

## PDAC Presentation

6 March 2023

ASX Markets Announcement Office  
Exchange Centre  
20 Bridge Street  
Sydney NSW 2000

### BY ELECTRONIC LODGEMENT

#### PDAC (Prospectors & Developers Association of Canada) Presentation

Please find attached for release to the market, Xanadu Mines Ltd's Presentation to the *PDAC Conference*, being held 5-8 March 2023.

-ENDS-

#### For further information, please contact:

Colin Moorhead  
Executive Chairman & Managing Director  
P: +61 2 8280 7497  
E: [colin.moorhead@xanadumines.com](mailto:colin.moorhead@xanadumines.com)  
W: [www.xanadumines.com](http://www.xanadumines.com)

Spencer Cole  
Chief Financial Officer  
P: +61 2 8280 7497  
E: [spencer.cole@xanadumines.com](mailto:spencer.cole@xanadumines.com)

#### **About Xanadu Mines Ltd:**

Xanadu is an ASX and TSX listed Exploration company operating in Mongolia. We give investors exposure to globally significant, large-scale copper-gold discoveries and low-cost inventory growth. Xanadu maintains a portfolio of exploration projects and remains one of the few junior explorers on the ASX or TSX who control a globally significant copper-gold deposit in our flagship Kharmagtai project. For information on Xanadu visit: [www.xanadumines.com](http://www.xanadumines.com).

This Announcement was authorised for release by Xanadu's Executive Chairman and Managing Director.

XANADU MINES

# Discovering and Defining World Class Mineral Deposits in Mongolia

Prospectors & Developers  
Association of Canada (PDAC)  
5-8 March 2023



## 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.

# Strategy Overview

XANADU MINES

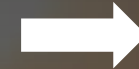
Leverage our deep understanding of Mongolia, its people, and our demonstrated technical capabilities to discover & define forward facing critical minerals deposits, focusing on gold-rich copper deposits in the South Gobi



**Active Search  
for New Projects  
ongoing**

**Red Mountain  
(100%)**  
Mapping & Trenching  
ongoing

**Kharmagtai  
(76.5%)<sup>4</sup>**  
PEA completed 2022  
PFS 2023-2024



**Zijin JV  
(50:50)**

<sup>1</sup> ASX/TSX Announcement 8 December 2021 – Kharmagtai Resource Grows to 1.1Bt containing 3Mt Cu and 8Moz Au

<sup>2</sup> ASX/TSX Announcement 6 April 2022 – Scoping Study Kharmagtai Copper-Gold Project

<sup>3</sup> ASX/TSX Announcement 19 April 2022 – Strategic Partnership with Zijin Mining

<sup>4</sup> Will become 38.25% upon completion of 50-50 Joint Venture with Zijin Mining Group

# Why Mongolia?

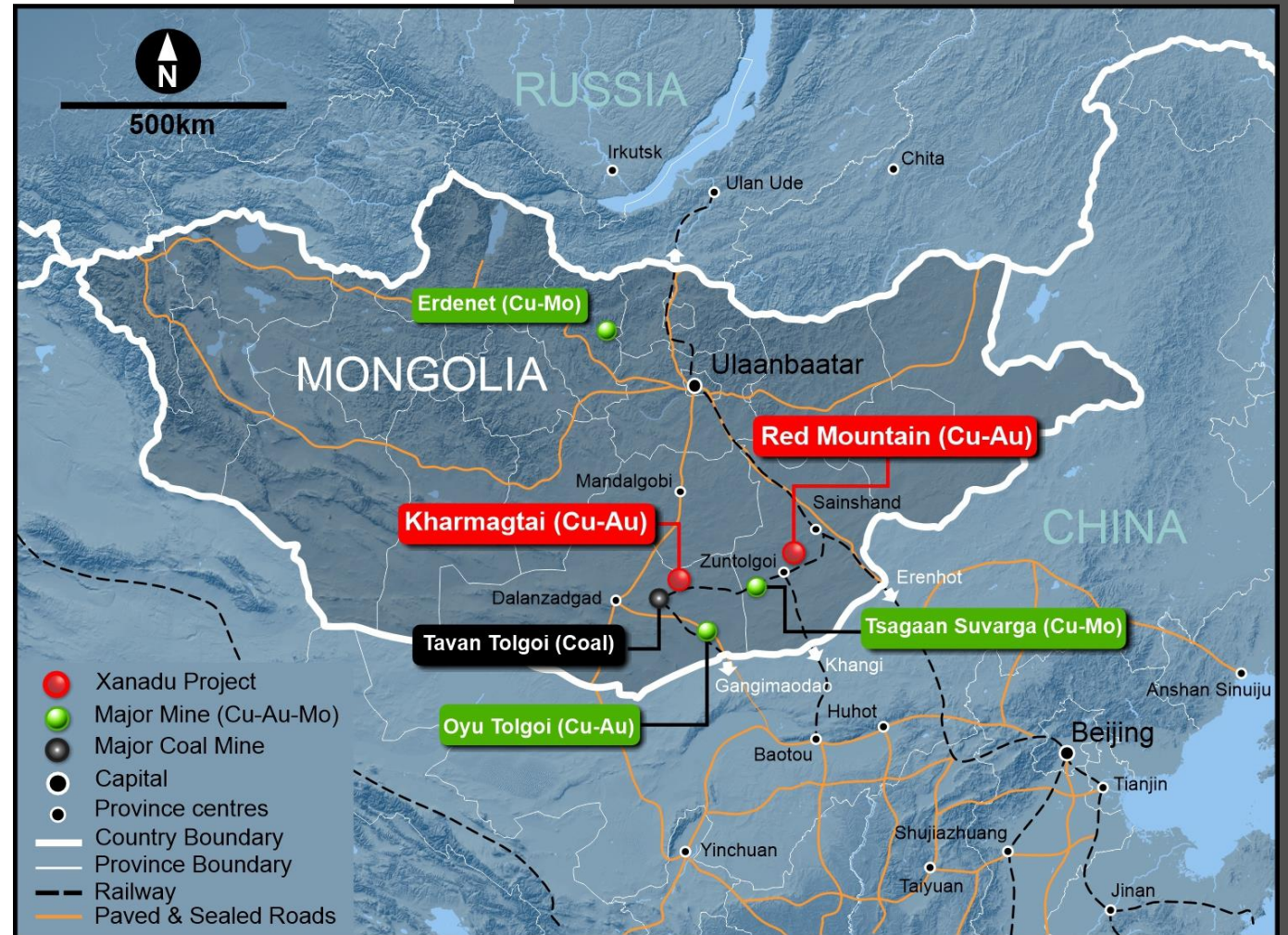
## Untapped opportunities in a proven & growing mining jurisdiction

### About Mongolia

- Highly prospective & under-explored terrains
- Emerging mining jurisdiction with excellent mining infrastructure in the South Gobi
- Very competitive ESG Risk environment with clear path to approvals
- Gov't seeking increased foreign investment

### Xanadu's Strategic Fit

- Established capability with teams in country with very experienced leadership
- High quality existing projects at Kharmagtai and Red Mountain
- Broadened search for additional projects underway, informed by deep understanding



# Delivering Value to Mongolia

XANADU MINES

## Mongolia's next big copper mine

**US\$36M<sup>1</sup>**

Invested in Mongolia  
Through 2021

**US\$41M<sup>2</sup>**

Planned Over Next  
18 Months

2005

- Formed as Mongolian coal explorer

2014

- Acquired Kharmagtai and Red Mountain

2021

- Upgraded Kharmagtai Resource to 1.1Bt
- Published First Sustainability Report

2022

- Published Kharmagtai Scoping Study
- Announced Strategic Partnership with Zijin

2023+

- Commencing Kharmagtai Pre-Feasibility Study
- Construction Potential to Start in 2024/25
- Mining Potential to Start in 2027/28

## Significant Foreign Direct Investment (FDI)

- Success story for new foreign investment in Mongolia
- Demonstrates pathway from junior exploration to large scale mining
- Build Mongolia's stature as a key supplier of metals required for global decarbonisation and electrification

## High Environmental, Social & Governance Standards

- Project principles around high ESG standards and low Scope 1 emissions
- Xanadu about to publish it's third Sustainability Report

## Long Term Employer

- Leverages Mongolia's highly skilled workforce over a 30+ year mine life
- Development in the South Gobi

<sup>1</sup> Xanadu 2021 Annual Report, Total Deferred Exploration Expenditure, converted to USD at 1.4 AUD:USD exchange rate

<sup>2</sup> ASX/TSX Announcement 19 April 2022 – Strategic Partnership with Zijin Mining, includes US\$35M JV investment plus 75% of A\$11m equity placement at 1.4 AUD:USD exchange rate

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

# Proven Board & Management Team

XANADU MINES

## Board



**Colin Moorhead**

Executive Chairman & Managing Director



**Ganbayar Lkhagvasuren**

Country Manager & Executive Director



**Michele Muscillo**

Non-executive Director



**Tony Pearson**

Non-executive Director

## Management



**Munkhsaikhan Dambiinyam**

Chief Operating Officer



**Andrew Stewart**

Vice President Exploration



**Mat Brown**

Chief Geologist



**Spencer Cole**

Chief Development Officer  
Chief Financial Officer

Track record of discovering and developing world class mineral deposits

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

## Transformed by Strategic Partnership with Zijin Mining

### XAM (ASX, TSX) Capital Structure

#### Current

**A\$0.031**

Share Price as @ 3/03/2023

**1,459M**

Shares on issue @ 3/03/2023

**A\$45.2M**

Market Cap @ A\$0.031/share

**A\$1.2M**

Cash Balance reported as  
@ 31/12/2022 + equity placement  
@ 18/01/2023

**A\$44M**

Enterprise Value

**55% Top 20 Shareholders<sup>1</sup>**

#### INSTITUTIONAL SHAREHOLDERS

ACA **16%**  
Zijin **10%**  
Others **16%**

#### BOARD & MANAGEMENT

**6% on a fully diluted basis**  
(37m shares & 47m  
performance options)

#### After Zijin Deal<sup>2</sup>

**1,638M**

Shares on issue after Phase 2 completed

**A\$8.4M + US\$35M**

Cash Balance reported as @ 31/12/2022 + equity placement @ 18/02/2023  
+ Phase 2 Cash Injection \$7.2M (4c/sh) to 19.4% shareholding  
+ Phase 3 Project Joint Venture cash US\$35M

**61% Top 20 Shareholders**

#### INSTITUTIONAL SHAREHOLDERS

Zijin **19%**  
ACA **15%**  
Others **15%**

#### BOARD & MANAGEMENT

**5% on a fully diluted basis**  
(37m shares & 47m  
performance options)



# Strategic Partnership with Zijin Mining

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

## Fully Approved and in Execution

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

## Cash Backed Deal

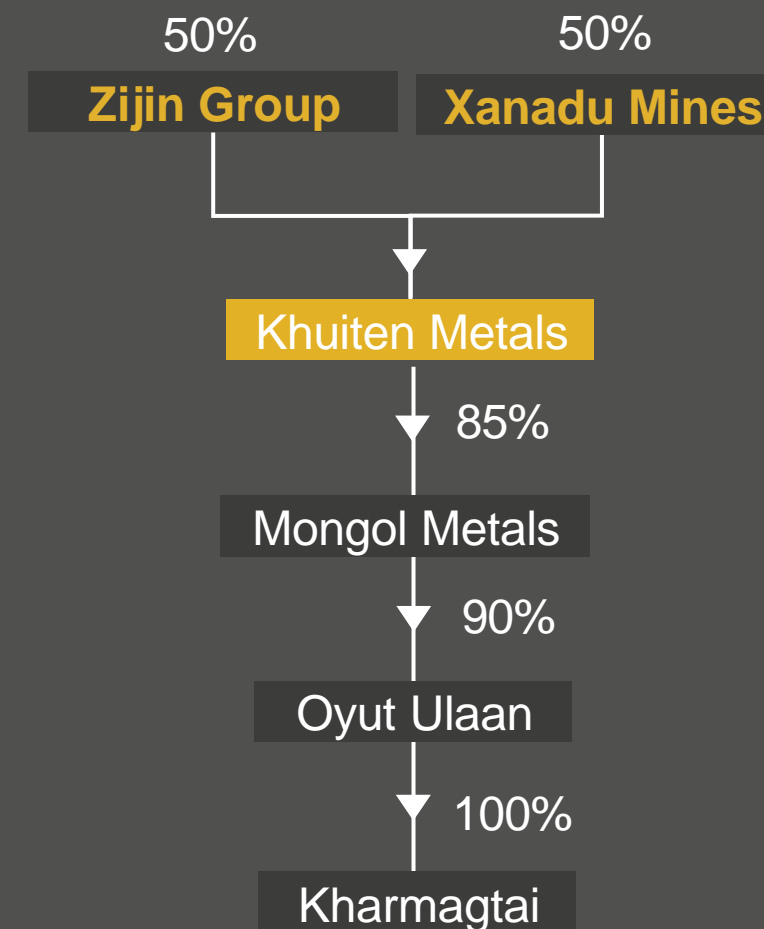
- Implied value of Kharmagtai **US\$92M<sup>4</sup>** or A\$29/t CuEq MRE

## XAM Funded for Exploration and Decision to Mine

- Phase 1/2 - funds next stage Red Mountain exploration & corporate
- Phase 3 – fully funds Kharmagtai PFS (US\$20M) to Decision to Construct and organic growth opportunities at Kharmagtai including Discovery Exploration & Applied Technology (US\$15M)

## 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%)

<sup>4</sup> US\$35M / 38.25% effective ownership = US\$92M

# Among the largest global copper-gold resources not held by a major

XANADU MINES

## ✓ Large Resource

1.1Bt containing 3Mt Cu & 8Moz Au incl. >100Mt higher-grade zone

- Resource still open at depth & along strike
- New high-grade bornite intercepts have extended mineralisation since the 2021 Resource model <sup>4</sup>

## ✓ High Quality Project

PEA / Scoping Study<sup>1</sup> delivers US\$630M NPV; 4-yr payback & 20% IRR

- 30-yr mine life; producing 50ktpa copper & 110kozpa gold
- First quartile AISC for first 5 years

## ✓ Well Funded

US\$35M designated for PFS & continued Discovery Exploration

- Strategic partnership with Zijin Mining Group<sup>2</sup>

<sup>1</sup> ASX/TSX Announcement 6 April 2022 – Scoping Study – Kharmagtai Copper-Gold Project; includes appropriate economic ranges

<sup>2</sup> ASX/TSX Announcement 19 April 2022 – Strategic Partnership with Zijin Mining

<sup>3</sup> Conversion based on AUD:USD = 0.7387 as at 19 Apr 2022 close (transaction announcement date)

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

## Kharmagtai

## Our Flagship Project



ASX:XAM | TSX:XAM

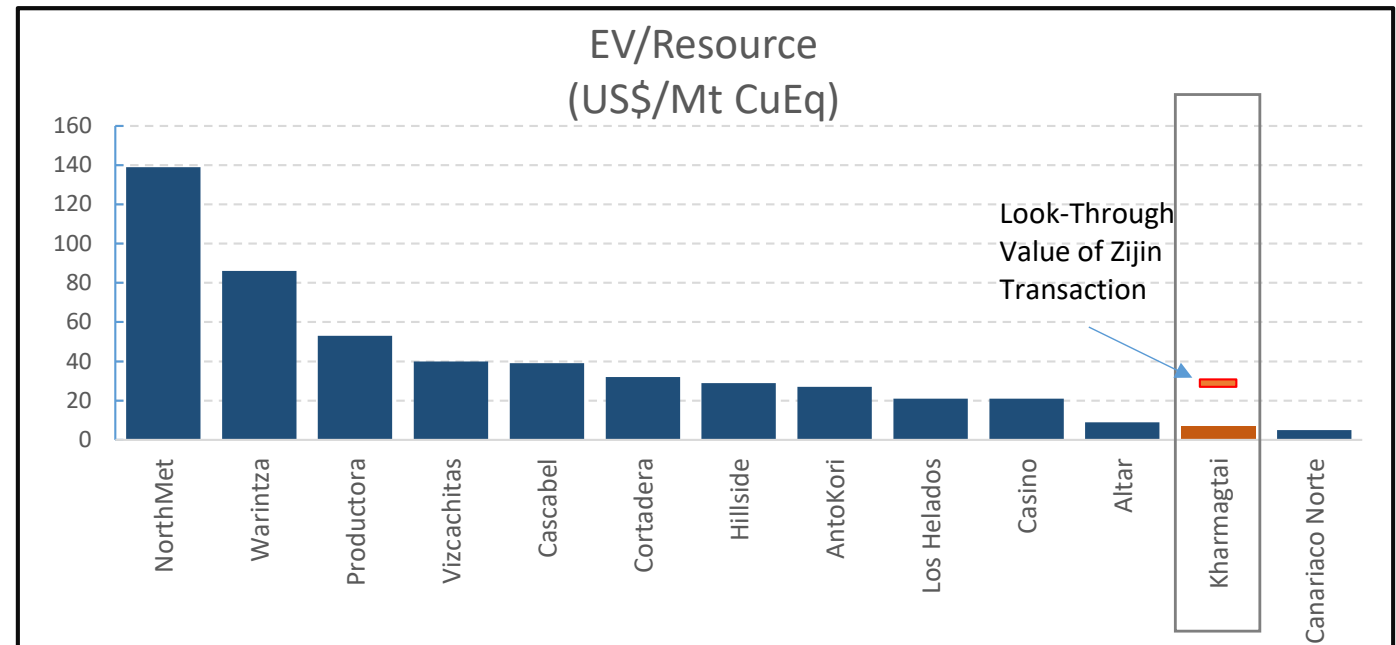


# Supplying copper that the world needs to grow and decarbonize

Kharmagtai is one of the few large scale, long-life, low-cost copper deposits in the world that can be developed within 5 years

**Undervalued relative to peers, where Kharmagtai can be developed faster and for less cost due to:**

1. Less complex ESG environment. Low population density, remote location and favourable topography.
2. Access to excellent infrastructure in the South Gobi including road, rail, power and water
3. Located very close to China, the largest consumer of copper concentrates in the world.
4. Mongolia is an emerging mining economy, looking to attract foreign direct investment



# Scoping Study (PEA) – a Compelling Project

Works on scale, gold by-product credits & low strip ratio

## Conventional Design

- Mining – conventional open pit, low 1:1 strip ratio
- Processing – simple sulphide flotation + gravity plant (modelled on Cadia); expanding from 15Mtpa to 30Mtpa after capital payback
- Tailings & Waste Storage – conventional, low risk facilities, located on relatively flat, stable ground
- Infrastructure & Logistics – leverages advantages of South Gobi
- Regulatory – well defined pathway to production
- Social License to Operate – aided by low population density

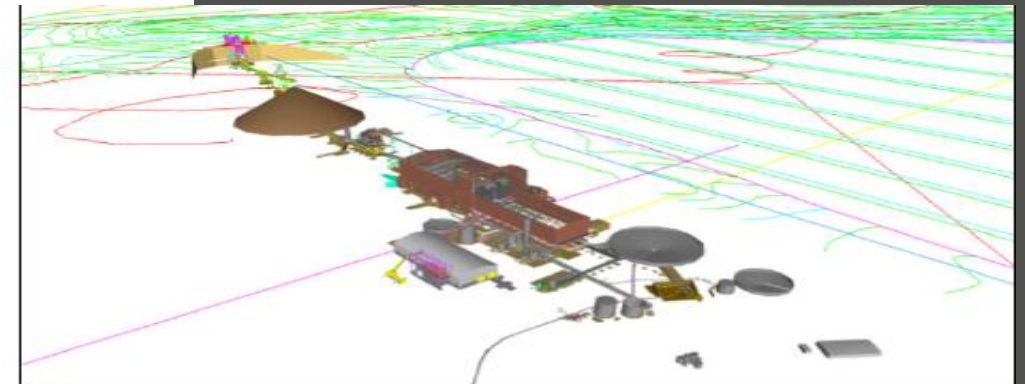
## Compelling Economics

- Production - 50ktpa Copper and 110kozpa Gold with first quartile All-In Sustaining Costs for first 5 years. 30 year mine life.
- NPV US\$630M on Capex US\$670M and IRR 20%, 4 Year Payback

Open Pit Mine



Sulphide Plant



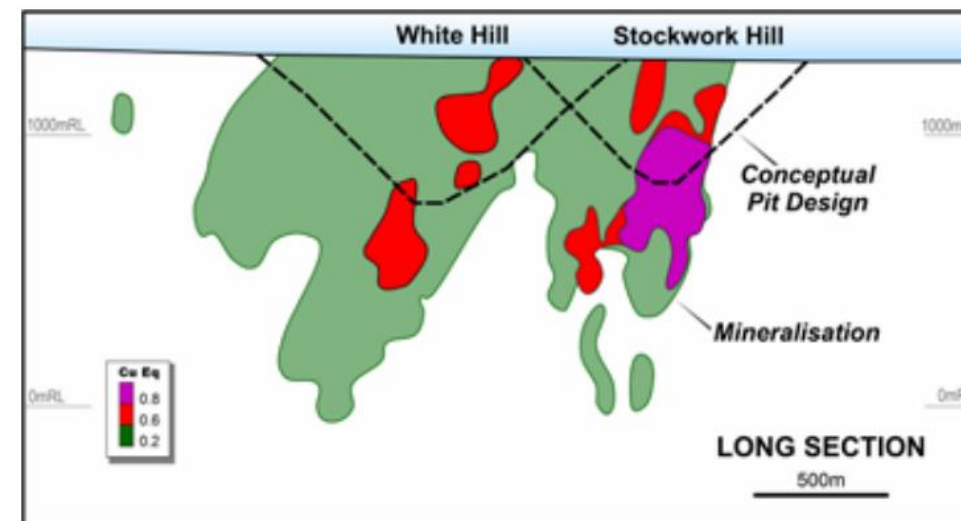
# Multiple Upside Opportunities

PFS targets production growth, cost reduction, low carbon footprint and resource expansion

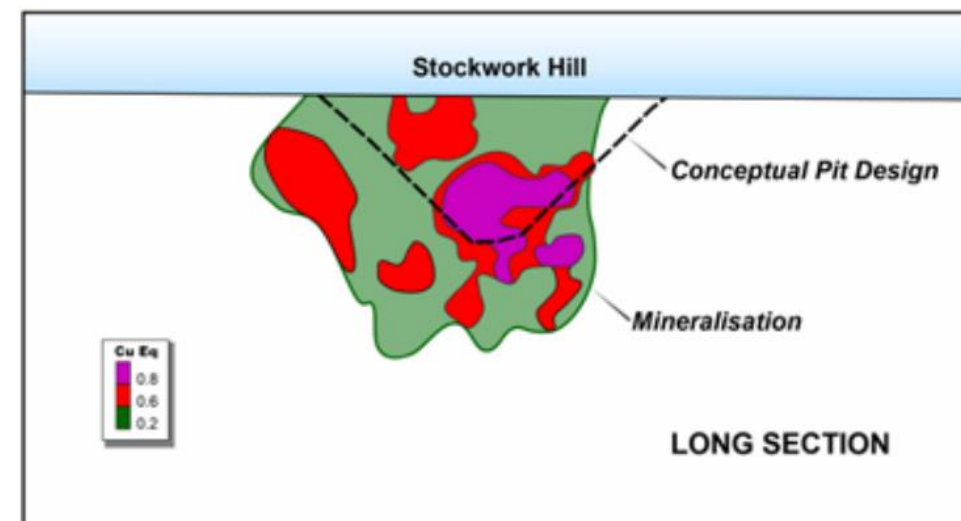
Opportunity	Description
<b>Leach Oxidised Material</b>	Potential to convert near surface, pre-strip mineralised waste into cash generating ore, through leaching
<b>Bulk Ore Sorting &amp; Coarse Particle Flotation</b>	Potential to beneficiate feed grades by sorting and/or reduce unit consumption of power and water, through coarser grinding
<b>Electrified Haulage Systems</b>	Potential to reduce mining costs, fleet requirements, carbon footprint and/or reduce strip ratios by employing contemporary technologies such as in-pit crush & convey, or trolly assist, etc.
<b>Continued Exploration</b>	Grow mine life and/or production rate through discovery of new ore sources along strike

ASX/TSX Announcement Scoping Study Kharmagtai Copper-Gold Project

ASX:**XAM** | TSX:**XAM**



Kharmagtai Resource within Open Pit in Long Section



Stockwork Hill Long Section showing current resource, proposed open pit and high-grade blocks below pit outline open along strike and at depth.

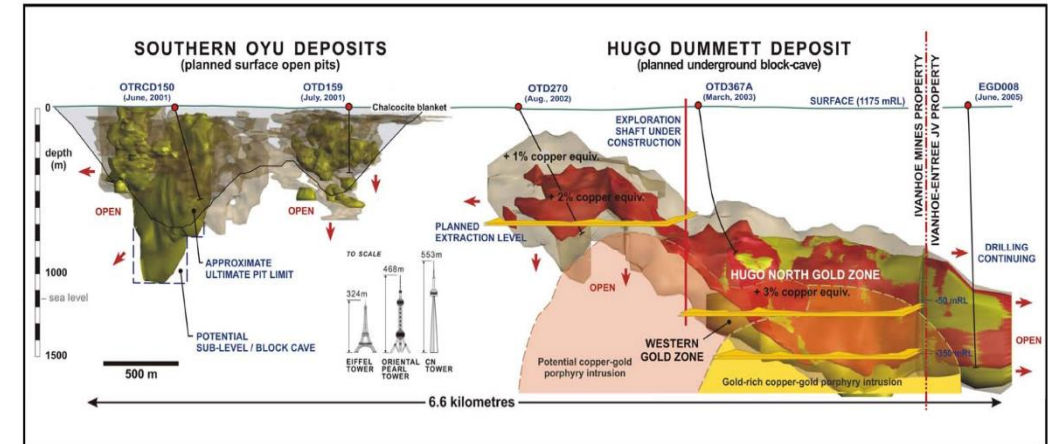
# Exploration Upside Remains - Example

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

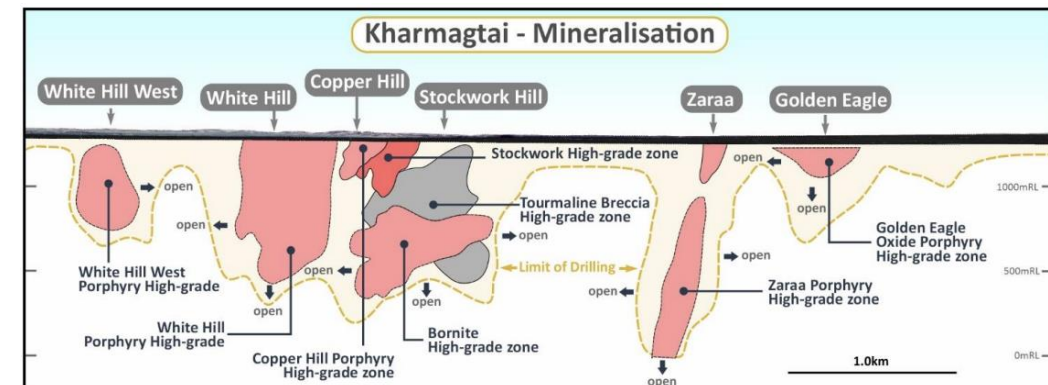
## Kharmagtai vs Hugo North

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\\_Porphyry\\_Copper-Gold\\_Deposit\\_Discovery\\_History\\_and\\_Exploration\\_Implications\\_South\\_Gobi](https://www.researchgate.net/publication/276086472_The_Giant_Oyu_Tolgoi_Porphyry_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)

# Kharmagtai Opportunity for New Discovery

## New systems continue to be unlocked

### Exploration Scorecard

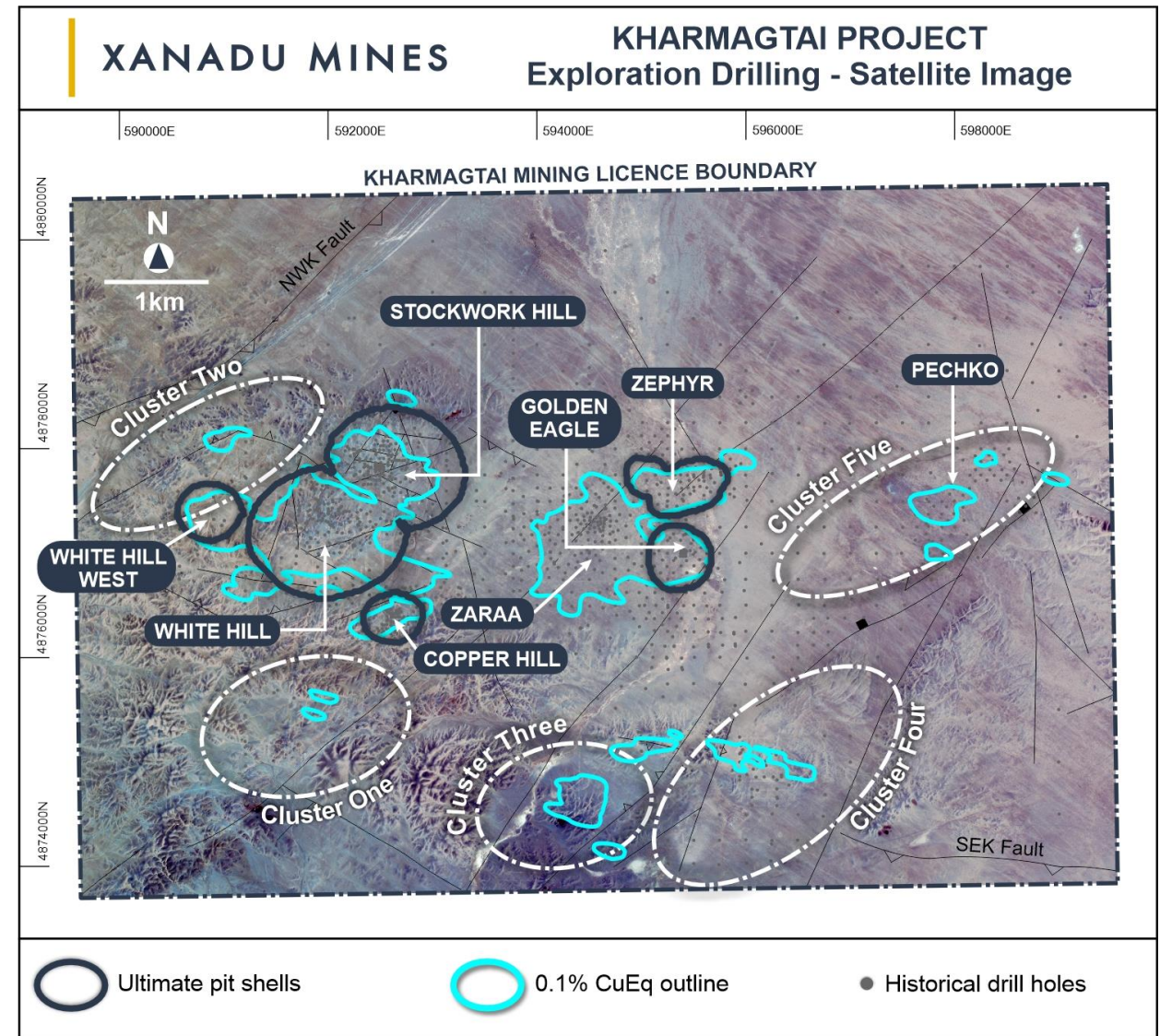
- 5 subsurface discoveries out of 10 prospects drilled
- <\$0.01/lb CuEq discovery cost vs ~\$0.07/lb industry avg<sup>1</sup>

### District Continues To Open Up

- Multiple copper-gold porphyry intrusions
- Mineralised structures linked to faulting
- Increasing grade at depth

### Porphyry Deposits Evolve Over Time

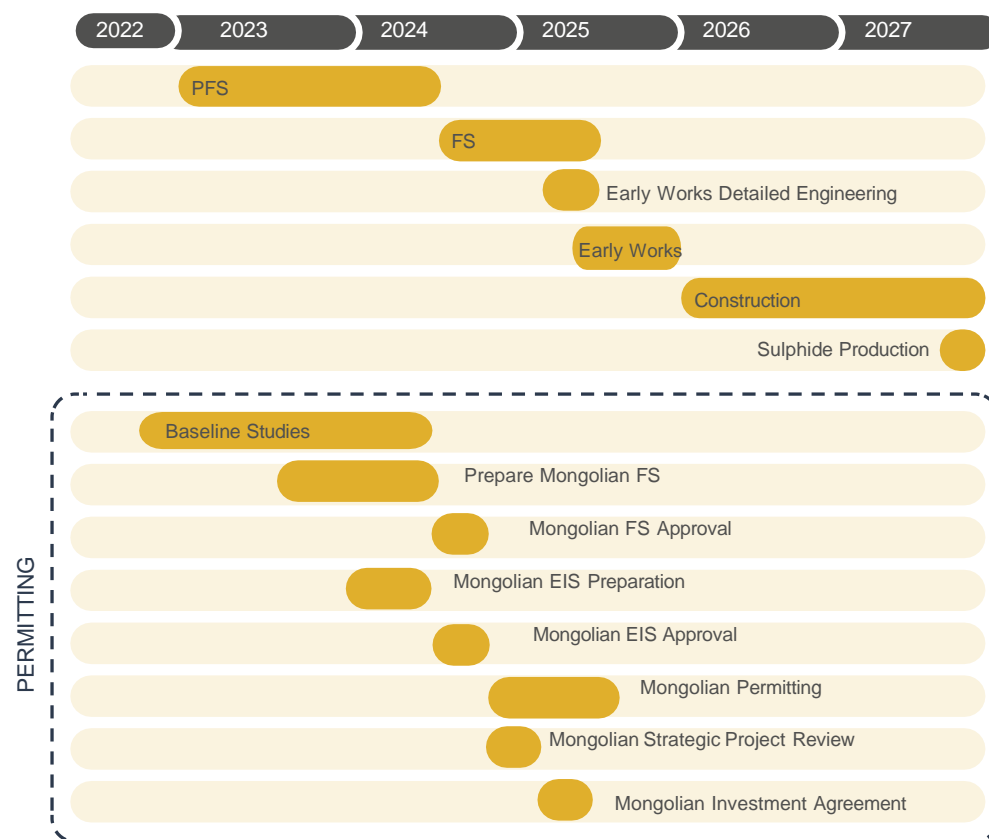
- Continued exploration for new high-grade systems
- Link existing systems at depth
- Highly prospective for new discovery
- Several priority targets drilled in 2021
- >20 targets to be drilled over next 12 months



# Pre-Feasibility Study (PFS) Plans

18-month delivery of PFS followed by 6-month option period

## Project Timeline



## Key PFS Activities

- Studies assess a range of options to identify single path forward
- Investigate project upside opportunities
- Progress social and regulatory license to operate
- All major design decisions finalised
- Capital accuracy increased to +/-25%
- Develop a Maiden JORC Compliant Ore Reserve
- Undertake drill programs and data acquisition to support:
  - Resource estimates
  - Geotechnical engineering
  - Mine planning
  - Geo-metallurgy
  - Process design
  - Waste and tailings storage
  - Community
  - Environmental studies

# Allocation of Joint Venture Funds

## Pre-Feasibility Study, Exploration, and Value Uplift

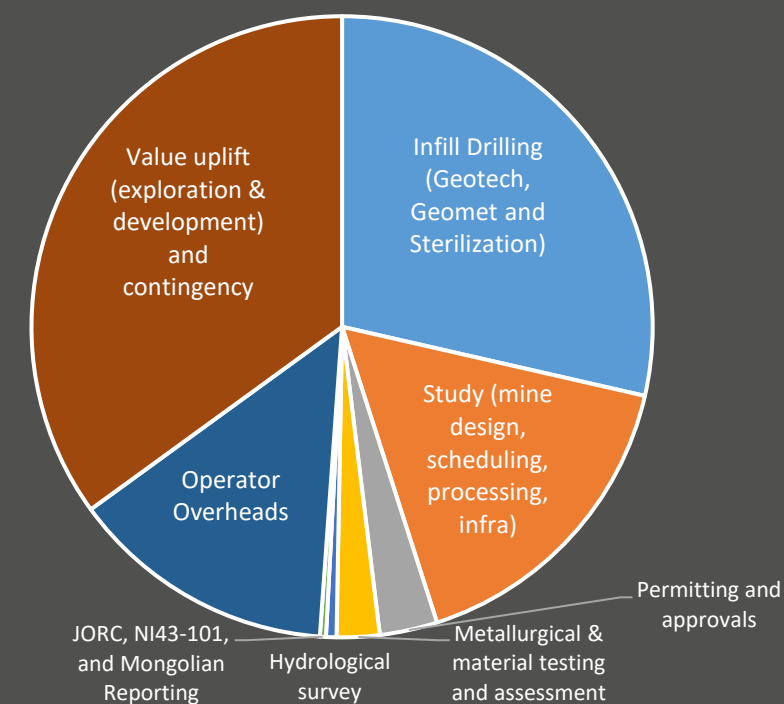
### Kharmagtai Project (Zijin Phase 3)

- US\$35M invested into Khuiten Metals JV, which controls Kharmagtai
- Funds PFS, Exploration and Development Costs for 18 months
- Pays majority of Xanadu corporate overhead, as the Operator

### Corporate Funding (Zijin Phase 2)

- A\$7.2M placement in Xanadu at A\$0.04/share
- Limited cash burn due to Kharmagtai project overhead remittances

### US\$35M Invested in Kharmagtai



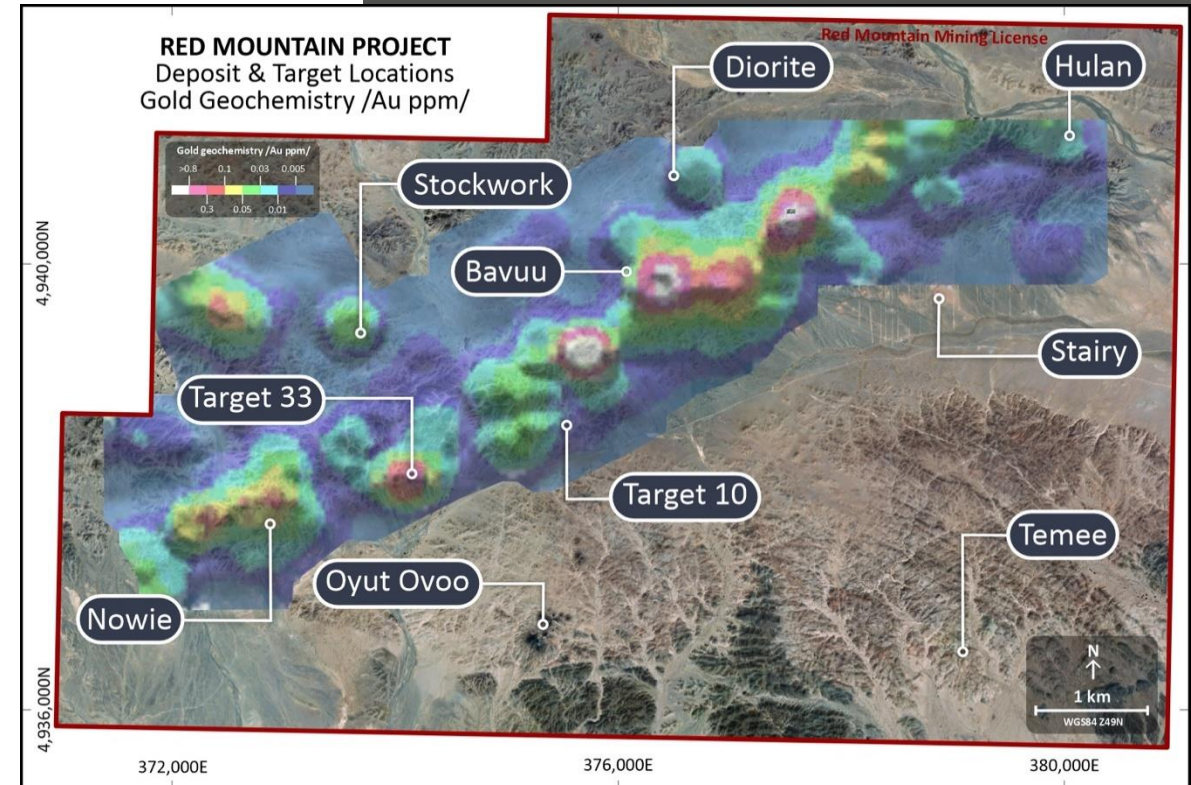
# Red Mountain Exploration - Shallow, Higher-Grade

XANADU MINES

New broad gold zones expand & open potential for more

## Highly Prospective Second Project

- Shallow, high-grade epithermal gold & copper-gold-silver skarn mineralisation
  - 4 mineralised Cu-Au systems
  - 2 epithermal Au-Ag systems
- New target generation commenced August 2022
- Trenching underway to define targets
  - Initial trenching at Target 33<sup>1</sup> delivered broad 350m x 80m zone of shallow gold
  - Drill testing of high priority targets to commence soon
- Targeting smaller scale, high-grade deposits enabling lower capex development



# Timeline to Deliver Value to Shareholders

## Decisions to Drive Performance and Create Real Value

### Kharmagtai Pre-Feasibility Study (US\$20M JV cash<sup>1</sup>)

- Deliver Maiden Ore Reserve in 2024 including ~30,000m infill drilling
- Realise project value upside via technical studies
- Decision to Mine in 2024

### Kharmagtai Value Uplift (US\$15M JV cash<sup>1</sup>)

- Exploration targeting new high-grade discovery
- Exploration targeting extension to known higher-grade zones at depth
- Other technology and development based uplift

### Grow Project Pipeline (A\$7M XAM cash)

- Red Mountain discovery exploration
- New South Gobi minerals projects; identify & acquire

<sup>1</sup> JV cash funds both Xanadu's and Zijin's portion of each activity. There is no further cash required until decision to construct at the end of 2024.

#### MILESTONES

**March 2023**  
Drilling Commences

**March 2023**  
PFS Data Acquisition Phase (Drilling, Metallurgy)

**2Q 2023**  
Start of drilling news flow

**4Q 2023**  
PFS Trade-Off Study Phase

**4Q 2023**  
Start of studies news flow

**1Q 2024**  
Mineral Resource update

**1Q 2024**  
PFS Design Phase

**2Q 2024**  
Maiden Ore Reserve at Kharmagtai

**3Q 2024**  
PFS completed

**1Q 2025**  
Financial Investment Decision (FID)<sup>1</sup>

XANADU MINES

**March 2023**  
Phase 1 Infill Drilling

**March 2023**  
MET Sample Selection & Collection

**2Q 2023**  
MET Chemistry & Deportment Testing

**3Q 2023**  
Phase 2 Infill Drilling

**4Q 2023**  
MET Glycine Leach Testing

**4Q 2023**  
MET Flotation & Comminution Testing

**4Q 2023**  
Phase 3 Infill Drilling

# Our Value Proposition

## High impact exploration & development in a proven & growing mining jurisdiction

<b>Long Life, Low Cost Assets</b>	Unique portfolio of high quality copper-gold assets, with flagship asset positioned in the bottom half of the cash curve.
<b>Emerging Mining Jurisdiction</b>	Underexplored mining economy, committed to enhancing its regulatory environment to accelerate mining growth.
<b>High Growth Potential</b>	Strong exploration & development pipeline, ideally positioned to deliver into a copper market with a long term structural deficit
<b>Metals for Low Carbon Future</b>	Positioned to produce copper in late 2027, required for global decarbonisation and electrification.
<b>Delivering Value to Shareholders</b>	High quality team, with track record of delivering growth and deals that create real shareholder value



Keep up to date with us



ASX:XAM | TSX:XAM

**Colin Moorhead**  
Executive Chairman  
and Managing Director

P: +61 2 8280 7497  
E: [colin.moorhead@xanadumines.com](mailto:colin.moorhead@xanadumines.com)

**Spencer Cole**  
CFO and Chief  
Development Officer

P: +61 2 8280 7497  
E: [spencer.cole@xanadumines.com](mailto:spencer.cole@xanadumines.com)

# Appendix

- Mongolia Investment & ESG Policy
- Mongolia-China Relations
- Zijin Mining Background
- Copper Supply & Demand
- Kharmagtai Resource & CP Statement
- Benchmarking
- Scoping Study Information
- Upside Opportunities

# Kharmagtai Copper Resource at Tier 1 Scale

## 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% CuEq)
- 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

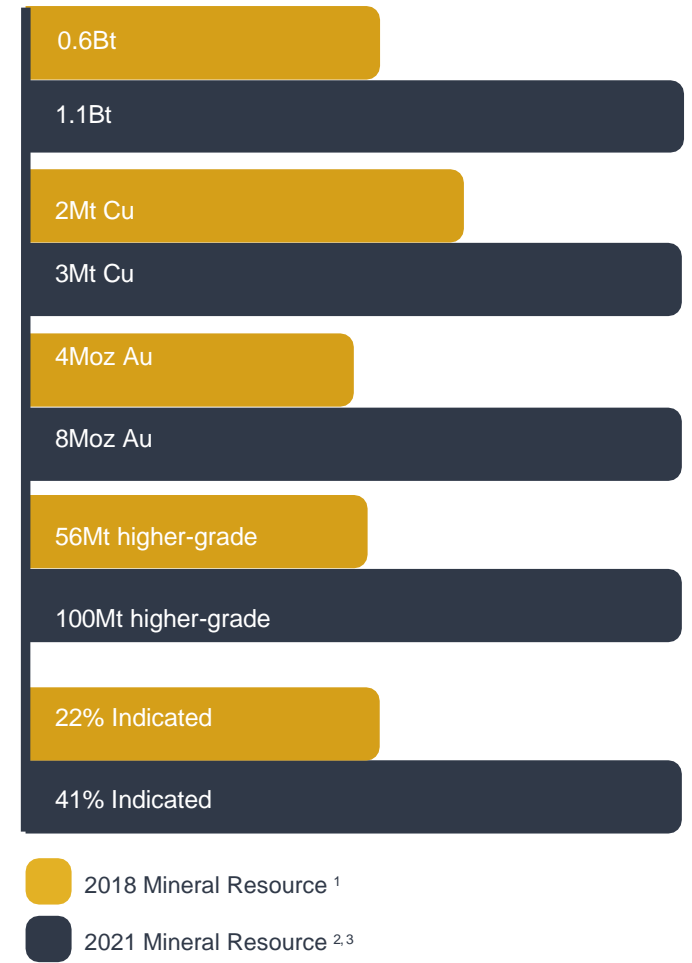
Resource	Cutoff (% CuEq)	Classification	Tonnes (Mt)	Grades			Contained Metal			
				CuEq (%)	Cu (%)	Au (g/t)	CuEq (Mlbs)	CuEq (kt)	Cu (kt)	Au (koz)
2021 <sup>1</sup>	0.2(OC) 0.3(UG)	Indicated	455	0.4	0.3	0.2	4,078	1,850	1,250	3,700
		Inferred	664	0.3	0.2	0.2	5,140	2,330	1,680	4,100
2018 <sup>2</sup>	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



# 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

# Resource Benchmarked on Copper Equivalence

- Mineral Resource used in benchmarking include Inferred, Indicated, and Measured classifications. Resource tonnes and grades are as reported by each company.<sup>1,2</sup>
- Copper equivalent grades were calculated by Xanadu Mines using the formula:
  - $CuEq = Cu + Au * 0.60049 * 0.86667$
- Where:
  - Cu = copper grade (%)
  - Au = gold grade (grams per tonne (g/t))
  - 0.60049 = conversion factor (Au to Cu); and
  - 0.86667 = relative recovery of Au to Cu (86.67%)
- These equivalent formulas were based on the following parameters (prices in USD):
  - Cu price = 3.4 \$/lb
  - Au price = 1,400 \$/oz
  - Cu recovery = 90%
  - Au recovery = 78%; and
  - Relative recovery of Au to Cu = 78%/90% = 86.67%
- Metals prices, Au-Cu conversion factor, and Au-Cu relative recovery factors are as defined in the 2021 Xanadu Mineral Resource Upgrade<sup>3</sup>

Global Project	Resource Date	Resource Mt				Au g/t			Cu %			Au Moz			Cu Mt			CuEq	
		Meas	Ind	Inf	Total	Meas	Ind	Inf	Meas	Ind	Inf	Meas	Ind	Inf	Meas	Ind	Inf	%	Mt
Altar	22/03/21	622	576	189	1,387	0.10	0.08	0.06	0.44%	0.42%	0.42%	2.0	1.5	0.4	2.7	2.4	0.8	0.47%	6.6
AntaKori	31/01/19	0	250	267	517	0.00	0.29	0.26	0.00%	0.48%	0.41%	0.0	2.3	2.2	0.0	1.2	1.1	0.58%	3.0
Canariaco Norte	28/02/22	424	671	411	1,505	0.07	0.05	0.04	0.48%	0.39%	0.32%	0.9	1.1	0.5	2.0	2.6	1.3	0.42%	6.4
Cascabel	20/04/22	1,192	1,470	544	3,206	0.39	0.14	0.24	0.48%	0.28%	0.24%	14.9	6.6	4.2	5.7	4.1	1.3	0.48%	15.2
Casino	29/04/22	188	2,303	1,413	3,903	0.40	0.17	0.14	0.24%	0.13%	0.10%	2.4	12.5	6.3	0.5	3.0	1.4	0.21%	8.3
Cortadera	31/03/22	0	471	108	579	0.00	0.12	0.08	0.00%	0.36%	0.28%	0.0	1.8	0.3	0.0	1.7	0.3	0.40%	2.3
Hillside	May 2015	72	151	114	337	0.16	0.13	0.10	0.55%	0.59%	0.60%	0.4	0.6	0.4	0.4	0.9	0.7	0.65%	2.2
Kharmagtai	8/12/21	0	487	664	1,151	0.00	0.20	0.20	0.00%	0.30%	0.20%	0.0	3.1	4.2	0.0	1.5	1.3	0.34%	4.0
Warintza	1/04/22	0	579	887	1,466	0.00	0.03	0.01	0.00%	0.47%	0.37%	0.0	0.6	0.3	0.0	2.7	3.3	0.42%	6.1
Los Helados	26/04/19	0	2,099	827	2,926	0.00	0.15	0.10	0.00%	0.38%	0.32%	0.0	10.1	2.6	0.0	8.0	2.6	0.43%	12.7
NorthMet	19/11/19	319	403	415	1,137	0.03	0.03	0.03	0.24%	0.23%	0.24%	0.3	0.4	0.4	0.8	0.9	1.0	0.25%	2.9
Productora	31/03/22	0	253	90	343	0.00	0.08	0.03	0.00%	0.41%	0.29%	0.0	0.6	0.1	0.0	1.0	0.3	0.41%	1.4
Vizcachitas	10/05/19	254	1,030	789	2,073	0.00	0.00	0.00	0.44%	0.39%	0.34%	0.0	0.0	0.0	1.1	4.0	2.7	0.37%	7.7

<sup>1</sup> Source: S&P Market Intelligence and Company Disclosure

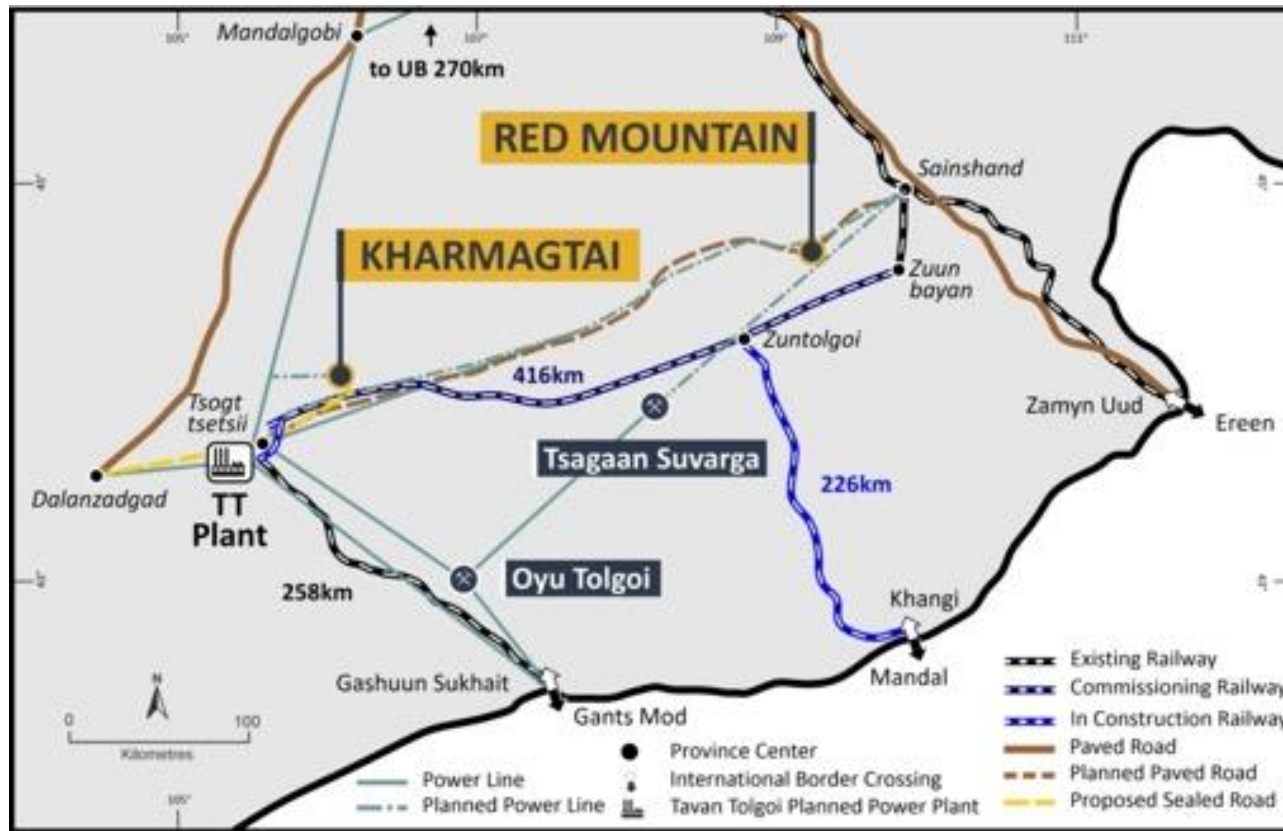
<sup>2</sup> It is Xanadu's opinion that all the elements included in the metal equivalents calculation above have a reasonable potential to be recovered and sold

<sup>3</sup> ASX/TSX Announcement 8 December 2021 – Kharmagtai Resource Grows to 1.1Bt containing 3Mt Cu and 8Moz Au; and ASX/TSX Announcement 28 February 2022 – Kharmagtai Technical Report

# New Mongolia Infrastructure Enhances Customer Links

## Government investing for more globally competitive South Gobi mining products

### South Gobi Regional Infrastructure



### Rail & Road

- New rail line commissioning between Zuunbayan & Tsogttsetsii, linking to trans-Mongolia railway. New sealed road follows rail line.
- New rail lines south to China from Tavan Tolgoi (operational) reduces transport cost by 75%<sup>1</sup> & Zuntolgoi (in construction)
- 22km line connecting Gashuun Sukhait & Zuunbayan rail lines in construction, linking mining region to China & wider Mongolian network

### Power

- New Tavan Tolgoi power plant construction awaiting tender process
- Additional power lines link region to Tavan Tolgoi



<sup>1</sup> <https://www.globaltimes.cn/page/202209/1275099.shtml>