RareX

ASX: REE
rarex.com.au

Exploring for and Engineering carbonatites

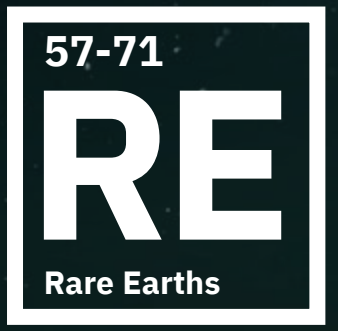
Exploring Australian RE-Nb targets

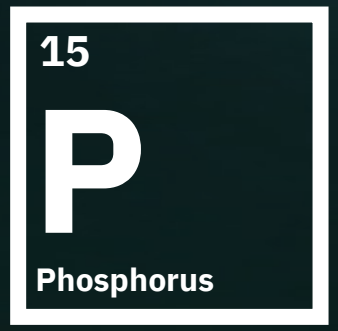
- District scale RE-Nb project and bullseye RE-Nb projects acquired, heavy RE project readied

Engineering Cummins Range RE-P

- Focused on a stand-alone start-up stage via phosphate







November 2024

Disclaimer & Competent Persons' Statements

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Competent Person's Statement - Geology: The information in this presentation relating to the Mineral Resource Estimate for the Cummins Range Rare Earths Project is extracted from the Company's ASX announcement dated 25 January 2024 which was reported in accordance with Listing Rule 5.8. REE confirms that it is not aware of any new information or data that materially affects the information included in the original announcement and that all material assumptions and technical parameters underpinning the Mineral Resource Estimate continue to apply. The Company confirms there have been no material changes to exploration results since first reported in accordance with Listing Rule 5.7 on the dates referenced throughout the presentation for the Cummins Range, Mt Mansbridge, Khaleesi and Piper Projects.

Competent Person's Statement – Metallurgy: The information in this presentation relating to metallurgy was first reported in accordance with Listing Rule 5.7 on 11 July 2023. REE confirms that it is not aware of any new information or data that materially affects the information included in the original announcement.

Competent Person's Statement – Production Target and Forecast Financial Information: The information in this presentation relating to production targets and forecast financial information (FFI) was first reported on 22 August 2023. REE confirms that the material assumptions underpinning the production target and FFI continue to apply and have not materially changed. The production target is based on a portion of inferred resource. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realized.

Global Resource (JORC 2012) – Cummins Range

2.5% P_2O_5 Grade Cut	Tonnes Mt	TREO ppm	P_2O_5 %	NdPr ppm	Nb_2O_5 ppm	HREO ppm
Indicated	77.4	4,650	6.7	1,020	780	280
Inferred	446.9	2,860	4.2	620	550	170
Total	524.3	3,120	4.6	670	580	190

Exploring and Engineering Carbonatites

Managing risks for a return in value once the head-winds turn

RARE X

1 Improved and de-risked asset base

Engineering out risk at Cummins Range

- ✓ Focus on simplified, stand-alone start-up stage
- ✓ Supply chain de-risked
- ✓ Approvals and permitting progressed

Exploration assets expanded and improved

- ✓ Acquired Khaleesi Nb-RE intrusive complex
- ✓ Acquired Piper bullseye Nb-RE project on trend from Luni
- ✓ De-risked Mt Mansbridge heavy rare earth project
- ✓ De-risking Maude Creek heavy rare earth project

Expansion work-streams through targeted M&A

- ➢ East Africa and Saudi focus
- ➢ Advanced projects in emerging jurisdictions

2 Improving metals and market sentiment

Protracted suppressed capital market sentiment looks to be ending

- ➢ Small-caps challenged over last 24 months; **but**
- ➢ Market looks to be turning[1]
  - Reducing interested rates
  - Over-priced ASX 200
  - IPOs increasing again

Critical metals prices must improve

- ➢ Metal prices below incentivisation pricing
  - Rare earths NdPr @ US $58/kg[2] currently
  - Required US $75-80/kg[3]
- ➢ Electrification-of-things still strong
  - EV growth up 30% in September 2024[4]
  - Supply chain security requirements increase further[5]

Sources:

[1] https://www.morningstar.com.au/insights/stocks/257696/should-you-invest-in-small-caps

[2] https://www.asianmetals.com – 27/11/2024

[3] https://source.benchmarkminerals.com/article/higher-prices-needed-to-develop-ex-china-rare-earths-supply?

[4] https://www.reuters.com/business/autos-transportation/global-ev-sales-up-305-september-china-shines-europe-recuperates-2024-10-14/

[5] https://www.industry.gov.au/news/australia-and-european-union-partner-critical-minerals

Corporate Snapshot

Capital Structure

ASX Code	**REE**
Share Price (25 Nov 2024)	**A$0.011**
Shares on Issue	**800M**
Market Capitalisation (25 Nov 2024)	**A$8.8M**
Cash (Sept Qtr)	**A$0.86M + A0.83M[1]**
Investments (30 September 2024)[2]	**A$3.06M**
Cash and Investments	**A$4.75M**

Shareholders

Top 50 Shareholders	**~42%**
Number of Shareholders	**~5,000**
Major Shareholders	**Simon Lee AO (~5.4%)**
	Jeremy Robinson (~4.9%)

Key people

Chairman: Non-Executive	**Jeremy Robinson**
Managing Director & CEO	**James Durrant**
Director: Non-Executive	**Danny Goeman**
Director: Non-Executive	**Shaun Hardcastle**
Company Secretary	**Oonagh Malone**

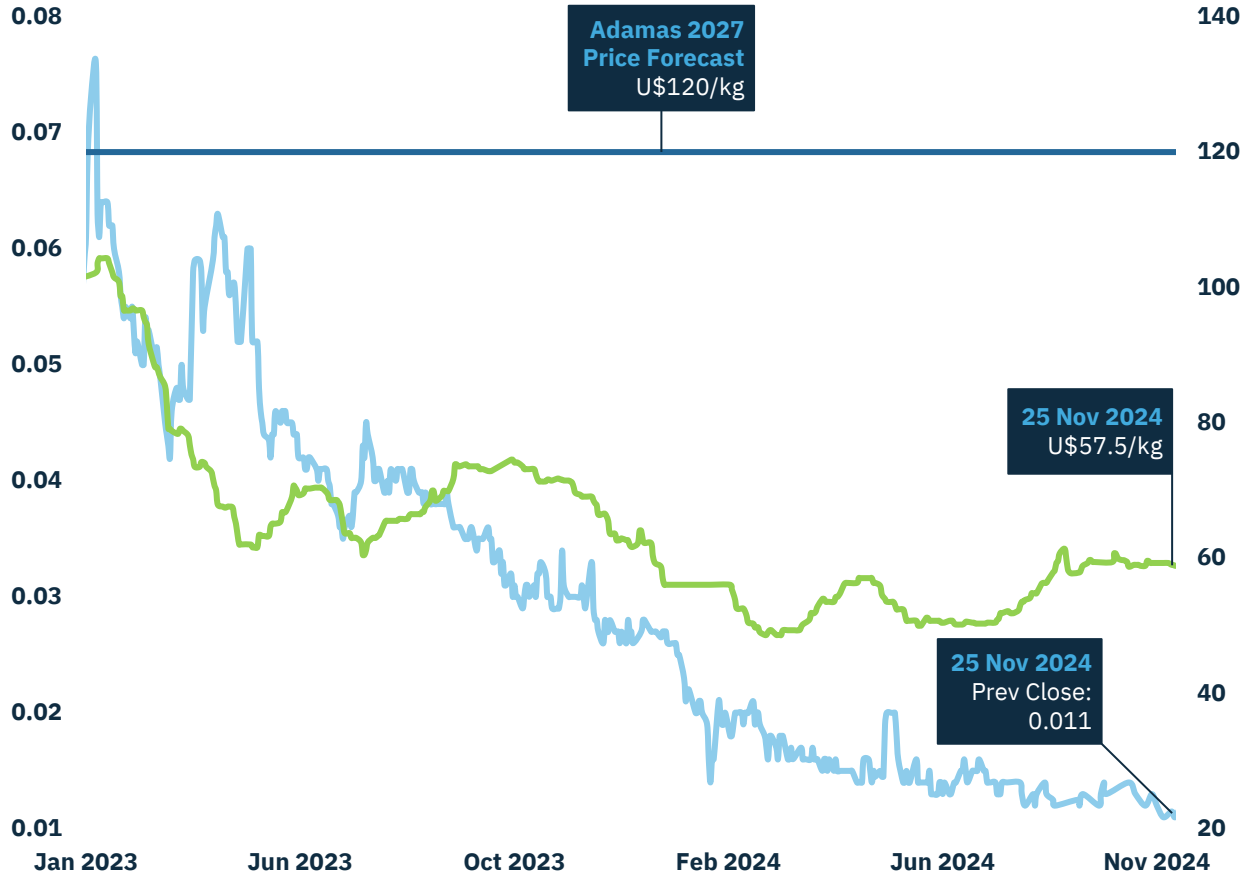
Notes:
1 - A$0.83M R&D rebate for FY2024
2 - Kincora Copper: 45M shares plus project royalty
Cosmos Exploration Limited: 10M shares
Canada Rare Earths Corp: 25M shares

RARE

✓ **Rare Earth prices appear to have bottomed**

Share Price Information
ASX: **REE** (AUD/share)

NdPr Oxide Pricing
Asian Metals, EXW China (USD/kg)



Peer Group Comparison

A challenging period for all

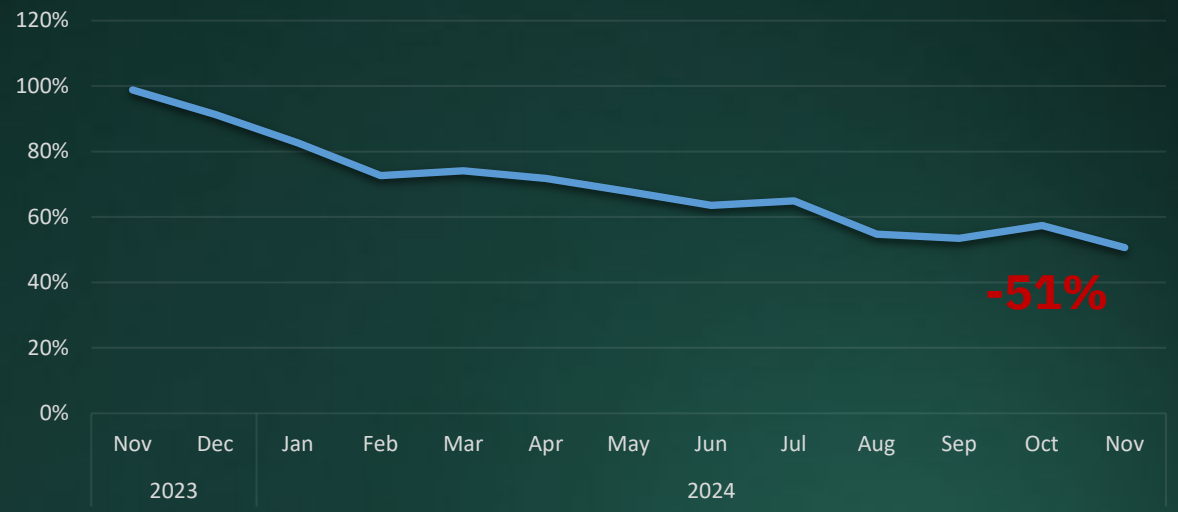
Low risk appetite has prevailed

- ✓ Limited high-risk-high-reward capital
- ✓ Poor critical metals market backdrop
- ✓ Negative media pressures sentiment

Global trends favourable

- ✓ US tariffs on China likely
- ✓ Supply chain security is a major geopolitical risk
- ✓ Metal prices unsustainable

REE Peer Group Share Price Performance over 12 months



Notes:
ASX data analysis
Peer group selected for ASX listed companies with Australian assets

12-Month ASX peer group share price performance

-62%	ASX:HAS	-65%	ASX:REE
-33%	ASX:ARU	-52%	ASX:DRE
-64%	ASX:ASM	-33%	ASX:AR3
-44%	ASX:NTU	-64%	ASX:BHM

Benchmarks

MSCI World	+26%
S&P/ASX 200	+20%
ASX Small Ordinaries	+18%

A Year Requiring Internal Risk Mitigation

Against external market headwinds

Challenges External 2024

Junior Market Sentiment

- Low appetite for higher risk-higher reward investments
- Investments have moved up the liquidity and market-cap curve

Critical Metals Market

- Suppressed by oversupply in China
- Compounded by hiccups in de-carbonization sentiment

Solutions Internal 2024-2025

Corporate level cost control and business rationalisation

- ✓ Board simplification
- ✓ Reduced 3rd party service provision
- ✓ Improved internal capability & contracted services out

Engineering Focus at Cummins Range refined

- ✓ RE metallurgy paused to save costs following achieving 20x upgrades in beneficiation[4]
- ✓ Phosphate metallurgy focus following a revision in the approach
- ✓ Stage-1 phosphate startup being optimised

Exploration asset growth and value-add

- ✓ Acquired Khaleesi – 1,000km of Nb-RE carbonatite ground[1]
- ✓ Acquired Piper – Bullseye magnetic anomaly in partnership with Resource Potentials[2]
- ✓ De-risked Mt Mansbridge – Identified Xenotime HRE mineralised system[3]

Notes:

1: ASX Announcement 23 May 2024, RareX acquires district-scale niobium project in the East Yilgarn, WA.
2: ASX Announcement 01 Oct 2024, RareX gains access to bulls eye magnetic anomaly in the NT.
3. ASX Announcement 18 Sept 2024, RareX review of Mt Mansbridge shows promising HRE potential.
5: ASX Announcement 18 Oct 2023 Rare Earths beneficiation work delivers strong TREO upgrades

Cummins Range Project

Engineering Australia's largest un-developed rare earth deposit via phosphate

Solving for challenges

57-71	15
RE	P
Rare Earths	Phosphorus

RAREX

1 Weak RE prices (turning?)

- **Temporary reduction in rare earth metallurgy** - not yet solved for all geological domains
- **Focus on phosphate metallurgy** using alternative methodology
- **Aiming for a phosphate optimised process solution** for a standalone Stage-1 phosphate project

2 Accessing future markets

- **Supply chain de-risking with port and trucking solutions** – belt loading, land access and haulage agreements
- **Road options being discussed with government**
- **Offtake - MOU with Ordco and Nitron**. Exploring options in SE Asia with JTSI[1,2].

3 Slow approvals

- **Completed environmental baselines -** Ongoing monitoring
- **Early regulator engagement** ongoing
- **Focused resources on native title agreement finalisation**
  - Delays a function of challenges regarding changes in leadership and governance within the PBC – Slow but progressing

Source:
1: ASX Announcement 07 Nov 2022, RareX signs offtake MOU with Nitron for Stages 1-2 products.
2. ASX Announcement 09 Nov 2023, RareX signs offtake MOU with Nitron for Stages 1-2 products.

Exploration Projects

Exploring Australia for carbonatites and rare earths with rationalised, prioritised and improved assets

Solving for single asset exposure



41	57-71
Nb	RE
Niobium	Rare Earths

1 Mts Mansbridge HRE system

Xenotime mineralised system
- ✓ All basement Killi Killi Formation pegged and Heritage complete
- ✓ Heavy rare Earths from surface, close to Browns Range
- ✓ Incorrect drilling orientation

2 Cummins Range RE anomalies

Potential carbonatite swarm
- ✓ Previous drilling missed geophysical targets
- ✓ Access and permitting complete

3 Khaleesi and Piper Nb-RE

Khaleesi
- ✓ 45km along trend from highest grade RE intersection in Australia
- ✓ Near-by, and in same age rocks, as Mt Weld (Lynas)

Piper
- ✓ Bullseye magnetic anomaly – carbonatite?
- ✓ Along trend from Luni and Nolans Bore

Expanding Opportunities

Expanding by homing in on specific projects in targeted jurisdictions

Solving for single jurisdictional exposure

41	57-71
Nb	RE
Niobium	Rare Earths

1 East Africa

Rationale
- Local knowledge and connections
- Rift valley geology
- Indian Ocean Rim

To-Date
- Project targets identified
- Local and international advisory on-boarded
- Proposals prepared

2 Kingdom of Saudi Arabia

Rationale
- Emerging minerals jurisdiction
- Vision 2030 enabled by financial incentives
- Arabian-Nubian shield geology

To-Date
- 2-projects applied for: Unsuccessful but with constructive feedback
- Local licensing and registrations
- Potential partnership discussions

Planned Milestones 2025

Based on our current asset portfolio with potential new acquisition upside

Cummins Range
RE-P

Revised plan – focussed on standalone phosphate startup

- ✓ New phos -product generation

Q1 Revised priority:

- ❑ Product testing
- ❑ Confirmation of new processing path – phos-optimised

In parallel:

- ❑ Mining Heritage agreement
- ❑ Approval submission

Triggering:

- ❑ Feasibility
- ❑ Approvals

Exploration
Nb-RE

Revised priorities for improved milestone delivery

Q1 Final prep for drilling:

- ❑ Cummins Range Drill Preparations – fully permitted
- ❑ Mt Mansbridge HRE Geochem/Geophysics
- ❑ Mt Mansbridge drill preparations
- ❑ Khaleesi drill preparations (access, camp, clearances, PoWs)
- ❑ Maude Creek deep-dive completion

Q2-Q3 prioritised by access and approvals

- ❑ Drilling Mt Mansbridge (2000m)
- ❑ Drilling Cummins Range (1500m)
- ❑ Drilling Khaleesi (5000m)

Expanding
Opportunities

Confidential activities for additional assets

Potential acquisition 1

- ❑ Partnership
- ❑ Granting

Potential acquisition 2

- ❑ Partnership
- ❑ Granting

Strong In-House Capability
Explore, Engineer, Expand



James Durrant
Chief Executive Officer

Mining and Mechanical Engineer with nearly 20 years across Tier 1 operations and junior company project development in Africa and Australia. GAICD.



Guy Moulang
Exploration Manager

Geologist and AIG Member with 20 years' experience in technology metals, base metals and gold exploration. 5 years with RareX on Cummins Range



Kay Hofmann
Study & Approvals Manager

Ex Mineral Resources Limited and BHP. Leader of engineering and operational teams across mine planning, production, drill & blast, A&I, hydrogeology and environmental baselines



Jeremy Robinson
Non-Executive Chairman
Fund raising, Strategy, Corporate Development



Danny Goeman
Non-Executive Director
Negotiations, Offtake, Marketing, Shipping



Shaun Hardcastle
Non-Executive Director
Corporate Law, Finance Law, Governance

RARE X



“A team with grit and determination with the capacity, capability and drive to push through challenges”

Board of Directors

Jeremy Robinson – Non-Executive Chairman

James Durrant – Managing Director

Danny Goeman – Non-Executive Director

Shaun Hardcastle – Non-Executive Director

Company Secretary

Oonagh Malone

Chief Executive Officer

James Durrant

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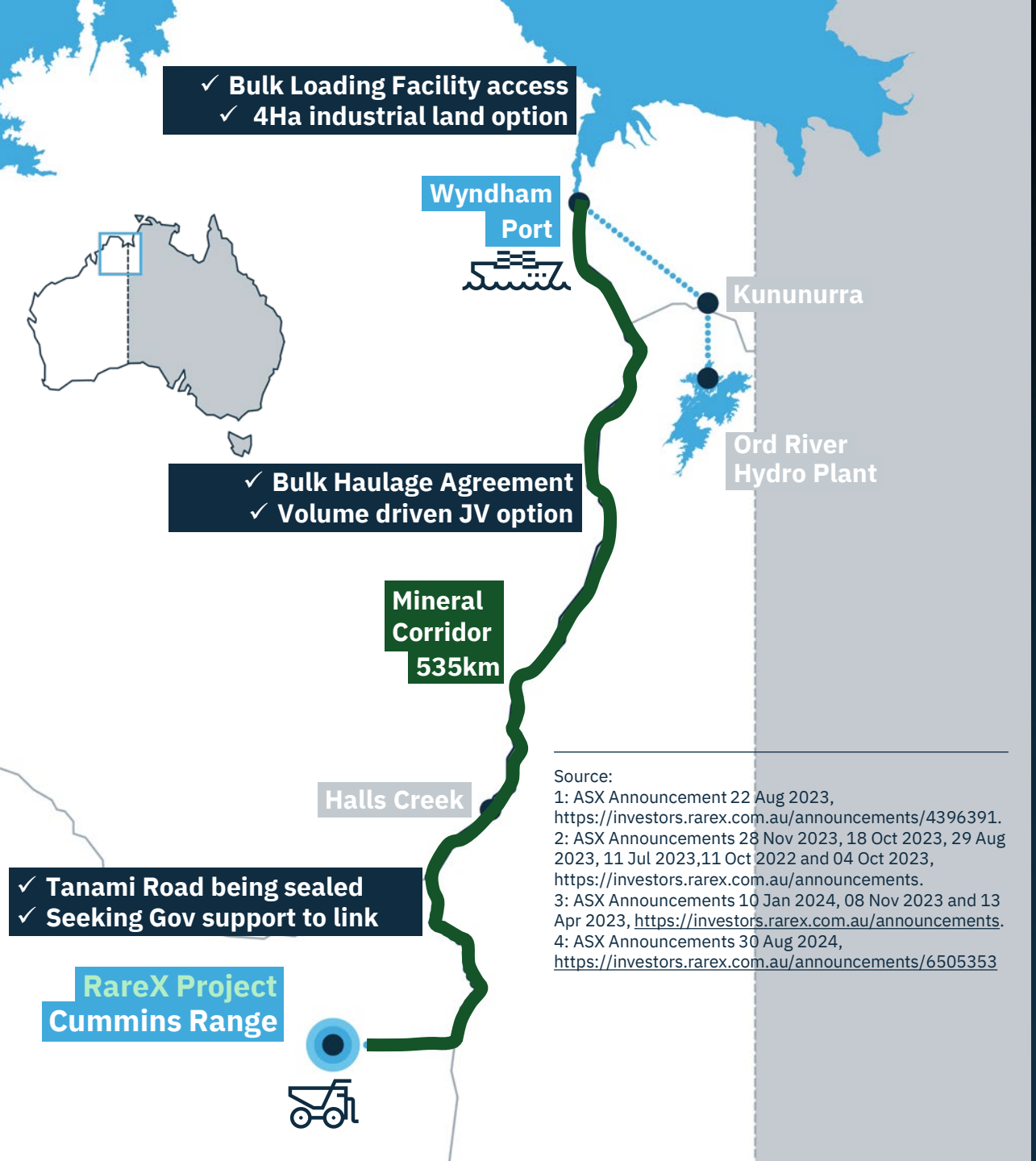
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Engage Via Investor Hub



Appendix



Source:
1: ASX Announcement 22 Aug 2023, https://investors.rarex.com.au/announcements/4396391.
2: ASX Announcements 28 Nov 2023, 18 Oct 2023, 29 Aug 2023, 11 Jul 2023,11 Oct 2022 and 04 Oct 2023, https://investors.rarex.com.au/announcements.
3: ASX Announcements 10 Jan 2024, 08 Nov 2023 and 13 Apr 2023, https://investors.rarex.com.au/announcements.
4: ASX Announcements 30 Aug 2024, https://investors.rarex.com.au/announcements/6505353

Ap. 1 - Engineering

Cummins Range

RAREX

Metal price headwinds require new thinking

Scoping Study[1] forms the basis

NPV_8 post-tax:	AU$ 333M
IRR post-tax:	27%
Total Capex:	AU$ 350M
EBITDA:	AU$ 1.5B

✓ Positive RE metallurgical results[2]

Supply chain de-risks development

✓ Existing minerals corridor
✓ Access to bulk loading[3]

Surveys initiate approvals

✓ Baselines complete with no significant environmental hurdles
✓ Regulator pre-engagement underway
✓ TO agreement well developed with positive alignment but slow to close

Stage-1 as a standalone

1. Pause RE research and engineering

✓ Met testing for RE paused[4]
✓ External engineering support paused
✓ Internal capacity improved for cost efficiencies

2. Test alternative phosphate optimised technology

✓ Alternative 3rd party technology being tested
✓ Synthetic fertilizer product produced
- Plant trials in Q1 2025

3. Feasibility engineering on stand-alone Stage-1

- Pending product testing
- Revised studies and financial modelling

Ap. 2a - Exploration

Cummins Range near-mine anomalies

Rare Earths

Project information

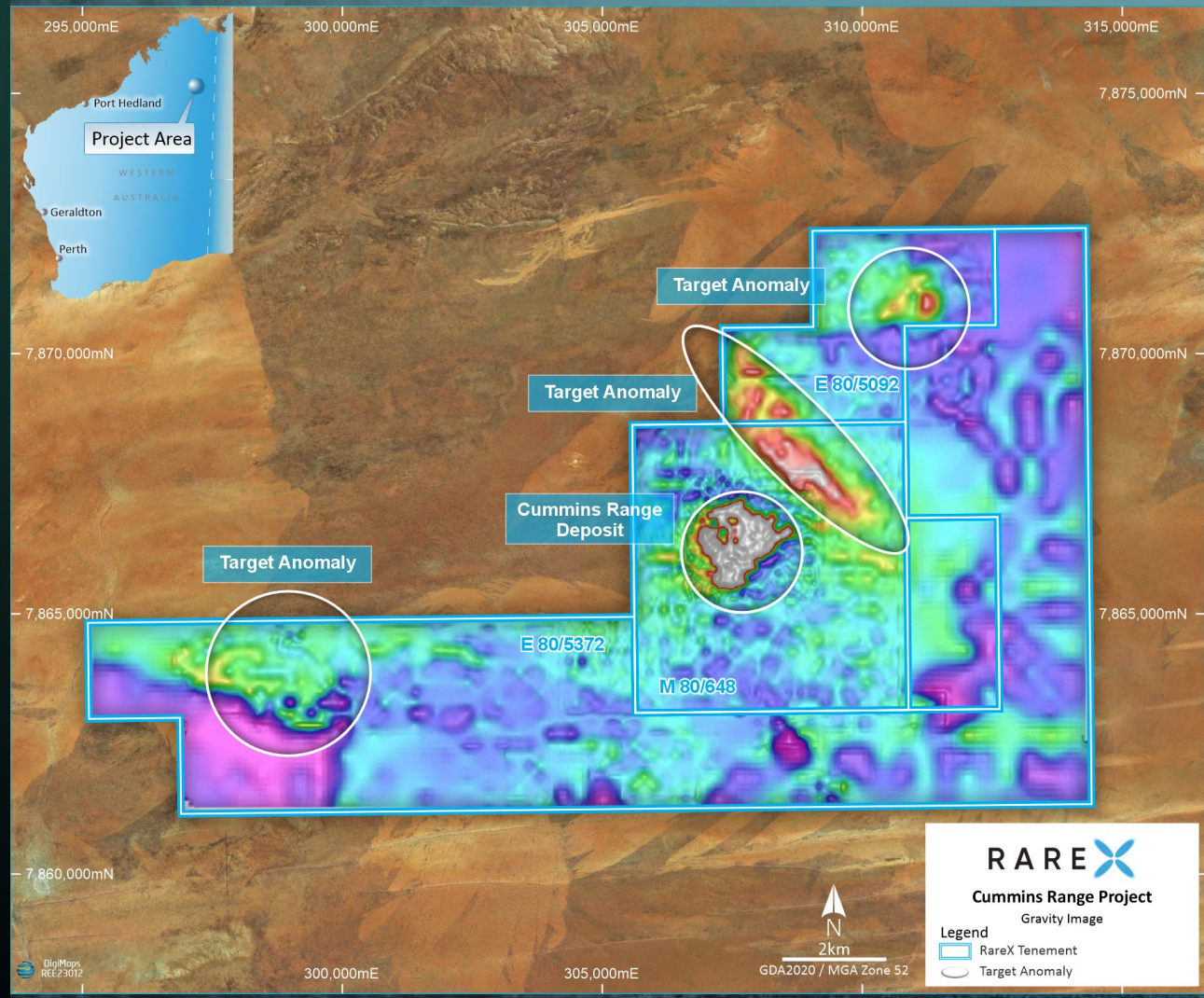
Known anomalies remain untested

- Current HG resource[1]: 44Mt at 1.02% TREO and 5.8% P2O5
- Global Cummins Range Resource[1]: 524Mt at 0.31% TREO and 4.6% P2O5
- Current resource is open in multiple directions
- No drilling by RareX outside of the resource area in the pipe.
- Opportunities for further rare earths-niobium discoveries inside the Cummins Range Pipe
- Opportunities outside the pipe in identified anomalies, un-drilled

Exploration Plan

Simple programme on familiar site with approvals in place

- ✓ Geophysics completed and interpreted[2]
- Drill **1,200m RC holes** to test anomalies
- Targeting eastern portion of Cummins Range Pipe where historic drilling intersected 14m @ 0.5% TREO from 23m to end of hole Incl. 2m @ 2.6% TREO[3].



References:
1: ASX Announcement 25/01/2024 Cummins Range Mineral Resource Update
2: ASX Announcement 13/11/24 Geophysical Surveys Identify Potential New Ultramafic Pipes
3: ASX Announcement 01/05/23 Cummins Range Resources Soars to 519Mt at 0.32% TREO, 4.6% P2O5

App. 2b - Exploration

Mt Mansbridge

Heavy Rare Earths

Project information

Xenotime mineralised system near Browns Range in Killi Killi formation

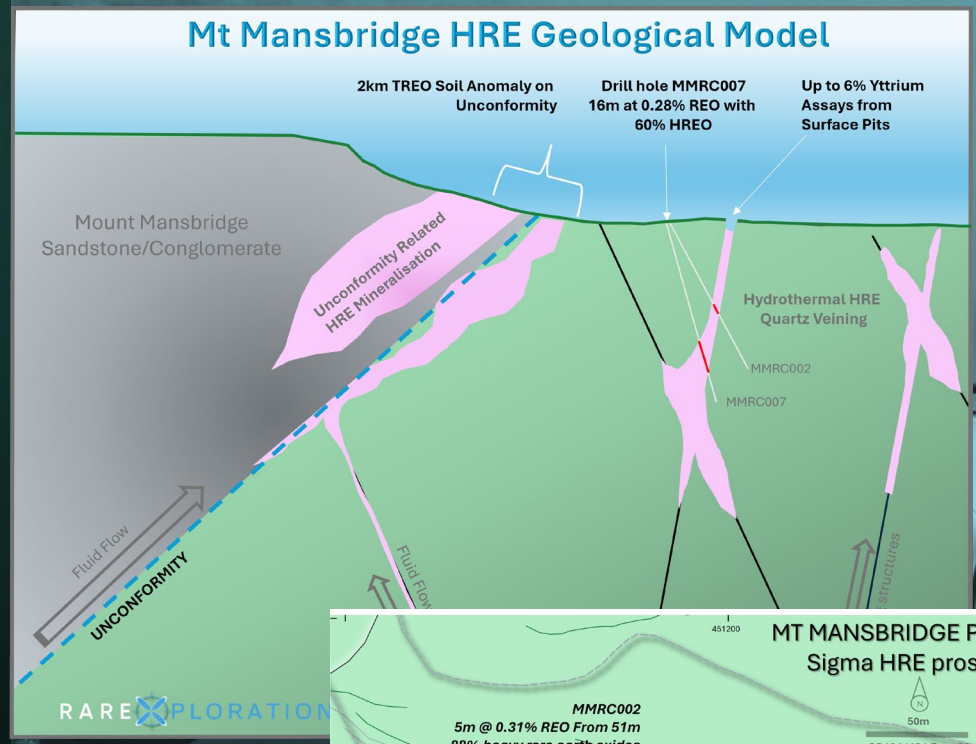
- Pre 2021 focus was unconformity uranium and gold exploration
- Outcropping xenotime over 300m with historical pit samples up to 6% yttrium at the Sigma Prospect
- Historical RC holes intersected significant HRE mineralization including 4m @ 0.48% TREO with 63% HREO
- Majority of the Paleoproterozoic Killi Killi Formation (Basement rocks) is has not been assessed for rare earth geochemical signatures.
- 2km long TREO soil anomaly on unconformity contact

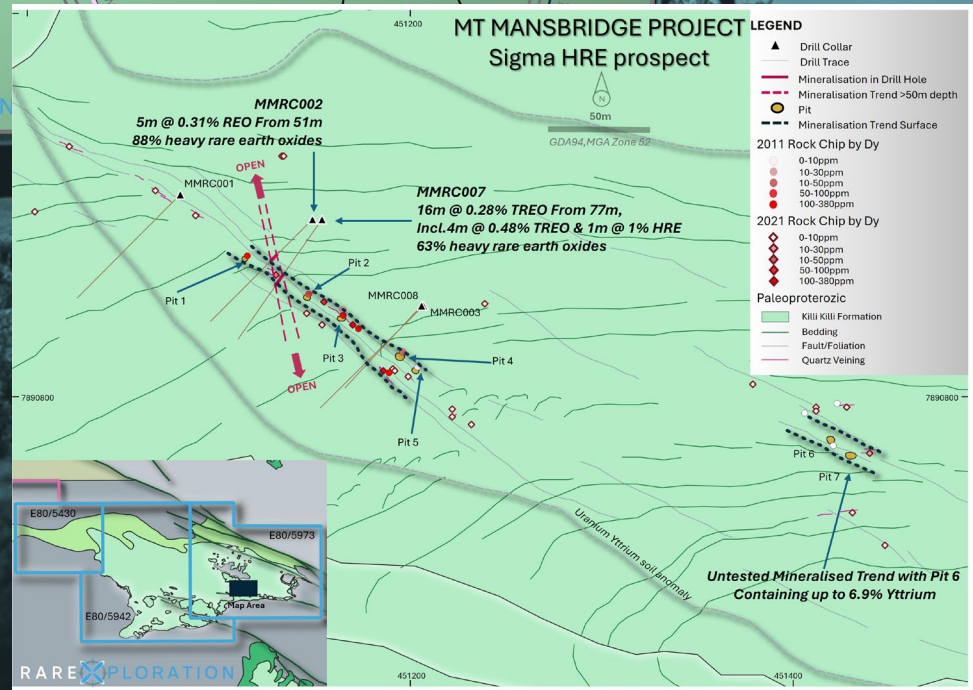
Exploration Plan

Simple programme on brownfield site as soon as tenement granted

- ✓ Desk-top deep dive completed[1]
- Mapping and ground truthing of historical work
- Aerial gravity survey to locate hidden structures in the Killi Killi formation (Basement rocks)
- 1500m auger samples over the basement rocks focused around identified structures
- 2000m of RC drilling at the Sigma and newly developed targets

References:
1: ASX Announcement 18/09/2024 RareX review of Mt Mansbridge shows Promising HRE Potential





Ap. 2c - Exploration

Khaleesi alkaline intrusive complex

Niobium Rare Earths

Project information

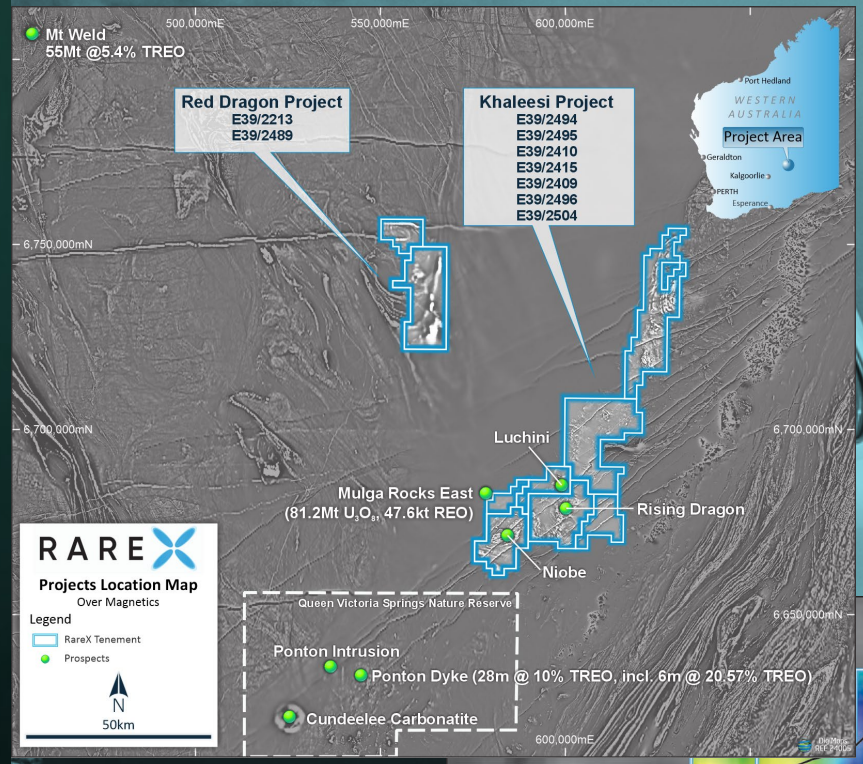
20km diameter carbonatite district in highly fertile Eastern Yilgarn craton

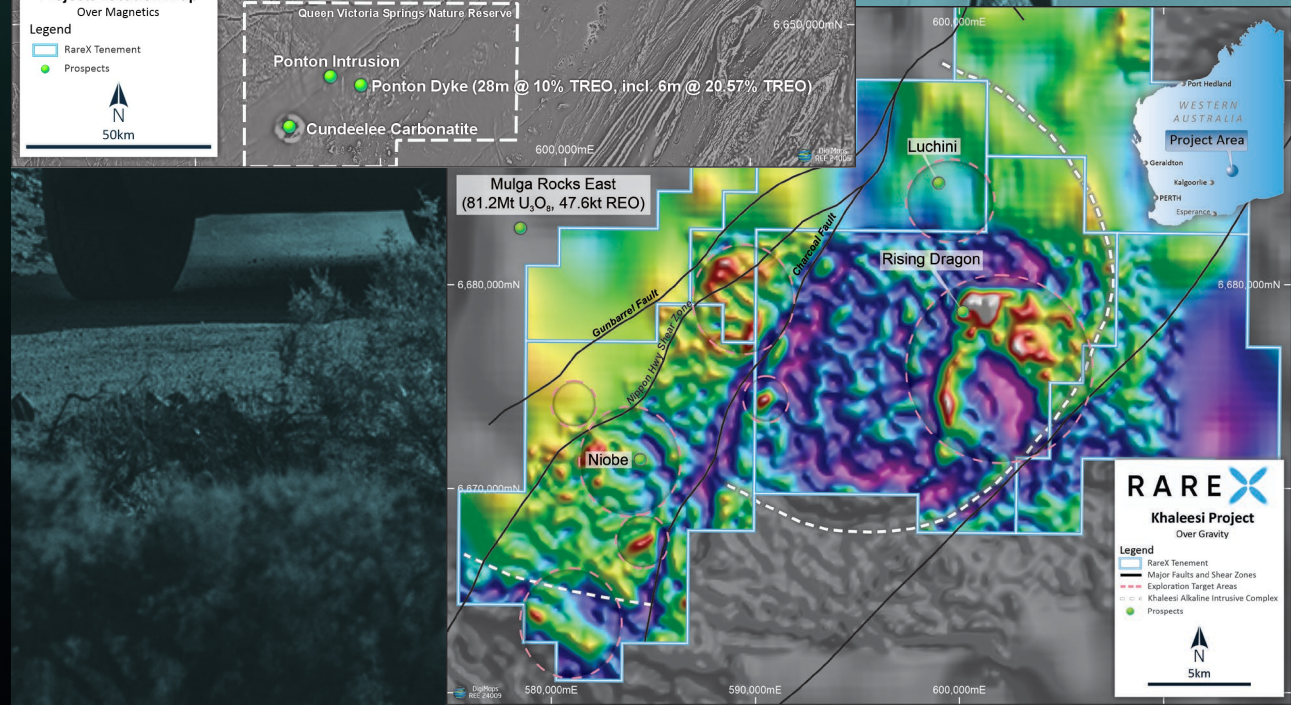
- Newly discovered, nicely faulted, alkaline intrusion complex
- Western half faulted down under Mulga Rocks
- Never been explored for rare earths and Nb
- Possible carbonatite intrusions have been identified from magnetic and gravity anomalies[1]
- Re-assaying of available historical drilling have shown very elevated rare earths and niobium in the regolith profile[2]

Exploration Plan

Simple programme on familiar site with approvals in place

- ✓ Geophysics interpretation complete
- ✓ Historical assays located and tested
- ✓ Access agreements completed with most neighbours - Deep Yellow agreement remaining
- ✓ Heritage agreement complete
- Awaiting DEMIRS to grant final licenses
- Finalise access approvals and environmental management plans
- Drill **5,000m of RC** to test carbonatite targets under cover sequence





References:
1: ASX Announcement 11/06/24 Historic data review delivers exciting targets at Khaleesi
2: ASX Announcement 14/10/24 Khaleesi assay results show elevated NB and significant REE

Ap. 2d - Exploration

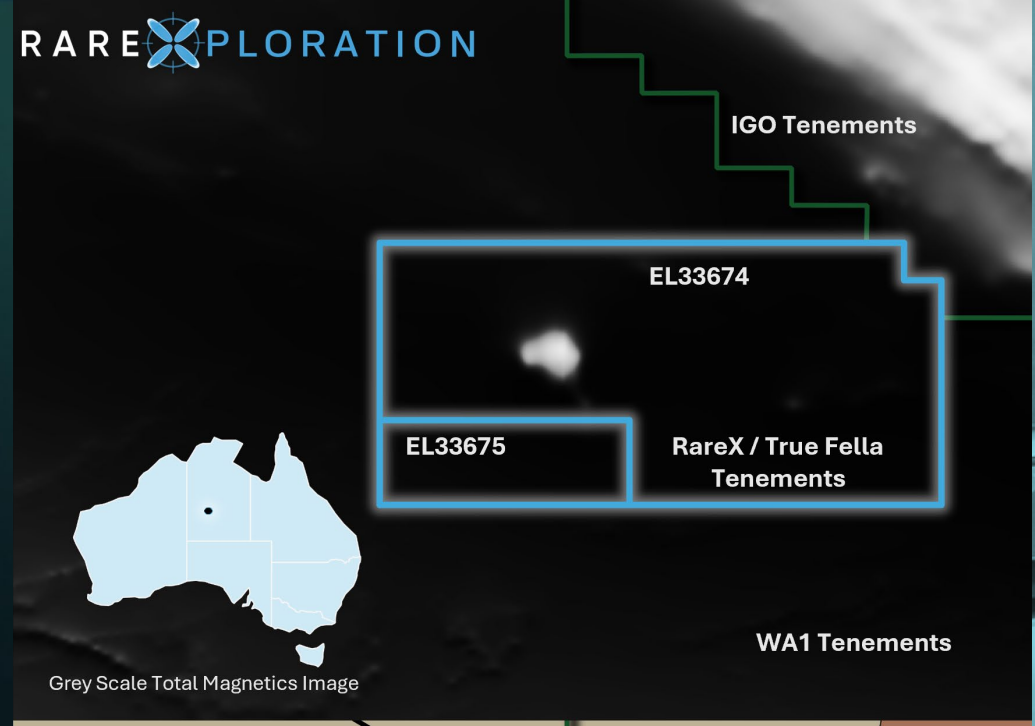
Piper Project

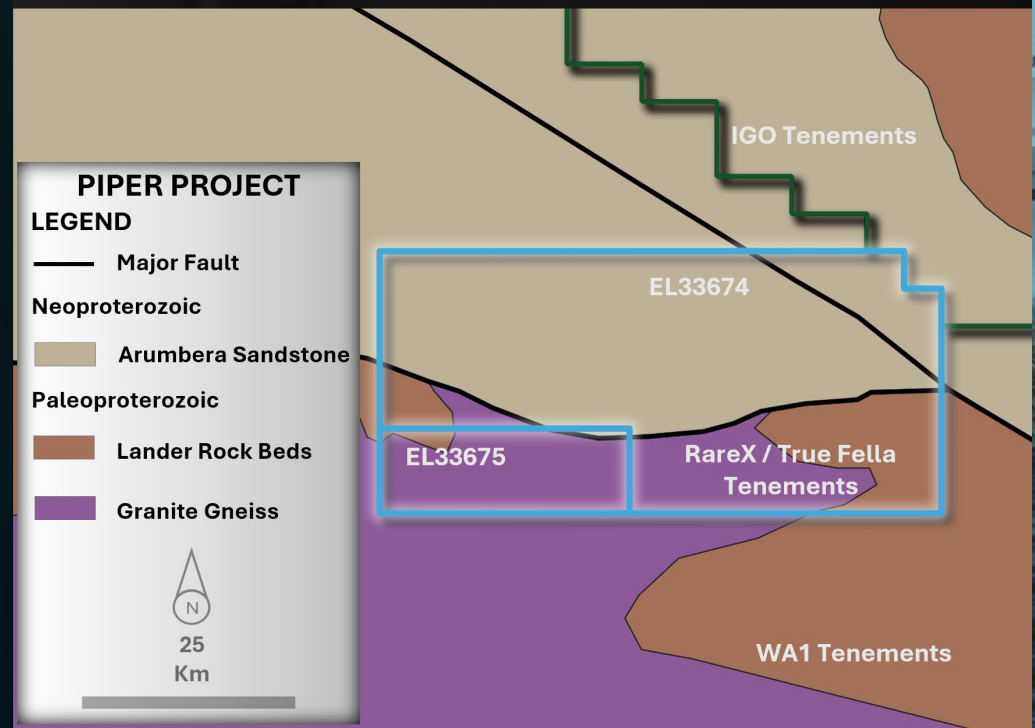
Niobium Rare Earths

Project information

Niobium-rare earths carbonatite pipe target in the Aileron Province Northern Territory

- 170km along strike from Nolans Bore REE deposit
- 2.5km magnetic bulls eye anomaly under 100-200m of Neoproterozoic cover[1]
- Project composed of 2 tenements. EL33675 is granted and EL33674 is pending
- Aboriginal land and access agreements are being negotiated







References:
1: ASX Announcement 02/01/2024 RareX Gains Access To Bulls Eye Magnetic Anomaly

RAREXPLORATION

Ap. 3 - Exploration Schedule

RARE

Prioritisation in order of consideration for license status, approvals process under heritage agreements and seasons



Ap. 4 - Journey of RareX

Driven by a fundamental belief in the electrification revolution

RareX Foundation ’18

Built on the fundamental belief in rare earths and their contribution to the global megatrend of electrification

Acquisition Cummins Range ’19

Known carbonatite acquired because of its Rare Earth and Niobium potential

Mineral Resource growth ’21-’22

Australia’s largest un-developed Rare Earth deposit, with battery grade Phosphate and appreciable Niobium:

- **1.6** million tonnes **Rare Earths** (NdPr dominant)
- **24** million tonnes **Phosphate** (for batteries)

Engineering Studies ’23

- Scoping studies **complete**
- AU$**333M** NPV, **27%** IRR
- Geology team freed up for **business development**

Approvals Cummins Range ’24

- Environmental approvals **>90% complete**
- Native title agreement **> 90% complete**
- Regulatory **pre-engagement**

Acquisition Khaleesi Nb-RE ’24

District scale Niobium

- ✓ **Large scale** discovery
- ✓ **Tier 1** data
- ✓ **Carbonatite** hunting ground

Acquisition Piper Nb-RE ’24

Bullseye anomaly

- ✓ Along strike from **Luni**
- ✓ Along strike from **Nolans**
- ✓ Supported by **Resource Potentials**

De-Risk Mansbridge HRE ’24

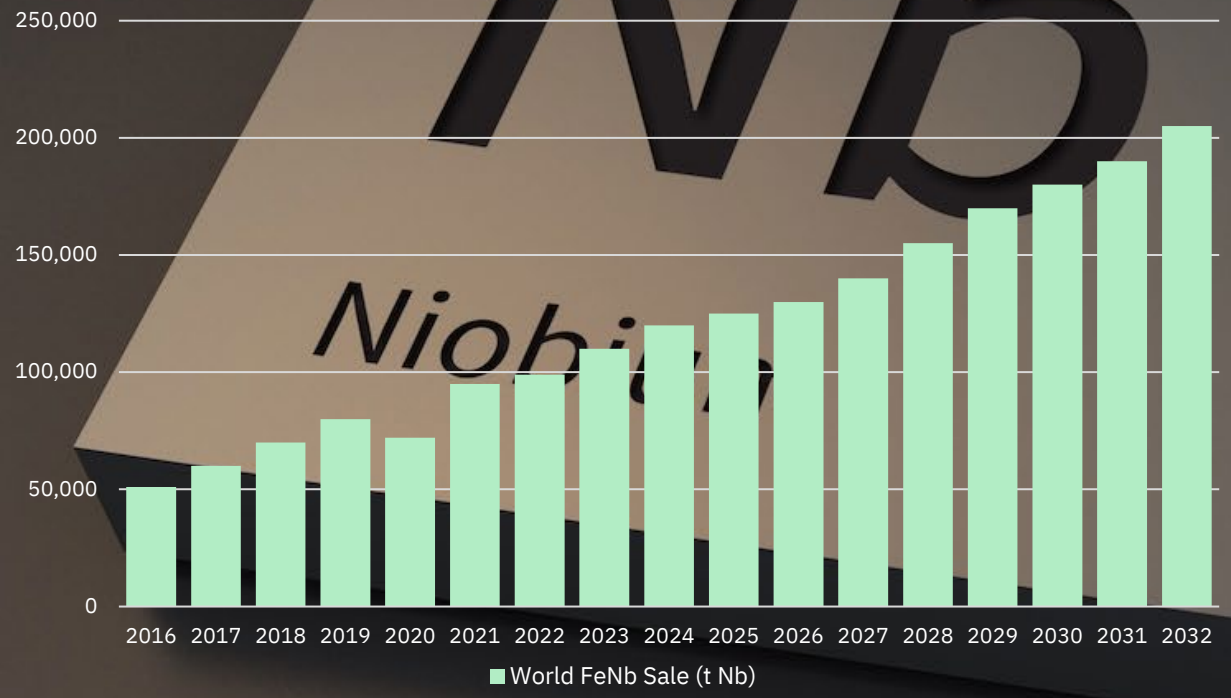
Xenotime system

- ✓ Proximal to **Browns Range**
- ✓ **HRE Veins** in Killi Killi formation
- ✓ Historical drilling in **wrong orientation**

Ap. 5 - Niobium Market

- ✓ Critical metal
- ✓ Concentrated supply
- ✓ Niobium market growth projected at **9.92% CAGR** [2024 - 2029][2]
- ✓ Niobium price set to further increase with increasing demand

Ferroniobium Sale Outlook to 2032[11]



Steel and super-alloys

- ✓ Need for niobium follows **steel (~75%) and super-alloys productions (~25%)[1]**
- ✓ Niobium offers **better strength, greater heat and wear resistance**
- ✓ **Accelerating demand** for structural steel & lighter-weight vehicles

Consumer electronics

- ✓ Semi-conductor **electronics**
- ✓ Super-conducting **magnets**

Batteries

- ✓ **Improved battery performance**

Supply chain concentration

! **~90% produced in Brazil[1]**
Production dominated by CBMM, CMOC and Niobec

Niobium is a hot market

- **WA1 Resources -** 500% share price growth over 1 year[3]
- **Encounter Resources -** 60% share price growth after Nb drilling and mineralisation announcements from Jun 2023[4,5]
- **Summit Minerals** - 50% share price increase for Nb, REE and Li projects acquisition[6,7]
- **Rincon Resources -** 170% share price increase in 1 month post REE & Nb mineral target announcement[8,9]

Strategic significance

- US depends entirely on Nb imports requiring critical mineral strategy[10]
- **US and China competition** over hypersonic technology emerges Nb strategic significance[10]

Current Price[12]

- US $46.0/kg FeNb, 66% Rotterdam
- US $52.5/kg Nb Pentoxide, 99.5% FOB China

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Ap. 6 - Rare Earths Market

Clean energy revolution

- ✓ **EVs and wind turbines**
- ✓ **EU Net zero ambition by 2050** – $3.8T investment by 2050[1]
- ✓ **US net zero ambition by 2050** - $30T investment by 2050[2]

Consumer electronics

- ✓ **Power tools** and consumer goods
- ✓ **Communication** devices
- ✓ **Growing technology** penetration

Rare Earths in Defence

- ✓ **Growing use** in defence applications: subs, planes, UAVs[8]
- ✓ 9**% growth** in defence spending to a record **$2.2T** in 2023[7]
- ✓ Strategic, **secure supply required**

Supply chain concentration

! **~85% flows through China[5]**

Advanced RE projects attract big money

- **Australia: A$1.25b** to ILU[9], **A$533m** to ARU[10], **A$22m** to RE research projects[11], **A$220m** to HAS[12]
- **Gina Rinehart: 10% ARU** stake[13]
- **Andrew Forrest: A$150m** to HAS[14]

Sovereign supply chains key

- Governments mandating **sovereign supply**
- **Critical Mineral incentives** across the developed world
- **Australian , Canadian, US strategic alliances** key to the decarbonization of supply chain[3]

Price recovery:

- **Current:** US c.$57.5/kg NdPr Oxide
- **2027:** US $120/kg NdPr Oxide (Adamas)
- **Increase:** 2x price multiple

Demand growth
- ➢ **2 x growth by 2035**
- ➢ **3 x growth by 2050**

NdPr Demand Outlook[6] to 2050



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