Bulk Sample Outperforms Block Model

Highlights

- **Assays from 200 tonne bulk sample from Epanko's Western Zone reconciles 24% above the Ore Reserve block model grades**

Kibaran Resources Limited (ASX: KNL) is pleased to advise the analytical results from the recent 200 tonne bulk sample, taken for full scale production testing for the lithium-ion battery market, have significantly outperformed the block model grade estimate.

The positive reconciliation not only fully supports the integrity of the model but demonstrates the overall robust nature and significant upside of the Epanko Mineral Resource estimate undertaken by CSA Global Pty Ltd ('CSA Global'). Consistent positive reconciliations from both mineralised zones have been demonstrated (refer Table 1).

Table 1: Bulk Sample Grade versus Mineral Resource Estimate Grade

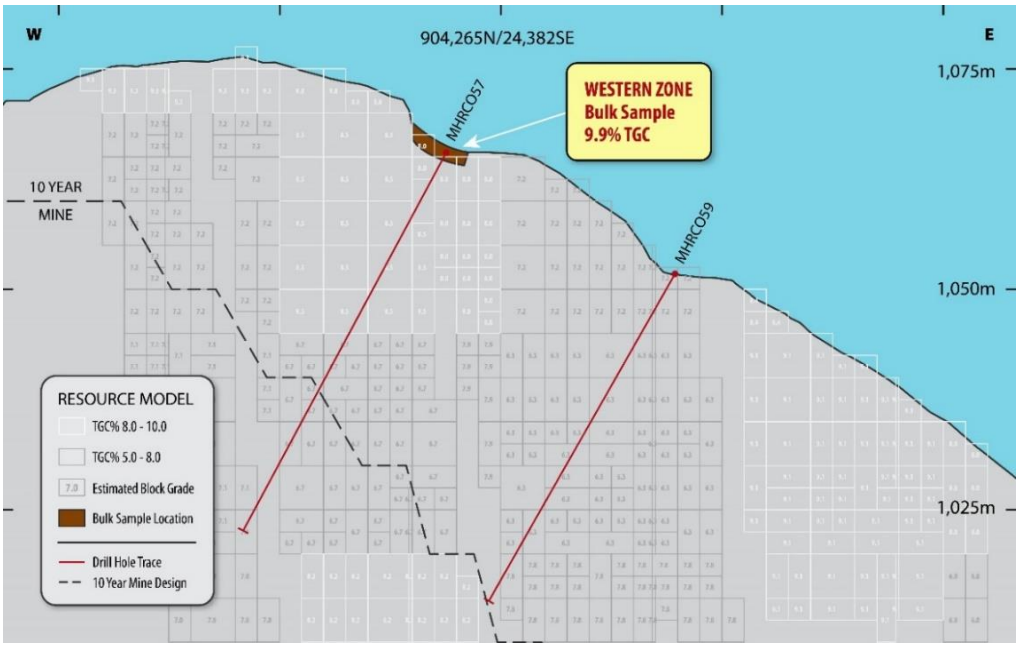
	Bulk Sample Grade TGC (%)	Resource Block Model Grade TGC (%)
Eastern zone	11.0	10.7
Western zone	9.9	8.0

The Western bulk sample reported a 24% increase, returning a grade of 9.9% TGC versus an estimated Mineral Resource grade of 8.0% TGC (refer Figure 1). The Eastern zone sample confirmed the integrity of the block model, reporting 11% TGC compared with 10.7% in the block model (refer Table 1).

Positive implications can be drawn, as the higher grade supports the proposed plant delivering the initial production of 40ktpa assumed in the BFS, with scope to produce 44ktpa for no additional capital.

Importantly, the sample locations were sourced from areas to be mined within the first 3 years of production, the capital payback period from a debt financing perspective being approximately 2.7 years. This increased confidence further strengthens the Epanko Projects' fundamentals as the Company progresses debt funding discussions.

Figure 1: Western Zone Bulk Sample Grade versus Mineral Resource Estimate



The 200 tonne sample is a dual composite of 100 tonnes from each of the Western Zone and Eastern Zones with the locations shown in Table 2.

Table 2: Bulk Sample Locations (UTM WGS84, Zone 37S)

Sample ID	Easting	Northing	Altitude
East Zone	244,807	9,037,150	954mRL
West Zone	243,816	9,036,335	1067mRL

For further information, please contact:

Managing Director
Andrew Spinks

Media
Paul Armstrong
Read Corporate
P: +61 8 9388 1474

Kibaran Resources Limited | ABN: 15 117 330 757

338 Hay Street Subiaco WA 6008 | PO Box 2106 Subiaco WA 6904

T: +61 8 6380 1003 | E: info@kibaranresources.com | www.kibaranresources.com

JORC CODE, 2012 EDITION – TABLE 1 Section 1 Sampling Techniques and Data

Criteria	JORC Code 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 results subject of this announcement were sourced via exposure bulk excavation Sampling is guided by Kibaran's protocols and QA/QC procedures Assayed samples were representatively collected from each location, then submitted for analysis. 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).*	Samples were excavated and collected by hand from mineralisation exposures at each location
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.*	Material was collected representatively from across each exposure. Sampling tools, including picks were cleaned of material between locations. 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.*	Each sample was inspected by the supervising geologist with geology and estimated grade being recorded
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Bulk sample representatively collected from each exposure by hand in a dry environment. 5 representative samples from each bulk sample 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. 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.*	Samples were sent to the Bureau Veritas Laboratory at Dar es Salaam (Tanzania) for sample preparation, with the pulps sent to Bureau Veritas Rustenburg (South Africa) for 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^{o}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^{o}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 CO2 produced. Laboratory certificates were sent via email from the assay laboratory to Kibaran.
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. 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. 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.*	Sample locations picked up by hand held GPS. UTM Zone 37 South was the grid system used. No coordinate transformation was applied to the data. Topographic DTM was from a LIDAR survey flown in 2015. .
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	Data spacing and distribution are sufficient to establish the degree of geological and grade continuity. 5 samples from each bulk sample were composited to create the representative grade of each
Orientation of data in relation to	• *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*	The large size of the bulk sample (100t from each location), helps reduce the potential for bias caused by sampling of possible structures.

Criteria	JORC Code explanation	Commentary
geological structure	*orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	
Sample security	• *The measures taken to ensure sample security.*	Samples were stored at the company's secure field camp prior to dispatch to the prep lab by a 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 have been independently reviewed by CSA Global. Kibaran senior geological personnel reviewed sampling procedures on a regular basis. All drill hole results were collated and stored within a validated Access database. A random selection of assays from the database was cross referenced against the laboratory certificates.

Section 2 Reporting of Exploration Results

Criteria	JORC Code 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 tenements are 100% owned by Kibaran wholly owned subsidiary and are within granted and live prospecting licenses. The Epanko project consists of 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 recent information exists.
Geology	• *Deposit type, geological setting and style of mineralisation.*	The Epanko Project is hosted within a quartz–feldspar-carbonate graphitic schist, part of a Neoproterozoic metasediment package, including marble and gneissic units. Two zones of graphitic schist have been mapped, named the East Zone and the West Zone.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		Sample coordinates are provided in Table 1 of this announcement.

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 necessary. No aggregating was used. There is no implication about economic significance. No equivalents were used.
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').*	Assay data included is point data and not project downhole
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 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.*	Composites of all 10 assays are reported in this announcement, no results were omitted.
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.
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 including further mapping will continue during the next field season.