

# NGX TO UNDERTAKE SCOPING STUDY FOR DUWI NATURAL GRAPHITE PROJECT

NGX Limited (ASX: NGX) (“NGX” or “Company”) is pleased to advise that the Company has commenced preparatory testwork and other studies to inform a Scoping Study on the Company’s Duwi Natural Graphite Project (“Duwi” or “Project”) located in Central Malawi. The Project has potential to become a substantial natural graphite producer based on its large, high grade flake graphite resource and the large base of testwork and studies already completed.

## HIGHLIGHTS

- NGX received a Retention Licence for the Duwi Natural Graphite Project on 13 June 2023, as part of the demerger from Sovereign Metals Limited (“Sovereign”).
- Duwi has a large resource of over 6Mt of contained graphite, including approximately 41% of Indicated Resources.

**Table 1: Mineral Resource Estimate, Duwi Natural Graphite Project**

Classification	JORC Classification	Tonnes (Mt)	TGC (%)	Tonnes Graphite (Mt)
Saprolite	Indicated	4.2	7.0	0.3
	Inferred	2.3	7.6	0.2
	<b>Subtotal</b>	<b>6.5</b>	<b>7.2</b>	<b>0.5</b>
Fresh	Indicated	31.0	7.2	2.2
	Inferred	48.4	7.1	3.4
	<b>Subtotal</b>	<b>79.4</b>	<b>7.1</b>	<b>5.6</b>
<b>Total</b>	Indicated	35.2	7.2	2.5
	Inferred	50.7	7.1	3.6
	<b>Total</b>	<b>85.9</b>	<b>7.1</b>	<b>6.1</b>

*Note: The Mineral Resource was estimated within constraining wireframe solids based on a nominal lower cut-off grade of 5 % TGC. The resource is quoted from blocks above 5 % TGC. Differences may occur due to rounding.*

- The Duwi Natural Graphite Project was the subject of a Scoping Study by Sovereign in September 2015. The Scoping Study was focused mainly on the traditional industrial graphite markets and less on the emerging battery anode market. That Study was subsequently revoked by Sovereign as it was considered that the parameters used were no longer relevant.
- NGX will now undertake a range of preparatory work, including downstream processing testwork for battery anode material, as well as updates of a range of previous input studies, to feed into a new Scoping Study.

For further information, please contact:

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## INTRODUCTION

The Duwi Natural Graphite Project (“Duwi” or the “Project”) is located in Malawi, only 15km from the capital city of Lilongwe. The Project’s location provides excellent access to services and infrastructure, including a 25km haul to existing railway infrastructure, access to power and water capable of being sourced within the Project area.

## LOCATION AND GEOLOGY

The Project is located within NGX’s 100%-owned Retention Licence RL0032/22 in Malawi, near the capital city of Lilongwe (Figure 1).

In central Malawi, mineralised graphitic gneisses occur in numerous bands ranging from a few metres to up to one hundred metres thick over many hundreds of kilometres of cumulative strike length. These occur within a thick package of garnet-biotite paragneisses that underlay much of central Malawi.

At the Duwi trend, high-grade, coarse flake graphite mineralisation has been identified over a substantial strike length. Just ~2km of this trend has been drilled previously, resulting in the definition of the Duwi Main, Duwi Bend and Nyama graphite deposits.

Mapping, rock-chip sampling and results from a VTEM geophysical survey show potential that outside the Duwi trend, within NGX tenements, substantial potential exists for the discovery of additional large graphite deposits.

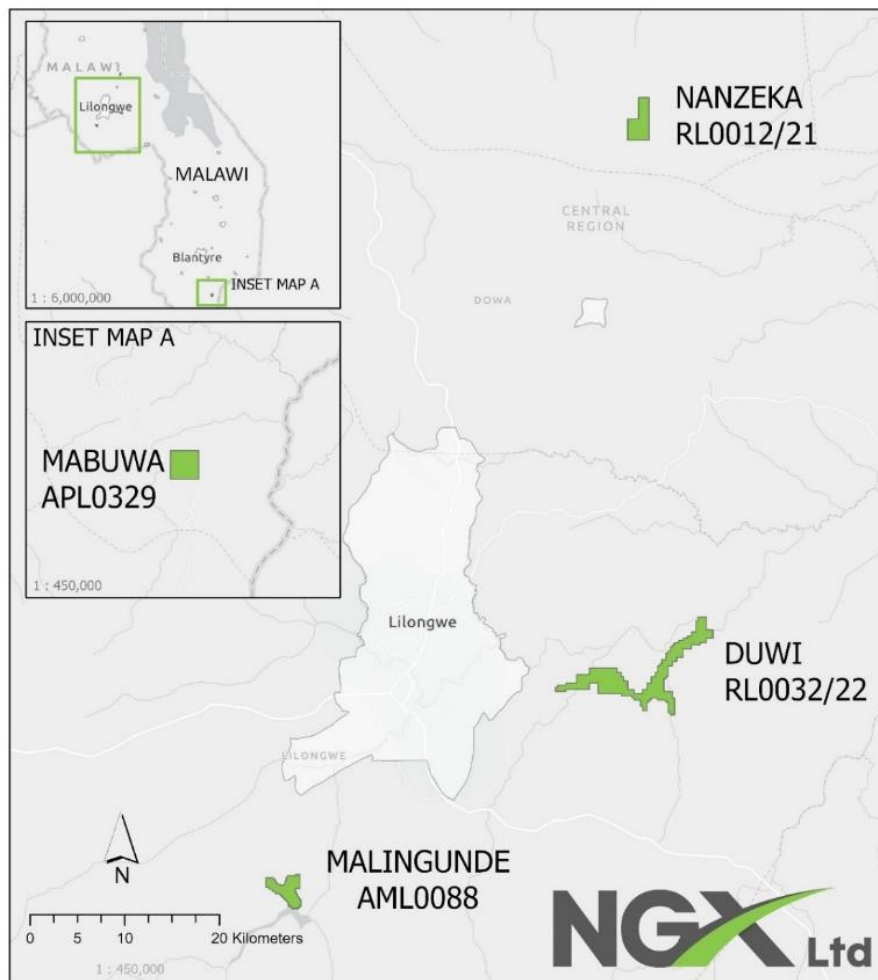


Figure 1: Tenement Location Map of the Graphite Projects

## MINERAL RESOURCES

ERM Australia Pty Ltd trading as CSA Global Pty Ltd (“**CSA Global**”) prepared the Mineral Resource Estimate (MRE) for Duwi in 2014. The MRE, classified as Indicated and Inferred, was prepared by a competent person and reported in October 2014 in accordance with the JORC (2012) Code. Classification of the MRE was carried out taking into account the geological understanding of the deposit, quality of the sampling and density data, and drill hole spacing. Metallurgical considerations of flake size distribution, purity of product and petrographic analyses were also given due consideration.

**Table 1: Mineral Resource Estimate, Duwi Natural Graphite Project (refer Highlights page)**

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The current Duwi Main and Duwi Bend deposits make up only a small portion of the total prospective strike length of graphite mineralisation along the greater Duwi Trend. Mineralisation remains open along strike in a number of areas, and Heli-VTEM data, ground mapping and sampling indicates the potential for further significant extensions to this high-grade mineralised trend.

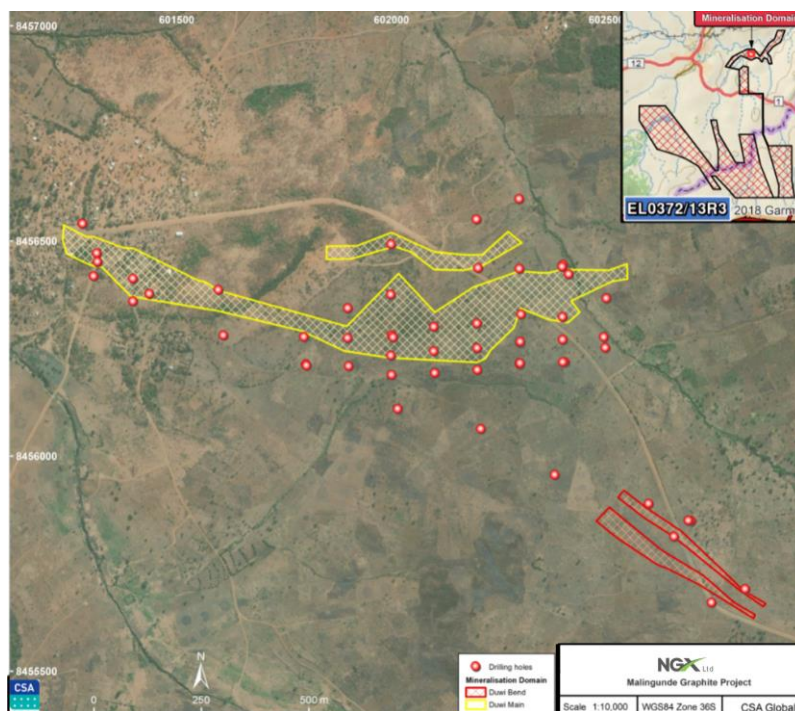


Figure 2: Collar plot, Duwi Main and Duwi Bend, with TGC domain outlines and drillhole collars.

## METALLURGY AND PROCESSING

Sovereign previously undertook a range of characterisation and mineralogical examinations and test-work programs on fresh ore and surface saprolite material from the Duwi deposit (Table 2).

The key element of the work was flotation programs designed to optimise graphite recovery whilst also maximising flake size and integrity. This work was aimed at optimizing concentrates for the traditional flake graphite market and only limited battery/anode testwork was undertaken.

**Table 2: Duwi – Examples of Concentrate Flake Size and Carbon Content Achieved from Mintek and SGS Testwork Programs**

Particle size		MINTEK 2013		SGS 2014		Flake Category
Tyler Mesh	(µm)	Distribution (wt. %)	C <sup>1</sup> (%)	Distribution (wt. %)	C <sup>2</sup> (%)	
+35	+425	19.7	96.3	17.5	95.8	Extra Large (Jumbo)
-35 + 48	- 425 + 300	17.1	93.3	16.0	93.8	
-50 + 100	- 300 + 150	27.4	90.3	29.3	91.0	Large-Medium
-100 + 200	- 150 + 75	15.7	90.8	19.1	88.8	Small
-200	- 75	20.1	88.7	18.0	87.7	Amorphous
<b>Total</b>		<b>100.0</b>	<b>91.8</b>	<b>100.0</b>	<b>91.3</b>	

<sup>1</sup> The graphitic carbon content of the samples was determined using a thermo gravimetric analyser. The graphitic carbon equivalent content shown in the table is the difference between the loss on ignition at 375°C and 1,000°C.

<sup>2</sup> The chemical analysis used to determine the total carbon content employs combustion of a sample followed by infrared detection on a LECO SC-632 instrument. All reported analytical results have an associated measurement uncertainty based on the expected precision and accuracy relating to the method and sample concentration. Values at 100% should not be treated as pure products without additional impurity testing. The estimated measurement uncertainty for total carbon values greater than 90% C is 1.7% (relative) with a resolution of 1 significant figure.

## INFRASTRUCTURE

Duwi is located approximately 15km east of Lilongwe, Malawi's capital, and hence boasts good access to services and infrastructure. The site may be serviced by an existing 18km unsealed road, which will access the main Malawian M1 highway at Lilongwe.

The proximity to Lilongwe gives the project a number of potential benefits:

- Access to a large workforce with daily (commuting) access for the Lilongwe-based personnel, removing the requirement for site accommodation and construction camps.
- Short 25km haul to existing road and underutilized rail infrastructure at operational intermodal rail sidings at Kanengo and Balan'gombe.

In addition, the Malawi transmission authority ESCOM maintains a 330kV high voltage transmission trunk line which passes within 4km to the north of Duwi.

Water is relatively plentiful in the immediate area and, subject to hydrogeological and hydrology investigation, the site is likely to be able to source sufficient water within the project area. Also, the (permanent) Lilongwe River lies just 4km north of the Duwi Deposit and has very reliable supply.

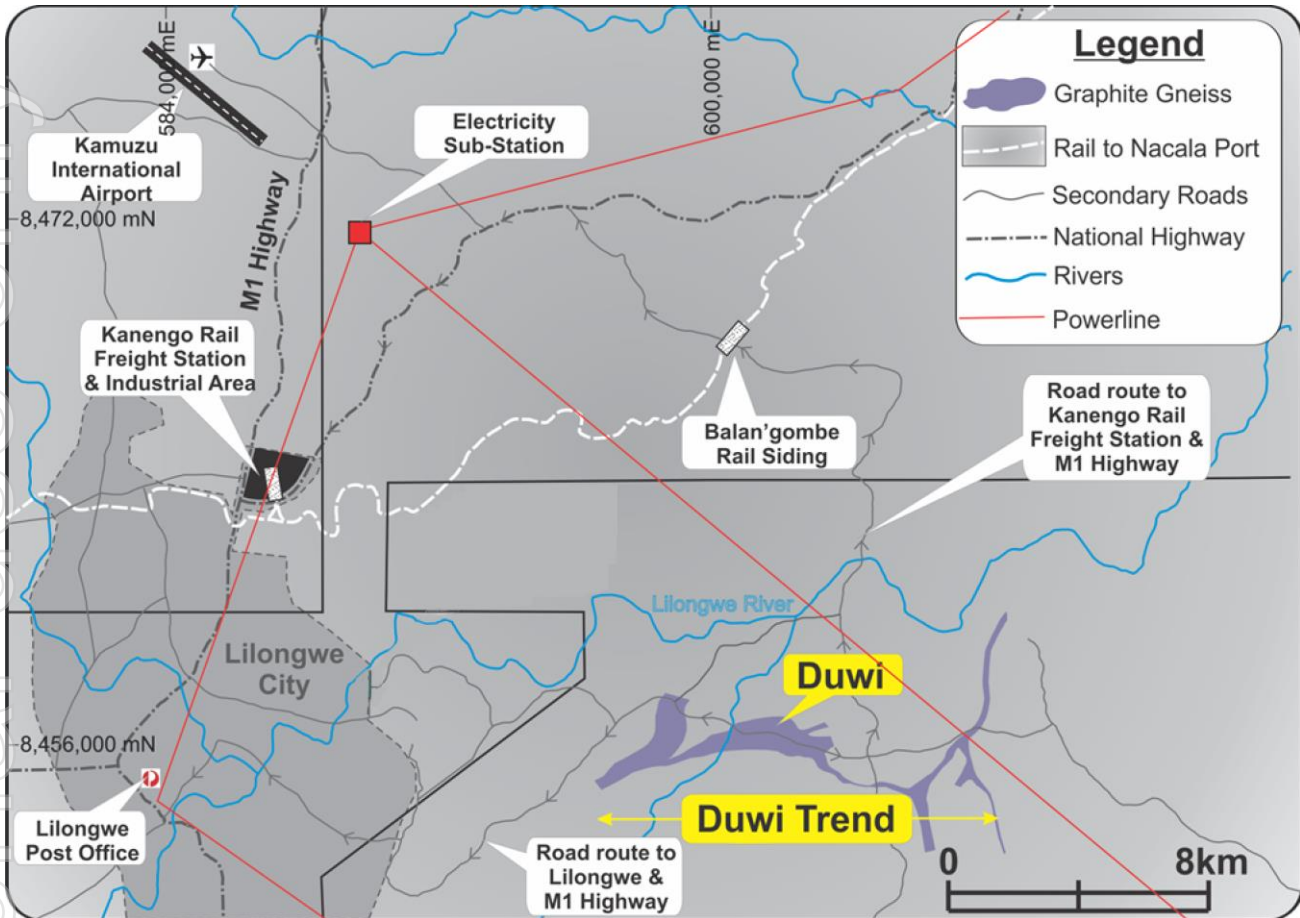


Figure 3: Location and infrastructure around the Duwi Natural Graphite Project.

## MARKETING

Historically, natural graphite is mainly used in refractory applications, as a conductor of heat and electricity and in lubrication. The largest users of natural flake graphite are steelmaking, non-ferrous metals, and other high-temperature processes including cement and glass production.

An important and potentially fast-growing market for natural graphite is as a component of anodes for lithium-ion batteries. Graphite is a significant input in many types of battery and graphite anodes are currently made from either synthetic graphite or natural flake graphite. Natural graphite has important cost and environmental advantages compared to synthetic graphite in battery anodes.

The industrial impetus towards battery-based energy storage devices is likely to create significantly increased demand for natural graphite.

NGX is developing a strategy to pursue the emerging growth market for natural graphite as a battery anode material. The Company seeks to demonstrate the suitability of its graphite concentrates as a battery anode input as well as a large flake graphite product for the traditional markets.

To qualify as battery anode material a range of metallurgical and other testwork is required, which was only partly completed by Sovereign. NGX plans to conduct further testwork to this end.

## PROPOSED WORK PROGRAM

NGX is finalizing plans for a range of testwork and studies to upgrade the information in the previous 2015 Scoping Study for Duwi, completed by Sovereign.

This includes revisiting and updating infrastructure and transport options, particularly in light of the emerging benefits of grid-connected solar PV generation to provide a cost effective, sustainable power supply.

Additional metallurgical testwork will be undertaken to produce a high-grade Duwi concentrate with low levels of impurities suited to anode materials production, building on prior testwork. A secondary focus will be to optimise the tailings produced to minimise environmental impacts. Concentrate generated in the Duwi metallurgical program will be evaluated for downstream applications including battery anode materials.



Figure 4: Looking East towards the Duwi Natural Graphite Project Site

### **Competent Person Statement**

The information in this Report that relates to Exploration, Mineral Resource & Metallurgical results extracted from the Company's Prospectus lodged with ASIC on 12 April 2023. This Prospectus is available to view on [www.ngxlimited.com](http://www.ngxlimited.com). The information in the Prospectus was based on and fairly represents information compiled or reviewed by Mr David Williams, a Competent Person, who is a Member of The Australian Institute of Geoscientists (RPGEO) (#4176). Mr Williams is employed by CSA Global, an independent consulting company. Mr Williams has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, 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'. The Company confirms that it is not aware of any new information or data that materially affects the information included in the Prospectus. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the Prospectus.

### **Forward Looking Statement**

This release may include forward-looking statements, which may be identified by words such as "expects", "anticipates", "believes", "projects", "plans", and similar expressions. These forward-looking statements are based on NGX's expectations and beliefs concerning future events. Forward-looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of NGX, which could cause actual results to differ materially from such statements. There can be no assurance that forward-looking statements will prove to be correct. NGX makes no undertaking to subsequently update or revise the forward-looking statements made in this release, to reflect the circumstances or events after the date of that release.