

## ERDENE IDENTIFIES NEW TARGETS IN THE KHUNDII GOLD DISTRICT – EXPLORATION UPDATE

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Press Release  
Halifax, Nova Scotia  
2022.09.07

Erdene Resource Development Corporation (TSX: ERD | MSE: ERDN) (“Erdene” or the “Company”) is pleased to provide an exploration update for its 100% owned Khundii Gold District (the “District”) in southwest Mongolia, including the identification of several new targets. The ongoing program, focused on southern Ulaan and the greater Dark Horse area, includes diamond and reverse-circulation (“RC”) drilling, prospect level mapping, geochemical sampling and interpretation of geophysical, structural and geologic information in consultation with internationally renowned experts. Follow-up drill testing is currently underway.

### Quotes from the Company

“We continue to progress the Bayan Khundii Gold Project towards development while exploring the District to grow resources,” said Peter Akerley, Erdene’s President and CEO. “Over the past months, the exploration team completed an extensive RC drilling program, detailed mapping and geochemical sampling, and scout diamond drilling. This work generated multiple new targets, several of which are now being tested, alongside expansion drilling at Ulaan and Dark Horse.”

“Based on mineralizing style, alteration, structural controls and proximity, we believe the Bayan Khundii, Ulaan Southeast and Dark Horse areas are part of a single epithermal system, overprinting an earlier high-temperature alteration, typical of porphyry systems,” continued Mr. Akerley. “Exploration is focused in this area as a key component in delivering our targeted two-million ounce gold equivalent resource by end of year. Additionally, we see several opportunities to delineate resources beyond this goal across the District in the years ahead.”

### [Exploration Summary \(reference release map and descriptions\)](#)

### Reverse Circulation Drill Program

In Q2, Erdene completed a systematic RC drill program consisting of 278 holes, averaging eight metres depth. RC drilling was concentrated in areas where recent sediments and regolith material covers bedrock, potentially masking oxide gold mineralization, similar to the high-grade gold mineralization present at the Dark Horse

Mane discovery (e.g., 42.8 g/t gold over 15 metres including, 123.5 g/t gold over 5 metres in drillhole AAD-178 ([Link to Press Release](#))).

The RC program identified four new zones of strongly anomalous gold mineralization (up to 0.6 g/t gold) hosted within altered and tuffaceous material similar to the geology of the Dark Horse Mane discovery. Three of these zones are located in previously unexplored areas east of the Dark Horse Mane (East Mane) discovery and one is located just west of the northern portion of the Dark Horse Mane (North Mane West).

Multiple RC holes at East Mane, an 8 hectare area, 500 metres east of Dark Horse Mane, returned anomalous gold (up to 0.22 g/t gold over 3 metres) and pathfinder elements (antimony and arsenic). The East Mane area also exhibits structural and geological similarities to high-grade Dark Horse Mane South mineralization. Follow-up rock chip sampling at East Mane produced additional samples anomalous in gold (up to 0.57 g/t gold) and pathfinder elements (arsenic and antimony), further demonstrating the prospectivity of this target.

At North Mane West, hole KRCD-56, returned 3 metres of 0.64 g/t gold, beginning one metre downhole, indicating a possible western broadening of oxide related gold mineralization at Dark Horse Mane North.

RC drilling also returned 0.4 g/t gold over 2 metres at the Altan Arrow prospect, located approximately 800 metres east of Dark Horse Mane North. These results build upon previous gold intersections in the area (e.g., 70 g/t gold over 2 metres in drill hole AAD-12). The RC results will be followed up to investigate near surface oxide gold potential in the Altan Arrow area.

In addition to the anomalous gold results, the RC program intersected pathfinder elements, which when combined with local geophysical anomalies, present high priority targets for future drilling. Such areas include the CSZ target, approximately 1.5 km south of Dark Horse Mane South and 700 metres north of the Bayan Khundii pit, where anomalous concentrations of antimony appear to highlight structural trends. Also, a copper anomaly, located north of the Dark Horse Mane, was identified in an area of intense high temperature (advanced argillic) clay and silica alteration which resembles porphyry lithocap type geology.

Diamond drilling is currently underway to test the Dark Horse north expansion area and the East Mane target. Results are expected in Q4 2022.

### **Scout Diamond Drilling**

Diamond drilling of greenfield targets included 14 shallow scout holes, totaling 1,442 metres, in the southern and western portions of the Ulaan license, outside the recent Ulaan Southeast ("SE") discovery. In southern Ulaan, 11 holes intersected anomalous pathfinder element concentrations including arsenic, antimony, lead, zinc, molybdenum and copper with one hole (UDH-43) intersecting anomalous gold. The scout drilling program also revealed multiple zones of high energy hydrothermal breccias, quartz vein stockworking and pervasive silica and white mica alteration. Results of the scout drilling program provides further geologic evidence of proximal epithermal and porphyry centers on the Ulaan and Khundii licenses.

Of particular interest is UDH-43, located 500 metres northwest of the southeast corner of the Ulaan license. This drill hole returned a 150-metre thick interval of intense hydrothermally brecciated syenite porphyry, consisting of quartz, tourmaline, and hematite stockwork veining and alteration. Anomalous gold (up to 0.16 g/t over 1 metre) related to quartz-tourmaline-white mica veining was intersected at 43 metres depth. The hydrothermal breccia remains open in all directions.

Results from the scout exploration holes confirm the prospectivity of the south and western portions of the Ulaan license for discovery of future epithermal and porphyry related mineralization. Further analysis and modelling of the Ulaan regional drill results will play a vital role in understanding and targeting within the expansive and largely unexplored Ulaan license. Additional prospects include West Gate (an area with anomalous gold and potentially the western extension of Dark Horse) and the area around UDH-05, which returned 1.3 g/t gold over two metres within a mineralized quartz-tourmaline crackle breccia where recent detailed mapping identified a zone of intense silica, white mica and tourmaline alteration over an area of approximate 50 hectares.

### **Geophysical and Structural Analysis**

Over the past few months, Erdene has retained leading consultants to assist with the geologic interpretation of the Khundii District, both to identify targets for future drilling and to understand the structural controls on the broader Khundii-Ulaan hydrothermal alteration trend.

Dr. Craig Beasley, from Wave Geophysics, has completed high resolution 3D models based on magnetic and induced polarization geophysical data to aid in both geological understanding and future drill targeting.

Additionally, Dr. Armelle Kloppenburg prepared a regional structural interpretation of the Khundii-Ulaan-Altan Nar area which advances our understanding of the regional structural framework and how structure relates to zones of mineralization in the Khundii District.

In late June, Dr. Jeff Hedenquist, with the assistance of Erdene's technical team, presented details of our Khundii Minerals District discovery in Tokyo at the Society of Resource Geology conference ([Link](#) to Presentation).

This work, as well as the results from the 2022 exploration program will inform upcoming exploration and resource modelling.

### **Summary of Resource Expansion Drilling (reference release map and descriptions)**

As noted above, diamond drilling at Ulaan SE and Dark Horse was recently restarted. Ulaan SE drilling will test the potential expansion of Ulaan SE to the west. Dark Horse exploration will test the depth potential of the Dark Horse Mane (up to approximately 250 meters), and seek to increase confidence and expand the Dark Horse Mane oxide zones. Drill results are expected in Q4.

Concurrently, Erdene has engaged RPM Global to prepare an updated independent Khundii District resource estimate, targeting delivery by year-end.

## Projects Overview

Erdene's deposits are in the Trans Altai Terrane, within the Central Asian Orogenic Belt, host to some of the world's largest gold and copper-gold deposits. The Company has been the leader in exploration in southwest Mongolia over the past decade and is responsible for the discovery of the Khundii Gold District comprised of multiple high-grade gold and base metal prospects, one of which is currently being developed, the 100%-owned Bayan Khundii Gold Project, and another which is being considered for development, the 100%-owned Altan Nar Project. The Khundii District is currently defined based on three gold and base metal systems related to shallow subduction Paleozoic intrusive events within a 40 kilometre by 20 kilometre area in the Trans Altai Terrane (formerly known as the Edren Terrane). Erdene's 2022 exploration program is focused on the two gold-dominant systems:

**Bayan Khundii (Rich Valley):** Low sulfidation epithermal gold deposits and prospects (BK Deposit, Dark Horse, Ulaan and Altan Arrow) overprinted on a high temperature, intrusive related alteration zone, located along a 12-kilometres trend related to deep seated northeast trending structures along a regional dilation zone and strike slip fault system. Current Resources<sup>1</sup> for the BK gold deposit include 585,100 ounces of 2.19 g/t gold Measured and Indicated ("M&I")<sup>2</sup> and 35,900 ounces of Inferred resources at 2.18 g/t gold. Resources have not yet been established for the Dark Horse, Ulaan or Altan Arrow discoveries at Bayan Khundii.

An overview of the recent Dark Horse Mane and Ulaan discoveries at Bayan Khundii are included below.

### *Dark Horse Mane*

Dark Horse Mane is a 1.5-kilometre trend of alteration and gold mineralization discovered in 2021. Located 2.4 kilometres north of the BK deposit, this zone begins at surface, hosting supergene enriched gold zones including an exceptionally high-grade gold bearing zone in the southern portion with values up to 195 g/t gold over 1 metre (AAD-178) and ranging in thickness from 20 to 60 metres vertical depth with locally deeper oxidation along fractures. The high-grade oxide body exhibits strong continuity along a north-south strike. Mineralization remains open along strike and at depth. Limited deeper drilling has intersected wide zones of gold mineralization (e.g., AAD-57, 48 metres of 1.18 g/t gold from 194 metres down hole) associated with epithermal veins, white mica and sulfide alteration up to 230 metres vertical depth and remaining open.

The Company conducted data compilation, interpretation and drill hole targeting for the broader Dark Horse prospect area in late 2021 and early 2022. This work focused on gold anomalism, identifying feeder structures, shallow oxide gold mineralization, and areas with similar characteristics to Dark Horse Mane, as well as the potential for deeper zones of gold mineralization. This work has defined numerous drill targets for testing.

## *Ulaan*

The Ulaan gold target is a blind top discovery identified in Q3 of 2021. The discovery is characterized by hundreds of metres of gold mineralization (up to 354 metres) over an area 200 metres by 250 metres. Gold mineralization begins approximately 80 metres from surface and remains open along strike to the west/northwest and at depth. Intervals include 152 metres of 1.7 g/t gold in UDH-22 (from 85 metres) and 77 metres of 3.2 g/t gold in UDH-21 (from 115 metres). Similar to the BK gold deposit, located 300 metres to the east, the mineralizing event is characterized by exceptionally high-grade quartz  $\pm$  hematite and adularia veins and stockwork zones enveloped by the same gold bearing, silicified, white mica altered lapilli tuff sequence. Stockwork zones identified in the northern portion of the Ulaan discovery were the target of the initial Q2 2022 drilling and helped to better define the orientation and extent of these exceptionally high-grade zones where intervals of 5 metres of 20 g/t gold (UDH-14) to 1 metre to 156 g/t gold (UDH-21) have been returned within broad high grade zones including 27 metres of 8.74 g/t gold (UDH-21) and 34 metres of 5.43 g/t gold (UDH-14). In addition, the 2022 exploration program included the extension of a series of existing drill holes to test for continuity at depth. Expansion drilling at Ulaan Southeast is ongoing.

The southern portion of the Ulaan license has areas of anomalous gold-in-soil over an area 3.5 kilometres by 1 kilometre. The underlying geology and alteration appear to be analogous to the gold mineralization at Ulaan Southeast and Bayan Khundii, namely tuffaceous units with white mica and silica alteration.

**Altan Nar (Golden Sun):** Intermediate sulfidation, carbonate base metal gold deposits and prospects located along a 5.6-kilometre long alteration zone located within a regional north-northeast trending structural corridor within which structural intersections or zones of dilation provide the setting for the emplacement of broader zones of mineralization. Current Resource for Altan Nar includes an Indicated gold-only resource of 317,700 ounces at a grade of 2.0 g/t gold and an Inferred gold-only resource of 185,700 ounces at a grade of 1.7 g/t gold.

## **About Erdene**

Erdene Resource Development Corp. is a Canada-based resource company focused on the acquisition, exploration, and development of precious and base metals in underexplored and highly prospective Mongolia. The Company has interests in three mining licenses and an exploration license in Southwest Mongolia, where exploration success has led to the discovery and definition of the Khundii Gold District. Erdene Resource Development Corp. is listed on the Toronto and the Mongolian stock exchanges. Further information is available at [www.erdene.com](http://www.erdene.com). Important information may be disseminated exclusively via the website; investors should consult the site to access this information.

## Qualified Person and Sample Protocol

Peter Dalton, P.Ge. (Nova Scotia), Senior Geologist for Erdene, is the Qualified Person as that term is defined in National Instrument 43-101 and has reviewed and approved the technical information contained in this news release. All samples have been assayed at SGS Laboratory in Ulaanbaatar, Mongolia. In addition to internal checks by SGS Laboratory, the Company incorporates a QA/QC sample protocol utilizing prepared standards and blanks. All samples undergo standard fire assay analysis for gold and ICP-OES (Inductively Coupled Plasma Optical Emission Spectroscopy) analysis for 33 additional elements. For samples that initially return a grade greater than 5 g/t gold, additional screen-metallic gold analysis is carried out which provides a weighted average gold grade from fire assay analysis of the entire +75 micron fraction and three 30-gram samples of the -75 micron fraction from a 500 gram sample.

Erdene's drill core sampling protocol consisted of collection of samples over 1 or 2 metre intervals (depending on the lithology and style of mineralization) over the entire length of the drill hole, excluding minor post-mineral lithologies and un-mineralized granitoids. Sample intervals were based on meterage, not geological controls, or mineralization. All drill core was cut in half with a diamond saw, with half of the core placed in sample bags and the remaining half securely retained in core boxes at Erdene's Bayan Khundii exploration camp. All samples were organized into batches of 30 including a commercially prepared standard, blank and either a field duplicate, consisting of two quarter-core intervals, or a laboratory duplicate. Sample batches were periodically shipped directly to SGS in Ulaanbaatar via Erdene's logistical contractor, Monrud Co. Ltd.

Reported intervals are apparent thicknesses, i.e., downhole widths. The current Ulaan drill holes are all dipping at 85 degrees and oriented to intersect SW dipping WNW trending gold bearing veins. Additional study is required to confirm true widths. Reported grades for intervals are weighted averages based on length of sampling intervals. No top cut has been applied; however, all intervals greater than 10 g/t gold and 100 g/t gold are reported individually for clarity

## Forward-Looking Statements

Certain information regarding Erdene contained herein may constitute forward-looking statements within the meaning of applicable securities laws. Forward-looking statements may include estimates, plans, expectations, opinions, forecasts, projections, guidance, or other statements that are not statements of fact. Although Erdene believes that the expectations reflected in such forward-looking statements are reasonable, it can give no assurance that such expectations will prove to have been correct. Erdene cautions that actual performance will be affected by a number of factors, most of which are beyond its control, and that future events and results may vary substantially from what Erdene currently foresees. Factors that could cause actual results to differ materially from those in forward-looking statements include the ability to obtain required third party approvals, market prices, exploitation, and exploration results, continued availability of capital and financing and general economic, market or business conditions. The forward-looking statements are expressly qualified in their entirety by this cautionary statement. The

information contained herein is stated as of the current date and is subject to change after that date. The Company does not assume the obligation to revise or update these forward-looking statements, except as may be required under applicable securities laws.

NO REGULATORY AUTHORITY HAS APPROVED OR DISAPPROVED THE CONTENTS OF THIS RELEASE

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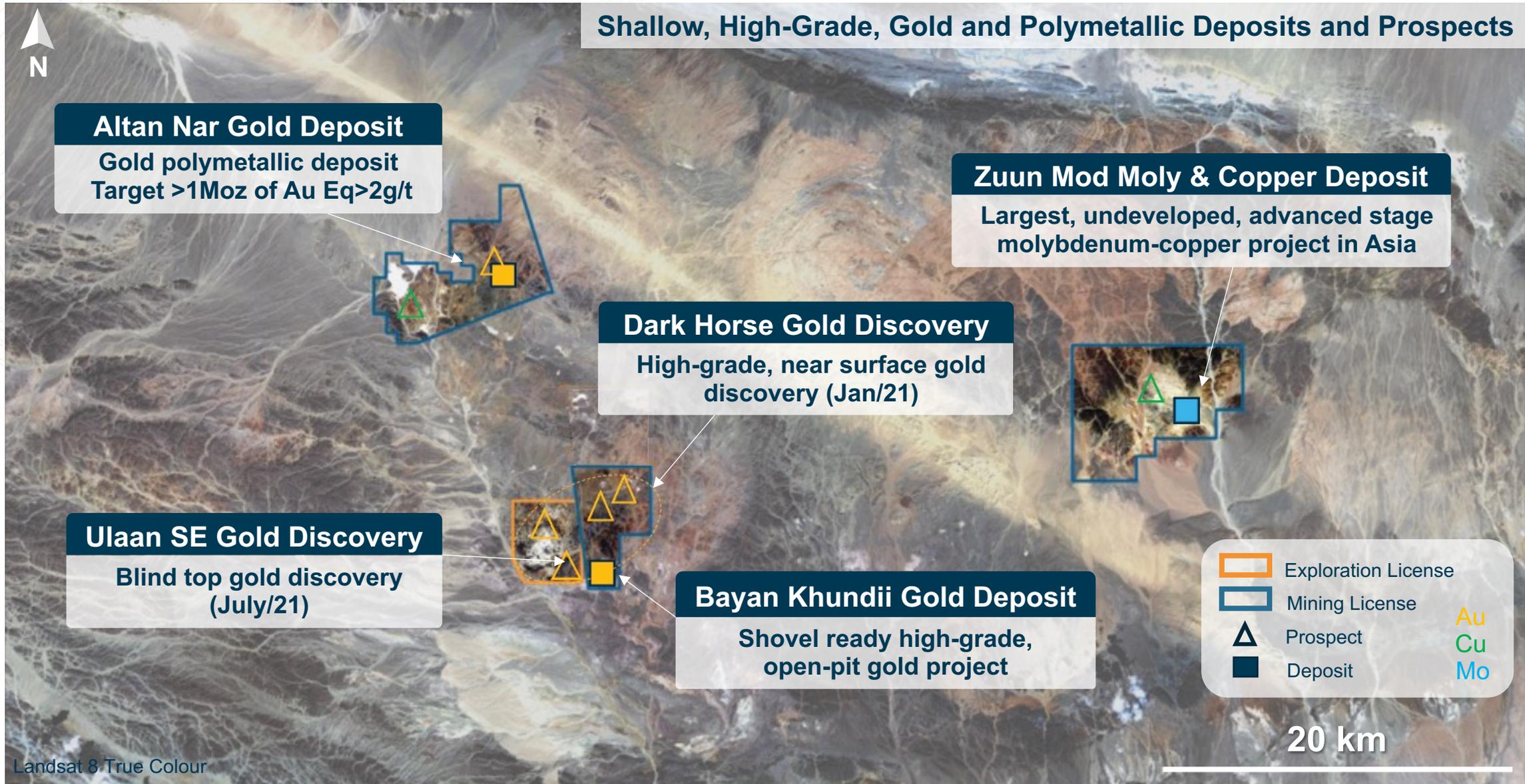
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# KHUNDII MINERALS DISTRICT – MULTI-MILLION OUNCE POTENTIAL

## Four Gold Discoveries, Molybdenum Copper Deposit & Multiple High-Priority Targets



# KHUNDII GOLD DISTRICT – REGIONAL EXPLORATION – MID-2022

