



XANADU MINES

**Discovering & Defining World Class  
Mineral Deposits in Mongolia**

September Investor Presentation

ASX:XAM | TSX:XAM

# Disclaimer

## Cautionary Statements

The Study has been undertaken to assess viability of developing the Kharmagtai Copper-Gold Project by constructing an open cut mine and processing facility to produce copper concentrate for export. It is a preliminary technical and economic Study of the potential viability of the Kharmagtai Project. It is based on low level technical and economic assessments that are not sufficient to support the estimation of ore reserves. Further exploration and evaluation work and appropriate studies are required before Xanadu will be in a position to estimate any ore reserves or to provide any assurance of an economic development case. The Study is based on the material assumptions in this document. These include assumptions about the availability of funding. While Xanadu considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Study will be achieved. To achieve the range of outcomes indicated in the Study, funding of in the order of US\$700 million will likely be required. Investors should note that there is no certainty that Xanadu will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Xanadu's existing shares. It is also possible that Xanadu could pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the project. If it does, this could materially reduce Xanadu proportionate ownership of the project. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Study. 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 realised. The Study is based on the December 2021 Mineral Resource Estimate, is based on low-level technical and economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Study will be realised. The Study has been completed to a level of accuracy of +/-35% in line with industry standard accuracy for this stage of development. The Company has reasonable grounds for disclosing a Production Target, given that in the first seven years of production, 100% of the mill feed is scheduled from the Indicated Resource category, which exceeds the economic payback period for the project by 3 years. Approximately 55% of the Life of Mine Production Target is in the Indicated Mineral Resource category, and 45% is in the Inferred Mineral Resource category. There is a lower level of geological confidence associated with Inferred Mineral Resources, and while the Company considers all the material assumptions in this Study to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated will be achieved. The Mineral Resources underpinning the production target in the Study have been prepared by a Competent Person in accordance with the requirements of Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012). The Competent Person's Statement is found in the Geology and Resources section of this Study. For full details of the Mineral Resource Estimate, please refer to Xanadu ASX/TSX Announcement dated 25 February 2022. Xanadu confirms that it is not aware of any new information or data that materially affects the information included in that release. All material assumptions and technical parameters underpinning the estimates in that Announcement continue to apply and have not materially changed. Note that unless otherwise stated, all currency in this Study is US dollars.

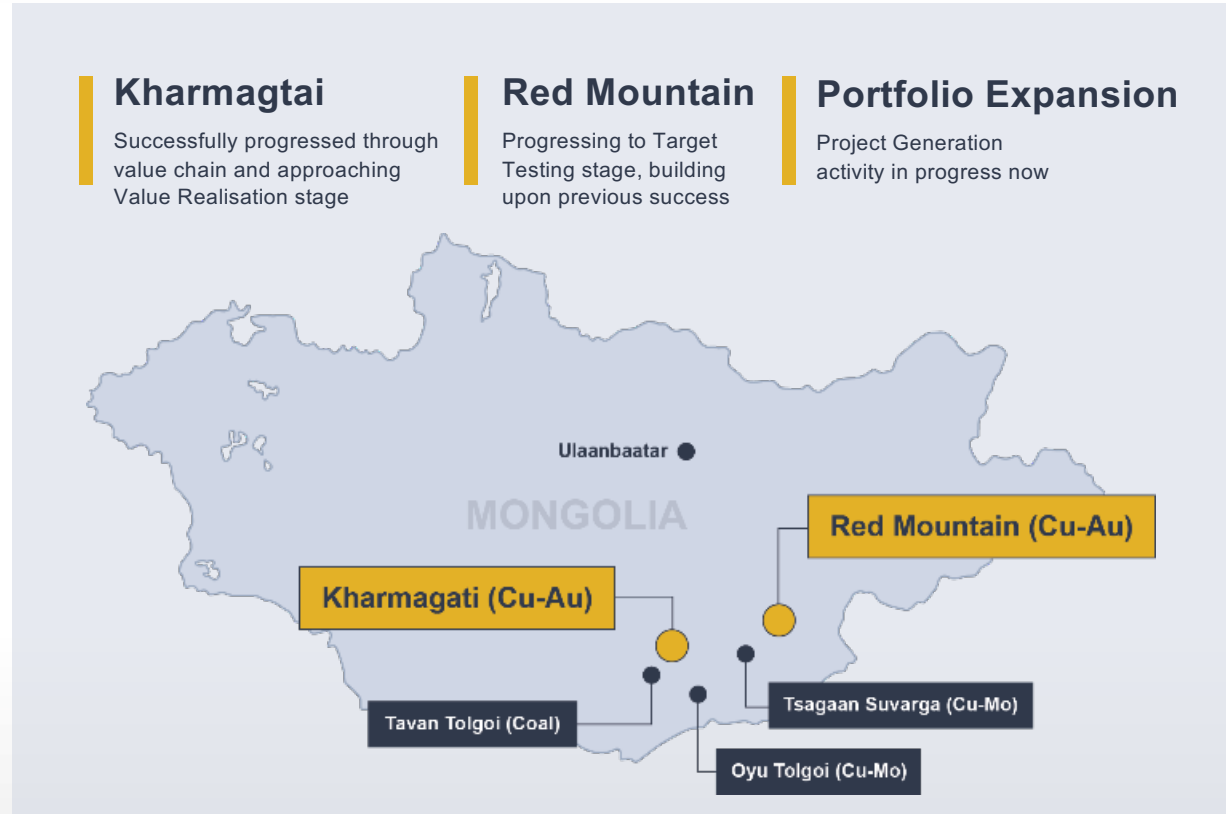
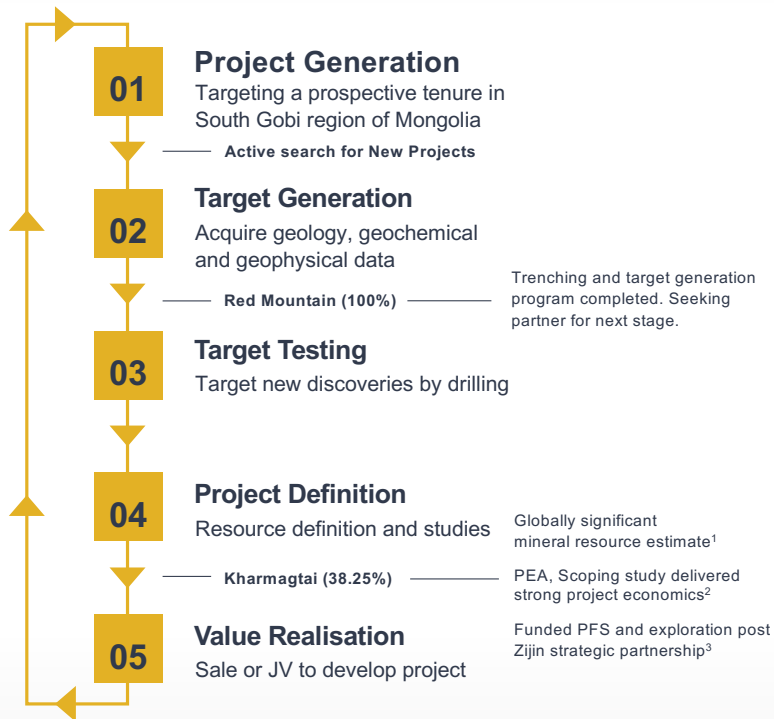
## Forward Looking Statements

Certain statements contained in this Study, including information as to the future financial or operating performance of Xanadu and its projects may also include statements which are 'forward-looking statements' that may include, amongst other things, statements regarding targets, estimates and assumptions in respect of mineral reserves and mineral resources and anticipated grades and recovery rates, production and prices, recovery costs and results, capital expenditures and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions. These 'forward-looking statements' are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Xanadu, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies and involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements. Xanadu disclaims any intent or obligation to update publicly or release any revisions to any forward-looking statements, whether as a result of new information, future events, circumstances or results or otherwise after the date of this Study or to reflect the occurrence of unanticipated events, other than required by the Corporations Act 2001 (Cth) and the Listing Rules of the Australian Securities Exchange (ASX) and Toronto Stock Exchange (TSX). The words 'believe', 'expect', 'anticipate', 'indicate', 'contemplate', 'target', 'plan', 'intends', 'continue', 'budget', 'estimate', 'may', 'will', 'schedule' and similar expressions identify forward-looking statements. All 'forward-looking statements' made in this Study are qualified by the foregoing cautionary statements. Investors are cautioned that 'forward-looking statements' are not a guarantee of future performance and accordingly investors are cautioned not to put undue reliance on 'forward-looking statements' due to the inherent uncertainty therein. Xanadu has concluded that it has a reasonable basis for providing these forward-looking statements and the forecast financial information included in this Study. To achieve the range of Kharmagtai Copper-Gold Project outcomes indicated in the 2022 Study, funding of in the order of an approximately US\$700 million will likely be required by the Company. Based on current market conditions and the results of studies undertaken, there are reasonable grounds to believe the Project can be financed via a combination of equity and debt, as has been done for numerous comparable projects in Mongolia and other jurisdictions in Asia in recent years. Debt may be secured from several sources including Australian banks, international banks, the high yield bond market, resource credit funds, and in conjunction with product sales of offtake agreements. It is also possible the Company may pursue alternative funding options, including undertaking a corporate transaction, seeking a joint venture partner or partial asset sale. There is, however, no certainty that Xanadu will be able to source funding as and when required. Whilst no formal funding discussions have concluded, the Company has engaged with several potential financiers of the Kharmagtai Copper-Gold Project and these financial institutions and corporations have expressed an interest in being involved in funding of the Project. This ASX Study has been prepared in compliance with the current JORC Code (2012) and the ASX Listing Rules. All material assumptions, including sufficient progression of all JORC modifying factors, on which the production target and forecast financial information are based have been included in this ASX Study.

# Xanadu – an ASX/TSX Listed Exploration Company

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## Creating Value through Exploration and Development in Mongolia



# Proven Board & Management Team

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## Board



**Colin Moorhead**  
Executive Chairman & Managing Director



**Ganbayar Lkhagvasuren**  
Country Manager & Executive Director



**Michele Muscillo**  
Non-executive Director



**Tony Pearson**  
Non-executive Director



**Shaoyang Shen**  
Non-executive Director  
(Nominated by Zijin)

## Management



**Munkhsaikhan Dambiinyam**  
Chief Operating Officer



**Andrew Stewart**  
Vice President  
Exploration



**Mat Brown**  
Chief Geologist



**Spencer Cole**  
Chief Development Officer  
Chief Financial Officer



**Guodong Yu**  
Deputy General Manager,  
Kharmagtai Project  
(On secondment from Zijin)

**Highly experienced, with a track record of discovering & developing successful porphyry copper-gold mines**

- ✓ Mongolia Expertise
- ✓ Deep Exploration Skills
- ✓ Experienced Developers of Porphyry Deposits
- ✓ Significant Commercial and Deal Making Capability

# Mongolia is our Competitive Advantage

Proven & emerging mining jurisdiction with excellent infrastructure

**Scale of Deposits** – Multiple globally significant discoveries, still underexplored

**Location** – On China's doorstep, the key global copper consumer, with lots of land and a sparse population

**Infrastructure** – Next door to Rio's Oyu Tolgoi, with established grid power, roads, rail and water

**Mining Culture** – Mining represents 21% of GDP, 85% of exports, and there are >40,000 Mongolian mining professionals in the workforce

**Stable and Democratic** – With a 30-year history of democratic elections and 98% literacy rate

**Local Knowledge** - Deep knowledge of the geography and demonstrated ability to operate in Mongolia



# Majors Investing in Mongolia, Mining's Last Frontier

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## Mongolian Exposure Initiated or Increased by International Miners

**BHP re-entered Mongolia in Jan 2023** via its Xplor Accelerator Program. Xplor investing to accelerate exploration discovery growth for Asian Battery Minerals, who owns 3 critical minerals projects in Mongolia<sup>1</sup>

The BHP logo consists of the letters 'BHP' in a bold, orange, sans-serif font.

**Rio Tinto bought remainder of Oyu Tolgoi Copper Gold Project**, via acquisition of remaining 49% interest in Turquoise Hill Resources for \$3.3 billion in **Dec 2022**<sup>2</sup>

The Rio Tinto logo features the words 'Rio Tinto' in a red, serif font.

**Zijin Mining made inaugural investment in Mongolia**, via its Strategic Partnership with Xanadu Mines in **Mar 2023**<sup>3</sup>

The Zijin Mining logo includes a stylized circular icon with a red dot and a yellow swirl, followed by the word 'ZiJin' in a bold, black, sans-serif font.



# Strategic Partnership with Zijin Mining Group

Three phases of investment<sup>1</sup> totaling US\$43M<sup>2</sup> (A\$58M<sup>2</sup>)

## Fully Executed

- Phase 1 (Apr'22) = A\$5.6M cash @ 4cps, 38% premium, for 9.9% stake in XAM
- Phase 2 (Mar'23) = A\$7.2M cash @ 4cps, to increase to a 19.4% stake in XAM
- Phase 3 (Mar'23) = US\$35M cash invested in Khuiten Metals, for a 50-50 JV that controls Kharmagtai

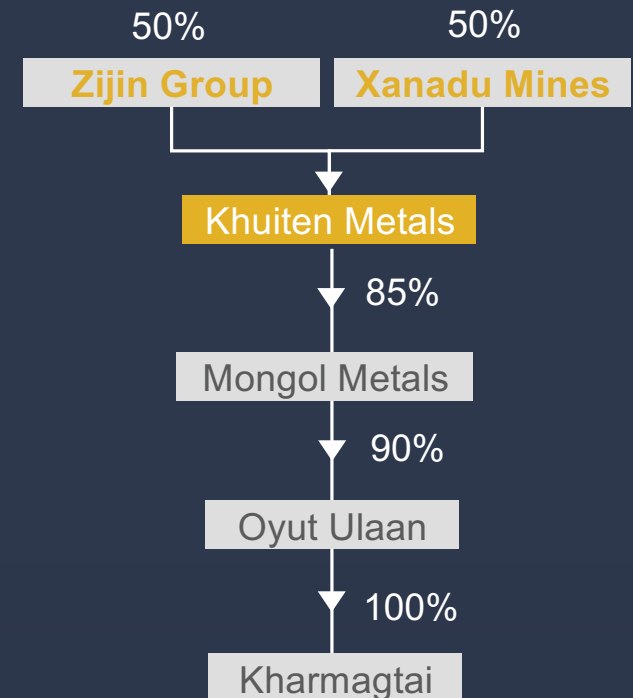
## XAM Funded for Exploration and Kharmagtai Decision to Mine

- Phase 1/2 - funds corporate, exploration and business development
- Phase 3 – funds
  - Kharmagtai PFS thought to a Decision to Construct; and
  - Organic growth opportunities at Kharmagtai including Discovery Exploration

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## Post-Deal Asset Ownership<sup>3</sup>

Kharmagtai controlled by Khuiten Metals



<sup>1</sup> ASX/TSX Announcement 19 April 2022 – Strategic Partnership with Zijin Mining

<sup>2</sup> Currency conversion based on AUD:USD = 0.7387 as at 19 Apr 2022 close (transaction announcement date)

<sup>3</sup> Effective ownership of Kharmagtai by each of Xanadu and Zijin is 38.25% (= 50% \* 85% \* 90%)

# Rerated Share Price and Enterprise Value

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Kharmagtai De-Risking; Market Recognising Value of JV with Zijin

**1,638M**

Shares on issue

**\$0.099**

Share Price  
(6/09/2023)

**\$162M**

Market Capitalisation

Research  
Coverage:

MST Financial

**62%** Top 20 Shareholders

**INSTITUTIONAL  
SHAREHOLDERS**

Zijin 19%  
ACA 14%  
Others 14%

**BOARD & MANAGEMENT**

**9.2%** on a fully diluted basis<sup>4</sup>  
(48m shares & 112m  
performance options)

**A\$5.1M XAM + US\$26.8M Khuiten<sup>1</sup>**

Xanadu Cash Balance plus Khuiten Metals JV Cash reported @ 30/06/2022

13 Mar 2023, Zijin & Xanadu Transaction Completed

13 Apr 2023, Kharmagtai PFS Infill Drilling Commences

7 Jun 2023, New Higher-Grade Zones Found in Kharmagtai Infill Drilling

5 Jul 2023, Shallow Drilling Confirms Kharmagtai Discovery Potential

19 Jul 2023, New High-Grade Copper-Gold Zone Emerging at White Hill

9 Aug 2023, Further Higher-Grade Drilling Results at Stockwork Hill



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<sup>1</sup> ASX/TSX Announcement - Quarterly Activities Report & Appendix 5B - 30 June 2023  
<sup>2</sup> For timeline announcements, please refer to Xanadu Mines ASX/TSX Announcements - Date and Title per text boxes above  
<sup>3</sup> Share price and volume chart per [marketindex.com.au](https://marketindex.com.au) at the time and date shown  
<sup>4</sup> Assumes all performance options are 'in the money'



# Xanadu Strategy in Three Horizons

## Copper/Gold Focus in Mongolia; Positioning for Battery Minerals Future

### Horizon 1

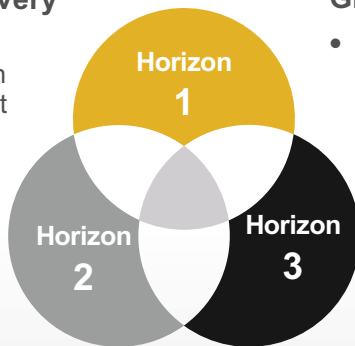
#### Kharmagtai Project De-Risking & Financial Investment Decision

- The Next Large-Scale Mongolian Copper Development
- US\$35M cash<sup>1</sup> funds PFS Completion, including 30,000m infill & expansion drilling program
- Xanadu's Partner Zijin provides balance sheet, construction experience and operating capability

### Horizon 2

#### World Class Discovery

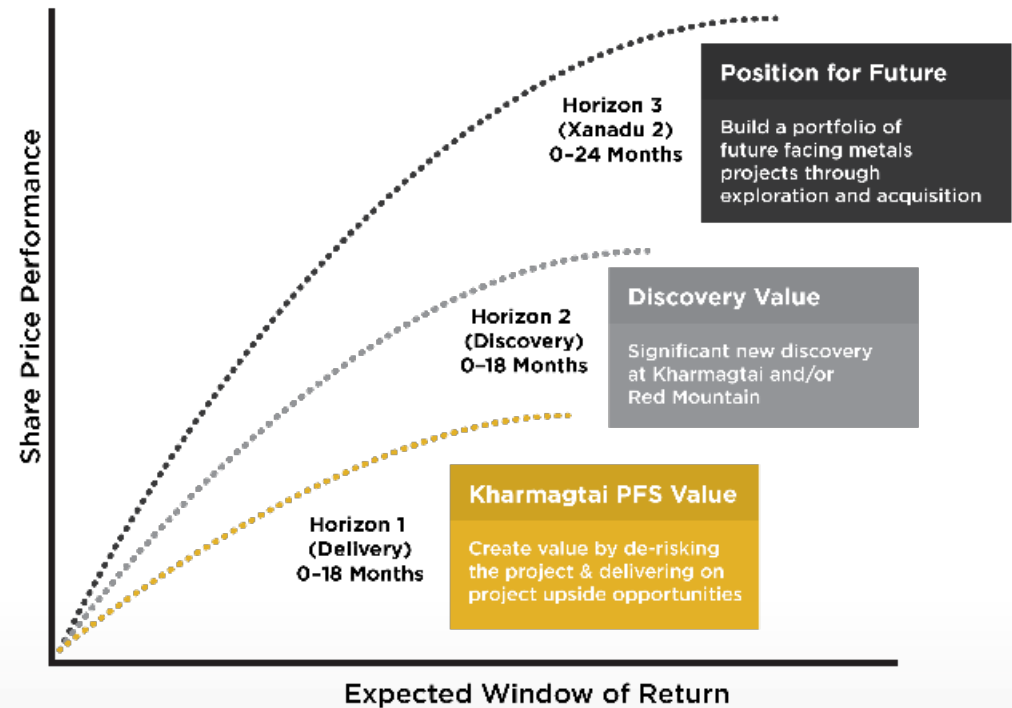
- Aggressive 24,000m discovery exploration program underway at Kharmagtai<sup>2</sup>



### Horizon 3

#### Grow Portfolio

- Access new ground targeting future facing commodities (copper, nickel, lithium) in Mongolia



Strategic Horizon 1  
**Kharmagtai Project De-Risking  
and Financial Investment Decision**



# Kharmagtai – Our Flagship Project

## The next Mongolian, Large-Scale Copper Development

### ✓ Large Resource

1.1Bt containing at 0.3% Cu & 0.2g/t Au (6,640Mlb Cu and 8Moz Au) <sup>1</sup>

- Incl. 100Mt higher-grade zone @ >0.8% eCu
- Resource still open at depth & along strike
- High-grade bornite intercepts extended mineralisation post 2021 Resource model <sup>2</sup>

### ✓ High Quality Project

PEA / Scoping Study<sup>3</sup> delivers US\$630M NPV; 4-yr payback & 20% IRR

- 30-yr mine life
- 15Mtpa plant throughput expands to 30Mtpa
- 50ktpa copper & 110kozpa gold production
- First quartile AISC at 1.87 US\$/lb for first 5 years
- US\$690M establishment capex

### ✓ PFS is FUNDED

US\$35M completes the PFS & funds Discovery Exploration

- Strategic partnership with Zijin Mining Group<sup>4</sup>

1. ASX/TSX Announcement 8 December 2021 – Kharmagtai Resource Grows to 1.1 Billion Tonnes
2. ASX/TSX Announcement 1 December 2021 – Further Extensions to High Grade Zones at Stockwork Hill
3. ASX/TSX Announcement 6 April 2022 – Scoping Study – Kharmagtai Copper-Gold Project; includes appropriate economic ranges
4. ASX/TSX Announcement 13 March 2023 – Zijin & Xanadu Transaction Completed & Kharmagtai PFS underway

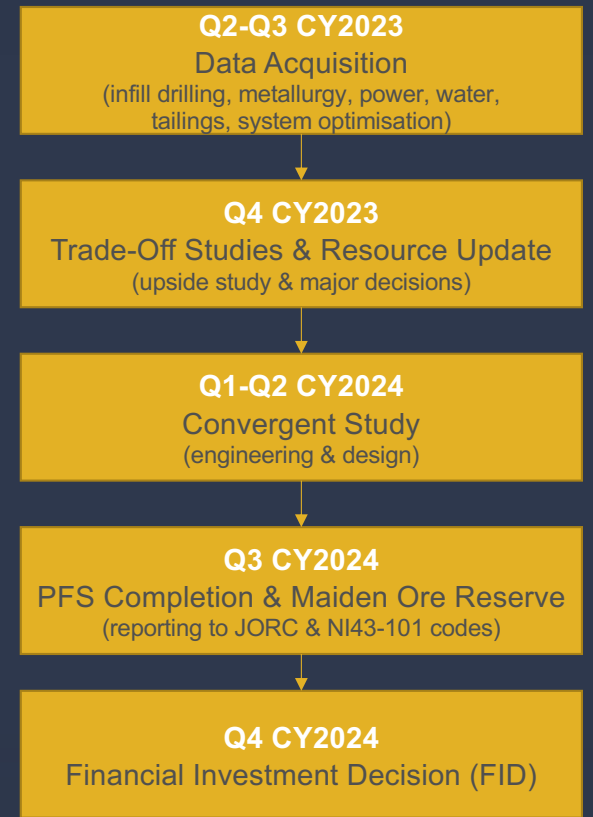
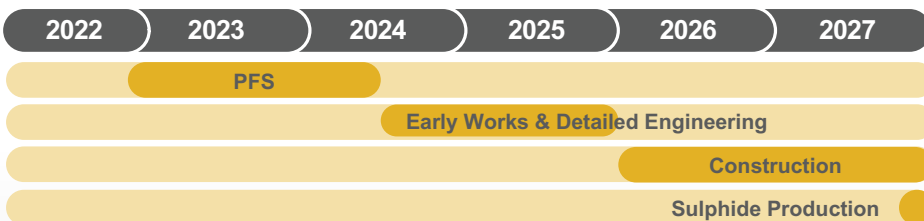
# Kharmagtai Copper-Gold Project

## De-Risk & Progress Project Towards Commercial Production

### Kharmagtai Pre-Feasibility Study

- Funded by Khuiten JV with Zijin<sup>1</sup>
- Uplift Value via metallurgy, processing and mining technology upside studies
- Select single go-forward design
- Deliver upgraded Mineral Resource and Maiden Ore Reserve
- Progress de-risking of regulatory and social license to operate
- Enable Decision to Mine in 2024

### On track to achieve production as early as Q4 CY2027





# Pre-Feasibility Study at “Full Noise”

## Data Acquisition, Optimisation and Infrastructure Studies

- **Infill Drilling for Resource Upgrade** – 48km of drilling completed, pending final assays & resource modelling; completion expected in Q4 CY2023
- **Metallurgical Testwork** – testing flotation (with flash float and hydrofloat), comminution, mineralogy, magnetic separation and oxide leaching - majority of work to be completed in Q4 CY2023
- **Water Exploration** – hydro drilling & reserve models to be completed in Q1 CY2024
- **Tailings Studies** – location and construction material studies underway targeting completion in Q1 CY2024
- **Power Studies** – evaluating source and renewable mix for power supply, expected completion Q1 CY2024
- **System Optimisation** – mine and process system optimisation of PEA to understand potential of upside scenarios and ultimate PFS design
- **Baseline Enviro Studies** – program designed, commencing in Q3 CY2023
- **Waste Rock & Tailings Geochemistry** – static test work commencing

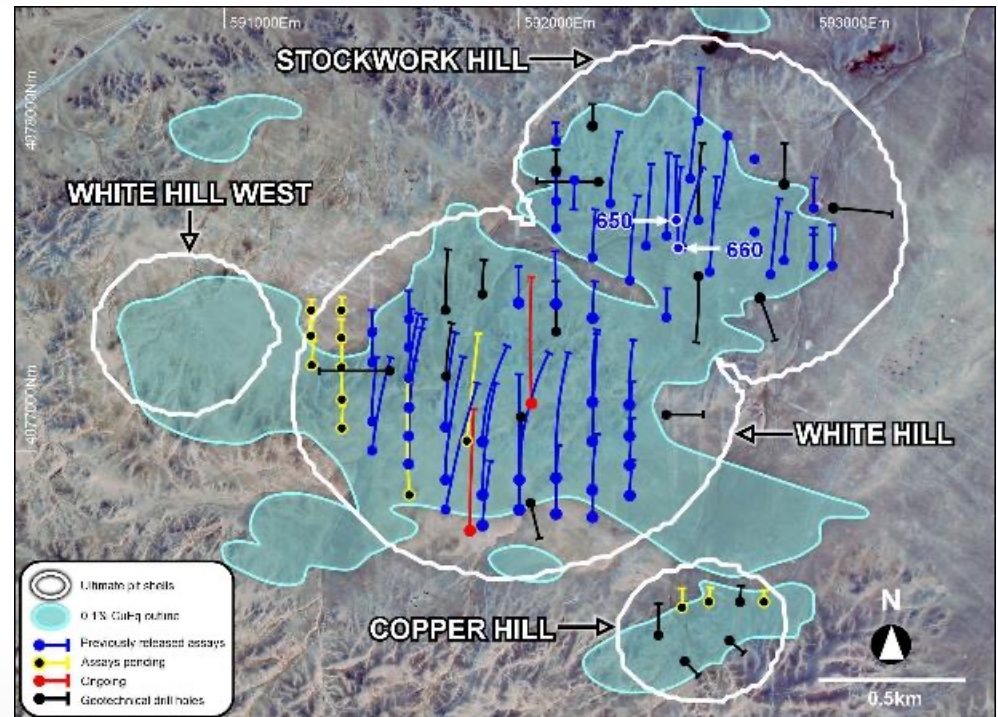
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# Significant Resource Upside

## Kharmagtai Infill & Delineation Drilling Completed

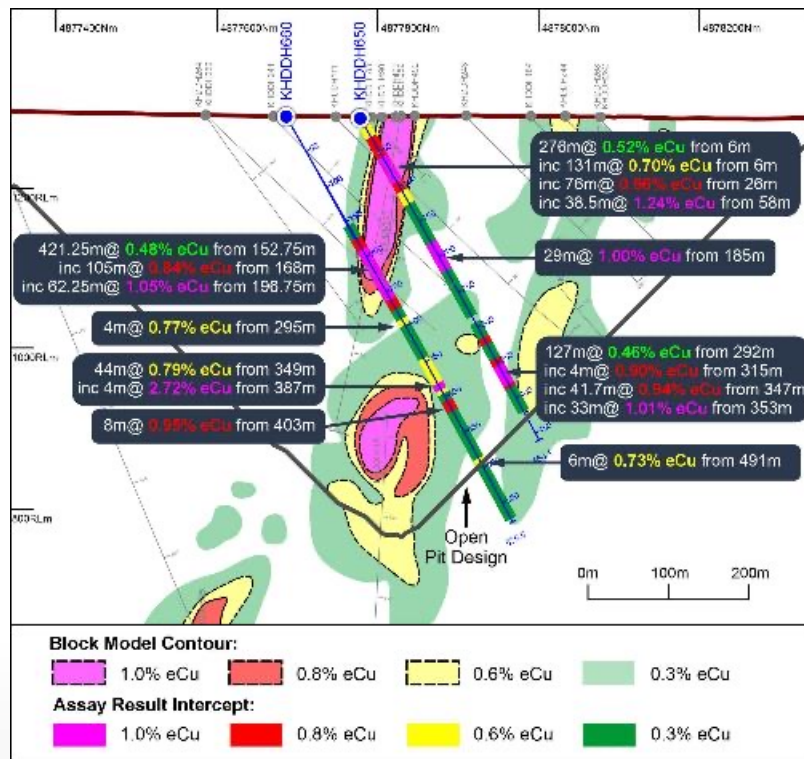
- Infill drilling to upgrade pits to Indicated classification supporting the PFS and Maiden Ore Reserve
- 153 holes drilled (representing 48km) completed to date using 4 diamond drill rigs
- Positive infill results reported<sup>2,3,4,5</sup>
  - Significant extension of higher-grade zones at Stockwork Hill
  - New higher-grade core discovered at White Hill
  - Grades generally in line or better than 2021 Mineral Resource
- Upgraded Mineral Resource Estimate is due for completion in Q4 CY2023



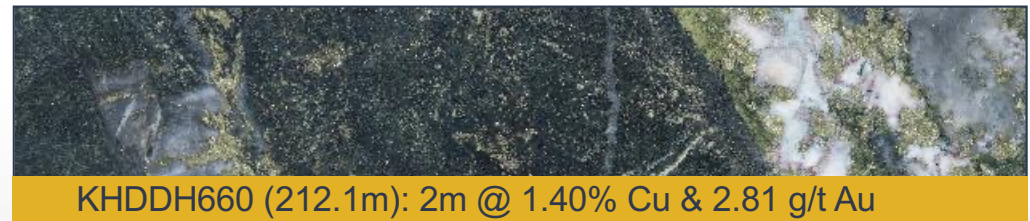
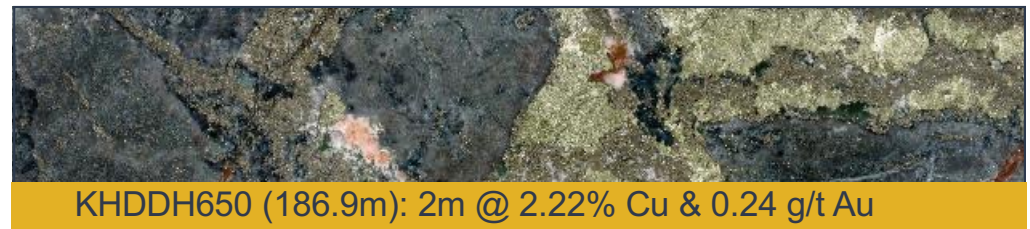


# Expanded high-grade mineralisation at Stockwork Hill

Significant extension of higher-grade zones within the pit shell

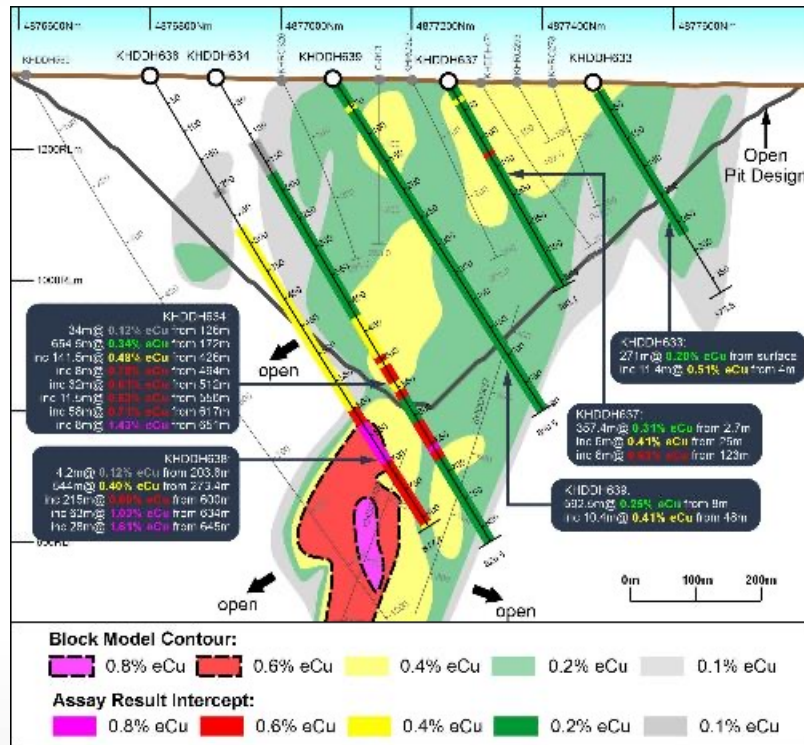


- Exceptional grade in recent infill drilling
- Deposit remains open along strike, at depth and down plunge
- Some intercepts significantly higher than predicted by 2021 Mineral Resource



# New high-grade core emerging at White Hill

Zones just beneath the Scoping Study pit shell



- Both Stockwork Hill and Copper Hill feature higher-grade zones (cores).
- Previous drilling at White Hill suggested such a zone could be present, but this was not defined in the 2021 Resource.
- First time observing significant intervals spanning greater than 50m of mineralisation at grades greater than 1% eCu at White Hill.
- Strong potential to impact PFS pit optimisation.



KHDDH634 (655.2m): 2m @ 1.72% Cu & 0.71 g/t Au



KHDDH638 (649.4m): 2m @ 3.53% Cu & 1.13 g/t Au

## Upgrading Kharmagtai Operations

Modernising power, core processing capacity, and employee work environment

- **Grid Power** – 35kV connection to support studies and ongoing exploration, expandable for construction
- **Core Processing Facility** – upgrading and replacing old facility for use through life of mine
- **Accommodation** – addition of ~30 beds in a modern facility
- **Greenhouse** – employs locals to provide long term, locally sourced food for employees
- **Water Filtration** – enables site to reduce use of bottled water and creation of plastic waste

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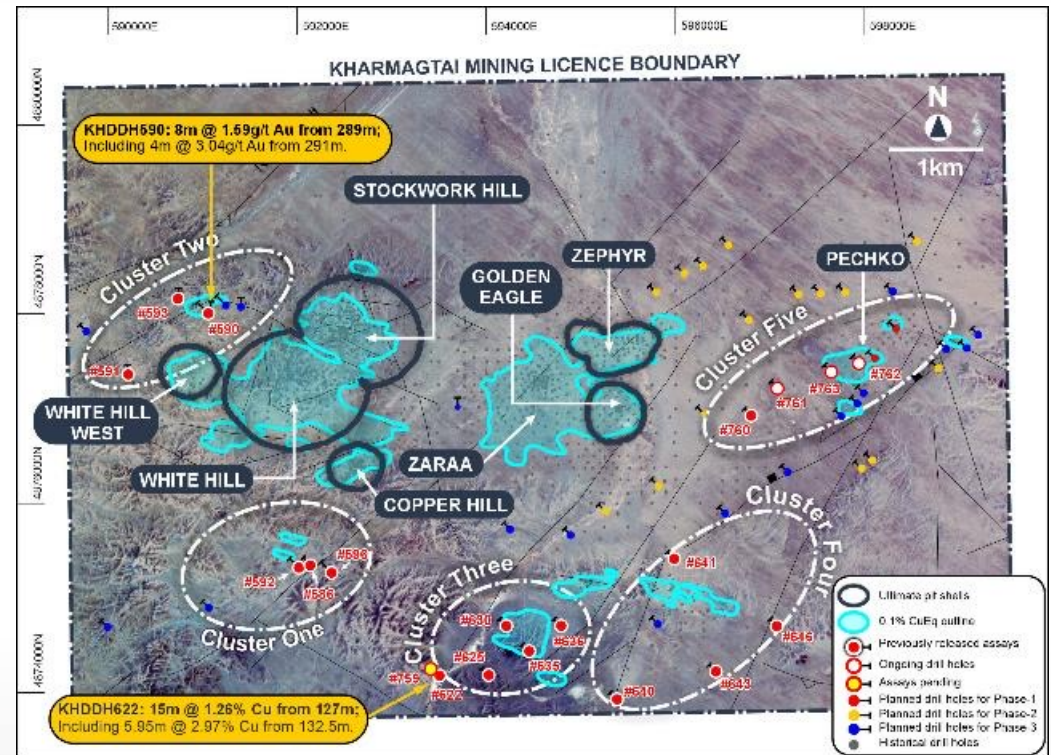
Strategic Horizon 2  
**World Class Discovery**



# High-Impact Drilling for New Discoveries

## Aggressive discovery drill program underway

- Discovery exploration program includes two additional diamond drill rigs<sup>1</sup>
  - 8km deep exploration program, targeting high-grade, large-scale mineralisation at depth, in an analogue to Oyu Tolgoi
  - 10km shallow holes, targeting open pit style resources in five unexplored porphyry clusters
- Shallow drilling confirms discovery potential<sup>2</sup>
- Several areas highlight the potential for future Resource growth; further drilling outside of known Resource areas
- Extensive exploration program underway; regular news flow to continue throughout 2023/24



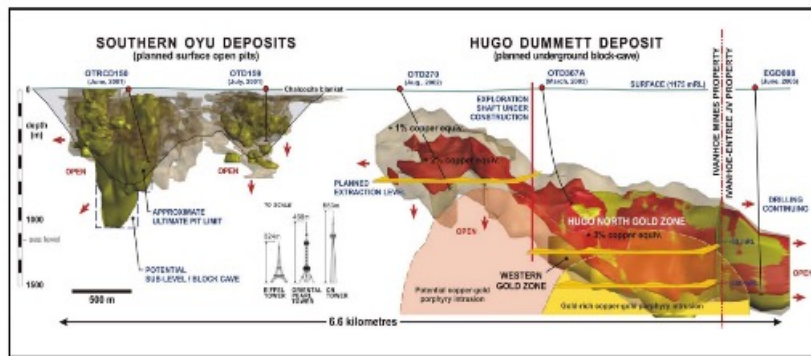


# Exploration Upside Remains – Hugo North Example

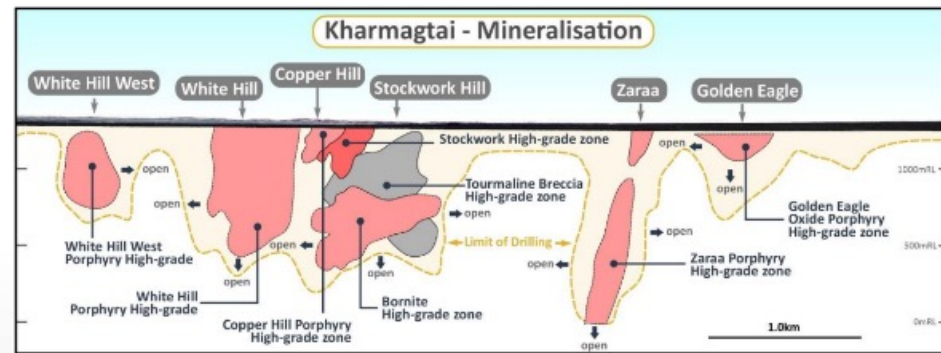
Higher-grade depth limit untested; targeting a “Hugo North” analogue

## Kharmagtai vs Hugo North

Factor	Hugo North (HN) <sup>1</sup>	Kharmagtai (KH)	KH vs HN Scorecard
Mineralisation	Stockwork with bornite rich core, zoning to chalcopyrite & pyrite	Stockwork Hill has bornite rich core, zoning to chalcopyrite & pyrite	☑
Cu & Au Grades	Starts below 900m and increases to the north.	Starts at surface and increases with depth	☑
Au : Cu Ratio <sup>2</sup>	<ul style="list-style-type: none"> <li>Up to 1:10 in south</li> <li>Up to 1:1 in north</li> <li>Best Au grades associated with bornite</li> </ul>	<ul style="list-style-type: none"> <li>Up to 2:1 at surface</li> <li>Up to 5:1 at depth</li> <li>Higher Au grades (avg 3:1) in bornite zone</li> </ul>	☑
Depth	Starts at 800 – 900m	Limited drilling below 800m	☒



Hugo North Mineralisation<sup>3</sup> – Starting Depth ~800m



Kharmagtai Mineralisation – Limits of Drilling ~800m

<sup>1</sup> [https://www.researchgate.net/publication/276086472\\_The\\_Giant\\_Oyu\\_Tolgoi\\_Porphry\\_Copper-Gold\\_Deposit\\_Discovery\\_History\\_and\\_Exploration\\_Implications\\_South\\_Gobi](https://www.researchgate.net/publication/276086472_The_Giant_Oyu_Tolgoi_Porphry_Copper-Gold_Deposit_Discovery_History_and_Exploration_Implications_South_Gobi)

<sup>2</sup> shown as Au (g/t) : Cu (%)

<sup>3</sup> [http://www.cmi-capital.com/Doc\\_Server/SEEGF\\_Docs/Kirwin/1-OT%20Discovery%20&%203SEG-Europe-10%20Sep%202006.pdf](http://www.cmi-capital.com/Doc_Server/SEEGF_Docs/Kirwin/1-OT%20Discovery%20&%203SEG-Europe-10%20Sep%202006.pdf)

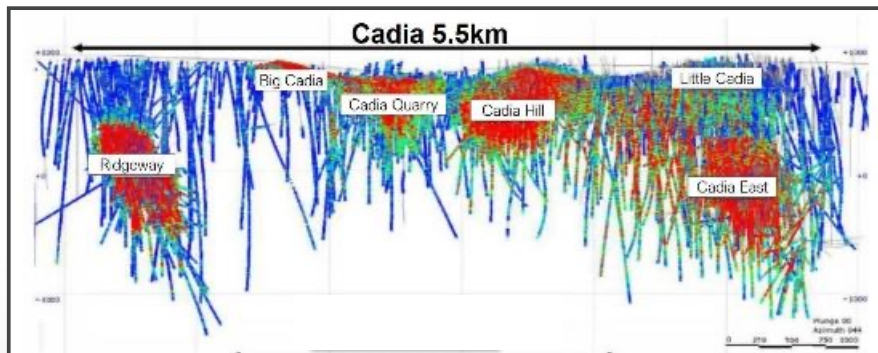


# Exploration Upside Remains – Cadia East Example

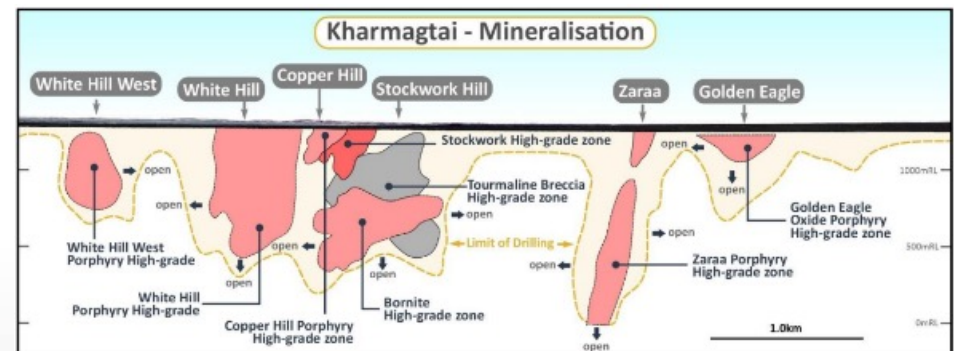
Higher-grade depth limit untested; targeting a “Cadia East” analogue

## Kharmagtai vs Cadia Valley

Factor	Cadia East (CE) <sup>1</sup>	Kharmagtai (KH)	KH vs CE Scorecard
Mineralisation	Chalcopyrite and pyrite with lesser bornite	Stockwork Hill has bornite rich core, zoning to chalcopyrite & pyrite	☑
Cu & Au Grades	Starts at 700m and increases to the south	Starts at surface and increases with depth	☑
Au : Cu Ratio <sup>2</sup>	<ul style="list-style-type: none"> <li>Up to 5:1 in higher grade panels</li> <li>1:1 in lower grade panels</li> </ul>	<ul style="list-style-type: none"> <li>Up to 2:1 at surface</li> <li>Up to 5:1 at depth</li> <li>Higher Au grades (avg 3:1) in bornite zone</li> </ul>	☑
Depth	Starts at 700m	Limited drilling below 800m	☒



Cadia Valley Mineralisation<sup>1</sup> – Cadia East Starting Depth ~700m



Kharmagtai Mineralisation – Limits of Drilling ~800m

<sup>1</sup> sourced from Newcrest company presentations

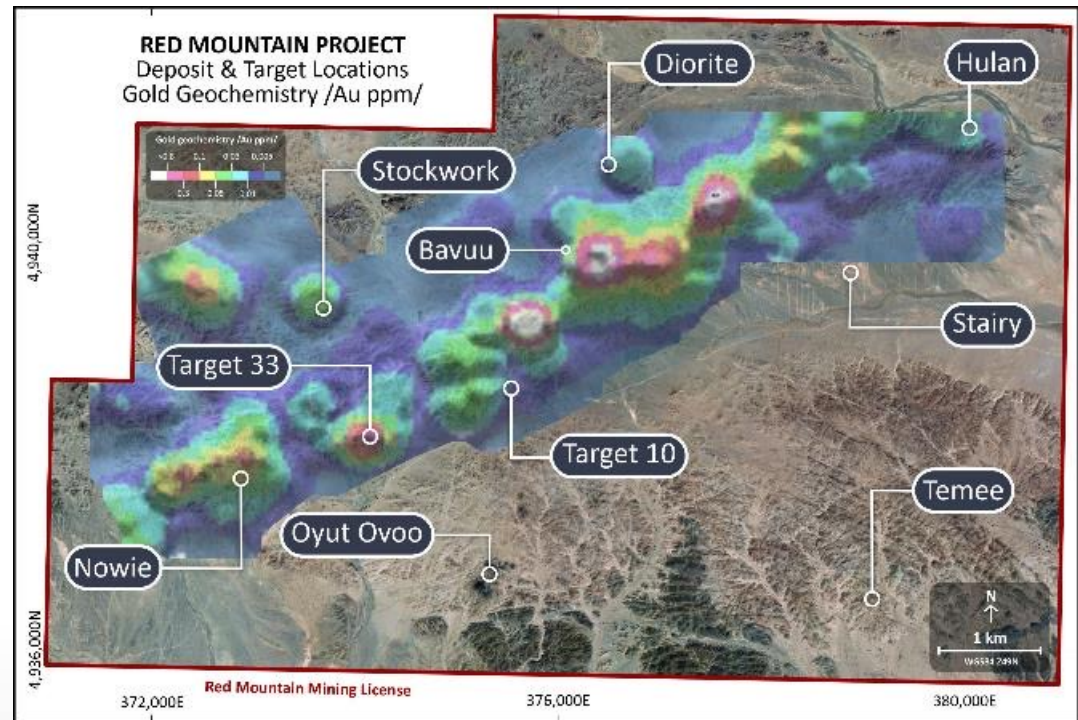
<sup>2</sup> shown as Au (g/t) : Cu (%)

<sup>3</sup> [http://www.cmi-capital.com/Doc\\_Server/SEEGF\\_Docs/Kirwin/1-OT%20Discovery%20&%203SEG-Europe-10%20Sep%202006.pdf](http://www.cmi-capital.com/Doc_Server/SEEGF_Docs/Kirwin/1-OT%20Discovery%20&%203SEG-Europe-10%20Sep%202006.pdf)

# Xanadu's Second Project - Red Mountain Cu/Au

A large, under-explored, mineralised porphyry district

- Granted Mining Licence
- Multiple co-genetic porphyry gold and copper centres, mineralised tourmaline breccia pipes, gold and copper base metal magnetite skarns and epithermal gold veins
- Shallow, high-grade gold & copper-gold mineralisation
  - 4 mineralised Cu-Au systems
  - 2 epithermal Au-Ag systems
- New target generation completed
- Exploration in 2023 targeting smaller scale, high-grade deposits enabling lower capex development
- Exploring funding partners to progress this highly prospective project



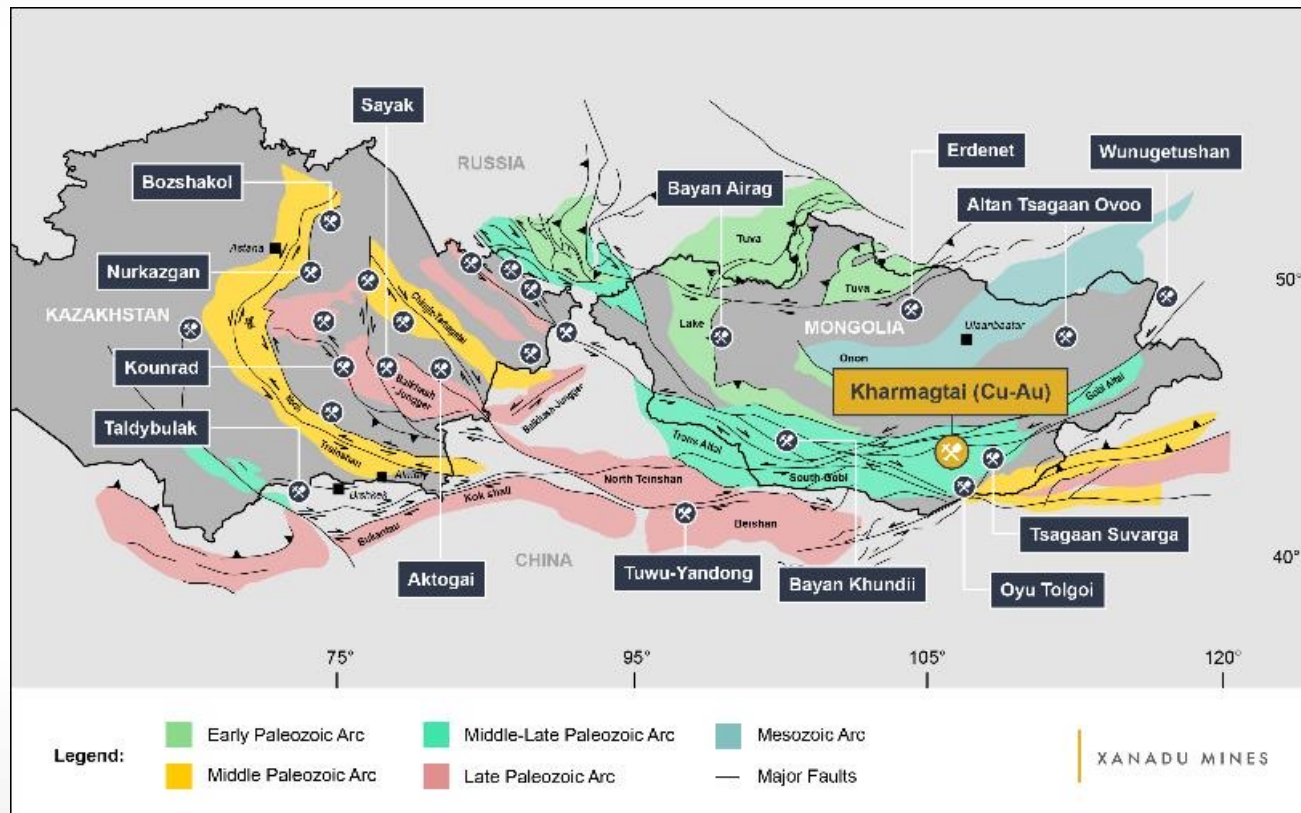
Strategic Horizon 3  
**Grow Portfolio**





# Broader Exploration Mandate

## Central Asia Volcanic Belts under-explored for Copper and other “Battery Metals”



- Leverage Competitive Advantage in Mongolia
- Discover and define the next major battery mineral deposits
- Focus on future facing commodities: copper, nickel & lithium
- Incubate portfolio of high-quality projects through exploration, development and acquisition
- Use modern exploration techniques to unlock this high potential for major discoveries

# Sustainability is Core to Our Business

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Supporting Mongolia to Develop Mining in South Gobi Region



# Xanadu Highlights



## World Class

Globally significant scale, low strip open-pit project in proven and growing mining jurisdiction of Mongolia. 1.1Bt Resource containing at 0.3% Cu & 0.2g/t Au (6,640Mlb Cu and 8Moz Au), incl. >100Mt higher-grade zone<sup>1</sup>



## De-risked Project + Significant Exploration Upside

Strategic partnership with Zijin provides US\$35M to complete PFS & enable continued discovery exploration<sup>2</sup>



## ESG is Our Everyday

Sustainability is core to our business. Strong social license to operate, ESG integrated into business practices and supportive shareholders



## Growth + Exploration is Our DNA

A formidable track record of discovery and deep Mongolian experience. Ongoing discovery exploration at Kharmagtai retains significant upside potential, and actively expanding portfolio with projects aimed at future facing battery minerals



XANADU MINES





Keep up to date with us



ASX:XAM | TSX:XAM

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# Appendix



## Competent Person's Statement

**The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code 2012') sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves. The Information contained in this announcement has been presented in accordance with the JORC Code 2012.**

**Mineral Resources:** The information in this announcement that relates to Mineral Resources is based on information compiled by Mr. Robert Spiers who is responsible for the Mineral Resource estimate. Mr Spiers is a full-time Principal Geologist employed by Spiers Geological Consultants (SGC) and is a Member of the Australian Institute of Geoscientists with sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as the "Qualified Person" as defined in the CIM Guidelines and National Instrument 43-101. Mr Spiers consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

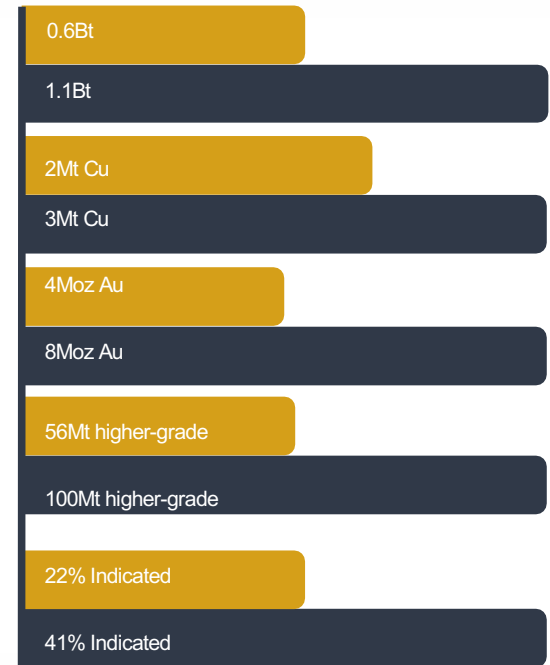
**Exploration Results:** The information in this announcement that relates to Exploration Results is based on information compiled by Dr Andrew Stewart who is responsible for the exploration data, comments on exploration target sizes, QA/QC and geological interpretation and information. Dr Stewart, who is an employee of Xanadu and is a Member of the Australasian Institute of Geoscientists, has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as the "Competent Person" as defined in the 2012 Edition of the "Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves" and the National Instrument 43-101. Dr Stewart consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

# Kharmagtai Copper Resource Globally Significant

2021 Resource added 61,500m to the 2018 resource model

- Larger: Scale increase 0.6Mt to 1.1Mt, plus doubled higher-grade zones (>0.8% eCu)
- Better Defined: Indicated classification increase from 22% to 41%
- Higher Value: Doubled gold by-product from 4Moz to 8Moz
- Still Has Upside: Strong growth potential at depth and along strike

Resource	Cutoff (% eCu)	Classification	Tonnes (Mt)	Grades			Contained Metal			
				eCu (%)	Cu (%)	Au (g/t)	eCu (Mlbs)	eCu (kt)	Cu (kt)	Au (koz)
2021 <sup>1</sup>	0.2(OC) 0.3(UG)	Indicated	455	0.4	0.3	0.2	4,078	1,850	1,250	3,700
		Inferred	664	0.3	0.2	0.2	5,140	2,330	1,680	4,100
2018 <sup>2</sup>	0.3(OC) 0.5(UG)	Indicated	131	0.5	0.4	0.4	1,570	710	480	1,500
		Inferred	477	0.4	0.3	0.2	4,350	1,970	1,500	2,930



<sup>1</sup> ASX/TSX Announcement 18 December 2018 – Technical Report to support Kharmagtai Mineral Resource

<sup>2</sup> ASX/TSX Announcement 28 February 2022 – Kharmagtai Technical Report

<sup>3</sup> ASX/TSX Announcement 8 December 2021 – Kharmagtai Resource Grows to 1.1 Billion Tonnes

<sup>4</sup> ASX/TSX Announcement 1 December 2021 – Further Extensions to High Grade Zones at Stockwork Hill

# Kharmagtai Journey

## 2014 to Zijin Deal

Well-structured approach creates long-term shareholder value

2014 /15

**Resource:**  
0.7Mt (1,500Mlb) Cu,  
2.2Moz Au

**Exploration Funded via Equity**

**Project Value:**  
Acquisition US\$13M

2018 /19

**Resource:**  
1.9Mt (4,190Mlb) Cu,  
4.3Moz Au

2X

2022 /23

**Resource:**  
3.0Mt (6,640Mlb) Cu,  
8.0Moz Au

4X

**PFS Funded via Zijin JV:**  
US\$35M

**Project Value:**  
PEA US\$630M

48X

APPENDIX

# XAM is a Standout vs TSX/ASX Copper Developer Peers

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High Quality + Funded Production Certainty + Embedded Value

											Average	XAM Trading Discount vs Average
Company												
Project	Kharmagtai Porphyry	Filo Del Sol Porphyry	Cascabel Porphyry	Casino Porphyry	Canarico Norte Porphyry	Copper Creek Porphyry	Vizachitas Porphyry	Costa Fuego Porphyry <sup>3</sup>	Caravel Porphyry <sup>4</sup>	Hillside IOCG <sup>5</sup>		
Project Stage	PFS	DFS	DFS	FS Permitting	Optimised PEA	PFS	FS	PFS	DFS	FS Financing		
LOM Cu Production <sup>1</sup> Mt	1.5	0.8	2.8	2.0	2.2	1.5	4.0	1.4	1.7	1.5	1.9	
First Production	4Q'2027	No Guidance	Mid 2029	2028 Heap Leach 2029 Concentrate	2027	2026	2028	2029	3Q'2026	4Q'2025		
LOM Strip Ratio	1.1	1.6	0.4	0.7	1.6	2.3	1.8	1.3	6.9	2.0		
EV <sup>2</sup> US\$M	87	1,963	654	184	23	72	243	87	45	68	343	
EV / Cu Resource US\$/lb	1.3	44.6	2.3	1.7	0.2	1.5	0.9	1.2	0.7	1.6	5.6	77%
EV / Post-Tax Project NPV	0.14	1.50	0.22	0.07	0.02	0.10	0.09	0.08	0.05	0.12	0.24	42%

EV Metrics<sup>1,2</sup>

ASX:XAM | TSX:XAM

1 LOM production & EV metrics exclude impact of by products given endowment of most peers is comparatively minimal. XAM has 8Moz Gold Resource, producing 3.3Moz gold in concentrate  
 2 EV as at 6 September 2023 close. EV = Market Capitalisation - 100% Cash - Equity proportion of JV Cash. AUD:USD = 0.64, CAD:USD = 0.73  
 3 In line with recent Company Disclosure, production data represents Costa Fuego PEA  
 4 In line with recent Company Disclosure, production data sourced from both Caravel PFS Processing Update (latest update), and Caravel PFS (original)  
 5 In line with Company Disclosure, production data sourced from Hillside DFS (production stage 1), and Hillside Ore Reserve (production stages 1 & 2)  
 6 Benchmark Data included in Appendix, with data sourced from Company Disclosure



## Benchmark Data

## ASX / TSX Copper Developers

Project	Resource			Mo kt	Cut-off Grade	
	Cu Mt	Au Moz	Ag Moz		% Cu	Resource Date
Kharmagtai Porphyry <sup>1,2</sup>	3.01	8.00			0.23	Dec-21
Filo Del Sol Porphyry	2.00	6.75	210.71		0.18	Jan-23
Cascabel Porphyry	12.73	27.38	102.80		0.21	Jan-21
Casino Porphyry	4.90	14.80	169.50			Apr-22
Canarico Norte Porphyry	5.46	2.68	77.52		0.15	Jan-22
Copper Creek Porphyry	2.18		17.20	39.93	0.13	May-23
Vizachitas Porphyry	12.14		109.10	463.25	0.25	Feb-23
Costa Fuego Porphyry	3.36	2.92	12.52	80.80	0.21	Mar-22
Caravel Porphyry	2.84			56.67	0.10	Nov-21
Hillside IOCG	1.90	1.53			0.2	Dec-22

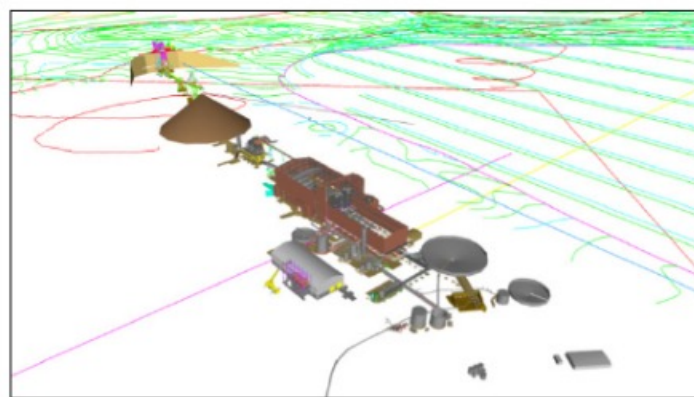
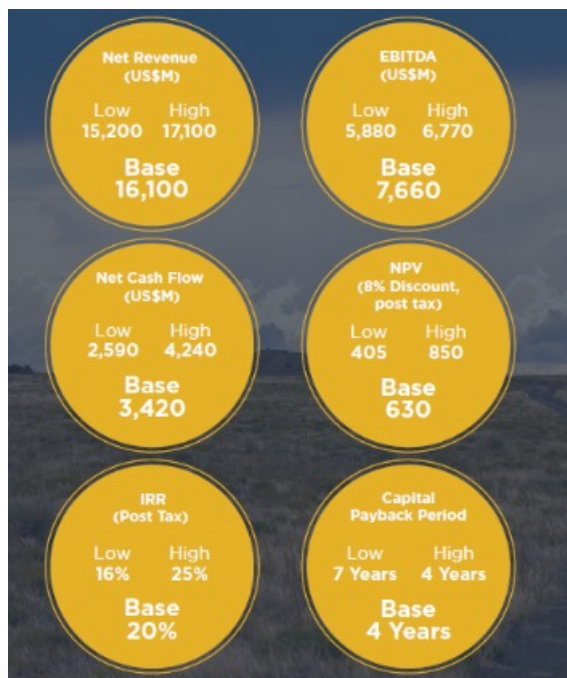
Project	Strip Ratio	Copper Production				All in Sustaining Cost US\$/lb	LOM yrs	LOM Production				Reported NPV US\$M	NPV Tax Basis	Calculated Post-Tax NPV <sup>3</sup> US\$M	Discount Rate %	Copper Price US\$/lb	Reported Level of Study	Report Date
		Ore Processing Throughput Mtpa	First 5 Years ktpa	Steady State ktpa	Annualised ktpa			Cu Mt	Au Moz	Ag Moz	Mo kt							
Kharmagtai Porphyry <sup>1,2</sup>	1.1	25.0	40		50	1.87	30	1.50	3.30			630	Post	630	8.0	4.00	Scoping / PEA	Apr-22, Jun-22
Filo Del Sol Porphyry	1.57	22.0			66	1.54	13	0.79	2.02	111.07		1,310	Post	1,310	8.0	3.65	Updated PFS / Ore Reserve	Feb-23
Cascabel Porphyry	0	25.0			132	0.06	26	2.80	7.60	21.70		2,907	Post	2,907	8.0	3.60	PFS / Ore Reserve	Apr-22
Casino Porphyry	0.43	53.0			74	-1.00	27	2.01	7.12	37.88		2,778	Post	2,778	8.0	3.60	FS / Ore Reserve	Aug-22
Canarico Norte Porphyry	0.66	25.0			79	1.28	28	2.20	0.88	19.70		1,010	Post	1,010	8.0	3.50	PEA	Mar-22
Copper Creek Porphyry	1.61	11.0			48	1.85	32	1.49		10.21	20.73	713	Post	713	7.0	3.80	PEA	Jun-23
Vizachitas Porphyry	2.33	50.0			153	1.25	26	3.98		32.71	124.00	2,776	Post	2,776	8.0	3.68	PFS / Ore Reserve	Apr-23
Costa Fuego Porphyry	1.8	22.0	96		88	1.74	16	1.41	0.72	0.12	47.98	1,100	Post	1,100	8.0	3.85	Scoping / PEA	Jun-23, Aug-23
Caravel Porphyry	1.3	30.0	71	65	66	2.07	25	1.66			22.50	1,428	Pre	1,000	7.0	4.00	PFS Processing Update / PFS / Ore Reserve	Apr-23, Jul-22
Hillside IOCG	6.9	8.0		42	23	1.79	33	1.49	1.27			593	Post	593	8.6	3.92	DFS / Ore Reserve	Dec-22, Jul-21

Mineral Resource used in benchmarking includes Inferred, Indicated and Measured classifications. Contained metal Resource and cut-off grades are inline with Company Disclosure.

Project characteristics including development stage, first production date, life of mine (LOM), strip ratio, ore processing throughput and metals production over various time horizons (LOM, first 5 years, steady state and annualised), as reported by each company.

# PEA / Scoping Study

Conservative, Long-Life, Low-Cost copper mine; works on scale and gold credits



Area	Measure	Unit	Stage 1 Initial	Stage 2 Expansion	LOM
Production	Period	Years	5	25	30
	Ore process rate	Mtpa	15	30	15-30
	Feed from Indicated Resource	%	100%	50%	55%
	Ore processed	Mt	70	690	760
	Average copper grade	%	0.29	0.21	0.21
	Average gold grade	g/t	0.30	0.16	0.18
	Copper produced	Mt	0.2	1.3	1.5
Capital	Project Capital	US\$M	690	620	1,310
	Sustaining Capital	US\$M	40	530	570
Operating Cost	All In Sustaining Costs	US\$/lb	1.02	1.99	1.87
Economic Assumptions	Copper Price	US\$/lb	4.00	4.00	4.00
	Gold Price	US\$/oz	1,700	1,700	1,700
Financials (after tax)	Net Present Value (NPV) @ 8%	US\$M			630
	Internal Rate of Return (IRR)	% (real)			20
	Capital Payback	Years	4	1	4
	Free Cash Flow (after tax)	US\$M (real)	155	3,260	3,420

## Attractive “Go Forward” Options Fortify JV

### Unlocking a Funded Production Pathway

- Xanadu now has **right to exercise a Put Option** (up to 6 months post PFS completion), paving funded pathway to Kharmagtai production, and/or asset sale. Available Options for Xanadu after PFS
  - A. Sole Fund:* 50% share financed through a combination of equity & debt
  - B. Partial Asset Sale & Loan Carry:* Sell 25% share for US\$25M, remaining 25% loan carried with Zijin (see slide 25)
  - C. Full Asset Sale:* Sell 50% share to Zijin for US\$50M
- With these Options, Xanadu is in a strong position to unlock greatest value
  - Providing strategic protection for Xanadu shareholders
  - Options are resilient to market conditions

## Debt Funded Pathway to Production

Put Option: Sell 25% share in Kharmagtai for US\$25M to Zijin

### Loan Carried for remaining 25% share of project construction:

- Project financed via direct loan with Zijin
- Interest priced variably at 6-Month Tenor Secured Overnight Financing Rate (SOFR) + 5% pa. Under current SOFR<sup>1</sup>, project finance interest priced at 10.09%<sup>2</sup>
- Once **commercial production** achieved for Xanadu's 25% interest in Kharmagtai production & cashflow, the loan is immediately repaid from **90% of XAM share** of operating dividends

### Scenario Delivers **Mutually Beneficial** Shareholder Outcome:

- ✓ **NO further equity raisings** to achieve Kharmagtai production
- ✓ **Attractively priced** project debt in the face of unpredictable market conditions & expectation for higher interest rate environment
- ✓ Special **majority JV approval** for critical business matters