



**ELECTRA BATTERY MATERIALS CORPORATION
(FORMERLY FIRST COBALT CORP.)**

**MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE YEAR ENDED DECEMBER 31, 2021**

(EXPRESSED IN THOUSANDS OF CANADIAN DOLLARS)

ELECTRA BATTERY MATERIALS CORPORATION
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE YEAR ENDED DECEMBER 31, 2021

(expressed in thousands of Canadian dollars)

GENERAL

This Management's Discussion and Analysis of Electra Battery Materials Corporation ("Electra" or the "Company") ("MD&A") was prepared on April 8, 2022 and provides analysis of the Company's financial results for the years ended December 31, 2021 and 2020. The following information should be read in conjunction with the accompanying consolidated financial statements for the years ended December 31, 2021 and 2020 with accompanying notes which have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). All dollar figures are expressed in thousands of Canadian dollars unless otherwise stated. Financial Statements are available at www.sedar.com and the Company's website www.electrabmc.com.

COMPANY OVERVIEW

Electra was incorporated on July 13, 2011 under the Business Corporations Act of British Columbia and on September 4, 2018, the Company filed a Certificate of Continuance into Canada and adopted Articles of Continuance as a Federal Company under the Canada Business Corporations Act (the "CBCA"). On December 6, 2021, the Company changed its name from First Cobalt Corp. to Electra Battery Materials Corporation to better align with its strategic vision. The Company is focused on building a North American integrated battery materials complex for the electric vehicle supply chain. In addition, the Company continues to explore its Idaho mineral properties as a potential future source of North American cobalt and copper.

Electra is a public company listed on the TSX Venture Exchange (TSX-V) (under the symbol ELBM) and the OTCQX (under the symbol ELBMF). The Company's registered and records office is Suite 2400, Bay-Adelaide Centre, 333 Bay Street, Toronto, Ontario, M5H 2T6. The Company's head office is located at 401 Bay Street, 6th Floor, Toronto, Ontario, M5H 2Y4.

Q4 2021 HIGHLIGHTS AND RECENT EVENTS

Strategic Shift and Name Change to Electra Battery Materials

In November 2021, the Company announced that it was expanding its strategic plan beyond its original focus on cobalt. The Company's new business model will focus on creating the first integrated battery materials park in North America, providing battery grade nickel and cobalt, recycled battery materials and precursor material to the North American electric vehicle battery supply chain. The first phase of this business plan is to expand and bring into production the Company's hydrometallurgical refinery (the "Refinery") to produce cobalt sulfate.

To better reflect the Company's vision, the Company changed its corporate name from First Cobalt Corp. to Electra Battery Materials Corporation, effective December 6, 2021. The Company continues to develop and expand its hydrometallurgical refinery to become a significant global producer of cobalt sulfate as the first phase of its strategic plan.

Refinery Advancement

The Company has continued to advance the Refinery project in 2021 and 2022 along its stated development timeline for first commissioning in December 2022.

In October 2021, the solvent extraction design and manufacturing contract was awarded to Metso Outotec, who are recognized as a world leader in sustainable solutions for mineral processing and metal refining. The solvent extraction equipment is the largest equipment package for the refinery expansion project. Other key contracts have also been awarded, including the solvent extraction plant earthworks, foundations and exterior building construction. The

(expressed in thousands of Canadian dollars)

earthworks and foundation work for the new solvent extraction plant are in progress. The Company has signed the majority of key equipment contracts, and total incurred plus committed costs to date are \$38,247. Contracts have been awarded for the two most expensive and longest-lead components of the refinery – the cobalt crystallizer and the solvent extraction plant.

In November 2021, the Company announced a 30% increase in the design capacity of its cobalt crystallizer, which will result in installed capacity of 6,500 tonnes of annual cobalt production in the circuit and an updated, project control capital budget of \$83,774 (US\$67,019) for the project. With detailed engineering more advanced and numerous contracts and equipment orders finalized, this new capital budget is more defined and representative of the advancement of the project.

In December 2021, the Company announced that it had signed a five-year cobalt tolling contract and amended the previously concluded five-year cobalt hydroxide feed purchase agreement with Glencore. Glencore will have the option to toll approximately 1,000 tonnes of contained cobalt at the refinery. Glencore intends to use its extensive network to market Electra's premium cobalt sulfate globally.

In October 2021, the Company received its Air and Noise Environmental Compliance Approval from the Ontario Ministry of Environment, Conservation and Parks and in February 2022 the Company received its Industrial Sewage Works Environmental Compliance Approval (the "ISW Permit"). The Company will amend its existing permit to take water to ensure alignment of volumes with its ISW Permit. In March 2022, the Company also received final approval and acceptance of its closure plan for the expanded refinery. Updating the water quantities in the permit to take water, to match volumes in the ISW Permit, is the only outstanding permit update required for operation.

Refinery Construction Financing Package

On September 2, 2021, the Company completed a combined secured convertible debt and brokered equity financing package with an aggregate value of approximately US\$45,000 to finance the construction of the Refinery. The financing package consisted of the following components:

- An offering of US\$37,500 principal amount of 6.95% senior secured convertible notes due December 1, 2026 (the "Notes") led by Cantor Fitzgerald & Co.; and
- An overnight-marketed public offering of 38,150,000 common shares of the Company (the "Offered Shares") at a price of \$0.25 per common share led by BMO Capital Markets for gross proceeds of approximately C\$9,500 (US\$7,500) (the "Equity Offering").

The initial conversion rate of the Notes is 4,058.24 common shares per US\$1 (one thousand) of principal, representing a premium of approximately 25% over the price of the Equity Offering. The Notes bear interest at 6.95% per annum, payable in cash on a semi-annual basis and are secured by a first priority security interest in substantially all of the Company's assets.

The Holders of the Notes also held an option to purchase an additional aggregate total of US\$7,500 principal amount of Notes, issued at par, for 60 days from the announcement date. On October 22, 2021, this option was exercised in full and an additional US\$7,500 of Notes were issued on the same terms as the original Notes.

During the year-end December 31, 2021, US\$5,500 of principal value of notes were converted by noteholders which resulted in the Company issuing a total of 22,320,320 common shares. The Company also made interest make-whole payments to the noteholders upon conversion totaling US\$756. To date in 2022, a further US\$1,000 of principal value of notes were converted by noteholders.

Amendment to Base Shelf Prospectus and At-the-Market Equity Program

On November 30, 2021, the Company announced that it had filed an amendment to its base shelf prospectus to increase the total offering price of the securities of the Company that may be offered from time to time under the Prospectus from \$20,000 to \$70,000. The original \$20,000 capacity had been fully utilized, and this amendment provided an additional \$50,000 of flexibility to consider future financing opportunities under favourable market conditions to advance its battery materials park and other growth plans to increase shareholder value.

On January 13, 2022, the Company announced it had established an at-the-market equity program (the "2022 ATM Program") that allows the Company to issue up to \$20,000 of common shares from treasury to the public from time to time, at the Company's discretion. Distributions of common shares through the 2022 ATM Program will be made pursuant to the terms of an equity distribution agreement between the Company and CIBC Capital Markets. The volume and timing of distributions under the ATM Program will be determined at the Company's sole discretion, and the ATM program is effective until the earlier of the issuance of all common shares issuable under the ATM Program and December 26, 2022. As of the date of this MD&A, the Company has issued a total of 2,754,300 common shares under the 2022 ATM Program at an average price of \$0.2964 per shares, providing gross proceeds of \$816. A commission of \$20 was paid to CIBC Capital Markets in relation to these distributions.

COVID-19 Impacts

Market volatility and economic uncertainty due to the COVID-19 pandemic have cast uncertainty over global economic activity levels. Despite pandemic-related market instability, the electric vehicle (EV) market continues to strengthen in North America, Europe and around the world. The Company continues to advance its plans for the refinery and has not encountered any adverse affects relating to COVID-19 to date. Best practice protocols have been developed and implemented for on-site activity to ensure the health and safety of all personnel. Where possible, the Company has procured equipment and materials for the refinery expansion from North American sources to attempt to mitigate any impacts from global supply chain constraints.

Notwithstanding the forgoing, global uncertainty related to the pandemic may present other challenges that are not known at the current time – including new supply chain interruptions, cost impacts, or alteration of business plans by the Company's strategic partners.

OUTLOOK AND OVERVIEW OF CURRENT PROGRAMS

The Company's vision is to provide sustainable battery materials to the electric vehicle industry. The Company owns two main assets – the Refinery located in Ontario, Canada and the Iron Creek cobalt-copper project located in Idaho, United States. It also controls a number of properties in Ontario known as the Cobalt Camp.

The Company has been progressing plans to create an integrated battery materials park in Ontario, Canada. The first phase of this plan involves recommissioning and expanding the Refinery with a view to becoming the only refiner of battery grade cobalt sulfate in North America. Electra's primary focus for 2022 is advancing the Refinery along its construction schedule and commencing commissioning in late 2022. The second phase of the Company's strategic plan involves the introduction of recycled battery materials (known as black mass) as additional feedstock for the refinery, with commercial, metallurgical, and engineering activities on potential incorporation of black mass into the refinery being conducted in parallel with the phase one expansion project. The Company has also increased exploration activity in Idaho.

As part of the Company's strategic plan, it is committed to industry leading Environment, Social and Governance (ESG) principles and expects to have the greenest source of battery materials when in production. The Company has already

(expressed in thousands of Canadian dollars)

released results of an independent life cycle assessment (LCA) that compares projected carbon emissions, water consumption and other environmental outputs against operating facilities in China. The Company's hydroelectric-powered Refinery scored very favourably on the key environmental metrics. In 2022, the Company intends to join the Responsible Minerals Initiative and develop and report metrics that demonstrate its path to a low carbon facility.

The outlook for Electra's North American assets is discussed below:

1. The Refinery

The Company is working towards restarting its wholly owned Refinery in Ontario, Canada as the first phase in a multi-phase strategy to create North America's first integrated battery materials park. In 2020, the Company announced the results of an engineering study on the expansion of the Refinery that demonstrated that the facility could become a significant, globally competitive producer of cobalt sulfate for the electric vehicle market. The engineering study determined the Refinery could produce 25,000 tonnes of battery grade cobalt sulfate annually (equating to 5,000 tonnes of contained cobalt), which would represent 5% of the total refined cobalt market and 100% of North American cobalt sulfate supply. The study indicated strong operating margins at the asset level.

The Company notes that the engineering study and the associated update were prepared by Ausenco Engineering under the definitions of an Association for the Advancement of Cost Engineering (AACE) Class 3 Feasibility Study. The report does not constitute a feasibility study within the definition employed by the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM"), as it relates to a standalone industrial project and does not concern a mineral project of Electra. As a result, disclosure standards prescribed by National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101") are not applicable to the scientific and technical disclosure in the report. Any references to scoping study, prefeasibility study or feasibility study by the Company, in relation to the Refinery, are not the same as terms defined by the CIM Definition Standards and used in NI 43-101.

Subsequent to this study, additional metallurgical testing, engineering work, flow-sheet optimization and market analysis has been completed, certain equipment has been ordered and the Company has entered the full development phase of the Refinery expansion project.

Additionally, in response to strong customer demand, the Company has invested in increased capacity for its cobalt crystallizer, which can result in installed capacity of 6,500 tonnes of annual contained cobalt production, a 30% increase from the engineering study design of 5,000 tonnes. Future permit amendments will be sought to permit this increased output level. The Company has also been reviewing opportunities to utilize black mass from recycled lithium-ion batteries as supplemental refinery feedstock, with an on-site demonstration plant during 2022.

The Company's outlook in relation to the production phase of the Refinery reflect approximate spot pricing for cobalt inputs and outputs, and operating costs and recoveries (both of which are commercially sensitive), in line with the latest internal technical estimates. Operating cost estimates are based on consumption levels of key consumables such as sodium hydroxide, sulfuric acid, quicklime, natural gas, and cyanex based on the current refinery flow sheet and current market pricing for such consumables. Estimates of labour costs and power costs also form a key component of the Refinery's operating costs. The required volume and market pricing of these items is subject to change. Recoveries reflect management's best estimates based on metallurgical lab tests of representative feedstock from contracted providers. Total recovery could vary in the future due to variations in feedstock and operating conditions.

ELECTRA BATTERY MATERIALS CORPORATION
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE YEAR ENDED DECEMBER 31, 2021

(expressed in thousands of Canadian dollars)

The Company utilized the following key market assumptions when estimating its outlook:

- Cobalt sulfate price of US\$41.50 per pound
- Cobalt metal price of US\$38.50 per pound
- Cobalt hydroxide payability of 89%
- USD to CAD foreign exchange rate of 1.25 for 2023 and future years

The Company's cobalt production and EBITDA outlooks for phase one of its Refinery are as follows:

| | Year-ended December 31, 2021 | Year-ended December 31, 2023 | Year-ended December 31, 2024 | Year-ended December 31, 2025 |
|----------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Cobalt production (tonnes) | - | 4,375 | 5,750 | 6,500 |
| EBITDA ⁽¹⁾ | \$(5,959) | \$27,000-31,000 | \$39,000-44,000 | \$45,000-51,000 |

In the fourth quarter of 2020, the Company announced it had signed contribution agreements for \$10 million in public funding from the Government of Canada and Government of Ontario to be used towards the refinery construction. To date, the Company has received \$3,517 of this government funding. Since the beginning of 2021, the Company has achieved several additional key milestones on its development path for the Refinery, including:

- January 2021 Feedstock arrangements announced for 90% of initial production with Glencore and IXM
- January 2021 Commencement of pre-construction activities
- March 2021 Flexible, long-term cobalt sulfate offtake arrangement executed with Stratton Metals
- September 2021 Convertible note and equity financing for US\$45 million to fund refinery construction
- October 2021 Solvent extraction design and manufacturing contract awarded to Metso-Outotec
- October 2021 Additional convertible notes of US\$7.5 million issued to inject further funds
- October 2021 Receipt of Air and Noise permit
- November 2021 Increased cobalt crystallizer capacity and formalized new project capital budget
- December 2021 Updated commercial contracts with Glencore
- February 2022 Receipt of the Industrial Sewage Works permit
- March 2022 Receipt of final Closure Plan approval

The construction remains on schedule to commence commissioning of the expanded refinery in December 2022 and initially ramp-up to 5,000 tonnes of contained cobalt production per year, with steady state production achieved by mid-2023. Subject to future permits and market conditions, the Company plans to increase production capacity to a 6,5000 tonne per annum run rate by mid-2024.

Ground excavation and concrete foundations has commenced for the solvent extraction facility, and the majority of key equipment contracts have been awarded. Total incurred and committed costs to date are \$38,247 (inclusive of amounts spent to date) against the capital budget of \$83,774 (US\$67,020). Approximately, \$12,463 has been spent to date and the project remains on budget.

⁽¹⁾ Non-GAAP financial measure. See discussion under "Non-GAAP Financial Measures"

ELECTRA BATTERY MATERIALS CORPORATION
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE YEAR ENDED DECEMBER 31, 2021

(expressed in thousands of Canadian dollars)

The project capital table is provided below:

| | Refinery | | | |
|---|------------------------|------------------------|--------------------|-------------------------|
| | Project Capital Budget | 2021 Spend to Dec 31st | 2022 Spend to Date | Remaining Project Spend |
| Feed Prep, Leaching and Solvent Extraction | 38,182 | 4,508 | 1,495 | 32,180 |
| Crystallization and Sulfate Handling | 11,720 | 2,646 | 359 | 8,716 |
| Tailings, Site Services and Reagent Storage | 9,569 | 399 | 167 | 9,003 |
| Other Infrastructure | 3,394 | - | - | 3,394 |
| Project Management and Indirects | 8,621 | 1,075 | 507 | 7,039 |
| Spares, First Fills, and Owners Costs | 7,464 | 792 | 517 | 6,156 |
| Contingency | 4,824 | - | - | 4,824 |
| Total | 83,774 | 9,419 | 3,044 | 71,311 |

Cash requirements for the Refinery expansion from today through to commissioning are estimated at \$67,198, with a further \$4,113 of the capital budget not expected to be paid until early 2023, based on anticipated payment terms. The Company will also require a working capital arrangement to fund inventory purchases through to the sale of final cobalt sulfate and is in discussions with various parties on alternatives.

The current estimated timeline to bring the refinery into production is outlined below:

- Q2 2022 – Receive updated PTTW
- Q2 2022 to Q4 2022 – On site construction activities
- Q4 2022 – Refinery Commissioning

The Company continues to make progress towards achieving its objective of providing the world's most sustainable battery materials for the electric vehicle market. The Company continues to work with engineering firms, its commercial partners, process experts and financial advisers to finalize and execute on the plans for its phase one recommissioning and expansion of the Refinery.

2. The Iron Creek Project

Following the acquisition of US Cobalt in June of 2018, the Company commenced an extensive drill program at Iron Creek. In October 2018, the Company filed a technical report supporting the maiden resource estimate for the Iron Creek Project in Idaho. A second phase drill campaign was initiated to conduct infill drilling to upgrade a portion of the inferred resources to the indicated category for mine planning and to improve the confidence for future engineering studies. As a secondary priority, this campaign increased the resource along strike and at depth. However, as the cobalt price declined in 2018, the Company elected to suspend step-out drilling until market conditions improved. During 2019, the Company completed assaying work and further geological modeling to support a resource update, with a new technical report filed in early 2020.

The 2020 technical report includes a new mineral resource estimate based on infill drilling and limited step-out drilling which includes the conversion of 49% of resources from the Inferred category to the Indicated category while also increasing the overall tonnage. The indicated resource is 2.2 million tonnes grading 0.32% cobalt equivalent (0.26% cobalt and 0.61% copper) containing 12.3 million pounds of cobalt and 29.1 million pounds of copper. The inferred mineral resource is 2.7 million tonnes grading 0.28% cobalt equivalent (0.22% cobalt and 0.68% copper) for an additional 12.7 million pounds of cobalt and 39.9 million pounds of copper.

The mineralization remains open along strike and downdip. Management believes that there is potential to continue to expand the size of the Iron Creek resource. In 2020, the Company completed a new geophysics program at the property which identified several new drill targets.

(expressed in thousands of Canadian dollars)

During 2021, the Company completed a 2,500-metre drill program, targeting extensions to the resource along strike to the cobalt-rich east and copper-rich west, as shown in Figure 1.

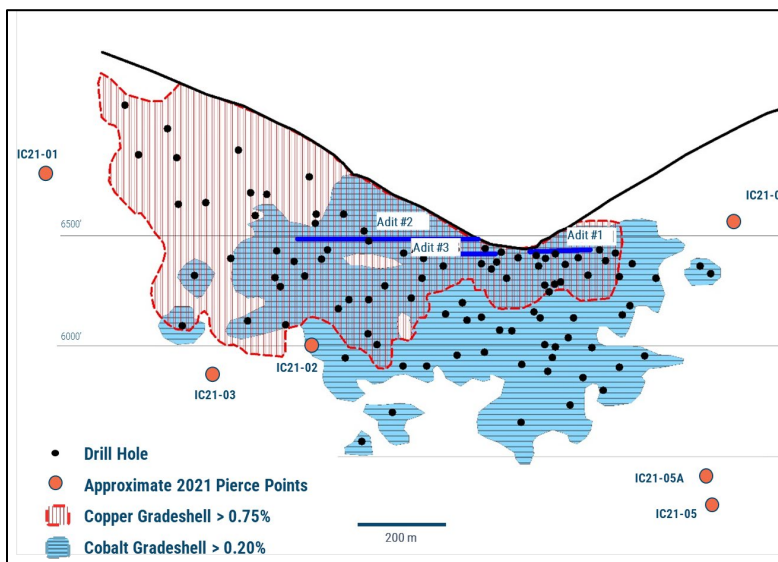


Figure 1. Long section of the Iron Creek Deposit showing 2021 drill holes. Inclined section cut at 340 degrees azimuth dipping 70 degrees to the northeast with a 125m cutting thickness.

Drill results have been received for the 3 western holes completed during the 2021 drill program, which extended mineralization by 130 metres along strike and by 110 metres at depth. The drill results from the eastern holes are pending. The Company's objective over the next two years is to meaningfully increase the resource size at Iron Creek and advance the asset towards a development decision.

The Company further increased its property position around Iron Creek in May, with the acquisition of the West Fork Property and the announcement of the Redcastle Property earn-in agreement. Its now controls approximately 2,400 hectares in the Idaho Cobalt Belt. In addition to increasing the resource size at Iron Creek, the Company plans to explore other prospective areas on its properties over the next few years.

3. The Cobalt Camp

Electra holds an interest in a significant land package in the historic silver-cobalt mining camp of Cobalt, Ontario.

On March 1, 2021, the Company announced the completion of a transaction with Kuya Silver Corporation ("Kuya") to sell a portion of these properties outright and to potentially form a joint venture on the remaining mineral assets in the Canadian Cobalt Camp.

Key terms of the transaction were as follows:

- Kuya acquired a 100% interest in the Kerr area properties (the "Kerr Assets") for \$1,000 in cash and the equivalent of \$3,378 in Kuya shares based on the 20-day VWAP prior to the December 21, 2020 announcement date
- Kuya had the right to exercise an option to earn up to a 70% interest in Electra's remaining Cobalt Camp assets (the "Remaining Assets") over the next six months, upon payment of an additional \$1,000 with further

ELECTRA BATTERY MATERIALS CORPORATION
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE YEAR ENDED DECEMBER 31, 2021

(expressed in thousands of Canadian dollars)

payments and exploration expenditures required to reach the 70% interest level. This initial option was exercised on September 1, 2021, with the payment made in common shares of Kuya.

- Kuya is required to make a milestone payment of \$2,500 upon completion of a maiden mineral resource estimate of at least 10 million silver equivalent ounces on either of the Kerr Assets or the Remaining Assets. The payment increases to \$5,000 should the resource exceed 25 million silver equivalent ounces.
- Electra was required to spend \$1,000 of the flow through proceeds it raised in August 2020 on eligible expenditures, split equally between the Kerr Assets and the Remaining Assets. Electra met this spending obligation during 2021.

Electra retains a right of first offer to refine base metal concentrates produced at Electra's Refinery as well as a back-in right for any discovery of a primary cobalt deposit on the Remaining Assets.

EXPLORATION AND EVALUATION ASSETS

The Company is focused on building a North American cobalt supply chain. The Company's Iron Creek Project in Idaho, U.S. is its flagship mineral property and a new, upgraded resource estimate was published in January 2020. The Iron Creek property includes patented and unpatented claims totalling approximately 2,400 hectares as well as 600 metres of underground drifting from three adits. Other cobalt-copper targets exist on the Company's property away from the Iron Creek resource. While not a major focus of the Company's exploration efforts in recent years, the Cobalt Camp properties are shown separately below due to their different geographic location.

| | Balance December 31, 2020 | Acquisition Costs | Writedown and Other Adjustments | ARO Adjustment | Reclassification to Held for Sale | Balance December 31, 2021 |
|--------------|---------------------------------|----------------------|---------------------------------------|-------------------|--------------------------------------|---------------------------------|
| Iron Creek | \$ 87,420 | \$ 241 | \$ - | \$ - | \$ - | \$ 87,661 |
| Total | \$ 87,420 | \$ 241 | \$ - | \$ - | \$ - | \$ 87,661 |

| | Balance December 31, 2019 | Acquisition Costs | Writedown and Other Adjustments | ARO Adjustment | Reclassification to Held for Sale | Balance December 31, 2020 |
|----------------------|---------------------------------|----------------------|---------------------------------------|-------------------|--------------------------------------|---------------------------------|
| Iron Creek | \$ 87,420 | \$ - | \$ - | \$ - | \$ - | \$ 87,420 |
| Cobalt Camp, Ontario | \$ - | \$ - | \$ 5,639 | \$ 66 | \$ (5,705) | \$ - |
| Total | \$ 87,420 | \$ - | \$ 5,639 | \$ 66 | \$ (5,705) | \$ 87,420 |

In 2020, the Company reversed a portion of previously recorded impairment charges relating to the Cobalt Camp as a result of the announced sale transaction with Kuya. These assets were reclassified as held for sale as at December 31, 2020 and the sale transaction was completed during 2021.

ELECTRA BATTERY MATERIALS CORPORATION
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE YEAR ENDED DECEMBER 31, 2021

(expressed in thousands of Canadian dollars)

SELECTED ANNUAL INFORMATION

| | Year ended December 31, 2021 | Year ended December 31, 2020 |
|--|---------------------------------|---------------------------------|
| | (\$) | (\$) |
| Financial Position | | |
| Current Assets | 61,935 | 10,466 |
| Exploration and evaluation Assets | 87,661 | 87,420 |
| Total Assets | 167,611 | 103,681 |
| Current Liabilities | 4,708 | 2,842 |
| Long-term Liabilities | 62,939 | 8,689 |
| Operations | | |
| Consulting and professional fees | 4,309 | 983 |
| Exploration and evaluation expenditures | 4,705 | 415 |
| General and administrative | 430 | 316 |
| Investor relations and marketing | 843 | 481 |
| Refinery, engineering and metallurgical studies | 4,442 | 1,529 |
| Refinery, permitting, and environmental expenses | 867 | 1,138 |
| Salary and benefits | 2,804 | 1,770 |
| Share-based payments | 731 | 690 |
| Travel | 58 | 38 |
| Total Operating Expenses | 19,189 | 7,360 |
| Net Loss | 34,916 | 2,388 |
| Loss per Share | 0.07 | 0.01 |

RESULTS OF OPERATIONS FOR THE YEAR ENDED DECEMBER 31, 2021

The following are highlights from the Company's results of operations for the years ended December 31, 2021 and 2020:

- Exploration and evaluation expenditures were \$4,705 for the year ended December 31, 2021, compared to \$415 for the year ended December 31, 2020. The increase was driven by active exploration programs at both Iron Creek and Cobalt Camp.
- Refinery, engineering and metallurgical studies costs were \$4,442 for the year ended December 31, 2021, compared to \$1,529 for the year ended December 31, 2020. The costs incurred mainly relate to front-end engineering design costs as the Company ramped up engineering efforts prior to formally commencing the development of the expanded refinery. The Company had only moved into the development phase of the project starting September 2021 which resulted in costs incurred prior to September to be expensed. From September 2021, project development costs have been capitalized. Ongoing cost associated with battery recycling studies and test-work are also included in the 2021 expenditure.
- Salary and benefits were \$2,804 for the year ended December 31, 2021, compared to \$1,770 for the year ended December 31, 2020. The increase is a result of the Company expanding its workforce during 2021, and increased management compensation compared to the prior year
- Consulting and professional fees were \$4,309 for the year ended December 31, 2021, compared to \$983 incurred during the year ended December 31, 2020, due an increase in legal costs, transaction costs and accounting costs. The legal and transaction costs mainly relate to the expensed portion of the fees paid for

ELECTRA BATTERY MATERIALS CORPORATION
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE YEAR ENDED DECEMBER 31, 2021

(expressed in thousands of Canadian dollars)

the convertible note process completed during 2021. As the Company ramps up its refinery restart, legal fees have increased to review vendor contracts.

- Refinery, permitting and environmental expenses were \$867 for the year ended December 31, 2021 compared to \$1,138 for the year ended December 31, 2020. The decrease was the result of onboarding new environmental personnel in 2021 which allowed the Company to reduce the use of external environmental consultants in some areas during the year.

SUMMARY OF QUARTERLY RESULTS

Key financial information for the three months ended December 31, 2021, as well as the quarters spanning the most recently preceding fiscal years, are summarized as follows, reported in thousands of Canadian dollars except for per share amounts.

| | December 31, 2021 (\$) | September 30, 2021 (\$) | June 30, 2021 (\$) | March 31, 2021 (\$) |
|---|------------------------------|-------------------------------|--------------------------|---------------------------|
| Financial Position | | | | |
| Current Assets | 58,626 | 64,930 | 15,295 | 20,717 |
| Exploration and Evaluation Assets | 87,661 | 87,539 | 87,539 | 87,420 |
| Total Assets | 167,611 | 160,837 | 110,094 | 113,951 |
| Current Liabilities | 4,708 | 2,115 | 598 | 536 |
| Long-term Liabilities | 62,939 | 51,749 | 1,264 | 9,297 |
| Operations | | | | |
| Consulting and professional fees | 977 | 2,173 | 691 | 468 |
| Exploration and evaluation expenditures | 2,931 | 1,212 | 416 | 146 |
| General and administrative | 137 | 146 | 61 | 86 |
| Investor relations, marketing, and travel | 492 | 109 | 127 | 115 |
| Refinery, engineering and metallurgical studies | 436 | 1,797 | 1,479 | 730 |
| Refinery, permitting and environmental expenses | 182 | 299 | 129 | 257 |
| Salary and benefits | 1,222 | 606 | 559 | 417 |
| Share-based payments | 185 | 189 | 262 | 95 |
| Travel | 33 | 16 | 7 | 2 |
| Total Operating Expenses | 6,595 | 6,547 | 3,731 | 2,316 |
| Net Loss | 15,496 | 10,502 | 6,408 | 2,510 |
| Loss per Share | 0.03 | 0.02 | 0.01 | 0.01 |

ELECTRA BATTERY MATERIALS CORPORATION
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE YEAR ENDED DECEMBER 31, 2021

(expressed in thousands of Canadian dollars)

| | December 31 2020 (\$) | September 30 2020 (\$) | June 30, 2020 (\$) | March 31, 2020 (\$) |
|---|-----------------------------|------------------------------|--------------------------|---------------------------|
| Financial Position | | | | |
| Current Assets | 10,466 | 5,494 | 4,097 | 5,619 |
| Exploration and Evaluation Assets | 87,420 | 87,420 | 87,420 | 87,420 |
| Total Assets | 103,681 | 98,709 | 97,313 | 98,834 |
| Current Liabilities | 2,842 | 7,987 | 29 | 99 |
| Long-term Liabilities | 8,689 | 2,737 | 10,124 | 10,014 |
| Operations | | | | |
| Consulting and professional fees | 455 | 179 | 149 | 200 |
| Exploration and evaluation expenditures | 290 | 74 | 32 | 19 |
| General and administrative | 36 | 110 | 64 | 106 |
| Investor relations and marketing | 254 | 75 | 37 | 115 |
| Refinery, engineering and metallurgical studies | 352 | 92 | 356 | 729 |
| Refinery, permitting and environmental expenses | 489 | 313 | 164 | 172 |
| Salary and benefits | 645 | 280 | 540 | 305 |
| Share-based payments | 143 | 303 | 110 | 134 |
| Travel | 19 | 1 | 16 | 2 |
| Total Operating Expenses | 2,683 | 1,427 | 1,468 | 1,782 |
| Net Loss | 2,015 | 1,513 | 1,678 | 2,111 |
| Loss per Share | 0.00 | 0.00 | 0.00 | 0.01 |

RESULTS OF OPERATIONS FOR THE THREE MONTHS ENDED DECEMBER 31, 2021

The following are highlights from the Company's results of operations for the three months ended December 31, 2021 and 2020:

- Exploration and evaluation expenditures were \$2,931 for the three months ended December 31, 2021, compared to \$290 for the three months ended December 31, 2020. The increase was mainly driven by the drill program conducted at Iron Creek.
- Refinery, engineering and metallurgical studies costs were \$437 for the three months ended December 31, 2021, compared to \$353 for the three months ended December 31, 2020. The costs incurred for the three months ended December 31, 2021 mainly relate to black mass studies and other metallurgical testing.
- Salary and benefits were \$1,221 for the three months ended December 31, 2021, compared to \$645 for the three months ended December 31, 2020. The increase is a result of the Company expanding its workforce and increased management compensation during 2021.
- Consulting and professional fees were \$977 for the three months ended December 31, 2021, compared to \$455 incurred during the three months ended December 31, 2020 due to the expensed portion of the costs relating to finalizing the second tranche of convertible notes issued in October 2021.
- Refinery, permitting and environmental expenses were \$182 for the three months ended December 31, 2021, compared to \$489 for the three months ended December 31, 2020. These costs have decreased due to the Company using internal personnel for environmental activities rather than external consultants. Key work to support permit applications was also completed earlier in the year, with fewer active work programs in place during the fourth quarter of 2021.

ELECTRA BATTERY MATERIALS CORPORATION
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE YEAR ENDED DECEMBER 31, 2021

(expressed in thousands of Canadian dollars)

CAPITAL STRUCTURE

As of the date of this MD&A, the Company has 564,443,309 common shares issued and outstanding. In addition, there are outstanding share purchase warrants and stock options for a further 22,946,123 and 17,269,270 common shares, respectively. The Company currently has 3,813,908 Deferred Share Units (DSUs), 1,268,458 Restricted Share Units (RSUs) and 1,900,000 Performance Share Units (PSUs) issued under its Long-Term Incentive Plan.

The following warrants were outstanding at the date of this MD&A:

| Grant Date | Expiry Date | Number of warrants outstanding | Weighted Average Exercise Price |
|------------------|------------------|--------------------------------|---------------------------------|
| August 27, 2020 | August 27, 2022 | 5,287,643 | \$0.21 |
| January 22, 2021 | January 22, 2023 | 15,766,500 | 0.50 |
| January 22, 2021 | January 22, 2023 | 1,891,980 | 0.31 |
| | | 22,946,123 | \$0.42 |

The following incentive stock options were outstanding and exercisable at the date of this MD&A:

| Options Outstanding | | | | Options Exercisable | | | |
|---------------------|---------------------------------------|---|---------------------------------|---------------------------------------|---------------------------------|--|--|
| Exercise Price | Number of Shares Issuable on Exercise | Weighted Average Remaining Life (Years) | Weighted Average Exercise Price | Number of Shares Issuable on Exercise | Weighted Average Exercise Price | | |
| \$ 0.14 | 2,836,668 | 2.41 | \$ 0.14 | 1,660,001 | \$ 0.14 | | |
| 0.14 | 1,833,334 | 3.26 | 0.14 | 366,667 | 0.14 | | |
| 0.15 | 500,000 | 3.39 | 0.15 | 250,000 | 0.15 | | |
| 0.16 | 300,000 | 2.48 | 0.16 | 200,000 | 0.16 | | |
| 0.18 | 1,000,000 | 1.87 | 0.18 | 1,000,000 | 0.18 | | |
| 0.27 | 400,000 | 1.55 | 0.27 | 400,000 | 0.27 | | |
| 0.30 | 4,000,935 | 4.79 | 0.30 | - | 0.30 | | |
| 0.35 | 575,000 | 4.02 | 0.35 | - | 0.35 | | |
| 0.36 | 1,100,000 | 1.47 | 0.36 | 1,100,000 | 0.36 | | |
| 0.36 | 1,000,000 | 3.47 | 0.36 | 1,000,000 | 0.36 | | |
| 0.41 | 100,000 | 2.87 | 0.41 | - | 0.41 | | |
| 0.49 | 1,973,333 | 1.22 | 0.49 | 1,973,333 | 0.49 | | |
| 0.52 | 450,000 | 0.82 | 0.52 | 450,000 | 0.52 | | |
| 0.69 | 1,200,000 | 0.15 | 0.69 | 1,200,000 | 0.69 | | |
| | 17,269,270 | 2.75 | \$ 0.31 | 9,600,001 | \$ 0.36 | | |

The following units were outstanding at the date of this MD&A:

ELECTRA BATTERY MATERIALS CORPORATION
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE YEAR ENDED DECEMBER 31, 2021

(expressed in thousands of Canadian dollars)

| Type | Outstanding |
|-------------------------|-------------|
| Deferred Share Units | 3,813,908 |
| Restricted Share Units | 1,268,458 |
| Performance Share Units | 1,900,000 |

CAPITAL RESOURCES

The Company manages its capital structure to maximize its financial flexibility, making adjustments to it in response to changes in economic conditions and the risk characteristics of the underlying assets and business opportunities. The Company does not presently utilize any quantitative measures to monitor its capital, but rather relies on the expertise of the Company's management to sustain the future development of the business. Management reviews its capital management approach on an ongoing basis and believes that this, given the relative size of the Company, is appropriate.

The Company will continue to adjust its capital structure based on Management's assessment of the best capital mix to effectively advance its assets. With the closing of the Notes on September 2, 2021 and the associated Additional Notes issued on October 22, 2021, the Company now has added a debt component to its capital structure.

In addition to its cash on hand, the Company also has executed contribution agreements with the Government of Ontario and Government of Canada for aggregate funding towards the refinery construction of \$10,000, of which \$3,517 has been received to date. With the completion of the Note Offering (inclusive of the Additional Notes) and Equity Offering, the Company's current working capital on hand, in aggregate with the government investments, will provide the funding required to substantially finance the estimated construction costs of the refinery. The Company will still require a working capital facility to cover the feedstock purchase cycle through to the sale of final cobalt sulfate and to meet minimum liquidity requirements under the Note Offering. The minimum liquidity requirement is US\$7,500. The Company is in discussions with working capital finance providers.

LIQUIDITY

The Company's objective in managing liquidity risk is to maintain sufficient liquidity in order to meet operational and asset advancement requirements. The company has financed its Refinery construction project with a combination of debt instruments and the sale of share capital. During the year ended 2021, the Company issued convertible notes for total net proceeds of \$54,986 and issued equity for total net proceeds of \$18,266.

At December 31, 2021, the Company had cash of \$58,626 (December 31, 2020 - \$4,174). This figure does not include the remaining \$9,000 (of the original committed \$10,000) of Government investments not yet received as at year-end 2021.

To maintain liquidity, the Company issued common shares for cash proceeds during the year ended December 31, 2021 as follows:

- On January 22, 2021, the Company completed a bought deal by issuing 31,533,000 Units at a Unit price of \$0.31 for gross proceeds of \$9,538. Each Unit consists of one common share in the share capital of the Company and one-half of one common share purchase warrant (each full warrant a "Warrant"). Each Warrant entitles the holder thereof to purchase one additional common share at a price of \$0.50 for a period of two

ELECTRA BATTERY MATERIALS CORPORATION
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE YEAR ENDED DECEMBER 31, 2021

(expressed in thousands of Canadian dollars)

years. The transaction costs associated with the issuance were \$929, and an additional 1,891,980 Warrants valued at \$250 were issued to the broker at a price of \$0.31 for a period of two years.

- During the year ended December 31, 2021, the Company issued 28,245,859 common shares for gross proceeds of approximately \$6,217 for exercised warrants. There were no significant transaction costs associated with these issuances.
- The Company also issued 1,707,913 common shares resulting from the exercise of options, DSUs and RSUs during the year ended 2021. The total proceeds from the option exercises were \$148.
- On September 2, 2021, the Company issued 38,150,000 common shares at a price of \$0.25 per common shares for total gross proceeds of \$9,538 via a public equity offering under the Company's base shelf prospectus. The transaction costs associated with this issuance were \$810.
- During the year ended December 31, 2021, the Company issued 2,023,500 common shares at an average price of \$0.3392 per share for gross proceeds of approximately \$686 under its ATM Program. The transaction costs associated with these issuances were \$21, which reflect commissions paid to Cantor Fitzgerald.

During the year-end December 31, 2021, US\$5,500 of convertible notes were converted by noteholders which resulted in the Company issuing a total of 22,320,320 common shares. The Company also made interest make-whole payments to the noteholders upon conversion totaling US\$756. There were no significant transaction costs incurred in relation to the conversions

Subsequent to year-end, the Company received additional conversion notices for US\$1,000 of principal for its outstanding convertible notes. In line with the conversion terms in the Note Indenture, a total of 4,058,240 common shares were issued and cash make-whole interest payments of US\$139 were made. The total outstanding principal balance of the notes is currently US\$38,500.

The total costs of the activities required to advance the Refinery are expected to be funded primarily through cash on hand and the contributions from the Government of Ontario and Government of Canada.

| | Year ended | | Year ended |
|---|--------------------|----|--------------------|
| | December 31 | | December 31 |
| | 2021 | | 2020 |
| Cash Flows used in operating activities | \$ (16,876) | \$ | (5,682) |
| Cash Flows provided by (used in) investing activities | (8,076) | | 12 |
| Cash Flows provided by financing activities | 78,880 | | 5,541 |
| Changes in cash during the period | 53,928 | | (129) |
| Effect of exchange rates on cash | 524 | | (117) |
| Cash – Beginning of the period | 4,174 | | 4,420 |
| Cash – End of the period | \$ 58,626 | \$ | 4,174 |

Cash used in operating activities was \$16,875 during the year ended December 31, 2021, compared to \$5,682 used in operating activities during the year ended December 31, 2020. The increase in cash used in operating activities was driven primarily by increased Refinery engineering and permitting costs, increased exploration costs, and additional legal and advisory fees.

Cash used in investing activities was \$8,076 during the year ended December 31, 2021, compared to cash provided by investing activities of \$12 during the year ended December 31, 2020. The cash outflow from investing activities

ELECTRA BATTERY MATERIALS CORPORATION
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE YEAR ENDED DECEMBER 31, 2021

(expressed in thousands of Canadian dollars)

mainly relate to milestone payments made for the cobalt crystallizer equipment and solvent extraction equipment which will be utilized in the expanded Refinery.

Cash flows provided by financing activities were \$78,880 during the year ended December 31, 2021 compared to the \$5,541. from financing activities during the year ended December 31, 2020. The 2021 inflows were related to proceeds from the Company's convertible debt issuance in September and October 2021, the September 2021 equity financing, exercise of warrants, the Company's January 2021 bought deal, and proceeds from the Government Loan. The 2020 inflows were related to proceeds from the Company's February and August 2020 private placements, along with proceeds for exercises of warrants and options.

With the completion of financing activities in 2021 and the committed Government funding, the Company currently has substantially all the liquidity required to cover the estimated Refinery project construction capital costs to reach commissioning. To achieve further Company initiatives such as advancing the battery recycling strategy, completing exploration drilling at Iron Creek, and providing an additional working capital buffer as the refinery enters its operating phase, additional funding will be required. The Company may elect to utilize its existing ATM Program to raise funds for these purposes. There can be no assurances that the Company will be successful in obtaining other sources of funding; failure to obtain additional capital could result in the delay or indefinite postponement of further advancement of the Company's assets.

COMMITMENTS

The Company's commitments relate to purchase and services commitments for work programs relating to refinery expansion and payments under financing arrangements. The Company had the following commitments as of the date of this MD&A:

| | 2022 | 2023 | 2024 | 2025 | Thereafter | Total |
|----------------------------|-----------|----------|----------|----------|------------|-----------|
| Purchase commitments | \$ 27,028 | \$ - | \$ - | \$ - | \$ - | \$ 27,028 |
| Convertible notes payments | 3,137 | 3,547 | 3,547 | 3,547 | 55,082 | 68,860 |
| Government loan payments | - | - | 740 | 740 | 2,037 | 3,517 |
| Total | \$ 30,165 | \$ 3,547 | \$ 4,287 | \$ 4,287 | \$ 57,119 | \$ 99,405 |

The Company has recorded a provision for environmental remediation, reclamation and decommissioning for its Ontario assets. For the Refinery, a liability of \$1,336 has been recorded, linked to a currently filed closure plan. In relation to the refinery closure plan, an amount of \$3,450 has been posted via a surety bond with the Ministry of Northern Development, Mines, Natural Resources and Forestry (NDMNRF) as financial assurance. The \$938 of cash that was deposited with NDMNRF relating to its old closure plan is expected to be returned to the Company during 2022.

RELATED PARTY TRANSACTIONS

The Company's related parties include key management personnel and companies related by way of directors or shareholders in common.

ELECTRA BATTERY MATERIALS CORPORATION
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE YEAR ENDED DECEMBER 31, 2021

(expressed in thousands of Canadian dollars)

Key Management Personnel Compensation

During the year ended December 31, 2021 and 2020, the Company paid and/or accrued the following fees to management personnel and directors:

| | December 31, 2021 | December 31, 2020 |
|------------|----------------------|----------------------|
| Management | \$ 1,978 | \$ 1,559 |
| Directors | 190 | 184 |
| | <u>\$ 2,168</u> | <u>\$ 1,743</u> |

During the year ended December 31, 2021, the Company had share-based payments made to management and directors of \$499 (December 31, 2020 - \$637). As at December 31, 2021, the accrued liabilities balance for related parties was \$786 (December 31, 2020 - \$362).

OFF BALANCE SHEET ARRANGEMENTS

The Company currently has no off balance sheet arrangements.

FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

Financial assets and liabilities are classified in the fair value hierarchy according to the lowest level of input that is significant to the fair value measurement. Assessment of the significance of a particular input to the fair value measurement requires judgement and may affect placement within the fair value hierarchy levels.

The hierarchy is as follows:

- Level 1 fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.
- Level 2 fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3 fair value measurements are those derived from inputs that are unobservable inputs for the asset or liability.

Fair value estimates of financial instruments are made at a specific point in time, based on relevant information about financial markets and specific financial instruments. As these estimates are subjective in nature, involving uncertainties and matters of significant judgment, they cannot be determined with precision. Changes in assumptions can significantly affect estimated fair values.

The Company recorded the fair value of the embedded derivative as at December 31, 2021 at \$37,715 and is accounted for at FVTPL. The valuation is derived by a finite difference method, whereby the convertible debt as a whole is viewed as a hybrid instrument consisting of two components, an equity component (i.e., the conversion option) and a debt component, each with different risk. These two aforementioned risks result in a pair of coupled partial differential equations and are solved simultaneously to calculate the value of the debt and equity components of the convertible bond. The key inputs in the valuation include risk-free rates, share price, equity volatility, and credit

(expressed in thousands of Canadian dollars)

spread. As there are significant unobservable inputs used in the valuation, the financial derivative liability is included in Level 3.

Methodologies and procedures regarding Level 3 fair value measurements are determined by the Company's management. Calculation of Level 3 fair values is generated based on underlying contractual data as well as observable and unobservable inputs. Development of unobservable inputs requires the use of significant judgment. To ensure reasonability, Level 3 fair value measurements are reviewed and validated by the Company's management. Review occurs formally on a quarterly basis or more frequently if review and monitoring procedures identify unexpected changes to fair value.

While the Company considers its fair value measurements to be appropriate, the use of reasonably alternative assumptions could result in different fair values. On a given valuation date, it is possible that other market participants could measure a same financial instrument at a different fair value, with the valuation techniques and inputs used by these market participants still meeting the definition of fair value. The fact that different fair value measurements exist reflects the judgment, estimates and assumptions applied as well as the uncertainty involved in determining the fair value of these financial instruments.

The fair value of the embedded derivative has been estimated based on significant unobservable inputs which are equity volatility and credit spread. The Company used an equity volatility of 60%. If the Company had used an equity volatility that was higher or lower by 10%, the potential effect would be an increase of \$1,773 or a decrease of \$1,999 to the fair value of the embedded derivative. The Company used a credit spread of 25.6%. If the Company had used a credit spread that was higher or lower by 5%, the potential effect would be an increase of \$1,320 or a decrease of \$1,584 to the fair value of embedded derivative.

Financial Risk Factors

The Company's risk exposure and the impact on the Company's financial instruments are summarized below:

Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company currently settles its financial obligations with cash. The Company is expected to be able to satisfy obligations in the near term with its cash balances. With the Company issuing convertible notes during the quarter, it now has future obligations to pay semi-annual interest payments and the principal upon maturity. The Company expects to settle this obligations with cash flows generated by refinery operations.

Credit risk

Credit risk is the risk of potential loss to the Company if the counterparty to a financial instrument fails to meet its contractual obligations. The Company's credit risk is primarily attributable to its liquid financial assets including cash and receivables. The Company limits exposure to credit risk on liquid financial assets through maintaining its cash with high-credit quality financial institutions.

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. With the Company's debt with Glencore now extinguished, there is not current interest rate risk present. The Company's convertible notes bear interest at a fixed interest rate.

(expressed in thousands of Canadian dollars)

Foreign Currency Risk

Foreign currency risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because they are denominated in currencies that differ from the Company's functional currency, Canadian Dollars. The Company is exposed to foreign currency risk on fluctuations related to cash, receivables, and accrued liabilities that are denominated in US Dollars. In addition, the Company's new convertible notes are denominated in US dollars and fluctuations in foreign exchange rates will impact the Canadian dollar amounts required to settle interest and principal payments for these convertible notes. The Company has not used derivative instruments to reduce its exposure to foreign currency risk nor has it entered into foreign exchange contracts to hedge against gains or losses from foreign exchange.

BUSINESS RISKS AND UNCERTAINTIES

There are many risk factors facing companies involved in the mineral exploration industry. Risk Management is an ongoing exercise upon which the Company spends a substantial amount of time. While it is not possible to eliminate all the risks inherent to the industry, the Company strives to manage these risks, to the greatest extent possible. The following risks are most applicable to the Company.

Financing

The Company has raised funds through equity financing and debt arrangements to fund its operations and the advancement of the Refinery. The market price of natural resources, specifically cobalt prices, is highly speculative and volatile. Instability in prices may affect the interest in resource assets and the development of and production from such properties. This may adversely affect the Company's ability to raise capital or obtain debt to fund corporate activities and growth initiatives.

Technical Capabilities of the Refinery

The Company's strategic priority is the advancement of the Refinery, with significant engineering studies and metallurgical testing conducted to date. There is no assurance that the final refining process will have the capabilities to produce specific end products. The Company will manage this risk through contracting technical experts on metallurgy and engineering to support refinery process decisions.

Ability to meet Debt Service Obligations

The Company now has debt service obligations arising from the Notes, which include ongoing coupon payments and payment of principal at maturity. In the event the refinery construction is not completed as planned or sufficient cash flow from refinery operations is not generated, there is a risk that the Company may not have sufficient available capital to meet its debt obligations. In this event, the assets pledged may be transferred to the lenders.

Global Pandemic

The ability for the Company to source financing, equipment and construction and operation personnel for its refinery may be impacted by the COVID-19 global pandemic. At present, the Company has not encountered any adverse consequences. The ultimate impacts of the current pandemic are not known, but could have significant impacts on the Company's ability to attract financing and advance its assets.

(expressed in thousands of Canadian dollars)

Industry and Mineral Exploration Risk

Mineral exploration is highly speculative in nature, involves many risks and frequently is non-productive. There is no assurance that the Company's exploration efforts will be successful. At present, the Company's projects do not contain any proven or probable reserves. Success in establishing reserves is a result of a number of factors, including the quality of the project itself. Substantial expenditures are required to establish reserves or resources through drilling, to develop metallurgical processes, to develop the mining and processing facilities and infrastructure at any site chosen for mining. Because of these uncertainties, no assurance can be given that planned exploration programs will result in the establishment of mineral resources or reserves. The Company may be subject to risks, which could not reasonably be predicted in advance. Events such as labour disputes, natural disasters or estimation errors are prime examples of industry related risks. The Company attempts to balance this risk through ongoing risk assessments conducted by its technical team.

Commodity Prices

The Company is in the business of mineral exploration and as such, its prospects are largely dependent on movements in the price of various minerals. Prices fluctuate on a daily basis and are affected by a number of factors well beyond the control of the Company. The mineral exploration industry in general is a competitive market and there is no assurance that, even if commercial quantities of proven and probable reserves are discovered, a profitable market may exist. Due to the current grassroots nature of its operations, the Company has not entered into any price hedging programs.

Environmental

Exploration projects or operations are subject to the environmental laws and applicable regulations of the jurisdiction in which the Company operates. Environmental standards continue to evolve and the trend is to a longer, more complete and rigid process. The Company reviews environmental matters on an ongoing basis. If and when appropriate, the Company will make appropriate provisions in its financial statements for any potential environmental liability.

Title of Assets

Although the Company conducts title reviews in accordance with industry practice prior to any purchase of resource assets, such reviews do not guarantee that an unforeseen defect in the chain on title will not arise and defeat our title to the purchased assets. If such a defect were to occur, our entitlement to the production from such purchased assets could be jeopardized.

Competition

The Company engages in the highly competitive resource exploration industry. The Company competes directly and indirectly with major and independent resource companies in its exploration for and development of desirable resource properties. Many companies and individuals are engaged in this business, and the industry is not dominated by any single competitor or a small number of competitors. Many of such competitors have substantially greater financial, technical, sales, marketing and other resources, as well as greater historical market acceptance than does the Company. The Company will compete with numerous industry participants for the acquisition of land and rights to prospects, and for the equipment and labour required to operate and develop such prospects. Competition could materially and adversely affect the Company's business, operating results and financial condition. Such competitive disadvantages could adversely affect the Company's ability to participate in projects with favorable rates of return.

(expressed in thousands of Canadian dollars)

Additional information on risks and uncertainties relating to Electra's business is provided in Electra's Annual Information Form dated April 8, 2022 under the heading "Risk Factors".

CRITICAL ACCOUNTING ESTIMATES

The preparation of the Company's financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the reported amounts of assets, liabilities and contingent liabilities at the date of the financial statements and reported amounts of income and expenses during the reporting period. Estimates and assumptions are continuously evaluated and are based on management's experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. However, actual outcomes may differ significantly from these estimates.

Areas requiring a significant degree of judgment relate to the recoverability and measurement of deferred tax assets and liabilities, the ability to continue as a going concern and the capitalization of development costs. Actual results may differ from those estimates and judgments.

Areas requiring a significant degree of estimation or judgement that have the most significant effect on the amounts recognized in the Company's consolidated financial statements are as follows:

- *Exploration and Evaluation Assets*
The net carrying value of each mineral property is reviewed regularly for conditions that suggest potential indications of impairment. This review requires significant judgment. Factors considered in the assessment of asset impairment include, but are not limited to, whether there has been a significant adverse change in the legal, regulatory, accessibility, title, environmental or political factors that could affect the property's value; whether exploration activities produced results that are not promising such that no more work is being planned in the foreseeable future and management's assessment of likely proceeds from the disposition of the property.
- *Financial Derivative Liability*
The Financial Derivative Liability values involve significant judgment. The FV of financial derivative liability is reviewed and adjusted on a quarterly basis. Factors considered in the fair value of the financial derivative liability are risk free rate, share price volatility, LIBOR, effective interest, and foreign exchange fluctuations.
- *Environmental rehabilitation*
Management's determination of the Company's decommissioning and rehabilitation provision is based on the reclamation and closure activities it anticipates as being required, the additional contingent mitigation measures it identifies as potentially being required and its assessment of the likelihood of such contingent measures being required, and its estimate of the probable costs and timing of such activities and measures. Significant judgements must be made when determining such reclamation and closure activities and measures required and potentially required.

FUTURE CHANGES IN ACCOUNTING POLICIES AND INITIAL ADOPTION

At January 1, 2022, the Company will adopt the revised IAS 16 – Property, Plant and Equipment, and revenue earned prior to the time the refinery reaches commercial production will be recognized as revenue.

The Company is reviewing the narrow scope amendments to IAS 1 – Presentation of Financial Statements which impact whether certain liabilities containing rights are classified as current or non-current. These amendments come into effect on January 1, 2023, and the Company is assessing the impact, if any, on its consolidated financial statements.

(expressed in thousands of Canadian dollars)

There are no new standards issued by the International Accounting Standards Board ("IASB") that were not effective at December 31, 2021 that are expected to have an impact on the Company.

INTERNAL CONTROL OVER FINANCIAL REPORTING

The President and Chief Executive Officer and Chief Financial Officer of the Company are responsible for designing internal controls over financial reporting or causing them to be designed under their supervision in order to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. There was no change in the Company's internal controls over financial reporting that occurred during the year ended December 31, 2021 that has materially affected, or is reasonably likely to materially affect, the Company's internal controls over financial reporting.

Disclosure Controls and Procedures

Disclosure controls and procedures have been designed to provide reasonable assurance that all relevant information required to be disclosed by the Company is accumulated and communicated to senior management as appropriate to allow timely decisions regarding required disclosure. The Company's President and Chief Executive Officer and Chief Financial Officer have concluded, based on their evaluation of the design of the disclosure controls and procedures that as of December 31, 2021, the Company's disclosure controls and procedures provide reasonable assurance that material information is made known to them by others within the Company are appropriately designed.

Limitations of Controls and Procedures

The Company's management, including the President and Chief Executive Officer and Chief Financial Officer, believe that any internal controls over financial reporting and disclosure controls and procedures, no matter how well designed, can have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance that the objectives of the control system are met.

NON-GAAP FINANCIAL MEASURES

This MD&A contains "specified financial measures" within the meaning of NI 52-112, specifically, EBITDA which is a non-GAAP financial measure. Management believes that the use of this measure assists analysts, investors and other stakeholders of the Company in understanding and assessing operating performance and for planning and forecasting future operating periods. The specified financial measures used in this MD&A do not have any standardized meaning prescribed by IFRS and may not be comparable to similar measures presented by other issuers. Accordingly, these specified financial measures should not be considered in isolation, or as a substitute for, analysis of the Company's recognized measures presented in accordance with IFRS.

EBITDA is calculated as the Company's Loss (Income) before taxes and adding back the impacts of interest expense, depreciation and amortization. EBITDA is a non-GAAP financial measure and can be reconciled as follows for the years ended December 31, 2021:

ELECTRA BATTERY MATERIALS CORPORATION
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE YEAR ENDED DECEMBER 31, 2021

(expressed in thousands of Canadian dollars)

| | Year-Ended December 31, 2021 | | |
|----------------------------|------------------------------|---------------------|------------|
| | Refinery | Corporate and Other | Total |
| (Loss) before taxes | \$(5,959) | \$(28,957) | \$(34,916) |
| Add back: | | | |
| Interest expense | - | 191 | 191 |
| Depreciation expense | - | 2 | 2 |
| EBITDA | \$(5,959) | \$(28,764) | \$(34,723) |

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This MD&A contains certain statements that may be deemed "forward-looking statements", including statements regarding developments in the Company's operations in future periods, adequacy of financial resources and future plans and objectives of Company. All statements in this document, other than statements of historical fact, which address events or developments that the Company expects to occur, are forward looking statements. Forward-looking statements are statements that are not historical facts and are generally, but not always, identified by the words "expects", "plans", "anticipates", "believes", "intends", "estimates", "projects", "potential", "interprets" and similar expressions, or events or conditions that "will", "would", "may", "could" or "should" occur. Forward-looking statements in this document include statements regarding the advancement of the refinery, future exploration programs, liquidity and effects of accounting policy changes.

Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results may differ materially from those in forward-looking statements. Factors that could cause the actual results to differ materially from those in forward-looking statements include market prices, exploration success, successful outcome of the work in support of the recommissioning of the Refinery, continued availability of capital and financing, inability to obtain required regulatory or governmental approvals and general economic, market or business conditions. Investors are cautioned that any such statements are not guarantees of future performance and actual results or developments may differ materially from those projected in the forward-looking statements. Readers are cautioned not to place undue reliance on this forward-looking information.

Forward-looking statements are based on the beliefs, estimates and opinions of the Company's management on the date the statements are made. The Company undertakes no obligation to update these forward-looking statements in the event that Management's beliefs, estimates, opinions or other factors should change except as required by law.

These statements are based on a number of assumptions including, among others, assumptions regarding general business and economic conditions, the timing of the receipt of regulatory and governmental approvals for the work programs described herein, the ability of the Company and other relevant parties to satisfy stock exchange and other regulatory requirements in a timely manner, the availability of financing for the Company's proposed work programs on its assets on reasonable terms and the ability of third-party service providers to deliver services in a timely manner. The foregoing list of assumptions is not exhaustive. Events or circumstances could cause results to differ materially.