

ERDENE INTERSECTS 33.5 G/T GOLD OVER 8 METRES NEAR SURFACE AT DARK HORSE MANE DISCOVERY

Press Release Halifax, Nova Scotia 2021.11.17

Erdene Resource Development Corporation (TSX: ERD | MSE: ERDN) ("Erdene" or the "Company") is pleased to announce results from the follow-up drill program at Dark Horse Mane, 2.4 kilometres north of the construction-ready Bayan Khundii Gold Project. This drilling program confirmed a high-grade oxide gold zone starting at surface, open at depth and along strike.

Highlights

- Intersected high-grade gold, in near surface oxide zone in southern Dark Horse Mane:
 - ADD-146: 17 metres of 16.7 g/t gold beginning 15 metres downhole
 Includes 8 metres of 33.5 g/t gold
 - ADD-137: 24.5 metres of 9.4 g/t gold beginning 1.5 metres downhole
 - Includes 13.5 metres of 16.1 g/t gold
 - ADD-138: 25 metres of 6.1 g/t gold beginning 18 metres downhole
 - Includes 8 metres of 17.1 g/t gold
 - ADD-136: 30 metres of 5.6 g/t gold beginning 6 metres downhole
 - Includes 13 metres of 11.6 g/t gold
- High-grade oxide ore is expected to be processed by the Bayan Khundii plant and should improve the scale and economics of the Bayan Khundii Gold Project
- Drilling in northern Dark Horse Mane established a large-scale prospect at depth
 - Extension of hole AAD-92 returned multiple gold bearing zones within a 100metre-thick alteration zone, and ended in over 1 g/t gold, 150 metres downhole
- Ulaan Gold prospect drilling commencing this week and follow-up Dark Horse drilling to commence in late Q4 2021
 - Follow-up exploration will test targets along strike and at depth, as well as other potential oxide zones on the Khundii and Ulaan licenses

Quotes from the Company:

"Today's results demonstrate the near-term value Dark Horse can add to the Bayan Khundii development, as well as the potential scale of the Khundii-Ulaan alteration system," said Peter Akerley, Erdene's President and CEO. "These near-surface high-grade oxide gold zones have the potential to meaningfully elevate the Bayan Khundii Gold Project's economics, while also demonstrating the potential for near-surface targets



throughout our license holdings. The Dark Horse Gold Zone has been traced over 1.5 kilometres and presents significant expansion potential in all directions."

"Furthermore, these results strengthen our conviction that the greater Khundii-Ulaan alteration trend, including Dark Horse, the Bayan Khundii Deposit, and the recent Ulaan discovery, are part of the same gold-bearing hydrothermal system. This system shows the potential to host a multimillion-ounce gold deposit," continued Mr. Akerley. "Exploration drilling is currently underway at our Ulaan target, 3 kilometres south of Dark Horse Mane, and follow-up drilling is planned to continue at Dark Horse later in Q4."

Summary of Drill Results

The drilling results reported herein are from the Dark Horse Mane prospect. The primary objective of the recent drilling program was confirming grade and continuity of nearsurface oxide gold mineralization. A total of 32 new holes and two hole-extensions, totaling 2,286 metres were completed. While three holes were drilled to between 109 to 318 metres vertical depth, most drill holes (31) were between 21 and 61 metres vertical depth.

Results from drilling to date confirm a 1.5-kilometre trend of alteration and gold mineralization within the Dark Horse Mane target area that remains open along strike to the north and south. Continuity of near-surface, oxide, supergene gold mineralization has been defined over a strike length of approximately 350 metres in the south and over 500 metres in the north.

Table 1 below summarizes results from the Dark Horse Mane (south) prospect, which is typified by oxide mineralization starting at surface with evidence of supergene enrichment. Table 2 provides results for Dark Horse Mane (north) where near surface oxide mineralization is prevalent, albeit lower grade than at Dark Horse Mane south.

Hole	From	То	Interval ⁽¹⁾	g/t Au
AAD-134	164	165	1	0.58
AAD-135	14	24	10	0.31
AAD-136	6	36	30	5.59
Incl	10	23	13	11.63
Incl	16	20	4 ⁽²⁾	24.06
AAD-137	1.5	26	24.5	9.37
Incl	4.5	18	13.5	16.08
Incl	4.5	9	4.5 ⁽²⁾	17.23
Incl	12	16	4 ⁽²⁾	27.68
AAD-138	18	43	25	6.06
Incl	26	34	8	17.07
Incl	25	26	1	29.94

Table 1: Dark Horse Mane	(South) Q4 2021	Drilling Highlights	(Intervals averaging
over 0.30 g/t gold)			



Hole	From	То	Interval ⁽¹⁾	g/t Au
Incl	31	34	3(2)	31.01
AAD-139	1.5	9	7.5	0.38
And	20	21	1	0.44
AAD-140	18	19	1	0.50
And	42	51	9	0.60
AAD-141	1.9	37	35.1	1.31
Incl	10	21	11	3.35
Incl	11	12	1	14.72
AAD-142	22	23	1	0.44
And	24	25	1	0.37
And	28	32	4	0.34
And	35	36	1	0.51
And	39	40	1	0.32
And	71	72	1	0.35
AAD-143	5	19	14	5.44
Incl	12	15	3 ⁽²⁾	18.74
AAD-144	13	49	36	1.25
AAD-145	41	43	2	2.71
And	70	72	2	0.74
AAD-146	6	7	1	1.11
And	15	32	17	16.65
Incl	22	30	8	33.52
Incl	22	25	3 ⁽²⁾	65.00
Incl	27	30	3 ⁽²⁾	21.12
AAD-148	5	28	23	1.15
AAD-149	26	42	16	1.34
AAD-151	21	33	12	0.53
And	38	58	20	0.41
AAD-152	14	26	12	0.56
AAD-153	23	26	3	0.48
AAD-154	37	38	1	0.37

1. Reported intervals in this release are downhole apparent widths. Continued exploration is required to confirm anisotropy of mineralization and true thicknesses

 For each of these intervals, all samples (1 to 1.5 metres) returned assays of greater than 10 g/t gold, ranging from 11.21 to 89.26 g/t gold

3. End of hole



 Table 2: Dark Horse Mane (North) Q4 2021 Drilling Highlights (Intervals averaging over 0.30 g/t gold)

Hole	From	То	Interval ⁽¹⁾	g/t Au
AAD-92X	53	85	32	0.51
And	96	98	2	0.50
And	108	120	12	0.50
And	132	150 ⁽³⁾	18	0.72
AAD-156	41	50	9	0.76
AAD-157	7	24	17	0.40
And	39	40 ⁽³⁾	1	0.65
AAD-158	16	26	10	0.76
AAD-159	7	9	2	0.32
AAD-160	15	16	1	0.59
And	20	24	4	0.36
And	32	40	8	0.99
AAD-161	8	10	2	0.60
And	36	40 ⁽³⁾	4	0.45
AAD-162	11	21	10	0.69
And	25	27	2	0.72
AAD-163	21	24	3	0.53
And	40	48	8	0.93
AAD-164	32	41	9	0.48
AAD-165	20	21	1	0.33
And	29	30	1	0.46
AAD-166	56	70	14	1.10
AAD-167	13	15	2	0.48

1. Reported intervals in this release are downhole apparent widths. Continued exploration is required to confirm anisotropy of mineralization and true thicknesses

2. For each of these intervals, all samples (1-1.5 metres) returned assays of greater than 10 g/t gold, ranging from 11.21 to 89.26 g/t gold

3. End of hole

The 350-metre southern portion of Dark Horse Mane oxide zone includes a very highgrade gold zone, traced over 200 metres, which was the focal point of recent drilling. Depth of oxidation reaches more than 100 metres locally, related to deep weathering along structures. In this high-grade central zone, the main mineralized body begins within one metre of surface, and ranges from 10 to 40 metres in thickness. The trend of the gold mineralization at Dark Horse Mane is interpreted to be plunging to the north as shown in the attached Sections 1 and 2. One previously reported hole, AAD-57, was drilled north of the very high-grade zone and returned multiple two-metre samples grading greater than 4 g/t gold, at a vertical depth of approximately 200 metres. These results demonstrate the potential for additional gold mineralization at depth, down plunge from the mineralization identified near surface. As well, this down-plunge mineralization may



extend to depth under the northern portion of Dark Horse Mane prospect, an area that has not been tested to date.

Two deeper holes were drilled in Dark Horse Mane south. The extension of AAD-68 intersected a major fault structure characterized by quartz tourmaline metasomatized zones with intense tectonic breccia and high-density calcite stockwork veining and breccia. Gold values were low to locally anomalous, however, copper grades increase at depth with the hole ending in anomalous 98th percentile copper grades (greater than 700 ppm). AAD-134 was drilled to a vertical depth of 210 metres and intersected zones of anomalous gold and copper in phyllic altered volcanics throughout the hole, supporting continuity of the alteration and mineralized zone.

In the northern portion of Dark Horse Mane, 12 new holes intersected low to moderate oxide gold grades, with evidence of bifurcation or parallel gold zones (example AAD-166). One of the three deeper holes completed in this program tested the north zone over a total extended drill length of 150 metres (AAD-92) and successfully intersected multiple zones of gold bearing, sugary quartz-hematite veins within phyllic altered volcanic units of increasing alteration intensity and grade down hole ending in 1 g/t gold material. AAD-92 is located adjacent to AAD-61 which returned 130 meters of 0.5 g/t gold (previously reported April 22, 2021). These results present a very strong, untested target at depth in the central area of the northern portion of Dark Horse Mane (see Section 3). Previous results from Dark Horse Mane (north) returned high-grade intersections, of up to 16.2 g/t gold over 1 metre, at approximately 100 metres vertical depth (AAD-51), further confirming the potential for high-grade gold mineralization at depth.

The Company's most recent geological modelling has identified multiple drill targets designed to assess the mineral potential of this exciting discovery. Compilation and interpretation work continues to define a larger-scale drilling program for Dark Horse and throughout the broader target area.

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 as well as field and lab duplicates. 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 gold grade greater than 5 g/t, 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. Screen metallic grades are all reported.

Moving Forward

Follow-up drilling at Dark Horse will commence later in Q4, following drilling at Ulaan, where continuity and expansion of the new high-grade gold discovery (see press release) is underway. Dark Horse drilling will include further shallow testing of the 2.4 kilometre structure between Bayan Khundii and Dark Horse South, as well as the extension of the



zone to the north. Selective testing of targets at moderate depths (200 to 300 metres) is also planned.

The presence of gold-bearing oxide zones indicates that the level of erosion, hydrological and atmospheric conditions within the Khundii-Ulaan alteration footprint are conducive to seep oxidation and supergene enrichment gold mineralization. Evidence of these oxidized zones is generally absent at surface as they correspond to the location of drainages that mask the underlying material, albeit in some cases by little more than a metre. In addition, reconnaissance drilling has typically targeted 50 metre plus vertical depth whereas this is below the average depth of the highest grade gold in oxidized zones. The results from Dark Horse Mane drilling demonstrate the potential for substantial, near-surface, oxide gold zones, opening up multiple new targets across our license areas that will be followed up in 2022. Erdene is planning to complete oxide-zone targeting over the broader Khundii and Ulaan license using high density geochemical sample surveying and near surface auger drilling to test subsurface regolith and undercover sub crop. Erdene is also completing high resolution spectral remote sensing targeting surficial iron-oxide signatures.

Dark Horse Overview

Erdene discovered Dark Horse Mane, 2.4 km north of the Bayan Khundii deposit, when initial drilling, reported in early 2021, returned 5.97 g/t gold over 45 metres, beginning 10 metres downhole, including 8 metres of 27.1 g/t gold (AAD-58). This discovery established Dark Horse as the most significant area of gold mineralization in Erdene's Khundii Gold District since the discovery of the Bayan Khundii gold deposit. To date the Company has completed 14,681 metres of drilling in 128 holes at the greater Dark Horse prospect, covering an area approximately 4.6 kilometres (east-west) by 2.6 kilometres (north-south). Drill hole vertical depths range from 21 to 318 metres and average only 87 metres.

The Dark Horse Mane zone is related to a north-south trending, linear structural corridor which intersects deep seated northeast trending transform faults, believed to be a conduit for primary mineralizing fluids. Gold mineralization is hosted within strongly altered tuffaceous and volcanoclastic rocks, cross-cut by quartz and quartz-hematite veins and stockwork zones. Recent drilling at Dark Horse Mane has confirmed the existence of a shallow oxide zone, beginning from surface, hosting supergene enriched gold values up to 89.3 g/t over 1 metre. The high-grade oxide body exhibits strong continuity along a north-south strike. Limits of mineralization and oxidation remain untested along strike and at depth.

Khundii-Ulaan Mineralized System

The Ulaan exploration license and adjoining Khundii mining license cover nearly 4,000 hectares of the Khundii-Ulaan hydrothermal alteration zone, which extends from Ulaan 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, Dark Horse and other mineralized targets in the area, 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 Khundii-Ulaan target area are consistent with a fertile magmatic island arc, with evidence for possible arc migration, and overlapping or telescoped mineralization along major structures.

The Khundii-Ulaan hydrothermal alteration is characterized by pervasive argillic, phyllic and silica alteration signatures centered within Erdene's Ulaan exploration license and extending onto Erdene's Khundii mining license for over 10 kilometres. The Khundii-Ulaan alteration footprint remains largely under explored with numerous gold occurrences and geochemical and/or geophysical anomalies that warrant future testing.

Exploration results to date suggest the greater Khundii-Ulaan alteration zone and known gold occurrences are part of the same, large, gold-bearing hydrothermal system which remains largely under-explored. Gold mineralization identified to date is hosted within an expansive, white mica and silica altered tuffaceous sequence exposed around the periphery of the Khundii-Ulaan hydrothermal alteration system. Quartz vein textures and clay alteration compositions indicate a large-scale epithermal type of gold mineralizing environment existed within the Khundii-Ulaan system with the tuffaceous lithologies acting as preferred hosts for gold mineralization. Exploration planning is currently underway to test multiple high-priority geological, geochemical and geophysical targets across the Khundii-Ulaan target area.

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 Resource¹ includes 585,100 ounces of 2.19 g/t gold Measured and Indicated ("M&I")² 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 gold³ (press release <u>here</u>), providing significant potential for reserves growth with the development of the remaining M&I and Inferred resources¹.

¹ 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.

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



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 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 <u>www.erdene.com</u>. 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.Geo. (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

³ 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



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 Dark Horse drill holes are all dipping at 45 degrees with one hole dipping at 75 degrees and oriented to intersect near vertical, north-south trending gold bearing zones. 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

Erdene Contact Information

Peter C. Akerley, President and CEO, or Robert Jenkins, CFO

Phone:	(902) 423-6419
Email:	info@erdene.com
Twitter:	https://twitter.com/ErdeneRes
Facebook:	https://www.facebook.com/ErdeneResource
LinkedIn:	https://www.linkedin.com/company/erdene-resource-development-corp-/

DARK HORSE DRILLING CONFIRMS OXIDE GOLD AT SURFACE Khundii – Ulaan Licenses, Bayan Khundii Deposit and Prospect Location Map



Khundii – Ulaan Hydrothermal Alteration Footprint

Khundii – Ulaan Active Discoveries and Prospects



GREATER DARK HORSE EXPLORATION PLAN MAP Dark Horse Mane Zone Inset









DARK HORSE MANE (SOUTH) - SECTION 2 High-Grade Oxide Gold Q4-2021 Highlights





DARK HORSE MANE (NORTH)- SECTION 3 Q4-2021 Highlights- Increasing Width and Open at Depth





DARK HORSE MANE CORE PHOTOS Host rocks, alteration and veining styles at depth, Dark Horse south





AAD-68x: (268-275m) Quartz tourmaline hydrothermal alteration of volcanic, selective white mica alteration, locally vuggy with , elevated Au, Cu.



AAD-68x: (384-390m) High density calcite stockwork veining and breccia zone; increasing Cu values with depth, hole terminating in >700ppm copper



AAD-102: (60 to 67m) Magmatic hydrothermal breccia of quartz monzonite/dacite porphyry; strong silica and magnetite alteration with moderate phyllic. Locally elevated in both Au, Cu.







AAD-102 (62 and 72m depth): crackle and shingle breccias) and calcite-dickite breccia infill. See close up images 1 and 2.

