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**MICROMEM TECHNOLOGIES INC.**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**FOR THE THREE MONTHS ENDED JANUARY 31, 2018**  
**PREPARED AS OF MARCH 30, 2018**

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## **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, 2018 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, 2017 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](http://www.sedar.com).

The Company's shares are traded on the OTCQB under the symbol MMTIF and on the Canadian National Stock Exchange ("CNSX") under the symbol MRM. In November 2007, the Company incorporated Micromem Applied Sensor Technologies Inc. ("MAST") for the purpose of moving forward with the planned commercialization of its technology. MAST and Micromem are referred to interchangeably throughout this report as the Company.

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.

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## **I. OVERVIEW**

Micromem is a company that develops customized, patentable MEMS/NEMS sensor-based solutions for large multinational corporations. These solutions are put forward to these corporations in response to difficult problems facing their business and related industry, where there currently are not product solutions available on the market. Over the past several years, it has presented its technology platform to numerous companies who are seeking solutions to various and complex challenges in the measurement of operating performance and real time diagnostics in their operating systems and assets. At January 31, 2018 the Company has established working relationships (in some instances it has executed joint product development agreements) with these companies to produce sensor-based technology solutions for them. These working arrangements are discussed further in the body of this document.

The Company has identified the following industry verticals as significant opportunities to pursue – the oil and gas sector, the automotive sector, the power generation and utilities sector and other specific related industrial applications.

Our key market segments and the Company's performance during 2018 are further discussed in Section II below.

Additional background information of the Company is available on its website, micromem.com and on the website of its subsidiary, mastinc.com

The Company reports its financial results in accordance with International Financial Reporting Standards (IFRS). Under IFRS reporting the Company is required to remeasure derivative liabilities that arise on its bridge loans at each point in time that a loan is extended on new terms and also at each quarter end. The maturity dates of the bridge loans that are in place at January 31, 2018 are typically from 3 to 12 months.

The accounting for bridge loans under IFRS gives rise in Q1 to a significant non-cash loss on the revaluation of derivatives and other non-cash charges. Whereas the net loss reported for the 3 months ended January 31, 2018 is \$2,291,691 (3 months ended January 31, 2017: \$2,431,952) the cash loss on operations before interest expense is \$443,115 (2017: \$611,756); this is discussed in the body of this report in Section III(2)(e).

## **II. COMPANY PROFILE AT JANUARY 31, 2018**

### **1. Update of Product Development Activity.**

#### **Chevron:**

The Company completed all product development activities and validated that the product meets or exceeds the contractual requirements of measuring multiple chemical tracers simultaneously with a level of detection in parts per trillion. The Company has submitted the final contract invoice to Chevron for \$509,642 and has received Chevron's commitment to

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witness the already completed testing prior to moving to the final phase of the joint product development. Chevron requested the company to propose a cost and schedule to move the completed product to an operating oil field in Texas for ruggedized field testing and validation prior to beginning their planned product rollout and use. A meeting is scheduled in April in Houston to finalize the final \$175,000 USD contract to complete the quick three-month effort to field test and pass Chevron ruggedization protocol testing.

The Company, at the request of Chevron, has also submitted a formal proposal to cover the cost of a planned rollout of the new product throughout Chevron's global operations. At the planned April meeting, this rollout plan will also be discussed.

**MODEL ARTRA-171 Product Released to Market:**

The Company has announced in Q1 2018 the release of an in-situ oil and gas tracer detection platform – Model ARTA-171, along with product specifications. A technical paper is also available of the MAST website. This product, which is at the core of the work completed to-date with Chevron, has been designed to provide more effective and timelier routine sampling collection and automated tracer analytics. The company is actively marketing the sale or licensing of the related patented technology to global partners in the tracer detection business.

In March 2018, Steven Van Fleet, President of MAST Inc., attended the 2018 SPE Workshop on Improved Decision Making through Tracer Technology in Abu Dhabi, accompanied by the Company's prime subcontractor for this product, Entanglement Technologies. A presentation was made on MAST's product – the Aroma Tracer Precision Chemical Tracer Analyzer. The presentation at the workshop generated substantial and varied interest from a range of potential end users and distributors. At the Abu Dhabi conference, executives from major gas and oil operating companies, major oil and gas service companies and tracer service companies met with the Company and several follow up partnering proposals are being generated and will be issued in April. The Company is now following through with these potential customers and is submitting proposals to such parties.

This is a significant positive development for the Company – with the product development phase complete, the Company is now an active sales and marketing campaign mode with the Model ARTRA-171 now manufacturable and ready for sale. The Company expects to realize commercial sales and revenues in 2018 as a result of these marketing initiatives.

**Castrol:**

In 2017 and through Q1 2018, the Company was in active discussion with Castrol about the advancement of the development plans for the eventual SIBS device for automotive application, as contemplated in the Joint Product Development Agreement which it executed with Castrol. These discussions ultimately focused on future cost sharing arrangements between the Company and Castrol for continued product development, Castrol's support for the marketing and sales of our intermediate product, the RT Lube™ Analyzer, in non-

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automotive markets and our request for detailed market analysis and size of market estimates from Castrol for the eventual automotive products market.

The Company received notification from Castrol in March 2018 that Castrol would not continue to support the ongoing development work towards the eventual automotive product on the terms requested by the Company.

The Company has decided that it has available markets, and short in revenue opportunities for the currently configured RT Lube™ Analyzer and it is now formally developing the sales and marketing opportunities. The Company owns all the associated intellectual property in the US and several PCT filing countries. It is currently in partnering discussions with strategic end users for the RT Lube™ Analyzer. The short in revenue from the currently available RT Lube™ Analyzer will position the company to continue with the development of the ultimate SIBS product for automotive and other applications.

Repsol:

The Company has been delivering on the contract it has with Repsol during Q1 2017. The Company is currently testing Repsol supplied lubricants and characterizing their performance against the targeting functionality of the new TBN real time sensor. The company is also readying for shipment Repsol's first RT Lube™ Analyzer.

Repsol has been invoiced a total of \$100,000 for initial work that the Company has committed to, and, to-date, the Company has received \$90,000 of payments against invoices submitted.

The Company is currently in discussion with strategic investors regarding next steps for execution and deliverables; it expects that this process will continue through Q2 and Q3 2018. The Company requires additional funding to accelerate the revenue schedule for future commercial unit sales opportunities with Repsol and others. Repsol and the Company have begun discussions on potential exclusivity for the new real time TBN sensor for automotive applications. The company is evaluating the impact on revenue horizons from such an agreement.

**Development Costs:**

To date, the Company has recovered from its development partners a portion of the costs it has incurred as development costs coincident with meeting milestones as stipulated in the development contracts.

The Company incurred \$2,367 of development related costs in the 3 months ended January 31, 2018 (2017: \$91,458). In order for the Company to continue with its ongoing development activity as the path towards commercialization of its technology, it must continue to secure additional funding from its development partners or from additional funding that it may secure from its lenders or its shareholders.

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**2. Intellectual Property**

The Company has been granted a total of 8 patents by the USPTO pertaining to our oil pan plug and a power line monitoring application. We have also filed several other applications that have patent pending status. Finally, we have filed for multiple provisional patents in international jurisdictions. We believe that the patent portfolio the Company has accumulated is a valuable future asset to be exploited.

The Company's ability to maintain and to grow its patent portfolio in future is dependent on its ability to raise additional financing through strategic partnerships with 3rd parties or through raising additional capital from lenders or investors.

**3. Financing**

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

	(12 months) October 31, 2017	(3 months) January 31, 2018
i) Private placements of shares for cash consideration	\$ 719,403	\$ 210,027
ii) Settlement of legal claim and trade accounts payable for share consideration	107,708	-
iii) Bridge loan financing secured	1,788,974	523,219
iv) Bridge loan settlement for share consideration	2,536,963	120,567
v) Collection of receivables reported re project financing provided by development partners	296,000	410,000
	<b>\$ 5,449,048</b>	<b>\$ 1,263,813</b>

Commentary:

- a) In the quarter ending January 31, 2018 the Company completed five \$CDN private placements with arms' length investors and realized proceeds of \$210,027 (\$261,000CDN).
- b) It continued its bridge loan financing program in the quarter ending October 31, 2017 as outlined in its quarterly financial statements at January 31, 2018.

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**4. Share Capital**

At January 31, 2018 the Company reports 232,312,288 common shares outstanding (October 31, 2017: 228,562,711). Additionally, the Company has 5,780,000 stock options outstanding with a weighted average exercise price of \$.037 per share (2017: 6,595,000 options outstanding with a weighted average exercise price of \$.037 per share)

**5. Management and Board of Directors**

At our Annual Meeting of Shareholders held on Friday, April 26, 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, Dan Amadori and Steven Van Fleet continue to serve as officers of the Company. Larry Blue resigned as a director in September 2017 after 12 years of service as a Board member. David Sharpless resigned as a director on March 23<sup>rd</sup>, 2018, after 18 years' service as a director.

The remuneration of our management team and directors, for the three months ending January 31, 2018 is presented as below:

		2018 remuneration		
		Cash	Options	Total
<b>Individual</b>	<b>Position</b>			
Joseph Fuda	President, Director	-	-	-
Steven Van Fleet	President, MAST Inc., Director	45,210	-	45,210
David Sharpless	Director	-	-	-
Oliver Nepomuceno	Director	-	-	-
Larry Blue	Director	-	-	-
Alex Dey	Director	-	-	-
Brian Von Herzen	Director	-	-	-
Dan Amadori	CFO	29,630	-	29,630

At January 31, 2018, this remuneration remains unpaid; the Company reports an accounts payable balance due to Steven Van Fleet of \$203,638 and to Dan Amadori of \$58,047.



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**6. Related Parties Transactions:**

The Company reports the following related party transactions:

(a) Management and consulting fees:

Included in professional fees, other fees and salaries as reported are management fees and consulting fees paid or payable to individuals (or companies controlled by such individuals) who served as officers, directors and employees of the Company. The total compensation to such parties is summarized as:

	Q1 2018	Q1 2017
Cash compensation	\$ 74,840	\$ 263,185
Share compensation	-	-
Stock based compensation	-	315,968
	\$ 74,840	\$ 579,153

In the period ended January 31,2018, these parties were awarded a total of nil options (2016: 1,950,000 options at an exercise price of \$0.25 per option) The compensation reported above in Q1 2018 remains unpaid.

(b) Bridge loan:

The CEO provided a bridge loan of \$150,000 CDN in December 2017.

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**III. DISCUSSION OF OPERATING RESULTS – QUARTER ENDING JANUARY 31, 2018**

**1. Financial Position (as at January 31, 2018 and October 31, 2017):**

	January 31, 2018 ('\$000)	October 31, 2017 ('\$000)
Cash	67	9
Deposits and other receivables	40	466
	106	475
Property and equipment, net	9	10
Patents, net	451	431
	567	917
Bridge loans	2,709	2,489
Accounts payable and accrued liabilities	1,017	1,362
Derivative liability	2,223	490
	5,949	4,341
Shareholders' Equity		
Share capital:	80,529	80,198
Equity component of bridge loans	65	62
Contributed surplus	27,361	27,361
Deficit	(113,337)	(111,045)
	(5,382)	(3,424)
	567	917

**Commentary:**

- a) The Company continued its bridge loan financing program in the quarter ending January 31, 2018 as discussed in Section II(3) of this MD&A document and in its consolidated financial statements as at January 31, 2018.

The accounting measurement for \$CDN denominated convertible debt under IFRS reporting gives rise to a non-cash derivative liability which forms part of the convertible debt. The derivative liability as reported at January 31, 2018 reflects the revaluation of the derivatives using either the Black Scholes or the binomial distribution methodology at quarter end. It should be noted that.

- i. This is a non-cash balance that is not repayable.

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- ii. The derivative liability will be revalued at each quarter end and, as the maturity date of the bridge loans approaches, the derivative liability will ultimately be reversed. Prior to any extension at the maturity date, the derivative liability in the case of each bridge loan will be eliminated at the maturity date.
- b) The Company capitalized \$58,971 of costs associated with patents in January 31, 2018 (2017 - \$15,216). It has expanded its filings in 2017-2018 with provisional and patent pending applications and filings in North American and international jurisdictions. These applications and filings relate to the ongoing product development work that the Company has undertaken.

**2. Results of Operations:**

The following table summarizes the Company's operating results for the three months ended January 31, 2018 and 2017:

**Discussion of Operating Results (\$000):**

	Quarter ending January 31,	
	2018 (\$000)	2017 (\$000)
Administration	134	74
Interest expense	109	160
Accretion expense	345	141
Professional fees and salaries	204	411
Stock-based compensation	-	442
Development costs, net	2	91
Travel and entertainment	22	29
Foreign exchange loss (gain)	80	6
Amortization of property and equipment	1	1
Amortization of patents	39	29
(Gain) Loss on extinguishment of debt	(65)	-
(Gain) Loss on revaluation of derivatives	1,420	1,047
Total expenses	(2,292)	(2,432)
Net comprehensive income (loss)	(2,292)	(2,432)
Income (loss per share)	(0.01)	(0.01)

Commentary:

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

	2018	2017
General and administrative	72	13
Rent and occupancy cost	19	18
Office insurance	31	12
Telephone	3	3
Investor relations, listing and filing fees	9	28
	134	74

Included in general and administrative costs in the quarter ending January 31, 2018 were financing costs of \$63,272 associated with the Company's bridge loan financings (2017: nil).

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

	2018	2017
Professional fees	45	30
Consulting fees	94	242
Salaries and benefits	65	139
	204	411

The Company has reduced its expenses in these cost categories by implementing a series of cost reductions since mid-2017.

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

	2018	2017
Airfare	8	11
Hotel	3	2
Other	11	16
	22	29

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**d) Loss on revaluation of derivative liability:**

As outlined in Section III (1)(a) the derivative liability relating to \$CDN denominated bridge loans is revalued at each quarter end. Any change in the fair value measurement between quarters is reflected as a gain or a loss on revaluation at each quarter end.

The Company reports a loss on revaluation of the derivative liability of \$1,419,676 for the quarter ended January 31, 2018 (2017: \$1,046,968). It is significant to note that this is a non-cash charge that will be reversed at maturity date prior to any renewal of the loans at maturity date.

**e) Recap of consolidated statement of loss at January 31,**

	<u>2018</u>	<u>2017</u>
Loss as reported	\$ (2,291,691)	\$ (2,431,952)
Adjust for non-cash charges:		
a. Stock compensation using Black Scholes methodology	-	442,206
b. Accretion expense on debentures	345,170	140,912
c. Amortization expense	39,832	30,469
d. Loss on revaluation of derivatives	1,419,676	1,046,968
e. Gain on extinguishment of debt	(64,753)	-
Cash loss on operations	(551,766)	(771,397)
f. Interest expense	108,651	159,641
EBITDA	\$ (443,115)	\$ (611,756)

The cash loss on operations as calculated includes \$108,651 of interest expense on the bridge loans. (2016: \$159,641). The average monthly cash cost of operations before interest expense in the three months ending January 31, 2018 approximates \$147,000 per month (2017: \$204,000).

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<b>Unaudited Quarterly Financial Information - Summary</b>				
<b>Three months ended (unaudited)</b>	<b>Revenues</b>	<b>Expenses</b>	<b>Loss in period</b>	<b>Loss per share</b>
	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
April 30, 2016	-	750,938	(750,938)	-
July 31, 2016	-	4,610,433	(4,610,433)	(0.02)
October 31, 2016	-	832,477	(832,477)	-
January 31, 2017	-	2,431,952	(2,431,952)	(0.01)
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	-	2,291,691	(2,291,691)	-

**3. Unaudited Quarterly Financial Information – Summary**

<b>Three months ended (unaudited)</b>	<b>(1) Working capital (deficiency)</b>	<b>Capital assets at NBV</b>	<b>Other Assets</b>	<b>Total Assets</b>	<b>Long term liability</b>	<b>Shareholders equity (deficit)</b>
	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
April 30, 2016	(3,871,447)	13,633	4,039,206	4,187,484	-	181,392
July 31, 2016	(3,776,451)	12,306	448,367	796,754	-	(3,315,778)
October 31, 2016	(4,232,732)	10,988	403,600	736,043	-	(3,902,142)
January 31, 2017	(6,398,529)	13,732	389,412	524,937	-	(5,995,385)
April 30, 2017	(5,880,128)	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	(5,842,915)	8,968	451,454	566,763	-	(5,382,493)

**IV. COMPLIANCE AND REPORTING MATTERS**

**1. Continuity of Critical Accounting Policies and Reporting Procedures:**

- a) **Accounting Policies:** These unaudited interim condensed consolidated financial statements follow the same accounting policies and methods of application as set in the audited consolidated financial statements for the year ended October 31, 2017 and should be read in conjunction with the audited consolidated financial statements. There have been no changes in

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accounting policies or methods of application of accounting policies in the quarter ending January 31, 2018.

- b) **Fair Values:** There were no changes in the methods and assumptions used in estimating the fair value of the Company's financial instruments and no changes to the classification of financial instruments in terms of the levels of financial hierarchy during the quarter ending January 31, 2018 from that which was reported at October 31, 2017.
- c) **Capital Management:** There have been no changes to the objectives, policies and procedures that the Company has adopted and implemented with respect to capital management during the quarter ending January 31, 2018 from those disclosed at October 31, 2017.
- d) **Financial Risks:** The Company is exposed to and evaluates a variety of financial risks relative to its activities: market risk (including foreign exchange risk and interest rate risk), liquidity risk and credit risk. The overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects financial performance. Risk management is carried out under policies approved by the Board of Directors. Management is charged with the responsibility of establishing controls and procedures to ensure that financial risks are mitigated in accordance with the approved policies. Based on management's assessment as of January 31, 2018, the financial risks have not significantly changed since October 31, 2017. The Company continues to closely monitor its working capital position.
- e) **New standards and interpretations issued but not yet adopted:** The disclosures reported at October 31, 2017 relating to IFRS 15, IFRS 9, IAS7 and IFRS 16 remain valid at January 31, 2018. The Company is currently assessing the impact of these standards which are effective for future reporting periods.

## **2 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 multiple joint development agreements whereby our prototype products are being subjected to rigorous testing by our partners. We expect to be successful in completing

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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 a considerable amount of time and effort and incurred significant costs with respect to the maintenance and development of our intellectual property portfolio. However, 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.

*Foreign Currency Exposure:*

The Company expects to sell its products and license technologies in the United States, in Canada and abroad. It raised financing in both \$CDN and \$USD. The Company has not hedged its foreign currency exposure. In future, foreign currency fluctuations could present a risk to the business. Loss on foreign exchange was a significant cost in 2017 and again in Q1 2018.



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**3. Commitments and Contingencies:**

*a) 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: \$168,210 CDN, thereafter \$24,034.

The Company has certain outstanding commitments to 3<sup>rd</sup> party subcontractors with respect to development projects. These commitments are as follows- commitments less than one year of \$760,001; commitments between years 2-5 total of \$1,475,334. Included in these amounts are \$130,752 reported as accounts payable at January 31, 2018. The balance of these commitments will become obligations as and when this work is commissioned by the Company.

*b) Contingencies:*

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.

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.

**4. Disclosure Controls/Internal Controls:**

The audit report issued by the external auditors as of October 31, 2017 on the Company's internal controls indicated that there existed a significant deficiency in the Company's internal controls – being that the Company did not affect a timely and complete close of its financial statements as of October 31, 2017 prior to the commencement of the year-end audit conducted by its external auditors. The related risk was that there could be reporting errors that could go undetected by management.

We have responded to this matter by noting that the new external auditors were appointed in late December, after our fiscal year end, that we have only limited staff to coordinate all of our financial reporting requirements, that we complete detailed account reconciliations of all material accounts and that there were only immaterial differences identified by the external auditors at year end.

Management and the Board of Directors, primarily through the Audit Committee, have instituted review procedures on all of our periodic filings. We have established a Disclosure Committee consisting of two directors. Committee charters have been developed and has been ratified by our Board of Directors. We engage legal counsel, as required, to provide guidance and commentary on our press releases.

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Management has concluded that our disclosure controls and procedures meet required standards at January 31, 2018. These disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed in its various reports is recorded, processed, summarized and reported accurately. In spite of its evaluation, management does recognize that any controls and procedures, no matter how well designed and operated, can only provide reasonable assurance and not absolute assurance of achieving the desired control objectives.

**5. Off-Balance Sheet Arrangements:**

At January 31, 2018, 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.

**6. 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, 2018, the Company reported a net loss and comprehensive loss of \$2,291,691 (2017 - \$2,431,952) and negative cash flow from operations of \$395,950 (2017 - \$991,881) measured as net loss as reported adjusted for non-cash expenses included in net loss and net changes in non-cash working capital balances. The Company's working capital deficiency as at January 31, 2018 is \$5,842,915; excluding the non-cash derivative the working capital deficiency is \$3,691,741 (at October 31, 2017: working capital deficiency is \$3,865,390; excluding non-cash derivative liability the working capital deficiency is \$3,375,656).

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 2018 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.

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**7. 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. A summary of financing raised in 2017-2018 is provided in Section II -3 of this document.

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, 2018 there are 5,780,000 options outstanding at an average exercise price of \$0.37 per share.

*Capital Resources:*

Our capital expenditures totaled \$nil for the three months ended January 31, 2018.

**VII. SUBSEQUENT EVENTS**

The Company reports the following subsequent events:

- a) A \$US loan in the amount of \$80,000 was converted to common shares.
- b) It completed three private placements with arms' length investors and secured total financing of \$CDN 45,560 through these private placements.
- c) Two \$CDN loans and two \$USD loans were extended for a four-month period on revised conversion terms.
- d) The Company secured three additional \$US loans from two US investor groups. The Company realized net proceeds of \$180,000 on these transactions. The loans, in each case, are for a one-year term and are not convertible for the initial six months of the term of the loan.
- e) David Sharpless, a director with 18 years of service to the Company, resigned as director on March 23, 2018.
- f) The Company is currently not further pursuing the Castrol development project and is evaluating new potential markets for the technology that it has developed in the completion of the work that it has performed on the underlying technology.

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