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

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

For The Fiscal Year Ended October 31, 2012

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:

136,430,555 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 _X

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 _X

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 X 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 _X

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 _X 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_X

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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 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, 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 year ended October 31, 2012 have been prepared in accordance with International Financial Reporting Standards (“IFRS”). Previously the Company prepared consolidated financial statements in accordance with Canadian generally accepted accounting principles (“Canadian GAAP”). The Company has restated the comparative financial statements at October 31, 2011 and the preparation of the opening statement of financial position as at November 01, 2010 to IFRS.

International Financial Reporting Standards

Selected balance sheet information
(all amounts in U.S. dollars)

	2012	2011
Working capital (deficiency)	($731,673)	($1,060,487)
Capital Assets	5,787	10,201
Total Assets	1,180,278	906,346
Capital Stock	54,728,239	51,774,555
Shareholders' equity (deficiency)	(904,030)	(1,409,228)

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

	2012	2011
Interest and other income	-	$963
Research and development expenses	229,840	(75,896)
General and administrative and other expenses	1,114,369	2,329,544
Stock compensation expense	430,856	928,497
Loss before income taxes	(1,775,065)	(3,181,182)
Provision for income taxes (recovery)		1,205
Net loss	(1,775,065)	(3,182,387)
Loss per share-basic and diluted	(0.01)	(0.03)
Weighted average number of basic and diluted shares	123,375,510	102,301,168
Dividends	-	-

Fiscal Years 2010, 2009 and 2008

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, 2010, October 31, 2009 and October 31, 2008. 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	2009	2008
Working capital (deficiency)	($1,459,460)	($650,044)	($338,079)
Capital Assets	16,686	24,442	26,321
Total Assets	568,336	2,562,479	630,467
Capital Stock	50,102,699	48,494,180	44,380,134
Shareholders' equity (deficiency)	(1,019,226)	1,522,839	(311,758)

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

	2010	2009	2008
Interest and other income	$22,886	$88,047	$11,762
Research and development expenses	(106,007)	13,880	1,063,508
General and administrative and other expenses	4,699,208	2,433,537	3,323,565
Stock compensation expense	95,038	1,951,569	1,041,414
Loss before income taxes	(4,665,353)	(4,310,939)	(5,416,725)
Provision for income taxes (recovery)	9,508	-	-
Net loss	(4,674,861)	(4,310,939)	(5,416,725)
Loss per share-basic and diluted	0.05	0.05	0.07
Weighted average number of basic and diluted shares	92,225,645	86,400,439	78,012,115
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 years ended October 31, 2010 and 2009 and the allocation of Unit private placement proceeds using the relative fair value method of accounting for the fiscal years through to October 31, 2008. Until October 31, 2008, for all Unit private placement financings completed, the Company assigned 100% of the proceeds from these financings to the common shares and no value to the attached warrants. In the fiscal year ended October 31, 2009, the Company changed the estimates that it used to value the common shares and warrants included in the Unit private placement financings which it completed in the fiscal year then ended. It assigned the value to the warrants which formed part of these Unit private placements calculated in accordance with the Black Scholes option-pricing model. Under U.S. GAAP, using standards which are analogous, the valuation of the shares and warrants would be determined using the relative fair value approach. There is no change in aggregate shareholders' equity.

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. 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.

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.

	2012	**2011**	**2010**	**2009**	**2008**
High for period	1.0281	1.0583	1.0039	0.9716	1.0905
Low for period	0.9783	0.9430	0.9278	0.7692	0.7726
End of period	0.9872	1.0079	0.9885	0.9334	0.8374
Average for period	1.0046	1.0139	0.9640	0.8587	0.9761

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 2012	**March 2012**	**April 2012**	**May 2012**	**June 2012**	**July 2012**
High	1.0016	1.0015	1.0039	1.0349	1.0418	1.0214
Low	0.9866	0.9849	0.9807	0.9839	1.0178	1.0014

	August 2012	**September 2012**	**October 2012**	**November 2011**	**December 2011**	**January 2012**
High	1.0062	0.9902	1.0004	1.0487	1.0406	1.0272
Low	0.9863	0.9710	0.9763	1.0126	1.0105	0.9986

On February 22, 2013 the noon buying rate for one Canadian dollar, as quoted by the Bank of Canada, was CDN $0.9819 = 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 significant risks, which are described below.

<u>Risk Factors Related to Our Business</u>

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 completing the development of our technology for a particular application, achieving profitable operations, obtaining additional financing and successfully bringing our technologies to the market. The outcome of these matters cannot be predicted at this time. Our consolidated financial statements have been prepared on a going concern basis and 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 may be material.

At October 31, 2012 we had $245,029 cash on hand and our current monthly cash expenses were approximately $150,000. Our working capital deficiency is $731,673 at October 31, 2012. Subsequent to October 31, 2012, through to the date of the filing of this annual report, we have raised an additional $1,052,113 through private placements and through the exercise of warrants.

We currently have no operating revenue.

At October 31, 2012 we have no revenues and there is no certainty that we will generate revenues in the near future. 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 get from each licensee and the ability of each licensee to compete in their particular market.

Our magnetic sensor technology is under development.

We continued to develop prototypes of our magnetic sensor technology in 2012 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.

There is no certainty that these current initiatives will result in revenues and cash flow to the Company in the future.

In the event that our magnetic sensor technology is successfully developed we will face competition from larger corporations who also sell sensor technology and who have greater financial resources than the Company.

Our success will 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.

After completion of the development of our technology, 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. In addition, our success will depend on our ability 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.

Our Magnetic Random Access Memory, also referred to herein as MRAM, which is a non-volatile memory technology that uses magnetic, thin film elements on a gallium arsenide substrate to store information, is currently under development and is therefore not yet proven to be commercially viable. As such, for our development efforts to succeed, significant development work remains to be completed. We have decided to suspend additional development work on our memory technology.

In the event our technology is further developed in future, we would face competition when we are ready to sell or license our products. We will be required to introduce our technology into a well-developed market and compete with major corporations who manufacture, sell and license existing memory products. The market for memory technologies is dominated by major corporations who have established market segments for their memory technologies and products. These corporations have significantly greater financial resources which are required to design, develop, manufacture, market, sell and license their products and technologies. Many of these major corporations have worldwide wafer manufacturing and integrated circuit production facilities.

If we did decide to further development our memory technology in future our success would be determined by the following factors which have not yet been tested or 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 memory technology.

If we were to complete the development of our technology, our ability to compete successfully would 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. In addition, our success would depend on our ability to develop, introduce, and license or sell in a timely manner our technology or products incorporating our technology, our protection of our intellectual property and to compete effectively on the basis of factors such as speed, density, die size and power consumption.

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

Since there is no assurance that revenues will be realized in the near future, we will need additional financing to continue our research and development and to successfully market our technology to potential licensees and strategic partners. There is no assurance we will be able to continue to do so and failure to raise sufficient funds in the future will affect our ability to develop and market our technology.

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 exclusive rights to our technology, including any improvements that may be made on that technology from time to time by us or on our behalf. While our technology is patented or is subject to pending patent applications in the United States and we know of no challenge that has been made either against our technology or our rights to it, and 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 is 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 the foreseeable future.

To date, we have been solely a development company. We have not been profitable to date. Unless and until we are able to successfully complete the development of our technology and develop markets for the commercialization of such technology, we may not be able to generate 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 expect to incur expenses without corresponding offsetting revenues at least until we are able to license our technology to third parties. This may result in net operating losses, which will increase until we can generate an acceptable level of revenues, which we may never attain. Further, even if we do achieve operating revenues, there can be no assurance that such revenues will be sufficient to fund continuing operations. Therefore, we cannot predict whether we ever be able to achieve profitability.

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 lack manufacturing capacity and will continue to be dependent on third party manufacturers.

In addition to anticipated licensing fees and potential royalty streams, the manufacturing and sale of technology product applications is part of our go forward revenue model.

Our success in the sale of manufactured product depends upon our ability to secure manufacturing of our technology in large quantities and at competitive prices. We have no in-house manufacturing capacity and do not anticipate developing such capacity. To the extent we are successful in completing the development of our technology we will likely be required to rely upon contract manufacturers to produce our products. Moreover, there is no assurance that any future manufacturers will have the capability to manufacture our products in sufficient quantities to achieve profitability and within the quality, price, and technical standards required by our customers. If any future manufacturers should cease doing business with us or experience delays, shortages of supply or excessive demands on their capacity, we may not be able to obtain adequate quantities of product in a timely manner, or at all. Manufacturing new products involves integrating complex designs and processes, coordinating with suppliers for parts and components, and managing manufacturing capacities to accommodate forecasted demand. Failure to obtain sufficient quantities of parts and components, as well as other manufacturing delays or constraints, could adversely affect the timing of new product introductions. Any manufacturing problem or the loss of a contract manufacturer could be disruptive to our operations and result in lost sales.

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 developing this specific technology, 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. As a result, the limited range of products we intend to develop could limit our 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, 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 or at all. 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 any eventual licensees' products will be technologically viable, nor 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 research, 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 affect 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 since our technology is currently in the development stage and our financial resources are limited. However, if we are successful in completing our development efforts, we will need to add marketing and sales expertise in the computer technology business. We must also develop the necessary supporting distribution channels. Although we believe we can build the required infrastructure, we may not be successful in doing so if we cannot attract personnel or generate sufficient capital to fund these efforts. Failure to establish a sales force and distribution network would have a material 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, MAST Inc. 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. We cannot provide any assurance that we will be able to successfully develop, manufacture, and market innovative new products 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 adoption of our technology.

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

Our new product research and 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 research and 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. Our failure to obtain sufficient quantities of parts and components or other manufacturing delays and constraints could adversely affect our ability to timely introduce new products.

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

We cannot provide any 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.

We may be materially affected if we are unable to attract, retain and motivate key employees.

Our future success depends, in large part, on our ability to attract, retain and motivate key employees. We face significant competition for individuals who possess the skills required to design, develop, manufacture, and market our technologies. An inability to successfully attract, retain, and motivate these employees in the future could have an adverse effect on our future operating and financial performance.

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 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 15g-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 66⅔% 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 $223 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 Bulletin Board 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 AvantiCorp 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. This 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.

In the early stages of the Company's development, it was necessary to solicit client interest in our products through the generation of exploratory business proposals. This proved to be a time consuming and difficult effort. A pre-revenue company transitioning from public awareness of being a memory development company to a sensor solution company was met with some skepticism.

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 and deliver a sensor platform for detecting 4 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. Ninesigma'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 all research and development. At MAST, 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.

MAST intends 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.

Competition-based strategy assumes that an industry's structural conditions are given and that firms like MAST are forced to compete with them, an assumption based on what the academics call the structuralist view. In contrast, the value innovation that MAST is providing is based on the view that market boundaries and industry structure are not given and can be reconstructed. Here, the strategic choices for firms are to pursue either differentiation or low cost. Our strategic aim, however, is to create new best practice rules by breaking the existing value-cost trade-off.

The Company's significant current project initiatives include the following:

GSI Westwind: Commercial production is expected to begin in 2013. First articles of production have been tested and approved by our client. We are shipping in the first quarter of 2013 the first tranche of volume production. We also plan to aggressively market our speed control circuit board design to other high precision motor suppliers.

Oil Sensor: Our oil pan plug sensor suite is currently being tested in a dynamometer environment. The Company expects to enter into a production environment for this product in 2013.

International Energy Company: The Company has worked with this customer since 2011 and has developed sophisticated sensor measuring technology for use in oil and gas wells. The beta version of this product is ready for shipping to the client's facility. The delay in this milestone event has been the lack of availability of suitable nanoparticles for full system testing of our device. The plan is to complete the field trials at the client's facilities in the first half of 2013 and then begin deployment of our product onto field well sites.

Offshore Exploration/Gas and Oil Well Monitoring: The Company has engaged two large international energy companies in 2012 in discussions and negotiations for use of its sensor technology for diagnostic/control and monitoring systems prototype units. The Company expects to advance these discussions towards development prototypes in 2013 and anticipates commercial revenue in 2014.

Early Breast Cancer Detection: We successfully demonstrated our product line in Europe during our fourth fiscal quarter of 2012 and are currently negotiating the franchising model for deployment of a business model, which will bring cost effective services to women of all ages for early indication of breast cancer. We anticipate commercial revenue in 2013.

Medical Nano-Weighing Application: The Company is currently negotiating with a medical production facility to design and build a weighing platform capable of measuring less than 500 nanograms of product within 1 second. This is adjunct technology that the Company developed on our oil sensor platform project. We anticipate commercial revenue in 2013.

Early Detection of Incipient Failure in High Voltage Transmission Lines: The Company has developed a low cost platform that can be pervasively deployed over a company's high voltage transmission network and will utilize cutting edge technology to alert potential failure of sagging voltage lines before the failure occurs. The Company anticipates revenue from this development in 2013.

Robust Business Development Proposal Pipeline: The Company currently has an active business development proposal backlog of $71M USD. Many of the proposals have made the clients' short list and one on one discussion under Non-Disclosure Agreements are underway.

Intellectual Property

The Company presently is processing seven new patent applications initiated in 2012. Our new business model of developing unique sensor platforms for our clients allow for the Company to choose opportunities that end up with both robust revenue projections and a strong intellectual property position.

Changes to Our Board of Directors and Management

At our Annual Meeting of Shareholders held on Friday, November 16, 2012, Salvatore Fuda, Andrew Brandt, Joseph Fuda, David Sharpless, Steven Van Fleet, Oliver Nepomuceno, Larry Blue and Alex Dey were reelected to serve on our Board of Directors. Messrs. Salvatore Fuda, Joseph Fuda, Dan Amadori and Steven Van Fleet continue to serve as officers of the Company.

B. Business Overview

We have been engaged in the development of memory technology that has the characteristics of non-volatility, which is the ability to retain information after power has been shut off. Our technology is based on our ability to use magnetic materials in combination with a sensor to record the "state of magnetization." Each magnetic element stores one bit of data based on its ability to alternate between states of magnetic polarization, which states are determined by a sensor. Our technology represents "1"s and "0"s by the different polarization of magnets. For example, a magnet oriented north/south is a "1" and a magnet oriented south/north is a "0". The magnetic field strength and direction do not decay when power is switched off, and, therefore, the memory is non-volatile.

Beginning in 2007 we pursued the further development of our memory and our sensor technology with the support of two U.S.-based foundries, GCS in California and BAE in New Hampshire. We executed development/manufacturing agreements with Unotron, NEMT and LMTI – see Item 10 -- "Additional Information – C. Material Contracts" beginning on page 33 of this Annual Report.

Industry Background

The semiconductor memory industry is principally driven by the requirements of the computing industry. The nature of the industry is that it is capital intensive, cyclical, rapidly changing and depends significantly on patent protection.

The semiconductor industry is intensely competitive. Both low-density and high-density nonvolatile memory products are manufactured and marketed by major corporations possessing worldwide wafer manufacturing and integrated circuit production facilities and by specialized product companies.

Our Company's Technology

We have decided that we will not pursue the further development of our memory technology because of the significant cost that would be required to pursue the commercialization of our memory technology as a standalone application. Competitors in the development of memory technology are much larger and better financed international entities.

We have been aggressively developing our sensor technology applications for multiple potential commercial applications since 2008.

Our technology combines the use of semi-conducting ferromagnetic metals with a sensor. When the magnetization of the magnetic material changes direction, the sensor senses the change in direction and records a "0" or "1". In this fashion, a bit is created that is non-volatile and based on magnetic properties.

Equity Financing Transactions

In the 2011 fiscal year, the Company completed a series of private placement financings with arms' length investors pursuant to prospectus and registration exemptions set forth in applicable securities law. The Company received gross proceeds of $2,478,681 and issued a total of 20,825,207 common shares. In addition, a total of 20,825,207 common share purchase warrants with an average price of $0.14 were attached to the private placements completed during 2011. All warrants issued in 2011 have a 12 month term from issue date.

In 2011 the Company extended the expiration date on a total of 7,928,432 common share purchase warrants which would have otherwise expired during the year. The expiration dates were extended for a period of 6 to 12 months in each case from the original expiration date. The exercise price in all cases remained unchanged.

In 2011 the Company secured three additional bride loans totaling $496,813; two of these loans were repaid during the year. At October 31, 2011, the balance outstanding on the remaining term loan was $120,042 and this loan was repaid subsequent to yearend. The total interest paid or accrued on the bridge loans in 2011 was $139,625. A total of 55,000 common share purchase warrants were also issued to the lenders in 2011.

In 2012 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 $1,040,899 and issued a total of 6,344,899 common shares. Additionally, 6,344,899 common share purchase warrants with an average price of $0.17 were attached to the private placements completed during 2012. All warrants issued in 2012 have a 12 month term from issue date.

The Company extended the expiration date on a total of 5,267,087 common share purchase warrants which would have otherwise expired in 2012. These warrants were extended for a period of 6 to 12 months in each case. The exercise price remained unchanged in each case $0.12.

In 2012 the Company secured four additional bridge loans totaling $714,359; two of these loans totaling $301,450 were converted into common shares prior to October 31, 2012.

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 2011, 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 anticipates that we will realize commercial economic benefits from the exploitation of these intangible assets in future. Accordingly, we reported $135,465 of intangible assets at October 31, 2011, representing direct costs incurred with respect to such assets.

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.

Our IP portfolio comprises several different series of patents and patent applications as follows:

(a) our initial patents covering what is referred to as the Vemram and Hemram technologies which the Company has not further pursued since 2002;

(b) those covering technologies developed pursuant to research collaboration agreements with the University of Toronto between 2004-2007;

(c) those applications covering the technology developments that the Company has furthered since it began working with the US-based foundries in September, 2007;

(d) those applications covering the technology development that the Company has furthered in collaboration with outside consultants, under contract to provide technical design services to the Company; and,

(e) Provisional patent filings beginning in 2011.

The Company engaged Morgan Lewis as our patent attorneys in 2005. It has paid Morgan Lewis approximately $1 million in legal fees since then. In 2012, we paid the remaining obligation due to Morgan Lewis and have retained alternative counsel to provide ongoing assistance in this area.

In 2011, we wrote down our investment in patents by $129,033 relating to memory technology for which the Company has no immediate plans to further develop.

In 2012, 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 $26,650 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 2012 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 no capital expenditures in 2012, no capital expenditures in 2011 and $851 of capital expenditures in 2010.

ITEM 4A. UNRESOLVED STAFF COMMENTS

Not applicable.

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, 2012 and October 21, 2011. 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.

I. OVERVIEW

We are a pre revenue stage company that currently operates in a single segment as a developer of non-volatile magnetic memory and sensor technology. Non-volatile memory implies the ability to retain information after power has been shut off. Our technology is based on our ability to use magnetic materials in combination with a sensor to record a state of magnetization as a mechanism of data storage.

A. Operating Results

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

Selected statement of operations and deficit information

	2012	2011
Interest and other income	-	$963
Loss for the year	1,775,065	3,182,387
Loss per share-basic and diluted	0.01	0.03

Selected balance sheet information

	2012	2011
Working capital (deficiency)	(731,673)	($1,060,487)
Property and equipment	5,787	10,201
Total Assets	1,180,278	906,346
Shareholders' equity (deficiency)	(904,030)	(1,1409,228)

Fiscal 2012 Compared to Fiscal 2011

The Company remained in pre revenue mode at October 31, 2012. The Company reported no interest income in 2012 (2011: $963). It recorded, but fully reserved a total of $20,300 (2011: $20,220) of interest income on a secured promissory note outstanding.

The Company capitalized $263,133 of development costs relating to several development projects in 2012 (2011: $554,685) and recovered $206,780 of costs previously reported (2011: $129,600) for a net increase in capitalized development costs of $71,557 (2011: $425,085). At October 31, 2012 the Company reported $718,163 of deferred development costs on its balance sheet (2011: $646,606).

In the fiscal year ended October 31, 2012, the Company reported $26,650 of additions to its patents (2011: $8,017); in 2011 the Company wrote down the value of its patents by $129,033 which related to technology that the Company had no further plans to develop. The Company reported $49,124 of patents on its balance sheet at October 31, 2012 (2011: $37,678).

The Company reported no expenditures on intangible assets in 2012 (2011: an additional $135,465 relating to costs incurred with respect to technical expertise for its sensor technology). At October 31, 2012, the Company reported $116,113 of intangible assets on its balance sheet (2011: $135,465).

In 2012, the Company reported $694,617 of general and administrative costs compared to $462,827 in 2011. These costs include office rent, communication costs, insurance, filing fees, costs associated with the annual general meeting. These specific costs were comparable between years. In 2012, the Company also incurred $72,756 of sponsorship costs (2011: nil) as it began to explore upgrading its existing status on the Canadian stock exchanges and reported approximately $188,000 (2011: $12,000) of non - cash accretion expense relating to the convertible debentures.

Professional and other fees and salaries totaled $1,507,891 in 2012 (2011: $1,064,655). The Company reported the following costs: audit related fees of $118,475 (2011: $88,937), legal expenses of $48,951 (2011: $64,919), management fees of $514,262 paid to the Chairman, the CEO and the CFO (2011: $467,132), staff salaries and benefits of $407,450 (2011: $424,306), other expenses of $15,594 (2011: $19,114) and consulting fees of $403,158 (2011: $571). The increase in consulting fees has several components: the Company paid fees of $104,003 to third party advisors who assisted the Company in investor relations in 2012 (2011: none); the Company paid the President of MAST a total of $261,134 in 2012 (in 2011 $180,000 which was capitalized in intangible assets and deferred development costs, thus no expense reported in 2011); and incurred costs for assistance in conversion to IFRS reporting of $35,565 in 2012 (nil in 2011); and other of $2,456 (2011: $571).

Stock compensation expense, calculated in accordance with the Black Scholes option pricing model was $430,856 in 2011 relating to the issuance of 2 million stock options awarded to directors, officers and staff (2011: expense of $928,497 relating to the issuance of 7,475,000 stock options).

In 2012 the Company expensed $229,840 of research and development related costs whereas the Company recovered $75,896 of such costs in 2011 relating to the settlement of supplier invoices at a discount. It recovered $42,004 of patent costs previously expensed relating to the settlement of legal expenses settled at a discount (2011: nil).

Travel and entertainment costs increased to $150,924 in 2012 from $91,885 in 2011. The Company incurred higher costs associated with its dealings with an increasing number of shareholders in 2012.

In 2012 the Company recovered $30,000 of the Unotron promissory note that it had previously fully reserved (2011: recovery of $110,000). The remaining balance outstanding on the promissory note at October 31, 2012 is $101,853 (2011: $111,553) which balance is fully reserved.

In 2011 the Company reported a write down of its patents of $129,033 and a charge of $185,564 relating to the modification of the conversion features on several bridge loans that it had previously secured. It reported no similar expenses in 2012.

Foreign exchange/transaction losses in 2012 were $7,537 (2011: $43,215). The exchange rate between the U.S. and the Canadian dollar fluctuated less in 2012 than in 2011.

Under IFRS, the Company accounts for the outstanding Canadian dollar denominated warrants as a derivative warrant liability and measures them using the Black Scholes option pricing model. This liability is revalued at each quarter end. The Company reported a recovery on revaluation of derivative warrant liability of $1,327,524 in 2012 (2011: expense of $410,584).

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, 2012	-	$1,606,176	.01
July 31, 2012	-	(507,079)	-
April 30, 2012	-	(2,849,835)	(0.02)
January 31, 2012	-	(24,327)	-
October 31, 2011	$ -	$(1,854,751)	(0.02)
July 31, 2011	585	(237,795)	-
April 30, 2011	39	(507,225)	(0.01)
January 31, 2011	339	(582,616)	(0.01)

The net income (loss) has varied significantly between quarters in 2011 and in 2012, the result of the required re-measurement of derivative warrant liability at each quarter end and under IFRS reporting.

B. Liquidity and Capital Resources

Liquidity

We are a pre-revenue stage company. We currently have no cash flow from operations and will have none until we license or directly produce and sell products utilizing our technology.

We currently have no lines of credit and must obtain equity financing from investors and from persons who hold outstanding options and warrants in order to meet our cash flow needs until we can generate revenues. At October 31, 2012 we have approximately $245,000 cash on hand (2011: $44,000) and our monthly cash expenses approximate $150,000 (2011: $150,000). Our working capital deficiency at October 31, 2012 is $731,673 (2011: $1,060,487). Since October 31, 2012 we have raised an additional $1,052,113 through unit private placements and bridge loans.

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.

We have issued common share purchase warrants as part of the Unit private placement financings that we have completed. None of the warrant holders have any obligation to exercise their warrants which, in general, expire 12 months after issuance if unexercised. There can be no guarantee that we will realize any funds from these outstanding warrants.

Capital Resources

We have no commitments for capital expenditures as of October 31, 2012 and made no expenditures on capital equipment during the 2012 fiscal year.

C. Research and Development

We are a pre-revenue stage company. 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.

Investment tax credits (ITC) arising from research and development are recognized when their realization is reasonably assured. The ITCs are applied against the related costs and expenditures in the year that they are recognized.

Our research and development activities have been related primarily to research and development of a magnetic random access memory device and the development of our magnetic sensor through research collaboration agreements. Our research and development expenses totaled $229,840 in 2012 (2011: recovery of $75,896). We capitalized net development expenditures of $71,557 in 2012 (2011: $425,085). We report $718,163 of deferred recovery of development costs at October 31, 2012 (2011: $646,606).

D. Trend Information

The digital memory industry and, more broadly, the semiconductor industry, have historically been characterized by wide fluctuations in demand for and supply of semiconductors and memory technologies. Prior experience has shown that restructuring of operations, resulting in significant restructuring charges, may become necessary if an industry downturn were to occur.

Our prospects for revenues are dependent upon the successful completion of our technology development and the incorporation of any technology that may be developed under or pursuant to our research collaboration agreements.

E. Off-Balance Sheet Arrangements

We are not party to any material off-balance sheet arrangements. 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, 2012 is as below:

	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Convertible debt obligations	442,934	442,934	-	-	-
Capital Lease obligations	-	-	-	-	-
Operating lease obligations	223,000	47,000	-	176,000	-
Purchase obligations	150,000	150,000	-	-	-
Management agreements • Chairman • CFO	 - -	 - -	 - -	 - -	 - -

• President • President MAST INC.	13,333[1] -	13,333 -	- -		
Total:	829,267	653,267	-	176,000	-

[1] Monthly obligations, no contractual term.

Critical Accounting Policies

Our significant accounting policies are set forth in Note 4 to 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 in the fiscal years ended October 31, 2011 and 2012, and for intangible assets, warrant modification and modification of the conversion feature of bridge loans reported in the fiscal year ended October 31, 2011.

We are a pre-revenue stage company. 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. In 2012, the Company has capitalized $718,163 (2011: $646,606) of development costs and capitalized $116,113 (2011: $135,465) as intangible assets under IFRS.

In the year ended October 31, 2011, the Company modified the expiration date of warrants which would have otherwise expired in 2011. Under U.S. GAAP, this amount has been recorded as an increase in paid in capital and a corresponding offset to retained earnings. Under IFRS, a charge of $293,020 is included below net loss in the determination of shareholders' equity.

In the year ended October 31, 2011, the Company modified the conversion feature of two bridge loans. Under IFRS, the first loan was considered an extinguishment and issuance of new debt but no gain or loss was recognized as the carrying value of the extinguished debt was not materially different from the modified debt instrument. The second loan did not meet the criteria for extinguishment and as such was treated as a renegotiation. Under U.S. GAAP, the Company evaluated whether the change in conversion feature represented an embedded derivative that required separation. Under U.S. GAAP, no beneficial conversion feature exists and under IFRS a $185,564 charge was recorded to retained earnings with an offsetting charge to contributed surplus to reflect the value of the more favorable conversion feature.

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.

Investment tax credits (ITC) arising from research and development are recognized when their realization is reasonably assured. The ITCs are applied against the related costs and expenditures in the year that they are incurred.

Commitments

Summary of commitments:	**Date executed:**
A. Research collaboration agreements (1) Revised Licensed Agreement – University of Toronto	 June 2005

B. Operating Leases	June 2012
C. Consulting and Employment Contracts (1) Chairman of the Board of Directors (a) (2) President (a) (3) President, MAST INC. (a) (4) CFO(a)	 May 29, 2005 May 18, 2007 May 18, 2007 May 18, 2007
D. Other Commitments	None

(a) Month-to-month commitments at October 31, 2012.

A. Research Collaboration Agreements:

1. Revised License Agreement, June 2005. In June 2005, we signed a revised license agreement with the University of Toronto and the Ontario Centres of Excellence whereby: Ontario Centres of Excellence released us and the University of Toronto from the commercialization obligations set forth in all prior research collaboration agreements, and we acquired exclusive worldwide rights to the technology and any technology or patent rights under the agreement related to the MRAM technology developed at the University of Toronto.

We have agreed to royalties and payments as follows:

In consideration for the rights and licenses granted, we agreed to pay to the University of Toronto: 4% of Net Sales until such time as the University of Toronto has received from us an aggregate amount of CDN $500,000; 1% of Net Sales thereafter. If we sublicense any rights granted herein to any non-affiliate: in combination or association, the University of Toronto shall receive 10% of any Net Fees and/or Net Royalties in respect of any licenses involving both the rights granted herein and such our intellectual property; for all other sublicenses of the rights granted herein to a non-affiliate, the University of Toronto shall receive 20% of any Net Fees and/or Net Royalties in respect of such sublicenses; and Net Fees and/or Net Royalties shall be paid to the University of Toronto until such time as it has received an aggregate amount of CDN $500,000; thereafter we shall pay half of the amounts set forth above as is applicable.

At any point after which we have paid the University of Toronto CDN $500,000, we may at our option buy out the obligation to pay royalties thereunder by paying to the University of Toronto a single lump sum payment equaling the greater of CDN $500,000 and an amount equal to the total amount of royalties paid by us to the University of Toronto in the preceding twenty-four months. We are entitled to exercise such option by providing written notice to the University of Toronto along with the required payment, after which time our obligation to pay royalties shall be waived by the University of Toronto.

As a condition to entering the license agreement, we have agreed that we will enter into a further research agreement with a funding commitment of no less than CDN $500,000 to continue the further research and development of inventions and our intellectual property. In August 2005, we made an initial payment of $250,000 and, subsequent to October 31, 2005, we made the second payment of $250,000 under the terms of this further research agreement.

B. Operating leases:

We have operating lease commitments which expire in June 2017 for the real property lease of our corporate headquarters. .

C. Consulting and employment contracts:

1. On May 29, 2005, we entered into an employment agreement with the Chairman of the Board of Directors. The agreement commenced on January 1, 2005 and expired on September 30, 2009. In 2010, the Company extended the agreement to December 31, 2010. Under the terms of the agreement, the Chairman of the Board of Directors has been retained to provide certain management services to us. This compensation is subject to a minimum annual amount of $150,000 (CDN) or (approximately $150,000 U.S. funds at the current exchange rates).

In 2011, the Company extended the agreement on a month-to-month basis at a compensation rate of $150,000 (CDN) per year ($U.S. $152,326).

2. In May, 2008, we entered into employment agreements with:

   (a) Our President, Joseph Fuda, for a two-year term at an annual base compensation of $160,000 (CDN). The agreement was extended on a month-to-month basis in May 2010 at the same annual base amount.

   (b) Our Chief Financial Officer, Dan Amadori, for a two-year term at an annual base compensation of $150,000 (CDN). The agreement was extended on a month-to-month basis in May 2010 at the same annual base amount.

   (c) Steven Van Fleet, the President of our U.S. subsidiary, MAST INC. for a three year term at an annual base compensation of $180,000 per year. The agreement was extended on a month-to-month basis in May 2011 at the same annual base amount. In 2012, the annual base amount was increased to $22,000 per month.

D. Other commitments:

None.

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. Certain interests under the Asset Purchase Agreement with Estancia Limited reverted to Estancia Limited on March 9, 2004. On this basis, to the extent that revenues are generated by us relating directly and specifically to the VEMRAM patents, we are obligated to pay Estancia Limited 32% of the gross profit realized less expenses agreed to by the parties and 32% of any unit royalties realized less direct expenses. We are no longer pursuing this technology and do not anticipate future revenue streams nor any payment obligations under this agreement.

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 October 31, 2012 are set forth below:

Name	Age	Position
Salvatore Fuda	78	Chairman of the Board of Directors
Joseph Fuda	51	President, Chief Executive Officer and Director
Dan Amadori	61	Chief Financial Officer
Steven Van Fleet	58	Director and President of MAST, Inc.
Andrew Brandt	74	Director
David Sharpless	62	Director
Larry Blue	56	Director
Oliver Nepomuceno	43	Director
Alex Dey	69	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 currently also serves as a director of Echo Energy Canada Inc. until June 2009 and of Echo Power Generational Inc.

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 served as a technology consultant to a number of companies. He was the principal of the R&V Group LLC, an RFID business consulting and technology development company until 1996. Between 1999 - 2003 he served as Program Director for the Silent Commerce/Smart Packaging Initiative at International Paper Company. From January 1999 to November 1999, he was Program Director for Process and Product Uniformity and from March 1996 to December 1998 he was the Director for Control Systems Development at International Paper in Cincinnati, Ohio. He is also presently on the Board of Overseers for the Massachusetts Institute of Technology Auto ID Center. Mr. Van Fleet has been a director of Micromem since 2002 and has served as President of MAST since 2008.

Andrew Brandt was Chairman of the Board of Directors and Chief Executive Officer of the Liquor Control Board of Ontario from February 1991 to January 2006. Prior to his appointment to the Liquor Control Board of Ontario, Mr. Brandt served as Leader of the Ontario Progressive Conservative Party from 1987 to 1990. He has previously served as the Minister of Industry and Trade, Minister of Environment and Mayor of Sarnia, Ontario. Mr. Brandt has served as a director of Micromem since June 2000.

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 2000, 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 currently the President of New Vision Display, Inc., responsible for Global Sales and Marketing. NVD was recently 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. and was appointed to the Micromem Board of Directors in 2005. Previously Mr. Blue had senior management roles with Hughes Network Systems and with IBM in Research Triangle Park.

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.

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

	Annual Compensation			Long-Term Compensation	
				Awards	
Name and Principal Position	Fiscal Year	Salary (US$)	Bonus (US$)	Other Annual Compensation (US$)	Securities Under Options Granted (#)
Joseph Fuda	2011	160,000			2,000,000[1]
Chief Executive Officer	2012	190,000	-	-	50,000[2]
Salvatore Fuda,	2011	150,000	-	-	1,000,000[1]
Chairman of the Board of Directors	2012	150,000	-	-	110,000[2]
Andrew Brandt	2011	-	-	-	350,000[1]
Director	2012	-	-	-	125,000[2]
David Sharpless	2011	-	-	-	450,000[1]
Director	2012	-	-	-	190,000[2]
Steven Van Fleet	2011	180,000	-	-	1,000,000[1]
Director and President of MAST, Inc.	2012	261,000	-	-	500,000[2]
Dan Amadori	2011	150,000	-	-	1,000,000[1]
Chief Financial Officer	2012	175,000	-	-	190,000[2]
Larry Blue	2011	-	-	-	500,000[1]
Director	2012	-	-	-	190,000[2]
Oliver Nepomuceno	2011	-	-	-	350,000[1]
Director	2012	-	-	-	190,000[2]
Alex Dey	2011	-	-	-	225,000[3]
Director	2012	-	-	-	-

Notes:

1. Each option entitles the holder to purchase one common shares at a price of $0.20 per share prior to expiration in October 2016.
2. Each option entitles the holder to purchase one common share at a price of $0.35 per share prior to expiration in April, 2017.
3. We issued 125,000 options at $0.35 per share in April 2011 and 100,000 options at $0.20 per share in October 2011. Each option entitles the holder to purchase one of our common shares prior to expiration in 2016.

Directors do not receive cash compensation for serving as directors. Instead they have been awarded stock options over the years. These options are typically set at each annual meeting and approved by the Compensation Committee. None of the directors have agreements that provide for benefits upon termination of service.

We have adopted a stock option plan. 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.

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 a exercise price of $.35 per share.

C. Board Practices

Our Board of Directors meets on an as required basis during the fiscal year. In 2012 our Board of Directors met formally on October 1, 2012.

Our Audit Committee met on a quarterly basis during fiscal 2012 for the purpose of approving the quarterly financial statements and our yearend financial statements. In addition, our Audit Committee receives regular periodic reports from management.

All matters pertaining to our financing, contractual arrangements and management and Director Compensation are approved by the Board of Directors.

Our Compensation Committee met as required in 2012. 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 2012 to review our various press release disclosures and to monitor our general practices relating to our disclosure requirements.

The members of the Board of Directors are appointed to a one-year term at our Annual General Meeting.

Audit Committee

The Board of Directors has appointed an Audit Committee consisting of three independent directors. The members of the Audit Committee are Andrew Brandt, 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 2012 the Audit Committee met on January 23, 2012, February 24, 2012 and October 1, 2012.

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 Andrew Brandt, an outside director as Chairman, Oliver Nepomuceno and Alex Dey, as outside directors.

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 President of our wholly-owned subsidiary MAST INC., and three support staff, all (except for the President of MAST INC.) 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	191,500	2,000,000 30,000	$0.20 $0.35	10/31/2016 04/10/2017	1.63% (2,221,500)
Salvatore Fuda Chairman of the Board of Directors and Director	6,564,167[2]	1,000,000 110,000	$0.20 $0.35	10/31/2016 04/10/2017	5.60% (7,674,167)
Andrew Brandt Director	110,000	350,000 125,000	$0.20 $0.35	10/31/2016 04/10/2017	0.43% (585,000)
David Sharpless Director	100,000	450,000 190,000	$0.20 $0.35	10/31/2016 04/10/2017	0.54 % (740,000)
Steven Van Fleet Director and President of MAST, Inc.	-	1,000,000 500,000	$0.20 $0.35	10/31/2016 4/15/2012	1.10 % (1,500,000)
Dan Amadori Chief Financial Officer	612,517[3]	1,000,000 190,000	$0.20 $0.35	10/31/2016 04/10/2017	1.32 % (1,802,517)
Larry Blue Director	193,600	500,000 190,000	$0.20 $0.35	10/31/2016 04/10/2017	0.06% (883,600)
Oliver Nepomuceno Director	953,572	350,000 190,000	$0.20 $0.35	10/31/2016 04/10/2017 08/28/2013 08/25/2014	1.10% (1,493,572)
Alex Dey Director	699,800[4]	125,000 100,000	$0.35 $0.20	04/5/2016 10/31/2016	0.68% (924,800)

[1] Calculated based on shares owned plus options held as a percentage total of shares outstanding as of October 31, 2012, plus options held.
[2] 6,508,039 shares are held by a corporation wholly owned by a trust established for the benefit of members of Salvatore Fuda's family.
[3] 285,716 shares are held by a corporation controlled by Mr. Amadori.
[4] 332,387 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 66% (76,660,647) of the issued and outstanding common shares are held by Canadian investors; approximately 25.5% (29,651,423) of the issued and outstanding shares are held by U.S. investors; and approximately 8.5% (9,837,648) 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) Chairman:

On May 29, 2005, the Company entered into a new employment agreement with the Chairman, Salvatore Fuda, for a period from January 1, 2005 through September 30, 2009. In 2009, the Company extended the agreement to December 31, 2010. In January 2011, the Board of Directors extended the Chairman's contract on a month to month basis reflecting annual compensation amount of $150,000 Canadian funds.

In 2012 the Chairman was awarded a total of 100,000 options at a strike price of $.35 per share (2011: 1 million options at strike price of $.20 per share).

The total compensation paid to the Chairman during the year ended October 31 is summarized as follows:

	Cash Compensation $	Stock Compensation Expense $
2012	149,565	23,697
2011	152,326	118,038

In March 2011 the Chairman provided a bridge loan to the Company of $100,000, which loan plus interest was repaid in July 2011.

In August 2011 the Chairman, converted $112,500 of compensation received under contract to a unit private placement consisting of one common share and one common share purchase warrant. A total of 703,125 units were issued under the private placement.

(b) Management and consulting fees:

Included in professional fees as reported are management and consulting fees paid or payable to individuals (or companies controlled by such individuals) who served as officers and directors of the Company. The total compensation paid to such parties during the fiscal years ending October 31, 2012 and 2011is as follows.

	Cash Compensation $	Stock Compensation Expense $
2012	625,831	352,225
2011	647,132	590,191

In 2011 the Company assigned the promissory note receivable to the CFO of the Company, Dan Amadori, in conjunction with outstanding and unpaid fees due to that officer. During the year a total of $30,000 (2011- $80,000) received from the borrower was paid directly to that officer under the assignment agreement. The balance owing to the officer of the Company at October 31, 2012 was $56,500 (2011:$102,512)

In February 2012 the CFO subscribed for $50,000 as a Unit private placement consisting of one common share (at a price of $.35 per share) and one common share purchase warrant (at a price of $.44 per share). A total of 143,000 Units were subscribed for.

ITEM 8. FINANCIAL INFORMATION

A. Consolidated Statements and Other Financial Information

Our consolidated financial statements for the year ended October 31, 2012 have been prepared in accordance with IFRS. Previously the Company prepared consolidated financial statements in accordance with Canadian GAAP. The Company has restated the comparative financial statements at October 31, 2011 to IFRS. See "Item 18 — Financial Statements."

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

As of October 31, 2012 and as of February 22, 2013 there were no legal proceedings.

B. Significant Changes

Since October 31, 2012 the Company has raised an additional $ 1,055,113 through Unit private placement financings and through the exercise of warrants. There has been no other significant change in our financial position since October 31, 2012.

ITEM 9. THE OFFER AND LISTING

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 ends October 31. Our common shares are traded in Canada on the CNSX under the symbol MRM.

Our common shares are traded in the United States and are quoted on the OTC Bulletin Board. The common shares are quoted under the symbol MMTIF.OTCBB.

Period	**High**	**Low**
Last six months:		
February 2013	0.25	0.19
January 2013	0.30	0.18
December 2012	0.247	0.14
November 2012	0.206	0.144
October 2012	0.21	0.14
September 2012	0.266	0.14
Last eight quarters:		
Q1 2013	0.20	0.14
Q4 2012	0.247	0.14
Q3 2012	0.332	0.14
Q2 2012	0.32	0.13
Q1 2012	0.49	0.133
Q4 2011	0.24	0.072
Q3 2011	0.22	0.111
Q2 2011	0.26	0.12
Last five years:		
2012	0.49	0.10
2011	0.34	0.072
2010	0.65	0.135
2009	1.75	0.135
2008	2.60	0.31

On February 22, 2013, the last reported sale price for our common shares on the OTC Bulletin Board was $0.20.

ITEM 10. ADDITIONAL INFORMATION

A. Share Capital

Our authorized capital consists of an unlimited number of common shares, of which 136,430,555 shares were issued and outstanding as of October 31, 2012, and 2,000,000 special, redeemable, voting preference shares, referred to herein as special shares, none of which were outstanding, as of October 31, 2012.

Additionally the Company has 9,915,000 stock options outstanding with a weighted average exercise price of $.24 (2011: 11,175,000 options outstanding with a weighted average exercise price of $.47) and a total of 19,692,968 outstanding warrants to acquire common shares with a weighted average exercise price of $.27 (2011: 26,672,637 outstanding warrants with a weighted average exercise price of $.23).

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, a majority 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

1. On May 29, 2005, we entered into an employment agreement with Mr. Salvatore Fuda, the Chairman of the Board of Directors. The agreement commenced on January 1, 2005 and ended on September 30, 2009. In 2009 the agreement was extended for an additional one year through December 2010. Under the terms of the agreement, the Chairman of the Board of Directors has been retained to provide certain management services. We have agreed to provide compensation based on a percentage of the increase of the market capitalization on a year-over-year basis commencing as of December 31, 2005

subject to a minimum annual compensation amount of $150,000 (CDN) – approximately $143,877 in U.S. dollars at average exchange rates. At our option, we can pay either cash or issue common shares as compensation providing that the cumulative maximum number of shares that we can issue under the agreement is 2 million common shares. In January 2011, the Company extended the agreement on a month to month basis at a rate of $12,500 Canadian funds per month (approximately $12,500 in US dollars at current exchange rates) and has eliminated the incentive based compensation component which was reflected in the original agreement.

2. In May 2008 the Company executed the following employment contracts with key officers:

    1. A two-year agreement through May 2010 with its President, Mr. Joseph Fuda, stipulating annual base remuneration of $160,000 ($CDN) per year. The agreement was extended on a month-to-month basis in May 2010 stipulating the same annual base remuneration amount.

    2. A two-year agreement through May 2010 with its CFO, Mr. Dan Amadori, stipulating an annual base remuneration at $150,000 (CDN) per year. The agreement was extended on a month-to-month basis in May 2010 stipulating the same annual base remuneration amount.

    3. A three-year agreement through May 2011 with the President of its wholly-owned subsidiary, MAST INC., Mr. Steven Van Fleet, who is also a director of the Company, stipulating annual base remuneration of $180,000 per year. The agreement was extended on a month-to-month basis in May 2011. The base amount was increased to $240,000 in 2012.

3. In August 2009, Unotron Inc. executed a secured promissory note in favor of Micromem. The promissory note is in the principal amount of $200,000, bears interest at a rate of 10% payable quarterly and is secured by a first lien on the assets of Unotron. The promissory note matured on September 30, 2010 The Company negotiated a revised payment schedule in 2011. It received $110,000 of payments from Unotron during 2011 and $30,000 in 2012. The interest rate on outstanding balances was revised to 18% in July 2011. The balance outstanding at October 31, 2012 is $101,853, which balance is fully reserved by the Company.

4. Unotron Inc. and Micromem entered into a manufacturing agreement in 2009 that requires Micromem to develop a magnetic sensor based keyboard substrate that is to be integrated into Unotron's waterproof and washable keyboards. These keyboards can be placed within a commercial dishwasher and cleaned to prevent diseases from being transmitted on the keyboard. In 2009, Micromem designed, manufactured, tested and delivered the initial volume of keyboards to Unotron in Hong Kong.

5. In 2009 Micromem and LifeMed Technologies Inc. entered a manufacturing agreement pursuant to which we received a $30 million purchase order. Under the terms of the agreement, Micromem would design and manufacture prototypes, submit and obtain FDA 510(K) approval and manufacture a medical device that incorporates our magnetic sensor technology. The medical device is designed to provide early detection of abnormalities in women's breasts. In mid-2011 we served notice to LMTI that given their inability or unwillingness to comply with the terms of the agreements that were executed with Micromem, we were cancelling our working arrangements with LMTI.

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, a and at anytime 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, 2012, 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, 2012. 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

Not Applicable.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

Not Applicable.

PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

Not Applicable.

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, 2011. Based on management's evaluation in 2012, our Chief Executive Officer and Chief Financial Officer concluded that, as of October 31, 2012, 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, 2012. 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, 2012, our internal control over financial reporting were effective.

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, 2012 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, 2012 and 2011, and fees billed for other services rendered by our auditors including our offerings of securities and tax services.

	Fiscal 2012	**Fiscal 2011**
Audit Fees	$90,000	$89,000
Audit Related Fees	-	-
Tax Fees	5,000	5,000
All Other Fees	28,000	10,000

Audit Fees

In 2011, we paid a total of $89,000 to Collins Barrow Toronto LLP for audit services; in 2012 we paid a total of $90,000 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 2012 and $5,000 of tax-related fees in 2011 to Chiampou Travis Besaw & Kershner LLP.

All other fees

We paid $28,000 in 2012 and $10,001 in 2011 to Collins Barrow LLP with respect to our quarterly filings and our conversion to IFRS.

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.

Not applicable.

ITEM 16F. Change in Registrants Certifying Accountant.

Not applicable.

ITEM 16G. Corporate Governance

Not applicable

ITEM 16H. Mine Safety Disclosure

Not applicable

ITEM 17. Financial Statements

We have elected to provide financial statements pursuant to 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. 4.5	Agreement with Investor Relations Group dated September 1, 2008 (Incorporated by reference to the Company's Form 20-F filed with the Commission on February 24, 2009).
Exhibit No. 4.6	Agreement with Dreifus Associates Limited (DAL) dated June 1, 2008 (Incorporated by reference to the Company's Form 20-F filed with the Commission on February 24, 2009).
Exhibit No. 4.7	Unotron Promissory Note dated August 1, 2009 (Incorporated by reference to the Company's Annual Report on Form 20-F filed with the Commission on March 1, 2010)
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Exhibit No. 4.8	Agreement with Life Med Technologies Inc. (Incorporated by reference to the Company's Annual Report on Form 20-F filed with the Commission on March 1, 2010)
Exhibit No. 4.9	Manufacturing Supply Agreement with Unotron. (Incorporated by reference to the Company's Annual Report on Form 20-F/A filed with the Commission on February 25, 2011)
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 22, 2013