

# MANAGEMENT'S DISCUSSION AND ANALYSIS

Year ended December 31, 2018

### MANAGEMENT'S DISCUSSION AND ANALYSIS Year ended December 31, 2018

#### Contents

	Page No.
Company Overview	3
Highlights and Significant Subsequent Events	3
Strategy and Outlook	5
Development and Exploration Projects	5
Erdene's Khundii Gold District in Southwest Mongolia	5
Khundii Gold Project	6
District Scale Exploration	10
Acquisitions	12
Selected Annual Financial Information	12
Discussion of Operations	13
Fourth Quarter	14
Summary of Quarterly Results	15
Liquidity and Capital Resources	15
Outstanding Share Data	16
Contractual Obligations	16
Other Financing Arrangements and Commitments	16
Off-Balance Sheet Arrangements	17
Critical Accounting Estimates	17
Adoption of New Accounting Standards	18
Future Changes in Accounting Policies	18
Financial Instruments and Other Risks	18
Disclosure Controls and Internal Controls Over Financial Reporting	19
Qualified Person	20
Other Information	20

This Management Discussion and Analysis ("MD&A"), dated March 27, 2019, relates to the operating results and financial condition of Erdene Resource Development Corporation ("Erdene" or the "Company" or the "Corporation") and should be read in conjunction with the Corporation's audited consolidated financial statements for the years ended December 31, 2018 and 2017 and the notes thereto. The consolidated financial statements of the Corporation have been prepared in Canadian dollars in accordance with International Financial Reporting Standards ("IFRS").

This discussion includes certain statements that may be deemed "forward-looking statements". All statements in this discussion, other than statements of historical fact, that address reserve potential, exploration drilling, exploitation activities, budgeted financial results and events or developments that the Corporation expects, are forward-looking statements. Although the Corporation believes the expectations expressed in such forwardlooking statements are based on reasonable assumptions (including, but not limited to, assumptions in connection with the continuance of the Corporation and its subsidiaries as a going concern, general economic and market conditions, mineral prices, and the accuracy of mineral resource estimate), such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Factors that could cause actual results to differ materially from those in forwardlooking statements include market prices, exploration and evaluation results, continued availability of capital and financing and general economic, market or business conditions.

The risk factors identified above are not intended to represent a complete list of the factors which could affect the Corporation. Additional factors are noted under "Risk Factors" in the Corporation's Annual Information Form for the year ended December 31, 2018, a copy of which is available on the Corporation's SEDAR document page at www.sedar.com.

Any financial outlook or future-oriented financial information in this MD&A, as defined by applicable securities legislation, has been approved by management of the Corporation as of the date of this MD&A. Such financial outlook or future oriented financial information is provided for the purpose of providing information about management's current expectations and plans relating to the future. Readers are cautioned that such outlook or information should not be used for purposes other than for which it is disclosed in this MD&A.

### **Company Overview**

Erdene Resource Development Corporation is a Canadian based resource company focused on the acquisition, exploration, and development of precious and base metal deposits in underexplored and highly prospective Mongolia. The Company has interests in four exploration licenses as well as a mining license in Southwest Mongolia, where exploration success has led to the discovery of the Khundii Gold District. Erdene is listed on the Toronto Stock Exchange (TSX: ERD) and the Mongolian Stock Exchange (MSE: ERDN).

Erdene's deposits are located in the Edren Terrane, within the Central Asian Orogenic Belt, host to some of the world's largest gold and copper-gold deposits. Although epithermal gold and porphyry copper-gold deposits are well documented across the border in China and along the Belt's westward trend, exploration in Mongolia was limited until the mid-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 Gold District. Within the Khundii Gold District, the Company has discovered multiple high-grade gold and base metal prospects, two of which are being considered for development: Bayan Khundii and Altan Nar. In addition, the Company discovered and defined a large molybdenumcopper resource on its 100% owned Zuun Mod project, 40 kilometres to the east.

In December 2018, Erdene announced a positive Preliminary Economic Assessment ("PEA") study for the Khundii Gold Project, comprised of its Bayan Khundii and Altan Nar deposits, Prepared by RPM Global. this independent study confirmed the high-return, low-capital and low-operating cost potential of the project, that will form the cornerstone development in the emerging Khundii Gold District.

While focused on development of the Khundii Gold Project, Erdene continues to explore the broader Khundii Gold District. The region 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. Exploration of the district remains in the early stages, however, results to date demonstrate the potential for additional discoveries.

# **Highlights and Significant Subsequent Events**

### Khundii Gold Project - 100% Erdene

- Delivered the Khundii Gold Project PEA:
  - After-tax Net Present Value at a 5% discount rate ("NPV5%") and a US\$1,200/oz gold price of US\$99 million and Internal Rate of Return ("IRR") of 56%.
  - Pre-tax NPV5% of US\$135 million and IRR of 70%.
  - Initial capital expenditure of US\$32 million, using a contract mining fleet.
  - All-in sustaining cash cost ("AISC") of US\$714/ounce of gold recovered.
  - Life of mine head grade of 3.42 g/t gold.
  - Average annual gold production of 51,200 ounces.
  - Eight year mine life plus one-year pre-production and two-year mine closure periods.
  - Payback of 1.8 years.
- Reported the maiden mineral resource estimate for the Khundii Gold Project:
  - At a cut-off grade of 0.7 g/t gold, Measured and Indicated resource of 751,000 ounces gold at an average grade of 2.3 g/t gold and Inferred resource of 291,000 ounces gold at an average grade of 1.8 g/t gold.
  - At a higher cut-off grade of 1.4 g/t gold, Measured and Indicated resource of 642,000 ounces of gold at an average grade of 3.7 g/t gold, (including 357,000 ounces gold at an average grade of 5.2 g/t gold at the Bayan Khundii deposit) and an Inferred resource total of 250,000 ounces at 2.3 g/t for the Khundii Gold Project.
  - Including precious and base metals, 886,000 ounces gold equivalent ("AuEg") at an average grade of 2.7 g/t AuEq Measured and Indicated and 382,000 ounces AuEq at an average grade of 2.3 g/t AuEq, Inferred.

- Drilled 4,900 metres in 2018 at the Bayan Khundii license to support the maiden mineral resource:
  - Extended the gold mineralization zone to the north with the intersection of 81.4 metres of 2.6 g/t gold and 17 metres of 9.2 g/t gold at hole BKD-254 in the North Midfield Zone.

### **Regional Exploration**

- Completed the 2018 exploration campaign, drilling 25 holes totaling 3,452 metres at seven targets along the 11.4 kilometre Khundii license, focused at Altan Arrow and Khundii North:
  - Approximately 70% of drill holes on the Bayan Khundii license intersected anomalous gold mineralization (>0.1 g/t). Three holes intersected more than 20 g/t gold over 1 to 2 metre intervals.
  - Extended the western extension of the Altan Arrow main gold mineralized structure by 500 metres, indicating a broad corridor of anomalous gold over a 1.2 kilometre trend (open along strike) up to 400 metres south of the main structure.
  - Testing of structural splays south of the main Altan Arrow zone returned anomalous gold mineralized intersects at depth (approximately 100 metres vertical depth).
  - Three shallow holes in the southern portion of Khundii North intersected wide zones of intense multi-phase, epithermal quartz stockwork and breccia from surface to a vertical depth of 66 metres within an altered monzonite with associated anomalous gold mineralization, up to 2.1q/t.
  - Completed a high-density magnetic survey to refine targets based on improved definition of alteration zones, structural intersections and zones of dilation in advance of future drilling.
- Concluded an initial scout drill program at its 51% owned Ulaan license totaling 1,050 metres in three widely spaced holes over a 1.3 kilometre area in the central portion of the license:
  - Intersected volcanic rocks locally hosting sheeted to stockwork quartz-pyrite veining, associated with elevated copper values and a distinct zonation from propylitic alteration at surface to phyllic alteration at depth.
- Assembled the largest proprietary geologic database in southwest Mongolia and has identified 22 high-priority targets for acquisition that the company will pursue aggressively:
  - Participated in the first land tender in Southwest Mongolia in almost a decade.

### Corporate

- Became the first foreign company to cross-list on the Mongolian Stock Exchange in June 2018:
  - Approximately 6,000 Mongolians hold shares representing 6% of Erdene's stock.
  - More than 1,500,000 shares have traded in Mongolia since the listing.
  - Concurrent with the cross-listing, the Corporation raised a further \$4.12 million in a Private Placement.
- Raised C\$2.53 million in February 2019 to launch the NI 43-101 Pre-Feasibility Study for the Khundii Gold Project, mining license applications, potential acquisitions, including through the Mongolian Government's recently re-opened license tender process and general working capital:
  - At the date of this MD&A, the Corporation had \$3.2 million in working capital.
- Notified Sandstorm of its intention to buy-back 50% of the NSR Royalty on March 26, 2019:
  - The transaction is expected to close by April 14, 2019.

## **Strategy and Outlook**

Erdene is focused on two strategic priorities – advancing the Khundii Gold Project toward production and expanding precious and base metal resources in the Khundii Gold District through exploration and acquisition.

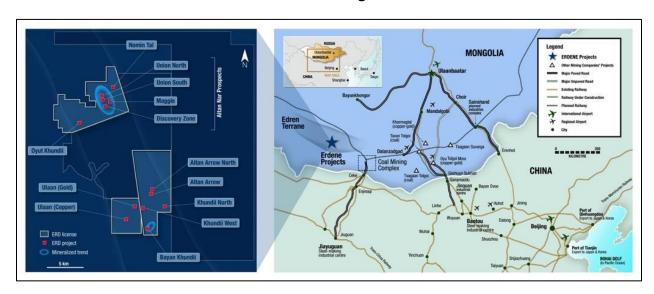
In February 2019, Erdene filed a positive PEA study for the Khundii Gold Project, comprised of its Bayan Khundii and Altan Nar deposits. Prepared by RPM Global, this independent study confirmed the high-return, low-capital and low-operating cost potential of the project, that will form the cornerstone development in the emerging Khundii Gold District. The Khundii Gold Project's initial development is expected to focus on a high grade, open-pit mine beginning at the Bayan Khundii Striker Zone, expanding into adjacent zones within Bayan Khundii, prior to incorporating resources from the Altan Nar deposit.

Erdene has received proposals from global engineering firms to lead a NI 43-101 Pre-Feasibility Study, which is scheduled to be completed in 2019. Concurrently, the Corporation's Mining Studies Team is undertaking mining, geotechnical, metallurgical, waste management and hydrogeological studies to support development and mining license applications, which are expected to be approved in 2019.

The Khundii District offers exceptional discovery potential, which would create significant shareholder value. This District lies within the Central Asian Orogenic Belt, host to some of the world's largest gold and copper-gold deposits. Modern exploration along the trend in Southwest Mongolia has been limited to shallow holes but results to date are compelling and a testament to the high probability of additional discovery. Erdene is drilling prospects on its Bayan Khundii license at Altan Arrow and Khundii North and evaluating opportunities for acquisition throughout the Khundii District. Over the past decade Erdene has developed a proprietary geologic database of Southwest Mongolia's mineralization that has led to the identification of more than 20 high-priority targets for acquisition. Mongolia's Ministry of Mining and Heavy Industry re-opened the region to tenders in late 2018, and Erdene intends to bid aggressively as its target parcels come to auction.

## **Development and Exploration Projects**

### Erdene's Khundii Gold District in Southwest Mongolia



Erdene has been the exploration leader in Southwest Mongolia over the past decade and is responsible for the discovery of the Khundii Gold District. The District is comprised of multiple high-grade gold and base metal prospects, two of which are being considered for the Khundii Gold Project development: Bayan Khundii and Altan Nar. In addition, the Company discovered and defined a large molybdenum-copper resource on its 100% owned, Zuun Mod project, 40 kilometres to the east.

On September 15, 2018, the Company announced a maiden resource estimate for the Khundii Gold Project. Apart from Zuun Mod, the Company's other targets are early stage and do not contain any mineral resource estimates as defined by National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101"). With the exception of those deposits already delineated, potential quantities and grades disclosed in this MD&A are conceptual in nature, and there has been insufficient exploration to define a mineral resource estimate for other targets disclosed herein. It is uncertain if further exploration will result in these targets being delineated as a mineral resource. Additional information about our projects is also summarized in our AIF and the respective NI 43-101 Technical Reports and can be viewed under the Company's issuer profile on SEDAR at www.sedar.com.

### Khundii Gold Project

The Khundii Gold Project is comprised of the Company's high-grade Bayan Khundii and Altan Nar deposits. The Bayan Khundii ("Rich Valley") gold project is located on Erdene's 100%-owned, 4,514 hectare, Khundii exploration license in southwest Mongolia, 16 kilometres south of the Corporation's Altan Nar goldpolymetallic project. The license is in its eighth year of a maximum 12-year term and can be converted to a mining license at any time prior to the end of the twelfth year by meeting the requirements prescribed under the Minerals Law of Mongolia.

The resource was discovered in Q2 2015, with initial drill results reported in Q4 2015; the first hole returned 7 metres of 27.5 g/t gold at 14 metres depth. Bayan Khundii has become the highest priority project for the Corporation based on its high grades, proximity to surface, and favorable metallurgy. The Corporation has completed 42,656 metres of diamond drilling at Bayan Khundii, comprised of 255 diamond drill holes. Drilling has identified three main areas of very high-grade gold mineralization with strong continuity, the Striker Zone, where mineralization starts from surface, and Midfield and North Midfield Zones that extend to the northeast under younger, post-mineralization Jurassic cover. The high-grade gold zones within these three areas can be very wide, grading in excess of 5 g/t gold over more than 50 metres. Step-out drilling in 2017 indicated that mineralization encountered in the Midfield Zone, located 200 metres northeast from Striker Zone, extends for at least 280 meters further to the northeast under younger cover. The Midfield and North Midfield Zones have returned some of the highest grades and the longest mineralized intervals at Bayan Khundii; BKD-98 returned 80 metres of 6.0 g/t gold from 42 metres depth, and BKD-231 returned 14 metres of 158 g/t gold, including one metre of 2,200 g/t gold.

The 100%-owned Altan Nar ("Golden Sun") deposit is located on the Corporation's 4,669 hectare Tsenkher Nomin exploration license, 16 kilometres northwest of Bayan Khundii. The exploration license is in its ninth year of a maximum 12-year term and can be converted to a mining license at any time prior to the end of the twelfth year by meeting the requirements prescribed under the Minerals Law of Mongolia. 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"), are the most advanced targets. These properties host wide zones of high-grade, near-surface mineralization, and were the focus of an updated resource estimate released in Q2 2018, as well as detailed metallurgical processing test-work. Some of the updated mineral resources announced in Q2 2018 were from the remaining 16 targets, however, most of these are still considered early-stage and are interpreted by the Corporation as having good potential for hosting additional resources.

#### Mineral Resources

Erdene announced the maiden resource estimate for the Khundii Gold Project, dated September 12, 2018, prepared in accordance with NI 43-101 by RPMGlobal Asia Limited ("RPM"). The Khundii Gold Project Resource includes the Maiden Mineral Resource estimate for the Bayan Khundii deposit and incorporates the significant increase in the NI 43-101 Mineral Resource for the Altan Nar deposit reported in May 2018. The Bayan Khundii Mineral Resource incorporates 255 diamond drill holes totaling 42,656 metres, completed between Q4 2015 and Q2 2018. The Mineral Resource is contained within a near-surface, shallow-dipping and strongly mineralized system (intercepts up to 2,200 g/t gold over a 1 metre interval as previously reported) that extends over an area of 1.2 kilometres (NE-SW) by 200 to 400 metres (NW-SE). Grade capping for the purposes of the Bayan Khundii deposit resource estimate averaged 51 g/t gold for high-grade domains (range from 8 g/t to 250 g/t gold) and a maximum of 1.5 g/t gold for the low and medium grade domains.

A summarized sensitivity analysis of the grade and tonnage relationships at various cut-off grades is shown in the table below1:

Cut-Off Grade <sup>2</sup>	Resource Classification	Quantity (Mt)	Gold Grade (g/t)	Gold Ounces (000)	AuEq Grade (g/t)	AuEq Ounces (000)
0.2	Measured & Indicated Inferred	23.6 16.8	1.2	904 416	1.4	1,046 511
0.4	Measured & Indicated Inferred	15.1 8.6	1.7 1.2	824 342	2.0 1.6	965 436
0.6 / 0.7 3	Measured & Indicated Inferred	10.1 5.2	2.3 1.8	751 291	2.7 2.3	886 382
1.0	Measured & Indicated Inferred	6.8 3.9	3.1 2.1	678 261	3.7 2.9	803 349
1.4	Measured & Indicated Inferred	5.5 3.4	3.7 2.3	642 250	4.3 3.0	755 333

<sup>(1)</sup> Combined resources from Bayan Khundii and Altan Nar.

### Preliminary Economic Assessment

On December 18, 2018, Erdene announced results of an independent Preliminary Economic Assessment ("PEA") study for its 100%-owned Khundii Gold Project (the "Project") in southwest Mongolia. The PEA was prepared in accordance with National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") by RPMGlobal Asia Limited.

The PEA envisions a high-grade, open-pit mine beginning at the Bayan Khundii Striker Zone, expanding into adjacent zones within Bayan Khundii, prior to incorporating resources from the Altan Nar deposit. The development incorporates a conventional gravity separation circuit and a carbon in pulp plant with processing capacity of 1,800 tonnes per day.

The PEA includes 2.7 million minable tonnes from the Bayan Khundii resource at an average head grade of 3.65 g/t gold, of which 98% are Measured and Indicated Resources. The Altan Nar deposit contributes 1.9 million minable tonnes at an average head grade of 3.11 g/t gold, of which 70% are Measured and Indicated Resources.

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

Key Project metrics are presented in the following table:

Assumptions		
Gold Price	US\$/oz	1,200
Production Profile		
Average Head Grade Over Life of Mine 1	g/t gold	3.42
Project Life <sup>2</sup>	years	11
Operating Life	years	8
Target Production Rate Per Day <sup>3</sup>	tpd	1,800
Average Annual Saleable Gold	OZ	51,200
Peak Annual Saleable Gold	OZ	68,100
Total Gold Production LOM	OZ	412,000
Average Gold Recovery Rate Over Life of Mine	%	82%
Strip Ratio	tonne:tonne	10.5:1
LOM Cash Cost plus Sustaining Cost (AISC) 4	US\$/oz	714

<sup>(2)</sup> Cut-off grades for Altan Nar are AuEq and for Bayan Khundii are gold only.

<sup>(3)</sup> RPM recommended cut-off grade for Bayan Khundii is 0.6 g/t gold and Altan Nar is 0.7 g/t AuEq above a pit and 1.4 g/t AuEq below the same pit shell.

Project Economics		
Pre-Tax Net Present Value		
5% discount rate	US\$M	135
7.5% discount rate	US\$M	119
10% discount rate	US\$M	105
After-Tax Net Present Value		
5% discount rate	US\$M	99
7.5% discount rate	US\$M	86
10% discount rate	US\$M	76
Internal Rate of Return and Payback		
Pre-Tax Internal Rate of Return	%	70%
After-Tax Internal Rate of Return	%	56%
Payback Period Post-Construction 5	years	1.8
Capital Requirements		
Pre-production Capital Cost, including contingency	US\$M	32
LOM Sustaining Capital Cost	US\$M	8

<sup>(1)</sup> Average diluted head grade of mineralised rock fed to process plant.

The following table shows the change in the after-tax NPV and IRR over a range of gold prices and discount rates, demonstrating the impact of higher gold prices and the Project's resiliency to lower prices:

Gold Price Sensitivity Analysis	Units	US\$1,150	US\$1,200	US\$1,250	US\$1,300
NPV (5% discount rate)	US\$M	86	99	111	124
NPV (7.5% discount rate)	US\$M	75	86	98	110
NPV (10% discount rate)	US\$M	65	76	86	97
IRR	%	50%	56%	62%	68%

The PEA is based on an open-pit mining operation targeting 600,000 tonnes per year of feed material for the process plant. The total mineable mineralised plant feed is 4.6 million tonnes at an average diluted head grade of 3.42 g/t and strip ratio of 10.5:1 (waste tonne:plant feed tonne).

The PEA study assumes processing of ROM material via a conventional gravity separation circuit and a carbon in pulp plant. The ore-processing plant will be located adjacent to the Bayan Khundii open pit and throughput will target 1,800 tonnes per day. Using an estimated mill recovery of 82%, total recovered gold over the project life is 412,000 ounces.

Operating costs are based on the mining and processing scenario outlined above and assumes contract mining. All other activities are assumed to be owner-operated. The contingency is estimated at 10% and applied to all cost centres except "Royalty and Charges". The all-in sustaining cost (that is, operating cost and sustaining capital cost) is estimated at US\$714/oz.

Coot Contro	Life of Mine						
Cost Centre	(US\$millions)	US\$/oz	US\$/tonne				
Mine Operating Cost	134	326	29				
Processing Cost	76	183	16				
Site G&A	30	73	7				
Product Cost	2	6	1				
Royalty (5% NSR) and Charges	26	62	6				
Contingency	24	58	5				
Total Operating Costs	292	708	64				
Sustaining Capital	3	6	1				
All-In Sustaining Cost	295	714	65				

<sup>(2)</sup> Project life includes one year pre-production period, eight year operating life and two year mine closure.
(3) Assumes process plant operates for 8,000 hours per annum to achieve the target production rate of 600 ktpa.

<sup>(4)</sup> Operating costs reported in terms of saleable gold ounces, including Royalty and Refining Charges of US\$62/oz.

<sup>(5)</sup> Payback period calculated on an undiscounted, after-tax cash flow basis.

The initial capital cost (Year 0), primarily comprising construction of the process plant and supporting infrastructure, is estimated at US\$32 million. The PEA contemplates a mining contractor utilizing mining equipment which if purchased outright would add \$38 million to capital costs. All major facilities including the process plant are proposed to be located at the Bayan Khundii site. In Year 3 the supporting infrastructure for the Altan Nar site is constructed at an estimated cost of US\$1 million, including the upgrade of the road to Bayan Khundii. The infrastructure and process plant estimates include a 20% contingency.

Sustaining capital of US\$3 million is included in the mine plan and mine closure costs are estimated at US\$4 million. Total capital expenditures over the life of mine are estimated at US\$40 million.

Item	Bayan Khundii (US \$millions)	Altan Nar (US \$millions)	Total (US \$millions)
Process Plant	16	-	16
Site Buildings	3	-	3
Accommodation Village	2	-	2
Airstrip	1	-	1
Roads	1	1	2
Engineering & Support	4	-	4
Engineering Contingency	5	-	5
Subtotal Plant & Infrastructure	32	1	33
Mine Closure	3	1	4
Sustaining Capital	2	1	3
Total	37	3	40

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

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

### **District Scale Exploration**

Erdene continues to evaluate opportunities throughout the Edren Terrane, within our licenses and elsewhere in the mineralized belt. This has led to the identification of prospects that are being explored through surface surveys on the company's five licenses, drilling of selected targets and evaluation of acquisition targets on private and government held ground.

Exploration within the licenses has identified significant gold mineralization. Approximately 70% of regional drill holes have intersected anomalous gold mineralization (defined as >0.1 g/t), with three holes intersecting greater than 20 g/t gold over 1 to 2 metre intervals. Regional drilling has been restricted to shallow targets with average drill depths of about 100 metres. Success has been driven by the abundance of untested, near surface geochemical and geophysical targets in a region that has had no previous modern exploration. Recent exploration successes testing shallow targets, and the definition of three deposits, exposed at surface, are testament to the discovery potential of this new district.

### Altan Arrow Gold Target

The Altan Arrow target is located 3.5 kilometres north of the Bayan Khundii gold deposit, along a gold bearing structure in the central portion of the Bayan Khundii license. Drilling has concentrated in an area along and south of the main structure, where several high-grade zones have been intersected, including 39 g/t over 1m and 24 g/t and 70 g/t over 2 metres. Overall, 85% of the 20 holes (2,552 metres) drilled at Altan Arrow have intersected anomalous gold.

Erdene drilled 10 holes at Altan Arrow in 2018, totaling 1,412 metres, to test extension along trend of the main structure and at depth. Current year drilling extended the mineralized structure 500 metres to the west where AAD-18 intersected multiple 2 to 4 metre wide zones of anomalous gold in epithermal guartz adularia veins and stockwork breccias zones containing up to 1.3 g/t gold. Current exploration drill testing of the main mineralized structure indicates a broad corridor of anomalous gold over a 1.2 kilometre trend (open along strike) and up to 400 metres south of the main structure in what is interpreted as secondary structural splays. In addition, drill testing of these structural splays, south of the main zone, returned multiple intersects at deeper levels then typically tested (approximately 100 metres vertical depth) with gold grades ranging from 0.2 to 2.6 g/t with anomalous Ag, Mo, Pb, Zn and Sb (AAD-25). Exploration results suggest gold mineralization within the greater district is controlled by a structure typically hosted by zones of major dilatancy and structural intersections. Such zones commonly have associated alteration events that are magnetite destructive, resulting in zones of low magnetic response. In advance of future drilling the company has initiated a high-density magnetic survey to refine targets within these alteration zones.

### Khundii North Gold Target

The Khundii North target is located 4 kilometres northeast of the Bayan Khundii gold deposit, on the Bayan Khundii license, and was drill tested for the first time in 2018. The area was identified in surface exploration mapping in late 2017, when sampling of quartz vein material returned high grade gold mineralization of up to 22 g/t gold from a structurally controlled quartz vein stockwork and breccia zone traced over 650 metres. Five holes, totaling 656 metres and averaging 93 metres vertical depth have now tested the structure, comprised of three in the south and two in the north, separated by approximately 500 metres. Although the northern holes returned only minor levels of anomalous gold, the southern holes intersected wide zones of intense multi-phase epithermal quartz stockwork and breccia at depth within an altered monzonite. These stockwork zones are continuous, with up to 35 metre widths (AAD-29) and have associated anomalous gold, locally up to 2.1 g/t over 1 metre intervals (AAD-30) and locally anomalous copper (>500ppm). The Khundii North target provides a new high priority exploration area.

#### Central Structure Zone Gold Target

In Q3 2018 the company tested a new target on the Bayan Khundii license, 800 metres northwest of the Bayan Khundii deposit. The Central Structure Zone ("CSZ") target has very limited surface exposure and was identified as a drill target based on similar geophysical features to the Bayan Khundii deposit. Three shallow holes (AAD-31-33) testing an average vertical depth of 75 metres were collared along a 500 metre trend. Although the style of quartz veining and the hematite/speculurite veinlets in the volcanic host intersected display similar characteristics to that of the main zones at Bayan Khundii, gold content was not anomalous. Clay alteration in this area was identified as smectite suggesting the area is marginal to the higher temperature illite bearing gold zones observed at Bayan Khundii. Given this zone is separated from the main Bayan Khundii zone by an unaltered volcanic host, it is proposed that CSZ occurs at shallower paleo setting above the higher temperature gold mineralized illite zone. Additional structural, geophysical and spectral mapping is underway to determine whether drilling of deeper targets should be undertaken within the CSZ target.

### **Ulaan Copper-Gold Porphyry Target**

On August 30, 2017 the Corporation acquired a 51% interest in the Ulaan exploration license ("Ulaan Property"), immediately west of its high-grade Bayan Khundii deposit. The Ulaan Property covers approximately 1,780 hectares and hosts a 3-kilometre diameter, intense alteration zone with characteristics thought to be related to a porphyry intrusion at depth. The exploration license is in its fourth year of a maximum 12-year term and can be converted to a mining license at any time prior to the end of the twelfth year by meeting the requirements prescribed under the Minerals Law of Mongolia. Provided Erdene spends a minimum of US\$600,000 on the Ulaan Property over the next three years, it has the right to acquire the remaining 49% of the property for the then fair market value. Erdene may extend the option beyond three years by spending a minimum of US\$100,000 per annum thereafter.

Rock chip and stream sediment geochemical sampling identified anomalous concentrations of gold, copper and molybdenum in the surrounding area, and recently completed geophysical surveys have produced a number of follow-up targets.

Three wide spaced holes were drilled during Q3 2018, totaling 1,050 metres over a 1.3 kilometre area in the central portion of the license. The holes intersected volcanic to sub-volcanic rocks exhibiting propylitic to phyllic quartz-sericite-pyrite ("QSP") alteration with varying concentrations of pyrite and locally low-level copper mineralization. The most westerly hole tested a positive gravity anomaly and coincident IP chargeability anomaly to 300 metres depth. The two other holes tested coincident moderate to high chargeability and magnetic high signatures associated with high temperature sericite clay alteration. Pyrite mineralization was observed throughout with most intense concentrations coincident with the zones of high chargeability. The most easterly hole, UDH-02 provided the most encouraging results exhibiting sheeted to stockwork quartz-pyrite veining locally, associated with elevated copper values (100 to 300ppm over 60m) relative to the background copper levels established in UDH-01 and UDH-03. UDH-02 also exhibits a distinct zonation from propylitic into phyllic alteration at depth. The phyllic alteration coincides with an increase in pyrite mineralization occurring both as disseminations and veinlets as well as increasing magnetic intensity. Continued work including spectral analysis of clay minerals and age dating is underway. A comprehensive review of all results will be completed prior to decisions on future exploration.

### Zuun Mod Molybdenum Project

The Zuun Mod Molybdenum Project is a porphyry molybdenum-copper deposit located in southwest Mongolia on the Company's Khuvyn Khar license. This project is approximately 950 kilometres southwest of Ulaanbaatar and 215 kilometres from railhead on the Mongolia-China border at Ceke. The railhead is located 50 kilometres south of the Nariin Sukhait and Ovoot Tolgoi coal mines. The property consists of a mining license totaling 6,041 hectares. The mining license is registered in the name of Anian Resources LLC, a wholly owned subsidiary of the Corporation, and has an initial term of 30 years. This project was acquired from Gallant Minerals Limited in 2005 and is subject to a net smelter returns royalty ("NSR Royalty") of 1.5%, subject to a buy-down provision.

In Q2 2011, the Corporation released a NI 43-101 compliant resource estimate for Zuun Mod containing a Measured and Indicated Resource of 218 million tonnes ("Mt") at an average grade of 0.057% molybdenum, and 0.069% copper at a cut-off grade ("COG") of 0.04% molybdenum. This equates to 273.5 million pounds ("M lbs") of contained molybdenum metal and 330.7 M lbs of contained copper metal. In addition, there is a 168 Mt Inferred Resource at an average grade of 0.052% molybdenum and 0.065% copper, equating to a further 191.8 M lbs of contained molybdenum metal and 240.5 M lbs of contained copper metal.

The Zuun Mod molybdenum-copper deposit has significant potential for development provided the molybdenum price improves. Market demand for molybdenum has recently improved, with the price of molybdenum oxide rising to approximately US\$12.00 per pound from approximately US\$7.25 per pound in 2017. The Corporation will continue to evaluate its options in light of technological and market factors. Discovery of additional copper mineralization at Khuvyn Khar could provide synergies for the advancement of the Zuun Mod molybdenum deposits.

Further details on the Zuun Mod resource can be found in the "Technical Report Zuun Mod Porphyry Molybdenum-Copper Project, South-Western Mongolia, National Instrument 43-101 Independent Technical Report" dated June 2011, filed on SEDAR.

### Khuvyn Khar Copper-Silver Project

The Khuvyn Khar copper-silver project is located on the Zuun Mod property, approximately 2.2 kilometres northwest of the Zuun Mod molybdenum-copper porphyry deposit on the Company's Khuvyn Khar license. Exploration work at Khuvyn Khar has included geological mapping, vein density mapping, geochemical sampling, geophysical surveys, and wide spaced drilling. Previous drilling intersected 34 metres of 1.3% copper and 9.24 g/t silver from 308 to 342 metres. The Project has a very large copper mineralized zone trending over 900 metres with multiple zones in three drill holes returning assays in excess of 0.2% copper over significant widths (12 to 42 metres).

### **Acquisitions**

Mongolia's Ministry of Mining and Heavy Industry announced a re-opening of the licensing system during Q3 2018. Erdene has established the largest proprietary geologic database of Southwest Mongolia with a priority list of acquisition targets. The Company will participate in the tendering process as its priority targets are released. The Company has also been evaluating privately held licenses for acquisition. Erdene's alliance with Teck remains active and the companies continue to work together in Southwest Mongolia.

### **Selected Annual Financial Information**

The following financial data (in Canadian \$ thousands, except per share amounts) are derived from the Corporation's audited consolidated financial statements for the years ended December 31, 2018, 2017 and 2016 respectively:

Fiscal Year Ended December 31	2018		2017		2016
Revenues	Nil		Nil		Nil
Loss for the year	\$ 3,657	\$	4,027	\$	2,500
Basic and diluted loss per share	\$ 0.02	\$	0.03	\$	0.02
Total assets	\$ 17,709	\$	14,946	\$	4,293
Total long-term liabilities	Nil		Nil		Nil

# **Discussion of Operations**

## Year ended December 31, 2018 and 2017

The tables below detail exploration and evaluation expenditures for the years ended December 31, 2018 and 2017. Exploration efforts during the period were focused on the Khundii Gold Project and Ulaan licenses.

Khundii Gold

Year ended December 31, 2018	K	Project		Zuun Mod	Ula	aan & Other		Total
Exploration expenditures								
Mining studies and permitting	\$	1,343,667	\$	-	\$	-	\$	1,343,667
Drilling, trenching, sampling and assaying		1,279,068		2,823		244,812		1,526,703
Exploration, camp and field		1,133,027		49,792		535,630		1,718,449
Stakeholder relations		343,697		-		17,666		361,363
Travel and other		169,629		1,072		20,687		191,388
License costs		22,467		70,074		1,388		93,929
Mongolian office costs		-		-		250,043		250,043
Share-based compensation		-		-		473,150		473,150
Total exploration expenditures		4,291,555		123,761		1,543,376		5,958,692
Capitalized expenditures		(4,291,555)		(70,074)		(1,388)		(4,363,017)
Expensed exploration costs 2018	\$	-	\$	53,687	\$	1,541,988	\$	1,595,675
E&E assets, January 1, 2018	\$	9,700,832	\$	765,795	\$	928,216	\$	11,394,843
Additions		4,291,555		70,074		1,388		4,363,017
Effect of movements in exchange rates		(62,077)		(4,143)		(4,292)		(70,512)
E&E assets, December 31, 2018	\$	13,930,310	\$	831,726	\$	925,312	\$	15,687,348
	K	hundii Gold						
Year ended December 31, 2017		Project		Zuun Mod		Other		Total
Exploration expenditures	_		_		_		_	
Drilling, trenching, sampling and assaying	\$	5,017,084	\$	2,697	\$	90,751	\$	5,110,532
Exploration, camp and field		1,880,644		45,226		450,879		2,376,749
Mining studies and permitting		424,787		-		-		424,787
Travel and other		153,253		80		141,260		294,593
Stakeholder relations		103,196				12,217		115,413
Licence costs		10,795		74,062		949,326		1,034,183
Mongolian office costs		-		-		281,426		281,426
Share-based compensation		<u>-</u>		-		607,092		607,092
Total exploration expenditures		7,589,759		122,065		2,532,951		10,244,775
Capitalized expenditures		(7,589,759)	_	(74,062)		(949,326)	_	(8,613,147)
Expensed exploration costs 2017	\$	-	\$	48,003	\$	1,583,625	\$	1,631,628
E&E assets, January 1, 2017	\$	2.337.466	\$	728.164	\$	581	\$	3.066.211
E&E assets, January 1, 2017 Additions	\$	<b>2,337,466</b> 7,589,759	\$	<b>728,164</b> 74.062	\$	<b>581</b> 949.326	\$	<b>3,066,211</b> 8,613,147
<b>E&amp;E assets, January 1, 2017</b> Additions Effect of movements in exchange rates	\$	<b>2,337,466</b> 7,589,759 (226,393)	\$	<b>728,164</b> 74,062 (36,431)	\$	<b>581</b> 949,326 (21,691)	\$	<b>3,066,211</b> 8,613,147 (284,515)

Exploration expenditures totaled \$5,958,692 for the year ended December 31, 2018, compared to \$10,244,775 for the same period in 2017. Drilling, trenching, sampling and assaying expenditures for the year ended December 31, 2018 were \$3,583,829 less than the prior year as Erdene drilled approximately 9,400 metres in the current year compared to 32,211 metres in 2017, as the Company focused efforts on the NI 43-101 Resource Estimates and PEA studies for the Khundii Gold Project in 2018. Exploration, camp and field costs and travel costs for the year ended December 31, 2018 were respectively \$658,300 and \$103,205 less than the preceding year due to the reduction in drilling activity.

Mining studies and permitting expenses of \$1,343,667 for the year ended December 31, 2018 were \$918,880 higher than the prior year due to professional fees associated with the NI 43-101 Resource Estimates and PEA for the Khundii Gold Project completed in 2018. License costs of \$93,929 for the year ended December 31, 2018, were \$940,254 less than 2017, as Erdene purchased the 51% of the outstanding shares of Leader Exploration LLC in August 2017, for US\$750,000, and recognized the transaction as a Capitalized exploration expenditure. Stakeholder relations expenditures of \$361,363 for the year ended December 31, 2018 were higher than those of \$115,413 incurred during the prior year as the company increased its community partnership efforts in advance of mining license applications. Sharebased compensation was \$133,942 less than 2017 due to the impact of a lower share price.

Erdene began capitalizing exploration costs for its Khundii Gold Project on January 1, 2015, with the receipt of the initial resource estimate for the Khundii Gold Project's Altan Nar deposit. For the years ended December 31, 2018 and 2017, Erdene has capitalized all exploration costs associated with this Project. Only license costs associated with its other properties have been capitalized in 2018 or 2017.

	For the years ended December 31,							
		2018		2017		Change		
Administrative services	\$	535,118	\$	572,692	\$	(37,574)		
Depreciation and amortization		6,194		6,504		(310)		
Directors fees and expenses		132,841		146,141		(13,300)		
Investor relations and marketing		201,074		267,171		(66,097)		
Office and sundry		123,271		115,299		7,972		
Professional fees		236,394		131,525		104,869		
Regulatory compliance		116,567		139,108		(22,541)		
Share-based compensation		712,854		948,542		(235,688)		
Travel and accommodations		56,077		123,170		(67,093)		
	\$	2,120,390	\$	2,450,152	\$	(329,762)		

Corporate and administrative expenses totaled \$2,120,390 for the year ended December 31, 2018, compared to \$2,450,152 for the year ended December 31, 2017. The reduction in Administrative services compared to 2017 was primarily attributable to lower incentive compensation in 2018. Investor relations and marketing expenditures decreased by \$66,097 year over year as the corporation participated in fewer conferences during the current year. Travel and accommodations expenses were also lower than the prior year as a result of attending fewer events. Professional fees for the year ended December 31, 2018 were \$104,869 higher than the prior year due to higher financial advisory fees associated with strategic financial planning, partially offset by lower risk consulting fees, as Erdene completed a controls review in 2017. Noncash share-based compensation was \$235.688 less than 2017 due to the impact of a lower share price.

### **Fourth Quarter**

Exploration expenditures totaled \$1,168,626 for the three months ended December 31, 2018. Mining studies and permitting expenditures of \$477,833 were incurred towards the NI 43-101 Resource Estimate and PEA studies for the Khundii Gold Project. Drilling, trenching, sampling and analysis expenditures of \$446,145 were attributable to the conclusion of the 2018 drill program. Non-cash share-based compensation expenditures attributable to exploration staff were \$113,737 for the fourth guarter of 2018. Other exploration expenditures of \$130,911 include travel expenses, license costs, and other general expenses related to the Corporation's Mongolian field operations.

Corporate and administrative expenses totaled \$507,104 for the three months ended December 31, 2018, including \$279,157 of salaries and administrative expenditures, \$117,118 of public company operating costs and miscellaneous administrative expenditures, including travel and investor relations totaling \$110,829.

There were no unusual events during the fourth quarter of 2018 that materially affected the Corporation's financial condition, cash flows or results of operations.

## **Summary of Quarterly Results**

Expressed in thousands of Canadian dollars except per share amounts

		Fiscal 2018						
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
	Dec	Sep	Jun	Mar	Dec	Sep	Jun	Mar
Net loss	\$772	\$744	\$1,439	\$702	\$649	\$713	\$2,069	\$596
Basic loss per share	\$0.01	\$0.00	\$0.01	\$0.00	\$0.00	\$0.01	\$0.02	\$0.00
Total assets	\$17,709	\$18,136	\$19,500	\$14,879	\$14,946	\$15,592	\$16,730	\$17,208

For the three months ended December 31, 2018, the Corporation recognized a net loss of \$772,371 compared to a loss of \$649,434 for the same period in 2017.

For the year ended December 31, 2018, the Corporation recognized a net loss of \$3,656,990, or \$0.02 per share, compared to a loss of \$4,027,465, or \$0.03 per share for the same period in 2017.

The Corporation's expenditures vary from quarter to quarter largely depending on the timing of its Mongolian exploration programs. The Corporation is not aware of any other specific trends which account for fluctuations in financial results from period to period.

## **Liquidity and Capital Resources**

At the date of this MD&A, the Corporation had approximately \$3.2 million in working capital.

On June 8, 2018, the Corporation closed a non-brokered common share private placement for gross proceeds of \$4.12 million. On June 14, 2018, the Corporation closed a financing in connection with a secondary listing of its common shares on the Mongolian Stock Exchange (MSE) for gross proceeds of \$1.36 million.

Funds raised have been used to advance the Corporation's projects in Mongolia and to meet administrative costs in support of those programs (see Development and Exploration Projects and Discussion of Operations).

With the receipt of Private Placement proceeds of \$2.53M on February 28, 2019 (see Subsequent Event note in December 31, 2018 Consolidated Financial Statements), management estimates current working capital is sufficient to fund the Corporation's planned expenditures to June 2019. The ability of the Corporation to continue with its exploration and development programs beyond this point is contingent upon securing additional funds through asset sales, formation of alliances, option, and/or joint venture agreements, equity financing and/or expenditure reductions. The timing and availability of additional equity financing will be determined largely by market conditions and the results of the Corporation's ongoing exploration programs.

The Corporation has minimal sources of income. It is therefore difficult to identify any meaningful trends or develop an analysis from the Corporation's cash flows. The Corporation is dependent primarily on the issuance of share capital to finance its exploration and development programs.

Other than as discussed herein, the Corporation is not aware of any trends, demands, commitments, events or uncertainties that may result in the Corporation's liquidity or capital resources materially increasing or decreasing at present or in the foreseeable future. Material increases or decreases in the Corporation's liquidity and capital resources will be substantially determined by the success or failure of the Corporation's Mongolian exploration and development programs and its ability to obtain sufficient equity financing.

## **Outstanding Share Data**

#### **Authorized**

An unlimited number of common shares with no par value.

### **Issued and Outstanding Share Capital**

	March 27, 2019	December 31, 2018
Common shares issued and outstanding	173,941,029	162,426,416
Options outstanding	11,010,000	11,335,000
Warrants outstanding	22,599,194	12,389,904
DSU's oustanding	3,954,118	3,954,118
Total instruments outstanding at end of period	211,504,341	190,105,438

## **Contractual Obligations**

The following table summarizes the Corporation's contractual obligations at December 31, 2018:

		Less than	1 - 3	4 - 5	More than	
To		one year	years	years	5 years	
Office leases Accounts payable and	\$41,957	\$41,957	\$0	\$0	\$0	
accrued liabilites	224,387	224,387	-	-		
	\$266,344	\$266,344	\$0	\$0	\$0	

## Other Financing Arrangements and Commitments

#### Sandstorm Gold Ltd. Royalty Agreement

On April 14, 2016 the Corporation granted Sandstorm Gold Ltd. ("Sandstorm") a 2% NSR Royalty on Erdene's Tsenkher Nomin (Altan Nar) and Khundii (Bayan Khundii) licenses. Erdene has an option to buyback 50% of the NSR Royalty for \$1.2 million, to reduce the NSR Royalty to 1%, which expires April 14, 2019. Sandstorm was given a right of first refusal on future stream and/or royalty financings related to the Khundii and Tsenkher Nomin licenses. On March 26, 2019, Erdene notified Sandstorm of its intention to buy-back 50% of the NSR Royalty. The Corporation intends to close this transaction in April of 2019.

#### **Alliance with Teck Resources Limited**

In April 2013, an alliance was formed with Teck Resources to explore Erdene's mineral tenements in the Trans Altai region of southwest Mongolia. Under the terms of the alliance, Teck agreed to invest \$3 million or acquire 19.9% of the outstanding shares of the Corporation, with eighty-five percent of the proceeds committed to exploration work. In return, Erdene granted Teck the option to acquire up to 75% interest in designated projects through a two-stage option process by funding additional expenditures.

Between Q2 2013 and Q1 2017, Teck invested \$3 million, fulfilling its commitment under the Alliance. During this period, Teck did not elect to acquire direct interests in any Erdene projects explored. However, Teck maintains the right through to Q1 2020, to enter into joint venture agreements on certain properties explored under the Alliance.

#### Other

Gallant Minerals Limited is entitled to a 1.5% NSR Royalty on the Zuun Mod License, subject to a buy-down provision. There are no minimum exploration work commitments for the Zuun Mod mining license.

In 2018, minimum exploration expenditures of USD\$1.50 per hectare were required on the Corporation's Tsenkher Nomin and Khundii licenses (USD\$7,004 and USD\$6,771 respectively).

The Corporation must spend a total of USD\$600,000 by August 30, 2020 to have the right to purchase any (or all) of the remaining 49% of Leader Exploration LLC (Ulaan license). The Corporation can extend the option period beyond three years by incurring an additional USD\$100,000 per year on exploration work. If Erdene fails to incur the minimum expenditures, its 51% ownership interest will revert to Leader Exploration LLC.

## **Off-Balance Sheet Arrangements**

As at December 31, 2018, the Corporation had no off-balance sheet arrangements such as guarantee contracts, contingent interests in assets transferred to an entity, derivative instruments obligations or any obligations that trigger financing, liquidity, market or credit risks to the Corporation.

# **Critical Accounting Estimates**

### Estimate of recoverability for non-financial assets

Events or changes in circumstances, may give rise to significant impairment charges or reversals of impairment in a particular year.

In accordance with the Corporation's accounting policy, each non-financial asset or cash generating unit is evaluated every reporting period to determine whether there are any indications of impairment. If any such indication exists, a formal estimate of recoverable amount is performed and an impairment loss recognized to the extent that the carrying amount exceeds the recoverable amount. The recoverable amount of an asset or cash generating unit is measured at the higher of fair value less costs to sell and value in use.

Fair value is determined as the amount that would be obtained from the sale of the asset in an arm's length transaction between knowledgeable and willing parties and is generally determined as the present value of the estimated future cash flows expected to arise from the continued use of the asset, including any expansion prospects, and its eventual disposal. Value in use is also generally determined as the present value of the estimated future cash flows, but only those expected to arise from the continued use of the asset in its present form and its eventual disposal. Present values are determined using a risk-adjusted pre-tax discount rate appropriate to the risks inherent in the asset.

Future cash flow estimates are based on expected production and sales volumes, mineral prices (considering current and historical prices, price trends and related factors), resources, operating costs, restoration and rehabilitation costs and future capital expenditures. This policy requires management to make these estimates and assumptions which are subject to risk and uncertainty; hence there is a possibility that changes in circumstances will alter these projections, which may impact the recoverable amount of the assets. In such circumstances, some or all of the carrying value of the assets may be impaired and the impairment would be charged against the income statement.

### **Share-based payments**

Equity-settled share-based payments issued to employees are measured at fair value (excluding the effect of non-market based vesting conditions) at the date of grant. Fair value is measured using the Black-Scholes pricing model and requires the exercise of judgment in relation to variables such as expected volatilities and expected lives based on information available at the time the fair value is measured. The Corporation recognized a total of \$1,186,004 in non-cash share-based compensation in the twelve months ended December 31, 2018 (2017 - \$1,555,634).

### **Taxation**

The Corporation's accounting policy for taxation requires management's judgment in assessing whether deferred tax assets and certain deferred tax liabilities are recognized on the balance sheet. Deferred tax assets, including those arising from tax loss carry-forwards, capital losses and temporary differences are recognized only where it is considered probable that they will be recovered, which is dependent on the generation of sufficient future taxable profits. Assumptions about the generation of future taxable profits depend on management's estimates of future cash flows. These depend on estimates of future production and sales volumes, mineral prices, reserves, operating costs, restoration and rehabilitation costs, capital expenditures, dividends and other capital management transactions.

Judgments are also required about the application of income tax legislation. These judgments and assumptions are subject to risk and uncertainty, hence there is a possibility that changes in circumstances will alter expectations, which may impact the amount of deferred tax assets and deferred tax liabilities recognized on the balance sheet and the amount of other tax losses and temporary differences not yet recognized. In such circumstances, some or all of the carrying amount of recognized deferred tax assets and liabilities may require adjustment, resulting in a corresponding credit or charge to the income statement.

No changes have been made the Corporation's critical accounting estimates in the past two years.

## **Adoption of New Accounting Standards**

Erdene adopted the following new and revised standards, along with any consequential amendments, effective January 1, 2018. These changes were made in accordance with the applicable transitional provisions.

#### IFRS 9 - Financial Instruments

IFRS 9 introduces new requirements for the classification and measurement of financial assets. Under IFRS 9, financial assets are classified and measured based on the business model in which they are held and the characteristics of their contractual cash flows. The standard introduces additional changes relating to financial liabilities and amends the impairment model by introducing a new 'expected credit loss' model for calculating impairment. IFRS 9 also includes a new general hedge accounting standard which aligns hedge accounting more closely with risk management. The Corporation adopted IFRS 9 in its financial statements for the annual period beginning on January 1, 2018. The adoption of this standard had no financial impact to Erdene.

## **Future Changes in Accounting Policies**

The following new standards, and amendments to standards and interpretations under IFRS, are not yet effective for the year ended December 31, 2018, and have not been applied in preparing Erdene's consolidated statements:

#### **IFRS 16: Leases**

On January 13, 2016, the IASB issued IFRS 16 Leases, which specifies how to recognize, measure, present and disclose leases. The standard provides a single lessee accounting model, requiring lessees to recognize assets and liabilities for all leases unless the lease term is 12 months or less or the underlying asset has a low value. Consistent with its predecessor, IAS 17 the new lease standard continues to require lessors to classify leases as operating or finance. IFRS 16 is to be applied retrospectively for annual periods beginning on or after January 1, 2019. As the Corporation does not have significant lease commitments, Erdene will not see a material impact from the adoption of the standard.

### Financial Instruments and Other Risks

### **Financial Instruments**

The fair values of the Corporation's financial instruments are considered to approximate the carrying amounts. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy establishes levels to classify the inputs to valuation techniques used to measure fair value.

Level 1: Inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2: Inputs are quoted prices in markets that are not active, quoted prices for similar assets or liabilities in active markets, inputs other than quoted prices that are observable for the asset or liability, or inputs that are derived principally from or corroborated by observable market data or other means.

Level 3: Inputs are unobservable (supported by little or no market activity).

### **Fair Value**

During the periods ended December 31, 2018 and December 31, 2017, there were no transfers between level 1, level 2 and level 3 classified assets and liabilities. The following table provides the disclosures of the fair value of financial assets and liabilities and the level in the hierarchy.

	December 31, 2018				December 31, 2017								
		Level 1	Le	evel 2	Le	evel 3		Level 1	Le	evel 2	Le	evel 3	
Financial assets:  Cash and cash equivalents	\$	1,748,249	\$		\$	_	\$	3,225,202	\$	_	\$		
Receivables	113,412				•	148,069							

#### **Risks**

In conducting its business, the principal risks and uncertainties faced by the Corporation relate primarily to exploration results and, to a lesser extent, metal and commodity prices. Exploration for minerals and development of mining operations involve many risks, many of which are outside the Corporation's control. In addition to the normal and usual risks of exploration and mining, the Corporation works in remote locations that lack the benefit of infrastructure and easy access. More information on risks is available in the Corporation's Annual Information Form available on SEDAR at www.sedar.com.

#### Credit Risk

The Corporation manages credit risk by holding the majority of its cash and cash equivalents with a Canadian Schedule I bank, where management believes the risk of loss to be low. At December 31, 2018, \$66,342 or 4% of the balance of cash and cash equivalents was held in banks outside Canada (December 31, 2017 - \$113,555 or 4%).

### **Liquidity Risk**

Liquidity risk is the risk that the Corporation will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled by delivering cash or another financial asset. The Corporation's approach to managing liquidity is to ensure, to the extent possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions. As of December 31, 2018, the Corporation had a cash and cash equivalents balance of \$1,748,249 (December 31, 2017 - \$3,225,202) to settle current liabilities of \$224,387 (December 31, 2017 - \$191,600).

The Corporation is in the exploration stage and is subject to the risks and challenges similar to other companies in a comparable stage of exploration. These risks include, but are not limited to, dependence on key individuals, successful exploration results and the ability to secure adequate financing to meet the minimum capital required to successfully advance the projects and continue as a going concern.

### **Foreign Currency Risk**

The Corporation operates in Mongolia, giving rise to foreign currency risk. To limit the Corporation's exposure to this risk, cash and cash equivalents are primarily held with high quality financial institutions in Canada. Based on the timing of the Corporation's exploration programs, foreign currencies may be purchased in advance of expenditures to lock in favorable rates in line with the Corporation's budgets, otherwise the Corporation does not use any form of hedging against fluctuations in foreign exchange.

The Corporation's exposure to US dollar currency risk was \$71,913 as at December 31, 2018 (December 31, 2017 - \$205,773). A 10% change in the US dollar exchange rate would affect net loss and comprehensive loss and deficit by approximately \$7,200 (December 31, 2017 - \$20,600).

The Corporation's exposure to Mongolian Tugrik currency risk was \$11,510 as at December 31, 2018 (December 31, 2017 - \$38,526). A 10% change in the Mongolian Tugrik would affect net loss and comprehensive loss and deficit by approximately \$1,200 (December 31, 2017 - \$3,900).

#### **Price Risk**

The Corporation's financial instruments are not exposed to any direct price risk other than that associated with commodities and how fluctuations impact companies in the mineral exploration and mining industries as the Corporation has no significant revenues.

# Disclosure Controls and Internal Controls over Financial Reporting

Erdene has established and maintains disclosure controls and procedures over financial reporting, as defined under the rules adopted by the Canadian Securities Regulators in instrument 52-109. The Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO") have evaluated the design and effectiveness of Erdene's disclosure controls and procedures as of December 31, 2018 and have concluded that such procedures are adequate and effective to provide reasonable assurance that material information relating to Erdene and its consolidated subsidiaries would be made known to them by others within those entities to allow for accurate and complete disclosures in annual filings.

The Management of Erdene, with the participation of the CEO and CFO (collectively "Management"), is responsible for establishing and maintaining adequate internal controls over financial reporting. Erdene's internal controls over financial reporting are designed to provide reasonable assurance regarding the reliability of financial reporting and preparation of financial statements in accordance with IFRS.

Management evaluated the design and effectiveness of Erdene's internal controls over financial reporting as of December 31, 2018. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in its report "Internal Control -Integrated Framework (2013). This evaluation included reviewing controls in key risk areas, assessing the design of these controls, testing these controls to determine their effectiveness, reviewing the results and then developing an overall conclusion.

Based on management's evaluation, the CEO and the CFO have concluded that as of December 31, 2018, Erdene's internal controls over financial reporting were effective in providing reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with IFRS.

However, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Also, projections of any evaluation of effectiveness in future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

### **Qualified Person**

Michael A. MacDonald, P.Geo. (Nova Scotia) is a qualified person under NI 43-101 and supervises all of the Corporation's exploration programs. Samples are assayed at SGS Laboratory in Ulaanbaatar, Mongolia or Tianjin China, Central Geological Laboratory in Ulaanbaatar, Blue Coast Research Ltd in Parksdale British Columbia, Canada, or ALS Chemex in Vancouver, Canada. In addition to internal checks by SGS Laboratory, Central Geological Laboratory and ALS Chemex, the Corporation incorporates a QA/QC sample protocol utilizing prepared standards, field and laboratory splits, and blanks.

The disclosure in this MD&A of scientific or technical information about mineral projects on the Corporation's properties has been reviewed and approved by Michael A. MacDonald, P. Geo, who is not independent of the Corporation.

### Other Information

Additional information regarding the Corporation, including the Corporation's Annual Information Form, is available on SEDAR at www.sedar.com and on the Corporation's website at www.erdene.com.