



Annual General Meeting

29 November 2024

*Building shareholder value through the
discovery of niobium and copper in
Australia*

ASX:ENR

Aircore drilling at Aileron – May 2024



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The information in this report that relates to Exploration Results is based on information compiled by Mr. Mark Brodie who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Brodie holds shares and options in and is a full time employee of Encounter Resources Ltd and has sufficient experience which is relevant to the style of mineralisation under consideration to qualify as a Competent Person as defined in the 2012 Edition of the ‘Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Mr Brodie consents to the inclusion in the report of the matters based on the information compiled by him, in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information in the relevant ASX releases and the form and context of the announcement has not materially changed. The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcements.

This announcement has been approved for release by the Board of Encounter.

Slide 7 - Source:

1 Mining Technology, CBMM opens niobium anode production facility in Brazil (<https://www.mining-technology.com/news/cbmm-opens-niobium-production-facility/>)

2 GUS Technology and Toshiba Signed Agreement for Next-Generation Niobium Titanium Oxide (NTO) Lithium-ion Batteries (<https://www.prnewswire.com/news-releases/gus-technology-and-toshiba-signed-agreement-for-next-generation-niobium-titanium-oxide-nto-lithium-ion-batteries-302299592.html>)

4 NOVONIX and CBMM Enter into Joint Development Agreement Focused on Cathode Materials (<https://www.novonixgroup.com/novonix-and-cbmm-enter-into-joint-development-agreement-focused-on-cathode-materials/>)

5 WAE sign strategic collaboration with Nyobolt (<https://nyobolt.com/resources/news/wae-sign-strategic-collaboration-with-nyobolt/>)

3 Leclanche Presents Lithium-Ion Cell with Niobium Anode Material (<https://battery-news.de/en/2024/09/25/leclanche-presents-lithium-ion-cell-with-niobium-anode-material/#:~:text=Swiss%20battery%20developer%20Leclanch%C3%A9%20SA,transport%2C%20shipping%2C%20and%20mining.>)

6 Brazil miner CBMM seeks to sell 45,000 tons of niobium oxide by 2030 (<https://www.reuters.com/article/business/autos-transportation/brazil-miner-cbmm-seeks-to-sell-45000-tons-of-niobium-oxide-by-2030-idUSL1N2KF2VE/>)

7 Brazilian niobium miner CBMM to invest US\$50mn in technology (<https://www.bnamerica.com/en/news/brazilian-niobium-miner-cbmm-to-invest-us50mn-in-technology>)

2024 Highlights

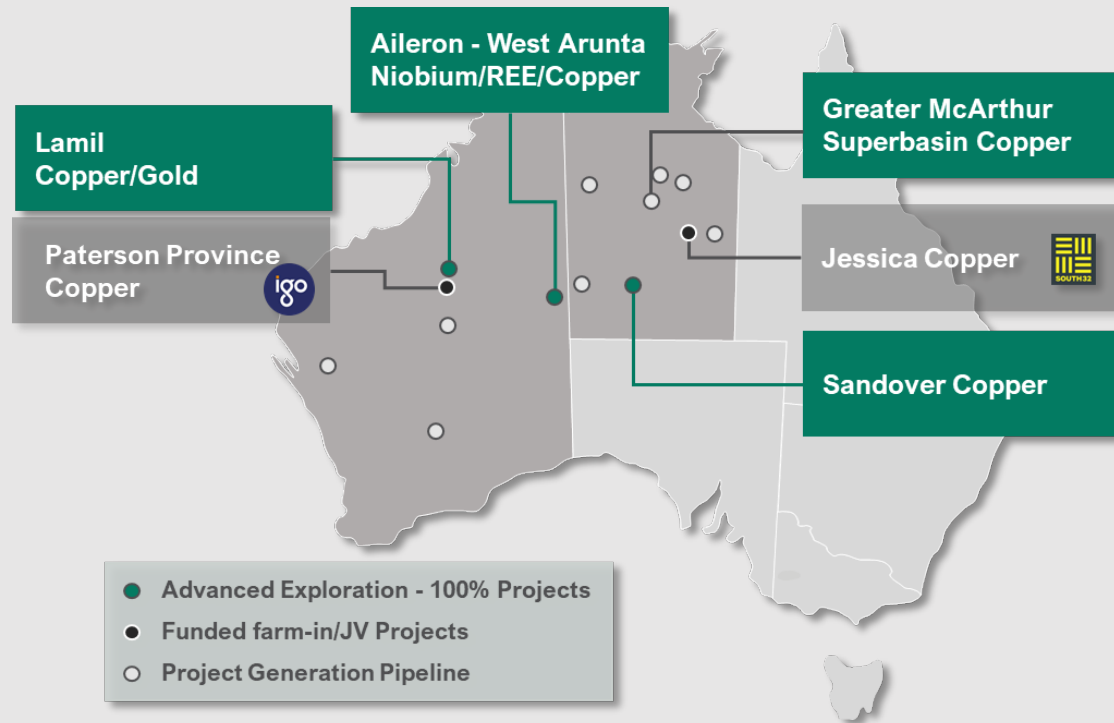
Major exploration campaign – discoveries of niobium-REE in the West Arunta and progress on copper in the NT

- Multiple mineralised carbonatites discovered in the West Arunta
- Highly enriched, near surface niobium-REE mineralisation was intersected at the Crean, Emily and Green prospects
- Well-funded (~\$22 million*) to deliver a maiden niobium resource, accelerate exploration activities and progress development study workstreams in the West Arunta
- Farm-in partners South32 and IGO completed copper exploration drilling in WA and NT, results pending
- Sandover (NT) drilling demonstrated basin-wide migration of copper-rich mineralising fluids and returned high-grade copper at the basin-basement interface



A premier exploration portfolio

Early mover positions into world-class and emerging minerals belts attracting Tier 1 partners



High impact **100%-owned projects** in WA and NT

Commanding land position in the **West Arunta mineral province**

Large scale copper projects being funded through partnerships with leading miners



Targeting the discovery of new, world-class mineral deposits



Significant and consistent in-ground exploration investment



Early mover into new regions with the application of new datasets



Collaborating with high-quality exploration teams at major companies

Aileron, West Arunta (ENR 100%)

*Carbonatite-hosted niobium/REE
and IOCG copper-gold*

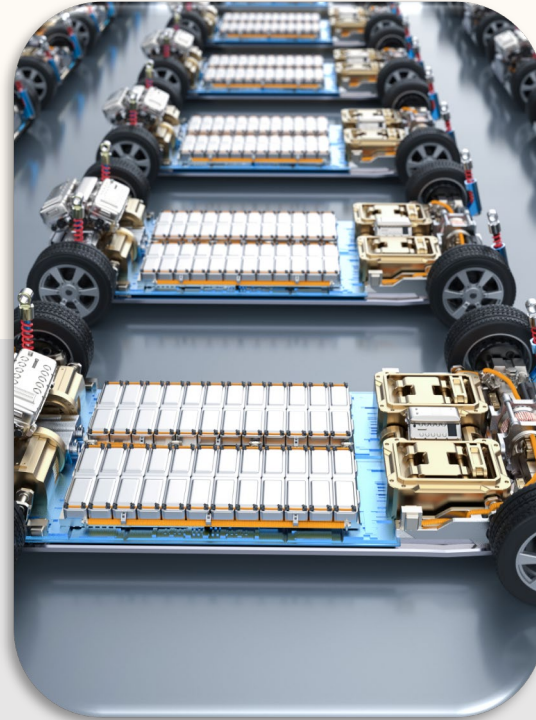


Niobium

Niobium leveraged to global growth and the energy transition



Niobium is a micro alloy for lighter, stronger and more corrosion resistant steel



Enhances next generation batteries with super-fast charging, high energy density and improved safety



Diverse global customer base and classified as a critical mineral by many major western countries

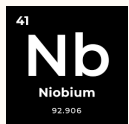


Niobium is a high margin business with only three operating mines (two in Brazil and one in Canada)

Niobium Demand – Batteries

Significant momentum building in commercial applications of niobium in batteries

- **November 2024:** CBMM opens niobium anode production facility in Brazil, producing 2,000 tonnes of Echion Technologies XNO active anode material¹
- **November 2024:** GUS Technology and Toshiba signed a collaboration agreement to commercialise next generation Li-ion battery cells utilising Niobium Titanium Oxide (NTO) as the anode. The agreement is backed by CBMM and Sojitz Corporation²
- **September 2024:** Swiss-based battery developer Leclanché SA launched the XN50, the world's first commercialised Li-ion cell featuring niobium-based anode material XNO from Echion Technologies³
- **August 2024:** Australian-based battery and technology company, Novonix signed a partnership agreement with CBMM to trial niobium in its cathode production processes⁴
- Fortescue owned Williams Advanced Engineering and Nyobolt have a partnership agreement progressing battery technology focused on ultra-fast charging and heavy-duty power train, underpinned by niobium-based anodes⁵
- CBMM is targeting to sell 45,000 tons per annum of niobium oxide by 2030⁶ with plans to invest US\$52m in technology development for niobium use in battery applications in 2024⁷



Battery Advantages

Fast
Charging

Safety

Energy
Density

Cycle Life

Stability

West Arunta – new niobium+ mineral province

Extraordinary early drill success rates in the West Arunta

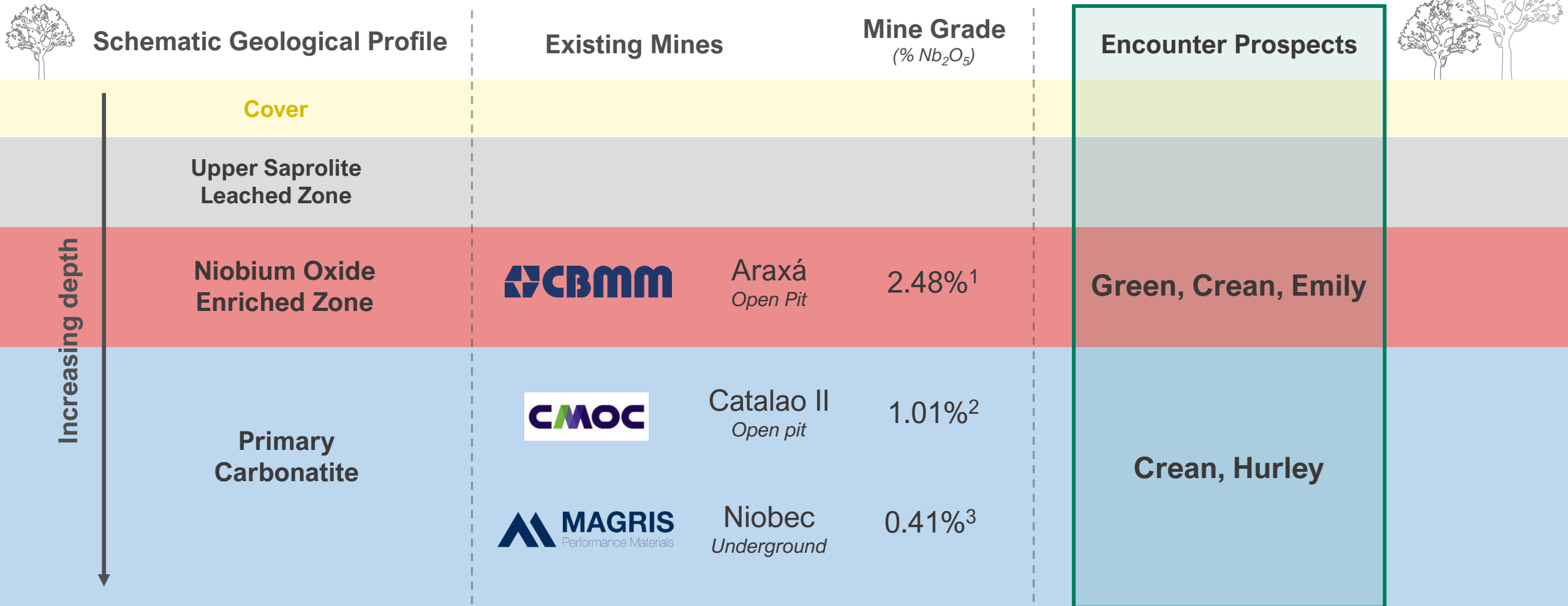
- World-class Luni niobium discovery by WA1 Resources (200 Mt @ 1.0% Nb₂O₅)¹
- Carbonatite complexes in the West Arunta are strike extensive and host abundant high-grade niobium mineralisation
- West Arunta is a potential major new source of niobium
- Size and grade of discoveries could be transformative for the niobium market
- West Arunta is remote but located in the top tier mining jurisdiction of Western Australia



¹ Refer to WA1 ASX announcement 1 July 2024

Carbonatite hosted niobium mineralisation

Carbonatites weather preferentially and can host abundant high-grade niobium mineralisation



¹ Shikik, A: 'A review on extractive metallurgy of tantalum and niobium' Journal of Metallurgy. (2020)

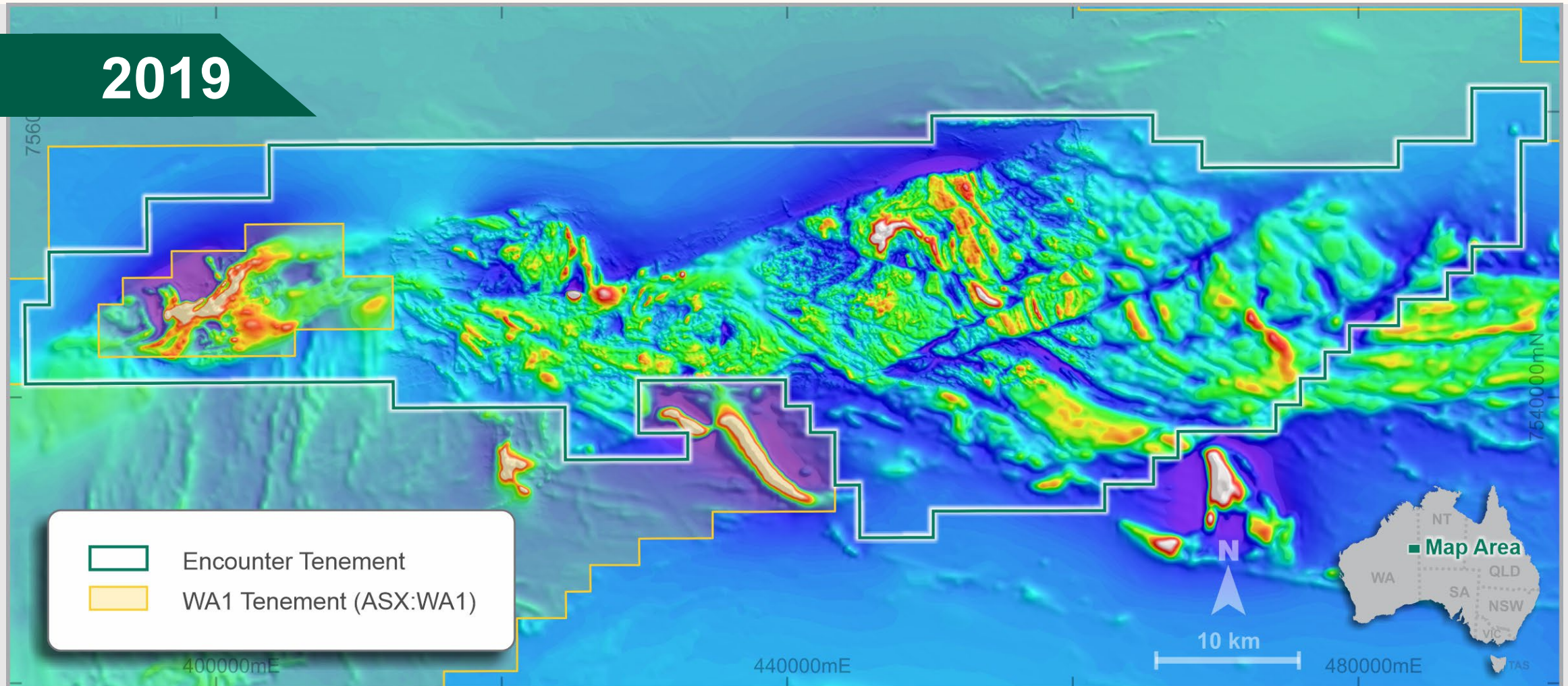
² China Molybdenum Co., Ltd. 'Major Transaction Acquisition of Angle America PLC's Niobium and Phosphates Businesses'. (2016)

³ IAMGOLD Corporation, NI 43-101 Technical Report, Update on Niobec Expansion. (2013)

Aileron Project – West Arunta

Targeted for IOCG copper-gold – zero previous exploration on the tenements

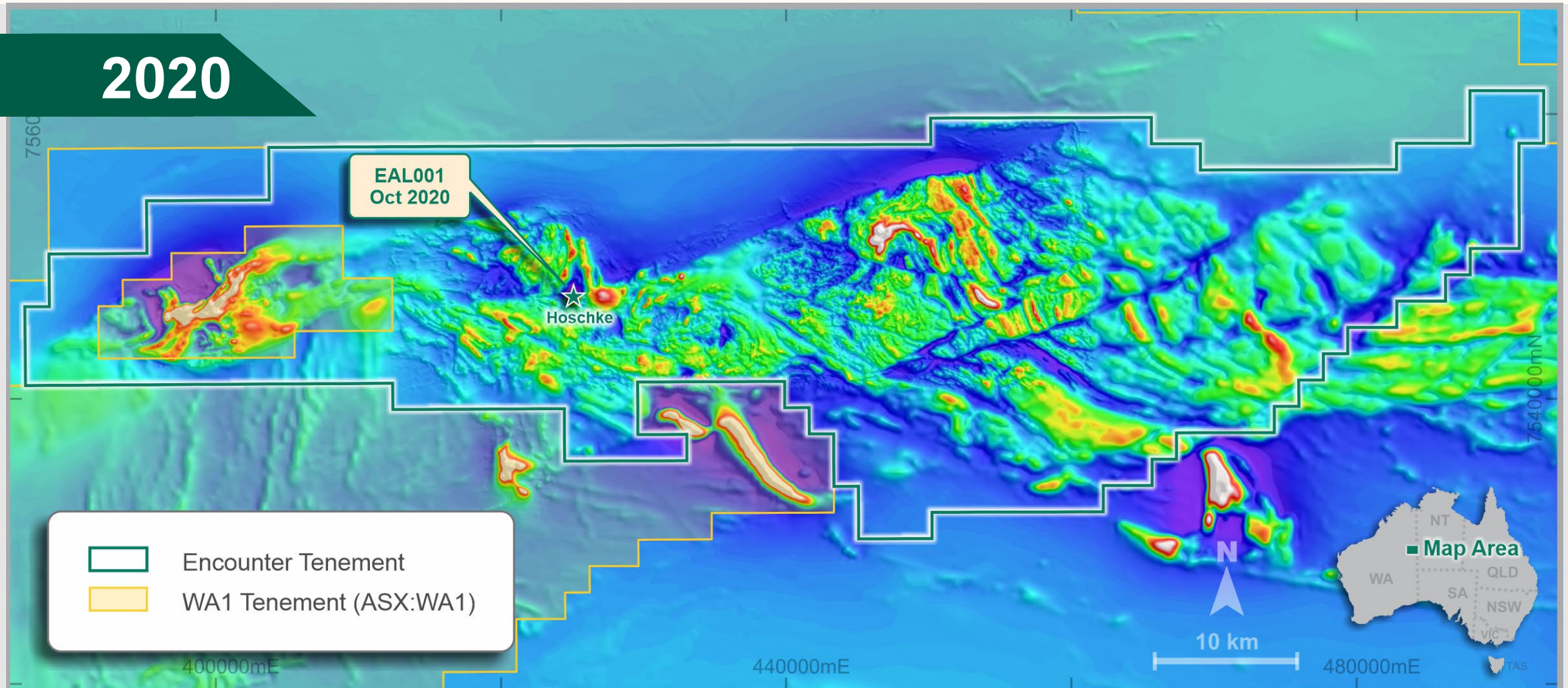
2019



Aileron project – Magnetics (RTP)

Aileron Project – West Arunta

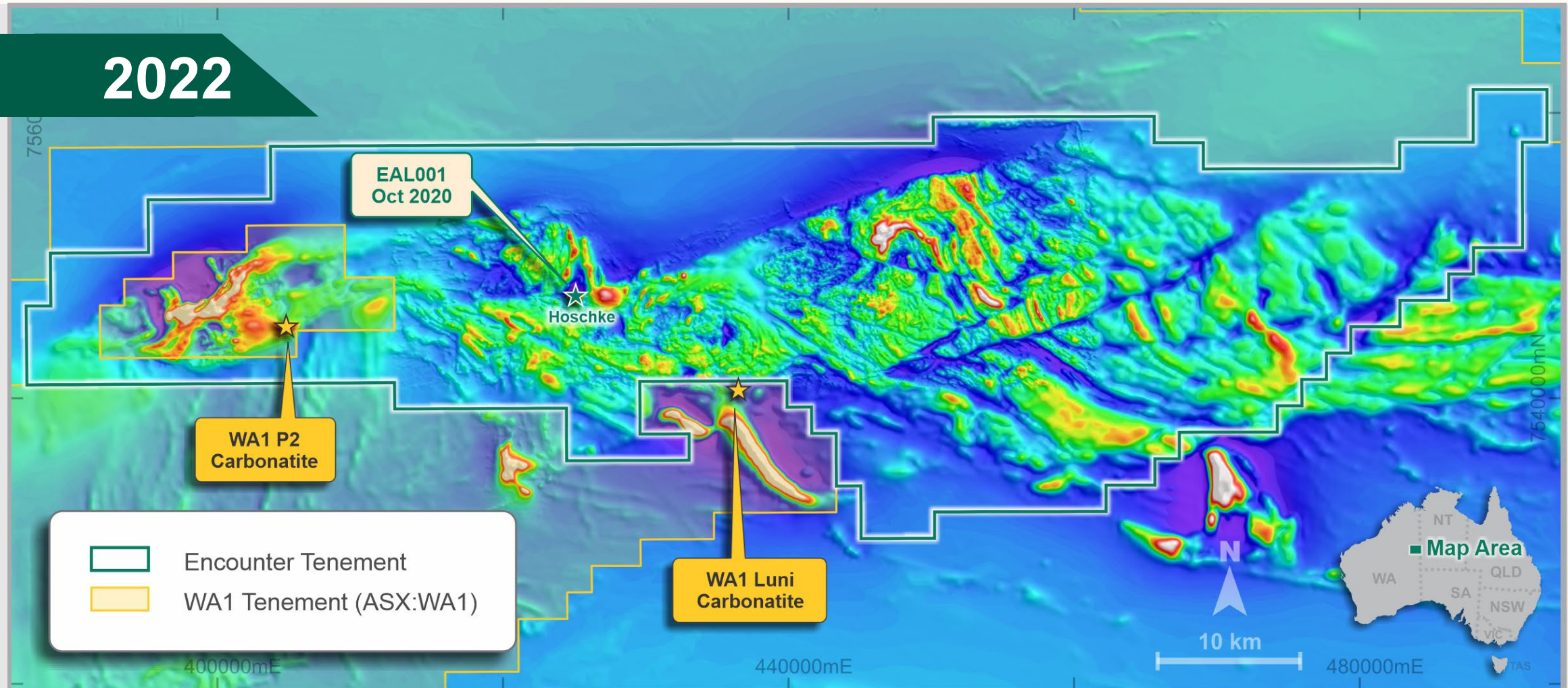
Encounter drilled the first hole (incomplete) which intersected anomalous copper, gold, niobium and REE



Aileron project – Magnetics (RTP)

Aileron Project – West Arunta

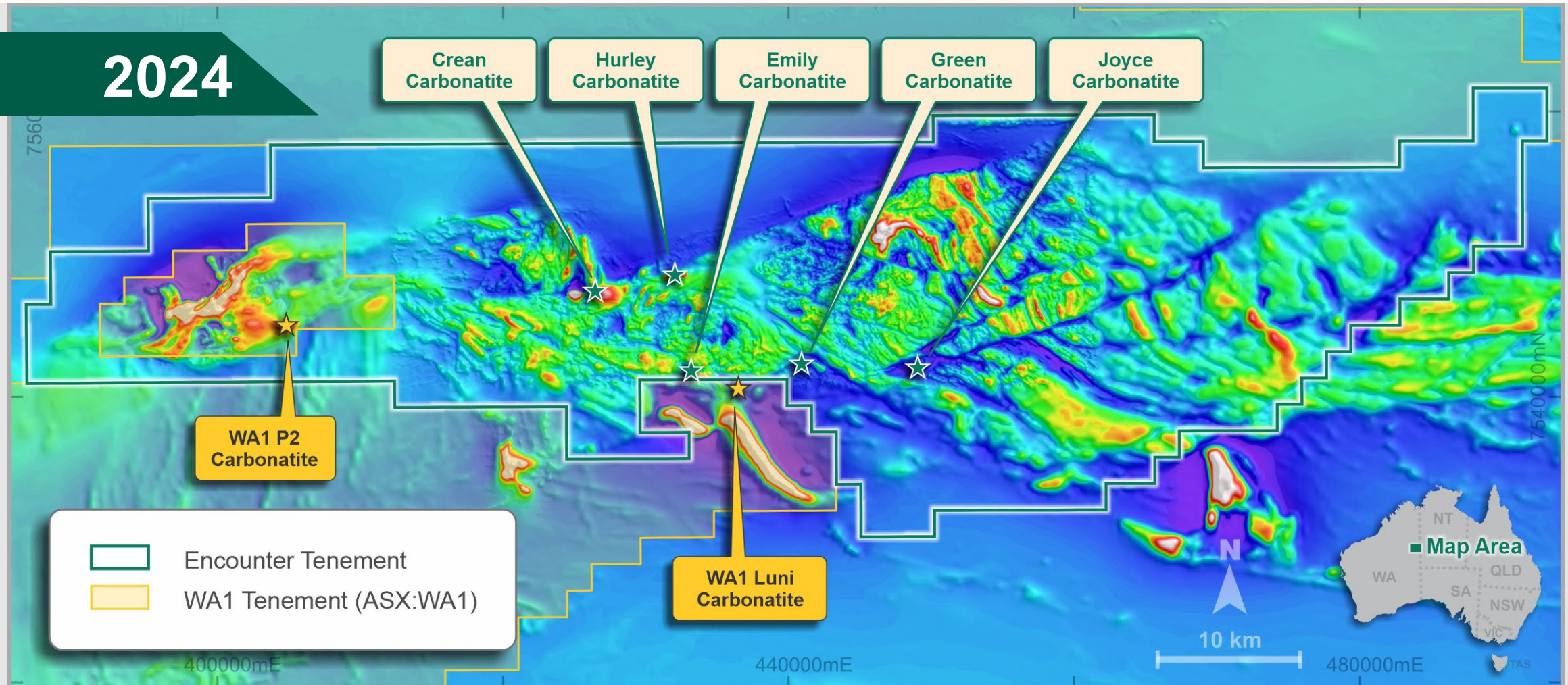
WA1 Resources discovered the Luni and P2 carbonatites adjacent to Encounter's tenement boundaries



Aileron project – Magnetics (RTP)

Aileron Project – West Arunta

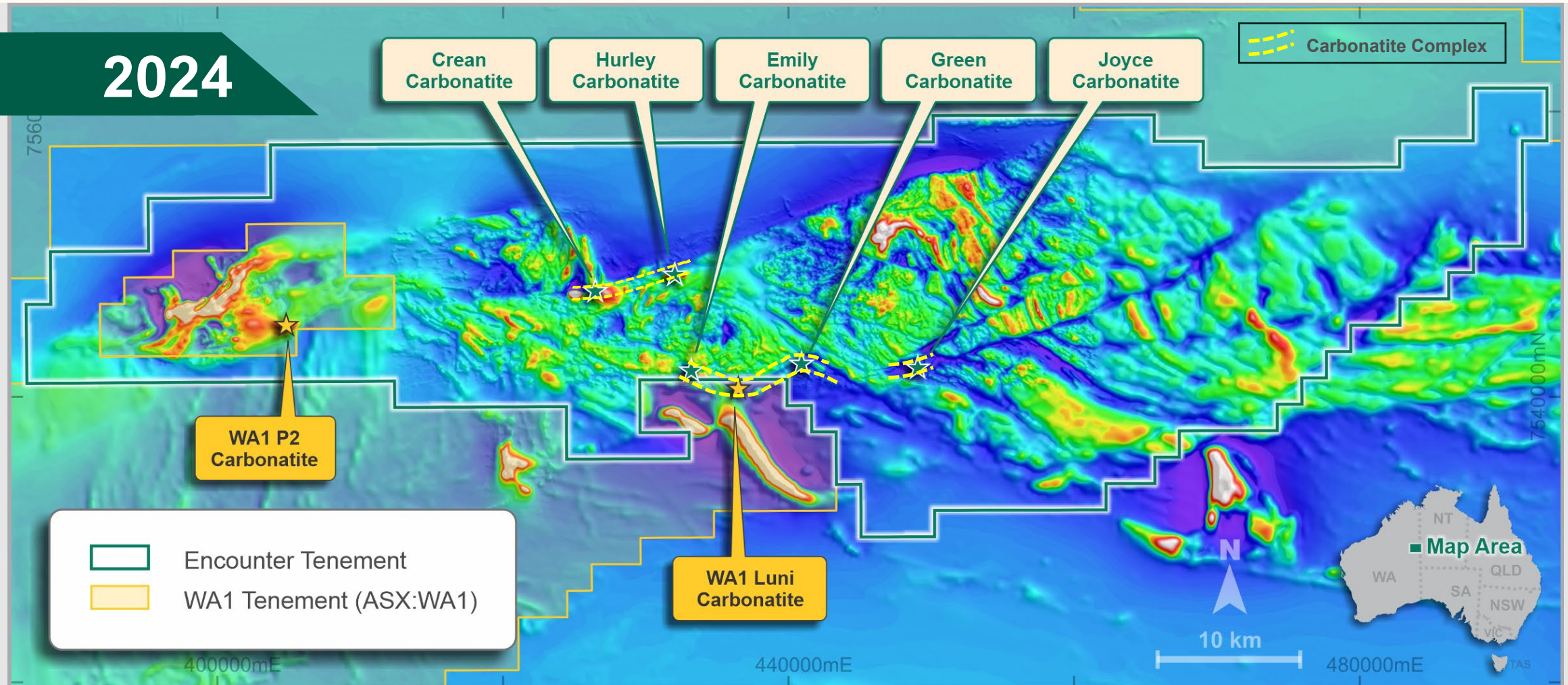
Encounter has discovered high-grade niobium mineralisation at the Green, Crean and Emily carbonatites



Aileron project – Magnetics (RTP)

Aileron Project – West Arunta

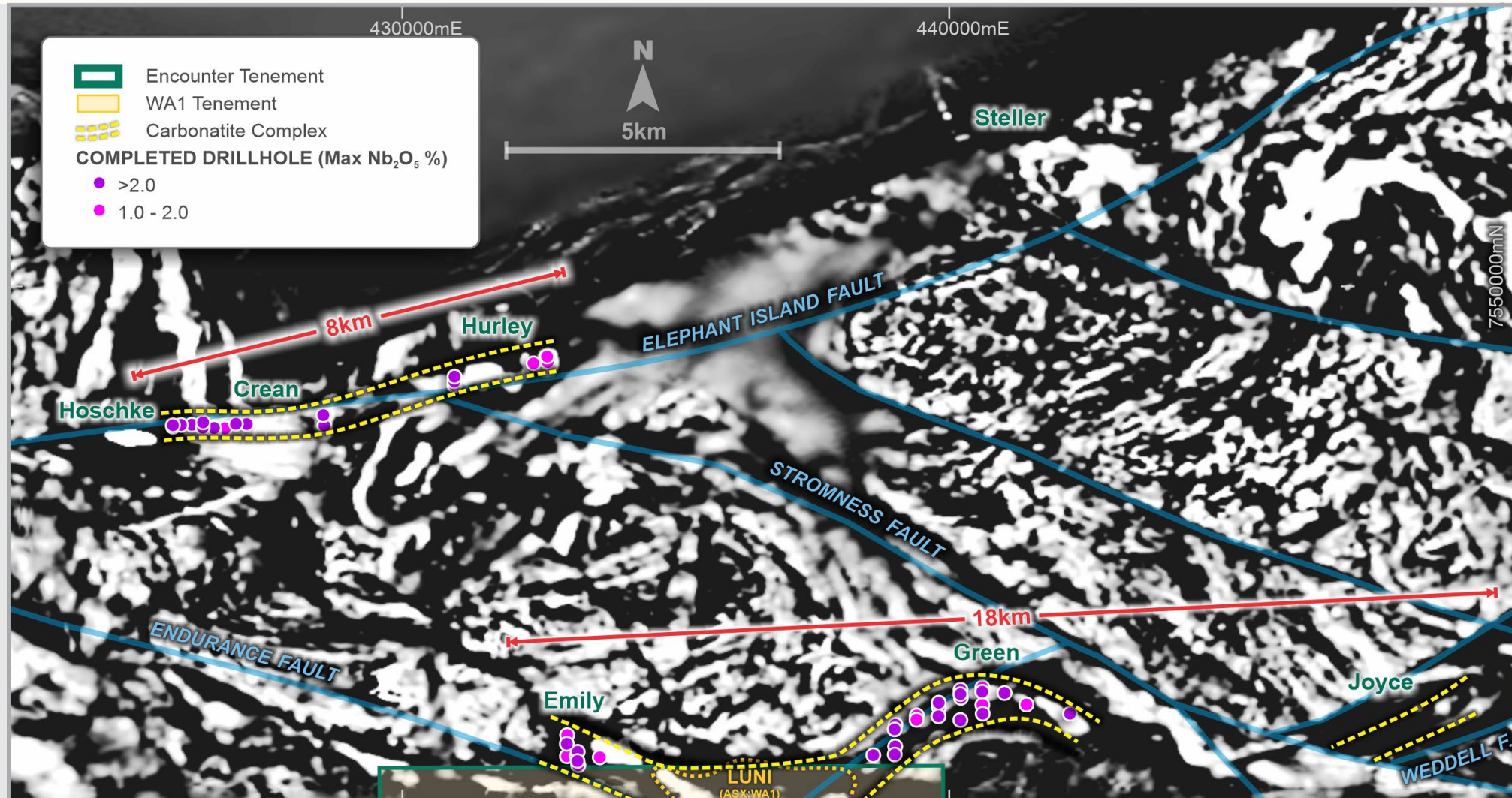
Carbonatite complexes are strike extensive and host abundant high-grade niobium mineralisation



Aileron project – Magnetics (RTP)

Aileron Project – West Arunta

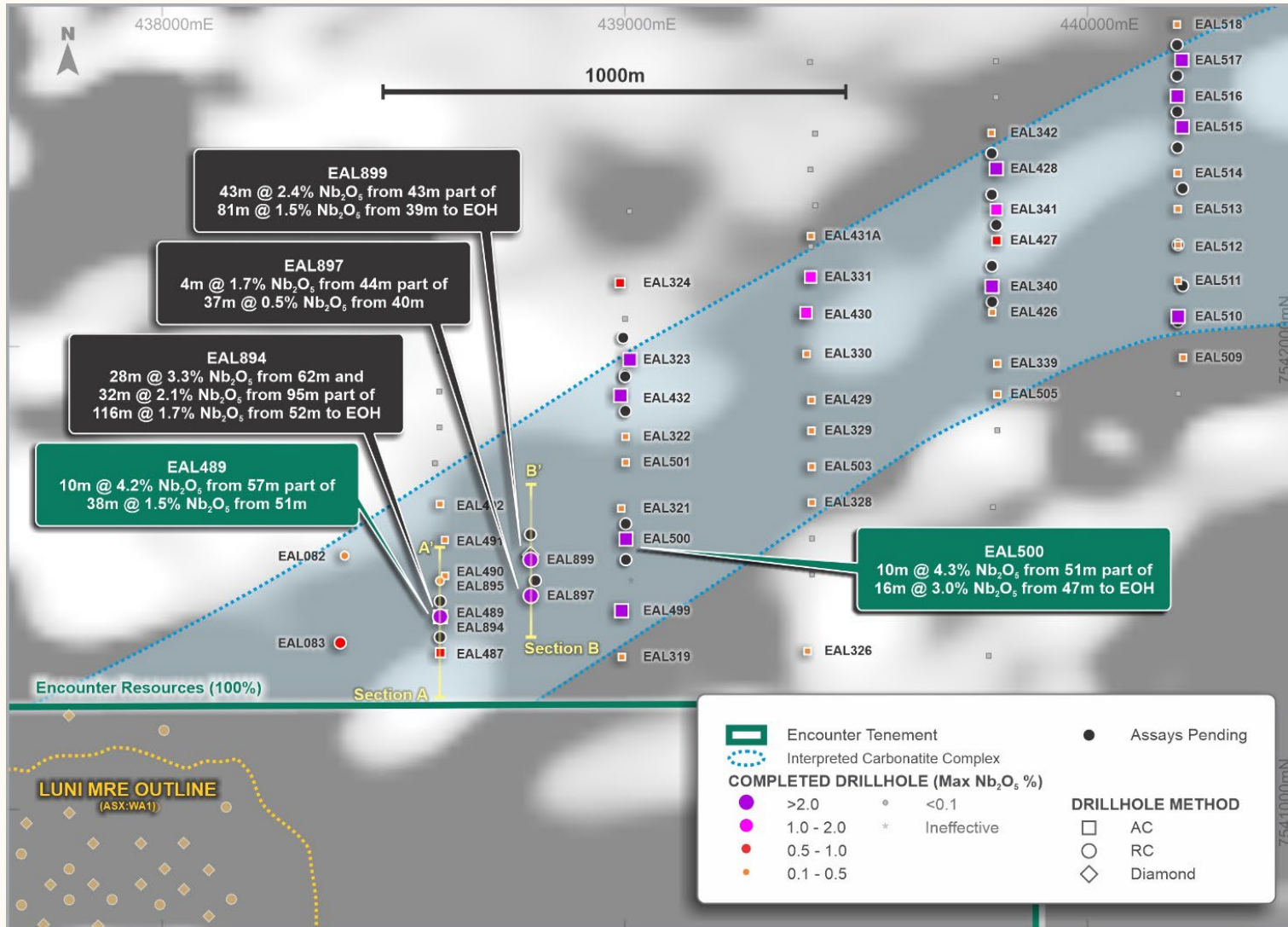
Aircore drilling intersecting shallow, high-grade niobium-REE mineralisation across multiple targets



High grade niobium intercepts follow structural corridors defined in geophysics (Magnetics TMI 1vd)

Aileron Project – Green

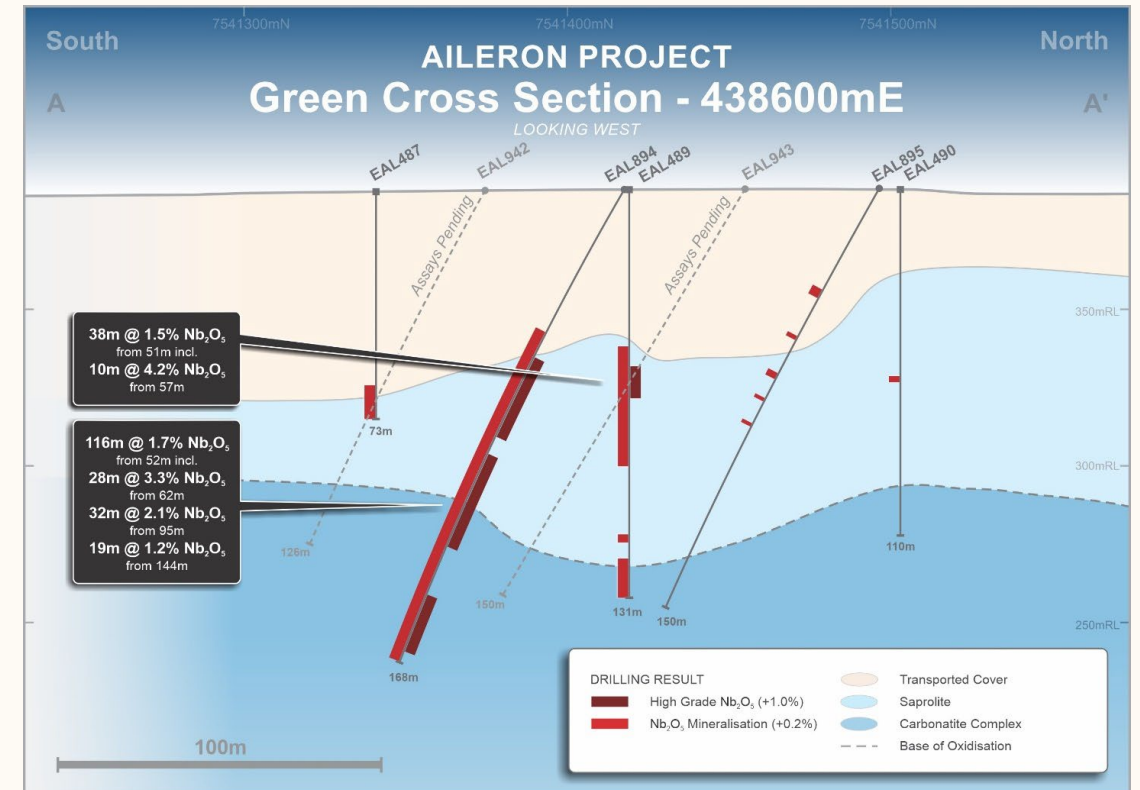
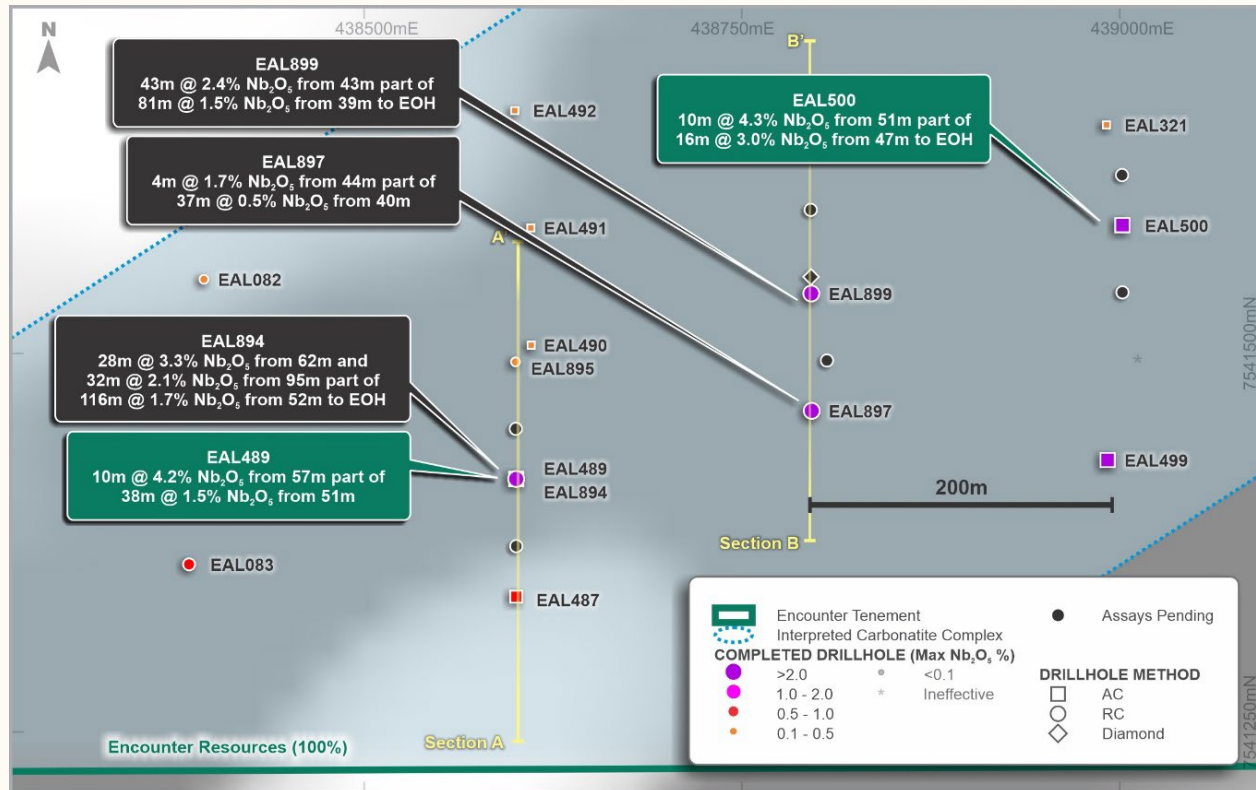
Large mineralised carbonatite containing multiple zones of shallow, high-grade niobium mineralisation



- Initial results demonstrate the continuity of the high-grade niobium system from WA1's Luni discovery
- EAL894 (197 metre % Nb₂O₅) is the highest 'grade x thickness' RC drill intercept returned from the entire West Arunta province to date
- Diamond hole completed for metallurgical test work
- Assays from the remaining 30 RC holes completed across ~2km of strike will be returned in the coming months

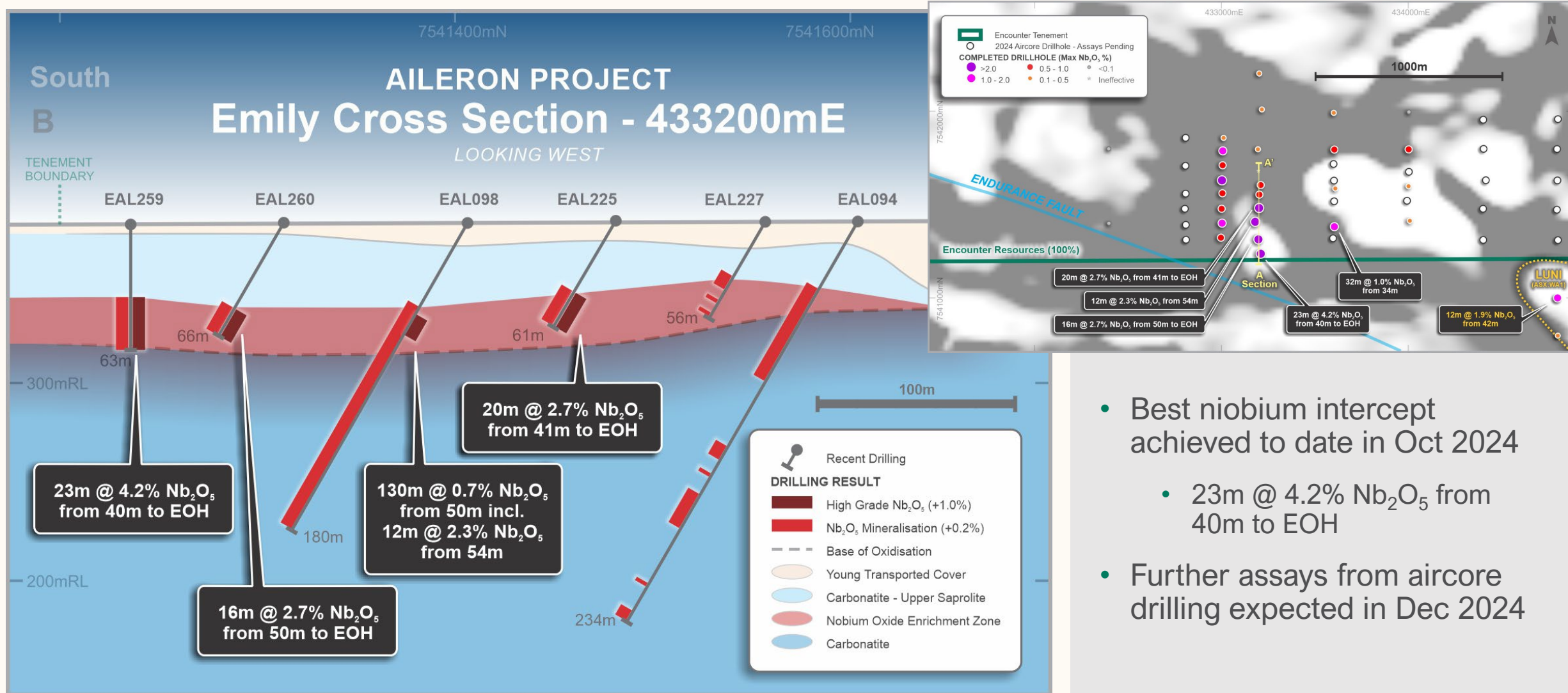
Aileron Project – Green

First RC holes completed at the western side of Green demonstrate some of the best, depth extensive niobium mineralisation in the West Arunta



Aileron Project – Emily

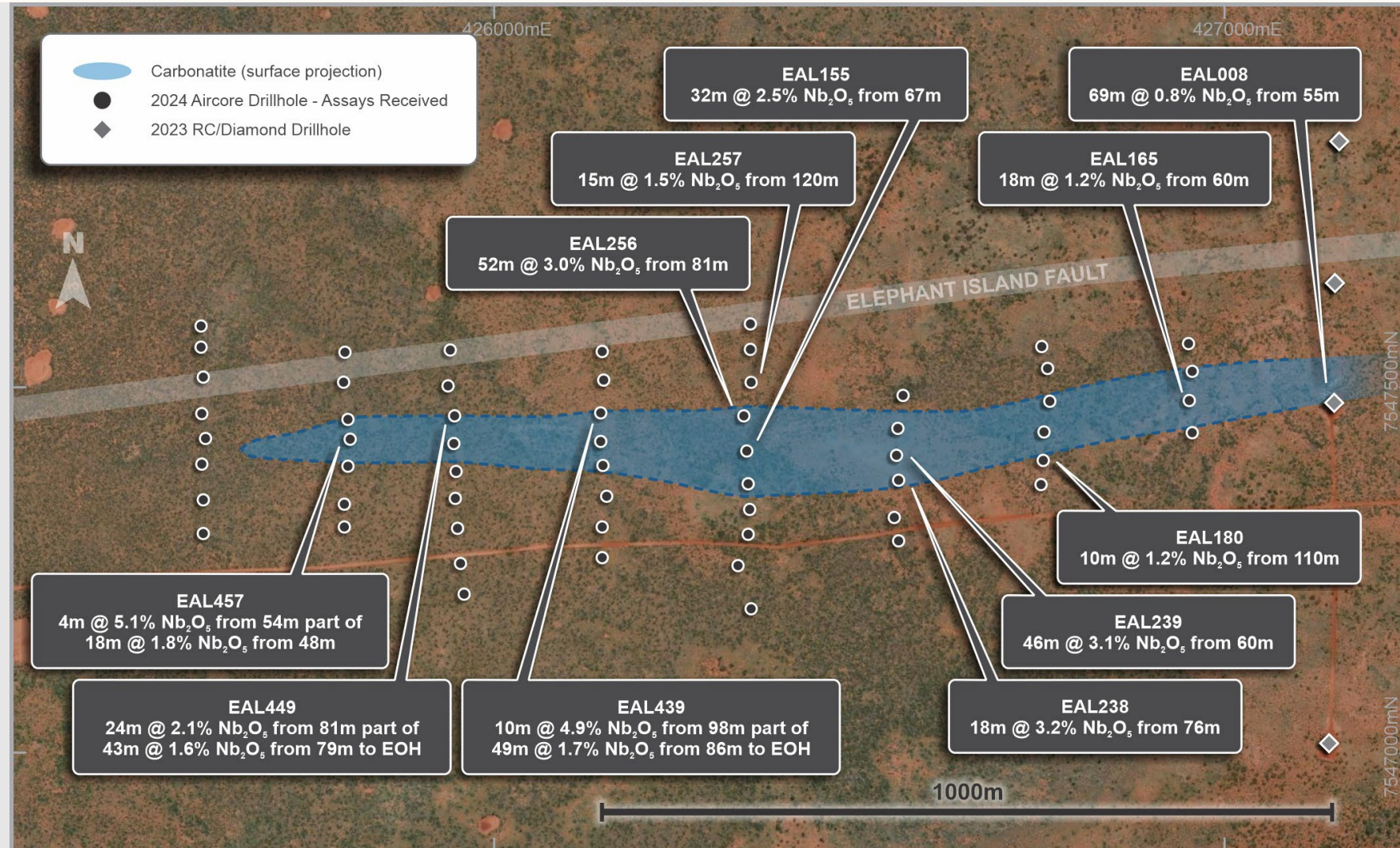
Enriched niobium oxide mineralisation on the north-west structural trend adjacent to Luni



- Best niobium intercept achieved to date in Oct 2024
 - 23m @ 4.2% Nb_2O_5 from 40m to EOH
- Further assays from aircore drilling expected in Dec 2024

Aileron Project – Crean

Coherent body of thick, high-grade niobium mineralisation over 1.2km in strike



High-grade niobium at multiple prospects

Prospect	Best Select Intersections	Current Status	Next Steps
Green	• 116m @ 1.7% Nb₂O₅ from 52m (EAL894) • 43m @ 2.4% Nb₂O₅ from 43m (EAL899) • 16m @ 3.0% Nb₂O₅ from 47m (EAL500)	• Aircore drilling has outlined a large footprint of +2% Nb₂O₅ • Numerous holes <u>end in mineralisation</u>	• RC drilling to delineate zones of high-grade mineralisation • Mineral resource definition
Crean	• 52m @ 3.0% Nb₂O₅ from 81m (EAL256) • 46m @ 3.1% Nb₂O₅ from 60m (EAL239) • 32m @ 2.5% Nb₂O₅ from 67m (EAL155)	• Coherent high-grade mineralisation over 1.2km • Numerous holes <u>end in mineralisation</u>	• RC drilling to delineate zones of high-grade mineralisation • Mineral resource definition
Emily	• 23m @ 4.2% Nb₂O₅ from 40m (EAL259) • 20m @ 2.7% Nb₂O₅ from 41m (EAL225) • 16m @ 2.7% Nb₂O₅ from 50m (EAL260)	• Aircore drilling completed to test for western extensions • Numerous holes <u>end in mineralisation</u>	Further aircore drilling to define high-grade zones
Hurley	• 24m @ 0.9% Nb₂O₅ from 66m (EAL034) • 28m @ 0.7% Nb₂O₅ from 210m (EAL115)	Diamond drilling intersected depth extensive primary carbonatite	Explore north and east for enriched oxide mineralisation
Joyce	First assays pending (Dec 2024)	First aircore drilling confirmed another carbonatite complex	Systematically explore Joyce with aircore drilling in 2025

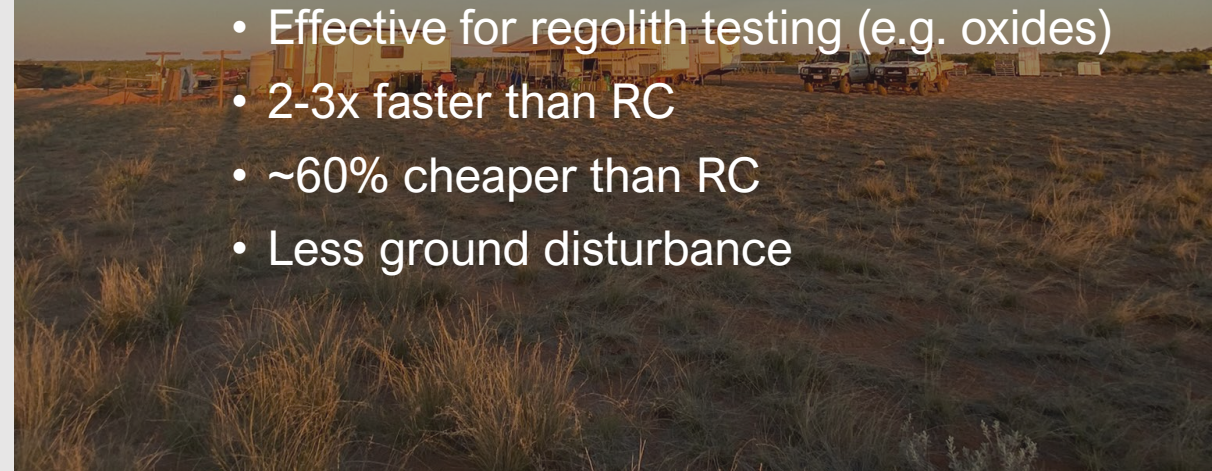
Aileron Project – Towards Project Development

Progressing to resource definition, metallurgical test work and studies

- Low cost, fast moving aircore has outlined shallow niobium mineralisation across key target areas
- Moving into resource definition RC drilling of the high-grade, near-surface niobium at Green and Crean
- Diamond drilling completed to support initial metallurgical test work
- Transitioning to project development studies including metallurgy, marketing, environmental surveys and preliminary location studies

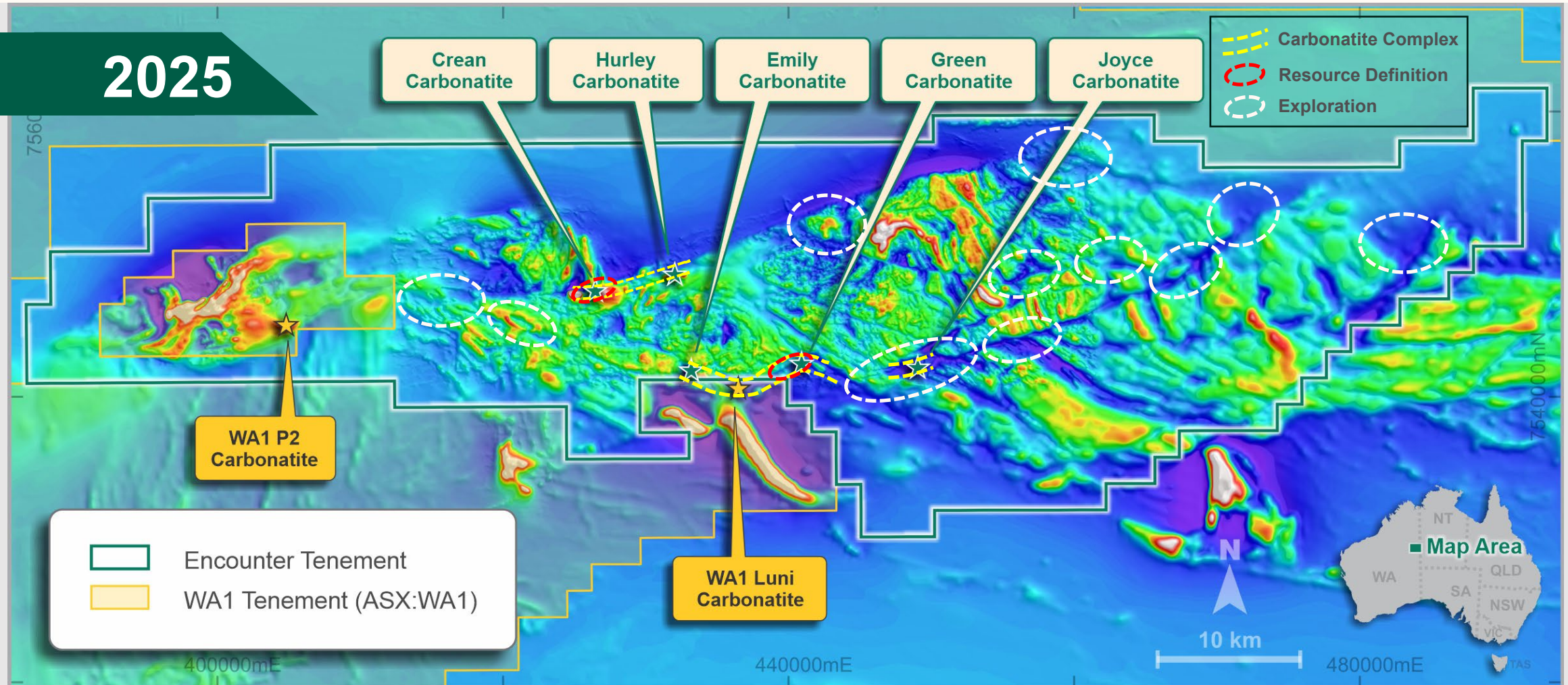
Significant Exploration Upside...

- **Commanding land position with a large number of targets**
- **Aircore drilling provides cost effective, fast exploration in areas of shallow cover:**
 - Effective for regolith testing (e.g. oxides)
 - 2-3x faster than RC
 - ~60% cheaper than RC
 - Less ground disturbance



Aileron Project – West Arunta

Exploration Upside - Commanding land position and aircore drilling is fast and cost-effective



Aileron project – Magnetics (RTP)

Key Value Drivers

Resources - moving into resource definition of high-grade, near-surface niobium at Green and Crean

Exploration upside - commanding land position in the West Arunta - aircore drilling is fast and cost-effective

Project development – initiating studies, including metallurgy, environmental and marketing discussions

Valuation upside – potential to re-rate as the scale and value of the West Arunta province is demonstrated



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