

**ASX ANNOUNCEMENT** 

ASX: **KNG** kingslandminerals.com.au

15 June 2023

Leliyn Graphite Project, Northern Territory

# First assays reveal extensive high-grade graphite

Wide intersections with grades in line with Exploration Target

# **Highlights**

- Leliyn rapidly emerging as a major graphite discovery with outstanding first assays
- Significant Total Graphitic Carbon (TGC) Intersections:
  - 45m @ 9.0 % from 0m (LERC\_08)
  - 28m@11.1% from 55m (LERC\_08)
  - o 25m@10.1% from0m (LERC\_06)
- The results are entirely consistent with Leliyn's large Exploration Target of 200-250Mt at 8-11% Total Graphitic Carbon for 16-27Mt of contained graphite<sup>1</sup>
- Assays pending for a further 16 holes and RC drilling is continuing
- Diamond drilling now underway with core to be sent for metallurgical tests

Kingsland Minerals Ltd (ASX:KNG) is pleased to announce outstanding assays from the first RC drilling at its Leliyn Graphite Project in the Northern Territory.

The results, which stem from the first two holes, confirm Leliyn is a high-grade graphite project which, given the extensive length of the graphitic schist unit already identified, has immense growth potential.

There are currently two rigs drilling on site with assay results expected regularly over the coming months. A total of 18 RC holes for 1,980m has been completed to date.

<sup>&</sup>lt;sup>1</sup> Refer to ASX announcement 'Graphite Exploration Target' released by KNG on March 21 2023. The potential quantity and grade of an exploration target is conceptual in nature, there has been insufficient exploration to determine a mineral resource and there is no certainty that further exploration work will result in the determination of mineral resources or that the production target itself will be realised.

Kingsland Managing Director Richard Maddocks said: "These assay results are entirely consistent with the large Exploration Target. This is only the beginning of what we believe will be a significant high-grade, tier-one graphite project.

The drilling and these initial assays underpin our confidence that we are really onto something big. We know we have a lot of graphitic schist and now we are getting very good evidence of high grades as well. We have drilled 18 RC holes so far with the deepest one at 204m and I'm really looking forward to announcing more assay results in the coming months".



Figure 1: Cross section A-A' (825360E) looking west

Figure 1 shows the cross-section at 825360E (MGA Z53). The two RC holes, LERC\_06 and LERC\_08, have intersected graphitic schists with high grade mineralisation outcropping on surface. The diamond core hole LEDD\_01 was recently completed with core currently being processed and cut at Pine Creek.

Table 1 shows the assay interval details for holes LERC \_06 and LERC\_08. An extended interval for hole LERC\_08 is shown containing 84m @ 8.8% TGC, within this zone from 45m to 55m is a low grade zone of more silicified hornfelsic material. This zone does not appear to have been intersected in hole LEDD\_01 so its orientation, extent and significance is not known at this time. The TGC grade is very consistent at about 10% within the graphitic schists and is well within the Exploration Target range of 8%-11% TGC.

Figure 2 shows graphitic schists intersected in LEDD\_01. Massive, dark graphitic schist is interspersed with thin carbonate veinlets and disseminated pyrite and pyrrhotite. The diamond core is visually consistent with the RC chips from holes LERC\_06 and LERC\_08 within the graphic schist unit. Graphitic schist has been logged in LEDD\_01 from 28m to 125m downhole.

To date a total of 18 RC holes have been completed for 1,980m. The deepest RC hole drilled finished at 204m. The diamond core rig is currently drilling its second hole, LEDD\_02, after completing LEDD\_01. This announcement contains the assays for only 2 RC holes and collar details of the first eight RC holes and first diamond core hole drilled (Table 2). As more information and data becomes available, updates will be provided to the market.

				Grade %
Hole	From	То	Width	TGC
LE <mark>RC_</mark> 06	0	25	25	10.1
LERC_08	0	83	83	8.3
inc	0	45	45	9.0
inc	55	<mark>8</mark> 3	<mark>28</mark>	11.1

## Table 1 :Assay details Leliyn Graphite Project



Figure 2: Graphitic Schist LEDD\_01 84.5m – 91.3m



Figure 3: Plan of Drilling at eastern end of Leliyn Graphite Project showing location of crosssection A-A'

Figure 3 shows the completed drilling to date on the eastern side of the project area. The location of the cross section in Figure 1 is illustrated on Figure 3. It should be noted that several of the earlier RC holes were not drilled to depth due to drilling conditions combined with a faulty booster on the rig. This has now been resolved with the rig operating well and drilling holes in excess of 150m. Holes that did not reach design depth previously will be re-drilled to the design depth.

RC and Diamond core drilling is continuing. The project area is located on an operating cattle station and Kingsland has agreed to restrict activities around dams during the dry season to enable stock uninterrupted access to watering points. This may result in some holes within the project area being drilled later in the year.

Hole	Туре	East MGA52	North MGA52	RL	Dip	Azi	Depth
LEDD_01	DDH	825395	8499428	124.1	-70	180	149.6
LERC_02	RC	825202	8499426	123.9	-60	180	72
LERC_03	RC	825014	849948 <mark>4</mark>	124.3	-60	180	54
LERC_04	RC	825208	849937 <mark>5</mark>	129.2	-60	180	84
LERC_06	RC	825395	849939 <mark>8</mark>	126.2	-60	180	96
LERC_07	RC	824587	849952 <mark>4</mark>	137.7	-60	180	36
LERC_08	RC	825395	8499426	124.1	-60	180	102
LEDDRC_01	RC	825215	8499428	123.1	-60	180	54
LEDDRC_02	RC	825339	8499459	118.3	-60	180	78

# Table 2: Details of Leliyn Drilling

Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grade are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.



Figure 4: Kingsland Minerals Northern Territory Exploration Projects

THIS ANNOUNCEMENT HAS BEEN AUTHORISED FOR RELEASE ON THE ASX BY THE COMPANY'S BOARD OF DIRECTORS

# About Kingsland Minerals Ltd

Kingsland Minerals Ltd is an exploration company with assets in the Northern Territory and Western Australia. Kingsland's focus is exploring the Leliyn Graphite Project in the Northern Territory. The Company is confident that Leliyn has significant potential, as shown by the substantial Exploration Target of 200-250 million tonnes grading 8-11 per cent Total Graphitic Carbon (TGC) for contained graphite of 16-27Mt<sup>2</sup>. The Exploration Target is based on a graphitic schist measuring 5km long, 200m deep and 100m wide. The 5km strike length of the schist sits within a longer 20km-long graphitic schist. The initial exploration program will focus on the 5km stretch which hosts the Exploration Target. This will underpin a maiden JORC Resource. Kingsland believes there is also significant exploration potential within the remaining 15km of graphitic schist.

Following a successful listing on the ASX in June 2022 company details are as follows:

<sup>&</sup>lt;sup>2</sup> The potential quantity and grade of an exploration target is conceptual in nature, there has been insufficient exploration to determine a mineral resource and there is no certainty that further exploration work will result in the determination of mineral resources or that the production target itself will be realised

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#### **Competent Persons Statement**

The information in this report that relates to Exploration Results is based on information compiled by Richard Maddocks, a Competent Person who is a Fellow of The Australasian Institute of Mining and Metallurgy. Richard Maddocks has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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'. Richard Maddocks consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. Richard Maddocks is a full time employee of Kingsland Minerals Ltd and holds securities in the company.

The information in this announcement referring to the Leliyn Exploration Target is extracted from the report entitled 'Graphite Exploration Target' created on March 21 2023 and available to view on <u>www.kingslandminerals.com.au</u>. or on the ASX website <u>www.asx.com.au</u> under ticker code KNG. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.'

# **JORC** Tables

Section 1: Sampling Techniques and Data Leliyn Graphite Project

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>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</li> </ul>	RC drilling samples were collected as 1m intervals via a riffle splitter off the drill rig.
	inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	
Drilling techniques	<ul> <li>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).</li> </ul>	RC drilling techniques were used.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	RC drilling sample recoveries are considered to be high
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	All drilling was qualitatively geologically logged recording lithology, mineralisation colour, weathering and grain size.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken.	Sample preparation was conducted at Northern Assay Laboratories in
	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Pine Creek</li> <li>Samples are dried at 120 C for a minimum of four hours [or over-night if samples are excessively wet]. Sample prep is jaw crushing whole sample through a Boyd double toggle jaw crusher to a nominal 2mm particle size, splitting 400 gram through a jones riffle splitter and fine pulverising to 75 micron through an LM2 pulveriser. A barren washed creek sand as a barren flush is pulverised after every sample</li> <li>Sample pulps were transported to Perth for analysis at Intertek Genalysis in Perth.</li> <li>Total Graphitic Carbon is analysed with a weak acid digestion followed by a 420°C roast and then final analysis in a CS analyser</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures extended and the standards.</li> </ul>	<ul> <li>These initial assay results have been reported as preliminary by the assay laboratory with final results pending</li> <li>Internal QAQC by the laboratory indicate no sampling or bias issues.</li> <li>The assay technique is considered appropriate for the style of mineralisation and results in a total analysis of graphitic carbon.</li> </ul>
	adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <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>	<ul> <li>Assays have been verified by company geologists.</li> <li>Three missing samples have been estimated using the average of the preceding two reported assays. The missing samples are in the lab for analysis and will be reported when received. The missing samples will not materially change the reported intersections</li> </ul>
Location of data points	<ul> <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> <li>RC holes were surveyed with a hand held GPS with +/- 5m accuracy.</li> <li>The project areas lies at the boundary between MGA zones 52 and 53 so GPS co-ordinates are sometimes reported in these different grids depending where drill holes lie. The default grid to use in computer software to enable all holes to be plotted on the same grid co-ordinates will be MGAZ52</li> </ul>
Data spacing and distribution	<ul> <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</li> </ul>	<ul> <li>Drill spacing is designed on 200m spacing with about 50m spacing along drill lines.</li> <li>The data at this stage is only being used to establish the width and orientation of the graphitic schists.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul><li>Resource and Ore Reserve estimation procedure(s) and classifications applied.</li><li>Whether sample compositing has been applied.</li></ul>	Additional drilling will be required to estimate Mineral Resources
Orientation of data in relation to geological structure	<ul> <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>	Drilling is generally perpendicular to the strike direction of then graphitic schists.
Sample security	The measures taken to ensure sample security.	Samples are taken to the assay lab in Pine Creek by Kingsland personnel. Pulps are sent to Perth via Australia Post registered mail.
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>No audits or reviews of sampling techniques have been undertaken.</li> </ul>

Section 2: Reporting of Leliyn Graphite Project Exploration Results

Critoria	IOPC Code explanation	Commentary
Criteria Mineral tenement and land tenure status	<ul> <li>JORC Code explanation</li> <li>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.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul> <li>The Leliyn Graphite Project is located on tenements EL 31960 and EL 32152. These tenements are 100% owned by Kingsland Minerals Ltd. There are no known encumbrances to conducting exploration on these tenements.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	There has been an extensive history of exploration for uranium and copper over the past 40 years. There has however been only limited work done focussed on graphite. Thundelarra Exploration (now Ora Gold Ltd) sampled some holes in 2012 for graphite at their Hatrick copper prospect and Cleo uranium prospect. These samples indicated the presence of significant grade and thickness of graphite mineralisation measured as total graphitic carbon (TGC). In 2017 one diamond drill hole TALD001 was drilled into the graphitic schist and sampled for TGC. Significant gades and widths of graphite mineralisation were encountered. Samples from TALD001 were submitted to Pathfinder Exploration Pty Ltd for thin section petrographical analysis.
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>Carbonaceous sediments of the Masson Formation have been contact metamorphosed by the Cullen Granites. This has metamorphosed carbon to graphite and converted shales to schists .</li> <li>This contact extends for about 20 km within Kingsland's tenement package.</li> </ul>

Criteria	JORC Code explanation	Commentary
Drill hole information	<ul> <li>A summary of all information material to the under-standing of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <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</li> </ul>	Drilling information is included in this announcement
Data aggregation methods	<ul> <li>explain why this is the case.</li> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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</li> </ul>	<ul> <li>Assays are reported as weighted average intersections.</li> <li>Intervals have been reported at a cut-off grade of 4% TGC with a maximum of 4m of internal dilution.</li> <li>The extended interval in hole LERC_08 has been reported at a cut-off grade of 4% TGC</li> </ul>
	<ul> <li>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>	
Relationship between mineralisation widths and intercept lengths	<ul> <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 (e.g. 'down hole length, true width not known').</li> </ul>	• Drilling has been perpendicular to the strike direction. The true width of mineralisation will vary but is generally expected to be from 70% to 80% of the reported down-hole widths.
Diagrams	<ul> <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> <li>Relevant diagrams have been included within the main body of text.</li> </ul>
Balanced Reporting	<ul> <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>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should</li> </ul>	<ul> <li>The competent person deems the reporting of these drill results to be balanced.</li> </ul>

Criteria	JORC Code explanation	Commentary		
	be practiced avoiding misleading reporting of Exploration Results.			
Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>RC and diamond drilling will progress at Leliyn ultimately aimed at the estimation of a Mineral Resource.</li> <li>Diamond drill samples will be used for metallurgical test work to determine flotation characteristics and the suitability of Leliyn graphite for battery end uses.</li> <li>There is no other substantive data to report. Exploration at Leliyn is at an early stage with only limited historical exploration data relevant to graphite mineralisation.</li> </ul>		
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large- scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Diamond drill samples will be used for metallurgical test work to determine flotation characteristics and the suitability of Leliyn graphite for battery end uses.		