



TSX:ERD | MSE:ERDN | OTC:ERDCF

# DEVELOPING THE HIGH-GRADE KHUNDII MINERALS DISTRICT

*Corporate Update Q1 2024*

*Unlocking Treasures - Sharing Benefits*



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

# FORWARD LOOKING STATEMENTS

This presentation contains certain forward-looking information and statements which may not be based on fact, including without limitation, statements regarding the future plans and objectives for Erdene Mongol LLC and the Khundii Minerals District under the Strategic Alliance, the Company's expectations in respect of its future financial position, business strategy, future exploration and production, mineral resource potential, exploration drilling, permitting, access to capital, events or developments that the Company expects to take place in the future. All statements, other than statements of historical facts, are forward-looking information and statements. The words "believe", "expect", "anticipate", "contemplate", "target", "plan", "intends", "continue", "budget", "estimate", "may", "will" and similar expressions identify forward-looking information and statements. In addition to the forward-looking information and statements noted above, this presentation includes those that relate to: the expected results of exploration activities; the estimation of mineral resources; the ability to identify new mineral resources and convert mineral resources into mineral reserves; ability to raise additional capital and complete future financings; capital expenditures and costs, including forecasted costs; the ability of the Company to comply with environmental, safety and other regulatory requirements; future prices of precious metals; the ability of the Company to obtain all necessary approvals and permits in connection with the development of the Bayan Khundii Gold Project.

Such forward-looking information and statements are based upon a number of estimates and assumptions that, while considered reasonable by the Company as of the date of such information and statements, are inherently subject to significant business, economic and competitive uncertainties and contingencies and which may prove to be incorrect. These estimates and assumptions relate to, among other things, the continuance of the Company and its subsidiaries as a going concern, general economic and market conditions, gold prices, the accuracy of mineral resources and mineral reserve statements, and the other estimates and assumptions.

Readers are cautioned that forward-looking information and statements are not guarantees of future performance. There can be no assurance that such information and statements will prove to be accurate and actual results and future events could differ materially from those presented in such information and statements. Forward-looking information and statements is subject to a variety of risks and uncertainties which could cause actual events or results to differ from those reflected in the forward-looking information and statements. Such risks include, but are not limited to, the volatility of the price of gold, uncertainty of mineral resources, exploration potential, mineral grades and mineral recovery estimates, delays in exploration and development plans, insufficient capital to complete development and exploration plans, risks inherent with mineral acquisitions, delays in obtaining government approvals or permits, financing of additional capital requirements, commercial viability of mineral deposits, cost of exploration and development programs, risks associated with competition in the mining industry, risks associated with the ability to retain key executives and personnel, title disputes and other claims, changes in governmental and environmental regulation that results in increased costs, cost of environmental expenditures and potential environmental liabilities, accidents and labour disputes. Should one or more of these risks and uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in forward-looking information and statements. Please see the Company's Annual Information Form dated March 22, 2023 available on the Company's website at [www.erdene.com](http://www.erdene.com) or on the Company's SEDAR profile at [www.sedar.com](http://www.sedar.com), for details of other risks facing the Company. The Company disclaims any intention or obligation to update or revise any forward-looking information and statements whether as a result of new information, future events or otherwise, except to the extent required by applicable laws.

Peter Dalton, P.Geol. (Nova Scotia), Senior Geologist for Erdene and a "Qualified Person" under National Instrument 43-101, has reviewed and approved the scientific and technical information in this presentation. All currencies are reported in Canadian dollars unless otherwise specified.

# DEVELOPING THE HIGH-GRADE KHUNDII MINERALS DISTRICT

## Investment Thesis



**First mover** in an unexplored portion of one of the **world's great mineral belts** – unparalleled discovery potential for large, high grade, gold and copper deposits



**Powerful Alliance** – uniting **Erdene** with **Mongolia's leading miner** backed by one of **Mongolia's largest conglomerates**



**Bayan Khundii Gold Project** – **high grade gold development moving rapidly to first gold**



**Multimillion ounce potential** – **multiple high grade gold** discoveries adjacent to the Bayan Khundii Gold Project and significant exploration upside in district



**Zuun Mod Molybdenum-Copper Porphyry Complex** – **a sleeping giant**

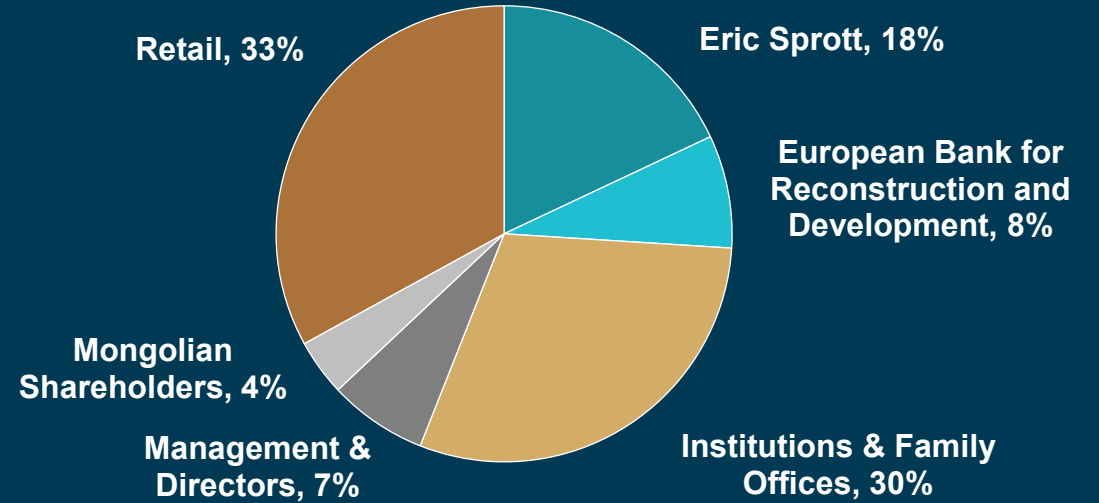
# STRONG SHAREHOLDER BASE

Majority of shares held by institutions, banks and accredited investors

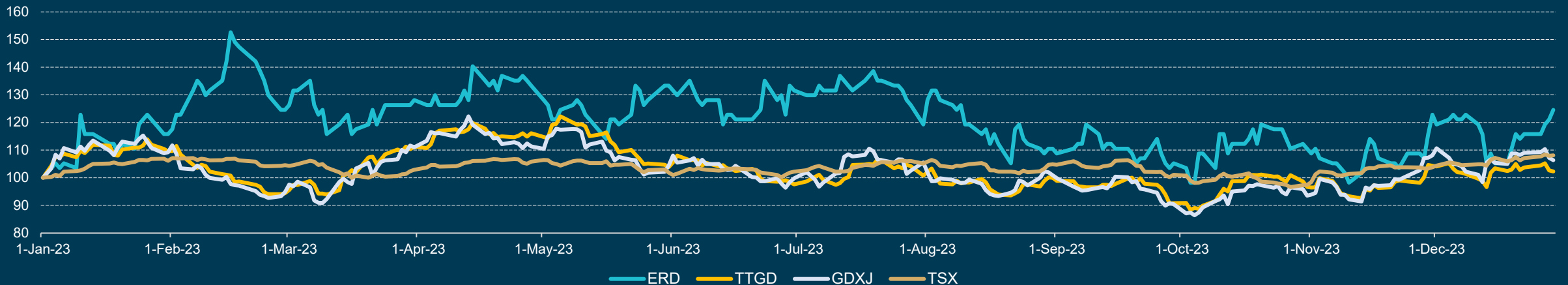


## CAPITAL STRUCTURE

Shares issued and outstanding	345 M
Options	26 M
Warrants	25 M
DSUs	8 M
Fully diluted	404 M
Market capitalization (C\$M)	135 M
52-week range	0.27-0.42
Average daily trading volume (3 month)	226,911



## Relative Shareholder Returns



Note: as of March 8, 2024

# LOCATED IN THE GOLD AND COPPER RICH CENTRAL ASIAN OROGENIC BELT

In the underexplored, highly prospective Trans Altai Terrane in Southwestern Mongolia



HOST TO MULTIPLE MAJOR GOLD-COPPER DEPOSITS INCLUDING MURUNTAU (175MOZ AU) AND OYU TOLGOI

**USGS**  
science for a changing world

Global Mineral Resource Assessment

**Porphyry Copper Assessment of the Central Asian Orogenic Belt and Eastern Tethysides—China, Mongolia, Russia, Pakistan, Kazakhstan, Tajikistan, and India**

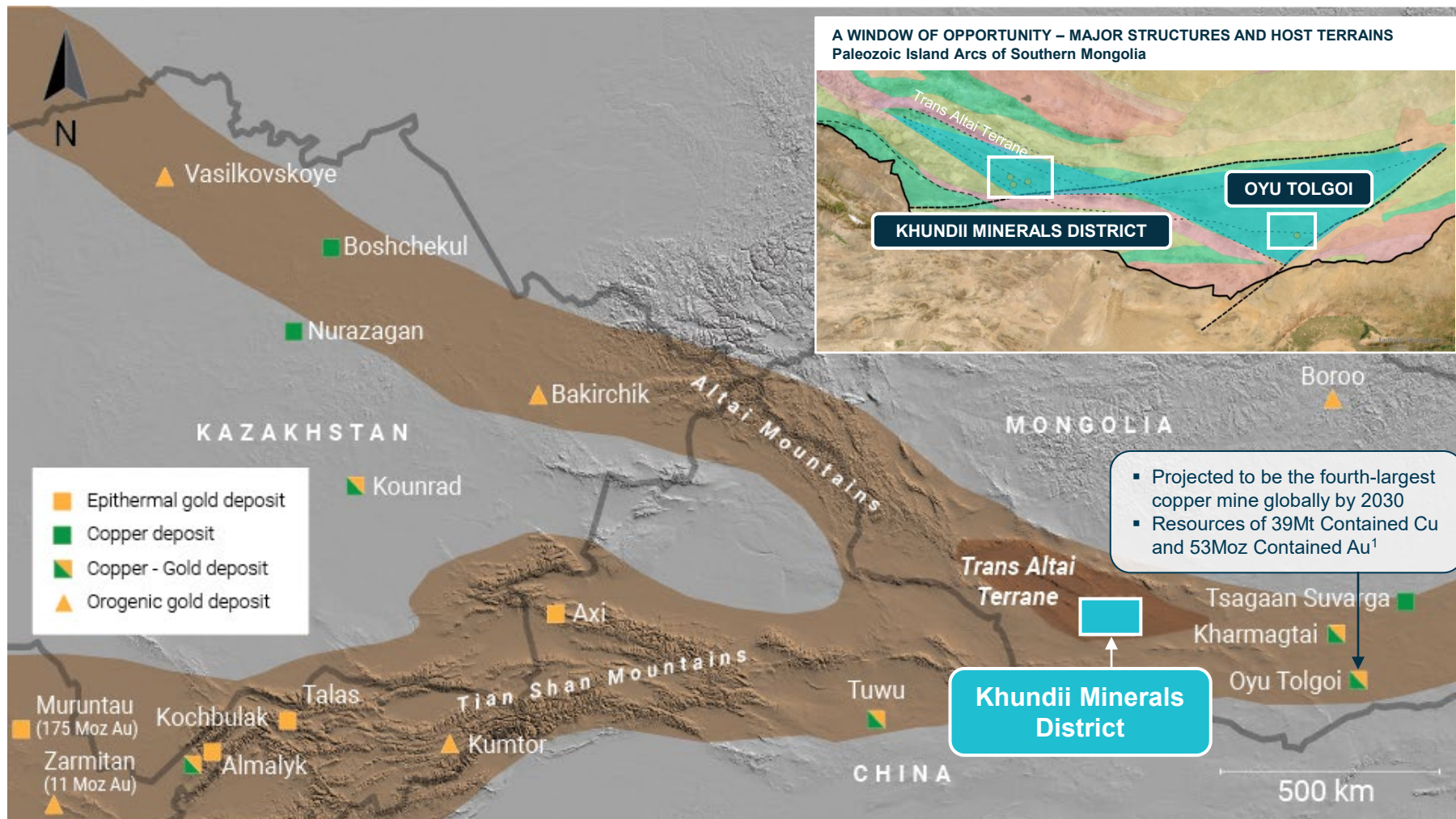
Prepared in cooperation with the China Geological Survey, the Centre for Russian and Central EurAsian Mineral Studies, and the Russian Academy of Sciences

Scientific Investigations Report 2010-5090-X

U.S. Department of the Interior  
U.S. Geological Survey

USGS concluded the Trans Altai shows the greatest potential for porphyry / epithermal copper-gold discoveries on the CAOB

Notes:  
1. Contained gold = ~53Moz including Inferred  
Contained copper = ~39Mt including Inferred  
Source: Rio Tinto 2022 Annual Report



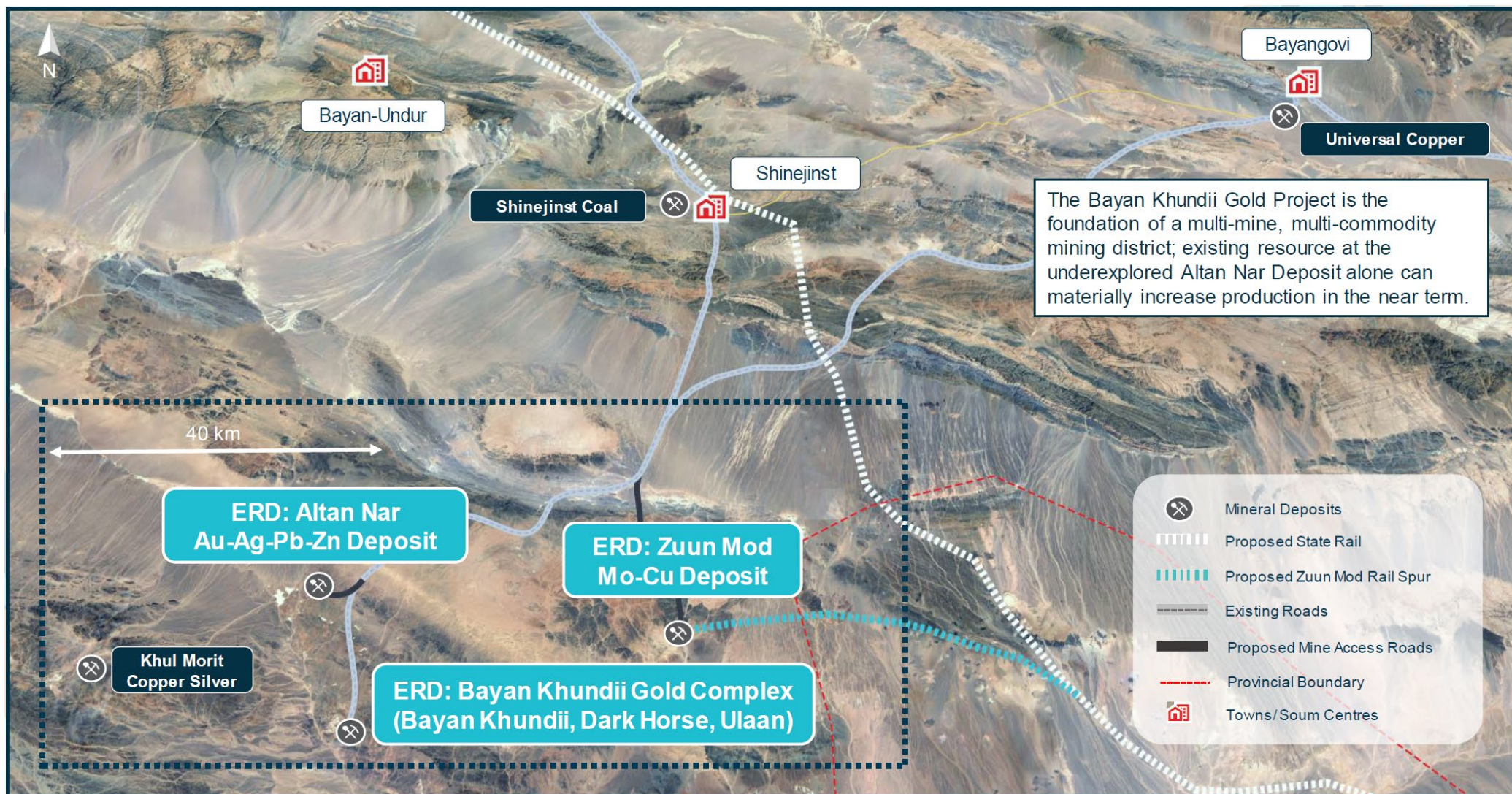
# EXPANDING INFRASTRUCTURE IN A GROWING MINING JURISDICTION

Less than 200km from the Chinese border, multiple mines in vicinity



# MAKINGS OF A MULTI-MINE, MULTI-COMMODITY DISTRICT

Multiple deposits in close proximity to be developed in sequence; +20 additional prospects



# STRATEGIC PARTNER BRINGS CAPITAL AND OPERATIONAL EXCELLENCE

Uniting Mongolia's leading explorer and miner





# STRATEGIC ALLIANCE WITH THE MONGOLIAN MINING CORPORATION

Mongolia's largest independent miner



- **Mongolian Mining Corporation (“MMC”) is the country’s largest publicly traded miner**
  - Listed on the Hong Kong Stock Exchange (HKEX: 0975)
  - ~US\$1B Market Cap (Q4 2023)
  - MCS Group, one of Mongolia’s largest conglomerates, owns 40%
- **Investment in ERD part of MMC’s diversification strategy**
  - Owns and operates two high-quality coking coal mines: Ukhaa Khudag (UHG) and Baruun Naran (BN)
- **Brings operational expertise**
  - 15-year operating history (+2,000 employees)
  - Strong safety culture – 3 LTI from 6.9 million man-hours in 2022
  - Major contributor to local economy procuring US\$4.6 million from provincial suppliers and almost 40% of employees hired locally

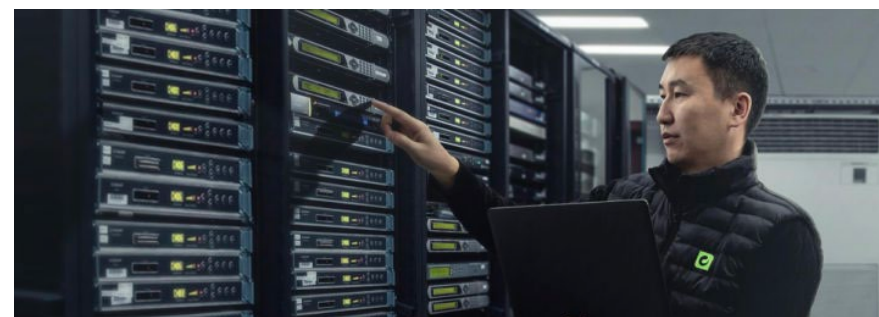


## MCS GROUP – LARGEST SHAREHOLDER OF MMC

Mongolia's leading diversified business

- **MCS is one of Mongolia's largest conglomerates**
  - 30-year history operating in Mongolia; owns 40% of MMC
  - Businesses in mining, engineering, energy, communications, property, consumer goods, healthcare and hospitality
- **Employs 13,000 Mongolians**
  - Contributes ~US\$500 million to the Mongolian economy annually
  - One of the Country's largest taxpayers
- **Committed to developing and enriching the Mongolian economy through responsible corporate excellence and progressive technology**
  - Strives to ensure operations benefit communities where it operates
  - Provides transparent sustainability reporting

Source: [www.mcs.mn](http://www.mcs.mn)



# FLAGSHIP MINE: THE BAYAN KHUNDII GOLD PROJECT

Foundation of a multi-mine, multi-commodity mining district



**2025**

One of the highest grade gold mines under development globally – early works complete with first gold in 2025



**93%**

Shallow (150m maximum depth), open pit mine with six year mine life and 93% recovery using Carbon in Pulp



**Upside**

Significant opportunity to extend mine life: 3 other deposits delineated within vicinity and +20 additional prospects



**26**

Operating in Mongolia for 26 years; meaningful contributions to local community; active and ongoing community engagement



**20% / 85%**

Using 20% renewable power and recycling 85% of water; dry stack tailings; net positive impact: planted 10,000 trees to date



# HIGH MARGIN, LOW COST MINE WILL UNLOCK KHUNDII DISTRICT

Updated Feasibility Study underscores the strong economics at Bayan Khundii



Average Head Grade  
**4.0 g/t**

AISC  
**US\$869/oz**

IRR  
**35.3%**

Payback  
**2.4 years**

Capital Expenditure  
**US\$100M**

Average Annual Production  
**86,900 ounces**  
(years 2-5)

After-Tax NPV<sub>5%</sub>  
**US\$170M**  
(\$1,800oz/Au)

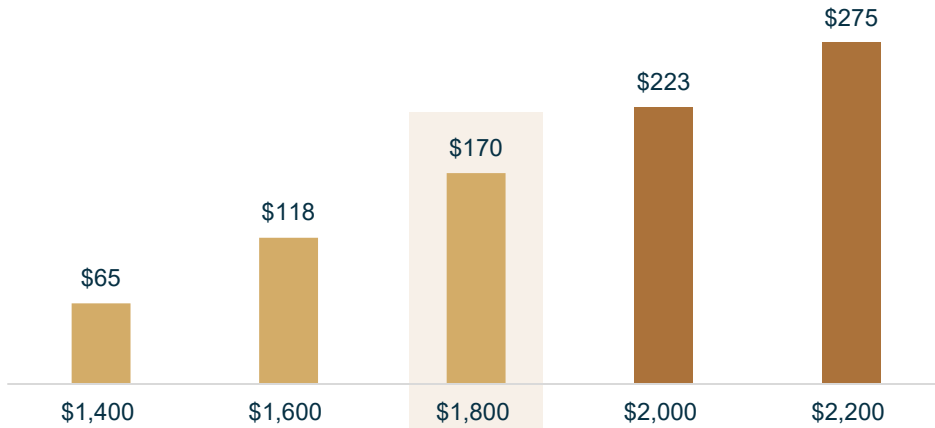
Gold Reserves  
**513,700 ounces**

# GOOD TORQUE TO GOLD

Higher gold prices materially enhance economics



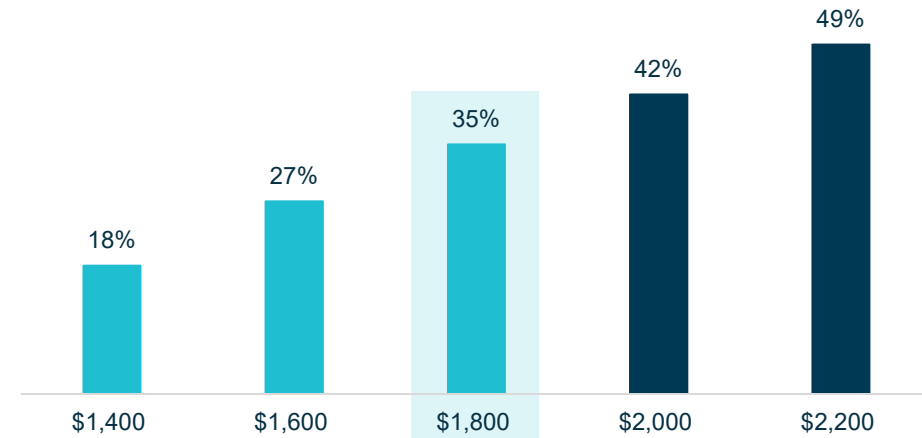
### AFTER-TAX NPV<sub>5%</sub> SENSITIVITY TO GOLD PRICE



Gold Price US\$

Feasibility  
Base Case

### AFTER-TAX IRR SENSITIVITY TO GOLD PRICE



Gold Price US\$

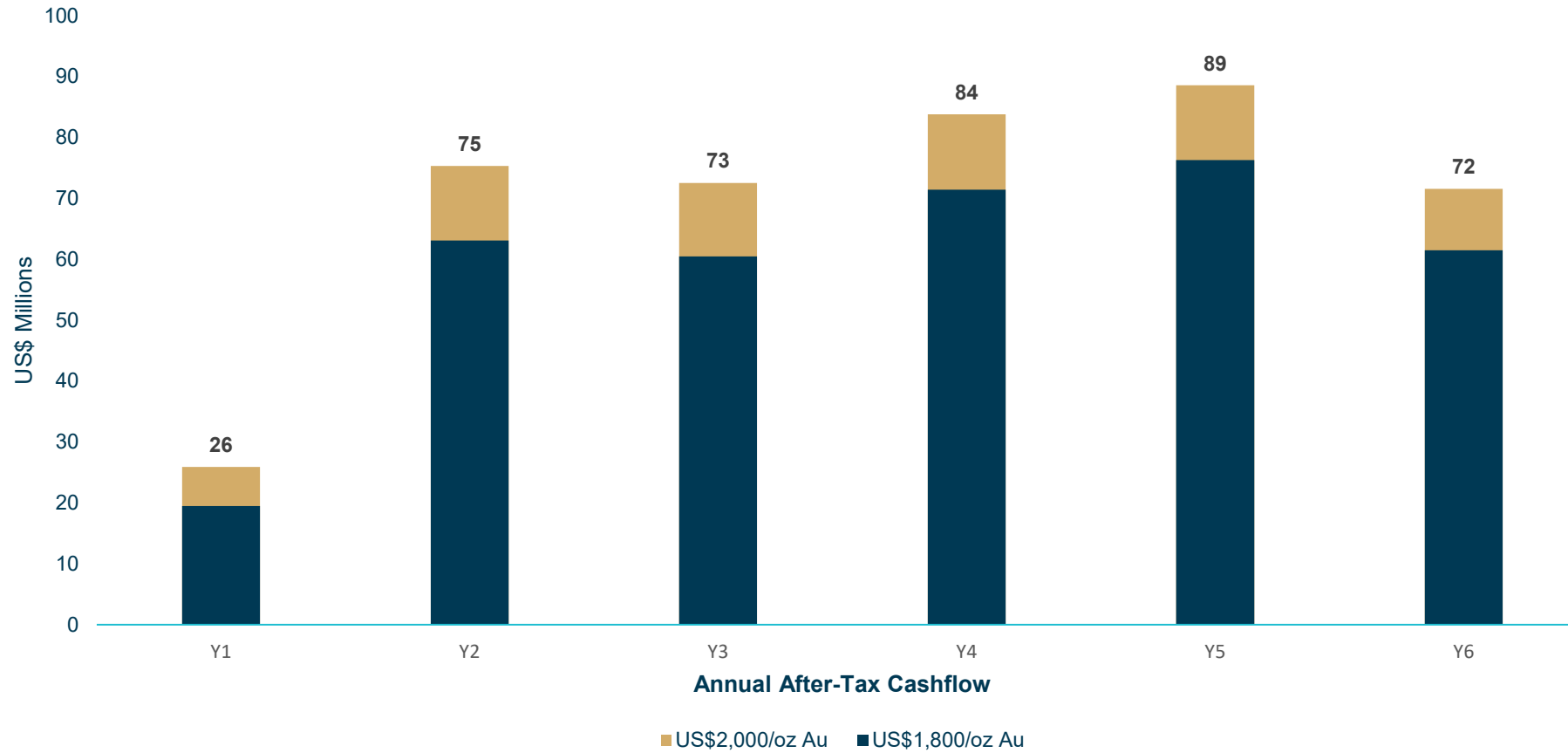
Feasibility  
Base Case

## MEANINGFUL CASH FLOW TO FUND GROWTH STARTING IN 2025

Average annual free cash flow of \$60M under base case and ~\$80M at \$2,000/oz Au



Projected Annual After-Tax Unlevered Cashflow  
Averages ~\$60M at US\$1,800/oz Au

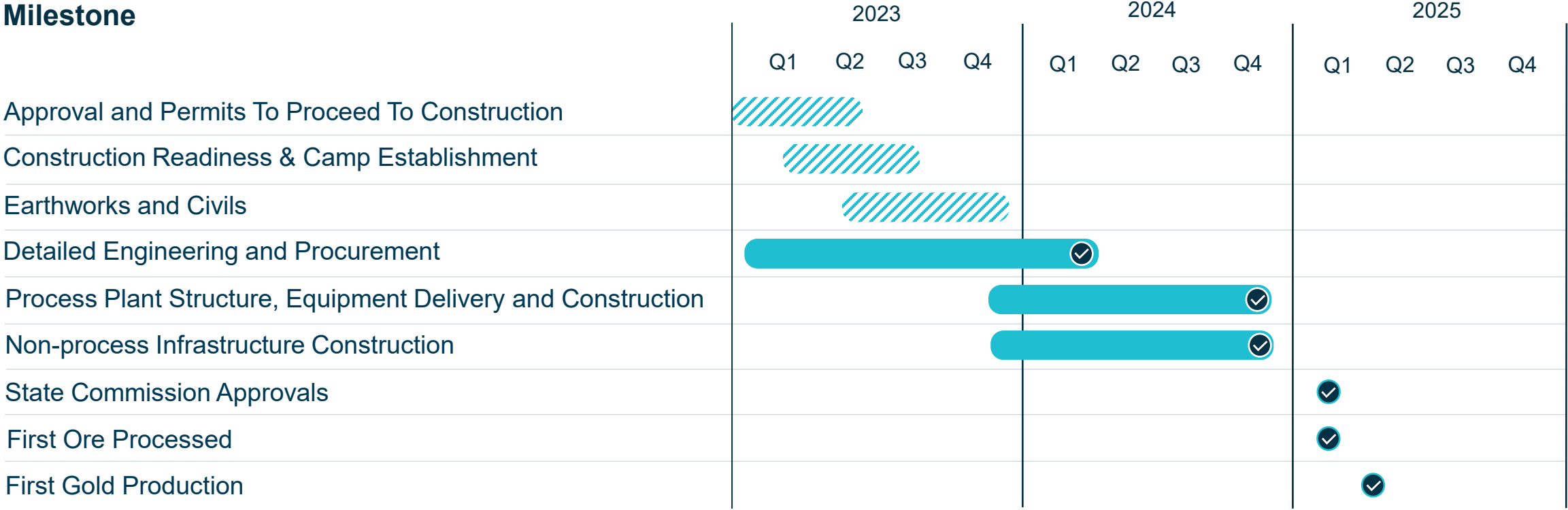


# FIRST GOLD SCHEDULED IN 2025

Early works and construction readiness completed in 2023



## Milestone



 Complete
  In progress
  Completion date

# COMPACT SITE PLAN EMPLOYING CONVENTIONAL TECHNOLOGY

Early works completed in late 2023





# PROCESS PLANT FOUNDATION COMPLETE

Concrete and rebar installed in late 2023



## CONSTRUCTION, EQUIPMENT AND POWER CONTRACTS EXECUTED

Agreements in place for all major construction works

- **Engineering, Procurement & Construction contract executed with MCS Property LLC (“MCSP”)**
  - One of the country’s largest construction firms with a 25-year history, +1,500 employees and +225 engineers
  - Major contractor to the mining industry including projects for Rio Tinto’s Oyu Tolgoi and MMC’s Ukhaa Khudag operations
  - Owned by MCS Group, one of Mongolia’s largest conglomerates, and cornerstone investor in MMC
  - Strong safety culture – 3 LTI from 6.9 million man-hours in 2022
  - Total contract value of US\$55M, including completed early works
- **Power Purchase Agreement signed with MCS International LLC (“MCSI”)**
  - Hybrid solution consisting of a 14.5MW diesel station, 5MW solar farm, 3MWh battery storage and associated infrastructure
  - MCSI will build, own, and operate under a take-or-pay arrangement
- **Orders placed for all key processing equipment**
  - Contracted with CITIC for Ball and SAG mills, COMO for the elution circuit and Hot Chengdu for filtration equipment



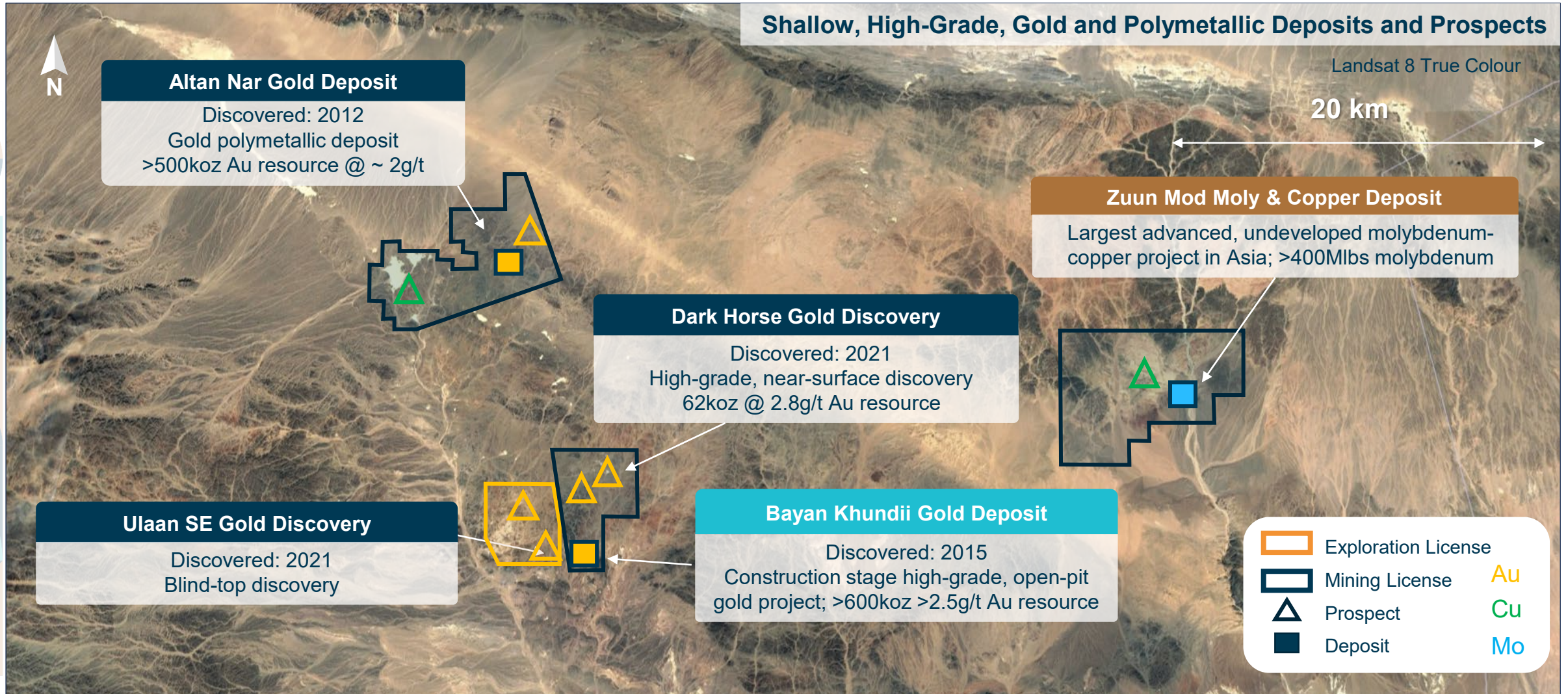
Oyu Tolgoi Underground Conveyor – MCSP



18MW UHG Power Plant – MCSI

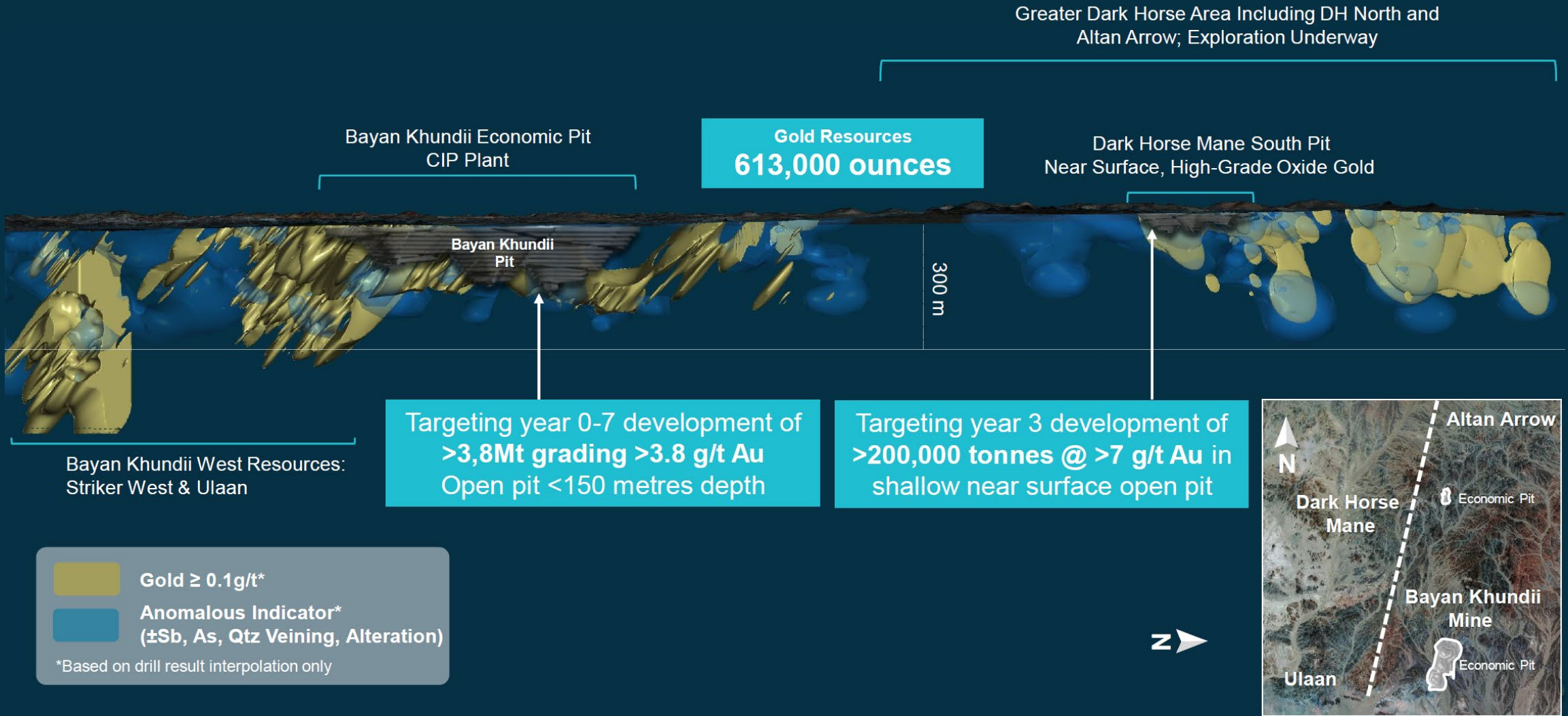
# KHUNDII MINERALS DISTRICT: MULTI-MILLION OUNCE POTENTIAL

Four gold discoveries, molybdenum-copper deposit and +20 high priority targets



# BAYAN KHUNDII DEPOSIT – EXPANSION ALONG STRIKE AND AT DEPTH

Current whittle pits comprise only a fraction of the mineralized envelopes



Bayan Khundii Economic Pit  
CIP Plant

Gold Resources  
**613,000 ounces**

Greater Dark Horse Area Including DH North and  
Altan Arrow; Exploration Underway

Dark Horse Mane South Pit  
Near Surface, High-Grade Oxide Gold

300 m

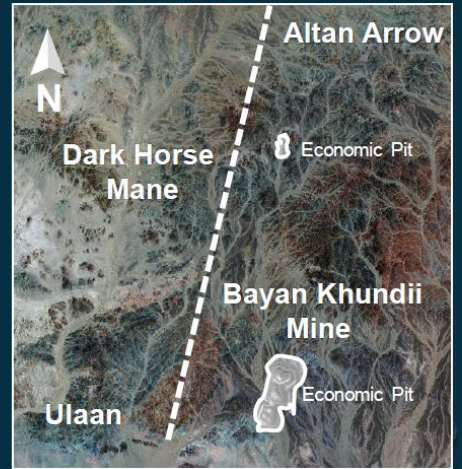
Bayan Khundii  
Pit

Targeting year 0-7 development of  
**>3,8Mt grading >3.8 g/t Au**  
Open pit <150 metres depth

Targeting year 3 development of  
**>200,000 tonnes @ >7 g/t Au** in  
shallow near surface open pit

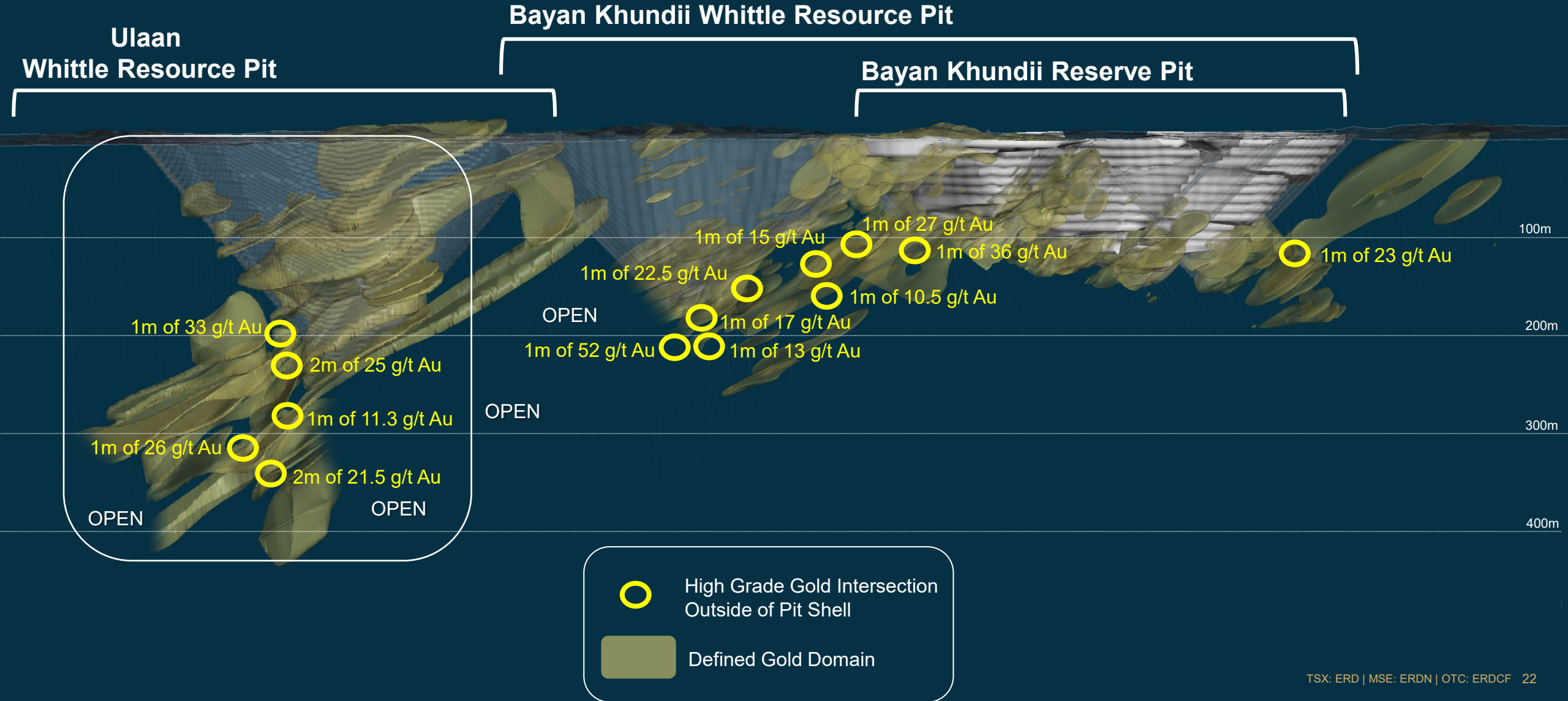
Bayan Khundii West Resources:  
Striker West & Ulaan

Gold  $\geq 0.1\text{g/t}^*$   
 Anomalous Indicator\*  
 (±Sb, As, Qtz Veining, Alteration)  
\*Based on drill result interpolation only



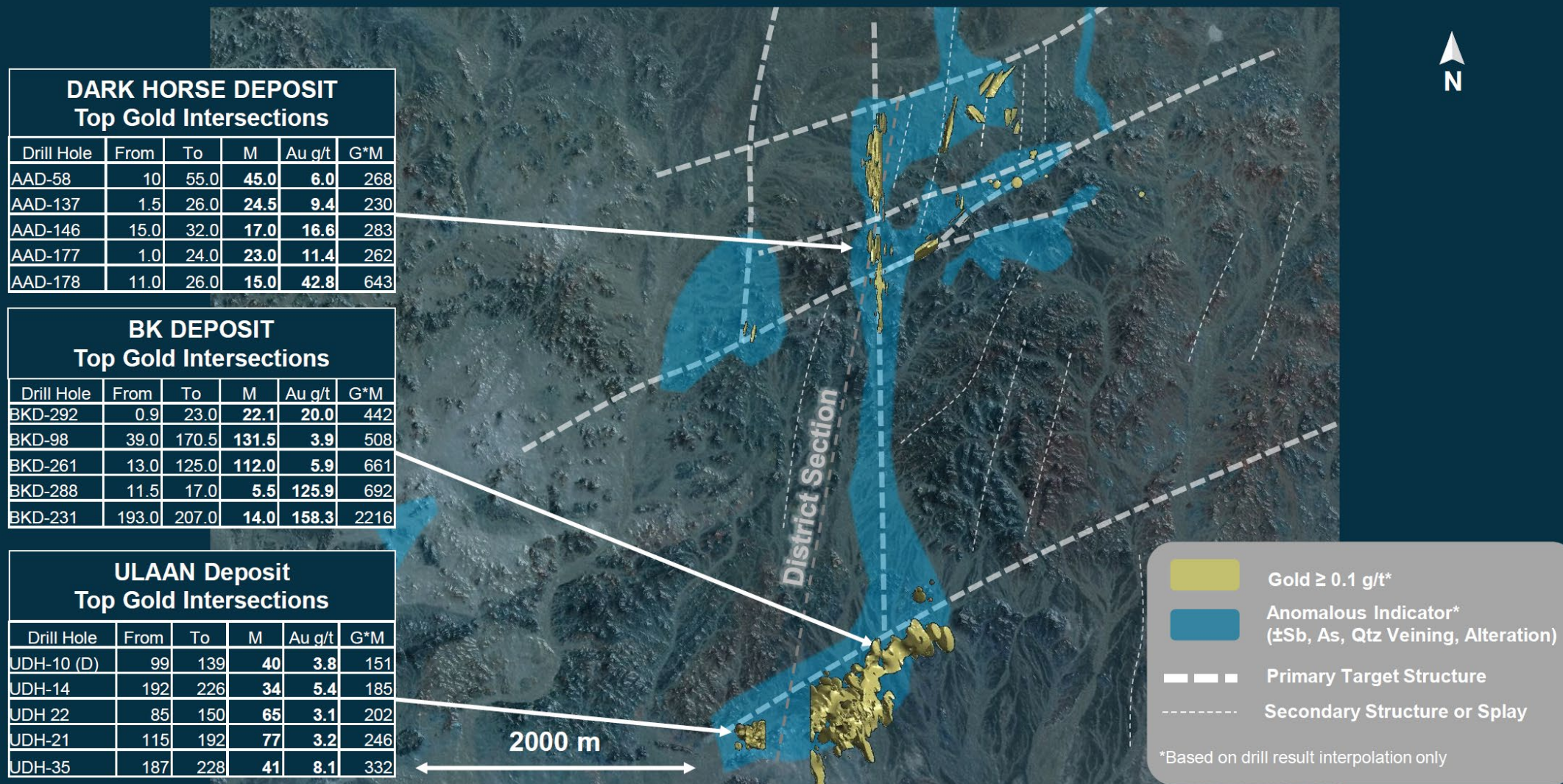
# BAYAN KHUNDII DEPOSIT – ADDITIONAL HIGH-GRADE OPPORTUNITIES

Numerous high-grade intersections outside the current mine plan pits



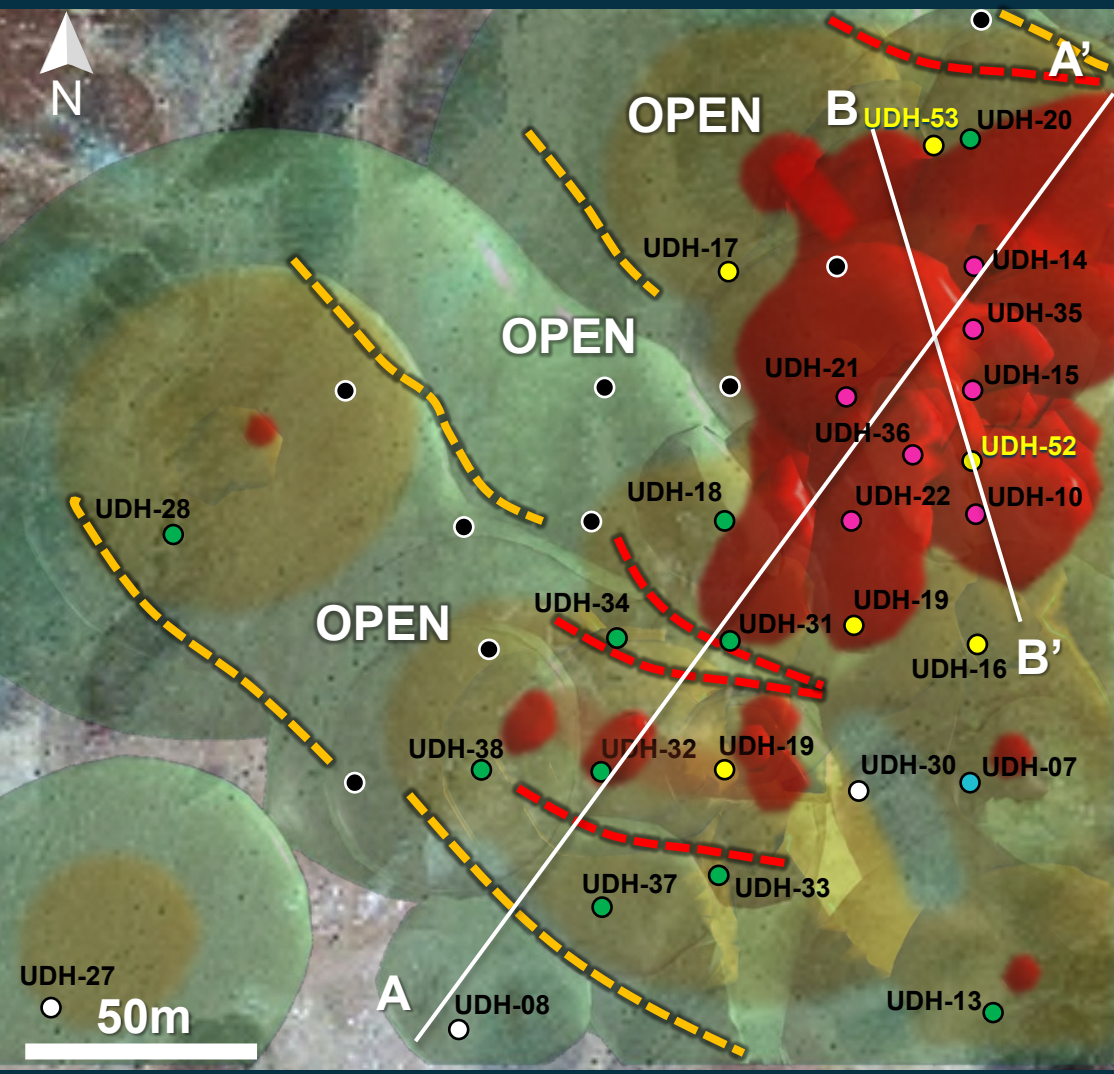
# BAYAN KHUNDII DEPOSIT – EXCEPTIONALLY HIGH GRADE DISCOVERIES

Over 10km of mineralized structures with limited exploration below 150 meters



# ULAAN SE DEPOSIT – EXCEPTIONAL GRADES ADJACENT TO BAYAN KHUNDII

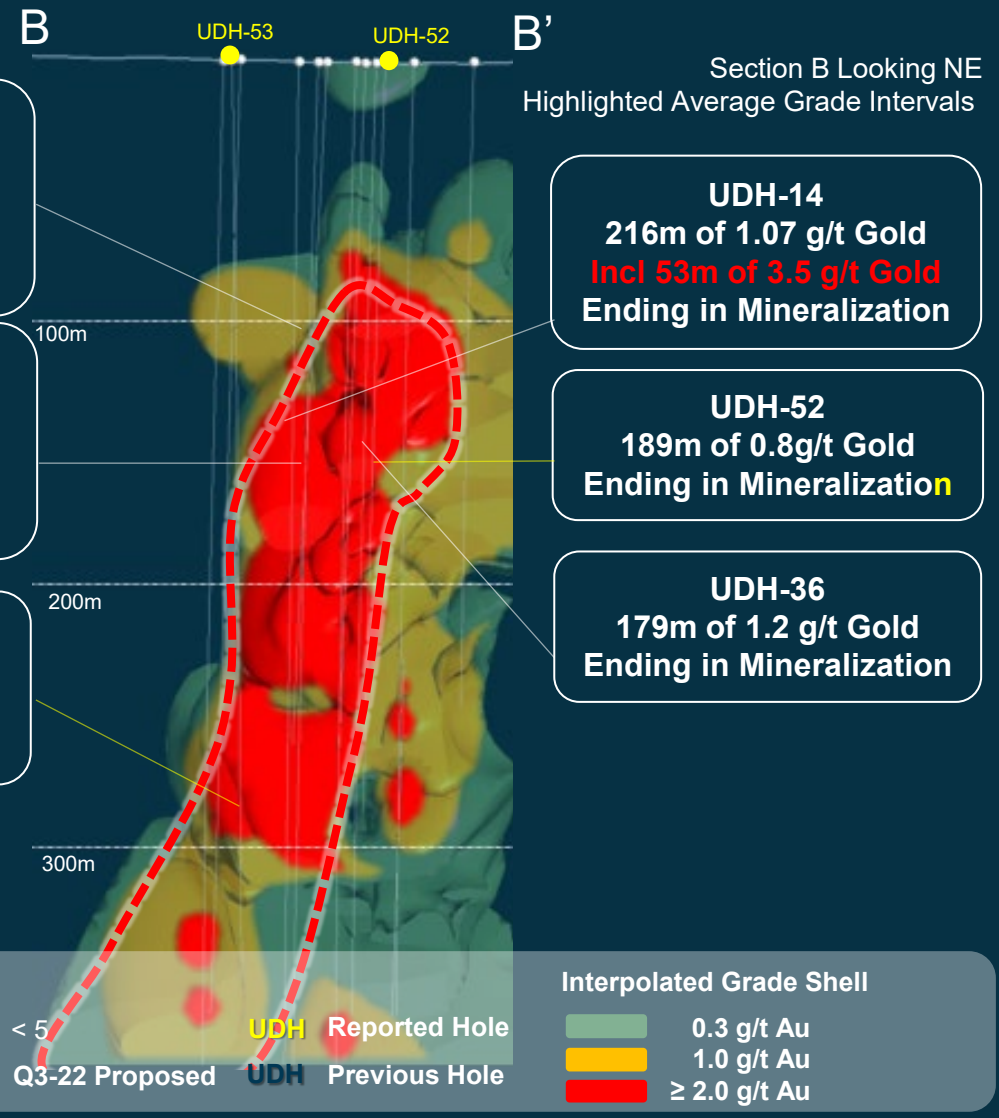
High-grade structure 300 meters west of Bayan Khundii



**UDH-21**  
 115m of 1.1 g/t Gold  
 Incl 27m of 8.7 g/t Gold  
 Incl 1m of 157 g/t Gold  
 Ending in Mineralization

**UDH-35**  
 41m of 8.1 g/t Gold  
 Incl 23m of 13.7 g/t Gold  
 Incl 3m of 68 g/t Gold  
 Ending in Mineralization

**UDH-53**  
 89m of 1.4 g/t Gold  
 Incl 27m of 3.47 g/t Gold  
 Ending in Mineralization



**Drill Collar (Gram x Meter)**

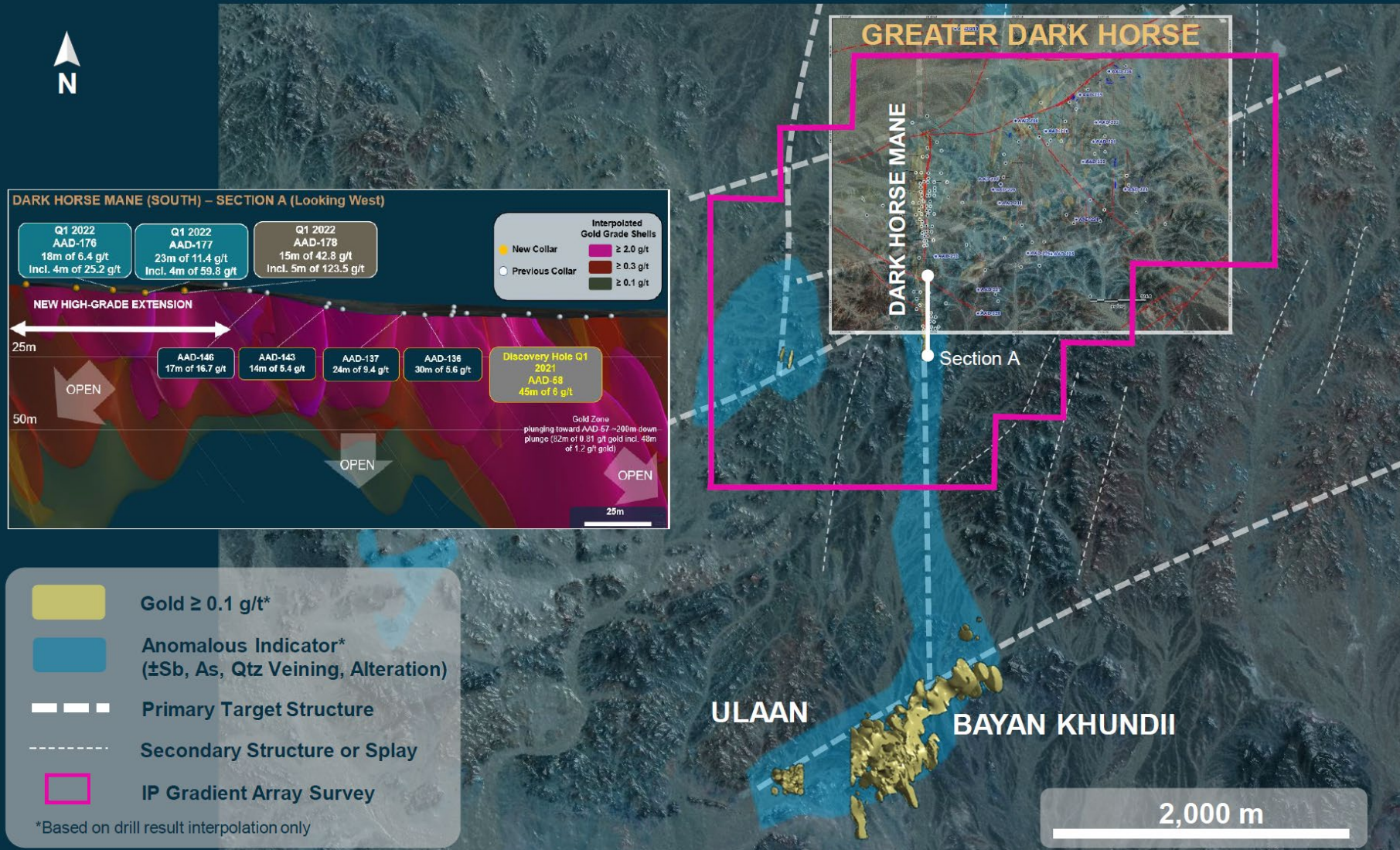
● ≥ 200	● ≥ 10	● < 5
● ≥ 50	● ≥ 5	● Q3-22 Proposed

**Interpolated Grade Shell**

■ 0.3 g/t Au	UDH Reported Hole
■ 1.0 g/t Au	UDH Previous Hole
■ ≥ 2.0 g/t Au	

# GREATER DARK HORSE – ULTRA HIGH GRADE DEPOSIT

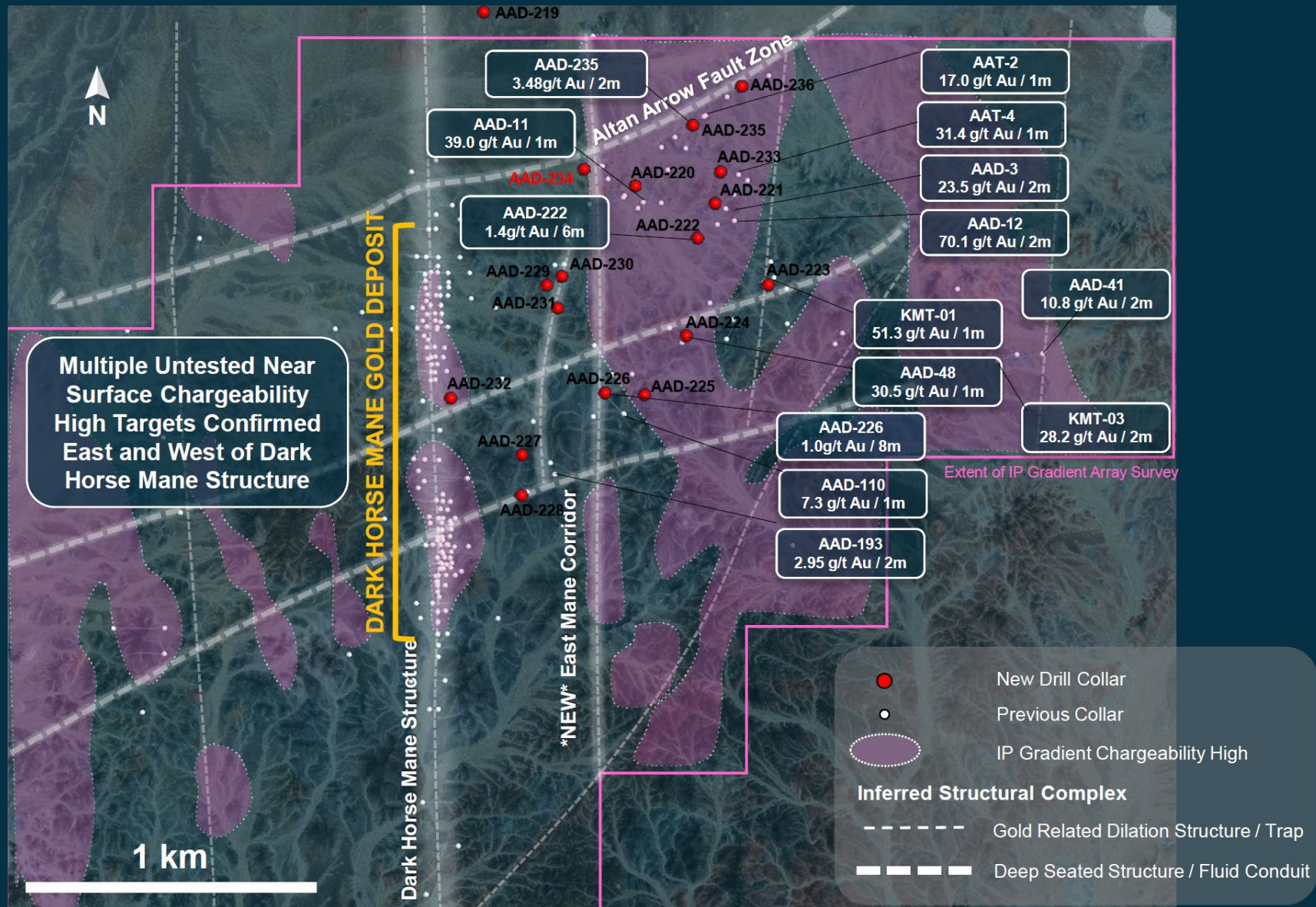
Shallow, oxide resource with grades averaging 7g/t Au; significant upside





# GREATER DARK HORSE – OPEN ALONG STRIKE AND AT DEPTH

Drill highlights and future drill targets

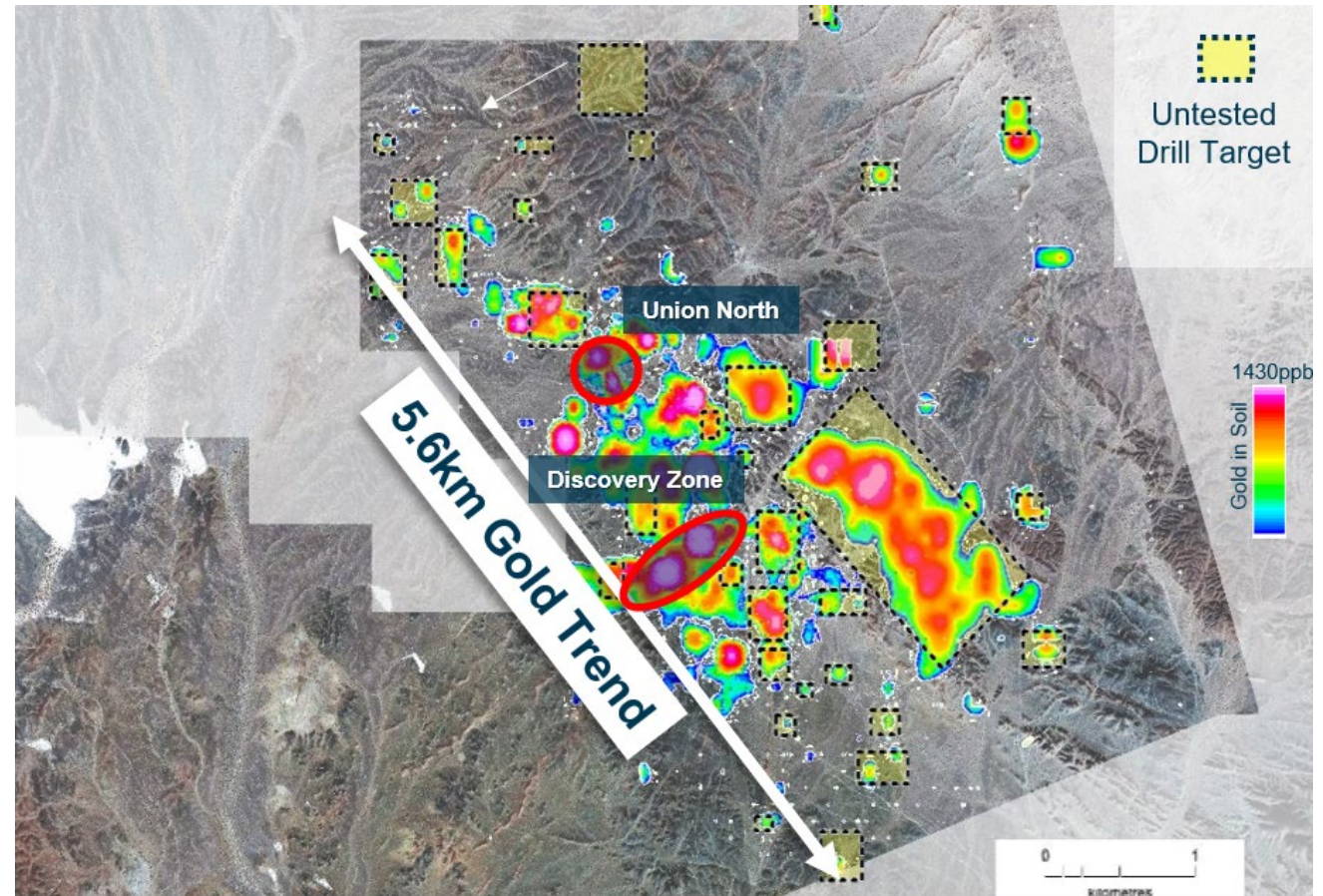


# ALTAN NAR – 5.6KM MINERALIZED SYSTEM

High grade deposit just 16km north of Bayan Khundii

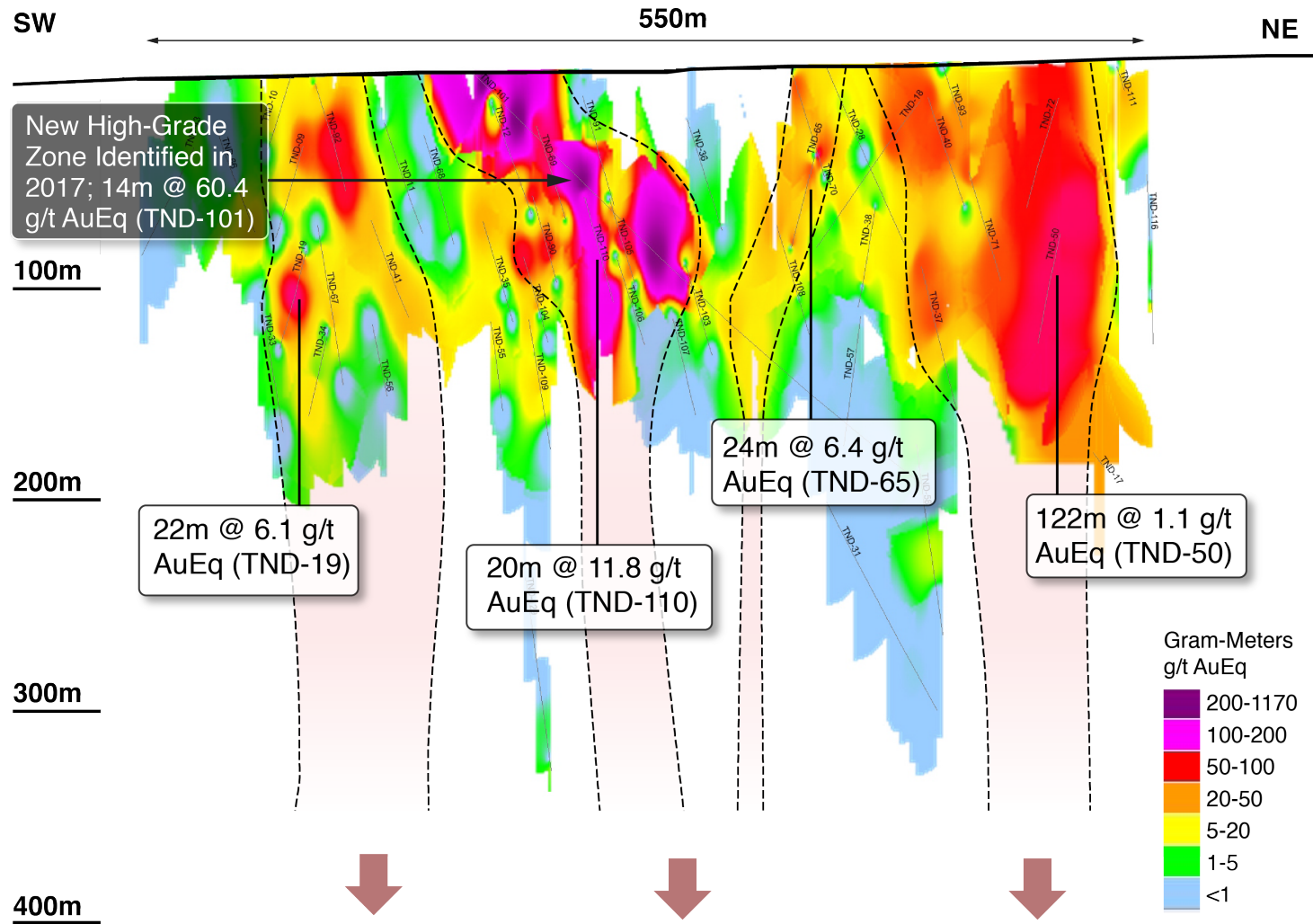
2019 Resource	Category	Au Oz (1.9g/t)	Ag Oz (~10g/t)	Pb lbs (~0.6%)	Zn lbs (~0.6%)
Altan Nar	Indicated	318,000	2,350,000	63,800,000	69,520,000
0.7g/t AuEq cut-off	Inferred	186,000	866,000	49,060,000	52,140,000

- Carbonate base metal-intermediate sulfidation epithermal deposit similar to some of the world's largest:
  - Fruta del Norte (Ecuador): 6.7Moz Au
  - Porgera (Papua New Guinea): >25Moz Au
  - Kelian (Indonesia): 5.7Moz Au
  - Montana Tunnels (USA): 36Moz Ag
  - Roşia Montană (Romania): 17Moz Au
- Potential satellite deposit to Bayan Khundii
  - Historical test work indicated that a portion of the deposit could be processed by the Bayan Khundii plant
- Tremendous potential to materially increase resources with minimal drilling
  - Resources are focused in two zones within a 5.6km x 1.5km mineralized corridor
  - +20 mineralized target areas along trend
  - Extremely shallow – 90% of resources are within 150 meters of surface with system open at depth



# ALTAN NAR DEPOSIT – DISCOVERY ZONE

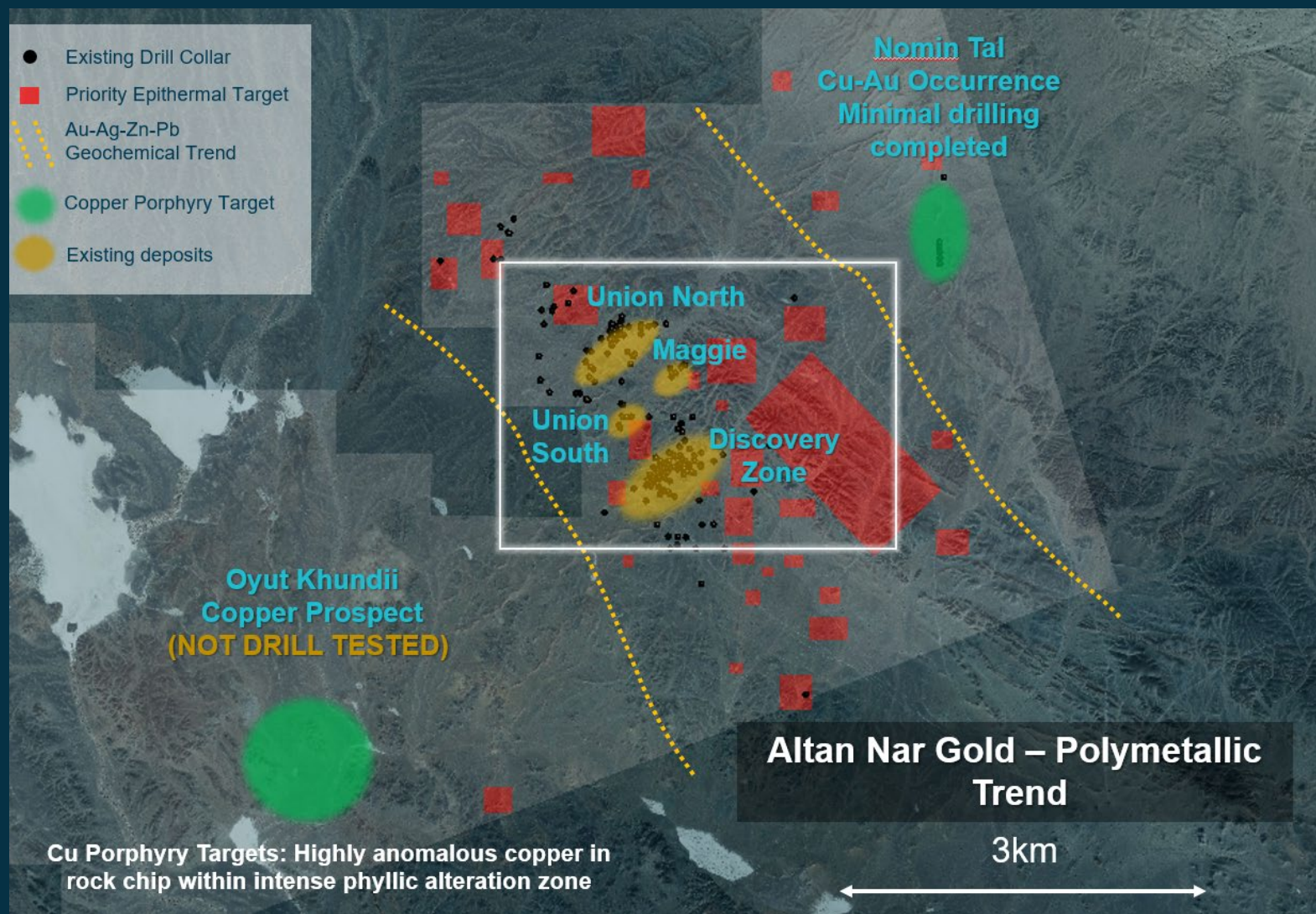
Deposit remains open at depth with multiple holes ending in mineralization



- Exploration and discoveries at Altan Nar have been shallow with drilling and geophysical surveys focusing less than 200 metres from surface
- Mineralization at Altan Nar remains open at depth where the prospect of mineralized feeder zones, boiling horizons and expansion of resources remains high

# ALTAN NAR – REGIONAL TARGETS

Multiple gold and copper targets



- Indicated Resources at Altan Nar are located within Discovery and Union North Zones with Inferred Resources at Union East, Union South and Maggie
- Over 30 high priority targets outside the Altan Nar resource including the Nomin Tal Oyut Khundii and gold-copper prospects

# ZUUN MOD – ONE OF ASIA’S LARGEST UNDEVELOPED MO-CU DEPOSITS

Moly market set to enter deficit – prices reached all time highs in 2023

## OWNERSHIP

- 100% owned by Erdene
- 30+ year Mining License secured

## LOCATION

- 180km from China, the world’s largest stainless steel producer and biggest consumer of the metal
- 30km east of the Bayan Khundii Gold Project

## MOLYBDENUM MARKET

- Molybdenum prices are elevated due to depleting supply and increased demand from renewable power on top of stainless steel
- US\$20-\$40/lb price range in the past two years, equivalent to 5-10x current copper prices – higher than Cobalt

## ZUUN MOD IS LOCATED ON THE DOORSTEP OF ONE OF THE WORLDS LARGEST STEEL PRODUCER AND MOLYBDENUM CONSUMER

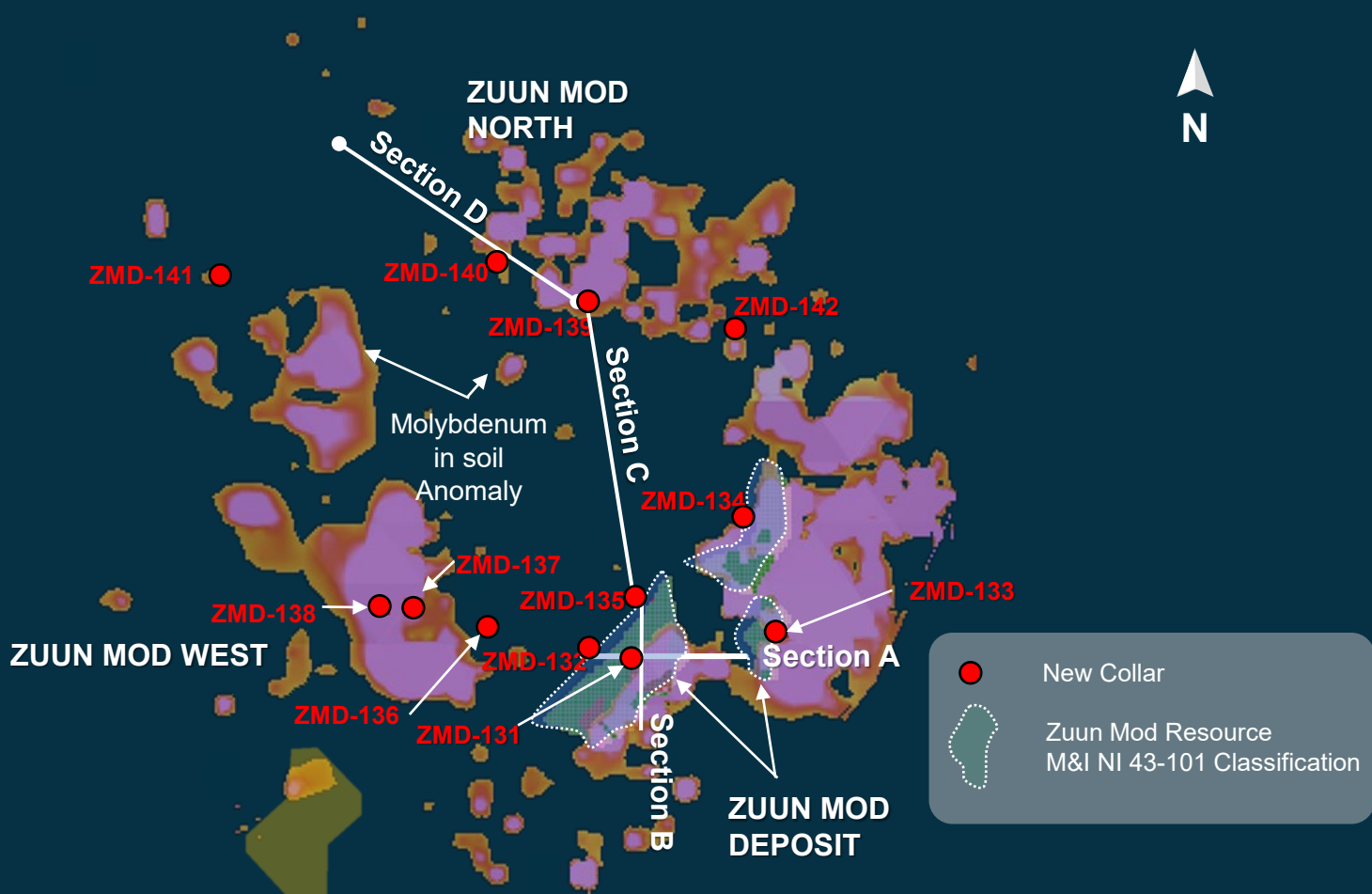
In 2022, China alone ran a molybdenum deficit of 20Mlbs



Sandbox Royalties Corp. holds a 1.5% net smelter return royalty on the Zuun Mod License, subject to a buy-down provision. NI 43-101 Technical Report, Zuun Mod Porphyry Molybdenum-Copper Project, Minarco-MineConsult, June 2011

# ZUUN MOD – GEOCHEMICAL FOOTPRINT 16KM IN CIRCUMFERENCE

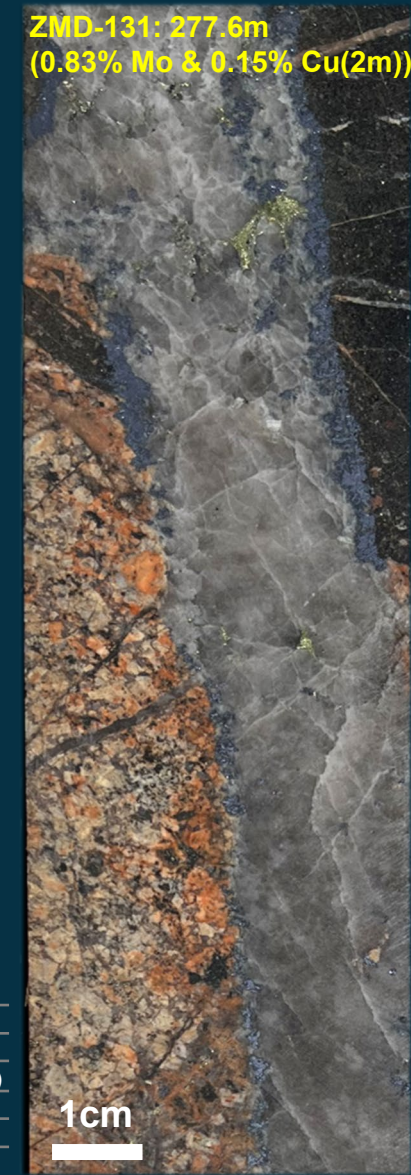
Open at depth with multiple prospects within and outside of current mineralized envelope



1 km

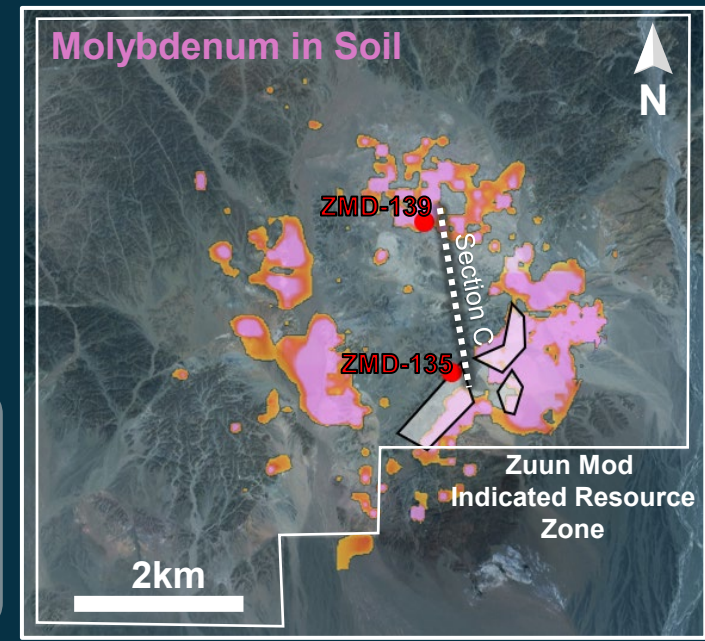
**43-101 Resource Estimate Cutoff 0.04% Mo**  
Ordinary Kriging Estimate Zuun Mod

NI 43-101 Classification	Tonnage Mt	Mo		Cu		Re	
		%	lbs (000's)	%	lbs (000's)	PPM	lbs (000's)
Measured	40	0.056	49,500	0.064	57,000	0.225	20
Indicated	178	0.057	224,000	0.070	273,700	0.242	95
<b>Total M&amp;I</b>	<b>218</b>	<b>0.057</b>	<b>273,500</b>	<b>0.069</b>	<b>330,700</b>	<b>0.239</b>	<b>115</b>



# ZUUN MOD – 1.7KM STEP OUT INTERSECTED HIGH GRADE MOLYBDENUM

Untested area along strike exhibits IP resistivity footprint similar to existing resource



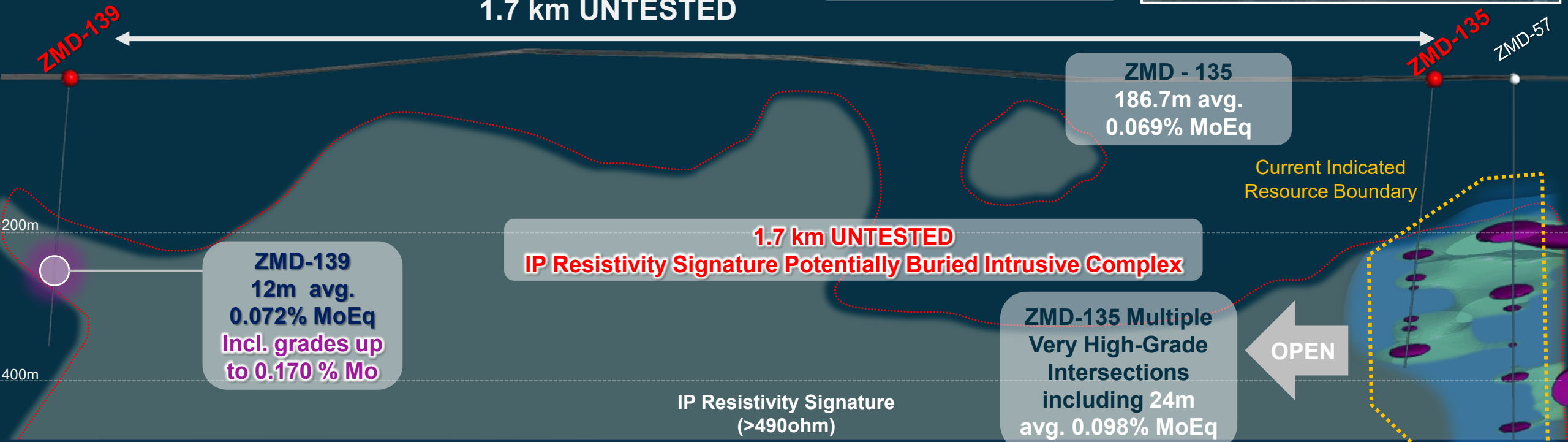
**ZMD - 139**  
**NEW Blind Top**  
**Molybdenum Discovery**

**Mo GRADE SHELL**

- New Collar
- Previous Collar

Blue	≥0.03%
Green	≥0.06%
Purple	≥0.08%

**1.7 km UNTESTED**



**ZMD-139**

**ZMD - 135**  
 186.7m avg.  
 0.069% MoEq

**ZMD-135**

**ZMD-57**

**ZMD-139**  
 12m avg.  
 0.072% MoEq  
 Incl. grades up  
 to 0.170 % Mo

**1.7 km UNTESTED**  
**IP Resistivity Signature Potentially Buried Intrusive Complex**

**ZMD-135 Multiple**  
**Very High-Grade**  
**Intersections**  
 including 24m  
 avg. 0.098% MoEq

**OPEN**

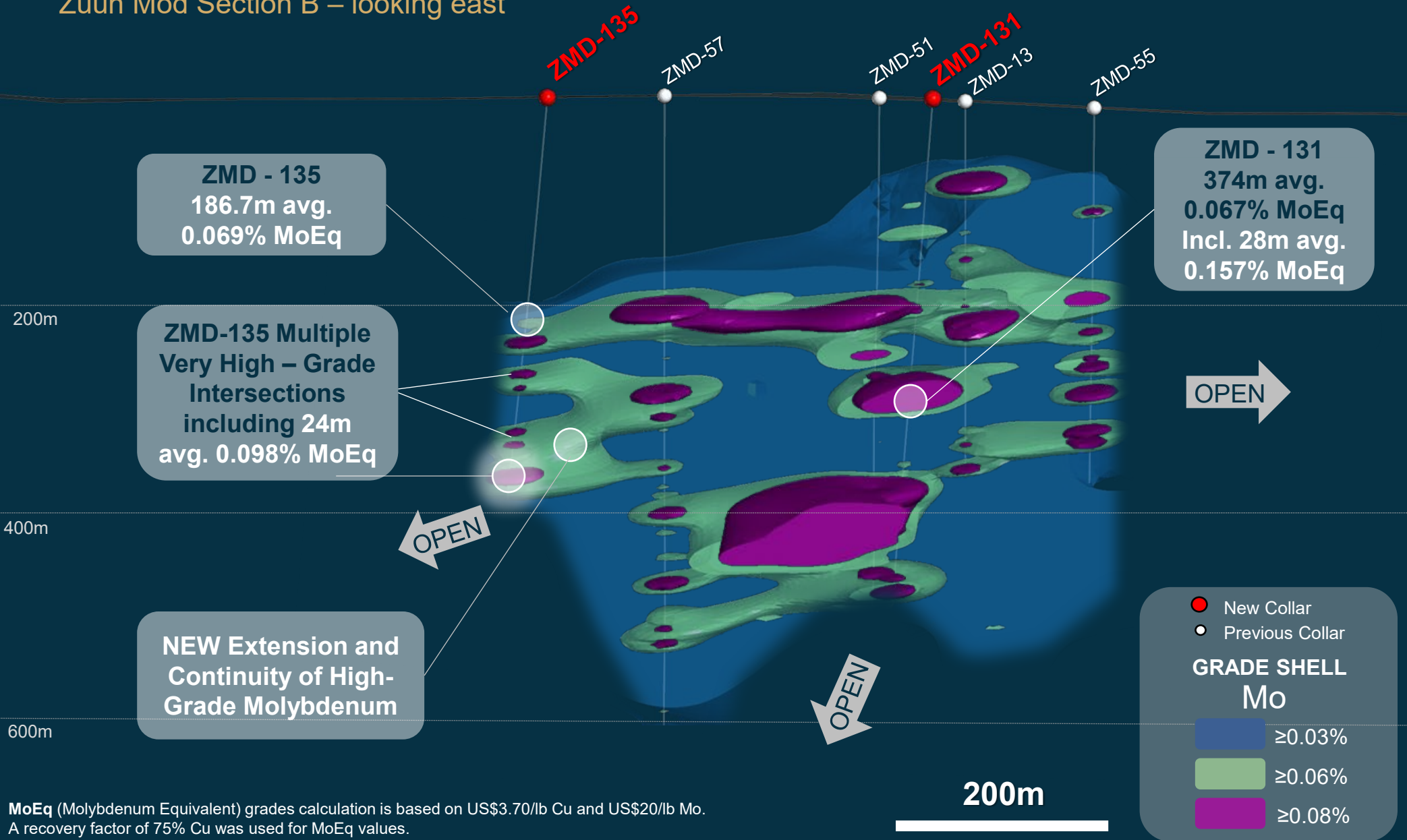
IP Resistivity Signature  
 (>490ohm)

Current Indicated  
 Resource Boundary

Maximum Vertical Extent of Current IP

# ZUUN MOD – EXTENSION AND CONTINUITY OF HIGH-GRADE MOLYBDENUM

Zuun Mod Section B – looking east

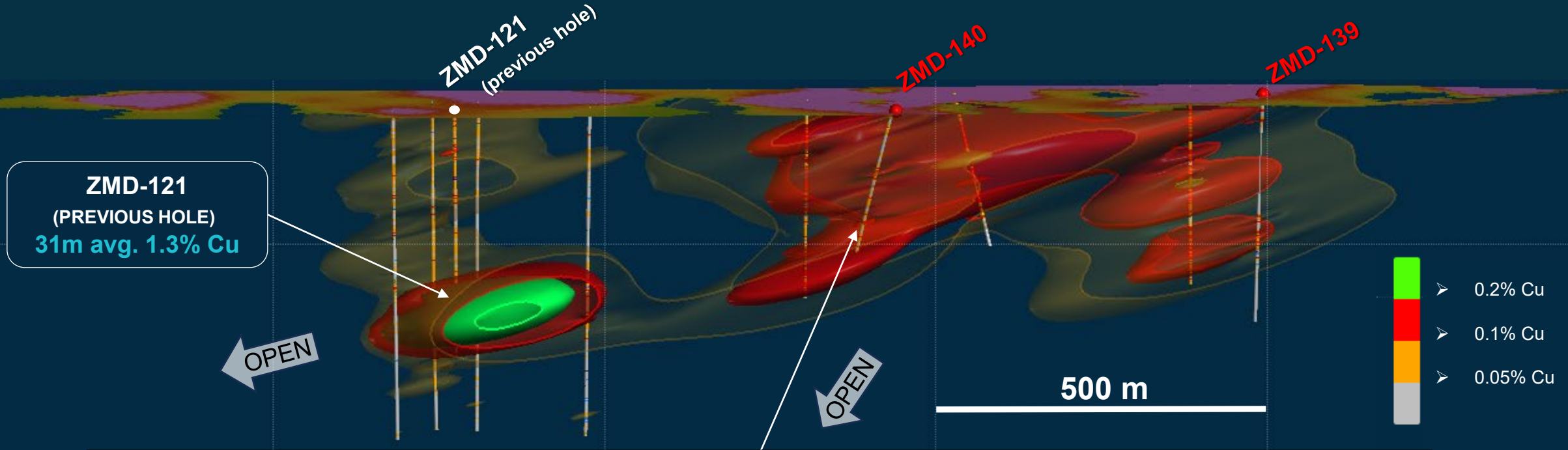


MoEq (Molybdenum Equivalent) grades calculation is based on US\$3.70/lb Cu and US\$20/lb Mo. A recovery factor of 75% Cu was used for MoEq values.



# NORTHERN ZUUN MOD COPPER ZONE – EXPANSION OPPORTUNITIES

Zuun Mod North Section D – looking north

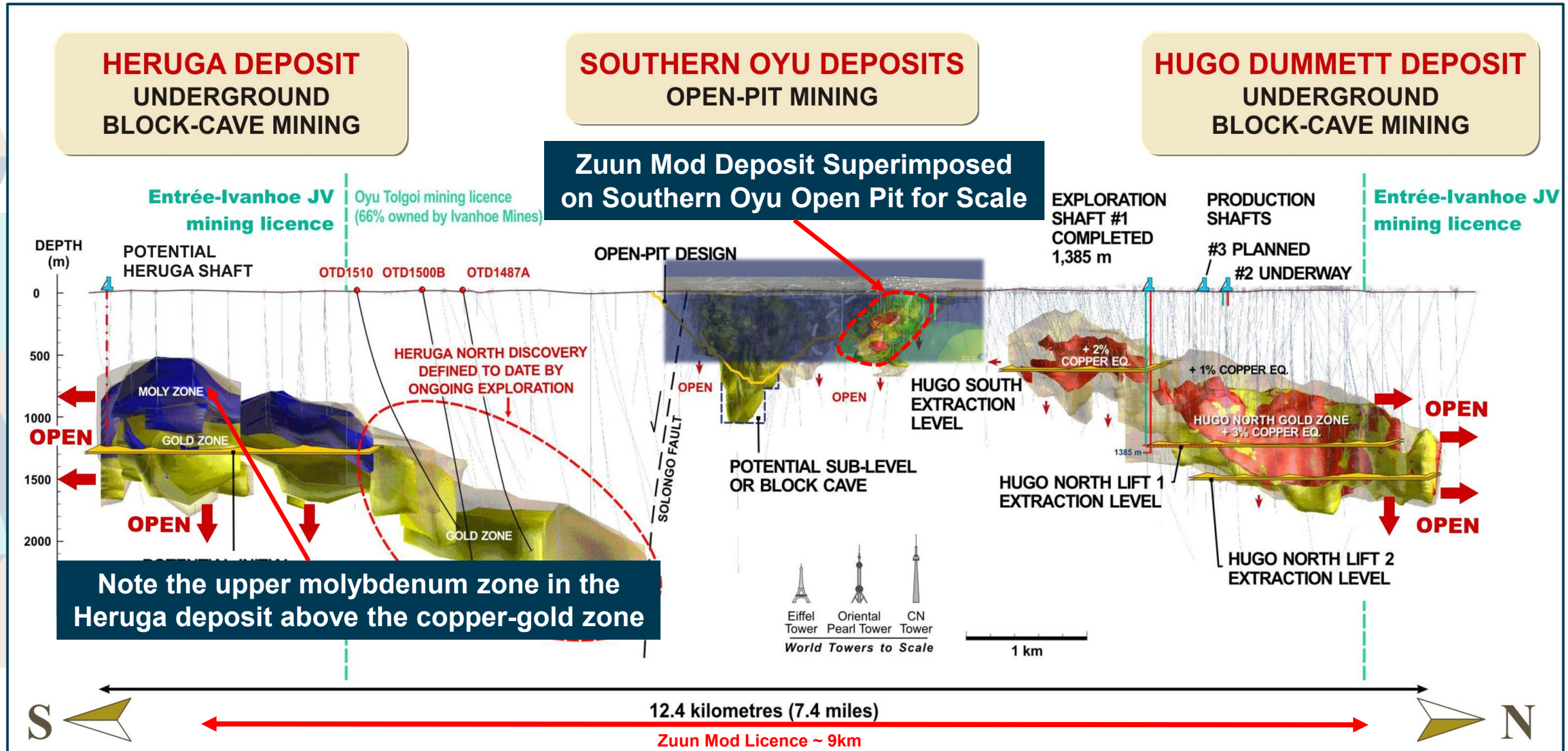


**ZMD-140: Targeted untested southern portion of copper zone in northern ZM; Hydrothermal breccia's with strongly silicified granodiorite fragments with quartz pyrite veins and anomalous copper exceeding 0.2% copper over 4 metres.**



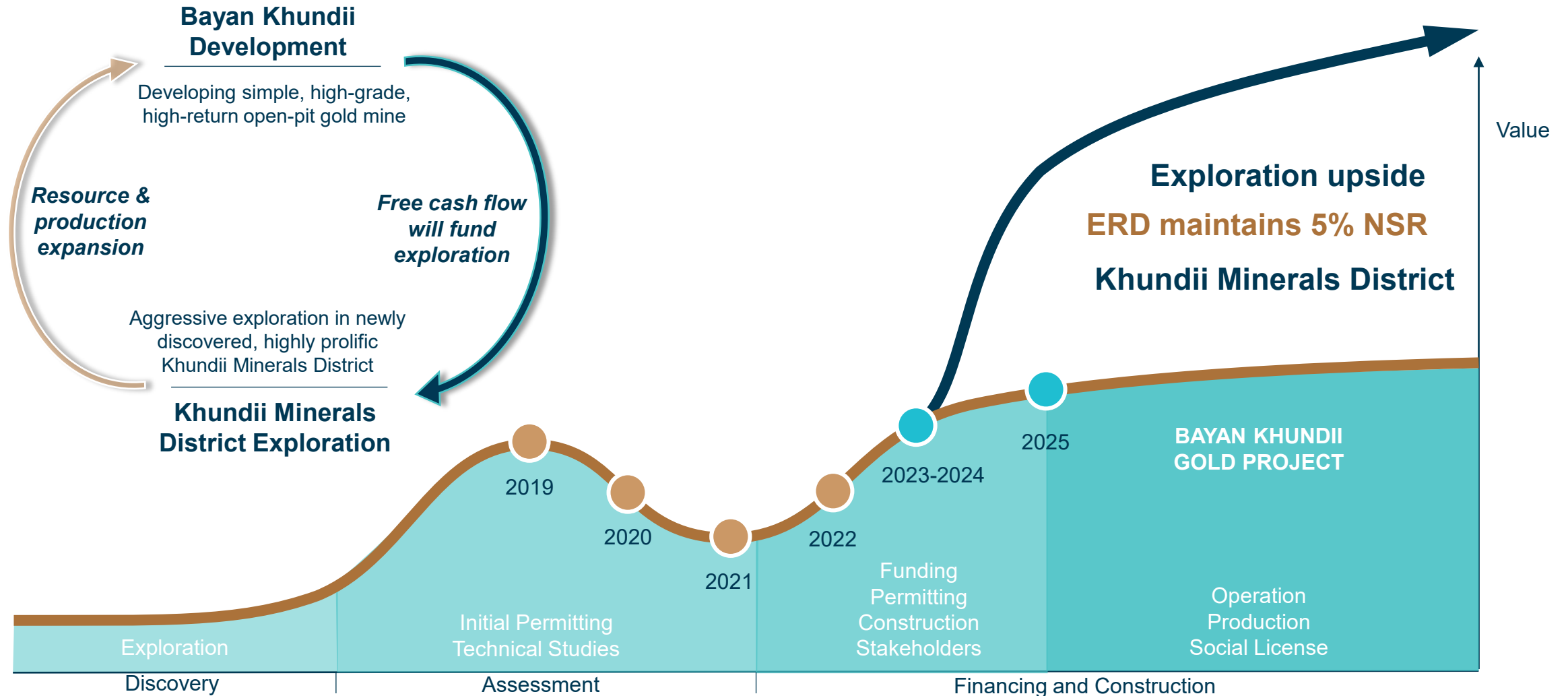
# ZUUN MOD COMPARED TO OYU TOLGOI

Land package remains largely untested outside the Zuun Mod deposit



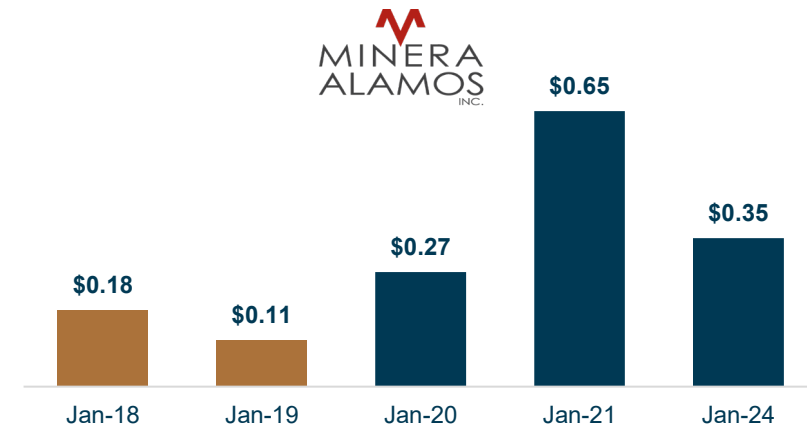
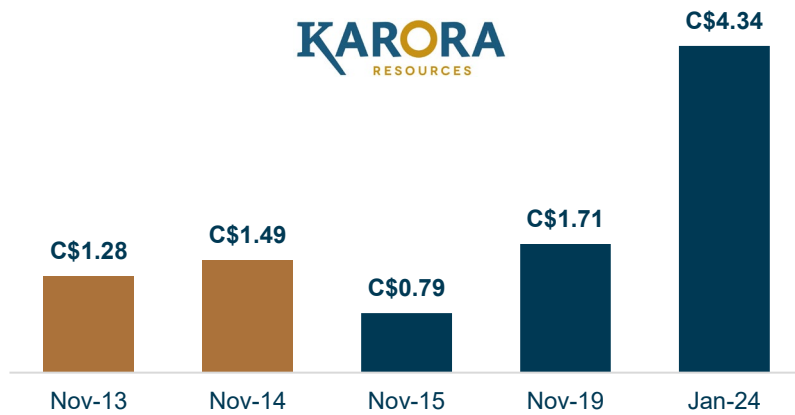
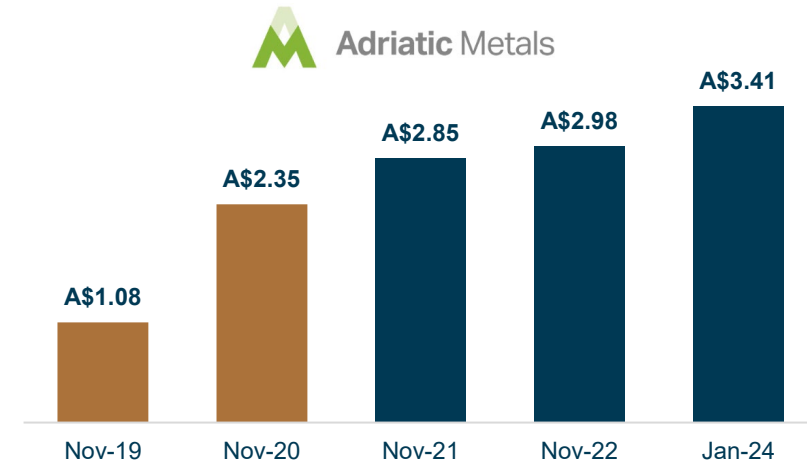
# POISED FOR GROWTH

Cashflow from the Bayan Khundii Gold Project will unlock the value of the Khundii Minerals District



# ON A TRAJECTORY TO RERATE

Opportunity for Erdene to rerate as Bayan Khundii Gold Project enters production



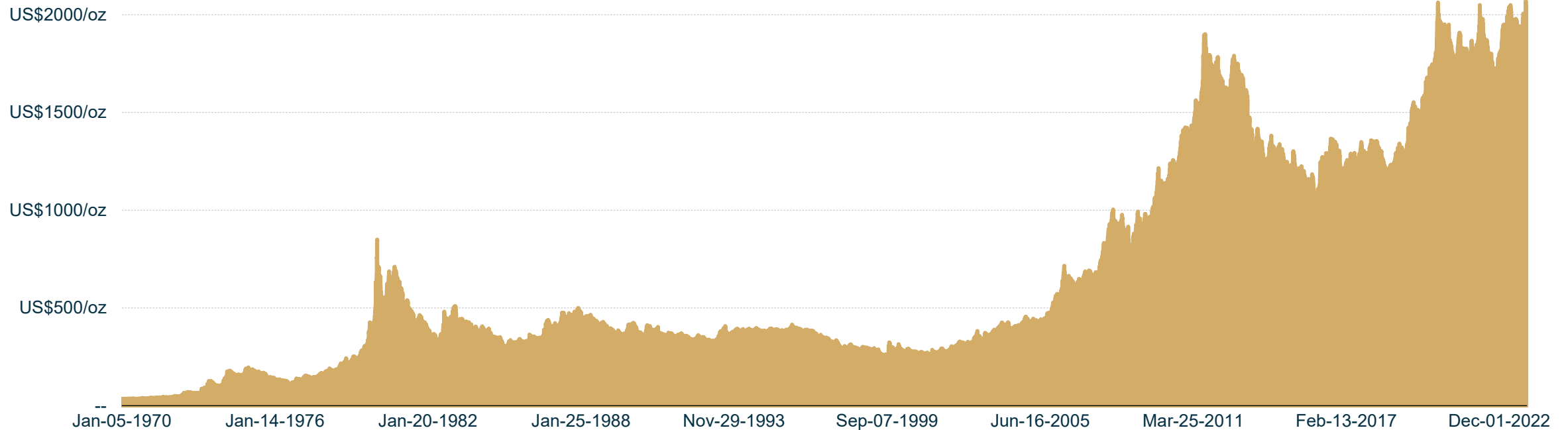
Source: CapIQ; January 18, 2024

# GOLD STANDS ON THE PRECIPICE OF A ROARING BULL RUN

Gold will emerge as the asset class with the most potential this decade

- Gold prices hit all time nominal highs at end of 2023 and look set to continue higher on the back of a soft landing that is expected to reduce rates, yields and the US dollar
- ETF outflows are more than compensated by aggressive global central bank buying, which will provide support for prices
- Geopolitical upheaval in Ukraine and the Middle East continue to drive safe haven demand

Spot Gold Price



# COMMITTED TO MONGOLIA

Our Home for 25 Years



- We have been supporting our host communities for +10 years before the construction decision
- **We have invested ~US\$100M in Mongolia since inception**
- **Erdene is the first cross-listed company on the Mongolian and Toronto Stock Exchanges**
- We have longstanding, deep-rooted relationships at all levels of government and are well respected within the Mongolian business community
  - Peter Akerley awarded the Order of the Polar Star (highest civilian award Mongolia can present to a foreign citizen) in 2019
- 70% of the executive team reside in Mongolia and we have ~6,000 Mongolian shareholders
- **The Bayan Khundii Gold Project is forecasted to contribute over \$100M in direct taxes & royalties to the Mongolian Government over 6 years and support 400 direct jobs<sup>1</sup>**

## COMMITTED TO GIVING BACK

Holding ourself accountable to the communities we impact



- **Erdene invests directly in Shinejinst / Bayankhongor community**

- Erdene signed a Local Cooperation Agreement ("LCA") in 2020 to share benefits with communities
- During feasibility, readiness, and construction (2020-2024), we committed to providing ~US\$2.2M (7B MNT) in public health and infrastructure investments through the LCA

- **Erdene prioritizes local hiring and capacity building**

- We committed to training and employing local residents in at least 30% of permanent mine jobs as we reach production
- In 2023 alone, we employed over 50 local residents on the project and trained another 80 to become mine equipment operators; the population of Shinejinst is ~2,500

- **Erdene is sensitive to the unique needs of our community**

- We established a water treatment facility in Shinejinst enabling clean water access for the first time in soum history
- We refurbished sanitation facilities at the public kindergarten and school
- We have cumulatively provided 100 undergraduate scholarships to Bayankhongor youth in fields essential to the local economy
- We support local herders by providing supplemental animal feed and fodder
- We collaborated with University of British Columbia ("UBC") / MITACS to research shared value in the mining sector; UBC highlighted Erdene as a leader in community development

# COMMITTED TO SUSTAINABILITY

## Respecting the environment

- **Erdene is committed to the highest environmental standards**

We are using an enclosed Carbon in Pulp leach process in combination with tailings filtration and dry stacking to maximize water recycling and efficiency; 20% of the mine's power will be generated from solar and 85% of the water will be recycled. Our mine footprint is only ~200ha

- **Erdene works directly to protect the local ecosystem**

Erdene established a two-hectare nursery at site to cultivate endemic plants and trees (including rare and very rare species), sowing over 10,000 seedlings to date to be used for reclamation and landscape improvement. The company committed to planting one million trees by 2030 as part of Mongolia's "Billion Trees" campaign; we proactively monitor local habitats and train local staff in monitoring and evaluation

- **Erdene holds itself accountable to international best practices**

Erdene signed a Voluntary Code of Practice for water management facilitated by the International Finance Corporation. The initiative is supported by the Government of Canada, the 2030 Water Resources Group, the European Bank for Reconstruction and Development, and the International Council on Mining and Metals. We are compliant with local / international environmental codes, guidelines, standards and requirements





# MAKINGS OF A MULTI-MINE, MULTI-COMMODITY MINING DISTRICT

## THE FUTURE

### BAYAN KHUNDII DEVELOPMENT

2025 PRODUCTION @  
>75,000 OZ PER ANNUM  
THROUGH 2030

### EXPANSION/ EXTENDED MINE LIFE BAYAN KHUNDII

2024-2028 ADVANCE TO  
PRODUCTION DECISION

2030 TO 2040 EXTEND  
PRODUCTION @ 50,000 TO  
100,000 OZ PER ANNUM

### ALTAN NAR GOLD – POLYMETALLIC

2024-2028 ADVANCE TO  
PRODUCTION DECISION

2028 TO 2040 PRODUCTION @  
75,000 TO 100,000 OZ PER  
ANNUM AuEq

### ZUUN MOD MOLYBDENUM COPPER

2024-2029 ADVANCE TO  
PRODUCTION DECISION

2030 TO 2050 PRODUCTION

### NEW DISCOVERIES AND ACQUISITIONS

HIGH PROBABILITY OF  
ADDITIONAL DISCOVERIES  
IN DISTRICT



## CONTACT US FOR MORE INFORMATION

Phone (Canada): +1-902-423-6419  
Phone (Mongolia): +976-11-318-532  
Email: [info@erdene.com](mailto:info@erdene.com)

## FOLLOW US ON SOCIAL MEDIA

 ErdeneRes  
 Erdene Resource Development Corp.

TSX:ERD MSE:ERDN OTC:ERDCF



# Appendices

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

# OVER TWENTY-FIVE YEARS IN MONGOLIA

Bringing Bayan Khundii from discovery to production in a decade

## Timeline

### 1997 – 1998

Erdene principals amongst the first ex-pats to explore Mongolia. Co-managed programs with IPJ and Barrick resulting in a number of new discoveries

### 2004 – 2005

Erdene goes public in 2004; acquires Gallant Minerals in 2005 including Zuun Mod Property

### 2010 – 2015

Discovers Nomin Tal, Altan Arrow and Altan Nar (2010-2011); resource established at Altan Nar (2013-2015)

### 2019

PEA and PFS prepared for the Bayan Khundii Gold Project; Mining license secured and strategic investment from EBRD

### 2021 – 2022

Design and engineering completed for Bayan Khundii, Environmental Impact Assessment approved; Local Cooperation Agreement

### 2002

Erdene is launched privately – five Mongolian exploration licences acquired

### 2007 – 2009

Exploration focus expands to include copper, coal, uranium and other base metals; forms Mongolian joint ventures with IUC/Denison and Xstrata. Company assembles the largest private geologic database for SW Mongolia

### 2015

Discovers the high-grade Bayan Khundii gold system and devotes focus to this high-grade, near-surface gold deposit

### 2020

Bayan Khundii feasibility study completed; completion of ESIA; Acquires 100% of Ulaan license adjacent to Bayan Khundii, Eric Sprott invests C\$15M

### 2023

Strategic Alliance with MMC entered; Construction permits received and early works complete

# EXECUTIVE & MANAGEMENT TEAM

## Experienced in Mongolian Exploration and Development

### Geology



**Peter Akerley**  
President & CEO; Director

Mining executive and geologist with 30 years experience in exploration, corporate finance, project development & management of public resource companies.



**Michael X. Gillis**  
Vice President, Operations

Geologist with over 30 years of experience in the mineral exploration industry in increasingly senior project and corporate management positions.



**G. Bat-Erdene**  
Senior Geologist

Respected Mongolian geologist with over 25 years experience in the Country's resource exploration industry.

### Mining Operations



**Paul Korpi**  
Senior Technical Advisor

Metallurgical Engineer & Mining Consultant with over 40 years experience including role as President and Executive Director of the Boroo Gold Mine in Mongolia.



**Julien Lawrence**  
Bayan Khundii Mining Engineer

Mining Engineer and Project Manager with over 20 years experience in mine development and operation across Asia, including Mongolia.



**Jon M.L. Lyons**  
Chief Development Officer

Executive with over 15 years experience in sustainability development, community relations and corporate responsibility in Mongolia.

### Finance / Administrative



**Robert Jenkins**  
Chief Financial Officer

Chartered Professional Accountant with 20 years experience working with public companies focused on corporate finance, operations and project management.



**B. Bayarmaa**  
Chief Administrative Officer

Administrative executive with over 15 years experience in the Mongolian resources industry.



**Bilguun Ankhbayar**  
Vice President, Business Development

Mining finance professional with over 15 years experience advising TSX and ASX listed companies and working for a Canadian investment bank.

# UNIQUELY QUALIFIED BOARD & MANAGEMENT

Pioneers in Mongolia's Modern Mining Era

## MONGOLIA



**Dr. Anna Biolik** <sup>1,3</sup>  
Director

Diplomat with over 30 years of experience including acting as Canada's first Ambassador to Mongolia, Kazakhstan, Kyrgyzstan & Tajikistan.



**Layton Croft** <sup>1,2,3</sup>  
Chairman

27 years of leadership experience in Mongolia, 16 years of global mining experience with Ivanhoe Mines, Rio Tinto, Peabody Energy and Pancontinental Resources.



**Kenneth MacDonald** <sup>1,2</sup>  
Director

Chartered Professional Accountant with over 40 years of mining finance experience, including 17 years as Executive VP and CFO of Erdene.



**Cameron McRae**, <sup>4</sup>  
Director

Mining executive with 28 years at Rio Tinto, including President of Oyu Tolgoi where he led construction of the US\$6 billion copper-gold mine in southern Mongolia.

### COMBINED EXPERIENCE

> 50 Years in Mongolia

> 50 Years in Capital Markets

> 100 Years Mining/Exploration

88% Independent



**John Byrne** <sup>1,3</sup>  
Director

Finance professional with more than 40 years experience in the Canadian banking industry. President of Petroleum Corp of Canada Exploration since 1997.



**Peter Akerley** <sup>4</sup>  
President & CEO; Director

Mining executive and geologist with 30 years experience in exploration, corporate finance, project development & management of public resource companies.



**David Mosher** <sup>2</sup>  
Director

Mining executive and geologist with 35 years experience. Former President & CEO of High River Gold Mines where he developed gold mines in Burkina Faso and Russia.



**Hedley Widdup** <sup>4</sup>  
Director

Geologist and investment manager with 20 years experience in the evaluation and development of mining projects.

MONGOLIA

CAPITAL MARKETS

## TECHNICAL

1. Audit and Risk Management Committee
2. Compensation Committee
3. Corporate Governance and Disclosure Policy Committee
4. Technical Committee

# MONGOLIA – A MINING FOCUSED ECONOMY

Government focused on economic growth through leveraging the mining sector

## Emerging mining region

- +40,000 mining employees
- ~ 97% of Oyu Tolgoi's ~15,000 staff are Mongolian
- 70% of the country's land is underexplored
- Government investing in mining related infrastructure

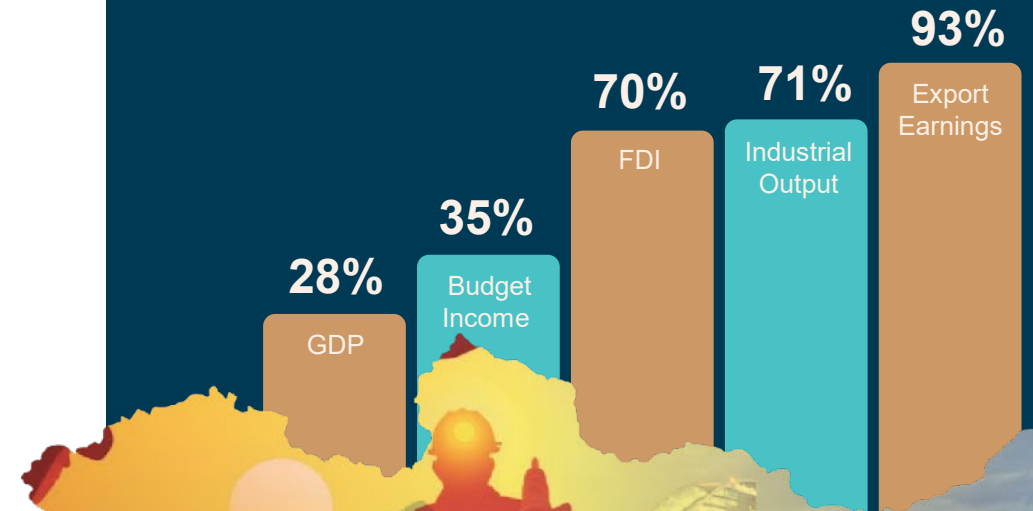
## Competitive regulatory regime

- 5% gold royalty rate and 25% corporate income tax
- Stabilization certificates provide certainty of current tax rates for seven years
- Double tax treaty with Canada and ~20 other nations
- Canada-Mongolia Foreign Investment Promotion and Protection Agreement (FIPA)

## Growing democracy located on China's doorstep

- Low population density: Only 3.5M people in the world's 18th largest country; 52% of population have higher education
- World Bank forecasts GDP growth to reach 5.2% in 2023
- 30-year history of democratic elections
- Well educated, young population with 98% literacy rate

## Mining's Contribution to Mongolia's Economy



# MONGOLIAN MINERALS PRODUCTION

## Emerging Hard Rock Copper & Gold Mining Industry



### BAYAN AIRAG

Bayan Airag LLC



1 Moz open-pit, heap leach.  
Production started in Q2-2014.

### ZAAMAR

Placer mining



Alluvial mining along 50 km  
section of Tuul River.

### BOROO

Boroo Pte. Ltd.



Produced 1.5 Moz @ approx.  
\$500/oz cash cost.

### GATSUURT

Boroo Pte. Ltd.



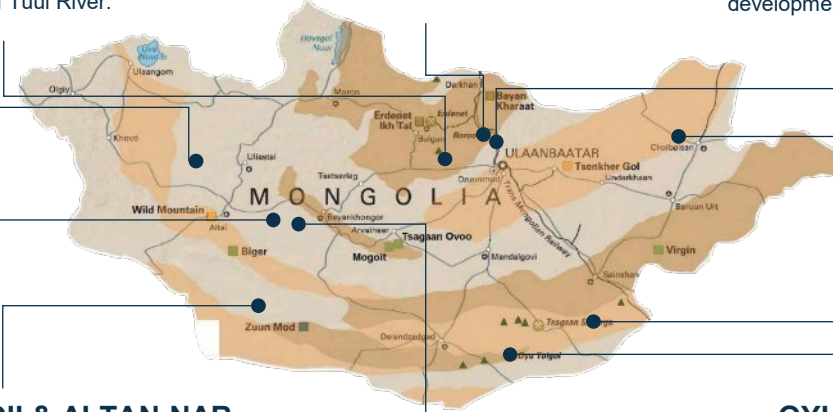
1.6 Moz reserve, open-pit  
development. Permitting stage.

### ATO

Steppe Gold

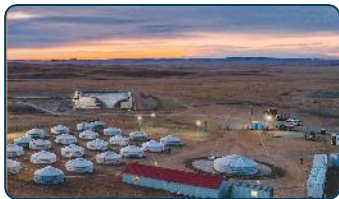


0.7 Moz Au (+5 Moz Ag),  
@ 1.3 g/t Au. Production  
started in early 2020.



### TSAGAAN TSAKHIR

Naran Mandal



Commenced production in  
early 2016.

### BAYAN KHUNDII & ALTAN NAR

Erdene Resource Development



Emerging gold district.  
High-grade, Open-pit  
Development.

### BAYANKHONGOR

Artisanal mining



Alluvial mining activity.

### OYU TOLGOI

Rio Tinto



53Moz gold resource, open pit /  
underground.

### Kharmagtai

Xanadu/Zijin



Emerging gold district.  
High-grade, early stage.



# OYU TOLGOI – A WORLD CLASS COPPER-GOLD DISTRICT

One of the world's largest copper-gold mines in southeast Mongolia

- Projected to be the fourth-largest copper mine globally by 2030
- Capable of producing 290ktpa of Cu and 260koz of Au per annum for another 30 years (peak average production of ~500ktpa of Cu)
- High grade / low cost / long life – first quartile on the cost curve by 2030
- One of the most modern, safe and sustainable operations in the world; 23% of employees are female
- Resources of 39Mt copper and 53Moz gold<sup>1</sup>
  - Over 3.3Blbs of copper and almost 3Moz gold extracted since commissioning
- Underground production of block cave commenced February 2022

Notes:

1. Contained copper = 8.36Mt in M&I & 30.3Mt in Inferred  
Contained gold = 9.11Moz in M&I & 43.8Moz in Inferred  
Source: Rio Tinto 2022 Annual Report and Investor Presentation

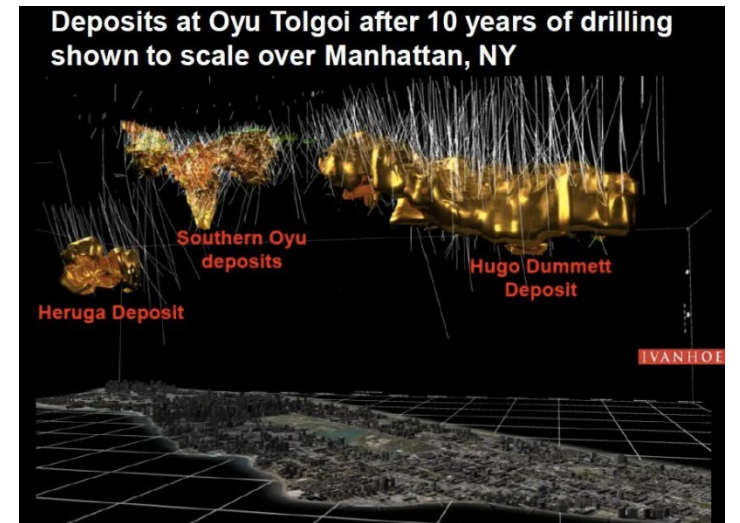


Above: Oyu Tolgoi's underground mine. Source: <http://ot.mn/>



# OYU TOLGOI – A WORLD CLASS COPPER-GOLD DISTRICT

One of the world's largest copper-gold mines in southern Mongolia



# BAYAN KHUNDII GOLD DEPOSIT RESOURCES & RESERVES

## Low sulfidation epithermal deposit



Resources	Tonnage	Au Grade	Contained Au	Ag Grade	Contained Ag
Classification	(Mt)	(g/t)	(koz)	(g/t)	(koz)
Measured	4.0	3.03	394	1.44	187
Indicated	3.3	2.04	219	1.22	131
M&I	7.4	2.58	613	1.34	319
Inferred	0.2	1.08	6	1.32	8

### Notes:

1. Mineral Resources are as of April 2023.
2. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. Summation errors may occur due to rounding.
4. The effective date of the Mineral Resources is April 20, 2023.
5. Open pit mineral resources are reported within an optimized constraining shell.
6. Open pit cut-off grade is 0.3 g/t Au based on the following parameters:
  1. Gold Price of US\$2,000/oz Au
  2. Gold recovery of 95%
  3. Mining Costs of US\$3.00/t
  4. Milling Costs and G&A of \$22.00/t
  5. Capping of gold grades was 200 g/t Au and 50 g/t Ag on 1m composite values.
  6. The density varies between 2.58 g/cm<sup>3</sup> and 2.66 g/cm<sup>3</sup> depending on lithology.

Reserves	Tonnage	Au Grade	Contained Au	Ag Grade	Contained Ag
Classification	(Mt)	(g/t)	(koz)	(g/t)	(koz)
Proven	2.7	4.1	360.2	1.7	159.4
Probable	1.1	3.0	104.7	1.7	61.1
Total	3.8	3.8	464.9	1.7	220.5

### Notes:

1. Mineral Reserves are as of August 2023.
2. The Statement of Estimates of Mineral Resources has been compiled under the supervision of Mr. Oyunbat Bat-Ochir who is a full-time employee of RPM and a Member of the Australian Institute of Geoscientists. Mr. Bat-Ochir has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity that he has undertaken to qualify as a Qualified Person as defined in the CIM Standards of Disclosure.
3. All Mineral Resources figures reported in the table above represent estimates at November 1, 2022. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.
4. Mineral Resources are reported on a dry in-situ basis.
5. The Mineral Resource is reported using a 0.35 g/t Au cut-off grade in oxide and transition mineralisation and 1.02 g/t Au cut-off in fresh mineralisation and is constrained above conceptual optimised pit shell. Cut-off parameters were selected based on an RPM internal cut-off calculator, assuming an open cut mining method with 5% ore loss and 10% dilution, a gold price of US\$1,723 per ounce, a mining cost of US\$3 per tonne and a processing cost of US\$16 per tonne milled and processing recovery of 90% for oxide, 87% for transitional and 30% for fresh Au mineralisation. The conceptual optimised pit shell was constructed using a gold price of US\$2,000 per ounce, which is 1.4 times the long-term consensus forecast price.
6. Mineral Resources referred to above, have not been subject to detailed economic analysis and therefore, have not been demonstrated to have actual economic viability.

# DARK HORSE GOLD DEPOSIT RESOURCES & RESERVES

## Epithermal oxide deposit



Resources	Indicated Mineral Resource			Inferred Mineral Resource		
	Tonnage	Au Grade	Contained Au	Tonnage	Au Grade	Contained Au
Classification	(kt)	(g/t)	(koz)	(g/t)		(koz)
Oxide	578	3.0	56.2	75	1.1	2.7
Transitional	99	1.5	4.8	109	1.2	4.1
Fresh	5	4.9	0.7	--	--	--
<b>Total</b>	<b>682</b>	<b>2.8</b>	<b>61.7</b>	<b>184</b>	<b>1.2</b>	<b>6.8</b>

### Notes:

- The Statement of Estimates of Mineral Resources has been compiled under the supervision of Mr. Oyunbat Bat-Ochir who is a full-time employee of RPM and a Member of the Australian Institute of Geoscientists. Mr. Bat-Ochir has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity that he has undertaken to qualify as a Qualified Person as defined in the CIM Standards of Disclosure.
- All Mineral Resources figures reported in the table above represent estimates at November 1, 2022. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.
- Mineral Resources are reported on a dry in-situ basis.
- The Mineral Resource is reported using a 0.35 g/t Au cut-off grade in oxide and transition mineralisation and 1.02 g/t Au cut-off in fresh mineralisation and is constrained above conceptual optimised pit shell. Cut-off parameters were selected based on an RPM internal cut-off calculator, assuming an open cut mining method with 5% ore loss and 10% dilution, a gold price of US\$1,723 per ounce, a mining cost of US\$3 per tonne and a processing cost of US\$16 per tonne milled and processing recovery of 90% for oxide, 87% for transitional and 30% for fresh Au mineralisation. The conceptual optimised pit shell was constructed using a gold price of US\$2,000 per ounce, which is 1.4 times the long-term consensus forecast price.
- Mineral Resources referred to above, have not been subject to detailed economic analysis and therefore, have not been demonstrated to have actual economic viability.

Reserves	Tonnage	Au Grade	Contained Ag
Classification	(Mt)	(g/t)	(koz)
Proven	--	--	--
Probable	0.2	7.0	48.8
<b>Total</b>	<b>0.2</b>	<b>7.0</b>	<b>48.8</b>

### Notes:

- The effective date of the Mineral Reserve estimate is August 1, 2023. The QP for the estimate is Mr. Julien Lawrence of O2 Mining Limited;
- The Mineral Reserve estimates were prepared with reference to the 2014 Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards (2014 CIM Definition Standards) and the 2003 CIM Best Practice Guidelines;
- Reserves estimated assuming open-pit mining method;
- Waste to ore cut-offs were determined using a NSR for each block in the model. NSR is calculated using prices and process recoveries for each metal accounting for all off-site losses, transportation, smelting and refining charges;
- Reserves are based on a gold price of \$1,816/oz; and
- Mineral Reserves were calculated from a diluted "mining" block model which included average dilution of 10% and losses of 2.5%.

# ALTAN NAR RESOURCES

## Intermediate sulfidation epithermal gold-silver-lead-zinc deposit



Indicated Classification	Tonnage (Mt)	Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)	AuEq (g/t)	Au (koz)	Ag (koz)	Zn (kt)	Pb (kt)	AuEq (koz)
Oxide	0.6	2.0	12.7	0.6	1.0	3.1	39.3	244.3	3.8	6.3	59.6
Fresh	4.4	2.0	15.0	0.6	0.5	2.8	278.4	2,105.4	27.8	22.7	393.4
<b>Total</b>	<b>5.0</b>	<b>2.0</b>	<b>14.8</b>	<b>0.6</b>	<b>0.6</b>	<b>2.8</b>	<b>317.7</b>	<b>2,349.7</b>	<b>31.6</b>	<b>29.0</b>	<b>453.0</b>

Inferred Classification	Tonnage (Mt)	Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)	AuEq (g/t)	Au (koz)	Ag (koz)	Zn (kt)	Pb (kt)	AuEq (koz)
Oxide	0.8	1.8	7.5	0.6	0.9	2.6	43.3	183.7	4.3	6.5	64.2
Fresh	2.7	1.7	8.0	0.7	0.6	2.5	142.4	682.1	19.4	15.8	212.8
<b>Total</b>	<b>3.4</b>	<b>1.7</b>	<b>7.9</b>	<b>0.7</b>	<b>0.7</b>	<b>2.5</b>	<b>185.7</b>	<b>865.8</b>	<b>23.7</b>	<b>22.3</b>	<b>277.1</b>

Note:

- The Statement of Estimates of Mineral Resources has been compiled under the supervision of Mr. Jeremy Clark who is a full-time employee of RPM and a Member of the Australian Institute of Geoscientists. Mr. Clark has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity that he has undertaken to qualify as a Qualified Person as defined in the CIM Standards of Disclosure.
- All Mineral Resources figures reported in the table above represent estimates based on drilling completed up to 7th May 2018. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.
- \*Au Equivalent (AuEq) calculated using long term 2023 - 2027 "Energy & Metals Consensus Forecasts" March 19, 2018 average of US\$1310/oz for Au, US\$17.91/oz for Ag, US\$1.07/pound for Pb and US\$1.42/pound for Zn. Adjustment has been made for metallurgical recovery and is based company's preliminary testwork results which used flotation to separate concentrates including a pyrite concentrate with credits only for Au and Ag. Based on grades and contained metal for Au, Ag, Pb and Zn, it is assumed that all commodities have reasonable potential to be economically extractable. a. The formula used for Au equivalent grade is:  $AuEq\ g/t = Au\ g/t + Ag\ g/t * 0.0124 + Pb\ % * 0.509 + Zn\ % * 0.578$  with metallurgical recovery of 88.8% Au, 80.6% Ag, 80.4% Pb and 69.1% Zn. b. Au equivalent ounces are calculated by multiplying Mineral Resource tonnage by Au equivalent grade and converting for ounces. The formula used for Au equivalent ounces is:  $AuEq\ Oz = [Tonnage\ x\ AuEq\ grade\ (g/t)] / 31.1035$ .
- Mineral Resources are reported on a dry in-situ basis.
- Reported at a 0.7 g/t AuEq cut-off above pit shell and 1.4g/t AuEq below the pit shell. Cut-off parameters were selected based on an RPM internal cut-off calculator, which indicated that a break-even cut-off grade of 0.7g/t Au Equivalent above pit and 1.4g/t AuEq below pit, assuming a gold price of US\$1310 per ounce, an open mining cost of US\$6 per tonne and a processing cost of US\$20 per tonne milled and processing recovery of 88.8% Au, 80.6% Ag, 80.4% Pb and 69.1% Zn.
- Mineral Resources referred to above, have not been subject to detailed economic analysis and therefore, have not been demonstrated to have actual economic viability

## ZUUN MOD RESOURCES

Porphyry complex measuring 16km in circumference



Zuun Mod Resources	Tonnage	Mo Grade	Contained Mo	Cu Grade	Contained Cu
Classification	(Mt)	(%)	(Mlbs)	(%)	(Mlbs)
Measured	40	0.056	49.5	0.064	57.0
Indicated	178	0.057	224.0	0.070	273.7
M&I	218	0.057	273.5	0.069	330.7
Inferred	138	0.052	157.7	0.065	197.7

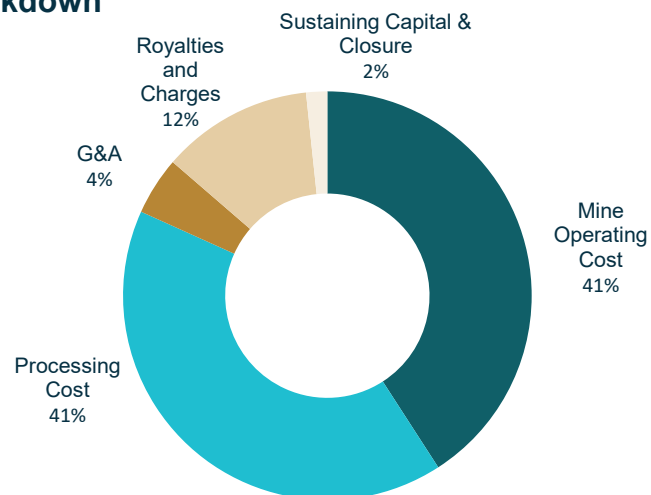
Notes:

1. Effective Date: May 2011.
2. Cutoff grade: 0.04% Mo
3. 1 tonne = 2204.64 lbs.
4. Estimates are rounded to appropriate significant figures.

# BAYAN KHUNDII GOLD PROJECT UPDATED FEASIBILITY STUDY

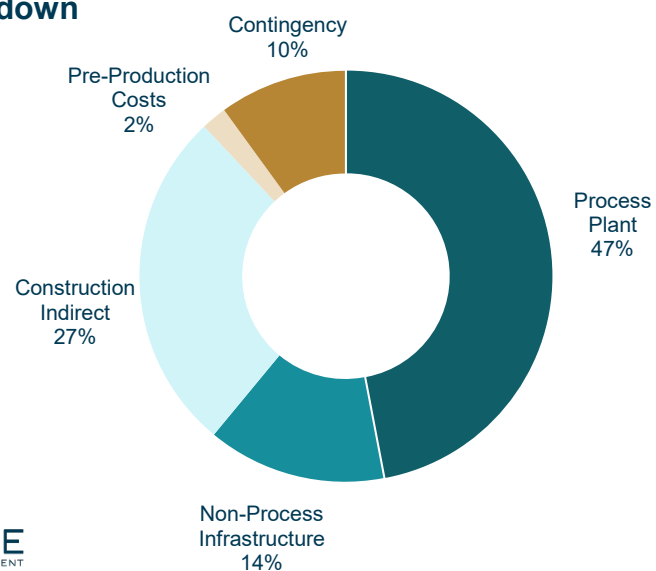
Operating in a lower cost jurisdiction

## Operating Cost Breakdown



Operating Costs	LOM US\$ million	US\$/oz	US\$/t
Mine Operating Cost	\$165	\$347	\$41
Processing Cost	\$166	\$349	\$41
G&A	\$20	\$43	\$5
<b>Total Site Operating Costs</b>	<b>\$352</b>	<b>\$739</b>	<b>\$88</b>
Royalties and Charges	\$51	\$108	\$13
Sustaining Capital & Closure	\$10	\$22	\$3
<b>All-in Sustaining Cost</b>	<b>\$414</b>	<b>\$869</b>	<b>\$103</b>

## Capital Cost Breakdown



Capital Costs	US\$ million
Process Plant	\$47
Non-Process Infrastructure	\$14
Construction Indirects	\$27
<b>Construction Costs</b>	<b>\$88</b>
Pre-Production Costs	\$2
Contingency (12%)	\$10
<b>Total Construction Costs</b>	<b>\$100</b>

# BAYAN KHUNDII GOLD PROJECT UPDATED FEASIBILITY STUDY

25% increase in recovered gold compared to 2020 study

Bayan Khundii			Dark Horse			Total	
Ore	- 3.8Mt	+	Ore	- 0.2Mt	=	Ore	- <b>4.0Mt</b>
Grade	- 3.8 g/t Au		Grade	- 7.0 g/t Au		Grade	- <b>4.0 g/t</b>
Recovery	- 93%		Recovery	- 89%		Recovery	- <b>93%</b>
Recovered gold	- 432,000 oz		Recovered gold	- 44,000 oz		<b>Recovered gold</b>	- <b>476,000 oz</b>

