

31 August 2023

High-Grade Boothby REE Project NT

(Samples 2.20% TREO) Reynolds Range – Granted

HIGHLIGHTS

- **WGR has been granted EL33449 (“Boothby”) covering 32km² of highly prospective ground 60km to the north-west of Arafura Rare Earths Ltd (ASX:ARU) Nolans Bore REE-P-U-Th deposit.**
- **Rare-earth enrichment up to 22,000 ppm (2.20%) total rare earth oxides (“TREO”) identified in historic stream sediment sampling.**
- **The REE-mineralisation sample exhibits a Nd/Pr ratio of approximately 4:1, comparable to the nearby Nolans deposit.**
- **The Boothby REE Project is strategically located within the Reynolds Range area in the Paleoproterozoic Aileron Province.**
- **WGR considers that the Boothby REE area is under-explored given it has not been subjected to any systematic modern exploration techniques.**
- **WGR now intends to carry out detailed mapping and geochemical sampling and follow-up stream sediments samples to determine source of REE-mineralisation.**
- **WGR is delighted to add the Boothby project to its REE portfolio along with the recently announced Holmtjarn nr 100 project in Sweden, in line with the Company’s strategy of acquiring and exploring high-quality REE projects with a target threshold of 20Mt at grades >2% TREO.**

Western Gold Resources (ASX: WGR) (“WGR” or “the Company”) is pleased to announce it has officially been granted an Exploration License (EL33449), referred to as the ‘Boothby REE project’, located within the highly REE-endowed Reynolds Range of the Paleoproterozoic Aileron Province. This new exploration licence covers 32km² of highly prospective geology 60km northwest of the world-class Nolan’s REE-P-U-Th deposit (Figure 1).

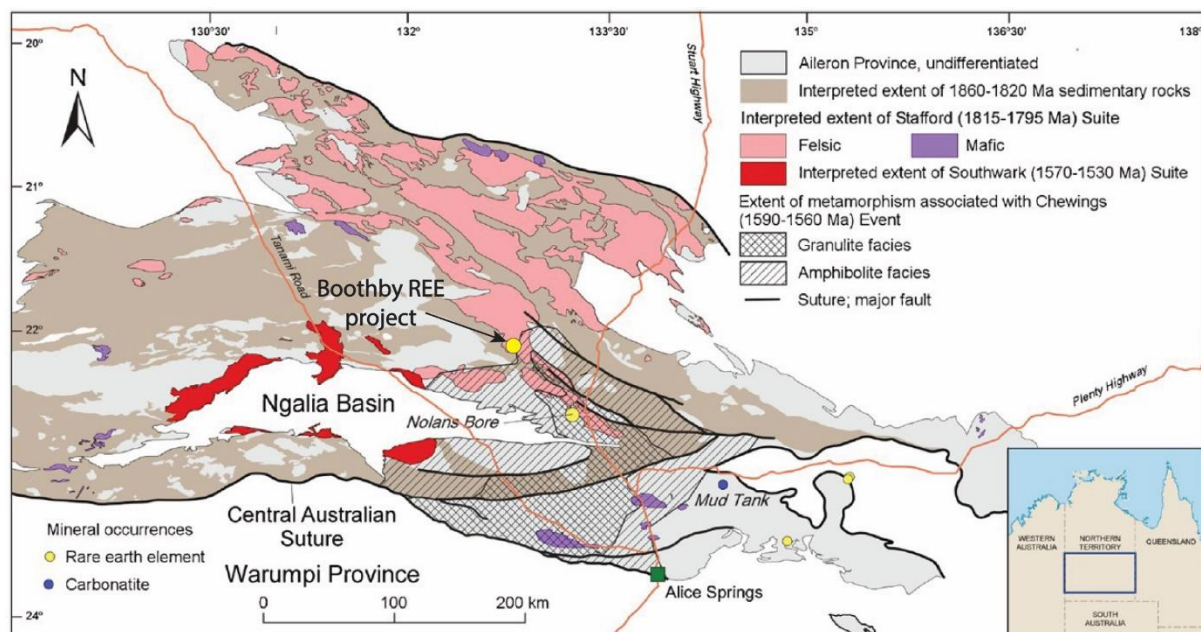


Figure 1. Location of Boothby REE project and geology of the Aileron Province (after Huston et al. 2016¹)

Previous Work

Crosslands Nickel Pty Ltd (Crosslands) conducted regional stream sampling programmes totalling 350 samples targeting Rare Earth Element (REE) mineralisation².

Samples were transported to Crossland's facility near Alice Springs for processing. Each sample was weighed and then dry sieved to <3mm and then <1.5mm. The finer fraction was passed across a Wilfley table to acquire a Heavy Mineral Concentrate (HMC). An aliquot of the HMC was sent to laboratory for processing. The aliquot consisted of approximately 30 grams of the final product.

The first batch of 95 aliquots were sent to Genalysis in Adelaide and assayed by lithium borate fusion methods FB6/MS and FB6/OE with analytical results for 37 elements including full REE suite. The remaining samples were analysed by aqua regia for 49 elements (limited REE elements) using methods AR25/MS and AR25/OE. Crosslands observed that results from samples analysed by fusion were 6 to 7 times higher than the same sample analysed by aqua regia digest.

Seven of the samples are located within granted tenement EL33449, one sample having full REE analysis and six others with partial REE analysis (Table 1). The one sample with full REE analysis (Figure 2) contains a TREO of 2.20% demonstrating the potential of the project to host a high-grade TREO deposit. The REE-mineralisation sample exhibits a Nd/Pr ratio of approximately 4:1, comparable to the nearby Nolans deposit.

Table1. Crosslands stream sediments REE results and analysis type

Sample ID	Easting	Northing	Analysis	La203	Ce203	Pr203	Nd203	Sm203	Eu203	Gd203	Tb203	Dy203	Ho203	Er203	Tm203	Tb203	Yb203	Y203	Lu203	Total TREO	%TREO
208063	264848	7553179	AR25/MS - AR25/OE	82	176													30		288	0.03%
208064	266197	7552698	FB6/MS - FB6/OE	2,369	4,911	559	2,012	482	13	606	139	1,060	249	794	120	139	754	7,730	105	22,042	2.20%
208065	266135	7552497	AR25/MS - AR25/OE	145	299													67		511	0.05%
208066	267412	7550895	AR25/MS - AR25/OE	233	449													81		763	0.08%
208067	266561	7551663	AR25/MS - AR25/OE	238	475													74		787	0.08%
208078	266127	7555254	AR25/MS - AR25/OE	373	746													130		1,249	0.12%
208085	267424	7555751	AR25/MS - AR25/OE	37	75													14		126	0.01%

Next Steps

WGR now intends to carry out detailed mapping and geochemical sampling to determine accurately the granite/greenstone contact and follow-up stream sediments samples to determine source of REE-mineralisation.

References

¹Huston, D.L., Maas, R., Cross, A., Hussey, K.J., Mernagh, T.P., Fraser, G. and Champion, D.C. (2016) The Nolans Bore rare-earth element-phosphorus-uranium mineral system: geology, origin and post-depositional modifications. *Mineralium Deposita* 51:797-822

²Crossland Strategic Metals Ltd, Mount Stafford, Anmatjira Range, Arunta Region, Fourth Annual and Final Report for EL 28492 for the period 28 July 2011 to 22 May 2015 (<https://geoscience.nt.gov.au/gemis/ntgsjspui/handle/1/80839>).

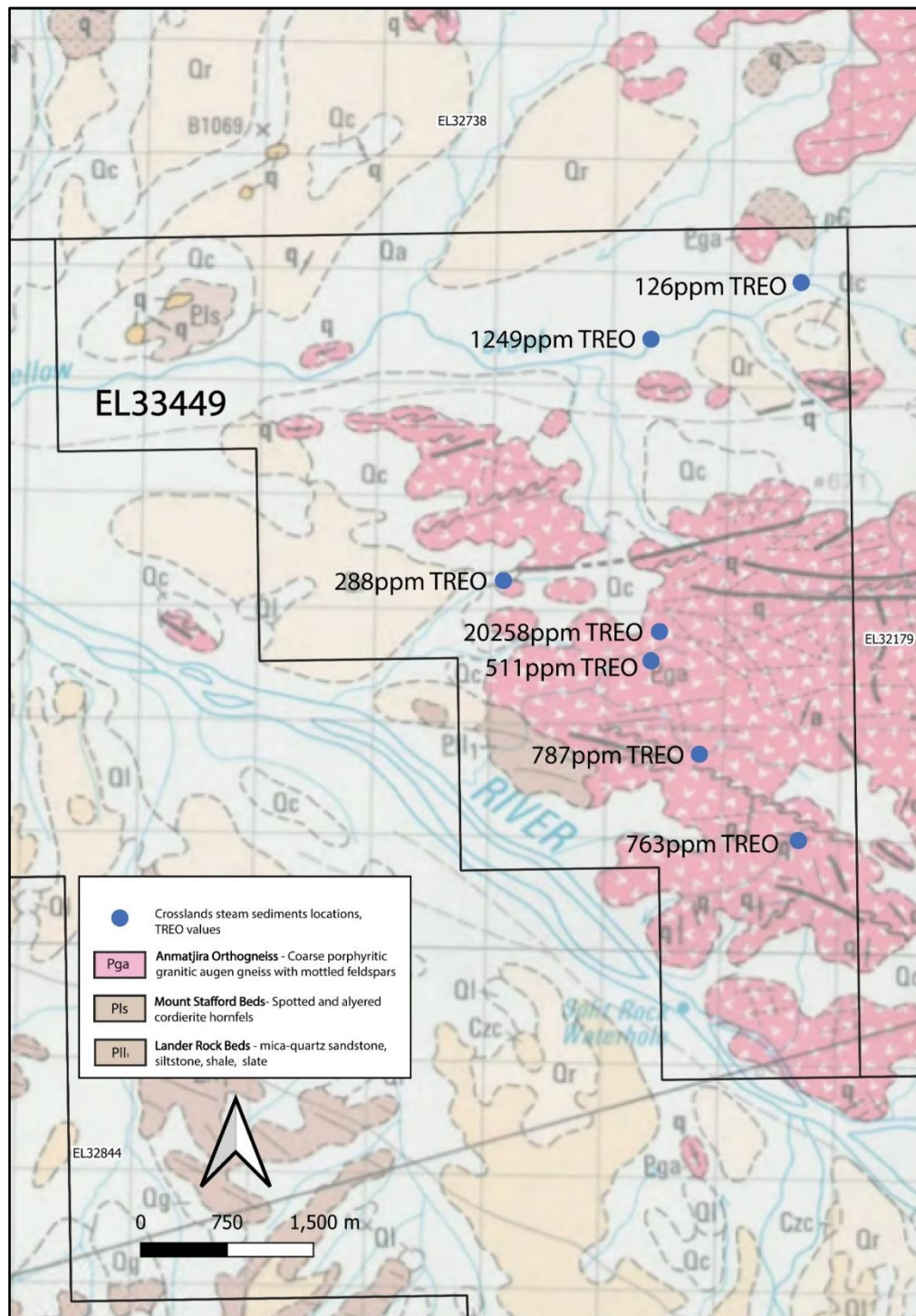


Figure 2. Boothby prospect displaying Crossland sample locations and TREO results (ppm) on local geology (NT Reynolds Range Region 1:100 000 Sheet)

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Competent Person's Statement

The information in this report which relates to Exploration Results is based on information compiled by Dr Warren Thorne, he is a member of the Australasian Institute of Mining and Metallurgy (AusIMM) and a full-time employee of the company. Dr Thorne who is an option-holder, has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for reporting of Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves" (JORC Code). Dr Thorne consents to inclusion in the report of the matters based on this information in the form and context in which it appears.