

## **ERDENE EXPANDS NEW ULAAN GOLD DISCOVERY 53 Metres of 3.5 g/t Gold within 217 Metres of 1.1 g/t Gold, 50 Metres North of Discovery Hole**

Press Release  
Halifax, Nova Scotia  
2021.09.23

Erdene Resource Development Corporation (TSX: ERD | MSE: ERDN) (“Erdene” or the “Company”) is pleased to announce results from follow-up drilling at the recent Ulaan gold discovery, located 300 metres west of the Bayan Khundii gold deposit. Results for the first five (5) drill holes, totaling 1,803 metres, are included herein. Further assay results are expected to be released in early Q4.

### **Highlights**

- Intersected the broadest intervals of mineralization in the Khundii Gold District to date, along with local high-grade intervals:
  - UDH-14: 216.6 metres of 1.07 g/t gold
    - Includes 5 metres of 19.58 g/t gold within 53 metres of 3.55 g/t gold
    - Ended in gold mineralization at 404.6 metres
  - UDH-15: 364.3 metres of 0.79 g/t gold
    - Includes 10 metres of 7.29 g/t gold within 91 metres of 1.98 g/t gold
    - Ended in mineralization at 461.3 metres
  - UDH-16: 119 metres of 0.59 g/t gold
  - UDH-17: 36.3 metres of 2.26 g/t gold
    - Ended in 21.6 g/t gold over 2.3 metres at 350.3 metres
- Discovery remains open in all directions and at depth
  - Assays from four (4) holes, totaling 1,401 metres scheduled to be reported in early Q4.

### **Quotes from the Company:**

“The Ulaan prospect has proven to be a major new gold discovery within our Khundii Gold District,” said Peter Akerley, Erdene’s President and CEO. “The very broad zones of mineralization, exceeding 200 metres, include multiple intersections exceeding 10 g/t gold and demonstrate the potential scale of Ulaan mineralization, within 300 metres of our Bayan Khundii Gold Deposit. Gold mineralization at Ulaan is open in all directions, and multiple gold in soil and geophysical anomalies remain untested in areas to the west of the discovery.”

“Drilling at Ulaan and across the Khundii license continues with further results anticipated by mid-Q4,” continued Mr. Akerley. “The confirmation of a significant gold zone at Ulaan, coupled with the recent Dark Horse discovery, Bayan Khundii reserves and resources at our Altan Nar property reinforce our thesis that the Khundii Gold District has the potential to host a world class discovery.”

### Summary of Drill Results

The current Ulaan drilling program was designed to delineate the extent of mineralization around the discovery drill holes reported on August 11, 2021 ([see press release](#)). The program consisted of nine (9) drill holes totaling 3,204 metres. Drill holes were spaced 25 to 50 metres apart and to a maximum depth of 461 metres, testing targets over an area of approximately 1.2 square kilometres.

Assay results from five (5) drill holes (UDH-14 to UDH-18), with an aggregate of 1,803 metres, are reported herein. Highlights from the drilling program are provided below in Table 1 and a drill hole plan map and section illustrating the location of the drill holes is attached to this news release.

**Table 1: Ulaan Q3 2021 Drilling Highlights**

Hole	From	To	Interval <sup>(1)</sup>	g/t Au
UDH-14	106	117	11	3.68
Incl	110	111	1	36.58
And	188	404.6 <sup>(2)</sup>	216.6	1.07
Incl	192	245	53	3.55
Incl	202	207	5	19.58 <sup>(3)</sup>
Incl	208	209	1	16.75
UDH-15	60	63	3	0.41
And	97	461.3 <sup>(2)</sup>	364.3	0.79
Incl	124	215	91	1.98
Incl	130	140	10	7.29
Incl	130	131	1	15.13
Incl	138	139	1	49.36
Incl	214	215	1	10.47
UDH-16	65	184	119	0.59
Incl	117	120	3	4.52
Incl	119	120	1	11.91
And	212	226	14	0.44

Hole	From	To	Interval <sup>(1)</sup>	g/t Au
UDH-17	287	289	2	1.71
And	314	350.3 <sup>(2)</sup>	36.3	2.18
Incl	344	350.3	6.3	8.59
Incl	348	350.3	2.3	21.57
UDH-18	4	6	2	0.51
And	142	146	4	0.45
And	263	279	16	0.32
And	300	308	8	0.65
And	346	350.3 <sup>(2)</sup>	4.3	0.49

1. Reported intervals in this release are downhole apparent widths. Continued exploration is required to confirm anisotropy of mineralization and true thicknesses
2. End of hole
3. Each of the five one-metres samples in this interval returned gold values greater than 10 g/t gold, range was 15.53 to 21.76 g/t gold

Gold mineralization intersected at Ulaan begins less than 100 metres from surface and is hosted within the same white mica altered lapilli tuff unit which hosts Erdene's Bayan Khundii epithermal gold deposit, which is immediately to the east of Ulaan on the Khundii mining license. Gold grades range from 0.1 g/t to 49.4 g/t in direct relation to quartz ± hematite veining which cross cuts the host tuff. At least two orientations of quartz veining occur at Ulaan. Although both vein sets appear mineralized, exploration and analysis is ongoing to identify any preferred anisotropy. Gold mineralization is also believed to be controlled by lithology and structural offsets. In general, the highest-grade gold mineralization occurs within intervals of pervasive silicification combined with adularia and white mica alteration cut by epithermal style, irregular quartz-hematite, quartz-adularia, quartz-white mica veins and quartz-chlorite-magnetite veins. In many instances visible gold has been observed as disseminations within these veins.

Geophysical surveys were recently completed over the new Ulaan gold discovery including ground magnetics and IP dipole-dipole. Processing and interpretation of these geophysical datasets indicate a strong correlation between low amplitude magnetic signatures and the interpreted altered lapilli tuff unit. IP resistivity indicates a strong correlation between the high-grade intervals contained in UDH-10, UDH-14, UDH-15 and UDH-16 and resistivity high signatures. These geophysical correlations to gold mineralization will be applied to future targeting within the southern Ulaan prospect area.

Since Erdene acquired the remaining 49% interest in the Ulaan license in December 2020, exploration activities have primarily focused on the southeastern portion of the license. However, Erdene has identified several high priority targets throughout the license area, including the untested West Gate target, situated in the northeastern region of the license. At the West Gate target, gold has been identified in soil samples that may represent an extension of the Dark Horse mineralization. Additionally, Erdene intersected anomalous gold and copper in previous drilling at the Tourmaline Breccia target in the northern region of the Ulaan license.

The 100% owned Ulaan exploration license and adjoining Khundii mining license combine to cover the nearly 4,350-hectare Ulaan-Khundii hydrothermal alteration zone defined by pervasive phyllic, argillic and silica alteration. Within the Ulaan-Khundii alteration footprint, Erdene has discovered several high priority gold prospects and deposits including the low sulphidation, epithermal Bayan Khundii gold deposit and more recently the Dark Horse epithermal gold prospect and the South Ulaan gold discovery. Erdene continues to view the greater Khundii-Ulaan alteration zone as an underexplored, large hydrothermal system capable of hosting a world class gold deposit.

Additional drilling is underway targeting the SE Ulaan discovery, Westgate and Dark Horse prospects, with results expected to be announced in mid-Q4.

### Ulaan Overview

Erdene holds a 100% interest in the Ulaan license after acquiring the remaining 49% interest in the property in December 2020. The Company acquired an initial 51% stake in the license in 2017, following the discovery of the Bayan Khundii gold deposit.

Ulaan lies at the southwest end of a major alteration zone, extending for over 10 kilometres to the northeast. This alteration trend has a central zone of intense secondary silica with a peripheral halo of sericite alteration, and an outer zone of white mica and sericite, which hosts the Bayan Khundii gold deposit. This northeast trending alteration area, which incorporates the Ulaan, Bayan Khundii and other mineralized targets in the area (including Erdene's Dark Horse and Altan Arrow prospects), is associated with a regional structural dilational jog and associated major volcano-plutonic centre, along a northeast trending transform fault. The various styles of alteration and mineralization within the Ulaan target and the adjacent zone of alteration are consistent with a fertile magmatic island arc, with evidence for possible arc migration, and overlapping or telescoped mineralization along major structures.

The southern area of the 1,780-hectare Ulaan license is approximately 350 metres west of the Bayan Khundii gold deposit, separated by the Khuren Tsav license held by the Mongolian government-owned gold company, Erdenes Alt LLC ("EA"). In early 2021, EA announced plans to undertake further drilling and geologic work on the portion of license adjacent to Erdene's Bayan Khundii and Ulaan licenses.

Based on the wide zone of gold mineralization intersected in this initial drilling program, combined with satellite imagery, geophysical analysis, and surface alteration, Erdene believes that the hydrothermal system that hosts the Bayan Khundii gold deposit extends west-southwest of the Bayan Khundii deposit, across the northern portion of the Khuren Tsav license, into the southern portion of Erdene's Ulaan license. The northern portion of the Khuren Tsav license is wedge-shaped and separates the southern sections of the Bayan Khundii and Ulaan licenses. Erdene has an informal working relationship with EA and both companies will explore opportunities to work together, including the sharing of technical information, to ensure the development of their respective licenses in the best interests of all stakeholders.

The northern portion of the Ulaan license is situated along the western boundary of Erdene's Khundii Mining license and has the potential to host the western extension of the Dark Horse mineralization based on preliminary review of the geology, alteration and mineralization at surface.

### Khundii Gold District

Erdene's deposits are in the Edren 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 gold/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. Together, these deposits comprise the Khundii Gold Project.

The Bayan Khundii Gold Resource<sup>1</sup> includes 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. Within the M&I resource, a Proven and Probable open-pit reserve totals 409,000 ounces at 3.7 g/t gold<sup>3</sup> (press release [here](#)), providing significant potential for reserves growth with the development of the remaining M&I and Inferred resources<sup>1</sup>.

In July 2020, Erdene announced the results of an independent Feasibility Study for the Bayan Khundii Gold Project ([press release here](#)). The Feasibility Study results include an after-tax Net Present Value at a 5% discount rate and a US\$1,400/oz gold price of US\$100 million and Internal Rate of Return ("IRR") of 42%. The Feasibility Study envisions an open-pit mine at Bayan Khundii, producing an average of 63,500 oz gold per year, for seven years, at a head grade of 3.71 g/t gold, utilizing a conventional carbon in pulp processing plant. Production is expected to commence in early 2023 based on the current project schedule.

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 two exploration licenses 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

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<sup>1</sup> For details of the Mineral Resources see Erdene's Q2/2021 results press release, dated August 16, 2021, and the Company's Q2 2021 MD&A, available on the Company's website or SEDAR.

<sup>2</sup> M&I: 232,700 ounces of 2.39 g/t gold Measured and 352,400 ounces of 2.08 g/t gold Indicated

<sup>3</sup> P&P: 165,000 ounces of 4.4 g/t gold Proven and 256,000 ounces of 3.4 g/t gold Probable; For details of the Mineral Reserves see Khundii Gold Project NI 43-101 Technical Report, Tetra Tech December 4, 2019 available on the Company's website or SEDAR

disseminated exclusively via the website; investors should consult the site to access this information.

### Qualified Person and Sample Protocol

Peter Dalton, P.Geol. (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 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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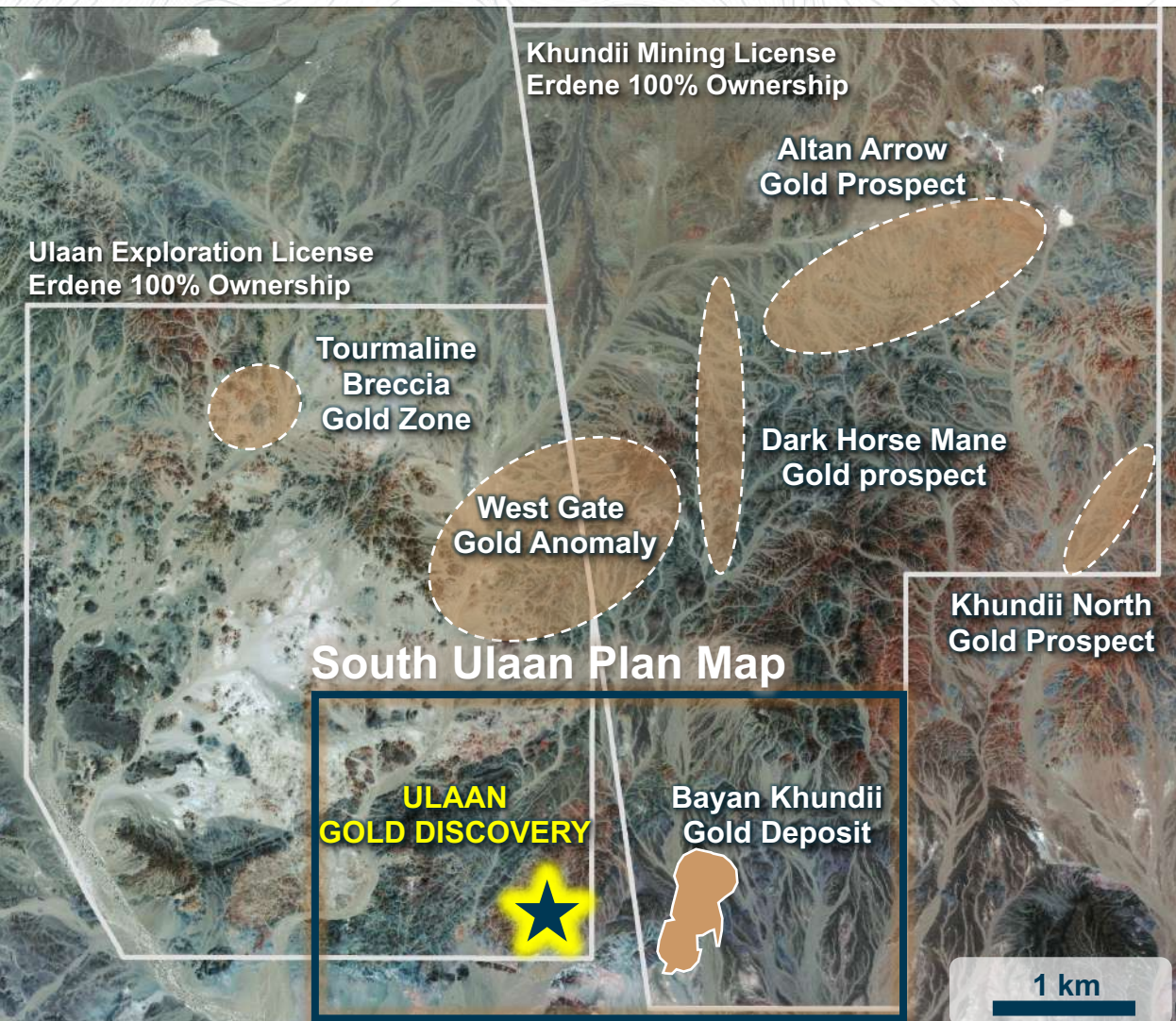
Facebook: <https://www.facebook.com/ErdeneResource>

LinkedIn: <https://www.linkedin.com/company/erdene-resource-development-corp/>

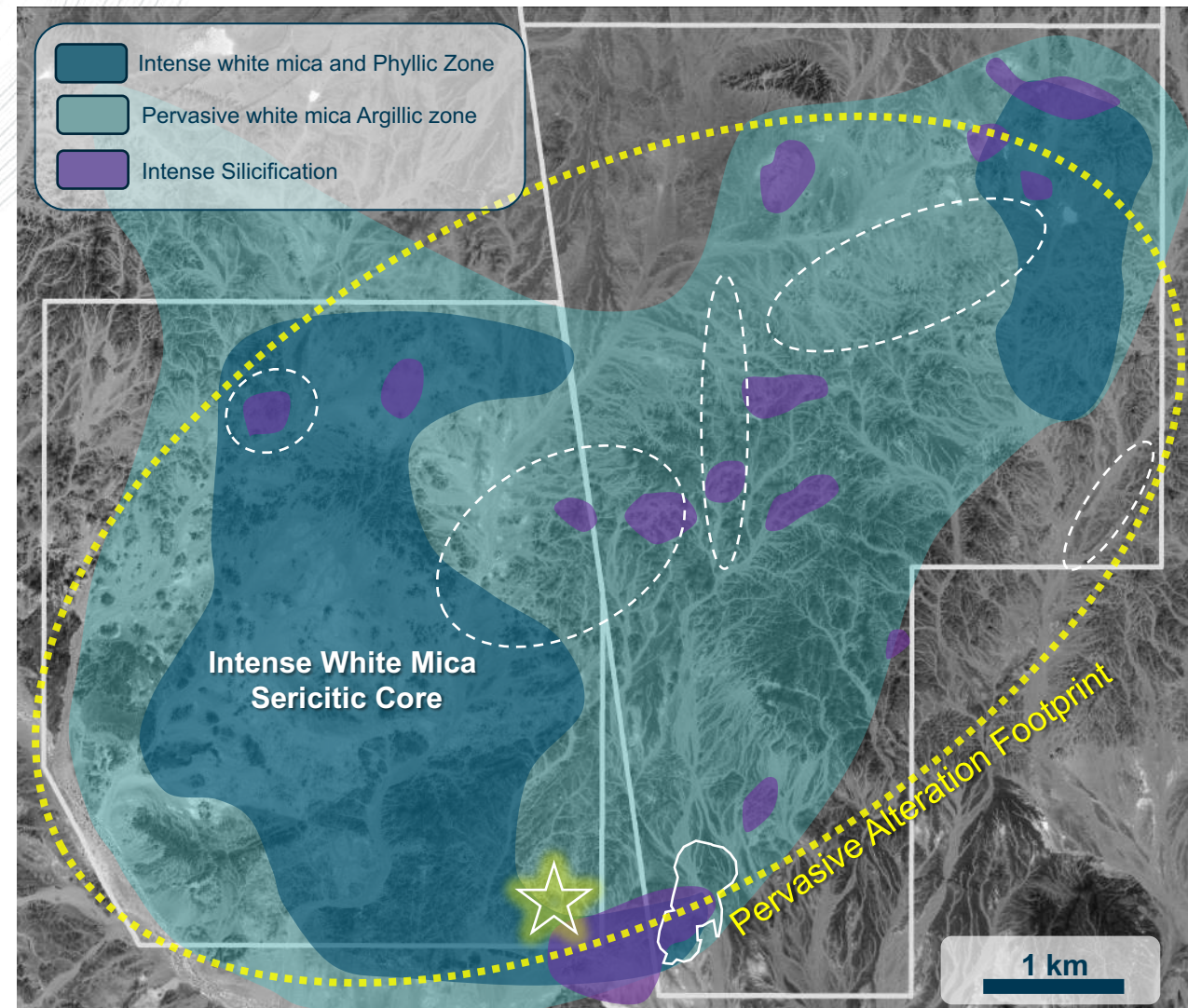
# ULAAN DRILLING CONFIRMS NEW DISCOVERY IN KHUNDII GOLD DISTRICT

## Khundii – Ulaan Tenements, BK Deposit and Prospects Location Map

### Khundii – Ulaan Active Discoveries and Prospects



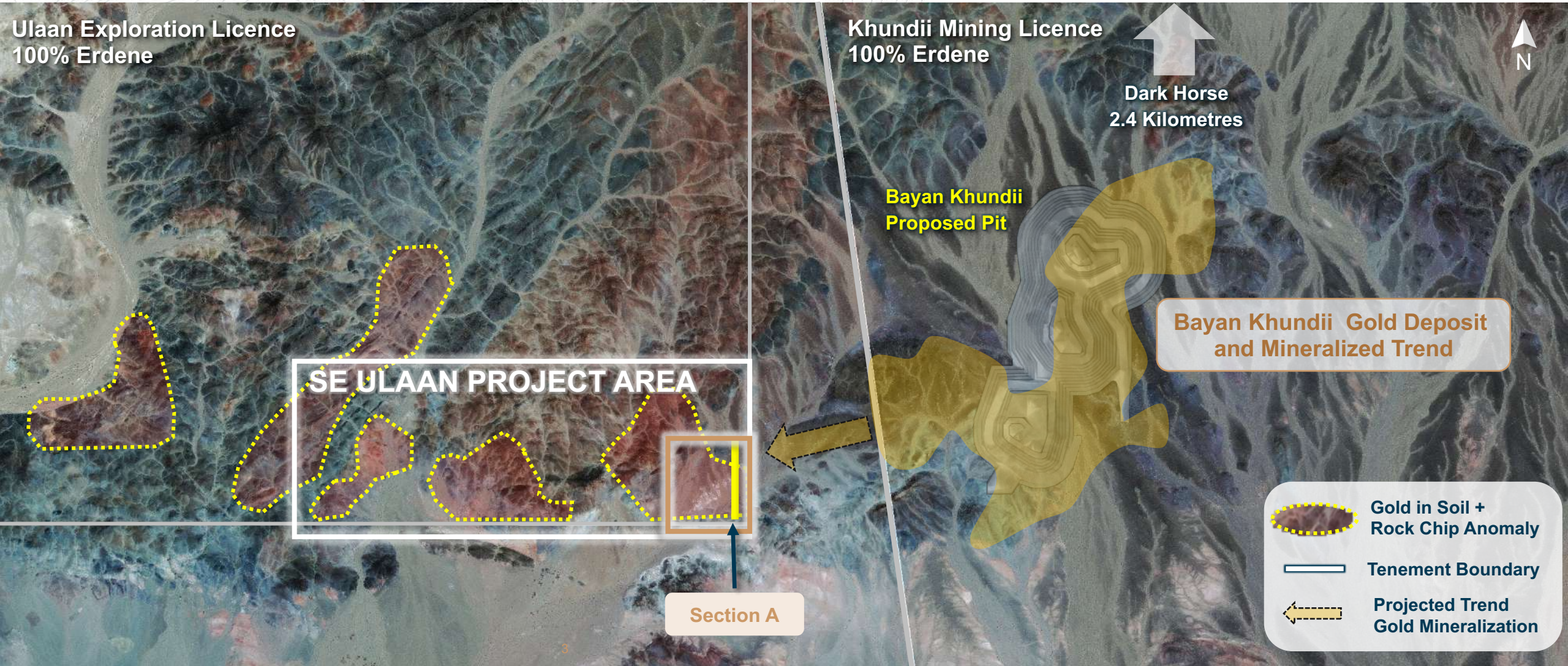
### Khundii – Ulaan Hydrothermal Alteration Footprint





# ULAAN GOLD DISCOVERY – 300 METRES WEST OF BAYAN KHUNDII DEPOSIT

## Bayan Khundii Gold Trend Continuation and Ulaan Gold Discovery



Ulaan Exploration Licence  
100% Erdene

Khundii Mining Licence  
100% Erdene

Dark Horse  
2.4 Kilometres

Bayan Khundii  
Proposed Pit

SE ULAAN PROJECT AREA

Bayan Khundii Gold Deposit  
and Mineralized Trend

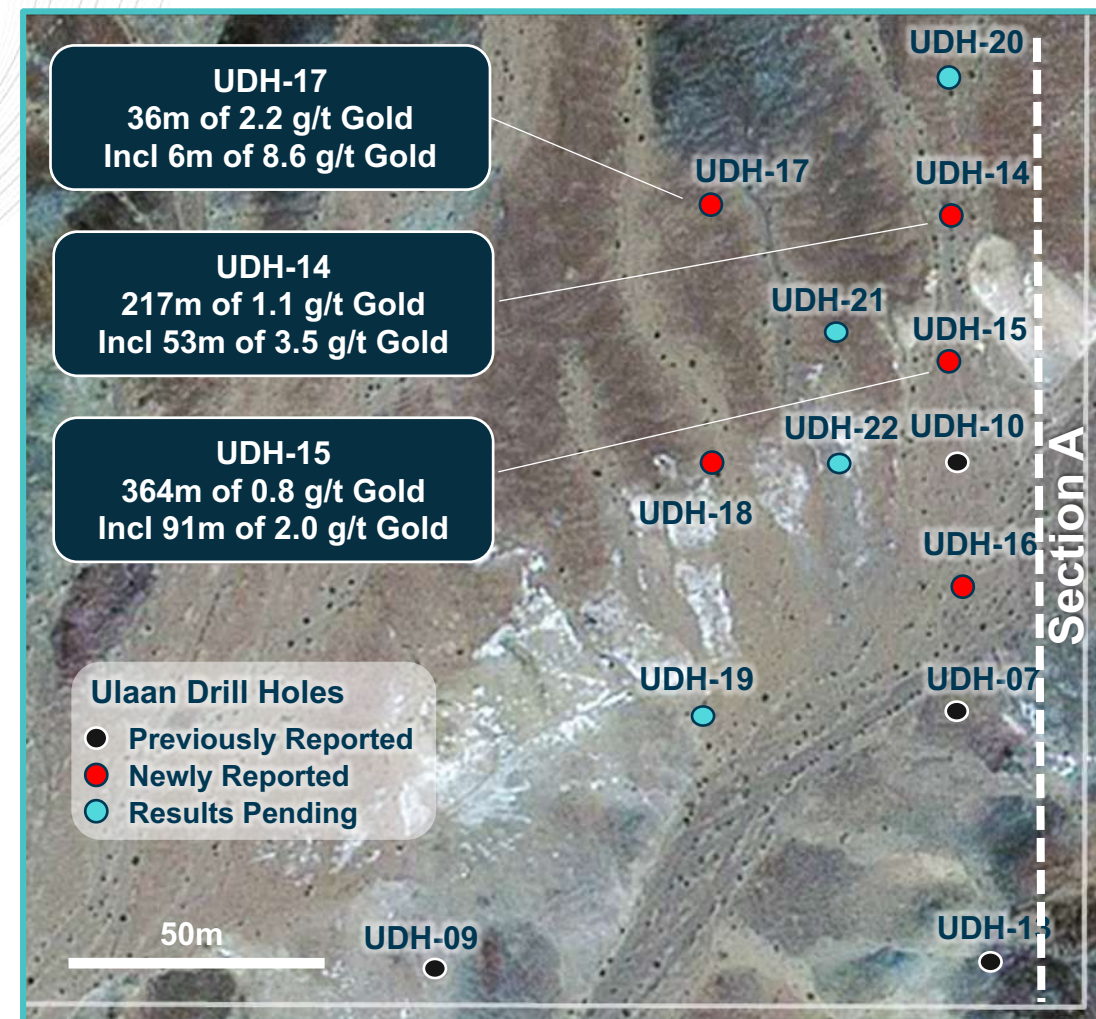
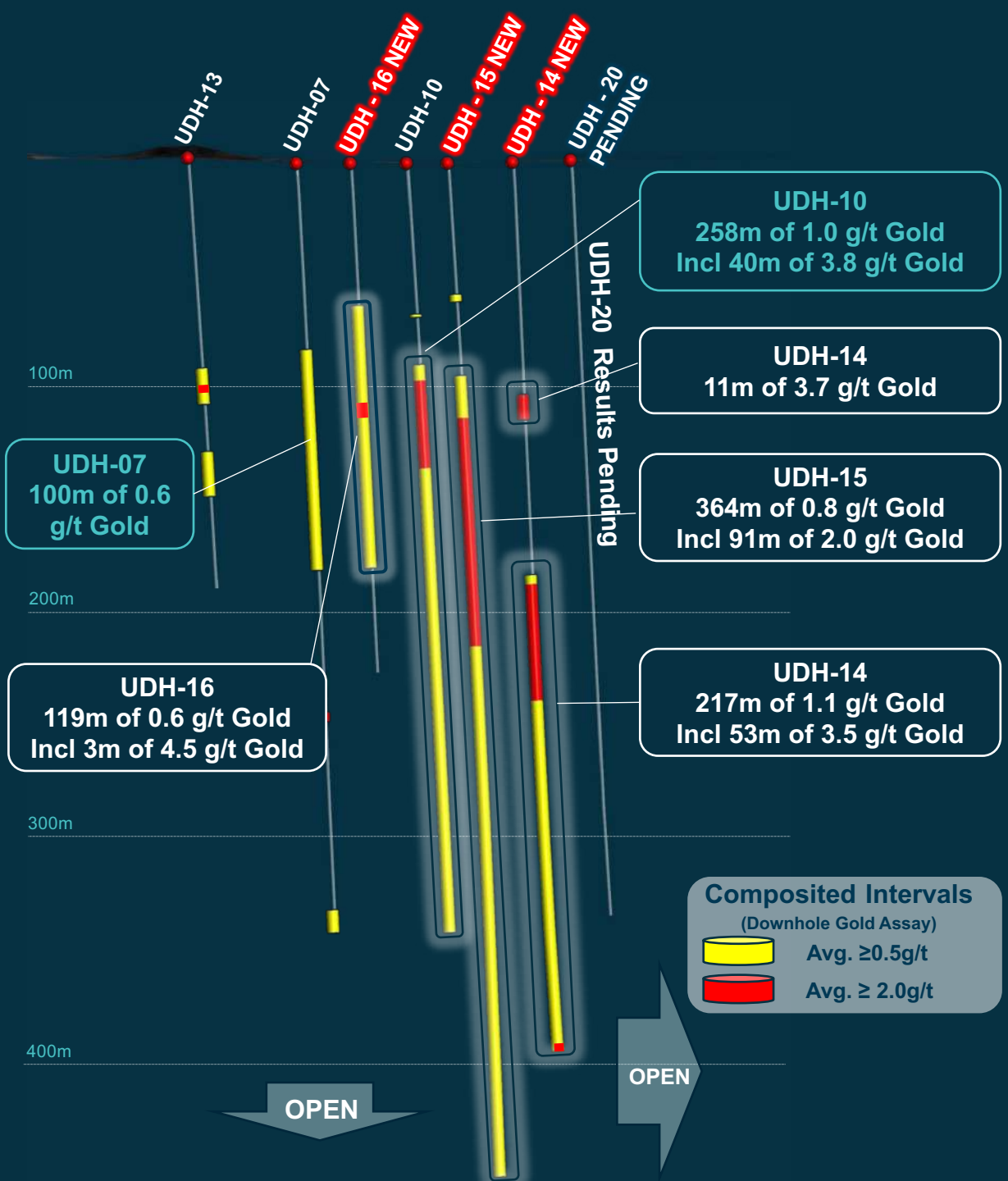
Section A

- Gold in Soil + Rock Chip Anomaly
- Tenement Boundary
- Projected Trend Gold Mineralization

Khuren Tsav Exploration  
Licence 100% Erdenes Alt

# ULAAN SECTION A – LOOKING WEST

## Highlighted Gold Mineralized Intervals



SE ULAAN PROJECT AREA