

# ZECOTEK PHOTONICS INC.

# MANAGEMENT DISCUSSION AND ANALYSIS

For the Year Ended July 31, 2010

November 29, 2010

## MANAGEMENT DISCUSSION AND ANALYSIS November 29, 2010

This Management's Discussion and Analysis ("MD&A") should be read in conjunction with the Company's annual audited financial statements for the year ended July 31, 2010 and notes thereto. The significant accounting policies are outlined in Note 2 to the Financial Statements of the Company for the year ended July 31, 2010. All dollar amounts are expressed in Canadian dollars except where noted. The Company's accounts are maintained in Canadian dollars. The business activities of the Company, carried out through its subsidiaries in Singapore are conducted primarily in Singapore dollars. The rate of exchange on July 31, 2010 as reported by the Bank of Canada, for the conversion of one Singapore dollar into Canadian dollars was \$0.7568.

## **Company Overview**

Zecotek Photonics Inc. is a photonics technology company developing high-end and key cost and function related components for existing and future machines used in medical diagnostics, pharmaceutical research, high energy physics, homeland security, defense, engineering and industrial design. Founded in 2003, the Company has focused on building shareholder value by securing a strong IP portfolio, completing the development of unique technologies for high value markets and by identifying the optimum commercialization strategy.

Zecotek Photonics Inc. (ZPI), has three operational subsidiary companies; Zecotek Imaging Systems Pte Ltd (ZIS); Zecotek Display Systems Pte Ltd (ZDS); and Zecotek Laser Systems Pte Ltd (ZLS). All of these companies are incorporated in Singapore. Each one is autonomous, in the sense that each has its own patent portfolio and management team.

ZPI's corporate headquarters is located in Vancouver, B.C. and is a Canadian public company trading on the TSX Venture Exchange under the symbol "ZMS" and on the Frankfurt Stock Exchange under the trading symbol "W1I". The Company's website is www.zecotek.com.

## Zecotek Imaging Systems Pte Ltd. (ZIS)

ZIS has research laboratory facilities in Singapore and Moscow, where it has developed its unique scintillation crystal, LFS, and the novel solid state photo-detector, MAPD. It also works in partnership with the University of Washington, Seattle, on the integration of PET/MRI for Imaging and Pharmaceutical research. The PET/MRI program offers an ideal diagnostic modality. The joint effort with the University of Washington is to focus on the integration of compact design for the imaging of specific organs. It will also be targeting pharmaceutical research companies.

The LFS crystal and the MAPD are central components for high resolution PET scanners for medical diagnostics and treatment. They are also key devices to High Energy Physics experiments, specifically the Large Hadron Collider at CERN, Switzerland and the Linear accelerator at Fermi Lab, USA. Fermi Lab and CERN have subcontracted ZIS to complete the development of a version of ZIS's MAPD with specific parameters for their main new particles detection programs.

## Zecotek Display Systems Pte Ltd. (ZDS)

ZDS has a research laboratory on the campus of the University of British Columbia. It works closely with the Deutsch company Anteryon, BV, to fine tune the manufacturing process of part of its revolutionary 3D display screen. The new 3D display provides multiple viewing angles, auto-stereoscopic without glasses and resolution maintaining design configuration.

ZDS will initially target specialized markets (teaching screen for schools of medicine, biochemistry, engineering, design arts; applications in the defense industry; homeland security/airport scanning; flight control panels; desktop computer monitors; simulation; geophysics; video games; and many other high end applications). Once the 3D TV content is standardized, ZDS and its partners will focus on the consumer market.

ZDS has successfully developed and demonstrated a colour, 32 inch 3D display prototype that offers multiple viewers with true volumetric visualization while exhibiting depth and parallax. ZDS's Real-Time 3D2D Display is a novel, proprietary display system for the visualization of images and data.

Based on the auto stereoscopic principle, but with substantial patent pending innovation, it represents a new generation of 3D displays. Its design provides for multi-users, multi-views, freedom of movement, high resolution in both 3D and 2D modes, superior image dynamic range in 2D mode, 2D and 3D simultaneous displays, common brightness, compatibility with existing applications and cost competitiveness at all stages of adoption and levels of application.

On September 15, 2010, the Company announced that its auto – stereoscopic (requiring no glasses) 3D Display system has a newly developed split view capability and Air Traffic Control simulation, both of which were demonstrated to potential industry partners and licensees from the U.S., Japan, Korea and China. The introduction of the capability to render 3D multi-level presentations for Air Traffic Control positions and flight data has also been welcomed by the industry. A 3D representation promises to be an effective aid with respect to understanding air traffic situations, local tactical understanding of traffic and collection feedback on implemented course of action. The split screen feature of the 3D Display allows for two different views on the same display and has many potential applications, in particular in the gaming industry, flight simulation and as a car dashboard navigation/entertainment screen.

#### Zecotek Laser Systems Pte Ltd. (ZLS)

ZLS has a joint laboratory with the University of Victoria, BC, for the development of thin film waveguide micro-lasers grown by the MBE deposition method. The thin film micro-laser is in the final integration phase. The finished product will be in the form of large wafers made of microlasers, capable of the high power necessary for a gamete of medical and industrial applications. This new laser design stands to displace a large number of traditional lasers.

It also has a joint laboratory with Inversion Fibers/Novolasers, for the integration of a tunable fiber laser in the visible spectrum. The tunable visible fiber laser technology is completed. The laser is specially suitable for the large Flow Cytometry machines used in pharmaceutical drug research. The machines would have a uniform Fiber Laser based platform. The present designs have a large and cumbersome number of lasers of different configurations and mode of operations. This design was endorsed by tests independently conducted by the US National Institute of Health (NIH).

ZLS has focused its efforts on those lasers that have unique commercial, technical and value added features and present less resistance to market entry.

## **Zecotek Product Focus Summary**

- Patented LFS scintillation material;
- Patent-pending MAPD solid-state photon counter (Multiplixelated Avalanche Photo Diode);
- Patent-pending Integrated Detector Module, IDM for PET machine insert:
- Patented and Patent-pending Mini PET/MRI technology;
- Patented and Patent-pending 3D2D auto-stereoscopic multiple views display;
- Patented and Patent-pending Tunable Fiber Laser in the visible spectrum;
- Patent-pending Thin Film Waveguide microlaser.

## **Corporate Developments**

## **Financings**

#### Zecotek Closes C\$1.47 Million Private Placement

On November 3, 2010, the Company completed a non-brokered private placement of 2,773,584 units of the Company at a price of \$0.53 per unit for gross proceeds of \$1,470,000. Each unit consists of one common share and on-half of one share purchase warrant. Each whole warrant entitles the holder to acquire one common share at an exercise price of \$0.70 per share at anytime on or before the 24 month anniversary of the closing of the offering. The warrants' exercise period will automatically accelerate if the common shares of the Company trade above \$1.25 for a period of 10 consecutive trading days. Pursuant to the financing, the Company will pay a finder's fee, equal to 5% of a portion of the gross proceeds of the sale of the shares and issue 124,811 non-transferable finder's warrants. Each finder's warrants will entitle the holder to purchase one share at \$0.70 for a period of 24 months after the date the private placement closes. All shares and warrants are subject to a four-month hold period expiring on March 3, 2011.

On February 4 and 23, 2010, 170,000 and 833,333 common share purchase warrants were exercised respectively at \$0.70 per share for a total cash proceeds of \$702,333. On February 16 and March 5, 2010, 12,500 and 5,000 common share purchase warrants were exercised respectively at \$0.75 per share for total cash proceeds of \$13,125.

On October 23, 2009, the Company completed a non-brokered private placement of 5,925,000 units of the Company at a price of \$0.63 per unit for gross proceeds of \$3,732,750. Each unit consists of one common share and one common share purchase warrant. Each whole warrant entitles the holder to acquire one common share at an exercise price of \$1.00 per common share at any time on or before the 24-months anniversary of the closing of the offering. The Warrant's exercise period will automatically accelerate if the common shares of the Company trade above \$1.50 for a period of 10 consecutive trading days. The Company will pay a finder's fee equal to 7% of the gross proceeds of the sale of the Shares and issue non-transferable finder's warrants to purchase common shares equal in number to 6% of the units sold under the private placement. Each finder's warrant entitles the holder to purchase one Share at \$1.00 for a period of 24 months after the date the private placement closes.

On August 5, 2009, the Company amended the terms of 1,078,150 warrants issued to subscribers of a private placement which closed on December 20, 2007. The Company will re-price the exercise price of the subscriber warrants to \$0.75 per common share from the initial exercise price of \$2.10 with no change to the expiry date of December 20, 2009. The amended warrants will contain an acceleration provision, such that, if, for a period of ten consecutive trading days (the "Premium Trading Days"), the closing price of the Company's shares is \$1.00 per share or higher, the warrant exercise period will be shortened to a period of 30 days. The 30-day period will commence seven calendar days after the tenth Premium Trading Day.

On February 26, 2009, the Company announced to amend the terms of the 781,500 warrants issued to subscribers of a private placement which closed on September 6, 2007. The Company will re-price the exercise price of the subscriber warrants to \$0.75 per common share from the initial exercise price of \$2.00 and extend the expiry date for these warrants by twelve months from March 6, 2009 to March 6, 2010. The amended warrants will contain an acceleration provision, such that, if, for a period of ten consecutive trading days, the closing price of the Company's shares is \$1.00 per share or higher, the warrant holders will have 30 days to exercise their warrants; otherwise the warrants will expire on the 31st day.

On January 13, 2009, the Company closed a non-brokered private placement of 1,003,333 units issued at \$0.60 per unit, resulting in gross proceeds of \$602,000. Each unit consists of one common share and one common share purchase warrant. Each whole warrant entitles the holder to purchase one additional common share for a period of eighteen months at an exercise price of \$0.70 per common share. The warrant's exercise period will automatically accelerate if the common shares of the Company trade above \$1.00 for a period of 10 consecutive days. The Company paid a finder's fee equal to 7% of the gross proceeds of the sale of the shares and issue non-transferable finder's warrants to purchase common shares equal in number to 6% of the units sold under the private placement

#### The Board of Directors

Effective October 14, 2010, the Company appointed Dr. Jalil Ali to its Board of Directors. He will fill the role of an independent director, advising on industry trends as well as providing additional industry expertise at the Board level. Dr. Ali received his PhD in plasma physics from University Teknologi Malaysia (UTM), in 1990. At present, he is professor of photonics at the Institute of Advanced Photonics Science, Nanotechnology Research Alliance and the Physics Department, UTM. He has held several faculty and research positions since 1987, authored/coauthored more than 300 technical papers published in international journals, three books and a number of book chapters. Dr. Ali is a member of OSA, SPIE and the Malaysian Institute of Physics.

#### Award

In early March 2009, the Company received the Frost & Sullivan 2009 Enabling Technology Award in the PET (positron emission tomography) and PET/CT (computed tomography) medical imaging markets. Zecotek received this Award in recognition of the Company's research and development and clinical validation achievements for its next-generation scintillation crystals and solid-state photo detector technology. Frost & Sullivan acknowledged that Zecotek distinguished itself from its competitors through its best practices in technology developments and strategic alliances for its medical imaging products.

#### Patents

On September 29, 2008 the Canadian Patent Office issued a notice of allowance to Zecotek Imaging Systems Singapore Pte. Ltd., a wholly owned subsidiary of Zecotek Photonics Inc. for its LFS scintillation material. This application is identical to the LFS scintillation applications that have been issued or allowed in the United States, Russia, China, Europe and Japan.

On September 3, 2008, the Company received Notification of Grant of Patent Rights from the Chinese Patent Office for its LFS scintillation material. The grant of these additional Chinese patent rights further validates and strengthens Zecotek's worldwide patent position in its innovative LFS scintillation material.

## **Government Grants**

## Singapore Economic Development Board grants Research Incentives

During the year, Zecotek received Job Credit Assistance in the amount of \$15,514 from the Government of Singapore in light of deteriorating economic conditions. The Company, however, did not receive any grants under the previously announced Government of Singapore Economic Development Board's (EDB) Research Incentive Scheme for Companies. The process is ongoing and the Company may receive further grants subject to the fulfillment of EDB conditions. Under the terms of the agreement, grant details remain confidential. General details of EDB's support programs can be found on EDB's website <a href="www.edb.gov.sg">www.edb.gov.sg</a>.

## Malaysian Industrial Development Authority grants Research Incentives

During the year, the Company did not receive grant payments from the Malaysian Industrial Development Authority. The process is ongoing and the receipt of further grants from The Malaysian Industrial Development Authority (MIDA) is uncertain currently. The MIDA incentive grants come as a product of Zecotek's relationship, established in 2007, with the Malaysian Institute for Micro-electronics Systems (MIMOS) to complete the development of the manufacturing process of Zecotek's new-generation MAPD solid-state photo detectors.

## **Investor Relations**

#### **Zecotek Re-Engages CHF Investor Relations**

In August 2009, the company retained CHF Investor Relations (Cavalcanti Hume Funfer Inc.), ("CHF"), an investor relations firm whose management team's combined experience accounts for a full century working in brokerage, trading, financial analysis, and investment sales. The Company continues to benefit from the services provided by CHF.

## **Selected Annual Information**

The Company's fiscal year end is July 31. The following is a summary of certain selected audited consolidated financial information for the Company's three most recently completed fiscal years.

	Audited Year Ending July 31, 2010	Audited Year Ending July 31, 2009	Audited Year Ending July 31, 2008
Revenue	\$ 67,848	\$ 350,584	\$ 303,859
Interest income	\$ -	\$ 6,176	\$ 103,054
Net loss for the year	\$ (6,911,541)	\$ (4,616,950)	\$ (8,403,181)
Earnings/loss per share	\$ (0.13)	\$ (0.10)	\$ (0.19)
Total assets	\$ 508,678	\$ 1,245,276	\$ 3,550,940
Long term debt	\$ 0	\$ 0	\$0
Share Capital	\$ 32,702,057	\$ 29,410,773	\$ 28,985,958
Number of Shares	53,405,004	46,459,171	45,455,838
Deficit	\$ (41,974,510)	\$ (35,062,969)	\$ (30,446,019)

## **Summary of Quarterly Results**

The following table sets out certain financial information for the past eight quarters

Quarters ended				
(unaudited)	July 31, 2010	April 30, 2010	January 31, 2010	October 31, 2009
Operating Accounts				
Revenue	Nil	\$1,110	\$19,664	\$47,074
Net loss	\$1,727,157	\$1,659,369	\$2,058,909	\$1,466,106
<b>Balance Sheet Accounts</b>				
Total Assets	\$508,678	\$1,304,226	\$1,387,762	\$3,286,189
Loss per share	\$0.03	\$0.03	\$0.04	\$0.03
Quarters ended				
(unaudited)	July 31, 2009	April 30, 2009	January 31, 2009	October 31, 2008
Operating Accounts				
Revenue	\$96,072	\$254,512	Nil	Nil
	. ,	T,	- 1	
Net loss	\$1,198,177	\$1,101,770	\$999,074	\$1,317,929
Net loss Balance Sheet Accounts			\$999,074	\$1,317,929
			\$999,074 \$2,184,027	\$1,317,929 \$2,554,838

## **Results of Operations**

#### Revenue

Revenues amounted to \$0 in the fourth quarter of 2010 and \$67,848 in the year ended July 31, 2010 compared to \$96,072 and \$350,584 in the same periods in 2009. These revenues are from the sale LFS crystals (1.6%), and MAPDs (98.4%) to major companies and organizations that are increasingly testing our products for potential larger scale ramp-up. In the fourth quarter of 2010, certain adjustments affected the quarterly revenues and net loss figures previously filed in the quarterly financial statements of the Company.

#### **Gross Margin**

Gross margins amounted to \$0 in the fourth quarter of 2010. For the fiscal year 2010, gross margins totaled \$55,111 on sale of \$67,848 for an average gross margin of 81.23% compared to 25% gross margins in the same period in 2009.

#### **Interest Income**

Interest income amounted to \$0 for the fiscal year 2010 and \$6,176 for the fiscal year 2009. The decrease in interest income is due to the Company's liquidities being lower pursuant to the sale of its short term investments.

#### **Government Grants**

During the year, the Company received Job Credit Assistance in the amount of \$15,514 from the Government of Singapore in light of deteriorating economic conditions. The Company, however, did not receive any grants under the previously announced Government of Singapore Economic Development Board's (EDB) Research Incentive Scheme for Companies. The process is ongoing. During the year, the Company did not receive grant payments from the Malaysian Industrial Development Authority. The process is ongoing and the receipt of further grants from The Malaysian Industrial Development Authority (MIDA) is uncertain at the time of issuance of this document. For fiscal 2009, the total grants received amount to \$1,384,398 which includes \$1,250,883 from EDB and \$133,515 from Malaysian Industrial Development Authority ("MIDA"). The payments cover the re-imbursement of a portion of operational expenses in research and development, including salaries, equipment, materials, professional and consulting services and staff training, for Zecotek's Singapore and Malaysia based product development and commercialization programs.

## **Operating, General and Administrative Expenses**

Operating, General and administrative ("G&A") expenses amounted to \$706,653 in the fourth quarter of 2010, compared with \$565,317 in the same period of 2009, representing an increase in costs of 25%. For fiscal year 2010, G&A expenses totaled \$2,912,317, an increase in costs of 9% when compared to \$2,673,071 for the same period in 2009.

Increases or decreases in specific categories are:

- 1. Consulting and other professional fees –increased 29% from \$750,858 to \$971,681, primarily due to the restoration of consulting fees by the executives and operational management.
- 2. Insurance –increased 33% from \$43,945 to \$58,457, due to policy maintenance and addition of certain product and liability insurance policies with the same insurance firms.
- 3. Investor relations and filing fees decreased 30% from \$109,364 to \$76,973 as a result of a change in investor relation firms' monthly/annual costs.
- 4. Office and General increased 15% from \$151,093 to \$173,178. This increase is attributed to incidental charges the Company has to incur during the normal course of business.
- 5. Marketing and promotion decreased 85% from \$39,715 to \$5,829 in fiscal 2010 driven by an overall budget reduction on marketing as the strategy is more focused on commercialization through strategic alliance and sub-contracting
- 6. Rent decreased 7% from \$444,235 to \$412,620 as a result of reduction of leased space in the Company's facilities in Singapore.
- 7. Salaries and benefits –increased 5% from \$1,006,098 to \$1,060,579. The increase is due to the restoration of some of the salaries and benefits.
- 8. Travel –increased 49% from \$127,763 to \$190,088 primarily due to the Chief Executive Officer and other Senior Officers travelling to meet current and potential investors, partners and clients.

## **Research and Development Expenses**

Research and development ("R&D") expenses amounted to \$305,875 in the fourth quarter of 2010, compared with \$558,258 in the fourth quarter of 2009, representing a decrease in costs of 45%. For the year ended July 31, 2010, R&D expenses were \$2,304,633 compared to \$959,153 for the same period of 2009, reflecting an increase in costs of 140%. This increase is primarily due to the grants not received during the year 2010. Government grants received are used to reduce the R&D expenses. In 2009, Government grants reducing the research and development expenses amounted to \$1,110,554 as compared to \$0 in the fiscal year 2010. The total research and development costs before the funding through government grants total \$2,069,707 in fiscal 2009. In addition, amendments to certain existing joint technology development agreements contributed to the increased R&D costs for the Company during the fiscal year 2010.

The focus of the research and development projects that are still being currently carried out in Zecotek laboratoriesis to meet the specifications required by the OEM and adapting and improving our technologies for different applications demanded by the market.

The research contract with the University of Washington for the joint development of a proprietary technology for use in medical imaging systems is still ongoing. The amount accrued towards the University of Washington research contract in the current year is \$355,464 compared to \$406,806 in 2009. As at July 31, 2010, \$705,252 was outstanding and included in the accounts payable and accrued liabilities. Negotiations are ongoing to work out a payment schedule and amendment of contract terms as the development of the proprietary technology for use in medical imaging systems has advanced significantly.

### **Stock-based Compensation**

Stock-based compensation expenses amounted to \$200,911 in the fourth quarter of 2010, compared with \$4,595 in the same period of 2009. For fiscal 2010, stock-based compensation expenses totaled \$811,458 an increase in costs of 46% when compared to \$557,565 for the same period in 2009. The increase is due to the options granted during the year to certain officers, consultants and directors.

### **Financing**

Financing costs of \$135,460 for fiscal 2010 was as a result of amending the terms of the 1,078,150 warrants issued to the subscribers of a private placement which closed on December 20, 2007 using the Black-Scholes option pricing model. The exercise price of the warrants was reduced from \$2.10 to \$0.75 per common share with no change to the expiry date. The amount is considered a financing expense and charged to operations. The financing cost in 2009 was \$56,753.

## **Foreign Exchange Loss**

Foreign exchange loss amounted to \$63,606 in the fourth quarter of 2010, compared with a gain of \$87,792 in the same period of 2009 representing an increase of 172%. For fiscal year 2010, foreign exchange loss was \$117,667 an increase in costs of 93% when compared to \$61,046 for the same period in 2009. The increase is due to impact of the foreign currency fluctuations.

### Amortization of property and equipment

Amortization expense for the fourth quarter of 2010 decreased to \$58,967 from \$86,062 in the same period of 2009, a decrease of 43%. For fiscal year 2010, the amortization was \$241,436 a decrease of 29% when compared to \$342,259 for the same period in 2009. The decrease is due to the accelerated depreciation methods used by the Company and certain manufacturing equipment being written off in 2010.

## Write-off of property and equipment

During the year, the Company wrote-off manufacturing equipment with a net book value of \$452,425. The Company assessed this equipment to be impaired as the technologies are either still in the developmental stages or sales have not yet materialized thus it is difficult for the Company to justify whether the carrying value can be recovered from forecasted cash flows and profitability information, including estimated future operating results, trends and other available information. The Company used the cash flow test for recoverability method pursuant to the guidelines suggested in the CICA Hand book Section 3063, *Impairment of long-lived assets*. The impaired asset belonged to the Asian business segment of the Company.

## **Amortization of patent costs**

Amortization expense for the fourth quarter of 2010 increased from \$717 to \$4,490 in the same period of 2009 representing an increase of 526%. The increase is as a result of certain adjustments made in the fourth quarter to the patent amortization expense. For fiscal year 2010, the amortization was \$28,000 consistent with the year 2009.

## Impairment of patent costs

Impairment of patent costs for some of the technologies decreased to \$16,511 in the current fiscal year from \$49,264 in the same period in 2009. These technologies are either still in the developmental stages or sales have not yet materialized thus it is difficult for the Company to justify whether the carrying value can be recovered from forecasted cash flows and profitability information, including estimated future operating results, trends and other available information.

## Write-off of liabilities of discontinued operations

In the 2002 year, the Company's subsidiary, O-Tooz Energie Group Inc. ("O-Tooz"), disposed of its two healthy fast food outlets in Vancouver. The discontinued operation resulted in the default of lease agreement liabilities of approximately \$108,000.

In January of 2005, the Company abandoned O-Tooz along with its other inactive subsidiaries, Djscene.com Media Inc., Online Consortium.com Inc. and FilmIndustry.com Inc. Until 2009, the remaining liabilities, net of assets, of these discontinued operations were segregated in the consolidated balance sheet. However, in 2010 the Company wrote off these liabilities since the statutory claim period under which the third parties could claim the losses has expired according to the legal counsel.

#### **Net Loss**

The Company recorded a net loss of \$1,727,160 or \$0.03 per share in the fourth quarter of 2010, compared with \$1,198,177 or \$0.03 per share in the same period of 2009, an increase of 44%. A net loss of \$6,911,541 or \$0.13 per share was recorded in the fiscal year 2010 compared to \$4,616,950 or \$0.10 per share in the same period of 2009 resulting in an increase of 50%. The Company's loss increased primarily due to the absence of Government grants during 2010 received in 2009, restoration of consultant's fees, key officers' salaries, and corporate development expenses.

## **Liquidity and Capital Resources**

For fiscal 2010, the Company has a net loss of \$6,911,541 and negative cash flow from operating activities of \$4,804,669 compared to a net loss of \$4,616,950 and negative cash flow from operating activities of \$2,248,331 for fiscal year 2009. As a result of recurring losses over the Company's history, the Company has accumulated deficit of \$41,974,510 as at July 31, 2010. The accounts payable and accrued liabilities have increased by \$490,928 in the fiscal year 2010 compared to \$1,147,635 for fiscal 2009. Subsequent to the yearend, part of the financing received from the non-brokered private placement on November 3, 2010 was used to pay down a portion of these payables.

Net cash provided by financing activities in fiscal 2010 was \$4,804,761 as compared to \$534,923 for fiscal 2009. In 2010, the financing activities consisted mainly of the issuance of shares through a non-brokered private placement.

Net cash provided by investing activities in fiscal 2010 was negative \$512 as compared to a positive cash flow of \$1,486,493 for fiscal year 2009. In 2010, \$19,156 was used to acquire computer equipments and leasehold improvements. Significant difference in cash flows from investing activities is due to the disposition of short term investments in 2009 by the Company. The Company did not purchase and/or sell any such investments in the fiscal year 2010.

The Company has suffered recurring losses from operations and currently the revenues do not generate enough cash to sustain its operations. Its ability to conduct operations, including the commercialization of its technologies, development of new technologies and the acquisition of additional technologies is dependent on its ability to raise funds as needed.

At July 31, 2010 the Company had \$81,010 in cash and cash equivalents, a decrease of \$420 (0.005%) over the \$81,430 cash and cash equivalents available at July 31, 2009. The consolidated working capital was \$(2,731,537) at July 31, 2010, a decrease of \$1,072,072 over the \$(1,659,465) of consolidated working capital at July 31, 2009. The decrease in working capital mainly resulted from an increase in liabilities as the Company attempted to conserve cash during the global downturn of the economy.

Subsequent to the year-end on November 3, 2010, the Company completed a non-brokered private placement of 2,773,584 units of the Company at a price of \$0.53 per unit for gross proceeds of \$1,470,000. Each unit consists of one common share and on-half of one share purchase warrant. Each whole warrant entitles the holder to acquire one common share at an exercise price of \$0.70 per share at anytime on or before the 24 month anniversary of the closing of the offering. The warrants' exercise period will automatically accelerate if the common shares of the Company trade above \$1.25 for a period of 10 consecutive trading days. Pursuant to

the financing, the Company will pay a finder's fee, equal to 5% of a portion of the gross proceeds of the sale of the shares and issue 124,811 non-transferable finder's warrants. Each finder's warrants will entitle the holder to purchase one share at \$0.70 for a period of 24 months after the date the private placement closes. All shares and warrants are subject to a four-month hold period expiring on March 3, 2011.

## **Share Capital**

Set out below is the outstanding share data of the Company as at July 31, 2010. For additional details, see Note 10 to the audited financial statements for July 31, 2010.

At July 31, 2010	Number outstanding
Common shares	53,405,004
Stock options	7,329,000
Common share purchase warrants	5,925,000
Agent's warrants	355,500

Outstanding options represent a total of 7,329,000 common shares issuable. At July 31, 2010, 6,195,250 of these options were exercisable and would provide proceeds of \$6,791,763 to the Company if all the vested options were exercised in full. The exercise of these options is completely at the discretion of the holders and the Company has no indication that any of these options will be exercised.

At July 31, 2010 the Company had outstanding 5,925,000 common share purchase warrants which are exercisable at \$0.75 per share expiring on October 23, 2011. On February 4 and 23, 2010, 170,000 and 833,333 common share purchase warrants were exercised respectively at \$.70 per share for total cash proceeds of \$702,333. On February 16 and March 5, 2010, 12,500 and 5,000 common share purchase warrants were exercised respectively at \$0.75 per share for total cash proceeds of \$13,125. On December 20, 2009, 1,078,150 common share purchase warrants expired having an exercise price of \$0.75 per common share. Another 764,000 common share purchase warrants expired on March 6, 2010 having an exercise price of \$0.75 per common share.

At July 31, 2010 the Company had outstanding 355,500 agent's warrants which were exercisable at \$1.00 per share expiring on October 23, 2011.

#### **Escrow shares**

As at July 31, 2010 a total of 240,000 (2009 - 720,000) shares were held in escrow, their release subject to a predetermined time schedule.

## **Contractual Obligations**

The following table summarizes the Company's contractual obligations as at July 31, 2010, and the effect such obligations are expected to have on our liquidity and cash flows in future years. The table excludes amounts already recorded in the consolidated balance sheet as current liabilities and certain other purchase obligations discussed below:

	2011	2012	2013	2014
Rental leases	\$ 183,650	\$ 63,504	\$ -	\$ -
Research Contracts	\$ 921 343	\$ 11 000	\$ 26,000	\$ 31 000

Purchase orders for third party components, finished goods and other goods and services are not included in the above table. Management is not able to determine the aggregate amount of such purchase orders that represent contractual obligations, as purchase orders may represent authorizations to purchase rather than binding agreements. For the purpose of this table, contractual obligations for purchase of goods or services are defined as agreements that are enforceable and legally binding on the Company and that specify all significant terms, including: fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transaction.

The Company has entered into contracts for other outsourced services. However, the obligations under these contracts are not significant and the contracts generally contain clauses allowing for cancellation without significant penalty. The expected timing of payment of the obligations discussed above is estimated based on current information. The timing of payments and actual amounts paid may be different depending on the time of receipt of goods or services, or for some obligations, changes to agreed-upon amounts.

## Disclosure Controls and Procedures Related to Financial Reporting

Disclosure controls and procedures have been designed to ensure that information required to be disclosed by the Company is accumulated and communicated to our management as appropriate to allow timely disclosure. The Company's Chief Executive Officer and the acting Chief Financial Officer have concluded, based on their evaluation as of July 31, 2010, that the Company's disclosure controls and procedures are operating effectively to provide reasonable assurance that material information related to the Company are made known to them by others within the Company. It should be noted that while the Company's Chief Executive Officer and acting Chief Financial Officer believe that the disclosure controls and procedures provide a reasonable level of assurance and that they are effective, they do not expect that the disclosure controls and procedures will prevent all errors and fraud. A control system, no matter how well conceived or operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

## **Internal Control over Financial Reporting**

The Chief Executive Officer and acting Chief Financial Officer of the Company are responsible for designing internal controls over financial reporting or causing them to be designed under their supervision in order to provide reasonable assurance regarding the reliability of financial reporting and the presentation of financial statements for external purposes in accordance with Canadian GAAP. The Chief Executive Officer and the acting Chief Financial Officer have assessed the design of internal control over financial reporting as at July 31, 2010 and during the process, they have identified certain weaknesses in internal controls over financial reporting. The weaknesses in the Company's internal control over financial reporting, discussed below, result in a more than remote likelihood that a material misstatement may not be prevented or detected on a timely basis.

There has been no change in the Company's internal control over financial reporting that occurred during the Company's most recent interim period that has materially affected, or is reasonably likely to affect, the Company's internal control over financial reporting other than:

- •The Chief Financial Officer is no longer with the Company and an acting Chief Financial Officer has been appointed temporarily until a new Chief Financial Officer is hired;
- •Due to the size of the Company and limited staff it is not feasible to achieve complete segregation of incompatible duties.

Management and the Board of Directors work to mitigate the risk of a material misstatement in financial reporting. However, there can be no assurance that this risk can be reduced to less than a remote likelihood of a material misstatement.

#### **Audit Committee**

In compliance with the TSX Venture Exchange Policy 3.1 "Directors, Officers and Corporate Governance" section 10.1, the Audit Committee is comprised of three members, David Toyoda (independent), Canada Dr. Jalil Ali (independent), Malaysia and Dr. A.F Zerrouk (CEO). Mr. Toyoda is the Chairman of the Audit Committee.

David Toyoda is a lawyer with a Bachelor of Commerce degree with honours and serves on several Boards as Director. Dr. A.Fi Zerrouk has many years experience serving on the board of high tech organizations, he is a technology developer and scientific entrepreneur and founder of various technology companies. Dr. Jalil Ali has held several faculty and research positions since 1987, He is a member of OSA, SPIE and the Malaysian Institute of Physics and was head of the technology transfer and innovation department at the University Technology Malaysia.

The Audit Committee will serve until the next Annual General Meeting at which time the new Board of Directors will appoint or re-appoint the Audit Committee.

## **Forward-looking statements**

This discussion may contain forward-looking statements, including statements regarding the business and anticipated financial performance of the Company, which involve risks and uncertainties. These risks and uncertainties may cause the Company's actual results to differ materially from those contemplated by the forward-looking statements. Factors that might cause or contribute to such differences include, among others, Company's ability to successfully complete new product development along the timelines expected; the Company's need for funds to achieve its goals and uncertainties as to the availability and cost of funding; uncertainty as to the continued and future demand for the Company's products; the development of competing technologies and the possibility of increased competition; and other economic trends and conditions in the markets that the Company and its customers serve; and the effect of the risks associated with technical difficulties or delays in product introductions, improvements, implementation, product development, product pricing or other initiatives of the Company and its competitor. Investors are also directed to consider the other risks and uncertainties discussed in the Company's required financial statements and filings. All other companies and products listed herein may be trademarks or registered trademarks of their respective holders.

## **Additional Information**

Additional information relating to the Company, including the Annual Information Form and its audited year end financial statements is available on SEDAR at www.sedar.com.