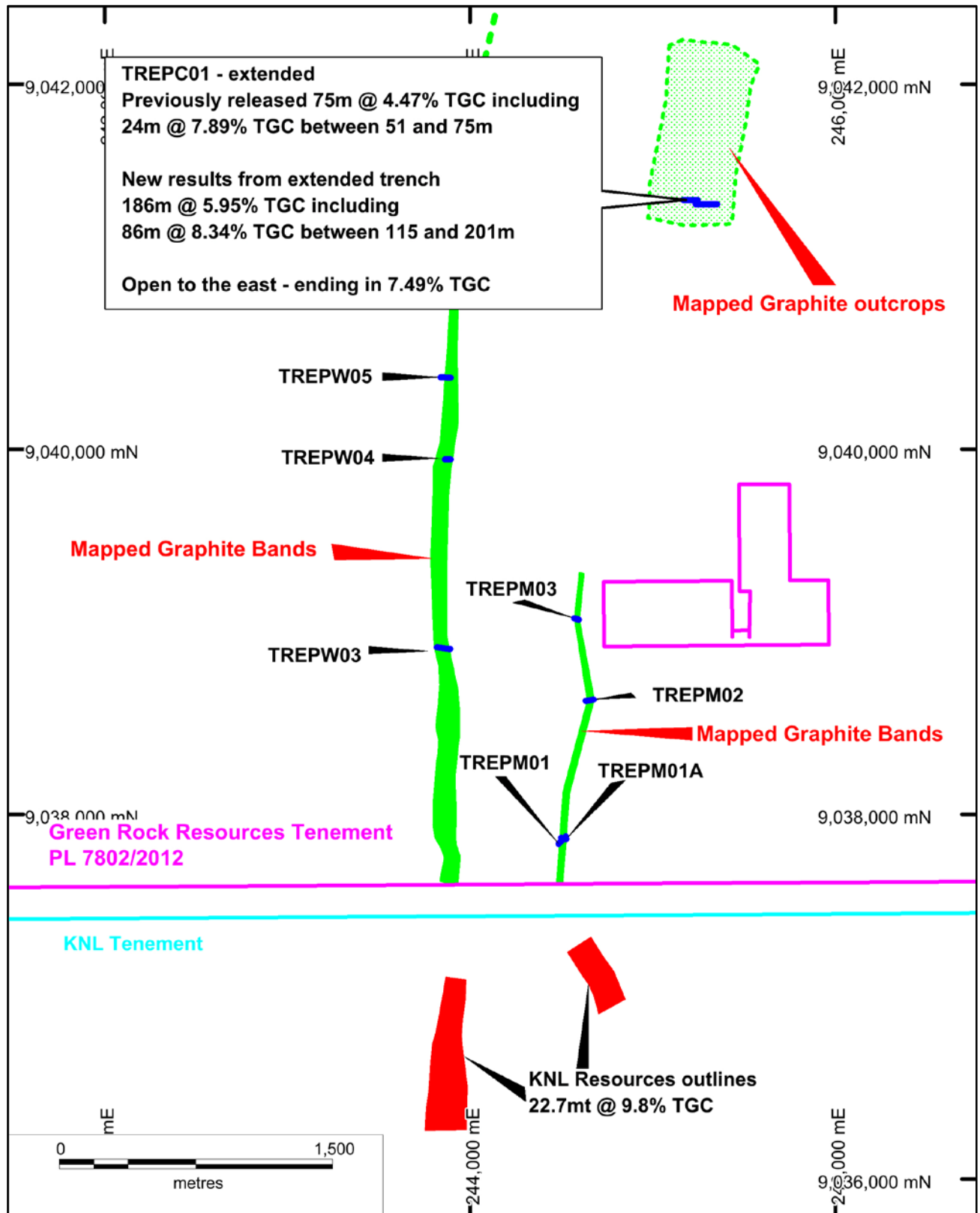
- **24m @7.89% TCG from TREPC01**
- **86m @8.34% TCG from TREPC01 - extended**

The graphite mineralisation remains open to east where the trench terminated in graphite mineralisation grading 7.49% TGC. The intention is to again extend the trench to determine the extent of graphite mineralisation. The company is pleased with the initial results and confident that additional mapping/trenching in the Cascade area will demonstrate grade and strike continuity, developing into drilling targets.

Photo 1. Clearing a trench line



Figure 1. Epanko North trenched area showing the Cascade prospect, trenching results and previous trench locations





**Table 1. Trench results from Cascade prospect**

Trench_ID	East_start	North_start	Azimuth	Length (m)	Prospect	Total Trench intervals and selected significant intervals
TREPC01 (reported 27/10/2014)				0-15	Cascade	No sampling due to a lack of saprock/saprolite
	245162	9041353	90	(15-90) 75	Cascade	75m @ 4.47% TGC (trench started in 3.99% TGC)
						including 18m @ 6.17% TGC from 15m &
						24m @ 7.89% TGC from 51m
TREPC01 - extended	245162	9041353	90	(85 - 201) 116	Cascade	186m @ 5.95% TGC from 15m
						including 86m @ 8.34% TGC from 115m

### Kituti Prospect

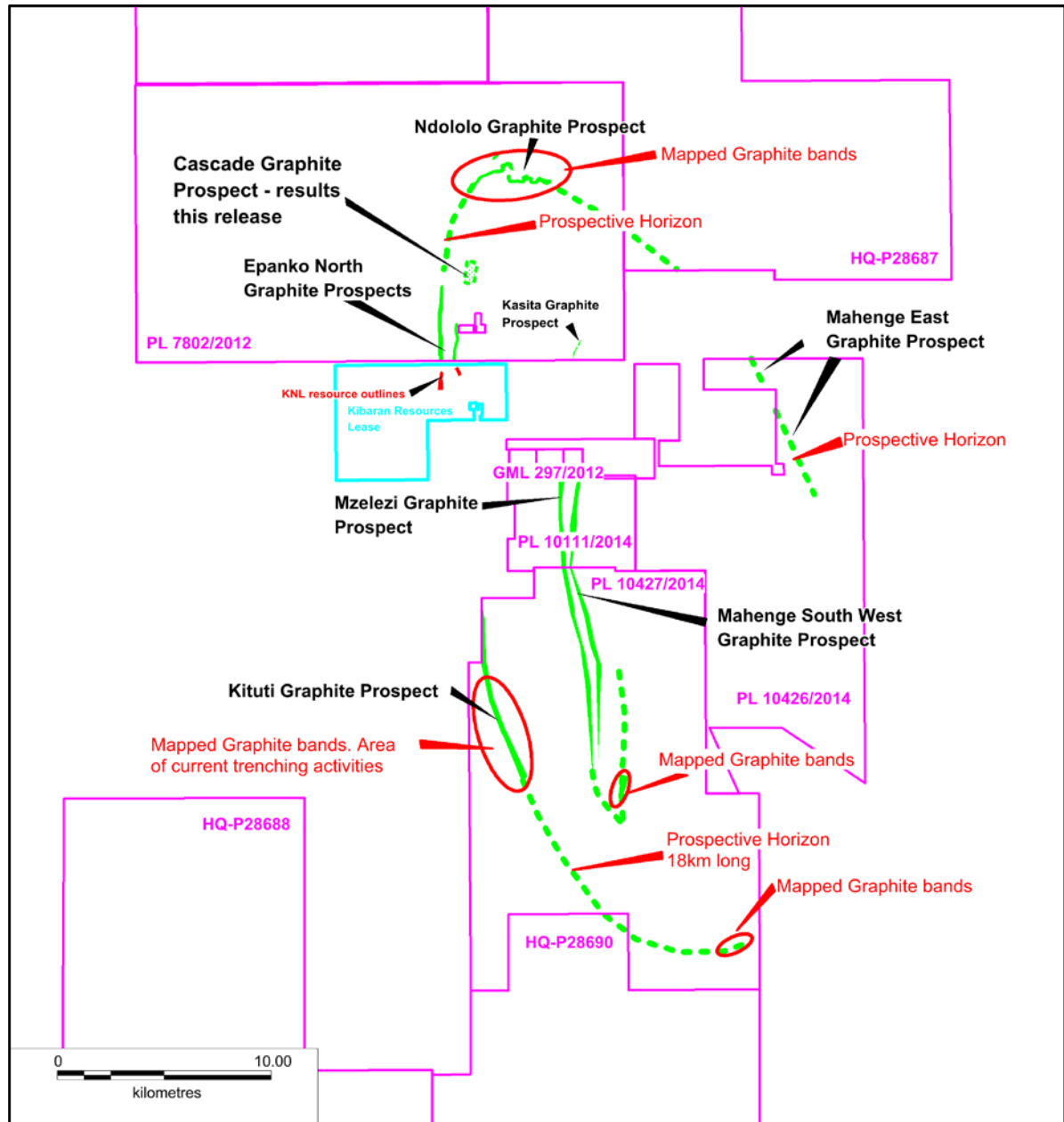
At the recently granted Mahenge SW tenement the Company is continuing to delineate the surface expression of the significant Kituti prospect. To date over 6km of strike extent of graphite mineralisation has been mapped and rock chip sampled. The lode is interpreted to be 18km in total strike length, as shown in green in figure 2. Additional mapping and sampling is underway.

To date only one rock chip sample has been reported (12.15% TGC). Additional assays will be reported as they are received from the laboratory. Visual estimates of the graphite mineralisation seen in the mapped Kituti area are encouraging with coarser graphite flake observed than at Epanko North. The company is pleased with the initial indications at Kituti and confident that additional mapping/trenching along the mineralised structure will demonstrate grade and strike continuity, which will develop drilling targets.

**Photos 2,3. Kituti outcrop**



**Figure 2. Green Rock's tenure, prospect locations and prospective graphite and mapped graphite units including the recently discovered Kituti prospect. Graphite lodes are indicated in green.**



For further information

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## **Competent Person Statement**

*The information in this report that relates to Exploration Results is based on information compiled by Steven Tambanis, who is a member of the AusIMM. He is a full time employee of Green Rock Energy Limited. Steven Tambanis 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 and 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Steven Tambanis consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.*

## JORC Code, 2012 Edition – Table 1 report template

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Rock chip samples taken from outcrop or from surface float thought to be derived from shallow buried cover within 15m radius</li> <li>Trench samples were taken in 2m intervals along the floor or walls of the trench</li> <li>Trenches range in depth from 1.0m to 2.5 with an average depth of 1.8m</li> <li>Trenches have an average width of 1m</li> <li>Surface rockchip and trench samples range between 0.5kg and 2.5kg in weight</li> <li>The Company has taken all care to ensure no material containing additional carbon has contaminated the samples</li> <li>All samples are individually labelled and logged</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li><i>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).</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable, GRK has not completed any drilling on the property</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable, GRK has not completed any drilling on the property</li> </ul>

Criteria	JORC Code explanation	Commentary
Logging	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>Surface rockchip samples were described in basic terms – lithology, degree of weathering, flake size and an estimate of grade</li> <li>Trench rockchip samples were described in basic terms – lithology, degree of weathering, flake size and an estimate of grade in 1m intervals</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>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.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>The surface rockchip samples have not undergone any field splitting or composition</li> <li>Trench samples were taken in 1m or 3m intervals with sampling techniques used to ensure representivity of the target rocktype</li> <li>No splitting or compositing of the trench samples was undertaken</li> <li>Deeply weathered material in trenches was not sampled</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The samples were sent to Mwanza in Tanzania for preparation and pulps were then sent to Brisbane for TGC analysis for Total Graphitic Carbon (TGC) C-IR18 LECO Total Carbon.</li> <li>All analysis has been carried out by certified laboratory - ALSchemex</li> <li>TGC is the most appropriate method to analyse for graphitic carbon and it is a total analysis</li> <li>ALSchemex inserted its own standards and blanks and completed its own QAQC for each batch of samples</li> <li>GRK inserted certified standard material at a rate of 5%</li> <li>GRK did no insert field duplicates</li> <li>GRK did not insert blanks</li> <li>GRK is satisfied the TGC results are accurate and precise but subject to ongoing monitoring</li> </ul>
Verification of sampling	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> </ul>	<ul style="list-style-type: none"> <li>The data has been manually updated into a master spreadsheet which is appropriate for this early stage in the exploration program</li> </ul>



Criteria	JORC Code explanation	Commentary
<i>and assaying</i>	<ul style="list-style-type: none"> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>A handheld GPS was used to identify the positions of the trenches in the field</li> <li>The handheld GPS has an accuracy of +/- 5m</li> <li>The datum is used is ARC 1960 UTM zone 37</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>A single trench has been excavated from Cascade</li> <li>2m samples sample composites were taken in the field.</li> <li>The project is considered too early stage for Resource Estimation</li> <li>For trench results TREPC01 Extended the initial 3m samples from the first sampling program were converted to 1m intervals and then re-composited to 2m intervals. This was undertaken to match the 2m composite sampling techniques used at Cascade in the extended trench sampling program</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Trenches were designed to sample across a section of the known strike of the mineralization where the cover was not too deep</li> <li>Trench samples was undertaken in general in a direction across the strike of the graphite schist</li> <li>The representivity of the surface rock chip samples cannot be assessed given the lack of continuous outcrop in these areas. These samples are only indicative results of the local geology and no claim to the volume or extent of this sample material is made</li> <li>Additional sampling and mapping is required to fully understand the mineralization and its grades in relation to controlling structures</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>The rockchip and trench samples were taken under the supervision of an experienced geologist employed as a consultant to GRK</li> <li>The samples were transferred under GRK supervision from site to the local town of Mahenge</li> <li>The samples were then transported from Mahenge to Dar es Salaam and then transported to Mwanza where they were inspected and then delivered directly to ALSChemex process facility.</li> <li>Chain of custody protocols were observed to ensure the samples were not tampered with post sampling and until delivery to the laboratory for preparation and analysis</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>Transport of the pulps from Tanzania to Australia was under the supervision of ALSChemex</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable, GRK has not completed any drilling on the property</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The rock chip and trench sampling was undertaken on granted license PL 7802/2012 and PL 10111/2014 which have an area of 293km<sup>2</sup> and 25km<sup>2</sup> respectively</li> <li>License PL 10427/2014 was recently granted to Green Rock Energy allowing the company to undertake exploration activities</li> <li>The licenses are under various option agreements with Green Rock Energy who can earn 100%</li> <li>Subsistence landowners of the affected villages were supportive of the recently completed sampling and exploration program.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>Some previous explorers completed some limited RC drilling and rockchip sampling but the original data has not been located apart from what has been announced via ASX release by Kibaran Resources during 2011 and 2012</li> <li>No other exploration for graphite is known from the area.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The deposit type is described as schist hosted flaky graphite.</li> <li>The mineralisation is hosted within upper amphibolite facies gneiss of the Mozambique Mobile Belt.</li> <li>Over 95% of the exposures within the tenement comprise 3 main rock types that include alternating sequences of: <ul style="list-style-type: none"> <li>Graphitic schist – feldspar and quartz rich varieties.</li> <li>Marble and,</li> <li>Biotite and hornblende granulites.</li> </ul> </li> <li>Less common rock types include quartzite.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable, GRK has not completed any drilling on the property</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Some selected intervals are aggregated in the text using 4% TGC cut-off grades and allowing 2x2m of dilution and simple averaging on the 2m composited data</li> <li>Trench results for TREPC01 extended have been reported in their entirety</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul style="list-style-type: none"> <li>Due to the potentially large strike length of the mineralization the trench sampling program has been selective and trench sampling has only assessed the local grade distribution of the graphitic zones from surface to shallow depths &lt;2.5m).</li> <li>The trenches were located between 500 and 1000m along strike depending on the thickness of the surface cover</li> <li>Further additional widespread surface sampling, mapping and drilling is required to understand the geometry of the graphite mineralisation</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to Figures within this release that shows the location of the trenches and results</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades</li> </ul>	<ul style="list-style-type: none"> <li>All trench rock chip samples have been reported</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No further information has been compiled to date</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Further surface sampling techniques that may include pitting and trenching with mapping</li> <li>• Initial metallurgical testwork – flotation and particle sizing</li> <li>• Data compilation and analysis, target generation and ranking prior to drilling</li> </ul>