Overland Carbonatite Discovery: 10km Magnetic Corridor Expands Niobium-REE Targets

written by Raj Shah | July 23, 2026

Drill program to test extensive magnetic anomaly

July 23, 2026 (Source) – Highlights

- Reprocessing of a detailed 1999 airborne magnetic survey (80m line spacing) has delineated a significant 10km long, north-south magnetic anomaly – a compelling zone of interest for carbonatite-related mineralisation and a material expansion of AR3's drill target inventory beyond the initial OV167 discovery (see ASX release "Discovery of Niobium-Rare Earth Carbonatite System Identified at Overland Project" 8 July 2026).
- Historic hole R64 recorded a significant gamma response from 56m to 71m, remaining open at depth and comparable to the gamma response at the R254 target tested by AR3 with OV167. R64 sits within the same 10 km magnetic zone, approximately 3km south of the OV167 mineralised intersection, pointing to potential for the carbonatite system to extend well beyond the initial target.
- Drilling program planned to test priority targets within this extensive magnetic feature, building on the niobium-rare earth intercept in OV167 and providing AR3 multiple opportunities to replicate or extend that discovery along

the 10km corridor.

- Carbonatites are known to host a wide suite of critical minerals, including REE, niobium and copper.
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Australian Rare Earths Limited (ASX: AR3) has significantly expanded its drill target inventory at the newly identified niobium-rare earth carbonatite system at the Overland Project in South Australia. Reprocessing of a high-resolution 1999 airborne magnetic survey (80m line spacing) has revealed a prominent 10km long, north-south magnetic anomaly, extending the known mineralised footprint well beyond the OV167 discovery. A review of historic drill hole R64, located within this corridor approximately 3km south of the OV167 mineralised intersection, recorded a significant gamma response from 56m to 70m, remaining open at depth – an early indication that the system may continue along strike.

> *"The reprocessed magnetic data is an important advancement in our understanding of the Overland carbonatite discovery. The niobium–rare earth mineralisation intersected in OV167 is now supported by a prominent 10-kilometre magnetic corridor, materially expanding our drill target inventory.*
>
> *"Historic hole R64, approximately three kilometres south of OV167 within the same magnetic corridor, recorded a significant gamma response from 56 metres to 71 metres and remains open at depth. While further drilling is required, this provides an independently supported target and suggests the system may extend significantly beyond OV167.*
>
> *"Our upcoming program will test priority targets along the corridor to extend the mineralised system at OV167, investigate R64 and assess the scale and continuity of the broader carbonatite system.*

"This remains an early-stage opportunity, but confirmed niobium–rare earth mineralisation, the scale of the magnetic feature and the historic drill response provide multiple opportunities to replicate or extend the discovery.

"Overland continues to add meaningful critical minerals upside to AR3's portfolio, while our priority remains firmly on advancing the Koppamurra rare earths project toward commercialisation."

Travis Beinke, Managing Director and CEO, Australian Rare Earths Limited

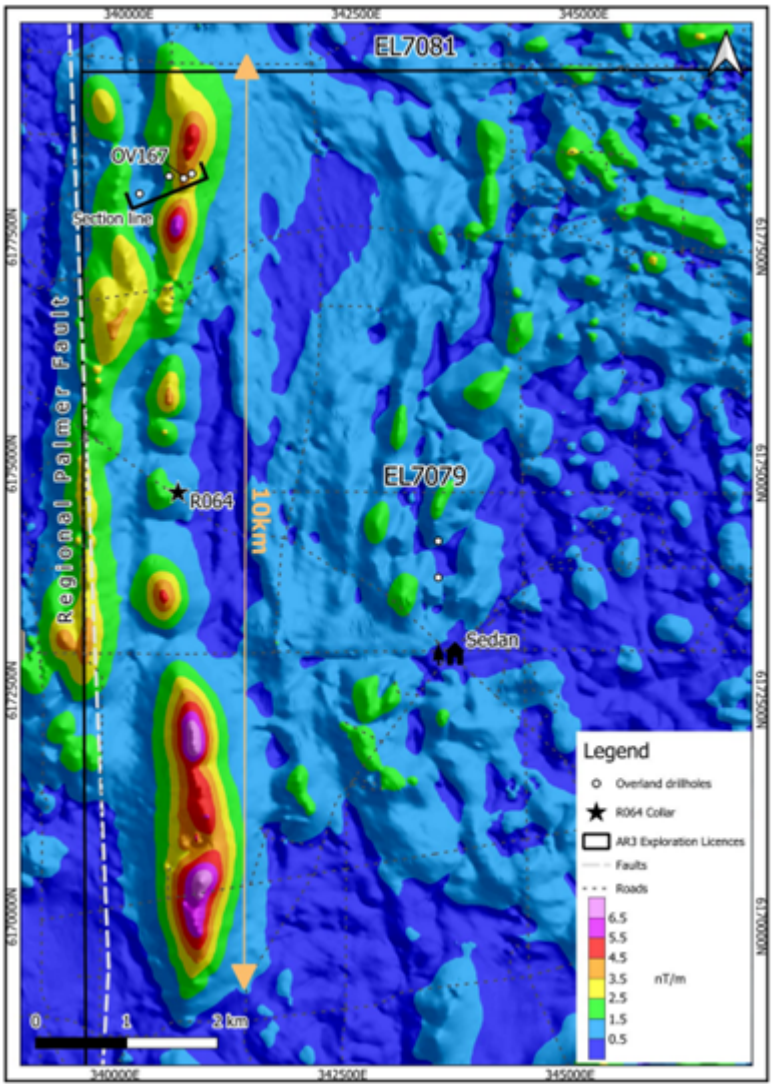

Figure 1 Normalised Source Strength (NSS) of Total magnetic

intensity (TMI), NSS reduces anomaly distortion due to magnetic remanence. R064 is located at 3406090E, 6174702N GDA 2020 Zone 54 and was a 120mm diameter hole drilled vertically to a depth of 71.0m.

Carbonatite Potential

Carbonatite systems are globally significant sources of REE and niobium (e.g. Lynas' Mt Weld and the world's major niobium mines). They are also known to host copper mineralisation, as demonstrated by the historic Phalaborwa carbonatite complex in South Africa (a major copper producer with by-product REE, zirconium and other metals). Closer to home, recent discoveries by companies such as WA1 Resources (ASX: WA1) at West Arunta and Encounter Resources (ASX: ENR) have highlighted the multi-commodity potential of carbonatites in Australia, including elevated copper alongside niobium and REE. These analogues illustrate the multi-commodity upside AR3 could unlock at Overland as exploration advances, building on the niobium-REE mineralisation already confirmed in OV167.

Only about one mineral exploration project in ten is taken to the drill stage, and one drill programme in 1000 finds a viable mineral deposit. Data compiled by Woolley and Kjarsgaard (2008a) indicates that approximately 6% of the 527 reported carbonatites and alkaline-carbonatite complexes host active mines, 3% hold historic mines, and 11% contain an established mineral resource. These numbers suggest that carbonatites have exceptional potential, and that a newly discovered alkaline-carbonatite complex has a 9 out of 100 probability of hosting a mine[1]. Against this base rate, Overland has already progressed from a geophysical target to a confirmed niobium-rare earth intercept at OV167, and the upcoming program is designed to test whether that success can be repeated across the broader 10 km corridor.

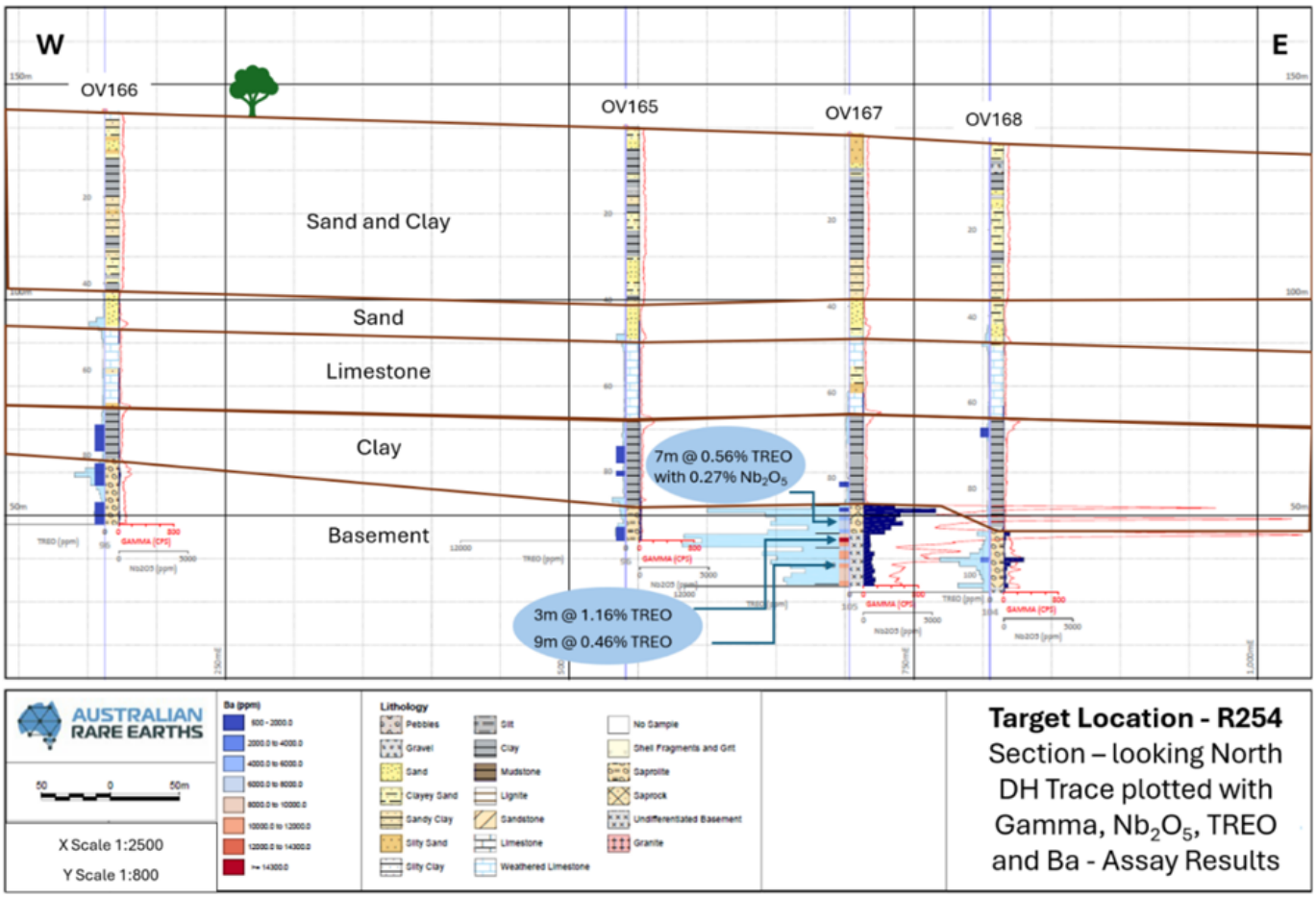

Figure 2 W-E Section displaying downhole; lithology, gamma response (cps), assays for TREO, Niobium and Barium.

Cautionary Note: The Company cautions that the results reported are from a single drill hole. There is currently insufficient data to define a Mineral Resource, and it is uncertain whether further exploration will result in the estimation of a Mineral Resource. Early-stage results may not be representative of the overall target. However, the geological, geochemical and mineralogical characteristics of OV167 support further systematic exploration of the R254 target. Detail of significant intersections in OV167 are reported in ASX release 8 July 2026.

Upcoming Drilling Program

AR3 is preparing a targeted drilling program to test priority magnetic geophysical targets along this 10 km north-south zone, with the results expected to determine how much of the corridor

beyond OV167 hosts additional mineralisation.

Drilling will aim to:

- Extend and better define the mineralised carbonatite system intersected in OV167 (19 m @ 0.61% TREO from 86 m to EOH, including elevated NdPr, DyTb and Nb_2O_5, remaining open at depth).
- Investigate the magnetic anomaly and the area around historic hole R64, which lies within the same broad magnetic corridor and showed a strong gamma response – a discrete, independently justified target in its own right.
- Assess the scale and continuity of the system along strike – key to establishing the overall size, and therefore the potential significance, of the discovery.

Next Steps

- Complete regulatory approvals and land access for drilling.
- Execute exploration drilling along the magnetic corridor.
- Detailed assaying, petrography, and downhole geophysics.
- Ongoing geophysical interpretation and target generation across the broader project area.

The announcement has been authorised for release by the Board of Australian Rare Earths Limited.

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Competent Person's Statement

The information in this report that relates to Exploration results is based on information compiled by Australian Rare Earths Limited and reviewed by Mr Rick Pobjoy who is the Chief Technical Officer of the Company and a member of the Australian Institute of Mining and Metallurgy (AusIMM). Mr Pobjoy has sufficient experience that is relevant to the style of mineralisation, the type of deposit under consideration and to the activities 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". Mr Pobjoy consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

Forward-Looking Statements

This announcement contains forward-looking statements. Such statements are based on the Company's current expectations and are subject to risks and uncertainties. Actual results may differ materially from those expressed or implied. Reference to the Simandl & Paradis (2018) paper is for contextual exploration modelling purposes only.

About Australian Rare Earths Limited

Australian Rare Earths (AR3) is a diversified critical minerals company, strategically positioned to meet the growing global demand for uranium and rare earth elements:

- AR3’s Koppamurra Rare Earths Project in South Australia and Victoria is a significant deposit of light and heavy rare earths, which has secured important Australian government support through a $5 million grant to accelerate development. With support from global advanced industrial materials manufacturer, Neo Performance Materials, AR3 is progressing towards commercialisation with a Pre-Feasibility Study, Maiden Ore Reserves and a pilot scale facility, solidifying its role as a potential source of new supply to diversify global rare earth feedstocks for the clean energy transition.
- AR3’s large ~8,000 km² Overland Uranium Project in South Australia shows strong uranium discovery potential, with initial drilling identifying opportunities for substantial near-surface and deeper deposits.

With strategic projects and strong government support, AR3 is well placed to capitalise on significant growth in the critical minerals market.

[1] George J. Simandl & Suzanne Paradis (2018) Carbonatites: related ore deposits, resources, footprint, and exploration methods, Applied Earth Science, 127:4, 123-152, DOI: 10.1080/25726838.2018.1516935