



XANADU MINES



**Mongolia's leading copper-gold explorer**

**NOVEMBER 2014**



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The information in this presentation relating to Exploration Targets and Results is based on information compiled or reviewed by Dr. Andrew Stewart, who is an employee of Xanadu and is a Member of the Australasian Institute of Geoscientists. Dr. Andrew 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. Andrew Stewart consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

The copper equivalent (CuEq) calculation represents the total metal value for each metal, multiplied by the conversion factor, summed and expressed in equivalent copper percentage. Grades have not been adjusted for metallurgical or refining recoveries and the copper equivalent grades are of an exploration nature only and intended for summarising grade. The copper equivalent calculation is intended as an indicative value only. The following copper equivalent conversion factors and long term price assumptions have been adopted: Copper Equivalent Formula (CuEq) =  $\text{Cu}\% + (\text{Au (ppm)} \times 0.6284)$ ; Price assumptions: Cu (US\$3.20/lb) and Au (US\$1,375/oz). For the purposes of ASX Listing Rule 5.7.1, Xanadu refers to its Table 1 disclosure dated 17 October 2014 which continues to apply as at the date of this Presentation.

### **George A. Lloyd** – Managing Director

+852 6397 3308 (Hong Kong)  
+976 9400 9211 (Mongolia)  
george.lloyd@xanadumines.com

### **Mongolia**

2nd Khoroo, AOS Street  
Military Town  
Bayanzurkh District  
Ulaanbaatar

### **Australia**

Level 12, 680 George Street  
Sydney, NSW, 2000



# Leading copper-gold explorer in Mongolia's proven South Gobi



**Kharmagtai District:**  
Cu-Au porphyry  
Earning minimum 76.5%

Sainshand

Undur Naran

**Oyut Ulaan District:**  
Cu-Au porphyry  
90% ownership

Dalanzadgad

Ih Shan

Shuteen

Bronze Fox

Narin Hudag

**Tsagaan Suvarga**  
240 Mt @ 0.53% Cu  
& 0.018% Mo

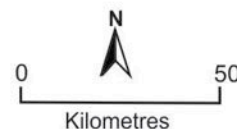
Alag Bayan

**Oyu Tolgoi**  
2.3 Bt @ 1.16% Cu  
& 0.35 g/t Au

- Porphyry Cu-Au Deposit
- Porphyry Cu-Mo Deposit
- Porphyry Cu-Au/Mo Prospect
- Porphyry Lithocap Prospect

## LEGEND

- Late Permian Intrusions
- Carboniferous Intrusions
- Carboniferous Volcanic & Sedimentary Rocks
- Late Devonian Intrusions
- Late Devonian Volcanic & Sedimentary Rocks





## Focused project strategy in proven South Gobi copper belt

- > Mongolian porphyry copper-gold strategy
- > Advanced Kharmagtai copper-gold project
  - Shallow, gold-rich porphyry mineralisation
  - Mineralised tourmaline breccia discovery
  - Multiple 200m intercepts grading >1% CuEq
  - Hosted in large mineralised intrusive complex
  - ¾ of complex under unexplored shallow cover
  - New discovery potential over tenement
- > Highly prospective Oyut Ulaan copper-gold project
- > Strong international & Mongolian credentials

### Strategic Partners

#### The Noble Group

Significant shareholder and project partner

#### Mongol Metals LLC

Mongolian JV with director Ganbayar Lkhagvasuren

### Capital Structure

Share price <sup>1</sup>	A\$0.125
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Issued shares	243.5m
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<b>Market capitalisation</b>	<b>A\$30.4m</b>
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Cash <sup>2</sup>	A\$1.5m
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Debt <sup>2,3</sup>	A\$13.8m
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<b>Enterprise Value</b>	<b>A\$42.7m</b>
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Undrawn debt	US\$2.0m
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24.2m Dec 2014 options exercisable at A\$0.50-1.80

3.0m Jun 2016 options exercisable at A\$0.60-1.80

11.6m share rights (exercise prices A\$0.11-0.19)

35m Oyut Ulaan project JORC milestone options

1. As at 14 November 2014

2. As at 30 September 2014

3. Includes 100% of Kharmagtai deferred consideration

### Leadership

Chairman	Mark Wheatley
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Managing Director	George Lloyd
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Executive Director	Ganbayar Lkhagvasuren
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CFO	Munkhsaikhan Dambiinyam
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Chief Geologist	Andrew Stewart
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### Major Shareholders

Sakari Energy (owned by PTT)	11%
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Noble Group	9%
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# Strong Mongolian, mining & corporate credentials



## **Mark Wheatley** – Independent Chairman

### **Engineering & commercial**

- › Engineer with over 30 years in mining and related industries
- › Non-executive board roles have included former Chair of Gold One International, Norton Goldfields and Goliath Gold as well as directorships of St Barbara Mines Limited and Uranium One Inc.



## **Dr. Darryl Clark** – Non-Executive Director

### **Geology & commercial**

- › Geologist with over 20 years of corporate and exploration experience with BHP Billiton and SRK and senior exploration roles in Mongolia with Ivanhoe and Vale
- › Currently General Director of the Inkai Joint Venture mining operation in Kazakhstan owned by Cameco Corporation and Kazatomprom



## **Hannah Badenach** – Non-Executive Director

### **Commodities & legal**

- › Hannah is Director, Mongolia at Noble Resources International
- › Has extensive Mongolian experience including having managed QGX LLC until the company was sold in 2008 and 2 years practising law with Lynch & Mahoney prior to running Noble's business in Mongolia.



## **George Lloyd** – Managing Director

### **Corporate finance & natural resources**

- › 15 years corporate finance and investment experience in Asia-Pac natural resources and related sectors
- › Has advised on Mongolian coal, copper and mining services transactions since 2009
- › Earlier roles include business development at Wesfarmers and corporate finance with Grant Samuel



## **Ganbayar Lkhagvasuren** – Executive Director

### **Mongolian business experience**

- › Co-founder of Xanadu and a Director since August 2006
- › Brings a vital Mongolian perspective to the Board of Directors and works closely with the Managing Director and Chief Geologist in corporate development and managing the day-to-day operations in Mongolia



## **Barry Lavin** – Non-Executive Director

### **Engineering & corporate finance**

- › Accomplished senior mining executive who spent 18 years with Rio Tinto
- › Most recent role at Rio Tinto was in its Copper Group with responsibility for identifying and evaluating acquisitions
- › Previous Managing Director at Northparkes Mines JV
- › Currently a non-executive director at Barminto, non-executive director at Ferrum Americas and MD of Teviot Resources





## Skilled exploration team with a record of discovery



### **Dr. Andrew Stewart – Chief Geologist**

- › Exploration geologist with over 15 years experience
- › Particular expertise in porphyry copper deposits
- › During his time with Ivanhoe and Vale Andrew held various technical and management positions throughout Asia
- › Involved in several greenfields copper discoveries



### **Munkhbat Baatar – Exploration Manager**

- › Exploration geologist with over 20 years of experience
- › Primarily focussed on porphyry copper exploration throughout the South Gobi region of Mongolia
- › During his time with Ivanhoe he held various senior positions
- › Critical team member in numerous discoveries including the Kharmagtai cluster of porphyries and recently the high-grade Merlin IOCG deposit in the Cloncurry district of Australia



### **Dorjsuren Otgonbayar – Senior Geophysicist**

- › Exploration geophysicist with over 10 years experience
- › Has held senior positions at Vale focussed primarily on porphyry copper exploration
- › Has particular expertise in integrating geological and geophysical data sets for area selection and targeting, data acquisition, processing, modelling, and interpretation



### **Batbayar Enkhbold – Senior Geologist**

- › Experienced exploration geologist who previously worked as an exploration geologist for East Asia Minerals in Indonesia
- › Part of the Miwah high-sulphidation Au deposit and the Barisan cluster of porphyry Cu-Au deposits discovery teams with East Asia Minerals



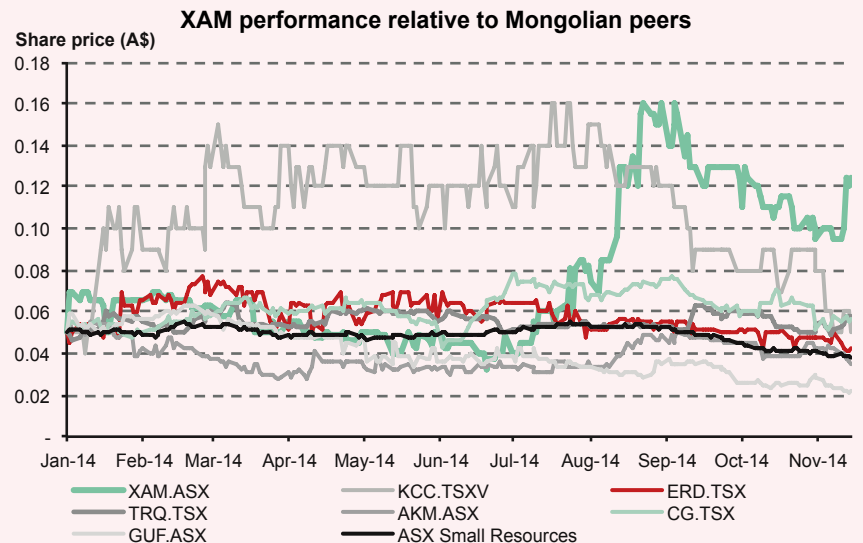
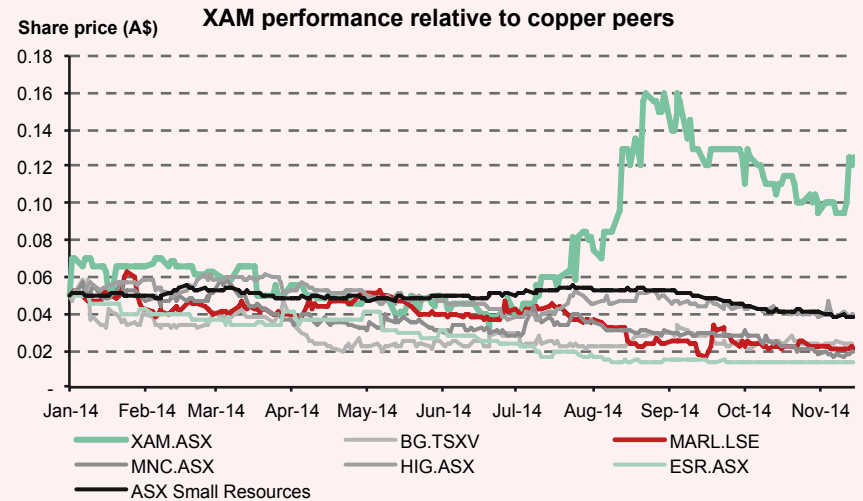
### **Batbaatar Nyamsuren – Senior Geologist**

- › Has over 20 years porphyry exploration experience
- › Currently leads the Xanadu reconnaissance exploration team responsible for prospect evaluation, ground selection and geological mapping
- › Previously worked as a senior exploration geologist for Ivanhoe and Fortress Minerals exploring for porphyry copper deposits throughout Mongolia



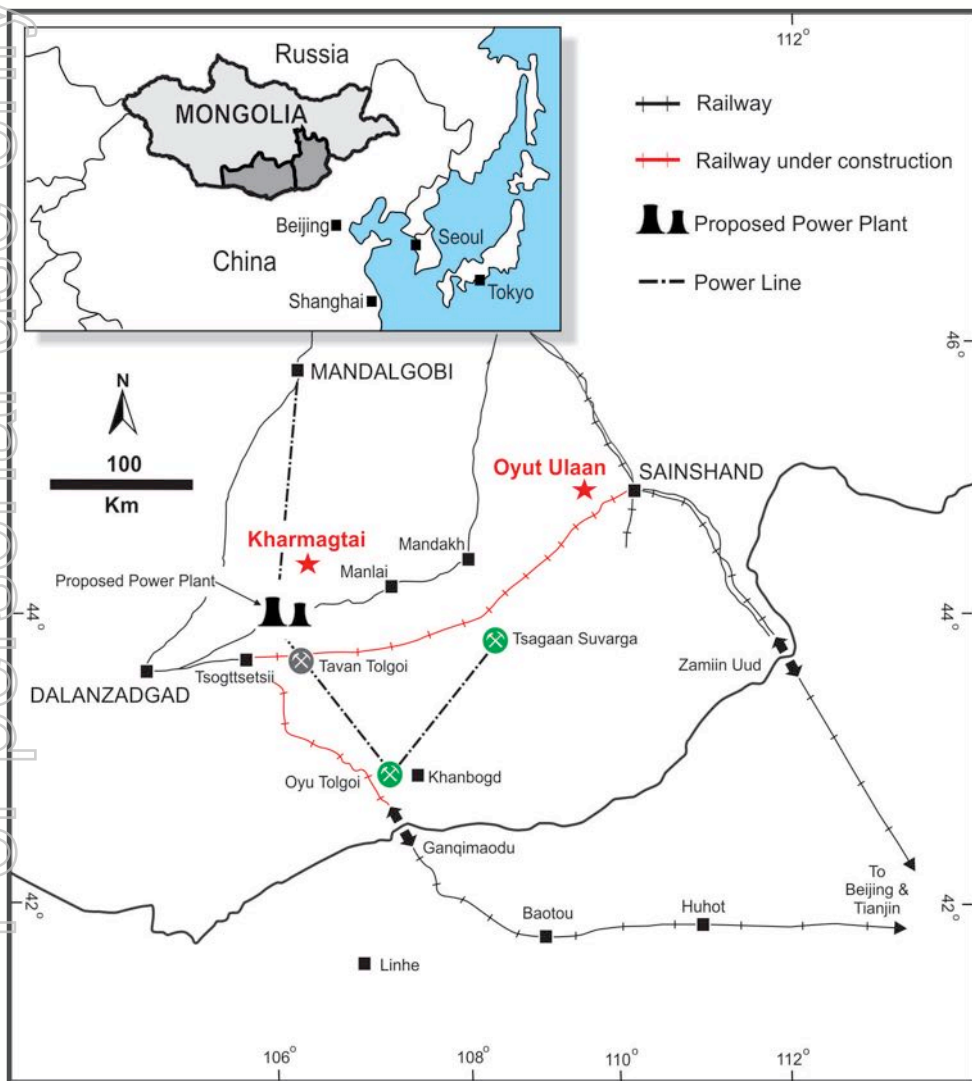
## 2014 accomplishments, Xanadu enters 2015 in strong position

- > Added value through acquisitions and exploration in challenging environment
- > Acquired Kharmagtai copper-gold project
- > ~12,500 meters drilled at Kharmagtai realising outstanding results
- > Completed Oyut Ulaan project acquisition
- > Built capacity through attracting experienced staff and directors to the company
- > Leveraged shareholder value through deferred acquisition payments
- > Exited non-performing and non-core projects & reducing carrying costs
- > Positioned for active 2015 exploration plan
- > A Mongolian success story





## South Gobi region has all the ingredients for project development

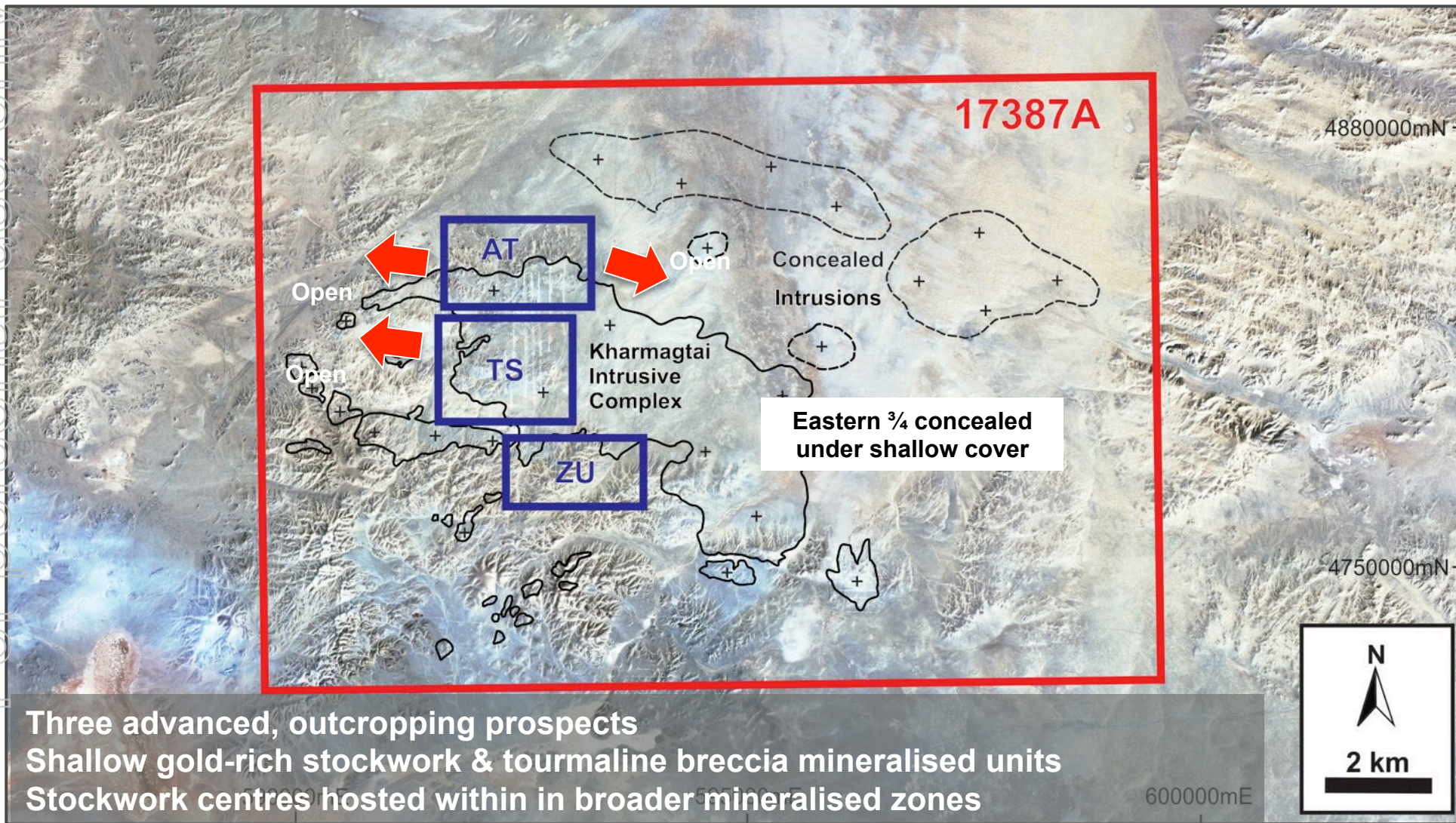


- > Flat, open terrain at moderate altitude
- > Established power transmission lines
- > Tavan Tolgoi power station proposal
- > North-south rail infrastructure
- > East-west rail under- development
- > Good sealed road network
  - 5-6 hours to Ulaanbaatar
  - 2-3 hours to Oyu Tolgoi
- > Established water resources
- > Well-established mining services
- > Close to North Asian customers





## Kharmagtai shallow high-grade zones + new discovery potential





## New insights & geological model rapidly expanding mineralisation

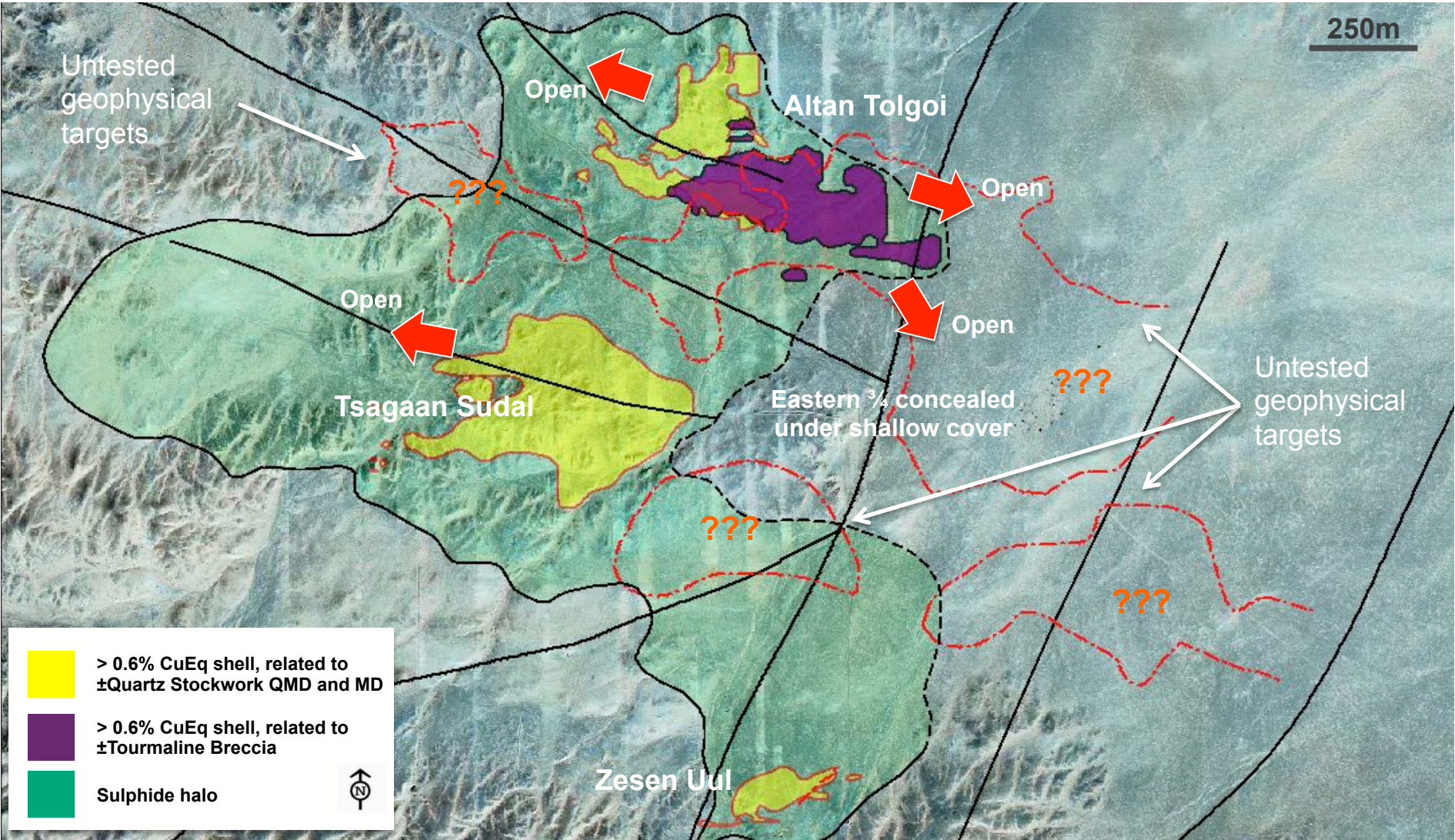


- › **Advanced through three exploration phases:**
  - 1995 -1998: exploration by QGX with ore-grade mineralisation at Zesen Uul and Altan Tolgoi
  - 2002 - 2006: aggressive exploration program by Ivanhoe Mines targeting shallow stockwork
  - 2006 - 2012: sporadic exploration targeting Tourmaline breccia mineralisation
- › **Extensive historic exploration completed:**
  - 119 trenches completed (65,636m)
  - Array IP, ground magnetics, ground gravity
  - 208 reverse circulation drill holes (27,747m)
  - 171 diamond drill holes (63,893m)
- › **Xanadu completes 10,000m+ diamond drilling:**
  - 2014 program extends mineralised envelope
  - Discovered first significant tourmaline breccia mineralisation (>1.0% CuEq)





# Shallow, high-grade zones hosted in large mineralised intrusion

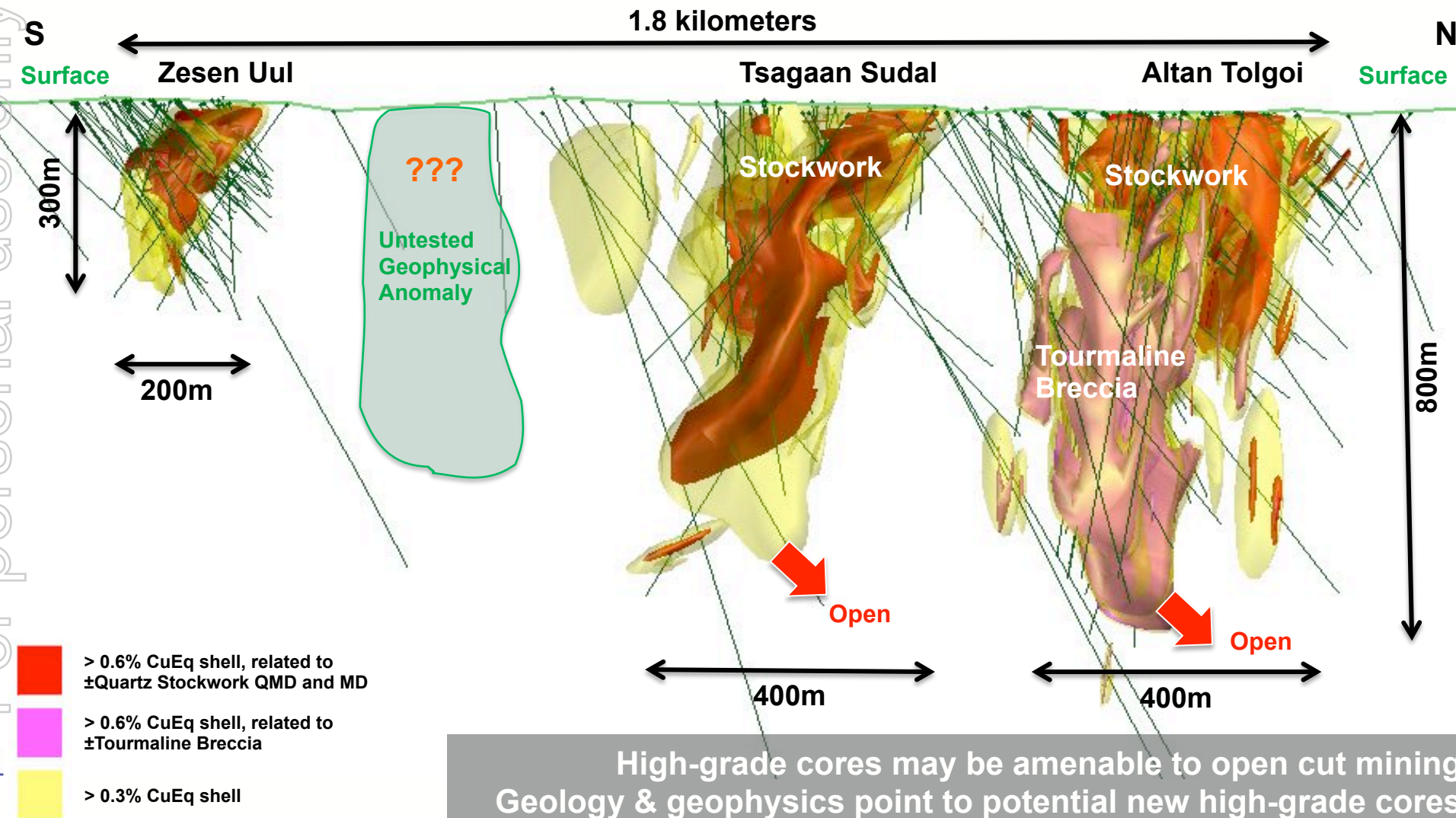






## High-grade cores extend from surface & within tight radius

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## Ambitious 2015 exploration program to build shareholder value

### Exploration Activities

- › 15,000m+ step-out drilling to test extensions of current Kharmagtai mineralisation
- › Exploration drilling to identify new shallow, mineralised porphyry centres
- › Investigate deeper mineralisation potential
- › Advanced Oyut Ulaan project including additional exploration drilling

### Objectives

- › JORC resource at the Kharmagtai project
- › Target shallow mineralisation amenable to open cut mining
- › Define Kharmagtai to scoping study stage
- › Demonstrate potential of the Oyut Ulaan project







## Funded to deliver the 2015 exploration program

- > A\$13.6m placement @ 12.26 cps
- > Launching A\$8.5m “2 for 7” rights issue
- > Targeting A\$22.1m total new funds
- > Xanadu will be properly capitalised to implement its strategy:
  - Pay-down Kharmagtai deferred consideration
  - Increase Kharmagtai ownership
  - Fully funded exploration program
  - Remove fund raising uncertainty
- > Xanadu enters 2015 with the ability to create shareholder wealth through investing in its copper-gold portfolio

### Placement & Rights (A\$'m)

Activity	Placement	Rights Issue	Total Proceeds
Kharmagtai Consideration			11.4
Exploration & corporate			10.7
<b>Total</b>	<b>13.6</b>	<b>8.5</b>	<b>22.1</b>

### Pro-forma Financial Position (A\$'m)

	30 Sep	Change	Pro-forma
Cash	1.5	+10.7	<b>12.2</b>
Kharmagtai Consideration	(11.4)	+11.4	-
Noble Loan Facility	(2.3)	-	<b>(2.3)</b>
<b>Net Cash</b>	<b>(12.2)</b>	<b>+22.1</b>	<b>9.9</b>



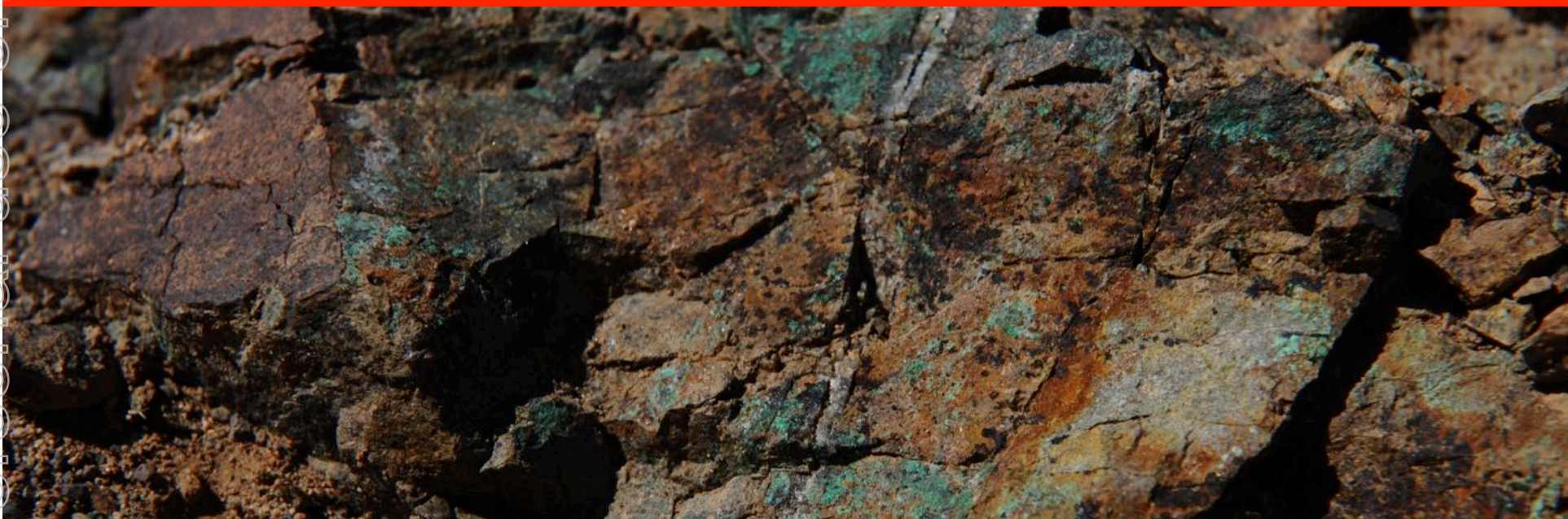
## Reasons to invest in Xanadu

- |                             |   |
|-----------------------------|---|
| <b>Advanced projects</b>    | <ul style="list-style-type: none"><li>&gt; Kharmagtai approaching a moderate sized Cu-Au porphyry</li><li>&gt; Multiple drill-ready Cu-Au targets at Oyut Ulaan</li></ul>       |
| <b>Clear objectives</b>     | <ul style="list-style-type: none"><li>&gt; Extend shallow, higher-grade mineralisation at Kharmagtai</li><li>&gt; Organic growth via exploration and discovery</li></ul>        |
| <b>Well funded</b>          | <ul style="list-style-type: none"><li>&gt; Strong balance sheet, consolidating project interests</li><li>&gt; Funded to deliver value-adding 2015 exploration program</li></ul> |
| <b>Strategic position</b>   | <ul style="list-style-type: none"><li>&gt; Mongolia is emerging as a significant copper supplier</li><li>&gt; South Gobi region has proven development potential</li></ul>      |
| <b>Team to deliver</b>      | <ul style="list-style-type: none"><li>&gt; Strong Mongolian, corporate &amp; exploration credentials</li><li>&gt; Strong national and corporate partnerships</li></ul>          |
| <b>Attractive valuation</b> | <ul style="list-style-type: none"><li>&gt; Vision to be one of Asia's next mid-tier copper producers</li><li>&gt; Targeting near-term milestones to create value</li></ul>      |



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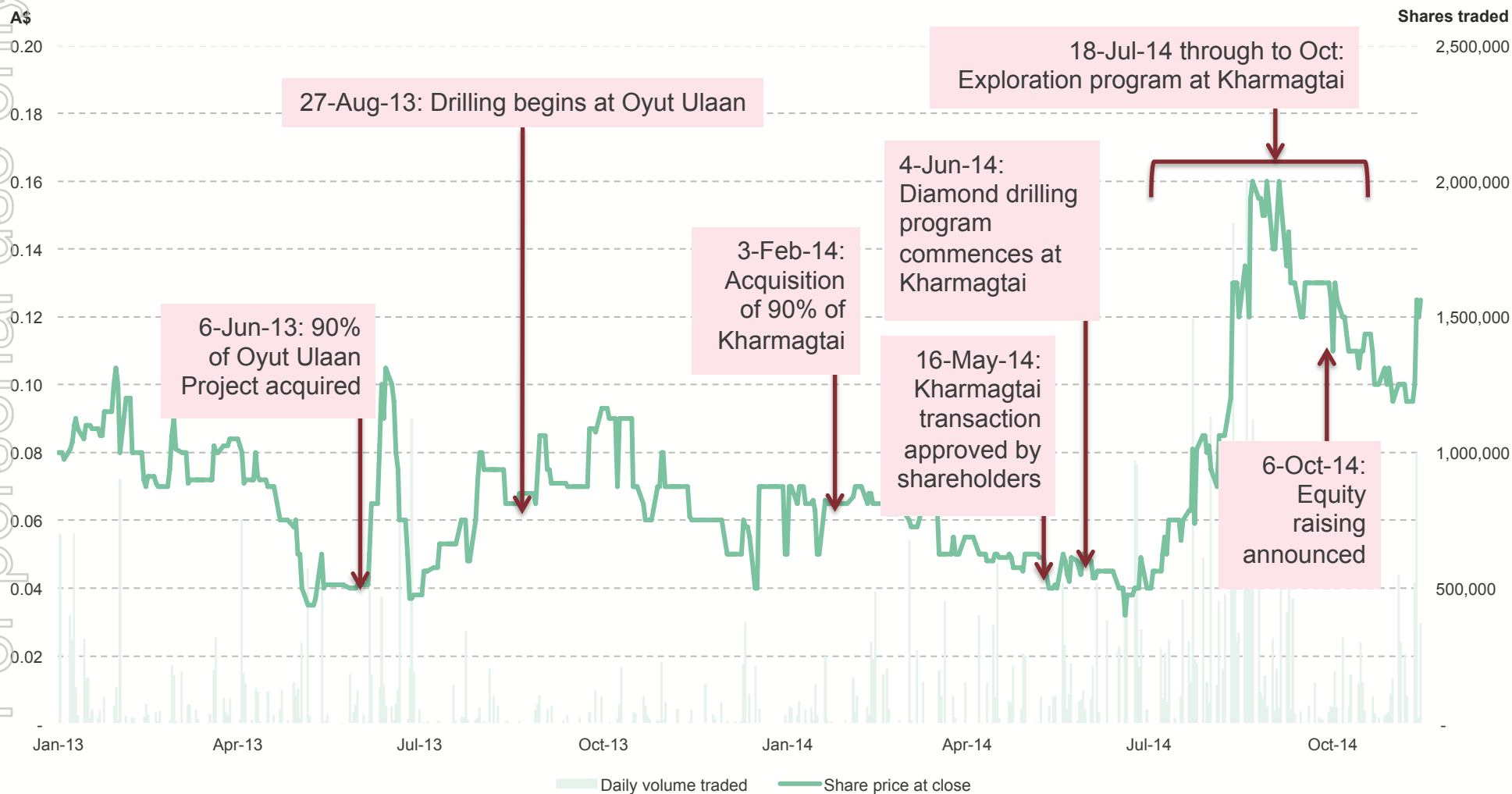
## Appendices





# Investor recognition of Kharmagtai exploration results

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## Mongolia has implemented favourable mining and investment laws

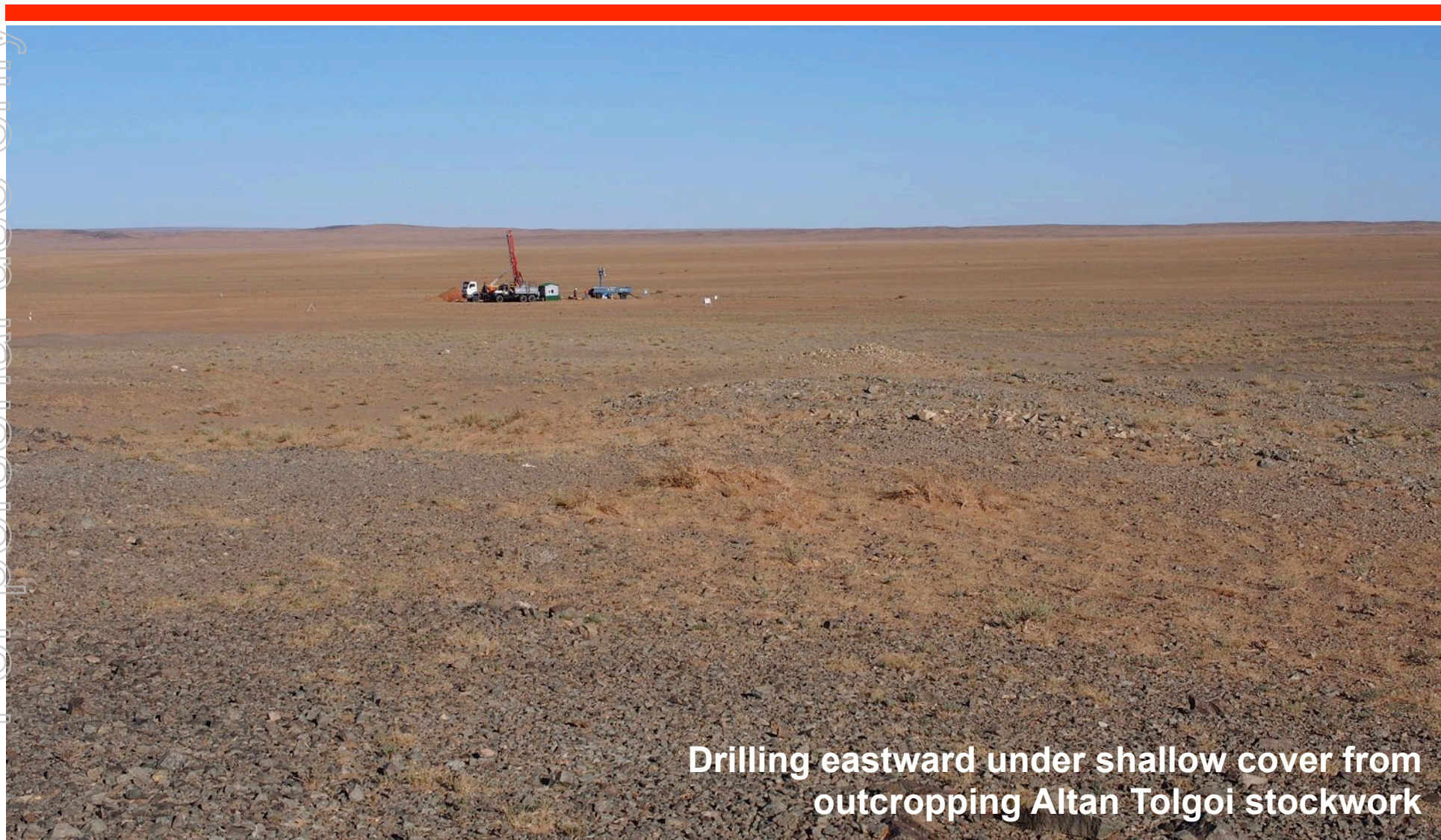


- > Mongolia has implemented several important changes to its minerals regime to encourage foreign and domestic investment
- > Amended 2006 Mining Law clarifies several issues and is a step towards international best practice in environmental management and community relations
- > Re-opening of the cadastral office and extension of exploration license period
- > November 2013 Investment Law promotes fiscal certainty for national and international investors alike





## Simple logistics and favourable development conditions

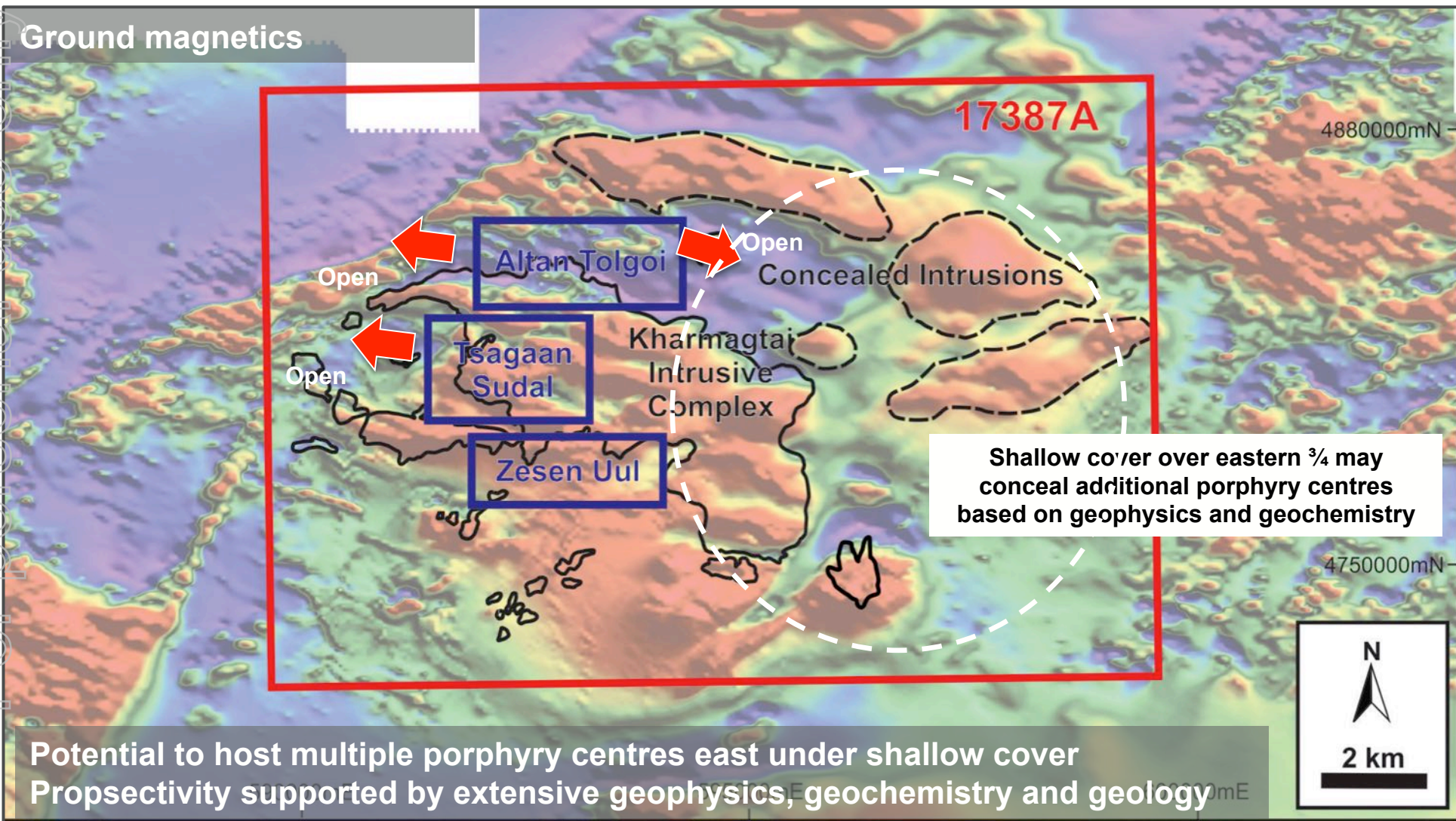


**Drilling eastward under shallow cover from  
outcropping Altan Tolgoi stockwork**





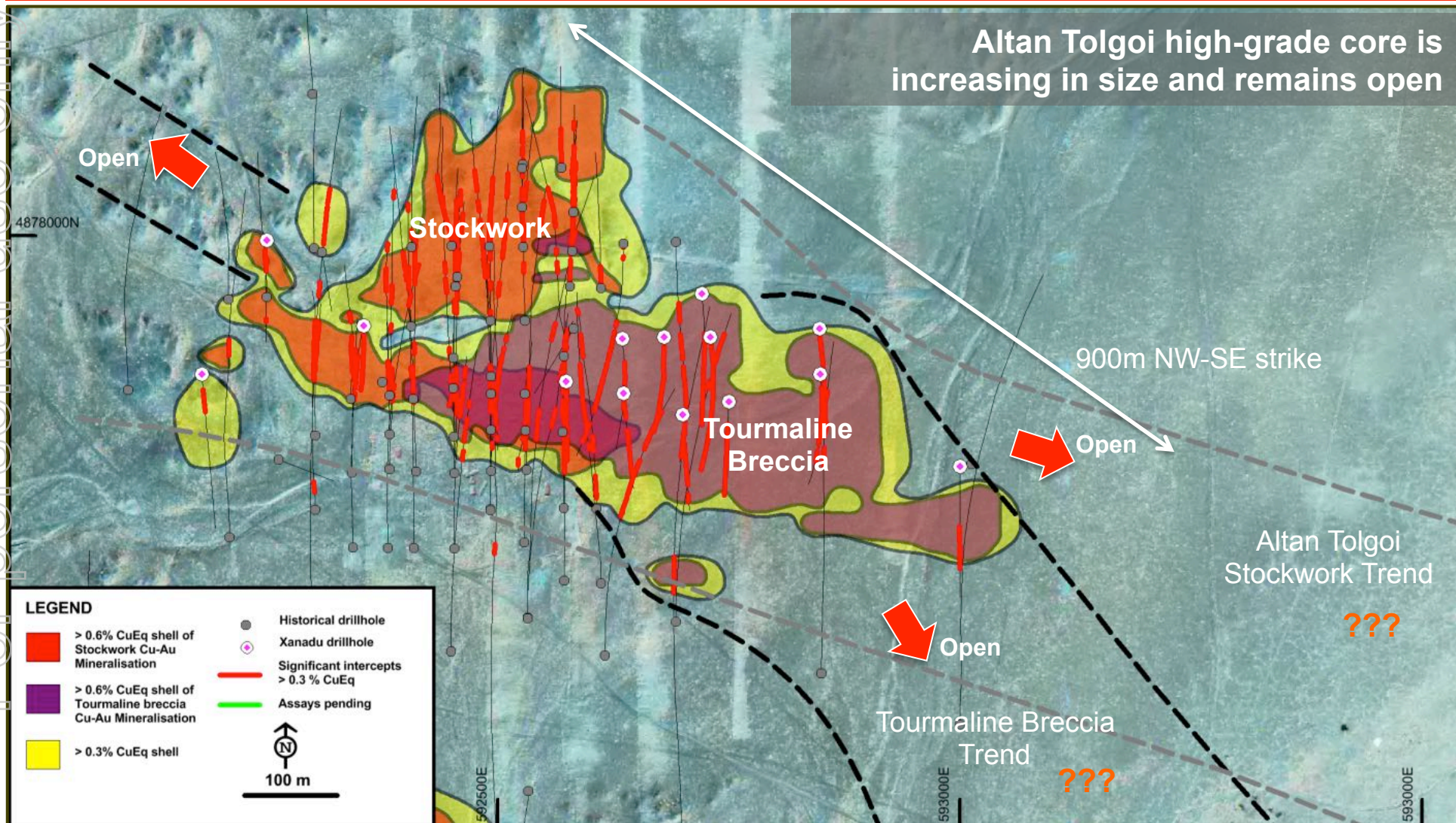
## Excellent potential to build mineralisation through exploration







## Altan Tolgoi high-grade zone extended in 2014 & remains open

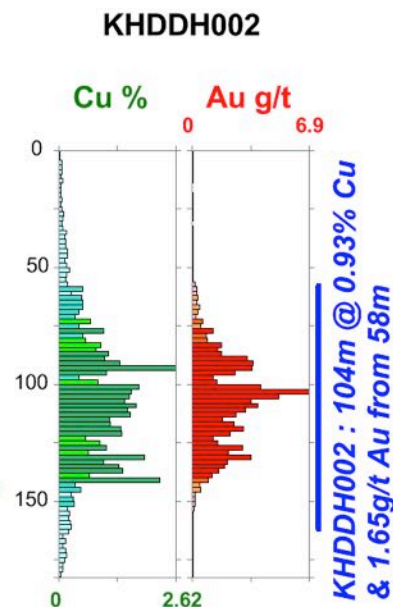
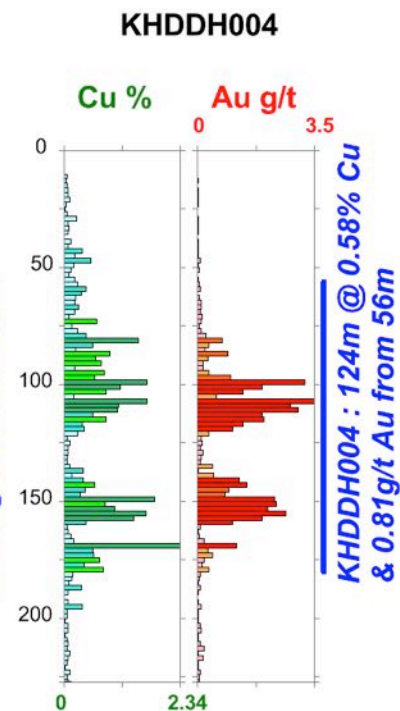
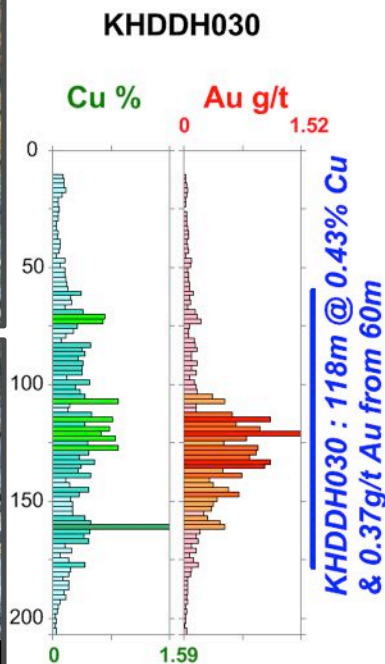
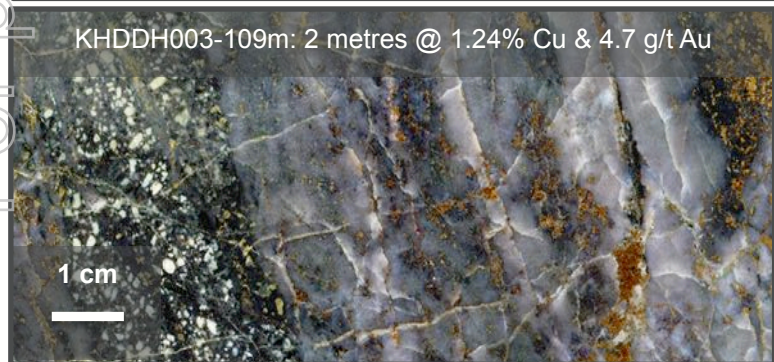
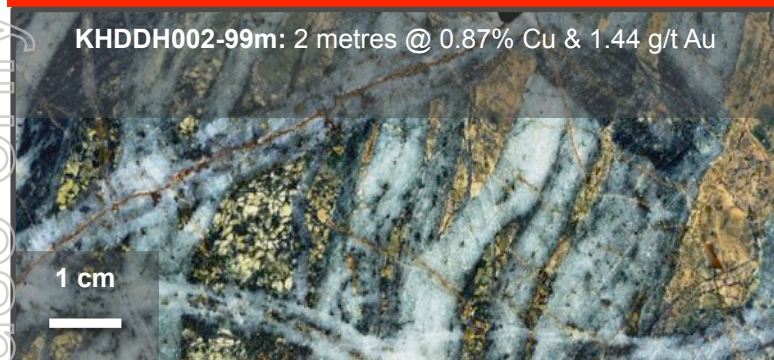








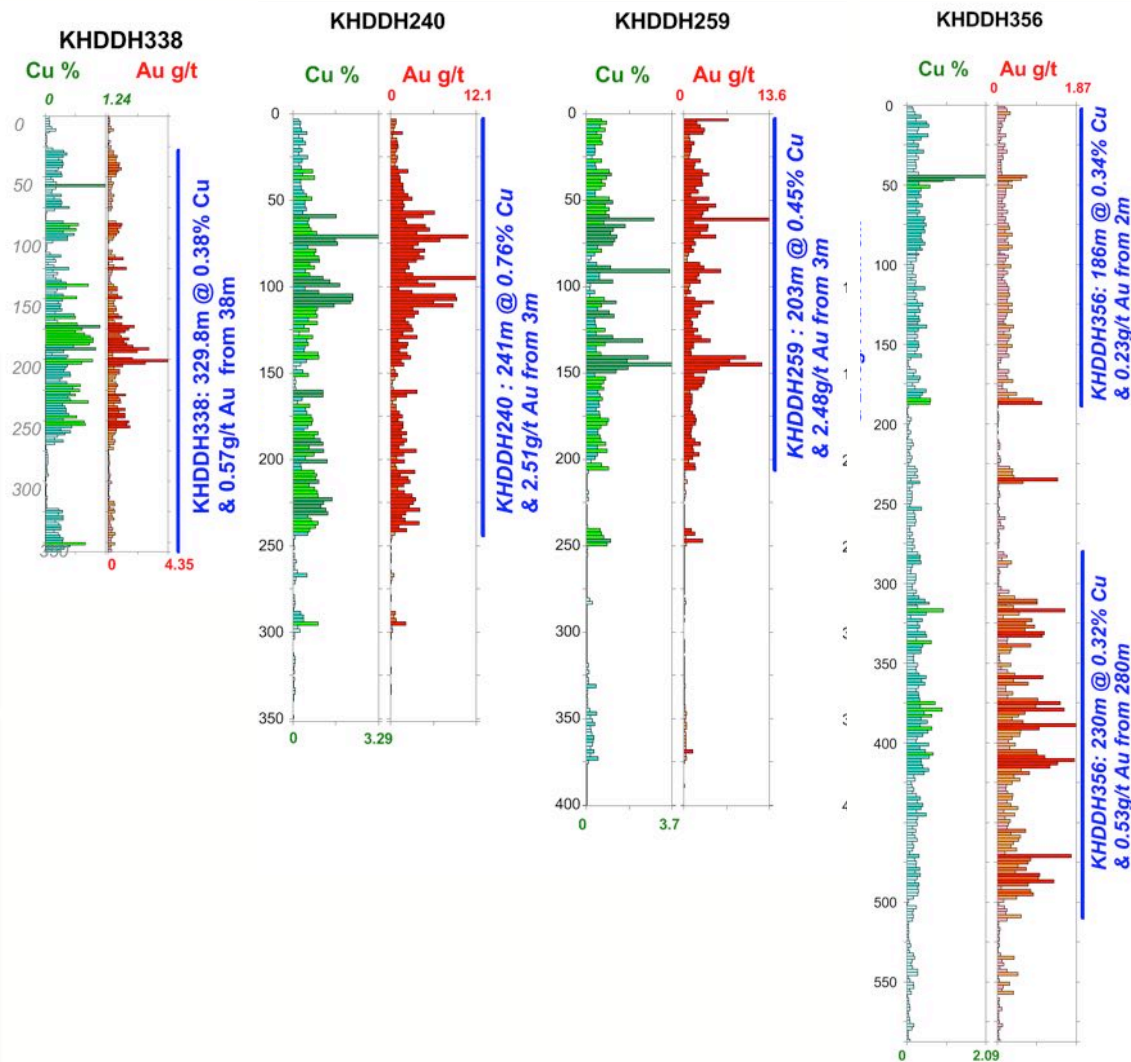
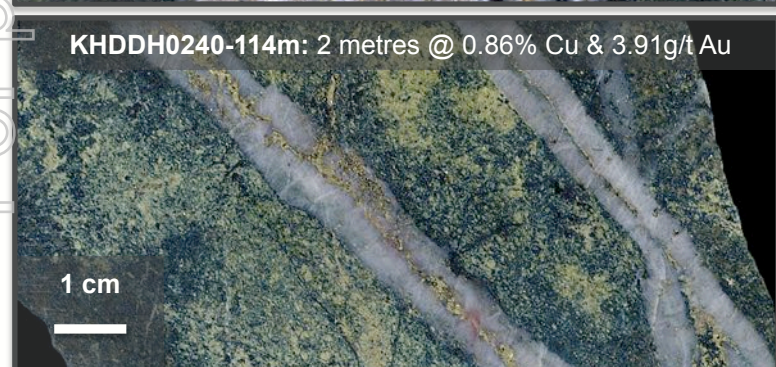
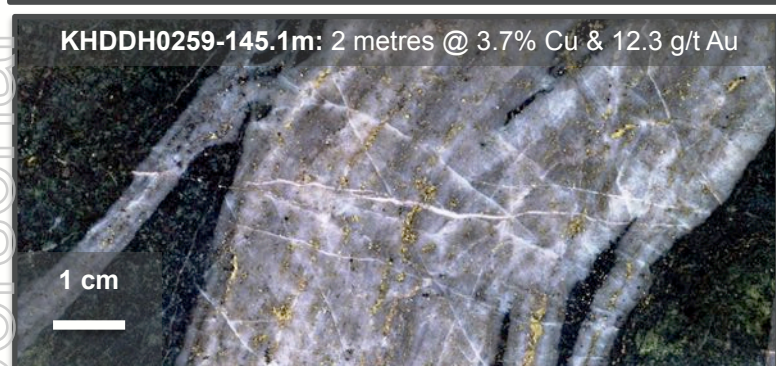
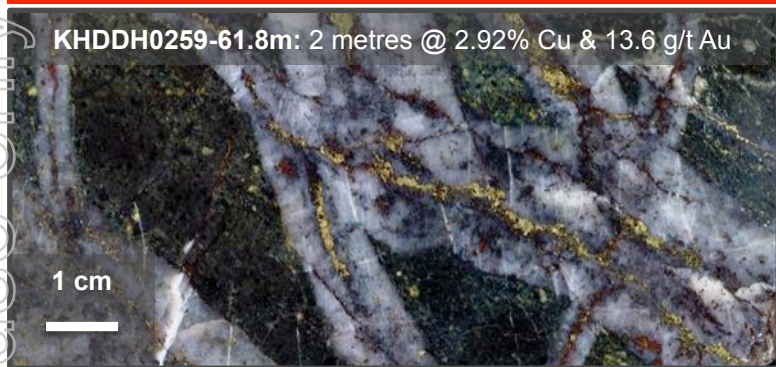
# Zesen Uul – shallow gold-rich stockwork mineralisation







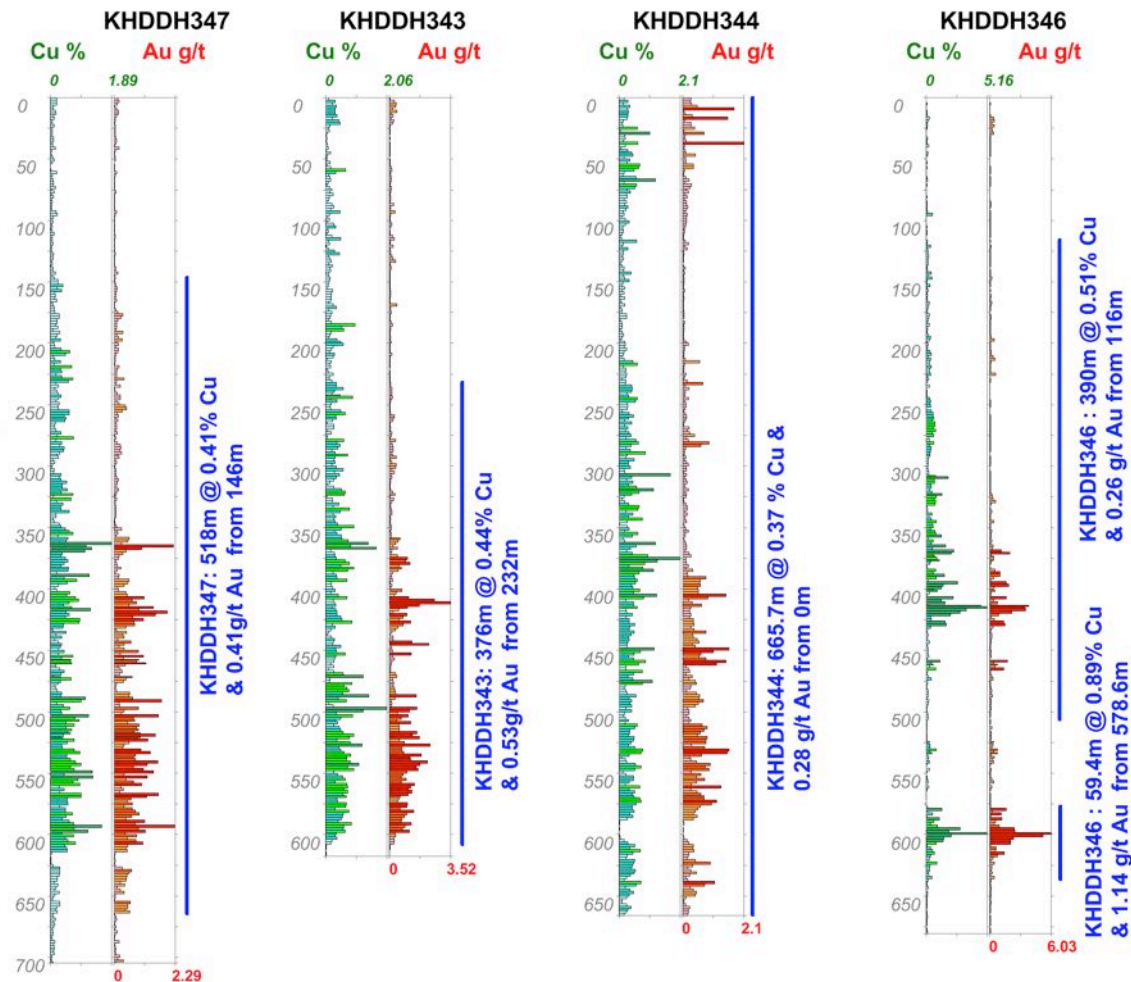
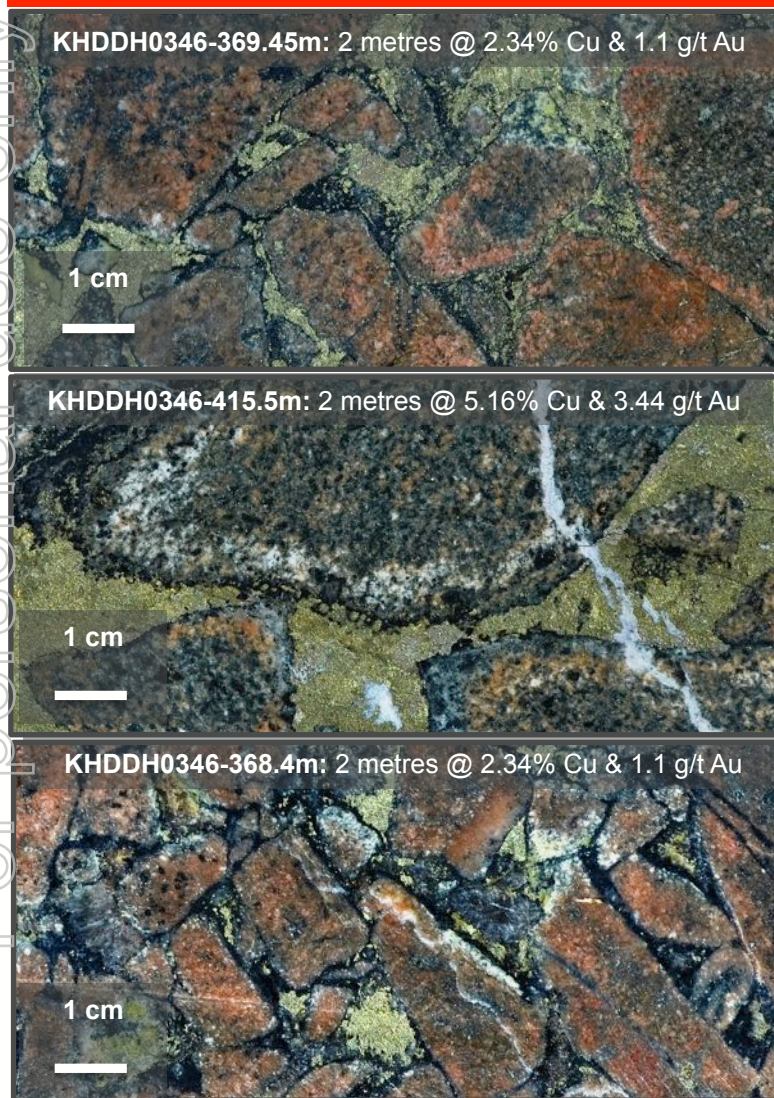
# Altan Tolgoi – shallow gold-rich stockwork mineralisation







# East Altan Tolgoi – tourmaline breccia mineralisation







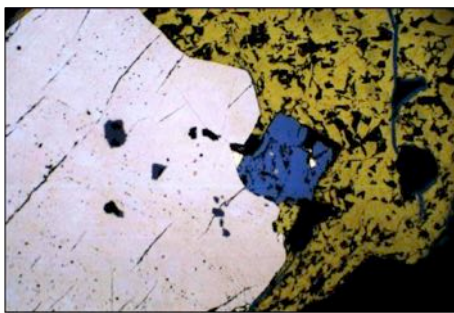
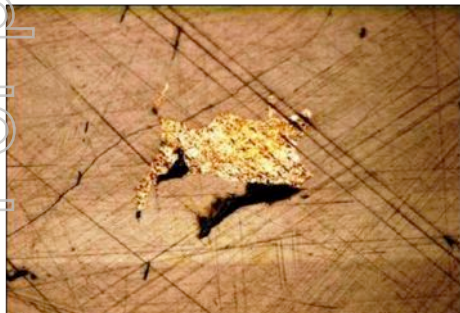
## Emerging picture pointing to shallow open pit potential



Stockwork quartz-chalcopyrite veins: 2m @ 2.10 g/t Au and 1.19% Cu.



Mineralised tourmaline breccia: 2m @ 5.16% Cu & 3.44 g/t Au.



Relationship between gold and sulphides investigated in previous petrological work.

- Potential for a large-scale porphyry copper-gold system
- Multiple shallow high-grade, gold-rich cores
- Drilling is still expanding near-surface mineralisation
- Outcropping mineralised centres located in close proximity to each other
- Development studies would be based on a single central plant
- Gold primarily occurs either within chalcopyrite or as free grains
- Average gold grain size is relatively large (up to 100 microns long)
- Preliminary metallurgical testing indicates high recoveries (>85%) for the copper & gold will likely be a significant by-product
- Tourmaline breccia part of a much larger system extending several kilometres in an east-west direction



## Xanadu has formed strong partnerships in Mongolia



MONGOL METALS

- › Kharmagtai acquired via Mongol Metals LLC joint venture company
- › Ganbayar Lkhagvasuren is joint shareholder in Mongol Metals
  - Xanadu Executive Director
  - Xanadu co-founder in 2005
  - US\$4.0m cash equity



- › Market leading global commodities supply chain manager
- › Experienced in marketing for natural resources projects
- › Experienced and well-established in Mongolia
- › Market intelligence and access to global customer and technical networks
- › Strategic alliance with Xanadu formed in February 2011
- › Xanadu equity holder and debt provider



## Kharmagtai acquisition has added value in a short period of time

### Acquisition:

- › Mongol Metals JV acquired 90% interest in Kharmagtai from Turquoise Hill
- › US\$14.0m consideration
  - US\$0.5m deposit and US\$3.5m at completion – paid
  - US\$10.0m deferred 18 months
- › Option to acquire a 3% net smelter royalty
- › Approved by Xanadu shareholders in May 2014

### Project interest and funding:

- › Xanadu can earn 85% interest in Mongol Metals (76% direct project interest)
- › Approximately US\$10.0m already arranged in relation to Kharmagtai
  - US\$4.0m Mongol Metals equity
  - US\$4.0m Noble 3-year loan
  - A\$1.7m brokered placement in April 2014
  - Sale of non-core assets
- › Circa 40%+ interest in Mongol Metals earned by 15 September 2014





# XANADU MINES



## CORPORATE DIRECTORY

[www.xanadumines.com](http://www.xanadumines.com)

**George A. Lloyd** – Managing Director

+852 6397 3308 (Hong Kong)

+976 9400 9211 (Mongolia)

[george.lloyd@xanadumines.com](mailto:george.lloyd@xanadumines.com)

**Mongolia**

2nd Khoroo, AOS Street

Military Town

Bayanzurkh District

Ulaanbaatar

**Australia**

Level 12, 680 George Street  
Sydney, NSW, 2000

