Browns Range Heavy Rare Earths Project

RIU Explorers Conference - Fremantle

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NORTHERN MINERALS

ASX NTU

Presented by:

Mark Tory

CEO

15th February 2022

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Compliance Statement

The information in this document that relates to the Mineral Resource Estimate for the Dazzler deposit is extracted from the Company's ASX Announcement dated 7 May 2020 entitled "Over 50% increase in Dazzler high-grade mineral resource" and is available to view on the Company's website (www.northernminerals.com.au) and at www.asx.com.au, and was completed in accordance with the guidelines of the JORC Code (2012). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the Mineral Resource Estimates in the original market announcement continue to apply and have 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 announcement.

The information in this report relating to Exploration Results was compiled by Mr Simon Pooley who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Pooley is a full time employee of Northern Minerals Limited and has sufficient experience 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, Mineral Resources and Ore Reserves' (the JORC Code). Mr Pooley consents to the inclusion of this information in the form and context in which it appears.

TREO = Total Rare Earth Oxides – La_2O_3, CeO_2, Pr_6O_{11}, Nd_2O_3, Sm_2O_3, Eu_2O_3, Gd_2O_3, Tb_4O_7, Dy_2O_3, Ho_2O_3, Er_2O_3, Tm_2O_3, Yb_2O_3, Lu_2O_3, Y_2O_3

HREO = Heavy Rare Earth Oxides – Total of Sm_2O_3, Eu_2O_3, Gd_2O_3, Tb_4O_7, Dy_2O_3, Ho_2O_3, Er_2O_3, Tm_2O_3, Yb_2O_3, Lu_2O_3, Y_2O_3

Browns Range East Kimberley, WA

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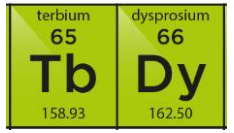
Rare earth applications

- NdFeB Permanent magnets require dysprosium (Dy) and terbium (Tb)
- Electric drivetrains in passenger cars are forecast to account for the majority of increased demand through to 2040
- Dy and Tb also have a range of military applications
- Rare earths are also used in other applications such as technology, medical and robotics



Tier 1 resources jurisdiction

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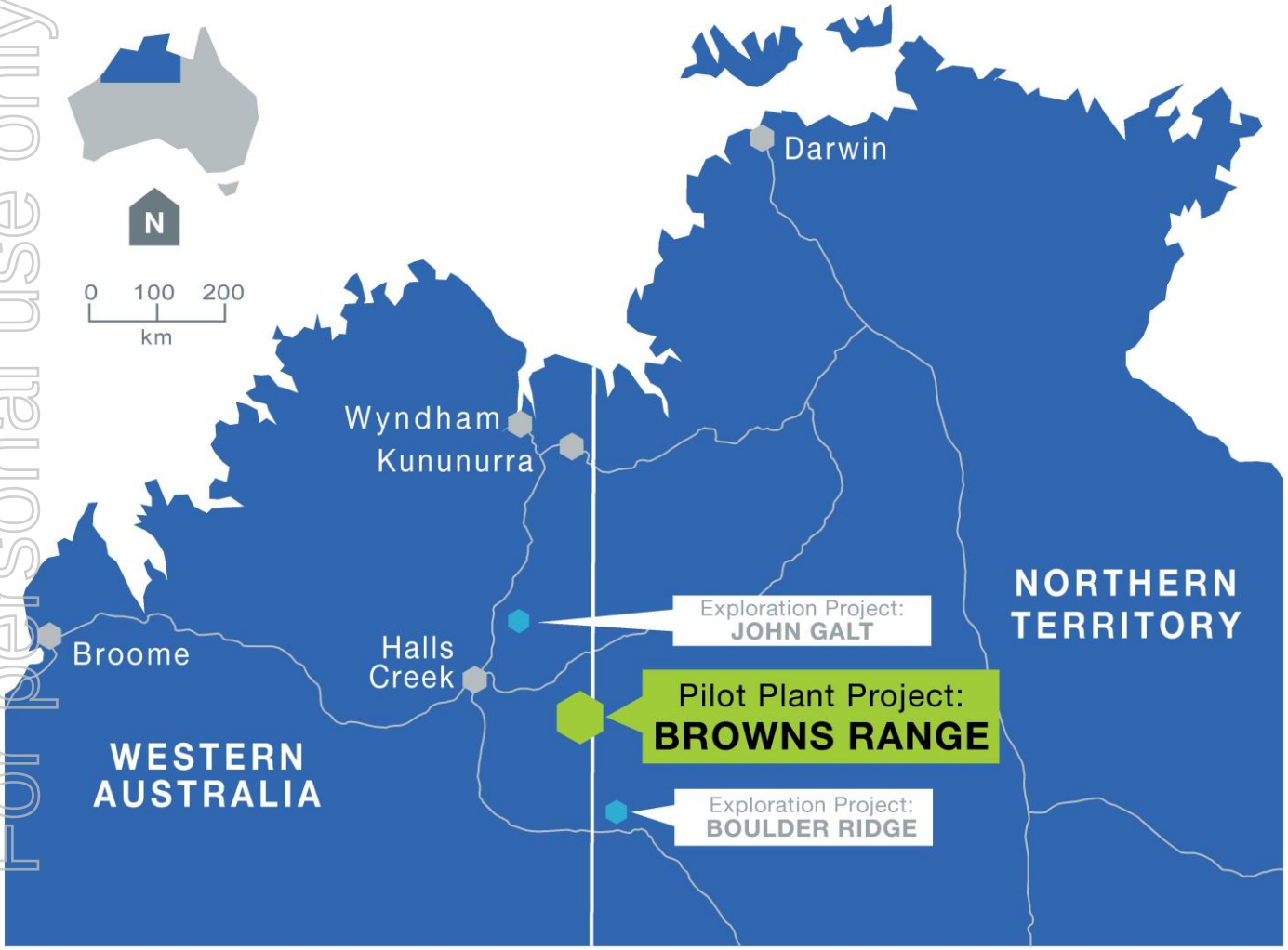

- Australia is one of the world's most proven, safe and reliable jurisdictions for mining and mineral processing
- Northern Minerals is actively engaging with Critical Minerals Facilitation Office established in Canberra in January 2020
- Secure tenement legislation and environmental approvals framework benefits local operators
- Established trade, export and logistics network and supporting economy

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Australian HREE production is ethical

- Browns Range produces HREE from hard rock xenotime ore at a grade of 600 – 800 ppm Dy
- Mining and processing methods in China, due to low grade ore, operate at just 20 – 40 ppm Dy
- 98% of world's heavy rare earths are currently produced by China
- Many are unconstrained in situ leach operations, which are environmentally harmful

Southern China in situ leach mining operation

Browns Range Pilot Plant

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Our Aspiration

Principal supplier of ethically produced rare earth separated products with a world class heavy rare earth element inventory

A twelve year $300m journey

DISCOVERY	EXPLORATION	EVALUATION AND APPROVALS			DFS	NEW PLAN	DEVELOPMENT		TESTWORK		
2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021

Our main focus for 2022:

- Complete strategic review of processing potential;
- Exploration aiming to expand the resource base;
- Evaluate other corporate opportunities

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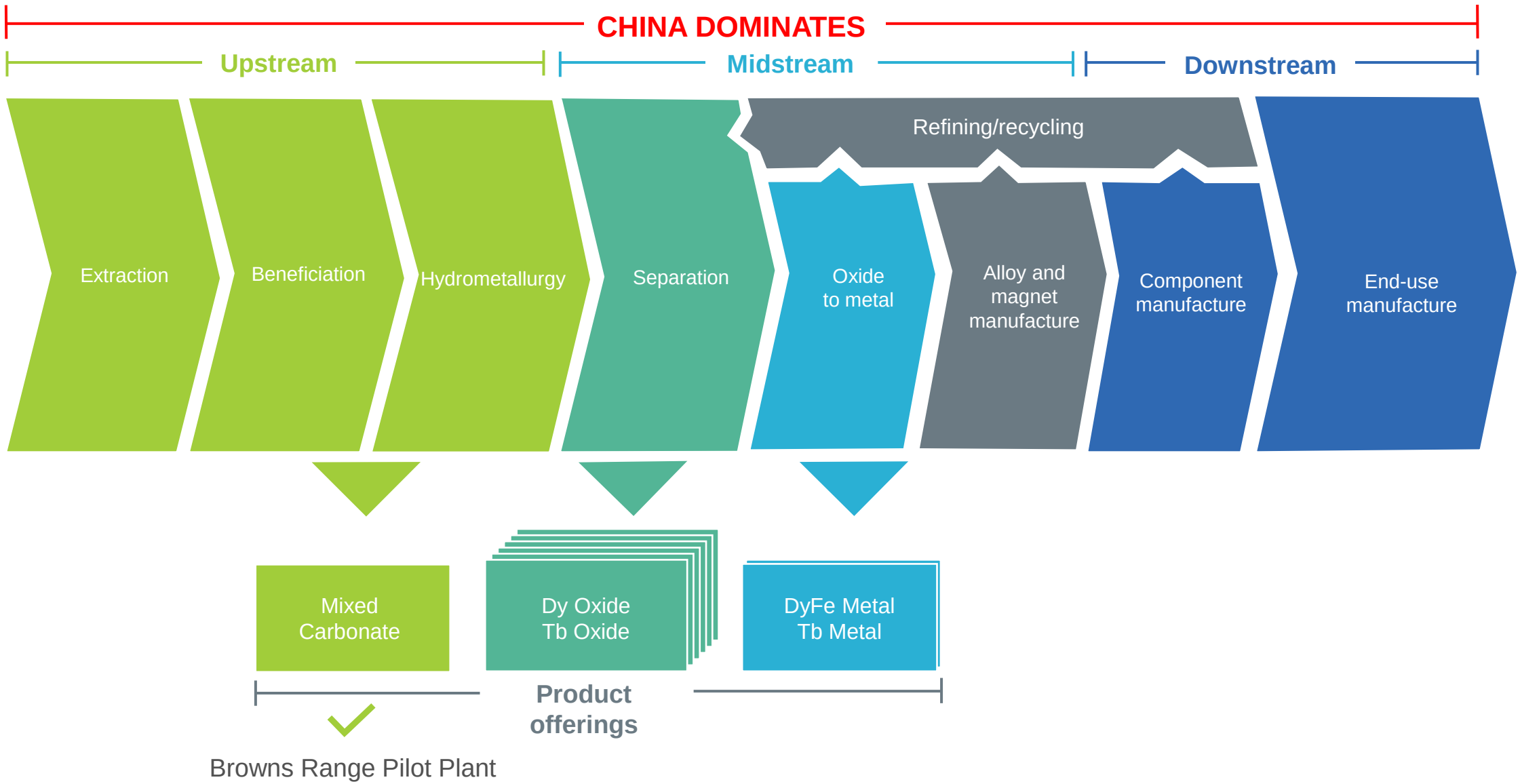
Rare earth magnet supply chain



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Demand for EV's continues to grow which means increase in Dy and Tb

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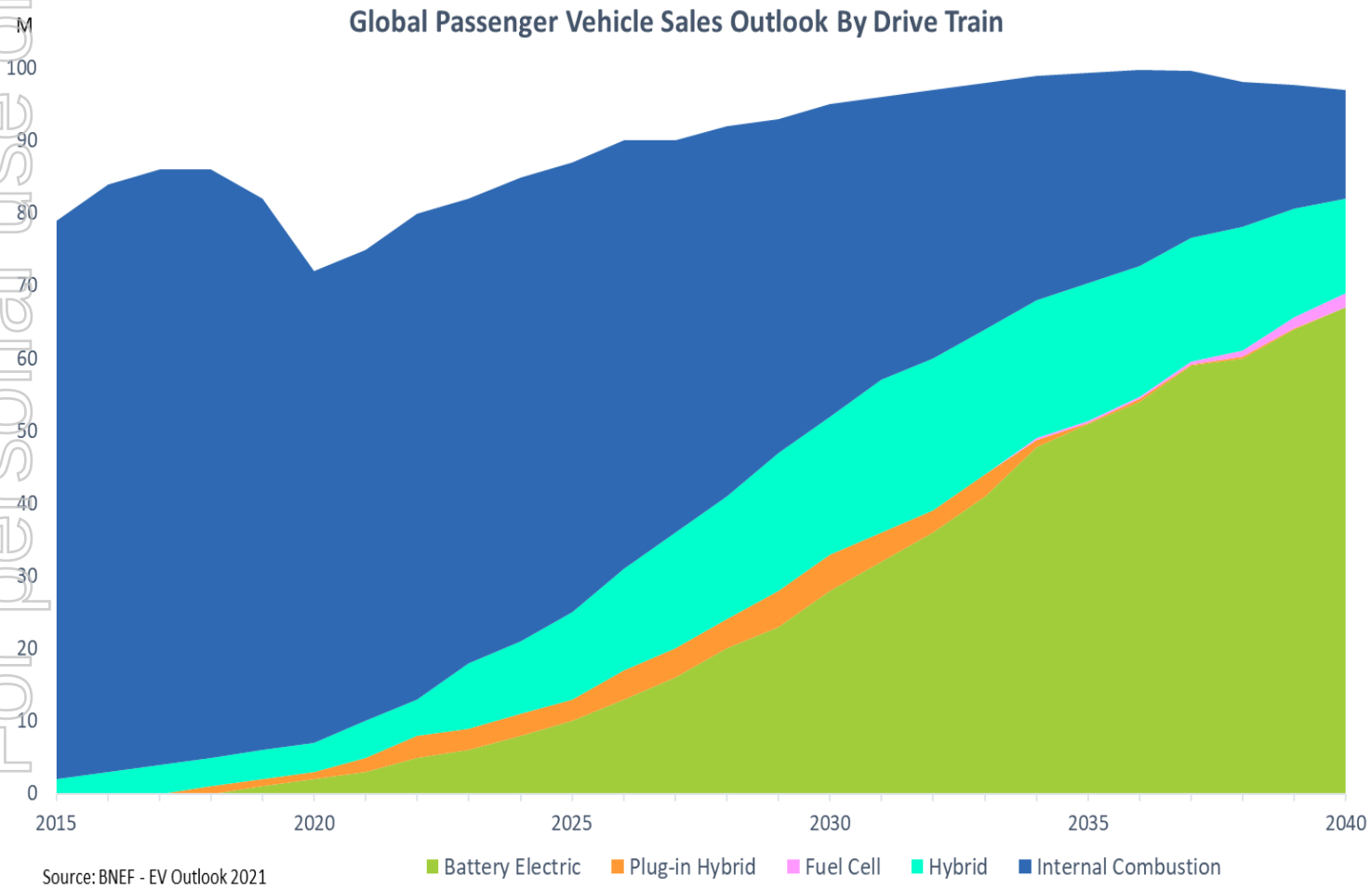

Source: BNEF - EV Outlook 2021

- Electric vehicle (EV) and renewables demand is increasing, (UK announced no sales of petrol and diesel vehicles by 2030)
- EV sales and growth will be limited by access to raw and finished commodities – particularly Heavy Rare Earths (HRE)
- Rare earths have been classified as critical minerals as there are limited supply options for HRE - China has a monopoly position
- Northern Minerals' Browns Range Project is an advanced heavy rare earth project that has the potential to fill some of the market gap and provide surety of supply

Dysprosium Pricing

- Dy price currently up over 92% from start of Feb 2020 to US$474 / kg

Source: Asian Metal

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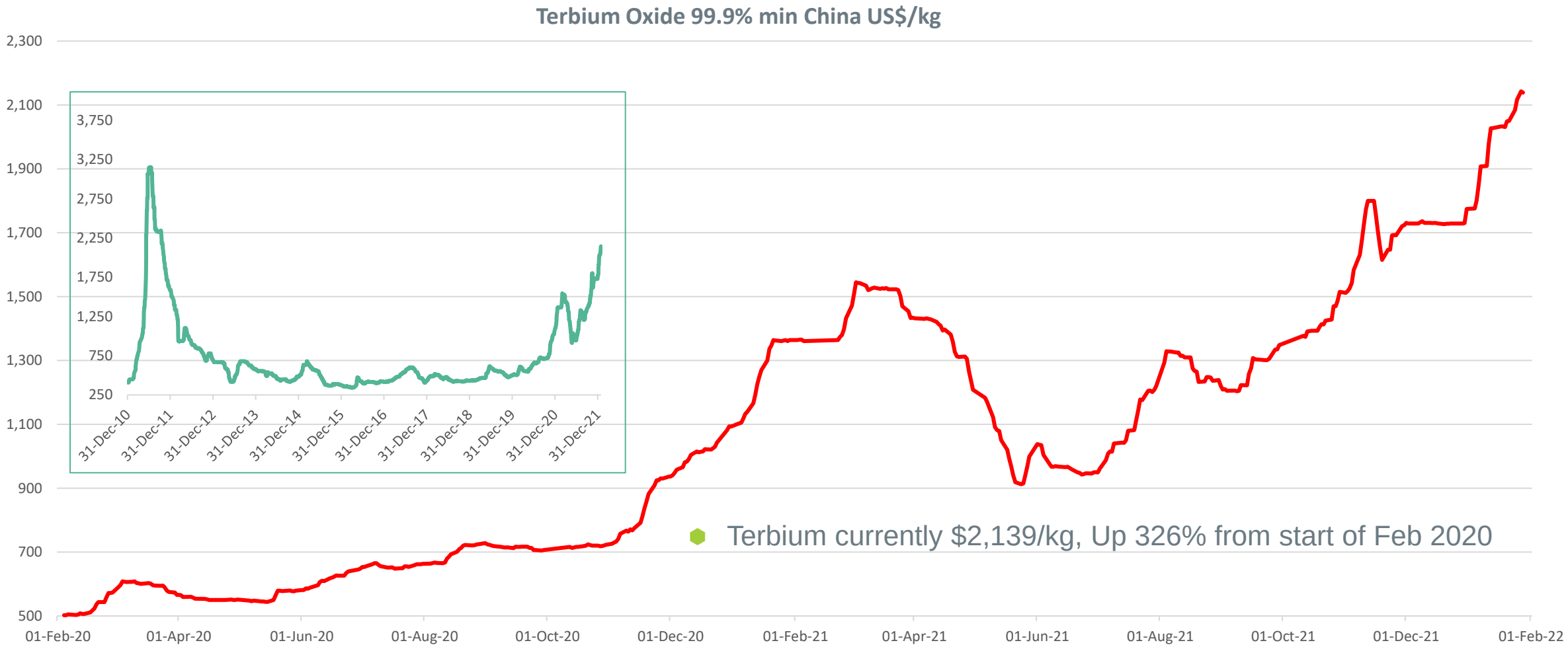
Terbium Pricing



- Terbium currently $2,139/kg, Up 326% from start of Feb 2020

Source: Asian Metal

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Yttrium Pricing

- Y price currently up over 220% from start of Feb 2021 to US$12.9/kg

Source: Asian Metal

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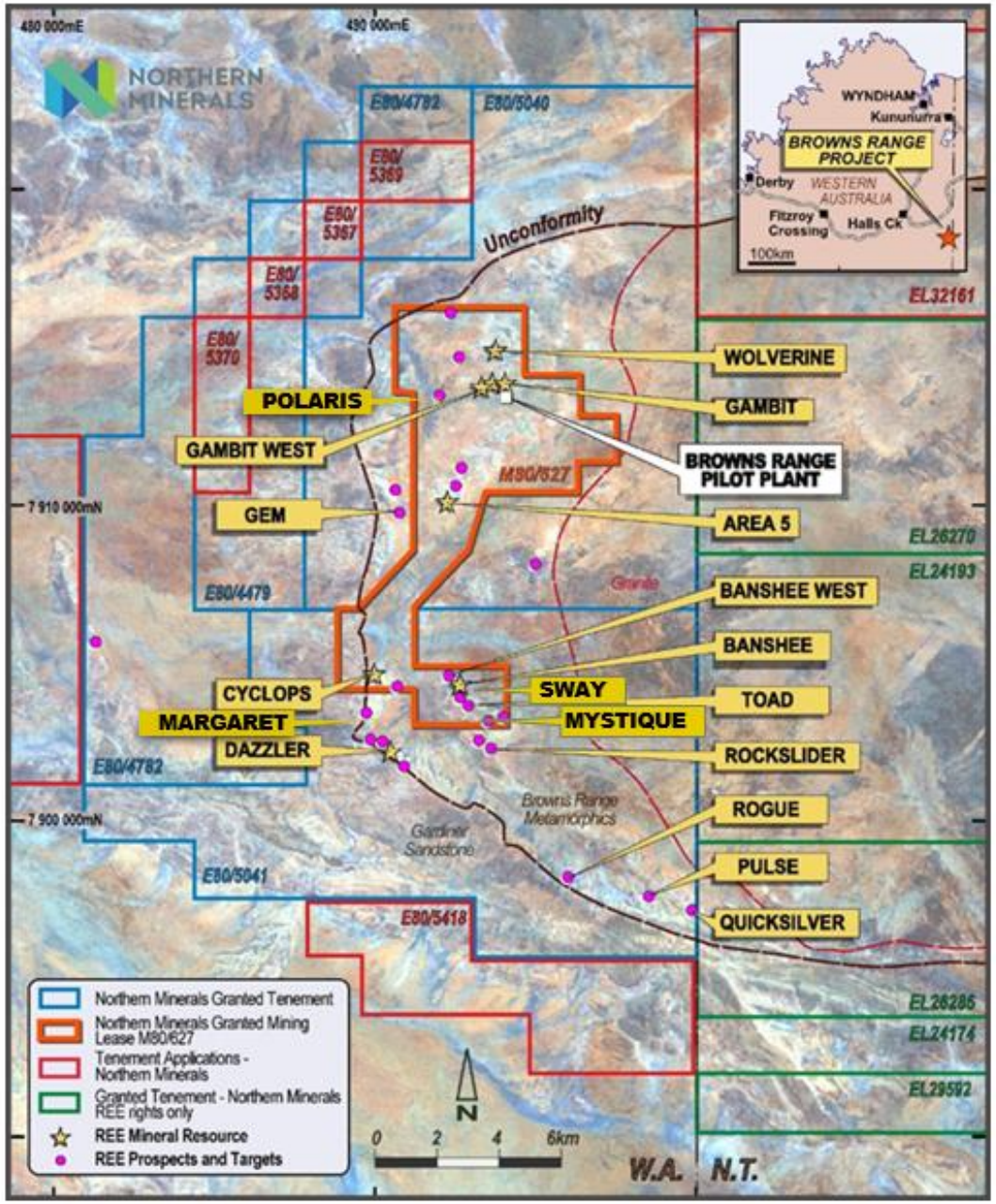
Strategy for Downstream Processing

- Review being conducted in relation to strategy for downstream processing
- Only full-scale beneficiation plant would be built at site
- Hydrometallurgical processing, separation and any further downstream processing at a site closer to population base, cheaper power and cheaper reagents
- Selling concentrate from beneficiation plant to be reviewed
- Corporate transactions and joint ventures to be investigated

2021 Exploration Results

- Since 30 June 2021 spent nearly A$5m on exploration
- Total of 17,500 metres RC drilling and over 2,000 metres of diamond drilling since end of June 2021
- Continued to get good results from Dazzler resource
- Encouraging results Banshee drilling to increase the Inferred Resource
- Prospectivity demonstrated at Cyclops and Rockslider
- Encouraging assay results from Toad, Polaris and Mystique
- High value rock chip results to follow up at Margaret and Sway



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Dazzler – Grade is King

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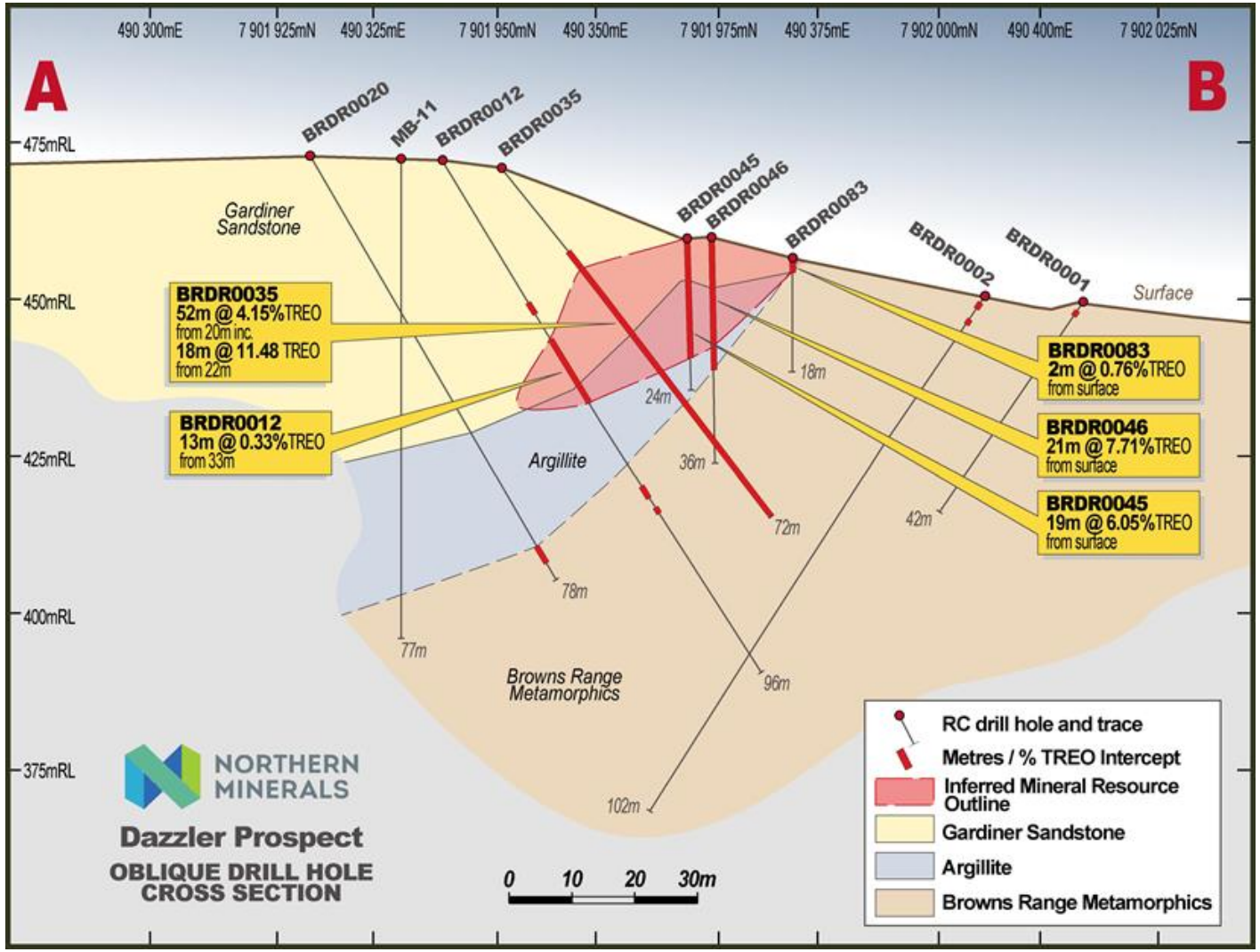
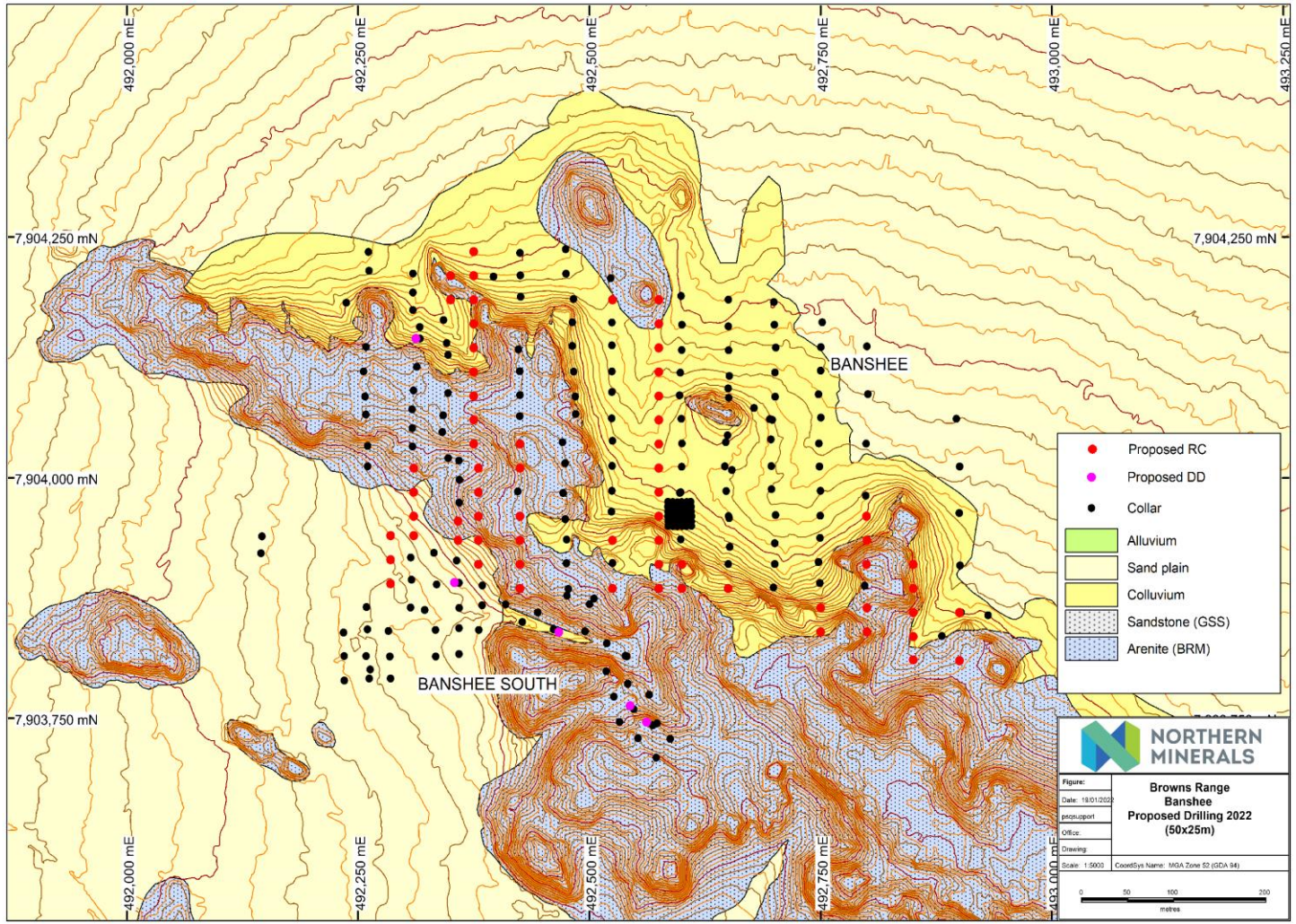
- Exploration results from Dazzler show grades up to 10x the average Browns Range resource grade
- Dazzler 'lookalikes' to be a focus of the exploration program
- Dazzler Inferred Mineral Resource of 0.21Mt @ 2.33% TREO
- Dazzler intercepts to date include:
  - 19m @ 6.05% TREO
  - 21m @ 7.71% TREO
  - 52m @ 4.15% TREO



Banshee Prospect

- Combining Banshee, Banshee West and Banshee South
- 2021 drilling indicates mineralization continuous over a 400m by 400m area (compared to exiting resource 175m by 150m)
- Bulk samples tested through ore sorter at pilot plant



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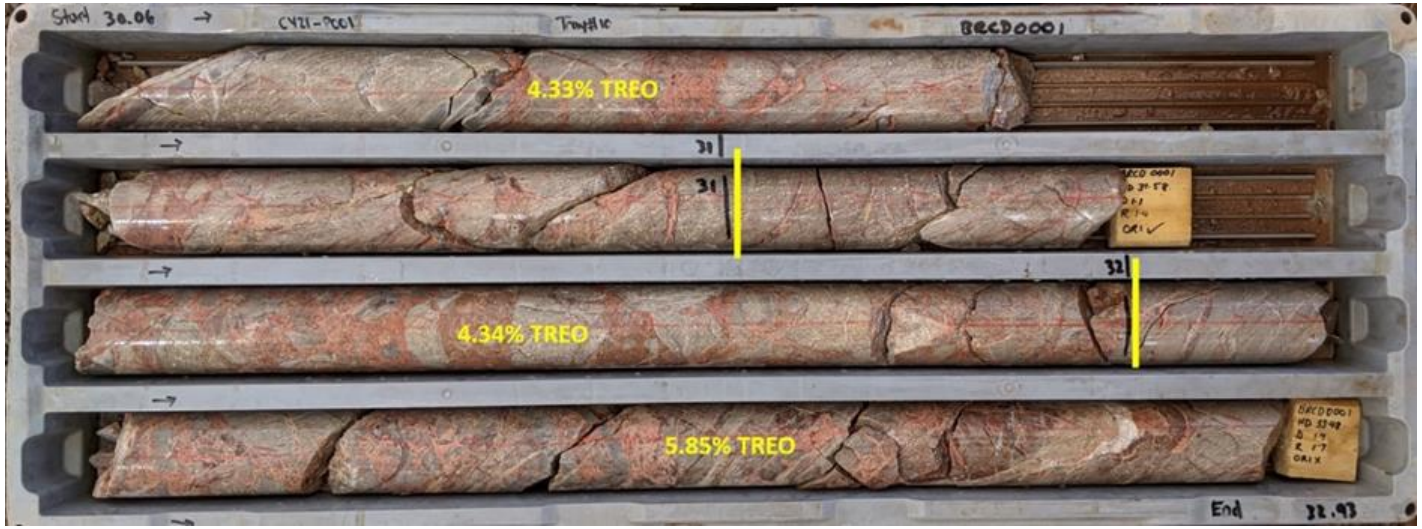
Cyclops Prospect

- Wolverine style hematite-xenotime breccia
- Diamond drilling grades have seen 15.65m @1.83% TREO from 24m
- Strong potential to extend high grade intercepts at depth
- Shallow intercepts improve economic viability



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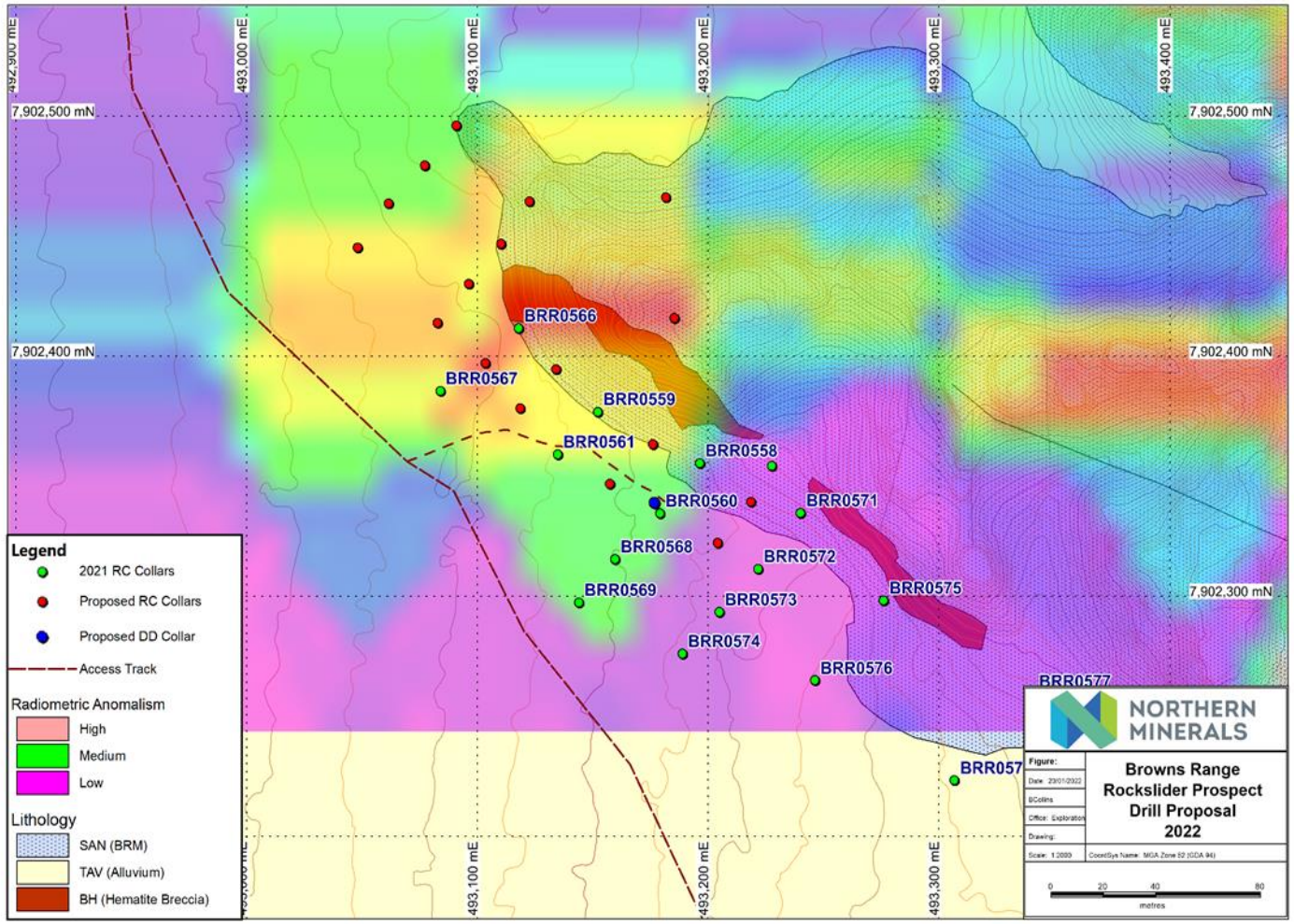
Rockslider Prospect

- Strong pXRF and radiometric anomalism with hematite breccia
- RC drilling results returned 103m @ 0.32% TREO from 15 metres
- 100 metre + strike in length and open to the N-NW
- Follow up in 2022



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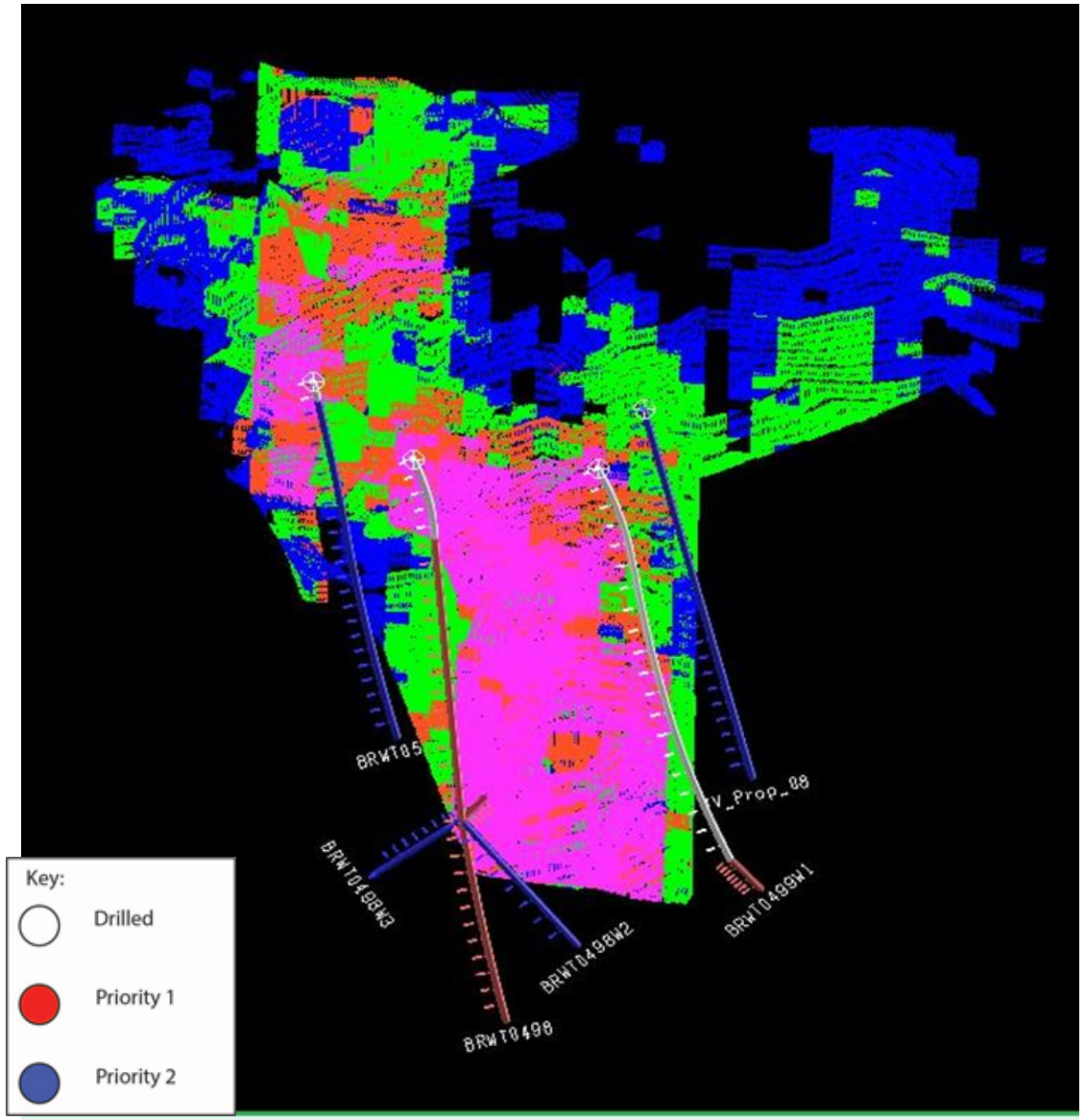
Wolverine Resource

- High grade intercepts trending NW have not been closed off at depth
- Strong potential for continuation along primary mineralized structure
- Last hole hit 28.6m @ 4.06% TREO from 480 metres and open to the West
- Priority holes for follow up in 2022



Exploration – "Own the Dome" strategy

- 100% owned tenure and/or 100% rare earth rights over the Browns Range Dome
- More than 2,300 square kilometres of tenure to evaluate
- Strategy to increase Mineral Resource and the life of mine potential at Browns Range to 20+ years

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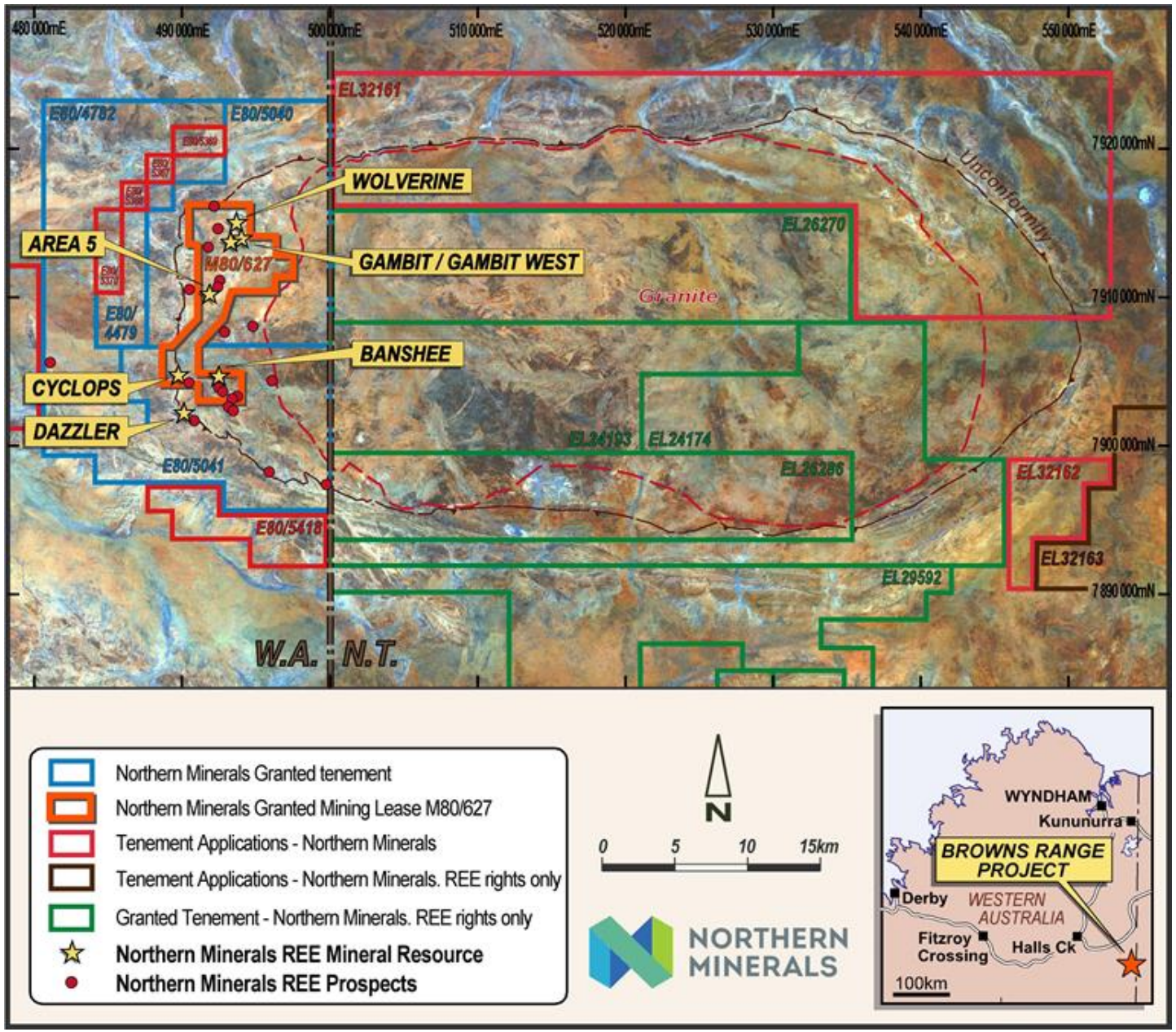

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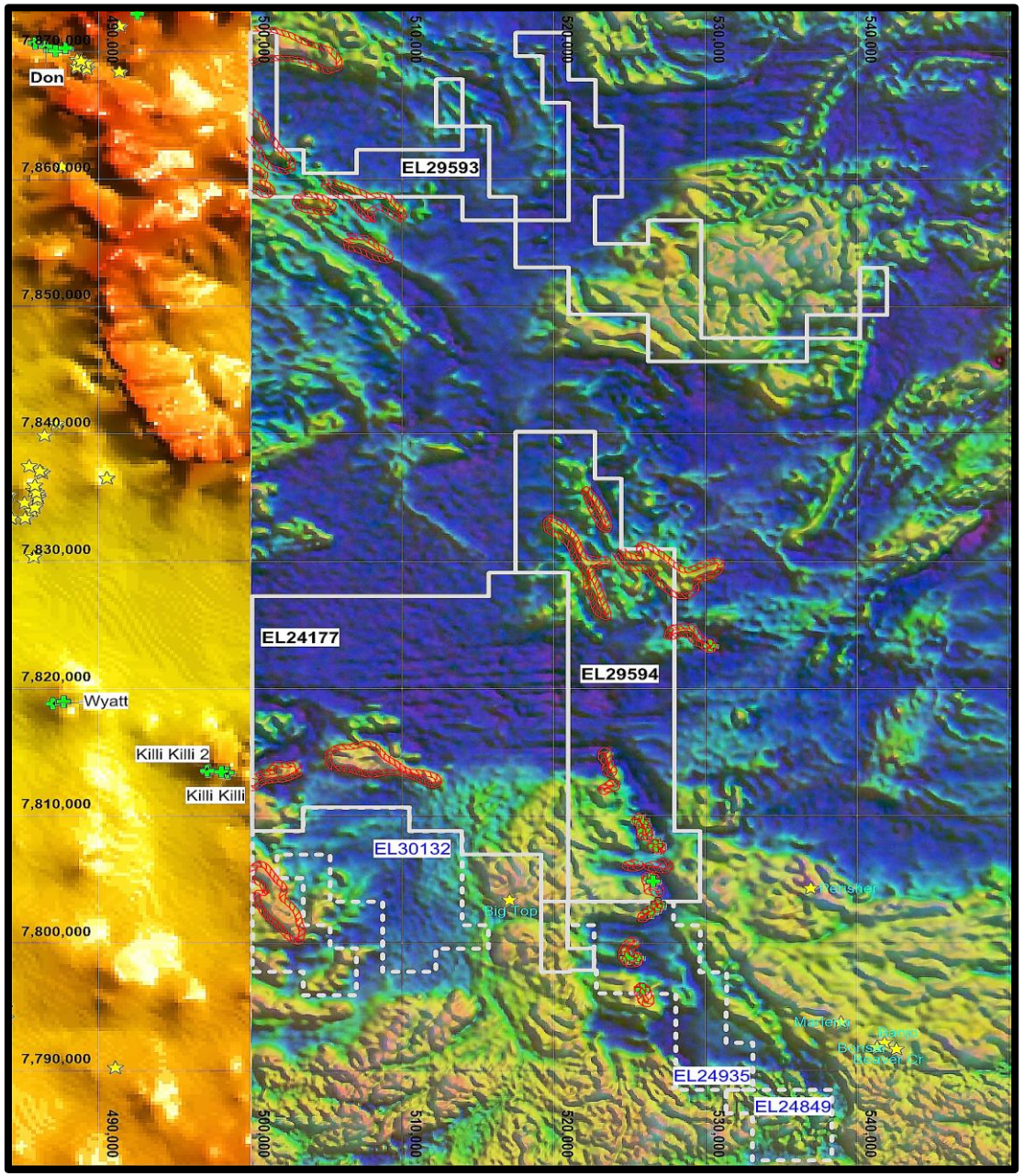
Boulder Ridge NT Project

- Boulder Ridge previous rock chip results exceeding 12% TREO including up to 1.15% Dy
- Work plan for detailed mapping and some RC scout drilling
- Next door to Killi Killi prospect (PVW Resources) that also has similar rock chip results



HREE targets plotted onto Radiometrics anomaly and DEM.

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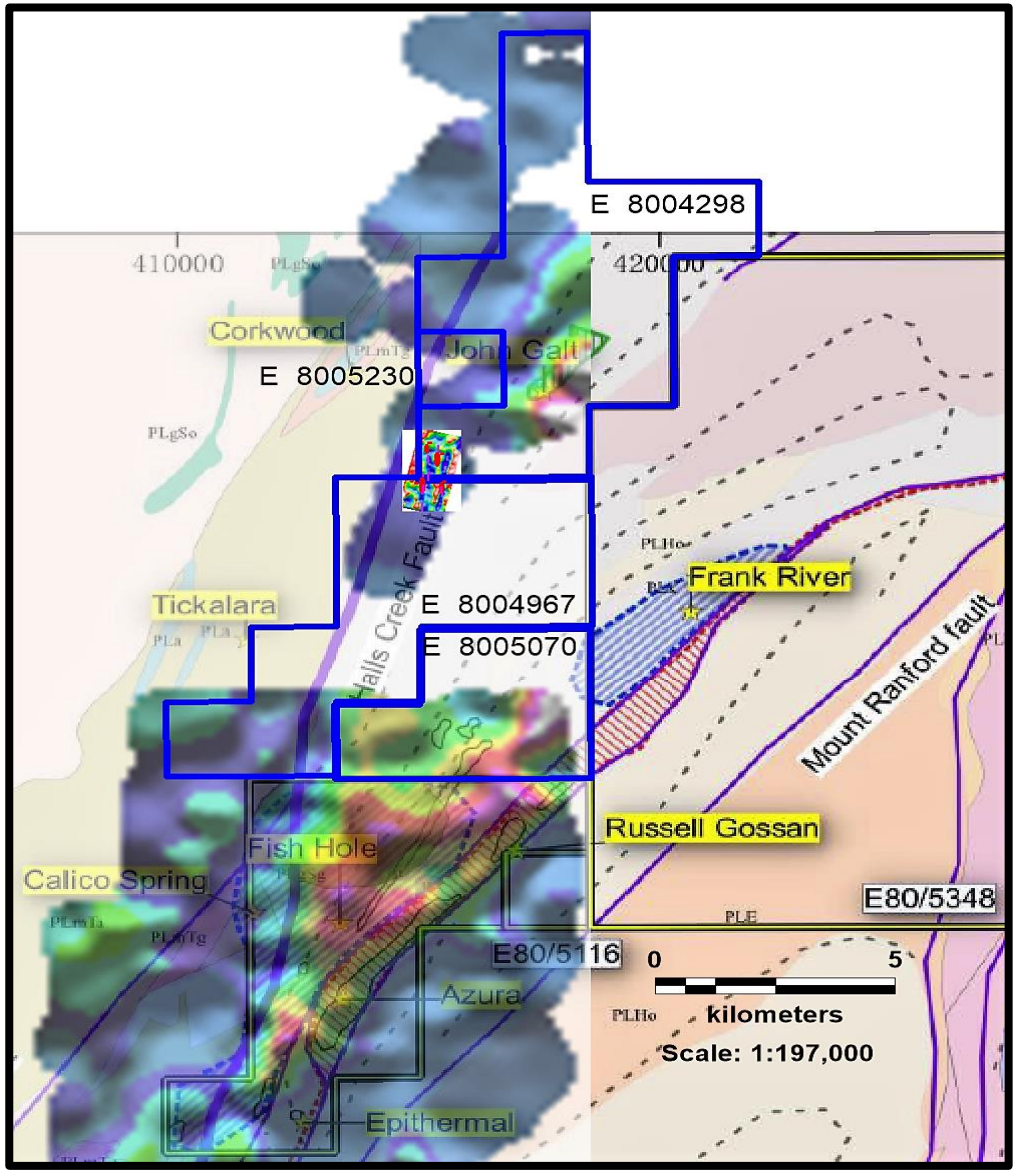
John Galt WA Project

- John Galt previous rock chip results up to 42% TREO with approximately 95% Heavy REO
- Copper anomalies identified to be followed up
- Work program of detailed mapping, geochemical sampling and RC scout drilling to be undertaken

Cu-in-stream anomaly map and ground gravity @SE of Corkwood Yard.



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Corporate Details

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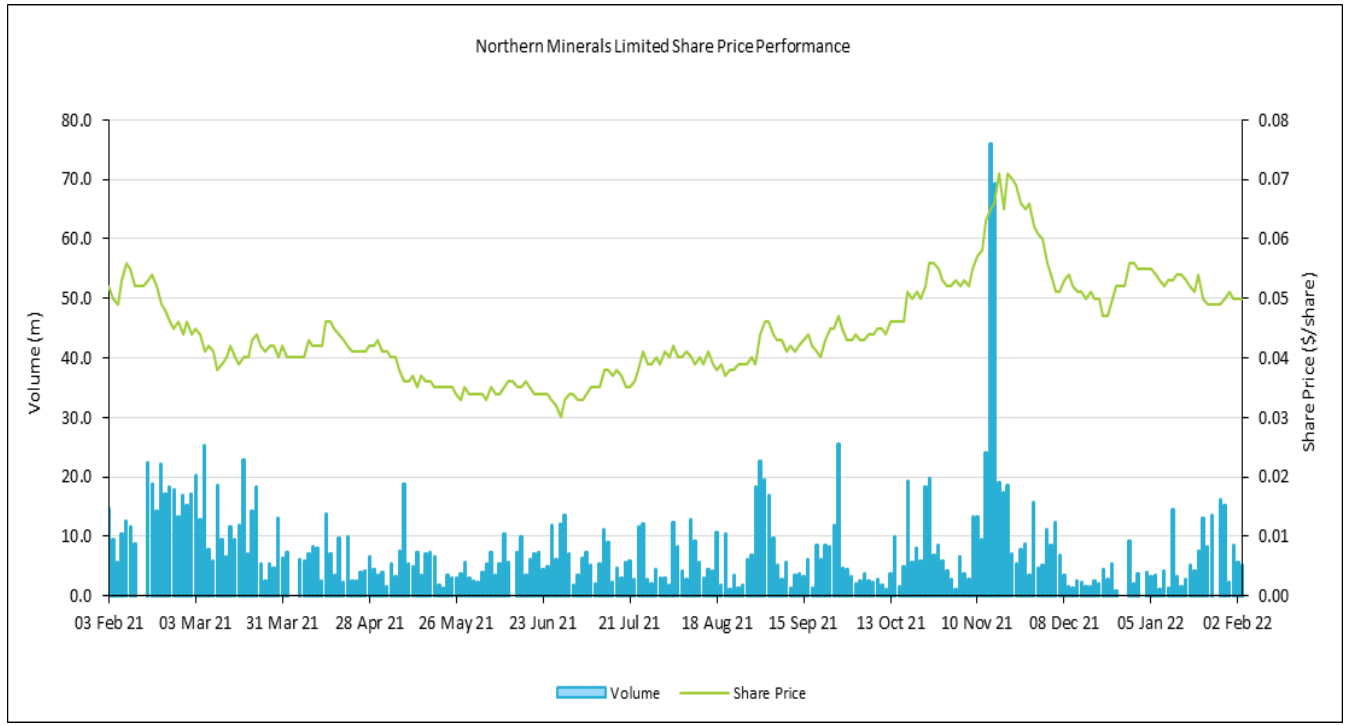
Major shareholders	31 January 2022
Africa Changcheng Mining Holdings Ltd	9.98%
Vastness Investment Group	7.71%
Citicorp Nominees Pty Ltd	6.56%
Mr Yongquan He	5.14%
Ms Yunzen Ma	4.63%
Remaining Top 20	26.16%
Other	39.82%

Ordinary Shares as at 31 January 2022	4,861M
Options and Performance Rights as at 31 January 2022	265.5M
Market Capitalisation as at 31 January 2022	$243.1M
Cash (as at 31 December 2021)	$11.2M
Debt (as at 31 December 2021):	Nil
12 month low – high	$0.03 - $0.071
Average daily volume (12 month avg)	7.98M



Why Northern Minerals has potential

- Has been only significant producer of HREE outside of China over the last 3 years
- The Company's IP on production of REC
- Commitment to realising exploration upside and building resource inventory
- Strong balance sheet, with no debt
- Browns Range is in leading tier one mining and mineral processing jurisdiction in WA

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