Northern Minerals

A refocused Northern Minerals announces strategic partnership with Iluka Resources and capital raising

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NORTHERN MINERALS

ASX NTU

26 October 2022

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This Presentation has been prepared in relation to:

- the Company entering into a strategic relationship with Iluka Resources Limited, as described in this Presentation; and
- a share purchase plan for new fully paid ordinary shares ("New Shares") ("SPP")

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Compliance Statement

The information in this report that relates to the Wolverine Mineral Resource estimate, it is based on information compiled by Dr. Maxim Seredkin. Dr. Maxim Seredkin is a full-time employee of CSA Global Pty Ltd and is a Fellow of Australasian Institute of Metallurgy and Mining (AusIMM) and Member of Australian Institute of Geoscience (AIG). Dr Maxim Seredkin has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Dr Maxim Seredkin consents to the disclosure of the information in this report in the form and context in which it appears. Dr Maxim Seredkin assumes responsibility for matters related to Sections 1, 2 and 3 of the Wolverine JORC Table 1 attached to this market release.

The information in this announcement that relates to the Mineral Resource estimates for deposits other than Wolverine was compiled by Mr Bill Rayson who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Rayson is a consultant to Northern Minerals, employed by Total Earth Science Pty Ltd, 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 Rayson consents to the inclusion of this information in the form and context in which it appears.

For Pilot Plant Stockpiles, Gambit, Gambit West, Cyclops, Banshee and Area 5, further information that relates to the Mineral Resource Estimates is available in the ASX announcement entitled “Independent review increases Wolverine REE Mineral Resource estimate by 47% at Browns Range” dated 10 October 2022 and is available to view on the company’s website (www.northernminerals.com.au).

For Dazzler, further information that relates to the Mineral Resource Estimates is available in the report entitled “Over 50% Increase In Dazzler High-Grade Mineral Resource” dated 7 April 2020 and is available to view on the company’s website (www.northernminerals.com.au).

The information in this Presentation that relates to production targets and forecast financial information derived from a production target is extracted from the Company’s ASX Announcement dated 2 March 2015 entitled “DFS positions Browns Range Project as next dysprosium supplier” and is available to view on the Company’s website (www.northernminerals.com.au) and at www.asx.com.au. The Company confirms that all material assumptions underpinning the production targets and forecast financial information in the announcement released on 2 March 2015 continue to apply and have not materially changed.

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

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Executive summary

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1. Aiming to be a leading ex-China supplier of Dysprosium and Terbium, which have strong tailwinds from decarbonisation

2. Strategic partnership with Iluka de-risks and accelerates the project development via a supply agreement and significantly reduced capex

3. Strong geological potential at Browns Range from Wolverine deposit and surrounding tenements, with ambition to grow mine life >20 years

1. A refocused Northern Minerals

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Introducing the management team executing on a refocused strategy

Northern Minerals is led by Executive Chairman, Nick Curtis, who has extensive experience in Rare Earths. The Leadership Team will soon be supplemented by Shane Hartwig as Finance Director

Leadership team

Nick Curtis (Executive Chairman)

- Over 35 years experience in mining and finance
- 25 years of RE experience
- Previous Executive Chairman of Lynas
  - In 2001 Nick took control of ASX listed Lynas Corporation and refocused it as a rare earths company developing the Mt Weld rare earth deposit in Western Australia and a large downstream rare earth processing plant in Malaysia
  - Helped grow it into the market leading RE company ex-China
  - Attracted to Northern Minerals' ore body, which contains Dysprosium ("Dy") and Terbium ("Tb")
- In 2011 Nick founded Forge Resources, a junior ASX mining exploration company which acquired the Balla Balla Mine in the Pilbara in Western Australia. The company was privatized in 2014
- Nick also founded Sino Gold which listed on the ASX in 2001 and was taken over by Eldorado Gold

Robin Jones (COO)

- Has held the role of COO at Northern Minerals for ~10 years and was the Project Director for the 2015 DFS
- Over 30 years' experience in the mining industry
- Has held senior positions globally across various mining companies
- 10 years experience in RE

Shane Hartwig (Finance Director Elect)

- A senior finance executive with a proven track record working as a trusted strategic corporate and commercial advisor to companies operating in small and mid-cap sector of the Australian listed market across a broad range of industries
- More recently CFO and commercial lead for a proposed greenfield integrated infrastructure and mining project
- Worked with Nick Curtis over several years as a key commercial adviser and CFO
- Experienced ASX listed Director/Co-Sec

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A refocused Northern Minerals following a strategic review is on the path to production

Northern Minerals has conducted a strategic review of the business led by Executive Chair, Nick Curtis, and has mapped a clear path forward to production via a strategic partnership with Iluka Resources

Company timeline

2006
- ASX listing

2010
- Significant RE results

2011
- Maiden drilling campaign at Browns Range

2012
- Maiden JORC Resource

2014
- Maiden JORC Ore Reserve
- EPA approval
- Mining Licence
- Native Title Agreement
- PFS
- JORC Resource doubled

2015
- DFS

2018
- Pilot Plant installed
- Ore sorting test work and study
- First RE carbonate production shipped

2022
- **Nick Curtis appointed Executive Chair**
- **Strategic review**
  - Commissioned independent peer review of Resource modelling, resulting in a 47% increase in the Wolverine REE Mineral Resource estimate[1]
  - Refocus on mining and processing to produce REO concentrate
  - Secondary focus on advancing understanding of other Wolverine style deposits within Browns Range system
- **Iluka Strategic Partnership**

- The arrangements under the Iluka Strategic Partnership allow Northern Minerals to focus on being an upstream producer, with a refined project scope reducing capital expenditure and participation in upside in the pricing of our Rare Earths, including highly valued Dysprosium and Terbium
- The company is now focused on updating our DFS on the path to production of REO concentrate to be processed at Iluka's Eneabba plant

1. Classified and reported according to Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, The JORC Code 2012 Edition, Effective December 2013, Prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC Code). See ASX announcement on 10 October 2022 for further details

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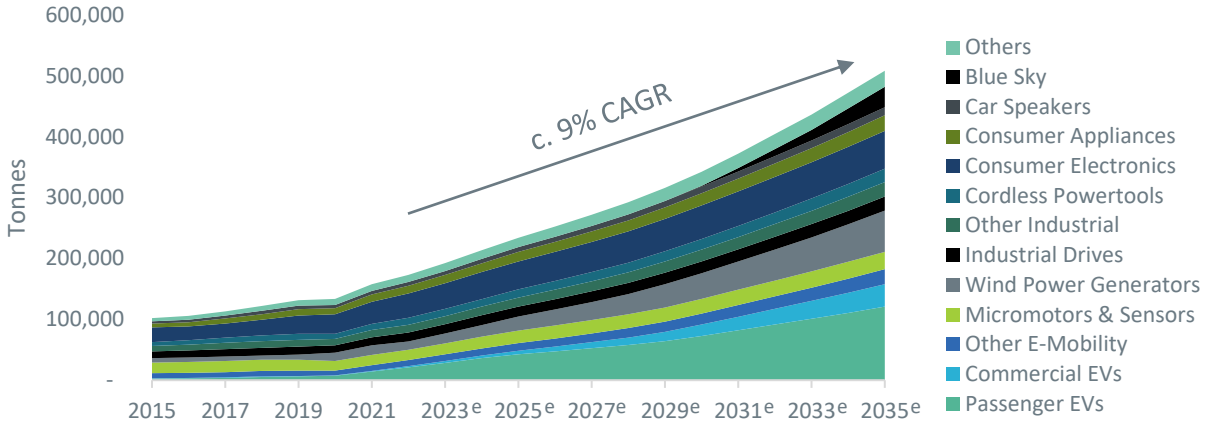
What is the market opportunity?

The inflection towards electrification and decarbonisation is undoubted – permanent magnets play a critical role in the realisation of these processes which creates strong long-term demand for key magnet minerals

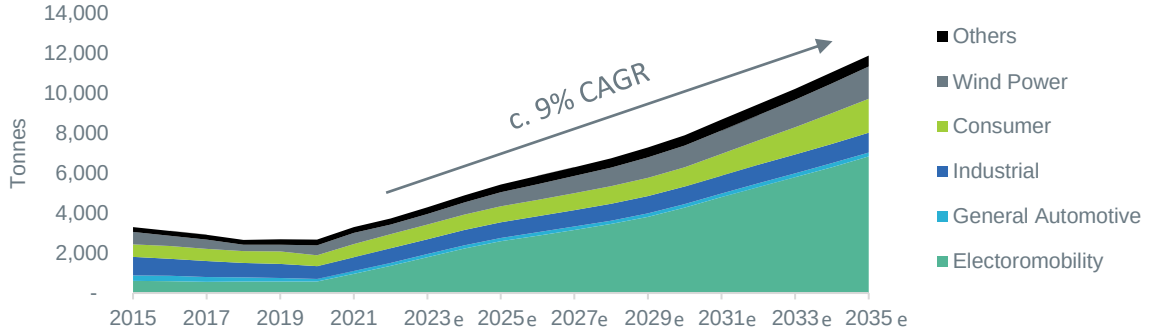
Dysprosium and Terbium are critical minerals in the supply chain for high end magnet uses

- Batteries are critical as they store energy, but permanent magnets transform that energy into kinetic energy
  - Permanent magnets and catalysts responsible for ~65% of global RE demand by volume, and permanent magnets only, ~95% by value (in 2021)[1]
  - Value of magnet RE market is expected to triple by 2035[1]
- Dy and Tb are key components in the manufacture of performance technology solutions for clean energy
  - High-end uses such as wind turbines and EV motors are expected to have higher demand growth
- Not enough Dy and Tb to source projected demand forecasts
  - By 2035, expectation of a shortage equal to 2-3x 2021 global output[1]
- Current geographical concentration supports creating an ex-China supply chain for these high-end magnetic uses
  - China and Myanmar currently responsible for >90% of global Dy/Tb mine production and >99% is refined in China[1]

World NdFeB Magnet Demand by End-Use



Dy and Tb Oxide Demand



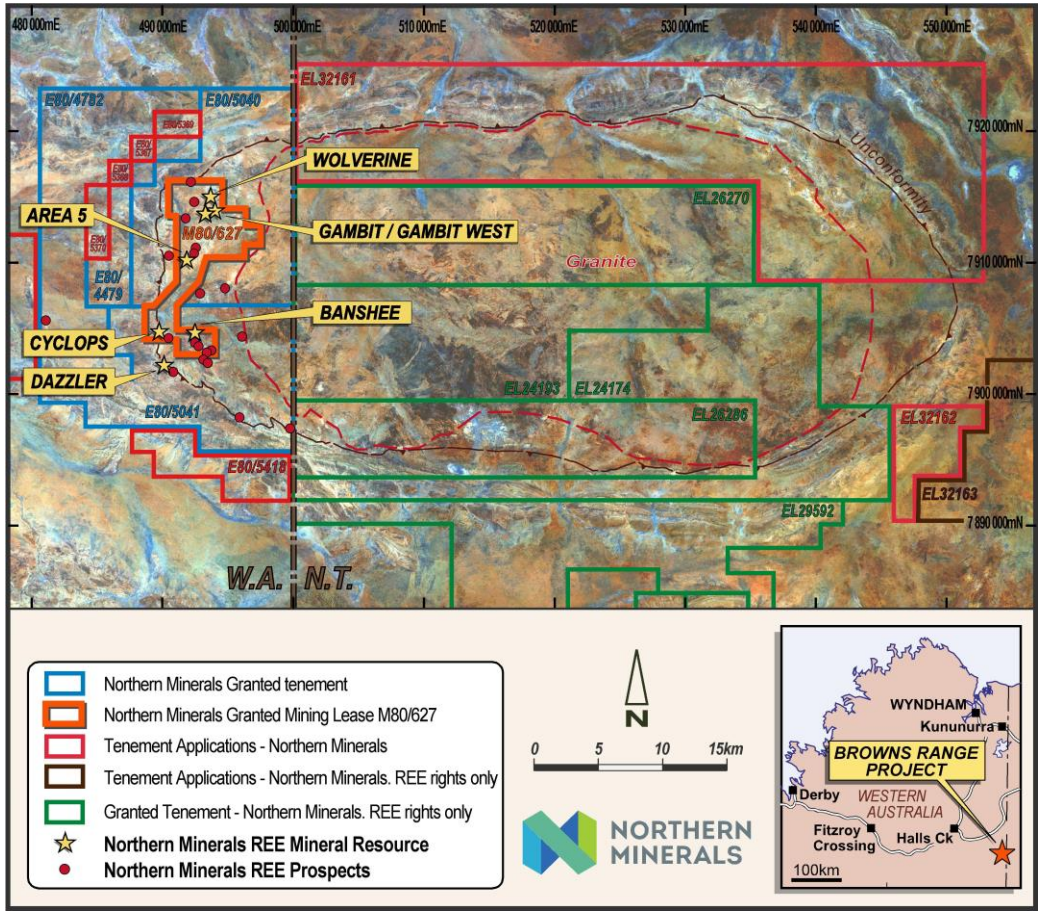
1. Source: Adamas Intelligence: Rare Earth Magnet Market Outlook to 2035 at Q2 2022

The Northern Minerals proposition

Northern Minerals' assets sit within a uniquely Dy and Tb rich mineral setting in the Kimberley (Browns Range), with significant resource growth prospectivity

High quality mineralisation field, hosting Dy and Tb

- Structural geology and minerology (including the types of mineralisation that host high grade ore) is well understood
  - Northern Minerals has owned the project for ~16 years and has undertaken ~$73m of exploration, including ~134,500 meters of drilling
- High confidence in metallurgy and processing ability
  - Three years of processing to produce concentrate and carbonate at Browns Range Pilot Plant from trial mine
  - Magnetic separation and flotation result in ~30x TREO grade increase into 3% of feed mass
- Geological system rich in Dy and Tb, containing three types of mineralisation traps
  - Occurrence of shear zones (vertical structure, high grade)
  - Horizontal strata bound (near surface, lower grade)
  - Unconformity related Dazzler style (high grade)
- Wolverine is understood to be the highest grade Dy and Tb orebody in Australia
- Existing near mine infrastructure (access to camp, roads, power, etc.)
- Wolverine Mineral Resource estimated at 61,492 tonnes of TREO in 6.44 million tonnes @ 0.96% TREO[1]
- Significant potential for further mineralised shear zones within the Browns Range Project
- Native Title co-existence agreement in place with the Jaru Native Title Holders



1. Classified and reported according to Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, The JORC Code 2012 Edition, Effective December 2013, Prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC Code). See ASX announcement on 10 October 2022 for further details

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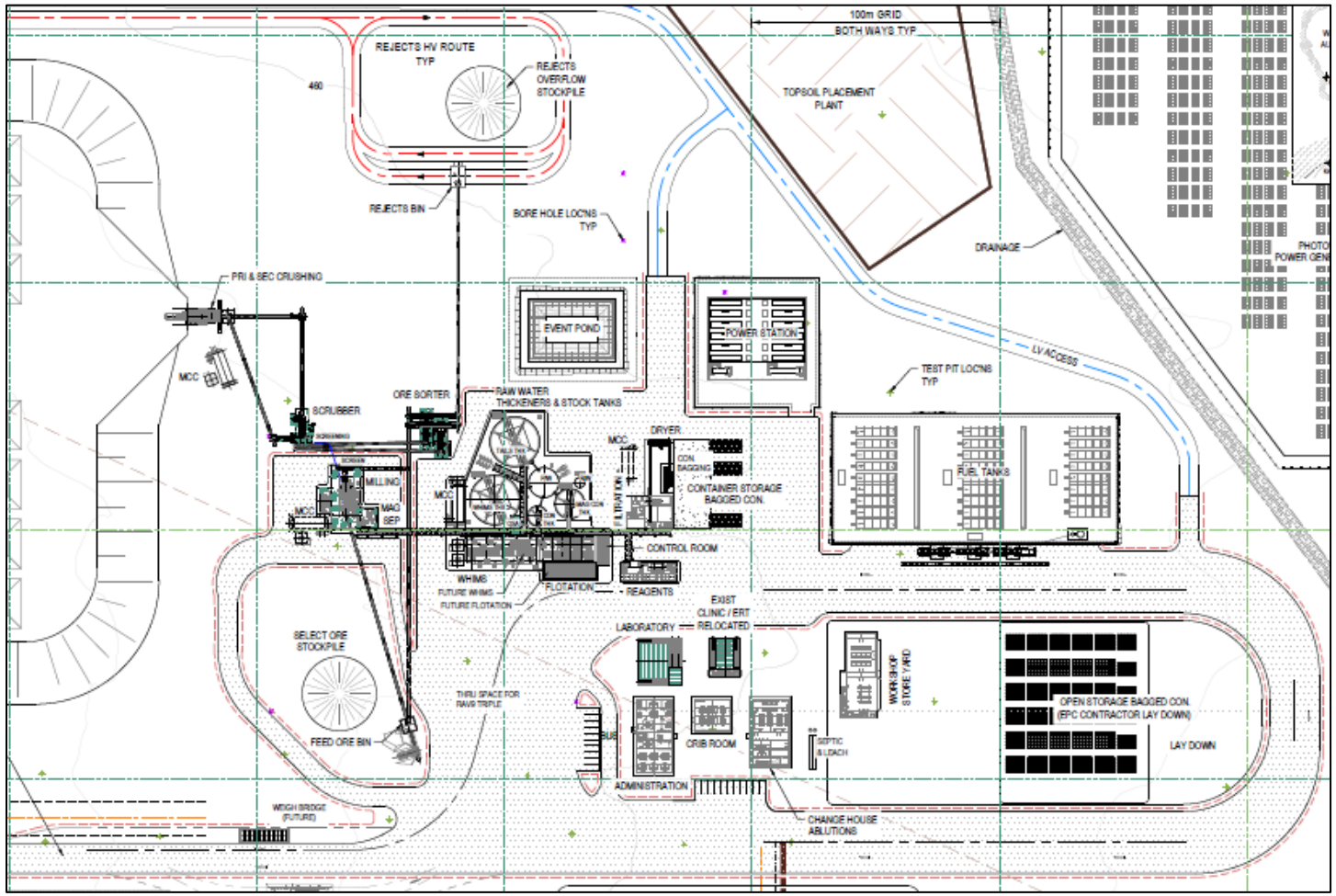
Processing IP from pilot plant

1,140t of concentrate has already been produced at the target grade through the pilot plant – it is the same material from the same orebody

- The ore is enriched in xenotime within a predominantly quartz and mica host rock
- Grade is increased ~40 times through the beneficiation circuit from mined ore to final concentrate product
- Process design progress:
  - Flow sheet design nearing completion
  - Preliminary layout complete
- Mining design progress:
  - Geotechnical studies well advanced
  - Preliminary mine design and schedule complete
- Non-Process Infrastructure (NPI) design progressed for:
  - Tailings Storage Facility
  - Surface and groundwater management
  - Water supply
  - Bulk Earthworks and site access



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Moving Wolverine deposit towards production

The company's strategic objective is to bring the Browns Range Project (Wolverine deposit) into production and focus on being a producer of REOs, critical in high performance magnet production

Pathway towards production

- NTU is assembling an experienced team to update the DFS, which will leverage work undertaken in the 2015 DFS. Incremental work will focus on:
  - Assessing mining costs of the revised mining method (sub level caving)
  - Mining Wolverine as a shear zone
  - Inclusion of an ore sorter to increase product grade and de-risk mining dilution – demonstrated 60% improvement in ore sorter product grade from pilot plant operation
  - Establishing a concentrate beneficiation plant
  - Maintaining exposure to REO price upside through terms of Supply Agreement with Iluka, rather than constructing capex intensive downstream processing plant
- Indicative timeline:
  - Updating DFS expected to take 12 – 15 months
  - Targeting Wolverine Project FID in Q1 2024 with first production forecast to occur in 2026, subject to receipt of customary approvals
- Brown Range Project further de-risked with long term supply and funding agreements with Iluka (refer to Section 2 for further detail)
- Supply agreements with Iluka provides a solution for downstream processing which changes project scope and reduces upfront capex spend; the take or pay agreement also provides commitment by its foundation customer
- Aiming to become an important alternative supplier of Dy and Tb

Ore Sorter at Browns Range Project

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2. Iluka Strategic Partnership

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Strategic arrangements with Iluka

Northern Minerals enters Strategic Partnership with Tier 1 partner Iluka Resources

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Supply agreement

- TREO Supply Agreement signed with Iluka Resources covering current known Mineral Resource over initial 8+ year mine life (30.5k tonnes of contained TREO in concentrate) from Browns Range to complement Iluka's suite of RE products
- Concentrate to be processed at Iluka's Eneabba plant
- Includes fixed[1] and market price components mechanism (sharing in REO pricing upside); both are indexed to CPI

Convertible note

- Iluka has agreed to subscribe for a $15.0 million convertible note to be issued on or about 28 October 2022
- Coupon of 7.0%, maturity date of 31 December 2024 and convertible into approximately 365.6 million New Shares (including assumed capitalised interest) at a conversion price of $0.048 per share, subject to conditions and standard adjustment events

Placement

- Initial placement to Iluka of 125.0 million shares / $5m to be issued on or about 28 October 2022, with ability to be issued up to an additional 230.0 million New Shares / up to $13.8m, subject to certain conditions including Browns Range FID and final Iluka due diligence
- A put option/ call option arrangement, subject to NTU shareholder approval, pursuant to which Iluka may be issued up to an additional 653.3 million New Shares (subject to a 19.9% cap) / up to $39.2m. The call is exercisable at any time after shareholder approval before maturity, and the put is exercisable from Tranche 2A completion until maturity
- In addition, subject to the ASX Listing Rules and any policy, guidance or requirement published or notified by ASX from time to time, a reasonable opportunity to participate in any further equity raisings

1. Adjusted for REO assemblage adjustment and subject to take or pay turn down arrangements

The Strategic Partnership benefits both parties

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For Northern Minerals:

- Iluka's funding contribution assists NTU in updating the DFS and, subject to its findings, proceeding to FID on Browns Range next year
- Its concentrate will be processed in Australia – the first time that the value addition will occur in Australia
  - Northern Minerals retains exposure to value addition through REO price participation without the need to develop its own capital-intensive downstream strategy
- Provides a solution for downstream processing which reduces capex spend
- Take or pay agreement provides commitment by its foundation customer
- Tier 1 partner engagement further affirms the quality of the Browns Range Project

For Iluka:

- It is an attractive opportunity to secure an additional source of quality feedstock for the Eneabba refinery
- Demonstrates the Eneabba refinery's strategic importance in fostering new supply chains for critical minerals that are essential to global electrification and the transition to a low carbon economy
- Browns Range aligns strongly with Iluka's strategy in terms of location, timing and product differentiation

The Strategic Partnership benefits both parties

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Iluka CEO Tom O'Leary's comments on the relationship:

"The company's agreement with Northern is a further step towards delivering on the significant, industry building opportunities presented by the development of Australia's first fully integrated rare earths refinery at Eneabba.

Iluka's agreement with Northern demonstrates the Eneabba refinery's strategic importance in fostering new supply chains for critical minerals that are essential to global electrification and the transition to a low carbon economy"

Northern Minerals Executive Chairman, Nick Curtis said:

"The outlook for rare earths and especially for magnet metals is very positive. Growing adoption of EVs, wind turbines and energy-efficient HVAC systems is driving increased demand for NdFeB permanent magnets.

Northern Minerals is extremely pleased to have secured Iluka's support to join this critical minerals supply chain and looks forward to developing a strong partnership moving forward"

Iluka Supply Agreement

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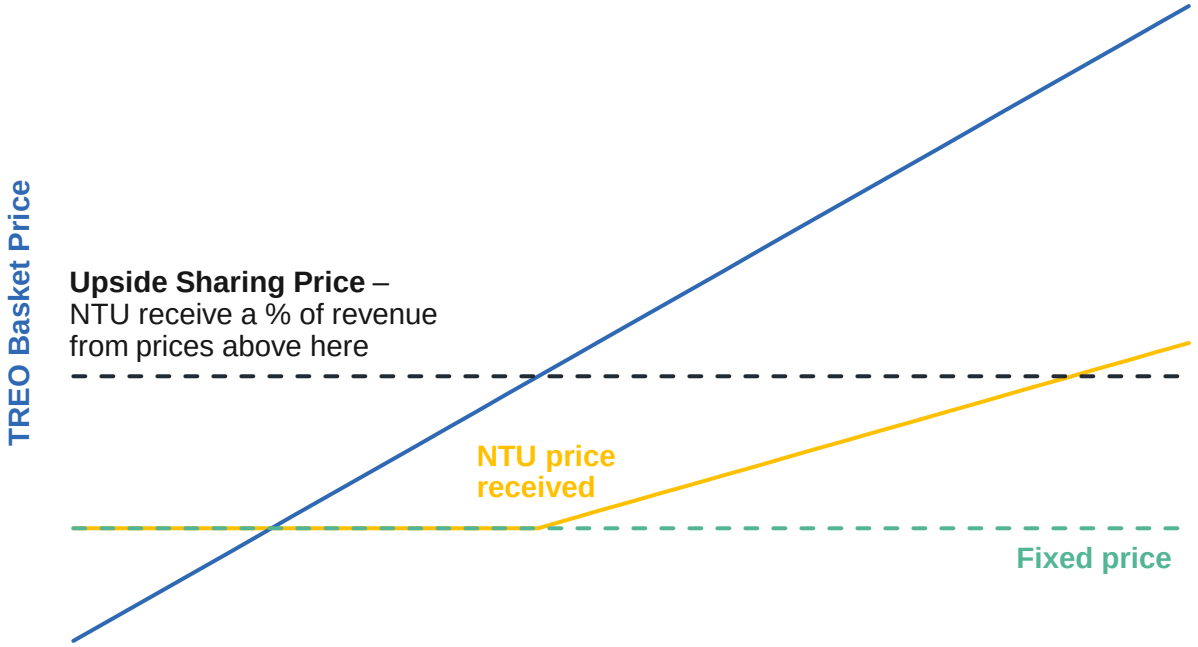
Xenotime Concentrate Sale And Purchase Agreement[1]

- Northern Minerals to produce Xenotime concentrate from its Browns Range Project and sell to Iluka for use in its Eneabba Refinery
- Proposed annual production to be delivered to Iluka (post commissioning and ramp up) initially not greater than 5,500 tonnes of contained REO in Product (Maximum Annual Quantity)
- Northern Minerals must sell and deliver to Iluka, and Iluka must purchase and take, 100% of the product that is produced from Northern Minerals in each year within agreed bands of Minimum and Maximum Quantities that meets the specifications under the Iluka Supply Agreement
- The Iluka Supply Agreement provides ILU with a right of first refusal in respect of Product from the Browns Range Project in excess of the maximum annual amount for a contract year and material that do not meet Product specifications.
- If the Iluka Supply Agreement is terminated for failure to satisfy or waive a condition precedent (other than a failure to satisfy a condition by ILU), ILU has a right of first refusal to purchase Product from the Brown Range Project for a two-year period from the date the agreement is terminated.
- Northern Minerals free to sell excess production to third parties if Iluka does not purchase pursuant to its ROFR

1. Further detail on the Iluka Supply Agreement is set out on page 29 of this presentation

Pricing mechanism illustration



Iluka Subscription and Option Agreement

Tranche 1 Placement and Convertible Note	• NTU will issue Iluka 125.0 million NTU new ordinary shares at an issue price of $0.04 per share to raise $5.0 million to be completed on or about 28 October 2022 (Iluka Tranche 1 Placement) • Iluka has agreed to subscribe for a $15.0 million convertible note. The convertible note will have a coupon of 7.0%, a maturity date of 31 December 2024 and be convertible into approximately 365.6 million New Shares (including assumed capitalised interest) at a conversion price of $0.048 per New Share, subject to conditions and various adjustment events (**Iluka Convertible Note**)
Tranche 2A Placement and Tranche 2B Call Option / Put Option	• **Iluka Tranche 2A Placement**, 230 million shares[1] at the lower of: – the subscription price of any equity raising to raise additional equity funding required for the total pre-production costs of the Browns Range Project, such funding being additional to the moneys committed pursuant to the SPP and various Iluka subscriptions set out above **(Additional Browns Range Equity Fundraising);** and – $0.052 per share (being a 30% premium to the Iluka Tranche 1 Placement price of $0.04 per share), or, if NTU shareholders vote in favour of the issue of the Iluka Tranche 2B Call Option (see below), then $0.06 per share (being a 50% premium to that price) • **Iluka Tranche 2B Call Option / Put Option arrangement**, reciprocal put and call options over up to 653.3 million shares[1] exercisable at the lower of: – the subscription price for the Additional Browns Range Equity Fundraising (see above); and – $0.06 per share (being a 50% premium to the Iluka Tranche 1 Placement price of $0.04 per share) • The Iluka Tranche 2A Placement and exercise of the Iluka Tranche 2B Put Option are subject to the satisfaction of certain conditions precedent, including: NTU making a positive FID in relation to the Browns Range Project provided that the Browns Range Project as approved in that FID is reasonably likely to be capable of producing xenotime concentrate in sufficient quantities to substantially meet NTU's obligations under the Iluka Supply Agreement; NTU having sufficient funds to fully fund the pre-production costs of the Browns Range Project; ILU completing due diligence in respect of NTU's DFS to ILU's satisfaction (acting in good faith); and the Iluka Supply Agreement having not been terminated – Grant and exercise of the Iluka Tranche 2B Put Option by the Company is conditional on NTU shareholder approval of the Iluka Tranche 2B Call Option.
Extraordinary General Meeting (EGM)[2]	• NTU has issued or agreed to issue the following securities pursuant to its existing placement capacity under ASX Listing Rule 7.1: Iluka Tranche 1 Placement, Iluka Convertible Note and Iluka Tranche 2A Placement • In contrast, the issue of the Iluka Tranche 2B Call Option will be subject to approval by NTU shareholders at an EGM , as NTU does not have sufficient existing placement capacity to agree to undertake that issuance without shareholder approval – Once issued, the exercise of the Iluka Tranche 2B Call Option is not subject to any conditions, and may be exercised by ILU at any time until 31 December 2025.
Participation rights	• Subject to the ASX Listing Rules and any policy, guidance or requirement published or notified by ASX from time to time, NTU has agreed: – to use reasonable endeavours to, and enter into good faith negotiations with ILU to, seek to agree terms and the extent to which ILU can participate in any Additional Browns Range Equity Fundraising (endeavouring to maximise ILU's participation up to 19.9%); and – to provide ILU with a reasonable opportunity to participate pro-rata in certain other equity raisings for up to 3 years following NTU making a positive FID in relation to the Browns Range Project, provided ILU maintains a 10% shareholding in NTU, in each case, subject to customary exceptions, and at the same price and on the same terms as other participants in the applicable equity raising

1. In each case, the number of shares and issue prices are subject to any adjustment pursuant to a share consolidation or share split and satisfaction or waiver of the applicable conditions – refer to page 24 of this presentation for further details
2. Refer to page 24 of this presentation for further details

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3. Equity raising

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SPP overview

Share Purchase Plan ("SPP")	• Northern Minerals will offer eligible Australian and New Zealand shareholders the opportunity to acquire up to A$5 million in New Shares via a SPP, with a maximum application of A$30,000 per eligible shareholder • The issue price for New Shares issued under the SPP will be $0.04 per share representing a 2.4% discount to the closing price of $0.041 per share on 25 October 2022 and a 2.4% discount to the 5-day volume weighted average price (VWAP) of $0.041 per share up to and including 25 October 2022. • The SPP aims to issue up to 125 million shares to raise up to A$5 million, which may be increased or subject to scale back and is not underwritten • No brokerage or transaction costs are payable for New Shares issued under the SPP • New Shares issued via the SPP will rank equally with existing ordinary shares from the date of issue • An SPP Booklet containing further details of the SPP offer will be sent to eligible shareholders on 3 November 2022

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Sources and uses

Sources		Uses	
Iluka Tranche 1 Placement	$5.0m	Browns Range DFS (Incl. potential Wolverine resource definition drilling)	$10.5m
Iluka Convertible Note	$15.0m	Browns Range Site Maintenance	$3.0m
		Corporate	$6.5m
Total Sources	**$20.0m**	**Total Uses**	**$20.0m**

- Iluka Tranche 2A Placement and Iluka Tranche 2B Call Option / Put Option are not included in the initial sources given these proceeds of up to $53m are conditional on:
  - the Company among other things taking a Final Investment Decision (FID) on the Browns Range project;
  - Iluka final diligence;
  - funding having been secured for the Browns Range project; and
  - approval by Northern Minerals shareholders in respect of the issue of the Tranche 2B Call Option.
- SPP is not underwritten, and any proceeds raised under the SPP will be applied to general working capital

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Iluka Subscription and SPP timetable

Event	Date
Record date for SPP	4:00pm (Perth time), 25 October 2022
Announcement of Iluka agreements and SPP	26 October 2022
Settlement and issue of New Shares under Iluka Tranche 1 Placement, and settlement and issue of Iluka Convertible Note	28 October 2022
SPP Booklet made available to eligible shareholders and SPP opens	3 November 2022
Anticipated Notice of Extraordinary General Meeting dispatch date	9 November 2022
SPP closes	24 November 2022
Announcement of outcome of SPP	29 November 2022
Issue of New Shares under the SPP	1 December 2022
Dispatch of holding statements and commencement of normal trading of New Shares issued under the SPP	2 December 2022
Anticipated Extraordinary General Meeting to approve issue of Tranche 2B Call Option and Share Consolidation	12 December 2022

Note: The above timetable is indicative only and subject to change. The commencement of trading and quotation of shares is subject to confirmation from ASX. Subject to the requirements of the Corporations Act, the ASX Listing Rules and other applicable laws, NTU reserves the right to amend this timetable at any time, including extending the period for the SPP or accepting late applications, either generally or in particular cases, without notice. All dates and times displayed are Perth, Australia time.

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Extraordinary General Meeting

Issued pursuant to existing placement capacity	• NTU has issued or agreed to issue the following securities pursuant to its existing placement capacity under ASX Listing Rule 7.1: – Iluka Tranche 1 Placement – Iluka Convertible Note – Iluka Tranche 2A Placement
EGM agenda	• An EGM of shareholders is expected to be held on or around 12 December 2022 at a venue to be announced to seek to approve (among other matters) the following: – Ratify the issue of 125.0 million ordinary shares under the Iluka Tranche 1 Placement and the issue of the Iluka Convertible Note (but not the agreement to issue 230.0 million shares under the Iluka Tranche 2A Placement) – Issue of the Iluka Tranche 2B Call Option to Iluka (which, if exercised, results in the issue of up to 653.3 million ordinary shares to Iluka) – A 25:1 security consolidation[1]
Notice of meeting	• A notice of meeting for the EGM is expected to be dispatched on 9 November 2022

1. Share numbers in this presentation are provided on a pre-consolidation basis and will be adjusted if shareholder approval of the proposed consolidation is obtained at the EGM (dependant on the time of that adjustment).

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4. Summary

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Summary

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1. A refocused Northern Minerals following a strategic review with a clear pathway towards production, now focused on updating the DFS and being a rare earths concentrate producer
2. Strategic partnership with Iluka de-risks and accelerates the development of the Browns Range Project, significantly reducing capex
3. Aiming to be a leading ex-China supplier of Dysprosium and Terbium which are critical in the production of permanent magnets required in electric vehicles and wind turbines
4. Strong demand tailwinds for Northern Minerals' Rare Earths due to the acceleration of decarbonisation and electrification globally
5. Orebody uniquely rich in Dysprosium and Terbium, with Wolverine understood to be the highest grade Dy and Tb orebody in Australia
6. Well understood geology, metallurgy and processing, following ~16 years of exploration studies (~134,500m of drilling) and 3 years of pilot plant operation
7. Experienced Board and Management team led by Nick Curtis, with significant Rare Earths mining experience including developing RE projects

Appendix A: Additional information

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Pricing forecasts to 2035

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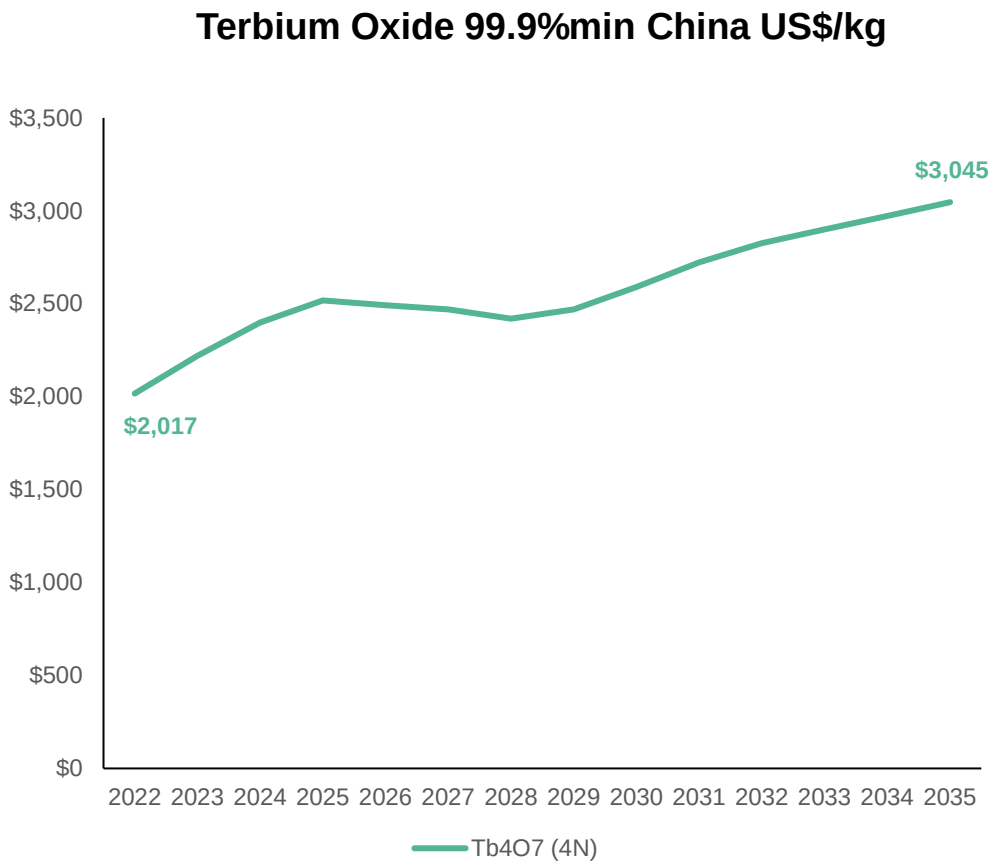

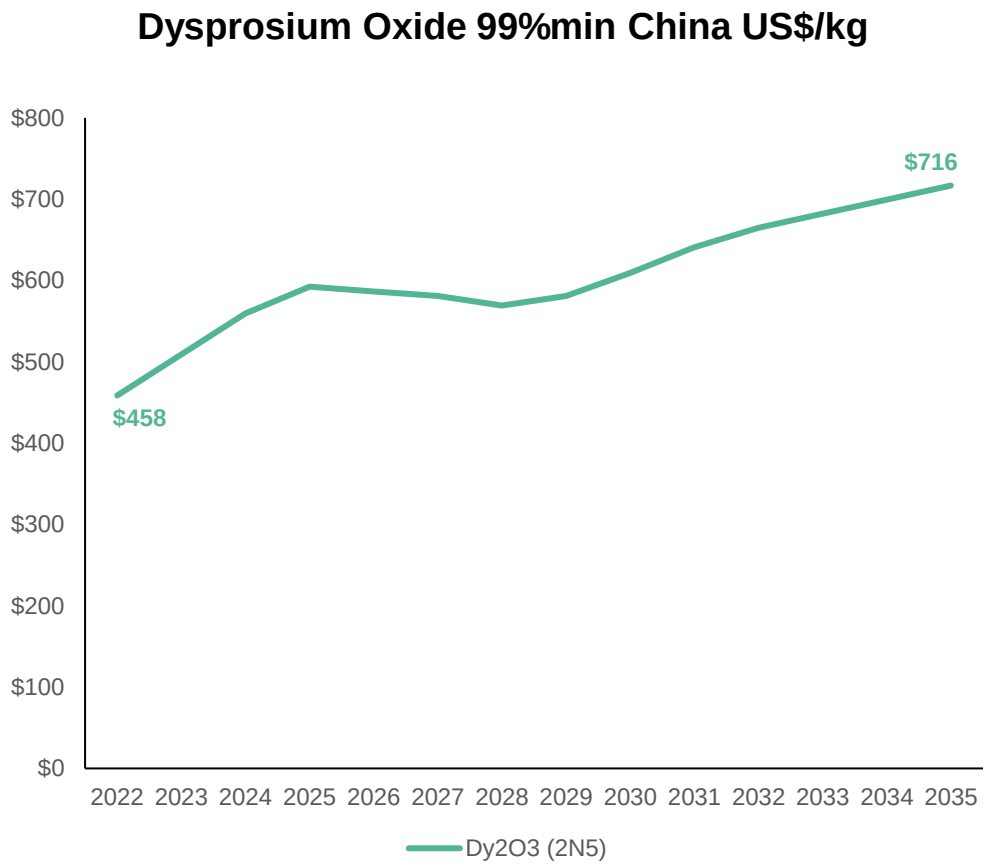

- Strong supply and demand fundamentals results in a forecasted strong pricing environment for Dy and Tb

Source: Adamas Intelligence: Rare Earth Magnet Market Outlook to 2035 at Q2 2022, Base Scenario (years indicated post 2022 are estimates only)

Iluka Supply Agreement – Headline Terms

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Conditions	The Supply Agreement is subject to the satisfaction of certain key conditions precedent including NTU granting security to Iluka over its assets including the granting of a mining mortgage, NTU completing the DFS, NTU making a positive FID decision in relation to the Browns Range Project, NTU achieving financial close and first draw-down under its financing arrangements and Iluka achieving financial close and first draw-down under its financing arrangements for the Eneabba rare earths refinery. Iluka also has a right to terminate the agreement if the project does not achieve specified performance test by 30 June 2028.
Price	Pricing of the concentrate will include a fixed price component based on contained REO and an upside price sharing mechanism based on realised selling price, as well as adjustments for impurities. Certain values forming part of the pricing calculation are subject to adjustment in accordance with movement in CPI.
Product	Xenotime concentrate produced from the Browns Range Project that meets the specifications under the Iluka Supply Agreement.
Seller Production Forecast and Minimum / Maximum Annual Quantity	The Seller Production Forecast forms the basis of Product quantity obligations. Under the agreement, NTU must supply and sell, and ILU must purchase and take, 100% of the Product that is produced up to the maximum annual quantity (being 5,500 tonnes of Contained REO in Product, or if lesser amount, the tonnage of Contained REO in the Seller Production Forecast for the relevant Contract Year). NTU also has an obligation to supply and sell, and ILU must purchase and take, a minimum annual quantity (being a percentage of the Seller Production Forecast for the relevant contract year as specified in the agreement). The agreement contains a regime to suspend the obligation to sell and purchase the product where the weighted average sales price realised by ILU for each Contained REO is less than a nominated threshold value for 3 consecutive quarters.
Right of first refusal and exclusivity	The Iluka Supply Agreement provides ILU with a right of first refusal in respect of Product from the Browns Range Project in excess of the maximum annual amount for a contract year and material that do not meet Product specifications. If the Iluka Supply Agreement is terminated for failure to satisfy or waive a condition precedent (other than a failure to satisfy a condition by ILU), ILU has a right of first refusal to purchase Product from the Brown Range Project for a two-year period from the date the agreement is terminated.
Force majeure	The Iluka Supply Agreement contains a provision which grants temporary relief for force majeure events including various forms of natural disasters, certain labour issues such as national or industry wide strike action, breakage or damage to plant, machinery or other facilities, acts of war, terrorism, the effect of any applicable laws, orders, rules or regulations of any government agency, an embargo, inability to obtain any necessary materials, equipment, facilities or qualified employees, power or water shortage, lack of transportation and global, national, and/or local health events. The provision grants an affected party temporary relief from its obligations to supply, process or take Product under the agreement, to the extent it is prevented from performing those obligations by the force majeure event. Either party may terminate the agreement if force majeure prevents the whole or part of the agreement from being performed for a period exceeding 6 months.
Security arrangements	NTU has entered into a general security agreement and mining mortgage in favour of ILU to secure the obligations of NTU under the Iluka Supply Agreement. If an event of default or step-in default under the Iluka Supply Agreement occurs, the ILU may enforce the securities granted under the general security agreement and mining mortgage. Further, under the terms of the Iluka Supply Agreement, if requested by NTU, ILU must negotiate in good faith and enter into a priority and tripartite deed with NTU and the project debt financiers of NTU (or any representative on their behalf) based on the principles set out in the agreement.
Supply period	Commences from the later of the First Commercial Production Date (being the date on which NTU's processing facility is fully commissioned and has produced 350 tonnes of Product) and 31 December 2025 and ends on the earlier of the date that NTU has delivered 30,500 tonnes of Contained REO in Product to the Buyer, or NTU permanently ceases production of any material from the Browns Range Project.

Appendix B: Mineral Resource Estimate

NORTHERN MINERALS
Powering Technology.

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Mineral Resource Estimate

NORTHERN MINERALS

Global Mineral Resource Estimate (October 2022)[1,2]

Deposit	Classification	Mt	TREO %	Dy_2O_3 kg/t	Y_2O_3 kg/t	Tb_4O_7 kg/t	HREO %	TREO kg
Wolverine	Measured	0.14	0.7	0.61	3.99	0.09	88	986,000
	Indicated	3.24	0.95	0.83	5.53	0.12	89	30,751,000
	Inferred	3.05	0.98	0.84	5.68	0.13	89	29,756,000
	Total[1]	**6.44**	**0.96**	**0.83**	**5.57**	**0.12**	**89**	**61,492,000**
Gambit West	Measured	-	-	-	-	-	-	-
	Indicated	0.12	1.8	1.62	10.98	0.22	94	2,107,000
	Inferred	0.13	0.51	0.4	2.67	0.05	81	674,000
	Total[1]	**0.25**	**1.11**	**0.97**	**6.56**	**0.13**	**91**	**2,781,000**
Pilot Plant Stockpiles	Measured	-	-	-	-	-	-	-
	Indicated	0.16	0.95	0.83	5.5	0.12	89	1,489,000
	Inferred	0.03	0.26	0.2	1.35	0.03	79	89,000
	Total[1]	**0.19**	**0.82**	**0.71**	**4.71**	**0.1**	**88**	**1,577,000**
Gambit	Measured	-	-	-	-	-	-	-
	Indicated	-	-	-	-	-	-	-
	Inferred	0.21	0.89	0.83	5.62	0.11	96	1,878,000
	Total[1]	**0.21**	**0.89**	**0.83**	**5.62**	**0.11**	**96**	**1,878,000**
Area 5	Measured							
	Indicated	1.38	0.29	0.18	1.27	0.03	69	3,953,000
	Inferred	0.14	0.27	0.17	1.17	0.03	70	394,000
	Total[1]	**1.52**	**0.29**	**0.18**	**1.26**	**0.03**	**69**	**4,347,000**
Cyclops	Measured	-	-	-	-	-	-	-
	Indicated	-	-	-	-	-	-	-
	Inferred	0.33	0.27	0.18	1.24	0.03	70	891,000
	Total[1]	**0.33**	**0.27**	**0.18**	**1.24**	**0.03**	**70**	**891,000**
Banshee	Measured	-	-	-	-	-	-	-
	Indicated	-	-	-	-	-	-	-
	Inferred	1.66	0.21	0.16	1.17	0.02	87	3,484,000
	Total[1]	**1.66**	**0.21**	**0.16**	**1.17**	**0.02**	**87**	**3,484,000**
Dazzler	Measured	-	-	-	-	-	-	-
	Indicated	-	-	-	-	-	-	-
	Inferred	0.21	2.33	2.17	13.93	0.29	95	5,000,000
	Total[1]	**0.21**	**2.33**	**2.17**	**13.93**	**0.29**	**95**	**5,000,000**
Total[1]	Measured	0.14	0.7	0.61	3.99	0.09	89	986,000
	Indicated	4.9	0.78	0.67	4.46	0.1	87	38,300,000
	Inferred	5.76	0.73	0.62	4.22	0.09	89	42,166,000
	Total[1]	**10.81**	**0.76**	**0.64**	**4.33**	**0.09**	**88**	**81,450,000**

Browns Range Project Overview

- The Project is located in the East Kimberley region of Western Australia, approximately 160km southeast of the town of Halls Creek near the Northern Territory border
- The Wolverine, Gambit West, Gambit and Area 5 deposits are all within the Browns Range Project area and are all located wholly within the granted mining lease M80/627
- The Project is located on the western side of the Browns Range Dome, a Paleoproterozoic dome formed by a granitic core intruding the Paleoproterozoic Browns Range Metamorphics (meta-arkoses, feldspathic metasandstones and schists) and an Archaean orthogneiss and schist unit to the south
- The dome and its aureole of metamorphics are surrounded by the Mesoproterozoic Gardiner Sandstone (Birrindudu Group)
- The Jaru Native Title Claim is registered over the project area and Northern Minerals entered into a Co-existence Agreement with the Jaru Traditional Owners in June 2014

1. Rounding may cause some computational discrepancies (TREO (metal) tonnes estimated from Mt x TREO%)

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

HREO% = HREO/TREO*100

2. Classified and reported according to Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, The JORC Code 2012 Edition, Effective December 2013, Prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC Code). See ASX announcement on 10 October 2022 for further details

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