

# Recent progress on the Leliyn Graphite Project, Pine Creek, Northern Territory

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## Introduction

This paper provides a timeline of completed activities and an update on planned activities at the Leliyn Graphite Project near Pine Creek in the Northern Territory. The geology and exploration history are summarised in Maddocks and Revell (2024). The terminology used here to describe the projects' graphite resource follows the definitions of the Joint Ore Reserves Committee (JORC) 2012 Code for reporting of Mineral Resources and Ore Reserves ([www.jorc.org](http://www.jorc.org)).

## March 2023: Exploration Target announced

Based on historic exploration data and results of a 2022 drilling program, Kingsland Minerals announced the discovery of a large body of graphitic schist at its Leliyn Graphite Project in March 2023. Historical data, previously focused on base metal and uranium exploration, was used to estimate an Exploration Target of 200–250 mt @ 8–11% TGC (total graphitic carbon) (Kingsland 2023b). This result suggested that the Leliyn Graphite Project was potentially one of Australia's largest graphite deposits. This Exploration Target estimate was used to develop a drilling program of both reverse circulation (RC) and diamond core to constrain the projects' mineral resource.

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## May to Nov 2023: RC and diamond core drilling

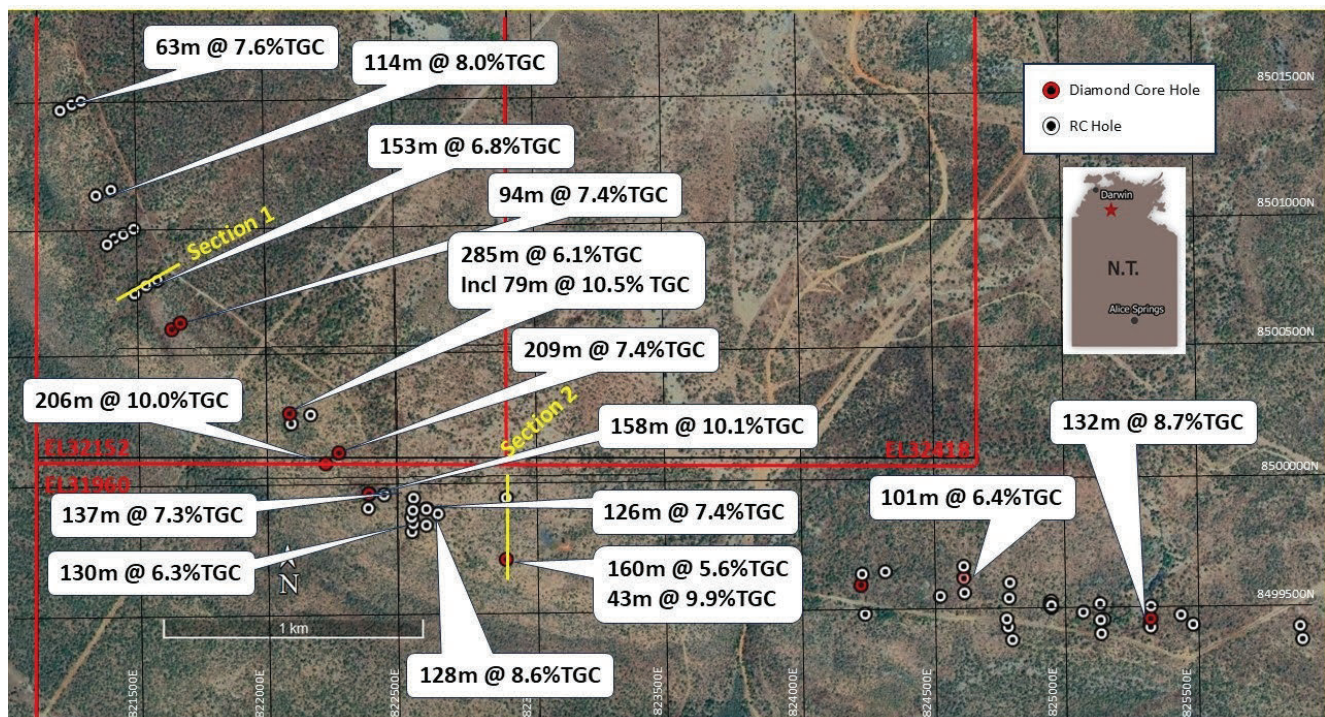
A program of RC and diamond drilling was completed to enable an Inferred Mineral Resource to be estimated however only about 5 km of the total 20 km strike-length of the graphitic schist was drilled (**Figure 1**). Significant results included intersections of 206 m @ 10% TGC, 285 m @ 6.0% TGC and 158 m @ 10.1% TGC (Kingsland 2023c, 2023d, **Figures 1 and 2**). These were amongst the highest drill intersections globally for graphite in 2023 and confirmed the potential for the Leliyn Granite Project to be a globally significant deposit. Samples were collected from recovered core for metallurgical test-work.

## March 2024: Announcement of Australia's largest graphite deposit

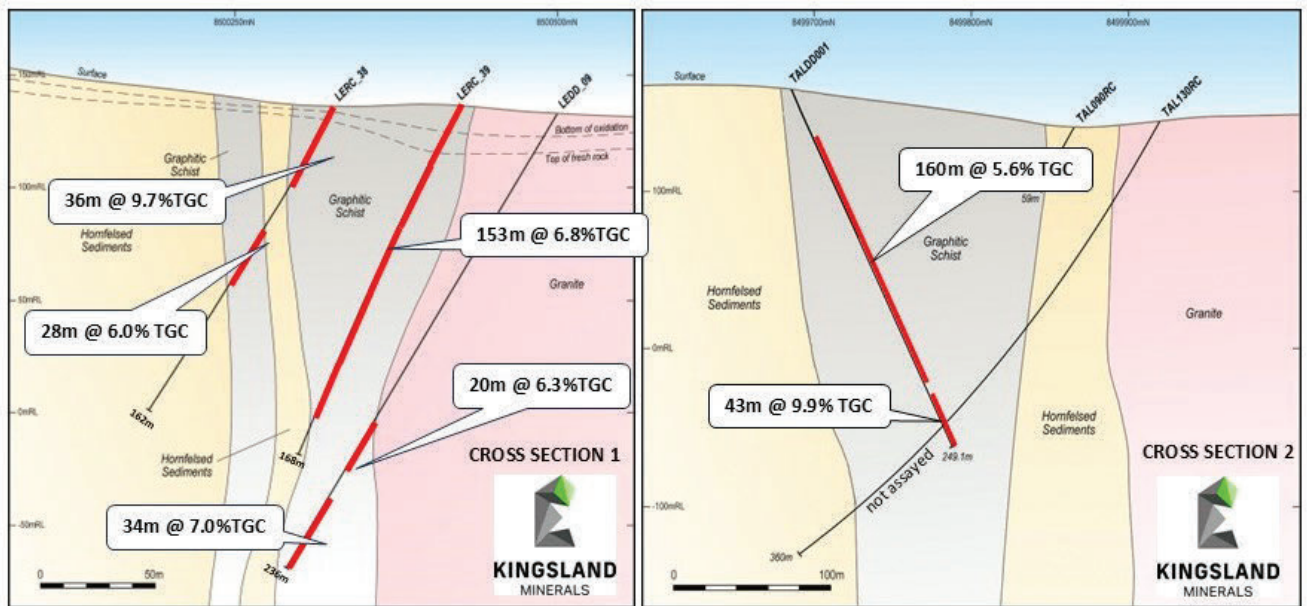
The data from the 2023 drilling program allowed an Inferred Mineral Resource of 194.6 mt @ 7.3% TGC (and total resource of 14.2 mt of graphite) to be estimated (Kingsland 2024a) and the geometry of the graphitic schist to be modelled and used to develop a project mineral resource estimate (**Figure 3**). These results demonstrated the Leliyn Graphite Project to be unequivocally Australia's largest graphite deposit.

## June 2024: Initial metallurgical test-work produces concentrate of 94% graphitic carbon

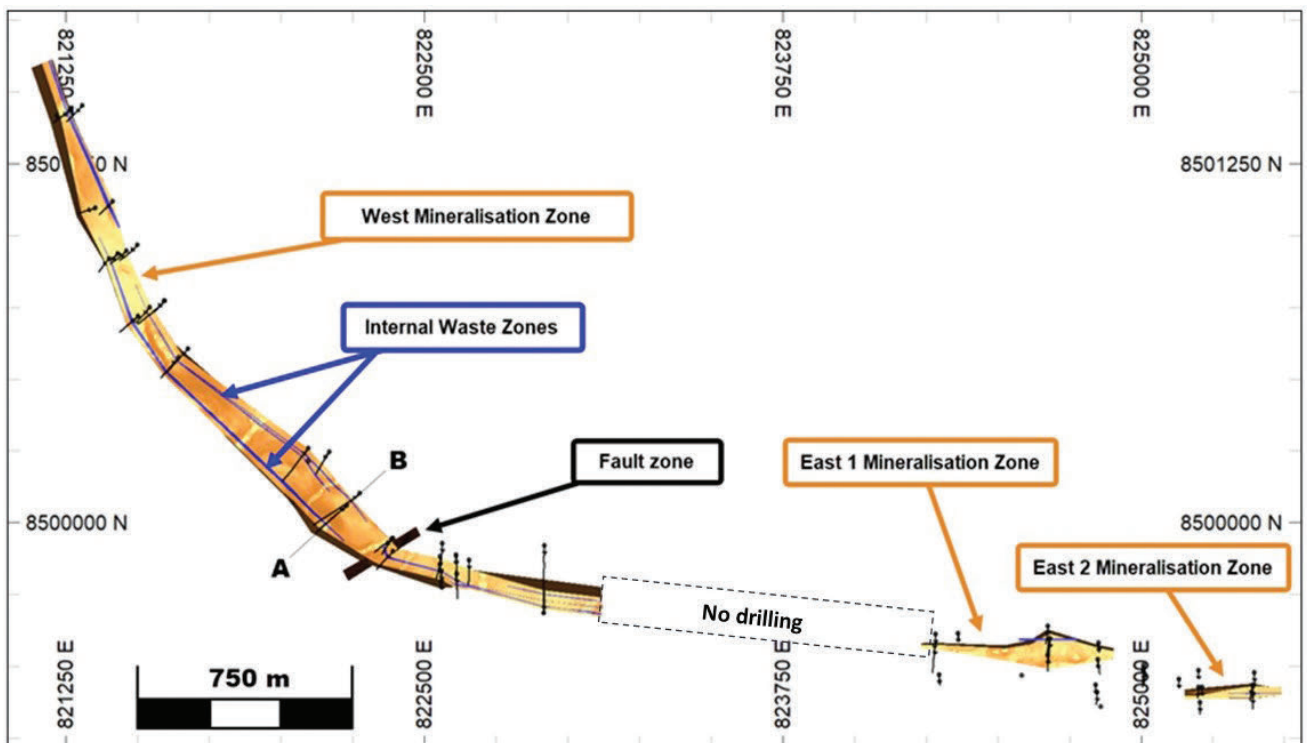
Metallurgical test-work on recovered core was undertaken in Perth by Independent Metallurgy Operations (IMO).



**Figure 1.** Summary of drilling completed in 2023. Significant intersections and the locations of cross sections shown in **Figure 2** are indicated (Kingsland Minerals Ltd 2023d).



**Figure 2.** Geology, drillhole locations and assay data for Section 1 (left) and Section 2 (right) (Kingsland Minerals Ltd 2023d).



**Figure 3.** Plan view of modelled graphitic schist in Leliyn Mineral Resource Estimate (Kingsland Minerals Ltd 2024a).

Initial test-work was able to produce a concentrate of 94% TGC and confirmed that the Leliyn Granite Project is a fine flake deposit (Kingsland 2024b). **Table 1** shows results of the three samples that produced a concentrate grade over 94% as well as a concentrate recovery of between 67% and 80%. This preliminary test-work suggests the Leliyn Graphite Project can produce a high-grade concentrate from standard flotation techniques.

**Table 1.** Grade and recovery results from initial metallurgical test-work (Kingsland 2024b).

Sample	GFT04	GFT05	GFT06
% GTC	94.63	94.21	94.13
Recovery %	67.60	80.42	80.59

#### June 2024: Exploration Target re-estimated

With the confirmation of geological continuity with the Inferred Mineral Resource, as well as the encouraging metallurgical test-work, the project Exploration Target was re-estimated (**Figure 4**). The total Exploration Target is in the range of 700 million tonnes to 1.1 billion tonnes at 7–8% TGC meaning the Leliyn Graphite Project is a potentially globally significant deposit (Kingsland 2024c).

#### October 2024: Investment by Quinbrook Infrastructure Partners

After several months of negotiation, Quinbrook Infrastructure Partners invested A\$2.6 million to become



a cornerstone shareholder holding 15.3% of Kingsland Minerals Ltd (Kingsland 2024d). Quinbrook Infrastructure Partners is a large Australian-based fund that has invested several billion dollars in green energy and energy transition projects in Australia, USA and UK and Quinbrook's status as infrastructure partner in the Northern Territory SunCable renewable energy project is of direct relevance to the Leliyn Graphite Project. Quinbrook Infrastructure Partners and Kingsland Minerals Ltd signed an off-take agreement for

graphite concentrate from the Leliyn Graphite Project as well as an agreement for Quinbrook to supply renewable energy to the project. Quinbrook Infrastructure Partners intends to construct a downstream processing facility in Darwin to produce spherical graphite for battery use.

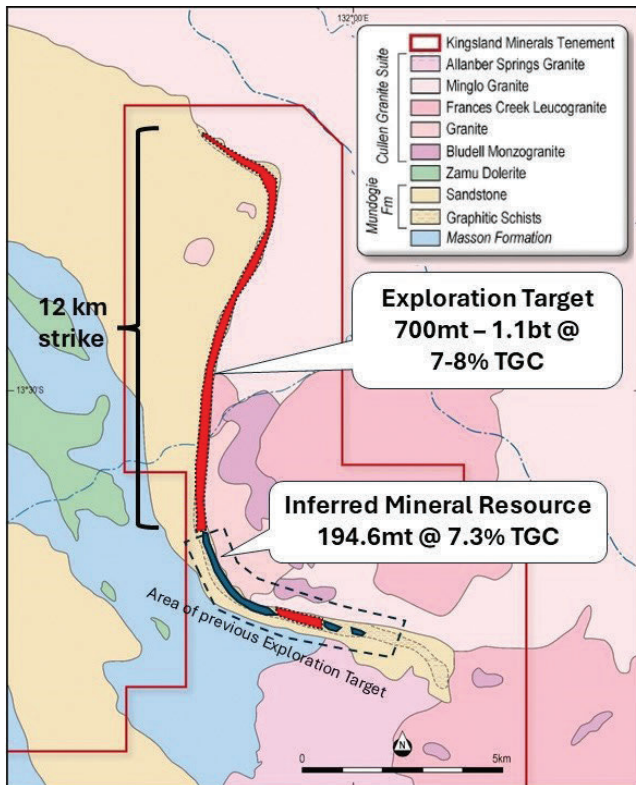
### January 2025: Infill drilling to support Indicated Mineral Resources

A small infill drilling program (1600 m at November 2024) was completed to enable part of the Inferred Mineral Resource to be upgraded to Indicated status (Kingsland 2025a). A 600m-long zone was drilled at ~50 m spacing (**Figure 5**) and significant assay results for sections 822400E and 822300E are shown in **Figure 6**.

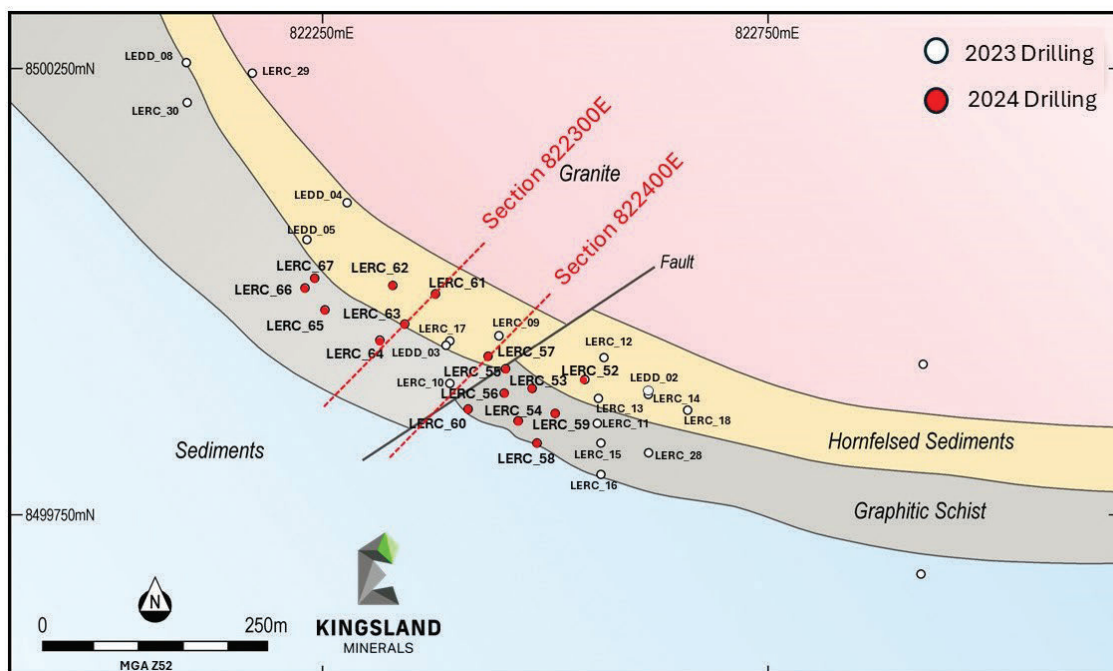
### March 2025: Assessment of the viability of production of purified, spherical graphite

Following earlier confirmation that high-grade graphite concentrates can be produced, an additional sample of ~150 kg of drill core was used to generate a bulk sample of graphite concentrate. About 5 kg of this sample was sent to ProGraphite in Germany (Kingsland 2025b). ProGraphite will micronise, spheronise and purify the graphite. If successful, this will confirm the ability of Leliyn graphite concentrates to be used in the production of battery anode material. This assessment will: (1) provide the basis for additional studies on the viability of the mine and processing facility on site at Leliyn (conducted by Kingsland Minerals Ltd); and (2) test the feasibility of a downstream processing facility in Darwin to produce purified, spherical graphite (conducted by Quinbrook Infrastructure Partners).

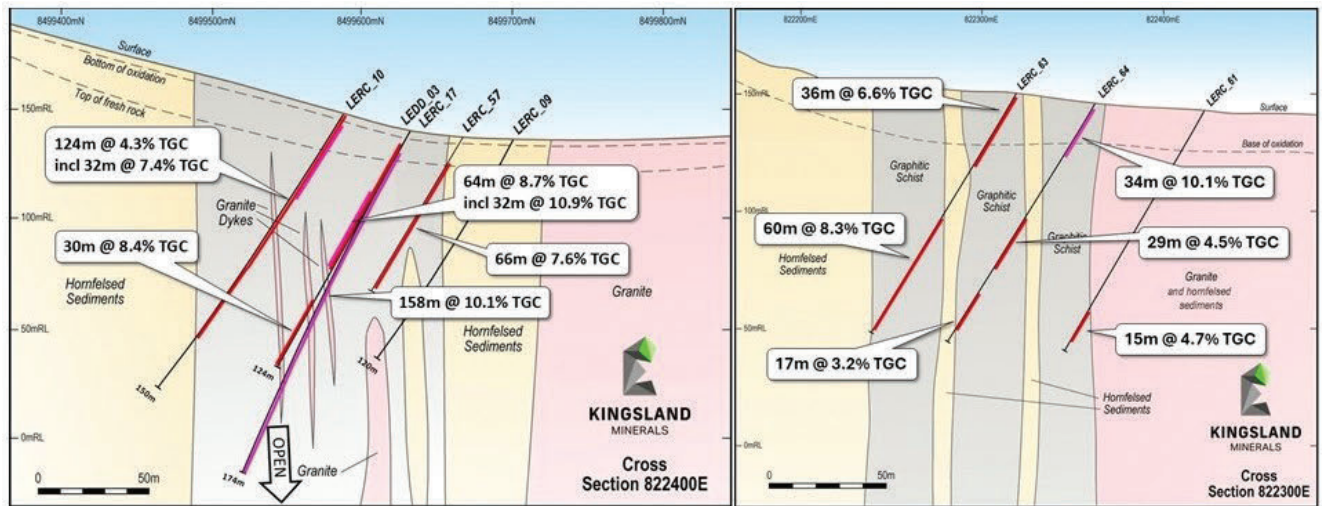
**Table 2** shows data from the individual samples that were used to make up the bulk concentrate; these data clearly show variability in both grade and recovery. This



**Figure 4.** Map showing location of Mineral Resource and the updated Exploration Target (Kingsland Minerals Ltd 2024c).



**Figure 5.** Location of infill drilling (red collars) undertaken in November 2024. Significant intersections and the locations of cross sections shown in **Figure 6** are indicated (Kingsland Minerals Ltd 2025).



**Figure 6.** Geology, drillhole locations and assay data for cross sections 822400E and 822300E (Kingsland Minerals Ltd 2025).

initial metallurgical work used representative samples from across the deposit. At this early stage it is not yet possible to be more selective due to the widely-spaced drillhole locations and the Inferred Mineral Resource.

### March 2025: Estimation of Indicated Mineral Resources

The 2024–2025 infill drilling program was designed to enable a more selective sampling regime to be focused in the zones that produce concentrate of higher grade and recovery, as well as to pursue an upgrade of part of the Leliyn Graphite Project to Indicated Mineral Resources status. The more closely spaced drilling in this program should enable more selective modelling of zones that produce higher-quality graphite concentrate. Additional metallurgical test-work can then focus on these zones.

### June 2025: Additional drilling for metallurgical test-work

An additional 4 PQ size (85 mm diameter) cored diamond drillholes are planned to be completed by mid-2025. These holes will be drilled to depths of 100 m and will provide about 6000 kg of material for additional metallurgical test-work. The hole locations will be planned to intersect continuous zones that produce superior graphite concentrate. Metallurgical test-work will include more advanced comminution and flotation tests to optimise the processing flow sheet.

### July 2025: Scoping study for commercial production of graphite concentrate

With the estimation of Indicated Mineral Resource and confirmation of the production of purified, spherical

graphite, a scoping study will commence. This will assess the economic viability of the Leliyn Graphite Project to produce flake-graphite concentrate to supply a processing facility in Darwin. If successful, the scoping study will be followed by additional work programs to produce a bankable feasibility study and lead to a final investment decision.

### Conclusion

Kingsland Minerals Ltd is progressing the Leliyn Graphite Project towards a development decision. Most of the work to date has focused on field activities to delineate a Mineral Resource and to establish initial metallurgical characteristics. This initial stage is nearing completion and has demonstrated that the Leliyn Graphite Project has potential to be a significant global supplier of graphite concentrate products. The next stage will focus on metallurgical and engineering parameters to produce an economically viable mining and processing operation.

### Competent Person Statement

The information in this document regarding Exploration Results, Exploration Targets and Mineral Resources is extracted from the reports listed in the references under Kingsland Minerals Ltd. 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

**Table 2.** Grade and recovery results from samples that made up the bulk concentrate sample (Kingsland 2024e).

Sample	FT07	FT09	FT10	FT11	FT12	FT13	FT14	FT15	FT16	FT17 Bulk Composite
% TGC	94.29	92.96	94.03	94.53	93.8	91.11	95.11	91.81	88.98	93.69
Recovery %	79.6	85.9	53.2	84.4	92.0	91.3	92.4	45.3	76.6	69.9

are presented have not been materially modified from the original market announcement.

## Acknowledgments

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