

# Unlocking Mongolia's Copper-Gold Belts

CORPORATE PRESENTATION | March 2017

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## Creating value through discovery

### Targeting world class Cu-Au discoveries in Mongolia

Our Vision To be Asia's premier copper & gold exploration company.

### **Our Mission**

Create value through the discovery of globally significant Cu & Au deposits.

## **Company highlights**

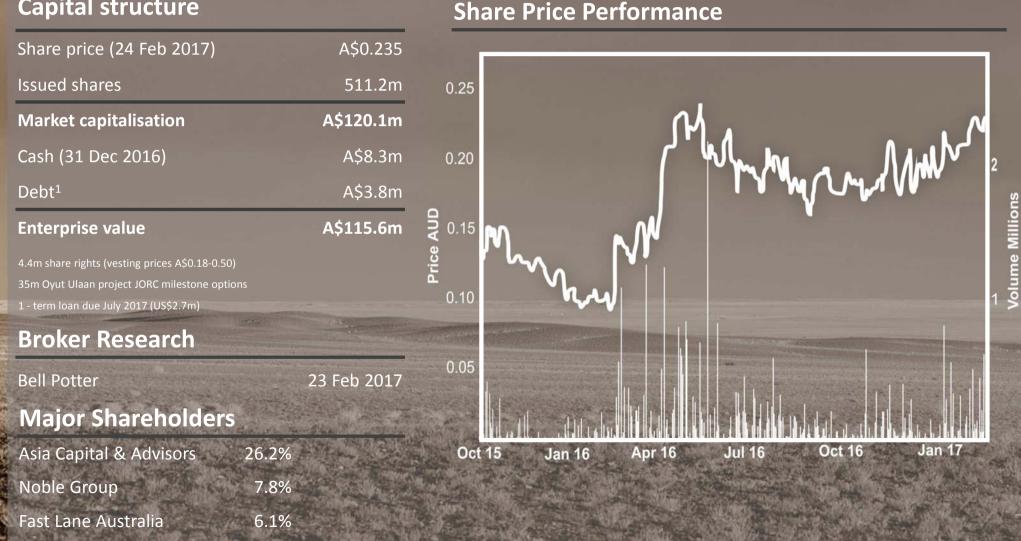
## Creating value through discovery in Mongolia

- ASX listed Mongolian Cu-Au exploration company;
- High-calibre explorer with track record of success;
- Large district-scale land packages;
- Strategic position in a world-class Cu-Au province;
- Advanced projects with both scale and high-grade;
- Growing gold-rich copper JORC resource base.

## **About Xanadu Mines**

### **Focused on shareholder returns**

#### **Capital structure**



## **Board & in-country leadership team**

### **High-calibre explorationists**

#### **Andrew Stewart**

#### Managing Director & Chief Executive Officer

Geologist with over 15 years' experience in minerals exploration primarily focused on project generation and evaluation and development of exploration strategies throughout Asia and Eastern Europe. Senior technical and management positions at Ivanhoe & Vale.

#### Ganbayar Lkhagvasuren

#### **Executive Director**

Co-founder of Xanadu and Director since 2006. Joint venture partner in Mongol Metals LLC and brings a vital Mongolian perspective to the Board of Directors. Responsible for day-to-day operations in Mongolia.

#### Munkhsaikhan Dambiinyam

**Chief Financial Officer** 

Finance professional with more than 10 years of experience in mining, mining services and financial advisory. Holds a Master of Science in Finance from the University of Utah and completed an Executive Program at Western University.

#### Mathew Brown Chief Geologist

Discovery driven exploration geologist with over 15 years' experience in mineral exploration, eight of which have been in management positions. Having experience in a range of commodities from copper-gold, gold only, molybdenum and uranium Mat has been involved in several discoveries in copper-gold and high-grade molybdenum. He holds a Bsc with honors from James Cook University and has held various technical and management positions within Placer Dome Asia Pacific, Barrick, Ivanhoe Mines Mongolia and Ivanhoe Australia.

### **Experienced board**

#### Mark Wheatley

#### Non-Executive Chairman

Experienced resources company CEO and director with more than 30 years in mining and related industries. Previous director roles have included Chair of Gold One International, Norton Goldfields & Goliath Gold. Directorships of St Barbara Mines & Uranium One.

#### **Darryl Clark**

#### Independent Non-Executive Director

Exploration geologist with over 20 years' experience throughout Australia, Central Asia and South East Asia. Previous corporate roles with both Vale and BHP Billiton. Responsible for business development strategies and the coordination of discovery events.

#### **Barry Lavin**

#### Independent Non-Executive Director

Mining engineer with 18 years' experience with the Rio Tinto Group. Previous executive roles with the Copper Group and Global Technical Services. Currently a non-executive director of Barminco Ltd, and is Managing Director of Teviot Resources.

#### Hannah Badenach

#### Non-Executive Director

Director Mongolia at Noble Resources International Pte Ltd Head of Mongolia and Asian/Middle East base metals at Noble Resources International Pte Ltd. Extensive Mongolian, commercial and business development experience across a broad range of commodities.

#### **Marcus Engelbrecht**

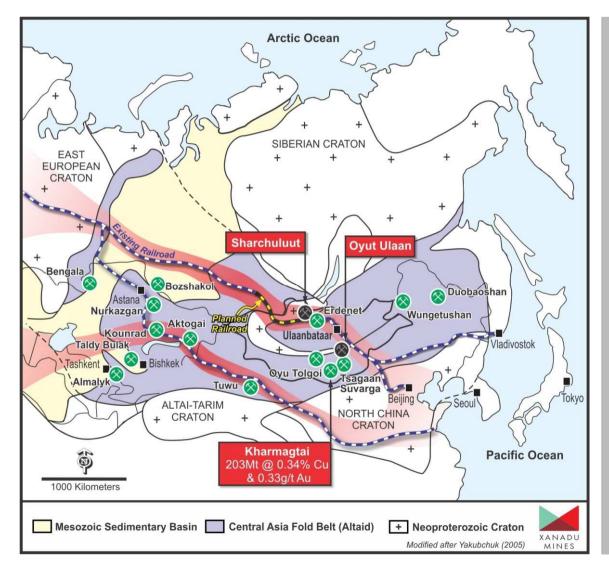
#### Non-Executive Director

Well-rounded senior mining executive with more than 30 years industry experience. Spent 20 years with BHP Billiton and more recently was MD and CEO of a London listed gold miner operating in Indonesia. He has worked in various emerging markets across the globe, including in Africa and South East Asia.

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## One of the last great exploration frontiers

## Underexplored copper provinces on the new Silk Road



- World-class copper province;
- New Silk Road initiative;
- Fourth most endowed copper province globally;
- Highly mineralised & vastly underexplored.

## **Highly mineralised and vastly underexplored**

## Large deposits related to a range of magmatic events

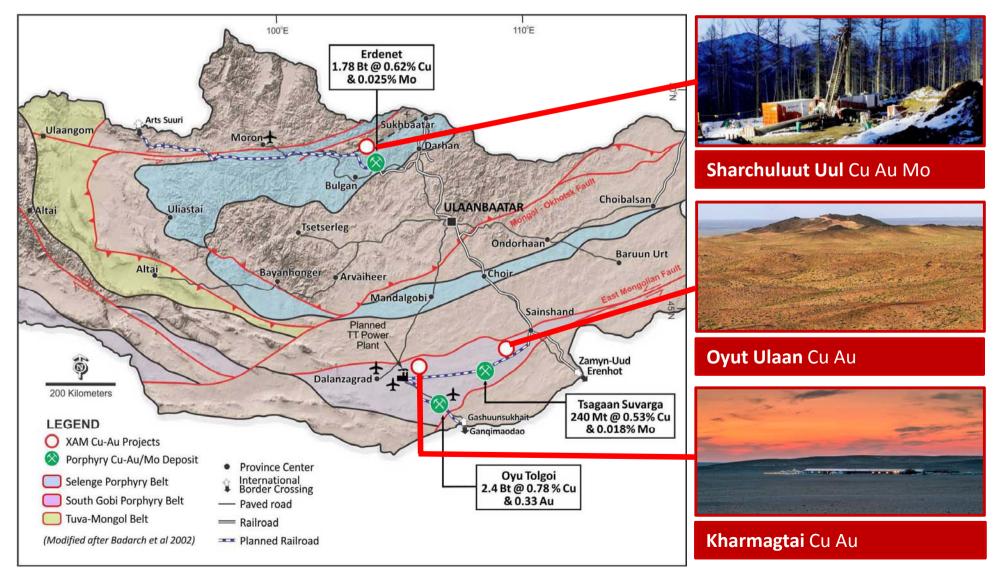
# Seven different porphyry copper belts with deposits that contain >5Mt Cu

#### CARBONIFERIOUS ORDOVICIAN SILURIAN DEVONIAN PERMIAN TRIASSIC JURASSIC Legend Cu-Au Deposits Oyu Tolgoi Cu-Mo Deposits 1.40 (27Mt Cu) 2300Mt Ore CuEq Grade (percent) Nurkazgan Kounrad **Kvzata** 516Mt (1.3Mt Cu) (5Mt Cu) 800Mt (5.95Mt Cu) Ore .00 Dalnoye Koktazshal (3.21Mt Cu) (1.2Mt Cu) Almalyk (10.8Mt Cu) Kharmaqtai Koksai (3.3Mt Cu) (0.75Mt Cu) Erdenet (11Mt Cu) 2700Mt **Taldy Bulak** Aidarly Ore (1.44Mt Cu) (5.81Mt Cu) Duobaoshan 1780Mt (2.4Mt Cu) 0.60 540Mt 700M Ore Tsagaan Suvarga Ore (1.3Mt Cu) 495M Bozshakol 1529Mt Bezshoky Benkala 1300Mt (4.1Mt Cu) (2.2Mt Cu) Ore (2.79Mt Cu) Wunugetushan Aktogai Ore (2.4Mt Cu) Kazkyrmyskoy (5.84Mt Cu) 2186M (1.2Mt Cu) 350 250 450 400 300 200 Age of Deposits (million years)

#### Age Dated Central Asian Porphyry Deposits

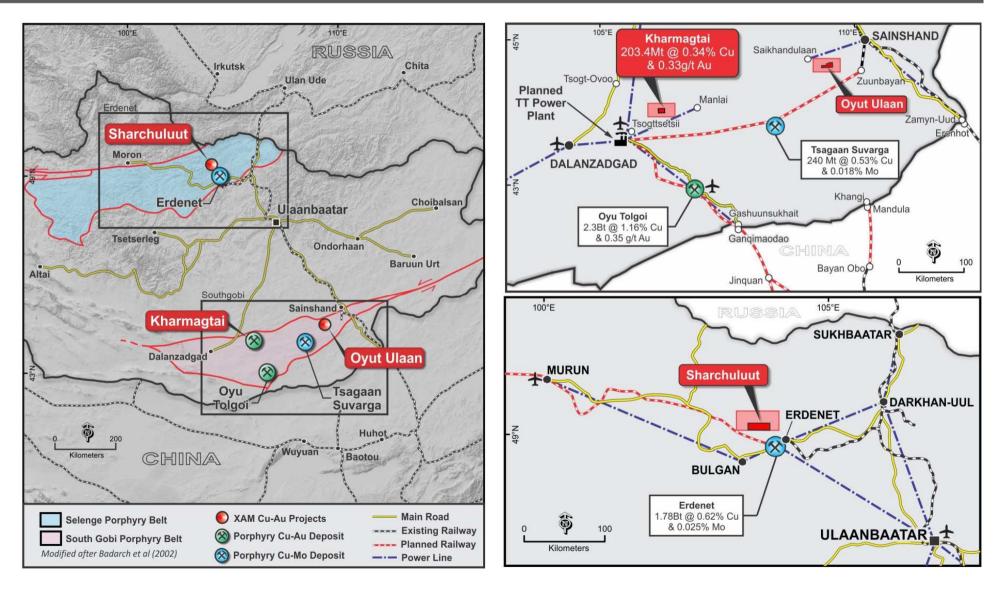
## One of the largest Cu & Au produces in Asia

## Significant untapped mineral potential



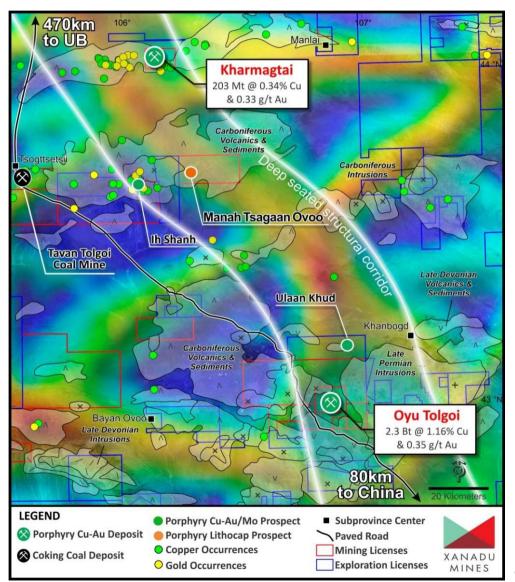
## Southern Mongolia has good infrastructure

#### Proximity to infrastructure and the North Asia market



## World class Oyu Tolgoi porphyry trend

## World class mining district – significant potential



- Strategic footprint in Mongolia's pre-eminent copper porphyry trend;
- Close to significant deposits in development & production;
- Arc-transverse fault zone(s) control magmatism & porphyry mineralisation.

Large scale and crustal scale structural corridors identified via structural processing of regional gravity data .

### One of the most advanced Cu-Au projects

• LARGE DISTRICT-SCALE PROJECT

District largely under unexplored;

• HIGH GRADE MINERALISATION

Multiple 200+ meter interceptes @ 1% CuEq.

#### • OUTCROPPING & GOLD RICH

Outcropping high grade mineralisation with possible open pit mining

#### • EXCELLENT METALLURGY

Initial test work returned great recoveries for Cu and Au

#### • CLOSE TO INFASTRUCTURE

Close to significant deposits in development & production

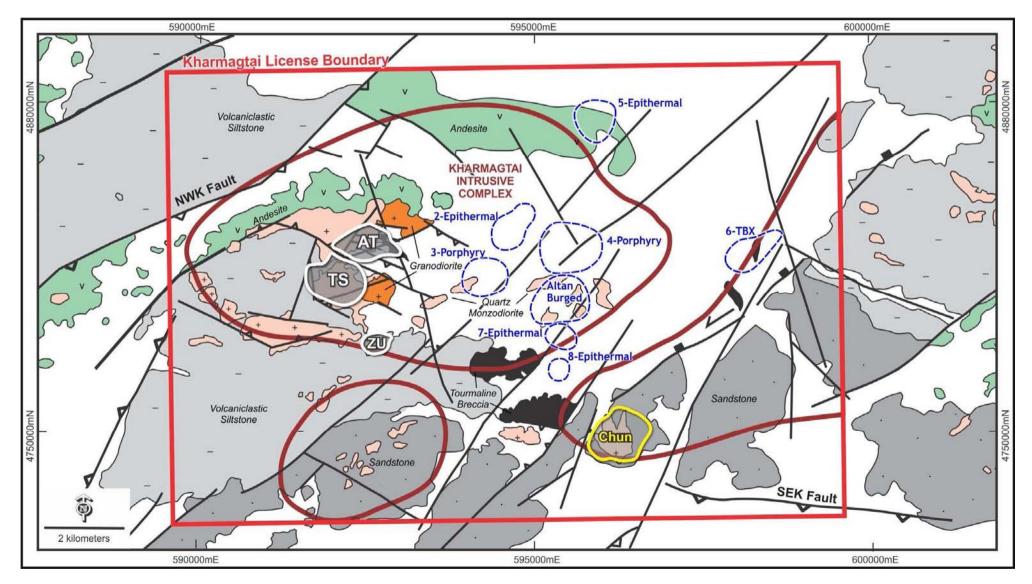


## Unlocking the potential of the Kharmagtai district

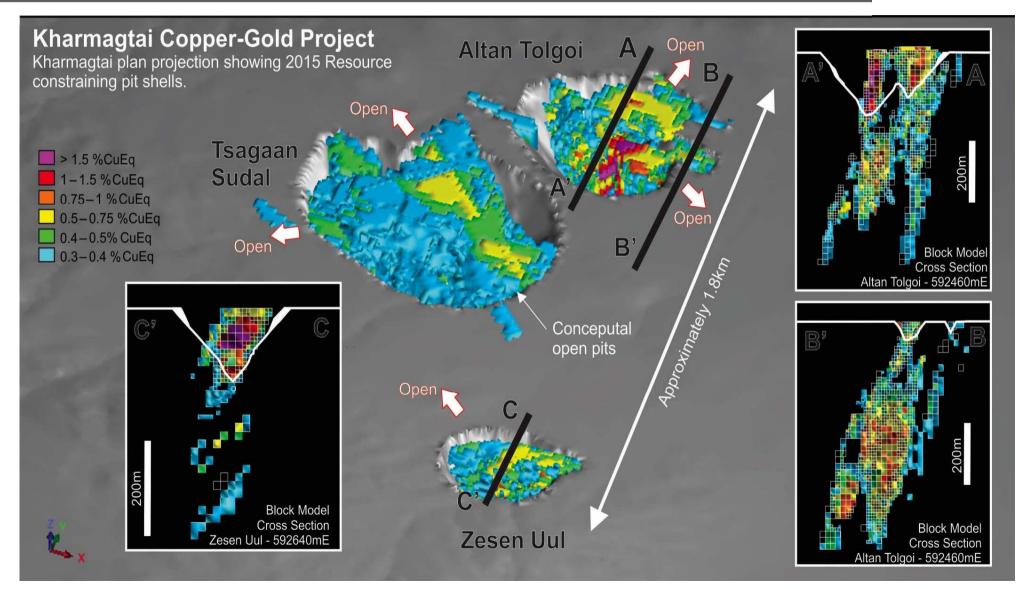
Outcrop throughout the Kharmagtai district is sparse Quaternary sand covers over most of the mineralisation



## A cluster of outcropping porphyry deposits

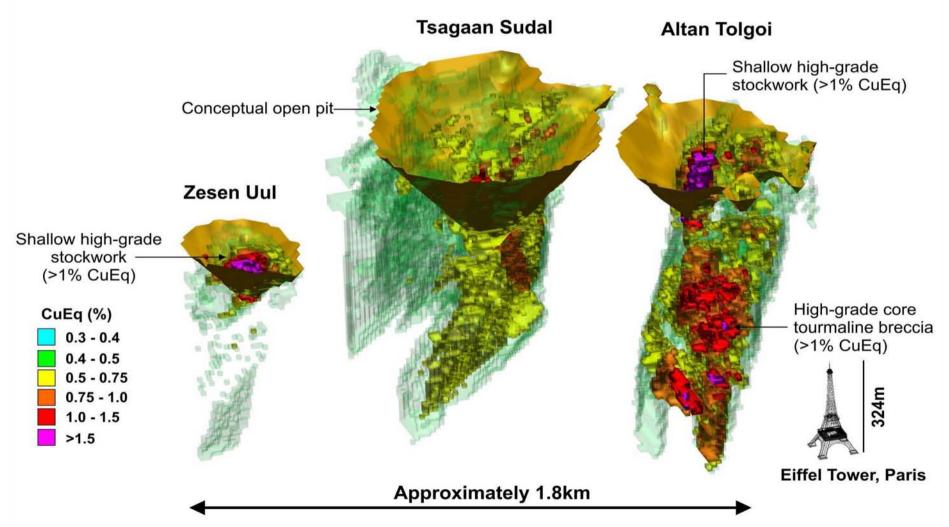


### Growing gold-rich copper resource base



\*ASX announcement dated 19 March 2015 "Kharmagtai Maiden JORC Resource." Table 1 information dated 29 April 2016 continues to apply.

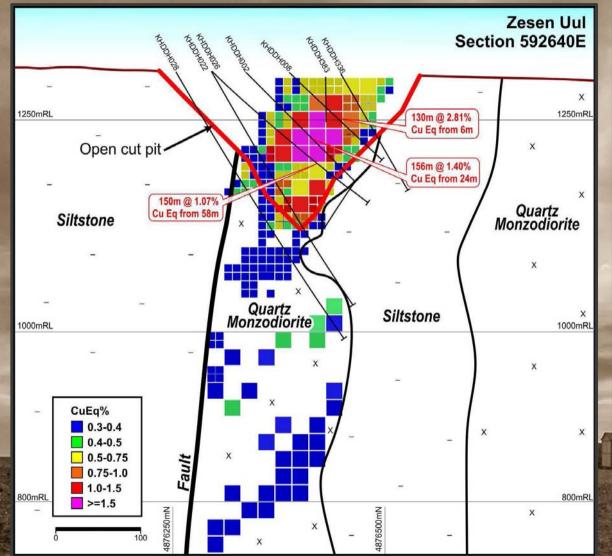
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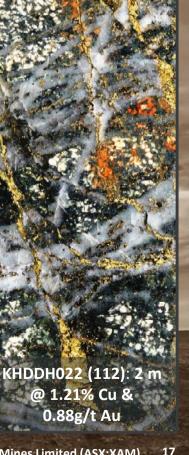
Table 1 information dated 29 April 2016 continues to apply.

## **Outcropping high-grade gold-rich porphyry mineralisation**

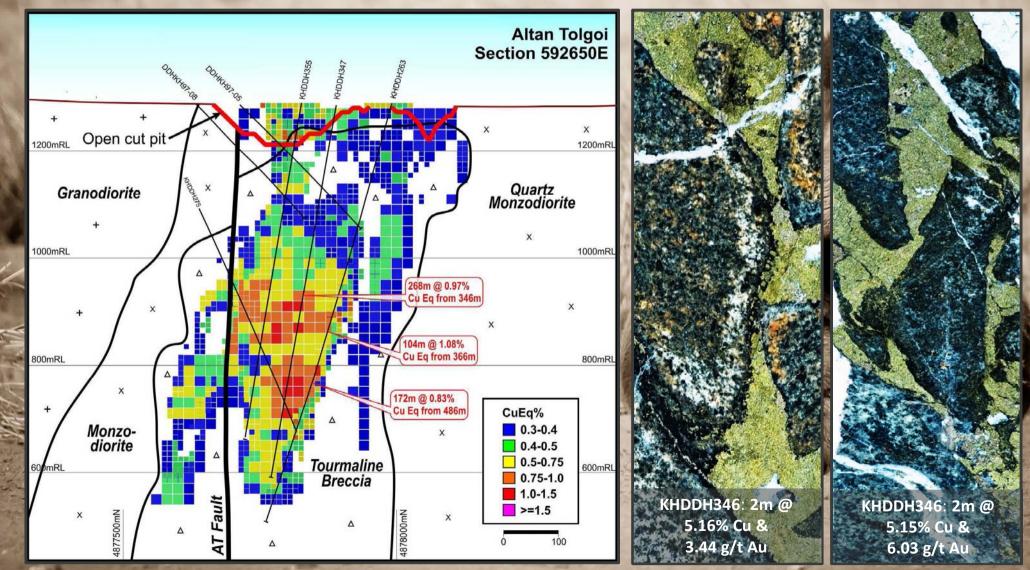


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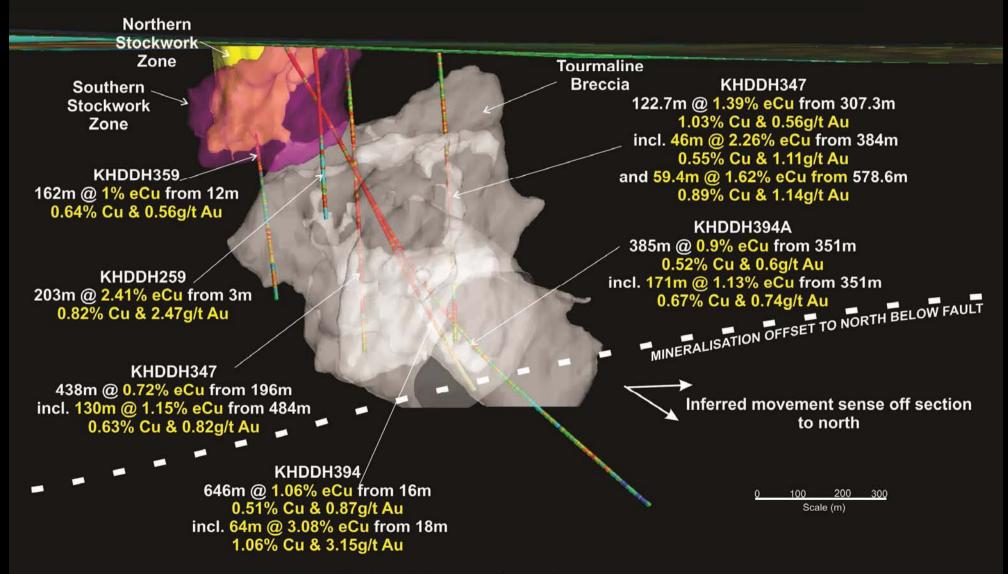
## High-grade copper-gold hosted breccia mineralisation



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### High-grade tourmaline breccia mineralisation



Altan Tolgoi Long Section Looking North Xanadu Mines Limited (ASX:XAM) 19

## New porphyry centres undercover

### Multiple data sets show new porphyries undercover

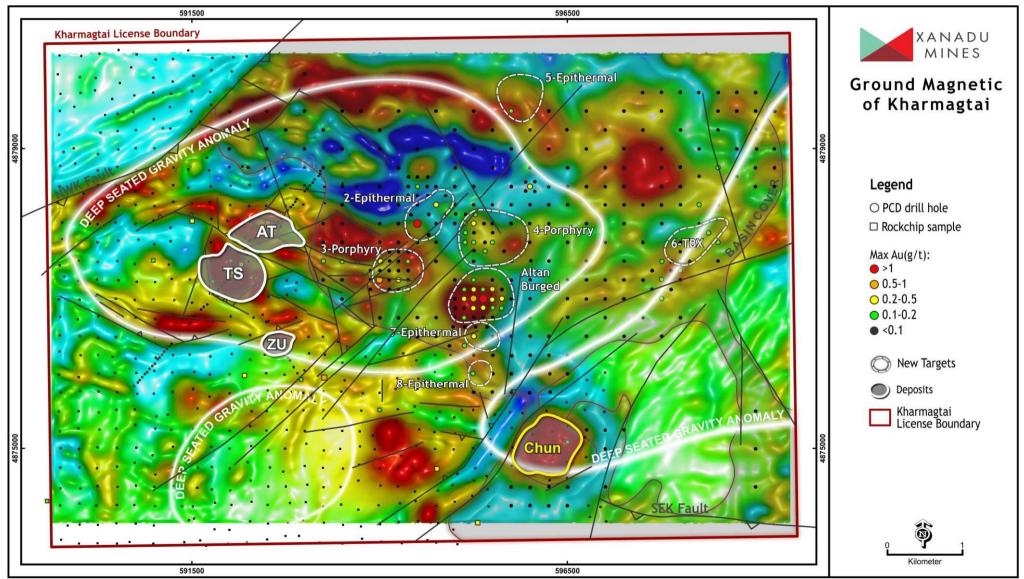
- Bedrock drilling delivers immediate success at Kharmagtai;
- Bedrock drilling identifies copper and gold mineralisation under shallow

(20 to 50m) cover;

- Seven new first-order drill targets identified so far;
- These targets to be systematically tested over 2017;
- Geochemistry and geology being returned from this drilling is painting a

picture of a very large scale porphyry system which coalesces at depth.

## Additional gold-rich copper porphyries discovered



### First target drilled discovers new gold rich porphyry

Looking northeast along the Kharmagtai porphyry system Tsagaan Sudal

Zessen Uul

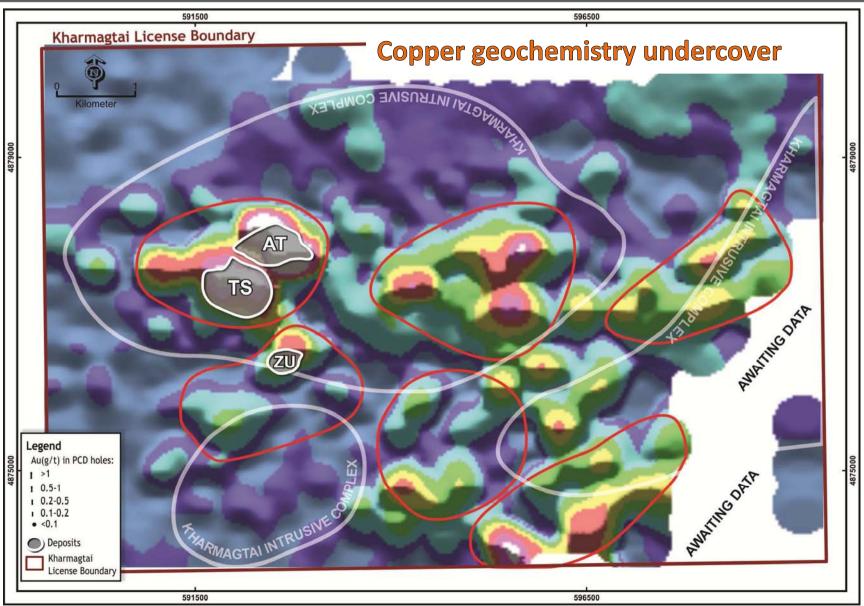
Altan Tolgoi

#### **Altan Burged**

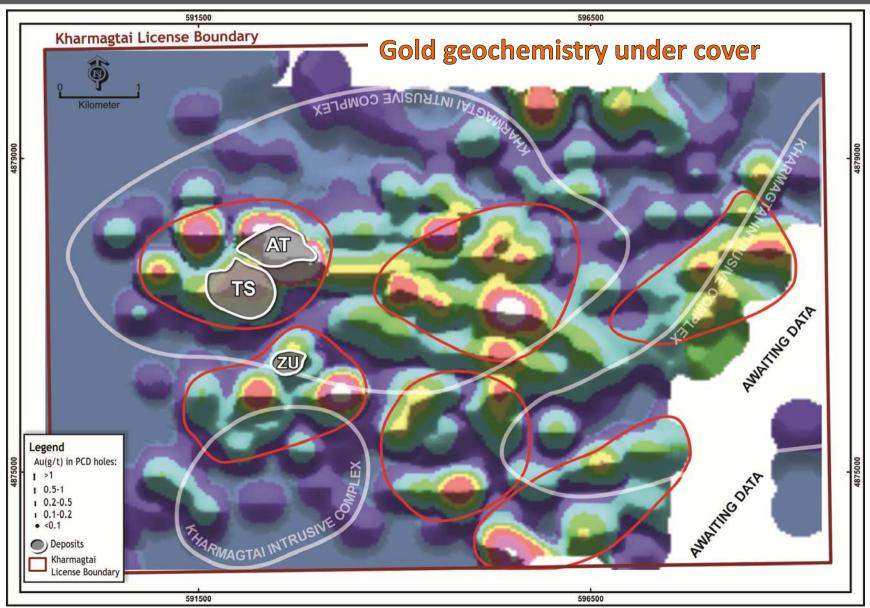


KHDDH395 220m @ 0.64g/t Au Incl. 102m @ 1g/t Au Incl. 27m @ 2.27g/t Au

### Multiple clusters of shallow porphyry Cu-Au centres



### Multiple clusters of shallow porphyry Cu-Au centres



### Gold-rich porphyry district close to infrastructure

#### • LARGE PORHYRY DISTRICT

Over 40 square kilometres of mineralisation

#### SIGNIFICANT MINERAL POTENTIAL

Multiple new porphyry & epithermal targets identified

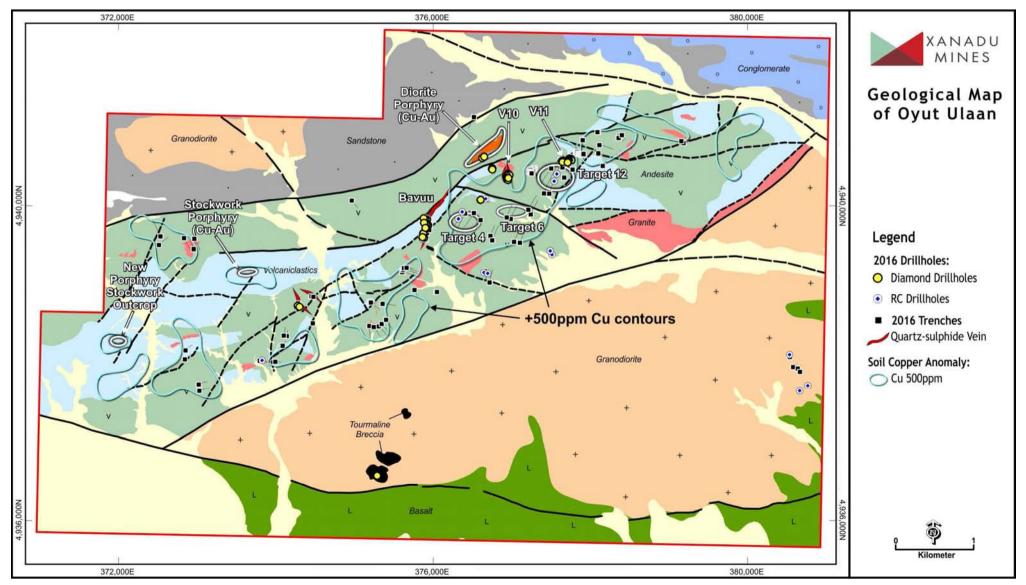
• MULTIPLE CO-GENETIC CENTRES

Numerous outcropping gold-rich porphyry centres

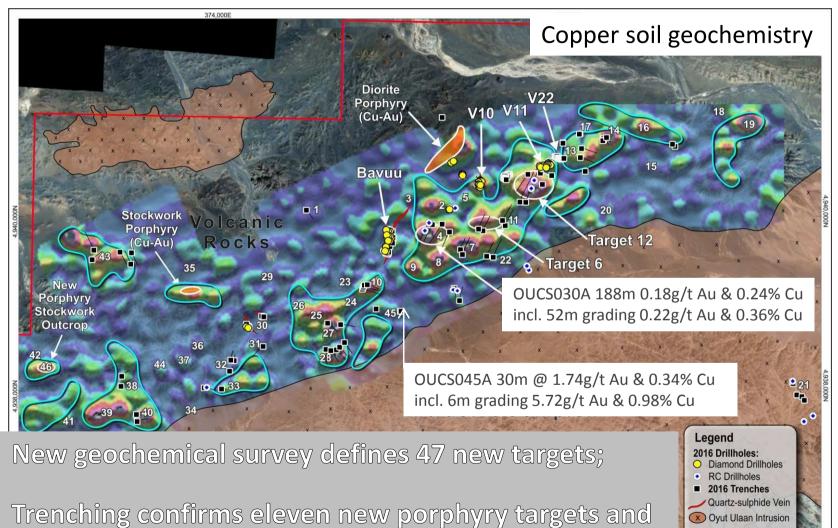
HIGH-GRADE MINERALISATION
 High-grade gold rich porphyry's drilled (Diorite)

 CLOSE TO INFRASTRUCTURE
 Less than 70km from the trans-Mongolian rail.

## Multiple co-genetic porphyry copper-gold centres



### Multiple new targets identified at Oyut Ulaan



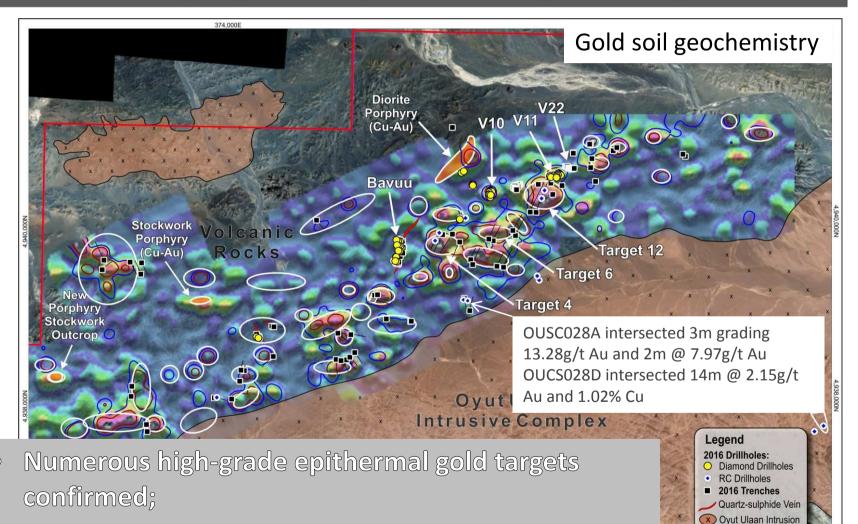
 Trenching confirms eleven new porphyry targe nine new epithermal gold targets.

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Soil Copper Anomaly:

Cu 500ppm

### Numerous high-grade epithermal gold targets



• Broad drill intercepts of +2g/t Au identified.

Soil Gold Anomaly: Au > 50ppb

Au > 100ppb

## Active exploration across multiple projects

#### Substantial activity over next 12 months

- Exploration programs across multiple district-scale projects;
- Drilling underway at Kharmagtai with dual focus;

Shallow high-priority porphyry copper-gold and gold targets under-cover; Drill test tourmaline breccia mineralisation below Altan Tolgoi.

Accelerated exploration program at Oyut Ulaan;

Drill test all shallow high-priority porphyry copper-gold targets;

Evaluate high-grade epithermal gold mineralisation.

• Fully funded for a 12 month exploration program.

## Reasons to invest in Xanadu Mines

### A standout copper-gold explorer

- Two porphyry district-scale plays in one company;
- Advanced projects with both scale and high-grade;
- One of the most promising porphyry Cu-Au discoveries globally;
- One of the highest grade porphyry discoveries;
- Growing JORC Resource of 1,533 Mlb Cu & >2 Moz Au\*;
- Repeat discoveries on satellite targets set to extend resource;
- Well capitalised relative to most other junior companies.



For further information please visit **www.xanadumines.com or contact:** 

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## Kharmagtai resource estimate statement

### Mineral Resource Estimates - Project Resource

- JORC 2012 categorised Mineral Resources for the Kharmagtai Copper Gold Project have been classified as indicated and inferred confidence categories on a spatial, areal and zone basis and are listed in the table below.
- A cut-off 0.3% CuEq within a Whittle Pit Shell and 0.5% CuEq below a Whittle Pit Shell.

Deposit	Mining Method	Cut-Off CuEq(%)	Resource Category	Material (Mt)	Grade			Metal	
					Cu(%)	Au(g/t)	CuEq(%)	Cu(Mlb)	Au(Koz)
All	ос	0.3	Indicated	23	0.41	0.55	0.76	203	401
			Inferred	107	0.27	0.24	0.42	641	833
			Subtotal	129	0.30	0.30	0.48	844	1,234
	UG	0.5	Indicated	24	0.43	0.47	0.73	225	359
			Inferred	51	0.42	0.36	0.64	463	591
			Subtotal	74	0.42	0.40	0.67	688	950
	Combined		Indicated	46	0.42	0.51	0.74	428	759
			Inferred	157	0.32	0.28	0.49	1,104	1,424
			Total	203	0.34	0.33	0.55	1,533	2,184

See ASX announcement dated 19 March 2015 "Kharmagtai Maiden JORC Resource" for full details of resource estimation methodology and attributions. Note: All figures may not sum exactly due to rounding.

## Kharmagtai resource estimate statement

### Mineral Resource Estimates - Higher grade resource

- JORC 2012 categorised Mineral Resources for the Kharmagtai Copper Gold Project have been classified as indicated and inferred confidence categories on a spatial, areal and zone basis and are listed in the table below.
- A cut-off 0.6% CuEq within a Whittle Pit Shell and 0.6% CuEq below a Whittle Pit Shell.

Deposit	Mining Method	Cut-Off CuEq(%)	Resource Category	Material (Mt)	Grade			Metal	
					Cu(%)	Au(g/t)	CuEq(%)	Cu(Mlb)	Au(Koz)
All	ос	0.6	Indicated	9	0.52	0.87	1.08	102	248
			Inferred	1	0.38	0.82	0.92	11	34
			Subtotal	10	0.50	0.86	1.06	113	282
	UG	0.6	Indicated	20	0.46	0.57	0.83	203	368
			Inferred	26	0.46	0.50	0.78	263	418
			Subtotal	46	0.46	0.53	0.80	465	786
	Combined		Indicated	29	0.48	0.66	0.91	305	616
			Inferred	27	0.46	0.52	0.79	274	452
			Total	56	0.47	0.59	0.85	578	1,068

See ASX announcement dated 19 March 2015 "Kharmagtai Maiden JORC Resource" for full details of resource estimation methodology and attributions. Note: All figures may not sum exactly due to rounding.

## Kharmagtai resource estimate statement

#### **Competent person statement**

**Kharmagtai Mineral Resource estimate:** The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not materially changed from the original market announcement.

The information in this presentation that relates to Mineral Resources is based on information compiled by Mr. Andrew J. Vigar, who is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr. Vigar is employed by Mining Associates Limited Hong Kong. Mr. Vigar has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a "Competent Person" as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Vigar consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.

**Exploration Results:** The information in this presentation 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, which is incorporated in the database that was provided to Mining Associates for undertaking the Resource estimate. Dr. Stewart is an employee of Xanadu and is a Member of the Australasian Institute of Geoscientists. Dr. Stewart 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". Dr. Stewart consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.

**Copper equivalence:** When used is calculated using the following formula: CuEq = Cu(%) + Au (g/t)\*0.6378, based on a copper price of \$2.60/lb, and a gold price of \$1300/oz, with assumed recoveries of 90% for copper and 70.85% for gold.

For the purpose of ASX Listing Rules 5.7.1, Xanadu refers to its Table 1 disclosure dated 31 January 2017 which continues to apply as at the date of this presentation. Xanadu is not aware of any new information or data that materially affects the information included in that announcement.