

## GLADIATOR TARGETS URANIUM PROSPECT AT ELAND HILL

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Gladiator Resources Ltd (ASX: GLA) (**Gladiator** or the **Company**) is pleased to advise that mapping and sampling is underway at its Eland Hill Prospect in Tanzania, where work in 2008 by Western Metals and Uranium Resources (WML) identified Uranium mineralisation<sup>1</sup> together with Tantalum and Niobium.

- **Priority target is a radiometric anomaly with 300 to 4,000 counts per second (cps)**
- **Uranium mineralisation is within Paleoproterozoic syenite intrusions with uraniferous pyrochlore identified as the main Uranium mineral**
- **2008 selective rock samples recorded up to 1,080 ppm U<sub>3</sub>O<sub>8</sub> and reportedly<sup>2</sup> high levels of Tantalum (Ta) and Niobium (Nb) which are on the USA, EU and Australian Critical Minerals lists**
- **No systematic sampling has been carried out to date despite the positive indications**
- **Current field work to include sampling to better understand the potential scale and grade of Uranium, Niobium and Tantalum mineralisation**

### **Executive Chairman James Arkoudis comments:**

*“Eland Hill Prospect has not been previously explored by the Company, however with the benefit of the 2008 Western Metals results showing a very promising combination of elevated Uranium and possibly Tantalum and Niobium, we can’t wait to get to site to conduct further testing and better understand the potential of all.*”

*This is an ideal time of year to maximise accessible outcrop, before the wet season kicks in around November. We expect this work at Eland Hill to take about 2 weeks onsite and look forward to potentially identifying drill targets for after the wet season finishes in Q2 next year. These are exciting times for the Company, with a new and invigorated board focused on delivering for the benefit of our shareholders”.*

### **Gladiator’s Field Work – (refer also to Project overview, Appendix 1)**

The current fieldwork will focus on mapping and the collection of samples across anomalous zones in a systematic manner to provide an indication of the potential grade and dimensions of the anomalous zones. Samples will be analysed for Uranium, Tantalum, Niobium and Rare Earth Elements (REE’s). Samples are expected to be submitted to the laboratory in November.

**Released with the authority of the Board**

### **FURTHER INFORMATION**

**James Arkoudis** - Executive Chairman

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**Julian Rocket** - Company Secretary & General Counsel

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<sup>1</sup> Drake-Brockman Geoinfo Ltd report titled “Preliminary report for Western Metals Ltd and Uranium Resources, Southern Tanzania Field Work”, June-July 2008 (DBG, 2008).

<sup>2</sup> Unconfirmed source but likely given the confirmed presence of pyrochlore.

## Competent Person Statement

Information in this “ASX Announcement” relating to Exploration Targets, Exploration Results and Mineral Resources has been reviewed by Mr. Andrew Pedley who is a member in good standing with the South African Council for Natural Scientific Professions (SACNASP). Mr. Pedley has sufficient experience that is relevant to the types of deposits being explored for and qualifies as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves” (JORC Code 2012 Edition). Mr. Pedley consents to the inclusion in this document of the matters based on the information in the form and context in which it appears. The market announcement is based on, and fairly represents, information and supporting documentation prepared by the Competent Person. Mr. Pedley is not an employee of the Company; he is a Senior Associate with the MSA Group of Johannesburg who are providing consulting services to Gladiator Resources Ltd.

## About Gladiator Resources Limited

Gladiator is an ASX listed (ASX: GLA) exploration and mining Company with a focus on Uranium and Gold. The Company holds seven exploration licenses covering over 1,764km<sup>2</sup> in Tanzania, highly prospective for Uranium. Three of the licenses are contiguous, forming the Mkuju Project which has the following Uranium deposits:

### **Likuyu North Deposit:**

Mineral Resource Estimate (MRE) dated 27 April 2022<sup>3</sup> prepared in accordance with the JORC Code:

- Indicated MRE of 3.1 Mt at an average grade of 333 ppm U<sub>3</sub>O<sub>8</sub> containing 2.3 Mlbs of U<sub>3</sub>O<sub>8</sub>
- Inferred MRE of 4.6 Mt at an average grade of 222 ppm U<sub>3</sub>O<sub>8</sub> containing 2.3 Mlbs of U<sub>3</sub>O<sub>8</sub>
- Located ~30 kms south of Uranium One’s world class Nyota deposit which has a Measured and Indicated MRE of 187 Mt at an average grade of 306 ppm U<sub>3</sub>O<sub>8</sub> containing 124.6 Mlbs U<sub>3</sub>O<sub>8</sub>
- Likuyu North is ‘on trend’ from Nyota, in a similar geological setting of the same age and structurally bounded by the same major NE-SW fault

### **Mtonya Deposit:**

Foreign estimate of 3.0 Mt at an average grade of 293 ppm U<sub>3</sub>O<sub>8</sub> containing 1.9 Mlbs of U<sub>3</sub>O<sub>8</sub>, all in the Inferred category<sup>4</sup>. Prepared in 2013 by Roscoe Postle Associates (RPA) of Toronto using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) definitions, and reported in accordance with Canadian National Instrument 43-101 (NI 43-101).

**Cautionary Statement:** *The estimate of mineralisation at Mtonya is a “foreign estimate” as defined by the ASX Listing Rules, and accordingly:*

- *The estimates are not reported in accordance with the JORC Code;*
- *The Competent Person has not done sufficient work to classify the foreign estimates as mineral resources in accordance with the JORC Code; and*
- *it is uncertain that following evaluation and/or further exploration work that the foreign estimates will be able to be reported as mineral resources in accordance with the JORC Code.*

Gladiator also holds three exploration licenses in Australia, highly prospective for Gold in the Murchison district of WA near Meekatharra and the historically prolific Lachlan Fold Belt of Victoria at Rutherglen and Bendoc.

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<sup>3</sup> Gladiator ASX announcement dated 29 April 2022 - “Likuyu North Mineral Resource Estimate”

<sup>4</sup> Gladiator ASX announcement dated 14 July 2022 - “Mtonya Uranium Deposit Tanzania”

**APPENDIX 1**

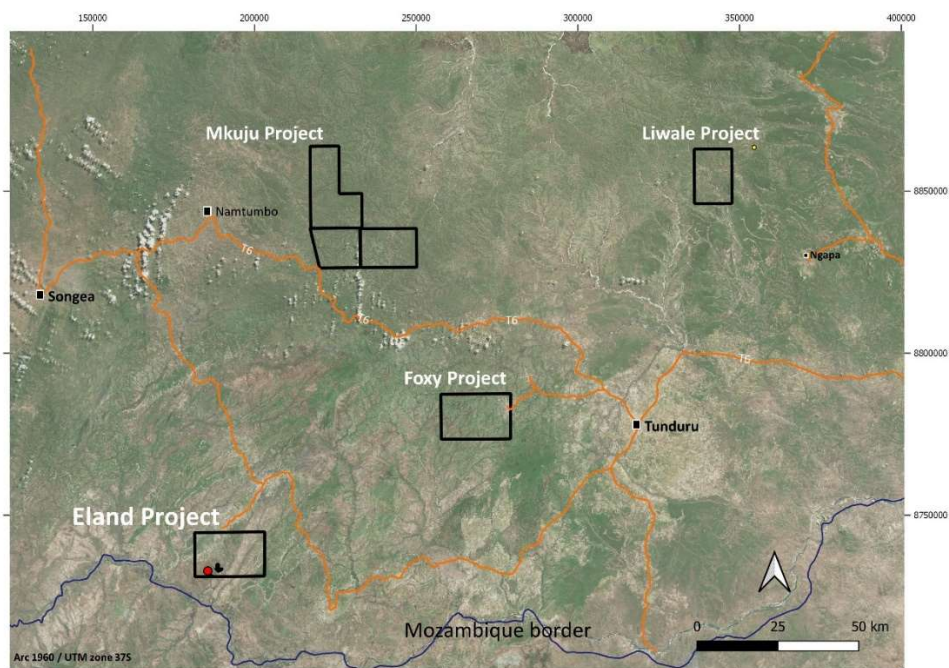
**Eland Project**

The Eland Project is in the SW corner of PL 11703/2021 (“Eland Project”) in the south of Tanzania (Fig 1) ~7 kms from the Mozambique border.



**Fig 1: Gladiator Uranium Exploration Projects in Tanzania**

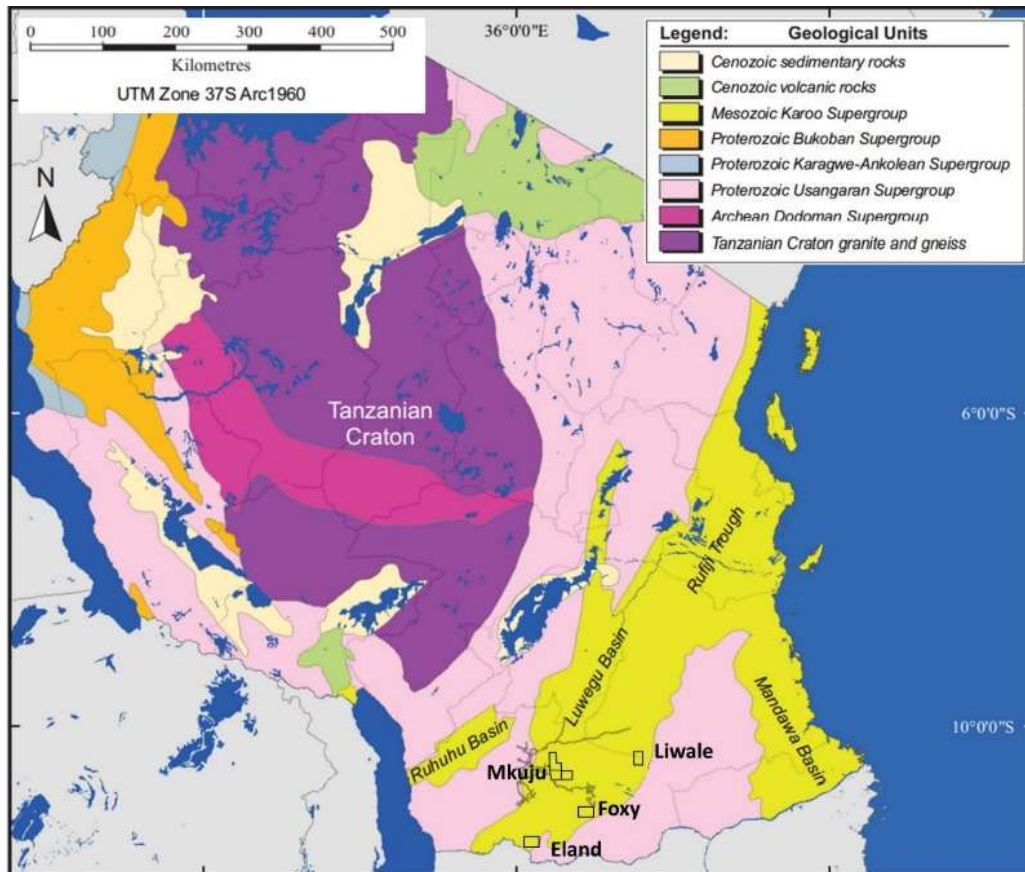
The Project is accessed from Tunduru (Fig 2) on the main T6 paved road running inland from the coast and Dar es Salaam to the Eland Project boundary, approximately 210 kms by road from Tunduru. Local tracks then allow access into and through the Project area in the dry season (April-Nov). The existing priority target at Eland Hill is ~14 km from the main road.



**Fig 2: Main roads (orange lines) & towns near Gladiator’s southern Projects – Eland Hill target (red dot)**

## Regional Geology

Eland Project is on the SE margin of the Karoo Supergroup in the Permian-Jurassic Luwegu sub-basin (Fig 3). The sub-basin covers ~60,000 km<sup>2</sup> of the Permian-Triassic Selous Basin, a typical Mesozoic intra-cratonic rift basin with NE trend, 180 km long and 60 km wide. The basin is filled primarily with sediments formed by the erosion of the underlying paleo-Proterozoic Usangaran-Ubendian (felsic gneiss, meta-granite, meta-syenite with pegmatites). Some are enriched in Uranium, especially the alkaline intrusions and associated pegmatites<sup>5</sup>.



**Fig 3: Geological Map of Tanzania showing the southern projects (Eland in far south)**

## Target Type

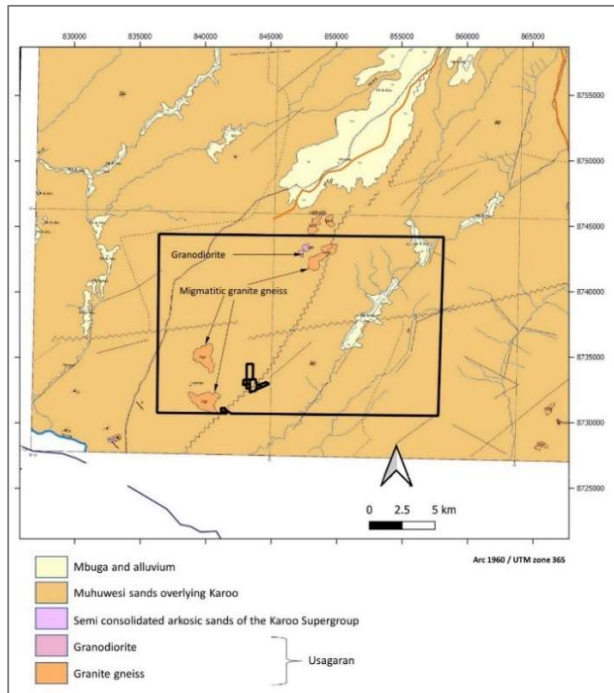
The target type is uranium within syenite intrusions. Syenite is an alkaline rock which has potential to host economic deposits containing one or a combination of Uranium, Tantalum, Niobium and may contain Rare Earth Elements (REE's).

## Eland Project Review

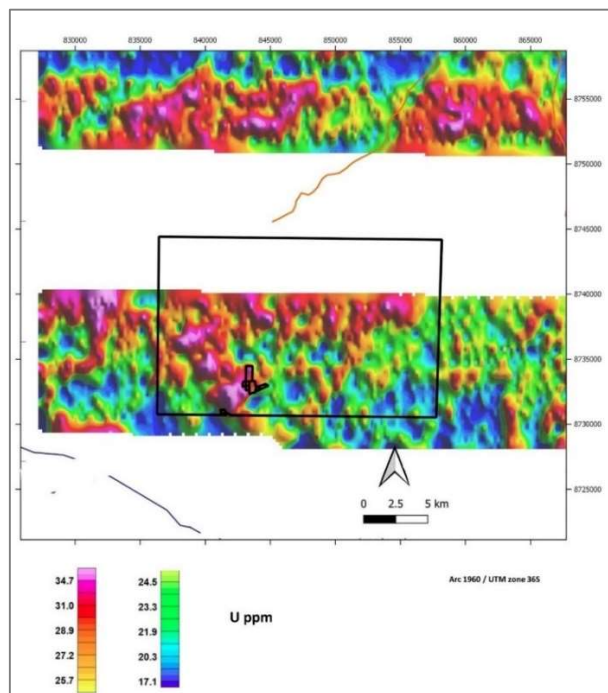
The Eland Project area is mostly of Karoo sediments overlain by recent sands (Fig 4). The Company's Eland Hill prospect under current evaluation is in the SW of the Project area where Usangaran migmatitic (granitic) gneiss is mapped. Airborne U channel radiometric data (Fig 5) reveals a NW-SE oriented radiometric high anomaly in close proximity to the gneiss outcrops.

<sup>5</sup> Roscoe Postle Associates Inc (RPA), Toronto, 2013 Mineral Resource estimate (foreign)

In 2008 WML carried out geological mapping and scintillometer surveys to follow-up on a pronounced airborne U channel radiometric anomaly. This work defined 3-4 areas with between 250 and 1000 cps and spectral equivalent uranium of 100 to 500 ppm. The largest area referred to as 'Eland Hill' has a zone of approximately 150 by 30 m with >250 cps. Grab samples reported between 141 and 1,080 ppm U<sub>3</sub>O<sub>8</sub> from a >400m long radiometric anomaly corresponding to a nepheline syenite. WML completed mineralogical work which confirmed that most of the Uranium is associated with uraniferous pyrochlore (Na, Ca, U)<sub>2</sub>(Nb, Ta)<sub>2</sub>O<sub>6</sub>(OH, F).

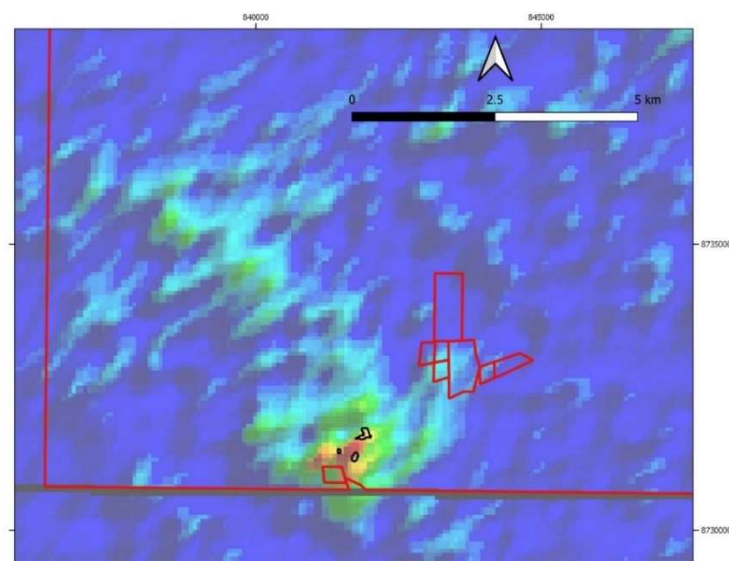


**Fig 4: Government geology at Eland Project (outline)**



**Fig 5: Government Radiometric U channel data**

Western Metals' high resolution airborne U channel radiometric data shows the anomaly (Fig 6) in the SW of the Project area (where their work was focused, and where Gladiator's also is). The primary ground cps anomaly is ~300 x 600m in size.

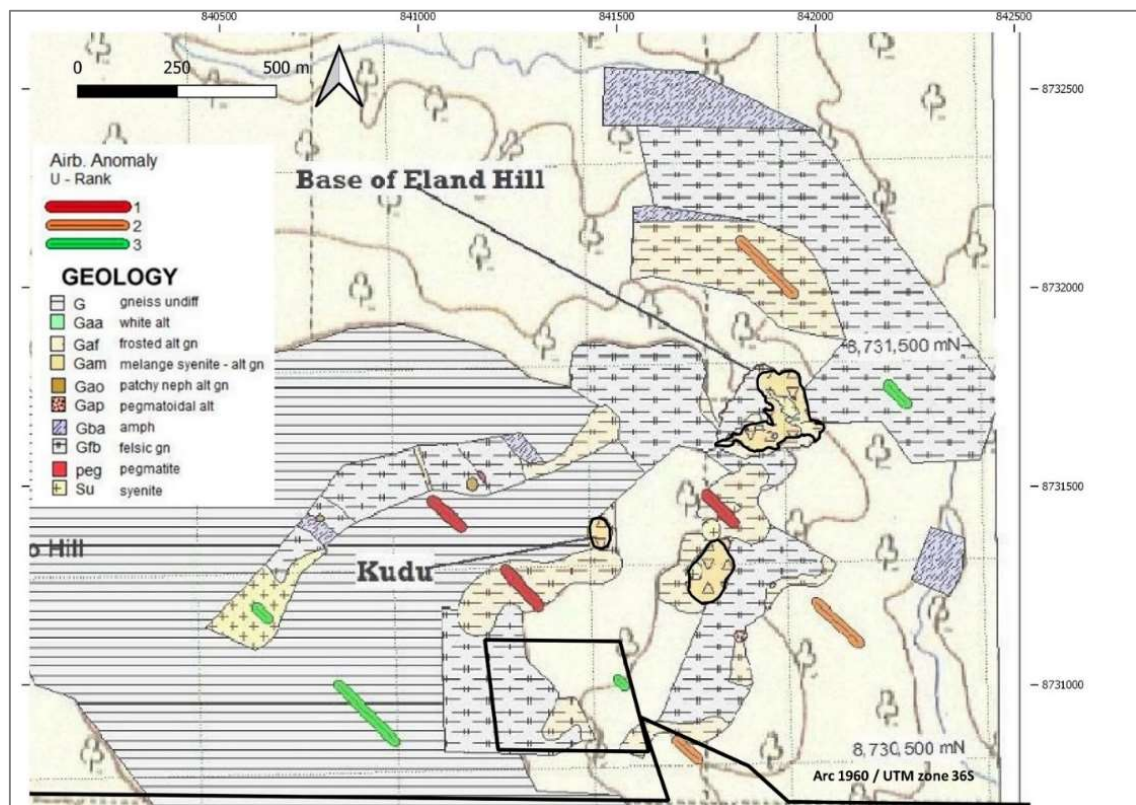


**Fig 6: Airborne U channel radiometric data for the SW part of the PL. Black outlines over anomaly are syenites (Fig 7). Project boundary in red**

In 2008 Western Metals carried out geological mapping, grab sampling and scintillometer traversing. The areas of radiometric anomalism closely coincide with the areas mapped as being of syenitic rocks, coarse-grained light grey igneous rocks composed mainly of alkali feldspar and ferro-magnesian minerals such as hornblende, deficient in quartz.

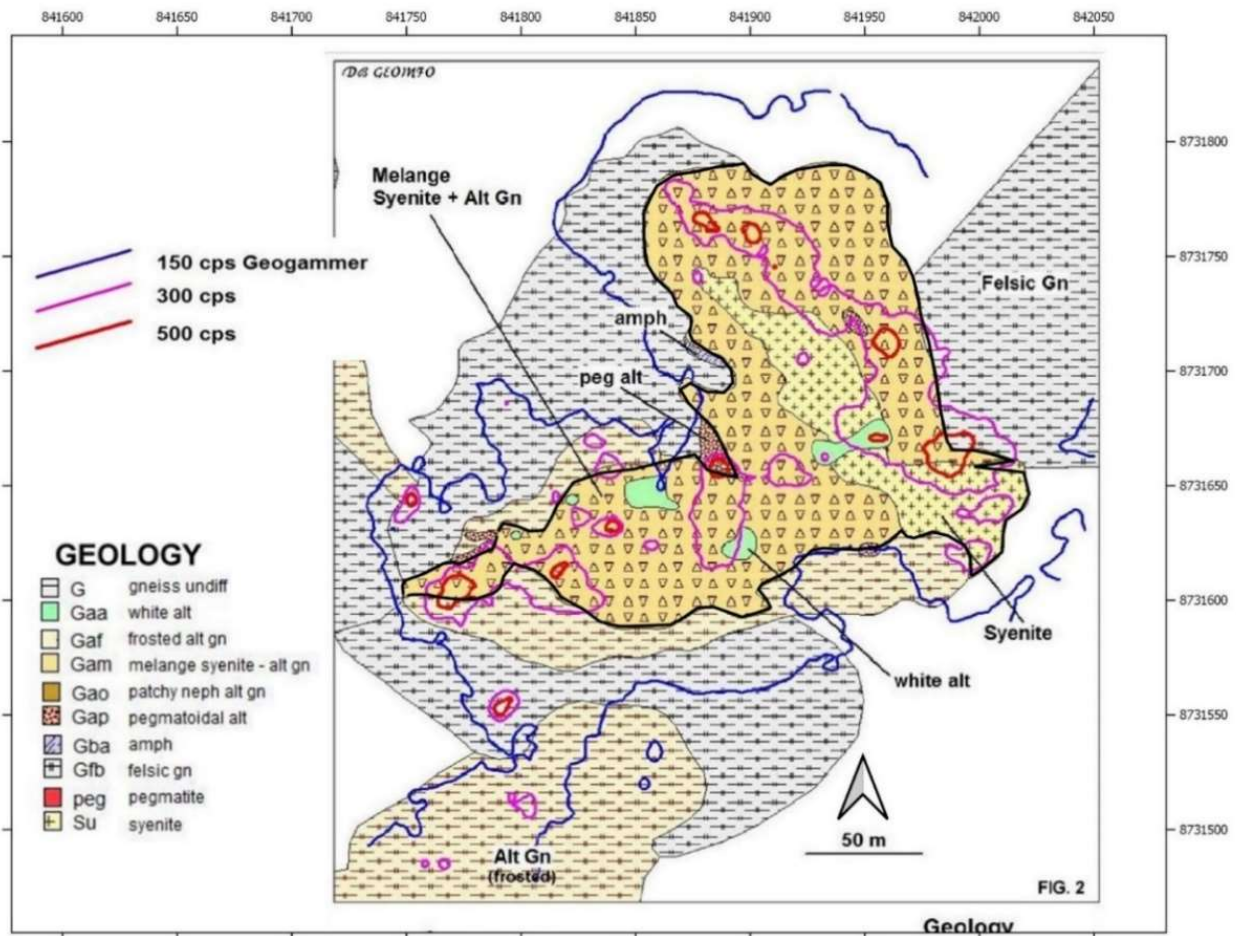
The Western Metals mapped geology of the full target area (Fig 7) outlines the syenitic rocks in the primary Eland Hill Prospect, the smaller Kudu syenite and a 3<sup>rd</sup> unnamed zone (~250m S of Eland Hill). The syenitic rocks are surrounded by felsic gneiss, with the following rock types recorded:

- Syenite – granular uniform white syenite with wispy trails of biotite
- Melange – chaotic mixture of syenite and blocks of altered frosted gneiss
- Frosted gneiss – slabby gneiss with distinct biotite banding, frosted appearance due to abundant disseminated nepheline and albite
- White alteration – believed to be albitite rock
- Pegmatoidal alteration – irregular patches of very coarse (mm sized) albite and nepheline crystals
- Country rock – banded biotitic felsic gneiss with amphibolite layers



**Fig 7: Geological map showing syenitic rocks (black outline) at the Eland Hill Prospect, along with Kudu and 3<sup>rd</sup> area. (coloured NW-SE oriented features are airborne ranked U anomaly axes). Source: (DBG, 2008).**

A close up of the Eland Hill Syenite (Fig 8) shows mapping in greater detail. At its widest the syenitic rocks cover 270 x 160m with an inner core of syenite and outer zone of a melange of syenite with altered gneiss. The syenite has a NW-SE oriented long axis. The main anomaly is a NW-SE oriented zone of >300 cps, associated with the contact of the syenite and the adjacent melange rock. Ground spectrometer results showed a range of 50-200 ppm equivalent Uranium, extending to the SE under cover of rubble and soil.



**Fig 8: detailed geological map of Eland Hill (black outline is same as in Fig 7). Source: (DBG, 2008).**

Within the syenitic rocks are patches of white albite altered rock (unit Gaa on Fig 8) and on the margins are small patches of pegmatoidal textured rocks. Images of syenitic rocks at Eland Hill are shown in Fig 9.

At the smaller Kudu anomaly, ground spectrometer and scintillometer traverses defined a 50 x 50m area of anomalism with up to 250 ppm equivalent Uranium, coincident with the syenite.

Western Metals report that three grab samples returned 141 ppm, 440 ppm and 1,080 ppm U3O8.



**Fig 9: Examples of syenitic rocks from the Eland target**