



TSX:ERD | MSE:ERDN

# DEVELOPING A NEW HIGH-GRADE GOLD DISTRICT THE KHUNDII GOLD PROJECT

Q4 2019



@ErdeneRes



@ErdeneResource



Erdene Resource Development Corp.



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

## MISSION

**To become a major regional gold producer, initially through development of a 60,000 ounce per year, high-grade, open-pit mine at Bayan Khundii while continuing exploration and acquisition efforts to significantly expand the operation.**

## THE KHUNDII GOLD PROJECT

Located 200 km from the world's largest gold market – **China**

The Government of Mongolia is implementing a policy to promote hard rock gold mines – **Gold 2 Program**

The **Mongol Bank** intends to purchase all gold produced in the country at market price



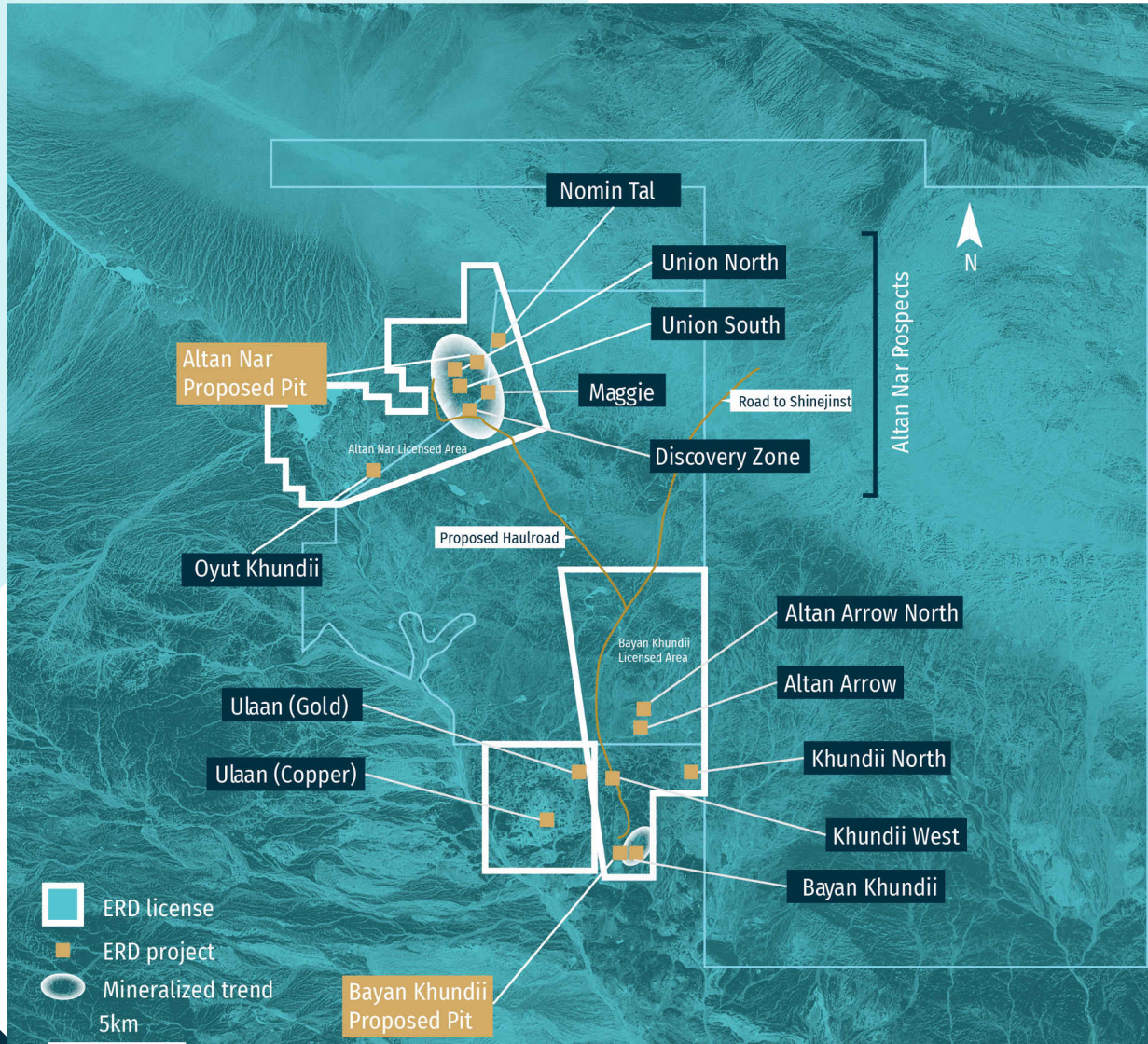
# DISTRICT SCALE POTENTIAL: Two deposits, multiple prospects, limited exploration

*Fast tracking to production*

## Khundii Gold Project Mineral Resource Estimate

Cut-off Grade <sup>(1)</sup>	Resource Classification	Quantity (Mt)	Grade (Au g/t)	Gold (Koz)
Recommended <sup>(2)</sup>	Measured & Indicated	10.1	2.59	839
	Inferred	4.3	2.10	289

2. Tetra Tech recommended cut-off grade for Bayan Khundii is 0.55 g/t gold and RPM recommended cut-off grade for Altan Nar is 0.7 g/t AuEq above a pit and 1.4 g/t AuEq below the same pit shell.



# KHUNDII GOLD PROJECT: GROWING, HIGH-GRADE RESOURCES

Fast tracking to production



16 km apart

## PREFEASIBILITY STUDY: BAYAN KHUNDII DEPOSIT

Cut-off Grade	Resource Classification	Quantity (Mt)	Grade Au g/t	Gold Koz
0.4	Measured	1.7	3.15	176
	Indicated	4.6	2.45	364
0.55	Measured & Indicated	<b>6.4</b>	<b>2.64</b>	<b>540</b>
	Inferred	1.1	3.10	106
1.0	Measured	1.4	7.31	153
	Indicated	3.7	5.56	304
1.4	Measured & Indicated	<b>2.3</b>	<b>6.05</b>	<b>457</b>
	Inferred	0.4	6.83	93
1.4	Measured	0.5	9.09	148
	Indicated	1.4	6.40	294
1.4	Measured & Indicated	<b>1.9</b>	<b>7.10</b>	<b>441</b>
	Inferred	0.4	7.61	91

## PRELIMINARY ECONOMIC ASSESSMENT: ALTAN NAR DEPOSIT

Cut-off AuEq g/t	Resource Classification	Quantity (Mt)	Grade				Contained Metal		
			Au g/t	Ag g/t	Zn (%)	Pb (%)	AuEq g/t	Au Koz	AuEq Koz
0.4	Indicated	5.6	1.8	13.5	0.6	0.5	2.6	323	464
	Inferred	3.7	1.6	7.5	0.7	0.6	2.3	189	283
0.7	Indicated	5.0	2.0	14.8	0.6	0.6	2.8	318	453
	Inferred	3.4	1.7	7.9	0.7	0.7	2.5	186	277
1.0	Indicated	4.2	2.3	16.6	0.7	0.7	3.2	306	431
	Inferred	3.2	1.8	8.2	0.7	0.7	2.7	182	270
1.4	Indicated	3.3	2.7	18.9	0.8	0.8	3.8	285	398
	Inferred	2.9	1.9	8.6	0.8	0.7	2.8	176	259

- Notes:
- The Statement of Estimates of Mineral Resources has been compiled under the supervision of Mr. Cameron Norton who is a full-time employee of Tetra Tech and a P. Geo. Mr. Norton has sufficient experience that is relevant to the style of mineralisation 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 April 22, 2019. 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 Resources is reported at a 0.55 g/t Au cut-off. Cut-off parameters were selected based on Tetra Tech's internal cut-off calculator, which indicated that a break-even cut-off grade of 0.55 g/t Au, assuming an open cut mining method, a gold price of USD \$1,350 per ounce, an open mining cost of USD \$2per tonne, a processing cost of USD \$16 per tonne milled, a G&A cost of \$5 per tonne, and a gold recovery of 0.95%.
  - The mineral resource estimate has been constrained to a preliminary optimized pit shell which assumed a gold price of USD \$2,000 and the economic potential tested using the above parameters.
  - The mineral resource estimate assumes an average density of 2.66 t/m3 for the mineralized domains.
  - Mineral Resources referred to above, have not been subject to detailed economic analysis and therefore, have not been demonstrated to have actual economic viability.
  - Measured and indicated mineral resources do not have demonstrated economic viability. Inferred mineral resources have a greater amount of uncertainty as to their existence and potential economic and legal feasibility, do not have demonstrated economic viability, and are exclusive of mineral reserves.

- Notes:
- The Mineral Resources have been constrained by topography and a cut-off of 0.7 g/t AuEq above a pit and 1.4 g/t AuEq below the same pit shell.
  - The Mineral Resource Estimate Summary was 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 Resource figures reported in the table above represent estimates as at May 7, 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.
  - Mineral Resource grades are reported in accordance with the CIM Standards.
  - Mineral Resources reported on a dry in-situ basis.
  - No dilution or ore loss factors have been applied to the reported Resource Estimate.
  - No allowances have been made for recovery losses that may occur should mining eventually result.
  - Gold Equivalent ("AuEq") calculations assume metal prices of US \$1,310 per ounce gold, US \$18 per ounce silver, and US \$2,400 per tonne lead and US \$3,100 per tonne zinc and processing recoveries as per below.



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# **KHUNDII GOLD PROJECT** **Technical Study Results**

Completed by Tetra-Tech, global provider of consulting, engineering, program management, construction management and technical services worldwide.

**October 21, 2019**

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

# KHUNDII GOLD PROJECT TECHNICAL STUDY RESULTS

*Fast tracking to production*

16 km apart

## PREFEASIBILITY STUDY: BAYAN KHUNDII DEPOSIT

## PRELIMINARY ECONOMIC ASSESSMENT: ALTAN NAR DEPOSIT

**US\$ 97 million**  
@ year-0

After-tax NPV 5% (US\$)  
Gold price assumption US\$ 1,300

**US\$ 24 million**  
@ year-0

**42%**

After-tax IRR (%)  
Gold price assumption US\$ 1,300

**90%<sup>1</sup>**

**Years 0-7**  
1.8 year payback

Life of Mine (LOM)  
Payback period

**Years 7-10**  
1.0 year payback

**3.73 g/t Au**  
91%

LOM Head Grade (g/t)  
Average recovery (%)

**3.46 g/t Au**  
67%

**US\$ 746**

AISC (US\$)  
Per troy ounce

**US\$ 931**

**US\$ 40 million**  
Includes 15% contingency

Initial Capital Expenditure  
(US\$)

**US\$ 2 million**  
Includes 20% contingency

**61,000 oz Au**  
382,000 oz

Average Production Rate (oz)  
LOM production LOM (oz)

**48,000 oz AuEq**  
144,000 oz AuEq

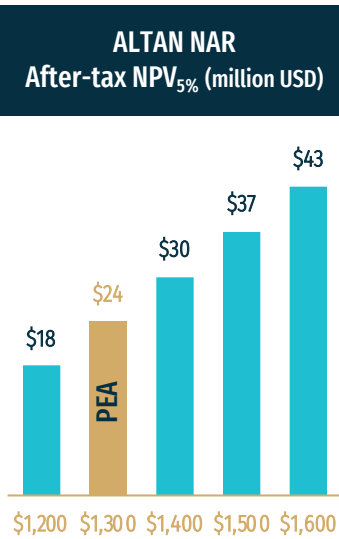
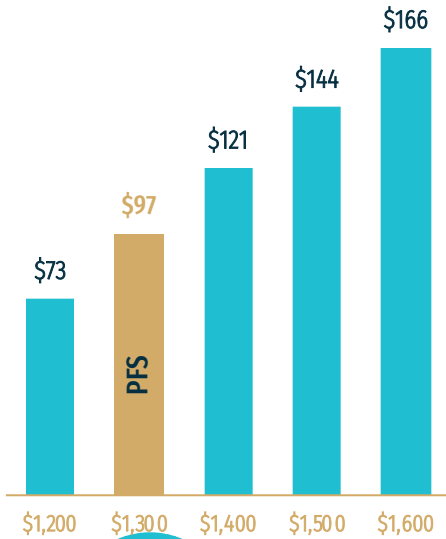
# SENSITIVITY TO GOLD PRICE: EXCEPTIONAL RETURNS WITH RISING GOLD PRICES

*Fast tracking to production*

## NET PRESENT VALUE (NPV)

**BAYAN KHUNDII**  
After-tax NPV<sub>5%</sub> (million USD)

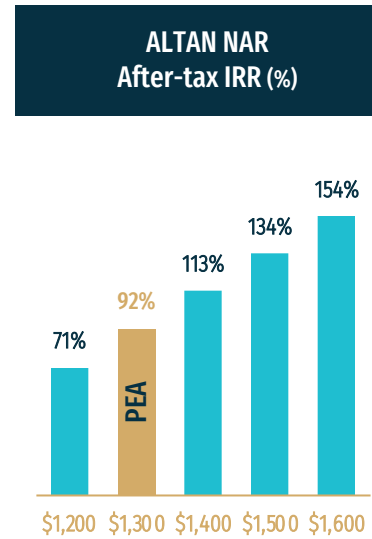
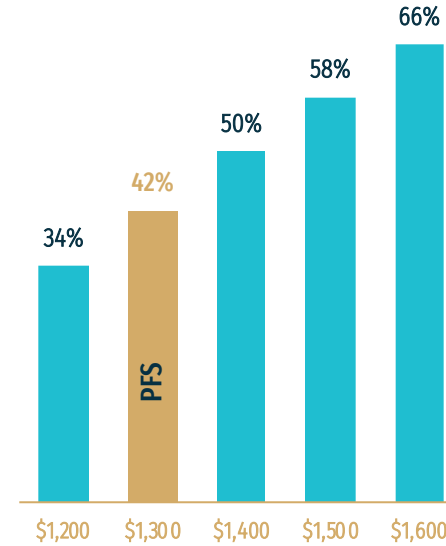
**ALTAN NAR**  
After-tax NPV<sub>5%</sub> (million USD)



## INTERNAL RATE OF RETURN (IRR)

**BAYAN KHUNDII**  
After-tax IRR (%)

**ALTAN NAR**  
After-tax IRR (%)



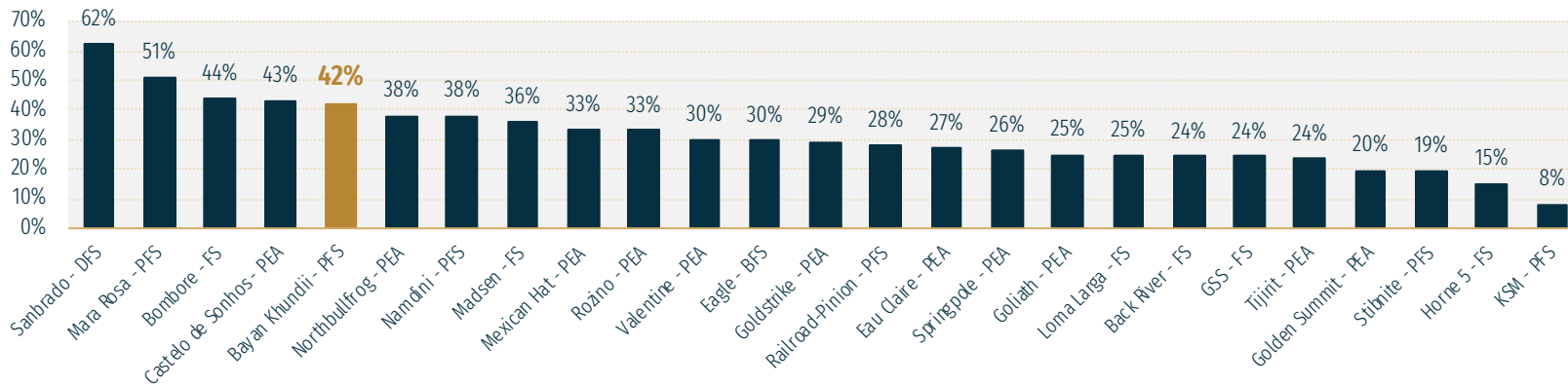
Gold Price



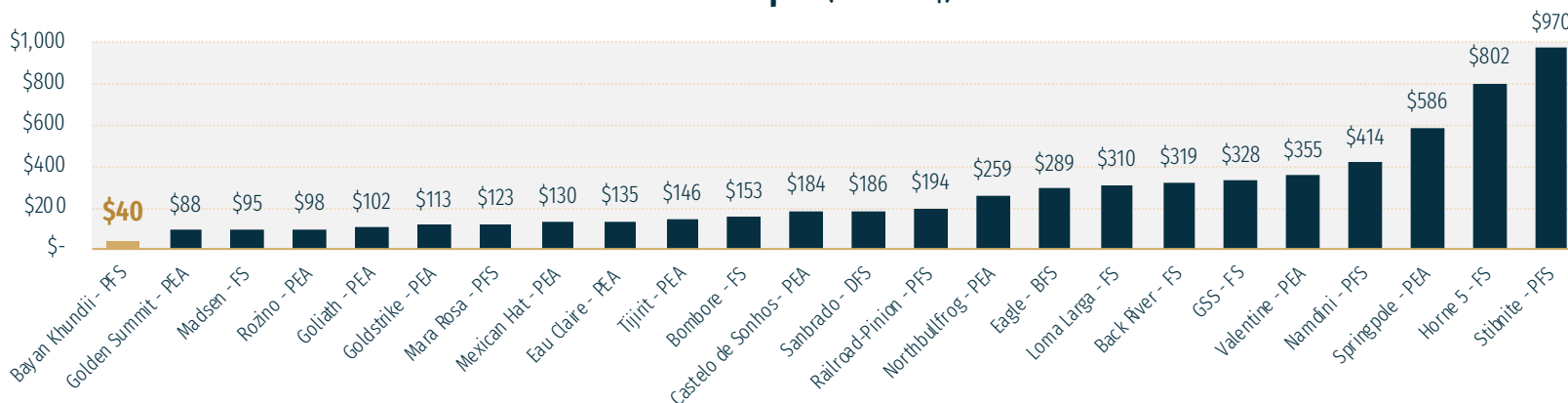
# BAYAN KHANDII: A HIGH-RETURN, LOW COST DEVELOPMENT

Fast tracking to production

After-tax IRR (%)

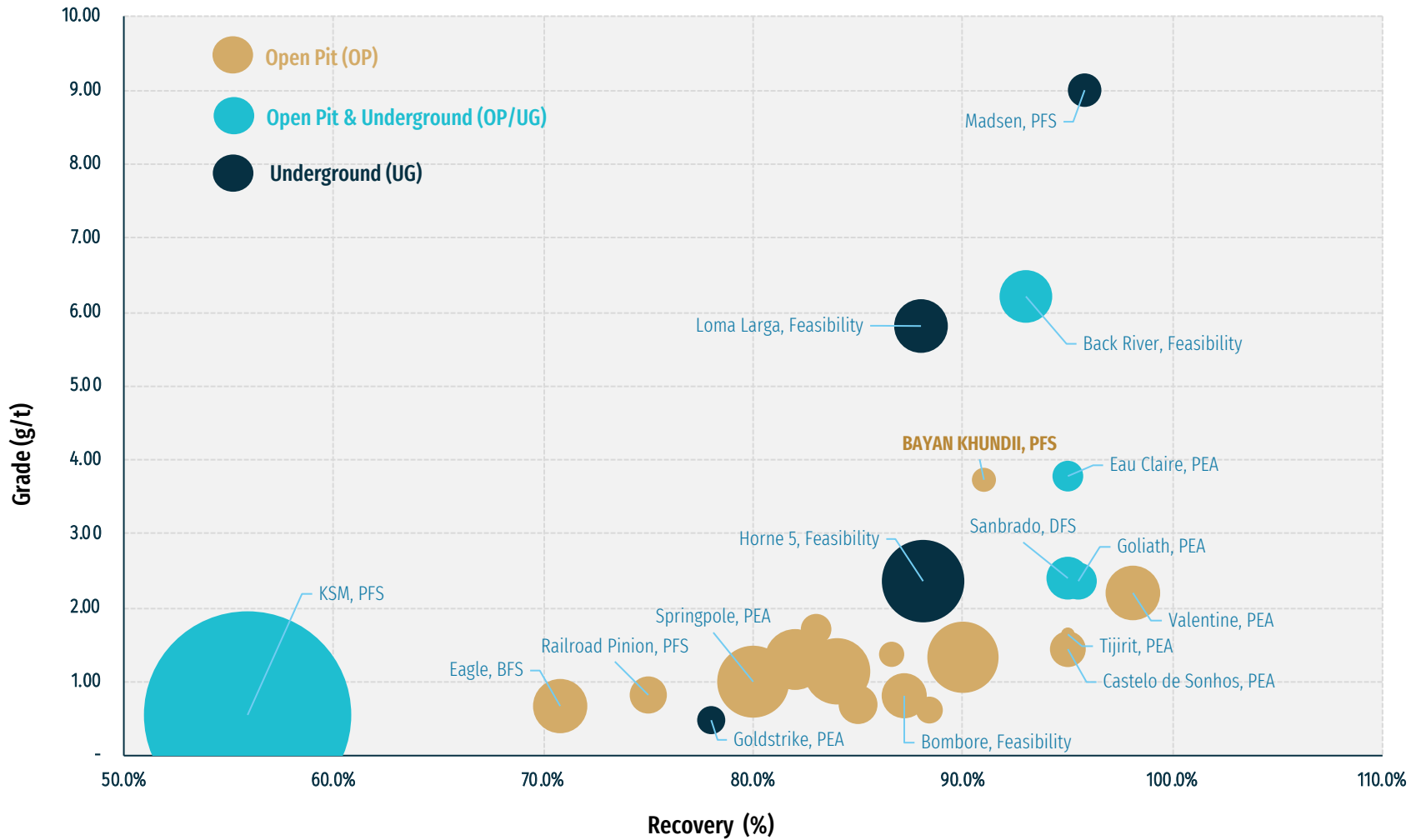


Initial Capex (Million us\$)



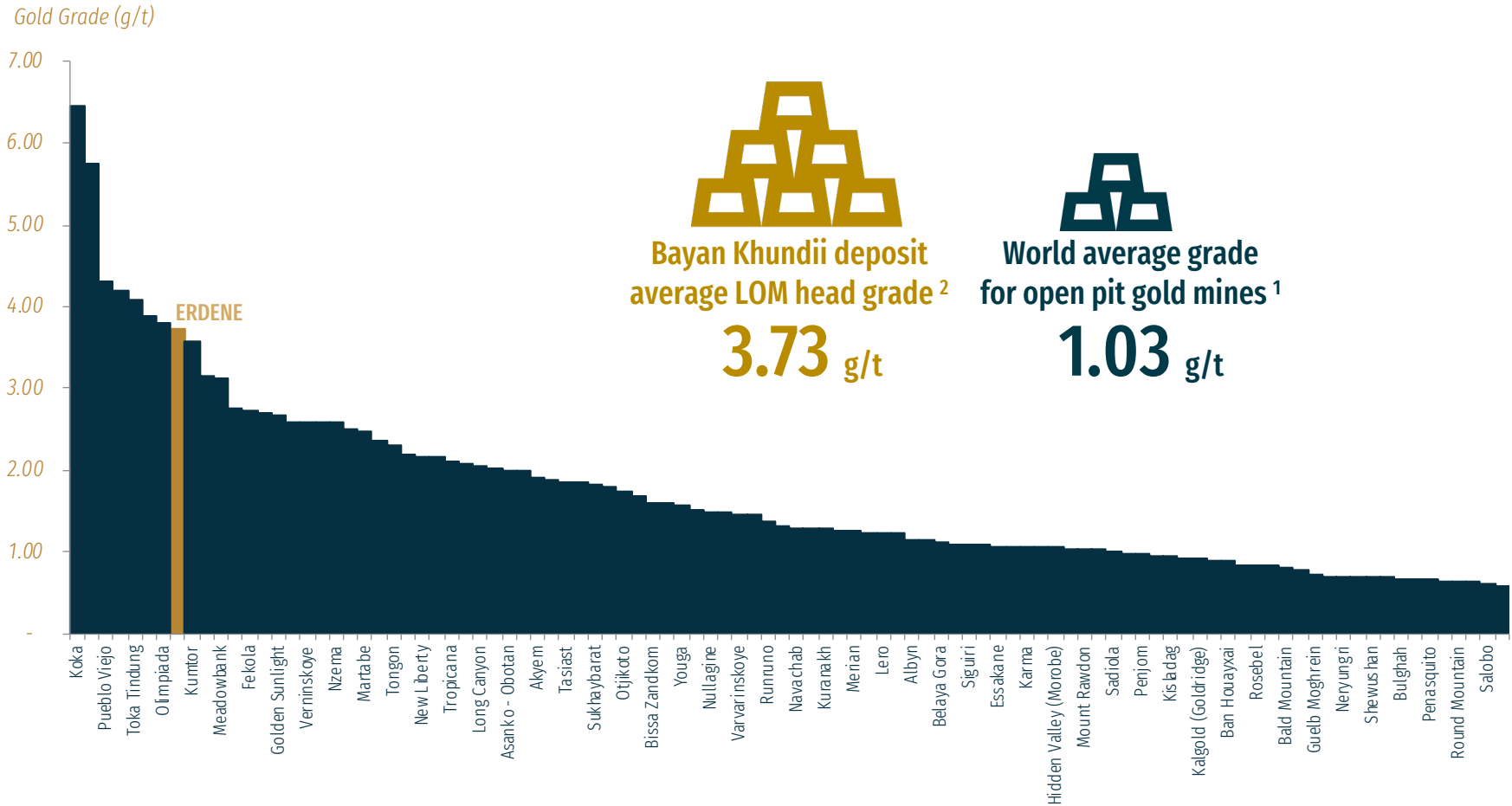
# BAYAN KHUNDII: A HIGH-GRADE, HIGH-RECOVERY OPEN PIT DEVELOPMENT

*Fast tracking to production*



# BAYAN KHUNDII: TRIPLE THE AVERAGE GRADE OF OPEN-PIT GOLD MINES

Fast tracking to production



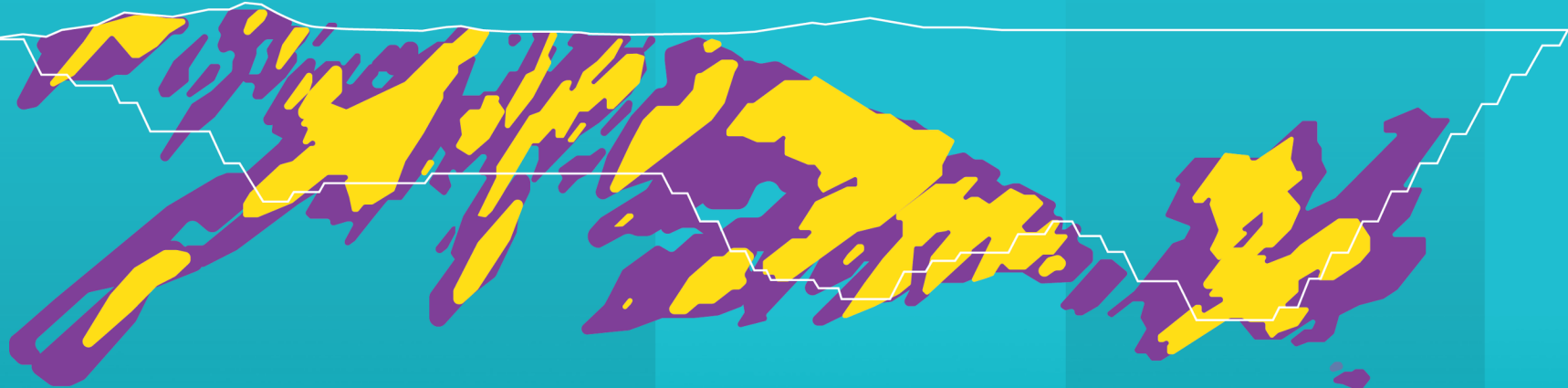
1. Source: Wood MacKenzie Global Gold Mine Cost database for open pit gold mines, August 2018

2. Refer to Erdene's news release dated October 21, 2019 for additional information on the Pre Feasibility Study.

Striker

Midfield

North Midfield



0.4-2.0 g/t Au Low Grade Shell  
≥2.0 g/t Au High Grade Shell

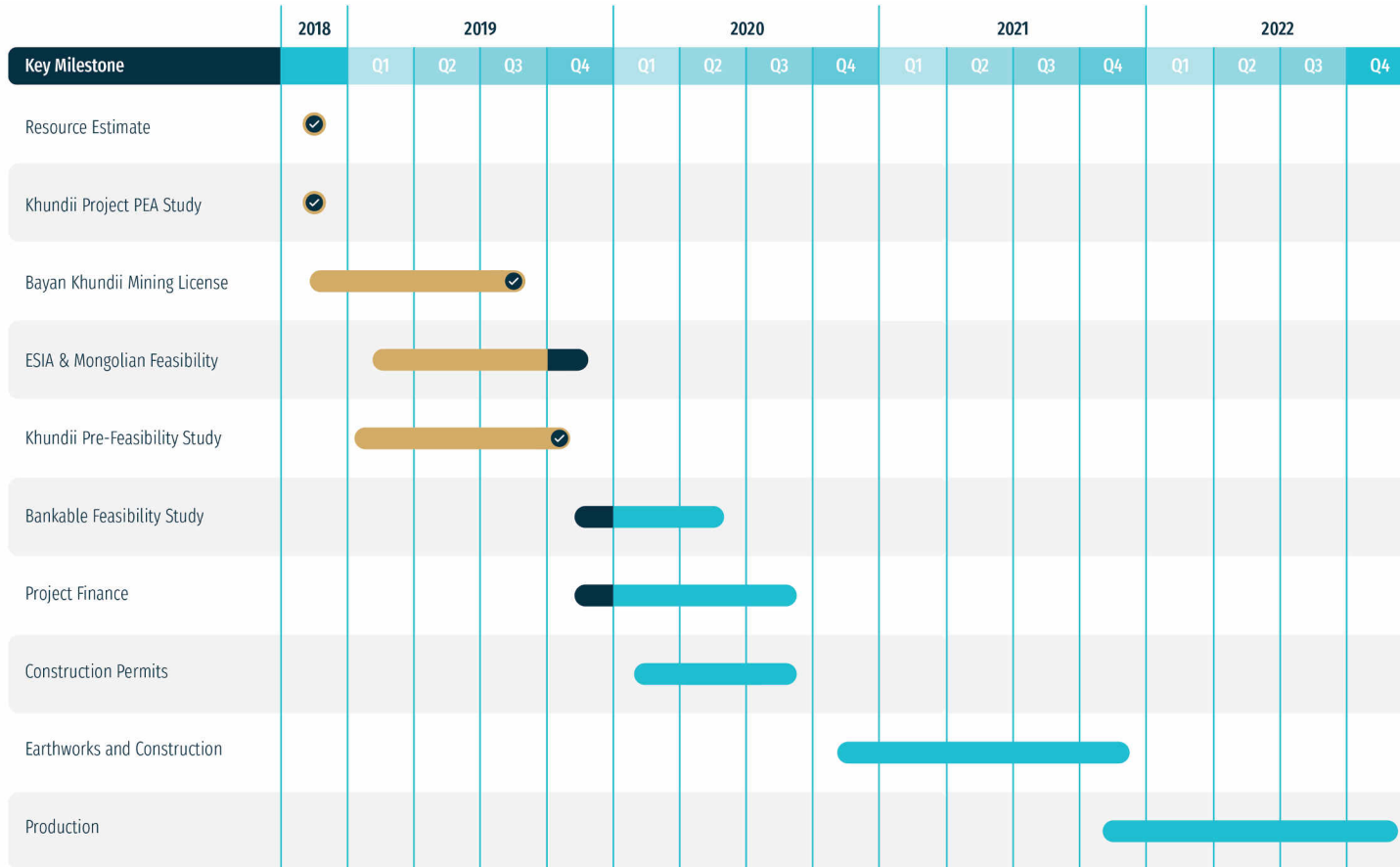
## BAYAN KHUNDII DEPOSIT

Diluted Head Greade **3.7 g/t**  
Stripping Ratio **10.5:1**  
Mine Feed **422,000 ounces**

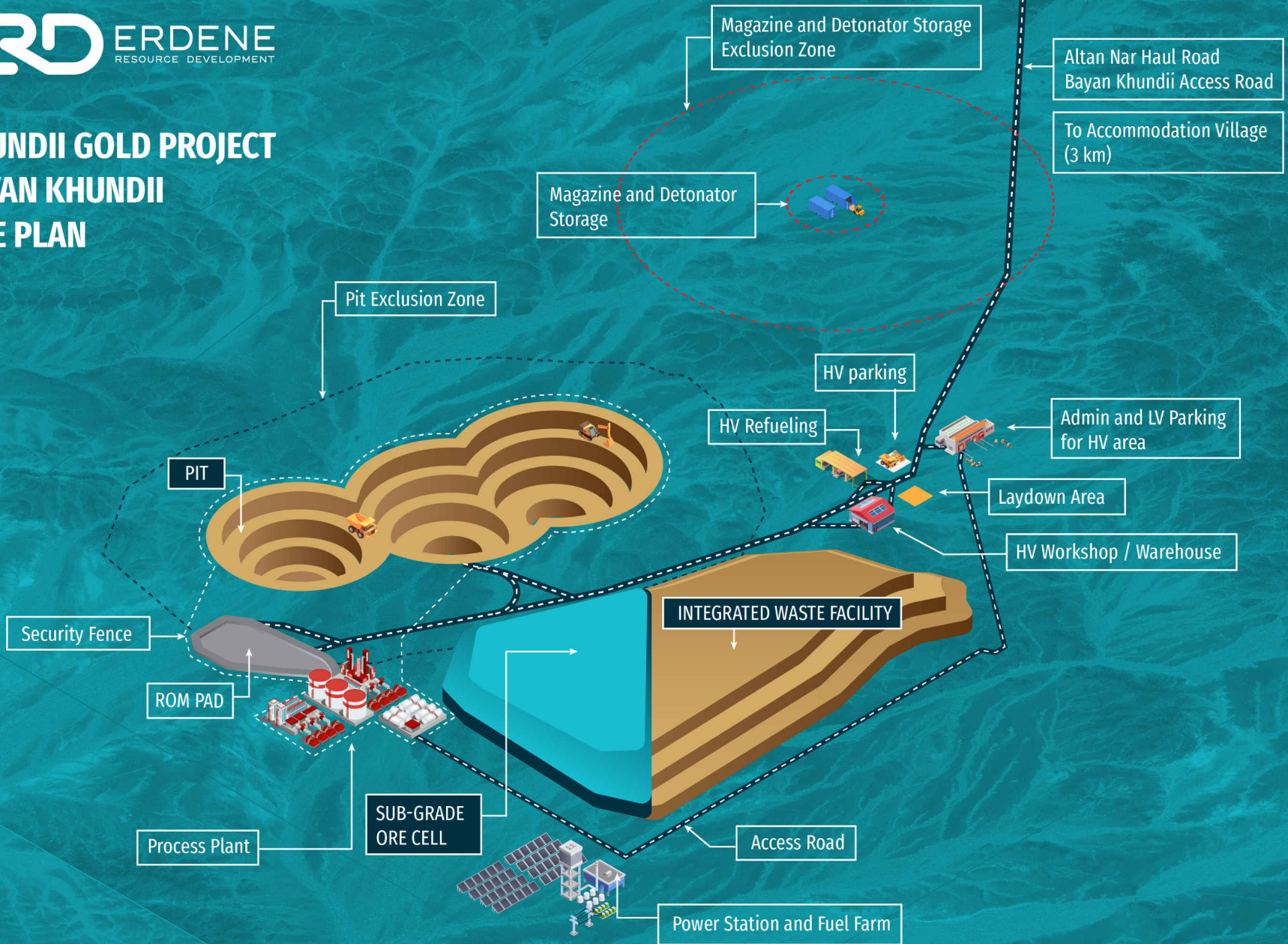
Recovery **91%**  
**382,000 ounces** production

# DEVELOPMENT PLAN

*Fast tracking to production*

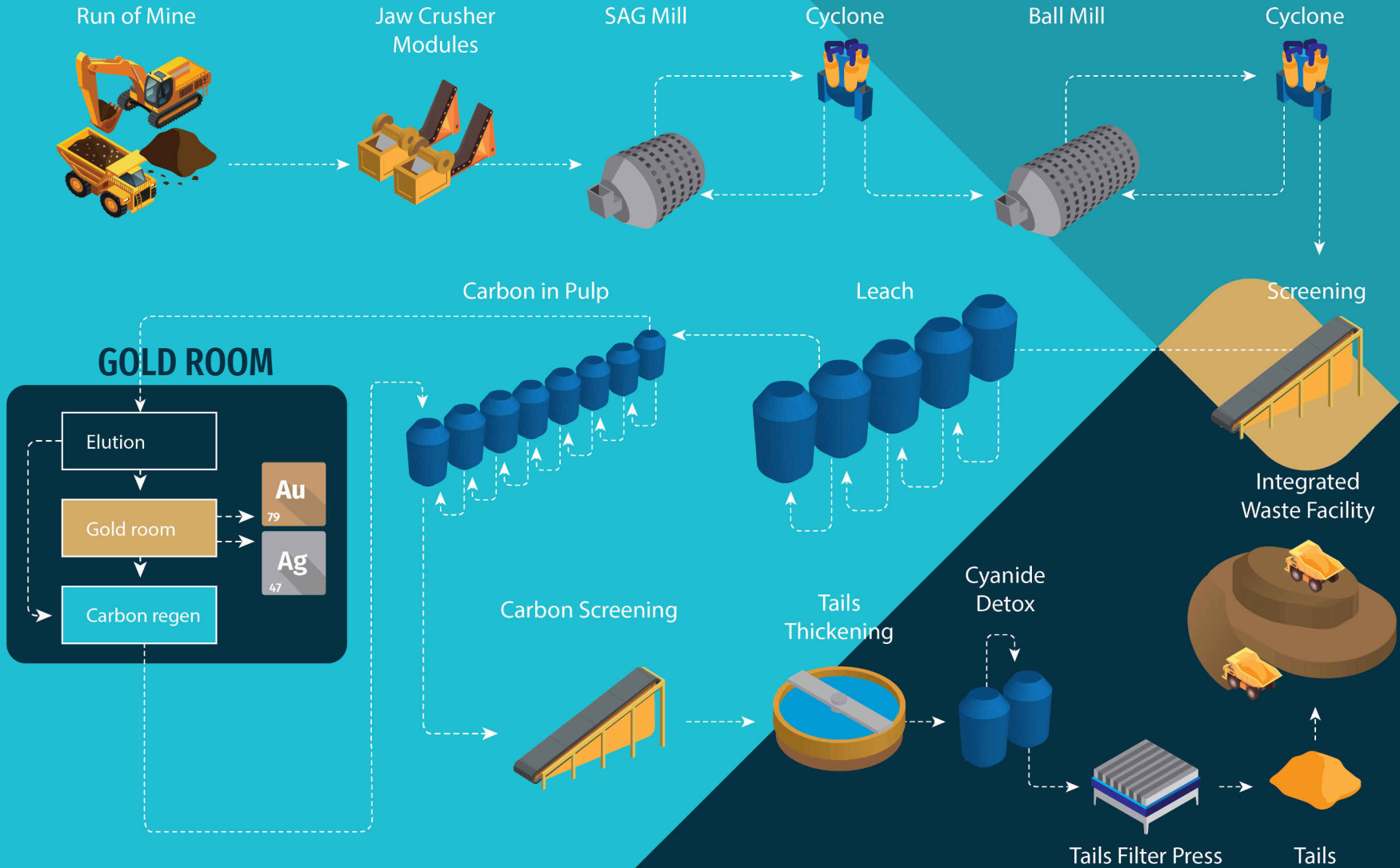


# KHUNDII GOLD PROJECT BAYAN KHUNDII SITE PLAN



# THE KHUNDII GOLD PROJECT PROCESS FLOW DIAGRAM

- Capacity of 1,800 tpd
- Conventional leach & CIP
- Tailings filtration & water recovery



**Peter Akerley**  
President & CEO



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

**Robert Jenkins**  
Chief Financial Officer



Chartered professional accountant with over 15 years experience in corporate finance, operations and project management.

**Bayarmaa Bagabandi**  
Chief Administrative Officer



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

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



Geologist with over 25 years of experience in the mineral exploration industry in increasingly senior project and corporate management positions.

**Bat-Erdene Gendenjamts**  
Senior Geologist



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

**Jon M.L. Lyons**  
Vice President, Regulatory Affairs & Strategy



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

**Julien Lawrence**  
Advisor, Mining Engineer



Consulting Mining Engineer and Project Manager with over 15 years experience in mine development and operation across Asia, including Mongolia

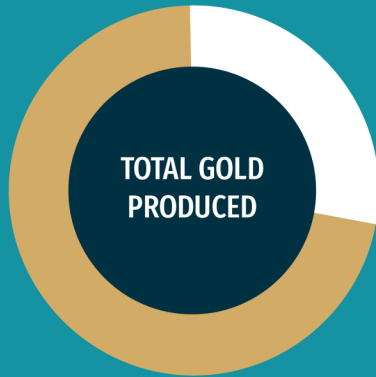
**Bilguun Ankhbayar**  
Vice President, Business Development



Mining finance professional with over 15 years of experience advising TSX and ASX listed companies



# BENEFITS TO MONGOLIA



ALTAN NAR  
**143,800**  
ounces AuEq

BAYAKHUNDII  
**382,000**  
ounces Au



**300**  
EMPLOYEES

## TAX GENERATION POTENTIAL OVER THE FIRST 10 YEAR

BAYAKHUNDII

**US\$**  
**65.6**  
MILLION

ALTAN NAR

**US\$**  
**16.2**  
MILLION

## LIFE OF MINE



POWER SUPPLY  
**DIESEL + SOLAR**



ENVIRONMENTAL  
MANAGEMENT  
INTEGRATED  
WASTE FACILITY

**6800**  
SHAREHOLDERS  
ON THE MSE



ERDENE'S EXPLORATION  
INVESTMENT TO DATE

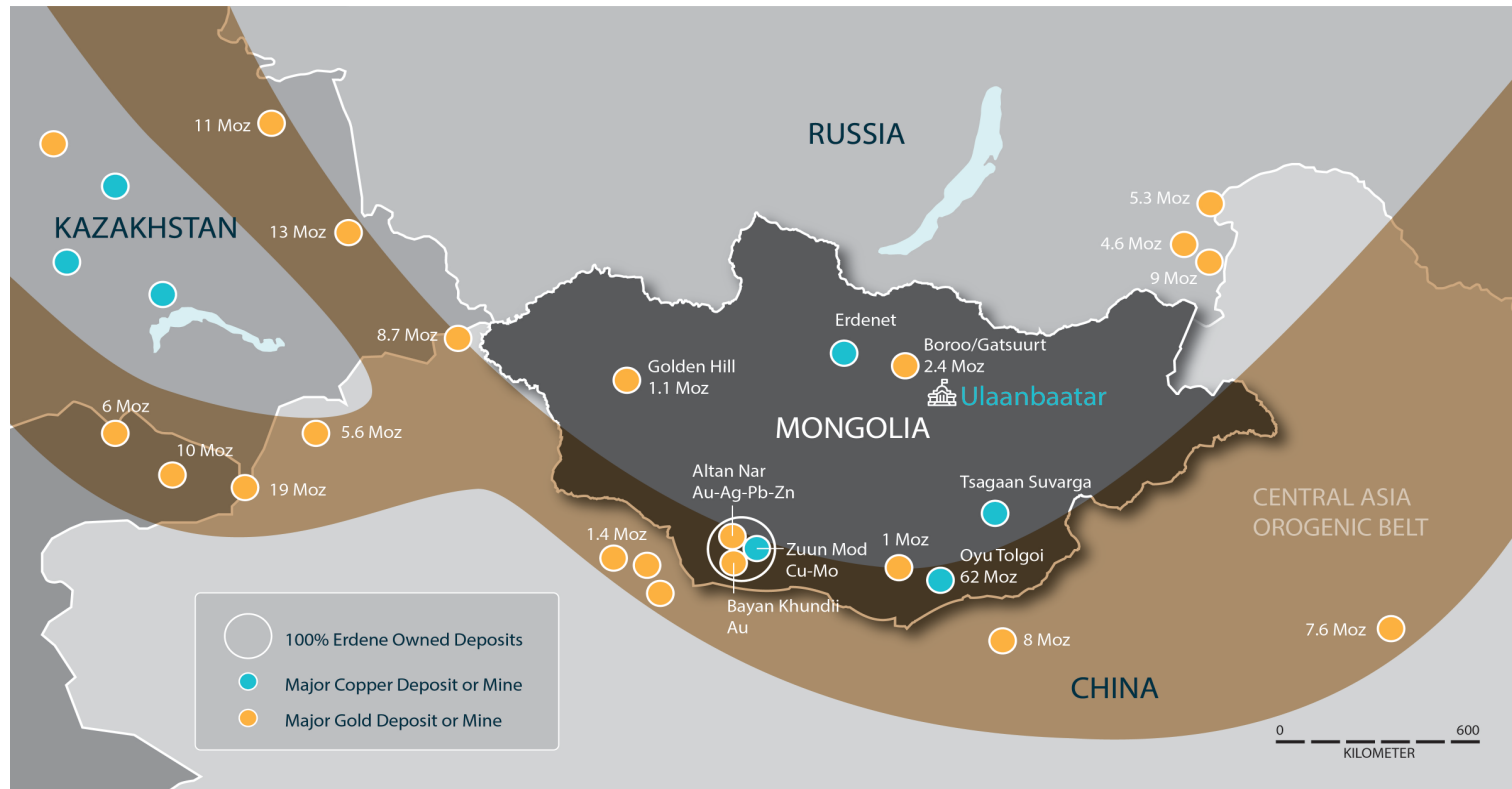
**US\$ 50 MILLION**  
OVER 15 YEARS

# GROWTH: EXPERTS IN THE GOLD RICH CENTRAL ASIA OROGENIC BELT OF MONGOLIA

Central Asia Orogenic Belt includes the largest known economic gold accumulations after South Africa

Southeast Mongolia hosts significant copper and gold deposits including Oyu Tolgoi

Focused on southwest Mongolia for over a decade; defined three deposits, several prospects and a number of targets

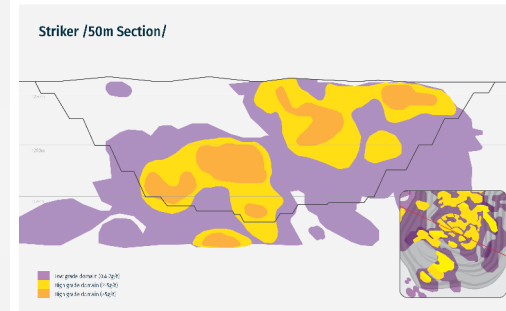
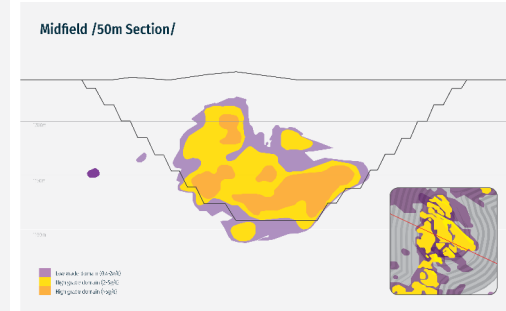
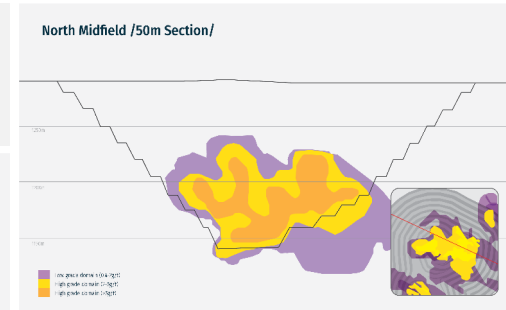
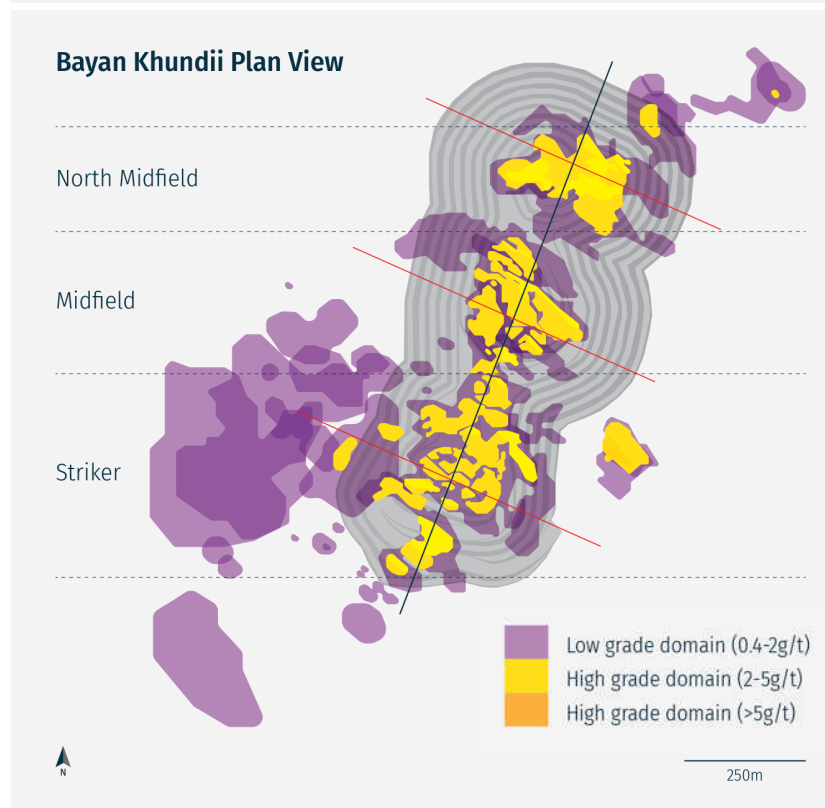


# BAYAN KHUNDII: Shallow, high-grade gold deposit, exposed at surface with multiple expansion opportunities

*Fast tracking to production*

- Inferred resource of 103,000 ounces @ 3.68 g/t gold
- High grade indicated resources outside pit
- Very high gold grades near surface in SW not defined
- Potential extensions south and north of the pit

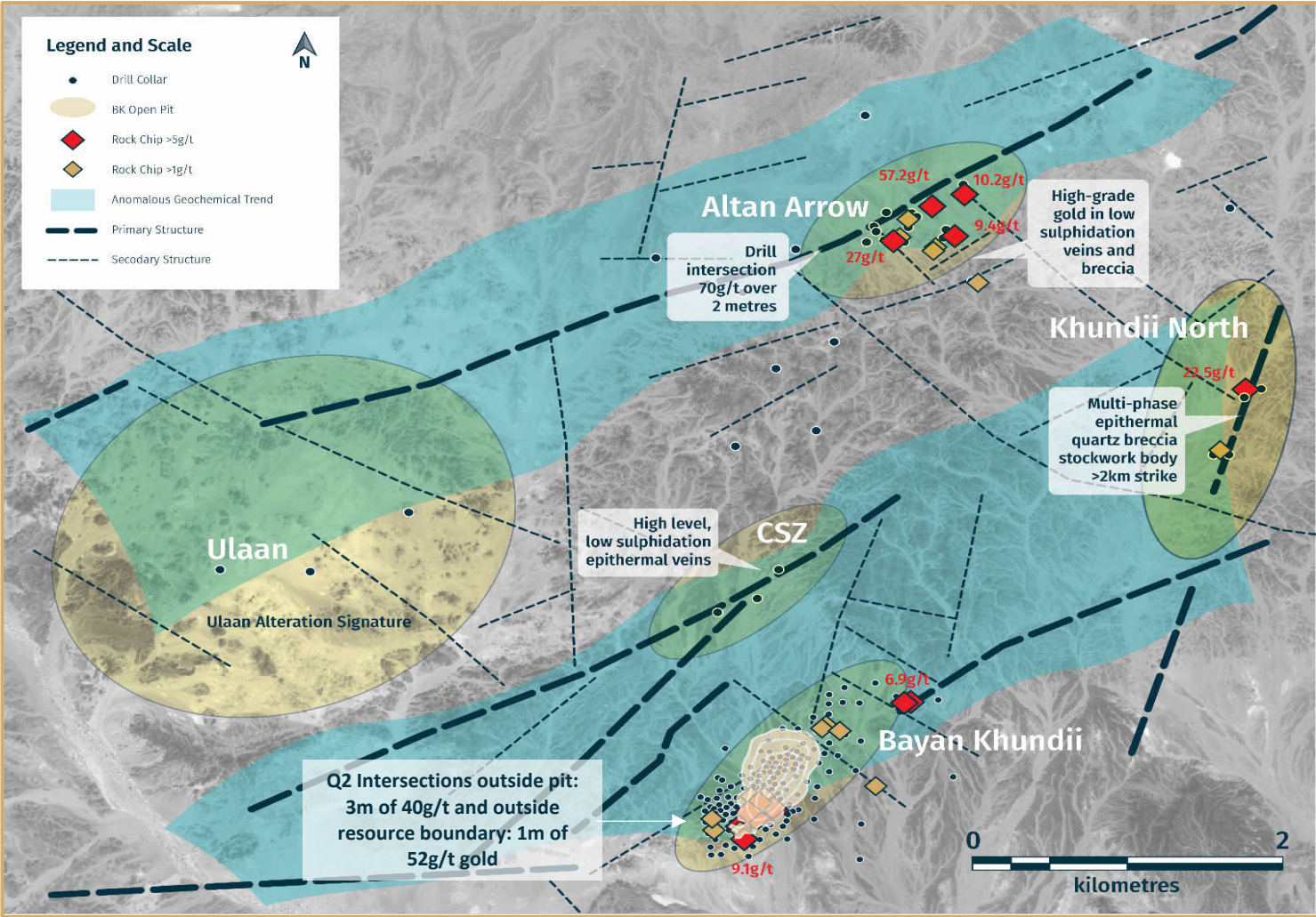
BAYAN KHUNDII DEPOSIT	Tonnage (Mt)	Grade (g/t Au)	Contained Au (Koz)
Proven and Probable Reserve	3.5	3.7	422



# KHUNDII GOLD PROJECT: District Scale Potential with Multiple Targets

## Throughout Licence Area

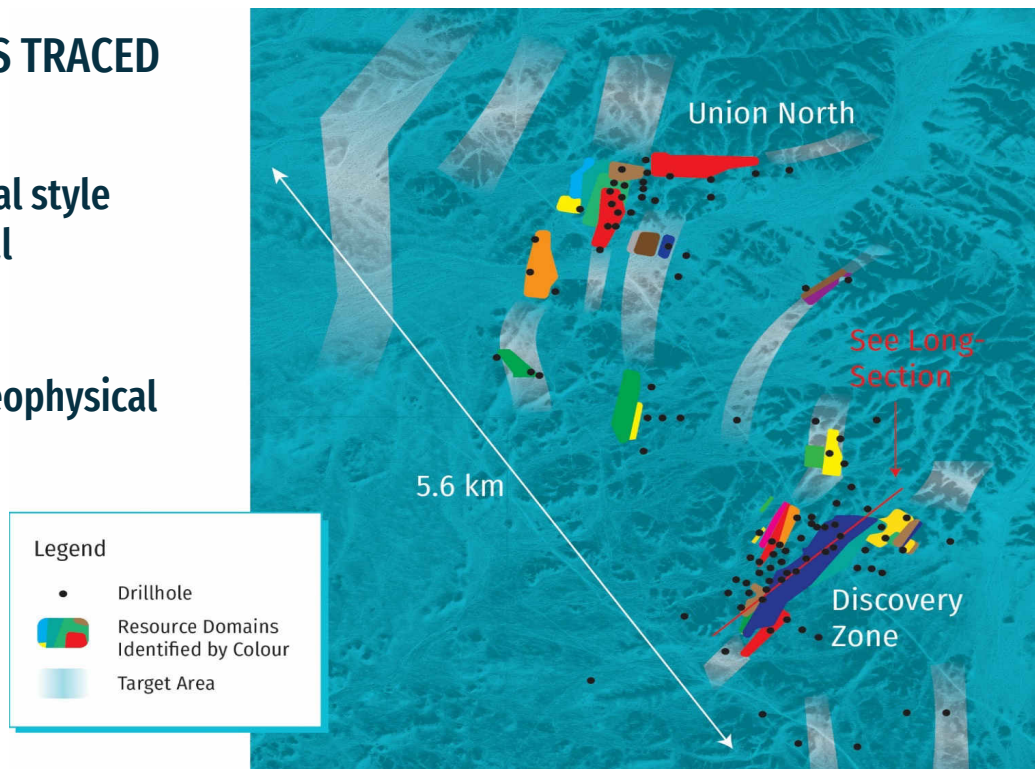
Fast tracking to production



# ALTAN NAR: HIGH PROBABILITY OF EXPANSION

*Fast tracking to production*

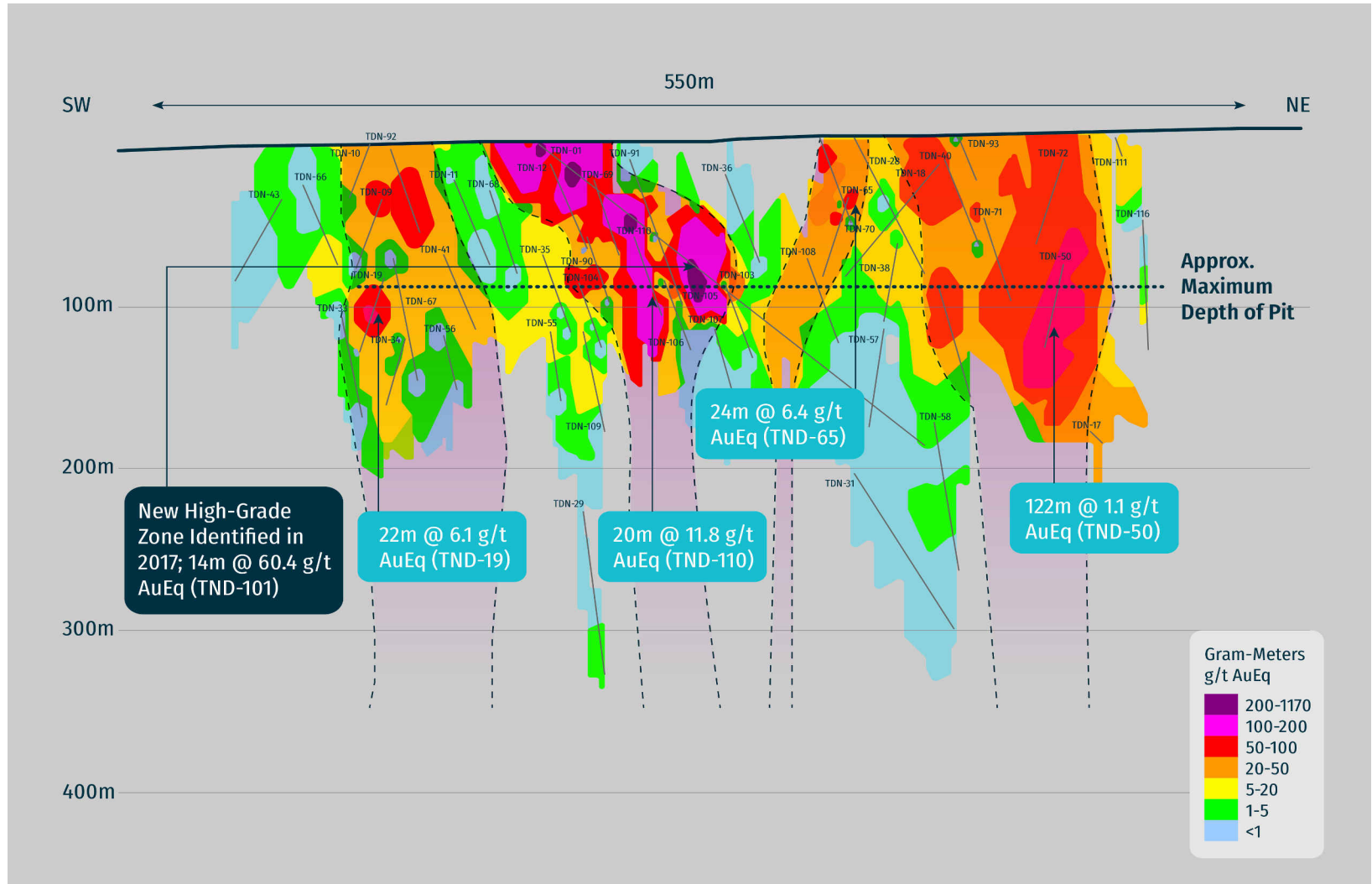
- 18 GOLD-POLYMETALLIC TARGETS TRACED OVER 5.6KM
- Intermediate sulphidation epithermal style indicating significant depth potential
- Average drilling depth, 150 metres
- Multiple intense geochemical and geophysical anomalies remain untested
- Gold anomalies located along structural trend East of Discovery Zone are of particular interest



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

# ALTAN NAR: HIGH GRADE CORE, OPEN AT DEPTH AND ALONG STRIKE

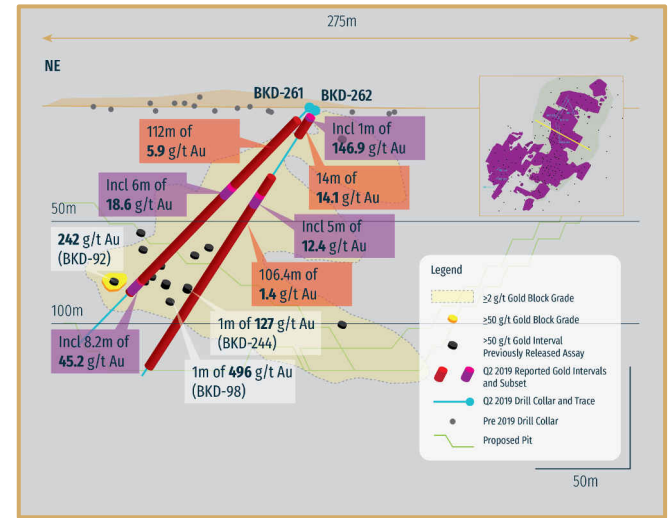
Fast tracking to production



# HIGH GRADE GOLD: KHUNDII DISTRICT DEPOSITS EXHIBIT EXCEPTIONALLY HIGH GRADES IN A NEAR SURFACE ENVIRONMENT

## Drilling Highlights – Since October 2017

- 2019** 112 metres of 5.9 g/t Gold at Bayan Khundii’s Midfeld Zone
- 2018** 81 metres of 2.6 g/t Gold including 17 metres of 9.2 g/t Gold northern extension of Bayan Khundii
- 143 metres of 2.6 g/t Gold with 4 metres of 57 g/t Gold at Bayan Khundii
- New discovery 3. 4 km north of Bayan Khundii- Altan Arrow, 70 g/t Gold over 2 metres at Altan Arrow
- Intersects highest grade result to date with 2,200 g/t Gold Over 1 metre at Bayan Khundii Gold Project
- 2017** 61 metres of 4.2 g/t Gold at Striker Zone and 15 metres of 9.2 g/t Gold west of Striker at Bayan Khundii Gold Project
- Expands Bayan Khundii mineralization with 43m of 1.8 g/t Gold east of Midfield, Including 1m of 45 g/t Gold, and 20m of 2.8 g/t Gold West of Striker, Including 1m of 51 g/t Gold
- Erdene intersects 20 metres of 10.3 g/t Gold at Altan Nar Project



# ERDENE AND MONGOLIA

*Strong technical and social license to operate*



**Principals in Mongolia since 1997**



**Largest proprietary technical database**  
**Bayan Khundii mining license - August 2019**



**First cross-listing on the MSE**  
**Over 6,800 Mongolian shareholders**



**Strategic investment by the European Bank for Reconstruction and Development (“EBRD”)**



# CORPORATE SNAPSHOT

Fast tracking to production

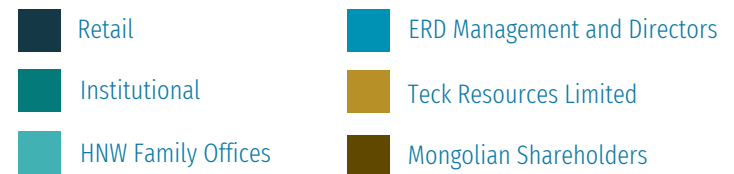
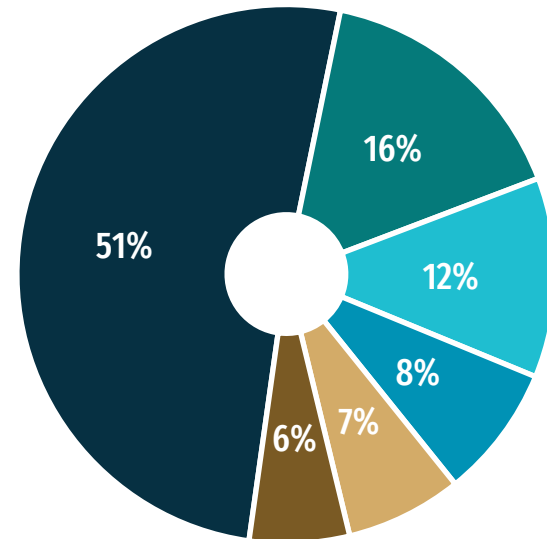
## Capital structure (October 18th, 2019)

	CAD	USD
Share price	\$0.205	\$0.16
52-Wk range	\$0.16-\$0.28	\$0.12-\$0.21
Market cap	\$37.86 M	\$28.82 M
Shares O/S	184.7M <sup>(2)</sup>	
Options	12.5M / Proceeds: \$5.3M	
Warrants	27.7M / Proceeds: \$13.3M	
DSU	5.0M	
Shares F/D	229.5M	
Cash	\$7.0M <sup>(1)</sup>	\$5.3M
Debt	\$6.6M	\$5.0M

1. Included in cash above, pending US\$5M convertible loan from EBRD announced on Oct. 15th
2. Not included above, private placement for up to 8M shares at 0.20 and 4M warrants at 0.30 for gross proceeds of up to C\$1,600,000.

Stock Exchanges: Ticker TSX: ERD | MSE: ERDN

## Shareholder summary



**Peter Akerley**  
President & CEO



Mining executive/geologist with 25 years experience in exploration, corporate finance, project development & management of public resource companies.

**Layton Croft**  
Chairman



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

**Dr. Anna Biolik**  
Director



One of the foremost Canadian experts on Central Asian business and diplomacy. Former Canadian Ambassador to Mongolia, Kazakhstan, Kyrgyzstan & Tajikistan.

**David Mosher**  
Director



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

**John Byrne**  
Director



Finance professional with 30+ years experience in the Canadian banking industry. President of Petroleum Corp of Canada Exploration since 1997.

**Kenneth MacDonald**  
Director



A Chartered Professional Accountant with 34 years of mining finance experience, including 17 years as Executive VP and CFO of Erdene.

**Hedley Widdup**  
Director



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

**Cameron McRae**  
Director

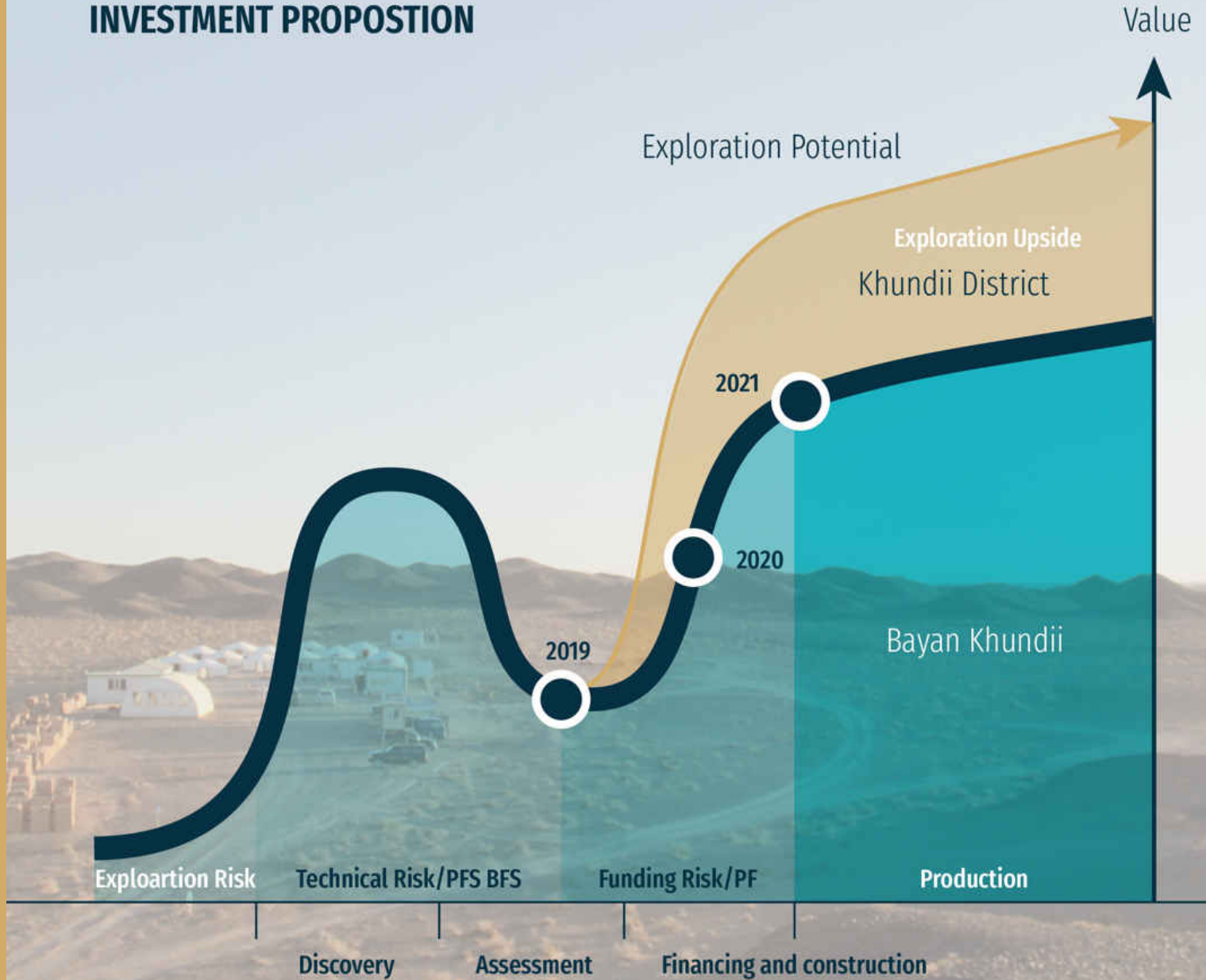


Mining executive, with 28 years at Rio Tinto, incl. as President of Oyu Tolgoi LLC where he led construction of the US\$6 billion copper-gold mine in southern Mongolia.

# INVESTMENT PROPOSITION

*Fast tracking to production*

## PROJECT LIFE CYCLE AND INVESTMENT PROPOSITION



<sup>1</sup> Refer to Erdene's news release dated October 21, 2019 for additional information on the results of the Pre-Feasibility Study

## VALUE

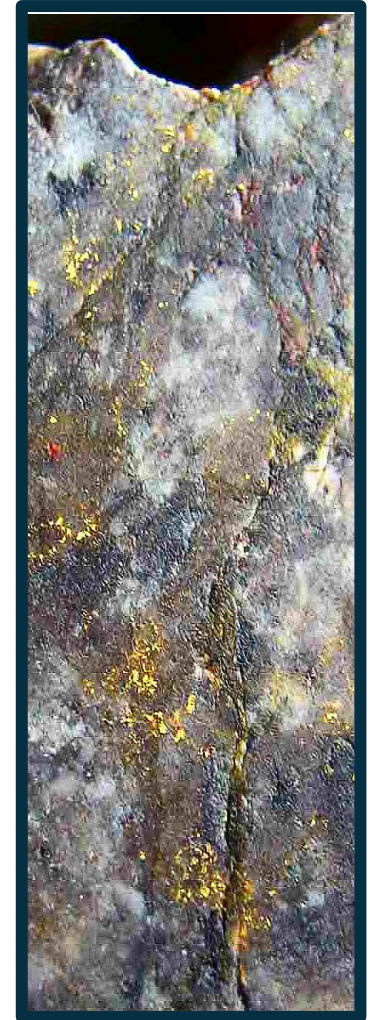
- Two high-grade gold deposits exposed at surface
- Triple the average grade of open-pit gold mines
- Near term, low capex, high return project with rapid payback

## GROWTH

- Existing gold deposits have significant expansion potential
- Multiple untested prospects on license
- Experts in an under-explored portion of one of the worlds great gold belts


## PEOPLE

- Engaged in the community development for over a decade
- Experienced team in all aspects of development
- Over 6,800 Mongolian shareholders





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 Erdene Resource Development Corp.

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