

ERDENE RESOURCE DEVELOPMENT CORPORATION

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ANNUAL INFORMATION FORM

For the Fiscal Year ended December 31, 2024

March 25, 2025

ERDENE RESOURCE DEVELOPMENT CORPORATION ANNUAL INFORMATION FORM

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

Except for statements of historical fact, information contained, or incorporated by reference, herein constitutes "forward-looking information" and "forward-looking statements" within the meaning of applicable securities laws. Forward-looking information is often, but not always, identified by the use of words such as "seek", "anticipate", "plan", "continue", "planned", "expect", "project", "predict", "potential", "targeting", "intends", "believe", and similar expressions, or describes a "goal", or variation of such words and phrases or states that certain actions, events or results "may", "should", "could", "would", "might" or "will" be taken, occur or be achieved. Statements relating to mineral resources are deemed to be forward-looking statements, as they involve the implied assessment, based on certain estimates and assumptions, that the mineral resources described exist in the quantities predicted or estimated or that it will be commercially viable to produce any portion of such resources. Forward-looking statements and forward-looking information are not guarantees of future performance and are based upon a number of estimates and assumptions of management at the date the statements are made, including among other things, the future prices of gold, copper, silver and other metals, the price of other commodities such as fuel and electricity, currency exchange rates and interest rates; favourable operating conditions, the potential impact of pandemics on the business; political stability, timely receipt of governmental approvals, licenses and permits (and renewals thereof); access to necessary financing; stability of labour markets and in market conditions in general; availability of equipment; the accuracy of mineral resource estimates, and of any metallurgical testing completed to date; estimates of costs and expenditures to complete our programs and goals and the speculative nature of mineral exploration and development in general, including the risk of diminishing quantities or grades of mineralization. Many of these assumptions are inherently subject to significant business, social, economic, political, regulatory, competitive and other risks and uncertainties, contingencies, and other factors that are not within the control of Erdene Resource Development Corp. ("Erdene" or the "Corporation") and could thus cause actual performance, achievements, actions, events, results or conditions to be materially different from those projected in the forward-looking statements and forward-looking information.

Forward-looking information and forward-looking statements herein includes, but is not limited to: statements or information concerning the future financial or operating performance of Erdene and its business, operations, properties and condition, resource potential, including the potential quantity and/or grade of minerals, or the potential size of a mineralized zone, potential expansion of mineralization, the timing and results of future resource estimates, the timing of other exploration and development plans at Erdene's mineral project interests, Erdene's future plans for its non-material properties, the amenability of mineralization to produce a saleable concentrate of sufficiently high enough grade and quality to be economic; changes in project parameters as plans continue to be refined; illustrative mine lives of the Corporation's various mineral project interests, the proposed timing and amount of estimated future production, expectations with respect to future payments of dividends, and the information in the section entitled "The Corporation's Objectives and Strategy".

Such forward-looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Erdene to be materially different from any future results, performance or achievements expressed or implied. Such factors include, among others: the speculative nature of mineral exploration and development; liquidity concerns and the ability of Erdene to secure additional financing; changes to the Mongolian legal environment; the inability to obtain or renew licenses, leases or permits; the lack of infrastructure in the areas where the Corporation operates; liability for accidents, pollution and other hazards for which the Corporation is unable to obtain insurance; public health crises; conflicts of interest between the interests of the Corporation's directors and officers and the Corporation; changes in the exchange rates between the local currency of Mongolia, the U.S. dollar, and the Canadian dollar; changes in the market price for metals and other minerals; evolving environmental and regulatory requirements; the loss of or inability to recruit key personnel; changes in Mongolian and Canadian political conditions; increased competition for mineral development properties; breaches or failures of information systems and cyber security threats; economic instability and supply chain issues and their effect on costs of operations; the Ukraine-Russia conflict; relationships with local communities and environmental, social and governance matters generally; risks associated with acquisitions, joint ventures and other business arrangements the Corporation enters into; the impacts of claims and legal proceedings involving the Corporation; and the inherent risks involved in the exploration, development and mining business in general.

This AIF also contains references to estimates of mineral reserves and mineral resources. The estimation of reserves and resources is inherently uncertain and involves subjective judgments about many relevant factors. The mineral resource estimates contained in this AIF are exclusive of mineral reserves. Further, mineral resources that are not mineral reserves do not have demonstrated economic viability. The accuracy of any such estimates is a function of the quantity and quality of available data, and of the assumptions made and judgments used in engineering and geological interpretation (including future production, the anticipated tonnages and grades that will be achieved or the indicated level of recovery that will be realized), which may prove to be unreliable. There can be no assurance that these estimates will be accurate or that such mineral reserves and mineral resources can be mined or processed profitably. Such estimates are, in large part, based on the following:

- Interpretations of geological data obtained from drill holes and other sampling techniques. Large scale mineral continuity and character of the deposits can be improved with additional drilling and sampling; actual mineralization or formations may be different from those predicted. It may also take many years from the initial phase of drilling before production is possible, and during that time the economic feasibility of exploiting a deposit may change. Reserve and resource estimates are materially dependent on prevailing metal prices and the cost of recovering and processing minerals at the individual mine sites. Market fluctuations in the price of metals or increases in the costs to recover metals or the actual recovery percentage of the metal(s) from the Corporation's mining projects may render mining of mineral reserves uneconomic and affect the Corporation's operations in a materially adverse manner. Moreover, various short-term operating factors may cause a mining operation to be unprofitable in any particular accounting period;
- Assumptions relating to commodity prices and exchange rates during the expected life of production, mineralization of the area to be mined, the projected cost of mining, and the results of additional planned development work. Actual future production rates and amounts, revenues, taxes, operating expenses, environmental and regulatory compliance expenditures, development expenditures, and recovery rates may vary substantially from those assumed in the estimates. Any significant change in these assumptions, including changes that result from variances between projected and actual results, could result in material downward revision to current estimates; and
- Assumptions relating to projected future metal prices. The Corporation uses prices reflecting market pricing projections in financial modeling which are subjective in nature. It should be expected that actual prices will be different than the prices used for such modeling (either higher or lower), and the differences could be significant.

In addition, see "Cautionary Note to United States Investors Concerning Estimates of Measured, Indicated and Inferred Resources" in this respect.

Although the Corporation has attempted to identify important factors that could cause actual performance, achievements, actions, events, results or conditions to differ materially from those described in forward-looking statements or forward-looking information, there may be other factors that cause performance, achievements, actions, events, results or conditions to differ from those anticipated, estimated or intended. Further details relating to many of these factors is discussed in the section entitled "Risk Factors" in this AIF.

Forward-looking statements and forward-looking information contained herein are made as of the date of this AIF and the Corporation disclaims any obligation to update or revise any forward-looking statements or forward-looking information, whether as a result of new information, future events, or results or otherwise, except as required by applicable law. There can be no assurance that forward-looking statements or forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements or forward-looking information. All forward-looking statements and forward-looking information attributable to us is expressly qualified by these cautionary statements.

CAUTIONARY NOTE TO UNITED STATES INVESTORS CONCERNING ESTIMATES OF MEASURED, INDICATED AND INFERRED RESOURCES

Information in this AIF, including any information incorporated by reference, and disclosure documents of Erdene that are filed with Canadian securities regulatory authorities concerning mineral properties have been prepared in accordance with the requirements of securities laws in effect in Canada, which differ from the requirements of United States securities laws.

Without limiting the foregoing, these documents use the terms "measured resources", "indicated resources" and "inferred resources". Shareholders in the United States are advised that, while such terms are defined in and required by Canadian securities laws, the United States Securities and Exchange Commission (the "SEC") does not recognize them. Under United States standards, mineralization may not be classified as a reserve unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. United States investors are cautioned not to assume that all or any part of measured or indicated resources will ever be converted into reserves. Further, inferred resources have a great amount of uncertainty as to their existence and as to whether they can be mined legally or economically. It is reasonably expected that the majority of inferred mineral resources could be upgraded to indicated mineral resources with continued exploration; however, there is no certainty that these inferred mineral resources will be converted into mineral reserves, once economic considerations are applied. Under Canadian rules inferred mineral resources must not be included in the economic analysis, production schedules, or estimated mine life in publicly disclosed Pre-Feasibility or Feasibility Studies, or in the Life of Mine plans and cash flow models of developed mines. Inferred Mineral Resources can only be used in economic studies as provided under National Instrument 43-101. Therefore, United States investors are also cautioned not to assume that all or any part of the inferred resources exist, or that they can be mined legally or economically. Disclosure of contained ounces is permitted disclosure under Canadian regulations; however, the SEC normally only permits issuers to report resources as in place tonnage and grade without reference to unit measures. Accordingly, information concerning descriptions of mineralization and resources contained in these documents may not be comparable to information made public by United States companies subject to the reporting and disclosure requirements of the SEC.

PRELIMINARY NOTES

Throughout this Annual Information Form ("AIF") Erdene Resource Development Corporation is referred to as "Erdene", the "Corporation" or the "Company". All information is given as at December 31, 2024, unless stated otherwise.

Currency and Exchange Rates

All currency references in this AIF are in Canadian dollars unless otherwise indicated. Reference to "United States dollars" or "U.S. dollars" or the use of the symbol "US\$" refer to United States dollars. The closing rate of exchange reported by the Bank of Canada for the conversion of Canadian dollars into United States dollars on March 24, 2025, was 1.00 = US (US\$1.00 = Cdn\$1.4318) and on December 31, 2024, was 1.00 = US (US\$1.00 = Cdn\$1.4389).

Measurements and Frequently Used Abbreviations and Acronyms

Amounts in this AIF are generally in metric units. Conversion rates from Imperial measure to metric, and from metric to Imperial are provided below:

Imperial Measure	= Metric Unit	Metric Measure	= Imperial Unit
2.47 acres	1 hectare ("ha")	0.4047 hectares	1 acre
3.28 feet	1 metre ("m")	0.3048 metres	1 foot
0.62 miles	1 kilometre ("km")	1.609 kilometres	1 mile
35.315 cubic feet	1 cubic metre	0.0283 cubic metres	1 cubic foot
0.032 ounces (troy)	1 gram ("g")	31.103 grams	1 ounce (troy)
1.102 tons (short)	1 tonne ("t")	0.907 tonnes	1 ton

All ounces are troy ounces. 14.58 troy ounces equal one pound (containing 16 Imperial ounces). Measurements and amounts in this AIF have been rounded to the nearest two decimal places, unless noted otherwise.

Financial Statements and Management Discussion and Analysis

This AIF should be read in conjunction with the audited consolidated financial statements of Erdene for the year ended December 31, 2024 (the "Audited Financial Statements"), and the accompanying management's discussion and analysis ("MD&A") for that year. Unless otherwise indicated, financial information contained in this AIF is presented in accordance with International Financial Reporting Standards ("IFRS"). The Audited Financial Statements and MD&A are available at www.erdene.com and on SEDAR+ at www.sedarplus.ca.

Standard Resource and Reserve Reporting System

National Instrument 43-101 *Standards of Disclosure for Mineral Projects*, Companion Policy 43-101CP and Form 43-101F1 (collectively, "**NI 43-101**") are a set of rules developed by the Canadian Securities Administrators, which has established standards for all public disclosure an issuer makes of "scientific and technical information" concerning mineral projects ("**Technical Information**"). Unless otherwise indicated, all Technical Information, including resource estimates and reserves attributable to Erdene's property interests contained in this AIF, and including any information contained in certain documents referenced in this AIF, has been prepared in accordance with NI 43-101, and applicable standards of the Canadian Institute of Mining, Metallurgy and Petroleum Standing Committee on Reserve Definitions (the "**CIM Standards**").

Material Property Interest

As at December 31, 2024 and March 25, 2025, the Corporation holds interests in two mineral properties considered to be material within the meaning of applicable Canadian securities laws:

Property Name	Ownership Entity	% Interest
Altan Nar	Erdene Mongol LLC	50%
Bayan Khundii	Erdene Mongol LLC	50%

See the discussion in this AIF under the heading "Technical Disclosure" for a summary of, and Technical Information for, these properties.

Technical Disclosure

Unless otherwise indicated, Erdene has prepared the Technical Information in this AIF based on information contained in the technical reports and news releases (collectively the "**Disclosure Documents**") available under Erdene's company profile on SEDAR+ at <u>www.sedarplus.ca</u>. The Disclosure Documents are each intended to be read as a whole, and sections should not be read or relied upon out of context. The Technical Information is subject to the assumptions and qualifications contained in the Disclosure Documents.

Each of the Corporation's Disclosure Documents was prepared by or under the supervision of a Qualified Person. Readers are encouraged to review the full text of the Disclosure Documents which qualifies the Technical Information.

The following documents are incorporated by reference into this AIF:

- "Bayan Khundii Gold Project Feasibility Study Update NI 43-101 Technical Report" with an effective date of August 15, 2023, prepared by Julien Lawrence, FAusIMM, O2 Mining Limited; Benny Cha, FAusIMM, Roma Group Limited; Jesse Tam, M.AIG, CGeol FGS, Fugro (Hong Kong) Limited, Andrew Kelly, P.Eng., Blue Coast Research Ltd.; Mark Dillion, CPEng, ATC Williams Pty Ltd.; Jeff Jardine, FAusIMM, O2 Mining Limited; Mark Reynolds, CPA,O2 Mining Limited; Antony Gibson, CPEng, Ramboll Australia Pty Limited, Oyunbat Bat-Ochir, MAIG, RPMGlobal; and Paul Daigle, P.Geo., AGP Mining Consultants (the "Bayan Khundii Feasibility Study Update" or "BFS Update")
- "Altan Nar Gold-Polymetallic Project NI 43-101 Technical Report" with an effective date of December 31, 2020 and a report date of March 29, 2021, prepared by Michael MacDonald, P.Geo. (N.S), Jeremy Clark, AusAIG, RPM Global, Andrew Kelly, P.Eng., Blue Coast Research Ltd (the "Altan Nar Technical Report").

With the exception of the deposits listed immediately below, any inferences disclosed in the AIF of potential quantity and grade at Erdene's exploration property interests are conceptual in nature, and there has been insufficient exploration to date to define a mineral resource:

- Altan Nar gold-polymetallic deposit ("Altan Nar");
- Bayan Khundii gold deposit ("Bayan Khundii");
- Dark Horse gold deposit ("Dark Horse"); and
- Zuun Mod molybdenum-copper deposit ("Zuun Mod").

It is uncertain if further exploration will result in other targets at these projects, or any of the Corporation's other mineral property interests, being delineated as a mineral resource.

Mineral resource and mineral reserve estimates contained herein are only estimates and no assurance can be given that any particular level of recovery of minerals will be realized or that an identified resource will ever qualify as a commercially mineable or viable deposit which can be legally and economically exploited. In addition, the grade of mineralization ultimately mined may differ from the one indicated by drilling results and the difference may be material. The estimated resources described herein should not be interpreted as assurances of mine life or of the profitability of future operations. Readers are advised that mineral resources that are not mineral reserves do not have demonstrated economic viability.

Mr. Peter Dalton, P. Geo., Senior Geologist of Erdene, and a Qualified Person, has reviewed and approved the Technical Information in this AIF.

CORPORATE STRUCTURE

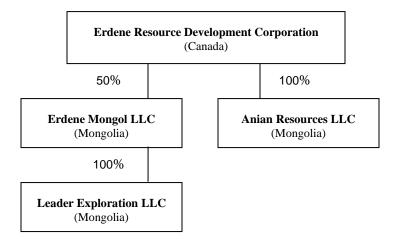
Name, Incorporation and Office

The Corporation was incorporated under the *Canada Business Corporations Act* on June 27, 2000, as "3779751 Canada Inc." On February 18, 2003, the Corporation changed its name to "Erdene Gold Inc." and on May 29, 2008, the Corporation changed its name to "Erdene Resource Development Corporation".

The Corporation's head office is located at 99 Wyse Road, Suite 910, Dartmouth, Nova Scotia, Canada B3A 4S5, and its registered office is located at 1300 – 1969 Upper Water Street, Halifax, Nova Scotia, Canada B3J 2V1. The Corporation also has an office in Ulaanbaatar, Mongolia.

Intercorporate Relationships

The following chart depicts the corporate structure of the Corporation as at December 31, 2024 and March 25, 2025, together with the jurisdiction of incorporation of each of the Corporation's subsidiaries and the percentage of the votes attached to all voting securities of the subsidiary beneficially owned by the Corporation.



GENERAL DEVELOPMENT OF THE BUSINESS

General

The Corporation commenced trading on the TSX Venture Exchange on March 16, 2004, and on December 14, 2005, Erdene was granted a senior listing and began trading on the Toronto Stock Exchange ("**TSX**") (TSX - ERD). On June 19, 2018, Erdene commenced trading on the Mongolian Stock Exchange ("**MSE**"), becoming the first cross-listed company on the MSE (MSE - ERDN). The Corporation had been incorporated in 2000 to explore for gold in Nova Scotia, Canada. In 2002 the name was changed to Erdene and the Corporation began to focus on the exploration and development of gold, copper, molybdenum, uranium and coal deposits in Mongolia.

The Corporation holds interests in three mining licenses (Khundii, Altan Nar and Khuvyn Khar) covering 13,019 hectares and a mineral exploration license (Ulaan) covering 1,780 hectares. All of the Corporation's licenses are registered in the name of Mongolian operating companies (Erdene Mongol LLC, Anian Resources LLC and Leader Exploration LLC). The Corporation's principal projects are the Bayan Khundii Gold Project (located on the Khundii license) and the Altan Nar Gold-Polymetallic Project (located on the Altan Nar license), held by Erdene's associate Erdene Mongol LLC, as well as the Zuun Mod Molybdenum-Copper Project (located on the Khuvyn Khar license), held by Erdene's wholly owned subsidiary Anian Resources LLC, within the Khundii Minerals District, in southwest Mongolia.

The following is a summarized history of the development of the business over the past three years.

Khundii Minerals District ("KMD")

The Company's properties are located in southwest Mongolia, where exploration success has led to the discovery of the Khundii Minerals District ("KMD"). The KMD is located within the Trans Altai Terrane of the Central Asian Orogenic Belt ("CAOB"). The COAB hosts several world class copper and gold deposits, including one of the world's largest gold deposits, Muruntau, in Uzbekistan, as well as Rio Tinto's Oyu Tolgoi copper-gold deposit, located approximately 650 kilometres east of the KMD in southeast Mongolia.

The discovery of the KMD is the result of almost 20 years of exploration by Erdene in southwest Mongolia. Over this period, Erdene has defined the Altan Nar ("AN"), Bayan Khundii ("BK") and Dark Horse Mane ("DH") epithermal gold deposits, the Ulaan and Greater Dark Horse gold prospects, the Zuun Mod ("ZM") molybdenum-copper porphyry deposit, and several other prospects. Collectively, these discoveries form the core of the KMD, an area approximately 50 by 100 kilometres, elongated northwest.

Bayan Khundii Gold Project

The Bayan Khundii Gold Project is located on the 2,309-hectare Khundii mining license held by EM. The Khundii mining license includes the Bayan Khundii and Dark Horse mineral resources and reserves reported in "Bayan Khundii Gold Project, Feasibility Study Update, NI 43-101 Technical Report". The Bayan Khundii Gold Project is the Company's highest priority and has been the focus of development over the past three years, as further detailed below.

2022

In 2022, coming out of COVID-19 restrictions, with a feasibility study complete and permitting, financing and preconstruction work well advanced, Erdene focused on progressing the Bayan Khundii Gold Project towards construction while further exploring the KMD.

Efforts during 2022 were focused on site preparation and permitting, with significant progress on both fronts. During the first half of 2022, the Company completed an expansion of its camp and erected cellular towers at site to facilitate communications, in anticipation of full construction.

In mid-2022, detailed design drawings for the processing plant and mineral waste facility received regulatory approval. Additionally, constructability, value engineering, and hazard and operability studies were progressed, following the completion of tender and re-pricing for critical facilities and services. Preferred vendors were identified for most major facilities.

Environmental management work was expanded in 2022, with the Company establishing a two-hectare nursery at site to cultivate endemic plants and trees, sowing 10,000 seedlings in the initial season. The Company intends to use the facility to harvest seed and transplant vegetation for landscape improvement at site as well as for future rehabilitation. In April 2022, Erdene committed to plant one million trees by 2030, as part of Mongolia's "Billion Trees" campaign.

Contributions to stakeholder engagement and community development continued during the year. The Company provided approximately US\$1M of funding for public health and community programs through its LCA with the government of Bayankhongor during 2022. In October 2022, Erdene announced the renewal of its LCA, committing a further US\$1.2M over the subsequent two years to community development initiatives.

During 2022, the Company drilled approximately 10,000 metres on the Ulaan and Khundii licenses. Exploration at the Ulaan SE discovery intersected some of the widest intervals of mineralization in the KMD to date, as well as an interpreted high-grade, gold bearing feeder structure. Exploration in near surface zones at Bayan Khundii confirmed, and in some cases extended, the mineralization that is planned to be mined in the first phases of the Bayan Khundii development.

2023

In January 2023, Erdene entered a Strategic Alliance with Mongolian Mining Corporation ("MMC"), the Country's largest independent miner, to develop the KMD. Under the terms of the Strategic Alliance, MMC invested US\$40 million for a 50% interest in Erdene's Mongolian subsidiary, Erdene Mongol LLC ("EM"), which holds the Khundii and Altan Nar mining licenses and the Ulaan exploration license. Erdene retains a 50% equity interest in EM as well as a 5% Net Smelter Return ("NSR") royalty on all production from the Khundii, Altan Nar and Ulaan licenses, as well as any properties acquired within five kilometres of these licenses, after the first 400,000 ounces of gold recovered. Erdene also maintains a 100% interest in the Zuun Mod copper-molybdenum project. The Strategic Alliance was formally closed on January 23, 2024.

Following announcement of the Strategic Alliance, EM launched an updated Feasibility Study ("2023 FS") and Life of Mine ("LOM") Plan for the BK Gold Project and reported results in mid-August. Prepared by the same consortium of consultants as the 2020 Feasibility Study ("2020 FS"), the 2023 FS incorporated updated reserves from BK as well as near surface reserves from Dark Horse, resulting in a 25% increase in recovered gold compared to the 2020 FS. Optimization and value engineering work increased plant throughput to 650,000 tonnes per annum, 8% greater than the previous study. The 2023 FS confirmed the Project's strong economics, with an after-tax net present value at a 5% discount rate ("NPV5%") of US\$223 million at a gold price of US\$2,000 an ounce, given modest estimated capital and all-in sustaining costs ("AISC") of US\$100 million and US\$869/ounce, respectively. See "*Mineral Properties – Bayan Khundii Gold Project*".

During 2023, EM received Mongolian regulatory approval for the Project's detailed design, secured construction permits for all key facilities and placed orders for major process mechanical equipment. In the second half of 2023, EM executed the Project's early works program. Representing approximately 12% of total construction effort, EM built temporary construction facilities, including aggregate crushing and concrete batch plants, fuel depot and construction camp, construction roads, and completed site leveling, excavation, poured reinforced concrete footings and installed columns for the Project's process plant.

The 2023 gold exploration program in the KMD included approximately 1,000 metres of drilling and induced polarization ("IP") gradient array surveys over nine square kilometres of the 20 km2 Greater Dark Horse prospect. The program identified several areas of near-surface mineralization, with 16 of 18 holes intersecting anomalous gold (greater than 0.1 g/t Au) and/or indicator elements. Gold, together with antimony, arsenic and molybdenum are characteristic of the Dark Horse deposit and were instrumental in the initial discovery of the high-grade, near-surface Dark Horse Mane gold mineralized trend. Additionally, a 500-metre trenching program completed across the Greater Dark Horse and Ulaan prospects, targeting near-surface supergene enriched oxide zones returned anomalous mineralization from multiple trenches.

2024

On January 23, 2024 Erdene and MMC formally closed the Strategic Alliance with the issuance of shares in EM to MMC representing 50% of the company's equity. The close was followed by the announcement in February 2024 of the execution of financing documents between MMC and Erdene for an up to US\$80 million senior debt facility for EM, that along with the US\$40 million investment through the Strategic Alliance, will fund construction of the Bayan Khundii Gold Project. In December 2024, EM announced the execution of a US\$50 million facility to bridge the company through to commercial production.

EM reached a formal construction decision for Bayan Khundii in early 2024. An Engineering, Procurement and Construction contract was also executed by EM with MCS Properties, and the Project's Power Purchase Agreement was executed with MCS International, one of Mongolia's leading private energy companies.

At the end of 2024, construction of the Bayan Khundii Gold Project was approximately two-thirds complete, with the process plant, the critical path facility, 67% constructed. All major mechanical equipment is installed and construction of non-process infrastructure is proceeding well. Total capital expended to year-end was US\$83 million. EM Management estimates that capital expenditures may increase by approximately 15% from the initial capital budget of US\$100M due to inflation, the impact of weather and logistical delays and scope changes and is working with the Engineering, Procurement and Construction ("EPC") contractors to confirm the impact; however, no further equity funding is expected from Erdene or MMC for the BK. Construction is expected to be complete in early Q2-2025 and first gold is scheduled for Q3-2025.

While EM is focused on advancing BK to first gold, exploration has continued to assess expansion potential at Bayan Khundii and further define priority targets in the Greater Dark Horse area. Ore control drilling and exploration on the periphery of Bayan Khundii in mid-2024 returned high-grade mineralization in areas adjacent to the deposit that will be incorporated into an updated mine plan in early 2025.

Greater Dark Horse Prospect

The Greater Dark Horse prospect area (approximately 20 square kilometres) is located in the northern portion of the Khundii mining and Ulaan exploration licenses held by EM, and is characterized by elevated gold in soil anomalism with multiple surface rock-chip, trench and drill core samples assaying greater than 1 g/t gold. To date, EM has completed 25,132 metres of drilling in 236 holes ranging in vertical depths from 8 to 318 metres within the Greater Dark Horse prospect, including 18 holes totaling 1,040 metres in 2023.

Most of the drilling has been focused on the Dark Horse Mane deposit, first discovered in early 2021. Erdene discovered Dark Horse Mane, 2 kilometres north of the Bayan Khundii deposit, when initial drilling returned 6.0 g/t gold over 45 metres, beginning 10 metres downhole, including 8 metres of 27.1 g/t gold (AAD-58). Drilling over the past several years has defined a 1.5-kilometre trend of alteration and gold mineralization within the Dark Horse Mane that remains open along strike to the north and south, and at depth. Highlight interceptions at Dark Horse Mane since the initial discovery include:

- AAD-126: 30 metres of 5.6 g/t gold, beginning 10 metres downhole, including 24.1 g/t over six metres, starting 26 metres downhole
- AAD-137: 24.5 metres of 9.4 g/t gold beginning 1.5 metres downhole, including 13.5 metres of 16.1 g/t gold
- AAD-138: 25 metres of 6.1 g/t gold beginning 18 metres downhole, including 8 metres of 17.1 g/t gold
- AAD-177: 23 metres of 11.4 g/t gold beginning 1 metre downhole, including 4 metres of 59.8 g/t gold within 8 metres of 32.2 g/t gold
- AAD-178: 15 metres of 42.8 g/t gold beginning 11 metres downhole, including 3 metres of 160.4 g/t gold within 5 metres of 123.5 g/t gold
- AAD-218: 12 metres of 20.2 g/t gold beginning at surface, including 6 metres 39.6 g/t gold

The Dark Horse Mane deposit is associated with a north-south trending, linear structural corridor which intersects deep seated northeast trending transform faults, believed to be a conduit for primary mineralizing fluids. The N-S structure has been traced over five kilometres, from the southern portion of the Bayan Khundii deposit to the northern extension of Dark Horse Mane. Gold mineralization is hosted within strongly altered tuffaceous and volcanoclastic rocks, crosscut by quartz and quartz-hematite veins and stockwork zones. The Dark Horse Mane shallow oxide zone begins at surface, hosting supergene enriched gold zones with values up to 195 g/t over 1 metre 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; however, the core of the near-surface mineralization forms the basis of the Dark Horse Mane Reserve estimate that forms part of the BK Project.

The near surface oxide gold zones discovered at Dark Horse Mane are the result of oxidation of sulfide bearing epithermal veins and hydrothermal breccias within white mica altered host lithologies. Limited deeper drilling has gold bearing epithermal veins and associated white mica and sulfide alteration zones to a depth of up to 230 metres vertically, that remains open at depth. The gold mineralization near surface at Dark Horse Mane is related to broader areas of structurally controlled alteration and mineralization believed to be connected to feeder structures, distributing gold bearing fluids over a wide area as these fluids approached the paleo surface. Evidence for these feeder structures includes a series of exposed residual quartz lithocaps, associated locally with increasing copper anomalism at depth interpreted to predate the gold mineralization. These lithocaps are distributed along dominant NE trending structures

believed to represent transform faults and potential feeder conduits from a magmatic porphyry source at depth. The highest-grade gold bearing oxide zones at the southern end of the Dark Horse Mane are located proximal to the residual quartz lithocaps and hosted within tuffaceous to porphyritic volcanoclastic units.

During Q2 2024, EM conducted geological and geochemical evaluations over a 4-kilometre by 3-kilometre portion of the Greater Dark Horse area. This area is characterized by an expansive gold-in-soil geochemical anomaly which contains both the high-grade Dark Horse Mane supergene gold deposit and numerous early-stage gold prospects. Exploration focused on parallel structures to the north-south trending Dark Horse Mane feature and the northeast trending Altan Arrow fault, identified as two of the main gold-bearing features in the prospect area. A total of 163 rock chip samples were collected, resulting in the identification of several new high-grade gold mineralized zones. Results from the Altan Arrow fault, a 1.8-kilometre northeast trending structural feature, included a sample returning 37.7 g/t gold, as well as twelve samples with silver grades exceeding 50.0 g/t Ag including two samples greater than 100 g/t Ag, in addition to samples with anomalous lead, molybdenum and antimony, indicator elements in gold prospects in the district.

Follow-up work will include trenching and drilling within the Greater Dark Horse area focusing on expansion of Dark Horse Mane deposit, continued definition of the Altan Arrow fault and identification of parallel structures east of Dark Horse Mane.

Ulaan Southeast

In June 2021, the Company completed the maiden gold exploration program in the southern portion of the Ulaan license, held by EM, reporting a significant new gold discovery just 300 metres west of the Bayan Khundii Deposit. Results to date, including follow-up drilling in Q2 2022, have confirmed a significant gold discovery at Ulaan SE. Multiple drill holes have returned hundreds of metres (up to 354 metres) of gold mineralization, often ending in mineralization, over an area 200 metres by 250 metres. Gold mineralization begins approximately 80 metres from surface with anomalous gold intersected as shallow as 4 metres depth (UDH-18) and remains open along strike to the west/northwest and at depth. Gold grades up to 156 g/t are related to intense quartz \pm hematite veins and stockwork zones enveloped by the same gold bearing silicified, white mica altered lapilli tuff sequence which hosts Erdene's Bayan Khundii epithermal gold deposit, located just east on the Khundii mining license. Structural controls are also similar with northwest striking, southwest dipping veins hosting the gold and intensifying adjacent to bounding structures and/or feeder conduits typically oriented northeast or north. Gold mineralization, particularly the low-grade envelope, also appears to be partially controlled by lithology with low permeability silicified ash tuffs focusing fluid flow and coarser lapilli tuffs acting as a preferred host to mineralization, stratigraphically dipping to the northwest.

Highlight interceptions at Ulaan SE since the initial discovery include:

- UDH-14: 217 metres of 1.1 g/t gold beginning 188 metres downhole, including 3.5 g/t gold over 53 metres
- UDH-21: 335 metres of 1.1 g/t gold beginning 115 metres downhole, including 8.7 g/t gold over 27 metres within 77 metres of 3.2 g/t gold
- UDH-22: 152 metres of 1.7 g/t gold beginning 85 metres downhole, including 3.1 g/t gold over 65 metres
- UDH-35: 23 metres of 13.7 g/t gold within 41 metres of 8.1 g/t gold, beginning 187 metres downhole
- UDH-36: 179 metres of 1.2 g/t gold, beginning 72 metres downhole, including several one-metre intervals, ranging from 10 to 33 g/t gold, and ending in mineralization at 350 metres
- UDH-53: 2 metres of 24.9 g/t gold within 27 metres of 3.5 g/t gold, beginning 248 metres downhole

Together with the Bayan Khundii deposit and Dark Horse prospect, results from drilling at Ulaan Southeast demonstrate the potential scale of mineralization within the nearly 4,000-hectare Khundii-Ulaan Hydrothermal system, which extends from Ulaan over 10 kilometres to the northeast onto the Khundii license.

Furthermore, the central and northern portion of the Ulaan license hosts a porphyry copper prospect primarily based on a broad (5km by 4km) zone of phyllic (quartz-sericite-pyrite) alteration at surface, with characteristics thought to be related to a porphyry intrusion at depth. Rock chip and stream sediment geochemical sampling identified anomalous concentrations of gold, copper and molybdenum in the surrounding area, and geophysical surveys have produced a number of follow-up targets for deeper drilling.

<u>Altan Nar</u>

The Altan Nar deposits are located on EM's 4,669-hectare Altan Nar mining license, 16 kilometres northwest of Bayan Khundii. The AN mining license was received on March 5, 2020 and is valid for an initial 30-year term with a provision to renew the license for two additional 20-year terms. The license hosts 18 mineralized (gold, silver, lead, zinc) target areas within a 5.6 by 1.5-kilometre mineralized corridor. Two of the early discoveries, Discovery Zone ("DZ") and Union North ("UN"), host wide zones of high-grade, near-surface mineralization, and are the focus of a Resource Estimate released in Q2 2018.

Altan Nar is an intermediate sulphidation, carbonate base-metal gold ("CBMG") deposit with similarities to prolific gold deposits such as Barrick Gold's Porgera mine (Papua New Guinea), Rio Tinto's formerly producing Kelian mine (Indonesia), Lundin Gold's Fruta Del Norte deposit (Ecuador), and Continental Gold's Buritica project (Colombia). CBMG deposits generally occur above porphyry intrusions in arc settings and may extend for more than 500 metres vertically.

Altan Nar received limited drilling over the past few years as the EM's resources were focused on the Bayan Khundii discovery. In late Q4 2019, the Company drilled five holes totaling 667 metres in DZ. Four holes tested the high-grade core area of the Discovery Zone, over a 130-metre strike length, 70 metres of which remains untested by drilling ("Gap Zone"). The fifth hole tested the southern extension of the deposit. Results from the 2019 program, including the intersection of 45.7 g/t gold, 93.4 g/t silver, 1.54% lead and 3.40% zinc over 7 metres beginning at approximately 70 metres vertical depth, within 23 metres grading 17 g/t gold, are amongst the strongest to date. Many of the 2019 high-grade intersections are locally outside or in areas of previously low-grade resource blocks and therefore expand the DZ high-grade core indicating consistency in high-grade mineralization within the identified ore horizon. These results are expected to positively impact the resource at Altan Nar and open the way for further expansion along strike and elsewhere in the district. The program also demonstrated continuity of anomalous gold and base metals along the structural corridor to the south of the DZ, which will be tested further in upcoming programs.

Zuun Mod

In late 2021, Erdene initiated a review of its Zuun Mod project, one of Asia's largest undeveloped molybdenumcopper deposits. The review included an assessment of resource growth opportunities and the completion of a conceptual project assessment by RPMGlobal. RPM's work suggested a large, long-life, low-strip mining operation at then current resource prices. The potential growth opportunities are significant with the molybdenum deposit remaining open in all directions and multiple satellite targets for both molybdenum and copper within the 16 km circumference alteration area.

In May 2023, the Company completed a 4,100-metre drill program at this property. Results from multiple drill holes along the current resource boundary expanded mineralization and intersections within the core of the deposit exceeded the average block grades in the vicinity. Additionally, the discovery of resource-grade mineralization in an exploration hole 1.7 kilometres north of the deposit further demonstrates the upside potential of this large copper-molybdenum porphyry complex, which remains open in all directions. Erdene will complete further market, technical and economic studies in the coming months, building upon a conceptual assessment of the project completed by RPMGlobal in late 2021.

During Q2 2024, a new gold prospect was discovered 4.5 kilometres west of the Zuun Mod molybdenum-copper deposit on the license. Surface sampling returned gold mineralization up to 3.2 g/t gold, contained within a series of steeply dipping, east-west trending sheeted quartz veins, and iron oxide stockworks. Mineralized quartz veins reaching thicknesses of 20 centimetres have been mapped up to 500 metres along strike. The new gold prospect area is currently focused within an approximate 500-metre x 500-metre area, but expansion is likely as the sheeted vein targets remain open in all directions. A total of 31 samples were collected in the second quarter, with 20 samples returning anomalous gold.

With molybdenum prices approximately doubling since late 2022, and copper prices forecast to remain strong, unlocking the value of the Zuun Mod project, as well as the Khuvyn Khar copper-silver prospect located on the license, is a priority.

Financing

The Corporation's activities have been financed through the issuance and sale of securities of the Corporation by way of private placement, asset sale, royalty sale, investments, its initial public offering in March 2004, joint venture funding, and convertible and conventional debentures.

The Corporation raised approximately C\$14 million through non-brokered private placements during 2022. On August 4, 2022, the Corporation closed a C\$7 million equity financing, by way of a non-brokered private placement. The Corporation completed another C\$7 million equity financing, also by way of a non-brokered private placement on December 22, 2022. Mr. Eric Sprott, the Corporation's largest equity holder, participated in both financings, and currently holds 19% of the Corporation's outstanding equity.

On January 10, 2023, Erdene entered a Strategic Alliance with MMC where MMC agreed to invest a total of US\$40 million for a 50% interest in EM. This investment was structured as a series of promissory notes that were converted into an equity interest in EM on January 23, 2024, through the issuance of new shares in EM. Erdene retains a 50% equity interest in EM and a 5.0% Net Smelter Return royalty on production from the Khundii, Altan Nar and Ulaan licenses, as well as any properties acquired within five kilometres of these licenses, beyond the first 400,000 ounces gold recovered. Following the issuance of these shares, Erdene retains significant influence over EM, but no longer controls this investment. With the loss of control, the Corporation's investment in EM is reported as an investment in associate and the equity method of accounting will be applied.

On February 8, 2024, Erdene announced the execution of debt finance agreements for up to US\$80 million with MMC to fund construction of the Bayan Khundii Gold Project. The financing has been structured as a shareholder loan from MMC to EM, the entity that holds the Bayan Khundii mining license, as well as the Altan Nar mining license and Ulaan exploration license (the "Shareholder Loan"). The Shareholder Loan is for up to US\$50 million, and may be drawn in up to five tranches, in multiples of at least US\$5 million. The loan will mature five years from the date of first draw, and accrue interest at a rate of 13.8%, paid quarterly in arrears. EM has the option to capitalize the first four interest payments. The loan will be repayable in full upon maturity. A further US\$30 million, under the same terms, is available at MMC's discretion. As at December 31, 2024, EM has drawn US\$49 million of the Shareholder loan, and the balance outstanding was US\$52 million due to the capitalization of interest.

The Shareholder Loan is secured by a 50% guarantee by Erdene and Erdene's interests in the Bayan Khundii Gold Project, including its shares of EM and NSR interest, as well as preferential rights over the Khundii, Altan Nar and Ulaan licenses. For so long as the loan is outstanding, MMC will be granted priority voting rights under the Strategic Alliance agreement between the parties and a right of first refusal over Erdene's Zuun Mod project. Additionally, Erdene has the right to purchase 50% of the loan and participate as a lending shareholder on the same terms as MMC.

On December 4, 2024 EM executed financing documents with the Trade and Development Bank of Mongolia ("TDB") for a facility to commission the Bayan Khundii Gold Project. The up to US\$50 million facility has a term of 24 months, and will be repayable through six equal payments during the final six months of the loan term. The facility will bear interest at a rate of 13.3% per annum and is secured by Bayan Khundii's process plant assets. As at December 31, 2024, EM has drawn US\$20 million of the facility.

Expected Changes to the Business

As of the date of this AIF, management of the Corporation does not expect any further material changes to the business; however, as is typical of the mineral exploration and development industry, from time-to-time Erdene reviews potential merger, acquisition, investment and joint venture transactions and opportunities that could enhance shareholder value. Furthermore, there can be no assurance that the results of exploration or development programs planned or underway will not result in material changes to the scientific and technical information contained herein. Accordingly, readers of this AIF are urged to read the press releases issued by Erdene once they become available on SEDAR+, for full and up-to-date information concerning the Corporation's business and its material exploration property interests.

Significant Acquisitions

Erdene did not make any significant acquisitions during the financial year ended December 31, 2024, that would require the Corporation to file a Form 51-102F4 Business Acquisition Report under Part 8 of National Instrument 51-102 - Continuous Disclosure Obligations ("**NI 51-102**").

DESCRIPTION OF THE BUSINESS

The primary business of the Corporation is the acquisition, exploration and development of precious and base mineral deposits in underexplored and highly prospective Mongolia.

Erdene's deposits are located in the Trans Altai Terrane, within the Central Asian Orogenic Belt (**"CAOB**"), 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-1990's, when the country opened to foreign investment. Since that time, exploration in southeast Mongolia led to the discovery of the world-class Oyu Tolgoi gold-copper deposit. Erdene has been the leader in exploration in Mongolia's southwest and is responsible for the discovery of the Khundii Minerals District.



In January 2023, Erdene entered a Strategic Alliance with MMC, to develop the Bayan Khundii Gold Project, which closed in January 2024, as described above. In August 2023, Erdene announced the positive results of an updated Bankable Feasibility Study for the Bayan Khundii Gold Project, held by its associate EM and in early 2024 a formal construction decision was reached for the Project. At the end of 2024, construction of the Bayan Khundii Gold Project was approximately two-thirds complete, with the process plant, the critical path facility, 67% constructed. All major mechanical equipment is installed and construction of non-process infrastructure is proceeding well. Construction is expected to be completed in Q2-2025 and first gold is scheduled for Q3-2025.

While focused on the Bayan Khundii Gold Project, Erdene continues to explore the broader KMD. The KMD hosts the full spectrum of arc-related base and precious metal systems, including copper-molybdenum porphyries, intermediate sulphidation/carbonate base metal gold deposits, and low sulphidation epithermal gold and gold-silver systems. In late 2020, EM intersected high-grade gold in multiple holes at its Dark Horse prospect, 3.5 km north of Bayan Khundii. Since that time, the Company has defined a 1.5 km mineralized trend, Dark Horse Mane, 2.4 km north of Bayan Khundii, that remains open along strike and at depth. Additionally, drilling in the southern portion of EM's Ulaan license in 2021 led to a new discovery, with subsequent drilling returning the thickest intervals of gold mineralization intercepted in the KMD to date, including exceptionally high-grade zones, and remains open at depth and to the west.

Concurrently, Erdene is progressing its Zuun Mod project, one of Asia's largest undeveloped molybdenum-copper deposits. In 2023 the Company completed a 4,100-metre drill program, where multiple drill holes along the current resource boundary expanded mineralization. Additionally, the discovery of resource-grade mineralization in an exploration hole 1.7 kilometres north of the deposit demonstrates the upside of this large porphyry complex, which remains open in all directions. Surface sampling work in mid-2024 identified a new gold prospect on the license, 4.5 kilometres west of the Zuun Mod molybdenum-copper deposit.

THE CORPORATION'S OBJECTIVES AND STRATEGY

Erdene is focused on creating shareholder value through the discovery, acquisition and development of high-quality, base and precious metal projects in regions where the Company has a competitive advantage. The following forms the basis of the Corporation's strategy:

Geographic and Commodity Focus

- The CAOB contains highly prospective terranes for the discovery of base and precious metal deposits. The CAOB trends across the southern portion of Mongolia.
- Due to its relative isolation prior to 1990, Mongolia did not receive significant modern exploration, particularly in the remote southern part of the country, which has the potential for the discovery of world-class deposits.
- Over the past 20 years, economic growth in China and the related interest in resource development has fueled mineral exploration and development in southern Mongolia leading to a build-up of infrastructure in the southern part of the country.
- Mongolia hosts the world-class Oyu Tolgoi gold-copper deposit. This project is now in production along with several other precious, base metal and coal deposits, resulting in the development of an experienced workforce and significant upgrade of local infrastructure.
- Erdene's founders were members of the first western-financed team to carry out regional exploration in Mongolia during the mid to late 1990's.
- The Corporation has an experienced in-country management team with strong relationships at all levels in Mongolia, and a proven ability to discover precious and base metal deposits in the region.
- Precious metals (gold and silver) are priority commodities for the Corporation based on opportunities in the region and supply and demand factors which support future price increases:
 - Central bank precious metal purchases historically increase in periods of economic uncertainty and rising sovereign debt levels;
 - Individual investor demand is influenced by geopolitical and economic instability, population growth and urbanization and wealth creation in the largest gold consuming regions; and
 - Gold production is plateauing as the discovery and development of large deposits becomes increasingly difficult and those that are found are of rapidly declining grade.
- The Corporation's precious metals exploration is focused on large, high-grade bulk tonnage, open-pit mineable resources with modest processing costs.
- Copper remains the Corporation's highest priority industrial metal due to supply issues facing the sector and increasing demand resulting from the urbanization of the world's population.
- The Corporation's Zuun-Mod Molybdenum project will be a focus in the coming years given the improving local infrastructure and a significant rise in the price of this commodity over the past two years.

Project and Corporate Plans

The Corporation has defined a new minerals district and is advancing its exploration and development projects to production. Concurrently, Erdene continues to explore gold and copper prospects in the region to create additional stakeholder value.

The Corporation is focused on the following near and long-term goals:

• Complete construction and commissioning of the Bayan Khundii Gold Project and produce at least 80,000 ounces per year with MMC through the Strategic Alliance;

- Expand production at the Bayan Khundii Gold Project to more than 150,000 ounces per year with the identification of additional on-license resources focusing on the Greater Dark Horse and Ulaan prospects adjacent to the Bayan Khundii deposit, and Altan Nar through the Strategic Alliance;
- Carry out further exploration on the Ulaan license to determine the extent of mineralization at this property;
- Participate in tenders for high priority targets released by Mongolia's Ministry of Mining and Heavy Industry;
- Maintain a pipeline of opportunities by exploring current properties and acquiring new projects;
- Continue to develop management, technical, administrative and community development teams; and
- Secure a partner for the Zuun Mod Molybdenum-Copper Project with the financial and technical capability to move towards development.

Social and Environmental Policies

Erdene is committed to improving the lives of those who work for, partner with and host the Corporation in their communities. The Corporation prioritizes hiring locally and supports local community development projects.

Erdene's local cooperation activities are driven by a philosophy of capacity building, particularly in rural southwest Mongolia. The Corporation prioritizes funding for education, health, livelihoods and environmental protection. Erdene employs dedicated personnel for health, safety, environmental and community relations who work directly with community members, local government officials, and other stakeholders in the areas within which the Corporation operates.

Mongolia has a unique ecology and landscape, and the Corporation is committed to identifying and managing the potential impacts of its activities on the environment. Our objective is to implement industry best practices in environmental management. The Corporation files an annual environmental protection and reclamation plan with the Governor of each district in which it operates and works to ensure those plans exceed requirements.

In February 2016, the Corporation joined seven other mining and exploration companies working in Mongolia in signing a voluntary Code of Practice related to water resources management, facilitated by the International Finance Corporation. The initiative was supported by the Government of Canada, among others. The Code of Practice requires mining companies to publicly report water risks and management practices, support training and awareness-raising on groundwater protection, and involve impacted communities in monitoring a mining company's water performance.

In support of the Bayan Khundii Gold Project development, Erdene completed a comprehensive Environmental and Social Impact Assessment. Prepared by Sustainability East Asia, LLC, the ESIA concluded that given the project's modest initial scale and commitment to industry leading avoidance and mitigation measures, the project's benefits are expected to outweigh the low and moderate residual potential impacts from the operations. A copy of the full ESIA is available on the Corporation's website. The Mongolian statutory Detailed Environmental Impact Assessment for the Project was approved by the Mongolian Ministry of Environment and Tourism in late November 2021.

Competitive Conditions

The Corporation's business is intensely competitive, and the Corporation competes with other exploration, development, and mining companies, many of which have greater resources and experience. As described in this AIF, under "Risk Factors", competition in the precious metals mining industry is primarily for mineral rich properties which can be developed and operated economically and the capital for the purpose of financing development of desired properties.

In addition, this competition may impact the Corporation's ability to recruit or retain qualified employees with the technical expertise to find, develop, or operate such properties. Erdene believes that its success is dependent on the performance of its management and key employees, many of whom have specialized knowledge and skills relating to the precious metals exploration business. The Corporation believes it has adequate personnel with the specialized skills required to successfully carry out its operations.

Employees

The Corporation employed six (full and part-time) Canadian employees at the end of 2024, with three of these employees typically splitting time between Canada and Mongolia. The Corporation had a further 11 (full and part-time) employees in Mongolia at the end of 2024.

RISK FACTORS

An investment in securities of the Corporation involves a significant degree of risk and must be considered highly speculative due to the nature of the Corporation's business and the present stage of exploration and development of its mineral property interests. There are a number of risks that may have a material and adverse impact on the future operating and financial performance of Erdene and could cause the Corporation's operating and financial performance to differ materially from the estimates described in forward-looking statements related to the Corporation.

The risks set out below are not the only risks facing the Corporation. There are widespread risks associated with any form of business and specific risks associated with Erdene's business and its involvement in the gold exploration and development industry.

Resource exploration and development is a speculative business, characterized by a number of significant risks including, among other things, unprofitable efforts resulting not only from the failure to discover mineral deposits but also from finding mineral deposits, which, though present, are insufficient in quantity or quality to return a profit from production. **Shareholders of Erdene may lose their entire investment.**

In addition to the other information set forth elsewhere in this AIF, the following risk factors should be carefully reviewed by prospective investors. These risks may not be the only risks faced by Erdene. Risks and uncertainties not presently known by Erdene, or which are presently considered immaterial may also adversely affect Erdene's business, properties, results of operations and/or condition (financial or otherwise). **If any of the following risks actually occur, Erdene's business, financial condition, results and prospects could be adversely affected.**

Additional risks and uncertainties not presently known to Erdene or those that are currently deemed immaterial may also impair the Corporation's business operations. If any such risks actually occur, the business, financial condition and operating results of the Corporation could be materially harmed. All references to "Erdene" or the "Corporation" in this section entitled "Risk Factors" include Erdene and its subsidiaries and joint ventures, except where the context otherwise requires. Before making an investment decision, prospective investors should carefully consider the risks and uncertainties herein, as well as the other information contained in the Corporation's public filings.

Mongolia is still considered to be an emerging market. Many of the Risk Factors identified in this AIF reflect risks and characteristics unique to operating in an emerging market.

Risks Inherent in the Nature of Mineral Exploration and Development

Development of the Corporation's mineral exploration properties is contingent upon obtaining satisfactory exploration results. Mineral exploration and development involves substantial expenses and a high degree of risk, which even a combination of experience, knowledge and careful evaluation may not be able to adequately mitigate. The degree of risk increases substantially when an issuer's properties are in the exploration phase as opposed to the development phase. There is no assurance that commercial quantities of ore will be discovered on any of the Corporation's exploration properties. There is also no assurance that, even if commercial quantities of ore are discovered, a mineral property will be brought into commercial production.

The discovery of mineral deposits is dependent upon a number of factors, not the least of which is the technical skill of the exploration personnel involved. The commercial viability of a mineral deposit, once discovered, is also dependent upon a number of factors, some of which are the particular attributes of the deposit, such as size, grade and proximity to infrastructure, metal prices and government regulations, including regulations relating to royalties, allowable production, importing and exporting of minerals, and environmental protection. In addition, assuming discovery of a commercial ore body, depending on the type of mining operation involved, years may elapse from the initial phase of drilling until commercial operations are commenced. Most of the above factors are beyond the control of the Corporation.

All phases of the mineral exploration and development activities of the Corporation are subject to various laws governing prospecting, development, production, taxes, labour standards and occupational health, mine safety, toxic substances and other matters. Mining and exploration activities are also subject to various laws and regulations relating to the protection of the environment. Although the Corporation believes that its exploration and development activities are currently carried out in accordance with all applicable rules and regulations, no assurance can be given that new rules and regulations will not be enacted or that existing rules and regulations will not be applied in a manner that would limit or curtail production or development. Amendments to current laws and regulations governing the

operations and activities of the Corporation or more stringent implementation thereof could have a substantial adverse impact on the Corporation. In the context of environmental permitting, including the approval of reclamation plans, the Corporation must comply with known standards, existing laws and regulations which may entail greater or lesser costs and delays depending on the nature of the activity to be permitted and how stringently the regulations are implemented by the permitting authority. The Corporation is not aware of any material environmental constraint affecting the Bayan Khundii Gold Project that would preclude the economic development or operation of the Bayan Khundii Gold Project.

Reserve and Resource Estimates May Prove to be Incorrect

Disclosed reserve and mine life estimates for the Bayan Khundii Gold Project should not be interpreted as assurances of mine life or of the profitability of current or future operations. The Corporation estimates and reports mineral reserves and resources in accordance with the requirements of the applicable Canadian securities regulatory authorities and industry practice.

The United States Securities and Exchange Commission ("SEC") does not permit mining companies in their filings with the SEC to disclose estimates other than mineral reserves. However, because this document has been prepared in accordance with Canadian disclosure requirements, this document also incorporates estimates of mineral resources. Mineral resources are concentrations or occurrences of minerals that are judged to have reasonable prospects for economic extraction, but for which the economics of extraction cannot be assessed, whether because of insufficiency of geological information or lack of feasibility analysis, or for which economic extraction cannot be justified at the time of reporting. Consequently, mineral resources are of a higher risk and are less likely to be accurately estimated or recovered than mineral reserves.

Bayan Khundii's mineral reserves and resources are estimated by persons who are "independent" for purposes of applicable securities legislation.

The mineral reserve and resource figures included or incorporated in this document by reference are estimates based on the interpretation of limited sampling and subjective judgments regarding the grade, continuity and existence of mineralization, as well as the application of economic assumptions, including assumptions as to operating costs, production costs, mining and processing recoveries, cut-off grades, long-term commodity prices and, in some cases, exchange rates, inflation rates and capital costs. As a result, changes in estimates or inaccuracy of estimates may affect our reserves and resources.

The sampling, interpretations or assumptions underlying any reserve or resource estimate may be incorrect, and the impact on reserves or resources may be material. Should the mineralization and/or configuration of a deposit ultimately turn out to be significantly different from that currently envisaged, or should regulatory standards or enforcement change, then the proposed mining plan may have to be altered in a way that could affect the tonnage and grade of the reserves mined and rates of production and, consequently, could adversely affect the profitability of the mining operations. In addition, short term operating factors relating to the reserves, such as the need for orderly development of ore bodies or the processing of new or different ores, may cause reserve and resource estimates to be modified or operations to be unprofitable in any particular fiscal period.

There can be no assurance that the Corporation's projects or operations will be, or will continue to be, economically viable, that the indicated amount of minerals will be recovered or that they will be recovered at the prices assumed for purposes of estimating reserves. The Corporation is still engaged in exploration on its material properties in order to determine if any additional economic deposits exist thereon. The Corporation may expend substantial funds in exploring some of its properties only to abandon them and lose its entire expenditure on the properties if no commercial or economic quantities of minerals are found. Even if commercial quantities of minerals are discovered, the exploration properties might not be brought into a state of commercial production. Finding mineral deposits is dependent on a number of factors, including the technical skill of exploration personnel involved.

The Actual Cost of Developing the Bayan Khundii Gold Project May Differ Materially from the Corporation's Estimates, and Development May Involve Unexpected Delays or Problems

Estimates regarding the cost of development and operation of the Bayan Khundii Gold Project are estimates only and are based on the assumptions and analyses of independent consultants and EM's management in light of their experience and perception of historical trends, current conditions and expected future developments, as well as other factors management believes are appropriate in the circumstances. These estimates and the assumptions upon which they are based are subject to a variety of risks and uncertainties and other factors that could cause actual expenditures

to differ materially from those estimated. If these estimates prove incorrect, the total capital expenditures required to complete development of the Bayan Khundii Gold Project may increase, which may have a material adverse impact on the Corporation, its results of operations, financial condition and share price. Specifically, the estimated schedule and cost for the completion of the Bayan Khundii Gold Project development, may differ materially from what was announced as part of the Bayan Khundii Feasibility Study.

Liquidity Concerns and Future Financings

The further development and exploration of the various mineral properties in which the Corporation holds interests depends upon the Corporation's ability to obtain financing through debt financing, equity financing or other means. There is no assurance that the Corporation will be successful in obtaining required financing as and when needed, including the financing required for the completion of construction of the Bayan Khundii Gold Project. Volatile markets for precious and base metals may make it difficult or impossible for the Corporation to obtain debt financing or equity financing on favourable terms or at all. The Corporation's operations are in a region of the world that has been prone to economic and political upheaval, which may make it more difficult for the Corporation to obtain debt financing from project lenders. Failure to obtain additional financing on a timely basis may cause the Corporation to postpone any development plans, forfeit rights in some or all of its properties or joint ventures or reduce or terminate some or all of its operations.

Mongolian Legal Environment

Since 1990, Mongolia has been in transition from state socialism and a planned economy to a political democracy and a free market economy. Much progress has been made in this transition, but much progress remains to be made, particularly with respect to the rule of law. Many laws have been enacted, but in many instances, they are not well understood or enforced. For decades Mongolians have looked to politicians and bureaucrats as the sources of the "law". This has changed in theory, but often not in practice. With respect to most day-to-day activities in Mongolia, government civil servants interpret the law. This situation is gradually changing but at a relatively slow pace. Laws may be applied in an inconsistent, arbitrary and unfair manner and legal remedies may be uncertain, delayed or unavailable.

As a sign of improving legal environment for investment, Canada and Mongolia signed the Canada-Mongolia Foreign Investment Promotion and Protection Agreement (FIPA) on September 8, 2016, which will provide a more transparent and predictable regulatory environment for Canadian investors in Mongolia. On March 7, 2017, Canada's Minister of International Trade, François-Philippe Champagne, officially announced the entry into force of the FIPA.

The ability of the Corporation to conduct mining operations or exploration and development activities in Mongolia is subject to changes in legislation or government regulations or shifts in political attitudes beyond its control.

Licenses, Leases and Permits

The Corporation has investigated its rights to explore and exploit its various properties and, to the best of its knowledge, those rights are in good standing, but no assurance can be given that such rights will not be revoked, or significantly altered, to the detriment of the Corporation. There can also be no assurance that the Corporation's rights will not be challenged or impugned by third parties.

The exploration and mining licenses held by the Corporation and its subsidiaries and associates are subject to periodic renewal. While the Corporation anticipates that renewals will be given as and when sought, there is no assurance that such renewals will be given as a matter of course and there is no assurance that new conditions will not be imposed in connection therewith. The Corporation's business objectives may also be impeded by the costs of holding its mineral licenses. License fees in Mongolia for mineral exploration licenses increase substantially upon renewal. The Corporation will need to continually assess the potential of each mineral exploration license, particularly when it must be renewed, to determine if the costs of maintaining the mineral exploration license are justified by the exploration results to date and will likely need to let some of its mineral exploration licenses lapse.

Lack of Infrastructure

The properties held by the Corporation and EM are located in remote areas which lack basic infrastructure, including sources of power, water, housing, food and transport. The Corporation and EM will need to hire personnel, establish facilities and otherwise establish an exploitation infrastructure before it can commence operations. The Corporation and EM will also need to engage expatriate workers where there is a shortage of locally trained personnel. In addition, the Corporation and EM will need to establish the facilities and material necessary to support operations in the remote

locations in which the Corporation's exploration properties are situated. The inability to make suitable arrangements may delay the conduct of exploration/exploitation program and prevent the Corporation from meeting its stated business objectives. The remoteness of certain of the exploration properties will also affect the potential viability of mining operations, as the Corporation and EM will also need to establish substantially greater sources of power, water, physical plant and transport infrastructure in the area before it could conduct mining. The unavailability of such sources may adversely affect mining feasibility and will, in any event, require the Corporation or EM to arrange significant financing, locate adequate supplies and obtain necessary approvals from national, provincial and regional governments, none of which can be assured.

Uninsurable Risks

The Corporation may become subject to liability for accidents, pollution and other hazards against which it cannot insure or against which it may elect not to insure because of premium costs or for other reasons, or in amounts which exceed policy limits. The impact of any uninsured liabilities would likely have a material adverse effect on the financial position of the Corporation.

Currency Risk

The Corporation's operations incur most expenditures in the local currency of Mongolia ("MNT") and in U.S. dollars, while most of the funds it historically raised are Canadian dollars. This renders the Corporation subject to foreign currency fluctuations which may materially affect its financial position and operating results.

Volatile Minerals Prices

The mining industry is intensely competitive and there is no assurance that, even if commercial quantities of a mineral resource are discovered, a profitable market will exist for the sale of the same. There can be no assurance that metals and other minerals prices will be such that the Corporation's properties can be mined at a profit. Factors beyond the control of the Corporation may affect the marketability of any minerals discovered. Minerals prices are subject to volatile price changes from a variety of factors including international economic and political trends, expectations of inflation, global and regional demand, currency exchange fluctuations, interest rates and global or regional consumption patterns, speculative activities and increased production due to improved mining and production methods. The supply of, and demand for, the Corporation's principal exploration targets, precious and base metals, is affected by various factors, including political events, economic conditions and production costs.

Environmental and Regulatory Requirements

The Corporation's operations are subject to environmental regulations in the various jurisdictions in which it operates. Environmental legislation is evolving in a manner which will require stricter standards and enforcement, increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and a heightened degree of responsibility for companies and their officers, directors and employees. There is no assurance that future changes in environmental regulation, if any, will not adversely affect the Corporation's operations.

Government approvals and permits are required in connection with the Corporation's operations. To the extent such approvals are required and not obtained, the Corporation may be delayed or prohibited from proceeding with planned exploration or development of its mineral properties.

Amendments to current laws, regulations and permits governing operations and activities of mining companies, or more stringent implementation thereof, could have a material adverse impact on the Corporation and cause increases in capital expenditures or require abandonment or delays in development of new mining properties.

Key Personnel

Recruiting and retaining qualified personnel is critical to the Corporation's success. The number of persons skilled in the acquisition, exploration and development of mining properties is limited and competition for such persons is intense. As the Corporation's business activity grows, it will require additional key financial, administrative, mining, marketing and public relations personnel as well as additional staff on the operations side. Although the Corporation believes that it will be successful in attracting and retaining qualified personnel, there can be no assurance of such success.

Political Instability

The Corporation holds mineral interests in Mongolia that may be affected in varying degrees by political instability, government regulations relating to the mining industry and foreign investment therein, and the policies of other nations

in respect of Mongolia. Any changes in regulations or shifts in political conditions are beyond the control of the Corporation and may adversely affect its business. The Corporation's operations may be affected in varying degrees by government regulations, including those with respect to restrictions on the mining industry generally, production, price controls, export controls, currency controls, income taxes, expropriation of property, employment, land use, water use, environmental legislation and mine safety. The regulatory environment is in a state of continuing change, and new laws, regulations and requirements may be retroactive in their effect and implementation. The Corporation's operations may also be affected in varying degrees by political and economic instability, economic or other sanctions imposed by other nations, terrorism, military repression or adventurism, civil unrest, crime, extreme fluctuations in currency exchange rates and high inflation.

Conflict of Interest

Certain of the directors and officers of the Corporation are directors or officers of, or have significant shareholdings in, other mineral resource companies and, to the extent that such other companies may participate in ventures in which the Corporation may participate, the directors of the Corporation may have a conflict of interest in negotiating and concluding terms respecting the extent of such participation. Such other companies may also compete with the Corporation for the acquisition of mineral property rights. In the event that any such conflict of interest arises, a director or officer who has such a conflict is required to disclose the conflict to a meeting of the directors of the Corporation and, if the conflict involves a director, the director is required to abstain from voting for or against the approval of such a participation or such terms. In appropriate cases, the Corporation will establish a special committee of independent directors to review a matter in which several directors, or management, may have a conflict.

Inherent Risks

Mining operations are subject to hazards normally encountered in exploration, development and production. These include unexpected geological formations, rock falls, flooding, dam wall failure and other incidents or conditions which could result in damage to plant or equipment or the environment and which could impact production throughput. Although it is intended to take adequate precautions to minimize risk, there is a possibility of a material adverse impact on the Corporation's operations and its financial results.

Competition

Significant and increasing competition exists for mineral acquisition opportunities throughout the world. As a result of this competition, some of which is with large, better established mining companies with substantial capabilities and greater financial and technical resources, the Corporation may be unable to acquire rights to explore additional attractive mining properties on terms it considers acceptable. Accordingly, there can be no assurance that the Corporation will acquire any additional exploration properties.

Information Systems and Cyber Security

The Corporation's operations depend on information technology ("IT") systems. These IT systems could be subject to network disruptions caused by a variety of sources, including computer viruses, security breaches and cyberattacks, as well as disruptions resulting from incidents such as cable cuts, damage to physical plants, natural disasters, terrorism, fire, power loss, vandalism and theft. The Corporation's operations also depend on the timely maintenance, upgrade and replacement of networks, equipment, IT systems and software, as well as pre-emptive expenses to mitigate the risks of failures. Any of these and other events could result in IT system failures, delays and/or increase in capital expenses. The failure of IT systems or a component of information systems could, depending on the nature of any such failure, adversely impact the Corporation's reputation and results of operations. Although to date the Corporation has not experienced any material losses relating to cyber-attacks or other information security breaches, there can be no assurance that the Corporation will not incur such losses in the future. The Corporation's risk and exposure to these matters cannot be fully mitigated because of, among other things, the evolving nature of these threats. As a result, cyber security and the continued development and enhancement of controls, processes and practices designed to protect systems, computers, software, data and networks from attack, damage or unauthorized access remain a priority. As cyber threats continue to evolve, the Corporation may be required to expend additional resources to continue to modify or enhance protective measures or to investigate and remediate any security vulnerabilities.

Economic Volatility and Production and Development Costs

Risks related to global economic instability, including global supply chain issues, inflation and fuel and energy costs may affect our business.

The volatile global economic environment has created market uncertainty and volatility recently. This global economic uncertainty has negatively affected the mining and minerals sectors in general. Many industries, including the mining industry, are impacted by these market conditions. Global financial conditions remain subject to sudden and rapid destabilizations in response to economic shocks. A slowdown in the financial markets or other economic conditions including but not limited to global supply chain issues, inflation, fuel and energy costs, business conditions, lack of available credit, the state of the financial markets, interest rates and tax rates, may adversely affect our growth. Future economic shocks may be precipitated by a number of causes, including events such as the Russian invasion of Ukraine), terrorism, pandemics, the devaluation and volatility of global stock markets and natural disasters. Any sudden or rapid destabilization of global economic conditions could impact our ability to obtain equity or debt financing in the future on terms favorable to us or at all. In such an event, our operations and financial condition could be adversely impacted.

Prices and availability of commodities and raw materials consumed or used in connection with exploration and development and mining, such as natural gas, diesel, oil and electricity, also fluctuate, and these fluctuations affect the costs of operations and could have a major impact on the Corporation's profitability. Changes in costs of the Corporation's mining and processing operations could occur as a result of unforeseen events, including international and local economic and political events, increased costs and scarcity of labour, and could result in changes in profitability or mineral reserve estimates. Many of these factors may be beyond the Corporation's control. These fluctuations can be unpredictable, can occur over short periods of time and may have a material adverse impact on our operating costs or the timing and costs of various projects.

Russia-Ukraine Conflict

As the conflict in Ukraine continues, the Corporation's business could be materially adversely affected by increased commodity prices and supply-chain disruptions. Oil and gas prices have been volatile over the past year due to the ongoing conflict and the escalating sanctions threatened or imposed by several nations against Russia and Russian oil and gas exports have added to global uncertainty. Given its geographic proximity, the majority of Mongolia's oil and gas is imported from Russia, which restricted deliveries of these products to the Country in late 2023. In the event that the Ukraine-Russia conflict escalates and expands to other nations, such a shift in the conflict could result in a global economic downturn that could adversely affect the Corporation's business. The Corporation cannot accurately predict the impact that the ongoing conflict in Ukraine will have on its financial position or operations.

Environmental, Social and Governance ("ESG")

The Corporation's relationships with the communities in which the Corporation operates are critical to ensuring the future success of existing operations and the construction and development of future projects. There is an increasing level of public interest worldwide relating to the perceived effect of mining activities on the environment and on communities impacted by such activities. Certain non-governmental organizations ("NGOs"), some of which oppose globalization and resource development, have at times become vocal critics and attempted to interfere with the mining industry and its practices, including the use of sodium cyanide and other hazardous substances in processing activities. Adverse publicity generated by such NGOs or others related to extractive industries generally, or their operations specifically, could have an adverse effect on the Corporation's reputation or financial condition and may impact the Corporation's relationship with the communities in which it operates. While the Corporation firmly believes that it operates in a socially responsible manner, there is no guarantee that the Corporation's efforts and investments in this respect will mitigate this potential risk.

Acquisitions, Joint Ventures and Other Business Arrangements

As part of the Corporation's business strategy, it has sought and will continue to seek new exploration and development opportunities in the mining industry through acquisitions, joint ventures or other business arrangements. Additionally, the Corporation may enter such arrangements to develop its current properties, such as the Strategic Alliance with MMC, which formally closed in January 2024.

In pursuit of such opportunities, it may fail to select appropriate acquisition or joint venture candidates, negotiate appropriate terms, conduct sufficient due diligence to determine all related liabilities or to negotiate favourable terms of arrangement. The Corporation cannot assure that it can complete any acquisition, joint venture or business arrangement that it pursues, or is pursuing on favourable terms, or that any acquisitions, joint ventures or business arrangements completed will ultimately benefit its business.

Any future acquisitions, joint ventures or other business arrangements would be accompanied by risks, such as a significant decline in the relevant metal price after the Corporation commits to an arrangement; the quality of the mineral deposit subject to the arrangement proving to be lower than expected; the difficulty of assimilating the operations and personnel of the companies party to an arrangement; the potential disruption of its ongoing business; the inability of management to realize anticipated synergies and maximize its financial and strategic position; the failure to maintain uniform standards, controls, procedures and policies; and the potential for unknown or unanticipated liabilities associated with acquired assets, joint venture interests and businesses, including tax, environmental or other liabilities. There can be no assurance that any business or assets, or any interests therein, acquired in or subject to a business arrangement will prove to be profitable, that the Corporation will be able to integrate the acquired businesses, assets or interests successfully or that the Corporation will identify all potential liabilities during the course of due diligence. Any of these factors could have a material adverse effect on its business, expansion, results of operations and financial condition.

Lawsuits and Litigation

The Corporation may be subject to various claims and legal proceedings, including adverse rulings in current or future litigation against it or its directors or officers. The outcome of these claims may be subject to uncertainty, and it is possible that some of these claims may be resolved unfavourably against the Corporation, which may result in a material adverse impact on the Corporation's financial performance, cash flow or results of operations. The Corporation carries liability insurance coverage and establishes reserves for matters that are probable and can be reasonably estimated; however, there can be no assurance that the amount of such coverage is sufficient to protect against all potential liabilities. In addition, the Corporation may be involved in disputes with other parties in the future that may result in litigation, which may have a material adverse impact on the Corporation's flow, profitability, operations and financial condition.

Public health crises, such as the COVID-19 pandemic, have affected the Corporation's business, and may do so in the future.

The Corporation's business, operations and financial condition have been, and in the future may be adversely, and possibly materially adversely, affected by the outbreak of epidemics or pandemics or other health crises.

In late January 2020, the Government of Mongolia instituted limitations on public gatherings, suspended in-person classroom learning, and implemented international border controls in response to COVID-19. The Canadian Government adopted similar measures in March 2020, as did most governments globally during 2020. With the first confirmed cases of community transmission of COVID-19 in November 2020, the Government of Mongolia further restricted the movement of people and the delivery of goods and services. While restrictions were eased in early 2021, precautionary measures were subsequently reintroduced in late Q1 2021 following an increase in the number of reported cases in Mongolia.

In March 2021, Bayankhongor Province, where Erdene's projects are located, reported its first confirmed case of community transmission of COVID-19, leading to the imposition of restrictions on the movement of people within and to/from the province. Furthermore, in late June 2021, Bayankhongor province and the sub-province of Shinejinst, the communities in which Erdene operates, imposed states of emergency due to worsening community spread of COVID-19 in the area. Although the Company temporarily halted field work in late June in response, Company staff and contractors returned to site in early August 2021 to commence follow-up exploration work, which has continued without interruption due to COVID since this date. Additionally, Canadian and International staff and consultants resumed travel to Mongolia in Q3 2021. On February 14, 2022, the Government of Mongolia fully reopened its borders to vaccinated international travelers, allowing the Company's staff and key contractors to travel to the Country with minimal disruption.

However, Mongolia saw disruptions at its land borders with China for much of 2022, given the latter's zero COVID policies. These disruptions impacted the availability and prices of industrial and consumer goods required for the construction of the Bayan Khundii Gold Project. With China's relaxation of its zero COVID policies in late 2022, trade between the two countries has returned to normal. However, at the present time, it is not possible to predict the duration, severity or scope of future public health crises, or to accurately predict or quantify the extent to which such crises will impact the Corporation. Such crises may affect, potentially materially, the Corporation's financial condition, liquidity, and future results of operations and outlook.

MINERAL PROPERTIES

The Corporation is involved in mineral exploration, evaluation and development in Mongolia where it holds interests in several projects at various stages of exploration through to development. Two of the Corporation's projects are considered material properties to the Corporation; the Bayan Khundii Gold Project and the Altan Nar Gold-Polymetallic Project. These projects are described below. The remaining properties of the Corporation are in a relatively early stage of development or on hold and are not material.

Bayan Khundii Gold Project

Except as otherwise stated herein, the following disclosure relating to the Bayan Khundii Gold Project is extracted from the technical report prepared by O2 Mining Limited for the Bayan Khundii Gold Project entitled "Bayan Khundii Gold Project Feasibility Study Update, NI 43-101 Technical Report", and has an effective date of August 15, 2023 and a report date of September 25, 2023 and was prepared in accordance with NI 43-101. The authors of the Bayan Khundii Feasibility Study Update are independent of Erdene and are independent "Qualified Persons" (as defined by NI 43-101). See in this AIF, "Interests of Experts".

Readers are directed to and encouraged to review the Bayan Khundii Feasibility Study Update, which can be reviewed in its entirety under the Corporation's profile on SEDAR+ at www.sedarplus.ca and which qualifies the following disclosure. The executive summary section of the Bayan Khundii Feasibility Study Update reproduced below directly from the Bayan Khundii Feasibility Study Update but is not exhaustive. The Bayan Khundii Feasibility Study Update is intended to be read as a whole, and sections should not be read or relied upon out of context. The Bayan Khundii Feasibility Study Update contains the expression of the professional opinion of the Qualified Persons based upon information available at the time of preparation of the Bayan Khundii Feasibility Study Update. The following disclosure, which is derived from the Bayan Khundii Feasibility Study Update, is subject to the assumptions and qualifications contained in such report. All capitalized terms used in the summary below that are not otherwise defined shall have the meanings ascribed thereto in the Bayan Khundii Feasibility Study Update.

EXECUTIVE SUMMARY

1.1 <u>Introduction</u>

Erdene Resource Development Corporation ("Erdene", or the "Company") commissioned O2 Mining Limited ("O2") to support and manage the technical reporting of a Feasibility Study ("FS" or "FS Report") in accordance with the Canadian National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") for their 100% owned Bayan Khundii Gold Project (the "Project"), which includes the BK Gold Deposit and the Dark Horse Mane Gold Deposit, located in Bayankhongor province, southwestern Mongolia. Technical works for this FS update Report were provided by a group of independent engineering and consulting firms with experience in Mongolia and globally. The effective date of the FS update is August 15, 2023 and is based on a Mineral Resource for the BK gold deposit with an effective date of April 20, 2023, and a Mineral Resource for the Dark Horse Mane gold deposit with an effective date of November 1, 2022, and includes an updated Mineral Reserve with an effective date of August 1, 2023.

The FS update envisions a high-grade, open-pit mine, beginning at surface in the southern portion of the BK gold deposit (Striker and Gold Hill), and expanding northward into adjacent zones at Midfield and North Midfield to a maximum depth of 155 meters. The Dark Horse deposit will commence mining concurrently with BK, from the third year of operations, to a maximum depth of 55 meters. Total mineable mineralized plant feed is 4 million tonnes at an average diluted head grade of 4 g/t gold and average strip ratio of 10.9:1 (waste tonne: plant feed tonne).

The development incorporates conventional crushing and grinding, leach and a Carbon in Pulp ("CIP") plant with processing capacity of 1,935 tonnes per day and a projected gold recovery of 93%. Total recovered gold over the life of the Project is 476,001 ounces and total recovered silver over the life of the Project is 121,278 ounces. Gold and silver will be produced as a doré and sold to the Bank of Mongolia at the daily spot price on the London Metals Exchange.

Based on current reserves, the development will operate for eight and a half years including a one-year pre-production period, six and a half year mining and processing period and one-year closure period. Prospective areas in the vicinity of the deposit and untested prospects on the Khundii mining license, and contiguous Ulaan exploration license, provide

significant opportunities to expand resources and extend the mine life. These areas are currently the focus of the Company's exploration work with drilling and technical studies underway to improve confidence for future development.

1.2 Key Study Outcomes

This section presents the outcomes of the mine plan and economic analysis completed for the Bayan Khundii FS update. The economic analysis represents forward-looking information that is subject to a number of known and unknown risks, uncertainties and other modifying factors that may cause actual results to differ materially from those presented. The material factors or assumptions used in the economic analysis and associated risks or uncertainties are fully described in Section 22 – Economic Analysis and Section 25 – Interpretations and Conclusions.

The results of the economic analysis, using base case parameters, are favorable for the Bayan Khundii Project. The Project's pre-tax Net Present Value at 5 % discount ("NPV^{5%}") is US\$245.0 million at the base gold price of US\$1,800 per ounce. The Project's post-tax NPV^{5%} at US\$1,800 per ounce of gold is US\$170.1 million. The Internal Rate of Return ("IRR") is 44.3% pre-tax and 35.3% post-tax. The payback period is expected to be 2.0 years pre-tax and 2.4 years post-tax.

The key study outcomes for the projected mine plan and economic results are presented in

Table **0-1**.

Table 0-1 Financial Results from the Bayan Khundii Economic Model

Cash Flow Summary (Based on US\$1,800/oz Gold; US\$23.62/oz Silver)						
Financial Results	Units	Amount	US\$/ounce ^[1]			
Processing Target	M Tonne	4.0	N/A			
Actual Feed / Au	g/tonne	4.0	N/A			
Actual Feed / Ag	g/tonne	1.7	N/A			
Doré Production						
Gold Ounces Produced	Ounces	476,001	N/A			
Payable Gold (99.85%)	Ounces	475,287	N/A			
Revenue	US\$ M	855.5	1,797.3			
Silver Ounces Produced	Ounces	121,278	N/A			
Payable Silver (99.85%)	Ounces	121,097	N/A			
Revenue	US\$ M	2.9	23.6			
Doré Selling Costs	US\$ M	-1.6	-3.4			
Net Project Revenue	US\$ M	856.8	1,800.0			
Operating Costs	US\$ M	-351.6	-738.7			
Royalties	US\$ M	-51.5	-108.2			
Real Estate Tax	US\$ M	-2.9	-6.1			

Operating Earnings	US\$ M	450.8	947.1
Initial Capital Expenditure	US\$ M	-100.4	-210.9
Sustaining Capital Expenditure	US\$ M	-3.7	-7.8
Environmental & Closure Costs	US\$ M	-6.8	-14.3
Salvage Value	US\$ M	2.0	4.2
Pre-Tax Cash Flows	US\$ M	341.9	718.3
Corporate Income Tax	US\$ M	-97.7	-205.3
Post-Tax Cash Flows	US\$ M	244.2	513.0
Result Summary			
Financial Results	Units	Amount	US\$/ounce ^[1]
Pre-Tax			
NPV ^{5%}	US\$ M	245.0	N/A
IRR	%	44.3	N/A
Payback Period	Year	2.0	N/A
	Year	2.0	N/A
	Year US\$ M	2.0	N/A N/A
Post-Tax			

Notes:

1. Amount per ounce is calculated based on gold ounces produced totaling 476,001 ounces.

2. Initial capital expenditure consists of construction indirect costs, construction direct costs, owners project costs, mobile equipment, and contingencies.

3. Totals may not add up due to rounding.

1.3 **Property Description and Location**

The Project is located in southwest Mongolia, approximately 980 km southwest of the Mongolian capital and 300 km south of the provincial capital, Bayankhongor City, as shown in Figure 1-1. The Project is situated within an emerging gold district that Erdene refers to as the Khundii Minerals District ("KMD"), which includes the BK and Dark Horse Mane gold deposits, as well as the Company's adjacent Ulaan exploration license, the Company's Altan Nar gold-polymetallic deposit and Zuun Mod copper-molybdenum deposit, and a collection of mineral occurrences at various stages of exploration.

The Project is 100% held by Erdene Mongol LLC, a wholly owned subsidiary of Erdene. The Project is located within the Khundii Mining License (MV-021444, 2,308.62 ha). Tenure of the Mining License has been confirmed as of the date of this FS Report. All permits have been obtained for ongoing exploration and technical field programs, along with all major permits for the Project construction works, including for the process plant. Permitting for the selected facilities and mine operations are planned in the course of the project development, consistent with legal requirements.

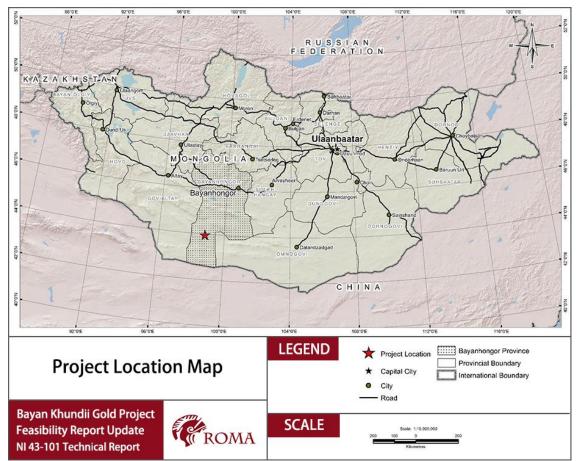


Figure 0-1 Location of the Project (Tetra Tech, 2019a)

1.4 Environmental Studies, Permitting and Social or Community Impact

Erdene has completed the following studies and executed the listed agreements for the Project in compliance with the applicable Mongolia regulations and Project standards:

- Environmental and Social Impact Assessment ("ESIA"): An independent ESIA for the Project has been prepared in accordance with the requirements of the European Bank of Reconstruction and Development and disclosed in June 2020.
- **Detailed Environmental Impact Assessment ("DEIA")**: An independent DEIA for the Project has been prepared and was approved by the Mongolian Ministry of Environment and Tourism in late 2021.
- **Local Cooperation Agreement**: The Company has executed a Local Cooperation Agreement with local governments pursuant to Article 42 of the Law on Minerals of Mongolia through the end of 2023.
- Annual Environmental Management Plan and Report: The Project remains in good standing with its annual environmental reporting requirements as of the date of this FS Report.
- **Hazardous Materials**: The Company has prepared its statutory risk assessment for hazardous materials as required in the Project DEIA. Formal application for hazardous materials permission, including for reagents and chemicals, such as cyanide, for the Project must be submitted subsequent to the construction and State commissioning of its facilities.

The Company has received all major permits for the Project development and commenced early site construction works in mid-2023. A water reserve for the purposes of mining and mineral processing at Bayan Khundii has been registered with the government. Application for water use permits must be submitted upon commissioning of the water supply system.

Baseline studies and impact assessments for the Project, which are documented in full in the ESIA and DEIA, have been completed for the potential impact domains of climate and air quality, noise and vibration, topography, landscape,

geology, soil and seismicity, surface water quality, hydrology and hydrogeology, biodiversity conservation, waste, population and demography economy and employment, land use, cultural heritage, occupational and community health, safety and security, and transport. Management plans have been created for each of these areas of potential impact.

Erdene consults with stakeholders in the course of its business, including both statutory and voluntary. The statutory consultations required under Mongolian law during the DEIA process were completed in 2020. The Local Cooperation Agreement also commits the Project to ongoing consultation with local stakeholders over the course of the Project life cycle.

Mine closure and reclamation will be performed in accordance with Mongolian regulations and guidelines. All buildings and facilities not identified for a post-mining use will be removed from the site during the salvage and site demolition phase. Mine closure costs have been estimated at US\$6.8 million. The conceptual mine closure plan (CMCP) for the Project will be reviewed and continually improved during the development and operations phases of the project. A statutory mine closure plan must be filed with the government three years prior to the planned completion of mine operations.

1.5 <u>Geology Setting and Mineralization</u>

The Project is located within the southeast part of the Trans Altai Terrane ("TAT", previously referred to as the Edren Terrane; Badarch et al., 2002). The Trans Altai is an island arc terrane within the Central Asian Orogenic Belt ("CAOB"), which extends more than 3,000 km from the Urals to the Pacific. This orogenic belt formed by the accretion of island arcs, ophiolites, ocean islands, seamounts, accretionary wedges and microcontinents similar to the Mesozoic-Cenozoic accretionary orogens of the Circum Pacific. The CAOB (Figure 1-2) is host to numerous porphyry copper and epithermal Au deposits of largely Devonian to Permian age (intrusions and/or ore; Yakubchuk et al., 2012; Wang et al., 2021). The closest known deposits of this type in Mongolia are those of the Oyu Tolgoi cluster, located ~700 km ESE of Bayan Khundii.

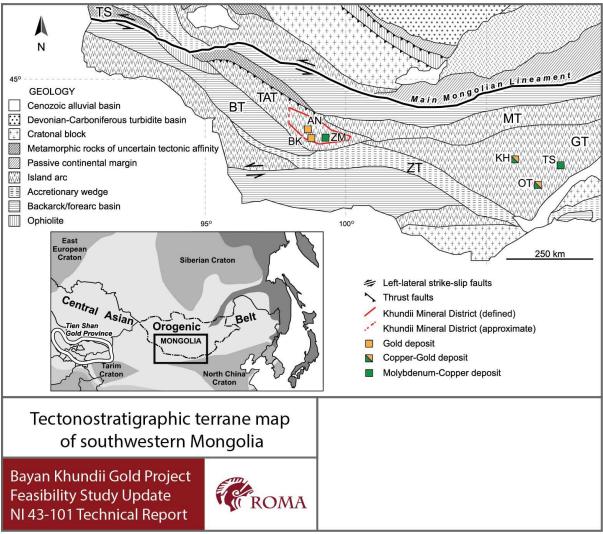


Figure 0-2 Tectonostratigraphic map of Mongolia with Location of Trans Altai Terrain (modified after Badarch et al., 2002) (Source MacDonald 2023)

The southeast portion of the TAT is referred to by Erdene as the Khundii Minerals District ("KMD") (Figure 1-2) and host to a number of porphyry and epithermal deposits and occurrences, including the BK gold deposit, the Dark Horse gold deposit, the Altan Nar gold-polymetallic deposit, the Zuun Mod Mo-Cu deposit and the Ulaan SE gold mineralization.

The bedrock geology of the Khundii license area is dominated by a sequence of the Carboniferous Ulziitkhar Formation, comprised of tuffaceous units, volcanoclastic sedimentary sequences, basalt and andesite flows and volcanic breccia and is approximately 2,000 m thick. Rocks of the Ulziitkhar Formation were intruded by multiple plutons and stocks of the early Carboniferous Bayan Airag intrusive complex, and together these rocks were unconformably overlain by Permian and Jurassic volcanic and sedimentary units. All rocks in the region are overlain by unconsolidated sediments of Quaternary or Recent age.

Three sets of structures were distinguished in the KMD by their orientation and length, relationship to granitoid intrusions, and their cross-cutting relationships. The largest and oldest set comprises first-order ENE-trending lithospheric scale lineaments, interpreted as deep-seated, inherited basement structures. At least two such structures coincide with local gravity anomalies with the Altan Nar and Bayan Khundii deposits located along two separate ENE structures. A second set comprises structures that trend NE in en echelon fault segments that collectively define the ENE lithospheric trend. This set of NE-trending faults, including those at the Bayan Khundii deposit, are interpreted as a series of normal faults with dip-slip displacement. These extensional faults are interpreted to have formed the

controlling structures at Bayan Khundii. Model integration of structural data from the BK gold deposit in three dimensions indicates a set of tilted extensional fault blocks in which gold was deposited in a fractured relay ramp structure between the fault tips of two soft-linked normal faults. A third set of smaller, N-S trending lineaments are noted. One of these N-S structures hosts the Dark Horse Mane gold deposit and can be traced for 3.5 km to the south where it connects to the extensional faults of the Bayan Khundii deposit.

Mineralization at the BK gold deposit consists of gold ±silver in massive-saccharoidal, laminar and comb-textured quartz ±hematite veins, multi-stage quartz-adularia-chalcedony ±hematite veins, quartz-hematite breccias, along late fractures (±hematite/specularite), and as disseminations within intensely illite-quartz altered pyroclastic rocks, where it is commonly associated with hematite that partially or completely replaced pyrite grains. Gold mineralization is mostly hosted in parallel NW-SE trending, moderately-dipping (approximately 45°) zones that range in width from 4 to 149 m.

Gold mineralization at the Dark Horse Mane deposit is hosted within strongly altered tuffaceous and volcanoclastic rocks, crosscut by quartz and quartz-hematite veins and stockwork zones. Several vein types are present, including comb-textured quartz-adularia veins, sugary crustiform-textured quartz veins, and multi-stage quartz-chalcedony veins. Mineralization is associated with a shallow (<60 m depth) oxide zone with high-grade Au mineralization at Dark Horse including well-developed structurally controlled supergene oxide zones which lies above a locally deeper sulphide-rich zone.

1.6 Exploration

Erdene acquired the Khundii exploration license in 2010 and initial exploration included property-wide geological mapping, soil sampling and a magnetic survey (2012) while more detailed exploration, including detailed geological mapping, rock chip sampling and trenching was initially focused on the central part of the license on a project referred to as Altan Arrow, now part of the Greater Dark Horse prospect area.

In early 2015, Erdene geologists identified, through rock chip sampling, new high-grade, low-sulphidation epithermal gold mineralization, associated with a zone of intensely altered (quartz-illite) pyroclastic lithologies, about 5 km south of Altan Arrow. This area, referred to as the BK Gold Project was the focus of detailed exploration in 2015-2022 that culminated in the identification of the Bayan Khundii gold deposit as presented in the report.

Erdene discovered the Dark Horse Mane deposit, located 2.4 kilometres north of the Bayan Khundii deposit, when initial drilling, reported in early 2021, returned 5.97 g/t gold over 45 meters, beginning 10 meters downhole (AAD-58). The mineralization at Dark Horse Mane includes a shallow oxide zone, beginning at surface, hosting supergene enriched gold zones with values up to 195 g/t over 1 meter and ranging in thickness from 20 to 60 meters vertical depth with locally deeper oxidation along fractures. A detailed exploration program was carried out in the greater Dark Horse prospect area between 2020 - 2023. Work to date has identified the Dark Horse Mane Gold Deposit and the maiden mineral resource estimate for Dark Horse Mane is included in this report.

To date, exploration techniques employed across the Khundii license included the following:

- Detailed geological and structural mapping;
- Rock chip sampling;
- Progressively more detailed soil, with select areas now at 25m grid sampling;
- Geophysical surveys, including:
 - Ground magnetic surveys with line spacing at 100 m, 25 m and 10 m spacing;
 - IP dipole-dipole lines at 100 m to 200 m spacing;
 - Gradient IP surveys over 13 km² at BK and Dark Horse
 - Ground gravity survey at 200 m station spacing;
 - Compilation and 3D modelling of all geophysical data; and
- Scout drilling in a number of prospective areas, particularly in the greater Dark Horse area, including the Altan Arrow prospect.

Further exploration is required to determine the full extent of mineralization on the Khundii license. Erdene intends to continue exploration with the goal of expanding mineral resources within the Bayan Khundii Project area.

1.7 <u>Mineral Resource Statement</u>

The current Mineral Resource Estimate ("MRE") for the Bayan Khundii Gold Project includes MREs for two separate deposits, one for the BK Gold Deposit and one for the Dark Horse Mane Gold Deposit.

1.7.1 BK Gold Deposit MRE

The BK Gold Deposit MRE was prepared and disclosed in accordance with the CIM Standards and Definitions for Mineral Resources and Mineral Reserves (2014). The QP responsible for these resource estimates is Mr. Paul Daigle, P.Geo., Principal Resource Geologist for AGP Mining Consultants Inc. ("AGP"). The effective date of these Mineral Resources is April 20, 2023.

The Mineral Resource has been constrained to a conceptual pit shell and is reported at a cut-off grade of 0.40 g/t gold. The assumptions and parameters utilized to establish the cut-off grade and pit shell are reported below in notes to Table 0-2. AGP recommends reporting the Bayan Khundii Mineral Resource at a 0.40 g/t gold cut-off.

Resource Classification	Quantity (Mt)	Gold Grade (Au g/t)	Ounces Gold (Koz)	Silver Grade (Ag g/t)	Ounces Silver (Koz)
Measured	4.0	3.03	394	1.44	187
Indicated	3.3	2.04	219	1.22	131
M&I	7.4	2.58	613	1.34	319
Inferred	0.2	1.08	6	1.32	8

 Table 0-2 Mineral Resource Estimate for the BK Gold Deposit, effective April 20, 2023

Notes:

- Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
- Summation errors may occur due to rounding.
- The effective date of the Mineral Resources is 20 April 2023.
- Open pit mineral resources are reported within an optimized constraining shell.
- *Open* pit cut-off grade is 0.4 g/t Au based on the following parameters:
 - o Gold Price of \$US 2,000/oz Au
 - Gold recovery of 95%
 - Mining Costs of \$US 3.00/t
 - *Milling Costs and G&A of \$22.00/t*
- Capping of gold grades was 200 g/t Au and 50 g/t Ag on 1 m composite values.
- The density varies between 2.58 g/cm^3 and 2.66 g/cm^3 depending on lithology.

1.7.2 Dark Horse Mane Gold Deposit MRE

RPM Global ("RPM") has independently estimated the Mineral Resources for the Dark Horse Mane gold deposit, based on the data collected by Erdene as at the 1st of October 2022. The Mineral Resource estimate and underlying data comply with the guidelines provided in the CIM Definition Standards under NI 43-101, therefore RPM considers it suitable for public reporting. The Mineral Resources were completed by Mr. Oyunbat Bat-Ochir (Qualified Person).

The Statement of Mineral Resources for the Dark Horse deposit is reported above a gold cut-off grade of 0.35 g/t Au for oxide and transition mineralization and 1.02 g/t Au for fresh mineralization. The Mineral Resource has been constrained to a conceptual pit shell. The assumptions and parameters utilized to establish the cut-off grade and pit shell are reported below in notes to Table 0-3.

	Indicat	ed Mineral Resou	irce	Inferred Mineral Resource			
Туре	Tonn es	Gold Grade	Ounces Gold	Tonnes	Gold Grade	Ounces Gold	
	(Kt)	g/t Au	(K oz)	(Kt)	g/t Au	(K oz)	
Oxide	578	3.0	56.2	75	1.1	2.7	
Transitional	99	1.5	4.8	109	1.2	4.1	
Fresh	5	4.9	0.7	-	-	-	
Total	682	2.8	61.7	184	1.2	6.8	

Table 0-3 Dark Horse Mane Gold Deposit – Mineral Resource Estimate Summary, November 2022

Notes:

- The Statement of Estimates of Mineral Resources has been compiled under the supervision of Mr. Oyunbat Bat-Ochir who is a full-time employee of RPM and a Member of the Australian Institute of Geoscientists. Mr. Bat-Ochir has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity that he has undertaken to qualify as a Qualified Person as defined in the CIM Standards of Disclosure.
- 2. All Mineral Resources figures reported in the table above represent estimates at November 1, 2022. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.
- 3. Mineral Resources are reported on a dry in-situ basis.
- 4. The Mineral Resource is reported using a 0.35 g/t Au cut-off grade in oxide and transition mineralisation and 1.02 g/t Au cut-off in fresh mineralisation and is constrained above conceptual optimised pit shell. Cutoff parameters were selected based on an RPM internal cut-off calculator, assuming an open cut mining method with 5% ore loss and 10% dilution, a gold price of US\$1,723 per ounce, a mining cost of US\$3 per tonne and a processing cost of US\$16 per tonne milled and processing recovery of 90% for oxide, 87% for transitional and 30% for fresh Au mineralisation. The conceptual optimised pit shell was constructed using a gold price of US\$2,000 per ounce, which is 1.4 times the long-term consensus forecast price.
- 5. Mineral Resources referred to above, have not been subject to detailed economic analysis and therefore, have not been demonstrated to have actual economic viability.

1.8 <u>Mineral Reserve Statement</u>

Mineral Reserves estimated for the Bayan Khundii and Dark Horse deposit are based on Measured and Indicated Resources, with an effective data of August 1, 2023, and calculated by O2 Mining, and use FS level engineering designs for the pit and associated process plant operating parameters.

The cut-off grade for mineral reserve calculations is 0.63 g/t Au for Bayan Khundii and 0.68 g/t Au for the Dark Horse deposit, and was based on a gold price of \$1,816/oz. The Reserve as defined by the regularized block model contains modelled mineral losses of 2.5% and average internal dilution of 10% within the ultimate pit.

A summary of the Mineral Reserves estimated for the Bayan Khundii and Dark Horse deposit with an effective date of August 1, 2023 can be found in Table 0-4 and

Table **0-5**.

Classification	Tonnage (Mt)	Grade (g/t Au)	Contained Au (Koz)	Grade (g/t Ag)	Contained Ag (Koz)
Proven	2.7	4.1	360.2	1.8	159.4
Probable	1.1	3.0	104.7	1.7	61.1
Total	3.8	3.8	464.9	1.8	220.5

Table 0-4 Bayan Khundii Gold Deposit – Minera	al Reserve Statement August 1 2023

Classification	Tonnage (Mt)	Grade (g/t Au)	Contained Au (Koz)
Proven	0	0	0
Probable	0.2	7.0	48.8
Total	0.2	7.0	48.8

Table 0-5 Darkhorse Gold Deposit – Mineral Reserve Statement, August 1, 2023

Notes:

- 1. The effective date of the Mineral Reserve estimate is August 1, 2023. The QP for the estimate is Mr. Julien Lawrence of O2 Mining Limited;
- 2. The Mineral Reserve estimates were prepared with reference to the 2014 Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards (2014 CIM Definition Standards) and the 2003 CIM Best Practice Guidelines;
- 3. Reserves estimated assuming open pit mining method;
- 4. Waste to ore cut-offs were determined using a NSR for each block in the model. NSR is calculated using prices and process recoveries for each metal accounting for all off-site losses, transportation, smelting and refining charges;
- 5. Reserves are based on a gold price of \$1,816/oz; and
- 6. Mineral Reserves were calculated from a diluted "mining" block model which included average dilution of 10% and losses of 2.5%.

1.9 <u>Mining Method</u>

Mining operations, designed as part of this FS, focus on the BK and Dark Horse open-pit and surrounding infrastructure. The Bayan Khundii Project site is comprised of the open-pit mine, processing plant and integrated waste rock and dry cake tailings storage facility. Additional infrastructure for maintenance facilities and an accommodation village are included. The proposed mine uses conventional open-pit truck and shovel methods for ore extraction.

Initial evaluation of WhittleTM pit shells was completed based on geotechnical and economic parameters to determine potentially economically minable material. The WhittleTM optimization process identified three main pit areas defined as Striker, Midfield and North Midfield. Subsequently, two stages of pit design and development were planned based on the WhittleTM optimization output. The BK Deposit pit exit level is approximately 1,235 meters above sea level ("mRL") and reaches a maximum depth of 1,080 mRL at the North Midfield Pit. For the Dark Horse pit exit level is approximately 1,273 meters above sea level ("mRL") and reaches a maximum depth of 1,080 mRL at the North Midfield Pit. For the Dark Horse pit exit level is approximately 1,273 meters above sea level ("mRL") and reaches a maximum depth of 1,080 mRL at the North Midfield Pit. For the Dark Horse pit exit level is approximately 1,273 meters above sea level ("mRL") and reaches a maximum depth of 1,220 mRL.

Overall mining inventory within the ultimate pit design is 47.9 million tons ("Mt") of which 43.9 Mt is classified as waste and 4.0 Mt is classified as ore. The average grade for process plant gold feed is 3.98 g/t gold containing approximately 513.7 thousand ounces ("Koz") of gold in total, silver feed is 1.71 g/t silver containing approximately 220.5 thousand ounces ("Koz") of silver in total.

The designed process plant throughput rate is 650 thousand tons per annum ("Ktpa") with 500 Ktpa for the first year of operations and 650 Ktpa from Year 2 onwards. The total productive mine life is 6 years, with an additional 3 months of pre-production to generate waste for construction of the run-of-mine stockpile ("ROM") and integrated waste facility ("IWF") in advance of process plant commissioning. An average of 12.6 Mtpa of total ex-pit production is required from Year 1 to 3 and this progressively reduces down to 1.3 Mtpa from Year 4 to Year 6, at which time ore from the North Midfield zone is sufficiently exposed to generate consistent process plant feed.

The stockpile and process plant feeding strategy optimizes project Net Present Value ("NPV"), balancing feed grade and stockpile re-handle quantities. A cap of 4.5 g/t Au for feed over a monthly period has been applied to reduce the risk of gold recovery loss in the processing plant. The maximum stockpile quantity is approximately 611 Kt, and total re-handle of stockpile material is approximately 896 Kt over the life of mine.

In total, 476 Koz of gold are expected to be recovered at an average gold recovery rate of 92.7%, and in total 121 Koz of silver are expected to be recovered at an average silver recovery rate of 55 %.

Schedule Items	Unit	YO	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Total
Total Mining Inven	tory									
Total Ex-pit	Kt	2,737	12,600	12,600	12,600	3,390	2,760	1,276	0	47,963
Waste	Kt	2,685	12,010	11,673	11,919	2,726	1,964	969	0	43,945
Ore	Kt	52	590	927	681	664	796	307	0	4,018
Au Grade	g/t	3.66	4.02	3.23	5.35	3.71	3.54	4.86	0.00	3.98
Mined Gold	oz	6,159	76,260	96,317	117,108	79,337	90,597	47,950	0	513,728
Ag Grade	g/t	1.16	1.62	1.47	1.98	1.98	1.49	2.06		1.71
Mined Silver	oz	1,951	30,670	43,881	43,444	42,223	38,022	20,316	0	220,506
Processing and Stoc	ckpile	Balance				•	•			
Mill Feed	Kt	0	500	650	650	650	650	650	268	4,018
Feed Au Grade	g/t	0	4.50	4.50	4.50	4.50	4.50	2.77	0.86	3.98
Au Process Recovery	%	n/a	93.8	91.8	92.0	92.9	92.5	93.3	92.7	92.7
Gold Recovered	oz	0	67,836	86,362	86,476	87,336	86,976	54,159	6,856	476,001
Feed Ag Grade	g/t	0	1.72	1.91	1.30	2.61	1.94	1.27	0.51	1.71
Ag Process Recovery	%	n/a	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0 %	55.0%
Silver Recovered	oz	0	15,215	21,902	14,896	29,988	22,285	14,588	2,405	121,278
Stockpile Balance										
Balance ton	Kt	52	143	419	451	464	611	268	0	
Balance Au grade	g/t	3.66	2.19	0.92	2.44	1.26	0.88	0.86	0.00	
Balance Ag grade	g/t	1.16	1.08	0.67	1.75	0.87	0.54	0.51	0.00	
Rehandle Total	Kt	0	41.8	21.8	162.1	34.0	3.2	365.7	267.8	896.4

Table 0-6 LOM Schedule Summary in Year

To satisfy the productivity and selectivity required over the life of mine, primary and bulk waste excavation will be undertaken with two Hyundai HX1250-9 backhoe configuration excavators and selective waste excavation and ore excavation will be undertaken with a single Hyundai HX520 backhoe configuration excavator. 60-tonne wide body dump trucks will be used to move ore and waste material, maximizing overall truck utilization, and unifying the truck spare parts stock. A single 60-tonne wide body dump truck was selected for tailings haulage from the process plant to the tailing cells located within the IWF.

Both production and control drilling are needed during mining operations. Production drilling is for bulk waste material, and control drilling is for wall blast, selective waste, and ore blast.

O2 has simulated ancillary fleet based on our prior operating experience and the application needed at Bayan Khundii. O2 has allowed for some extra dozer capacity for IWF wall and tailings flattening and progressive rehabilitation activities.

 Table 0-7 Fleet Summary

Fleet Names	No. Required			
Major Fleet				
Hyundai HX1250_9	2			
Hyundai HX520	1			
CDT60	19			
Epiroc Smart ROC D65	3			
Sandvik DP1500i	1			
Ancillary Fleet				
Loader XCMG LW900KN	2			
Dozer - XCMG SD9N	5			
Hyundai HX520	1			
Grader - XCMG GR3005Tpro	2			
Water Carts – CDT60 with tank	1			
Service Truck	1			
Compactor - 10T 1				
Support Fleet (various light vehicle units, lighting, pum	ps, emergency equipment, etc.)			

1.10 Project Infrastructure

Infrastructure for the Bayan Khundii Project is designed to support efficient day-to-day operations and includes:

- Main and internal access roads;
- Bulk earthworks, including clearing of all required areas, installations, including culverts, box cuts for landfill, backfill and compaction of construction locations, hard stands, dams, drains, catchments, services trenching and water storage ponds;
- Accommodation village installation, reticulated services, waste disposal, water treatment, medical facility, and associated infrastructure;
- Communications system;
- Buildings, including ablutions, laboratory, reagents storage and bus shelters;
- Steel-framed buildings, including an Office (inclusive of emergency medical facility), HV/LV workshops, Warehouse, Central Heating Plant and Security Guard House;
- Fuel Storage and distribution facility;
- Power related civils and genset/solar generation area;
- Power, water, heating, and wastewater reticulation across the project site;
- Site fencing and security;
- Process plant and gold room security; and
- Bore field water supply.

Infrastructure placement and design was sited with consideration of the prevailing winds on site to mitigate dust formation, areas of light and heavy vehicle interaction on haul roads, and drainage and catchment areas to mitigate potential flooding.

An on-site power plant is proposed to meet reliability and anticipated power requirements, with a combined solar/diesel generation method. The selected solar-diesel-battery power station has been designed with a 14.5MW diesel generator, 5 MW solar power plant, and 3 MWh battery energy storage.

The site requires an average of approximately 573 m3/day (or 6.6 L/s) of raw water to sustain mineral processing, mine dust suppression and camp domestic water requirements. Water is envisaged to be supplied from the nearby Khuren Tsav-Bosgyn Sair ("KT-BS") borefield, located approximately 1 to 4 km south-southwest of the Bayan Khundii processing plant. This nearby borefield has indicative capacity to meet the annualized demand rate. However, the assessed sustainable yield of the individual wells varies significantly, which in turn may limit the maximum sustainable yield of the aquifer. As groundwater is primarily hosted in localized fracture systems that are variable with limited connectivity, a below-ground pipeline is proposed to transport water from the borefield to a raw water tank within the processing plant for treatment. A separate, smaller water supply system in proximity to the camp is planned for the camp water requirements. Secondary water requirements at the accommodation camp and other buildings or site facilities will be treated further to allow a potable water source for drinking water and safety showers.

1.10.1 Construction Delivery Model

Erdene plans to engage an EPC contractor to deliver the bulk of the construction work.

Under an EPC model, the contractor assumes full responsibility for their elements of the Project's design, procurement, and construction. This minimizes coordination challenges and streamlines communication. Moreover, under this model the EPC contractor assumes a significant portion of the construction risks, including cost overruns and delays.

EPC Scope of Work

- Processing Plant
- Crushing Station
- Central Heating Plant
- Admin Building
- Chemical Storage
- Warehouse
- Heavy Vehicle Workshop
- Guard House
- Laboratory
- Water Supply System
- Wastewater Treatment Plant
- Switchrooms, Transformers, & MCC's
- Main Control Room
- Permanent Camp

In addition to construction and general procurement for the facilities listed above, the EPC contractor will undertake:

- Detailed Engineering for selected facilities, shop fabrication drawings, and as-builts
- Construction readiness planning
- Construction commissioning

In parallel to the work undertaken by the EPC contractor, Erdene will manage:

- Process mechanical equipment procurement
- Fencing and site security
- IWF Establishment
- ROM Pad Establishment
- HV Haul Roads
- Explosives Magazine
- Permanent Fuel Depot
- Permanent power supply

1.10.2 Infrastructure Design and Material Estimation

The design of project infrastructure followed a customized process that included Erdene input, general and architectural concepts, and a final conceptual approval by a qualified Architect and Erdene. As per the construction delivery model, costs for infrastructure covered under the EPC contract were quoted by the contractor and provided by Erdene.

For work managed by Erdene, design and engineering works were advanced to a level of detail sufficient for securing budget pricing and based on these specification vendor quotations have been received for the magazine, permanent fuel depot, and power station (via a power purchase agreement).

Development of ROM Pad Establishment, HV Haul Roads, and IWF establishment have been costed based on utilization of Erdene's mining fleet after mobilization, but prior to start of full mining activities.

1.10.3 Procurement Review Process

As part of the procurement process, Erdene undertook a process of pricing via sourcing of Request for Proposal ("RFP") or Quotation ("RFQ") and presented these proposals and quotations to O2 as the project pricing basis.

O2 undertook a process to ensure valid quotations had been received for all major work or equipment packages. This process involved ensuring pricing was available for all equipment packages, assessing how recent the pricing was, and ensuring the scope of work or equipment lists matched current specifications from the processing and mining engineering reports.

Mechanical equipment quotations were broken down into 15 packages for assessment:

- Crusher
- Feeders
- Conveyor belts
- Mills
- Cyclone cluster
- Vibrating screens
- Agitators
- Thickeners
- Interstage screens
- Slurry pumps
- Solution pumps
- Reagent pumps
- Cranes and hoists
- Water treatment plant
- Coal fired boiler

Separately to the mechanical packages, quotations or proposals were assessed for:

- Heavy equipment rental rates, including trucks, excavators, motor graders, bulldozers, wheel loaders
- Fuel supply including establishment of fuel depot operation and establishment
- Drill and blast service and materials, including establishment of explosives magazine
- Power supply via a power purchase agreement, including establishment and operation of a diesel solar hybrid power plant

Finally, the bulk of construction work and construction materials were assessed via review of the commercial proposal and full construction schedule set out by the preferred EPC contractor. Level 1 items included in this scope are:

- Temporary facilities
- Mobilization
- Design
- Early stage earthworks
- Early stage civils
- Processing plant construction
- Tank and plate works
- EICT
- Architectural Works
- Piping
- HVAC

- Non-process infrastructure (inclusive of permanent site camp design, supply, and install; heating plant excluding boiler equipment; HV/LV Workshop, Chemical warehouse, site office, warehouse, water reticulation system, water supply, onsite laboratory, waste water treatment plant, security guard house)
- Construction plant and equipment
- Indirect costs
- Demobilization
- Insurance

A list of project drawings, standards, and specifications for early works EPC were available as an annex to the EPC contract at time of the 2023 FS report writing and these were consistent with the infrastructure described in the infrastructure section of the report.

1.11 Integrated Waste Facility

The Bayan Khundii Integrated Waste Facility (IWF) will comprise the co-disposal of waste rock and processed dry cake tailings generated during mining activities at the BK open pit. Both waste rock and dry cake tailings, with a final target moisture content of around 15%, will be transported to the IWF via haul trucks.

The IWF has been designed to store tailings within cells located in the core of the IWF structure and away from potential failure planes along the dump batter slopes identified from the stability analysis. Throughout the Life of Mine (LOM), the IWF will see the deposition of waste rock and tailings at an approximate volume ratio of 10:1, respectively, which will see the IWF grow vertically until it reaches its ultimate shell height of 73 m at RL 1,300m.

A feasibility-level water balance for the IWF system has been developed as a means to size other components of the system and to understand the likelihood of overtopping of the containment structures during a 1,000-year period of time. Auxiliary infrastructure and a seepage collection system will support the overall water management of the IWF and has been designed to minimise runoff migration into the IWF project areas, as well as minimising the amount of potential contaminant water that is to be collected and re-handled as a means to avoid cyanide leachate migration into the broader environment.

Auxiliary and seepage collection infrastructure for the IWF water management system entails:

- A diversion drain along the north-western flank of the IWF to divert clean water runoff away from the site,
- Combined underdrainage and seepage collection system sitting below the tailings storage area within the IWF,
- Containment Runoff Collection Pond (CRCP), located south of the IWF,
- Southern clean runoff collection drains, to divert runoff in contact with waste rock, away from the project's site.

The water collected at the CRCP is to be returned to the process plant for reuse, although this will not be a steady and reliable source of water for the materials processing based on the low rainfall averages expected at the site.

The seepage collection system will consist of a HDPE lining system and seepage collection pipes, that will collect seepage water that has come into contact with the tailings and convey the contaminated water to the CRCP for collection.

1.12 Dark Horse Waste Rock Dump

The Dark Horse Waste Rock Dump (WRD) will be located to the north of the BK site, to the west of the DH open pit and outside of the blast exclusion zone. The WRD is required to store 2.45 Mt of waste rock. Geochemical analysis reveals that the waste rock extracted from the DH pit will comprise both potentially acid-forming (PAF) and non-acid forming (NAF) waste rock. The design philosophy involves encapsulating the PAF waste rock within the NAF waste rock.

The WRD footprint design involves construction of a waste rock dump within a footprint of 7.9 ha with an ultimate shell height of 30 m at RL 1,302 m. The WRD has been located outside of any significant drainage routes to limit the requirements for any auxiliary infrastructure to just construction of toe drains along the southern and western toe of the WRD.

1.13 Mineral Processing and Metallurgical Testing

1.13.1 BK Metallurgical Test Work

A series of metallurgical test programs were conducted on material from the Bayan Khundii deposit between 2016 and 2020. Throughout this period, testwork included various comminution tests, gravity concentration testwork, a whole ore cyanidation optimization program, cyanide variability tests, carbon adsorption, cyanide destruction and dewatering testwork. Data from all tests programs is utilized in support of this study.

1.13.1.1 Comminution Tests

Comminution test results suggest that Bayan Khundii material is moderately hard to hard. Comminution testwork consisted of Bond Ball Mill Work Index tests ("BWI"), SAG Mill Comminution testing (SMC Tests®) and Abrasion Index tests. Additional JK Drop Weight Tests and Crusher Work Index tests were conducted as well.

The average Bond Work Index is 18.1 kWh/ton, however, there were some geographic trends noted in the hardness of the material. The average BWI from the Striker zone was 17.2 kWh/ton, while the average BWI from Midfield and North Midfield was 18.4 and 19.1 respectively. Since this generally aligns with the proposed mining sequence, then the implication is that feed to the mill will get progressively harder over the course of the mine life. The SMC Tests® also align with this observation. Abrasion Index results suggest the material is moderately abrasive to abrasive. The data from the comminution testwork was used to appropriately design and size the crushing and grinding circuit for a design basis of the primary grind size of 80% passing 60 µm.

1.13.1.2 Gravity Concentration

Gravity concentration studies conducted during the 2019 test program were completed in order to obtain a greater understanding of the gravity response from average grade material (BK-MET-COMP_18-01) and from high grade material which could make up a portion of the mill feed early in the mine life (BK-MET-COMP_18-02). The cumulative gravity recoverable gold ("GRG") ranged from 40.5% for BK-MET-COMP_18-01, to 57.7% for BK-MET-COMP_18-02. While there was a reasonable amount of gold present as GRG in each composite, that gold was quite fine and late liberating, thus making high recovery by gravity alone quite difficult. Gravity recovery is not included in the design of the Bayan Khundii plant.

1.13.1.3 Whole Ore Cyanidation Testwork

Numerous whole ore cyanidation test programs were conducted on Bayan Khundii material. During the various test programs the effects of primary grind size, cyanide concentration, lead nitrate addition, and oxygen addition were studied. Variability testwork allowed for a study of the impact of head grade and geography on gold recovery. On average, gold recovery ranged in the low to mid 90% range. A few lower grade samples yielded recovery less than this mark. The key findings from these programs were:

- Finer primary grind sizes provided higher overall gold extraction. A primary grind size of 80% passing 60 µm was selected as the design basis;
- Cyanide consumption was low and a sodium cyanide addition rate to the leach circuit of 0.5 g/L is sufficient to ensure acceptable gold extraction;
- The addition of lead nitrate or oxygen did not materially change the leach performance;
- Gold recovery was relatively insensitive to a solids content between 35% and 55% in the cyanidation circuit. A percent solids target of 42% was maintained as the design basis;
- Cyanidation residence time of 36 hours was appropriate.; and
- Gold recovery from the Striker Zone material is slightly higher than that from Midfield and North Midfield.

Carbon adsorption testwork on cyanide leach slurries indicated no issues with adsorption of gold and silver onto activated carbon.

1.13.1.4 Cyanide Destruction

A cyanide destruction program was conducted to evaluate conditions required to adequately detoxify process solutions and ensure that weak acid dissociable cyanide (" CN_{WAD} ") present in tailings liquor complies with the project's stated target of less than 50ppm for impoundment in the Integrated Waste Facility. Testwork used the SO₂/Air process to oxidize CN_{WAD} to cyanate. Since Bayan Khundii is relatively clean material without many metal cyanide complexes formed in solution, most of the residual cyanide is present as free cyanide and copper sulphate had to be added to catalyze the reaction.

Optimized cyanide destruction parameters were 40 minutes retention time, copper concentration of 100 ppm and SO_2 addition rate of 5.5 g SO_2 / g CN_{WAD} . These parameters were sufficient to adequately oxidize CN_{WAD} content of the Bayan Khundii tails liquor from approximately 185 ppm to less than 10 ppm.

1.13.1.5 Dewatering Testwork

Thickening and filtration characteristics were evaluated on a sample of Bayan Khundii CIP tailings. Dynamic thickening testwork showed that Bayan Khundii CIP tailings could be thickened to underflow densities of 57% to 59%, while still maintaining reasonable overflow clarity. The sample was sensitive to flux rate, and tests conducted at a rate of 0.5 t/m²hr had overflows with high total suspended solids (>30,000 ppm). Increasing the floc dosages to 80 g/t improves the overflow clarify. The best results were achieved with a feed solids dilution to 5%. Increasing the feed solids to 7.5% still produced good overflow clarity, however it reduced the underflow solids to 50%. This may be acceptable considering additional filtration stages are found downstream of the tails thickener.

Four different filtration systems were evaluated: cloth disc, ceramic disk, vacuum belt and pressure filtration. The lowest cake moisture was achieved with ceramic disc filters and pressure filters. Ceramic disc and pressure filtration were clearly superior to vacuum belt filtration or cloth disc filtration which only achieved cake moistures in the low to mid 20% range. The average moisture content from the ceramic filter test runs was 17%, however a few runs achieved a moisture content of less than 15%. Ceramic disc filtration provided clear filtrates than pressure filtration and was selected as the basis for the processing plant design.

1.13.1.6 Projected Gold and Silver Recovery

A relationship between head grade and gold recovery was developed during earlier phases of study and continuously updated as new test results became available. This relationship was a series of linear equations based on specific head grade bands. While the average gold recovery from Bayan Khundii material is in the low to mid 90% range, a few lower grade composites returned recovery less than this mark. Life-of-mine gold recovery is expected to be 93%. The gold recovery equations are highlighted in Table 1-8.

Grade Band (g/t)	2020 Recovery Equation
0-0.35	Au Rec (%) = 230.61*Au Grade (g/t)
0.35 – 1.18	Au Rec (%) = 13.32^* Au Grade (g/t) + 76.052
1.18 – 22.0	Au Rec (%) = 0.314^* Au Grade (g/t) + 92.045
>22.0	Au Rec (%) = 99.0

Table 0-8 Bayan Khundii Gold Head Grade Recovery Relationship

Silver recovery was tracked throughout the 2020 test program. At the target 60 μ m grind size the silver recovery amongst the variability composites ranged from 43% to 67%. Average silver recovery from Bayan Khundii material is expected to be 55%.

1.13.2 Dark Horse Metallurgical Test Work

A series of metallurgical test programs were conducted on material from the Dark Horse Mane deposit in 2022 and 2023. Testwork included comminution tests, cyanide variability tests, cyanide destruction tests, carbon adsorption, and dewatering testwork. Cyanidation blending tests were also conducted using different ratios of Dark Horse and Bayan Khundii material to study co-processing of Bayan Khundii and Dark Horse material.

1.13.2.1 Comminution

The Bond Ball Mill Work Index results are classified as moderately hard (Average of 15.6 kWh/t), while the SMC parameters ranged from 58.7 to 68.8, which is moderately soft. Abrasion index results indicate that the sample is moderately abrasive. Overall Dark Horse material is slightly softer than that from Bayan Khundii, indicating that mill throughput should not be a limiting factor when processing Dark Horse ore.

1.13.2.2 Cyanidation Testwork

A number of cyanide optimization tests were conducted on Dark Horse material to investigate the impact of primary grind size, cyanide concentration, and lead nitrate addition. High recovery was observed across all optimization tests, ranging from 88.8-90.3% Au recovery (average: 89.9%). Due to the low variation in recovery between test conditions, it was determined that the Dark Horse master composite gold recovery is not sensitive to primary grind size or cyanide dosage across the ranges tested. Low sodium cyanide concentrations (0.35 g/L) are sufficient to achieve the stated gold recovery. No benefit to recovery was observed from the addition of lead nitrate and oxygen.

1.13.2.3 Co-Processing Testwork

The plan is for Dark Horse material to be processed through the Bayan Khundii plant, and that the Dark Horse and Bayan Khundii material may be co-processed. Three tests were conducted with blends of Bayan Khundii Master Composite and the Dark Horse master composite at varying blend ratios. A linear relationship was observed for both gold and silver recovery suggesting that there is no detrimental impact to co-processing Dark Horse material with Bayan Khundii feeds.

1.13.2.4 Cyanide Destruction

Cyanide destruction tests on Dark Horse material were performed to evaluate conditions necessary to adequately detoxify process solutions. A retention time of 40 minutes, 125 ppm Cu^{2+} , 6.5 g SO_2 / g CN_{WAD} resulted in CN_{WAD} concentrations at the discharge of the cyanide destruction reactor of 5 ppm.

1.13.2.5 Dewatering Testwork

Static settling tests were conducted on 12 Dark Horse composites and compared to the settling characteristics of the Bayan Khundii composite. The settling test conditions were based on conditions developed for Bayan Khundii; these conditions included, flocculant: SNF 910 VHM at 40g/t target dosage; pulp density: 5% solids target and lime at approximately 4.5g/t. Overall, the Dark Horse samples settled similarly to Bayan Khundii material.

1.13.2.6 Projected Gold and Silver Recovery

The Dark Horse variability data was analyzed to determine the best predictor of gold recovery. Upon reviewing all of the available data, no clear correlation was observed between gold recovery and any of the geochemical markers, including gold head grade. Therefore, an average gold recovery of 89% was considered the best option to describe the available dataset.

1.13.3 Mineral Processing and Recovery Methods

Mill feed from the BK and DH pits to the processing plant is expected to average 3.98 g/t gold and BK Pit ore feed is expected to average 1.71 g/t silver content, no silver content has been modelled for DH Pit ore feed. Test work conducted concludes that the ore is amenable to conventional cyanide leaching with life=of-mine gold recoveries averaging 92.7% using this method for a grinding product of nominal P80 of 60 µm.

The proposed conventional cyanide leaching process is designed to produce gold doré bars for transport off-site for further refining.

The simplified gold recovery process is as follows:

- Comminution;
- Cyanide Leaching;
- Carbon-in-Pulp Adsorption;
- Elution;
- Electrowinning;
- Carbon Regeneration; and
- Tailings Treatment.

The process plant will consist of single stage crushing, 2 stage grinding via a Semi-Autogenous followed by Ball Grinding ("SAB") circuit, cyanide leaching, adsorption via carbon-in-pulp methods, elution via the Pressure Zadra, electrowinning and furnace smelting to produce doré bars. Subsequent carbon regeneration will be conducted in a diesel-fired kiln before replacement in the CIP tanks. Tailings will be thickened to recover residual cyanide, following

cyanide detoxification and vacuum filtered to a dry cake before disposal in constructed cells within the integrated waste facility. As stated in Section 1.13.3, a gravity circuit has not been included in the design.

1.14 Capital and Operating Cost Estimation

Capital costs for the Bayan Khundii operations were estimated according to the Association of Advancement of Cost Engineers ("AACE") Class 2 estimate. The accuracy of the estimate is $\pm 10 - 15\%$. All currencies are in United States Dollars, unless otherwise specified. The estimated pre-production capital costs for an annual mine production of 650 Ktpa ore feed was estimated to be US\$100.4 million, or US\$90.0 million exclusive of contingency.

Table 0-9 Caj	pital Cost Estimate
	TOTAL CADEN

TOTAL CAPEX	000 US\$	\$ 100,427
Construction indirect Costs	000 US\$	\$ 28,051
Site Establishment & Early Works	000 US\$	\$ 6,381
Construction Temporary Facilities	000 US\$	\$ 884
Contractor Establishment Costs	000 US\$	\$ 420
Construction Indirects - General	000 US\$	\$ 17,037
Mobile Equipment	000 US\$	\$ 3,329
Construction Direct Costs	000 US\$	\$ 60,589
Project Site General Works	000 US\$	\$ 12,163
Process Plant	000 US\$	\$ 46,251
Electrical/Water/Heating Distribution	000 US\$	\$ 2,175
Owners Project Costs	000 US\$	\$ 1,383
Contingencies	000 US\$	\$ 10,403

The life of mine average operating cost for the Bayan Khundii operations is estimated at US\$87.50/t milled. This operating cost excludes any initial or sustaining capital and excludes pre-production costs. Operating costs for mining, processing and general and administrative costs are summarized in Table 1-10 below.

Operating Costs	Total Cost (LOM Millions)	Cost \$/t Milled (LOM Average)
Mining Costs	165.0	41.1
Processing Costs	166.3	41.4
General and Administrative Costs	20.2	5.1
TOTAL OPERATING COST	351.6	87.5

*Operating costs are inclusive of 10% VAT where applicable

1.15 <u>Economic Analysis</u>

An updated economic evaluation of the Bayan Khundii operation was undertaken as at August 15, 2023, using a US\$1,800 per ounce gold price. The summarized results of the evaluation are as follows:

• Base Case Net Present Value at a 5.0% discount rate of US\$245.0 million pre-tax and US\$170.1 million post-tax;

- The estimated pre-tax Internal Rate of Return ("IRR") is 44.3% and the post-tax IRR is 35.3%; and
- Payback period of 2.0 years pre-tax and 2.4 years post-tax.

Sensitivity analysis were carried out on the post-tax financial model NPV and IRR results with respect to key project variables including gold price, capital expenditures and operating costs and the Mongolian to United States exchange rate. Both the project NPV and IRR are most sensitive to fluctuations in the gold price and operating costs and least sensitive to capital expenditures and the exchange rate. Details of the sensitivity analysis can be found in Section 22.11 – Sensitivity Analysis of Bayan Khundii Project.

The key study outcomes for the projected mine plan and economic results are presented in

Table **0-1**.

1.16 Interpretations and Conclusions

Based on the currently identified Mineral Resources and Mineral Reserves and the assumed prices and parameters, the authors of this FS Report have concluded that profitable operations can be sustained for six years on the Bayan Khundii site under the conditions and assumptions of this report.

1.16.1 Geology and Mineral Resource

1.16.1.1 BK Deposit

Mineralization at Bayan Khundii is exposed at surface in the southern portions of the deposit (Striker Zone) but constrained stratigraphically to the north (Midfield and North Midfield) by a package of Jurassic sediments (primarily conglomerates and sandstones) which unconformably overlay the mineralized tuff and contain localized intercalated basalt flows. At depth, mineralization is further constrained, locally, by a granitoid body. Mineralization consists of gold \pm silver in massive-saccharoidal, laminar and comb-textured quartz \pm hematite veins within parallel northwest-southeast trending, moderately-dipping (~45°) zones that range in width from 5 to 150 m. These zones typically consist of narrower higher-grade mineralization surrounded by broader lower grade mineralization. Bayan Khundii is characterized as a low sulphidation epithermal gold deposit.

The resource was estimated using ordinary kriging. At a 0.4 g/t Au cut-off grade the updated Mineral Resources for the BK gold deposit are: Measured Resources of 4.0 Mt at 3.03 g/t Au and 1.44 g/t Ag; Indicated Resources of 3.3 Mt at 2.04 g/t Au and 1.22 g/t Ag; and Inferred Resources of 0.2 Mt at 1.08 g/t Au and 1.32 g/t Ag. The effective date of the BK Mineral Resources is April 20, 2023.

1.16.1.2 DH Deposit

Gold mineralization at the Dark Horse Mane deposit is hosted within strongly altered tuffaceous and volcanoclastic rocks, crosscut by quartz and quartz-hematite veins and stockwork zones within N-S trending structural corridor. Several vein types are present, including comb-textured quartz-adularia veins, sugary crustiform-textured quartz veins, and multi-stage quartz-chalcedony veins. Mineralization is associated with a shallow (<60 m depth) oxide zone with high-grade Au mineralization at Dark Horse including well-developed structurally controlled supergene oxide zones which lies above a deeper sulphide-rich zone).

For the Dark Horse Mane deposit ordinary kriging was chosen as the preferred methodology for interpolating/estimating grades into the block model. The Statement of Mineral Resources for the Dark Horse Mane deposit is reported above a gold cut-off grade of 0.35 g/t Au for oxide and transition mineralization and 1.02 g/t Au for fresh mineralization. Total Indicated Resources are 682Kt at 2.8 g/t Au and Inferred Resources are 184Kt at 1.2 g/t Au. The effective date of the Dark Horse Mane Mineral Resources is November 1, 2022.

1.16.2 Metallurgical Test Work

The following conclusions may be drawn based on the metallurgical testwork to date.

1.16.2.1 BK Gold Deposit

A relationship between grade and gold recovery has been developed for the Bayan Khundii material. Life-of-mine gold recovery is expected to be 93%. Silver recovery is expected to average 55%. Gold recovery is strongly correlated to primary grind size. Finer primary grind sizes produce higher overall gold recovery. A primary grind of 80% passing 60 µm was considered optimal and selected as the design basis of the plant.

Comminution testwork suggests that Bayan Khundii material is moderately hard to hard. Abrasion Index results suggest the material is moderately abrasive to abrasive. Comminution tests show that material gets moderately harder when transitioning from Striker through Midfield and North Midfield. The comminution circuit has been designed based on the testwork data.

Moderate cyanide addition rates are able to achieve high gold extraction. A sodium cyanide concentration of 0.5 g/L is appropriate in the leach circuit. Most composites achieved maximum gold extraction after 36 hours of leaching. A retention time of 36 hours was selected as the design basis for the plant. Gold recovery and leach kinetics were insensitive to the solids content during cyanidation. 42% solids was selected as the design basis for the leach plant.

Bayan Khundii ore is relatively clean material, without many metal cyanide complexes, and detoxification testwork showed that most of the residual cyanide in the CIP tailings is present as free cyanide and requires the addition of copper sulphate to catalyze the SO₂/Air cyanide detox reaction. A retention time of 40 minutes, 100 ppm Cu²⁺, 5.7 g SO₂/g CN_{WAD} resulted in CN_{WAD} concentrations at the discharge of the cyanide destruction reactor of less than 10 ppm, well below the target of 50 ppm.

Dewatering tests highlight that CIP tails may be thickened to 50% solids with moderate floc dosage rates of 60-80 g/t. Feedwell dilution to 5% solids improved settling characteristics of the material. Filtration of CIP tailings using ceramic disc filters or pressure filters could achieve a final moisture content as low as 15%. Disc filtration was selected as the design basis for the FS.

1.16.2.2 DH Gold Deposit

For the Dark Horse Gold Deposit, life-of-mine gold recovery is expected to be 89%. The Dark Horse material was insensitive to primary grind sizes between $60\mu m$ and $150\mu m$. Low sodium cyanide concentrations (0.35 g/L) are sufficient to achieve the stated gold recovery.

On average both the BWI and the SMC results suggest that Dark Horse material is somewhat softer than that from Bayan Khundii, indicating that mill throughput should not be a limiting factor when processing Dark Horse.

A retention time of 40 minutes, 125 ppm Cu2+, 6.5 g SO2 / g CN_{WAD} resulted in CN_{WAD} concentrations at the discharge of the cyanide destruction reactor of 5 ppm. Settling tests suggest that Dark Horse has similar settling characteristics to that of Bayan Khundii.

The plan is for Dark Horse material to be processed through the Bayan Khundii plant, and that the Dark Horse and Bayan Khundii material may be co-processed. Results of blending testwork show a linear relationship observed for both gold and silver recovery suggests that there is no detrimental impact to co-processing Dark Horse material with Bayan Khundii feeds.

1.16.3 Mineral Reserve Estimate

Estimations of Mineral Reserves for the BK deposit and DH deposit are based on Measured and Indicated Resources and meet the definitions of Proven and Probable Mineral Reserves as stated by NI 43-101 and defined by the CIM standards on Mineral Resources and Reserves Definitions and Guidelines (2014). The Mineral Reserve estimates are based on a mine plan and open pit design developed using modifying parameters including metal price, metal recovery based on performance of the processing plant, and operating cost estimates. The Proven and Probable Reserves are inclusive of the Mineral Resource and based on a three-year moving average gold price of \$1,800/oz.

Geotechnical investigations were conducted to assess the expected rock quality at Bayan Khundii and Dark Horse. Characterization of structural domains was completed for slope stability and pit design considerations. Overall slope angles and bench parameters were provided from the geotechnical analysis as inputs to the pit optimization study.

Average mining costs of \$41.40/t Milled, processing costs of \$41.08/ton milled and \$5.05/t Milled general and administrative costs have been used to estimate the reserves along with a gold price of US\$1800/oz.

Proven and Probable Reserves total 4 Mt of ore, with estimated contained gold of 476 Koz.

1.16.4 Mining and Process Operations

Following completion of the open-pit optimization study and in order to maximize recovery of ore and minimize waste stripping and haulage costs, a pit has been designed to extract the reserves contained in the ultimate pit shell from the optimization that has dimensions of approximately 850m by 390m by 155m.

A detailed production schedule has been developed incorporating one pushback phased mining stages and the ultimate design pit. The production schedule will take place over seven years inclusive of a one-year commissioning ramp up for the processing plant until nameplate capacity is achieved. Over the LOM, the pit will produce 4.02 Mt of mineralized material and 43.9 Mt of waste rock. The LOM average gold grade is 3.98 g/t, silver grade is 1.71 g/t. The LOM stripping ratio is 10.9:1. The production schedule will provide process plant feed at a nominal rate of 650 Kt/year.

Mining will be undertaken using conventional open pit drill/blast and load/haul using trucks and excavators in backhoe configuration. Bench height for the ultimate pit has been set to a 15 m height based on 5 m benches stacked in a triple bench configuration. Dual-lane mine roads will be a minimum of 21 m and single roads at the bottom of the pit will be 13 m wide, and the switch back radius is 11m. All ore will be transported to a primary crusher in 60 t rear-dump haul trucks and waste will be transported using the same class haul trucks. Primary ore loading will be by 50 ton weight class diesel hydraulic excavators in backhoe configuration, primary waste loading by two 115 ton weight class diesel hydraulic excavators in backhoe configuration.

A total of 513.7 Koz gold, 220.5 Koz silver are expected to be mined over the life of mine.

The processing plant has been designed with a conventional cyanide leaching and CIP recovery circuit. The mine will provide ore to the process plant at a nominal rate of 650 Kt/year. The processing plant will use a crusher / SAG / Ball mill configuration. Two crushers in a duty/standby configuration were shown to result in a lower CAPEX than a single crusher plus stockpile and recovery system. The final circuit has an expected utilization of 92% and will provide a constant feed size to the leach circuit.

The leach circuit has been designed for a 36-hour residence time, with four tanks in series to optimize between enough tanks to minimize short circuiting and a manageable operational height for the building. A conventional six-tank CIP circuit was chosen and a conventional pressure Zadra circuit is designed in the gold room. The processing plant has been designed within buildings to provide year-round accessibility by maintenance and operational personnel.

The tailings requirement of co-disposal has been implemented using plate and frame pressure filters, which can produce as little as 12% moisture. This has the lowest risk of refluidization and transport of any residual cyanide from the tails storage. The filter cake discharges to a feeder which transports to hoppers, which can be discharged into mine trucks and taken directly to the IWF without rehandling.

Mining (waste rock) and processing waste (tailings) will be contained within an IWF as a single above ground structure. The IWF will consist of cells of dry cake tailings and waste rock encapsulated with an environmentally benign and durable erosion-resistant cover system.

1.16.5 Environmental, Social and Mine Closure

At the time of this FS Report update, the Project had in place all necessary environmental permits for its operations, including for the purposes of mine construction. Final commissioning and operating approvals remain to be secured upon completion of the construction phase.

The independent Environmental and Social Impact Assessment and statutory Detailed Environmental Impact Assessment of the Project provides detailed baseline information, impact assessment for key domains, and management plan commitments. Management plans in the ESIA and DEIA detail the Company's commitment to build, operate, and close the Project in accordance with applicable regulations, laws, and Project standards. Considering the outcomes of the ESIA, the independent Mongolian statutory DEIA has been completed and approved by the relevant Mongolian government authority.

Based on the geochemical properties of BK and its surrounding environment as well as industry best practices, Erdene selected its preferred approach of integrated mineral waste management – whereby detoxified, filtered tailings are placed as a dry cake within layers of waste rock in a single landform (IWF).

The overall vision of closure for the BK site is to have all evidence of the operation removed, except for the final pit voids and the IWF landform. The remainder of the areas impacted by the operation will be returned to their preoperation form and partially revegetated, where appropriate given the sparsely vegetated pre-operation landscape.

1.16.6 Capital and Operating Costs

The capital and operating cost estimates for the Bayan Khundii project are considered AACE Class 2 estimates. The base currency of the estimates is US dollars (US\$).

The capital cost estimate for mining is based on usage of rented equipment, thus no capital cost was allocated for mining equipment and ancillary mining equipment. Capital costs have been included for support equipment. Power is proposed to be provided by an Independent Power Provider (IPP) and therefore no capital allowance has been included in the capital estimate. Likewise, explosives magazine and fuel depot are not included in the capital estimate as they will be provided through purchase and/or service agreements. The capital cost includes the cost for essential mining infrastructure, balance of utilities including, water and heating, and haul roads. The total estimated initial capital costs for BK are US\$100.4M including contingency.

Sustaining capital is estimated at 1.5% of the initial capital costs for all process and non-process infrastructure per annum commencing from Year 2 and tapering off into year 6, with only mine closure costs accounted in Year 7. Sustaining capital includes provision for replacement or repair of major processing equipment components, site service and utility repair and replacement and process-related mobile equipment repair and replacement.

The LOM average operating cost for Bayan Khundii is estimated at US\$ 82.5/t milled at the processing rate of 650 Kt/year.

1.16.7 Opportunities

1.16.7.1 Additional Resources at Bayan Khundii

A large portion of the Khundii mining license remains underexplored and work to date has identified multiple areas with significantly anomalous gold mineralization associated with structures and zones of alteration, similar to the BK and Dark Horse Mane deposit areas. The northern portion of the license area is referred to as the greater Dark Horse area and includes the Altan Arrow prospect. Erdene continues to carry out exploration activities on the Khundii license, including a recently completed IP Gradient Array survey at Dark Horse, covering 9km², that shows the major NE trending structures, as well as a strong north-south trends that host mineralization identified at Dark Horse Mane. A number of parallel zones with similar geophysical signatures to known mineralization at Dark Horse Mane have been identified. These areas are under tested or untested by drilling. These new geophysical anomalies represent strong new exploration targets. Together with other geological and geochemical data, all zones of gradient array IP anomalism will be assessed and prioritized for future drilling.

1.16.7.2 Exploration on the Ulaan License

In June 2021, the Company initiated a gold exploration program in the southern portion of the Ulaan exploration license, located just west of, and contiguous to, the Khundii mining license. A drilling program identified a significant new gold discovery just 300 meters west of the BK Gold Deposit. Results to date, including follow-up drilling in Q2 2022, have confirmed a significant gold discovery at Ulaan SE. Multiple drill holes have returned hundreds of meters (up to 354 meters) of gold mineralization, often ending in mineralization, over an area 200 meters by 250 meters. Gold mineralization begins approximately 80 meters from surface with anomalous gold intersected as shallow as 4 meters depth (UDH-18) and remains open along strike to the west/northwest and at depth. Gold grades up to 156 g/t are related to intense quartz \pm hematite veins and stockwork zones enveloped by the same gold bearing silicified, white mica altered lapilli tuff sequence which hosts Erdene's Bayan Khundii epithermal gold deposit. Structural controls include northwest striking, southwest dipping veins hosting the gold and intensifying adjacent to bounding structures and/or feeder conduits typically oriented northeast or north.

Together with the BK deposit and Dark Horse deposit, results from drilling at Ulaan Southeast demonstrate the potential scale of mineralization within the nearly 4,000-hectare Khundii-Ulaan Hydrothermal system, which extends from Ulaan over 10 kilometres to the northeast onto the Khundii license.

1.16.7.3 Underground Mining Potential

Further underground mining potential has been identified in conceptual studies for North Midfield and Striker West which, if proven economical through further studies, could lead to a further increase in the economic reserve of the Bayan Khundii Project.

1.16.7.4 Processing Plant Expansion Potential

With the existing plant, there is a capacity to increase throughput by up to 20%, without compromising recovery, other than during maintenance periods on tanks, due to the reduced residence time in these circumstances. Constraints on capacity increase beyond this level are related to the grinding circuit, leach feed thickening, leach capacity, elution capacity, tail thickening and filtration capacity.

The plant could be modified to include an additional ball mill, addressing the grinding area, and an additional leach tank for the leach capacity. At a higher throughput the thickener density control would become critical to ensure sufficient residence time. Replacing the 20 m diameter leach feed thickener, with a 24 m diameter thickener would resolve this. The elution circuit could be upgraded by the replacement of the columns with larger units and increases to the electrowinning capacity. For the tails thickening and disposal, it would be difficult to include a larger tails thickener within the current layout, and the easier path to increasing the capacity would be to increase the detoxification circuit capacity to retain sufficient residence time at a lower percent solids. The filtration area would require one additional filtration unit, and structural modifications to incorporate this into the design.

In the scenario where additional mineral reserves are identified and proven, a modular gravity plant could be suitable as a processing solution, particularly for certain high grade resources. Under such conditions, a gravity plant could increase the project's economic value.

1.16.7.5 Additional Resources at Altan Nar

Erdene's Altan Nar deposit, located approximately 16 km north of Bayan Khundii, has an established Indicated Resource of 5.0 Mt grading 2.0 g/t gold (318,000 ounces of contained gold) and an Inferred Resource of 3.4 Mt grading 1.7 g/t gold (186,000 ounces of contained gold). Approximately 250,000 ounces of the current Altan Nar resource could potentially be processed by the Bayan Khundii Project processing facility, however, a number of development options for Altan Nar are under consideration.

1.16.8 Risks

General

The mining assets are subject to certain inherent risks, which applies to some degree to all participants of the international mining industry. These risks are summarized as follows:

- Fluctuations in gold price Risk of pricing regression of gold and/or US\$ will increase the potential impact on the project profitability. Sensitivity analysis conducted during the economic analysis of the project confirmed that the NPV and IRR of the project are both most sensitive to changes in the gold price.
- **Logistics** The Project is remotely located, and the control of the logistics and their cost implications will be fundamental in maintaining reasonable operating costs. Especially the import of essential commodities such as project equipment, diesel fuel, explosives materials, plant reagents and consumables.
- **Capital Expenditure** Capital expenditure predictions are based on substantially complete quotes and some contracted components, however further adjustments to project design and associated construction costs may occur during the construction phase resulting in variations in the capital expenditure. Direct equipment procurement costs are still subject to fluctuations in key commodity pricing such as labor, diesel, steel, logistics and related costs. The indirect costs of construction are still subject to fluctuations in key commodity pricing such as labor, diesel, steel, logistics and related costs. In the financial modelling, capital costs has been shown to be less sensitive than other modifying factors with respect to project economics.
- **Operating Expenditure** Operating expenditure predictions are based on budget quotations. Although thoroughly pre-determined using up-to-date assessment techniques, sensitivities on OPEX changes indicate that the project economics will remain robust under limited upward cost pressure.

1.16.8.1 Mining

Mineral Reserve figures are estimates, and there can be no assurance that they will be recovered or that they can be brought to profitable production. The volume and grade of Reserves mined and processed, and the recovery rates may not be the same as currently anticipated. A decline in the market price of gold may render Mineral Reserves containing relatively lower grades of mineralization uneconomic and may in certain circumstances ultimately lead to a restatement of reserves.

Definition of the final excavated slope angles has been assessed with consideration of in-situ groundwater conditions. This FS update has been developed under the design that all the working faces within the operating pit can be dewatered prior to mining, thus enabling the slope angles presented in this FS update. Greater moisture content or the inability to adequately de-water selected pit faces to the target level may result in an adverse change to the final excavated pit slope angles.

1.16.8.2 Infrastructure

Infrastructure design for this FS have been prepared in accordance with Mongolian requirements and applicable international standards and, in most cases, detailed designs have received Mongolian regulatory approval. Some of the infrastructure may be subject to client driven design changes which may lead to changes that could impact cost and/or schedule.

1.16.8.3 Processing

The process plant has been designed based on the results of the test work performed to date. Cyanide leach is the predominant method of gold recovery for non-refractive ores for ore bodies all over the world. The outstanding processing risks are therefore:

- Variability If the final ore body varies significantly from the current test work, the plant's ability to process the ore and recover the gold is expected to change. Some variability testing has been performed. The ore is also expected to be blended on the ROM to minimize short term fluctuations.
- Grind size The accuracy of the mill parameters will significantly affect the risk of the comminution circuits ability to deliver the required grind size. The spare capacity of the mills will reduce this risk significantly.

1.16.8.4 Environmental, Social and Mine Closure

Environmental and social studies have been carried out in accordance with Mongolian legislation as well as leading industry practices. However, the ability of the Project to secure the necessary ongoing environmental permits, including for its statutory hazardous material permit, and social license to operate remain a risk.

1.16.8.5 Project Delivery Schedule

The Project Delivery Schedule provided in Section 18 is based on all available information and reasonable estimates for completion of all financing, engineering, permitting, procurement, construction and commissioning activities foreseen and further detailed in this FS. Construction schedule elements were provided by the preferred EPC contractor and are in line with norms for Mongolia. However, like all mining projects of this nature, there are certain risks to construction schedule realization further summarized below:

- **Permitting** the project still requires a number of permits to be issued by Mongolian regulatory bodies before the project can be commissioned for operations including the issuance of construction permits for the mine infrastructure, and state commissioning and permission to store and use sodium cyanide. Delays in achieving these permits according to the schedule may result in further delays in the expected timeline for commissioning the project.
- **Delivery of equipment and materials required for construction and commissioning** Given the remote location, potential impacts of regional geopolitics (border closures due to Russian sanctions, border closures due to pandemic, etc.), and weather patterns in Mongolia, there are timeframe risks around importation of key project items. Delays in the delivery of key items to the site will result in extensions of the time required to build and commission the project.
- Availability of sufficient construction resources Mongolia is a relatively small country with limited resources dedicated to the construction and development sector, particularly with mining project experience. Whilst the outcomes of the study have identified suitable quantities of resources to deliver the project delivery schedule as presented, firm commitments of suitable quantities of these resources will only be realized once contracts are finalised with vendors and service providers.
- **EPC Contractor Management** With the majority of construction work delivered under a single EPC contract, the schedule becomes highly dependent on the contractor's performance and capacity. Any delays or issues with the contractor may materially impact the project timeline. Likewise, EPC contractors often handle multiple projects concurrently which may introduce resource constraints on skilled labor or materials. A single EPC contractor may also not be able to handle changes in project scope, whether due to design modifications, client requests, or unforeseen site conditions, without impacting the schedule.
- **Project financing** The proposed project delivery schedule is based on the owner's expected program and timeline to secure project financing. Any delays in the availability of project financing sufficient to meet required cash outflows may result in extensions in time to deliver certain elements of the project delivery schedule.

1.17 <u>Recommendations</u>

1.17.1 Geology and Mineral Resource

1.17.2 BK Deposit

To potentially expand the current resource base at Bayan Khundii, additional drilling can be undertaken with a specific focus on expanding and infilling the mineralization at Striker West in order to gain further confidence in the high-grade mineralization present. Further exploration style drilling could also be undertaken in the north-east and south-west of the currently modeled gold mineralization, along with step out style extensional drilling to the east of Bayan Khundii. As infill drilling is conducted, drill hole assay and lithology results should be compared against the geological and resource model in order to quantify any variation in expected and realized geology and gold grades which were intersected.

1.17.3 DH Deposit

Additional exploration in the greater Dark Horse area is currently underway with multiple exploration targets identified based on geochemical anomalism, geophysics, and structural interpretation. It is recommended that this work continue to fully evaluate the potential of identifying additional mineral resources within the Project area.

For the Dark Horse Deposit, RPM has recommended that an investigation be undertaken to define robust weathering definitions relevant to mining and metallurgical considerations, then update interpretations to reflect those definitions. RPM also noted that more density data needs to be collected as only 62 of the 167 density measurements taken to date were derived from the core within the resource wireframes. This number of mineralized density measurements is considered low to determine density variation within the deposit.

1.17.4 Geotechnical

1.17.4.1 Bayan Khundii

The assessments are generally considered to be robust for the purpose of kinematic stability evaluation of mine pit parameters, in pit areas where data is comparatively low, further information will better inform the representativeness of the current assessment. In particular, in the northern to eastern pit areas which have lower drill hole density.

Additional geotechnical drill holes should be conducted to reduce uncertainties due to bias in drill orientation particular where additional geotechnical testing is warranted and lesser data is available. The distribution of geomechanical data over the mine area is relatively limited, therefore, additional investigation is recommended to address some of the data gaps and variations in geotechnical parameters used in the bench and mine pit stability analyses, as well as for the assumed parameters adopted in the kinematic assessments. Further validation of the geotechnical parameters aims to reinforce the recommendations of this review and may enable some of the recommendations for reduced BFA to be further relaxed.

In proposing additional investigations, some vertical drill holes should also be considered to provide drill core samples for testing along the principal stress alignments, and also to vary the inclination of any potential anisotropic features with respect to the axis of test loading.

Given the degree of variance in the rock strength materials, additional strength testing of core samples is recommended to better determine characteristic rock strength parameters for each lithological domain over the geographic mine sectors. If during the course of excavation, point load (PL) tests are used for quick on-going assessments of rock strength and as part of the ongoing monitoring, then UCS and point load tests should be undertaken on adjacent parts of core samples for evaluation of the UCS-PL correlation.

Direct shear test results were not available and a typical friction angle of 30° was assumed for the kinematic assessment and a sensitivity analysis completed for a 40° friction angle. Carefully selected direct shear tests will provide more informed parameters for assessment and a more detailed review of the prevalence of any discontinuity coatings or infills. This process should be ongoing prior to and during excavation operations. However, following the use discontinuity shear tests for Dark Horse, the test method and sample set-up arrangements need to be addressed before any further testing. Alternatively, the conservative assumption for friction angle may be maintained.

1.17.4.2 Dark Horse

The 2023 geotechnical review is considered to be sufficient for the purposes of kinematic stability evaluation and determining the suitable parameters for mine pit design. However, similar to the Bayan Khundii area, data in some

sectors is comparatively low due to the preferential directional drilling during the exploration campaigns. Specific geotechnical investigation was carried out in 2023 to obtain additional geotechnical data for the current assessment.

While the current available data is considered sufficient, and the geotechnical assessment considered robust, additional investigations and laboratory testing are recommended prior to and during mine construction and operation to fortify the design assumptions, mine pit parameters and provide necessary engineering designs to mitigate specific hazards.

Given the degree of variance in the engineering parameters of the rock materials, additional data acquisition would facilitate design review and improve the robustness of the design assumptions and associated pit parameter recommendations. In particular, if further investigation drilling is conducted, it is recommended that GSI logging by experienced geologists and UCS testing of cores be carried out.

1.17.5 Mining and Reserves

While sufficient definition is provided to define waste and ore quantities by type and volume in the mine plan included in the FS, a higher resolution of grade/sub-grade/waste boundaries is required before the commencement of waste stripping and ore production.

Preliminary grade control drilling is recommended in order to more confidently define the grade zones within the orebody and the ore/sub-grade/waste boundaries. Pre-stripping is planned in the pre-production schedule to generate sufficient waste material to build the ROM and the IWF initial structures. Appropriate grade control definition will be required in advance of the pre-stripping activities to ensure no ore loss occurs.

Grade control drilling is planned and costed in the mining operating cost throughout the mine life to ensure sufficient definition of ore and waste is available for mine planning to achieve consistent ore delivery to the process plant. By undertaking additional infill drilling and grade control during operations, inferred material, which for the purposes of this FS update is classified as waste, may be re-classified as ore, resulting in an increase in the reserve and an extension of the mine life.

Additional drilling outside the current pit limits may identify additional ore which could be included in the mineable reserves. If this additional ore with sufficient grade is defined within close proximity to the resource currently excluded from the mineable reserve, a further optimization study could be undertaken resulting in an increase in the mineable reserve resulting in an extension to the mine life.

The equipment selected for the mining operation is adequate to achieve the planned production as set out in this report and was selected based on reasonable commercial principles and processes. However, given the competitive market for mobile equipment suitable for mining operations, further investigation of excavator and truck configurations as well as ancillary and support equipment performance may result in further optimization of fleet performance and cost efficiency.

1.17.6 Mineral Processing and Metallurgical Testing

Based on the work conducted to date, additional testwork may be useful in fine tuning controls in the plant during operations, recommendations include:

- Evaluate additional variability samples throughout the deposit to gain additional understanding of potential variability in gold recoveries and reagent consumptions; and
- Conduct additional testwork to further optimize leach conditions including cyanide addition rates and primary grind size.

1.17.7 Plant and Facilities Design

Additional field investigations may enhance final plant foundation design. The existing process plant and facilities design is based on pedestal footings for the enclosed structure and standard foundations and ring beams for the equipment within the enclosure. Drilling complemented by Standard Penetration Tests ("SPT") and cone penetration tests ("CPT") is recommended to confirm foundation conditions for final design. The additional field work should consist of 20 to 30 holes with SPT logging and, where appropriate, CPT probes located within the foundation footprint. Each process plant enclosure footing should be assessed by a competent Geotechnical professional to verify the bearing capacity, and to determine the actions for identified soft spots within the foundation bearing zone.

1.17.8 Integrated Waste Facility

The current design is based on ATCW bankable feasibility study and will require the following:

- Additional field investigations should be performed in the IWF footprint areas at the detailed design level, including supplementary characterisation of foundation conditions, tailings material and potential borrow areas. This work could be carried out during the foundation preparation works of the IWF.
- Two trial pads for the following HDPE lining conditions:
 - Trial pad for waste rock placement on the protected HDPE lining system, and
 - Trial pad for tailings placement on the exposed HDPE liner.
- A monitoring program including piezometers, survey monuments and groundwater monitoring wells should be established as part of the detailed design. The program should also include annual reviews and independent audits as part of the final design.
- The closure design should be reviewed, and if necessary, updated during the detailed design, taking into consideration regulatory requirements.
- An Operations, Maintenance and Surveillance ('OMS') Manual, which guides the operation of the IWF, should be developed as part of detailed design, and include such items as:
 - A detailed project construction schedule that considers the contractor equipment, earthwork quantities and seasonality,
 - The use of an observational approach to provide an understanding of the actual performance of the facility. The periodic review of the performance of the facility should be conducted considering field observations to provide guidance for future operations. Operations personnel should closely monitor the observed seepage, pore pressures and phreatic surface, and
 - Refinements and modifications to the design and operational procedures should be made based on observed conditions and monitoring data, as appropriate.

1.17.9 Dark Horse Waste Dump

The current DH WRD design is based on ATCW bankable feasibility study and will require the following:

- Field investigations should be performed in the DH WRD footprint area at the detailed design level, including characterisation of foundation conditions since this has yet to be undertaken. The feasibility design assumes similar foundation conditions to that of the BK IWF.
- The closure design should be reviewed, and if necessary, updated during the detailed design, taking into consideration regulatory requirements.
- A monitoring program including groundwater monitoring wells should be established as part of the detailed design.

1.17.10 Environmental, Social and Mine Closure

Ongoing monitoring of key environmental parameters at the Project site, including but not limited to ambient dust levels, water quantity, and flora/fauna, are recommended in the course of the Project's development in order to enable robust comparison with baseline conditions and ensure that the Project's management plans and procedures are fit-for-purpose.

Modelling of the hydrological conditions of the final void post-mining based on monitoring data collected during operations are recommended to be undertaken to determine whether a pit lake may form, and if so, the likely water quality.

Altan Nar Gold-Polymetallic Project

Except as otherwise stated herein, the following disclosure relating to the Altan Nar Project is extracted from the Altan Nar Technical Report prepared by the Corporation with an effective date of December 31, 2020 and a report date of March 29, 2021 and was prepared in accordance with NI 43-101. The author of the resource estimate and related sections, and the Metallurgical Testing section of the Altan Nar Technical Report are independent of Erdene. The balance of the technical report is authored by a former Erdene geologist who is not independent. All authors are "Qualified Persons" (as defined by NI 43-101). See in this AIF, "Interests of Experts".

Readers are directed to and encouraged to review the Altan Nar Technical Report in its entirety, which is available under the Corporation's profile on SEDAR at www.sedar.com and which qualifies the following disclosure. The executive summary section of the Altan Nar Technical Report, reproduced below, is not exhaustive. The Altan Nar Technical Report is intended to be read as a whole, and sections should not be read or relied upon out of context. The Altan Nar Technical Report contains the expression of the professional opinion of the Qualified Persons based upon information available at the time of preparation of the Altan Nar Technical Report. The following disclosure, which is derived from the Altan Nar Technical Report, is subject to the assumptions and qualifications contained in such report. All capitalized terms used in the summary below that are not otherwise defined shall have the meanings ascribed thereto in the Altan Nar Technical Report.

EXECUTIVE SUMMARY

1.1 <u>Introduction</u>

Erdene Resource Development Corporation ("Erdene", or the "Company") has prepared a National Instrument 43-101 (NI 43-101) Technical Report ("Technical Report") for their 100% owned Altan Nar gold-polymetallic project (the "Project") located in the Bayankhongor Aimag, or province, of southwestern Mongolia. The Technical Report includes an update of the current state of the Project and a restated Altan Nar Mineral Resource statement prepared by RPM Global Ltd. with effective date of May 7, 2018. The Technical Report is prepared in support of the Company's 2020 Annual Information Form.

Erdene is a Canadian-based resource company focused on the acquisition, exploration, and development of precious and base metals in underexplored and highly prospective Mongolia. Erdene's deposits are located in southwestern Mongolia's 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 the region since 2005 and is responsible for the discovery of the Khundii Gold District with interests in three mining licenses and two exploration licenses hosting multiple high-grade gold and gold/base metal prospects, including the 100%-owned Bayan Khundii and Altan Nar gold deposits. Erdene Resource Development Corp. is listed on the Toronto and the Mongolian stock exchanges.

The Technical Report is prepared by following Qualified Persons ("QPs"); Mike MacDonald, P.Geo. (NS) ("Report Author"), is responsible for all sections except those related to the Mineral Resource estimate which were prepared by Jeremy Clark, MAIG, consulting geologist for RPM Global Asia Limited ("RPM") and the metallurgical section, which was prepared by Andrew Kelly, P.Eng., Senior Metallurgist with Blue Coast Research. Mr. MacDonald is not independent of the Company while Messrs. Clark and Kelly are independent of the Company.

In December 2019, the Company released a report "Khundii Gold Project NI 43-101 Technical Report" prepared by Tetra Tech which included a prefeasibility study for the Company's Bayan Khundii gold project and a Preliminary Economic Assessment for the Altan Nar project. The two projects are located ~20 km apart. In that report, it was envisioned that the two projects would use the same infrastructure for processing ore from each deposit. Since that report was released, a feasibility study has been completed for the Bayan Khundii gold deposit. The current base case for Altan Nar is that additional work is required to determine the optimal recovery of metals from the deposit, which may mean that Altan Nar ore will be mined and processed separately from Bayan Khundii, based mostly on the fact that the ore mineralogy of the two deposits is very different, Bayan Khundii poldes). While portions of the Altan Nar deposit are suitable for processing at Bayan Khundii, the Bayan Khundii processing facility would only recover a portion of the gold and silver from the Altan Nar deposit and none of the base metals. To maximize the value of the Altan Nar to maximize the size of the mineral resource and to undertake additional metallurgical testing designed to optimize the metal recovery from the Altan Nar deposit. While the Company is currently focused on the development of the Bayan

Khundii gold deposit, it is anticipated that additional resource delineation drilling and metallurgical test work will be carried out at Altan Nar in 2021.

1.2 **Property Description and Location**

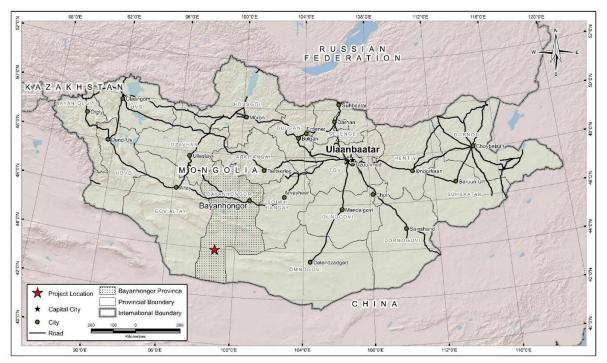
The Project is in southwestern Mongolia and located on the Altan Nar Mining License which is 100% held by Erdene Mongol LLC, a wholly owned subsidiary of Erdene. The Project is located approximately 980 km southwest of the Mongolian capital Ulaanbaatar (population 1,372,000) and 300 km south of the provincial capital, Bayankhongor City (population 30,900). The nearest towns (soum centres) are Shinejinst and Bayan Undur, located 70 km northeast and 80 km north, respectively. The Project area is sparsely populated with nomadic pastoral activity being the main industry.

The Altan Nar deposit, located on the Altan Nar mining licence, is located 20 km (via unsealed road) from the Company's Bayan Khundii Gold Project, located on the Khundii Mining Licence. Field work is currently carried out from an exploration camp located at the Bayan Khundii site.

The Altan Nar mining license was first acquired as an exploration license in December of 2009 and in 2020 was converted to a mining license. Mining licenses in Mongolia are issued for an initial term of 30 years with an option to renew for two 20-year terms, for a maximum of 70 years.

The Altan Nar mining license is subject to a 1% Net Smelter Return royalty agreement with Sandstorm Gold Ltd. The Report Author is not aware of any environmental liabilities to which the property is subject.

Figure 1-1 Altan Nar Project Location Map



1.3 <u>Geology</u>

The Project is located within the Edren island arc terrane which is part of the larger composite Trans Altai Terrane ("TAT"). The TAT forms part of the western end of the large, composite, arcuate-shaped Paleozoic New Kazakh-Mongol Arc terrane ("NKMA"). The NKMA is part of the Central Asian Orogenic Belt and extends along the southern margin of Mongolia, including the border region with China, and is host to some of the world's largest gold and copper-gold deposits including the Oyu Tolgoi copper-gold porphyry mine in south central Mongolia approximately 670 km to the east (Figure 1-2).

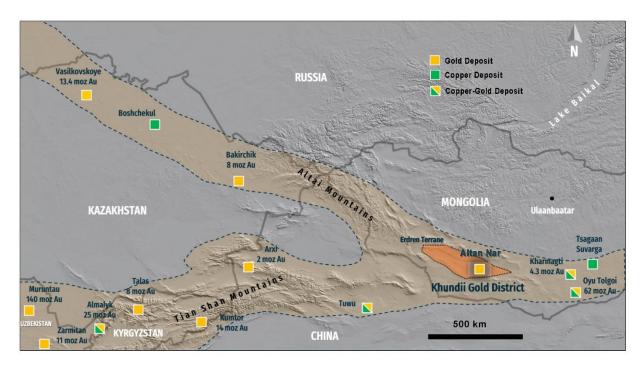


Figure 1-2 Gold Deposits of the Eastern Portion of the Central Asian Orogenic Belt

The geology of the Altan Nar license consists of a package of predominantly andesite-basalt flows (referred to as 'Sequence A' - Aguit Formation, lower member) dominate the eastern part of the license area. These volcanic rocks have pronounced NW-SE trending linear features that are evident on satellite images. These rocks are interpreted to be a steeply dipping volcanic sequence that was intruded by Sumankhairkhan intrusive massive, and was also intruded by sub-parallel, NW-trending alkali granite porphyry and fine-grained granite intrusions interpreted to be dykes, or sills. Widespread development of hornfels textures was noted in the andesite-basalt rocks, presumably resulting from contact metamorphism related to the first phase monzodiorite of the Sumankhairkhan Intrusive complex.

The geology of the central and western portion of the Altan Nar license area consists mostly of a sequence of volcanic flows and tuffaceous rocks of andesite composition (referred to as 'Sequence B'), with subordinate rhyolite, rhyodacite, andesite tuff, and green-coloured andesite (upper member of Ulziitkhar Formation). Bedding orientations for the Sequence B volcanic rocks, obtained from 2017 oriented core drilling, indicate these volcanic units strike to the northwest and dip at approximately 20-30 degrees to the northeast.

The Altan Nar deposit is hosted in the Sequence B volcanic units (upper member of Ulziitkhar Formation) and consists of gold, silver, zinc, and lead within sub-vertical epithermal quartz veins. The Altan Nar deposit consists of eighteen separate deposits and prospects including the main Discovery Zone ("DZ") deposit and smaller Union North ("UN") deposit located 1.3 km northwest of the DZ.

1.4 <u>Mineralization</u>

Within the Discovery Zone, gold mineralization appears to be structurally controlled within NNE to NE trending subparallel fault/breccia zones that are steeply dipping to sub-vertical. Gold-bearing zones are associated with multiphase gold-silver-lead-zinc mineralization related to epithermal quartz and quartz-chalcedony veins and breccias in a northeast-southwest trending, steeply northwest dipping, fault / breccia zone. Preliminary evidence suggests that andesite units, particularly near the contact with more competent silicified volcanic breccia units, act as a favourable host for mineralization.

There are multiple phases of quartz veins / breccia (+/- mineralization) within the structurally controlled mineralized zones at Altan Nar. Only preliminary work has been completed to date regarding the paragenetic sequence for these phases. Accordingly, no definitive sequence is provided for the following mineralizing phases, based on petrographic

observations, coupled with other field and mineralogical data, the following preliminary paragenetic sequence is proposed for Altan Nar:

- Early-stage massive quartz veining and brecciation.
- Brecciation, silicification and comb quartz veining and associated white mica alteration (sericite-pyritequartz) and deposition of galena-sphalerite-chalcopyrite-gold ±arsenopyrite (low-arsenopyrite gold mineralization).
- Localized arsenopyrite-pyrite-gold overprint on above sequences, with some associated chalcedony veining and silicification (high-arsenopyrite gold mineralization).
- Mn-Ca carbonate veining (rhodochrosite, calcite, etc.) late hypogene
- Late-stage (supergene) oxidation limonite, Mn oxides, malachite.

Zones of high-arsenic gold mineralization were initially reported and tested. However, additional drilling and trenching across the Altan Nar property has shown that this type of mineralization is localized when compared to the dominant low-arsenic style gold-silver-lead-zinc mineralization.

1.5 Deposit Type

Altan Nar is an intermediate-sulphidation (IS) epithermal deposit. IS deposits result from a combination of magmatic and meteoric fluid influence and form at depths ranging from 0.3 to 1.0 km beneath the surface, at temperatures which also vary between 150° C and 300° C.

Intermediate sulphidation deposits typically contain manganese-, calcium- and iron-carbonate gangue minerals along with sulphide minerals including pyrite, chalcopyrite, sphalerite, galena, tetrahedrite, and tenantite. Based on this minerology, IS deposits represent important targets and sources for gold, silver, lead, and zinc mineralization.

This style of gold mineralization represents the most prolific style of gold mineralization in the southeast Asia region and includes Kelian, Porgera and Anatok, and elsewhere in the world, Fruta del Norte, Cripple Creek & Montana Tunnels and Rosia Montana and in Mexico five of the world's top silver producers including Penasquito. They are commonly associated with breccia pipes (diatremes) and can extend vertically for greater than 1 kilometre. The Kelian open pit, for example, is 500 metres deep.

1.6 Exploration

Erdene has carried out phased, progressively more detailed, exploration across the Altan Nar mining license since acquiring the license in 2010. This exploration work has consisted of geological mapping, geochemical sampling (rock and soil), geophysical surveys (ground magnetics, induced polarization surveys, including dipole-dipole lines and a gradient array grid, and a ground gravity survey), trenching and drilling.

To date exploration has focused on the Altan Nar target area, a 5.6 by 1.5 km area in the central portion of the Altan Nar mining license, specifically the Discovery Zone and Union North, the two prospects with defined Indicated and Inferred resources. An additional 16 prospects have been identified by the combination of geology, geochemistry and geophysical anomalies across the Altan Nar target area. These additional prospects have had limited or no exploration and scout drilling to date. Inferred resource have been defined for seven of these prospects, though based on limited drill data.

Two other prospects have been identified outside of the Altan Nar target area, Nomin Tal to the east and Oyut Khundii to the west. Both prospects have had limited exploration work carried out to date and require follow-up exploration to be carried out.

Geochemistry

The soil sampling program on the Altan Nar mining license has proven to be an effective exploration tool and has resulted in the identification of numerous mineralized zones. Positive IP gradient array chargeability anomalies frequently correlate with soil geochemical anomalies. Data from rock chip samples indicate similar results to soil geochemistry. Mineralization associated with each of the three projects identified to date on the mining license, including Altan Nar, Nomin Tal and Oyut Khundii, each have unique geochemical signatures. For example, Nomin Tal has high Cu-Ag-Au values while Altan Nar has high Au-Ag-Pb-Zn (\pm As-Mo) but low Cu and Oyut Khundii has high Cu and As values. These differences are likely related to either different mineralization styles, or perhaps different modes of emplacement of the mineralization, and may represent metal zonation within a large overall mineralized system.

Geophysics

A regional magnetic survey (100 m line spacing) was completed over a 41 km2 area covering most of the Altan Nar mining license (2010-2012). In addition, two areas have been surveyed in more detail at closer line spacing. Nomin Tal (1.4 km2 area) and Altan Nar (14.5 km2 area) prospects was surveyed at 25m line spacing in 2011. In 2017, the high-resolution ground magnetic survey was carried out over Altan Nar area, using 10 metre line spacing, with a total of 1,000 survey line kilometres.

Both IP dipole-dipole ("Dp-Dp") and IP gradient array surveys have been completed on the Altan Nar property over, and in the vicinity of, the Nomin Tal and Altan Nar areas and in 2018 an IP dipole-dipole survey was carried out over the Oyut Khundii area.

At Altan Nar, high chargeability anomalism has been an important guide, in conjunction with rock and soil geochemical anomalies and magnetic data to identify drill targets.

In 2018 a ground gravity survey was completed over the Altan Nar mining license using a 200 m x 200m grid spacing for data points. Interpretation of gravity data indicates several potential granitoid (porphyry?) intrusions throughout the license area.

Trenching

Erdene has completed a series of trenching programs across the Altan Nar Project area that included 42 trenches, totalling 3,151 m and ranging in length from 14 m to 202 m. The principal objectives of the trenching programs were to further define the near-surface mineralization identified to date, improve the understanding of the gold mineralized system, and prioritize areas for the next phase of delineation drilling.

1.7 <u>Drilling</u>

A staged exploration and resource delineation drilling program was carried out across the Altan Nar prospect between 2011 and 2019. Drilling at Altan Nar has average hole length of 155 m (average vertical depth 116 m) and extends in a couple of holes to a maximum vertical depth of approximately 390 m. Drill hole spacing over the Discovery Zone and Union North deposit areas is on an approximate 50 m by 50 m grid with closer spaced drilling in select areas (~25 m by ~25 m spaced holes).

Since the discovery of mineralized epithermal quartz veins on surface and widespread soil geochemical anomalism across the Altan Nar Area in August 2011, there have been seven rounds of drilling over a nine-year period for a total of 20,158 m. Resource delineation drilling has taken place over the Discovery Zone and Union North deposits while exploration and scout drilling has taken place across 12 of the 16 other identified prospects. Inferred resource have been calculated for seven of these prospects, namely, Central Valley, Maggie, Riverside, UN East, Union South, True North and Northfield. Additional drilling is required to further the define and delineate the mineralization in these prospects.

In late Q4-2019, post the release of the May 2018 Altan Nar resource estimate, the Company drilled five holes (TND-134 to TND-138) totaling 667 metres in the Discovery Zone ("DZ"). The Q4-2019 program successfully tested a concept of a preferred high-grade gold-mineralized horizon believed to potentially represent an epithermal boiling zone. Four holes tested the high-grade core area of the Discovery Zone, over a 130-metre strike length, 70 metres of which remains untested by drilling ("Gap Zone"). The fifth hole tested the southern extension of the DZ deposit. Follow-up drilling is required to further delineate the high-grade boiling zone model.

1.8 <u>Mineral Processing and Metallurgical Testing</u>

Metallurgical testwork for the Altan Nar study is based on six test programs conducted between 2012 and 2019 at ALS Ammetc (Perth, Western Australia), Actlabs Asia LLC. (Mongolia), and Blue Coast Research Ltd. (Parksville, BC) and SGS Canada Inc. (Burnaby, BC). Metallurgical tests to date include:

- Gold deportment study conducted in 2012 by ALS Ammtec on one sample from Discovery Zone South.
- Cyanidation tests conducted in 2013 and 2015 by Actlabs Asia LLC. on samples from Discovery Zone North, Discovery Zone South and Union North areas of the deposit. This study found higher gold recoveries in samples with lower arsenic content with maximum gold recovery achieved after 24 hours.
- Heavy liquid separation, gravity testwork, cyanidation, flotation and grindability tests conducted by Blue Coast Research Ltd. In 2015 and 2018. This work focused on the impact of finer grind sizes and higher cyanide concentrations on overall recovery and found that finer primary grinds resulted in limited

improvement to overall gold recovery, with flotation and/or oxidative pre-treatment likely necessary to optimize gold recovery from areas of the deposit with higher arsenic content. Gravity testwork concluded that a portion of the gold at Altan Nar is amenable to recovery by gravity methods. The results of the heavy liquid separation testwork found pre-concentration of Discovery Zone North material suffered from high losses in base and precious metals during the process. Flotation from Discovery Zone North produced generally acceptable lead and zinc concentrate grades. However, the flotation response from Discovery Zone South and Union North was suboptimal in testwork to date.

• Grindability testwork completed in 2015 and 2019 by SGS Canada Inc. The results suggested that material from the Altan Nar deposit is moderately hard to hard. In addition, it was found that material from the Discovery Zone was abrasive, while material from Union North was moderately abrasive.

Gold recovery projections are based on a whole ore cyanidation process, with a relationship between arsenic quantity and recovery expected. As arsenic content increases, overall gold recovery decreases. It was found that the high arsenic zone present in the Altan Nar deposit constitutes 11% of the total mineralized material in the orebody. Selective mining to exclude the high arsenic zone is proposed to reduce the arsenic content of processed ore, with gold recovery of material with an arsenic content of less than 0.16% averaging 88%.

1.9 <u>Mineral Resource Estimate</u>

The Mineral Resource Estimate for the Altan Nar deposit was stated in 2018 by RPM with an effective date of May 7, 2018 and documented in the report titled "NI 43-101 Technical Report for the Preliminary Economic Assessment of the Khundii Gold Project" dated February 4, 2019 and available on SEDAR under the Company's profile. Since the effective date six holes have been drilled on the deposit, however, as further detailed in Section 14 these holes are not considered by the Qualified Person to be material to the resource estimate, as such the Qualified Person considers the resource estimate to be current based on the available information.

The results of the Mineral Resource Estimate for the Altan Nar deposit are presented in Table 1-5. RPM has reported the Mineral Resources using a 0.7 g/t AuEq above pit and 1.4 g/t AuEq below the pit shell as a reporting cut-off based on a mining / process and cost parameters for the Project.

	Indicated Mineral Resource										
	Quantity	Au	Ag	Zn	Pb	AuEq	Au	Ag	Zn	Pb	AuEq
	Mt	g/t	g/t	%	%	g/t	Koz	Koz	Kt	Kt	Koz
Oxide	0.6	2.0	12.7	0.6	1.0	3.1	39.3	244.3	3.8	6.3	59.6
Fresh	4.4	2.0	15.0	0.6	0.5	2.8	278.4	2,105.4	27.8	22.7	393.4
Total	5.0	2.0	14.8	0.6	0.6	2.8	317.7	2,349.7	31.6	29.0	453.0
			Inferi	ed Mi	ineral	Resource					
Туре	Quantity	Quantity Au Ag Zn Pb AuEq Au Ag Zn Pb AuEq						AuEq			
	Mt	g/t	g/t	%	%	g/t	Koz	Koz	Kt	Kt	Koz
Oxide	0.8	1.8	7.5	0.6	0.9	2.6	43.3	183.7	4.3	6.5	64.2
Fresh	2.7	1.7	8.0	0.7	0.6	2.5	142.4	682.1	19.4	15.8	212.8
Total	3.4	1.7	7.9	0.7	0.7	2.5	185.7	865.8	23.7	22.3	277.1

Table 1-1: Altan Nar Deposit Mineral Resource Estimate, May 2018

Note:

1. The Statement of Estimates of Mineral Resources has been compiled under the supervision of Mr. Jeremy Clark who is a sub-consultant of RPM and a Member of the Australian Institute of Geoscientists. Mr. Clark has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity that he has undertaken to qualify as a Qualified Person as defined in the CIM Standards of Disclosure.

2. All Mineral Resources figures reported in the table above represent estimates based on drilling completed up to 7th May 2018. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape, and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.

- 3. *Au Equivalent (AuEq) calculated using long term 2023 2027 "Energy & Metals Concensus Forecasts" March 19, 2018, average of US\$1310/oz for Au, US\$17.91/oz for Ag, US\$1.07/pound for Pb and US\$1.42/pound for Zn. Adjustment has been made for metallurgical recovery and is based company's preliminary testwork results which used flotation to separate concentrates including a pyrite concentrate with credits only for Au and Ag. Based on grades and contained metal for Au, Ag, Pb and Zn, it is assumed that all commodities have reasonable potential to be economically extractable.
 - a. The formula used for Au equivalent grade is: AuEq g/t = Au g/t + Ag g/t*0.0124+Pb%*0.509+Zn%*0.578 with metallurgical recovery of 88.8% Au, 80.6% Ag, 80.4% Pb and 69.1% Zn.
 - b. Au equivalent ounces are calculated by multiplying Mineral Resource tonnage by Au equivalent grade and converting for ounces. The formula used for Au equivalent ounces is: AuEq $Oz = [Tonnage \ x \ AuEq \ grade \ (g/t)]/31.1035.$
- 4. Mineral Resources are reported on a dry in-situ basis.
- 5. Reported at a 0.7 g/t AuEq cut-off above pit shell and 1.4g/t AuEq below the pit shell. Cut-off parameters were selected based on an RPM internal cut-off calculator, which indicated that a break-even cut-off grade of 0.7g/t Au Equivalent above pit and 1.4g/t AuEq below pit, assuming a gold price of US\$1310 per ounce, an open mining cost of US\$6 per tonne and a processing cost of US\$20 per tonne milled and processing recovery of 88.8% Au, 80.6% Ag, 80.4% Pb and 69.1% Zn.
- 6. Mineral Resources referred to above, have not been subject to detailed economic analysis and therefore, have not been demonstrated to have actual economic viability.

1.10 Interpretation and Conclusions

The following interpretations and conclusions have been made on the Altan Nar Gold Project from the findings of the Technical Report:

- The Project represents a promising intermediate sulphidation epithermal gold-silver-polymetallic project and has resources of sufficient quality to warrant additional investigation. No Measured Resources have been classified, however, Indicated Resource of 453,00 ounces ("oz") gold equivalent ("AuEq") averaging 2.0 g/t Au and 2.8 g/t AuEq and Inferred Resource of 277,100 oz AuEq averaging 1.7 g/t Au and 2.5 g/t AuEq, at a 0.7 g/t AuEq cut-off grade, within a total resource of 5.0 million tonnes ("Mt") Indicated and 3.4 Mt Inferred;
- Indicated Resource includes 317,700 oz gold, 31,600 tonnes ("t") zinc, 29,000 t lead, and 2.35 million oz silver, while the Inferred Resource contains 185,700 oz gold, 23,700 t zinc, 22,300 t lead, and 865,900 oz silver;
- Approximately 63% of the Mineral Resource is classified as Indicated and 37% classified as Inferred;
- Approximately 90% of the Mineral Resources are within 150 metres of surface with all zones open along strike and at depth;
- Multiple undrilled and scout-drilled prospects along the 5.6 kilometre Altan Nar trend have the potential for hosting additional gold-polymetallic resources;
- Potential for increasing the Mineral Resources are good, with the DZ and UN areas along strike and down dip, which requires further drilling to investigate potential. In addition, previously undrilled and scout drilled areas have potential which will need drill investigation;
- Metallurgical testwork is at an early stage, but samples tested to date have generally shown a good response to leaching with average gold recoveries of 80% for the low arsenic material. Higher arsenic samples, which appear to make up only a relatively small part of the deposit (11%), would require a more intensive, though nonetheless proven, processing method with potentially high gold recoveries;
- Additional metallurgical testwork should be undertaken to maximize the metal recovery potential for the Altan Nar deposit; and
- The proposed processing circuit has not yet been defined for the Project. This will be completed based on ongoing metallurgical studies.

1.11 <u>Recommendations</u>

1.11.1 Drilling and Mineral Resources

In 2020, Wave Geophysics Ltd, based in Colorado, USA, was contracted to complete a review and completion of all geophysical data collected between 2011 and 2018. A series of maps and 3D models were produced for the following data: ground magnetics, induced polarization and gravity. In conjunction with the geological mapping and geochemical data sets, the newly compiled geophysical data should be used to identify high-priority drill targets across the Altan Nar license area.

The results of the drill program carried out in 2019 in the Discovery Zone successfully tested a concept of a preferred high-grade gold-mineralized horizon believed to potentially represent an epithermal boiling zone. However, an untested area of central Discovery Zone (referred to as the "Gap Zone" remains open for 70 metres between TND-138 in the north and TND-134 to the south. This area should be drilled to confirm continuity of the mineralization in the Gap Zone.

Approximately 37% of the Altan Nar Project has been classified as Inferred Mineral Resource. It is recommended that additional drilling occur to increase confidence in the existing Inferred Mineral Resource, focusing on the highest-grade portions as well as additional extensional exploration drilling in the Discovery Zone and Union North areas of the deposit.

It is recommended that Erdene continue recording bulk density measurements, ensuring that measurements cover a variety of Fe grades to further refine the regression equation. Erdene should undertake a bulk density program using the remaining Altan Nar core. This should include up to 200 samples focusing on a range of grades (low to high) with each sample having a density determination as well as assays for Au, Pb, Zn and S.

1.11.2 Metallurgical Testwork

The following testwork is recommended to be included as part of a prefeasibility study program:

- Additional grindability testing to ensure that future processing of Altan Nar ore is well understood and including the following:
 - JK Drop Weight Test
 - SMC Tests
 - Abrasion Index Tests
 - Variability Bond Ball Work Index Tests
- Optimization of cyanidation conditions for high arsenic zones and lower arsenic zones
- Variability cyanidation tests from samples that include a range of arsenic contents and gold grades
- Further refinement of flotation conditions from high arsenic and low arsenic zones to determine if a flotation process could be implemented to add value through improved metal recovery and generation of additional by- products.
- Evaluation of pre-oxidation processes such as biological oxidation (BIOX), pressure oxidation (POX) or atmospheric oxidation (e.g., Albion Process) as a method to improve gold recovery from refractory zones.

1.11.3 <u>Recommended Further Study</u>

Task	Cost (CAD)
Data Compilation and Targeting	\$30,000
Drilling: In-fill, Exploration – 5,000m	\$1,200,000
Bulk Density Analysis	\$10,000
Update of Geological and Resource Model	\$50,000
AN Metallurgical Testing	\$100,000

Table 1-2: Estimated Budget for Recommended Further Study for Altan Nar

DIVIDENDS

The Corporation has not paid any dividends to date on its common shares ("**Common Shares**"). It is not contemplated that any dividends will be paid on any shares of the Corporation in the immediate future, as it is anticipated that all available funds will be invested to finance the growth of the Corporation's business. Any decision to pay dividends on Common Shares in the future will be made by the board of directors of the Corporation on the basis of the free cash flow, financial requirements and other conditions existing at such time.

DESCRIPTION OF CAPITAL STRUCTURE

Common Shares

The Corporation has an unlimited number of authorized Common Shares. As of December 31, 2024, it had 362,136,958 Common Shares issued and outstanding, and as of March 25, 2025, it has 363,026,958 Common Shares issued and outstanding. Each Common Share is entitled to one vote at meetings of shareholders, to receive dividends if, as and when declared by the board of directors, and to receive the remaining property upon dissolution, liquidation or winding-up of the Corporation as is distributable to the holders of the Common Shares.

Shareholder Rights Plan

The board of directors of the Corporation adopted a shareholder rights plan as of March 14, 2008, which was amended and restated by an amended and restated shareholder rights plan agreement dated June 14, 2017, a copy of which is available on SEDAR+ at <u>www.sedarplus.ca</u>. On June 22, 2023, shareholders approved the continuance of the shareholder rights plan. See "Material Contracts".

Omnibus Equity Incentive Plan

The Corporation adopted an omnibus equity inventive plan (the "Omnibus Plan") which was approved by the shareholders of the Corporation on June 22, 2023. The Omnibus Plan provides the Corporation with share-related mechanisms, including incentive stock options, deferred share units ("DSUs"), restricted share units ("RSUs"), and performance share units ("PSUs"), to attract, retain and motivate qualified directors, employees and consultants of the Corporation and its subsidiaries. The Omnibus Plan replaced legacy plans including an incentive stock option plan and a DSU plan (the "Legacy Plans"). Awards granted under these legacy plans remain in place under the terms of their initial issuance.

The Omnibus Plan is a variable plan and the aggregate number of common shares that may be issued upon the exercise or settlement of awards granted under the Omnibus Plan, together with awards outstanding under the Legacy Plans, shall not exceed 10% of the Corporation's total issued and outstanding common shares at any time.

Stock Options

As of December 31, 2024, the Corporation had 22,445,000 outstanding stock options issued, and 24,180,000 outstanding stock options issued as of March 25, 2025, under its Omnibus Plan and Legacy Plans. Currently all options are exercisable for one Common Share of the Corporation.

Warrants

As of December 31, 2024, and March 25, 2025, the Corporation had no warrants outstanding.

Deferred Stock Units

As of December 31, 2024, the Corporation had an aggregate of 9,991,248 DSUs outstanding under its Omnibus Plan and Legacy Plans that were granted to certain officers, directors and employees of the Corporation. At March 25, 2025, the Corporation had an aggregate of 9,991,248 DSUs outstanding under its Omnibus Plan and Legacy Plans.

MARKET FOR SECURITIES

The Corporation first traded its Common Shares on the TSX Venture Exchange under the symbol "ERD" on March 16, 2004. On December 14, 2005, the Corporation graduated to the Toronto Stock Exchange. The monthly price ranges and volume of the Common Shares on the TSX for the financial year ended December 31, 2024, are as follows:

	High	Low	Volume
January	0.37	0.29	2,690,268
February	0.39	0.30	3,040,188
March	0.42	0.35	4,440,417
April	0.42	0.37	2,639,391
May	0.52	0.40	2,734,742
June	0.50	0.40	2,405,491
July	0.45	0.41	2,365,887
August	0.49	0.40	2,846,143
September	0.65	0.42	5,682,475
October	0.79	0.62	5,133,831
November	0.68	0.55	2,614,692
December	0.63	0.50	2,014,796

ESCROWED SECURITIES AND SECURITIES SUBJECT TO CONTRACTUAL RESTRICTIONS ON TRANSFER

To the knowledge of the Corporation, no securities are held in escrow or are subject to contractual restrictions on transfer as of March 25, 2025.

DIRECTORS AND OFFICERS

The management of the Corporation consists of eight directors and two executive officers. All of the directors were elected at the Corporation's annual meeting of shareholders on June 22, 2023. The term of office of each director is until the next annual meeting of shareholders of the Corporation or until the position is otherwise vacated. The table below provides the names and related information concerning each director and executive officer of the Corporation.

Name, Province and	Principal Occupation ⁽¹⁾	Position (s) with the Corporation	Director/Officer
Country of Residence			Since
Peter C. Akerley ⁽²⁾⁽⁶⁾	President and CEO,	President, Chief Executive Officer	February 25, 2003
Nova Scotia, Canada	Erdene Resource	and Director, and Managing	
	Development Corp.	Director of Erdene's Subsidiaries	
Dr. Anna G Biolik ⁽³⁾⁽⁴⁾	Corporate Director	Director	June 14, 2016
British Columbia,	_		
Canada			

Name, Province and	Principal Occupation ⁽¹⁾	Position(s) with the Corporation	Director/Officer
Country of Residence			Since
T. Layton Croft ⁽³⁾⁽⁴⁾	President and CEO,	Chairman	July 2, 2015
North Carolina, USA	Carolina Rush Corp. (A		
	Canadian-based mining		
	company operating in the		
	southeastern U.S.)		
Robert Jenkins ⁽²⁾	Chief Financial Officer,	Chief Financial Officer	May 1, 2019
Nova Scotia, Canada	Erdene Resource		
	Development Corp.		
Kenneth W.	CEO and Controlling	Director	February 25, 2003
MacDonald ⁽⁴⁾⁽⁵⁾	Shareholder of Fisher		
Nova Scotia, Canada	Transport Limited (a		
	specialty transport		
	company)		
Cameron McRae ⁽⁶⁾	Executive Director of	Director	March 14, 2018
New South Wales,	Tarva Investment &		
Australia	Advisory (a broad-based		
	consultancy firm)		
David V. Mosher ⁽⁵⁾	Corporate Director	Director	June 14, 2016
Nova Scotia, Canada			
Hedley Widdup ⁽⁵⁾⁽⁶⁾	Executive Director of	Director	September 30, 2019
Melbourne, Australia	Lion Selection (Mining		
	focused investment		
	company)		

Notes:

(1) See biographical summaries below for descriptions of the occupations of the above noted individuals within the past five years and for prior periods.

(2) Member of the Pre-Clearance Committee.

(3) Member of the Corporate Governance and Disclosure Policy Committee.

(4) Member of the Audit and Risk Committee.

(5) Member of the Compensation Committee.

(6) Member of the Technical Committee.

As of March 25, 2025, all directors and executive officers of the Corporation, as a group, beneficially own, directly or indirectly, or exercise control or direction over 9,699,026 Common Shares of the Corporation, representing 2.7% of the Corporation's outstanding Common Shares.

Peter C. Akerley – Mr. Akerley has over 35 years of experience in mineral exploration, corporate financing, project development and management of publicly listed resource companies. He is one of the founders and principals of Erdene and has held the position of President and Chief Executive Officer of the Corporation since March 2003. Mr. Akerley is a geologist who has worked extensively in foreign jurisdictions throughout his career, predominately in North and South America and Asia, with a focus on Mongolia, where he has led the technical team through the confirmation of a major molybdenum and copper deposit, the discovery and definition of the Altan Nar gold deposit and the discovery of the Bayan Khundii gold project. He has extensive experience in corporate M&A, joint venture arrangements and financings, leading the Corporation through more than 20 such business arrangements since taking the Corporation public in 2004. Mr. Akerley served on the Board and Special Committee of Temex Resources Corp. advising on the sale of the company to Lake Shore Gold Corp. and was previously chairman of the TSX-V listed Morien Resources Corp., where he was involved in the sale of the Donkin Coal and Black Point Aggregate projects, converting those interests into royalties. He also pioneered the company's involvement as the founding and lead sponsor of the very successful Catapult leadership program in Nova Scotia. Mr. Akerley has a BSc (1988) from Saint Mary's University in Halifax, specializing in geology, and completed the Institute of Corporate Directors Audit Committee Effectiveness course in December 2012.

Dr. Anna G. Biolik – Dr. Biolik has over 30 years of public and private sector experience and is one of the foremost Canadian experts on Central Asian business and diplomacy. From 2010 to 2012, Dr. Biolik occupied the position of Regional Director, Pacific Region, Foreign Affairs and International Trade Canada. In 2012, Dr. Biolik retired from the federal public service. From 2014 to 2020, she worked as independent consultant and Vice-President and Chief Executive Advisor of Allam Advisory Group, a global business strategy and commercial diplomacy consulting firm. She was Canada's first resident Ambassador in Mongolia where she opened a full-fledged Canadian Embassy in 2008. Dr. Biolik previously served as Ambassador of Canada to Kazakhstan, Kyrgyzstan and Tajikistan as well as Consul General of Canada in St. Petersburg, Russian Federation. She also served as Senior Advisor for international relations and parliamentary affairs to the Governor General of Canada, as European Marketing Manager for Canada Post, as Senior Manager at Investment Partnerships Canada and as Director of the International Business Opportunities Centre. Dr. Biolik has extensive expertise in international commerce and has worked closely with Canadian companies in emerging markets. From 2013 to 2019, Dr. Biolik served also as external member of the Program and Research Council at Royal Roads University in Victoria, BC. She holds a Ph.D. from the University of Montreal and is fluent in English, French, Russian and Polish.

Thomas Layton Croft – Mr. Croft is an executive and entrepreneur with 30 years of global experience across increasingly senior roles, from non-profit to mid-tier to mega-cap to micro-cap. He has expertise building and leading successful enterprises, project delivery, complex stakeholder management, public-private partnership, strategic communications, corporate governance and ESG. His deep Mongolia expertise dates back to 1994, when his three years of service as a U.S. Peace Corps Volunteer included two years living and working in Bayankhongor Province in southwest Mongolia. He lived and worked full-time in Mongolia for 15 years, and also lived and worked in South Korea, Indonesia, Hong Kong and Singapore. He has held executive and senior advisory roles with Oyu Tolgoi LLC, Ivanhoe Mines, Rio Tinto, Peabody Energy and Duke Energy. He has been an independent director of Erdene since June 2015, and chairman of the board since June 2019. He is a member of the Erdene's Audit and Risk Management Committee and Corporate Governance and Disclosure Policy Committee. Since April 2017, Layton has been President, CEO and Director of Carolina Rush Corporation (formerly Pancontinental Resources Corp.), a Canadian junior mining company (TSXV: RUSH) focused on exploring the Southeast USA, home of North America's first gold rush. Since January 2022, Layton has been an independent director of Voltage Metals Corp., a Canadian junior mining company (CSE: VOLT) exploring for nickel in Ontario. Layton holds a BA from the University of North Carolina at Chapel Hill, an MA from the School for International Training in Vermont, and an MA from the Fletcher School of Law and Diplomacy at Tufts University in Massachusetts. He lives in Charlotte, North Carolina.

Robert Jenkins – Mr. Jenkins was appointed Chief Financial Officer on May 1, 2019. He joined Erdene as Vice President Business Strategy in 2018, with responsibility for strategic and financial planning. From 2010 to 2017, Mr. Jenkins held a series of progressive finance and operational roles with Brookfield Asset Management. Mr. Jenkins began his career in the assurance and consulting practices of Deloitte LLP. Mr. Jenkins graduated with a Bachelor of Commerce from St. Mary's University in 2003 and received the Canadian Chartered Professional Accountant designation in 2006.

Kenneth W. MacDonald – Mr. MacDonald was appointed director of the Board in June 2019. Until May 2019, Mr. MacDonald served as Executive Vice President of Erdene, a position he held from 2016. Additionally, Mr. MacDonald

served as Chief Financial Officer of Erdene from March 2003 to May 2019. From September 1992, Mr. MacDonald has also been the President and owner of Fisher Transport Limited, a specialized transport company, where he currently serves as CEO and controlling shareholder. In addition, he was the Vice President of Finance for Kaoclay Resources Inc. from 1996 to June 2006. Prior to 1985, Mr. MacDonald, a chartered professional accountant, was a senior manager with one of Canada's major accounting firms. From 1985 to September 1992, he was vice president finance with public and private corporations in the resource sector. Mr. MacDonald graduated from St. Mary's University in 1977 with a BCom and received the Chartered Professional Accountant designation in 1980.

Cameron McRae - Mr. McRae was appointed director of the Board in March 2018. Mr. McRae is a seasoned CEO, having led mining organizations through the full mining development cycle in four countries and across three continents. Cameron served a 28-year career with Rio Tinto, and in Mongolia was President of Oyu Tolgoi LLC and Rio Tinto's country director for Mongolia. In that role he led the construction and start-up of the US\$6 billion Oyu Tolgoi copper-gold mine, ahead of schedule, which at peak of construction had over 15,000 people employed on site. Cameron has led successful greenfield and brownfield construction projects, overarching business transformations and business improvement projects, and at the corporate level has deep commercial/M&A experience. Prior to Oyu Tolgoi, Cameron was CEO of Richards Bay Minerals in South Africa (2008-10), Managing Director of Murowa Diamonds in Zimbabwe (2006-07) and Project Director for the Hail Creek Coking Coal Expansion project in Australia. Prior to 2004, Cameron held commercial and project leadership roles, both at Corporate and Business Unit levels. In 1995, he was a key team member responsible for the A\$29 billion merger of CRA and RTZ into the dual listed Rio Tinto (which was the world's largest merger at the time). Mr. McRae is the co-founder of DTP Partners, a broadbased consultancy firm and is Chairman of Kincora Copper Limited (KCC on the TSX-V and ASX). Cameron is an advisor to the Business Council of Mongolia (previously Vice Chairman), is a trustee of the Arts Council of Mongolia. Cameron was schooled in Australia and Africa and holds a commercial degree and an MBA (Monash Mount Eliza, 1991).

David V. Mosher – Mr. Mosher is a mining executive with over thirty-five years of international experience. From 1992 to 2008, David was President and CEO of High River Gold Mines Ltd., a TSX listed company involved in the exploration, development and production of gold in Canada, Africa and Russia. In that role, he negotiated the acquisition of two producing Russian gold mines, completed mining investment agreements with the government of Burkina Faso, raised over \$300 million to support the company's growth, and supervised the development of two open pit gold mines (the Taparko gold mine in Burkina Faso and the Berezitovy gold mine in Russia). He has served on many boards including Cambior Inc. and earlier in his career was project manager for Pancontinental Mining Limited, where he and his team discovered and outlined the largest uranium deposit in the world at that time (the Jabiluka deposits in northern Australia). Over the past decade, Mr. Mosher has been active in the restructuring and refinancing of a number of junior resource companies, both private and public, and currently serves as a director of several mining and exploration companies, including Carolina Rush Corporation (TSX-V) and Pelangio Exploration Inc. (TSX-V). Mr. Mosher received his B.Sc. degree in geology from Acadia University.

Hedley Widdup – Mr. Widdup is a geologist, with over 25 years experience in mining, geology and mining investment. Hedley was part of the mine geology teams at the Mt Keith Nickel Mine (WA), Olympic Dam Copper-Uranium Mine (SA), Black Star Open cut zinc project, which is a part of the Mt Isa Mining complex (Qld), and St Ives Gold Mine (WA). He joined the investment team at Lion Selection Group in 2007 and has worked across the investment and investor relations functions. Lion Selection Group is a development-oriented mining fund based in Melbourne, Australia, and has held a shareholding in Erdene for a number of years. Mr. Widdup was educated in Australia, receiving a Degree in Geology with first class honours from the University of Melbourne (2000) before completing a Graduate Diploma in Applied Finance (2011). He is the Managing Director of Lion Selection Group, chairman of Plutonic Limited an unlisted company located in Australia, and serves as the deputy chair of the Melbourne Mining Club.

CEASE TRADE ORDERS, BANKRUPTCIES, PENALTIES OR SANCTIONS

Except as discussed below, no director or executive officer of the Corporation is, as of the date of this AIF or within ten years prior to the date of this AIF has been, a director, chief executive officer of chief financial officer of any company (including the Corporation) that:

(i) was subject to a cease trade order, an order similar to a cease trade order or an order that denied the relevant company access to any exemption under securities legislation, that was in effect for a period of more than 30 consecutive days, and was issued while the director or executive officer was acting in the capacity as director, chief executive officer or chief financial officer; or

(ii) was subject to a cease trade order, an order similar to a cease trade order or an order that denied the relevant company access to any exemption under securities legislation, that was in effect for a period of more than 30 consecutive days, that was issued after the director or executive officer ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer.

On June 6, 2023, the Ontario Securities and Commission (the "OSC") issued a cease trade order against Voltage Metals Corporation ("Voltage") for failure to file audited financial statements and management's discussion and analysis for the year ended December 31, 2022, interim financial statements and management's discussion and analysis for the period ended March 31, 2023, and associated certifications of the foregoing filings as required by National Instrument 52-109. During all relevant times, Mr. Croft was a director of Voltage. Voltage subsequently filed such filings and the cease trade order was revoked effective September 5, 2023.

No director or executive officer of the Corporation, or a shareholder holding a sufficient number of securities of the Corporation to affect materially the control of the Corporation:

- (i) is, or within ten years prior to the date of this AIF has been, a director or executive officer of any company (including the Corporation) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets; or
- (ii) has, within ten years prior to the date hereof, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director, executive officer or shareholder.

No director or executive officer of the Corporation, or a shareholder holding a sufficient number of securities of the Corporation to affect materially the control of the Corporation, has been subject to (i) any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or (ii) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

No director, executive officer, or principal shareholder of the Corporation and no associate or affiliate of the foregoing have had a material interest, direct or indirect, in any transaction in which the Corporation has participated within the three most recently completed financial years or during the current financial year, which has materially affected or is reasonably expected to materially affect the Corporation.

TRANSFER AGENT AND REGISTRAR

The transfer agent and registrar for the Common Shares of the Corporation is Computershare Investor Services Inc. at its offices in Montreal, Quebec and Toronto, Ontario.

MATERIAL CONTRACTS

The only contracts entered into by the Corporation, other than a contract entered into in the ordinary course of business, that is material to the Corporation and that was entered into within the most recently completed financial year, or since January 1, 2002, but is still in effect, are as follows:

- 1. An amended and restated shareholder rights plan agreement with Computershare Investor Services Inc., as rights agent, dated June 14, 2017 (the "Rights Plan). The Rights Plan was adopted to ensure the fair treatment of shareholders in connection with any take-over offer for the Corporation and is not intended to prevent take-over bids that treat shareholders fairly. Under the Rights Plan, those bids that meet certain requirements intended to protect the interests of all shareholders are deemed to be "Permitted Bids". In the event a take-over bid does not meet the Permitted Bid requirements of the Rights Plan, the rights will entitle shareholders, other than any shareholder or shareholders making the take-over bid, to purchase additional Common Shares of the Corporation at a substantial discount to the market value at the time. The continued operation of the Rights Plan was most recently approved by the shareholders at the Corporation's Annual and Special Meeting of Shareholders on June 25, 2020. A copy of the Rights Plan has been filed by the Corporation on SEDAR+ at <u>www.sedarplus.ca</u>.
- 2. Strategic Alliance Agreement among Erdene, Mongolian Mining Corporation Pte. Ltd (as assignee of MMC) and EM dated January 10, 2023, as amended February 8, 2024 and January 31, 2025 (the "Strategic Alliance"). The Strategic Alliance was entered to govern the shareholder relationship between Erdene and MMC in respect of their interests in EM, the entity holding the Bayan Khundii Gold Project, as well as Altan Nar and Dark Horse deposits and the Ulaan prospect. A copy of the Strategic Alliance has been filed by the Corporation on SEDAR+ at <u>www.sedarplus.ca</u>.
- 3. Investment Agreement among Erdene, MMC and EM dated January 10, 2023, as amended August 30, 2023 and October 12, 2023, providing for MMC's investment into EM in furtherance of the Strategic Alliance. A copy of the Investment Agreement has been filed by the Corporation on SEDAR+ at <u>www.sedarplus.ca</u>.
- 4. Shareholder Loan Agreement among Erdene, MMC and EM dated February 8, 2024, as amended December 12, 2024, in respect of the Shareholder Loan. A copy of the Shareholder Loan Agreement has been filed by the Corporation on SEDAR+ at <u>www.sedarplus.ca</u>.

INTERESTS OF EXPERTS

<u>Auditor</u>

The auditor of the Corporation is KPMG LLP, Chartered Professional Accountants, Halifax, Nova Scotia. The Corporation's annual consolidated financial statements for the year ended December 31, 2024, filed under NI 51-102, contain the auditor's report prepared by KPMG LLP. KPMG LLP has confirmed to the Corporation that it is independent of the Corporation within the meaning of the Rules of Professional Conduct of the Chartered Professional Accountants of Nova Scotia.

Other Experts

The Bayan Khundii Feasibility Study Update, dated August 15, 2023, was prepared by Julien Lawrence, FAusIMM, O2 Mining Limited; Benny Cha, FAusIMM, Roma Group Limited; Jesse Tam, M.AIG, CGeol FGS, Fugro (Hong Kong) Limited, Andrew Kelly, P.Eng., Blue Coast Research Ltd.; Mark Dillion, CPEng, ATC Williams Pty Ltd.; Jeff Jardine, FAusIMM, O2 Mining Limited; Mark Reynolds, CPA, O2 Mining Limited; Anthony Gibson, CPEng, Ramboll Australia Pty Limited, Oyunbat Bat-Ochir, MAIG, RPMGlobal; and Paul Daigle, P.Geo., AGP Mining Consultants. Messieurs Lawrence, Cha, Tam, Kelly, Dillion, Jardine, Reynolds, Gibson, Bat-Ochir and Daigle are "qualified persons" as that term is defined in NI 43-101. They are also independent of the Corporation. Messieurs Lawrence, Cha, Tam, Kelly, Dillion, Jardine, Reynolds, Gibson, Bat-Ochir and Daigle did not have any interest, direct or indirect, in any securities or other properties of the Corporation or its associates or affiliates at the time they prepared the Bayan Khundii Feasibility Study Update Technical Report. In addition, no such securities or properties were received or are to be received from the Corporation by Messieurs Lawrence, Cha, Tam, Kelly, Dillion, Jardine, Reynolds, Gibson, Bat-Ochir and Daigle.

AUDIT & RISK MANAGEMENT COMMITTEE

Audit & Risk Management Committee Charter

The charter of the Corporation's Audit & Risk Management Committee is attached to this AIF as an Appendix.

Composition of Audit & Risk Management Committee & Relevant Education and Experience

The members of the Audit & Risk Management Committee are John P. Byrne (Chair), Dr. Anna G. Biolik, T. Layton Croft and Kenneth W. MacDonald. Each of the foregoing is independent and financially literate within the meaning of National Instrument 52-110. The education and experience of each Audit & Risk Management Committee member are described in this AIF under the section entitled "*Directors and Officers*".

Audit & Risk Management Committee Oversight

At no time since the commencement of the Corporation's most recently completed financial year have any recommendations by the Audit & Risk Management Committee respecting the appointment and/or compensation of the Corporation's external auditor not been adopted by the Board of Directors.

Pre-Approval Policies and Procedures

In April 2005, the Audit and Risk Committee adopted the following schedule of pre-approved fees to KPMG LLP for non-audit services:

<u>Fee Amount</u>	Authorization Required
Up to \$7,000	Chief Financial Officer
\$7,001 - 10,000	Chairman of the Audit & Risk Management Committee
\$10,000+	Audit & Risk Management Committee

External Auditor Service Fees

The fees charged to the Corporation by its external auditor in each of the last two financial years are as follows:

	Financial Year 2023	Financial Year 2024
Audit Fees	\$169,425	\$159,185
Audit-Related Fees ⁽¹⁾	\$0	\$0
Tax Fees ⁽²⁾	\$7,164	\$4,548
All Other Fees ⁽³⁾	\$0	\$0

Notes:

- (1) Audit-related fees comprise fees for assurance and related services that are reasonably related to the performance of the audit or review and are not reported in Audit Fees.
- (2) Tax fees compromise fees for tax compliance, tax advice and tax planning services.
- (3) All other fees compromise fees for other services not captured elsewhere.

ADDITIONAL INFORMATION

Additional information relating to the Corporation can be found on SEDAR+ at www.sedarplus.ca. In particular, the Corporation's most recent Management Information Circular located on SEDAR+ contains additional information, including directors' and officers' remuneration and indebtedness, principal holders of the Corporation's securities and securities authorized for issuance under equity compensation plans. Additional financial information is provided in the Corporation's audited consolidated annual financial statements and management's discussion and analysis for the financial year ended December 31, 2024, both of which are also available on SEDAR+.

APPENDIX

ERDENE RESOURCE DEVELOPMENT CORP. ("Corporation") AUDIT AND RISK MANAGEMENT COMMITTEE CHARTER

I. Purpose

The Audit and Risk Management Committee is a standing committee of the board of directors of the Corporation (**"Board"**) charged with assisting the Board in fulfilling its responsibility to the shareholders and investment community. Its role is to:

- (a) Serve as an independent and objective party to monitor the Corporation's financial reporting process and internal control system.
- (b) Review and appraise the audit efforts of the Corporation's external auditors.
- (c) Oversee the Corporation's processes for identifying and managing financial, technical and business risks.
- (d) Provide an open avenue of communication among the external auditors, financial and senior management and the Board.

II. Authority

The Board authorizes the Audit and Risk Management Committee, within the scope of its responsibilities, to:

- (a) Seek any information it requires from any employee (and all employees are directed to cooperate with any request made by the Audit and Risk Management Committee).
- (b) Engage independent counsel and other advisors as it determines necessary to carry out its duties.
- (c) Set and pay the compensation for any advisors employed by the Audit and Risk Management Committee.
- (d) Communicate directly with the internal and external auditors.

III. Composition

The Audit and Risk Management Committee will be comprised of at least three directors. Each Audit and Risk Management Committee member will be independent of management and free from any relationship that, in the opinion of the Board, would interfere with the exercise of his or her independent judgment as a member of the Audit and Risk Management Committee. All members shall be financially literate in finance and accounting practices or become financially literate within a reasonable period of time after his or her appointment.

The Audit and Risk Management Committee members shall be elected annually.

IV. Responsibilities

Responsibilities of the Audit and Risk Management Committee include:

- (a) Review and assess the adequacy of this Charter annually.
- (b) Make recommendations to the Board regarding the selection and compensation of the external auditor to be engaged to prepare or issue an auditor's report or perform other audit, review or attest services for

the Corporation. The external auditor shall be accountable to the Board and the Audit and Risk Management Committee.

- (c) Meet with the external auditor and financial management of the Corporation to review the scope of the proposed audit for the current year and the audit procedures to be used and oversee the work of the external auditor engaged to prepare or issue an auditor's report or perform other audit, review or attest services for the Corporation, including the resolution of any disagreements between management and the external auditor regarding financial reporting.
- (d) Pre-approve all non-audit services to be provided to the Corporation or any of its subsidiaries by the Corporation's external auditor.
- (e) Obtain a written statement from the external auditors annually disclosing all relationships that the auditors have with the Corporation. Discuss with the external auditors any relationships or services disclosed that may impact their objectivity and independence. Recommend that the Board take action, where appropriate, to satisfy itself of the external auditors' independence.
- (f) Review the performance of the external auditors.
- (g) Review with management and the external auditors:
 - (i) The Corporation's audited financial statements and footnotes, MD&A and any annual or interim earnings press releases before the Corporation publicly discloses this information.
 - (ii) Any significant changes required in the external auditors' audit plan and any serious difficulties or disputes with management encountered during the course of the audit.
 - (iii) Other matters related to the conduct of the audit that are to be communicated to the Audit and Risk Management Committee under generally accepted auditing standards.
- (h) Make a recommendation to the Board concerning the inclusion of the audited financial statements in the Corporation's Annual Report.
- (i) Review with the external auditors and management the adequacy and effectiveness of the financial and accounting controls of the Corporation.
- (j) Review with the external auditors and management the quality of the Corporation's accounting principles as applied in its financial reporting process and any proposed changes in accounting principles.
- (k) Make such inquiries as the Audit and Risk Management Committee considers appropriate of management, the external auditors and any third parties concerning significant risks or exposures to the Corporation, including financial, technical and strategic risks or exposures; assess the steps taken by management to address and minimize such risks to the Corporation; and make recommendations to the Board with respect to the Corporation's approach to managing risk.
- Establish procedures for the receipt, retention and treatment of complaints received by the Corporation regarding accounting, internal accounting controls, or auditing matters and for the confidential, anonymous submission by the Corporation's employees of concerns regarding questionable accounting or auditing matters.
- (m) Review and approve the Corporation's hiring policies regarding partners, employees and former partners and employees of the present and former external auditor of the Corporation.

V. Meetings

The Audit and Risk Management Committee will meet regularly at times necessary to perform the duties described above in a timely manner, but not less than once a quarter. Special meetings may be held at any time deemed appropriate by any member of the Audit and Risk Management Committee. A quorum for the transaction of business at any meeting of the Audit and Risk Management Committee shall consist of a majority of the members of the Audit and Risk Management Committee.

These meetings may be with representatives of the external auditors and appropriate officers or members of management, either individually or collectively as may be required by the Chair of the Audit and Risk Management Committee.

The external auditors will have access to the Audit and Risk Management Committee at their own initiative.

The Chair of the Audit and Risk Management Committee will report periodically its findings and recommendations to the Board.

(Adopted by the Board of Directors of Erdene Resource Development Corporation in 2004 and amended as of April 18, 2005, and June 8, 2020.)