

Micromem Technologies Inc. Unaudited Condensed Interim Consolidated Financial Statements For the three and six months ended April 30, 2019 and 2018 (Expressed in United States Dollars)

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Micromem Technologies Inc. Unaudited Condensed Interim Consolidated Financial Statements Notice of no auditor review of the condensed interim consolidated financial statements

Under National Instrument 51-102, Part 4, subsection 4.3(3)(a), if an auditor has not performed a review of the condensed interim consolidated financial statements, they must be accompanied by a notice indicating that the condensed interim consolidated financial statements have not been reviewed by an auditor.

The accompanying unaudited condensed interim consolidated financial statements of Micromem Technologies Inc. (the "Company") have been prepared by and are the responsibility of the Company's management and approved by the Board of Directors.

The Company's independent auditor has not performed a review of these condensed interim consolidated financial statements in accordance with the standards established by the Chartered Professional Accountants of Canada, for a review of condensed interim consolidated financial statements by an entity's auditor.

June 26, 2019

Unaudited Condensed Interim Consolidated Statements of Financial Position

As at April 30, 2019 and October 31, 2018

(Expressed in United States dollars)

	Notes	A	As at pril 30, 2019	Oc	As at tober 31, 2018
Assets					
Current					
Cash	18	\$	2,932	\$	206,832
Development costs receivable	6		-		81,841
Prepaid expenses and other receivables	18		42,405		16,731
Total current assets			45,337		305,404
Property and equipment			7,639		9,228
Patents	7		326,358		396,105
Total assets		\$	379,334	\$	710,737
Liabilities					
Current					
Trade payables and other liabilities	18	\$	961,699	\$	1,007,220
Convertible debentures	8,18		2,502,124		2,476,571
Derivative liabilities	8,18		739,761		650,116
Total liabilities			4,203,584		4,133,907
Shareholders' Deficiency					
Share capital	9		82,983,767		82,282,903
Contributed surplus			27,687,356		27,630,909
Equity component of convertible debentures	8		70,283		70,283
Accumulated deficit			(114,565,656)		(113,407,265)
Total shareholders' deficiency			(3,824,250)		(3,423,170)
Total liabilities and shareholders' deficiency		\$	379,334	\$	710,737
Going concern	2				
Commitments	16				
Contingencies	17				
Subsequent events	21				

The accompanying notes are an integral part of these unaudited condensed interim consolidated financial statements

Approved on behalf of the Board of Directors:

"Joseph Fuda" Director "Alex Dey" Director

Unaudited Condensed Interim Consolidated Statements of Operations and Comprehensive Loss

For the three and six months ended April 30, 2019 and 2018

(Expressed in United States dollars)

	Notes	Th	ree months of 2019	endeo	d April 30, 2018	 Six months en 2019	ded April 30, 2018		
Operating expenses									
General and administrative	13(a)	\$	58,175	\$	164,343	\$ 111,546	\$	298,270	
Professional, other fees and salaries	13(b)		69,130		186,904	217,659		391,250	
Development costs (recovery)	6		(34,366)		66,919	(34,366)		69,286	
Travel and entertainment			10,948		26,093	21,890		48,146	
Amortization of property and equipment			795		850	1,589		1,703	
Amortization of patents	7		38,505		38,140	76,962		77,119	
Foreign exchange loss (gain)	18(a)		(40,749)		(3,831)	 (49,007)		76,591	
Total operating expenses			102,438		479,418	 346,273		962,365	
Other expenses (income)									
Accretion expense	8		410,888		549,444	805,083		894,614	
Interest expense	8		119,727		114,327	253,690		222,978	
Financing costs	8		1,491		-	52,257		-	
Loss (gain) on revaluation of derivative liabilities	8		(585,583)		(1,376,406)	(318,003)		43,270	
Loss on conversion of convertible debentures	8		2,308		-	19,798		-	
Loss (gain) on extinguishment of convertible									
debentures	8		(3,181)		25,612	 (707)		(39,141)	
Total other expenses (income)			(54,350)		(687,023)	 812,118		1,121,721	
Net income (loss) before income tax provision			(48,088)		207,605	(1,158,391)		(2,084,086)	
Income tax provision	12		-		-	 -		-	
Net income (loss) and comprehensive income (loss)		\$	(48,088)	\$	207,605	\$ (1,158,391)	\$	(2,084,086)	
Weighted average number of outstanding shares, basic and diluted Basic and diluted income (loss) per share	11 11	2' \$	77,050,908 -	\$	233,671,744	\$ 272,370,012	\$	231,405,881 (0.01)	

The accompanying notes are an integral part of these unaudited condensed interim consolidated financial statements

Unaudited Condensed Interim Consolidated Statements of Changes in Equity For the six months ended April 30, 2019 and 2018

(Expressed in United States dollars)

	Notes	Number of shares	Share capital	Contributed surplus	com cor	Equity ponent of ivertible pentures	Accumulated deficit	Total
Balance at November 1, 2017		228,562,711	\$ 80,198,194	\$ 27,360,676	\$	62,050	\$(111,045,026)	\$ (3,424,106)
Private placements of shares for cash	9	2,937,887	271,361	-		-	-	271,361
Shares issued on settlement of accounts payable		79,765	10,649	-		-	-	10,649
Renewal of convertible debentures	8	-	-	-		44,883	-	44,883
Convertible debentures converted into common shares	8	4,428,809	375,390	-		-	-	375,390
Net loss						-	(2,084,086)	(2,084,086)
Balance at April 30, 2018		236,009,172	\$ 80,855,594	\$ 27,360,676	\$	106,933	\$(113,129,112)	\$ (4,805,909)
Balance at November 1, 2018		259,602,699	\$ 82,282,903	\$ 27,630,909	\$	70,283	\$(113,407,265)	\$ (3,423,170)
Private placements of shares for cash	9	2,690,789	102,968	-		-	-	102,968
Financing costs converted into common shares	8	350,000	21,000	-		-	-	21,000
Convertible debentures converted into common shares	8	18,431,216	576,896	-		-	-	576,896
Expiry of convertible debenture conversion option	8	-	-	56,447		(56,447)	-	-
Renewal of convertible debentures	8	-	-	-		56,447	-	56,447
Net loss						-	(1,158,391)	(1,158,391)
Balance at April 30, 2019		281,074,704	\$ 82,983,767	\$ 27,687,356	\$	70,283	\$(114,565,656)	\$ (3,824,250)

The accompanying notes are an integral part of these unaudited condensed interim consolidated financial statements

Unaudited Condensed Interim Consolidated Statements of Cash Flows

For the three and six months ended April 30, 2019 and 2018

(Expressed in United States dollars)

	Notes	Three months ended April 30,20192018				Six months ended 2019			ed April 30, 2018	
Operating activities										
Net income (loss)		\$	(48,088)	\$	207,605	\$	(1,158,391)	\$	(2,084,086)	
Items not affecting cash:										
Amortization of patents	7		38,505		38,140		76,962		77,119	
Amortization of property and equipment			795		850		1,589		1,703	
Accretion expense	8,14		410,888		549,444		805,083		894,614	
Accrued interest on convertible debentures	14		34,204		114,327		74,937		222,978	
Loss on conversion of convertible debentures	8		2,308		-		19,798		-	
Loss (gain) on revaluation of derivative liabilities	8,14		(585,583)		(1,376,406)		(318,003)		43,270	
Loss (gain) on extinguishment of convertible debentures	8,14		(3,181)		25,612		(707)		(39,141)	
Shares issued for financing costs	8,14		-		-		21,000		-	
Foreign exchange gain	18		(45,725)		-		(38,425)		-	
			(195,877)		(440,428)	_	(516,157)		(883,543)	
Net changes in non-cash working capital:										
Decrease in development costs receivable	6		-		-		81,841		-	
Decrease (increase) in prepaid expenses and other receivables			(14,528)		135,972		(25,674)		562,306	
Increase (decrease) in trade payables and other liabilities			32,875		(83,554)		(45,521)		(350,762)	
Cash flows used in operating activities			(177,530)		(388,010)		(505,511)		(671,999)	
Investing activity										
Patents	7		(467)		(25,411)		(7,215)		(84,382)	
Cash flows used in investing activity			(467)		(25,411)		(7,215)		(84,382)	
Financing activities										
Private placements of shares for cash	9		52,968		61,334		102,968		271,361	
Proceeds from issuance of convertible debentures	14		70,521		393,057		376,521		916,276	
Repayments of convertible debentures	14		(15,030)		(88,148)		(170,663)		(406,118)	
Repayments from related parties			-		-		-		(15,000)	
Cash flows provided by financing activities			108,459		366,243		308,826		766,519	
Net change in cash			(69,538)		(47,178)		(203,900)		10,138	
Cash - beginning of period			72,470		66,505		206,832		9,189	
Cash - end of period		\$	2,932	\$	19,327	\$	2,932	\$	19,327	
Sumlamental assle flow information										
Supplemental cash flow information	0	¢	85,523	¢	68,148	¢	178,753	¢	136,118	
Interest paid (classified in operating activities) Income taxes paid	8 12	\$ \$	83,323	\$ \$	08,148	\$ \$	1/0,/33	\$ \$	130,118	
Carrying amount of convertible debentures converted into	12	φ	-	φ	-	Φ	-	φ	-	
common shares	14	\$	249,597	\$	215,475	\$	557,098	\$	315,675	

The accompanying notes are an integral part of these unaudited condensed interim consolidated financial statements

1. Reporting entity and nature of business

Micromem Technologies Inc. ("Micromem" or the "Company") is incorporated under the laws of the Province of Ontario, Canada. Micromem is a publicly traded company with its head office located at 121 Richmond Street West, Suite 304, Toronto, Ontario, Canada. The Company's common shares are currently listed on the Canadian Securities Exchange under the trading symbol "MRM" and on the Over the Counter Venture Market under the trading symbol "MMTIF".

The Company develops, based upon proprietary technology, customized sensor applications for companies (referred to as "development partners") operating internationally in various industry segments. The Company has not generated commercial revenues through April 30, 2019 and is devoting substantially all its efforts to securing commercial revenue opportunities.

2. Going concern

These unaudited condensed interim consolidated financial statements have been prepared with the assumption 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 and ultimately on the appropriateness of the use of the accounting principles applicable to a going concern. During the six months ended April 30, 2019, the Company reported a net loss and comprehensive loss of 1,158,391 (2018 - 2,084,086) and negative cash flow from operations of 5505,511 (2018 - 671,999). The Company's working capital deficiency as at April 30, 2019 was 4,158,247 (October 31, 2018 - 3,828,503).

The Company's success depends on the profitable commercialization of its proprietary 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; however, the ability of the Company to continue as a going concern is dependent upon its ability to secure additional financing and/or profitably commercialize its technology. These unaudited condensed interim consolidated 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 unaudited condensed interim consolidated financial statements then adjustments would be necessary to the carrying value of assets and liabilities, the reported expenses and the statement of financial position classifications used; in such cases, these adjustments would be material.

3. Basis of presentation

These unaudited condensed interim consolidated financial statements for the three and six months ended April 30, 2019 and 2018 have been prepared in accordance with International Accounting Standard ("IAS") 34 Interim financial reporting. The accounting policies and methods of computation adopted in the preparation of the unaudited condensed interim consolidated financial statements are consistent with those followed in the preparation of the Company's audited annual consolidated financial statements for the year ended October 31, 2018. The Company applied, as of November 1, 2018, International Financial Reporting Standard ("IFRS") 9 Financial instruments. As required by IAS 34, the nature and effect of those changes are disclosed in Note 4. The Company has not early adopted any other standard, interpretation or amendment that has been issued but is not yet effective.

These unaudited condensed interim consolidated financial statements were authorized for issuance and release by the Company's Board of Directors on June 26, 2019.

(a) Basis of consolidation

These unaudited condensed interim consolidated financial statements include the accounts of Micromem Technologies Inc. and its subsidiaries. All intercompany transactions and balances have been eliminated upon consolidation. The Company applies the acquisition method to account for business combinations. Acquisition-related costs are expensed as incurred.

3. Basis of presentation (continued)

(a) Basis of consolidation (continued)

The Company's wholly-owned subsidiaries include:

- (i) Micromem Applied Sensors Technology Inc. ("MAST") which was incorporated in November 2007 and is domiciled in Delaware, United States. MAST has the primary responsibility for the exploitation of the Company's technologies in conjunction with various strategic partners and customers.
- (ii) 7070179 Canada Inc. which was incorporated in October 2008 under the Canada Business Corporations Act in Ontario, Canada. The Company has assigned to this entity its rights, title and interests in certain patents, which it previously held, directly, in exchange for common shares of this entity.
- (iii) Memtech International Inc. domiciled in the Bahamas; Memtech International (USA) Inc. domiciled in Delaware, United States; Pageant Technologies (USA) Inc. domiciled in the United States; Pageant Technologies Inc. domiciled in Barbados; and Micromem Holdings (Barbados) Inc. domiciled in Barbados. All of these entities are inactive.
- (b) Basis of measurement

These unaudited condensed interim consolidated financial statements have been prepared on the historical cost basis, except for financial instruments designated at fair value through profit or loss which are measured at their fair value.

(c) Functional and presentation currency

These unaudited condensed interim consolidated financial statements are presented in United States dollars ("USD"), which is the functional currency of the Company and all of its subsidiaries.

(d) Use of estimates and judgments

The preparation of these unaudited condensed interim consolidated financial statements in conformity with IFRSs requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the unaudited condensed interim consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. These estimates are reviewed periodically and adjustments are made as appropriate in the reporting period they become known. Items for which actual results may differ materially from these estimates are described in the following section.

(i) Fair value of options and conversion features

The Company makes estimates and utilizes assumptions in determining the fair value for stock options and derivative liabilities based on the application of the Black-Scholes option pricing model or the binomial option pricing model, depending on the circumstances. These pricing models require management to make various assumptions and estimates that are susceptible to uncertainty, including the volatility of the share price, expected dividend yield, expected term, expected risk-free interest rate, and exercise price in the binomial option pricing model.

(ii) Useful lives and recoverability of long-lived assets

Long-lived assets consist of property and equipment and patents. Amortization is dependent upon estimates of useful lives and impairment is dependent upon estimates of recoverable amounts. These are determined through the exercise of judgment and are dependent upon estimates that take into account factors such as economic and market conditions, frequency of use, anticipated changes in laws, and technological improvements.

(iii) Income taxes

Income taxes and tax exposures recognized in the unaudited condensed interim consolidated financial statements reflect management's best estimate of the outcome based on facts known at the reporting date. When the Company anticipates a future income tax payment based on its estimates, it recognizes a liability. The difference between the expected amount and the final tax outcome has an impact on current and deferred taxes when the Company becomes aware of this difference.

3. Basis of presentation (continued)

- (d) Use of estimates and judgments (continued)
 - (iii) Income taxes (continued)

In addition, when the Company incurs losses for income tax purposes, it assesses the probability of taxable income being available in the future based on its budgeted forecasts. These forecasts are adjusted to take into account certain non-taxable income and expenses and specific rules on the use of unused credits and tax losses. When the forecasts indicate that sufficient future taxable income will be available to deduct the temporary differences, a deferred tax asset is recognized for all deductible temporary differences.

(iv) Going concern assumption

The Company applies judgment in assessing whether material uncertainties exist that would cause doubt as to the whether the Company could continue as a going concern.

(v) Expected credit losses on financial assets

Determining an allowance for expected credit losses ("ECLs") for all debt financial assets not held at fair value through profit or loss requires management to make assumptions about the historical patterns for the probability of default, the timing of collection and the amount of incurred credit losses, which are adjusted based on management's judgment about whether economic conditions and credit terms are such that actual losses may be higher or lower than what the historical patterns suggest.

4. Adoption of new accounting pronouncements

(a) Amendments to IFRS 2 Share-based payments

IFRS 2 clarifies how to account for certain types of share-based payment transactions. The amendments provide requirements on the accounting for the effects of vesting and non-vesting conditions on the measurement of cash-settled share-based payments, share-based payment transactions with a net settlement feature for withholding tax obligations, and a modification to the terms and conditions of a share-based payment that changes the classification of the transaction from cash-settled to equity-settled. The effective date of these amendments is for annual periods beginning January 1, 2018. The Company has adopted these amendments as of the effective date and has assessed no significant changes as a result of the adoption of these amendments.

(b) IFRS 9 Financial instruments

IFRS 9 addresses classification and measurement of financial assets and replaces the multiple category and measurement models in IAS 39 for debt instruments with a new mixed measurement model having only two categories: amortized cost, and fair value through profit or loss. IFRS 9 also replaces the models for measuring equity instruments and such instruments are either recognized at fair value through profit or loss or at fair value through other comprehensive income ("FVOCI"). The effective date of this standard is for annual periods beginning January 1, 2018. The Company has adopted this new standard as of its effective date on a retrospective basis with the exception of financial assets that were derecognized at the date of initial application, November 1, 2018. There was no significant impact on the unaudited condensed interim consolidated financial statements as a result of the adoption of this new standard. The new classification and measurement of the Company's financial assets are as follows:

(i) Amortized cost

This category includes financial assets that are held within a business model with the objective to hold the financial assets in order to collect contractual cash flows that meet the solely principal and interest ("SPPI") criterion. Financial assets classified in this category are measured at amortized cost using the effective interest method.

(ii) Fair value through profit or loss ("FVTPL")

This category includes derivative instruments as well as quoted equity instruments which the Company has not irrevocably elected, at initial recognition or initial application date, to classify at FVOCI. This category would also include debt instruments whose cash flow characteristics fail the SPPI criterion or are not held within a business model whose objective is either to collect contractual cash flows, or to both collect contractual cash flows and sell. Financial assets in this category are recorded at fair value with changes recognized in profit or loss.

4. Adoption of new accounting pronouncements (continued)

(b) IFRS 9 Financial instruments (continued)

(iii) Impairment of financial assets

Critical to the determination of ECLs is the definition of default and the definition of a significant increase in credit risk. The definition of default is used in measuring the amount of ECLs and in the determination of whether the loss allowance is based on 12-month or lifetime ECLs. The Company considers the following as constituting an event of default: the borrower is past due more than 90 days on any material credit obligation, or the borrower is unlikely to pay its credit obligations to the Company in full. The Company monitors all financial assets that are subject to the impairment requirements to assess whether there has been a significant increase in credit risk since initial recognition. If there has been a significant increase in credit risk since based on lifetime rather than 12-month ECLs. In assessing whether the credit risk on a financial asset has increased significantly since initial recognition, the Company compares the risk of a default occurring on the financial asset at the reporting date based on the remaining maturity of the instrument with the risk of a default occurring that was anticipated for the remaining maturity at the current reporting date when the financial asset was first recognized.

The assessment of the Company's business models was made as of the date of initial application, November 1, 2018, and then applied retrospectively to those financial instruments that were not derecognized before November 1, 2018. There was no adjustment to opening accumulated deficit resulting from the retrospective application of IFRS 9 to these financial instruments.

	IFRS 9	IAS 39
Financial assets		
Cash	Amortized cost	FVTPL
Development costs receivable	Amortized cost	Amortized cost
Other receivables	Amortized cost	Amortized cost
Financial liabilities		
Trade payables and other liabilities	Amortized cost	Amortized cost
Convertible debentures	Amortized cost	Amortized cost
Derivative liabilities	FVTPL	FVTPL

5. New and revised standards and interpretations issued but not yet effective

(a) IFRS 16 Leases

IFRS 16 was issued in January 2016 and replaces the previous guidance on leases. This standard provides a single recognition and measurement model to be applied by lessees to leases, with required recognition of assets and liabilities for most leases. This standard is effective for annual periods beginning on or after January 1, 2019, with early adoption permitted if the Company is also applying IFRS 15, Revenue from Contracts with Customers. The Company will adopt this new standard as of its effective date. The Company is currently evaluating the impact of the adoption of this new standard on its unaudited condensed interim consolidated financial statements.

(b) IFRIC 23 Uncertainty over income tax treatments

IFRIC 23 clarifies the application of recognition and measurement requirements in IAS 12, Income Taxes, when there is uncertainty over income tax treatments. It specifically addresses whether an entity considers each tax treatment independently or collectively, the assumptions an entity makes about the examination of tax treatments by taxation authorities, how an entity determines taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates, and how an entity considers changes in facts and circumstances. IFRIC 23 will be effective for the annual periods beginning on or after January 1, 2019, with earlier application permitted. The Company will adopt this interpretation as of its effective date. The Company has performed a preliminary analysis and has not assessed any significant impacts as a result of the adoption of this standard.

6. Development costs receivable

The Company incurs development costs, and recovers from its development partners, a portion of the costs it has incurred in accordance with meeting milestones as stipulated in development contracts. The remaining balances outstanding from its development partners is recorded as development costs receivable on the unaudited condensed interim consolidated statements of financial position.

7. Patents

	No	As at vember 1, 2018	Ad	lditions	As at April 30, 2019		
Cost	\$	904,431	\$	7,215	\$	911,646	
Accumulated amortization		508,326		76,962		585,288	
Net book value	\$	396,105			\$	326,358	
	Na	As at			As at April 30, 2018		
	100	vember 1, 2017	Ad	lditions	А	1 ,	
Cost Accumulated amortization	\$,	<u>A</u>	Iditions 84,382 77,119	\$	1 ,	

8. Convertible debentures

The Company issues three types of convertible debentures: USD denominated convertible debentures with an equity component, Canadian dollar ("CDN") denominated convertible debentures with an embedded derivative due to variable consideration payable upon conversion caused by foreign exchange, and USD denominated convertible debentures with an embedded derivative caused by variable conversion prices.

During the three and six months ended April 30, 2019, the Company expensed \$1,491 and \$52,257, respectively (2018 - \$nil), in financing costs which primarily consist of early payment premium, commitment fees, and administrative fees relating to the convertible debentures. During the six months ended April 30, 2019, \$21,000 (2018 - \$nil) of total financing costs were settled in the Company's common shares.

All dollar amounts are expressed in USD, unless otherwise specified on a line-by-line basis.

(a) Current period information presented in the unaudited condensed interim consolidated financial statements

Convertible debentures outstanding as at April 30, 2019:

		USD (equity mponent)		CDN embedded erivative)	•	USD embedded erivative)		Total
Loan principal outstanding (original currency)	\$	931,000	\$	2,122,423	\$	683,370		
Terms of loan Annual stated interest rate Effective annual interest rate Conversion price to common shares (original currency) Remaining life (in months)	36% 18% - 645		2% - 24% 8% - 645% 0.05 - \$0.15 0 - 6	5% - 24% 3904% - 7144% ^{(i) - (iii)} 0 - 11				
Unaudited condensed interim consolidated statement of fin	nancia	l position						
Carrying value of loan principal Interest payable	\$	901,963 18,504	\$	1,244,256 116,692	\$	174,721 45,988	\$	2,320,940 181,184
Convertible debentures	\$	920,467	\$	1,360,948	\$	220,709	\$	2,502,124
Derivative liabilities Equity component of convertible debentures	\$ \$	- 70,283	\$ \$	228,076	\$ \$	511,685	\$ \$	739,761 70,283

8. Convertible debentures (continued)

(a) Current period information presented in the unaudited condensed interim consolidated financial statements (continued)

For the six months ended April 30, 2019:

		USD equity nponent)	CDN (embedded derivative)		USD (embedded derivative)		Total
Unaudited condensed interim consolidated statement of op	eration	is and comp	reher	sive loss			
Accretion expense	\$	63,573	\$	425,578	\$	315,932	\$ 805,083
Interest expense	\$	97,124	\$	111,474	\$	45,092	\$ 253,690
Loss (gain) on revaluation of derivative liabilities	\$	-	\$	(406,998)	\$	88,995	\$ (318,003)
Loss on conversion of convertible debentures	\$	-	\$	-	\$	19,798	\$ 19,798
Loss (gain) on extinguishment of convertible debentures	\$	-	\$	(2,926)	\$	2,219	\$ (707)
Unaudited condensed interim consolidated statement of ch	anges i	in equity					
Amount of principal converted to common shares	\$	-	\$	-	\$	330,980	\$ 330,980
Amount of interest converted to common shares	\$	-	\$	-	\$	18,967	\$ 18,967
Number of common shares issued on conversion of convertible debentures	•	-		-		18,431,216	18,431,216
Unaudited condensed interim consolidated statement of ca	sh flow	s					
Amount of principal repaid in cash	\$	-	\$	95,063	\$	75,600	\$ 170,663
Amount of interest repaid in cash	\$	93,720	\$	79,060	\$	5,973	\$ 178,753

For the three months ended April 30, 2019:

	```	USD equity nponent)	CDN (embedded derivative)		USD (embedded derivative)		 Total
Unaudited condensed interim consolidated statement of op	eratio	is and comp	rehen	sive loss			
Accretion expense	\$	32,310	\$	220,995	\$	157,583	\$ 410,888
Interest expense	\$	47,823	\$	54,442	\$	17,462	\$ 119,727
Gain on revaluation of derivative liabilities	\$	-	\$	(580,393)	\$	(5,190)	\$ (585,583)
Loss on conversion of convertible debentures	\$	-	\$	-	\$	2,308	\$ 2,308
Gain on extinguishment of convertible debentures	\$	-	\$	(3,181)	\$	-	\$ (3,181)
Unaudited condensed interim consolidated statement of ch	anges i	in equity					
Amount of principal converted to common shares	\$	-	\$	-	\$	122,656	\$ 122,656
Amount of interest converted to common shares	\$	-	\$	-	\$	7,544	\$ 7,544
Number of common shares issued on conversion of convertible debentures	2	-		-		6,049,119	6,049,119
Unaudited condensed interim consolidated statement of ca	sh flow	s					
Amount of principal repaid in cash	\$	-	\$	15,030	\$	-	\$ 15,030
Amount of interest repaid in cash	\$	46,860	\$	38,663	\$	-	\$ 85,523

(i) Conversion price defined as 75% multiplied by the average of the lowest 3 closing stock prices for the 10 trading days prior to conversion date.

(ii) Conversion price defined as 75% multiplied by the lowest stock price for the 20 trading days prior to conversion date.

(iii) Conversion price defined as 75% multiplied by the lowest stock price for the 15 trading days prior to conversion date.

## 8. Convertible debentures (continued)

(b) Comparative information presented in the unaudited condensed interim consolidated financial statements

## Convertible debentures outstanding as at October 31, 2018:

	(equity (en		CDN embedded lerivative)	•	USD nbedded rivative)		Total	
Loan principal outstanding (original currency)	\$	931,000	\$	2,234,294	\$	622,850		
<b>Terms of loan</b> Annual stated interest rate Effective annual interest rate Conversion price to common shares (original currency) Remaining life (in months)	36	2% - 24% 5% - 37% 04 - \$0.21 0 - 7	2	2% - 24% 3% - 398% ).05 - \$0.15 0 - 7	1609	% - 24% % - 6002% (i) - (iv) 1 - 12		
Unaudited condensed interim consolidated statement of fin Carrying value of loan principal Interest payable Convertible debentures	nancia \$ 	l position 894,838 15,100 909,938	\$ \$	1,428,616 81,323 1,509,939	\$ \$	27,789 28,905 56,694	\$	2,351,243 125,328 2,476,571
Derivative liabilities Equity component of convertible debentures	\$ \$	70,283	\$ \$	151,918	\$ \$	498,198 -	\$ \$	650,116 70,283

## For the six months ended April 30, 2018:

		USD (equity mponent)	CDN (embedded derivative)		USD (embedded derivative)		 Total
Unaudited condensed interim consolidated statement of o	peratio	ns and comp	rehen	sive loss			
Accretion expense	\$	91,793	\$	633,867	\$	168,954	\$ 894,614
Interest expense	\$	37,384	\$	167,155	\$	18,439	\$ 222,978
Loss (gain) on revaluation of derivative liabilities	\$	-	\$	(33,418)	\$	76,688	\$ 43,270
Loss (gain) on extinguishment of convertible debentures	\$	-	\$	(82,557)	\$	43,416	\$ (39,141)
Unaudited condensed interim consolidated statement of c	hanges	in equity					
Amount of principal converted to common shares	\$	-	\$	-	\$	315,675	\$ 315,675
Amount of interest converted to common shares	\$	-	\$	55,013	\$	8,670	\$ 63,683
Number of common shares issued on conversion of convertib	le						
debentures		-		216,000		4,212,809	4,428,809
Unaudited condensed interim consolidated statement of c	ash flov	ws					
Amount of principal repaid in cash	\$	-	\$	270,000	\$	-	\$ 270,000
Amount of interest repaid in cash	\$	136,118	\$	-	\$	-	\$ 136,118

## 8. Convertible debentures (continued)

(b) Comparative information presented in the unaudited condensed interim consolidated financial statements (continued)

## For the three months ended April 30, 2018:

		USD equity nponent)	```	CDN (embedded derivative)	```	USD embedded lerivative)	 Total
Unaudited condensed interim consolidated statement of op	eration	is and comp	rehe	ensive loss			
Accretion expense	\$	25,533	\$	412,911	\$	111,000	\$ 549,444
Interest expense	\$	18,692	\$	85,917	\$	9,718	\$ 114,327
Gain on revaluation of derivative liabilities	\$	-	\$	(1,308,823)	\$	(67,583)	\$ (1,376,406)
Loss (gain) on extinguishment of convertible debentures	\$	-	\$	(7,004)	\$	32,616	\$ 25,612
Unaudited condensed interim consolidated statement of ch	anges i	in equity					
Amount of principal converted to common shares	\$	-	\$	-	\$	215,475	\$ 215,475
Amount of interest converted to common shares	\$	-	\$	35,813	\$	3,535	\$ 39,348
Number of common shares issued on conversion of convertible	e						
debentures		-		152,000		2,899,960	3,051,960
Unaudited condensed interim consolidated statement of ca	sh flow	s					
Amount of principal repaid in cash	\$	-	\$	20,000	\$	-	\$ 20,000
Amount of interest repaid in cash	\$	68,148	\$	-	\$	-	\$ 68,148

(i) Conversion price defined as 75% multiplied by the average of the lowest 3 closing stock prices for the 10 trading days prior to conversion date.

(ii) Conversion price defined as 75% multiplied by the lowest stock price for the 20 trading days prior to conversion date.

(iii) Conversion price defined as 80% multiplied by the lowest 3 closing stock prices for the 10 trading days prior to conversion date.

(iv) Conversion price defined as 75% multiplied by the lowest stock price for the 15 trading days prior to conversion date.

(c) Fair value of derivative liabilities outstanding

The fair value of the derivative liabilities is determined in accordance with the Black-Scholes and binomial option-pricing models, depending on the circumstances. The underlying assumptions are as follows:

	As at April 30, 2019	As at October 31, 2018
Share price	\$0.03	\$0.03
Exercise price	\$0.02 - \$0.10	\$0.02 - \$0.11
Volatility factor (based on historical volatility)	146% - 216%	168% - 297%
Risk free interest rate	1.69% - 1.72%	1.74% - 2.22%
Expected life of conversion features (in months)	0 - 11	0 - 12
Expected dividend yield	0%	0%
CDN to USD exchange rate (as applicable)	0.7450	0.7609
Call value	\$0.00 - \$0.02	\$0.00 - \$0.02

Volatility was estimated using the historical volatility of the Company's stock prices for common shares.

## 9. Share capital

#### (a) Authorized and outstanding shares

The Company has two classes of shares as follows:

- (i) Special redeemable voting preference shares 2,000,000 authorized, nil issued and outstanding.
- (ii) Common shares without par value an unlimited number authorized. The holders of the common shares are entitled to receive dividends which may be declared from time to time, and are entitled to one vote per share at shareholder meetings of the Company. All common shares are ranked equally with regards to the Company's residual assets.

## (b) Private placements

During the three months ended April 30, 2019, the Company completed two private placements (2018 - three private placements), pursuant to prospectus and registration exemptions set forth in applicable securities law. The Company received net proceeds of \$52,968 (2018 - \$61,334) and issued a total of 1,375,000 (2018 - 565,159) common shares.

During the six months ended April 30, 2019, the Company completed three private placements (2018 - eight private placements), pursuant to prospectus and registration exemptions set forth in applicable securities law. The Company received net proceeds of \$102,968 (2018 - \$271,361) and issued a total of 2,690,789 (2018 - 2,937,887) common shares.

## 10. Stock options

#### (a) Stock option plan

The Company has a fixed stock option plan. Under the Company's stock option plan (the "Plan"), the Company may grant options for up to 18,840,000 shares of common stock to directors, officers, employees or consultants of the Company and its subsidiaries. The exercise price of each option is equal to or greater than the market price of the Company's shares on the date of grant unless otherwise permitted by applicable securities regulations. An option's maximum term under the Plan is 10 years. Stock options are fully vested upon issuance by the Company unless the Board of Directors stipulates otherwise by Directors' resolution.

## (b) Summary of changes

	Number of options	averag	eighted ge exercise price
Outstanding at November 1, 2018 Expired	6,250,000 (520,000)	\$	0.29 0.80
Outstanding at April 30, 2019	5,730,000	\$	0.25
Outstanding at November 1, 2017 Expired	6,595,000 (815,000)	\$	0.37 (0.37)
Outstanding at April 30, 2018	5,780,000	\$	0.37

(c) Stock options outstanding at April 30, 2019

				Weighte	d average
Date of issue	Expiry date	Number of options	Exer	cise price	Remaining contractual life (years)
June 4, 2015	June 4, 2020	300,000	\$	0.49	1.1
August 20, 2015	August 20, 2020	940,000		0.46	1.3
September 30, 2015	September 30, 2020	250,000		0.40	1.4
December 30, 2016	December 30, 2021	2,040,000		0.25	2.7
June 29, 2018	June 29, 2023	2,200,000		0.10	4.2
Outstanding and exercisable a	t April 30, 2019	5,730,000	\$	0.25	2.9

## 11. Earnings (loss) per share

Basic and diluted income (loss) per share are calculated using the following numerators and denominators:

	Th	ree months e	ended	April 30,	Six months en	ded	April 30,
Numerator		2019		2018	 2019		2018
Net income (loss) attributable to common shareholders Net income (loss) used in computation of basic and diluted	\$	(48,088)	\$	207,605	\$ (1,158,391)	\$	(2,084,086)
income (loss) per share	\$	(48,088)	\$	207,605	\$ (1,158,391)	\$	(2,084,086)
Denominator							
Weighted average number of common shares for							
computation of basic and diluted income (loss) per share	27	7,050,908	23	33,671,744	272,370,012	2	231,405,881

For the three and six months ended April 30, 2019 and 2018, all stock options and conversion features were anti-dilutive and, therefore, are excluded from the calculation of diluted income (loss) per share.

## 12. Income taxes

Deferred income taxes reflect the net tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and amounts used for income tax purposes.

As at April 30, 2019, the Company has non-capital losses of approximately \$29.1 million, \$24.3 million in Canada and \$4.8 million in other foreign jurisdictions, available to reduce future taxable income. Non-capital losses expire commencing in 2026. In addition, the Company has available capital loss carry forwards of approximately \$1.3 million to reduce future taxable capital gains. Capital losses carry forward indefinitely.

As at April 30, 2019 and October 31, 2018, the Company assessed that it is not probable that sufficient taxable profit will be available to use deferred income tax assets based on operating losses in prior years; therefore, there are no balances recognized in the unaudited condensed interim consolidated statements of financial position for such assets.

## 13. Operating expenses

## (a) General and administrative

The components of general and administrative expenses are as follows:

	ree months 2019	ended	April 30, 2018	S	ix months ei 2019	nded A	April 30, 2018
General and administrative	\$ 8,605	\$	98,629	\$	21,822	\$	170,275
Rent and occupancy	15,599		18,371		31,460		36,874
Office insurance	13,349		24,710		26,401		56,114
Investor relations, listing and filing fees	19,123		20,057		29,345		29,312
Telephone	1,499		2,576		2,518		5,695
	\$ 58,175	\$	164,343	\$	111,546	\$	298,270

#### (b) Professional, other fees and salaries

The components of professional, other fees and salaries expenses are as follows:

	Th	ree months	ended	April 30,	S	ix months e	nded A	April 30,
		2019		2018		2019		2018
Professional fees	\$	15,084	\$	44,160	\$	71,134	\$	88,884
Consulting fees (recovery)		(348)		79,648		26,979		173,846
Salaries and benefits		54,394		63,096		119,546		128,520
	\$	69,130	\$	186,904	\$	217,659	\$	391,250

## 14. Supplemental cash flow information

The following provides a reconciliation of the cash flows from convertible debentures and derivative liabilities :

	Th	ree months ended Apr	Six months il 30, 2019		
Balance - beginning of period	\$	3,660,166	\$	3,126,687	
Cash flows from financing activities:					
Proceeds from issuance of convertible debentures		70,521		376,521	
Repayments of convertible debentures		(15,030)		(170,663)	
Non-cash changes:					
Accrued interest on convertible debentures		34,204		74,937	
Accretion expense		410,888		805,083	
Gain on extinguishment of debt		(3,181)		(707)	
Gain on revaluation of derivative liabilities		(585,583)		(318,003)	
Foreign exchange gain		(45,725)		(38,425)	
Convertible debentures converted into common shares		(249,597)		(557,098)	
Renewal of convertible debentures		(34,778)		(56,447)	
Balance - end of period	\$	3,241,885	\$	3,241,885	

## 15. Key management compensation and related party transactions

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) are summarized as follows:

	Th	ree months o	ended A	April 30,	Six	months e	nded A	April 30,
		2019		2018	2	019		2018
Professional, other fees, and salaries (recovery)	\$	(8,358)	\$	76,902	\$	-	\$	151,742

## (b) Trade payables and other liabilities

As at April 30, 2019 and October 31, 2018, the Company reports in trade payables and other liabilities, a balance owing to the former President of MAST of \$193,174 which represents alleged outstanding wages payable, see Note 17(b).

As at April 30, 2019 and October 31, 2018, the Company reports \$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 debentures

In January 2018, an officer of the Company subscribed for a convertible debenture of \$150,000 CDN (\$112,723 USD). At April 30, 2019, \$54,362 CDN (\$40,499 USD)(October 31, 2018 - \$100,862 CDN, \$75,796 USD) in loan principal remains outstanding.

## 16. Commitments

The Company has extended the lease for its 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:

	 CDN
Less than one year	\$ 48,060
Two to five years	 108,135
	\$ 156,195

## 17. Contingencies

- (a) The Company has agreed to indemnify its directors and officers and certain of its employees in accordance with the Company's bylaws. The Company maintains insurance policies that may provide coverage against certain claims.
- (b) On October 7, 2018, the former President of MAST, Inc. (a 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 on 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 April 30, 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 June 24, 2019.

#### 18. Financial risk management

(a) Currency risk

Currency risk is the risk that the fair value of, or future cash flows from, the Company's financial instruments will significantly fluctuate due to changes in foreign exchange rates. The Company is exposed to currency risk to the extent that it incurs expenses and issues convertible debentures denominated in Canadian dollars. The Company manages currency risk by monitoring the Canadian position of these monetary financial instruments on a periodic basis throughout the course of the reporting period.

As at April 30, 2019, balances that are denominated in Canadian dollars are as follows:

	 CDN
Prepaid expenses and other receivables	\$ 45,911
Convertible debentures	\$ 1,826,801
Trade payables and other liabilities	\$ 320,870
Derivative liabilities	\$ 306,146

A 10% strengthening of the US dollar against the Canadian dollar would increase accumulated deficit by \$163,681 as at April 30, 2019 (October 31, 2018 - increase accumulated deficit by \$158,836). A 10% weakening of the US dollar against the Canadian dollar would have had the opposite effect of the same magnitude.

(b) Interest rate risk

Interest rate risk is the risk that the fair value of, or future cash flows from, the Company's financial instruments will significantly fluctuate due to changes in market interest rates. The Company is exposed to interest rate risk on its interest-bearing convertible debentures. This exposure is limited due to the short-term nature of the convertible debentures.

(c) Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they become due. The Company's policy is to review liquidity resources and ensure that sufficient funds are available to meet financial obligations as they become due. Further, the Company's management is responsible for ensuring funds exist and are readily accessible to support business opportunities as they arise. The Company's funding is provided in the form of capital raised through the issuance of shares on conversion of convertible debentures. All financial liabilities are due within 1 year as at April 30, 2019.

## 18. Financial risk management (continued)

#### (c) Liquidity risk (continued)

(i) Trade payables

The following represents an analysis of the maturity of trade payables:

	1	As at April 30, 2019	0	As at ctober 31, 2018
Less than 30 days past billing date 31 to 90 days past billing date Over 90 days past billing date	\$	100,351 25,616 715,139	\$	87,356 12,837 740,131
- · · · · · · · · · · · · · · · · · · ·	\$	841,106	\$	840,324

As at April 30, 2019, trade payables include \$540,000 (October 31, 2018 - \$334,000) of invoices which the Company has disputed and/or are stale-dated. The Company does not anticipate that it will be required to discharge such amounts.

## (ii) Convertible debentures and derivative liabilities

The following represents an analysis of the maturity of the convertible debentures and derivative liabilities:

		As at April 30, 2019		As at October 31, 2018	
	Convertible	Derivative	Convertible	Derivative	
	debentures	liabilities	debentures	liabilities	
Less than three months	\$ 1,237,789	\$ 69,821	\$ 862,686	\$ 90,142	
Three to six months	1,082,593	257,785	1,346,315	382,309	
Six to twelve months	181,742	412,155	267,570	177,665	
	\$ 2,502,124	\$ 739,761	\$ 2,476,571	\$ 650,116	

## (d) Credit risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Company's cash, development costs receivable, and other receivables. The maximum exposure to credit risk is the carrying value of these financial assets, which amounted to \$11,019 as at April 30, 2019 (October 31, 2018 - \$294,034). The Company reduces its credit risk by assessing the credit quality of counterparties, taking into account their financial position, past experience and other factors.

## (i) Cash

The Company held cash of \$2,932 at April 30, 2019 (October 31, 2018 - \$206,832). The cash is held with central banks and financial institution counterparties that are highly rated. The Company has assessed no significant change in credit risk and an insignificant loss allowance, which was not recognized in these unaudited condensed interim consolidated financial statements.

## 19. Fair value hierarchy

Assets and liabilities recorded at fair value in the unaudited condensed interim consolidated statements of financial position are classified using a fair value hierarchy that reflects the significance of the inputs used in making the measurements. The fair value hierarchy has the following levels:

Level 1 - valuation based on quoted prices (unadjusted) in active markets for identical assets and liabilities. There are no assets or liabilities in this category in these unaudited condensed interim consolidated financial statements.

Level 2 - valuation techniques based on inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. In these unaudited condensed interim consolidated financial statements, derivative liabilities are included in this category.

Level 3 - valuation techniques using the inputs for the asset or liability that are not based on observable market data. There are no assets or liabilities in this category in these unaudited condensed interim consolidated financial statements.

The Company's policy for determining when transfers between levels of fair value hierarchy occur is based on the date of the event or changes in circumstances that caused the transfer. During the three and six months ended April 30, 2019 and 2018, there were no transfers between levels.

## 20. Capital risk management

The Company's objectives when managing capital are to (i) maintain its ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders, (ii) ensure it has sufficient cash resources to further develop and market its technologies and (iii) maintain its ongoing operations. The Company defines its capital as its net assets, total assets less total liabilities. In order to secure the additional capital necessary to pursue these objectives, the Company may attempt to raise additional funds through the issuance of equity and warrants or by securing strategic partners. The Company is not subject to externally imposed capital requirements and there has been no change with respect to the overall capital risk management strategy during the three and six months ended April 30, 2019.

## 21. Subsequent events

Subsequent to April 30, 2019:

- (a) The Company secured two convertible debentures amounting to \$64,000 USD and \$50,000 CDN, respectively. Additionally, the Company secured a \$50,000 CDN non-convertible debenture. All debentures have a one year term.
- (b) The Company issued 5,520,854 common shares to extinguish \$102,214 of convertible debentures.
- (c) The Company extended convertible debentures that were within 3 months of maturity from April 30, 2019. Extension terms ranged from 2 to 6 months.
- (d) The Company completed a private placement with an arms' length investor realizing gross proceeds of \$10,000 for which the Company issued 270,270 common shares.