
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 20-F

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934
or

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For The Fiscal Year Ended **October 31, 2014**
Or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
or

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of event requiring this shell report

Commission File No. **0-26005**

MICROMEM TECHNOLOGIES INC.

(Exact name of Registrant as specified in its charter)

Ontario, Canada

(Jurisdiction of incorporation or organization)

**121 Richmond Street West, Suite 304
Toronto, Ontario M5H 2K1, Canada
Tel: (416) 364-6513
Fax: (416) 360-4034**

(Address of principal executive offices)

Joseph Fuda; 416-364-6513, JFuda@micromeminc.com, 121 Richmond Street West, Suite 304 Toronto, On M5H 2K1
(Name, Telephone, E-Mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act:
None

Securities registered or to be registered pursuant to Section 12(g) of the Act:
Common Shares without par value

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:
None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report:
188,436,724 Common Shares

Indicate by check mark if the registrant is a well-known seasoned issuer as defined in Rule 405 of the Securities Act:

Yes No

If this report is an annual or transition report, indicate by check mark if the registration is not required to file a report pursuant to section 13 or 15 of the Securities Exchange Act of 1934:

Yes No

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days:

Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).
Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of “accelerated filer and large accelerator filer” in Rule 12b-2 of the Exchange Act:
Large Accelerated Filer Accelerated Filer Non-Accelerated Filer

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP International Financial Reporting Standards as issued by the International Accounting Standards Board Other

If “Other” has been checked in response to the previous question, indicate by check mark which financial statement item the Registrant has elected to follow:
Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act):
Yes No

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PART I

INTRODUCTION

Abbreviations

Throughout this document, Micromem Technologies Inc. and/or its affiliates are referred to as “Micromem”, the “Company”, “we”, “us” or “our”.

Forward Looking and Cautionary Statements

This Form 20-F contains certain forward-looking statements. These forward-looking statements are based on current expectations, estimates and projections about the business of our company and the industry in which we operate, our management's beliefs, and assumptions made by our management. Words such as “expects,” “anticipates,” “intends,” “plans,” “believes,” “seeks” and “estimates,” variations on such words and similar expressions are intended to identify such forward-looking statements. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions which are difficult to predict. Our actual results could differ materially from those expressed or forecasted in these forward-looking statements as a result of certain factors, including those set forth under Item 3-Key Information – Risk Factors and elsewhere in this Form 20-F.

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

A. Selected Financial Data

Fiscal Years 2014, 2013, 2012 and 2011

The following table sets forth our selected consolidated financial data in United States dollars as of and for each of the fiscal years ended October 31, 2014, October 31, 2013, October 31, 2012 and October 31, 2011. The selected consolidated financial data has been derived from our audited consolidated financial statements. All information contained in the following table should be read in conjunction with our audited consolidated audited financial statements and the notes thereto in “Item 18-Financial Statements” and “Item 5 - Operating and Financial Review and Prospects” included elsewhere in this Annual Report on Form 20-F.

Our consolidated financial statements for the years ended October 31, 2014, 2013, 2012 and 2011 have been prepared in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board. Previously the Company prepared consolidated financial statements in accordance with Canadian generally accepted accounting principles (“Canadian GAAP”).

International Financial Reporting Standards

Selected balance sheet information

(all amounts in U.S. dollars)

	2014	2013	2012	2011
Working capital (deficiency)	\$ 1,034,921	\$ 425,888	(\$1,793,217)	(\$2,239,178)
Capital Assets	21,483	13,998	5,787	10,201
Total Assets	5,636,605	2,166,455	1,180,278	906,346
Capital Stock	70,802,776	57,755,613	54,728,239	51,774,555
Shareholders' equity (deficiency)	4,862,773	1,536,319	(904,030)	(1,409,228)

Selected statement of operations and deficit information

(all amounts in U.S. dollars)

	2014	2013	2012	2011
Interest and other income	-	-	-	\$ 963
Research and development expenses	703,671	160,920	229,840	(75,896)
General and administrative and other expenses	3,081,947	2,198,466	2,618,792	1,916,981
(Gain) Loss on revaluation of embedded derivatives (1)	-	3,205,752	(1,504,423)	412,563
Stock compensation expense (2)	379,253	368,790	430,856	928,497
Loss before income taxes	(4,164,871)	(5,933,928)	(1,775,065)	(3,181,182)
Provision for income taxes (recovery)	-	-	-	1,205
Net loss	(4,164,871)	(5,933,928)	(1,775,065)	3,182,387
Loss per share-basic and diluted	(0.02)	(0.04)	(0.01)	(0.03)
Weighted average number of basic and diluted shares	171,534,969	146,814,466	123,375,510	102,301,168
Dividends	-	-	-	-

- 1) (Gain) loss on revaluation of embedded derivatives as reported above relates principally to the measurement of the derivative warrant liability relating to outstanding Canadian dollar denominated common share purchase warrants. The (gain) loss as reported is a non-cash charge which is calculated in accordance with IFRS.
- 2) Stock compensation expense is a non cash expense calculated in accordance with the Black Scholes option pricing model.

Fiscal Year 2010

The following table sets forth our selected consolidated financial data in United States dollars as of and for the fiscal year ended October 31, 2010. The selected consolidated financial data has been derived from our audited consolidated financial statements. These consolidated financial statements have been prepared in accordance with Canadian GAAP which differ in certain respects from the principles the Company would have followed had it consolidated financial statements been prepared in accordance with U.S. GAAP. The selected consolidated financial information in the IFRS chart above should not be compared to the information in the Canadian GAAP table below as the information was prepared using different financial reporting standards.

Canadian GAAP

Selected balance sheet information

(all amounts in U.S. dollars)

	2010
Working capital (deficiency)	(\$1,459,460)
Capital Assets	16,686
Total Assets	568,336
Capital Stock	50,102,699
Shareholders' equity (deficiency)	(1,019,226)

Selected statement of operations and deficit information
(all amounts in U.S. dollars)

	2010
Interest and other income	\$ 22,886
Research and development expenses	(106,007)
General and administrative and other expenses	4,699,208
Stock compensation expense	95,038
Loss before income taxes	(4,665,353)
Provision for income taxes (recovery)	9,508
Net loss	(4,674,861)
Loss per share-basic and diluted	(0.05)
Weighted average number of basic and diluted shares	92,225,645
Dividends	-

Reconciliation between Canadian GAAP and U.S. GAAP:

Canadian GAAP conforms in all material respects with U.S. GAAP except for how the Company has accounted for development expenditures reported in the fiscal year ended October 31, 2010.

Currency and Exchange Rates

Our financial statements are all expressed in United States dollars. All other financial data appearing in this Form 20-F are expressed in United States dollars with the exception of certain limited cases when reference is made to instruments denominated in Canadian dollars ("CDN \$").

Transactions that were conducted in Canadian dollars or other foreign currencies have been converted into United States dollars using the 3 month average rate of exchange per quarter which rate approximates the rate of exchange prevailing at the date of such transactions. Monetary assets and liabilities denominated in Canadian dollars or other foreign currencies but expressed in this Form 20-F in United States dollars have been converted into United States dollars at the rate of exchange prevailing on the date of the applicable financial statement. Non monetary assets and liabilities denominated in Canadian dollars but expressed in this Form 20-F in United States dollars have been converted into US dollars at the historical exchange rate at the date of the transaction.

The following table sets forth, for the periods indicated, the high, low, end of period and average for period noon buying rates as published by the Bank of Canada, as expressed in the amount of U.S. Dollars equal to one Canadian dollar.

	2014	2013	2012	2011	2010
High for period	0.9422	1.0164	1.0281	1.0583	1.0039
Low for period	0.8589	0.9348	0.9783	0.9430	0.9278
End of period	0.8620	0.9402	0.9872	1.0079	0.9885
Average for period	0.9054	0.9710	1.0046	1.0139	0.9640

The following table sets forth, for each period indicated, the high and low exchange rates for United States dollars expressed in Canadian dollars on the last day of each month during such period, based on the Noon Buying Rate.

	February 2014	March 2014	April 2014	May 2014	June 2014	July 2014
High	1.1148	1.1057	1.0980	1.0870	1.0697	1.0930
Low	1.1040	1.1002	1.0943	1.0828	1.0646	1.0877

	August 2014	September 2014	October 2014	November 2014	December 2014	January 2015
High	1.0876	1.1219	1.1332	1.1444	1.1607	1.28
Low	1.0810	1.1157	1.1186	1.1360	1.1565	1.2654

On February 25, 2015 the noon buying rate for one Canadian dollar, as quoted by the Bank of Canada, was CDN \$1.2419 = U.S. \$1.00.

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

We and our investors face a number of risks, which are described below.

Risk Factors Related to Our Business

The financial statements of our company have been prepared on a going concern basis.

We have prepared our financial statements on a “going concern” basis which presumes that we will be able to realize our assets and discharge our liabilities in the normal course of business for the foreseeable future.

Our ability to continue as a going concern is dependent upon the successful commercialization of our sensor technology platforms that we currently have under development with our industry partners. Ultimately we must achieve a profitable level of operation through licensing fees, royalties and the commercial sale of our products. We will require additional financing in the interim to fund our activity.

Our consolidated financial statements have been prepared on a going concern basis do not include any adjustments to the amounts and classifications of the assets and liabilities that might be necessary should we be unable to continue in business. If the going concern assumption was not appropriate for our financial statements then adjustments would be necessary in the carrying value of assets and liabilities, the reported expenses and the balance sheet classifications used. Such adjustments could be material.

At October 31, 2014 we had \$935,987 cash on hand and our current monthly cash expenses were approximately \$175,000. Our working capital position is \$1,034,921 at October 31, 2014. Subsequent to October 31, 2014, through to the date of the filing of this Annual Report on Form 20-F, we have raised an additional \$565,714 through the exercise of warrants. Additionally, we collected \$1,392,978 from development partners with respect to our ongoing joint product development projects with our existing customers.

We currently have no operating revenue.

We have not yet reported commercial revenues from licensing fees, royalties or product sales. If we fail to enter into license agreements or if we do not obtain purchase orders from potential customers, we will have no revenues. If we enter into such agreements the amount of the revenues we receive will depend on the terms we are able to secure from each licensee and the ability of licensees to compete in their particular market.

There are market risks relating to the sale of our sensor technology platforms.

We continued to develop applications of our magnetic sensor technology in 2014 working with our technical advisors, and our strategic development partners. We are pursuing joint development agreements with potential strategic partners with the expectation that we will jointly develop sensor applications for use by these potential strategic partners. We believe that these current initiatives will result in revenues and cash flow to the Company in the future but there can be no assurance when and if such revenues will be achieved.

We may face competition from larger corporations which also sell sensor technology and who have greater financial resources than the Company.

Our success will in part be determined by the following factors which have not yet been fully and completely tested nor measured: the ability of manufacturers to incorporate the technology into existing manufacturing capabilities without significant retooling and material costs, price competitiveness and the differential performance advantages of our technology.

Additionally our ability to compete successfully will depend on elements outside of our control, including the rate at which customers incorporate our technology into their products, the success of such customers in selling those products, our protection of our intellectual property, the number, nature and success of our competitors and their product introductions and general market and economic conditions. Our success will depend on our ability to protect our intellectual property, to develop, introduce, and license or sell in a timely manner our technology or products incorporating our technology and to compete effectively on the basis of factors such as speed, density, die size and power consumption.

We are not actively pursuing further development of our memory technology.

Until 2008 our Company was positioned as a developer of memory technology, specifically our Magnetic Random Access Memory (MRAM), which is a non-volatile memory technology that uses magnetic, thin film elements on a gallium arsenide substrate to store information.

Beginning in 2008 we began to shift our focus to the development of sensor based technology solutions. By 2011, we decided to no longer pursue memory technology. We wrote off all costs associated with our memory technology by 2011. We are currently attempting to sell our interests in our memory related intellectual property. To date we have not been successful in attracting a buyer for this intellectual property and there can be no assurance that we will secure a buyer.

Failure to secure continued financing will cause our business to suffer.

Since there is no assurance that commercial revenues will be realized in future, we will need additional financing to continue our development and to successfully market our technology to potential licensees and strategic partners.

There can be no assurance that we will be able to continue to raise sufficient financing in the future and the failure to do so would affect our ability to further develop our technology platforms and to market our products to existing and new potential customers.

Because much of our success and value depends on our ownership and use of intellectual property, our failure to protect our property could adversely affect our future growth and success.

Our success will depend on our ability to protect our intellectual property. We rely primarily on patent, copyright, trademark and trade secret laws, as well as nondisclosure agreements and other methods to protect our proprietary technology and processes. Despite our efforts to do so, unauthorized parties may attempt to copy or otherwise obtain and use our products or technology, develop similar technology independently or design around our patents. Policing unauthorized use of our products is expensive and difficult, and we cannot be certain that all required steps we have taken will prevent misappropriation or infringement of our intellectual property.

Intellectual property claims against us, no matter how groundless, could cause our business to suffer.

Our future success and competitive position depend in part on our ability to retain rights to our technology, including any improvements that may be made on that technology from time to time by us or on our behalf. Our technology is patented or is subject to pending patent applications in the United States and abroad and we know of no challenge that has been made either against our technology or our rights to it. We have no reason to believe that any such challenge might be made or that the grounds for any such challenge exist. If any intellectual property litigation were to be commenced against us, no matter how groundless, the result could be a significant expense to us, adversely affecting further development, licensing and sales, diverting the efforts of our technical and management personnel and, in the event of an adverse outcome, damages and possible restrictions on the further development, licensing and use of our technology. There can be no assurance that any of our pending patent applications will be issued as patents or that any issued patent will not be determined to be invalid at a later date.

We have a history of losses, and we may continue to generate losses in future.

To date, we have operated as a product development company and have not been profitable. Unless and until we are able to successfully commercialize our technology applications, we may not be able to generate sufficient revenues in future periods and we may not be able to attain profitability.

The further development of our sensor technology may require significant additional capital which we may have to fund directly if we are unable to secure financing from development partners. Therefore, we may incur expenses without receiving equal and offsetting revenues at least until we are able to license our technology to third parties. This may result in net operating losses until we can generate an acceptable level of revenues. Further, even if we achieve operating revenues, there can be no assurance that such revenues will be sufficient to fund continuing operations.

The likelihood of the success of our business plan must be considered in light of the problems, expenses, difficulties, complications and delays frequently encountered in connection with developing and expanding early stage businesses and the competitive environment in which we operate.

We will be dependent upon the success of a limited range of products.

The range of products we intend to commercialize is currently limited to applications of our sensor technology. If we are not successful in commercializing our technology platforms, or if there is not adequate demand for such technology or the market for such technology develops less rapidly than we anticipate, we may not have the capability to shift our resources to the development of alternative products, on a timely basis. This could limit future revenues and profitability.

We may not realize income from the licensing of our technologies if our licensees fail to commercialize the products that incorporate these technologies.

In order to generate revenues from our sensor technology platforms, we will need to enter into licensing arrangements with third parties who can integrate our technology into products that will gain acceptance in the market. We have not yet entered into any licensing agreements, and there is no assurance that we will be able to do so on acceptable terms in future. To the extent we are successful in licensing our technology; in general we will seek upfront payments plus ongoing royalties based on anticipated commercial sales of the products into which our technology is incorporated. Our ability to realize royalties will thus depend upon the successful manufacture and commercialization of such products, which will be primarily within the control of the licensee. There is no assurance that such licensees will be successful in marketing and selling such products. In addition, licensees could decide to delay or discontinue the commercialization of products for financial or other business reasons. Even if our licensees succeed in developing products that incorporate our technology, in all likelihood a significant amount of development and testing will be required before such products can be introduced to market. Therefore we may not receive royalty income for a substantial period following the commencement of any licensing arrangements. If our licensees are unable to commercialize products on a timely basis, they may lose market share to competing or alternative technologies. Any failure by the companies to which we license our technologies to successfully develop marketable products would have an adverse effect on our future royalty payments and financial condition.

In order to commercialize our future products, we will need to establish a sales and marketing capability.

At present, we have limited sales and marketing capability and our financial resources have been limited. We will need to add marketing and sales expertise and must also develop the necessary supporting distribution channels. Although we believe we can build the required infrastructure either in-house or through strategic relationships, we may not be successful in doing so. Failure to establish a sales force and distribution network would have an adverse effect on our ability to grow our business.

We depend on key personnel.

Our senior managers and employees are Joseph Fuda, who serves as our Chief Executive Officer; Steven Van Fleet, who has primary responsibility for business development and who serves as President of our wholly-owned subsidiary, Micromem Applied Sensor Technology Inc (MAST) and Dan Amadori, who serves as our Chief Financial Officer. We have engaged the services of several engineering/technical consulting firms to assist in converting our development efforts to commercialization. Our success depends on our ability to retain certain of our senior management and key technical personnel and our ability to attract and retain additional highly skilled personnel in the future.

We may be materially affected by global economic and political conditions.

Our ability to generate revenue may be adversely affected by uncertainty in the global economy and could also be affected by unstable global political conditions. Terrorist attacks or acts of war could significantly disrupt our operations and the operations of our future customers, suppliers, distributors, or resellers. We cannot predict the potential impact on our financial condition or our results of operations should such events occur.

We may be materially affected by rapid technological change and evolving industry standards.

Short product life cycles are inherent in high-technology companies due to rapid technological change and evolving industry standards. Our future financial condition and results of operations depend on our ability to respond effectively to these changes. There can be no assurance that we will be able to successfully do so or adapt our current products to new technologies or new industry standards. In addition, our customers may be reluctant to adopt new technologies and standards or they may prefer competing technologies and standards. Because the technology market changes so rapidly, it is difficult for us to predict the rate of adoption of our technology.

We may be materially affected by risks associated with new product development.

Our new product development is complex and requires us to investigate and evaluate multiple alternatives, as well as plan the design and manufacture of those alternatives selected for further development. Our development efforts could be adversely affected by hardware and software design flaws, product development delays, changes in operating systems and changes in industry standards. The manufacturing of new products involves integrating complex designs and processes, coordinating with suppliers for parts and components and managing manufacturing capacities to accommodate forecasted demand. If we are not successful in meeting these requirements, this could adversely affect our ability to introduce new products on a timely basis.

Our operations may be materially affected by the risks associated with the continued developments and protection of our intellectual property.

There can be no assurance that we will be able to continue to develop new intellectual property or that we will continue to have it developed for us. We rely on a combination of U.S. patent, copyright, trademark, and trade secret laws to protect our intellectual property rights. We have decided to file patent and trademark registration applications with certain foreign governments but we may not have appropriate coverage in all jurisdictions where we may sell or license our product in future.

We enter into confidentiality and non-disclosure agreements relating to our intellectual property with our employees and consultants. Despite our efforts to protect our intellectual property rights, unauthorized parties may attempt to copy or otherwise obtain or use our intellectual property. Monitoring the unauthorized use of our intellectual property is difficult and we cannot be certain that we will be able to adequately protect our intellectual property in the future.

There are foreign exchange risks associated with our Company.

Because we have historically raised funds in both U.S. and Canadian markets and a portion of our costs are denominated in Canadian dollars, our funding is subject to foreign exchange risks. A decrease in the value of the U.S. dollar relative to the Canadian dollar could affect our costs and potential future profitability. We do not currently hold forward exchange contracts or other hedging instruments to exchange foreign currencies for U.S. dollars so as to offset potential currency rate fluctuations.

Risk Factors Related to Our Common Shares

Our stock is subject to the penny stock regulations, which may discourage brokers from effecting transactions in the stock and adversely affect the stock's market price and liquidity

Our common shares constitute “penny stock” under applicable regulations of the Securities and Exchange Commission. The penny stock regulations impose significant restrictions on brokers who sell penny stock to persons other than established customers and institutional accredited investors. Broker-dealers participating in sales of our stock will be subject to the so called “penny stock” regulations covered by Rule 15c-9 under the Exchange Act. Under the rule, broker-dealers must furnish to all investors in penny stocks a risk disclosure document required by the rule, make a special suitability determination of the purchaser and have received the purchaser's written agreement to the transaction prior to the sale. The penny stock regulations may discourage brokers from effecting transactions in the common shares. This would decrease market liquidity, adversely affect market price and make it difficult for you to use the common shares as collateral.

The rights of our shareholders may differ from the rights typically afforded to shareholders of a U.S. corporation.

We are incorporated under the Business Corporations Act (Ontario), also referred to herein as the OBCA. The rights of holders of our common shares are governed by the laws of the Province of Ontario, including the OBCA, by the applicable laws of Canada, and by our Articles of Incorporation and all amendments thereto, also referred to herein as the Articles, and our By-laws. These rights differ in certain respects from the rights of shareholders in typical U.S. corporations. The principal differences include without limitation the following:

Under the OBCA, we have a lien on any common share registered in the name of a shareholder or the shareholder's legal representative for any debt owed by the shareholder to us. Under U.S. state law, corporations generally are not entitled to any such statutory liens in respect of debts owed by shareholders.

With regard to certain matters, we must obtain approval of our shareholders by way of at least 66 $\frac{2}{3}$ % of the votes cast at a meeting of shareholders duly called for such purpose being cast in favor of the proposed matter. Such matters include without limitation: (a) the sale, lease or exchange of all or substantially all of our assets out of the ordinary course of our business; and (b) any amendments to our Articles including, but not limited to, amendments affecting our capital structure such as the creation of new classes of shares, changing any rights, privileges, restrictions or conditions in respect of our shares, or changing the number of issued or authorized shares, as well as amendments changing the minimum or maximum number of directors set forth in the Articles. Under U.S. state law, the sale, lease, exchange or other disposition of all or substantially all of the assets of a corporation generally requires approval by a majority of the outstanding shares, although in some cases approval by a higher percentage of the outstanding shares may be required. In addition, under U.S. state law the vote of a majority of the shares is generally sufficient to amend a company's certificate of incorporation, including amendments affecting capital structure or the number of directors. Under certain circumstances the board of directors may also have the ability to change the number of directors under U.S. state law.

Pursuant to our By-laws, two persons present in person or represented by proxy and each entitled to vote thereat shall constitute a quorum for the transaction of business at any meeting of shareholders. Under U.S. state law, a quorum generally requires the presence in person or by proxy of a specified percentage of the shares entitled to vote at a meeting, and such percentage is generally not less than one-third of the number of shares entitled to vote.

Under rules of the Ontario Securities Commission, a meeting of shareholders must be called for consideration and approval of certain transactions between a corporation and any “related party” (as defined in such rules). A “related party” is defined to include, among other parties, directors and senior officers of a corporation, holders of more than 10% of the voting securities of a corporation, persons owning a block of securities that is otherwise sufficient to affect materially the control of the corporation, and other persons that manage or direct, to a substantial degree, the affairs or operations of the corporation. At such shareholders' meeting, votes cast by any related party who holds common shares and has an interest in the transaction may not be counted for the purposes of determining whether the minimum number of required votes have been cast in favor of the transaction. Under U.S. state law, a transaction between a corporation and one or more of its officers or directors can generally be approved either by the shareholders or a by majority of the directors who do not have an interest in the transaction. Corporations that are listed on a U.S. securities exchange or are quoted on Nasdaq may also be required to have transactions with officers and directors and other related party transactions reviewed by an audit committee comprised of independent directors.

There is no limitation imposed by our Articles or other charter documents on the right of a non-resident to hold or vote our common shares. However, the Investment Canada Act, also referred to herein as the Investment Act, as amended by the World Trade Organization Agreement Implementation Act, also referred to herein as the WTOA Act, generally prohibits implementation of a reviewable investment by an individual, government or agency thereof, corporation, partnership, trust or joint venture that is not a "Canadian," as defined in the Investment Act, unless, after review, the minister responsible for the Investment Act is satisfied that the investment is likely to be a net benefit to Canada. An investment in our common shares by a non-Canadian would be reviewable under the Investment Act if it were an investment to acquire direct control of Micromem, and the value of our assets were CDN \$5.0 million or more. However, an investment in our shares by a national of a country (other than Canada) that is a member of the World Trade Organization or has a right of permanent residence in such a country (or by a corporation or other entity that is a "WTO Investor-controlled entity" pursuant to detailed rules set out in the Investment Act) would be reviewable at a higher threshold of CDN \$344 million in assets, except for certain economic sectors with respect to which the lower threshold would apply. A non-Canadian, whether a national of a WTO member or otherwise, would acquire control of Micromem for purposes of the Investment Act if he or she acquired a majority of our common shares. The acquisition of less than a majority, but at least one-third of our common shares, would also be presumed to be an acquisition of control of Micromem, unless it could be established that Micromem was not controlled in fact by the acquirer through the ownership of voting shares. The United States is a WTO Member for purposes of the Investment Act. Certain transactions involving our common shares would be exempt from the Investment Act, including:

- an acquisition of our common shares if the acquisition were made in connection with the person's business as a trader or dealer in securities;
- an acquisition of control of Micromem in connection with the realization of a security interest granted for a loan or other financial assistance and not for any purpose related to the provisions of the Investment Act; and
- an acquisition of control of Micromem by reason of an amalgamation, merger, consolidation or corporate reorganization, following which the ultimate direct or indirect control of Micromem, through the ownership of voting interests, remains unchanged. Under U.S. law, except in limited circumstances, restrictions generally are not imposed on the ability of non-residents to hold a controlling interest in a U.S. corporation.

U.S. shareholders may not be able to enforce civil liabilities against us.

Micromem is incorporated under the laws of the Province of Ontario. Additionally, a number of our directors and executive officers are non-residents of the U.S., and all or a substantial portion of the assets of such persons are located outside the U.S. As a result, should any investor commence an action in the U.S. against Micromem or its directors or executive officers, Micromem or its directors or officers, as the case may be, may be able to insist that any action against them take place in the jurisdiction of the Province of Ontario. In addition, if an investor were to obtain a U.S. judgment against Micromem or its directors or executive officers, there is doubt as to the enforceability of such U.S. judgment in Canada.

We do not anticipate paying dividends.

We have never paid a dividend on our securities and we do not anticipate paying dividends in the foreseeable future.

We may need to issue additional securities which may cause our shareholders to experience dilution.

Our Board of Directors has the authority to issue additional common shares, without par value, or other of our securities without the prior consent or vote of our shareholders. The issuance of additional common shares would dilute the proportionate equity interest and voting power of our shareholders.

The price of our common shares and volume of our common shares may be volatile.

Our shareholders may be unable to sell a significant number of our common shares on the OTC QX without a significant reduction in the market price of the shares.

Furthermore, there can be no assurance that we will be able to meet the listing requirements of, or achieve listing on, any other stock exchange. The market price of the common shares may be affected significantly by factors such as fluctuations in our operating results, announcements of technological innovations or new products by us or our competitors, action by governmental agencies against us or the industry in general, developments with respect to patents or proprietary rights, public concern as to the safety of products developed by us or others, the interest of investors, traders and others in public companies such as ours and general market conditions. In recent years, the securities markets in the United States and Canada have experienced a high level of price and volume volatility, and the market price of securities of many companies, particularly small capitalization companies, have experienced fluctuations which have not necessarily been related to the operating performance, underlying asset values or business prospects of such companies.

ITEM 4. INFORMATION ON THE COMPANY

A. History and Development of Our Company

Micromem is a corporation formed under the laws of the Province of Ontario, Canada, with principal executive offices at 121 Richmond Street West, Suite 304, Toronto, Ontario M5H 2K1 (416.364.6513). Micromem was incorporated on October 21, 1985 as Mine Lake Minerals Inc. We subsequently changed our name to Avanti Capital Corp. on June 23, 1988, to Avanti Corp International Inc. on April 30, 1992 and to Micromem Technologies Inc. on January 11, 1999 in connection with our acquisition of Pageant Technologies Incorporated, also referred to herein as Pageant International. Our website address is www.micromeminc.com. The information on our website is not part of this Annual Report on Form 20-F. We have included our website address in this document as an inactive textual reference only.

The Evolution of Micromem from Memory to Sensor Based Client Solutions

Micromem Applied Sensors Technologies, Inc., our wholly-owned subsidiary (“MAST”) was incorporated in 2008 in the State of Delaware. MAST was formed in connection with a contract with BAE Systems in Nashua, New Hampshire. BAE Systems is a Department of Defense trusted facility, which can only do business with U.S. entities (ITAR regulations). BAE Systems’ interest was in the potential to utilize our MRAM technology in a radiation-hardened environment for military applications. At the time of contract, Micromem had not taken the MRAM from the university research environment into a foundry, so the initial contract with BAE Systems was to use the patented MRAM design and manufacture and deliver a memory cell from a GaAs foundry. During this work it was determined that the Hall sensor, which was integral to the MRAM design, had several performance characteristics that by itself, as a product, would potentially create value for MAST.

Frost & Sullivan was contracted by MAST in 2009 to assess the market opportunities for a late entry into the Hall sensor market. The Hall sensor market in 2009 was robust at an estimated \$1.9 billion USD. The market barriers were: mature market, declining margins and heavy competition. A decision was taken to not enter the Hall sensor component market for the above reasons. A decision was taken to explore the market opportunities associated with creating unique sensor based solutions that revolved around our patented Hall sensor technology. The MRAM go forward strategy remained with Micromem.

An outside marketing firm was hired to promote the Company. It was quickly learned that the uniqueness of our products made a traditional marketing firm relationship ineffective and that relationship was terminated. Promotion of the Company reverted back to the development of a MAST website and word of mouth marketing at regional technical conferences. Through these endeavors, a decision was taken to internally develop, at our own cost, proof of concepts for products that we had gleaned through our marketing to have potential market value. These included a magnetic gold sensor for drilling plug analysis, an oil condition sensor for automotive use and an oil/gas aerial exploration platform. Provisional patents were created on this work.

A potential revenue-generating opportunity emerged in August 2010 when Lux Research contacted us on behalf of their client, a world leader in oil production. They were looking for companies that could create extremely small foot print magnetic sensor solutions for down hole use in production oil fields. MAST was subsequently engaged by this client to develop a sensor platform for detecting four nanometer magnetic particles in a flowing oil stream at a concentration less than 1 ppb. Another revenue generating opportunity came in 2011 from GSI Westwind, a supplier for high speed air bearing motors. MAST replaced the incumbent Hall sensor supplier and delivered a unique circuit board form factor that incorporated the smallest Hall sensor in the world.

It became clear at this point in the genesis of the Company that MAST had to find an effective means to disseminate its message to a larger market audience. It was now evident that a significant market space existed for companies that could leverage MEMS/Nano fabrication methodologies to create unique combinations of sensors to provide new solutions to business problems. In 2011 MAST became aware of the NineSigma Open Innovation model. Nine sigma’s core services connect innovation-seeking companies to the best solutions, capabilities and partners around the world. MAST’s relationship with NineSigma has provided us common ground access to the Global Fortune 1000 companies and has resulted in a robust future sales proposal pipeline and the first time in the Company’s history an ability to forecast revenue.

In 2011 a decision was taken to stop research and development effort in the MRAM market space. This decision was taken in part due to the high capital demand for staying current in the rapidly changing technology and equally important, the MRAM market has not grown at the anticipated growth rates. Micromem has amassed multiple memory patents and in 2013 has begun efforts to value the patent portfolio and arrange for a sale of these assets. Integral to the MRAM design is our patented Hall sensor. MAST is carrying this valuable device forward in many of our sensor platforms.

To date, Micromem has funded virtually all of our research and development. Our main priority is to provide customers with sensor based platform solutions that address their difficult business problems. A recent study by NineSigma states that less than 3% of the Fortune 1000 global companies admit that they have sufficient in house talent and knowledge to be able to take advantage of technologies that can help them improve their business. Our sensor platform solutions address three primary areas of creating value for our clients:

- Using a MEMS and/or Nano scale pallet, we are able to combine disparate sensor modalities into a common, integrated solution that brings the exact tools in play in solving the target issue. Competitive solutions tend to force fit less than optimum sensor combinations in an effort to sell their standard offerings.
- Although our solutions are custom designed for each client, our processes leading to the solution are automated and the end result is a cost effective solution with a differentially higher return on investment for our clients.
- Our Open Innovation approach to solving client problems allows us to bring together already proven sensor technologies in different market spaces allowing us to apply them in new applications in new markets. This significantly reduces the time to revenue generation by both MAST and our client and it reduces risk of project failure.

We intend to pursue specific, definable, market segments with a multi-tiered, multi-channel approach. We intend to leverage our technologies with a licensing agreement in certain key areas and a direct sales and distribution strategy in other areas using established distributors. Our sales and revenue plan includes looking to foreign markets through established distributors or strategic partners.

B. Business Overview

Prior to 2008 we were engaged in the development of memory technology. We deemphasized these continued efforts at that time and ceased all such activity by 2011. We have been actively developing our sensor technology platforms for multiple commercial applications since 2008. Our technology combines the use of microelectromechanical systems (MEMS) and nanoelectromechanical systems (NEMS) for our sensor platforms.

Profile at October 31, 2014

The Company conceives of, designs and engineers, creates, develops and delivers extremely unique sensor solutions to our clients. These sensor solutions are very small, typically employing MEMS or NEMS feature size technology. These sensor solutions are precisely driven by client requirements, typically addressing a difficult business and/or process problem. The solution typically involves integrating multiple different sensor modalities, seen in disparate market segments, different from the target client use, that addresses the client's needs. Due to the extremely small size, the final form factor allows our solutions to be deployed throughout the application space, in heretofore inaccessible ruggedized environments. The Company's approach is to take advantage of the revenue opportunity associated with the projected trillion-sensor market.

Product Development Process

In 2014, the Company substantially advanced our client driven product development activity, taking advantage of our knowledge from previous years and leveraging the rapidly changing advances in the MEMS/NEMS technology landscape. The Company generally enters into Joint Product Development Agreements with our clients and follows these stages through to commercialization:

1. Our clients provide a list of “grand challenges”, ie. serious business and process challenges that are affecting their business and also impacting the larger market segment in which they operate.
2. The Company reaches out to its global network of resources, leading experts in the various technology domains. Through this resource network, we are able to bring the world’s best domain experts to the client. This reduces the client’s perceived risk of moving forward with capital expenditures.
3. The Company performs a patent analysis and freedom to commercially operate analysis in the problem space.
4. The Company will solicit third party validation of our proposed solution to assess the potential market and revenue opportunity for the Company.
5. If this analysis indicates good fundamentals, the Company proceeds with presenting the proposed product development solution to the client.
6. The Company will fund the initial costs of facilitating a Proof of Concept demonstration given that, upon successfully meeting that goal, the client participates in the follow-on development costs. The Company product development proposal to the client indicates the specific funding responsibility the client has in testing the product in the targeted environment, and in deriving revenue to the client through deployment of the solution into their business.
7. The typical phases of the Company product development process are:
 - a. Proof of Concept demonstration: a quick phase designed to demonstrate to the client that the proposed technology will perform as anticipated.
 - b. Engineering Prototype and Extended Test: Product development is refined, engineered and made more robust. The client then places the product into the field for an extended evaluation.
 - c. Pre-Manufacturing Prototype: Based on the client’s initial field test evaluation, changes, if any, are made to the product and it is prepared for manufacturing.
 - d. Manufacturing: The client provides a formal purchase order for initial manufactured product to be permanently deployed in their business and/or process. To date, no products have reached the manufacturing stage.
 - e. Commercialization: Establishment of manufacturing partners, licensing and/or sale of the product to others well suited to take advantage of the global market opportunity. To date, no products have been successfully commercialized, licensed or sold to third parties.

The Company’s expertise is in rapidly completing the Proof of Concept demonstration. What used to take several months or initially several years can now be completed in a much shorter timeframe given the experience that the Company has developed over the past five years.

The joint development process is built upon protecting our intellectual property in every product development undertaken. The client routinely participates in the patenting process and the resultant patent is collaborative and hence protects both the Company’s intellectual property rights in the product and our client’s interest to use the product within their business space.

To date the Company has advanced its current client development projects to stages 7(a) – 7(c) above. It has not yet successfully commercialized products to the stage where it can realize its goal of securing long term annuity-like revenue streams from royalty and licensing agreements.

Product Portfolio

The following is a summary of the products for which the Company has been engaged and which are in the various stages of the product development process described above:

1. ***Nanoparticle Detector Platform:*** Joint product development was initially contracted to by Saudi Aramco and the proof of concept has been approved by the client. The detector platform is capable of detecting magnetic nanoparticles in a flowing oil stream at concentrations as low as 100 parts per trillion. The next steps will be to deliver manufactured versions to oil company laboratories.

In a parallel product development MAST has begun work on ruggedizing the nanoparticle detector platform so that it can be installed and operated directly on an oil well.

The Company anticipates up to \$2.0 million in client funding in fiscal year 2015 associated with field ruggedization, although there can be no assurances that it will generate any such revenues.

The Company has filed provisional patents with the United States Patent and Trademark office (“USPTO”) for this product.

2. ***Magnetic Nanoparticle Interwell Tracers:*** In 2013 the Company began to work with Chevron Energy Company to develop and test fluorescent magnetic nanoparticles capable of behaving in a conservative manner in the application of interwell tracers. The product development initial phase was successfully completed. The Company suggested a parallel product development program aimed at detecting existing interwell tracer chemicals in the field with on well real time detection platform technology.

The Company has filed provisional patents with the USPTO for this product.

3. ***In Line Real Time Interwell Tracer Detection Platform:*** In 2014 the Company executed a Joint Product Development Agreement with Chevron Energy Company to develop a well head real time detection platform for the detection of existing interwell tracer chemicals to measurement levels of 300 parts per trillion. The Company has obtained an exclusive license of the base line cavity ring down technology from Entanglement Technologies Inc., for use in interwell tracer detection applications. This work will progress with a laboratory demonstration of the Company’s ability to differentiate between 8-9 interwell tracers simultaneously. This will be followed by an in-field demonstration and ultimately, if successful, possible deployment of the platform throughout the client organization.

The Company has filed provisional patents with the USPTO for this product.

The Company has received \$704,478 of funding from the client to date and anticipates up to an additional \$2.3 million in client funding in fiscal year 2015 associated with field-testing, followed by \$23 million in deployment revenue thereafter, although there can be no assurances that the Company will receive such additional funding/revenue.

4. ***Intellibolt™ Automotive Oil Pan Plug Sensor Suite:*** In 2014, the Company negotiated an exclusive agreement with Flextronics to commercialize, test, manufacture and market the Company’s patented oil pan plug sensor suite to automotive OEMS. The initial licensing agreement calls for the Company to receive an estimated \$18 million if and when the initial deployment occurs, in 2016 – 2017, although there can be no assurances that the product will be deployed or that the Company will receiving any related revenues.

In 2014, one of the Company’s six provisional patents related to this product was issued by the USPTO.

5. **Real Time Detection of Wear Elements in Lubricating Fluids:** In 2014 the Company executed a Joint Product Development Agreement with Castrol Innoventures to develop a MEMS solution for field deployment in ocean going vessels, wind turbine gearboxes, heavy duty trucks and automobiles. The goal of product development is a 50 cc form factor utilizing laser induced breakdown spectroscopy that will take in line real time oil samples and analytically determine, to precise levels of detection, the various wear elements in the lubricating fluid. In 2014, the Company successfully demonstrated the bench top Proof of Concept. To date, the Company has received \$488,485 of funding from the client for this project. It anticipates that it will receive additional client funding in 2015 of up to \$1.2 million although there can be no assurances that it will receive such additional funding.

The Company has filed provisional patents associated with this product with the USPTO.

6. **Transformer Partial Detection and Expert Advise Platform:** In 2014 the Company successfully demonstrated with Northeast Utilities the ability to detect partial discharges inside the transformer using very small sensors. Northeast Utilities accepted the proof of concept and made a progress payment of \$200,000. Product development is proceeding into the next phase associated with extended engineering prototype evaluation.

The Company has filed provisional patents associated with this product with the USPTO.

7. **Power Line Condition Monitoring:** In 2014 the Company began development with Northeast Utilities on a low cost power line condition-monitoring device that is to be designed for pervasive deployment on distribution and transmission catenaries. The Company has filed provisional patents associated with this product with the USPTO.

8. **Gas Pipeline Corrosion Detection using Autonomous Robotics:** In 2014 the Company began early development with Northeast Utilities on a very small robotic platform integrated with a full suite of the Company's sensors and designed to be deployed autonomously inside distribution gas pipelines. The sensor platform is designed to establish a corrosion profile, along with an electronic mapping and database of 100% of the pipe. The Company has filed provisional patents associated with this product with the USPTO.

9. **Cement Integrity Sensor:** In 2014 the Company began a joint development project with the Chevron Energy Company to develop a sensor platform that can be pumped into oil wells with cement. Once in place, these sensors will scavenge the necessary power from the environment and communicate to the surface valuable information about the ongoing quality of the cement. The Company has filed provisional patents associated with this product with the USPTO.

Intellectual Property:

The Company has been active in building its intellectual property portfolio during 2014. We have engaged a Washington, D.C. based law firm to assist us in these efforts. The Company incurred \$176,381 of related costs in 2014.

Development Costs:

Under IFRS, the Company capitalizes product development costs incurred on those development projects which it anticipates realizing future commercial revenues. It reports these development costs on its consolidated balance sheet. If the Company determines that the realization value is less than the carrying value reported in the consolidated balance sheet, the Company will write-down the carrying value accordingly.

The Company reported \$3,525,456 as deferred development costs in its consolidated balance sheet as of October 31, 2014. These are costs that it has incurred with respect to these development projects and contracts that it continues to pursue in the immediate term and for which it expects to generate future revenue streams. These costs relate primarily to the active projects described above.

The changes in deferred development costs in 2014 are summarized as below:

Balance reported at October 31, 2013	\$	928,077
Additional project costs incurred in fiscal 2014		3,936,459
Recovery of deferred development costs		(662,290)
Writedown of project costs		(676,790)
Balance reported at October 31, 2014	\$	<u>3,525,456</u>

The writedown of project costs of \$676,790 in 2014 includes a writedown on one project of \$645,528. On that project the Company completed the initial development stages and recovered \$300,000 from the development partner, \$125,000 of which was received in 2014. In the future, should the Company continue to work with this development partner, it will report all revenues and all direct costs in its Consolidated Statements of Income.

Derivative Warrant Liability:

In October 2013 the Company decided to convert all outstanding Canadian denominated warrants to US dollars and, in every case, the warrant holder accepted this conversion. The Company took this step because of the confusion that our shareholders expressed in interpreting the required treatment and reporting of our derivative warrant liability obligations (these are non-cash liabilities) under IFRS reporting. With this change and the decision to only issue warrants in the future which are denominated in US dollars, the derivative warrant liability was eliminated from our consolidated statement of financial position at October 31, 2013.

Changes to Our Board of Directors and Management:

Our 2013 Annual Meeting of Shareholders was held on January 30, 2015. Salvatore Fuda, , Joseph Fuda, David Sharpless, Steven Van Fleet, Oliver Nepomuceno, Larry Blue, Alex Dey, Craig Carlson and Brian Von Herzen were reelected to serve on our Board of Directors. Andrew Brandt did not stand for reelection to our Board of Directors. Messrs. Salvatore Fuda, Joseph Fuda, Dan Amadori and Steven Van Fleet continue to serve as officers of the Company. Craig Carlson was appointed to serve on our Board of Directors in December 2013 and Brian Von Herzen was appointed in February 2014.

Equity Financing Transactions:

In 2014 the Company realized \$6,801,619 of proceeds from the exercise of a total of 27,410,717 common share purchase warrants.

In 2014 the Company settled \$8,353 of third party accounts payable balances through the issuance of 17,081 common shares.

In 2014 the Company extended for a period of six months the expiration date for 1,405,026 common share purchase warrants which would have otherwise expired in 2014. The exercise price for 1,105,026 of these warrants was changed from \$0.41 and \$0.45 per warrant to \$0.50 per warrant. The strike price remained unchanged for the balance of the warrants at \$0.55 per warrant.

In 2013 the Company completed a series of private placement financings with investors pursuant to prospectus and registration exemptions set forth in applicable securities laws. The Company received gross proceeds of \$2,910,532 and issued a total of 16,106,957 common shares. Additionally 16,106,957 common share purchase warrants with an average price of \$0.24 were attached to the private placements completed during 2013. All warrants issued in 2013 have a 12 month term from issue date.

In 2013 the Company extended the expiration date on a total of 11,829,029 common share purchase warrants which would have otherwise expired in 2013. These warrants were extended for a period of 12 months in each case. The Company changed the strike price on 3,673,032 warrants extended from \$0.17 to \$0.21 and other strike prices remained unchanged.

In 2013, the Company repaid one bridge loan of \$141,253. At October 31, 2013, it reported one outstanding bridge loan in the amount of \$290,014. In January 2014, this bridge loan was converted into 2,517,501 common shares and 2,517,501 common share purchase warrants.

Intangible Assets and Patents:

Intangible assets comprise the costs which the Company has capitalized relating to the technical expertise and know-how that the Company has developed with respect to the commercialization efforts relating to its sensor technology. In 2012, the Company determined that it had sufficiently advanced its expertise and product knowledge relating to the general commercialization efforts for its sensor technology in multiple industry vertical applications. We anticipate that we will realize commercial economic benefits from the exploitation of these intangible assets in future. Accordingly, we reported \$77,409 (2013 = \$96,761) of intangible assets at October 31, 2014, representing direct costs incurred with respect to such assets less amortization expense.

We believe that protection of our intellectual property is important to our ability to generate revenues from our technology in the future. We hold issued patents and pending patent applications have also entered into confidentiality and other agreements with third parties and our employees to protect our intellectual property and trade secrets. We intend to continue to actively pursue the protection of our intellectual property. Our management will determine from time to time the jurisdictions where protection is appropriate. This determination will be based on a number of factors including the state of development of our technology, the importance of a particular market for our technology, the costs of pursuing patent protection in a jurisdiction and our financial position at the time.

In 2014, we continued our activity with respect to advancing certain provisional patents relating to projects that are underway with current assignments and projects with our development partners as described above. We capitalized \$176,381 of legal fees associated with this work.

With respect to our memory related patents for which we have no immediate plans to further develop, we began in 2013 to attempt to monetize these through the potential sale of such patents.

Environmental Matters:

We are subject to various environmental protection regulations imposed by the government in the jurisdiction where we conduct our development work. We are not aware of any current or pending environmental protection laws or regulations that would have a material impact on our capital expenditure requirements or competitive position.

C. Organizational Structure

In November, 2007, the Company incorporated Micromem Applied Sensors Technology, Inc. ("MAST") as a Delaware-based wholly-owned subsidiary. MAST has an office in New York City and is being managed by Steven Van Fleet, its President and a director of Micromem. MAST is pursuing a number of potential strategic joint development agreements with industry partners.

In October, 2008, the Company incorporated 7070179 Canada Inc. as a wholly-owned subsidiary. On October 31, 2008, the Company assigned its rights, title and interest in certain of its intellectual property which it previously held directly to 707179 Canada Inc. in exchange for common shares of this wholly-owned subsidiary.

We have a wholly-owned subsidiary, Pageant International, which was incorporated under the laws of the Turks & Caicos Islands and continued to Barbados on May 25, 2001. Pageant International has a wholly-owned subsidiary, Pageant Technologies (USA) Inc., a corporation incorporated in the State of Utah. Pageant Technologies USA has been inactive since 2002.

We have a wholly-owned subsidiary, Memtech International Inc., incorporated under the laws of the Bahamas, which in turn has a wholly-owned subsidiary, Memtech International (USA) Inc., a corporation incorporated in the State of Delaware. We also have a wholly-owned subsidiary Micromem Holdings (Barbados) Inc. These subsidiaries have been inactive since inception.

D. Property, Plant and Equipment

We maintain our corporate headquarters in Toronto, Ontario, Canada. We occupy 2,500 square feet of commercial office space pursuant to a lease that we executed in 2012 and which extends for five years through 2017.

The Company made \$16,508 capital expenditures in 2014; \$14,839 of capital expenditure in 2013; no capital expenditures were made in 2012.

ITEM 4A. UNRESOLVED STAFF COMMENTS

None.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

This section of the Form 20-F has been prepared to provide a more substantive discussion of our business and to assist the reader in analyzing the audited consolidated financial statements for the years ended October 31, 2014, October 31, 2013 and October 31, 2012. This discussion and analysis of financial condition and results of operations should be read in conjunction with the consolidated financial statements and related notes in this Annual Report, which are prepared in accordance with IFRS and are stated in United States dollars.

A. Operating Results

The following table sets forth certain selected financial information of our Company:

Selected statement of operations and deficit information

	2014	2013	2012
Interest and other income	-	-	-
Administration	325,453	378,497	694,617
Professional and other fees and salaries	2,360,867	1,572,515	1,507,891
Travel and entertainment	329,779	210,852	150,924
Other expenses	769,519	197,522	495,200
Stock compensation expense	379,253	368,790	430,856
(Gain) Loss on derivatives	-	3,205,752	(1,504,423)
Loss for the year	4,164,871	5,933,928	1,775,065
Loss per share - basic and diluted	0.02	0.04	0.01

Selected balance sheet information

	2014	2013	2012
Working capital (deficiency)	\$ 1,034,921	\$ 425,888	(1,793,217)
Other Assets	3,827,852	1,110,431	889,187
Total Assets	5,636,605	2,166,455	1,180,278
Shareholders' equity (deficiency)	4,862,773	1,536,319	(904,030)

Fiscal 2014 Compared to Fiscal 2013

The Company reported a loss of \$4,164,871 in 2014 versus a loss of \$5,933,928 in 2013. In 2013 the net loss included a non-cash loss on the revaluation of derivative warrant liability of \$3,205,752; excluding this component, the 2013 loss was \$2,728,126.

The increase in loss from operations in 2014 resulted from several components including:

- (a) An increase of \$788,352 in professional fees, other fees and salaries in 2014 (2014 expense of \$2,360,867 versus 2013 expense of \$1,572,515).
In 2014 the Company incurred additional legal fees relating to contract negotiations with its customers, additional costs associated with its audit of internal control over financial reporting, which was required in 2014 given the Company's status as an accelerated filer and additional salary and fees paid to officers, directors and employees of approximately \$600,000. Research and development costs increased from \$160,920 in 2013 to \$703,671 in 2014, an increase of \$542,751.
- (b) Travel and entertainment expense increased to \$329,779 in 2014 from \$210,852 in 2013. The Company incurred significantly more travel related costs in 2014 relating to the increased level of activity that it was engaged in with its current clients.
- (c) Other expenses increased to \$769,519 in 2014 from \$197,522 in 2013. Included in other expenses are amortization costs of \$7,357 (\$24,341 in 2013), foreign exchange expenses of \$58,491 (\$12,261 in 2013) and research and development expenses of \$703,671 (\$160,920 in 2013). Included in this total in 2014 was the writedown of development cost incurred on one project for which it had completed the staged development phases for that contract. The Company recovered \$300,000 from the development partner on this project, \$125,000 of which was received in 2014. The net writedown was \$645,528 for this project.
- (d) Stock compensation expense, calculated in accordance with the Black Scholes option pricing model, was \$379,253 in 2014 relating to the issuance of 630,000 stock options awarded to directors, officers and staff (2013: expense of \$368,790 relating to the issuance of 2,170,000 stock options).
- (e) Administration costs include rent, communication costs, insurance, filing fees and costs associated with the Annual General meeting. These costs were comparable in 2014 and 2013. The Company reported nil accretion expense in 2014 (\$19,381 in 2013) and interest expense of \$28,640 (\$78,677 in 2013) on convertible debentures.

At October 31, 2014, the Company had working capital of \$1,034,934 compared to \$425,888 at October 31, 2013. Included in deposits and other receivables at October 31, 2014 is a \$244,074 advance provided to Mr. Steven Van Fleet, the President of MAST Inc., the Company's active U.S. subsidiary. This advance was authorized by the Company's Compensation Committee in May 2014 and is recoverable by the Company against future compensation.

The Company's investment in deferred development costs increased to \$3,525,456 at October 31, 2014 from \$928,077 in 2013, an increase of \$2,597,379. The Company's activities with its customers increased and progressed on multiple fronts in 2014 as described in Item 4 of this Annual Report. A reconciliation of the increase in the Company's investment in its deferred development costs in 2014 is provided as below:

Balance reported at October 31, 2013	\$	928,077
Project costs incurred in 2014		3,936,459
Costs recovered from clients in 2014		(662,290)
Write down of project costs in 2014		(676,790)
Balance reported at October 31, 2014	\$	<u>3,525,456</u>

The write down of project costs in 2014 of \$676,790 consists principally of the deferred costs previously incurred with respect to the Nanoparticle Detector Platform project for which the Company completed its initial phases of activity in 2014. See Item 4 of this Annual Report for a description of this project.

In 2014 the Company realized \$6,801,619 from the exercise of 27,410,717 common share purchase warrants by shareholders who had subscribed to unit private placements in prior years. In 2013 the Company realized \$822,391 from the exercise of 5,953,913 common share purchase warrants by shareholders; additionally, it realized \$2,910,532 from the issuance of private placements for a total of 16,106,957 units, each consisting of one common share and one common share purchase warrant.

In 2014 the Company converted its remaining outstanding bridge loan, which was originally obtained in 2011, into 2,517,501 units, each consisting of one common share and one common share purchase warrant. Additionally, it settled a third party trade payable balance of \$8,353, at the supplier's request, through the issuance of 17,081 common shares.

Fiscal 2013 Compared to Fiscal 2012

The Company reported a loss of \$5,933,928 in 2013 versus a loss of \$ 1,775,065 in 2012. The increased loss was primarily the result of a non-cash loss on derivatives of \$3,205,752 (2012: a non cash gain on derivatives of \$1,504,423).

The Company's working capital position improved significantly in 2013 in comparison to the prior year. This is the result of the Company's success in raising additional financing in 2013, in reducing its expenses and also the result of eliminating the derivative warrant liability from its consolidated balance sheet in 2013.

The Company capitalized \$677,445 of development costs relating to several development projects in 2013 (2012: \$71,557) and recovered \$233,290 of costs incurred from customers. At October 31, 2013 the Company reported \$928,077 of deferred development costs on its balance sheet (2012: \$718,163).

In the fiscal year ended October 31, 2013, the Company reported net additions of \$44,825 to its patents (2012: \$26,650). The Company reported \$71,595 of patents on its consolidated balance sheet at October 31, 2013 (2012: \$49,124).

The Company reported no expenditures on intangible assets in 2013 (2012: Nil). At October 31, 2013, the Company reported \$96,761 of intangible assets on its consolidated balance sheet (2012: \$116,113).

The Company reported no interest income in 2013 (2012: nil). It recorded, but fully reserved a total of \$20,105 (2012: \$20,300) of interest income on a secured promissory note outstanding.

Administration costs include office rent, communication costs, insurance, filing fees and costs associated with the Annual General Meeting. These costs were comparable in 2013 and 2012. In 2013, the Company also reported \$19,381 of accretion expense relating to its convertible debentures versus \$187,671 in 2012 - the Company began phasing out of its convertible debentures in 2013. Finally, the Company incurred \$72,756 in 2012 with respect to preliminary costs associated with upgrading its listing status in Canada; it incurred no such costs in 2013.

Professional and other fees and salaries totaled \$1,572,515 in 2013 (2012: \$1,507,891). These costs include: audit related fees of \$149,478 (2012: \$118,475), legal expenses of \$154,340 (2012: \$48,951), management fees of \$637,011 paid to the Chairman, the CEO and the CFO (2012: \$514,262), staff salaries and benefits of \$443,078 (2012: \$407,450), other expenses of \$7,512 (2012: \$15,594) and consulting fees of \$181,096 (2012: \$403,158). Consulting fees have several significant components: the Company paid fees of \$140,790 to third party advisors who assisted the Company in investor relations in 2013 (2012: \$104,003); it paid the President of MAST a total of \$230,896 in 2013, of which approximately \$27,000 has been expensed in 2013; the balance of the total expenditure has been capitalized in several projects and these costs are included in deferred development costs (in 2012, \$183,000 of costs were expensed); and assistance in IFRS reporting of \$23,238 (\$35,565 in 2012).

Stock compensation expense, calculated in accordance with the Black Scholes option pricing model was \$368,790 in 2013 relating to the issuance of 2,170,000 stock options awarded to directors, officers and staff (2012: expense of \$430,856 relating to the issuance of 2,000,000 stock options).

In 2013 other expenses included amortization costs relating to property, equipment, patents and intangible assets of \$24,341 (2012: \$23,766) foreign exchange expense of \$12,261 (2012: \$7,537) and the Company expensed \$160,920 of project development costs incurred (2012: \$229,840). In 2012 the Company recovered a total of \$72,004 of costs previously expensed relating to patents and to the promissory note receivable; in 2013 no such recoveries were reported.

Under IFRS the Company accounts for the outstanding Canadian denominated warrants and the conversion feature on its bridge loans as embedded derivative liabilities, measuring these liabilities using the Black Scholes option pricing model. These liabilities are revalued at each quarter end. In 2013, the Company reported a net (non-cash) expense of \$3,205,752 (2012 a net (non-cash) gain of \$1,504,423) on these embedded derivatives.

Unaudited quarterly financial information

(all amounts in United States dollars)

Quarter ended	Total Revenues	Net Income (Loss)	Loss Per share Basic and diluted
October 31, 2014	-	(\$1,088,154)	(0.01)
July 31, 2014	-	(1,602,411)	(0.01)
April 30, 2014	-	(922,183)	(0.01)
January 31, 2014	-	(552,123)	-
October 31, 2013	-	(\$5,239,307)	(0.03)
July 31, 2013	-	(261,031)	-
April 30, 2013	-	(17,012)	-
January 31, 2013	-	(416,078)	-
October 31, 2012	-	\$ 1,606,175	.01
July 31, 2012	-	(507,079)	-
April 30, 2012	-	(2,849,835)	(0.02)
January 31, 2012	-	(24,327)	-

The net income (loss) has varied significantly between quarters in 2012 and in 2013, the result of the required re-measurement of derivative warrant liability at each quarter end under IFRS reporting, which re-measurement is a non-cash item.

In October 2013 the derivative warrant liability was eliminated. The Company recorded a non-cash charge of \$5,225,000 relating to the elimination of this derivative warrant liability in the quarter ended October 31, 2013.

B. Liquidity and Capital Resources:**Liquidity**

We have not yet realized commercial revenues from the exploitation of our technology platforms. We currently do not have positive cash flow from operations and will not realize positive cash flow until we license or directly produce and sell products utilizing our technology platforms.

We currently have no lines of credit available. We have, to date, relied on obtaining equity financing from investors through private placements and through the exercise by shareholders of common share purchase warrants in order to meet our cash flow needs until we can generate sustainable revenues. At October 31, 2014 we had \$1,034,921 of working capital (2013: \$425,888) including cash on hand of \$935,987 (2013: \$821,283) and our monthly overhead cash expenses approximate \$175,000. Since October 31, 2014 we have raised an additional \$565,714 through the exercise of common share purchase warrants.

During 2014 we recovered \$662,290 of costs that the Company incurred from its customers on the multiple projects that it has been developing. Since October 31, 2014, the Company has recovered an additional \$942,978 from its customers on these projects. We anticipate that in 2015, our development projects, in total, will be self-funding.

We have granted to our directors, officers and other employees a number of options to purchase shares at prices that are at or above market price on the date of grant. None of the optionees has any obligation to exercise their options and there can be no guarantee that we will realize any funds from these options.

Capital Resources

We made \$16,508 of capital expenditures in 2014; in 2013 we made \$14,839 of capital expenditures and made no expenditures on capital equipment in 2012.

C. Research and Development:

Under IFRS, research costs are expensed in the period incurred. Development expenses are expensed as incurred unless they meet the criteria for deferral and amortization under IFRS, which criteria is the translation of research findings or other knowledge into a plan for the technology prior to commercial production or use.

D. Trend Information:

The market applications for "smart" sensors are expanding; there are potential applications that could be utilized in virtually every industry vertical.

Our prospects for commercial revenues are dependent upon the successful completion of all milestones in the development contracts that we have renewed to date, obtaining additional development contracts with new customers and upon the customers deciding to proceed with commercial orders once these development contracts are successfully completed.

E. Off-Balance Sheet Arrangements:

We are not party to any off-balance sheet arrangements except for operating lease commitments. In addition, we have no unconsolidated special purpose financing or partnership entities.

F. Tabular Disclosure of Contractual Obligations:

A summary of our financial commitments as of October 31, 2014 is as below:

	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Operating lease obligations	160,353	43,733	116,620	-	-
Purchase obligations	2,733,000	1,799,000	934,000	-	-
Total:	2,893,353	1,842,733	1,050,620	-	-

In addition to these financial commitments, the Company has management agreements with its senior executives which are operative on a month to month basis. At October 31, 2014 these agreements stipulate the following monthly obligations for the Company's senior management team:

Chairman	\$12,500CDN (\$10,000 US)
President	13,333CDN (\$10,666 US)
President, MAST	\$15,000 US
CFO	12,500CDN (\$10,000 US)

Critical Accounting Policies:

Our significant accounting policies are set forth in our consolidated financial statements, which should be read in conjunction with management's discussion of our critical accounting policies and estimates set forth below.

Our consolidated financial statements for the period have been prepared in accordance with IFRS which, in our case conforms in all material respects with U.S. GAAP except for the accounting for development expenditures reported, for intangible assets, warrant modification and modification of the conversion feature of bridge loans reported in the fiscal years ended October 31, 2014, 2013, 2012 and 2011.

We have not yet realized commercial revenues from the exploitation of our technology. Under IFRS, research costs are expensed in the period incurred. Development expenses are expensed as incurred unless they meet the criteria for deferral and amortization under IFRS which is the translation of research findings or other knowledge into a plan for the technology prior to commercial production or use. Under U.S. GAAP all development expenditures are expensed as incurred. As at October 31, 2014, the Company capitalized \$3,525,456 (2013: \$928,077) of development costs and capitalized \$77,409 (2013: \$96,761) as intangible assets under IFRS.

Management is required to make estimates and assumptions which can affect the reported balances. In determining estimates of net recoverable amounts and net realizable values, or whether there has been a permanent impairment in value, we rely on assumptions regarding applicable industry performance and prospects, as well as general business and economic conditions that prevail and are expected to prevail. Assumptions underlying asset valuations are limited by the availability of reliable comparable data and the uncertainty of predictions concerning future events.

Accounts recorded in foreign currency have been converted to United States dollars as follows: current assets and current liabilities at the prevailing exchange rates at the end of the year; other assets at historical rates; revenues and expenses are translated at the three month average monthly exchange rate per quarter which rate approximates the rate of exchange prevailing at the transaction dates; and gains and losses resulting from the fluctuation of foreign exchange rates are included in the determination of income.

G. Contingencies:

- A. We have agreed to indemnify our directors and officers and certain of our employees in accordance with our By-laws. We maintain insurance policies that may provide coverage against certain claims.
- B. In 2013 the Company recovered \$181,780 of accounts payable balances, recorded in previous years, relating to third party vendors whose accounts the Company has disputed. The Company has concluded that these amounts are not payable. In the event it is determined that these amounts are payable the Company would incur these costs.

H. Translation of Foreign Currencies:

Our functional and reporting currency is the United States dollar. Accounts recorded in foreign currency have been converted to United States dollars as follows: Monetary assets and liabilities are translated at exchange rates at the consolidated balance sheet dates; non-monetary assets are translated using the historical rate of exchange in effect at the translation dates; revenues and expenses are translated using the three month average rate of exchange per quarter, which rate approximates the rate of exchange prevailing at the transaction dates; and gains and losses resulting from the translation are included in the determination of net loss for the period.

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

A. Directors and Executive Officers

The Directors and Executive Officers of Micromem as at February 25, 2015 are set forth below:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Salvatore Fuda	79	Chairman of the Board of Directors
Joseph Fuda	53	President, Chief Executive Officer and Director
Dan Amadori	63	Chief Financial Officer
Steven Van Fleet	60	Director and President of MAST, Inc.
David Sharpless	64	Director
Larry Blue	58	Director
Oliver Nepomuceno	45	Director
Alex Dey	71	Director
Craig Carlson	59	Director
Brian Von Herzen	55	Director

Salvatore Fuda has served as Chairman of the Board of Directors of Micromem since January 11, 1999 and a Director of Micromem since 1992. He served as President and Chief Executive Officer from June 2000 through to February 13, 2002. From 1992 to January 11, 1999 he also served as Secretary of Micromem. He served as President and Chief Executive Officer of Ontex Resources Limited (TSE) from 1986 to December 1998 and as Chairman of the Board of Ontex Resources Limited until 2008. He has served as Chairman of the Board of Directors and as a director of Echo Energy Canada Inc. from 2002 - 2009. He also served as Chairman of the Board of Leader Capital Corp. He is the father of Joseph Fuda.

Joseph Fuda has been President, Chief Executive Officer and Director since February 13, 2002. Previously he served as Manager of Strategic Alliances for Micromem since February 2001. Prior thereto, he served as a consultant to Micromem since November 2000. Prior thereto he served as a Vice-President and a Director of IPO Capital Corp since April 1999. He was a director of Leader Capital Corp. until June 2007 and also served as a director of Echo Energy Canada Inc, and of Echo Power Generational Inc until June 2004.

Dan Amadori has served as Chief Financial Officer of Micromem since June 2004. He has also served as Chief Financial Officer of Leader Capital from June 2004 – March 2009. He served as a Director and Chair of the Audit Committee of Ontex Resources between September 2003 and March 2005. He served as CFO of Echo Power Generation Inc. from June 2004 - March 2008. He served as a director of Hydrive Technologies Inc. from 2004-2008 and as Chair of the Audit Committee of Hydrive from 2006-2008. He served as a Director and CFO of XGEN Ventures Inc. between November 2005 and September 2009. He was appointed as Chairman of Kingsway Arms Retirement Residences in August 2011. He is President of Lamerac Financial Corp., a financial advisory firm and has held that position since October 1988. Mr. Amadori is a Chartered Accountant and holds an MBA from the Ivey School of Business.

Steven Van Fleet has been President of MAST since 2008 and a director of Micromem since 2002. He is a 1976 graduate of Miami University with a BSc. in Applied Science and held several technical positions in the pulp and paper industry including Reed Paper, MacMillan Bloedel, Weyerhaeuser, Boise Cascade and International Paper. While at International Paper, he managed the corporate research and development group responsible for applying emerging technology to business issues. Mr. Van Fleet was one of the founding directors for the MIT Auto ID group that was charged with creation of the Internet of Things and the emergence of a global standard for the application of RFID. He held business development positions with Sentrol System, a supplier of paper machine quality systems and the R&V Group, a startup RFID manufacturing company. For six years he was the owner of a company that served IBM with a focus on semiconductor clean room tool analytics and automation.

David Sharpless is the Chairman and CEO of Maverick Inc., a private consulting and investment firm and the Chairman and CEO of New Carbon Economy Venture Management Inc., a private company which manages a number of investments in “green” technology companies. He was the Chairman and CEO of TrustMark Auto Group Inc. a CNSX listed company and the Chairman of Hunter Keilty Muntz and Beatty Limited, a firm of international insurance brokers based in Toronto and the Vice Chairman of its successor, HKMB Hub International Ltd. Prior to joining Hunter Keilty Muntz and Beatty Limited in 2001, his career spanned more than 25 years as a business lawyer with Blake, Cassels & Graydon and as a senior leader in international finance. He has served as a director of Micromem since 2001.

Larry Blue is an independent consultant on emerging technologies. Currently he serves as Executive Vice President and Chief Operating Officer of Bell and Howell Ltd. Previously he was the President of New Vision Display, Inc., responsible for Global Sales and Marketing. NVD was spun out of Multek Technologies Inc., a subsidiary of Flextronics, where he was a Vice President and General Manager of their Printed Electronics business. Previously he was President of Hi-G-Tek Inc. a privately-held technology company based in Maryland. Previously he was the Vice President and General Manager of Symbol Technologies Inc. Previously Mr. Blue had senior management roles with Hughes Network Systems and with IBM in Research Triangle Park. He has served as a Director of the Company since 2005.

Oliver Nepomuceno has served as a director of Micromem since June 26, 2006. He is a resident of Switzerland and continues to serve as a Financial Advisor with a private wealth management company located in Switzerland.

Alex Dey is a retired business man and was elected as a director on September 24, 2010. He was the sole proprietor of Alex Dey, Chartered Accountants until July 31, 2004.

Craig Carlson is the Managing Director of the Carlson Group LLC, an advisory group based in Boston Massachusetts serving the global automotive industry. Previously he was the CEO and Managing Director of S.I.Automotive LLC between 2003 - 2006. He was a senior vice president with Arthur D Little, a Global Management and Technology Consulting organization, between 1989-2003. Previously he was a district/zone manager with General Motors Corporation between 1977-1989. He joined the Micromem Board of Directors on December 1, 2013.

Brian Von Herzen

Since 1993, Dr. Von Herzen has served as Chief Executive Officer at Rapid Prototypes, Inc. providing turnkey electronic product design services, including commercial product specifications and fully functional engineering product prototypes, frequently using programmable logic devices. Rapid Prototypes is expert in electronic engineering design technologies designed to minimize time to market for new electronic products in networking, consumer electronics and other commercial products. The company has developed some of the world's fastest commercial FPGA applications. Dr. Von Herzen also serves on the board of directors of the Climate Foundation and Bright Energy Storage Technologies, LLP. Dr. Von Herzen has also developed software and hardware systems ranging from apps on smartphones to multi-GHz correlating spectrometers for the Caltech Submillimeter Observatory. He has extensive experience with electronic and optical system development for commercial electronic products.

There are no arrangements or understandings between any director and any other person pursuant to which the director was selected as a director or executive officer. Each director holds office until the next annual meeting of shareholders or until his or her successor is elected or appointed, unless his or her office is earlier vacated according to the provisions of our By-laws or the

Business Corporations Act (Ontario).

Other than a father/son relationship between Salvatore Fuda (father) and Joseph Fuda (son), there is no family relationship between any director or executive officer and any other director or executive officer.

B. Compensation

Name and Principal Position	Annual Compensation			Long-Term Compensation	
	Fiscal Year	Salary (US\$)	Bonus (US\$)	Other Annual Compensation (US\$)	Securities Under Options Granted (#)
Joseph Fuda Chief Executive Officer	2012	190,000	-	-	30,000 ¹
	2013	318,000	-	-	-
	2014	234,107	534,398	-	-
Salvatore Fuda, Chairman of the Board of Directors	2012	150,000	-	-	110,000 ¹
	2013	146,599	-	-	140,000 ²
	2014	137,172	-	-	-
David Sharpless Director	2012	-	-	-	190,000 ¹
	2013	-	-	-	140,000 ²
	2014	-	-	-	25,000
Steven Van Fleet Director and President of MAST, Inc.	2012	261,000	-	-	500,000 ¹
	2013	231,000	-	-	140,000 ²
	2014	230,193	-	-	35,000 ⁴
Dan Amadori Chief Financial Officer	2012	175,000	-	-	190,000 ¹
	2013	146,649	33,589	-	140,000 ²
	2014	151,063	53,982	-	20,000 ⁴
Larry Blue Director	2012	-	-	-	190,000 ¹
	2013	-	-	-	140,000 ²
	2014	23,877	-	-	25,000 ⁴
Oliver Nepomuceno Director	2012	-	-	-	190,000 ¹
	2013	-	-	-	140,000 ²
	2014	-	-	-	25,000 ⁴
Alex Dey Director	2012	-	-	-	-
	2013	-	-	-	140,000 ²
	2014	-	-	-	30,000 ⁴
Craig Carlson Director	2012	-	-	-	-
	2013	-	-	-	300,000 ³
	2014	14,866	-	-	25,000 ⁴
Brian Von Herzen Director	2012	-	-	-	-
	2013	-	-	-	-
	2014	1,843,643 ⁵	-	-	25,000 ⁴

Notes:

- Each option entitles the holder to purchase one common shares at a price of \$0.35 per share prior to expiration in April 2017.
- Each option entitles the holder to purchase one common share at a price of \$0.30-\$0.27 CDN per share prior to expiration between January and September 2018.

3. Each option entitles the holder to purchase one common share at a price of \$0.35 per share prior to expiration in October 2018.
4. Each option entitles the holder to purchase one common share at a price of \$0.64U/\$0.70CDN per share prior to expiration in April 2019.
5. Brian Von Herzen became a director in February 2014. Rapid Prototypes, Inc, a company whose major shareholder is Mr.Von Herzen, invoices the Company for engineering, product development and design services.

Options are offered to directors, executive officers and employees to purchase our common shares at an exercise price equal to or above the market price for the common shares at the date that the options are granted. These options are approved by the Compensation Committee. None of the directors have agreements that provide for benefits upon termination of service.

In 2014 a total of 630,000 stock options were granted to officers, directors, employees and outside consultants. The exercise price for 350,000 options in February 2014 was \$0.85 per share; the exercise price for 280,000 options issued in April 2014 was \$0.64 per share.

In 2013, a total of 610,000 options were forfeited and cancelled. In 2013 options were granted to directors, officers and employees as follows: in January 2013, 1,090,000 options were granted at an exercise price of \$0.30 per share; in September 2013, 780,000 options were granted at an exercise price of \$0.27 per share; in October 2013, 300,000 options were granted to a consultant at an exercise price of \$0.35 per share.

In March 2012, 2,720,000 options were cancelled. In April 2012 a total of 2,000,000 options were granted to directors, officers and employees at an exercise price of \$0.35 per share.

C. Board Practices:

All matters pertaining to our financing, contractual arrangements and Management and Director compensation are approved by the Board of Directors. The members of the Board of Directors are appointed to a one-year term at our Annual General Meeting.

Our Board of Directors meets on an as required basis during the fiscal year. In 2014 our Board of Directors met formally in February 2014. The Board was also convened informally as of each quarter end.

Our Audit Committee regularly during fiscal 2014 for the purpose of approving and recommending to the Board the quarterly financial statements and our yearend financial statements. In addition, our Audit Committee receives regular periodic reports from management.

Our Compensation Committee met regularly in 2014 and additionally receive regular reports from management. Our Compensation Committee approves Management and Director Compensation and all stock option grants for recommendation to the Board of Directors.

Our Disclosure Committee met as required in 2014 to review our various press release disclosures and to monitor our general practices relating to our disclosure requirements.

Audit Committee

The Board of Directors has appointed an Audit Committee consisting of three independent directors. The members of the Audit Committee are Alex Dey, Oliver Nepomuceno and David Sharpless (Chairman), each of whom serves in such capacity until the Board of Directors' next annual meeting. The Audit Committee is responsible for the integrity of our internal accounting and control systems. The committee receives and reviews our financial statements and makes recommendations thereon to the Board of Directors prior to its approval by the full Board of Directors. The Audit Committee communicates directly with our external auditors in order to discuss audit and related matters whenever appropriate. In 2014 the Audit Committee met formally in January, February March, June, September and October.

Compensation Committee

The Board of Directors has appointed a Compensation Committee which meets on executive compensation matters as and when required. Our Compensation Committee includes Oliver Nepomuceno and Alex Dey as outside directors. The Compensation committee met monthly between January – June 2014, in September 2014 and in January 2015.

Disclosure Committee

The Board of Directors has appointed a Disclosure Committee whose primary responsibility is to ensure timely and accurate disclosure of all relevant information in accordance with the various securities regulations. Our Disclosure Committee includes Salvatore Fuda, the Company's Chairman, and Alex Dey, an outside director.

D. Employees

We have six employees, three of which serve in a management capacity and three of which serve in an administrative capacity. This includes the Chief Executive Officer and President, the Chief Financial Officer and the President of MAST and three support staff, all (except for the President of MAST) of whom work from our executive offices in Toronto, Canada. All research and development is outsourced to third parties. We consider our relations with our employees to be satisfactory.

E. Share Ownership

NAME	SHARES OWNED	OPTIONS HELD	OPTION EXERCISE PRICE	EXPIRATION DATE	% OF TOTAL ¹
Joseph Fuda Chief Executive Officer and Director	353,947	2,000,000 30,000	\$0.20 \$0.35	10/31/2016 04/10/2017	1.25% (2,383,947)
Salvatore Fuda Chairman of the Board of Directors and Director	5,198,501 ²	1,000,000 110,000 75,000 65,000	\$0.20 \$0.35 \$0.30 \$0.27	10/31/2016 04/10/2017 01/22/2.18 09/16/2018	3.40% (6,448,501)
David Sharpless Director	100,000	450,000 190,000 75,000 65,000 25,000	\$0.20 \$0.35 \$0.30 \$0.27 \$0.64	10/31/2016 04/10/2017 01/22/2018 09/16/2018 04/25/2019	0.48 % (905,000)
Steven Van Fleet Director and President of MAST, Inc.	-	1,000,000 500,000 75,000 65,000 35,000	\$0.20 \$0.35 \$0.30 \$0.27 \$0.64	10/31/2016 4/15/2012 01/22/2.18 09/16/2018 04/25/2019	0.89 % (1,675,000)
Dan Amadori Chief Financial Officer	612,517 ³	1,000,000 190,000 75,000 65,000 20,000	\$0.20 \$0.35 \$0.30 \$0.27 \$0.64	10/31/2016 04/10/2017 01/22/2018 09/16/2018 04/25/2019	1.03 % (1,962,517)
Larry Blue Director	193,600	500,000 190,000 75,000 65,000 25,000	\$0.20 \$0.35 \$0.30 \$0.27 \$0.64	10/31/2016 04/10/2017 01/22/2018 09/16/2018 04/25/2019	0.55% (1,048,600)
Oliver Nepomuceno Director	953,572	350,000 190,000 75,000 65,000 25,000	\$0.20 \$0.35 \$0.30 \$0.27 \$0.64	10/31/2016 04/10/2017 01/22/2018 09/16/2018 04/25/2019	0.88% (1,658,572)
Alex Dey Director	693,425 ⁴	125,000 100,000 75,000 65,000 30,000	\$0.35 \$0.20 \$0.30 \$0.27 \$0.64	04/5/2016 10/31/2016 01/22/2018 09/16/2018 04/25/2019	0.58% (1,088,425)
Craig Carlson	-	300,000 25,000	\$0.35 \$0.64	10/25/2018 04/25/2019	0.12% (325,000)
Brian Von Herzen	-	300,000 25,000	\$0.85 \$0.64	02/10/2019 04/25/2019	0.12% (325,000)

- 1 Calculated based on shares owned plus options held as a percentage total of shares outstanding as of October 31, 2014, plus options held.
2 5,003,611 shares are held by a corporation wholly owned by a trust established for the benefit of members of Salvatore Fuda's family.
3 215,716 shares are held by a corporation controlled by Mr. Amadori.
4 254,863 shares are held by a corporation wholly owned by Mr. Dey.

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

A. Major Shareholders:

No shareholder holds greater than 5% of the common shares outstanding. As of the date of this Annual Report approximately 58% (94,832,406) of the issued and outstanding common shares are held by Canadian investors; approximately 21% (34,335,872) of the issued and outstanding shares are held by U.S. investors; and approximately 21% (34,335,871) are held by investors outside of Canada and the U.S.

B. Other Related Party Transactions:

The Company reports the following related party transactions:

- (a) Mr. Salvatore Fuda: Our Chairman of the Board receives cash compensation on a month to month basis calculated at an annual rate of \$150,000 CDN (\$120,000 US at current exchange rates).

Mr. Fuda was not granted any stock options in 2014. In 2013 Mr. Fuda was awarded a total of 140,000 stock options at an average exercise price of \$0.29 CDN per share (2012 - 100,000 stock options at an average exercise price of \$0.35 per share).

The total compensation paid to our Chairman of the Board during the year ended October 31, 2014 was \$137,172 of cash compensation and zero stock based compensation (2013 - \$146,599 of cash compensation and \$ 21,163 of stock based compensation; 2012 - \$149,565 of cash compensation and \$23,697 of stock based compensation).

In 2014 the Company provided a short term non-interest bearing advance of \$38,084 against monthly compensation due to the Chairman. This advance was repaid subsequent to October 31, 2014.

- (b) Management and consulting fees and advances:

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 paid to such parties is summarized as:

	2014		2013		2012
Cash compensation	\$ 1,482,153	\$	805,574	\$	709,075
Less portion capitalized to deferred development costs	(169,664)		(202,820)		-
	1,312,489		602,754		709,075
Stock based compensation	325,074		195,720		401,773
	\$ 1,637,563	\$	798,474	\$	1,110,848

In 2014 these parties were awarded a total of 540,000 stock options at an average exercise price of \$0.76 CDN per share (2013 – 1,292,500 stock options at an average price of \$0.29 per share; 2012 – 1,755,000 stock options at an average exercise price of \$0.35 per share)

In 2014 the Company was invoiced \$1,843,634 (2013-\$391,192; 2012- \$94,755) by Rapid Prototypes, Inc (RPI), a company whose major shareholder is Brian Von Herzen, who has served as a director of the Company since February 2014 and who also serves as our Chief Technology Officer. These charges have been capitalized as deferred development costs. Included in accounts payable at October 31, 2014 is \$208,425 owing to RPI .

In February to March 2014, Mr. Amadori was provided with an advance of \$119,757 against monthly compensation due to him. Interest on the advance was charged at a rate of 1% per month on the opening monthly balance outstanding. Mr. Amadori repaid \$78,036 through October 31, 2014 and was awarded a performance based bonus at October 31, 2014 which was applied to the repayment of the remaining balance of the advance.

In May 2014, Mr. Van Fleet was provided with an advance of \$244,074 against monthly compensation due to him. No interest was charged on the advance and this balance remained outstanding at October 31, 2014. In February 2015, Mr. Van Fleet was awarded a performance based bonus which was applied to and eliminated the total amount of the outstanding advance.

In 2014, a senior employee was provided with an advance of \$80,916 against monthly compensation due to the employee. This advance was non-interest bearing. The advance was repaid subsequent to October 31, 2014.

ITEM 8. FINANCIAL INFORMATION**A. Consolidated Statements and Other Financial Information**

Our consolidated financial statements for the years ended October 31, 2014, 2013, 2012 and 2011 have been prepared in accordance with IFRS. Prior to 2011, the Company prepared consolidated financial statements in accordance with Canadian GAAP.

We have never paid a dividend on our securities. We do not anticipate paying dividends in the foreseeable future.

As of October 31, 2014 there were no legal proceedings outstanding. In November 2014 the Company commenced an action against a contractor claiming multiple causes of action and is seeking damages relating to services provided by the contractor between 2008-2011. At February 25, 2015, the contractor has denied the allegations and is seeking dismissal of the Company's claims.

B. Significant Changes

Significant Changes since October 31, 2014 are as presented in Note 23 to the Company's Consolidated Financial Statements. See "ITEM 18 – Financial Statements".

ITEM 9. THE OFFER AND LISTING

Our common shares are traded in the United States and are quoted on the OTC QX. The common shares are quoted under the symbol MMTIF. Our common shares are traded in Canada on the CSE under the symbol MRM.

The table below sets forth the high and low sales prices for common shares in U.S. Dollars as reported for the periods specified. Our fiscal year end October 31.

Period	High	Low
Last six months:		
February 2015	0.59	0.51
January 2015	0.62	0.497
December 2014	0.75	0.46
November 2014	0.80	0.634
October 2014	0.70	0.4281
September 2014	0.88	0.4125
Last eight quarters:		
Q1 2015	0.62	0.497
Q4 2014	0.70	0.4281
Q3 2014	0.67	0.519
Q2 2014	0.78	0.59
Q1 2014	1.502	0.608
Q4 2013	0.67	0.21
Q3 2013	0.22	0.19
Q2 2013	0.24	0.16

Last five years:		
2014	1.50	0.40
2013	1.33	0.16
2012	0.49	0.10
2011	0.34	0.07
2010	0.65	0.13

On February 25, 2015, the last reported sale price for our common shares on the OTC QX was \$0.53.

ITEM 10. ADDITIONAL INFORMATION

A. Share Capital

Our authorized capital consists of an unlimited number of common shares, of which 188,436,724 shares were issued and outstanding as of October 31, 2014, and 2,000,000 special, redeemable, voting preference shares, referred to herein as special shares, none of which were outstanding, as of October 31, 2014.

Additionally the Company has 12,105,000 stock options outstanding with a weighted average exercise price of \$0.27 (2013: 11,475,000 options outstanding with a weighted average exercise price of \$0.24) and a total of 4,485,463 outstanding warrants to acquire common shares with a weighted average exercise price of \$0.37 (2013: 29,761,012 outstanding warrants with a weighted average exercise price of \$0.27).

B. Memorandum and Articles of Incorporation

Articles of Incorporation Incorporation Details and Objects of Micromem Technologies Inc.

Micromem Technologies Inc. was incorporated under the laws of the Province of Ontario, Canada, on October 21, 1985 as Mine Lake Minerals Inc. We subsequently changed our name to Avanti Capital Corp. by filing Articles of Incorporation of Amendment on June 23, 1988 and to AvantiCorp International Inc. on April 30, 1992 before becoming Micromem Technologies Inc. on January 14, 1999. The Articles of Incorporation of Incorporation place no restrictions on the nature of the business to be carried on by Micromem.

Summary of Directors Powers and Authorities

The rights, duties, powers and authorities of our Board of Directors are set out in the Articles of Incorporation and By-laws and the statutory provisions of the *Business Corporations Act* (Ontario). The following is a selected summary of the Articles of Incorporation, By-laws and applicable provisions of the *Business Corporations Act* (Ontario) as they relate to selected rights, duties, powers and authorities of our Board of Directors.

The Articles of Incorporation provide for a minimum of three and a maximum of 12 directors. The *Business Corporations Act* (Ontario) prescribes that an offering corporation must have a minimum of three directors, at least twenty five percent (25%), or if they are less than 4, at least one of whom are Canadian residents and at least one third of whom are not officers or employees of us or our affiliates. The Board of Directors may, between annual shareholders meetings, appoint one or more additional directors to serve until the next annual shareholders meeting provided that the number of directors so added may not exceed by one-third (1/3) the number of directors required to have been elected at the last annual meeting of shareholders.

The Chairman of the Board of Directors or any one director may call a meeting upon the provision of forty-eight hours notice to each director in the manner prescribed in our By-laws. Any such notice shall include the items of business to be considered at the meeting. A majority of the directors constitute a quorum provided that half of those directors present are Canadian residents. Business cannot be transacted without a quorum. A quorum of directors may vote on any matter of business properly brought before the meeting provided that where a director is a party to a material contract or proposed material contract or has a material interest in the matter to be considered, such director must disclose his or her interest at the earliest possible date, request the conflict be noted in the minutes of the meeting, and with a few limited exceptions enumerated in the By-laws, refrain from voting on the matter in which the director has a material interest. There is no limitation on the Board of Directors to vote on matters of their remuneration provided such remuneration is disclosed in the financial statements and annual shareholder proxy materials.

The Board of Directors has broad borrowing powers and may, without authorization from the shareholders:

- borrow money on the credit of Micromem;
- issue, re-issue, sell or pledge debt obligations of Micromem;
- subject to restrictions respecting financial assistance prescribed in the Business Corporations Act (Ontario), give a guarantee on behalf of Micromem to secure the performance of an obligation of any person; and
- mortgage, hypothecate, pledge or otherwise create a security interest in all or any property of Micromem, owned or subsequently acquired, to secure any obligation of Micromem.

A person is qualified to be or stand for election as a director provided such person is at least 18 years of age, is not a bankrupt and is not found to be of unsound mind by a court in Canada or elsewhere. There is no requirement for a director to hold common shares.

Securities of Micromem

Holders of our common shares will be entitled to receive notice of, attend and vote at all meetings of the shareholders of Micromem. Each common share carries one vote at such meetings. In the event of the voluntary or involuntary liquidation, dissolution or winding-up of Micromem, after payment of all outstanding debts, the remaining assets of Micromem available for distribution will be distributed to the holders of our common shares. Dividends may be declared and paid on our common shares in such amounts and at such times as the directors shall determine in their discretion in accordance with the Business Corporations Act (Ontario). There are no pre-emptive rights, conversion rights, redemption provisions or sinking fund provisions attaching to the common shares. Common shares are not liable to further calls or to assessment by Micromem; provided, however, that pursuant to the provisions of the Business Corporations Act (Ontario), Micromem has a lien on any common share registered in the name of a shareholder or the shareholder's legal representative for a debt owed by the shareholder to Micromem.

Holders of special shares are entitled to receive notice of, attend and vote at all meetings of the shareholders of Micromem. Each special share carries one vote at such meetings. In the event of the voluntary or involuntary liquidation, dissolution or winding-up of Micromem, after payment of all outstanding debts, the holders of the special shares shall be entitled to receive, before any distribution of any part of the assets of Micromem among the holders of any other shares, the amount paid up on the special shares. The special shares are redeemable at the option of Micromem for the amount paid up on the shares. Dividends may not be declared or paid on the special shares and transfer of the Special Shares is restricted without the approval of the Directors of Micromem and the prior written consent of the Ontario Securities Commission. The number of special shares that may be issued and outstanding at any time is limited to 500,000. There are no pre-emptive rights, conversion rights or sinking fund provisions attaching to the special shares. Special shares are not liable to further calls or to assessment by Micromem; provided, however, that pursuant to the provisions of the Business Corporations Act (Ontario), Micromem has a lien on any special shares registered in the name of a shareholder or the shareholder's legal representative for a debt owed by the shareholder.

Rights and Privileges of Shareholders

Only the registered holders of our common shares and special preference shares on the record date are entitled to receive notice of and vote at annual and special meetings of shareholders. Where the items of business affect the rights of shareholders other than the holders of common shares, a special majority of two-thirds of the votes cast by the affected shareholders at the meeting called for such purpose is required to approve the item of business. Beneficial holders of common shares and special shares are also entitled to receive proxy materials in respect of meetings of shareholders in accordance with Canadian Securities Administrators National Instrument 54-101, provided that such proxies are limited in scope to instructing the registered shareholder (usually a brokerage house) on how to vote on behalf of the beneficial shareholder. There are no restrictions on the number of shares that may be held by non-residents other than restrictions set out in the *Investment Canada Act* (Canada). See "Additional Information - D. Exchange Controls".

There are no provisions in the By-laws regarding public disclosure of individual shareholdings. Notwithstanding this, applicable Canadian securities legislation requires certain public disclosure of persons owning or acquiring common shares in excess of 10% of a corporation's issued and outstanding share capital.

C. Material Contracts

The Company originally negotiated employment contracts with its Chairman of the Board in 2005 and its senior management team in 2008.

In 2010 the Company entered into a month to month contract with Mr. Dan Amadori, its CFO, at the expiration of the employment agreement signed in 2008. These month to month arrangements continue at October 31, 2014. Under the terms of the contract, Mr. Amadori receives \$12,500 CDN (\$10,000 US) in monthly compensation and additional compensation at the discretion of the Compensation Committee.

In 2010 the Company entered into a month to month contract with Mr. Joseph Fuda, its President and CEO, at the expiration of the employment agreement signed in 2008. These month to month arrangements continue at October 31, 2014. Under the terms of the contract, Mr. Fuda receives \$13,333CDN (\$10,666US) and additional compensation at the discretion of the Compensation Committee.

In 2011 the Company entered into a month to month contract with Mr. Steven Van Fleet, the President of MAST at the expiration of the employment agreement signed in 2008. This month to month arrangement continues at October 31, 2014. Under the terms of the contract, Mr. Van Fleet receives \$15,000US in monthly compensation and additional compensation at the discretion of the Compensation Committee.

In 2011 the Company entered into a month to month contract with its Chairman of the Board, Mr. Salvatore Fuda, at the expiration of the employment agreement signed in 2005. This month to month arrangement continues at October 31, 2014. Under the terms of the contract, Mr. Fuda receives \$12,500CDN (\$10,000US) in monthly compensation.

The total monthly commitment under these month to month arrangements is \$45,666 at October 31, 2014.

In 2011-2012 the Company, through its wholly-owned subsidiary, Micromem Applied Sensor Technologies, Inc. entered into consulting and product development agreements with Rapid Prototypes, Inc. (RPI) whose major shareholder is Mr. Brian Von Herzen. Mr. Von Herzen was appointed to the Board of Directors of the Company in February 2014. He also serves as the Company's Chief Technology Officer. RPI has invoiced the Company for professional engineering design and product development services since 2011; since becoming a director of the Company, RPI has invoiced the Company total fees of \$1,843,643.

D. Exchange Controls

As of the date hereof, we are not aware of any governmental laws, decrees or regulations in Canada that restrict the export or import of capital, including, but not limited to, foreign exchange controls, or that affect the remittance of dividends or other payments to nonresident holders of our common shares.

We are not aware of any limitations under the laws of Canada or the Province of Ontario, or in the Articles of Incorporation or any other of our constituent documents on the right of nonresidents of Canada or persons who are not Canadian citizens to hold and/or vote common shares.

E. Taxation

Certain Canadian Income Tax Consequences

This discussion under this heading summarizes the principal Canadian federal income tax consequences of acquiring, holding and disposing of common shares for a shareholder who is not a resident of Canada but is a resident of the United States and who will acquire and hold a common share as capital property for the purposes of the Income Tax Canada, also referred to as the Canadian Tax Act. This summary does not apply to a shareholder who carries on business in Canada through a permanent establishment situated in Canada or performs independent personal services in Canada through a fixed base in Canada if the shareholder is effectively connected with such permanent establishment or fixed base. This summary is based on the provisions of the Canadian Tax Act and the regulations there under and on an understanding of the administrative practices of Canada Customs & Revenue Agency, and takes into account all specific proposals to amend the Canadian Tax Act or regulations made by the Minister of Finance of Canada as of the date hereof. It has been assumed that there will be no other relevant amendments of any governing law although no assurance can be given in this respect. This discussion is general only and is not a substitute for independent advice from a shareholder's own Canadian and US tax advisors.

The provisions of the Canadian Tax Act are subject to income tax treaties to which Canada is a party, including the Canada-United States Income Tax Convention (1980), as amended.

Dividends on common shares and Other Income

Under the Canadian Tax Act, a non-resident of Canada is generally subject to Canadian withholding tax at the rate of 25 percent on dividends paid or deemed to have been paid to him or her by a corporation resident in Canada. We are responsible for the withholding of tax at the source. The Canada-United States Income Tax Convention (1980) limits the rate to 15 percent if the shareholder is a resident of the United States and the dividends are beneficially owned by and paid to such shareholder, and to 5 percent if the shareholder is also a corporation that beneficially owns at least 10 percent of the voting stock of the payor corporation.

The amount of a stock dividend (for tax purposes) would generally be equal to the amount of our paid up or stated capital and increased by reason of the payment of such dividend. We will furnish additional tax information to shareholders in the event of such a dividend. Interest paid or deemed to be paid on our debt securities held by non-Canadian residents may also be subject to Canadian withholding tax, depending upon the terms and provisions of such securities and any applicable tax treaty.

The Canada-United States Income Tax Convention (1980) generally exempts from Canadian income tax dividends paid to a religious, scientific, literary, educational or charitable organization or to an organization constituted and operated exclusively to administer a pension, retirement or employee benefit fund or plan, if the organization is a resident of the United States and is exempt from income tax under the laws of the United States.

Dispositions of Common Shares

Under the Canadian Tax Act, a non-resident of Canada is subject to Canadian tax on taxable capital gains, and may deduct allowable capital losses, realized on a disposition of "taxable Canadian property". common shares will constitute taxable Canadian property of a shareholder at a particular time if the shareholder used the shares in carrying on business in Canada, or if at any time in the five years immediately preceding the disposition 25 percent or more of the issued shares of any class or series in the capital stock of Micromem belonged to one or more persons in a group comprising the shareholder and persons with whom the shareholder did not deal at "arm's length" and in certain other circumstances.

The Canada-United States Income Tax Convention (1980) relieves United States residents from liability for Canadian tax on capital gains derived on a disposition of shares unless:

the value of the shares is derived principally from "real property" in Canada, including the right to explore for or exploit natural resources and rights to amounts computed by reference to production, the shareholder was resident in Canada for 120 months during any period of 20 consecutive years preceding, and at any time during the 10 years immediately preceding, the disposition and the shares were owned by them when they ceased to be resident in Canada, or the shares formed part of the business property of a "permanent establishment" that the holder has or had in Canada within the 12 months preceding the disposition.

Certain United States Federal Income Tax Consequences

The following is a general summary of certain United States federal income tax consequences, under current law, generally applicable to a US Holder (as defined below). This summary does not address all potentially relevant United States federal income tax matters and it does not address consequences peculiar to persons subject to special provisions of United States federal income tax law, such as those described below as excluded from the definition of a US Holder. United States alternative minimum tax considerations are not addressed in this summary. In addition, this summary does not cover any state, local or foreign tax consequences, nor any U.S. federal gift, estate or generation-skipping transfer tax consequences. (Certain, but not all, foreign tax consequences are described above under "Taxation - Certain Canadian Income Tax Consequences.")

The following summary is based upon the Internal Revenue Code of 1986, as amended (the "Code"), Treasury Regulations, published Internal Revenue Service ("IRS") rulings, published administrative positions of the IRS, and court decisions that are currently applicable, any of which could be materially and adversely changed, possibly on a retroactive basis, at any time. This summary does not consider the potential effects, both adverse and beneficial, of any recently proposed legislation which, if enacted, could be applied (possibly on a retroactive basis) at any time (including, without limitation, changes in applicable tax rates).

This summary is for general information only and it is not intended to be, nor should it be construed to be, legal or tax advice to any holder or prospective holder of common shares, and no opinion or representation with respect to the United States federal income tax consequences to any such holder or prospective holder is made. Accordingly, holders and prospective holders of common shares should consult their own tax advisors about the federal, state, local, and foreign tax consequences of purchasing, owning and disposing of common shares of the Company.

CIRCULAR 230 DISCLOSURE

ANY TAX STATEMENT MADE HEREIN REGARDING ANY U.S. FEDERAL TAX IS NOT INTENDED OR WRITTEN TO BE USED, AND CANNOT BE USED, BY ANY TAXPAYER FOR PURPOSES OF AVOIDING ANY PENALTIES. ANY SUCH STATEMENT HEREIN IS WRITTEN IN CONNECTION WITH THE MARKETING OR PROMOTION OF THE TRANSACTION TO WHICH THE STATEMENT RELATES. EACH TAXPAYER SHOULD SEEK ADVICE BASED ON THE TAXPAYER'S PARTICULAR CIRCUMSTANCES FROM AN INDEPENDENT TAX ADVISOR.

US Holders

As used herein, a "US Holder" means an owner of common shares who is a citizen or individual resident (as defined under United States tax laws) of the United States; a corporation or other entity taxable as a corporation created or organized in or under the laws of the United States or of any political subdivision thereof; an estate the income of which is taxable in the United States irrespective of source; or a trust if (a) a court within the United States is able to exercise primary supervision over the trust's administration and one or more United States persons have the authority to control all of the substantial decisions of the trust or (b) the trust was in existence on August 20, 1996 and has properly elected to continue to be treated as a United States person. This summary does not address the tax consequences to, and "US Holder" does not include, tax-exempt persons or organizations; qualified retirement plans, individual retirement accounts and other tax-deferred accounts; financial institutions; insurance companies; real estate investment trusts; regulated investment companies; entities subject to the U.S. corporate conversion rules; broker-dealers; U.S. tax expatriates; non-resident alien individuals or entities; persons or entities that have a "functional currency" other than the US dollar; persons who hold common shares as part of a straddle, hedging or conversion transaction; and persons who acquire their common shares as compensation for services. This summary is limited to US Holders who own common shares as capital assets and who hold the common shares directly (e.g., not through an intermediary entity such as a corporation, partnership, LLC or trust). This summary does not address the consequences to a person or entity of the ownership, exercise or disposition of any options, warrants or other rights to acquire common shares.

Distributions to US Holders Who Own Common Shares

Subject to the discussion below concerning the potential status of the Company (or any of its subsidiaries that are classified as corporations for United States federal income tax purposes ("Related Entities")) as a "passive foreign investment company" ("PFIC"), the gross amount of any distribution by the Company (including any Canadian taxes withheld therefrom) with respect to common shares generally should be included in the gross income of a US Holder as foreign source dividend income to the extent such distribution is paid out of current or accumulated earnings and profits of the Company, as determined under United States federal income tax principles. To the extent that the amount of any distribution exceeds the Company's current and accumulated earnings and profits in that taxable year, the distribution is treated as a tax-free return of capital to the extent of the US Holder's adjusted tax basis in the common shares. Thereafter, to the extent that such distribution exceeds the US Holder's adjusted tax basis in the common shares, it is taxed as a capital gain.

Dividends received by non-corporate US Holders may be subject to United States federal income tax at lower rates (generally 15%) than other types of ordinary income in taxable years beginning on or before December 31, 2013, if certain conditions are met. These conditions include neither the Company nor a Related Entity being classified as a PFIC (discussed below), the Company being a “qualified foreign corporation”, the US Holder’s satisfaction of a holding period requirement, and the US Holder not treating the distribution as “investment income” for purposes of the investment interest deduction rules.

In the case of US Holders that are corporations, distributions from the Company generally are not eligible for the dividends received deduction.

Dispositions of Common Shares of the Company

Subject to the discussion below regarding PFICs, gain or loss, if any, realized by a US Holder on the sale or other disposition of common shares generally is subject to United States federal income taxation as capital gain or loss in an amount equal to the difference between the US Holder’s adjusted tax basis in the common shares and the amount realized on the disposition. Net capital gain (i.e., capital gain in excess of capital loss) recognized by a non-corporate US Holder upon a sale or other disposition of common shares that have been held for more than one year is generally subject to a maximum United States federal income tax rate of 15% in taxable years beginning on or before December 31, 2013. Deductions for capital losses are subject to limitations.

US Anti-Deferral Regimes

There are two regimes applicable to foreign corporations under United States federal income tax law that potentially may apply to the Company - the “controlled foreign corporation” (“CFC”) regime and the PFIC regime.

Generally, a foreign corporation is not a CFC unless more than fifty percent (by vote or value) of its stock is owned by “U.S. Shareholders” (generally, United States persons who have ten percent or more of the votes of the foreign corporation). This classification generally results in the inclusion of certain income of the CFC in the U.S. Shareholders’ income as a deemed dividend. If the Company were a CFC, the United States federal tax consequences summarized herein could be materially and adversely different.

PFIC status is not conditioned on a certain level of ownership of the foreign corporation by United States persons, however. The Company or any Related Entity would be considered a PFIC if during any taxable year, 75% or more of its gross income consists of certain types of “passive” income, or if the average value during a taxable year of its “passive assets” (generally, assets that generate passive income) is 50% or more of the average value of all assets held by it. Passive income generally includes items such as dividends, interest, rents and royalties, although there are various “look through” rules that treat dividends from related persons, for example, as non-passive under certain conditions.

If the Company is classified as a PFIC, a US Holder is subject to increased United States federal income tax liability in respect of gain recognized on the disposition of his, her or its common shares or upon the receipt of certain distributions, unless such person makes a “qualified electing fund” election to be taxed currently on his, or her or its *pro rata* portion of the Company’s income and gain (whether or not such income or gain is distributed in the form of dividends or otherwise), and the Company provides certain annual statements which include the information necessary to determine inclusions and assure compliance with the PFIC rules. As an alternative to the foregoing rules, a US Holder may make a “mark-to-market” election to include in income each year as ordinary income an amount equal to the increase in value of his, her or its common shares for that year or to claim a deduction for any decrease in value (but only to the extent of previous mark-to-market gains).

The CFC and PFIC rules are very complex. The Company offers no opinion or representations as to its status as a CFC or PFIC for the current or any prior or future tax years. US Holders should consult their own U.S. tax advisors with respect to the CFC and PFIC issues and their applicability to such Holder’s particular situation.

Foreign Tax Credit

A US Holder who pays (or has withheld from distributions) Canadian income tax with respect to the ownership or disposition of the common shares may be entitled, at the option of the US Holder, to either a deduction or a tax credit for such foreign tax paid or withheld. Generally, it will be more advantageous to claim a credit because a credit reduces United States Federal income taxes on a dollar-for-dollar basis, while a deduction merely reduces the taxpayer's income subject to tax. This election is made on a year-by-year basis and applies to all foreign taxes paid by (or withheld from) the US Holder during that year.

There are significant and complex limitations that apply to the credit, among which is the general limitation that the credit cannot exceed the proportionate share of the US Holder's United States Federal income tax liability that the US Holder's foreign source income bears to his or its worldwide taxable income. In the determination of the application of this limitation, the various items of income and deduction must be classified into foreign and domestic sources. Complex rules govern this classification process. In addition, this limitation is calculated separately with respect to specific "baskets" of income. Foreign taxes assigned to a particular basket generally cannot offset United States tax on income assigned to another basket. Unused foreign tax credits can generally be carried back one year and carried forward ten years. The availability of the foreign tax credit and the application of the limitations on the credit are fact specific and US Holders should consult their own U.S. tax advisors regarding their ability to utilize foreign tax credits in light of their individual circumstances.

Currency Fluctuations

For United States federal income tax purposes, the amount received by a US Holder as payment with respect to a distribution on, or disposition of common shares, if paid in Canadian dollars, is the US dollar value at the date of the payment, regardless of whether the payment is later converted into US dollars. In such case, the US Holder may recognize additional ordinary income or loss as a result of currency fluctuations between the date on which the payment is made and the date the payment is converted into US dollars.

F. Dividends and Paying Agents

Not applicable.

G. Statement by Experts

Not applicable.

H. Documents on Display

We have filed the documents referred to herein and other information with the SEC, the Ontario Securities Commission and the Alberta Securities Commission. You may inspect and copy such material at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. You may also obtain copies of such material from the SEC at prescribed rates by writing to the Public Reference Section of the SEC, 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference rooms.

The SEC maintains an Internet website at www.sec.gov that contains reports, proxy statements, information statements and other material that are filed through the SEC's Electronic Data Gathering, Analysis and Retrieval ("EDGAR") system. Documents filed with the Ontario Securities Commission and the Alberta Securities Commission can be accessed through an Internet website at www.sedar.com that contains reports, proxy statements, information statements and other material that are filed through the System for Electronic Document Analysis and Retrieval ("SEDAR").

Additional information is also available on our website at www.micromeminc.com. Such information on our website is not part of this Form 20-F.

I. Subsidiary Information

Not Applicable.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risks in the ordinary course of our business. Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily a result of fluctuations in interest rates and foreign currency exchange rates. We do not hold or issue financial instruments for trading purposes. See Note 21 to our consolidated financial statements for our quantitative and qualitative disclosures about market risk.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

Not Applicable.

PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

None.

ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

None.

ITEM 15. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, referred to herein as the "Exchange Act") as of October 31, 2014. Based on management's evaluation in 2014, our Chief Executive Officer and Chief Financial Officer concluded that, as of October 31, 2014, our disclosure controls and procedures were effective in that they were designed to ensure that information required to be disclosed by us in our reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures are designed to ensure that information required to be disclosed by the Company in our reports that we file or submit under the Exchange Act are recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms. Exchange Act Rule 13a-15(e) also states that disclosure controls and procedures are designed to ensure that information required to be disclosed by an issuer in the reports that it files or submits under the Act is accumulated and communicated to the issuer's management, including its principal executive and principal financial officers, or person performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control over Financial Reporting

Micromem's Board of Directors and executive management are responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control system was designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation and fair presentation of its published consolidated financial statements.

All internal control systems no matter how well designed have inherent limitations. Therefore, even those systems determined to be effective may not prevent or detect misstatements and can provide only reasonable assurance with respect to financial statement preparation and presentation. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our Chief Executive Officer and Chief Financial Officer assessed the effectiveness of Micromem's internal control over financial reporting as of October 31, 2014. In making this assessment, they used the criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment the Chief Executive Officer and Chief Financial Officer have concluded that, as of October 31, 2014, our internal control over financial reporting were effective.

Attestation Report of the Registered Public Accounting Firm

Micromem's internal control over financial reporting as of October 31, 2014 has been audited by Collins Barrow Toronto LLP, an independent registered public accounting firm in Toronto, Canada, as stated in their report which is included under "Item 18—Financial Statements" of this Annual Report.

Changes in Internal Control Over Financial Reporting

No changes in our internal controls over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act, occurred during the fiscal year ended October 31, 2014 that has materially affected or is reasonable likely to materially affect, our internal controls over financial reporting.

ITEM 15T. Controls and Procedures

Not applicable.

ITEM 16. [Reserved]

Not applicable.

ITEM 16A. Audit Committee Financial Expert

Our Board of Directors has determined that a member of the Board of Directors, David Sharpless, is an audit committee financial expert and that he is independent, as defined in the Marketplace Rules of the Nasdaq Stock Market.

ITEM 16B. Code of Ethics

We have adopted a Code of Ethics to impose certain policies relating to ethical conduct on all of our Directors and employees, including our Chief Executive Officer, Chief Financial Officer, principal accounting officer and persons performing similar functions. We undertake to provide a copy of our Code of Ethics to any holder of our securities upon request, without charge.

ITEM 16C. Principal Accountant Fees and Services

The following table presents fees for professional audit services rendered by our auditors for the audit of our consolidated financial statements for the years ended October 31, 2014 and 2013, and fees billed for other services rendered by our auditors including our offerings of securities and tax services.

	<u>Fiscal 2014</u>	<u>Fiscal 2013</u>
Audit Fees	\$119,000	\$147,000
Audit Related Fees	-	-
Tax Fees	5,000	5,000
All Other Fees	-	-

Audit Fees

In 2014, we paid a total of \$119,000 to Collins Barrow Toronto LLP for audit services; in 2013 we paid a total of \$147,000 to Collins Barrow Toronto LLP for audit services.

Audit Related Fees

None

Tax Fees

We paid \$5,000 of tax-related fees for services in 2014 and 2013 to Chiampou Travis LLP.

All other fees

None

Pre-approval policies

The Audit Committee assesses and pre-approves all audit and non-audit services.

ITEM 16D. Exemptions from the Listing Standards for Audit Committees

Not applicable.

ITEM 16E. Purchases of Equity by the Issuer and Affiliated Purchasers.

None.

ITEM 16F. Change in Registrants Certifying Accountant.

None.

ITEM 16G. Corporate Governance

Not applicable.

ITEM 16H. Mine Safety Disclosure

Not applicable.

ITEM 17. Financial Statements

Not applicable, see Item 18.

ITEM 18. Financial Statements

ITEM 19. Exhibits

The following exhibits are filed as part of this Annual Report:

- Exhibit No. 1.1 Articles of Incorporation of Micromem Technologies Inc. and amendments thereto in effect as of January 11, 2000, (Incorporated herein by reference to the Company's Form 20-F filed with the Commission on January 11, 2000).
- Exhibit No. 1.2 Articles of Incorporation of Amendment of Micromem Technologies Inc. dated as of October 17, 2001 amending the Articles of Incorporation of Micromem Technologies Inc. to increase the number of directors to a minimum of three and a maximum of ten (Incorporated herein by reference to the Company's Form 20-F filed with the Commission on March 26, 2003).
- Exhibit No. 1.3 Articles of Incorporation of Amendment of Micromem Technologies Inc. dated as of June 24, 2002 amending the Articles of Incorporation of Micromem Technologies Inc. to increase the number of directors to a minimum of 3 and a maximum of 12 (Incorporated herein by reference to the Company's Form 20-F filed with the Commission on March 26, 2003).
- Exhibit No. 1.5 By-Laws of Micromem Technologies Inc. in effect as of January 11, 2002, (Incorporated herein by reference to the Company's Form 20-F filed with the Commission on January 11, 2000).
- Exhibit No. 1.6 Amendment to the By-Laws of Micromem Technologies Inc. approved by shareholders on June 29, 2000, deleting the requirement from the By-Laws that the President shall be appointed from amongst the directors (Incorporated herein by reference to the Company's Form 20-F filed with the Commission on March 26, 2003).
- Exhibit No. 4.1 Employment Agreement by and between Micromem Technologies, Inc. and Salvatore Fuda dated May 29, 2005. (Incorporated herein by reference to the Company's Form 20-F filed with the Commission on February 28, 2006).
- Exhibit No. 4.2 Employment Agreement by and between Micromem Technologies and Joseph Fuda dated May 28, 2008 (Incorporated by reference to the Company's Form 20-F filed with the Commission on February 24, 2009).
- Exhibit No. 4.3 Employment Agreement by and between Micromem Technologies and Dan Amadori dated May 28, 2008 (Incorporated by reference to the Company's Form 20-F filed with the Commission on February 24, 2009).
- Exhibit No. 4.4 Employment Agreement by and between Micromem Technologies and Steven Van Fleet dated May 28, 2008 (Incorporated by reference to the Company's Form 20-F filed with the Commission on February 24, 2009).
- Exhibit No. 8.1 List of Subsidiaries (Incorporated by reference to the Company's Annual Report on Form 20-F filed with the Commission on March 1, 2010)
- [Exhibit No. 12.1](#) [Officer's Certification pursuant to Section 302 of the Sarbanes Oxley Act, 2002 \(filed herewith\).](#)
- [Exhibit No. 12.2](#) [Officer's Certification pursuant to Section 302 of the Sarbanes Oxley Act, 2002 \(filed herewith\).](#)
- [Exhibit No. 13.1](#) [Officer's Certification pursuant to Section 906 of the Sarbanes Oxley Act, 2002 \(filed herewith\).](#)
- [Exhibit No. 13.2](#) [Officer's Certification pursuant to Section 906 of the Sarbanes Oxley Act, 2002 \(filed herewith\).](#)

SIGNATURES

The Registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on Form 20-F on its behalf.

MICROMEM TECHNOLOGIES INC.

By: /s/ Joseph Fuda
Name: Joseph Fuda
Title: Chief Executive Officer

By: /s/ Dan Amadori
Name: Dan Amadori
Title: Chief Financial Officer

Dated: February 27, 2015