

For the Year Ended December 31, 2022

Introduction

This Management Discussion and Analysis ("MD&A") provides information that management believes is relevant to an assessment and understanding of the Company's consolidated results of operations and financial condition. This discussion should be read in conjunction with the Consolidated Financial Statements for the years ended December 31, 2022 and 2021 and the accompanying notes, which are prepared in accordance with International Financial Reporting Standards or "IFRS". This discussion is based on information available to management as of April 4, 2023, unless otherwise indicated.

Unless otherwise indicated, all dollar amounts are expressed in Canadian dollars.

The core business of the Company is to provide advanced technology biological filters for removal of odors, volatile organic compounds (VOCs), hazardous air pollutants (HAPs) and for the conditioning of biogas renewable energy. With over 1,800 installed systems and over a decade of experience, the Company's groundbreaking biofilters are the technology of choice for wastewater treatment plants across North America. Additional information about the Company, including our most recently filed Annual Report, is available on SEDAR at www.sedar.com.

Forward Looking Statements

Certain statements in this report may contain "forward looking" statements that involve risks, uncertainties and other factors that may cause the actual results, performance or achievements of the Company or industry to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Words such as "may", "will", "expect", "believe", "plan", "intend", "should", "anticipate" and other similar terminology are used to identify forward looking statements. These statements reflect current assumptions and expectations regarding future events and operating performance and speak only as of the date of this MD&A, April 4, 2023. Forward looking statements involve significant risks and uncertainties, should not be read as guarantees of future performance or results, and will not necessarily be accurate indications of whether or not such results will be achieved. A number of factors could cause actual results to vary significantly from the results discussed in the forward looking statements, including, but not limited to, the factors discussed under "Risks and Uncertainties". Although the forward looking statements contained in this MD&A are based upon what management of the Company believes are reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward looking statements. These forward looking statements are made as of the date of this MD&A and the Company assumes no obligation, except as required by law, to update any forward looking statements to reflect new events or circumstances.

Non-IFRS Measures

“EBITDA,” “Order Bookings,” “Order Backlog” and “Working capital” do not have any standardized meaning prescribed by IFRS and may not be comparable to measures presented by other companies.

EBITDA is used to denote earnings (loss) from operations before interest, income taxes, depreciation and amortization. This measure is important to the Company since it is used by potential investors and lenders to evaluate the ongoing cash generating capability of the Company and thus the amounts they are willing to invest and lend to the Company.

Order Bookings and Order Backlog are non-IFRS measures that the Company uses to evaluate its sales performance. Order Bookings are those binding contracts that the Company enters into during a fiscal year with a third party for the delivery of our products or services. As Order Bookings are received, the contract value (before any associated sales taxes) is included in the Order Backlog. The Order Backlog is reduced by the revenue that is recognized on each project and is also adjusted for foreign exchange changes in the period presented.

Overview

Biorem is a leading clean technology company that designs, manufactures and distributes a comprehensive line of high-efficiency emissions control systems used to eliminate odors, volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). Biorem also offers Biogas Conditioning technologies specializing in biological treatment of hydrogen sulfide.

Biorem offers a selection of products that can be tailored to suit application specific requirements. Biorem ensures optimized long-term performance on every application by custom-designing systems to meet the individual needs of their clients.

Biorem has sales and manufacturing offices across North America and in China, a dedicated research facility, an analytical and microbial laboratory, a worldwide sales representative network, and a dedicated service and support division. As a result, Biorem has the resources available to ensure that projects are handled promptly and professionally from conception to completion.

The Company has more than 1,800 installed systems worldwide.

Selected Annual Information

	2022	2021	2020
Revenue	28,863,000	24,478,000	\$24,375,000
Net earnings	1,613,000	1,297,337	2,089,000
Total Assets	20,730,000	19,166,000	21,953,000
Shareholders' Equity	4,521,000	1,964,000	13,525,000
Earnings(loss)per share			
- basic	\$0.10	\$0.04	\$0.05
- diluted	\$0.09	\$0.04	\$0.05

Operating Results

Revenue	2022	2021	Percent Change
	\$28,863,000	\$24,478,000	17.9%

Revenue by Geography

	2022	2021	2020
Canada	7,888,000	11,728,000	\$8,178,000
United States	18,457,000	10,473,000	12,606,000
China	1,803,000	1,234,000	3,417,000
Other international	715,000	1,043,000	174,000
Total Revenue	28,863,000	24,478,000	24,375,000

Biorem's core market is the North American municipal odour control market with international distribution established in China, Middle East, Americas and South Africa as well as opportunistically in other jurisdictions. Project delivery mix varies from period to period, however overall the Company relies heavily on the American and Canadian markets to generate revenue. The geographic mix in the current Order Backlog of the Company is consistent with the geographic mix for 2022 shown in the above table.

A number of factors contribute to variations in the Company's period over period results: customer scheduling and delivery of our products, the Company's mix of product and service offerings, the currency in which the revenue is earned and the timing of revenue recognition.

2022 revenue of \$28.9 million increased by \$4.3 million or 18% over the \$24.5 million recorded in 2021. There was a \$3.8 million decline in revenue from Canadian based projects and a \$8.0 million increase in revenues from the United States. Revenues were heavily skewed to the fourth quarter again in 2022 as they were in 2021 due to customer scheduling requirements.

In 2022 seventy one percent of revenue was derived from twelve customers while in 2021 sixty percent of revenues came from twelve customers.

Order Bookings	2022	2021	Percent Change
		\$37,700,000	\$17,000,000

Order Bookings can vary considerably from period to period, due to both the size of the contracts won and the timing of the awarding of the contracts. Bookings in 2022 were a record for the Company at \$37 million a \$20 million increase over the Company's 2021 bookings. Bookings in 2022 were skewed to the first half of the year with \$20.5 million in orders secured and \$14.4 million in the second half. The variation in bookings during the year was largely due to the timing of contract awards.

Order Backlog	2022	2021	Percent Change
		\$38,000,000	\$24,930,000

The Company's Order Backlog at December 31, 2021 increased to a record \$38 million from \$25 million on December 31, 2021. Order Backlog can vary significantly from period to period both due to the timing of the receipt of contracts and due to the completion date of the projects under contract.

Due to customer scheduling, the Company cannot provide guidance as to the quarters when the Order Backlog will be converted into revenue. Supply chain and labour issues continue to plague the civil and construction industries resulting in project delays that are not within Biorem's control. As a result revenue forecasting has become very difficult and with a high degree of variability. In a normal economic environment management would expect that the majority of the Order Backlog at December 31, 2022 would be realized as revenue by the end of fiscal 2023 but currently the Company expects 2023 to be below that number.

Gross Profit	2022	2021	Percent Change
		\$8,762,000	\$6,236,000

Costs of goods sold is comprised of 2 main components; direct material costs that are in direct proportion to revenue recognized, and the cost of operations which includes engineering and project management costs that are relatively fixed.

Gross profit in 2022 increased by \$2,526,000 to \$8.8 million compared to \$6.2 million of gross profit recorded in 2021.

This increase in gross profit for the year was primarily due to the 17.9% increase in revenue recorded in the year and due to higher average gross margins on projects deliver during the year. As a percentage of revenue, gross profit in 2022 was 30.7% compared to 25.5% in 2021. Gross profit before the fixed costs of engineering and project management as a percentage of revenue was 56.7% compared to 40% in 2021. Project management and engineering costs represented 12.6% of revenue in 2022 compared to 14.3% in 2021.

Sales and Marketing	2022	2021	Percent Change
		\$2,583,000	\$2,098,000

The Company's sales and marketing expenses are composed of two significant categories; variable selling expenses and sales department expenses.

Variable selling costs represent commissions that are paid to both internal sales employees and external manufacturer representatives. These expenses are recognized over the course of the related contract. Sales Department expenditures relate primarily to departmental salaries and advertising expenses.

Total sales and marketing costs of \$2.6 million in 2022 were \$485,000 more than the \$2.1 million of expenditures incurred in 2021. The increase is due largely to a \$300,000 increase in the variable costs of selling plus \$97,000 more in travel and accommodation costs.

Sales and marketing expenses in 2022 represented 8.8% of revenue compared to 8.6% in 2021. As a percentage of bookings, sales and marketing expense in 2022 were 6.9% compared to 12.3% in 2021.

Research and Development	2022	2021	Percent Change
		\$97,000	\$14,000

Research and Development expenses include research and development salaries, material and laboratory costs as well as subcontractor costs for the development of and installation of demonstration sites.

Other Expense (Income)	2022	2021	Percent Change
		\$238,000	\$239,000

Other expense (income) comprises foreign exchange gains, government assistance and investment tax credits.

Other expense in 2022 includes a net amount of \$238,000 of foreign exchange losses recorded on the translation of inter-company balances on December 31, 2022.

General and Administration	2022	2021	Percent Change
	\$3,203,000	\$1,816,000	76.4%

General and administration expenses include administrative salaries, consulting, bad debt expense, occupancy costs, office supplies, regulatory and transfer fees, travel and corporate affairs.

General and administrative expenses in 2022 were higher by \$1,387,000 compared to 2021, primarily due to the recording of \$600,000 in legal and settlement expenses resulting from the settlement of a long outstanding claim against Biorem. As well, a \$200,000 provision for expected credit losses compared to a \$169,000 reversal of a provision for expected credit losses in 2021, a \$48,000 increase in audit fees and a \$80,000 increase in stock compensation expense contributed to the increase.

Income Tax Expense	2022	2021
	\$770,000	\$737,000

The Company's expected income tax expense in both 2022 and 2021 was 26.5 % of earnings. A reduction in the amount of deferred tax asset recognized due to expiry of tax losses in 2021 increased 2021 tax expense to 36.2 % of earnings totaling \$737,000. The Company's deferred tax assets of \$1.9 million on December 31, 2022 comprise the tax effect of \$4.1 million of unrecognized tax losses, \$2.2 million unrecognized temporary differences and \$875,000 of unrecognized investment tax credits.

Summary of Quarterly Results

Thousands \$ Except share data	2022				2021			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Revenue	10,911	7,307	6,264	4,381	10,839	4,576	5,634	3,429
Gross profit	3,909	2,517	1,456	879	3,705	1,137	1,116	278
Net earnings (loss)	789	761	164	(101)	1,567	(115)	266	(421)
EPS (loss) - basic	0.05	0.05	0.011	(0.007)	0.046	(0.003)	0.007	(0.01)

A number of factors contribute to variations in the Company's quarterly results: customer scheduling and delivery of our products and services, the Company's mix of product and service offerings, the currency in which the revenue is earned and the timing of revenue recognition.

Fourth Quarter 2022

Revenue in the fourth quarter of 2022 was \$10.9 million compared to \$7.3 million in the previous quarter and \$10.8 million in the fourth quarter of 2021. The significant increase in the 2022 fourth quarter revenues compared to the previous quarters was largely due to differences in project delivery time lines in the quarters and to some project delivery delays in the prior quarters. Orders booked in the quarter totaled \$6.4 million.

Gross profit of \$3.9 million in the fourth quarter amounted to 35.8% of revenue, which was higher than the 34.4 % gross profit margin in the previous quarter and the 34.2% achieved in the same quarter the prior year. The increased margin was the result of the higher revenues recorded in the quarter without any increase in engineering or project management overhead costs.

General and administrative expenses during the quarter totaled \$1,769,000 which were significantly higher than the previous quarter of \$576,000 and \$585,000 of general and administrative expenses recorded in Q4 of 2021. The increase is due to \$600,000 of legal and settlement costs to settle a long outstanding claim against Biorem, a \$200,000 provision for expected credit losses and \$94,000 of stock compensation expenses.

Sales and marketing expenses in the quarter were \$737,000 which were \$28,000 higher than the previous quarter and \$81,000 higher than sales and marketing expenditures in the fourth quarter

of 2021. The increase in sales and market costs in the quarter was due to increased commission expense and increased travel and accommodation costs.

Liquidity

The Company finances its operations and capital expenditures through cash generated from operations and equity and debt financings.

2022 Cash flow

Cash and cash equivalents	December 2022	December 2021	Percent Change
		\$3,775,000	\$4,471,000

Cash and cash equivalents decreased by \$696,000 to \$3.8 million at December 31, 2022 from \$4.5 million on December 31, 2021. Approximately 18% of the Company's cash held on December 31, 2021 is denominated in Canadian dollars and 77% in US dollars compared to approximately 35% in Canadian dollars and 41% in US dollars at December 31, 2021.

The change in cash for the year is due to net cash flows from operating, investing and financing activities as follows:

	2022	2021
Cash provided by (used in) operating activities	\$1,445,000	\$3,782,000
Cash provided by (used in) investing activities	(203,000)	(76,000)
Cash provided by (used in) financing activities	(952,000)	(7,556,000)
Foreign exchange gain (loss) on foreign cash	(986,000)	(548,000)
Net decrease in cash	\$(696,000)	\$(4,398,000)

Cash provided by operating activities - Earnings from operating activities during the year generated \$1,445,000 of cash. Earnings generated \$2.2 million of cash and an increase of non-cash operating working capital used \$735,000 in cash. In particular, \$743,000 of cash was generated from an increase in accounts payable and \$245,000 from a decrease in inventories. Cash generated from decreases in working capital items were partially offset by cash used to fund an increase in accounts receivable of \$1.3 million, \$395,000 of unbilled revenue and a \$549,000 decrease in unearned revenue.

Cash used in investing activities – The Company used \$203,000 of cash during the year to acquire new manufacturing equipment and leasehold improvements.

Cash provided by financing activities – During the year \$499,000 of cash was used to pay down a term loan and \$235,000 was used to reduce the Company's operating loan. \$220,000 of cash was used to pay lease obligations as they became due.

Liquidity Risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they are due. The Board of Directors reviews and approves the Company's operating and capital budgets, as well as any material transactions out of the ordinary course of business including proposals on major investments. The Company manages liquidity risk by maintaining adequate reserves, banking facilities and by continuously monitoring forecasts and actual cash flows and matching the maturity profiles of financial assets and liabilities.

The Company's objectives of managing liquidity risk are to forecast the liquidity position as accurately as possible and to maintain sufficient resources to pursue its growth strategy. The Company's financial liabilities include accounts payable and accrued liabilities, unearned revenue and contract advances as well as long and short term debt.

The Company's net current assets (liabilities) are summarized below.

	2022	2021
Cash	\$3,775,000	\$4,471,000
Working capital	4,853,000	2,935,000
Unused operating loan	\$2,225,000	\$1,990,000

(1) Working capital represents total current assets less total current liabilities.

A maturity analysis as at December 31, 2022 of the Company's financial liabilities based on gross, undiscounted cash flows is presented below. The maturity analysis is based on the earliest date that liabilities may be due.

	Carrying Amount	Contractual Cash Flow	Less than 1 month	1-3 months	3 months to 1 year	1+ years	Total
	\$	\$	\$	\$	\$	\$	\$
2022							
Accounts payable	4,710,819	4,710,819	4,710,819	-	-	-	4,710,819
Accrued liabilities	2,663,647	2,663,647	1,853,647	405,000	405,000	-	2,663,647
Interest bearing loans	4,276,241	4,727,442	57,478	114,957	517,305	4,037,702	4,727,442
Lease liabilities	469,915	586,950	17,306	34,612	155,752	379,280	586,950
	12,120,622	12,688,858	6,639,250	554,569	1,078,057	4,416,982	12,688,858
2021							
Accounts payable	5,065,853	5,065,853	5,065,853	-	-	-	5,065,853
Accrued liabilities	2,512,982	2,512,982	2,102,882	410,100	-	-	2,512,982
Interest bearing loans	5,010,000	5,621,161	58,226	109,786	494,037	4,959,112	5,621,161
Lease liabilities	655,603	828,480	18,198	36,396	163,782	610,104	828,480
	13,244,438	14,028,476	7,245,159	556,282	657,819	5,569,216	14,028,476

Capital Resources

The Company currently does not have any undrawn debt facilities. The Company does not have any significant capital expenditure projects underway or forecasted in 2022.

Financial instruments

At December 31, 2022 the Company held no forward exchange contracts.

Commitments

Commitments include operating leases for office equipment and facilities, bank guarantees, and performance bonds issued on our behalf by financial institutions in connection with facility leases and contracts with public sector customers. Aside from the aforementioned, the Company does not have any other business arrangements or any equity interests in unconsolidated companies that would have a significant effect on its assets and liabilities as at December 31, 2022.

Off-Balance Sheet Arrangements

As a general practice, the Company does not enter into off-balance sheet financing arrangements. Except for operating leases and letters of credit, all commitments are reflected on the balance sheet.

Transactions with Related Parties

The Company did not have any material related party transactions during the year ended December 31, 2022.

Outstanding Share Data

	December 31 2022	December 31 2021
Common shares	15,497,437	15,477,437
Employee stock options (1)	3,915,000	3,085,000
	19,412,437	18,562,437

(1) Assumes 100% conversion of outstanding options

There have been no material changes to the Company's outstanding share data from December 31, 2022 to the date of this MD&A.

Significant Accounting Policies and Estimates

The preparation of these consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses and related contingent assets and liabilities. On an on-going basis, management evaluates the estimates including those related to long-term revenue contracts, intangible assets, bad debts, warranty obligations and income taxes. The estimates are based on historical experience and on various other factors that are believed to be reasonable in the circumstances. Actual results may differ from these estimates. The following critical accounting policies include those which involve management's more significant judgments and estimates:

- a) Revenue recognition: The Company derives revenue from long-term contracts which require performance over a time span which may extend beyond one or more accounting periods. The Company recognizes revenue on long-term contracts using the percentage-of-completion method, based on costs incurred relative to the estimated total contract costs. Management has concluded that costs incurred are the best available measure of progress toward completion of these contracts. Estimated total direct contract costs is subjective and requires the use of our best judgments based upon the information we have available at that point in time. Management's estimate of total direct contract costs has a direct impact on the revenue recognized by the Company. Changes in estimates are reflected in the period in which they are made and would affect revenue and cost of sales and unbilled or unearned revenue.

The Company also provides for estimated losses on incomplete contracts in the period in which such losses are determined.

- b) Deferred income taxes: Deferred income tax assets are recognized for the future income tax consequences attributable to temporary differences between the financial statement carrying value of assets and liabilities and their respective tax bases. Deferred income tax assets and liabilities are measured using enacted income tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The calculation of current and deferred income taxes requires management to make estimates and assumptions and to exercise a certain amount of judgment. The income tax bases of assets and liabilities are based upon the interpretation of income tax legislation across various jurisdictions. The deferred income tax assets and liabilities are also impacted by expectations about future operating results and the timing for reversal of temporary differences as well as possible audits of tax filings by the regulatory authorities. In assessing the realizability of deferred income tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is

dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax assets, projected future taxable income and tax planning strategies in making this assessment. The Company has recorded \$1,939,000 of deferred tax assets as at December 31, 2022.

- c) Investment tax credits: In the normal course of operations, the Company's Scientific Research & Experimental Development (SR&ED) expense claims are subject to review by federal and provincial government authorities. Reviews of certain of the Company's SR&ED claims are incomplete at December 31, 2022 and as such, amounts disclosed may be subject to change, pending the outcome of such reviews.
- d) Warranty obligations: Management routinely assesses and adjusts for its anticipated warranty costs based on experience and estimates of the potential warranty obligations for its installations.
- e) Expected credit losses: Management routinely reviews accounts receivable and sets up a reserve for expected credit losses. This is an estimate since some of the reserved accounts may be collected and we may subsequently find that some accounts currently deemed collectible become uncollectible. As well, the estimated present value of future cash flows associated with the outstanding accounts receivable is determined and an impairment loss is recognized for the difference between this amount and the carrying amount as follows: the carrying amount of the asset is reduced to estimated present value of the future cash flows associated with the asset, discounted at the financial asset's original effective interest rate, either directly or through the use of an allowance account and the resulting loss is recognized in the consolidated statement of operations for the period. In a subsequent period, if the amount of the impairment loss related to financial assets measured at amortized cost decreases, the previously recognized impairment loss is reversed through the consolidated statement of operations to the extent that the carrying amount of the investment at the date the impairment is reversed does not exceed what the amortized cost would have been had the impairment not been recognized. The assumptions used for this estimate, which are based on the Company's historical collection history, are presented in Note 10 to the financial statements.
- f) Long lived assets: Management reviews the carrying value of long lived assets including plant and equipment and amortizable intangible assets for impairment to determine if the carrying value of an asset may not be recoverable due to changes in the current and expected future use of the asset, external valuations of the asset, and the obsolescence or physical damage to the asset. If such indicators of impairment exist, the asset's recoverable amount is estimated. An impairment loss is recognized if the carrying amount of an asset or its related cash generating unit exceeds its estimated recoverable amount.
- g) Compound financial instruments: The financial liability component of a compound financial instrument is recognized initially at the fair value of a similar liability that does not have an

equity conversion option. The equity component, representing the holders' option to convert into common shares, is recognized initially at fair value determined as the excess of the face value of the compound financial instrument and the fair value of the liability component. Any directly attributable transaction costs are allocated to the liability and equity components in proportion to their initial carrying amounts. Subsequent to initial recognition, the liability component of a compound financial instrument is measured at amortized cost using the effective interest method. The equity component of a compound financial instrument is included within contributed surplus and is not re-measured subsequent to initial recognition.

Interest, as well as any gains and losses relating to the financial liability are recognized in profit or loss.

- h) Leases: At the inception of a contract, to determine if it contains a lease, the Company assesses whether it conveys the right to control and obtain substantially all of the economic benefits of an identified asset, for a period of time, in exchange for consideration. Where a contract contains a lease, the Company recognizes a right-of-use asset and a lease liability at the commencement date of the lease. The right-of-use asset is measured at cost less any accumulated depreciation and impairment losses and may be adjusted for any remeasurement of the lease liability. Cost is the amount of the initial lease liability plus any initial direct costs incurred and any lease payments made at or before the commencement date less any incentives received. The right-of-use assets are included in the cost of property and equipment on the statement of financial position. They are depreciated, in accordance with the Company's existing accounting policy, over the shorter of the term of the lease or the life of the asset. The lease liability is initially measured at the present value of future lease payments discounted at the interest rate implicit in the contract. If the implicit rate cannot be determined, the incremental borrowing rate over a similar term and with similar security for the funds necessary to obtain an asset of similar value in a similar economic environment is used.

The lease payments include fixed payments less any incentives receivable, variable lease payments that depend on an index or rate and amounts expected to be paid under residual value guarantees. Where the lease contains an extension or purchase option, the costs associated with the option are included if it is reasonably expected to be exercised by the Company. Thereafter, the amount of the lease liability is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of the lease liability is remeasured to reflect any modifications to the contract terms. Lease liabilities are presented as a component of debt on the consolidated statement of financial position. The Company has elected not to recognize right-of-use assets and lease liabilities for contracts that have a lease term of 12 months or less or are for the use of low value assets. These contracts are recognized as an expense in the consolidated statement of loss and comprehensive loss in the period the cost is incurred. In addition, for certain asset classes, the Company has elected to treat both lease and non-lease components as a single lease component for the purposes of applying IFRS 16.

- i) Equity: Common stock issued by the company is classified as equity when there is no contractual obligation to transfer cash or other financial assets to the holder of the shares. Incremental costs directly attributable to the issue or repurchase of equity instruments are recognized in equity, net of tax.

Treasury shares are equity instruments repurchased by the Company which have not been canceled and are deducted from equity on the consolidated balance sheet, irrespective of the objective of the purchase. The Company acquires its own subordinate voting shares on the open market for its share-based payment awards. No gain or loss is recognized in the consolidated statement of earnings on the purchase, sale, issue or cancellation of treasury shares. Consideration paid or received is recognized directly in equity.

Dividends and other distributions to holders of the company's equity instruments are recognized directly in equity.

Outlook

The Company is well positioned going into 2023. Bidding activity throughout 2022 and into 2023 continues to be robust due to several policies in North America. In particular, the bipartisan infrastructure bill in the USA has directed a large capital infusion for projects in historically underfunded regions of the country. In Canada, an aggressive long-term immigration initiative is creating a massive demand for new housing developments and the infrastructure required to service them. Both factors are expected to continue to create demand for BIOREM's engineered solutions for air emissions abatement.

BIOREM's new line of Dry Scrubbers will be expanded to include several new packaged systems as well as introduced to several other regions in 2023. The market response during the test market introduction was very positive and management expects similar results in the new territories moving forward. As more of these systems become operational, a corresponding increase in sales related to the servicing of this equipment is expected as they have a consumable component requiring replenishment.

Inflationary pressures and supply chain disruptions are expected to continue to be challenges for the next twelve to eighteen months. The Company has managed to deal effectively with these challenges during the previous two years and management continues to be vigilant and proactive in responding to these factors. Of particular concern are delays expected with contract award, engineering submittal review and field construction schedules.

Risks and Uncertainties

Liquidity risk

At December 31, 2022 the Company had working capital of \$4,853,000 and an unused operating loan of \$2,225,000. Management believes the Company has sufficient working capital to meet all of its operational needs under any normal circumstances.

Interest rate risk

At December 31, 2022 the Company had \$775,000 of operating loan debt that was subject to a floating interest rate. A 2% increase in the prime lending rate would impact the Company's earnings before tax by \$15,500.

Sales Cycle

The Company's long sales cycle may cause revenue fluctuations period over period – since operating expenses are largely based on anticipated revenue trends and a significant portion of expenses are, and will continue to be, fixed, any delay in generating or recognizing revenues could negatively impact our business, operating results, financial condition or prospects.

Order Backlog

As of December 31, 2022 the Company's Order Backlog was \$38 million. However, the expected future revenue from the Company's Order Backlog may not be realized or, if realized, may not result in net earnings. Projects could remain in Order Backlog for an extended period of time. In addition, project cancellations or scope adjustments may occur from time to time with respect to contracts reflected in the Company's Order Backlog. Cancellation or delay of contracts may have a material adverse effect on our financial status.

Delays or Defaults in customer payments affecting liquidity

Due to the nature of our contracts, at times we commit resources to projects prior to receiving payments from our customers in amounts sufficient to cover expenditures as they are incurred. Delays in customer payments may require us to make a working capital investment. If a customer defaults in making payments on a project to which we have devoted significant resources, it could have a material negative effect on our liquidity as well as the results from operations.

Reputation

The Company's reputation for technical expertise, high level of service and the lower life cycle cost of products compared to our competitors products is one of our most valuable business development assets. The loss of this reputation due to client dissatisfaction represents a risk to our ability to win additional business both from existing clients and from future clients.

Patents and Proprietary Right

The Company relies on a combination of patents, trademarks, trade secrets and knowledge to protect its proprietary technology and rights. There can be no assurance that the Company's patents will not be infringed upon, that the Company would have adequate remedies for any such infringement, or that its trade secrets will not otherwise become known or independently developed by its competitors. There can also be no assurance that any patents now or hereafter issued to, licensed by or applied for by the Company will be upheld, if challenged, or that the protections afforded thereby will not be circumvented by others.

Dependence on Subcontractors

The Company does not directly engage in field construction but relies on field construction subcontractors operating under the supervision of the Company's employees. The unavailability of field construction subcontractors, or a substantial increase in pricing by a significant number of these subcontractors could adversely affect the Company. In addition, failure of subcontractors to properly perform work that has been subcontracted to them could adversely affect the Company by increasing the costs to the Company of completing a project and by damaging the Company's reputation.

Product Liability

If there are defects in our systems or if significant reliability, quality or performance problems develop with respect to our systems, there may be a number of negative effects on our business. Our products are often installed in corrosive or flammable environments. The Company carries product liability insurance, which includes coverage for sudden or accidental pollution impact. It is possible that a customers' inability to comply with applicable pollution control laws or regulations stemming from failure or non-performance of the Company's products or systems may subject the Company to liability for any fines imposed upon such customer by regulatory authority or for damages asserted to have been incurred by any third party adversely affected.

Competition

Virtually all contracts for the Company's products are obtained through competitive bidding. Although the Company competes on technical expertise, reputation for service and lower life cycle cost, there can be no assurance that the Company will maintain its competitive position in its principal markets.

Fixed Price Contracts may result in losses

The Company's receipt of a fixed price contract as a consequence of being the successful bidder carries the inherent risk that the Company's actual performance cost may exceed the estimates upon which its bid was based. To the extent that contract performance costs exceed projected costs, the Company's profitability could be materially affected.

Foreign Exchange

The Company is subject to risk of exchange rate fluctuations related to anticipated revenues, Order Backlog and existing assets and liabilities denominated in currencies other than Canadian dollars. At December 31, 2022, the Company had US dollar denominated net monetary assets of \$1,330,000.

Stock Trading Volume is low

The monthly average trading volume of the BIOREM common shares on the Toronto Venture Exchange during 2022 was 107,000 shares. Due to the low trading volume the price of the common shares could be subject to wide price fluctuations in response to business development announcements, competitors, quarterly variations in operating results, and other events or factors.

Risk to Product Development

Corporate resources are currently being expended on the development of the new media technologies. These technologies are constantly in development and have not yet been fully commercialized. There can be no guarantee that the new media technology will achieve the performance criteria which the Company believes is necessary for it to be a successful product in the market. In addition, there are risks associated with commercializing any product including the risk that full scale production may not be achieved at an acceptable cost level. Failure to successfully commercialize the new media technologies may materially and adversely affect the Company's financial condition and results of operations.

Acceptance of new products by the Market

Market risk exists for new products such as the new media. There is no assurance that new products will be accepted by the market, that desired volumes will be realized over the product life or that the product life will not be shorter than expected due to product obsolescence. New products that are launched by the Company's competitors may also have price or other advantages over the Company's products. In addition, new product offerings may also require more significant marketing and sales efforts to gain market acceptance.

Dependency on key personnel

The success of the Company is dependent upon the attraction and retention of highly skilled personnel in a number of key areas including management positions. The unexpected loss or departure of any of the Company's key officers or employees could have a material adverse effect on the future operations of the Company. The success of the Company's business will depend, in part, upon the Company's ability to attract and retain qualified personnel as they are needed.

There can be no assurance that the Company will be able to engage the services of such personnel or retain its current personnel.