
**MICROMEM TECHNOLOGIES INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE THREE MONTHS ENDED JANUARY 31, 2019
PREPARED AS OF MARCH 26, 2019**

NOTICE TO READER

The Management's Discussion and Analysis ("MD&A") report for Micromem Technologies Inc. for the three months ending January 31, 2019, as attached, is dated as of March 26, 2019, consistent with the date of the Independent Registered Public Accounting Firm report and with the 52-109F1R CEO and CFO certification filings related thereto.

/s/ Dan Amadori
Dan Amadori, CFO
March 26, 2019

/s/ Joseph Fuda
Joseph Fuda, CEO
March 26, 2019

MICROMEM TECHNOLOGIES INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE THREE MONTHS ENDED JANUARY 31, 2019
PREPARED AS OF MARCH 26, 2019

INTRODUCTION

The following sets out the Management's Discussion and Analysis ("MD&A") of the financial position and result of operations for the three months ending January 31, 2019 of Micromem Technologies Inc. (the "Company", "Micromem" or "we"). The MD&A should be read in conjunction with the Company's audited consolidated financial statements and accompanying notes for the fiscal years ending October 31, 2018 which are prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board. Additional information regarding the Company is available on the SEDAR website at www.sedar.com.

The Company's shares are traded on the OTCQB under the symbol MMTIF and on the Canadian Securities Exchange ("CSE") under the symbol MRM. The Company incorporated Micromem Applied Sensor Technologies Inc. ("MAST") as a wholly – owned subsidiary for the purpose of moving forward with the planned commercialization of its technology.

Certain information provided by the Company in this MD&A and in other documents publicly filed throughout the year that are not recitation of historical facts may constitute forward-looking statements. The words "may", "would", "could", "will", "likely", "estimate", "believe", "expect", "forecast" and similar expressions are intended to identify forward-looking statements.

Readers are cautioned that such statements are only predictions and the actual events or results may differ materially. In evaluating such forward-looking statements, readers should specifically consider the various factors that could cause actual events or results to differ materially from those indicated by such forward-looking statements.

FORWARD LOOKING STATEMENTS

This MD&A contains forward-looking statements and forward looking information within the meaning of applicable Canadian securities legislation ("forward looking statements"). Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions, potentials, future events or performance (often, but not always, using words or phrases such as "believes", "expects" or "does not expect", "is expected", "anticipates" or "does not anticipate", or "intends" or stating that certain actions, events or results "may", "could", "would", "might" or "will" be taken or achieved) are not statements of historical fact, but are "forward-looking statements". Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of the Company, or developments in the Company's business or in its industry, to differ materially from the anticipated results, performance, achievements or developments expressed or implied by such forward-looking statements. Forward-looking statements include disclosure regarding possible events, conditions or results of operations that are based on assumptions about future conditions, courses of action and consequences. Forward-looking statements may also include, without limitation, any statement relating to future events, conditions

or circumstances. The Company cautions you not to place undue reliance upon any such forward-looking statements, which speak only as of the date they are made. Forward-looking statements relate to, among other things, the successful commercialization of our technology, comments about potential future revenues, joint development agreements and expectations of signed contracts with customers, etc. A number of inherent risks, uncertainties and factors affect the operations, performance and results of the Company and its business, and could cause actual results to differ materially from current expectations of estimated or anticipated events or results. Some of these risks and uncertainties include the risk of not securing required capital in future, the risks of not successfully concluding agreements with potential partners on a timely basis, the risks associated with commercializing and bringing to market our technology. These risks are affected by certain factors that are beyond the Company's control: the existence of present and possible future government regulation, competition that exists in the Company's business, uncertainty of revenues, markets and profitability, as well as those other factors discussed in this MD&A report. This list is not exhaustive of the factors that may affect any of the Company's forward-looking statements and reference should also be made to the Company's Annual Information Form (prepared and filed in the form of a Form 20-F Annual Report pursuant to The Securities Exchange Act of 1934) for a description of risk factors.

Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements. The Company does not undertake to update any forward-looking statements that are incorporated by reference herein, except in accordance with applicable securities law.

**MICROMEM TECHNOLOGIES INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE THREE MONTHS ENDED JANUARY 31, 2019
PREPARED AS OF MARCH 26, 2019**

TABLE OF CONTENTS:

- 1. OVERVIEW**
 - 2. PROJECT UPDATES**
 - 3. DISCUSSION OF OPERATING RESULTS**
 - 4. RISKS AND UNCERTAINTIES**
 - 5. GOING CONCERN**
 - 6. OTHER MATTERS**
 - 7. SUBSEQUENT EVENTS**
-

**MICROMEM TECHNOLOGIES INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE THREE MONTHS ENDED JANUARY 31, 2019
PREPARED AS OF MARCH 26, 2019**

1. OVERVIEW

Micromem is a company that develops customized, proprietary sensor-based solutions for large multinational corporations. It operates through its wholly owned subsidiary, Micromem Applied Sensor Technologies ("MAST"). MAST is responsible for the development of market opportunities, maintaining customer relationships and the project management of the independent engineering subcontractors that it engages once a client project has been initiated. Micromem and MAST are referred to interchangeably as "the Company" throughout this report.

Business Development:

(a) Chevron:

Our Joint Product Development Agreement with Chevron, as previously disclosed, progressed in 2018 and in the quarter ended January 31, 2019. We received \$713,983 of additional development funding from Chevron in 2018. In Q1, the dates were set for the onsite field trials to be conducted at one of Chevron's US based operating wells. These trials are now underway in March 2019. We are now developing a commercialization strategy based on the anticipated outcome of these trials.

(b) Repsol S.A.:

We have previously reported on our preliminary dealings with Repsol. In 2017 we executed a preliminary development contract with Repsol for the utilization of the RT Lube technology to be customized to their specific requirements. Repsol provided \$75,000 of initial funding. The initial project with Repsol contemplated 2 phases of activity.

Since the departure of Mr. Van Fleet in August 2018, we have worked directly with the Repsol team. We have, since then, recast the original development project and the timetable for completion. In Q1 2019 we submitted a proposed letter of intent in this regard. Future developments are pending.

(c) RT Lube Analyzer:

We continue to pursue potential opportunities and believe that there are significant potential market opportunities for this technology.

(d) **Other:**

Since September 2018 we have engaged in dialogue with several potential opportunities with similar technology focus and are anticipating positive developments in 2019.

Financing:

In summary, the Company secured the following financing during these reporting periods:

In Q1 2019 the Company secured \$50,000 of financing from private placements (2018: \$210,027), and \$306,000 (2018: \$523,219) from the issuance of convertible debentures.

The Company's convertible debt structure is complex with 3 broad categories of such debt: (i) \$CDN denominated debt with fixed conversion prices; (ii) \$US denominated debt with fixed conversion prices and (iii) \$US denominated debt with variable conversion prices. The term of the debt in each instance is typically between 4 months and 12 months. The Company has repaid certain convertible loans at maturity when due as requested by the debenture holder, or converted the debenture into common shares at the request of the debenture holder, or extended the term of the debenture through negotiations with the debenture holder – in this latter case, certain terms of the loan – interest rate and/or conversion price – may be adjusted as part of the extension.

Under IFRS reporting, such loans require quarterly remeasurements. The application of the remeasurement methodology is very specific. This is more fully discussed in Section 3; in summary there are several non-cash related income and expense charges that arise from such remeasurements. We recorded the following non-cash charges in the period ending January 31, 2019 and 2018:

	2019	2018
Accretion expense	\$ 394,195	\$ 345,170
Loss on Conversion of debentures	17,490	-
Loss on revaluation of derivatives	267,580	1,419,676
Loss (Gain) on extinguishment of debentures	2,474	(64,753)
Net expense	681,739	1,700,093

There is no impact on the Company's cash flow for these non-cash charges.

**MICROMEM TECHNOLOGIES INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE THREE MONTHS ENDED JANUARY 31, 2019
PREPARED AS OF MARCH 26, 2019**

2. PROJECT UPDATES:

In August 2018, Mr. Steven Van Fleet resigned as President of MAST. The technical engineering and design work that has been completed to date has been undertaken by outside firms who continue to work with Micromem on its development projects. The Company has also engaged additional technical, marketing and financial assistance since the departure of Mr. Van Fleet. We have been able, on this basis, to continue our work with our development partners subsequent to Mr. Van Fleet's departure.

The current status of our development projects is as reported below:

Chevron: In 2018 we continued to engage with Chevron personnel and with our engineering subcontractor, Entanglement Technologies ("Entanglement").

Chevron has provided \$713,983 of funding towards our joint product development agreement in 2018. The project which relates to the use of alcohol based tracers to measure various characteristics and attributes of operating oil wells, is now scheduled to proceed. The results of our bench/laboratory testing of this technology previously completed have been successful against predetermined performance standards required. We believe that these results will be replicated in the pilot project. We anticipate that we will then move forward with commercialization of the technology.

Since September 2018 we have completed the following project related tasks and milestones:

- We met with our subcontractor, Entanglement, to review all development tasks and progress to date.
- We engaged a second independent engineering/manufacturing ("Consultant") resource to validate our cumulative development efforts to date.
- In October 2018 we participated in a meeting with the Chevron personnel responsible for this project in their Houston headquarters along with Entanglement and our Consultant. Entanglement presented a summary report on all work completed to that date; the report was accepted by Chevron. At that point, the consensus was to set a date for the onsite pilot of the technology.
- In November 2018 we again met with one of the Chevron team members in the Entanglement facilities in California for the purpose of completing the detailed plan for the onsite pilot. Thereafter, we met with the Chevron commercialization team in Houston.
- The onsite pilot was initially tentatively scheduled for mid-January. Given scheduling issues at the well site, the start date of the onsite testing was moved to March 2019 and these tests are now underway.

In 2015, we initiated a development protocol with Chevron with respect to a second development project – the proposed development, over a period of 2 years, of a sensor platform to be used for testing of cement integrity in offshore oil wells. That project did not move forward at that time.

In November 2018 we reengaged with the Chevron team who have responsibilities for this development initiative within Chevron. There remains significant joint interest in the project and we anticipate follow up on this potential project opportunity in 2019.

Castrol: We have previously reported on our interactions and our Joint Product Development Agreement with Castrol, which began in 2014.

Through Q1 2018 we were engaged in discussion with the Castrol representatives, with whom we had been dealing to that point in time, with respect to the ongoing funding requirements to complete the development project. These discussions were not, ultimately, successful and the project was suspended. We have had only limited interaction with Castrol since mid 2018.

The related work over the course of this project between 2014-2018 was completed in large part by our engineering subcontractor, SBMicrosystems (“SBM”), located in Burnie Maryland. In total, approximately \$3.5 million of funding was committed to this project up to the point that the project was suspended; this included approximately \$1 million of financing provided by Castrol.

The Company retains a substantial file of proprietary technical information, drawings and design work related to this development effort.

RT Lube Analyzer: In 2017-2018 the Company developed the prototype unit of this technology based on the development work completed by SBM. It began to assess potential market opportunities to commercialize this technology in a number of market verticals, in particular – shipping, large industrial applications and wind energy. We continue to pursue this opportunity and we believe that there is significant market potential in this technology.

Repsol S.A.: We have previously reported on our initial activity with this Spanish energy conglomerate.

Since September 2018 we have worked directly with the Repsol team. Our CEO, Joseph Fuda, met with the Repsol development and commercialization teams in their Madrid offices in late September.

We have continued our discussions with Repsol since then and have recast the development project and timetables for completion. We have also added additional technical and manufacturing expertise through outside consultants to help facilitate the go forward activity with the intention of continuing the role of SBM.

At this point, we are attempting to finalize a new letter of intent with Repsol to continue this project in 2019.

ATRA 171 Technology: We continue to pursue new potential market opportunities for the ATRA 171 technology.

Other Opportunities: Since September 2018 we have engaged in dialogue with a private company that has been in operation for several decades. This company has a team with engineering and manufacturing capabilities and an established presence and revenue base in North America. One of the business lines that this company has developed is a sensor based system that detects gas leakage in industrial plants. We continue to negotiate a potential business arrangement with this entity with the expectation of developing a more formal working relationship during 2019.

**MICROMEM TECHNOLOGIES INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE THREE MONTHS ENDED JANUARY 31, 2019
PREPARED AS OF MARCH 26, 2019**

3. DISCUSSION OF OPERATING RESULTS:

(a) Financial Position as at January 31, 2019:

	January 31, 2019 ('\$000)	October 31, 2018 ('\$000)
Cash	72	207
Deposits and other receivables	28	99
	<u>100</u>	<u>306</u>
Property and equipment, net	8	9
Patents, net	364	396
	<u>473</u>	<u>711</u>
Bridge loans	2,566	2,477
Accounts payable and accrued liabilities	929	1,007
Derivative liability	1,094	650
	<u>4,589</u>	<u>4,134</u>
Shareholders' Equity		
Share capital:	82,679	82,283
Equity component of bridge loans	70	70
Contributed surplus	27,653	27,631
Deficit	(114,518)	(113,407)
	<u>(4,116)</u>	<u>(3,423)</u>
	<u>473</u>	<u>711</u>

Commentary:

1. The Company's working capital deficiency is \$4,488,643 at January 31, 2019 (at October 31, 2018: deficiency of \$3,828,503)
2. The Company capitalized \$6,748 of costs associated with patents in January 31, 2019 (in October 31, 2018 - \$121,603). These applications and filings relate to the ongoing product development work that the Company has undertaken. It has a portfolio of awarded patents in the United States and has filed for provisional patents in certain foreign countries.
3. The Company continued to secure additional financing in 2019 through convertible bridge loans. Given the terms of the bridge loans, the Company has measured, as appropriate, the prescribed accounting treatment for these bridge loans and the related derivatives. These loans were typically of a short-term nature and, in many cases,

renewed on multiple occasions; the related financial reporting has become progressively more complex.

The balance reported as bridge loans at January 31, 2019 is \$2,566,148 (at October 31, 2018: \$2,476,571) and the related derivative liability balance is \$1,094,018 (at October 31, 2018: \$650,116). Related thereto, the Company reports accretion expense on these debentures of \$394,195 (2018: \$345,170), a loss on the conversion of bridge loans to share capital of \$17,490 (2018: \$nil), a loss on the revaluation of the underlying derivative liabilities of \$267,580 (2018: \$1,419,676) and a loss on extinguishment of convertible debentures of \$2,474 (2018: gain of 64,753). Management primarily employs a Black Scholes valuation model for measurement purposes (for certain of the loan transactions that it has contracted for, it uses a binomial measurement model). Management acknowledges that:

- a. The cost of financing to the Company is significant; interest on the bridge loans is substantial. In Q1 2019 we reported \$133,963 of interest expense (2018: \$108,651).
- b. The accounting for these transactions creates complexities in the financial reporting process.
- c. The judgements utilized are based on specific assumptions which, if changed, would generate different results. The significant point to note is that these charges as noted above, are non-cash charges with no impact on the Company's cash flow.

4. During the 2019 and 2018 fiscal years, the Company secured financing from various sources, the significant components include:

	(12 months) October 31, 2018	(3 months) January 31, 2019
i) Private placements of shares for cash consideration	\$ 866,200	\$ 50,000
ii) Shares issued to settle financing fees	-	21,000
iii) Settlement of trade accounts payable for share consideration	13,379	-
iv) Bridge loan financing secured	1,457,983	306,000
v) Bridge loan settlements for share consideration	1,205,130	324,991
vi) Project financing provided by development partners	738,983	-
	\$ 4,281,675	\$ 701,991

Subsequent to October 31, 2018 the Company raised an additional \$53,000 in convertible bridge loans and \$50,000 in private placements (refer to Subsequent Events).

(b) Operating Results:

The following table summarizes the Company's operating results for the three months ended January 31, 2019 and 2018:

Discussion of Operating Results

	Years ended January 31,	
	2019 (\$000)	2018 (\$000)
Administration	53	134
Interest expense	134	109
Accretion expense	394	345
Financing cost	51	-
Professional fees and salaries	149	204
Development costs, net	-	2
Travel and entertainment	11	22
Foreign exchange loss (gain)	(8)	80
Amortization of property and equipment	1	1
Amortization of patents	38	39
Loss on conversion of debentures	17	-
Loss on revaluation of derivatives	268	1,420
Loss/(gain) on extinguishment of debt	2	(65)
Total expenses	1,110	2,292
Net comprehensive income (loss)	(1,110)	(2,292)
Income (loss per share)	-	(0.01)

Commentary:

In addition to the commentary above regarding the impact of the bridge loans on the Company's operating results, we note the following.

In 2019, the Company instituted a series of cost cutting measures on operating expenses given its working capital constraints:

- a. We reduced professional and other fees and salaries in 2019. There was no remuneration paid to the CEO in 2019; the costs associated with Mr. Van Fleet were eliminated after his resignation in August 2018; the CFO's remuneration was significantly reduced and the Company also rolled back certain staff salaries. We utilized less outside consulting and legal services in 2019.

Travel expenses were generally reduced in 2019; in 2018 Mr. Van Fleet incurred such expenses which were eliminated after his departure.

Insurance expense increased in 2018 as the Company incurred more costs relating to coverage pertaining to its commercial insurance for its product development activity, and, with respect to its D&O coverage.

General and administrative costs were significantly reduced on an overall basis across all cost categories.

- b. The foreign exchange gain in January 31, 2019 of \$8,258 (2018: exchange loss of \$80,422) consists of the exchange adjustment on \$CDN denominated transactions during the period, the exchange translation arising on consolidation of the Company's financial statements and an exchange adjustment relating to the measurement of \$CDN denominated convertible debt transactions during the year.

1) **Administrative related expenses compare as follows (\$000):**

	2019	2018
General and administrative	13	72
Rent and occupancy cost	16	19
Office insurance	13	31
Telephone	1	3
Investor relations, listing and filing fees	10	9
	53	134

2) **Professional and other fees and salaries compare as follows (\$000):**

	2019	2018
Professional fees	56	45
Consulting fees	27	94
Salaries and benefits	65	65
	149	204

3) **Travel expenses compare as follows (\$000):**

	2019	2018
Airfare	4	8
Hotel	2	3
Other	5	11
	11	22

C. Unaudited Quarterly Financial Information – Summary

Three months ended (unaudited)	Revenues	Expenses	Income (loss) in period	Loss per share
	\$	\$	\$	\$
April 30, 2017	-	(124,532)	124,532	-
July 31, 2017	-	400,281	(400,281)	-
October 31, 2017		1,638,499	(1,638,499)	(0.01)
January 31, 2018 (1)	-	2,291,691	(2,291,691)	(0.01)
April 30, 2018	-	(207,605)	207,605	-
July 31, 2018	-	(22,711)	22,711	-
October 31, 2018	-	300,864	(300,864)	-
January 31, 2019 (1)	-	1,110,303	(1,110,303)	-

Three months ended (unaudited)	(1) Working capital (deficiency)	Capital assets at NBV	Other Assets	Total Assets	Shareholders equity (deficit)
	\$	\$	\$	\$	\$
April 30, 2017	(5,355,571)	12,672	410,178	501,472	(5,457,278)
July 31, 2017	(5,743,486)	10,769	414,525	515,663	(5,357,580)
October 31, 2017	(3,375,656)	9,822	431,462	916,643	(3,424,106)
January 31, 2018	(3,619,741)	8,968	451,454	566,763	(5,382,493)
April 30, 2018	(3,551,233)	8,117	438,725	597,983	(4,805,909)
July 31, 2018	(3,639,419)	7,275	427,179	605,309	(4,088,047)
October 31, 2018	(3,828,503)	9,228	396,105	710,737	(3,423,170)
January 31, 2019	(4,488,643)	8,434	364,296	473,177	(4,115,813)

(1) The net loss reported for the quarter ended January 31, 2019 includes non-cash related expenses with respect to accretion expense of \$394,195 (2018: \$345,170) and with respect to loss on revaluation of derivative liabilities of \$267,580 (2018: \$1,419,678).

**MICROMEM TECHNOLOGIES INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE THREE MONTHS ENDED JANUARY 31, 2019
PREPARED AS OF MARCH 26, 2019**

4. RISKS AND UNCERTAINTIES

There are a number of risks which may individually or in the aggregate affect the long-term commercial success of the Company, both known and unknown. An investment in the Company should be considered speculative due to the nature of the Company's activities and its current stage of development.

Stage of Development of Technology:

The Company has made strides in advancing its technology and in developing a product portfolio and in engaging customers in joint development projects. There remains the risk that the Company must successfully complete development work on these products to have available commercially viable products which can be licensed or sold.

Customers' Willingness to Purchase:

We have entered into joint development agreements whereby our prototype products are being subjected to rigorous testing by our partners. We expect to be successful in completing remaining development work on our product portfolio. If we are successful in doing so, our partners will then have to decide the extent to which they will adopt our technology for future use for their applications. The future revenue streams for the Company are dependent upon the rate of adoption by our customers and their willingness to do so.

Patent Portfolio:

The Company has spent time and effort and incurred significant costs with respect to the maintenance and development of our intellectual property portfolio. In 2018 it decided to abandon certain provisional patent filings in international jurisdictions which it believes does not impact on the core patent technology that the Company maintains. Given the nature of IP development, the Company is subject to continuing risks that our patents could be successfully challenged and that our patent pending files may not ultimately be granted full patent status. While we continue to make specific efforts to broaden our IP claims, this is an ongoing process and requires continued effort and vigilance. The Company does not have extensive in-house resources so as to manage its IP portfolio in this environment and has traditionally relied heavily on its patent attorneys for these services.

Financing:

The Company has successfully raised funding over the past several years to continue to support its development initiatives and fund the Company's corporate structure and overheads. The Company must continue to source financing in order to continue to support its business initiatives.

Competitors:

The Company is subject to competition from other entities that may have greater financial resources and more in-house technical expertise.

Management Structure:

The Company is highly dependent on the services of a small number of senior management team members. If one of these individuals were unavailable, the Company could encounter a difficult transition process.

Outstanding Lawsuit:

The Company is engaged in a lawsuit with Mr. Steven Van Fleet who, until his resignation on August 17, 2018, served as a director of the Company and as the President of the Company's wholly-owned subsidiary, MAST, Inc. This matter is discussed further in Section 6 (c) - Contingencies – in this report. The outcome of this lawsuit has not been determined at this stage.

Foreign Currency Exposure:

The Company expects to sell its products and license technologies in the United States, in Canada and abroad. It has raised financing in both \$CDN and \$USD. The Company has not hedged its foreign currency exposure. Foreign currency fluctuations present an ongoing risk to the business.

**MICROMEM TECHNOLOGIES INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE THREE MONTHS ENDED JANUARY 31, 2019
PREPARED AS OF MARCH 31, 2019**

5. GOING CONCERN

The consolidated financial statements have been prepared on the “going concern” basis, which presumes that the Company will be able to realize its assets and discharge its liabilities in the normal course of business for the foreseeable future.

There are material uncertainties related to conditions and events that cast significant doubt about the Company’s ability to continue as a going concern for a reasonable period of time in future. During the three months ended January 31, 2019 the Company reported a net loss and comprehensive loss of \$1,110,303 (2018 - \$2,291,691) and negative cash flow from operations of \$320,280 (2018 - \$443,115). The Company’s working capital deficiency as at January 31, 2019 is \$4,488,643 (October 31,2018 – \$3,828,503).

The Company’s future success depends on the profitable commercialization of its proprietary magnetic sensor technology. There is no assurance that the Company will be successful in the profitable commercialization of its technology. Based upon its current operating and financial plans, management of the Company believes that it will have sufficient access to financial resources to fund the Company’s planned operations through fiscal 2019 and beyond; however, the ability of the Company to continue as a going concern is dependent on its ability to secure additional financing and/or to profitably commercialize its technology. The financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classifications of liabilities that may result from the possible inability of the Company to continue as a going concern.

If the “going concern” assumption were not appropriate for these consolidated financial statements then adjustments would be necessary to the carrying value of assets and liabilities, the reported expenses and the balance sheet classifications used; in such cases, these adjustments would be material.

**MICROMEM TECHNOLOGIES INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE THREE MONTHS ENDED JANUARY 31, 2019
PREPARED AS OF FMARCH 30, 2019**

6. OTHER MATTERS

(a) Critical Accounting Policies:

The accounting policies the Company believes are critical to the financial reporting process include foreign currency translation, financial instruments, compound and hybrid financial instruments, derivative liabilities, conversion features of bridge loans, patents, impairment of long-term assets, deferred development costs, stock-based compensation and income taxes. These critical accounting policies are set forth in Note 4 to our audited consolidated financial statements as of October 31, 2018 and as updated in Note 4 to our consolidated financial statements as of January 31, 2019.

(b) Commitments:

The Company has extended its lease for premises through July 2022. The lease term is for 5 years and stipulates base monthly rental expenses of \$4,005 CDN. Lease commitments are as follows – commitments less than one year of \$48,060 CDN, years 2-5: \$120,150 CDN,

(c) Contingencies:

Legal Matters:

The Company has agreed to indemnify its directors and officers and certain of its employees in accordance with the Company's by-laws. The Company maintains insurance policies that may provide coverage against certain claims.

On October 7, 2018, the former President of MAST, Inc. (the Company's wholly-owned subsidiary), Mr. Steven Van Fleet, filed a lawsuit against Micromem and MAST in New York State Supreme Court, Dutchess County. In the action, Mr. Van Fleet is seeking payment of \$214,574 plus interest relating to alleged remuneration and expense reimbursements due to him prior to his resignation as an officer and director of Micromem and MAST on August 17, 2018. The Company answered the complaint December 7, 2018 by denying the material allegations in Mr. Van Fleet's claims. In addition, the Company interposed 7 counterclaims against Mr. Van Fleet seeking, among other things: (i) damages of not less than \$2.75 million, (ii) specific performance to compel Mr. Van Fleet to comply with his contractual obligations which were required for the period of time that he served as an officer and director through to his resignation date; (iii) repayment of certain salary and expenses paid to Mr. Van Fleet; (iv) a direction for Mr. Van Fleet to turn over all Company property in his possession or control; (v) an accounting to determine all money and property belonging to the Company and/or MAST. On January 24, 2019, the Company amended its original answer and counterclaims to include, among other things, a demand for additional damages based on new information that has come to light. On February 8, 2019 Mr. Van Fleet, through his counsel, replied to and denied the material allegations in Micromem's counterclaims. The Company reports an accrual of \$205,788 at January 31, 2019

with respect to alleged remuneration and expense reimbursements claimed by Mr. Van Fleet but, nonetheless, has denied the allegations in Mr. Van Fleet's claims. This matter remains as a contingency at March 26, 2019.

In addition to the above, the Company may be subject to litigation, claims and governmental and regulatory proceedings arising in the ordinary course of business. In such cases, the Company accrues a loss contingency for these matters when it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated.

(d) Off-Balance Sheet Arrangements:

At January 31, 2019, the Company has no off-balance sheet financial commitments and does not anticipate entering into any contracts of such nature other than the addition of new operating leases for equipment and premises as may be required in the normal course of business.

(e) Share Capital

At January 31, 2019 the Company reports 273,650,585 common shares outstanding (2018: 232,312,288). Additionally, the Company has 6,250,000 stock options outstanding with a weighted average exercise price of \$0.29 per share (2018: 5,780,000 options outstanding with a weighted average exercise price of \$0.37 per share).

(f) Management and Board of Directors

At our last Annual Meeting of Shareholders held on July 21, 2017, Joseph Fuda, David Sharpless, Steven Van Fleet, Oliver Nepomuceno, Larry Blue, Alex Dey, and Brian Von Herzen were re-elected to serve on our Board of Directors. Joseph Fuda and Dan Amadori continue to serve as officers of the Company. Steven Van Fleet resigned as an officer and director of the Company on August 17, 2018. As of January 31, 2019, the Company is engaged in a lawsuit with Mr. Van Fleet, as outlined in Section 6(c) of this MD&A report.

David Sharpless resigned as a director of the Company on March 30, 2018 after 18 years of service to pursue other business interests. Mr. Sharpless served as Chair of the Audit Committee until his resignation; he was replaced by Mr. Alex Dey who assumed the role of Chair of the Audit Committee at that time.

Larry Blue resigned as a director of the Company on September 30, 2017 after 12 years of service to the Company to pursue other business interests.

Our management team and directors, along with their 2019 remuneration, is presented as below:

		2019 remuneration		
		Cash	Options	Total
Individual	Position			
Joseph Fuda	President, Director	8,358	-	8,358
Steven Van Fleet	President, MAST Inc., Director (until August 17, 2018)	-	-	-
David Sharpless	Director (until March 31, 2018)	-	-	-
Oliver Nepomuceno	Director	-	-	-
Alex Dey	Director	-	-	-
Brian Von Herzen	Director	-	-	-
Dan Amadori	CFO	-	-	-

(g) Transactions with Related Parties

The Company reports the following related party transactions:

(a) Key management compensation

Key management personnel are persons responsible for planning, directing and controlling activities of the Company, including officers and directors. Compensation paid or payable to these individuals (or companies controlled by such individuals) for the 3 months ended January 31, are summarized as:

	For the three months ended January 31, 2019			
	2019		2018	
Professional, other fees and salaries	\$	8,358	\$	74,840

(b) Trade payables and other liabilities

At January 31, 2019 the Company reports in trade payables and other liabilities, a balance owing to the former President of MAST of \$193,174 which amount represents alleged outstanding wages payable.

As at January 31, 2019 and October 31, 2018 the Company includes \$167,000 in trade payables and other liabilities owing to a company whose major shareholder is a director of the Company and who has also served as its Chief Technology Officer. This individual was elected as a director on February 19, 2014. The balance reported relates to services provided in 2015; there have been no invoices submitted by this related party after October 31, 2015.

(c) Convertible debenture

In January 2018, the CEO of the Company provided a convertible debenture of \$150,000 CDN (\$114,138 USD). At January 31, 2019 \$74,362 CDN (\$56,575 USD) (October 31, 2018 - \$100,862 CDN, 75,796 USD) in loan principal remains outstanding.

(g) **Liquidity and Capital Resources:**

Liquidity:

We currently report negative cash flow from operations. This result will only change once we are generating sufficient revenue from either license fees, royalties or the sale of products utilizing our technology. In 2018 and subsequent to the end of the fiscal year, the Company continued to raise additional financing.

We currently have no lines of credit in place. We must continue to obtain financing from investors or from clients in support of our development projects.

We have granted to our directors, officers and employees options to purchase shares at prices that are at or above market price on the date of grant. At January 31, 2019 there are 6,250,000 options outstanding at an average exercise price of \$0.29 per share.

Capital Resources: We have no commitments for capital expenditures as of January 31, 2019.

**MICROMEM TECHNOLOGIES INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE THREE MONTHS ENDED JANUARY 31, 2019
PREPARED AS OF MARCH 26, 2019**

7. SUBSEQUENT EVENTS

Subsequent to January 31, 2019:

- (a) The Company secured a \$53,000 convertible debenture with one-year term. This loan has conversion feature which become effective six months after initiation date.
- (b) The Company converted \$75,176 of convertible debentures into 4,390,157 common shares.
- (c) The Company extended convertible debentures that were within 3 months of maturity from January 31,2019. Extension terms range from 2 to 6 months.
- (d) The Company completed a private placement with an arms' length investor realizing gross proceeds of \$50,000 for which the Company issued 1,000,000 common shares.
- (e) 350,000 stock options which were granted on February 10, 2014 expired.