



**DREADNOUGHT**  
RESOURCES

# Finding the Metals for Our Future

DIGGERS AND DEALERS CONFERENCE  
8 AUGUST 2023

[dreadnoughtresources.com.au](https://dreadnoughtresources.com.au)

ASX:DRE



# Disclaimer

Refer to Dreadnought announcements for JORC Table 1 and Table 2 for results and information contained in this presentation.

## **Illaara Gold-VMS-Iron Ore Project**

- 27 April 2021 Illaara Update and Regional Target Generation
- 31 May 2021 Drilling Results – Illaara Au-Cu-Iron Ore Project
- 7 July 2021 High-Grade Tantalum Results from Peggy Sue – Illaara Project
- 15 February 2022 Eight Conductors to be Drilled at Nelson and Trafalgar Cu-Pb-Zn-Ag Prospects – Illaara Project
- 9 May 2022 Drilling Complete at Illaara Project

## **Kimberley Ni-Cu-Au Project**

- 25 August 2021 RC Results from Orion, Grant's Find & Fuso Indicate Large Cu-u-Ag-Co System
- 27 August 2021 Bonanza Grade Cu-Ag-Sb-Bi Mineralisation at rough Triangle
- 15 November 2021 High-Grade Cu-Ag-Au-Co Discovery at Orion
- 8 December 2021 Further High-Grade Cu-Ag-Au-Co-Zn Orion Discovery
- 29 April 2022 EIS Drilling Grants for Mangaroon REE and Orion Cu-Ag-Au-Co
- 22 June 2022 Orion Auger Program – Taraji-Yampi Project
- 20 June 2023 Highly Conductive Anomalies Enhance Orion Look-Alikes– Taraji-Yampi Project

## **Mangaroon Ni-Cu-PGE, REE & Au Project**

- 07 April 2021 Option/JV Agreement Signed with Global Base Metal Miner
- 29 November 2021 Five Carbonatite Intrusions Identified at Mangaroon Project
- 14 February 2022 Conductors Defined along the Money Intrusion – Mangaroon FQM JV
- 29 April 2022 EIS Drilling Grants for Mangaroon REE and Orion Cu-Ag-Au-Co
- 17 October 2022 Mineralised carbonatite discovered at C3 and C4
- 24 October 2022 Broad high-grade assays at Yin REE Discovery
- 10 November 2022 Exploration Update Mangaroon Ni-Cu-PGE
- 28 December 2022 Initial High-Grade, Independent Resource Over 3kms at Yin
- 27 January 2023 Mineralised REE Ironstones increased by 13kms to 43kms
- 13 February 2023 Rare Earth Ironstone Exploration Target Defined
- 3 April 2023 Carbonatites deliver thick near surface REE Results
- 29 May 2023 Metallurgical Testwork Supports High Grade Concentrate
- 6 June 2023 Mangaroon Gold Review and Further Consolidation
- 13 June 2023 Yin Extended by 1km & 2.5km of High Grade NdPr Discoveries

## **Bresnahan REE-Au Project**

- 8 February 2023 Bresnahan Emerging As a Light & Heavy Rare Earth Province

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## **Competent Person's Statement**

The information in this announcement that relates to geology and exploration results and planning was compiled by Mr. Dean Tuck, who is a Member of the AIG, Managing Director, and shareholder of the Company. Mr. Tuck has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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. Tuck consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

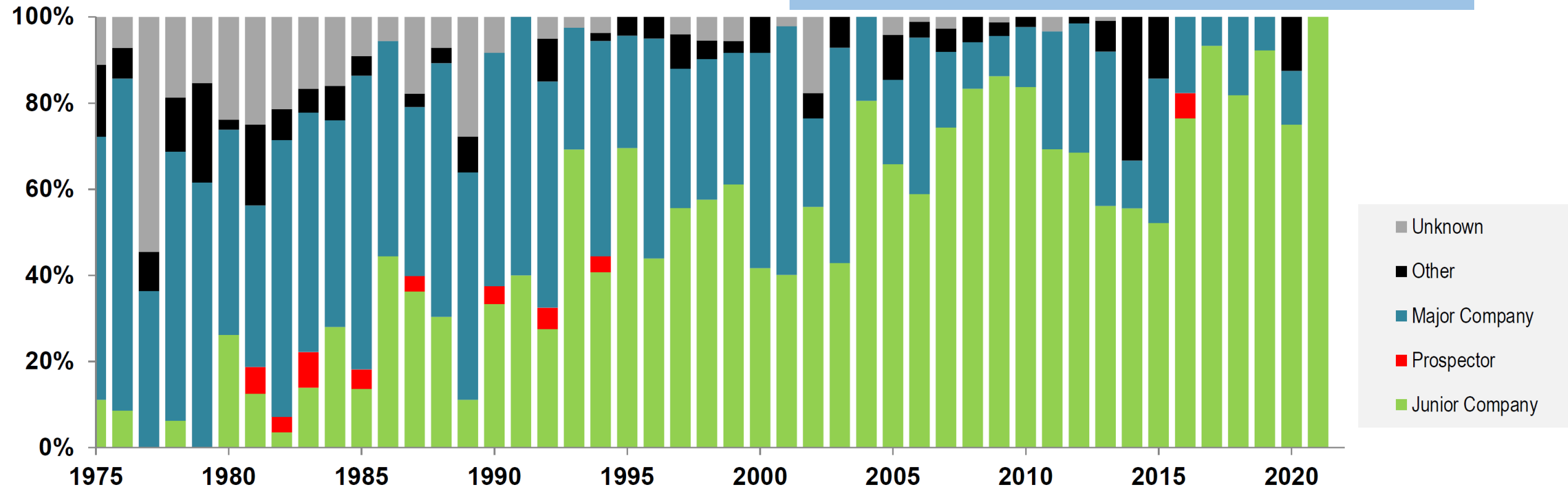
The Company confirms that it is not aware of any new information or data that materially affects the information in the original reports, and that the form and context in which the Competent Person's findings are presented have not been materially modified from the original reports. (referencing historic and new company announcements).

# Discoveries are made by Juniors

Percentage share of discoveries in Australia by **Company Type**

Significant mineral discoveries : 1975-2021

**Between 2012-21 Junior Companies accounted for 45% of expenditure, and 73% of Discoveries in Australia**





# The DREam Team







# Company Snapshot

## Capital Structure

ASX Code	DRE
Share Price (07/08/2023)	\$0.052
Shares on Issue	3,342M
Market Cap	\$173.7M
Cash (30/06/2023)	~\$11.7M
Unlisted Securities (various strike prices)	74.7M
Liquidity (90-day average)	~\$0.5M / day
Board and Management Cash Investment	~\$5,300,000

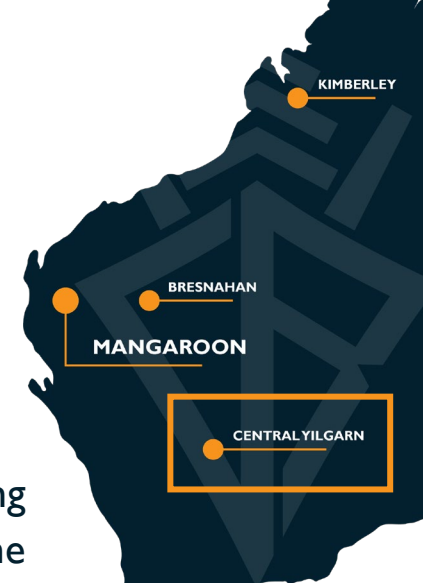
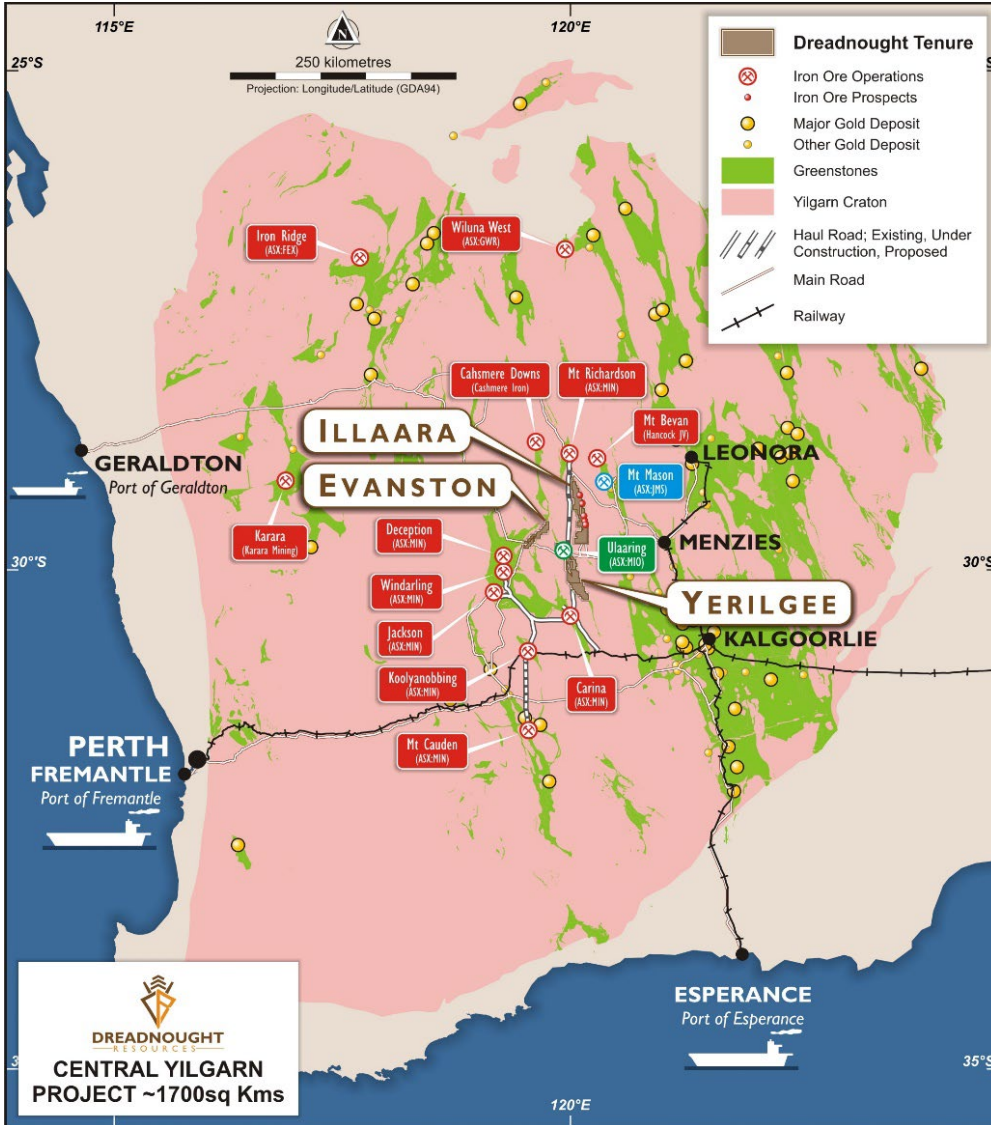
## Board & Management

Paul Chapman	Non-Executive Chairman
Dean Tuck	Managing Director
Philip Crutchfield	Non-Executive Director
Robert Gee	Non-Executive Director
Debbie Fullarton	Chief Financial Officer
Matt Crowe	COO & Exploration Manager
Jessamyn Lyons	Company Secretary





# Central Yilgarn Ni-Cu-Au (Li)



## Why are we here?

- Bermuda triangle of the Yilgarn
- No tracks, no water, no support = no prospecting
- Consolidated 200 strike kilometers of greenstone belt

## The Opportunity

- Nickel – Forrestania / Lake Johnston analogue
- Lithium – dozen pegmatite swarms identified
- Gold – Metzke’s Resource delivered – tip of the iceberg
- Cu-Pb-Zn – Nelson VMS prospect

## Next Steps

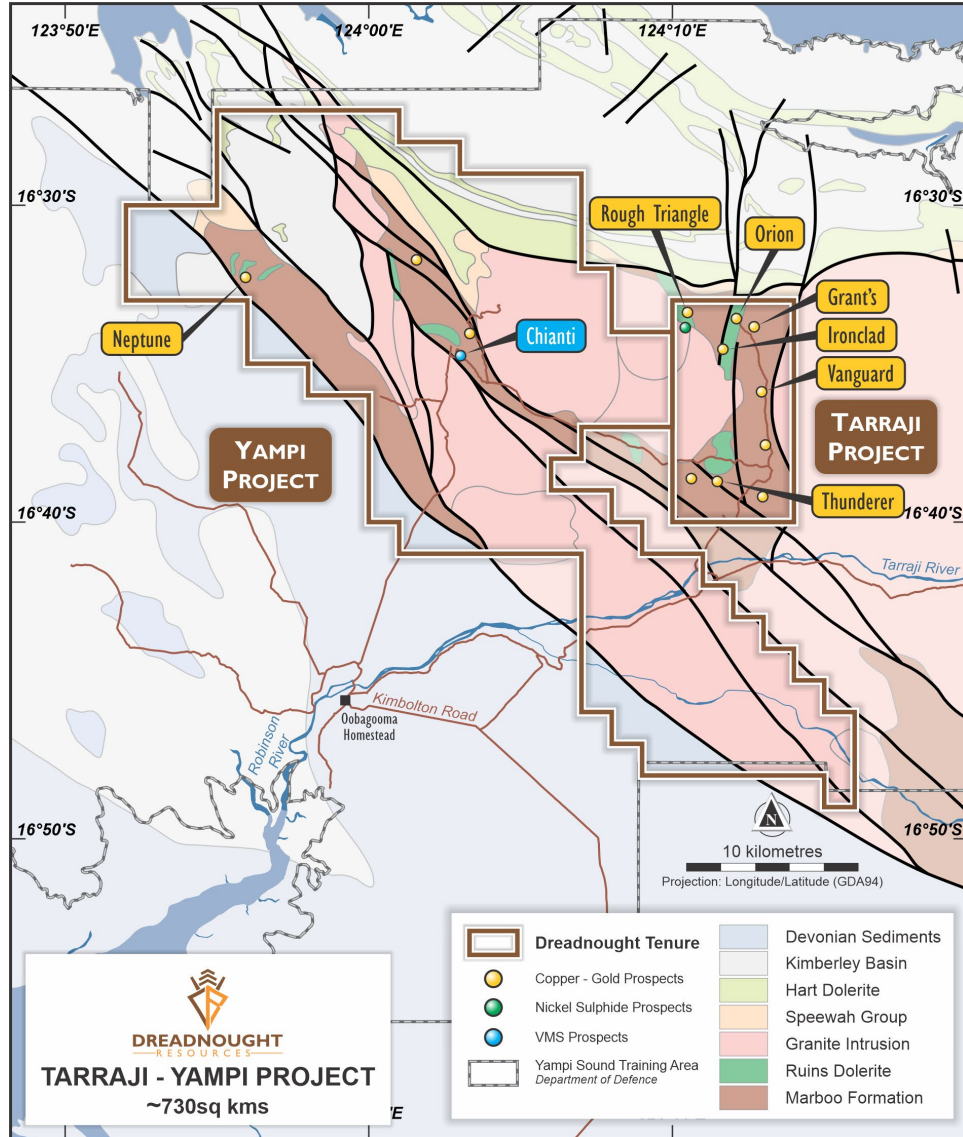
- Complete the Ni-Li-Au Review – August
- Mapping, Geochemistry, Geophysics – August / September
- Define drill targets for drilling 2024







# Tarraji-Yampi Cu-Ag-Au-Co



## Why are we here?

- Off-limits to exploration since 1978
- Mineralisation sticking out of the ground

## The Opportunity

- Cloncurry / Tennant Creek in WA
- High Grade Cu-Ag-Au-Co
- Unexplored, no modern exploration

## Next Steps

- Discovery Drilling – August / September

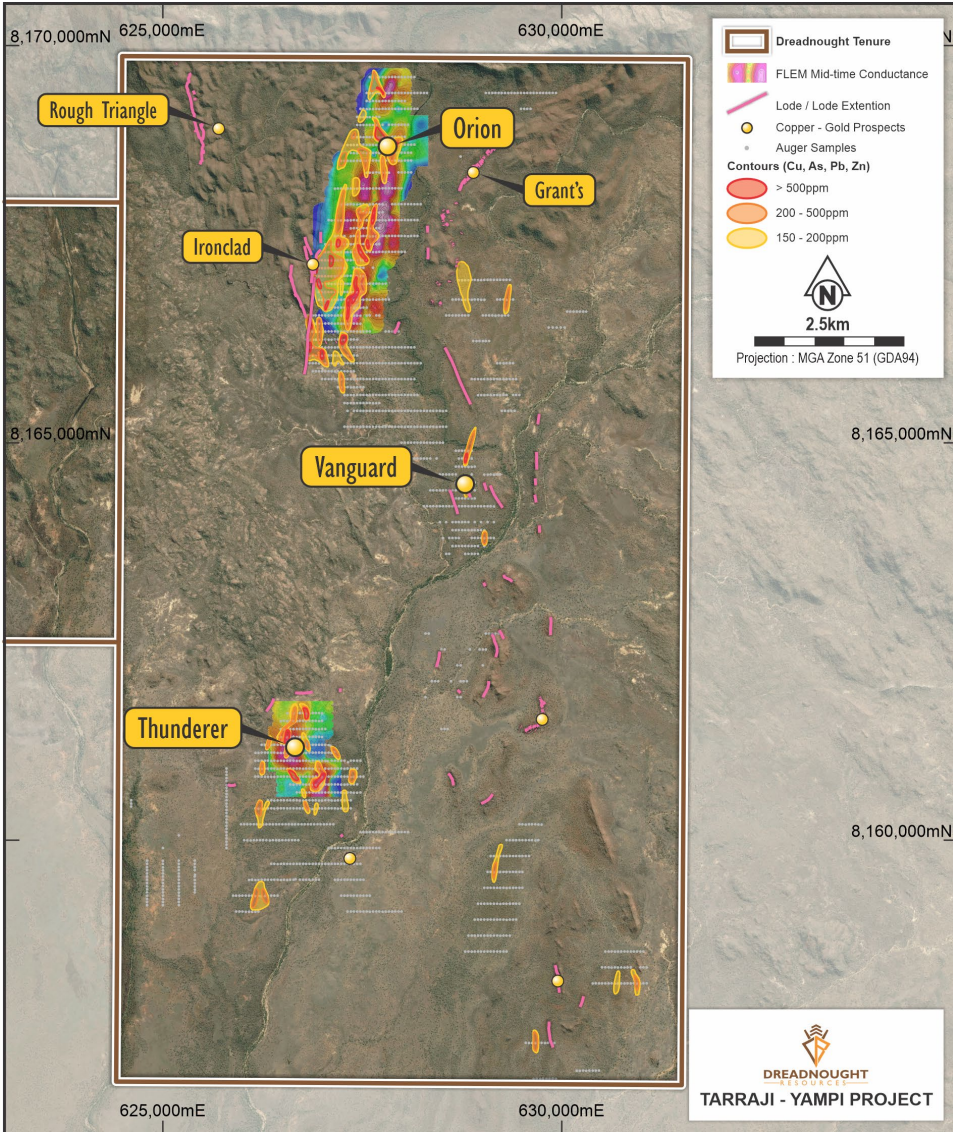


WMC's David Barr (L) & Roy Woodall (R) at Tarraji 1950s





# Tarraji-Yampi Cu-Ag-Au-Co



## 2021 Orion Discovery

- KMRC022: 16m @ 2.2% Cu, 38.7gt Ag, 6.6g/t Au, 0.4% Co
- Confirmed over 250m strike, to a depth of ~150m
- Geophysics shows it down to 500m

## Shallow Cover

- Black plain soils only 1-9m thick
- Auger geochemistry a transformative dataset

## Orion's Friends

- 13 Orion look-a-likes defined
- Similar geochemical and geophysical signature
- Some with outcropping gossans
- Ready to drill

**Prove the Scale, prove the met, prepare for 2024**







# Mangaroon Project

## Rare Earths - Niobium: (100%)

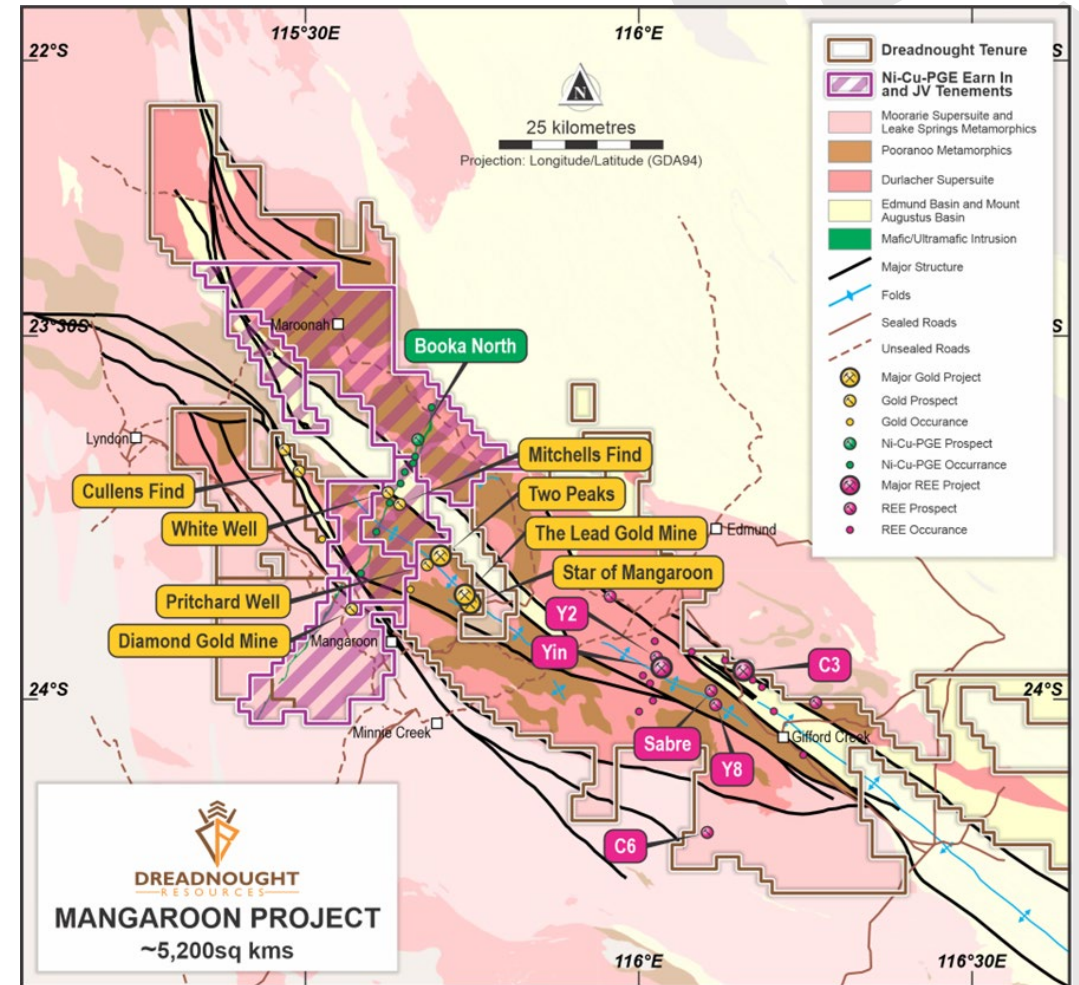
- Ironstones: high-grade, high NdPr, de-risked metallurgy
- Carbonatites: Multiple pulses of high-grade Rare Earths, Niobium, Phosphate, Titanium and Scandium

## Gold: (100%)

- Historical high-grade gold mined by pastoralists and prospectors, no modern exploration

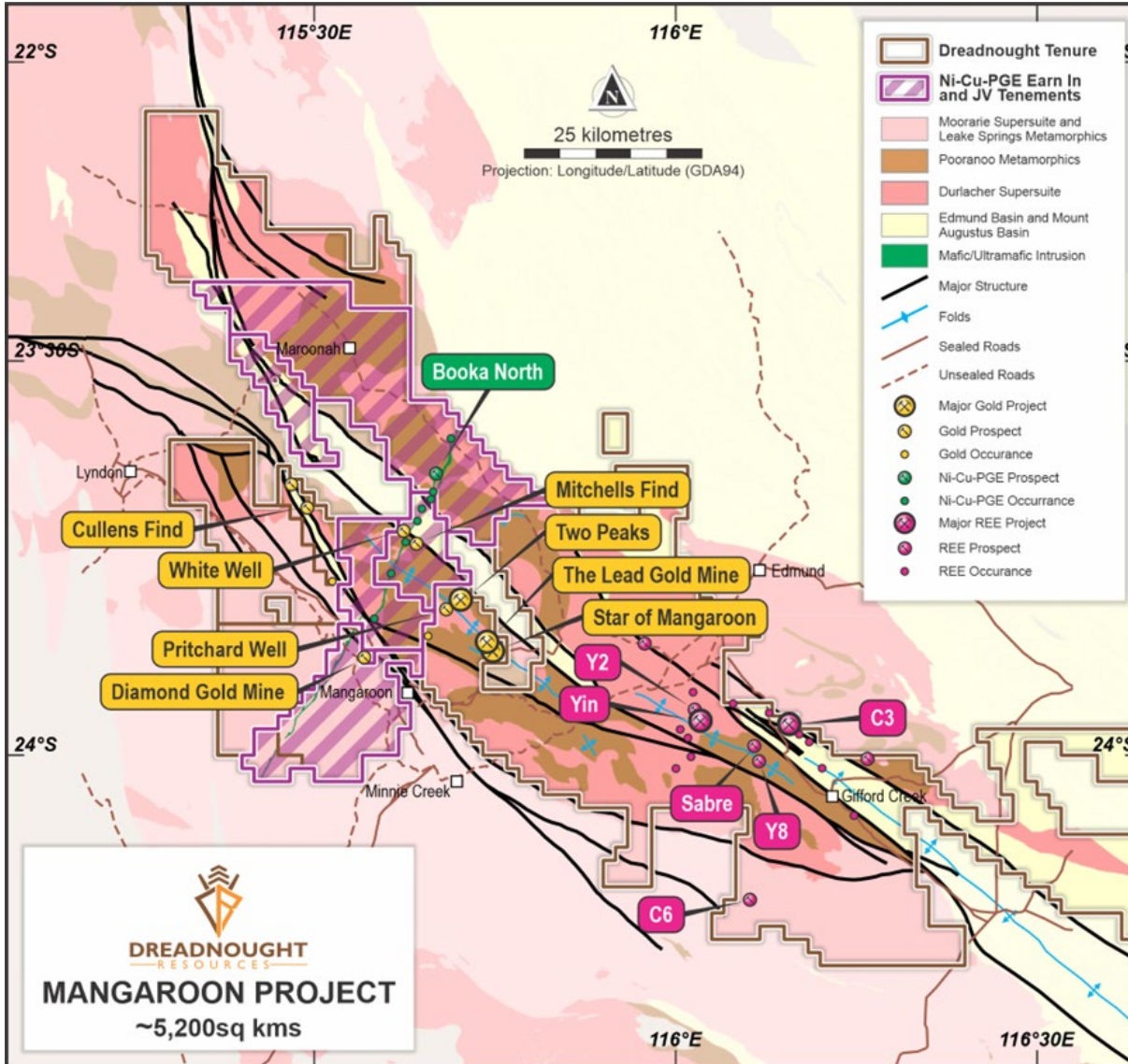
## Ni-Cu-PGE: (FQM earning up to 70%)

- FQM earning 51% by spending \$12M and a further 19% by sole funding to a Decision to Mine





# Mangaroon Ni-Cu-PGE (FQM Earn-In)



## Money Intrusion

- 50km long, outcropping mafic-ultramafic intrusion
- High tenor blebby Ni-Cu-Co-PGE Sulphides

## FQM Earn-In

- FQM to spend \$12M to earn an initial 51% and addition 19% upon a decision to Mine

## Next Steps

- 5 strong conductors identified including Bookathanna North with a 37,000S plate at 60m depth.
- Drilling October 2023





# Mangaroon Rare Earths – Yin Ironstones

## High NdPr:TREO Ratios

- Region contains the highest NdPr:TREO ratios in the world: 28-31% NdPr:TREO ratio

## Metallurgy Confirmed

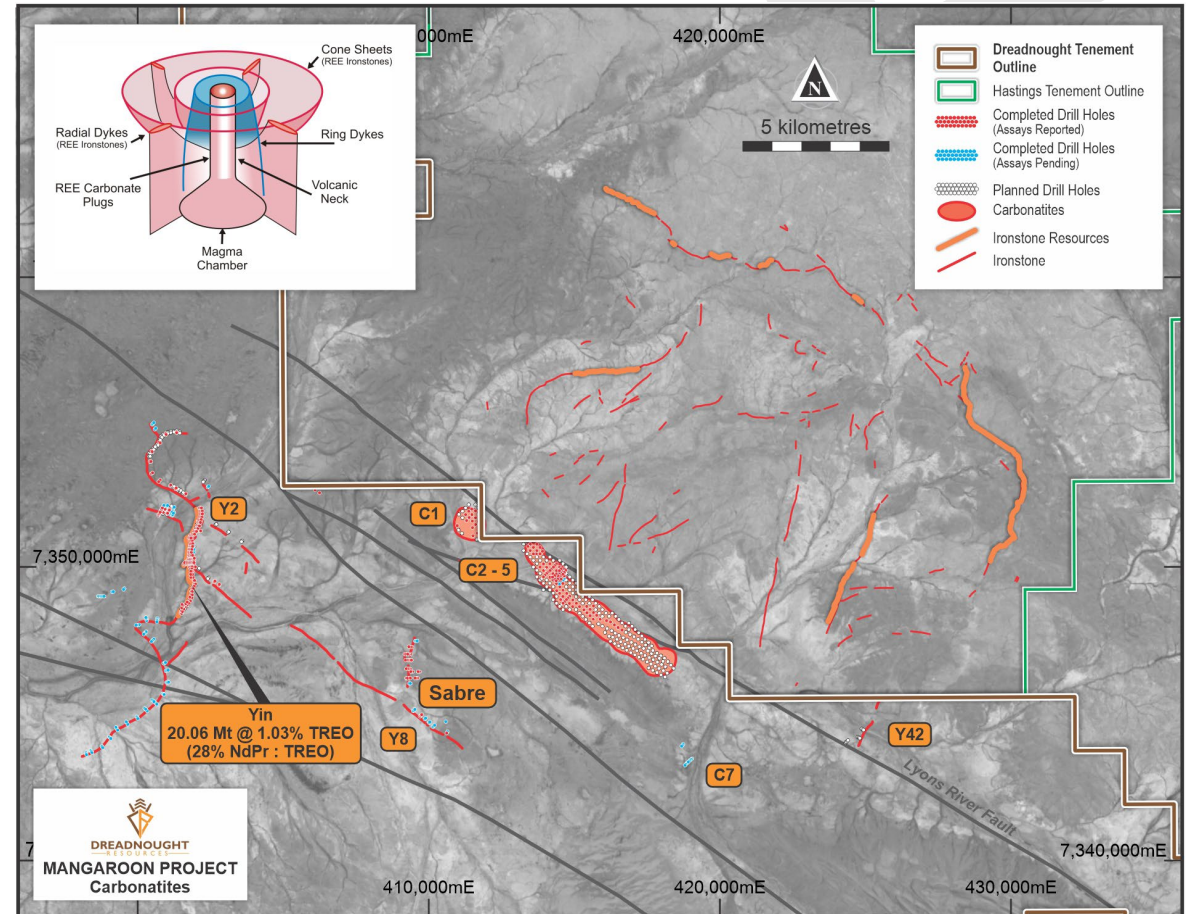
- Region contains some of the highest rare earth recoveries in the world
- 15.31%  $Nd_2O_3 + Pr_6O_{11}$  with 92.8% recovery
- 10.76%  $Nd_2O_3 + Pr_6O_{11}$  with 85.9% recovery

## Large Scale Potential

- 43kms of REE Ironstones
- Yin Resource is only ~10% of known strike

## Next Steps

- Infill drilling – underway
- Resource Upgrade September / October 2023
- Ongoing Metallurgical Test work
- MREC Test work
- Deliver Scoping Study

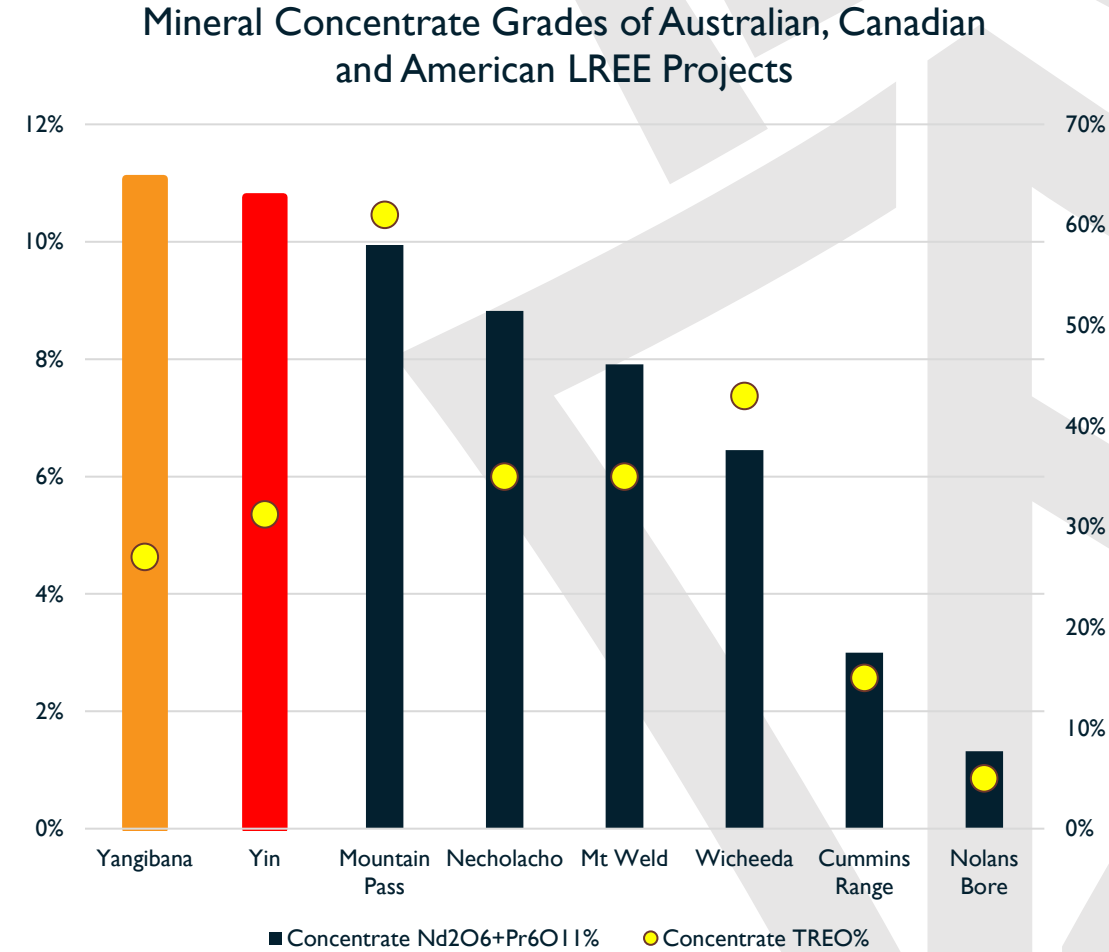
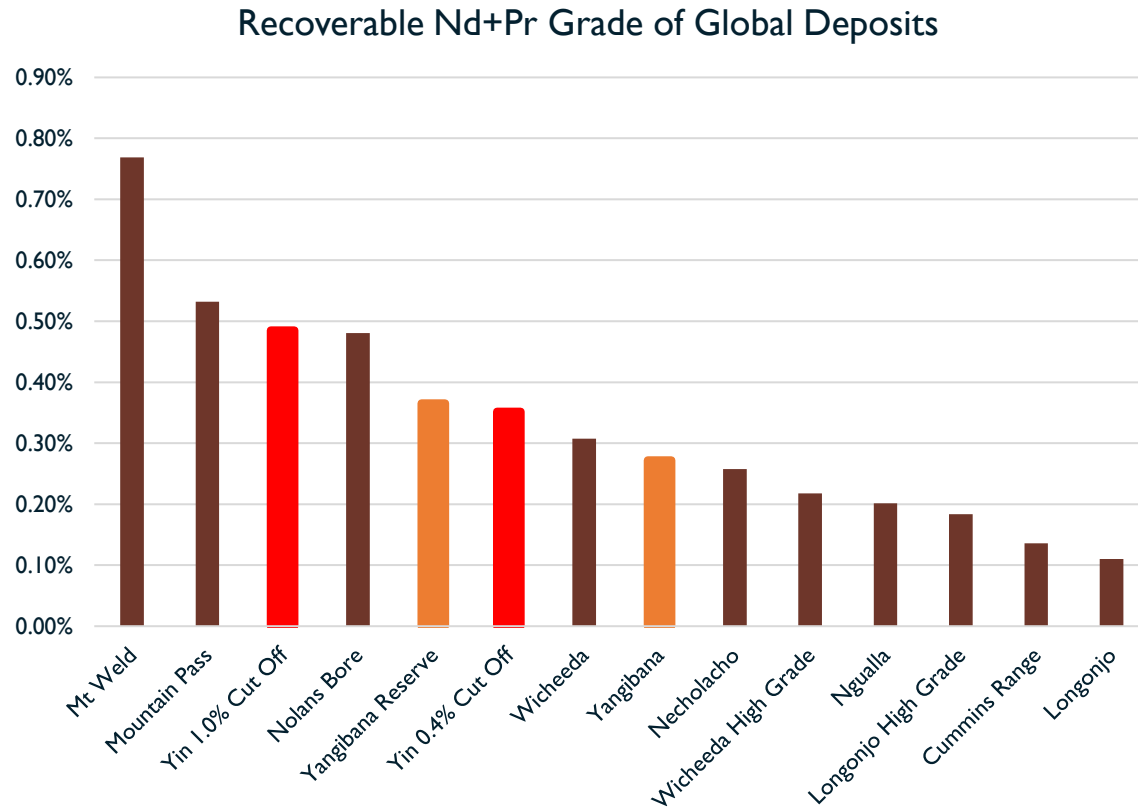


Mt	TREO (%)	$Nd_2O_3+Pr_6O_{11}$ (kg/t)	NdPr:TREO (%)	Contained TREO (t)	Contained $Nd_2O_3+Pr_6O_{11}$ (t)	Cut-Off (%TREO)
20.06	1.03	2.9	28%	205,900	58,400	0.20
12.49	1.41	4.3	29%	182,800	53,300	0.40
8.38	1.88	5.6	30%	157,700	47,000	1.00
5.66	2.18	6.5	30%	123,400	37,000	1.50

Yin Indicated + Inferred Resource as adjusted for different cut-off grades ASX:DRE 5 July 2023.



# Recovery and NdPr:TREO Impact on Grades

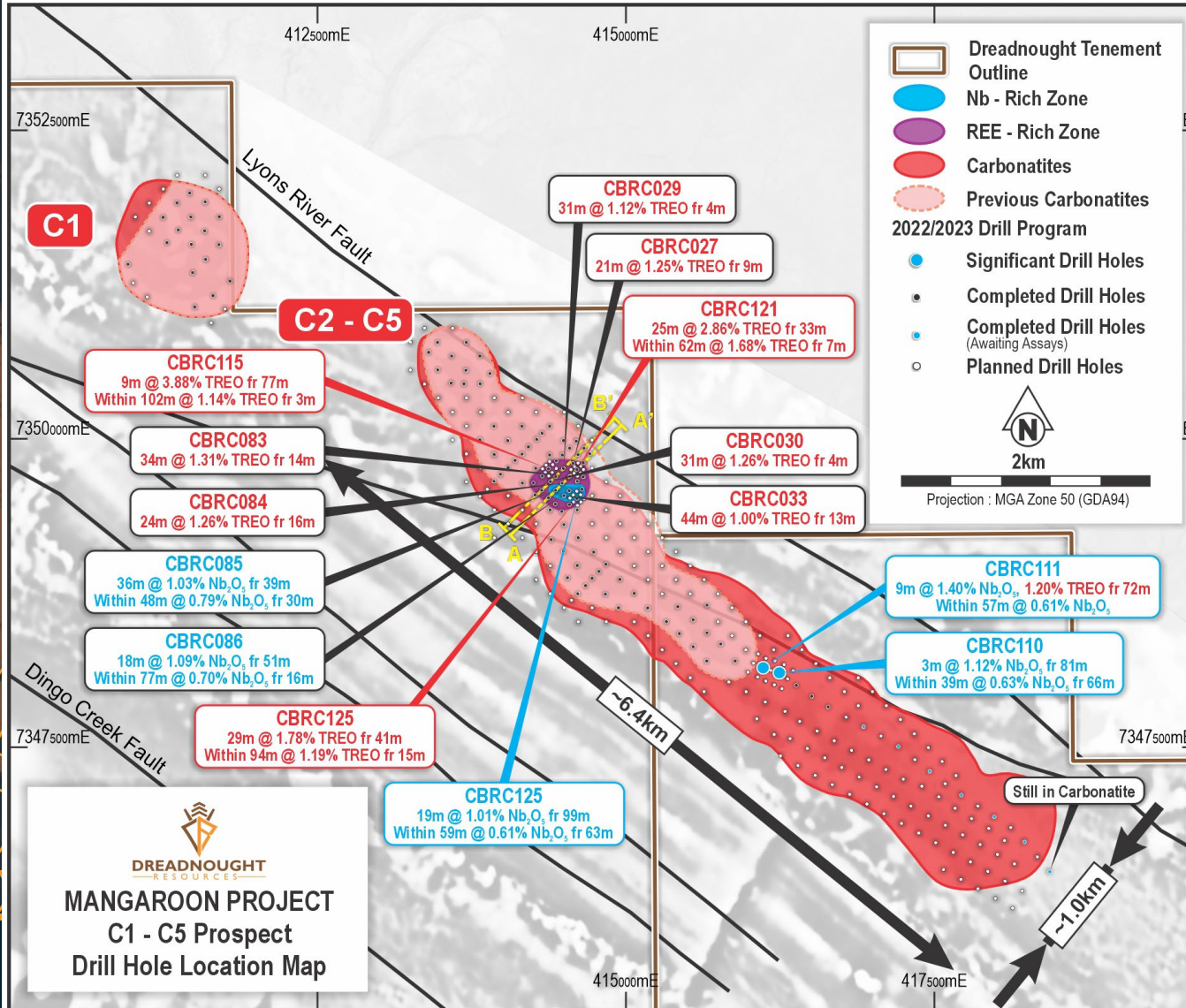


The simple mineralogy and high recoveries means that the recoverable Nd+Pr grade moves the region up behind the world class deposits, and the resulting concentrate contains some of the highest NdPr grades globally





# CI-C5 Carbonatites



## Large Scale Potential

- Multiple carbonatite intrusions identified
- Bulk tonnage with near surface supergene enrichment

## Multiple Critical Metals

- **Rare Earths**
- **Niobium**
- Phosphate
- Titanium
- Scandium

## First pass work only just commenced

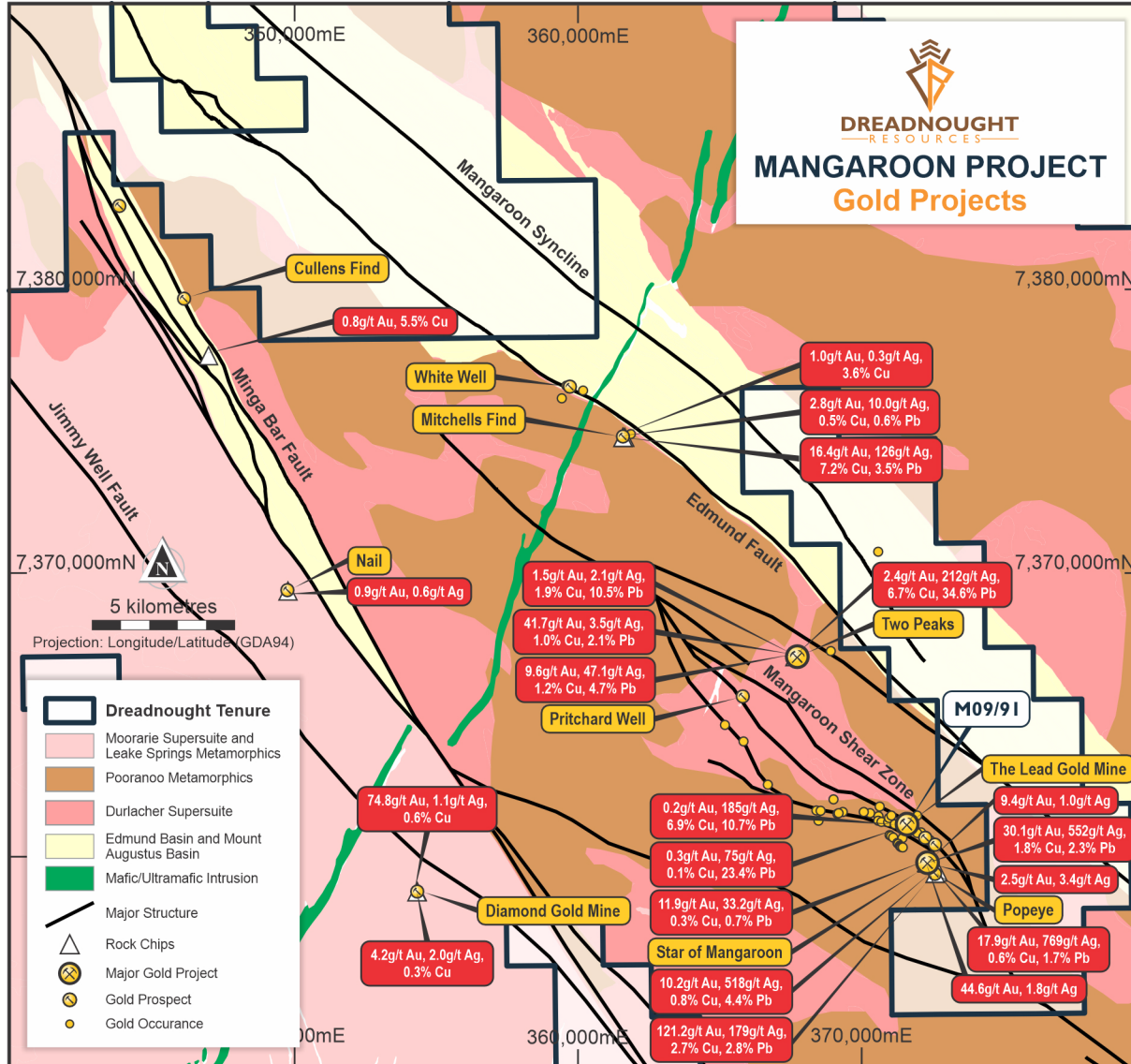
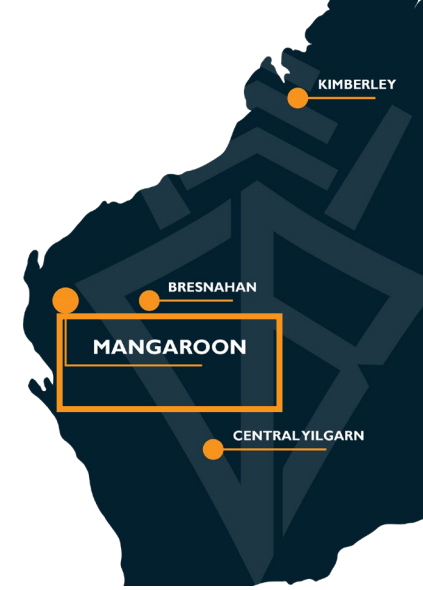
- ~30% of wide spaced first pass drilling completed to date with multiple zones of mineralisation identified

## Next Steps

- Complete first pass drilling
- Follow up infill drilling
- Resources and Metallurgy



# Mangaroon Gold



## Star of Mangaroon

- Mined by Pastoralists 1960s
- MA10: 4m @ 26.0g/t Au from 9m
- SMC07: 4m @ 18.7 g/t Au from 8m
- 7m @ 14.3 g/t Au from 21m

## 14km long mineralised shear zone

- Dozens of historical workings
- No historical drilling, no modern exploration

## The Opportunity

- Define a camp of high grade gold deposits

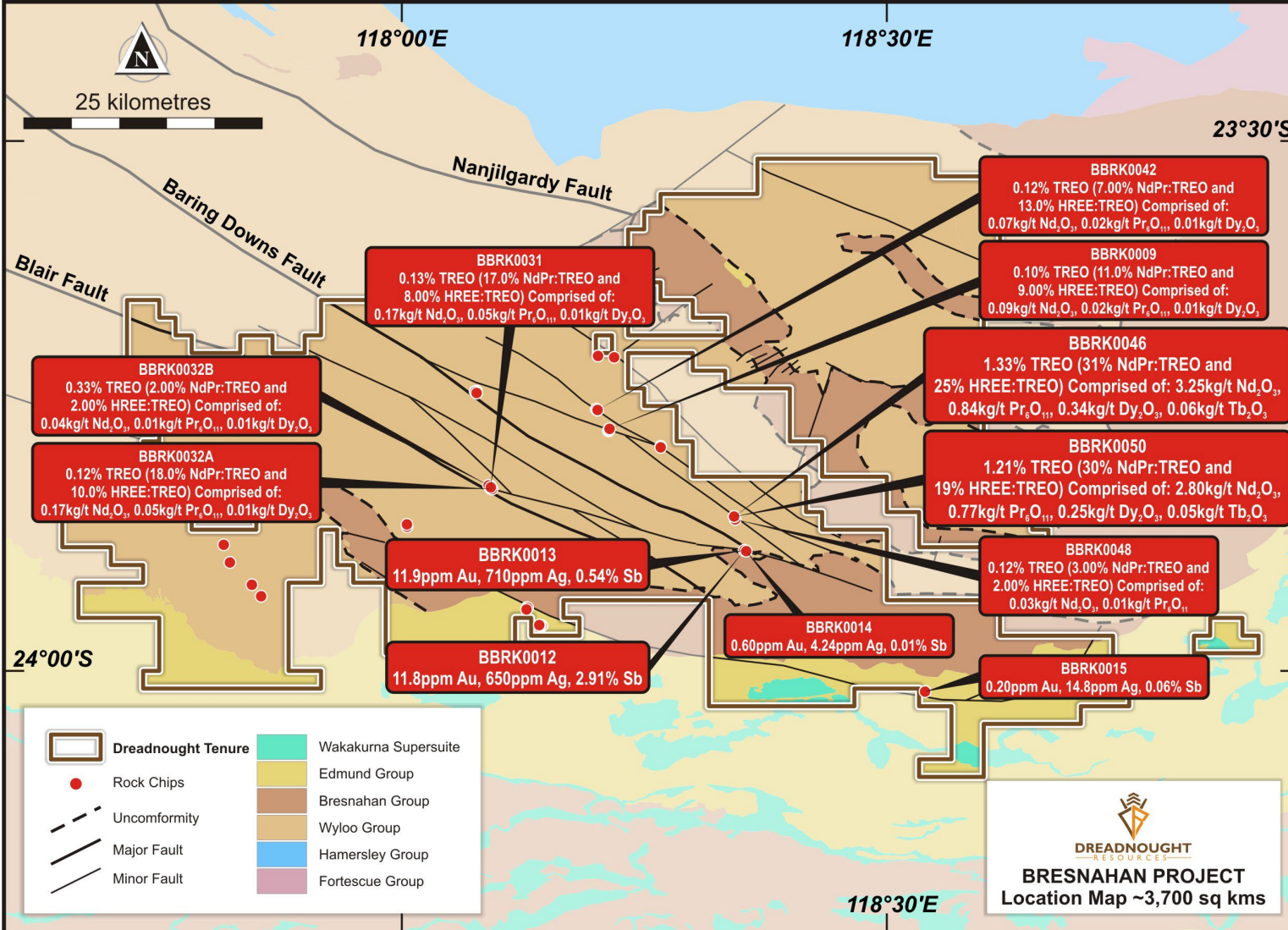
## Next Steps

- Soil geochemical and airborne magnetics survey completed – Results August 2023
- Drilling October 2023





# Bresnahan HREEs, Au-Ag-Sb



## The Opportunity

- Conceptual HREE Play
- Similar to Northern Minerals Brown's Range

## Next Steps

- Detailed Mag/Rad recently flown
- Mapping, rock chipping and stream sediment sampling – September 2023
- Define targets for drilling in 2024





# Take Away Message

## Strong news flow throughout 2023

- Average >1 ASX announcement / week

## Track record of delivering discoveries

- Yin REE ironstone
- C3 and C5 REE-Nb carbonatites
- Sabre/Y8 REE ironstones
- Orion Cu-Ag-Au-Co massive sulphide
- Metzke's and Longmore's gold

## Poised to deliver additional discoveries in 2023/2024

- Mangaroon Au (100%)
- Mangaroon Ni-Cu-PGE (FQM Earn-in/ JV)
- Kimberley Cu-Ag-Au-Co
- Bresnahan HREEs, Au-Ag-Sb
- Central Yilgarn Ni, Au, Li

## Experienced management team with a track record of success and strongly aligned with shareholders

- \$5.3M invested to date
- ~15% Board and management ownership





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# References: Global REE Deposits

**Yangibana:** ASX:HAS 28 November 2017. “Successful Completion of Yangibana Definitive Feasibility Study”

**Tardiff/Nechalacho:** ASX:VML 23 June 2021 “Vital’s Metallurgical Testwork at Tardiff Returns Positive Results for Stage 2 Operations”

**Longonjo:** ASX:PM8 15 November 2019 “Preliminary Feasibility Study”

**Wicheeda:** SRK January 2022 “Independent Preliminary Economic Assessment for the Wicheeda Rare Earth Element Project, British Columbia, Canada”

**Mountain Pass:** SRK 16 February 2022, “Technical Report Summary, Pre-Feasibility Study, Mountain Pass Mine, San Bernardino County, California”

**Nolans Bore:** ASX:ARU August 2012 Nolans Project Update; and ASX:ARU 7 February 2019 “Nolans Project Definitive Feasibility Study Summary Report”

**Cummins Range:** ASX:REE 15 September 2022 “Positive Scoping Study for Cummins Range Shows Potential for Sustainable, Long Life Rare Earths Project”

**Mt Weld:** ASX:LYN 21 September 2012 “Significant Increase in Ore Reserves at Mount Weld” and 6 August 2018 “Lynas announces a 60% increase to Mt Weld Ore Reserves, one of the world’s richest sources of Rare Earths”

**Ngualla:** ASX:PEK 24 October 2022 “Ngualla Rare Earths Project Completion of Bankable Feasibility Study Update”

Deposit	TREO (%)	Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> (%)	NdPr:TREO (%)	TREO Recovery (%)	Recoverable TREO (%)	Recoverable Nd <sub>2</sub> O <sub>3</sub> +Pr <sub>6</sub> O <sub>11</sub> (%)
<b>Yangibana</b>	0.93	0.32	34.4	85	0.79	0.27
<b>Yangibana Reserve</b>	1.22	0.43	34.4	85	1.04	0.37
<b>Nechalacho</b>	1.46	0.37	25.2	70	1.02	0.26
<b>Longonjo</b>	1.43	0.31	22.0	35	0.50	0.11
<b>Longonjo high grade</b>	2.38	0.52	22.0	35	0.83	0.18
<b>Wicheeda</b>	2.95	0.29	14.0	75	1.37	0.22
<b>Wicheeda high grade</b>	1.83	0.41	16.0	75	2.21	0.31
<b>Mountain Pass</b>	4.80	0.78	16.3	68	3.26	0.53
<b>Nolans Bore</b>	2.60	0.69	26.0	70	1.82	0.48
<b>Cummins Range</b>	1.15	0.23	20.0	59	0.68	0.14
<b>Mt Weld</b>	5.40	1.22	22.6	65	3.50	0.79
<b>Ngualla</b>	2.15	0.47	22.0	43	0.92	0.20

Table of referenced data used for comparisons