



## **Management Discussion and Analysis**

**For the Years Ended December 31, 2022 and 2021**

**EnviroMetal Technologies Inc.**  
**Management Discussion and Analysis**  
For the years ended December 31, 2022 and 2021

---

## 1. INTRODUCTION

This Management Discussion and Analysis (MDA) has been prepared to provide material updates and analysis of the business operations, financial condition, financial performance, cash flows, liquidity, and capital resources of EnviroMetal Technologies Inc. (EnviroMetal or the Company) (formerly EnviroLeach Technologies Inc).

The information provided herein should be read in conjunction with the Company's audited consolidated financial statements (Financial Statements) and the notes thereto for the years ended December 31, 2022 and 2021.

The Financial Statements have been prepared in accordance with International Financial Reporting Standards (IFRS).

EnviroMetal Technologies Inc. is listed on the Canadian Securities Exchange (the CSE) under the symbol ETI and began trading on March 30, 2017. In addition to the listing on the CSE, the Company also trades on the OTCQX and Frankfurt Stock Exchange under the symbols EVLL and 7N2, respectively.

The Company has developed a unique, cost-effective, cyanide free, and more environmentally friendly alternative to current broadly used methods for the hydrometallurgical extraction of precious metals from ores, concentrates and other host materials for use in the primary and secondary metals recovery industries.

Except as otherwise disclosed, all dollar figures in this report are stated in Canadian dollars. The effective date of this report is May 1, 2022.

Statements in this report that are not historical facts are forward-looking statements involving known and unknown risks and uncertainties, which could cause actual results to vary considerably from these statements. Readers are cautioned not to put undue reliance on forward-looking statements. See Forward-Looking Information and Statements herein.

Information related to the Company is available for view on SEDAR at [www.sedar.com](http://www.sedar.com) and more information is also available on the Company's website at [www.EnviroMetal.com](http://www.EnviroMetal.com).

### Corporate Overview

EnviroMetal develops and markets technologies for the extraction of precious and other valuable metals from mine products and electronic waste (E-waste) in a safe, environmentally friendly, and sustainable manner. The Company's technology is applicable in the mining industry to recover gold from ores and concentrates, and the recycling industry to recover gold and other valuable metals from printed circuit board assemblies (PCBA) and other E-waste. The Company is seeking opportunities to license its technology to companies in the mining and electronics recycling industries.

EnviroMetal's patented metal recovery technology (EnviroMetal Process) is similar to other hydrometallurgical processes which leach gold, but the Company's proprietary lixiviant and unique process eliminates the use of toxic leaching agents such as sodium cyanide and strong acids and significantly reduces water consumption. EnviroMetal's metal recovery technology targets industry participants seeking an on-site processing solution with low logistics and third-party costs and a reduced environmental impact.

The Company's patented metal recovery technology creates strong differentiation in the marketplace and pending and awarded patents combined with the process knowledge required for use and site optimization create significant barriers for competitors to overcome. The EnviroMetal Process is cost competitive, safe, sustainable, and holds potential for multiple revenue streams.

## **2. OVERALL PERFORMANCE AND OPERATIONS**

During the year ended December 31, 2022, the Company pursued commercial relationships in the primary and secondary metals industries. In the primary metals industry, the Company is focussed on opportunities to license the EnviroMetal Process to clients to recover gold from concentrates and ores. In the secondary metals industry, the Company targets clients seeking to recover gold and other metals from electronic waste.

During 2022, management conducted a review of market positioning and business opportunities for the EnviroMetal Process for mining applications and E-waste processing. Based on this review the Company has undertaken the following initiatives:

- Focus on developing a high margin business by licensing the EnviroMetal Process to gold miners;
- Shift the Company's E-waste business strategy from processing material sourced from outside suppliers to providing technology and related services to E-waste processors; and
- Restructure operations to align with the Company's new positioning within the mining and E-waste industries.

### Gold Mining

The EnviroMetal Process is the foundation of the Company's technology licensing business model. It provides miners a simple, on-site gold recovery solution which eliminates the need for sodium cyanide or smelting. The EnviroMetal Process incorporates proven technologies in a novel manner to address real challenges facing miners seeking to maximize return on investment while meeting environmental, social, and corporate governance obligations and goals.

During the year ended December 31, 2022, EnviroMetal conducted amenability and recovery test work on a variety of samples received from numerous clients and suppliers. The results of these tests further confirmed that for most ores and concentrates the EnviroMetal Process offers similar or superior leach kinetics (speed) and gold recoveries when compared to sodium cyanide.

During August and September of 2022, the Company conducted a series of controlled tests designed to establish base case lixiviant consumption and associated per tonne operating costs using the EnviroMetal Process. Additional work to expand on the base case data and establish operating costs under different processing scenarios has been initiated. Base case operating costs are a key consideration for miners in evaluating processing options and establishing this key metric represents a significant milestone in the commercialization of the EnviroMetal Process.

While the Company believes the EnviroMetal process will ultimately gain wide acceptance within the gold mining industry, the Company is currently focussing on potential high margin opportunities and clients facing technical and permitting challenges.

EnviroMetal continues to develop relationships with mining companies and other mining related entities in pursuit of licensing opportunities. For miners, the selection of a metal recovery technology is dependent on many factors including total metal recovery, capital costs, operating costs, permitting, site suitability, reliability, ease of use, industry standards and sustainability. As is the case with any metallurgical process, prior to adoption for use the processing technology must go through a series of progressive tests from lab through pilot scale in order to ensure the compatibility of the technology with the material to be processed. The Company has identified a number of potential licensees, based on material type and project specific criteria, and has initiated metallurgical test work for or entered into discussions with several of them. During the year ended December 31, 2022, EnviroMetal conducted lab and pilot scale work for several mining clients and recognized revenues of \$109,763 related to this work.

**EnviroMetal Technologies Inc.**  
**Management Discussion and Analysis**  
For the years ended December 31, 2022 and 2021

---

E-waste Processing

Factors largely outside EnviroMetal's control, including local and international logistics delays, increased shipping costs, declining E-waste recycling levels, a shift to asset destruction or refurbishment for high-grade E-waste, programs and policies which encourage the shredding and smelting of E-waste, increasing competition from foreign smelters, and inconsistent industry regulation and enforcement negatively impacted Company's ability to establish a reliable and economic E-waste supply.

In response to the ongoing challenges in the E-waste industry during 2022 the Company shifted its E-waste strategy from material processing to consulting and potentially licensing intellectual property to existing and new E-waste processors. EnviroMetal believes this new strategy presents several advantages:

- It is less capital intensive and offer the potential for significantly higher operating margins;
- It allows the Company to focus most of its resources on the much larger gold mining market; and
- It aligns closely with the strategy for technology deployment in the gold mining industry.

Restructuring of Operations

In July 2022, the Company relocated its corporate headquarters in Burnaby, British Columbia, Canada. The new facility includes expanded laboratory facilities, offices, warehousing, and space to accommodate multiple pilot plant configurations for processing mining and E-waste concentrates. Having the ability to support research and development programs and conduct client work for clients all within the same location will allow the Company to reduce its overall operating costs.

In later 2022, as part of the Company's shift in E-waste strategy, EnviroMetal closed the EnviroCircuit E-waste processing division it previously operated under the EnviroCircuit brand. Subsequent to December 31, 2022, the Company initiated the process to liquidate surplus equipment related to E-waste processing and anticipates having all equipment sold prior to the expiration of the existing lease on the EnviroCircuit facility at the end of June 2023. For additional information relating to the discontinuance of E-waste processing and closing the EnviroCircuit facility please see Note 21 *Discontinued Operations* in the Company's Financial Statements.

Other Material Processing

In 2021, the Company entered into an agreement with Ocean Partners USA Inc., an affiliate of Ocean Partners Holdings Limited pursuant to which EnviroMetal would recover gold from gold mine materials produced by Ocean Partner's clients. On December 31, 2021, the Company held in inventory material from Ocean Partners clients with an estimated value of \$3,441,965. During the year ended December 31, 2022, the Company processed the material and recovered over 1,440 troy ounces of gold recognizing related revenues of \$3,412,849 and material costs of \$3,389,518. The Company also recovered and subsequently sold 30 ounces of gold from ores and concentrates processed as part of client work or Company test programs.

**EnviroMetal Technologies Inc.**  
**Management Discussion and Analysis**  
For the years ended December 31, 2022 and 2021

### 3. SELECTED ANNUAL INFORMATION

The following table summarizes selected financial information for the Company for each of its most recently completed financial years. The information set forth below should be read in conjunction with the Financial Statements and includes the results of discontinued operations (Note 21 of the Financial Statements). All information was prepared in accordance with IFRS.

	December 31, 2022		December 31, 2021	
<b>Revenues</b>	\$	<b>3,869,069</b>	\$	<b>851,356</b>
Loss and comprehensive loss attributable to:				
Shareholders		(5,515,203)		(11,486,774)
Non – controlling interest		-		(126,335)
	\$	<b>(5,515,203)</b>	\$	<b>(11,613,109)</b>
Loss per share – basic and diluted		(0.053)	\$	(0.124)
Total assets		2,945,650	\$	8,231,604
Total liabilities		2,454,135		5,977,063
Working capital		(379,764)		(216,419)

The Company had negative working capital of working capital of \$379,764 as at December 31, 2022, an increase of \$163,375 over December 31, 2021, negative \$216,419. Due to its early-stage nature, the Company it has not yet achieved consistent revenues from client work or licensing the EnviroMetal Process and until such time the Company develops regular and recurring revenues it will experience fluctuations in working capital. During the year the Company initiated several initiatives aimed at reducing ongoing costs and generating revenues.

#### Operational Financial results – For the Years ended December 31, 2022 & 2021

The following table summarizes the operational financial results for EnviroMetal for the years ended December 31, 2022 and December 31, 2021:

	December 31, 2022		December 31, 2021	
<b>Results prior to adjustments</b>				
<b>Revenues</b>	\$	<b>3,869,069</b>	\$	<b>851,356</b>
<b>Expenses</b>				
Operating costs		(4,060,574)		(956,299)
Management and employee costs		(1,759,077)		(1,528,974)
General and administrative expenses		(1,713,531)		(1,783,057)
Share – based payments		(438,520)		(104,571)
		(7,971,703)		(3,521,545)
	\$	<b>(4,102,634)</b>	\$	<b>(2,670,189)</b>
<b>Results attributable to ongoing operations</b>				
<b>Revenues</b>	\$	<b>3,522,612</b>	\$	<b>177,963</b>
<b>Expenses</b>				
Operating costs		(3,738,813)		(357,077)
Management and employee costs		(1,106,772)		(810,010)
General and administrative expenses		(1,314,220)		(1,420,144)
Share – based payments		(438,520)		(104,571)
		(6,598,325)		(2,691,802)
	\$	<b>(3,075,713)</b>	\$	<b>(2,513,839)</b>

**EnviroMetal Technologies Inc.**  
**Management Discussion and Analysis**  
For the years ended December 31, 2022 and 2021

	December 31, 2022		December 31, 2021	
<b>Results attributable to discontinued operations</b>				
<b>Revenues</b>	\$	346,457	\$	673,393
<b>Expenses</b>				
Operating costs		(321,762)		(599,222)
Management and employee costs		(652,305)		(718,964)
General and administrative expenses		(399,311)		(362,913)
<b>Depreciation and amortization</b>		(435,203)		(725,872)
	\$	<b>(1,462,124)</b>	\$	<b>(1,733,578)</b>

Revenues - The Company recognized revenue of \$3,869,069 from all sources during the year ended December 31, 2022, compared to \$851,356 during the year ended December 31, 2021. Revenues from E-waste processing during 2022 were \$346,457 (2021 - \$673,393) and were attributable to selling the balance of processed and unprocessed E-waste in inventory at December 31, 2021. The Company recorded \$109,763 (2021 - \$177,963) in revenues from mining related licensing and consulting work and \$3,412,849 (2021 - \$nil) from gold sales during the year ended December 31, 2022.

Operating Expenses – The Company recorded operating costs of \$4,060,574 (2021 - \$956,299) which represent costs associated with purchasing material for processing as well as processing and laboratory costs. The increase in the year over year operating costs is primarily attributable to purchasing high grade gold materials for processing as opposed to lower grade E-waste purchased in prior years. Although the Company registered a profit on processing the high-grade material, custom processing material for clients was done primarily to collect data. During the year ended December 31, 2021, the Company recognized \$128,648 in government rent subsidy income as a reduction in operating costs while no government subsidies were received during 2022.

Management and Employee costs – Management and employee costs during the year ended December 31, 2022, were \$1,759,077 (2021: \$1,528,974). The increase in costs reflect the impact of the elimination COVID 19 related wage subsidies. The Company did not receive any wage subsidies during the year ended December 31, 2022, while it received \$332,777 from the Canada Emergency Wage Subsidy during the year ended December 31, 2021, which reduced wage costs in that year. During the year ended December 31, 2022, the Company received \$48,790 (2021 – 98,235) in funding from the National Research Council of Canada under the IRAP program which reduced wage costs in both years.

General and administrative – During the years ended December 31, 2022 and 2021, general and administration costs were as follows:

	December 31, 2022		December 31, 2021	
Consulting fees	\$	(382,579)	\$	(164,489)
Office and general		(233,413)		(155,868)
Professional fees		(455,465)		(797,245)
Public company costs		(584,715)		(639,145)
Travel		(36,662)		(26,310)
	\$	<b>((1,692,834))</b>	\$	<b>(1,783,057)</b>

Increased consulting fees during the year ended December 31, 2022, \$382,579 (2021: \$164,489) primarily reflect fees incurred during the three-month period ended March 31, 2022, \$195,000 (2021 - \$37,021) during which the Company outsourced some accounting and other functions in response to a tight labour market.

Office and general and administrative expenses were \$233,413 (2021: \$155,868) during the year ended December 31, 2022. During 2021 the Company received payments of \$155,868 under the Canada Emergency Rent Subsidy program

**EnviroMetal Technologies Inc.**  
**Management Discussion and Analysis**  
For the years ended December 31, 2022 and 2021

which reduced office expenses, no rent subsidies were received during 2022. Increased costs are also attributable to the Company relocating its offices and lab during 2022.

Professional fees, which include audit costs and legal fees, were \$445,465 (2021: \$797,245) during the year ended December 31, 2022. The reduction in professional fees reflect the higher-than-normal legal costs incurred during the 2021 period related to preparing a civil claim against Mineworx (see Section 25. *Contingencies* herein).

Public company costs which include director fees, listing fees and other costs directly associated with maintaining a public listing remained consistent during the years ended December 31, 2022, \$584,7145 (2021 - \$639,145).

While travel remains limited, travel related expenses during the year ended December 31, 2022, \$36,662 (2022: \$26,310) increased as the Company increased business development related travel.

*Other items* –During the year ended December 31, 2022, the Company recorded an amortization expense of \$852,515 (2021 - \$1,849,023), recognized a loss on disposal of assets of \$164,123 (2021 – gain \$10,523), recorded an unrealized loss of \$301,665 (2021 - \$398,459) on its investment in Group 11, incurred interest and financing costs of \$39,872 (2021 - \$48,150), and recognized foreign exchange losses of \$18,920 (2021 - \$12,023).

The following table summarizes the allocation of items classified as Other Items between ongoing and discontinued operations:

	December 31, 2022	December 31, 2021
<b>Other items attributable to ongoing operations</b>		
Interest income	\$ 2,802	\$ 3,581
Interest and financing costs	(39,872)	(48,150)
Amortization	(417,312)	(1,123,151)
Impairment loss on intangible assets	-	(3,681,211)
Unrealized gain on investment in associate	(301,665)	(398,459)
Gain on settlement of advance royalty payable	-	238,271
Expected credit loss	-	(123,418)
Foreign exchange	(18,920)	(12,023)
	\$ (774,967)	\$ (5,144,560)
<b>Other items attributable to discontinued operations</b>		
Depreciation	\$ (435,203)	\$ (725,872)
Loss on disposal of assets	(164,123)	10,523
Write-down of assets	(38,276)	(1,134,216)
Impairment on property, plant and equipment	-	(1,097,439)
	\$ (637,602)	\$ (2,947,004)
	<b>\$ (1,412,569)</b>	<b>\$ (8,091,564)</b>

Overall performance - For the year ended December 31, 2022, the Company incurred a loss and comprehensive loss of \$5,515,203 (2021 - \$11,613,109). Net loss per common share, basic and diluted for the year ended December 31, 2022 was \$0.053 as compared to \$0.124 in 2021.

## 4. DISCUSSION OF OPERATIONS

The Company plans to commercialize its novel metal recovery technology in the mining industry by first proving the applicability for use in the industry and ultimately licensing the technology to industry participants. During 2022, EnviroMetal processed materials received from a number of potential clients as part of ongoing evaluations of the EnviroMetal Process

**EnviroMetal Technologies Inc.**  
**Management Discussion and Analysis**  
For the years ended December 31, 2022 and 2021

by interested parties. In addition, the Company conducted an independently verified study to establish baseline operating cost data to support ongoing business development efforts.

In order to adapt its technology for the unique demands of processing E-waste the Company operated EnviroCircuit to both refine the technology and generate revenues from processing E-waste. By operating EnviroCircuit the Company was able to collect a significant amount information including an extensive data set with regards to E-waste composition and the compartment of contained metals during various processing stages while simultaneously developing a process for the efficient recovery and concentration of metals contained within the E-waste. As a result of limited supplies of E-waste material for processing and other factors the Company has chosen to close EnviroCircuit (for additional information see Note 21 *Discontinued Operations* of the Financial Statements) The Company may pursue opportunities to consult or license to recyclers processing E-waste in the future. During the year ended December 31, 2022, the Company generated \$346,457 (2021 - \$673,393) in revenues from selling processed E-waste.

## 5. SUMMARY OF QUARTERLY RESULTS

The following summarized financial data has been prepared in accordance with IFRS. This data should be read in conjunction with the Company's interim financial statements, and its consolidated annual financial statements for the respective periods. All net loss figures in the table are presented in Canadian dollars, the Company's functional currency.

	30-Dec-2022	30-Sept-2022	30-June-2022	31-Mar-2022
Revenues	\$ (63,885)	\$ 179,286	\$ (2,298)	\$ 3,755,966
Loss and comprehensive loss attributable to:				
Shareholders	1,542,621	815,954	1,925,165	1,231,461
	<b>\$ 1,542,621</b>	<b>\$ 815,954</b>	<b>\$ 1,925,165</b>	<b>\$ 1,231,461</b>
Net loss per common share, basic & diluted	\$ 0.015	\$ 0.008	\$ 0.018	\$ 0.012
	30-Dec-2021	30-Sept-2021	30-June-2021	31-Mar-2021
Revenues	\$ 226,648	\$ 19,540	\$ 561,967	\$ 43,201
Loss and comprehensive loss attributable to:				
Shareholders	6,841,935	2,268,709	1,483,680	892,450
Non-controlling interest	-	-	-	126,335
	<b>\$ 6,841,935</b>	<b>\$ 2,268,709</b>	<b>\$ 1,483,680</b>	<b>\$ 1,018,785</b>
Net loss per common share, basic & diluted	\$ 0.073	\$ 0.024	\$ 0.016	\$ 0.011

The Company has yet to achieve consistent revenues from consulting and licensing activities or material processing, and therefore has un-predictable cashflows from these activities. Although EnviroMetal continues to pursue E-waste consulting and licensing opportunities the Company's primary focus is on mining related activities where projected margins are substantially higher, and risks are lower. EnviroMetal believes it will achieve consistent and increasing revenue over time by providing technical solutions which allow clients to unlock additional value in their operations. During the year ended December 31, 2022, the Company's marketing to potential mining clients resulted in increased consulting revenues and it is anticipated consulting revenues will increase and become consistent over time. Negative revenues in periods reflect the impact of changing metal prices between sale and final settlement.

## 6. LIQUIDITY AND CAPITAL RESOURCES

At December 31, 2022, the Company had \$429,038 in cash (2021 - \$784,790) and negative working capital of-\$379,764 (2021 - -\$216,249). The decrease in working capital is primarily attributable to the carrying costs of EnviroCircuit, costs associated with relocating the Company's offices and lab during the year and limited financing activities during the year.



**EnviroMetal Technologies Inc.**  
**Management Discussion and Analysis**  
For the years ended December 31, 2022 and 2021

---

***Liquidity Outlook***

The Company generates limited cash flows and is reliant on raising equity to fund working capital, research and development and any modifications, expansion, or improvements to processing facilities. The Company raises money through the sale of equity and from the exercise of convertible securities. Many factors influence the Company's ability to raise funds, including the health of the capital markets, the Company's track record, and the experience and calibre of its management. Actual funding requirements may vary from those planned due to several factors, including technology development costs, government and other external funding, business opportunities, and revenues from consulting and licensing activities.

Management currently follows a policy of raising only enough capital to carry out its near-term plans. This policy is intended to minimize dilution of shareholders' holdings by raising capital when the stock price is at higher levels. Management is encouraged by improving equity markets for innovative and green mining technologies and anticipates seeking additional sources of funding prior to the end of the fiscal year. Given volatility in equity markets, global economic uncertainty, and cost pressures there can be no certainty equity funding will be available to the Company or if available funding will be on acceptable terms. Management believes it will be able to raise equity capital as required but recognizes that there will be risks which may be beyond its control.

***Capital Commitments***

As at December 31, 2022 and December 31, 2021, the Company did not have contractual obligations other than those disclosed in its Financial Statements. The Company expects that any property and equipment expenditures incurred, based on future needs, will be funded from working capital and/or from operating or capital leases.

At December 31, 2022, the Company had \$370,781 in lease obligations.

***Capital Resources***

The Company may not have sufficient capital to cover its anticipated administrative overhead expenses for the next 12 months. To continue developing its technology and pursue licensing opportunities, EnviroMetal may be required to raise additional capital, and if capital is not available the Company will have to delay some planned activities and expenditures.

Subsequent to December 31, 2022, the Company announced it had issued \$165,200 in unsecured convertible notes (for additional information see Subsequent Events disclosure herein). The Company has commenced liquidating surplus assets related to E-waste processing and anticipates having the majority of these assets sold prior to end of June 2023.

**7. OFF - BALANCE SHEET ARRANGEMENTS**

The Company has not entered into any off-balance sheet arrangements.

**8. TRANSACTIONS BETWEEN RELATED PARTIES**

The consolidated financial statements are prepared by consolidating the financial statements of EnviroMetal Technologies Inc. and the accounts of EnviroCircuit.

The Company had no additional transactions with related parties except for compensation of key management personnel and payment to its directors as disclosed in Note 19 to the Company's Consolidated Financial Statements for the years ended December 31, 2022 and 2021.

**EnviroMetal Technologies Inc.**  
**Management Discussion and Analysis**  
For the years ended December 31, 2022 and 2021

## 9. FOURTH QUARTER

In the fourth quarter of 2021 the Company recognized an adjustment to previously reported revenues of -\$86,310 (2021 – 226,648) reflecting an adjustment to previously recognized revenues upon final settlement. Expenses during the quarter were \$1,009,931 (2021 - \$1,042,924), and the Company's loss before other items for the quarter was \$1,096,241 (2021 - \$816,276).

The following table summarizes the Company's revenues and expenses for the quarters ended December 31, 2022 and December 31, 2021:

	3 months ended December 31, 2022		3 months ended December 31, 2021	
<b>Revenues</b>	\$	<b>(63,885)</b>	\$	<b>226,648</b>
<b>Expenses</b>				
Operating costs		(204,592)		(88,248)
Management and employee costs		(418,050)		(432,563)
General and administrative costs		(386,159)		(447,563)
Share – based payments		(10,360)		(74,358)
	\$	(1,009,931)	\$	(1,042,924)
<b>Loss before other items</b>	\$	<b>(1,096,241)</b>	\$	<b>(816,276)</b>
<b>Other items</b>				
Interest income		-		386
Interest and finance costs		(7,510)		373,622
Amortization		(264,039)		(456,799)
Gain (loss) on disposal of assets		(134,102)		58,361
Write-down of assets		(38,276)		(529,749)
Impairment loss on plant and equipment		-		(1,097,439)
Impairment loss on intangible assets		-		(3,681,211)
Unrealized loss on investment in associate		(2,888)		(315,781)
Gain on settlement of advance royalty payable		-		(391,579)
Expected credit loss		-		(6,314)
Foreign exchange		(12,759)		3,415
	\$	(437,150)	\$	(6,043,088)
<b>Loss and comprehensive loss</b>	\$	<b>(1,533,390)</b>	\$	<b>(6,859,088)</b>

Operating expenses of \$204,592 (2021 - \$88,248) during the quarter were higher than the comparative period due to the elimination of subsidies and changes to how costs are allocated. Employee related costs, \$418,050 (2021 - \$432,563) and general and administrative costs \$376,928 (2021 - \$447,563) were similar or lower as a result in similar staffing and operating levels and reduced legal expenses.

In the fourth quarter the Company recognized a gain of \$22,425 on the recognition of previously deferred income; recorded an amortization expense of \$264,039, recognized a \$134,102 loss on the disposal of assets, wrote down assets \$38,276 to reflect their estimated realizable value and recorded an unrealized loss \$2,888 related to its equity holdings in Group 11.

## 10. PROPOSED TRANSACTIONS

The Company continually reviews potential merger, acquisition, investment, and other joint agreement and strategic transactions that could enhance shareholder value. However, as of the date of this MD&A, there are no proposed transactions currently under examination.

## **11. CRITICAL ACCOUNTING ESTIMATES**

### **Critical Accounting Estimates**

#### ***Determination of functional currency***

Management has made determinations with respect to its functional currency in accordance with IAS 21 The Effects of Changes in Foreign Exchange Rates based on the primary economic environment in which the entities operate and has determined that the current functional and presentation currency is the Canadian dollar.

#### ***Impairment of non-financial assets***

Assets are reviewed for an indication of impairment at each consolidated statement of financial position date and upon the occurrence of events or changes in circumstances which may result in the carrying value of the assets being greater than their recoverable value. This determination requires significant judgment. Factors that could trigger an impairment review of PP&E include, but are not limited to, significant negative industry or economic trends including the price of precious and base metals, decrease in market capitalization and/or deferral of capital investments.

The Company's measurement with respect to the carrying amount of non-financial assets is based on numerous assumptions and carrying amounts may differ significantly from actual recoverable amount. The recoverable amount is based, in part, on certain factors that may be partially or totally outside of the Company's control. The evaluation involves a comparison of the estimated recoverable amount of non-financial assets to their carrying values. The Company's recoverable amount estimates are based on assumptions such as, but not limited to, estimated realized metal prices, operating costs, metal recoveries, capital and site restoration expenditures, and estimated future foreign exchange rates, and may differ from actual values. These differences may be significant and could have a material impact on the Company's financial position and results of operation.

Management's estimates of future cash flows are subject to risk and uncertainties. Therefore, it is reasonably possible that changes could occur with evolving economic conditions, which may affect recoverability of the Company's non-financial assets.

#### ***Current income taxes***

The Company's interpretations of underlying tax regulations may differ from those of the tax authorities. Judgment is required in order to determine the appropriate accounting and disclosure treatment based on the known facts. To the extent that a dispute arises, management must determine whether it is probable that a tax liability exists and whether the extent of the liability may be estimated and accrued in the financial statements in addition to determining the appropriate level of disclosure regarding the dispute.

#### ***Share-based compensation related to stock options***

Management assesses the fair value of stock options using the Black-Scholes option pricing model. This model requires management to make estimates and assumptions with respect to inputs including the risk-free interest rate, share price volatility and expected life of the equity-settled instruments. In addition, management must make assumptions about anticipated forfeitures based on the historical actions of plan participants which may not be a true representation of future participant exercise behaviour.

#### ***The estimated useful life of equipment and technology***

Management assesses the estimated useful life of equipment, technology and other long-lived assets based on best available information from markets, employees, and other indicators.

**EnviroMetal Technologies Inc.**  
**Management Discussion and Analysis**  
For the years ended December 31, 2022 and 2021

---

***Application of the effective interest method***

Interest is recognized in Interest income and Interest expense in the Consolidated Statements of Income generally for all interest-bearing financial instruments using the effective interest method. The effective interest rate is the rate that discounts estimated future cash flows over the expected life of the financial asset or liability to the net carrying amount upon initial recognition. Significant judgment is applied in determining the effective interest rate due to uncertainty in the timing and amounts of future cash flows.

***Expected credit loss***

Under IFRS 9, the Company initially recognizes expected credit losses arising from potential default over the next 12 months. The Company uses the probability of default based on the exposure at default, probability of default and loss given default to factor the expected loss.

***Incremental borrowing rate***

The Company cannot readily determine the interest rate implicit in leases where it is the lessee, therefore, it uses its incremental borrowing rate (IBR) to measure lease liabilities. The IBR is the rate of interest that the Company would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment. The IBR therefore reflects what the Company 'would have to pay', which requires estimation as the Company does not have financing transactions with third parties.

The Company estimates the IBR using observable inputs (such as market interest rates) and groups leases into their constituent categories with similar characteristics. The other significant estimates used as an input is the relative increase or decrease in interest rates according to prevailing market adjustments for individual categories. The two main metrics used to adjust market interest rates for categories are whether a lease is for a short or long duration, and if the asset is fixed or mobile.

## **12. CHANGES IN ACCOUNTING POLICY**

There were no changes in the Company's accounting policies during 2022.

## **13. FINANCIAL RISK MANAGEMENT**

### **Financial risk management**

The Company's existing business involve the operation on its plant and use of its proprietary technology for the extraction of precious metals for the mining and E-waste industries, which exposes the Company to a variety of financial instrument related risks. These risks include foreign currency risk, credit risk, liquidity risk, market risk and other risks. The Company's board of directors provides oversight for the Company's risk management processes.

#### ***Foreign currency***

The Company is exposed to currency risk due to business transactions in foreign countries. The Company mainly transacts in Canadian dollars and United States dollars. Currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates.

The Company is subject to normal risks including fluctuations in foreign exchange rates and interest rates. While the Company manages its operations in order to minimize exposure to these risks, it has not entered into any derivatives or contracts to hedge or otherwise mitigate this exposure. At December 31, 2022, the Company was not exposed to significant

**EnviroMetal Technologies Inc.**  
**Management Discussion and Analysis**  
For the years ended December 31, 2022 and 2021

---

interest rate risk.

At December 31, 2022, the Company has net liabilities of \$6,390 (US \$4,673) due in USD (December 31, 2021 - \$641,157 (US \$507,485)).

***Credit risk***

The Company's credit risk is primarily attributable to cash and trade and other receivables. The Company has no significant concentration of credit risk arising from operations. Cash consists of chequing account at reputable financial institution, from which management believes the risk of loss to be remote. Federal deposit insurance covers balances up to \$100,000 in Canada. Financial instruments included in receivables consist of amounts due from government agencies. At December 31, 2022, management considers the Company's exposure to credit risk is minimal.

***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 has a planning and budgeting process in place to help determine the funds required to support the Company's normal operating requirements on an ongoing basis. The Company ensures that there are sufficient funds to meet its short-term business requirements, considering its anticipated cash flows from operations and its holdings of cash.

## **14. FINANCIAL INSTRUMENTS AND OTHER INSTRUMENTS**

### **(a) Financial instruments**

On initial recognition, a financial asset is classified as: amortized cost, fair value through profit and loss ("FVTPL"), or fair value through other comprehensive income ("FVTOCI"). The classification of financial assets is made in accordance with their contractual cash flow characteristics and the business models under which they are held.

Financial assets are derecognized when they mature or are sold, and substantially all the risks and rewards of ownership have been transferred. Gains and losses on derecognition of financial assets classified as FVTPL or amortized cost are recognized in profit and loss. Gains or losses on equity financial assets classified as FVTOCI remain within accumulated other comprehensive income.

The Company's financial assets are cash, trade, and other receivables.

***Financial assets at amortized cost***

Financial assets at amortized cost are initially recognized at fair value and subsequently carried at amortized cost less any impairment. They are classified as current or non-current based on their maturity dates.

***Financial assets at FVTPL***

Financial assets at FVTPL are initially recognized at fair value and transaction costs are expensed in profit and loss. Realized and unrealized gains and losses arising from changes in fair value of the financial asset held at FVTPL are included in profit and loss in the period in which they arise. Derivatives are also recognized as FVTPL unless they are designated as hedges.

***Financial assets at FVTOCI***

On initial recognition, the Company may make an irrevocable election (on an instrument-by-instrument basis) to designate investments in equity instruments that would otherwise be measured at fair value through profit or loss to present subsequent changes in fair value in other comprehensive income. Designation at FVTOCI is not permitted if the equity investment is held for trading or if it is contingent consideration recognized by an acquirer in a business combination.

**EnviroMetal Technologies Inc.**  
**Management Discussion and Analysis**  
For the years ended December 31, 2022 and 2021

---

Investment in equity instruments at FVTOCI are initially recognized at fair value plus transaction costs. Subsequently, they are measured at fair value, with gains and losses arising from changes in fair value recognized in other comprehensive income. There is no subsequent reclassification of fair value gains and losses to profit and loss following the derecognition of the investment.

***Financial Liabilities***

All financial liabilities are recognized initially on the trade date at which the Company becomes a party to the contractual provision of the instrument. The Company derecognizes a financial liability when its contractual obligations are discharged or cancelled, or they expire.

Financial liabilities are initially recognized at fair value plus any directly attributable transaction costs. Subsequent to their initial recognition, financial liabilities are measured at amortized cost using the effective interest method.

The Company's financial liabilities are its accounts payable and accrued liabilities, due to related parties, lease liabilities, advance royalty payable and loan payable. Financial liabilities are classified as current or non-current based on their maturity dates.

## **15. RISKS AND UNCERTAINTIES**

The risks and uncertainties described in this section are not inclusive of all risks and uncertainties to which the Company may be subject.

***Early Stage – Need for Additional Funds***

The Company has no history of profitable operations, and its present business is at an early stage. As such, the Company is subject to many risks common to such enterprises, including under-capitalization, cash shortages and limitations with respect to personnel, financial and other resources, and the lack of revenues. There is no assurance that the Company will be successful in achieving a return on shareholders' investment and the likelihood of success must be considered in light of its early stage of operations.

***Technology Risk***

The Company's technology has yet to be proven beyond pilot scale. Although the technology has demonstrated the ability to scale without any degradation in performance, until such time as the technology is successfully deployed on a large commercial scale there remains the risk the technology may face limits to scalability. The Company's technology competes with other metal recovery technologies, some of which are more established.

***Environmental Risk***

Environmental laws and regulations may affect the operations of EnviroMetal. These laws and regulations set various standards regulating certain aspects of health and environmental quality. They provide for penalties and other liabilities for the violation of such standards and establish, in certain circumstances, obligations to rehabilitate current and former facilities and locations where operations are or were conducted. Furthermore, the permission to operate could be withdrawn temporarily where there is evidence of serious breaches of health and safety, or even permanently in the case of extreme breaches. Significant liabilities could be imposed on the Company for damages, clean-up costs or penalties in the event of certain discharges into the environment, environmental damages caused by previous owners of acquired properties or non-compliance with environmental laws or regulations. The Company intends to minimize these risks by taking steps to ensure compliance with environmental, health and safety laws and regulations and operating to international environmental standards.

**EnviroMetal Technologies Inc.**  
**Management Discussion and Analysis**  
For the years ended December 31, 2022 and 2021

**Price Risk**

The market price of precious metals and other minerals is volatile and cannot be controlled.

**Dependence on Key Personnel**

The Company is very dependent upon the personal efforts and commitment of its existing management. To the extent that management's services would be unavailable for any reason, a disruption to the operations of the Company could result, and other persons would be required to manage and operate the Company.

**Competitive Risk**

The extractive metals industry is intensely competitive in all its phases. The Company competes with many other metal recovery technology companies who have greater financial resources and technical capacity.

**16. NATURE OF SECURITIES**

The purchase of the Company's securities involves a high degree of risk and should be undertaken only by investors whose financial resources are sufficient to enable them to assume such risks. The Company's securities should not be purchased by persons who cannot afford the possibility of the loss of their entire investment. Furthermore, an investment in the Company's securities should not constitute a major portion of an investor's portfolio.

**17. DISCLOSURE OF OUTSTANDING SHARE DATA**

Authorized share capital - Unlimited number of common shares without par value. The table below presents the Company's common share data as of May 1, 2022.

	Price	Expiry date	May 1, 2022
Common shares issued and outstanding:			<b>107,928,458</b>
Securities convertible into common shares:			
Stock Options	\$1.65	April 12, 2023	100,000
	\$1.20	July 18, 2023	25,000
	\$0.76	March 1, 2024	1,275,000
	\$0.25	June 6, 2024	5,525,000
	\$0.96	June 14, 2024	250,000
	\$0.25	October 24, 2024	350,000
	\$1.45	December 11, 2024	725,000
	\$0.76	April 24, 2025	1,200,000
	\$0.15	February 16, 2025	200,000
	\$0.46	October 15, 2025	400,000
	\$0.38	August 20, 2026	35,000
<b>Total Options</b>			<b>10,085,000</b>
Warrants	\$0.50	February 18, 2024	13,198,230
	\$0.50	March 31, 2024	1,271,956
<b>Total Warrants</b>			<b>14,470,186</b>
<b>Total options &amp; warrants outstanding</b>			<b>24,555,186</b>

## 18. COMMITMENTS

Other than obligations disclosed in the Financial Statements and elsewhere this MD&A the Company does not have any commitments.

## 19. ADDITIONAL DISCLOSURE

Additional disclosure concerning Midnight Sun's general and administrative expenses and exploration and evaluation assets expenditures is provided in the Company's Financial Statements. These Financial Statements are available on SEDAR at [www.sedar.com](http://www.sedar.com).

## 20. CONTINGENCIES

The Company commenced a civil action against Mineworx Technologies Ltd. and related parties (jointly, the Mineworx Defendants) in the Supreme Court of British Columbia in June 2021.

The claims against the Mineworx Defendants include, among other things, the following:

- The Mineworx Defendants, through various agreements with EnviroMetal, gained access to certain of EnviroMetal's intellectual property relating to the development and commercialization of environmentally friendly chemical formulas and technologies for use in the treatment of materials in the primary and secondary metals sectors. EnviroMetal has since terminated those access agreements.
- Because access to EnviroMetal's IP has been terminated and without a license from EnviroMetal, the Mineworx Defendants are not entitled to use or otherwise exploit any of EnviroMetal's IP.
- The Mineworx Defendants have failed to comply with EnviroMetal's notices to cease and desist using EnviroMetal's IP and they continue to make public statements in relation to their purported ability to develop and commercialize "proprietary, environmentally friendly processing technologies for the recovery of precious metals."
- Absent the prior access to EnviroMetal's IP, the Mineworx Defendants lacked the scientific or technical resources and capabilities to develop and commercialize "proprietary, environmentally friendly processing technologies for the recovery of precious metals."

The Mineworx Defendants are purporting to be competing with EnviroMetal in the recovery of platinum group metals from spent catalysts using a chemical formula and process based on EnviroMetal's IP without a license to do so from EnviroMetal. These actions by the Mineworx Defendants are in breach of access agreements and confidentiality agreements, as well as the asset purchase agreement between Mineworx and EnviroMetal dated December 19, 2016. These actions also constitute breach of confidence.

EnviroMetal is seeking, among other relief from the court, general, aggravated, and punitive damages against the Mineworx Defendants, an injunction prohibiting the Mineworx Defendants from using any confidential information or intellectual property belonging to EnviroMetal, and disgorgement of profit arising from such unauthorized use.

In January 2022, the court granted EnviroMetal's application for an injunction that, amongst other things, prohibits the Mineworx Defendants from disclosing any confidential information or intellectual property belonging to EnviroMetal until further court order.

Mineworx disputes EnviroMetal's claims and has commenced a counterclaim against EnviroMetal for, amongst other things, alleged breaches of various agreements between the parties. Some of Mineworx's claims are subject to arbitration clauses.



**EnviroMetal Technologies Inc.**  
**Management Discussion and Analysis**  
For the years ended December 31, 2022 and 2021

---

As a result, Mineworx has served EnviroMetal with a notice to arbitrate those claims. EnviroMetal believes there are no merits to the claims.

Prior to commencing the legal action against Mineworx, the Company provided the Mineworx Defendants with notices of breach and provided the required amount of time to remedy. The Joint Venture was terminated on April 5, 2021, and no further non-controlling interest was recorded as of June 30, 2021. In accordance with IFRS 9, the Company recorded an expected credit loss of \$473,709 related to amounts due to the Company from Mineworx during year ended December 31, 2021.

Due to the ongoing dispute with Mineworx, the final settlement value, if any, of the non-controlling interest is subject to significant uncertainty, and as such until judgement is rendered or settlement occurs the Company will recognize a contingent liability of \$1,109,026, the amount recognized in the Company's consolidated financial statements at the time the joint venture was terminated. The Company believes that the maximum exposure is not representative of the actual potential loss exposure.

## **21. APPROVAL**

The Board of Directors oversees management's responsibility for financial reporting and internal control systems through an Audit Committee. This Committee meets periodically with management and annually with the independent auditors to review the scope and results of the annual audit and to review the financial statements and related financial reporting and internal control matters before the financial statements are approved by the Board of Directors and submitted to the shareholders of the Company. The Board of Directors of EnviroMetal Technologies Inc. has approved the financial statements and the disclosure contained in this MD&A. A copy of this MD&A will be provided to anyone who requests it.

## **22. FORWARD LOOKING INFORMATION**

This MD&A contains certain forward-looking statements and forward-looking information (collectively referred to herein as ("forward-looking statements")) within the meaning of applicable Canadian securities laws. All statements other than statements of present or historical fact are forward-looking statements. Forward-looking information is often, but not always, identified by the use of words such as "could", "should", "can", "anticipate", "expect", "believe", "will", "may", "projected", "sustain", "continues", "strategy", "potential", "projects", "grow", "take advantage", "estimate", "well positioned" or similar words suggesting future outcomes. These forward-looking statements include, without limitation, statements about our market opportunity, our strategies, ability to improve and expand our capabilities, competition, expected activities and expenditures as we pursue our business plan, the adequacy of our available cash resources, regulatory compliance, plans for future growth and future operations, the size of our addressable market, market trends, and the effectiveness of the Company's internal control over financial reporting. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, or achievements.

By their very nature, forward looking statements involve inherent risks and uncertainties (both general and specific) and risks that forward-looking statements will not be achieved. Undue reliance should not be placed on forward looking statements, as a number of important factors could cause the actual results to differ materially from the Company's beliefs, plans, objectives and expectations, including, among other things: general economic and market factors, including business competition, changes in government regulations or in tax laws; the early stage development of the Company and its projects; general political and social uncertainties; commodity prices; the actual results of current research and development or operational activities; changes in project parameters as plans continue to be refined; accidents and other risks inherent in the technology and resource industries; lack of insurance; delay or failure to receive board or regulatory approvals; changes in legislation, including environmental legislation, affecting the Company; timing and availability of external financing on

**EnviroMetal Technologies Inc.**  
**Management Discussion and Analysis**  
For the years ended December 31, 2022 and 2021

---

acceptable terms; conclusions of economic evaluations; and lack of qualified, skilled labour or loss of key individuals; commercialization of our technology and products, our status of relationship with partners; development and protection of our intellectual property and products; industry competition; building and maintaining our manufacturing facility; our ability to sell our products and services in order to generate revenues; our proposed business model and our ability to execute thereon; adverse effects on the Company's business and operations as a result of increased regulatory, media or financial reporting issues and practices; rumors or otherwise disease epidemics and health related concerns, such as the current outbreak of a novel strain of coronavirus (COVID-19), which could result in (and, in the case of the COVID-19 outbreak, has resulted in some of the following) reduced access to capital markets, supply chain disruptions and scrutiny or embargoing of goods produced in affected areas, government-imposed mandatory business closures and resulting furloughs of our employees, travel restrictions or the like to prevent the spread of disease; and market or other changes that could result in noncash impairments of our intangible assets, and property, plant and equipment. These factors should not be considered exhaustive. Many of these risk factors are beyond the Company's control and each contributes to the possibility that the forward-looking statements will not occur or that actual results, performance, or achievements may differ materially from those expressed or implied by such statements. The impact of any one risk, uncertainty or factor on a particular forward-looking statement is not determinable with certainty as these risks, uncertainties and factors are interdependent and management's future course of action depends upon the Company's assessment of all information available at that time.

Management has included projections and estimates in this MD&A which are based primarily on management's experience in the industry, assessments of our results of operations, discussions, and negotiations with third parties and a review of information filed by our competitors with securities regulators or otherwise publicly available.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as at the date of this MD&A, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain, and investors are cautioned not to unduly rely upon these statements.

We caution readers not to place undue reliance on any such forward-looking statements, which speak only as at the date made. We disclaim any obligation subsequently to revise any forward-looking statements to reflect events or circumstances after the date of such statements or to reflect the occurrence of anticipated or unanticipated events.

The forward-looking statements contained herein are expressly qualified in their entirety by this cautionary statement. The forward-looking statements included in this MD&A are made as of the date of this MD&A and the Company does not undertake and is not obligated to publicly update such forward-looking statements to reflect new information, subsequent events or otherwise unless so required by applicable securities laws.