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# The next power in rare earths

**Corporate Presentation:**

Annual General Meeting – Nov 2023



**ASX: PEK**

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## Compliance Statement






Information contained in this presentation relating to financial forecasts, production targets, infrastructure, project execution, cost estimating, metallurgical test work, exploration results, and studies are taken from the Company's ASX announcements dated 24 October 2022 "Completion of Ngualla Project BFS Update" and 30 November 2024 "Completion of FEED Study" which are available to view on <https://www.peakrareearths.com/announcements/>. The Company confirms that at this time it is not aware of any new information or data that materially affects the information included in the relevant announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant announcement continue to apply and have not materially changed, save that the 30 November 2023 announcement "Completion of FEED Study" provides new information and updates to estimates in the 24 October 2022 "Completion of the Ngualla Project BFS Update".

This presentation is authorised for release by the Company's Chief Executive Officer.

# Peak ... a compelling investment opportunity

A supportive partner, a full offtake solution and a pathway to funding and development

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<b>1.</b>	<b>COMPELLING MARKET OUTLOOK</b> <ul style="list-style-type: none"><li>✓ Strong nexus to global decarbonisation</li><li>✓ Rapid growth in EV and wind turbines</li></ul>	
<b>2.</b>	<b>WORLD CLASS ASSET</b> <ul style="list-style-type: none"><li>✓ High-grade bastnaesite ore with low radioactivity</li><li>✓ Significant exploration upside and multi-commodity potential</li></ul>	
<b>3.</b>	<b>ATTRACTIVE JURISDICTION</b> <ul style="list-style-type: none"><li>✓ Rapid transformation of Tanzanian economy with established mining sector</li><li>✓ Strong –in country relationships with highly supportive community</li></ul>	
<b>4.</b>	<b>SUPPORTIVE STRATEGIC PARTNER AND MAJOR SHAREHOLDER, SHENGHE</b> <ul style="list-style-type: none"><li>✓ Invested +A\$45m in Peak and holds ~19.8% shareholding</li><li>✓ Binding offtake agreement with a proposed funding/EPC solution<sup>1</sup></li></ul>	
<b>5.</b>	<b>DERISKED PATHWAY TO DEVELOPMENT</b> <ul style="list-style-type: none"><li>✓ FEED Study and BFS Update completed<sup>2</sup>, Framework Agreement executed and Special Mining Licence granted</li><li>✓ Pathway to an integrated offtake, EPC and funding solution for the project</li></ul>	
<b>6.</b>	<b>PROVEN LEADERSHIP TEAM</b> <ul style="list-style-type: none"><li>✓ Track record in funding and delivering projects</li><li>✓ Deep Tanzanian, technical and emerging markets experience</li></ul>	

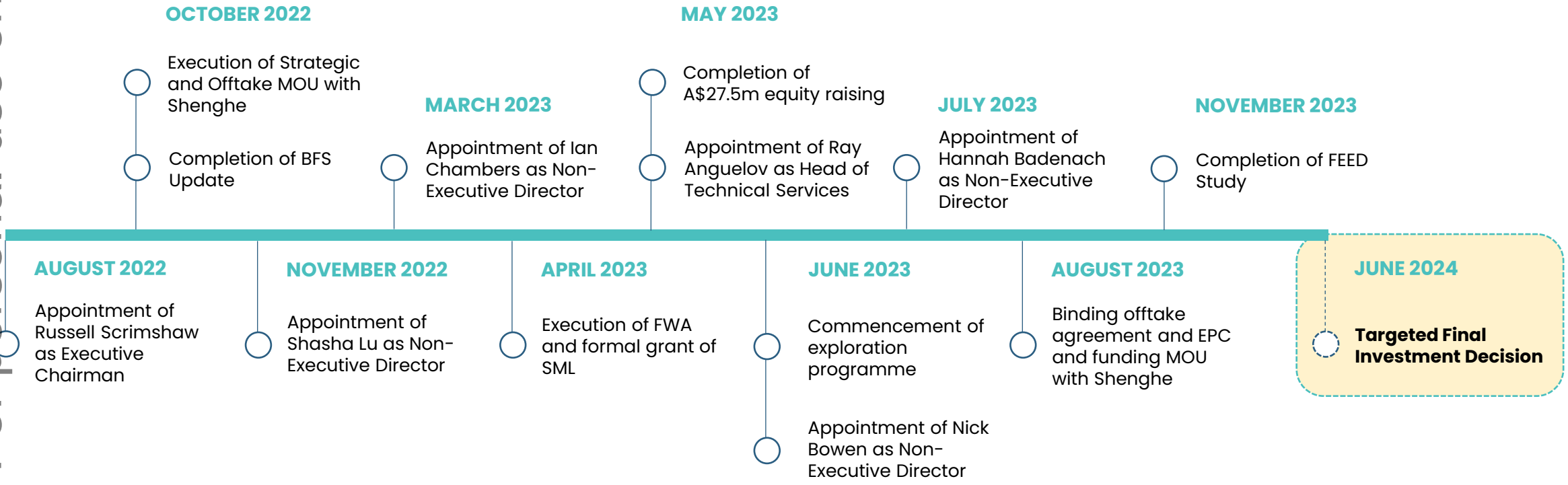
1. See ASX announcement 9 August 2023

2. Based on BFS Update for the Ngualla Project released on 24 October 2022 and subsequent FEED Study for the Ngualla Project released on 30 November 2023

# Achieved milestones ... progress and momentum

The Ngualla Project is progressing rapidly towards development

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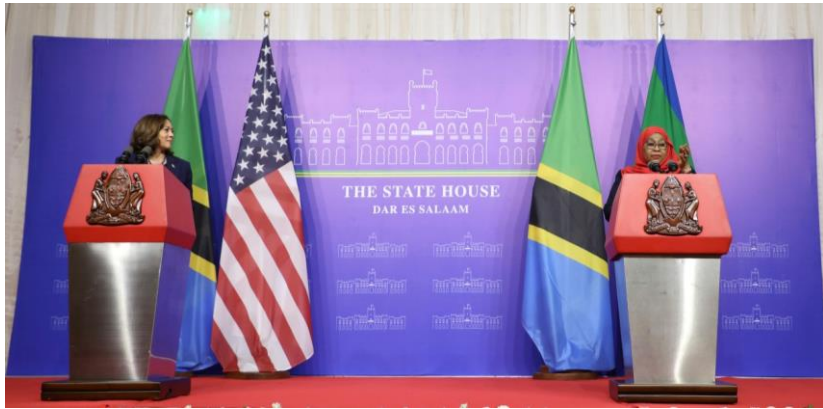




# Tanzania ... open for business

## Rising international visibility and a rapidly developing mining and resources sector

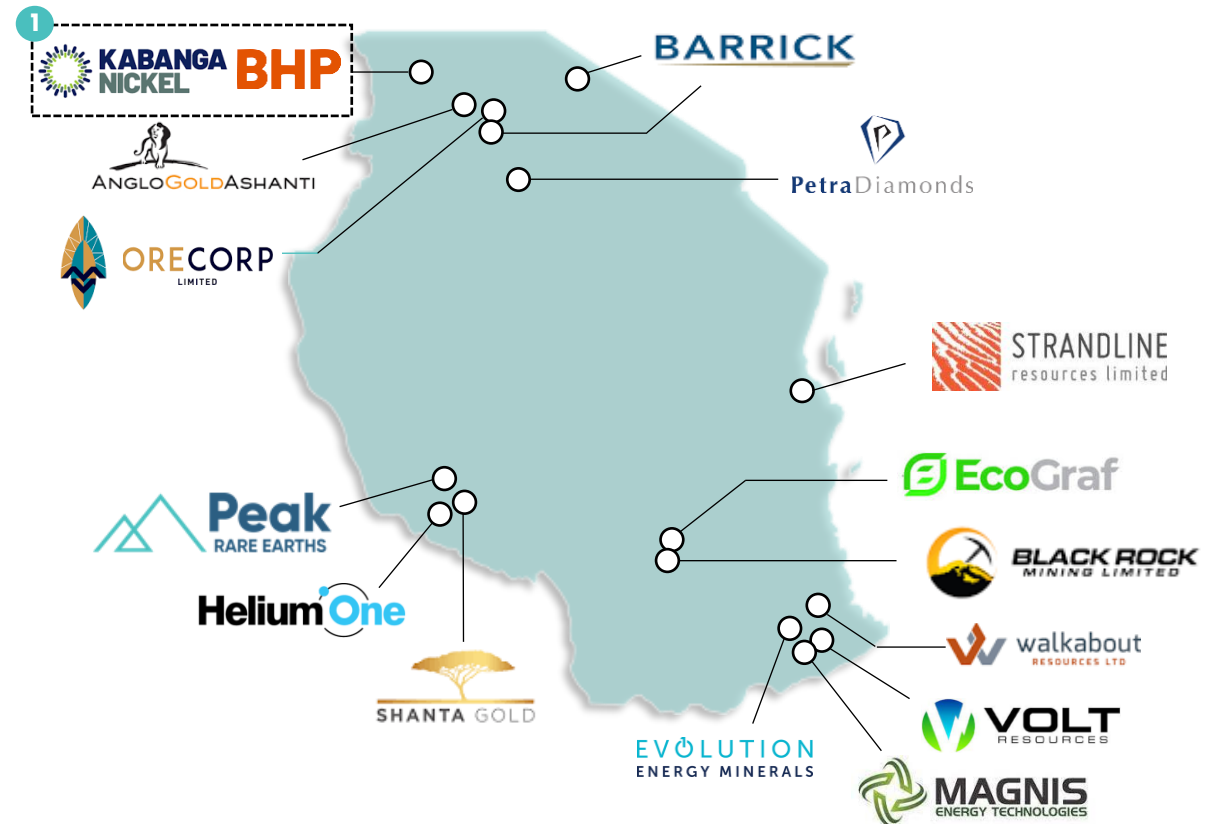
US Vice President – Tanzanian State Visit, Mar 23



Execution of Framework Agreement, April 2023



Tanzanian mining operations and development projects



1. BHP has an option to earn up to 51% of the Kabanga Nickel Project. To date, BHP has invested a total of US\$90m in exchange for a 14% project interest

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# Framework Agreement<sup>1</sup> ... formally executed

Milestone agreement supporting robust returns and strong alignment of interests with the Government of Tanzania



## Framework Agreement ... Key Principles



### Long-standing tenure

- Initial SML term lower of 33 years and mine life
- Ability to further extend



### Right to export concentrate

- Ability to sell concentrate to third parties
- Supports staged development approach



### Downstream optionality

- Independent study on a Tanzanian MREC refinery and other downstream options



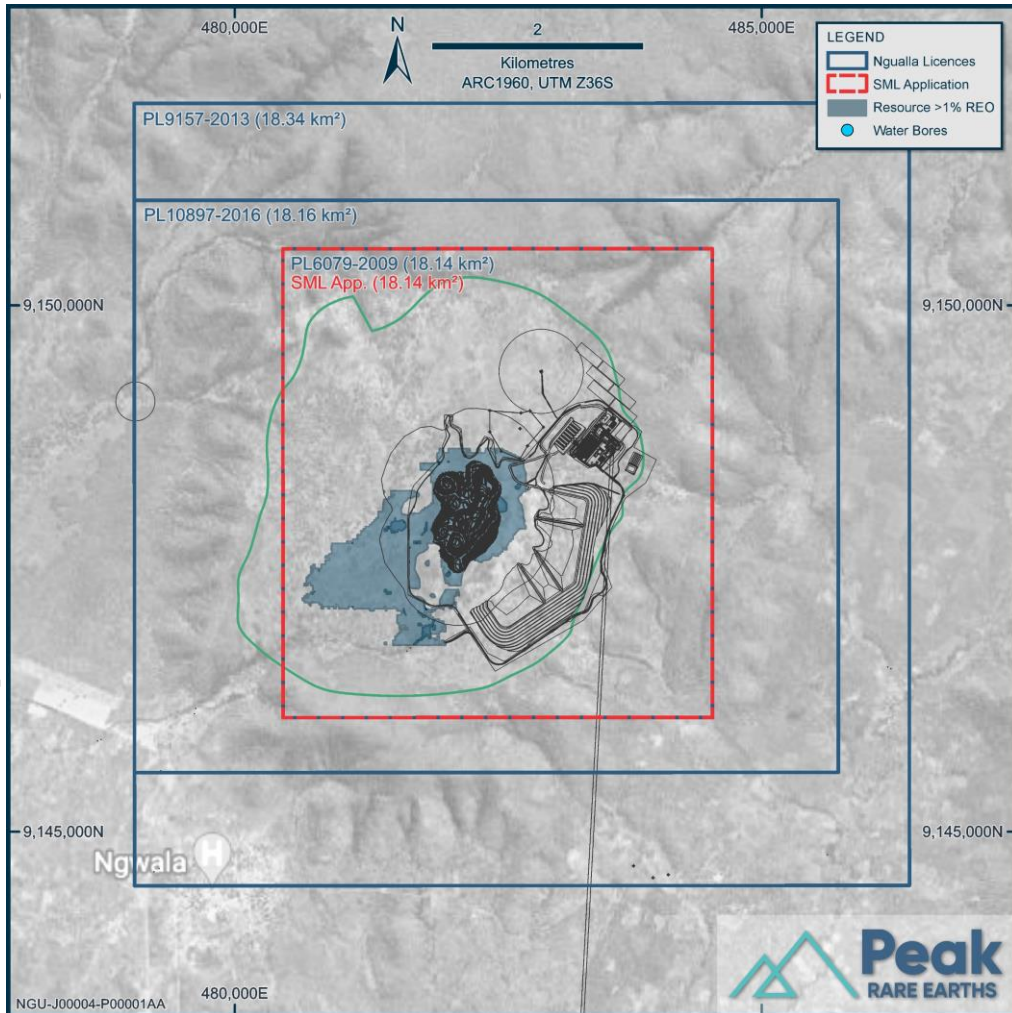
### Enduring economic rights

- Equity ownership of 84%
- Fiscal stability provisions

# Special Mining Licence<sup>1</sup> ... large-scale area with a long-tenure

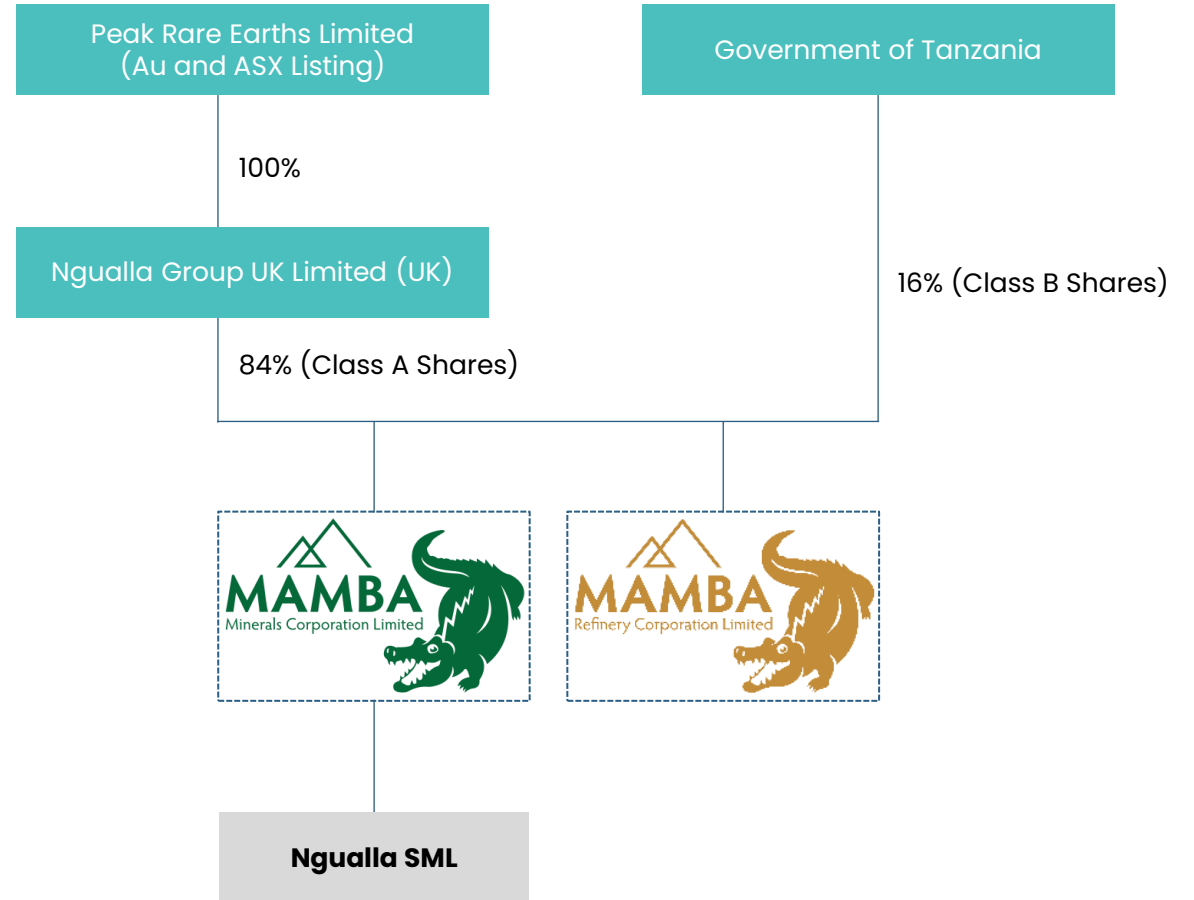
## SML provides Peak long-standing rights to develop and operate the Ngualla Project

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1. See ASX announcement 26 April 2023

### Corporate structure and SML entity





# 'Kazi Wajibu Utu' ... our approach to Work, Responsibility and Humanity

The Ngualla Project will be developed in partnership with the Government of Tanzania and the local community

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# Peak and Shenghe ... a defining partnership

## Binding offtake and non-binding EPC and funding MOU with Shenghe underpins pathway to a complete development solution for Ngualla

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### Shenghe agreements ... key elements



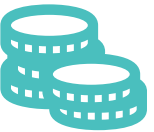
#### OFFTAKE<sup>1</sup>

- ✓ Binding 7-year offtake agreement with take-or-pay obligations
- ✓ Covers 100% of concentrate production and 50% of downstream production



#### PROJECT DEVELOPMENT

- ✓ Shenghe to deliver an EPC solution for project
- ✓ Potential to appoint BGRIMM as EPC sub-contractor



#### FUNDING

- ✓ Shenghe to deliver complete funding solution for the project
- ✓ Potential for Shenghe to subscribe for a significant non-controlling project stake

**Peak maintains right to terminate agreements if financial close has not been achieved within 6 month of completion of FEED**



*"Shenghe regards the Ngualla Project as the premier undeveloped rare earth project in the world. We are excited to be partnering with Peak, and its Tanzanian entity Mamba Minerals, in the development of this world-class project through the provision of offtake, technical and funding support."*

**Mr. Huang Ping, Deputy Executive Chairman of Shenghe Resources Holding Co., Ltd**

# Integrated solution... supported by a well credentialed partner

Shenghe is a well capitalised and technically strong strategic partner and a key contributor to MP Materials' successful restart of the Mountain Pass Mine

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## Shenghe overview

- ✓ Peak's **largest shareholder** with ~19.8% shareholding
- ✓ Current **investment** in Peak **+A\$45m**
- ✓ Shanghai listed non-SOE with **~US\$2.5b** market capitalisation
- ✓ **Largest importer of rare earth concentrate** into China
- ✓ Internationally recognised expertise in mining and processing **bastnaesite mineralisation**
- ✓ Key strategic partner **and ~8% shareholding in MP Materials** (NYSE:MP; market cap ~US\$2.9b)

## Shenghe overseas rare earths investments

 9.2% holding	 Undisclosed holding	 7.8% holding
 90% holding	 19.8% holding	

## Shenghe's role in MP Materials

- ### MP Materials Overview
- NYSE listed with a market capitalisation of **~US\$2.9b**
  - Operates Mountain Pass – world's second largest rare earth mine
  - Currently sells a bastnaesite mineral concentrate
    - Exporting **~40ktpa of concentrate to Shenghe**
  - Moving downstream into NdPr Oxide and magnet production
    - Recently produced first NdPr Oxide

- ### Shenghe's contribution to MP Materials
- Founding investor in restart of mine and **7.7% shareholding**
  - **~US\$80m** in funding support (prepayment)
  - Technical support for restart and ramp-up
  - 100% offtaker of bastnaesite concentrate

# FEED Study outcomes ... an optimised world class project<sup>1</sup>

## Material reductions achieved in both upfront and operating costs

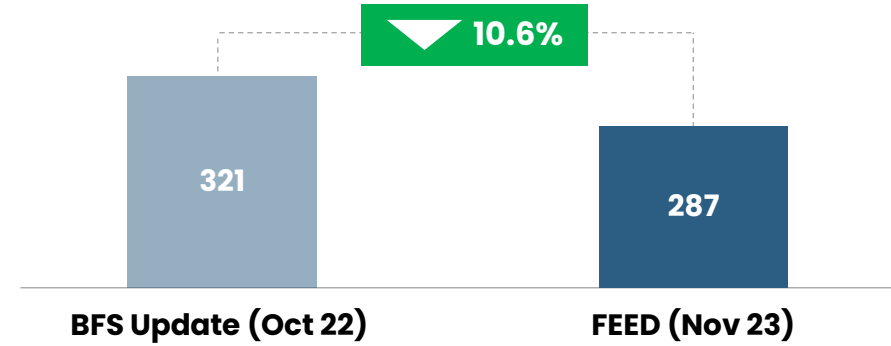
### Key changes / initiatives

- ✓ Adoption of contract mining
- ✓ Removal of second TSF cell for barite collection
- ✓ Optimisation of power plant design (and BOO contract model)
- ✓ Budgetary proposal updates for logistics & reagents
- ✓ Scope rationalisation for roads, camp and airstrip
- ✓ Plant operations labour change from 3 to 4 shift panels

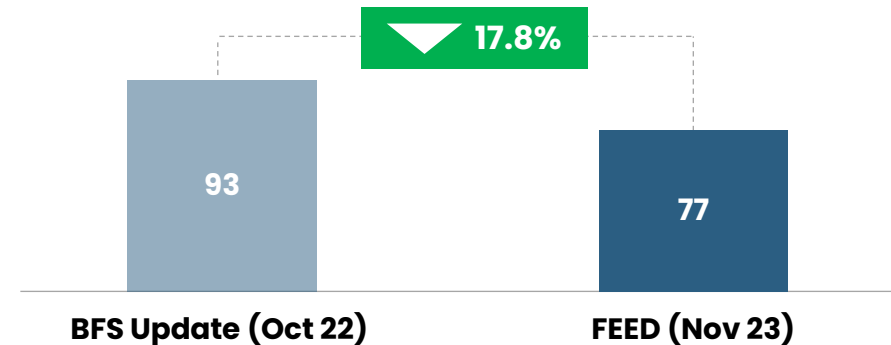
### Other workstreams progressed

- ✓ Development of vendor packages
- ✓ Commencement of tender for long-lead items
- ✓ Advancement of Early and Enabling Works
- ✓ Further schedule and critical path refinement
- ✓ Expansion of Owner's technical team

### Upfront Capex (US\$m)<sup>2</sup>



### Operating Cost (US\$m p.a.)<sup>2</sup>



1. Based on FEED Study for the Ngualla Project released on 30 November 2023  
2. Figures relating to the BFS Update are per announcement on 24 October 2022

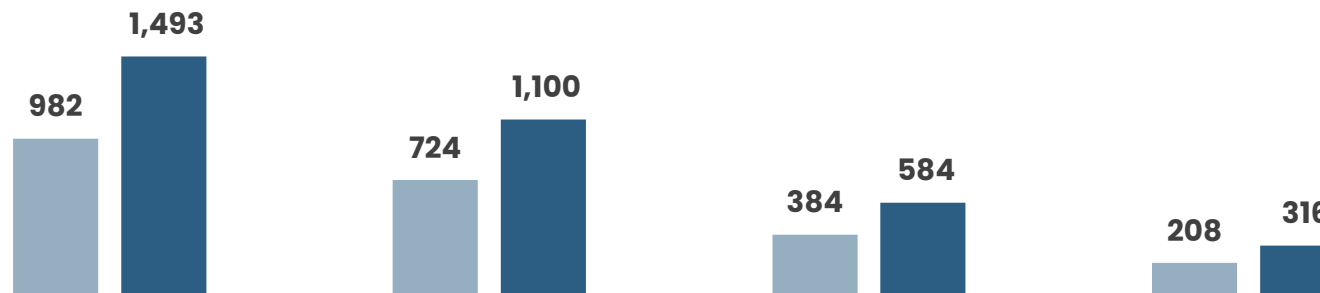


# FEED Study outcomes ... attractive project economics

Project stands to deliver significant value delivered to Peak shareholders

NPV, (8%) attributable to Peak

■ USD (US\$m) ■ AUD(A\$m)



Financial Metrics	Unit	Pricing scenarios			
		Adamas Base	Adamas Downside	Broker Consensus	\$100/kg (flat)
NdPr price (2026 – 2030)	US\$/kg	153	130	120	100
NdPr price (LOM)	US\$/kg	201	171	120	100
Net payability (LOM) <sup>1</sup>	%	53.7%	52.6%	50.8%	49.9%
Average annual revenue	US\$m pa	404	339	235	194
Average annual operating cash flow	US\$m pa	38	33	25	22
Average annual EBITDA	US\$m pa	281	225	134	99
Peak NPV <sup>2</sup> <sub>8%, real</sub>	US\$m	982	724	384	208
Peak NPV <sup>2</sup> <sub>10%, real</sub>	US\$m	747	537	278	132
IRR <sup>1</sup> (post tax, royalties and FCI)	%	33.8%	28.8%	24.7%	18.8%

<sup>1</sup>The payability factor is based on the binding offtake agreement signed with Peak's strategic partner, Shenghe on 9 August 2023

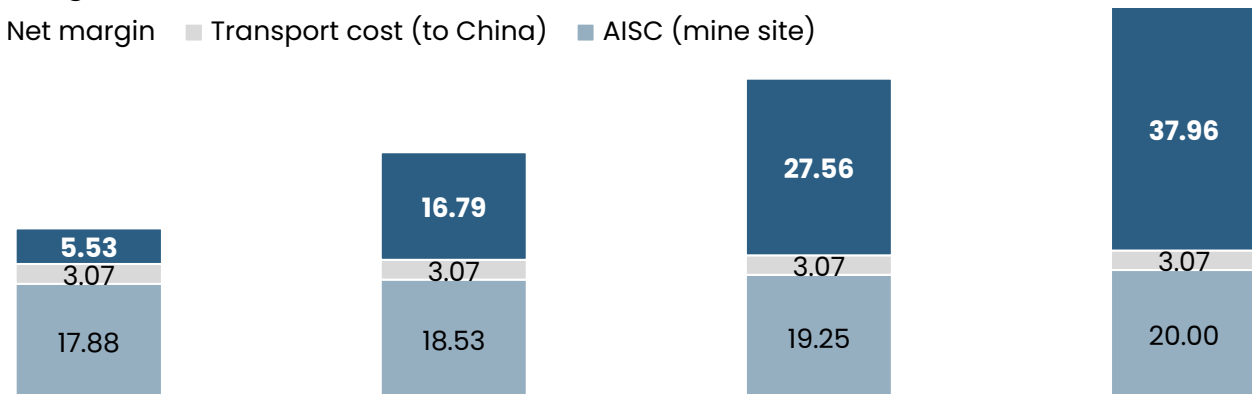
<sup>2</sup>Financial outputs shown are net of distributions to the Government of Tanzania which include corporate taxes, royalties and other fees, and dividends attributable the Government's 16% free-carried interest

# FEED Study outcomes ... highly robust cost structure

Attractive margins delivered across pricing cycle

US\$/kg NdPr Oxide

■ Net margin ■ Transport cost (to China) ■ AISC (mine site)



Financial Metrics	Unit	NdPr Oxide price (US\$/kg)			
		US\$60/kg	US\$80/kg	US\$100/kg	US\$120/kg
Payability (for concentrate) <sup>1</sup>	%	44.1%	48.0%	49.9%	50.9%
Net price received for ct. NdPr	US\$/kg NdPr	26.48	38.38	49.88	61.03
By-product credits <sup>2</sup>	US\$/kg NdPr	2.65	2.88	3.00	3.06
Operating cost	US\$/kg NdPr	(17.47)	(17.47)	(17.47)	(17.47)
Royalty	US\$/kg NdPr	(1.99)	(2.86)	(3.70)	(4.51)
Rehabilitation	US\$/kg NdPr	(0.16)	(0.16)	(0.16)	(0.16)
Sustaining capital	US\$/kg NdPr	(0.91)	(0.91)	(0.91)	(0.91)
Transport (to China)	US\$/kg NdPr	(3.07)	(3.07)	(3.07)	(3.07)

<sup>1</sup>Based on a concentrate grade of >45% TREO. Pricing of concentrate based on binding offtake agreement with Shenghe as announced on 9 August 2023

<sup>2</sup>Based on current spot prices for by-product credits including an LaCe Carbonate price of US\$0.5/kg and a SEG concentrate price of US\$33/kg. Assumes Ngualla concentrate specifications of 22.3% NdPr, 44.2% Ce, 30.1% La and 2.9% SEG Heavy (LOM averages)

# Exploration ... offering additional upside

## Commencement of exploration programme targeting highly prospective areas of the Ngualla deposit<sup>1</sup>

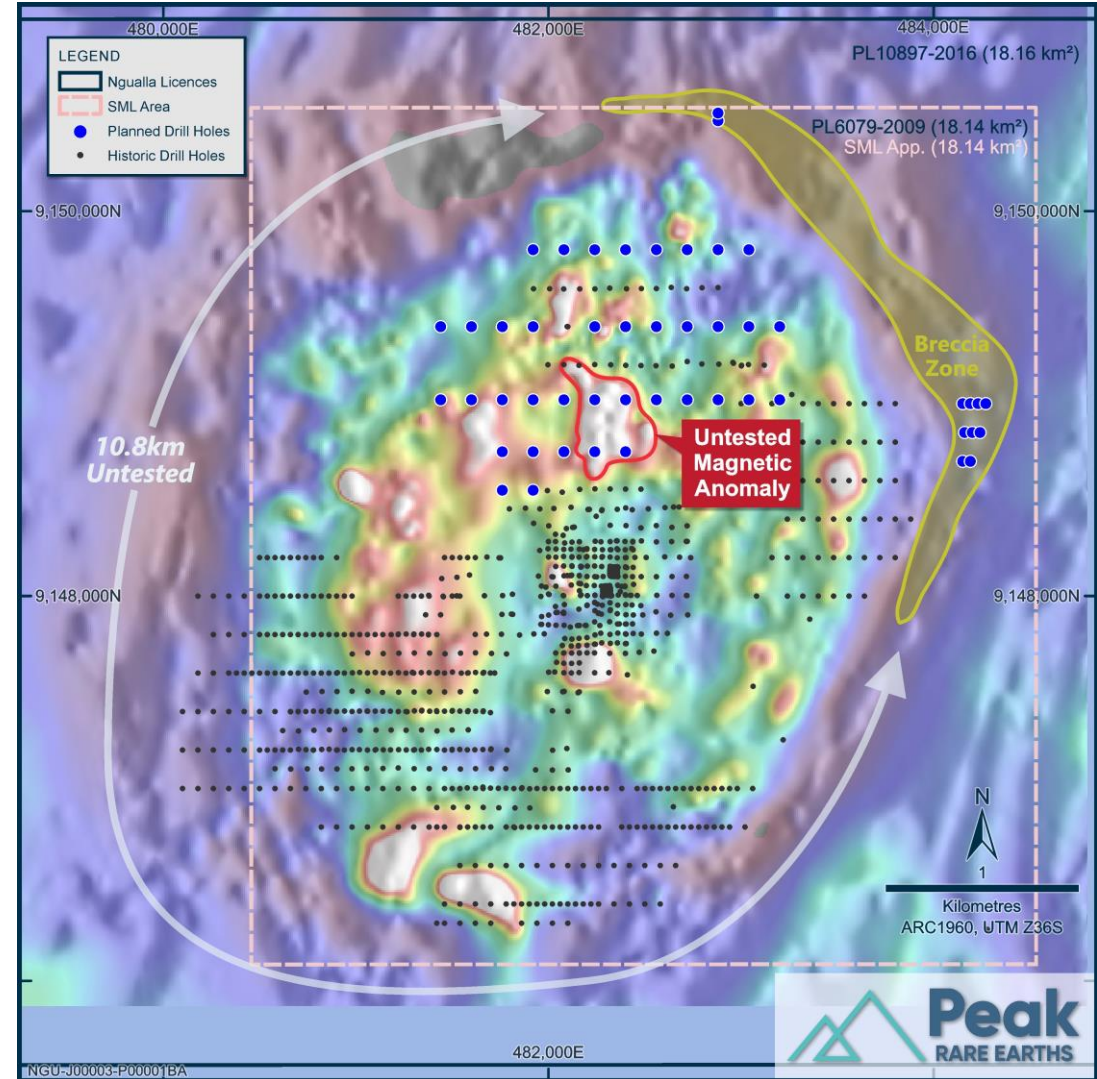
### Exploration overview

- No drilling undertaken at Ngualla since 2016
- Recent commencement of exploration programme through H2 2023
  - Targeting highly prospective Northern Zone and Breccia Zone
  - Covers untested magnetic anomaly within Northern Zone
- SRK engaged to develop conceptual model of Northern Zone

### Status update

- ✓ Conceptual model of Northern Zone completed
- ✓ Exploration drilling on site nearing completion
  - 52 holes (for 3,731m) of RC drilling completed
  - Diamond drilling within Breccia Zone underway
- ✓ First batch of samples currently being assayed at Nagrom (Perth)
  - Includes Breccia Zone trench samples

**First exploration results imminent**



<sup>1</sup>. Refer to announcement 'Exploration programme to commence on the critical mineral potential at the Ngualla deposit' on 9 June 2023



# Exploration ... Northern Zone

## Historical drilling supports prospectivity for rare earths, niobium and phosphate

### Northern Zone overview

- ~0.7km<sup>2</sup> area, located 2km North of the Bastnaesite Zone
- 2,500m of drilling previously completed through 2011-2012<sup>1</sup>:
  - 31 RC drill holes (for ~2,500m)
- Mineralisation currently open in all directions
- Rare earths primarily hosted within monazite & apatite

### Current exploration programme:

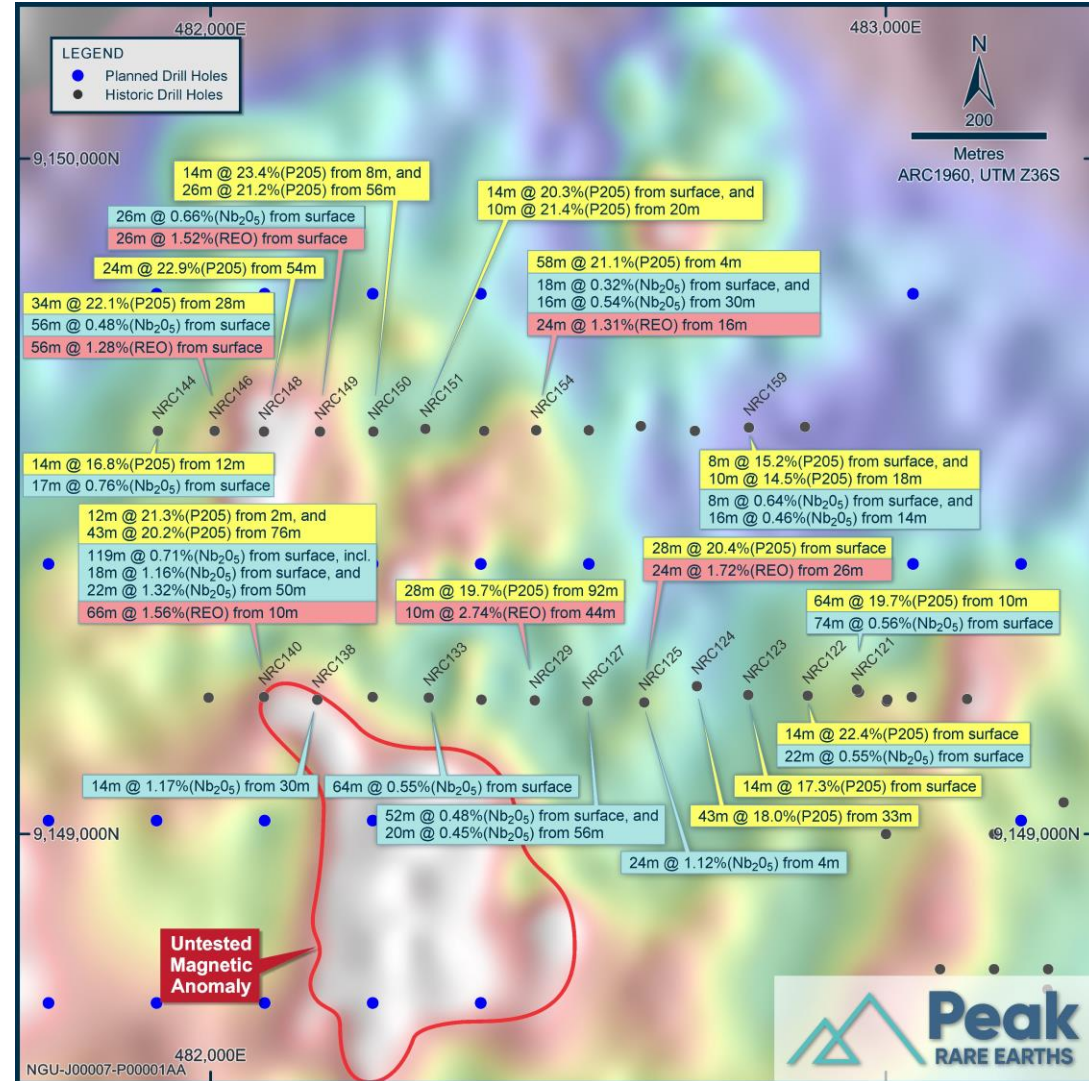
- ✓ Conceptual geological model of the Northern Zone completed
- ✓ All RC drilling completed on site (44 holes for 3,094m)
- ✓ RC samples currently being assayed at Nagrom (Perth)

### Prospective commodities

Rare Earths

Niobium & Tantalum

Phosphate



1. Refer to announcement 'Exploration programme to commence on the critical mineral potential at the Ngualla deposit' on 9 June 2023 for overview of previous drilling results

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# Exploration ... Breccia Zone

## Historical trenching supports rare earths and fluorite prospectivity

### Breccia Zone overview

- ~0.4km<sup>2</sup> area, located 2km North-east of the Bastnaesite Zone
- No previous drilling, although several trenches excavated as part of soil sampling campaign in 2017<sup>1</sup>
- Mineralisation currently open in all directions

### Current exploration programme:

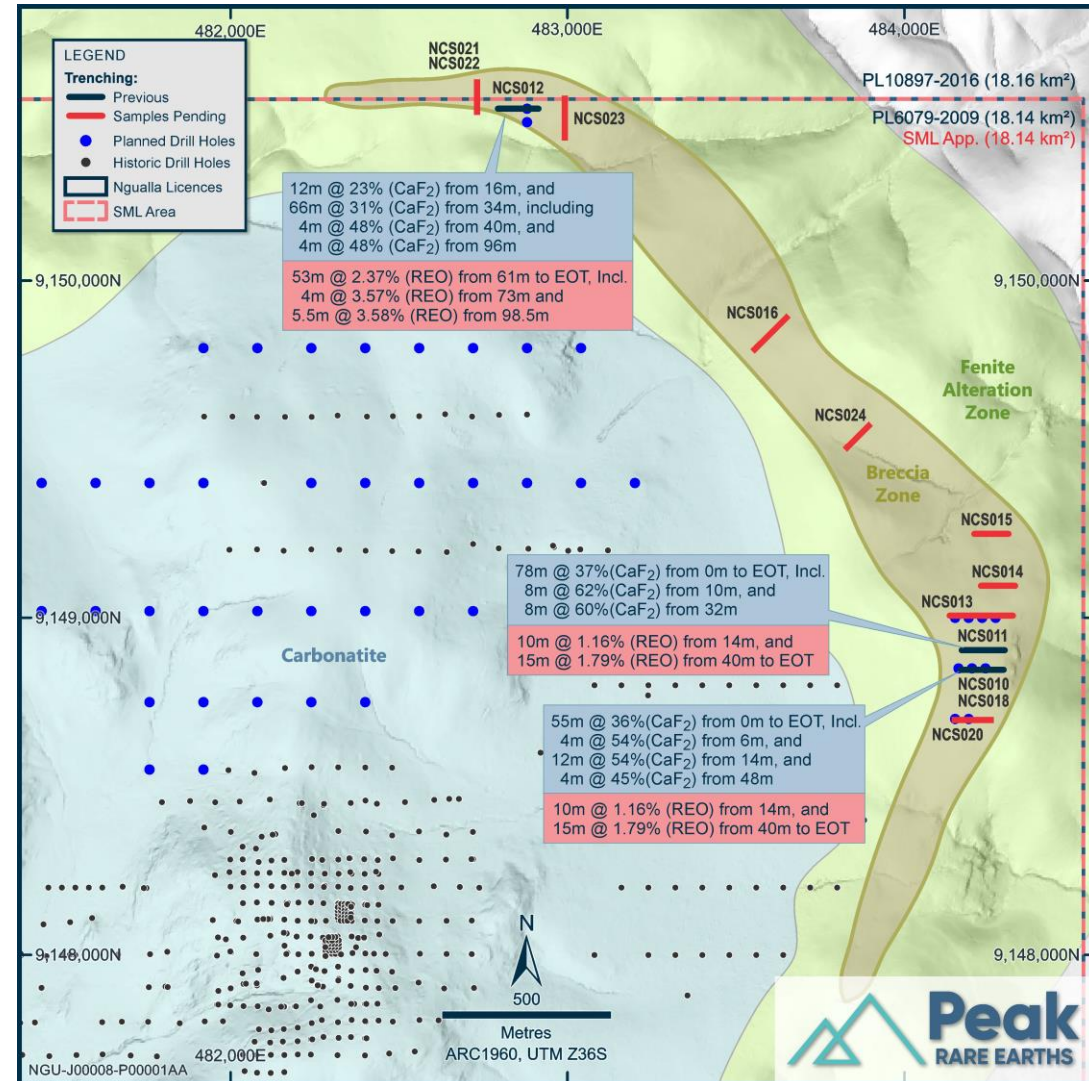
- ✓ RC drilling nearing completion:
  - 8 holes for 637m completed and awaiting assays
  - 2 holes (160m) in Northern Breccia Zone remaining
- ✓ 356 samples from previous trenching campaign currently being assayed at Nagrom (Perth)

### Prospective commodities

Rare Earths

Fluorite

Other?



1. Refer to announcement 'Exploration programme to commence on the critical mineral potential at the Ngalla deposit' on 9 June 2023 for overview of previous drilling results

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# Delivery overseen by ... an experienced and multi-disciplined board

## Recent additions to Board provide deep sector, development and funding experience

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### Board of Directors

#### Recent additions (have joined in the last year)



**Russell Scrimshaw**  
Executive Chairman



**Hon. Abdullah Mwinyi**  
Non-Executive Director



**Ian Chambers**  
Non-Executive Director



**Shasha Lu**  
Non-Executive Director

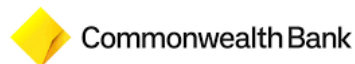


**Nick Bowen**  
Non-Executive Director



**Hannah Badenach**  
Non-Executive Director

### Previous experience





# Execution led by ... an experienced team with a proven track-record

## Management has extensive experience funding and developing mining projects

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### Key management



**Bardin Davis**  
CEO & Director MML<sup>1</sup>



**Phil Rundell**  
CFO & Company Secretary



**Lello Galassi**  
Head of Operations



**Ismail Diwani**  
Head of Tanzania & Director MML<sup>1</sup>

### Recent additions (have joined in the last year)



**Patrick Rutabanziba**  
Senior Tanzania Advisor & Chairman MML<sup>1,2</sup>



**Ray Anguelov**  
Head of Technical Services

### Previous experience



1. MML – Tanzanian entity Mamba Minerals Corporation Limited, a JV between Peak Rare Earths (84%) and the Government of Tanzania (16%)
2. Patrick Rutabanziba has been nominated by Peak for the role of Chair of MML

# Ngualla ... up to and beyond FID

Targeted future milestones and potential newsflow over coming months

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## Construction

Progress of Early Works

Appointment of EPC / EPCM lead

Finalisation of construction contract



## Technical

Further project optimisation initiatives

Shenghe technical collaboration

Advancement of downstream options



## Funding

Advancement of project financing

Completion of project partnering process

Targeted FID and funding Financial Close



## Exploration

Assay results from exploration drilling

Potential maiden Resource for Northern Zone

Partnerships targeting other commodities

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