

## **Erdene Files Khundii Gold Project Preliminary Economic Assessment Technical Report**

**Halifax, Nova Scotia – February 5, 2019 - Erdene Resource Development Corp. (TSX:ERD; MSE:ERDN) ("Erdene" or the "Company")** is pleased to announce the filing on SEDAR of the independent Preliminary Economic Assessment ("PEA") Technical Report (the "Report") for its 100%-owned Khundii Gold Project (the "Project") in southwest Mongolia. The Report entitled "NI 43-101 Technical Report for the Preliminary Economic Assessment of the Khundii Gold Project", dated February 4, 2019, was prepared in accordance with National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") by RPMGlobal Asia Limited ("RPM"). The Report is available under the Company's profile at [www.sedar.com](http://www.sedar.com) and will also be available on the Company's website at [www.erdene.com](http://www.erdene.com).

"The PEA demonstrates the robust economics of the high-grade, low-capital Khundii Gold Project," said Peter Akerley, Erdene's President and CEO. "The 56% Internal Rate of Return ("IRR") at a US\$1,200/ounce ("oz") gold price is amongst the highest in our peer group. Additionally, the Project's after-tax Net Present Value at a 5% discount rate ("NPV<sub>5%</sub>") of US\$99 million increases to \$124 million at a US\$1,300/oz gold price, demonstrating the Project's leverage to higher gold prices."

"We have accepted RPM's recommendation to proceed to a NI 43-101 Pre-Feasibility Study, and we have received proposals from engineering firms to lead the work, which we plan to award this quarter. Simultaneously, we are progressing as expected on securing mining licenses for the Project, which provide long-term security of tenure, and are finalizing exploration plans for the 2019 field season, as we seek to grow resources," concluded Mr. Akerley.

### **PEA Highlights for Khundii Project Open Pit Gold Mine Development**

The PEA envisions a high-grade, open-pit mine, producing an average of 51,200 oz per year at an average grade of 3.42 g/t gold over eight years. Mining will begin at the Bayan Khundii Striker Zone, expanding into adjacent zones within Bayan Khundii, prior to incorporating resources from the neighbouring Altan Nar deposit in later years. The development incorporates a conventional gravity separation circuit and a carbon-in-pulp plant with processing capacity of 1,800 tonnes per day. The key Project metrics are highlighted below:

- After-tax NPV<sub>5%</sub> of US\$99 million and IRR of 56% at a US\$1,200/ oz gold price
- After-tax NPV<sub>5%</sub> of US\$124 million and IRR of 68% at a US\$1,300/oz gold price, demonstrating significant leverage to gold prices
- Low initial capital expenditure of US\$32 million, using a contract mining fleet
- All-in sustaining cash cost ("AISC") of US\$714/oz of recovered gold
- Payback of less than 2 years

## Opportunities to Enhance Project Value

The Company sees the following opportunities to increase value at the Khundii Gold Project:

- **Higher Grade Upside:** The very high-grade nature of the deposit provides upside should continuity of the ultra high-grade zones be established during mining. The highest gold values in the block model supporting the PEA are 55 g/t, while more than 40 intersections ranging from 50 g/t to 2200 g/t gold were encountered during drilling.
- **Additional Resources at Bayan Khundii:** Approximately 60,000 ounces of Indicated Resources and 70,000 ounces of Inferred Resources grading more than 4 g/t gold are located outside the designed mineable open pit for the PEA. The majority of these resources are contained within the West Striker Area, approximately 100 metres from the ultimate pit wall, situated at around 100 metres depth. Accessing these resources by underground methods will be considered in future study.
- **Additional Resources at Altan Nar:** The majority of the resource contained at the Altan Nar Project remains undeveloped in the current PEA. Further drilling and metallurgical work is required to incorporate this material into development scenarios.
- **Exploration Potential:** The Bayan Khundii and Altan Nar deposits are situated in a highly prospective region that has received minimal historical exploration. The Company, through its proprietary regional database and experience in the region, is well positioned to add resources through exploration.
- **Recovery Upside:** The Bayan Khundii mineralized material has an average recovery of 92% in the PEA. However, master composite sample testing indicates that recoveries of up to 99% are possible for high-grade material. For Altan Nar material, an average recovery of 62% has been applied in the PEA due to arsenopyrite content of the ore. Master composite testing of representative samples from the Discovery Zone pit has returned recoveries of up to 88%. Further metallurgical testing could support higher recoveries.
- **Mine Planning:** The PEA represents the first step toward addressing the viability of a mining operation at the Khundii Gold Project. Further work may identify cost saving opportunities such as improved pit sequencing through pit phasing, waste haul optimization including in-pit dumping, reduced dilution and loss through the application of more selective mining techniques and interim pit design targeting improved early grades.
- **Mine Equipment Selection:** There is opportunity to consider Tier 2 suppliers for non-critical equipment, reducing capital and operating costs.
- **Land Acquisition:** The Mongolian Ministry of Mining and Heavy Industry has recently reopened the tender licensing system, and the Company expects prospective licenses to be released in 2019. The Company has identified multiple priority targets within the surrounding regional district and will be an active participant in the tender processes for these properties.

## **Next Steps**

The PEA indicates that the Khundii Gold Project is projected to be economically viable and RPM recommends that Erdene proceed to an independent NI 43-101 Pre-Feasibility Study in order to further assess the viability of the Project. The Company has created a Mining Studies Group to carry out mining, geotechnical, metallurgy, waste management, environmental, social impact and hydrogeology work to support the Pre-Feasibility Study in 2019.

Erdene initiated the mining license application process for Bayan Khundii in 2018 and experts have been appointed by Mongolia's Mineral Council to review and approve the application, and Erdene has provided the necessary information in support. Experts have completed a site visit with a Mineral Council meeting anticipated later in Q1-2019. The Altan Nar mining license filing will take place in the first half of 2019. Mongolian mining licenses have a 30-year term and are renewable for up to two, further 20-year periods.

It is expected that the Project will advance through the final permitting approvals, feasibility and project finance by early 2020. Construction is anticipated to take one year and Erdene is targeting to commence production in 2021.

## **Background on the Khundii Gold Project**

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. Although epithermal gold and porphyry copper-gold deposits are well documented across the border in China and along the Belt's westward trend, exploration in Mongolia was limited until the mid-1990s, when the country opened its doors to foreign exploration. Exploration since that time in southeast Mongolia led to the discovery of the world-class Oyu Tolgoi gold-copper deposit. Erdene has been the leader in exploration in southwest Mongolia over the past decade and is responsible for the discovery of the Khundii Gold District. The Khundii Gold District is comprised of multiple, high-grade gold and base metal prospects, two of which are being considered for development: Bayan Khundii and Altan Nar. The Company has to date invested US\$17 million in exploration and resource development on the Bayan Khundii and Altan Nar projects.

## **Qualified Person and Sample Protocol**

The information in this press release that relates to the Preliminary Economic Assessment of the Khundii Gold Project, is based on information compiled and reviewed by Mr. Igor Bojanic, who is a Fellow of the Australasian Institute of Mining and Metallurgy, and is an employee of RPM Advisory Services Pty Limited. Mr. Igor Bojanic has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which, he has undertaken to qualify as a Qualified Person, as that term is defined by National Instrument 43-101.

Mr. Igor Bojanic is not aware of any potential for a conflict of interest in relation to this work for the Client.

Michael MacDonald, P.Geo. (Nova Scotia), Vice President Exploration for Erdene, is the Qualified Person as that term is defined in National Instrument 43-101 and has reviewed and approved the approved the non-PEA and Mineral Resource estimate technical information contained in this news release on behalf of Erdene. 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, field and laboratory duplicates, and blanks.

## **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 four exploration licenses and a mining license in southwest Mongolia, where exploration success has led to the discovery and definition of the Khundii Gold District. Erdene is listed on the Toronto and Mongolia 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.

## **Cautionary Notes**

The 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.

## **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 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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