

ERDENE COMMENCES BAYAN KHUNDII GOLD PROJECT BANKABLE FEASIBILITY STUDY AND PROVIDES TECHNICAL, PERMITTING AND EXPLORATION UPDATE

Press Release

Halifax, Nova Scotia

2020.1.13

Erdene Resource Development Corp. (TSX:ERD; MSE:ERDN) ("Erdene" or the "Company") announces commencement of an independent Bankable Feasibility Study ("BFS") and Front-End Engineering and Design ("FEED") work for the Khundii Gold Project ("Project"), to be delivered by a consortium of International and Mongolian consultants. Furthermore, the Company is pleased to provide an update on recent technical, permitting and exploration initiatives.

Quotes from the Company:

"With an initial open-pit reserve of over 400,000 ounces grading 3.7 g/t gold and further resources and prospects in the vicinity, Erdene is positioned to emerge as a profitable new producer," said Peter Akerley, Erdene's President and CEO. "Moving us closer to that goal of gold production is the recent launch of the Khundii Gold Project Bankable Feasibility Study, scheduled for completion in mid-2020. This BFS will be delivered by a consortium of consultants with experience operating in Mongolia and relationships with Asian firms that are likely to provide equipment and capital to the Project," continued Mr. Akerley. "We have also made significant progress on the permitting and licensing components of the Project with the recently received conditional approval of its Mongolian Bayan Khundii Feasibility Study, registration of the water reserve supporting the Bayan Khundii plant and award of the land use permits to construct the mine support buildings."

"Finally, we completed a Q4 2019 exploration and technical study field program to continue to build on our exploration success in the district and provide the necessary geotechnical information for the BFS," concluded Mr. Akerley. "This program included a series of holes on the Altan Nar and Ulaan projects and follow-up surface sampling of the new high grade Khar Mori target on the Khundii license. Results are expected in the coming weeks."

Bankable Feasibility Study and Front-End Engineering and Design Study

In late December 2019, Erdene launched the FEED and BFS required for permitting, project finance, and board approval to construct. The independent BFS will be prepared in accordance with National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and will incorporate an updated mine design study, FEED for the processing plant and associated infrastructure, a hydrogeological study, detailed waste management plans, and an updated economic model. The Company expects to deliver the BFS in mid-2020.

These studies are being completed by Canadian and Australasian firms with Mongolian experience:

- Roma Group Ltd. ("Roma"), a leading regional provider of engineering, business and asset valuations, risk advisory, corporate and M&A advisory services will manage preparation of the NI 43-101 BFS Technical Report as well as the hydrology-hydrogeological and geotechnical studies, cost estimation and financial modelling workstreams. Roma is listed on the Hong Kong Stock Exchange and has significant experience

leading technical studies and valuation projects for major regional and Mongolian mining and financial firms.

- Several Mongolian companies are providing in-country services and support for the BFS and FEED Study, including: Soil Trade LLC (“**Soil Trade**”), a geotechnical engineering firm, LOBO Erdene LLC (“**LOBO**”), an engineering and construction firm, Project Mining LLC (“**Project Mining**”), a mining engineering consulting firm; and Eco Trade LLC (“**Eco Trade**”), an environmental consulting firm. Erdene works closely with local specialists to ensure compliance with Mongolian regulations.
- O2 Mining Ltd. (“**O2**”) will assist with the BFS mine design and planning (including closure) and co-lead the FEED Study for non-process infrastructure and Mongolian construction permitting workstreams. O2 is a Hong Kong-based engineering firm with significant experience in mine development in Australasia, including the commissioning and operation of three gold and coal mines in Mongolia.
- Auralia Mining Consulting (“**Auralia**”), have been engaged to confirm final mineral reserve modelling and mine design optimization. Auralia are a Perth, Australia-based consulting firm with expertise in mine engineering and resource modelling and extensive experience with gold projects with companies such as Barrick and Gold Road Resources.
- 360-Global Inc. (“**360-Global**”) will carry out process plant design and engineering for the BFS and FEED Studies. 360-Global is a consulting firm with offices in the Philippines and Australia, specialized in full cycle design services and experienced with gold processing infrastructure globally.
- ATC Williams Pty Ltd, (“**ATCW**”) will undertake mineral waste and tailings facility design and management and mine closure planning. ATCW is based in Melbourne, Australia and has extensive experience in mineral waste and tailings transport, storage, closure and water management, including at the Oyu Tolgoi project in Mongolia.
- Blue Coast Research Ltd (“**BCR**”) will continue to provide metallurgical testing support for the Khundii Gold Project. BCR have extensive experience with gold deposits and have carried out all of the Bayan Khundii and Altan Nar metallurgical test work to date.
- Sustainability East Asia, Ramboll, and Eco Trade LLC will continue to work together to deliver the Environmental and Social Impact Assessment and the Mongolian Detailed Environmental Impact Assessment for the Project.

Technical Studies Projects

Roma, with support from Soil Trade, completed drilling for a geotechnical program including field based packer and load testing for rock strength testing and laboratory strength and shear strength analysis. This data will be incorporated into mine planning in Q1 for use in the slope optimization for the proposed Bayan Khundii open pit.

A metallurgical program, managed by BCR, is currently underway to optimize Cyanidation, dewatering, comminution circuit and provide data for final design and equipment sizing. Completion is expected in mid-Q1 following which the final results can be incorporated into the process plant design work being undertaken by 360 Global.

In late Q4 Soil Trade carried out an extensive soil engineering geotechnical drilling program. Data from the test work will be used to design foundations for process and non-process infrastructure for the Bayan Khundii mine site. As well, a detailed topographical survey was completed to aid in the site development and Mongolian permitting work.

Permitting

In Q4 2019, the Company made significant progress on key permitting related activities:

- Bayan Khundii Technical and Economic Assessment (“**Mongolian Feasibility Study**” or “**MFS**”): The Company received conditional approval of its statutory MFS by the Mineral Resources Professional Council of the Mineral Resource and Petroleum Authority (“**MRPAM**”) of Mongolia. The MFS is the base case assessment required for construction-related permits to begin earthworks at the Khundii Gold Project
- Water Reserve Registration: The Mongolian Ministry of Environment and Tourism approved a water reserve and flow rate to be utilized for the planned processing plant and infrastructure of the Khundii Gold Project.
- Land Arrangement Plan: The Shinejinst Civil Representative Committee approved a land arrangement plan granting Erdene access to a 100 hectare area required to construct the Bayan Khundii open-pit and associated surface infrastructure.

Exploration

During Q4 2019 the Company completed diamond drilling on its Ulaan and Altan Nar licenses and conducted detailed surface exploration at the new high grade Khar Mori gold prospect on the Khundii license:

- Altan Nar (Gold, Silver, Lead and Zinc): A significant exploration and technical evaluation program is being designed for 2020 for the Altan Nar project. This will be partially shaped by the recently completed drilling of five holes in the area of the Discovery Zone deposit. The objective was to determine the extent and consistency of the high-grade core and test for expansion of mineralization along strike.
- Khar Mori (Gold): Detailed surface exploration which includes tightly spaced geochemical sampling (soil and rock) and geological mapping was completed in the vicinity of the new 32.9 g/t gold Khar Mori discovery and adjacent Altan Arrow prospects. Khar Mori is also scheduled to be the target of increased exploration in 2020.
- Ulaan (Copper-Gold): Extended UDH-02 (drilled in Q3 2018) to 638 metres depth to test for porphyry related mineralization beneath the main phyllic alteration zone. Additionally, two scout holes were completed peripheral to the main phyllic alteration zone with targets that included a sericite-quartz-tourmaline breccia body suggestive of an intrusion or porphyry related environment.

Results from these three programs are expected by mid Q1-2020.

About Erdene

Erdene’s deposits are located 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, two of which are being considered for development: the 100%-owned Bayan Khundii and Altan Nar projects. Together, these deposits comprise the Khundii Gold Project.

In October of 2019, Erdene announced the results of an independent Technical Report for the Khundii Gold Project (press release [here](#)), which included a Pre-feasibility Study (“PFS”) for the Bayan Khundii deposit and an updated Preliminary Economic Assessment (“PEA”) for the Altan Nar deposit. The PFS and the updated PEA results include an after-tax Net Present Value at a 5% discount rate and a US\$1,300/oz gold price of US\$97 million and US\$24 million, Internal Rate of Return (“IRR”) of 42% and 90% for Bayan Khundii and Altan Nar deposits, respectively. The PFS envisions an open-pit mine at Bayan Khundii from Years 0-7, producing an average of 61,000 oz gold per year at a head grade of 3.73 g/t gold, and an open-pit operation at Altan Nar during Years 7-10, for an average annual production of 48,000 oz gold at an average head grade of 3.46 g/t gold, utilizing a conventional carbon in pulp

processing plant at the Bayan Khundii mine. Erdene has secured a mining license for the Bayan Khundii deposit in August of 2019 and plans to start producing gold in late 2021.

The Altan Nar PEA is by nature, a preliminary economic study, based in part on Inferred Resources. Inferred Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves which is required for a prefeasibility or feasibility study. Mineral resources that are not mineral reserves do not have demonstrated economic viability and there is no certainty that the PEA will be realized.

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 four exploration licenses and two mining 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 Mongolian stock exchanges. Further information is available at 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.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 m 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.

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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