MECHANICAL TECHNOLOGY INC Form 10-Q August 09, 2012

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

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

FOR THE QUARTERLY PERIOD ENDED June 30, 2012

OR

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

FOR THE TRANSITION PERIOD FROM \_\_\_\_\_ TO \_\_\_\_\_

Mechanical Technology, Incorporated

(Exact name of registrant as specified in its charter)

<u>New York</u> (State or Other Jurisdiction <u>0-6890</u> (Commission File Number) 14-1462255 (IRS Employer

of Incorporation)

Identification No.)

325 Washington Avenue Extension, Albany, New York 12205

# (Address of registrant s principal executive office)

(518) 218-2550

## (Registrant s telephone number, including area code)

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 o

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 x No o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of large accelerated filer, accelerated filer, and smaller reporting company in Rule 12b-2 of the Exchange Act (check one):

Large accelerated filer o Accelerated filer o Non-accelerated filer o Smaller reporting company x (Do not check if a small reporting company)
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12B-2 of the Act). Yes oNo x

The number of shares of common stock, par value of \$0.01 per share, outstanding as of August 3, 2012 was 5,256,883.

# MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES

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## PART I. FINANCIAL INFORMATION

**Item 1. Financial Statements** 

Mechanical Technology, Incorporated and Subsidiaries

Condensed Consolidated Balance Sheets as of June 30, 2012 (Unaudited) and December 31, 2011

(Dollars in thousands)	June 30 2012	0,		Decem 2011	ber 31,
Assets					
Current Assets:					
Cash	\$	1,444		\$	1,669
Accounts receivable		650			1,881
Inventories		1,169			957
Deferred income taxes, net		20			20
Prepaid expenses and other current assets		133			102
Total Current Assets		3,416			4,629
Deferred income taxes, net		1,515			1,515
Property, plant and equipment, net		183			258
Total Assets	\$	5,114		\$	6,402
Liabilities and Equity					
Current Liabilities:					
Accounts payable	\$	307		\$	191
Accrued liabilities		1,066			1,238
Deferred revenue		58			58
Total Current Liabilities		1,431			1,487
Commitments and Contingencies (Note 11)					
Equity:					
Common stock, par value \$0.01 per share,					
authorized 75,000,000; 6,261,975 and 6,259,975					
issued in 2012 and 2011, respectively		63			63
Additional paid-in-capital		135,502			135,389
Accumulated deficit		(121,488	)		(120,097

)

Common stock in treasury, at cost, 1,005,092 shares in both 2012 and 2011

	(13,754	)	(13,754)
Total MTI stockholders equity	323		1,601
Non-controlling interest	3,360		3,314
Total Equity	3,683		4,915
Total Liabilities and Equity	\$ 5,114	\$	6,402

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

## Mechanical Technology, Incorporated and Subsidiaries

Condensed Consolidated Statements of Operations (Unaudited)

## For the Three and Six Months Ended June 30, 2012 and 2011

(Dollars in thousands, except per share)		hree Mo	nth	s Ended	ļ	Six Months Ended				
	June 30,			June 30,						
	2	012		2011	ĺ	2012	012 2011			
	Ш									
Product revenue	\$	1,366		\$2,140		\$2,570	\$	4,679		
Funded research and development revenue	Ш							13		
Total revenue		1,366		2,140		2,570		4,692		
Operating costs and expenses:										
Cost of product revenue		740		850		1,318		1,789		
Research and product development expenses:										
Funded research and product development								25		
Unfunded research and product development		337		373		710		758		
Total research and product development expenses		337		373		710		783		
Selling, general and administrative expenses		978		1,318		2,070		2,625		
Operating loss		(689		(401	)	(1,528	)	(505		
Gain on derivatives				29				73		
Other income (expense), net		180		(23	)	183		(24)		
Loss before income taxes and non-controlling interest		(509		(395	)	(1,345	)	(456		
Income tax benefit										
Net loss, net of tax		(509		(395	)	(1,345	)	(456		
Plus: Net (income) loss attributed to non-controlling interest		(61		298		(46	)	553		
Net (loss) income attributed to MTI	\$	(570	)	\$ (97		\$(1,391	)\$	97		
	Π									
(Loss) earnings per share attributable to MTI (Basic and	П						П			
Diluted)	\$	(.11	)	\$ (.02		\$(.26	)\$	.02		
Weighted average shares outstanding (Basic and Diluted)		5,256,24	16	4,771,65	8	5,255,56	4	4,771,658		

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

## MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES

**Condensed Consolidated Statements of Changes in Equity** 

For the Year Ended December 31, 2011

and the Six Months Ended June 30, 2012 (Unaudited)

	Common	Stock				Treasury	Stoc	:k				
			Additional Paid-	Ace	cumulated					Contro	lling To	
(Dollars in thousands)	Shares	Amou	n <b>í</b> n-Capital	Def	ficit	Shares	An	nount	ount (NCI)		Equit	
December 31, 2010	5,776,750	\$ 58	\$ 134,733	\$	(122,483)	1,005,092	\$	(13,754)	\$	3,405	\$	1,959
Net income attributed to MTI Stock based	-	-	-	2,38	6	-	-		-		2,3	86
compensation	-	-	360	-		-	-		-		360	)
Issuance of shares restricted stock Net loss attributed	483,225	5	296	-		-	-		-		301	l
to NCI Equity contribution	-	-	-	-		-	-		(738)	)	(73	8)
to NCI	-	-	-	-		-	-		647		647	7
December 31, 2011	<b>1</b> 6,259,975	\$ 63	\$ 135,389	\$	(120,097)	1,005,092	\$	(13,754)	\$ 3,	314	\$4	,915
Net loss attributed to MTI	-	-	-	(1,3	391)	-	-		-		(1,	391)
Stock based compensation Issuance of shares	-	-	112	-		-	-		-		112	2
common stock	2,000	-	1	-		-	-		-		1	

Net income									
attributed to NCI	-	-	-	-		-	-	46	46
June 30, 2012	6,261,975	\$ 63	\$ 135,502	\$	(121,488)	1,005,092	\$ (13,754)	\$ 3,360	\$ 3,683

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

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## MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES

Condensed Consolidated Statements of Cash Flows (Unaudited)

For the Six Months Ended June 30, 2012 and 2011

(Dollars in thousands)		ix Mont une 30,	hs	ns Ended			
	2	012		20	)11		
Operating Activities							
Net loss	\$	(1,345	)	\$	(456	)	
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:							
Gain on derivatives					(73	)	
Depreciation		73			187		
(Gain) loss on disposal of equipment		(130	)		35		
Stock based compensation		113			202		
Provision for excess and obsolete inventories		68			16		
Changes in operating assets and liabilities:							
Accounts receivable		1,231			82		
Inventories		(280	)		(258	)	
Prepaid expenses and other current assets		20			27		
Accounts payable		116			118		
Deferred revenue					32		
Accrued liabilities		(172	)		212		
Net cash (used in) provided by operating activities		(306	)		124		
Investing Activities							
Purchases of equipment		(10	)		(108	)	
Proceeds from sale of equipment		91					
Net cash provided by (used in) investing activities		81			(108	)	
Financing Activities							
Proceeds from the sale of subsidiary equity and warrants issued					458		
Net cash provided by financing activities					458		
(Decrease) increase in cash and cash equivalents		(225	)		474		
Cash - beginning of period		1,669	-		1,118		
Cash - end of period	\$	1,444		\$	1,592		

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

## MECHANICAL TECHNOLOGY, INCORPORATED

## NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Unaudited)

Notes to Condensed Consolidated Financial Statements (Unaudited)

#### 1. Nature of Operations

#### **Description of Business**

Mechanical Technology, Incorporated (MTI or the Company), a New York corporation, was incorporated in 1961. MTI operates in two segments, the Test and Measurement Instrumentation segment, which is conducted through MTI Instruments, Incorporated (MTI Instruments), a wholly-owned subsidiary, and the New Energy segment, which is conducted through MTI MicroFuel Cells Incorporated (MTI Micro), a variable interest entity (VIE) that is included in these condensed consolidated financial statements and described further below in Note 2.

MTI Instruments was incorporated in New York on March 8, 2000 and is a worldwide supplier of precision non-contact physical measurement solutions, portable balancing equipment and wafer inspection tools. MTI Instruments products use a comprehensive array of technologies to solve complex, real world applications in numerous industries including manufacturing, semiconductor, solar, commercial and military aviation, automotive and data storage. MTI Instruments products consist of electronic gauging instruments for position, displacement and vibration application within the design, manufacturing/production, test and research market; wafer characterization of semi-insulating and semi-conducting wafers within both the semiconductor and solar industries; tensile stage systems for materials testing at academic and industrial settings; and engine vibration analysis systems for both military and commercial aircraft.

MTI Micro was incorporated in Delaware on March 26, 2001, and has been developing Mobion®, a handheld energy-generating device to replace current lithium-ion and similar rechargeable battery systems in many handheld electronic devices for the military and consumer markets. Mobion® handheld generators are based on direct methanol fuel cell (DMFC) technology, which has been recognized as an enabling technology for advanced portable power sources by the scientific community and industry analysts. As the need for advancements in portable power increases, MTI Micro has been developing Mobion® as a solution for advancing current and future electronic device power needs of the portable electronics market. As of June 30, 2012, the Company owned approximately 47.6% of MTI Micro s outstanding common stock. Although MTI Micro continues to believe in the potential of its Mobion® based power solutions, it has suspended its MTI Micro operations until such time as market demand and other deciding factors, including obtaining additional external financing, the successful completion of customer trials, a new development program with a government agency, and/or a customer order, come to fruition. MTI Micro will continue to seek additional capital from external sources to resume operations and fund future development, if any. If MTI Micro is unable to secure additional financing, a new development program or customer order, the MTI Micro Board of Directors will assess other options for MTI Micro, including the sale of its intellectual property portfolio and other assets.

# Liquidity

The Company has historically incurred significant losses, the majority stemming from the direct methanol fuel cell product development and commercialization programs of MTI Micro, and had a consolidated accumulated deficit of \$121.5 million as of June 30, 2012. During the six months ended June 30, 2012, the Company generated a net loss attributed to MTI of \$1.4 million and cash used in operating activities totaling \$306 thousand. As of June 30, 2012, the Company had approximately \$1.4 million of cash available to fund future operations and working capital of approximately \$2.0 million, a \$1.1 million decrease from \$3.1 million at December 31, 2011. The Company currently has no debt outstanding. While it cannot be assured, management believes that, due in part to our current backlog and cost control initiatives, the Company will resume positive cash flows in the second half 2012 to fund the Company s operations for the foreseeable future.

The Company expects to continue funding its operations from current cash, its projected 2012 cash flow pursuant to management s current plan, and possible draw downs from its existing line of credit, if necessary. The Company may also seek to supplement its resources through the sales of additional assets (including its investment in MTI Micro). Besides the line of credit at MTI Instruments, the Company has no other commitments for funding future needs of the organization at this time and such additional financing during 2012 may not be available to the Company on acceptable terms, if at all.

## 2. Basis of Presentation

In the opinion of management, the Company s condensed consolidated financial statements reflect all adjustments, which are of a normal recurring nature, necessary for a fair statement of the results for the periods presented in accordance with United States of America Generally Accepted Accounting Principles (U.S. GAAP) and with the instructions to Form 10-Q in Article 10 of the Securities Exchange Commissions (SEC) Regulation S-X. The results of operations for the interim periods presented are not necessarily indicative of results for the full year.

Certain information and footnote disclosures normally included in the annual consolidated financial statements prepared in accordance with U.S. GAAP have been condensed or omitted. These unaudited condensed consolidated financial statements should be read in conjunction with the Company s audited consolidated financial statements and notes thereto included in the Company s Annual Report on Form 10-K for the year ended December 31, 2011.

The information presented in the accompanying condensed consolidated balance sheet as of December 31, 2011 has been derived from the Company s audited consolidated financial statements. All other information has been derived from the Company s unaudited condensed consolidated financial statements for the three and six months ended June 30, 2012 and June 30, 2011.

#### **Principles of Consolidation**

The condensed consolidated financial statements include the accounts of the Company and its wholly-owned subsidiary, MTI Instruments and its VIE, MTI Micro. The Company is the primary beneficiary of the VIE. All intercompany balances and transactions are eliminated in consolidation. The Company reflects the impact of the equity securities issuances in its investment in the VIE and additional paid-in-capital accounts for the dilution or anti-dilution of its ownership interest in the VIE.

The Company has performed an analysis under the VIE accounting model and determined that MTI Micro is a VIE. One of the criteria for determining whether an entity is a VIE is determining if the entity, MTI Micro, has equity at risk. Management has concluded that MTI Micro does not have equity at risk to fund operations into its next phase of development. Further, the Company has determined that it is the primary beneficiary of MTI Micro, and therefore should include MTI Micro s results of operations in the Company s consolidated financial statements.

The Company's analysis to determine the primary beneficiary of MTI Micro focused primarily on determining which variable interest holder has the power to direct the activities that would have the most significant impact on the financial performance of MTI Micro. MTI Micro is governed by its own Board of Directors and significant decisions are made by a majority vote of this board. MTI does not have control of the MTI Micro Board of Directors; however, as of June 30, 2012, the Company s Board of Directors and the MTI Micro Board of Directors consist of the same members, except for one additional director on the Company Board. Under the Articles of Incorporation of MTI Micro, each share of MTI Micro stock is entitled to a vote, and further, holders of a majority of the shares of MTI Micro's common stock have the ability to reconstitute the board. As of June 30, 2012, MTI, Counter Point Ventures Fund II, LP (Counter Point), Dr. Walter L. Robb, a member of the Company s and MTI Micro s Board of Directors, and Peng Lim, CEO and board member own 47.6%, 45.2%, 5.1% and 0.5% of the common shares of MTI Micro, respectively. Counter Point is a venture capital fund sponsored and managed by Dr. Robb. Since no entity of the related parties has power but, as a group, the Company and its related parties have the power, then the party within the related party group that is most closely associated with the VIE, MTI Micro, is the primary beneficiary. Even though Dr. Robb and Counterpoint combined control a majority of the outstanding common stock, and they have the ability to elect the directors of MTI Micro and decide whether to continue to seek business opportunities for MTI Micro or instead seek opportunities to sell the intellectual property, they have not elected to do so. The Company

continues to oversee the day to day operations, exercise management decision making, seek opportunities to sell intellectual property, and has a vested interest in the commercialization of MTI Micro s fuel cell technology. Since inception in 2001, the Company has made the largest investment and been the principal funder of MTI Micro. The Company has also been exposed to losses and has the ability to benefit from MTI Micro. Considering the facts and circumstances, management believes the Company is most closely associated with the VIE, MTI Micro, and therefore, it is the primary beneficiary.

Should there be a change in the facts and circumstances (such as undertaking additional activities, a change in governance or a change to the related party group) in the future, management will reassess whether the Company remains the primary beneficiary and should continue to include MTI Micro in the Company s condensed consolidated financial statements.

Non-controlling interests (NCI) are classified as stockholders equity in the condensed consolidated financial statements. The condensed consolidated income statement presents condensed net income (loss) for both the Company and the non-controlling interests. The calculation of earnings per share is based on net income (loss) attributable to the Company.

## **Reclassifications**

It is the Company s policy to reclassify prior year consolidated financial statements to conform to current year presentation, if applicable. Prior period amounts related to prototype evaluation agreements have been reclassified. The three months ended June 30, 2011 and the six months ended June 30, 2011 were adjusted by \$14 thousand and \$100 thousand, respectively. The financial statement lines impacted in the Condensed Consolidated Statements of Operations were reductions to Unfunded and Total research and product development expenses and Operating loss and increased expenses to Other income (expense), net.

## 3. Accounts Receivable

Receivable balances consist of the following at:

(Dollars in thousands)	Test and Measurement Instrumentation		New Energy		Consolidated Total		
June 30, 2012							
U.S. Government	\$	6	\$		\$	6	
Commercial		644				644	
Total	\$	650	\$		\$	650	
December 31, 2011							
U.S. Government	\$	990	\$		\$	990	
Commercial		887		4		891	
Total	\$	1,877	\$	4	\$	1,881	

For the six months ended June 30, 2012 and 2011, the largest commercial customer represented 9.6% and 17.1%, respectively, and a U.S. governmental agency represented 14.7% and 7.7%, respectively, of the Company s Test and Measurement Instrumentation segment product revenue. As of June 30, 2012 and December 31, 2011, the largest commercial customer represented 10.5% and 10.0%, respectively, and a U.S. governmental agency represented 0.3% and 52.7%, respectively, of the Company s Test and Measurement Instrumentation segment accounts receivable.

As of June 30, 2012, there were no outstanding receivables for the New Energy segment. The balance as of December 31, 2011 represents minimal amounts due for service contracts.

As of June 30, 2012 and December 31, 2011, the Company had no allowance for doubtful uncollectible accounts receivable.

#### 4. Inventories

Inventories consist of the following at:

(Dollars in thousands)	June 30	, 2012	Decem	nber 31, 2011
Finished goods	\$	423	\$	310
Work in process		302		211
Raw materials		444		436
	\$	1,169	\$	957

As of June 30, 2012 and December 31, 2011, the Company had an inventory reserve of \$311 thousand and \$243 thousand, respectively.

## 5. Property, Plant and Equipment

Property, plant and equipment consist of the following at:

	June 30, 20	012	December 3	1, 2011
(Dollars in thousands)				
Leasehold improvements	\$	954	\$	1,213
Computers and related software		1,719		2,130
Machinery and equipment		1,392		3,541
Office furniture and fixtures		277		457
		4,342		7,341
Less accumulated depreciation		4,159		7,083
	\$	183	\$	258

Depreciation expense was \$73 thousand and \$307 thousand for the six months ended June 30, 2012 and the year ended December 31, 2011, respectively. In conjunction with the suspension of MTI Micro in late 2011, sales of certain surplus equipment on hand were made during the three months ended June 30, 2012. This resulted in a net gain on sale of \$130 thousand. As of June 30, 2012, \$91 thousand of the sales proceeds have been received and \$51 thousand was due to the Company and included in Prepaid expenses and other current assets on the Condensed Consolidated Balance Sheet as of June 30, 2012.

#### 6. Income Taxes

During the quarter ended June 30, 2012, the Company s effective income tax rate was 0%. The projected annual effective tax rate is less than the Federal statutory rate of 35%, primarily due to the permanent difference related to the stock-based compensation expense for employees of MTI Micro who transferred to MTI. For the quarter ended June 30, 2011, the Company s effective income tax rate was also 0%. The difference between the annual effective tax rate and the Federal statutory rate was the result of the change in the valuation allowance and the gain on derivative.

During the six months ended June 30, 2012, the Company s effective income tax rate was 0%. The projected annual effective tax rate is less than the Federal statutory rate of 35%, primarily due to the permanent difference related to the stock-based compensation expense for employees of MTI Micro who transferred to MTI. For the six months ended June 30, 2011, the Company s effective income tax rate was also 0%. The difference between the annual effective tax rate and the Federal statutory rate was the result of the change in the valuation allowance and the gain on derivative.

The Company provides for recognition of deferred tax assets if the realization of such assets is more likely than not to occur in accordance with accounting standards that address income taxes. Significant management judgment is required in determining the period in which the reversal of a valuation allowance should occur. The Company has considered all available evidence, both positive and negative, such as historical levels of income and future forecasts of taxable income amongst other items, in determining whether a full or partial release of our valuation allowance is required. In addition, the Company s assessment requires us to schedule future taxable income in accordance with accounting standards that address income taxes to assess the appropriateness of a valuation allowance which further requires the exercise of significant management judgment.

As a result of our analyses in 2011, the Company released a portion of our valuation allowance against its deferred tax assets. The partial release of the valuation allowance caused an incremental tax benefit of \$1.5 million to be recognized in the fourth quarter of 2011. The release of a portion of the valuation allowance was based upon a recent cumulative income history for MTI and its subsidiary exclusive of MTI Micro (MTI Micro files separate federal and state tax returns) causing the Company to evaluate what portion of the Company's deferred tax assets it believes are more likely than not to be realized. The Company has determined that it expects to generate sufficient levels of pre-tax earnings in the future to realize the net deferred tax assets recorded on the balance sheet at June 30, 2012. The Company has projected such pre-tax earnings utilizing a combination of historical and projected results, taking into consideration existing levels of permanent differences, non-deductible expense and the reversal of significant temporary differences. The Company needs to generate approximately \$225 thousand of taxable income in each year over the next twenty years to ensure the realizability of the approximately \$1.5 million of deferred tax assets recorded on the condensed consolidated balance sheet at June 30, 2012.

The Company believes that the accounting estimate for the valuation of deferred tax assets is a critical accounting estimate because judgment is required in assessing the likely future tax consequences of events that have been recognized in our financial statements or tax returns. The Company based the estimate of deferred tax assets and liabilities on current tax laws and rates and, in certain cases, business plans and other expectations about future outcomes. In the event that actual results differ from these estimates or the Company adjusts these estimates in future periods, the Company may need to adjust the recorded valuation allowance, which could materially impact our financial position and results of operations. The valuation allowance was approximately \$18 million at June 30, 2012 and \$20 million at December 31, 2011, respectively. This decrease was primarily the result of a one-time adjustment in the deferred tax asset related to stock compensation expense for options that have lapsed or been voluntarily surrendered to the Company. The Company will continue to evaluate the ability to realize its deferred tax assets and related valuation allowances on a quarterly basis.

#### 7. Stockholders Equity

## **Common Stock**

The Company has one class of common stock, par value \$.01. Each share of the Company s common stock is entitled to one vote on all matters submitted to stockholders. As of June 30, 2012 and December 31, 2011, there were 5,256,883 and 5,254,883 shares of common stock issued and outstanding, respectively.

Changes in common shares issued and treasury stock outstanding are as follows:

	Six Months Ended	Year Ended
Common Shares	June 30, 2012	December 31, 2011
Balance, beginning	6,259,975	5,776,750
Issuance of shares for common stock grants	2,000	
Issuance of shares for restricted stock grants		483,225
Balance, ending	6,261,975	6,259,975
<b>Treasury Stock</b> Balance, beginning	1,005,092	1,005,092
Balance, ending	1,005,092	1,005,092
Bulance, chang	1,005,072	1,005,072

## Warrants Issued

On December 20, 2006, the Company issued warrants to investors to purchase 378,472 shares of the Company s common stock at an exercise price of \$18.16 per share. These warrants were fair valued by the Company until their expiration on December 19, 2011.

The Company recognized these derivatives as liabilities in the statement of financial position and measured these instruments at fair value. The fair value of the derivative was recorded in the Derivative liability line on the financial statements, and was valued quarterly using the Black-Scholes Option Pricing Model. Gains and losses on derivatives are included in Gain / Loss on derivatives in the Condensed Consolidated Statement of Operations. During the six month period ended June 30, 2011, the Company recognized a gain on derivatives of \$73 thousand.

## **Reservation of Shares**

The Company had reserved common shares for future issuance as of June 30, 2012 as follows:

Stock options outstanding	412,555
Common stock available for equity awards or issuance of options	600,000
Number of common shares reserved	1,012,555

## Earnings (Loss) per Share

The Company computes basic income (loss) per common share by dividing net income (loss) by the weighted average number of common shares outstanding during the reporting period. Diluted income (loss) per share reflects the potential dilution, if any, computed by dividing income (loss) by the combination of dilutive common share equivalents, comprised of shares issuable under outstanding investment rights, warrants and the Company s share-based compensation plans, and the weighted average number of common shares outstanding during the reporting period. Dilutive common share equivalents include the dilutive effect of in-the-money stock options, which are calculated based on the average share price for each period using the treasury stock method. Under the treasury stock method, the exercise price of a stock option, the amount of compensation cost, if any, for future service that the Company has not yet recognized, and the amount of windfall tax benefits that would be recorded in additional paid-in capital, if any, when the stock option is exercised are assumed to be used to repurchase shares in the current period.

Not included in the computation of earnings per share, assuming dilution, for the three and six months ended June 30, 2012, were options to purchase 412,555 shares of the Company s common stock. These potentially dilutive items were excluded because the Company incurred a loss for this period and their inclusion would be anti-dilutive.

Not included in the computation of earnings per share, assuming dilution, for the three and six months ended June 30, 2011, were options to purchase 850,236 shares of the Company s common stock and warrants to purchase 378,472 shares of the Company s common stock. These potentially dilutive items were excluded because the average market price of the common stock did not exceed the exercise prices of the options and warrants for this period.

#### 8. Issuance of Common Stock, Warrants and Stock Options by MTI Micro

As of June 30, 2012, the Company owned approximately 47.6% of MTI Micro s outstanding common stock, or 75,049,937 shares, and 53.3% of common stock and warrants issued, which includes 32,904,136 outstanding warrants. The number of shares of MTI Micro common stock authorized for issuance is 240,000,000 as of June 30, 2012.

Common Stock Issued MTI Micro

On January 11, 2010, MTI Micro entered into a Purchase Agreement with Counter Point. Counter Point is a venture capital fund sponsored and managed by Dr. Walter L. Robb, a member of the Board of Directors of the Company and MTI Micro, and a current stockholder of MTI Micro. Pursuant to the Purchase Agreement, MTI Micro issued and sold to Counter Point 28,571,429 shares of common stock, par value \$0.01 per share (the MTI Micro Common Stock), at a purchase price per share of \$0.07, over a period of twelve months, and warrants (MTI Micro Warrants) to purchase shares of MTI Micro Common Stock equal to 20% of the shares of MTI Micro Common Stock purchased under the Purchase Agreement at an exercise price of \$0.07 per share. The sale and issuance of the MTI Micro Common Stock and MTI Micro Warrants occurred over multiple closings (each, a Closing). Nine Closings occurred through December 31, 2010, with MTI Micro raising \$1.9 million from the sale of 26,952,386 shares of MTI Micro Common Stock and MTI Micro Common Stock to Counter Point. The final Closing occurred on January 5, 2011, with MTI Micro raising \$113 thousand from the sale of 1,619,043 shares of MTI Micro Common Stock and MTI Micro Warrants to purchase 323,809 shares of MTI Micro Common Stock to Counter Point.

On February 9, 2011, Amendment No. 1 was entered into between MTI Micro and Counter Point. Pursuant to Amendment No. 1, MTI Micro issued and sold to Counter Point 6,428,574 shares of MTI Micro Common Stock at a purchase price per share of \$0.07, through December 31, 2011, and MTI Micro Warrants to purchase shares of MTI Micro Common Stock equal to 20% of the shares of MTI Micro Common Stock purchased under Amendment No. 2 at an exercise price of \$0.07 per share. The sale and issuance of the MTI Micro Common Stock and MTI Micro Warrants occurred over multiple closings (each, a Closing) occurring over four one-month closing periods (each, a Closing Period). Four Closings occurred through September 30, 2011, with MTI Micro raising \$450 thousand from the sale of 6,428,574 shares of MTI Micro Common Stock and MTI Micro Common Stock and MTI Micro Warrants to purchase 1,285,715 shares of MTI Micro Common Stock to Counter Point.

On September 23, 2011, Amendment No. 2 was entered into between MTI Micro and Counter Point. Pursuant to Amendment No. 2, MTI Micro issued and sold to Counter Point 1,200,000 shares of MTI Micro Common Stock at a purchase price per share of \$0.07, through December 31, 2011, and MTI Micro Warrants to purchase shares of MTI Micro Common Stock equal to 20% of the shares of MTI Micro Common Stock and MTI Micro Warrants occurred over multiple closings (each, a Closing) occurring over three one-month closing periods (each, a Closing Period). Three Closings occurred through December 31, 2011, with MTI Micro raising \$84 thousand from the sale of 1,200,000 shares of MTI Micro Common Stock and MTI Micro Common Stock and MTI Micro Warrants to purchase 240,000 shares of MTI Micro Common Stock to Counter Point.

The following table represents changes in ownership between the Company and non-controlling interests (NCI) in common shares of MTI Micro:

		MTI		Non Controllin	g Interest (NCI)	
	Average Price	Shares	Ownership %	Shares	Ownership %	Total Shares
Balance at 12/31/10		75,049,937	50.6	73,325,490	49.4	148,375,427
Stock issued under Purchase Agreement, 2011	\$0.07			1,619,043		1,619,043
Balance after Purchase Agreement		75,049,937	50.04	74,944,533	49.97	149,994,470
Stock issued under Amendment No. 1	\$0.07			6,428,574		6,428,574
Stock issues under Amendment No. 2	\$0.07			1,200,000		1,200,000
Balance at 12/31/11		75,049,937	47.61	82,573,107	52.39	157,623,044
Balance at 6/30/12		75,049,937	47.61	82,573,107	52.39	157,623,044

#### **Reservation of Shares**

MTI Micro has reserved common shares for future issuance, broken down between the Company and NCI, as follows as of June 30, 2012:

	MTI	NCI	Total
Stock options outstanding		22,253,560	22,253,560
Warrants outstanding	32,904,136	12,196,411	45,100,547
Number of shares reserved for outstanding options and warrants	32,904,136	34,449,971	67,354,107

In addition, MTI Micro has 15,688,637 stock options available for issuance.

As of June 30, 2012, the Company owned an aggregate of approximately 47.6% of the outstanding shares of MTI Micro or 53.3% of the outstanding common stock and warrants issued of MTI Micro, and Counter Point and Dr. Robb owned approximately 45.2% and 5.1%, respectively of the outstanding shares of MTI Micro or 40.3% and 4.3%, respectively of the outstanding common stock and warrants issued of MTI Micro.

Warrants Issued MTI Micro

On December 9, 2009, MTI Micro issued warrants to the then current shareholders of MTI Micro, including the Company, without consideration, to purchase 32,779,310 shares of MTI Micro Common Stock at an exercise price of \$0.07 per share. The warrants became exercisable on December 9, 2010 and expire on December 8, 2017. The warrants have been accounted for as an equity distribution of \$2.0 million, including warrants to the Company with a value of \$2.0 million, which were eliminated in consolidation.

On December 9, 2009, MTI Micro issued warrants to the Bridge Investors of MTI Micro, including the Company, to purchase 5,081,237 shares of MTI Micro Common Stock at an exercise price of \$0.07 per share. The MTI Micro Warrants became exercisable on December 9, 2009 and will expire on the earlier of: (i) April 15, 2014; (ii) immediately prior to a change in control; or (iii) immediately prior to an initial public offering of MTI Micro. The MTI Micro Warrants were issued without consideration and were accounted for as equity and a loss on extinguishment of debt was recorded in the amount of \$289 thousand, including warrants to the Company with a value of \$57 thousand, which were eliminated in consolidation.

Under the Purchase Agreement entered into on January 11, 2010, MTI Micro issued 5,714,286 MTI Micro Warrants to Counter Point to purchase shares of MTI Micro Common Stock at an exercise price of \$0.07 per share. The MTI Micro Warrants became exercisable on the date of issuance and will expire on the earlier of: (a) the five (5) year anniversary of the Date of Issuance of the Warrant; (b) immediately prior to a change in control; or (c) the closing of a firm commitment underwritten public offering pursuant to a registration statement under the Securities Act. The MTI Micro Warrants were accounted for as equity.

Under Amendment No. 1 entered into on February 9, 2011, MTI Micro issued 1,285,715 MTI Micro Warrants to Counter Point to purchase shares of MTI Micro Common Stock at an exercise price of \$0.07 per share. The MTI Micro Warrants became exercisable on the date of issuance and will expire on the earlier of: (a) the five (5) year anniversary of the Date of Issuance of the Warrant; (b) immediately prior to a change in control; or (c) the closing of a firm commitment underwritten public offering pursuant to a registration statement under the Securities Act. The MTI Micro Warrants were accounted for as equity.

Under Amendment No. 2 entered into on September 23, 2011, MTI Micro issued 240,000 MTI Micro Warrants to Counter Point to purchase shares of MTI Micro Common Stock at an exercise price of \$0.07 per share. The MTI Micro Warrants became exercisable on the date of issuance and will expire on the earlier of: (a) the five (5) year anniversary of the Date of Issuance of the Warrant; (b) immediately prior to a change in control; or (c) the closing of a firm commitment underwritten public offering pursuant to a registration statement under the Securities Act. The MTI Micro Warrants were accounted for as equity.

## 9. Fair Value Measurement

The Company performs a detailed analysis of financial assets and liabilities in determining the appropriate levels of classification. At each reporting period, all assets and liabilities for which the fair value measurements are based upon significant unobservable inputs are classified as Level 3. The derivative liability was valued using the Black-Sholes Option Pricing Model, which is based upon unobservable inputs. The derivative liability was \$0 as of June 30, 2012 and December 31, 2011. The Company had no Level 1 and no Level 2 assets and liabilities as of June 30, 2012 and December 31, 2011.

The following is a rollforward of Level 3 fair value instruments for the twelve months ended December 31, 2011:

## (Dollars in thousands)

	Beginning	Total (Gains)	Purchases,	Ending Balance as of
	Balance as of	/ Losses	Issuances,	
	January 1,	Realized and	Sales and	December
Instrument	2011	Unrealized	Settlements	31, 2011
Derivative liability	\$73	\$ (73)	\$	\$
Total Level 3 instruments	\$73	\$ (73)	\$	\$

#### 10. Segment Information

The Company operates in two business segments, Test and Measurement Instrumentation and New Energy. The Test and Measurement Instrumentation segment designs, manufactures, markets and services high performance test and measurement instruments and systems, wafer characterization tools for the semiconductor and solar industries, tensile stage systems for materials testing at academic and industrial settings, and computer-based balancing systems for aircraft engines. The New Energy segment is focused on commercializing direct methanol fuel cells. The Company s principal operations are located in North America.

The accounting policies of the Test and Measurement Instrumentation and New Energy segments are similar to those described in the summary of significant accounting policies in the Company s Annual Report on Form 10-K (Note 2). The Company evaluates performance based on profit or loss from operations before income taxes. Inter-segment sales and expenses are not significant.

Summarized financial information concerning the Company s reportable segments is shown in the following table. The Other column includes corporate related items and items such as income taxes or unusual items, which are not allocated to reportable segments. The Reconciling Items column includes a non-controlling interest in a consolidated entity. In addition, segments non-cash items include any depreciation in reported profit or loss.

(Dollars in thousands)	Measure	Test and Measurement Instrumentation		Other	Reconciling Items	Conde Conso Totals	lidated
<u>Three months ended June 30, 2012</u> Product revenue	\$	1,366	\$	\$	\$	\$	1,366

Research and product development expenses	337	(0)	495		337
Selling, general and administrative expenses	433	60	485		978
Segment (loss) profit from operations before non-controlling interest	(345)	116	(280)		(509)
Segment (loss) profit	(345)	116	(280)	(61)	(570)
Total assets	1,984	199	2,931		5,114
Capital expenditures	7				7
Depreciation	24	10			34

(Dollars in thousands)			New Energy Other		ther	Reconciling Items		Condensed Consolidated Totals		
Three months ended June 30, 2011	<i>•</i>	2 1 40	<i>•</i>	<b>•</b>		<i>•</i>		<i>ф</i>	<b>a</b> 1 4 0	
Product revenue	\$	2,140	\$	\$		\$		\$	2,140	
Research and product development expenses		268	105						373	
Selling, general and administrative expenses		545	388		385				1,318	
Segment profit (loss) from operations before non-controlling interest		359	(582)	)	(172	)			(395	)
Segment profit (loss)		359	(582)	)	(172	)	298		(97	)
Total assets		2,140	303		1,651				4,094	
Capital expenditures		90			5				95	
Depreciation		21	65		2				88	

(Dollars in thousands)				New Energy Other			Reconciling Items		Condensed Consolidated Totals	
Six months ended June 30, 2012										
Product revenue	\$	2,570	5	5	\$	5	\$	\$	2,570	
Research and product development expenses (income)		711		(1	)				710	
Selling, general and administrative expenses		951		96	1,023				2,070	
Segment (loss) profit from operations before non-controlling interest		(823	)	88	(610	)			(1,345	)
Segment (loss) profit		(823	)	88	(610	)	(46	)	(1,391	)
Total assets		1,984		199	2,931				5,114	
Capital expenditures		10							10	
Depreciation		49		24					73	

(Dollars in thousands)			New Energy Ot		Other			Reconciling Items		ondensed onsolidated otals
Six months ended June 30, 2011										
Product revenue	\$	4,679	\$		\$		\$		\$	4,679
Funded research and development revenue				13						13
Research and product development expenses		598		185						783
Selling, general and administrative expenses		1,078		781		766				2,625
Segment profit (loss) from operations before non-controlling interest		981		(1,107)	)	(330	)			(456)
Segment profit (loss)		981		(1,107)	)	(330	)	553		97
Total assets		2,140		303		1,651				4,094
Capital expenditures		103				5				108
Depreciation		40		142		5				187

The following table presents the details of Other segment loss:

(Dollars in thousands)	Three Months Ended						Six Months Ended								
	June 30, <b>2012</b>		201	1		June 201	,		201	1					
Corporate and other (expenses) income:															
Depreciation	\$		\$	(2	)	\$			\$	(5	)				
Salaries and benefits	(260	)		(176	)		(612	)		(352	)				

Gain on derivatives			29				73	
Other (expense) income, net	(20	)	(23	)	2		(46	)
Total Other segment loss	\$ (280	)	\$ (172	)	\$ (610	)	\$ (330	)

The increase in salaries and benefits from the comparable prior year periods relates to a transfer of employees from MTI Micro to the Company, a new corporate hire to reduce outside consulting expenses and the reinstatement of full salary for the Chief Executive Officer.

# 11. Commitments and Contingencies

# **Commitments:**

Leases

The Company and its subsidiary lease certain manufacturing, laboratory and office facilities. The leases generally provide for the Company to pay either an increase over a base year level for taxes, maintenance, insurance and other costs of the leased properties or the Company s allocated share of insurance, taxes, maintenance and other costs of leased properties. The leases contain renewal provisions.

Future minimum rental payments required under non-cancelable operating leases (with initial or remaining lease terms in excess of one year) are (dollars in thousands): \$140 thousand remaining in 2012, \$285 thousand in 2013 and \$266 thousand in 2014.

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# Warranties

Below is a reconciliation of changes in product warranty liabilities:

(Dollars in thousands)	Six M	Six Months Ended						
	June 3 2012	30,		2011	l			
Balance, January 1	\$	26		\$	36			
Accruals for warranties issued		6			23			
Settlements made (in cash or in kind)		(4	)		(6	)		
Balance, end of period	\$	28		\$	53			

## Licenses

Under a 2002 NYSERDA contract, MTI Micro agreed to pay NYSERDA a royalty of 5.0% of the sales price of any product sold incorporating IP developed pursuant to the NYSERDA contract. If the product is manufactured by a New York State manufacturer, this royalty is reduced to 1.5%. Total royalties are subject to a cap equal to two times the total contract funds paid by NYSERDA to MTI Micro, and may be reduced to reflect any New York State jobs created by MTI Micro. As of June 30, 2012 and December 31, 2011, there are no amounts accrued in the condensed consolidated balance sheets related to this royalty provision.

Under the 2010 NYSERDA contract, MTI Micro agreed to pay NYSERDA a royalty of 5.0% of the sales price of any product sold incorporating IP developed pursuant to the NYSERDA contract. The obligation commences on the first date of the first sale of these products and is in place for fifteen years. Total royalties are subject to a cap equal to three times the total contract funds paid by NYSERDA to MTI Micro. However, if the product is manufactured by a New York State manufacturer, this royalty is reduced to 1.5% and total royalties are subject to a cap equal to one times the total contract funds paid by NYSERDA to MTI Micro. As of June 30, 2012 and December 31, 2011, there are no amounts accrued in the condensed consolidated balance sheets related to this royalty provision.

# **Employment Agreements**

The Company has employment agreements with certain employees that provide severance payments, certain other payments, accelerated vesting and exercise extension periods of certain options upon termination of employment under certain circumstances, as defined in the applicable agreements. As of June 30, 2012, the Company s potential maximum cash obligation to these employees was approximately \$487 thousand.

## **Royalty Commitment**

On January 28, 2010, MTI Instruments entered into an Asset Purchase and Sale Agreement with Ernest F. Fullam, Inc., Peter Fullam and Diane Fullam to acquire the tensile stage line of products from Ernest F. Fullam, Inc, a pioneering microscopy accessories company from Clifton Park, NY. As part of the acquisition, Mr. Peter Fullam joined MTI Instruments as a Product Sales Engineer until September 30, 2011, at which time he became a consultant for MTI Instruments, and MTI Instruments purchased machinery, inventory and the rights to use the Fullam/MTI Instruments product name. Additionally, commencing with the quarter ended March 31, 2010 and ending at the close of the quarter ending December 31, 2012, MTI Instruments will pay Ernest F. Fullam, Inc. a royalty equal to 5% of the Gross Sales achieved on specific Fullam products. Royalty expense related to this agreement was \$0 and \$3 thousand for the six months ended June 30, 2012 and 2011, respectively.

## **Contingencies:**

#### Legal

We are subject to legal proceedings, claims and liabilities which arise in the ordinary course of business. We accrue for losses associated with legal claims when such losses are probable and can be reasonably estimated. These accruals are adjusted as additional information becomes available or circumstances change. Legal fees are charged to expense as they are incurred.

# 12. Line of Credit

On September 20, 2011, MTI Instruments entered into a working capital line of credit with First Niagara Bank, N.A. Pursuant to the Demand Grid Note, MTI Instruments may borrow from time to time up to \$400 thousand to support its working capital needs. The note is payable upon demand, and the interest rate on the note is equal to the prime rate with a floor of 4.0% per annum. The note is secured by a lien on all of the assets of MTI Instruments and is guaranteed by the Company. The line of credit was renewed on May 7, 2012. The line of credit is subject to a review date of June 30, 2013. Under the line of credit, MTI Instruments is required to hold a line balance of \$0 for 30 consecutive days out during each consecutive year. As of June 30, 2012 and December 31, 2011, there were no amounts outstanding under the line of credit.

## 13. Stock Based Compensation

The Mechanical Technology Incorporated 2012 Equity Incentive Plan (the 2012 Plan) was adopted by the Company s Board of Directors on April 14, 2012 and approved by stockholders on June 14, 2012. The 2012 Plan provides an initial aggregate number of 600,000 shares of common stock which may be awarded or issued. The number of shares which may be awarded under the 2012 Plan and awards outstanding can be subject to adjustment on account of any recapitalization, reclassification, stock split, reverse stock split and other dilutive changes in Common Stock. Under the 2012 Plan, the Board of Directors is authorized to issue stock options (incentive and nonqualified), stock appreciation rights, restricted stock, restricted stock units and other stock-based awards to employees, officers, directors, consultants and advisors of the Company and its subsidiaries. Incentive stock options may only be granted to employees of the Company and its subsidiaries.

During the six months ended June 30, 2012, the Company granted 2,000 shares of the Company s common stock from the 2006 Equity Incentive Plan, which immediately vested and the stock was issued to the holder. The fair value of this grant was \$0.31 per share and was based on the closing market value price of the Company s common stock on the date of grant.

## 14. New Accounting Pronouncements

In September 2011, the Financial Accounting Standards Board (FASB) issued guidance on the presentation of comprehensive income. This guidance eliminates the current option to report other comprehensive income and its components in the statement of changes in equity. The guidance allows two presentation alternatives: (1) present items of net income and other comprehensive income in one continuous statement, referred to as the statement of comprehensive income; or (2) in two separate, but consecutive, statements of net income and other comprehensive income. This guidance is effective as of the beginning of a fiscal year that begins after December 15, 2011. Early adoption is permitted, but full retrospective application is required under both sets of accounting standards. The guidance also previously required the presentation of adjustments for items that are reclassified from other comprehensive income to net income in the statement where the components of net income and the components of other comprehensive income are presented; however, this portion of the guidance has been deferred. The Company adopted the guidance during the quarter ended March 31, 2012. The adoption of this new guidance did not have a material impact on the Company s condensed consolidated financial statements.

Other pronouncements issued by the FASB, or other authoritative accounting standard groups with future effective dates, are either not applicable, or are not expected to be significant to the financial statements of the Company.

#### 15. Subsequent Events

The Company has evaluated subsequent events and transactions through the date of this filing for potential recognition or disclosure in the condensed consolidated financial statements and has noted no other subsequent events requiring recognition or disclosure other than as stated below.

On July 2, 2012, the Governance, Compensation and Nominating Committee (the Committee) of the Board of Directors of the Company granted Kevin G. Lynch, the Company s newest board member, options for 25,000 shares of the Company s common stock and each of the remaining non-employee directors options for 12,500 shares of the Company s common stock. The Committee also granted Peng Lim, the Company s Chief Executive Officer, options for 50,000 shares of the Company s common stock and Rick Jones, the Company s Chief Financial Officer, options for 25,000 shares of the Company s common stock and Rick Jones, the Company s Chief Financial Officer, options for 25,000 shares of the Company s common stock and Rick Jones, the Company s Chief Financial Officer, options for 25,000 shares of the Company s common stock and Rick Jones, the closing price on July 2, 2012. Twenty-five percent of each award shall be exercisable on each of the first four anniversaries of the date of the award. All terms and conditions shall be in accordance with the 2012 Equity Incentive Plan. The Committee also established target bonuses for Mr. Lim.

On July 12, 2012, the Board of Directors of the Company appointed Kevin G. Lynch as the Lead Independent Director. The Board of Directors also established a cash compensation policy for non-employee directors.

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# Item 2. Management s Discussion and Analysis of Financial Condition and Results of Operations

Unless the context requires otherwise, the terms we, us, and our refer to Mechanical Technology, Incorporated, a New York Corporation, MTI Instruments refers to MTI Instruments, Incorporated, a New York corporation and our wholly owned subsidiary, and MTI Micro refers to MTI MicroFuel Cells Incorporated, a Delaware corporation and variable interest entity that is included in these consolidated results. MTI Micro has a registered trademark in the United States for Mobion. Other trademarks, trade names, and service marks used in this Quarterly Report on Form 10-Q are the property of their respective owners.

The following discussion of our financial condition and results of operations should be read in conjunction with the condensed consolidated financial statements and the notes thereto included in Item 1 of Part I of this Quarterly Report on Form 10-Q and the audited consolidated financial statements and the notes thereto and Management s Discussion and Analysis of Financial Condition and Results of Operations for the year ended December 31, 2011 contained in our 2011 Annual Report on Form 10-K.

In addition to historical information, the following discussion contains forward-looking statements, which involve risk and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements. Important factors that could cause actual results to differ include those set forth in Part I Item 1A-Risk Factors in our Annual Report on Form 10-K for the fiscal year ended December 31, 2011, as filed on March 27, 2012 as updated by Part II, Item 1A-Risk Factors of our Form 10-Q for the quarter ended March 31, 2012, and this Form 10-Q and elsewhere in this Quarterly Report on Form 10-Q. Readers should not place undue reliance on our forward-looking statements. These forward-looking statements speak only as of the date on which the statements were made and are not guarantees of future performance. Except as may be required by applicable law, we do not undertake or intend to update any forward-looking statements after the date of this Quarterly Report on Form 10-Q.

## Overview

MTI operates in two segments: the Test and Measurement Instrumentation segment, which is conducted through MTI Instruments, Incorporated (MTI Instruments), a wholly-owned subsidiary, and the New Energy segment, which is conducted through MTI MicroFuel Cells, Incorporated (MTI Micro), a variable interest entity (VIE) as of June 30, 2012. MTI and MTI Micro currently share the same Board of Directors, except for one additional director on the Company Board, while MTI also continues to oversee the day to day operations, exercise management decision making, seek opportunities to sell intellectual property, and have a vested interest in the commercialization of MTI Micro s fuel cell technology. Since inception in 2001, MTI has made the largest investment and been the principal funder of MTI Micro. MTI has also been exposed to losses

and has the ability to benefit from MTI Micro. Considering the facts and circumstances, management believes MTI is most closely associated with the VIE, MTI Micro, and therefore, it is the primary beneficiary. Should there be a change in the facts and circumstances (such as undertaking additional activities, a change in governance or a change to the related party group) in the future, management will reassess whether MTI remains the primary beneficiary and should continue to include MTI Micro in MTI s condensed consolidated financial statements.

*Test and Measurement Segment* MTI Instruments is a worldwide supplier of metrology, portable balancing equipment and inspection systems. Our products use state-of-the-art technology to solve complex real world applications in numerous industries including automotive, semiconductor, solar cell manufacturing, material testing, commercial and military aviation and data storage. We are continuously working on ways to expand our sales reach, including expanded sales coverage throughout Europe and Asia, as well as a focus on internet marketing.

Our test and measurement segment has three product groups: Precision Instruments, Semiconductor and Solar Metrology Systems, and Aviation Balancing Systems. Our products consist of electronic, computerized gauging instruments for position, displacement and vibration applications for the design, manufacturing/production and test and research markets; metrology tools for wafer characterization of semiconductor and solar wafers; tensile stage systems for materials testing in research and industrial settings; and engine balancing and vibration analysis systems for both military and commercial aircraft.

In 2012, MTI Instruments was awarded a contract, potentially worth up to \$917 thousand in product revenue, from the U.S. Air Force Metrology and Calibration Program Office (AFMETCAL) for the purchase of MTI Instruments portable balancing systems (PBS) calibration kits. As of June 30, 2012, MTI Instruments had recorded \$769 thousand in orders, approximately 84% of the contract s total potential value. In 2011, MTI Instruments was awarded a \$4.1 million multi-year U.S. Air Force contract for the purchase of PBS4100+ portable aircraft engine balancing systems. As of June 30, 2012, MTI Instruments had recorded \$855 thousand in orders, approximately 21% of the contract s total potential value. MTI Instruments also has a multi-year U.S. Air Force contract to service and repair its existing fleet of PBS-4100/+ jet engine balancing systems with the latest diagnostic and balancing technology, which could potentially generate up to a total of \$6.5 million in sales for the Company between 2009 and 2014. As of June 30, 2012, MTI Instruments had recorded approximately \$3.0 million in orders, approximately 46% of the contract s total value.

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*New Energy Segment* - MTI Micro has been developing off-the-grid power solutions for various portable electronic devices. Our patented proprietary direct methanol fuel cell (DMFC) technology platform, called Mobion<sup>®</sup>, converts methanol fuel to usable electricity capable of providing continuous power as long as necessary fuel flows are maintained. Our proprietary fuel cell power solution consists of two primary components integrated into an easily manufactured device: the direct methanol fuel cell power engine, which we refer to as our Mobion<sup>®</sup> Chip, and methanol fuel cartridges. The methanol used by the technology is fully biodegradable.

Although MTI Micro continues to believe in the potential of its Mobion<sup>®</sup> based power solutions, operations have been suspended at MTI Micro until such time as market demand and other deciding factors, including obtaining additional external financing, the successful completion of customer trials, a new development program with a government agency, and/or a customer order come to fruition. MTI Micro will continue to seek additional capital from external sources to resume operations and fund future development, if any. If MTI Micro is unable to secure additional financing, a new development program or customer order, the MTI Micro Board of Directors will assess other options for MTI Micro including the sale of its intellectual property portfolio and other assets.

### **Recent Developments**

On April 12, 2012, Kevin G. Lynch was appointed to the Board of Directors and the Audit Committee of the Company.

On April 14, 2012, the Board of Directors and executive officers of the Company surrendered 355,459 stock options without consideration and without any obligation on the part of the Company to grant stock options in replacement thereof or other consideration relating thereto at any time in the future in order to make more stock options available for future grants.

The Mechanical Technology Incorporated 2012 Equity Incentive Plan (the 2012 Plan) was adopted by the Company s Board of Directors on April 14, 2012 and approved by stockholders on June 14, 2012. The 2012 Plan provides an initial aggregate number of 600,000 shares of common stock which may be awarded or issued. The number of shares which may be awarded under the 2012 Plan and awards outstanding can be subject to adjustment on account of any recapitalization, reclassification, stock split, reverse stock split and other dilutive changes in Common Stock. Under the 2012 Plan, the Board of Directors is authorized to issue stock options (incentive and nonqualified), stock appreciation rights, restricted stock, restricted stock units and other stock-based awards to employees, officers, directors, consultants and advisors of the Company and its subsidiaries. Incentive stock options may only be granted to employees of the Company and its subsidiaries.

On June 18, 2012, the Audit Committee of the Board of Directors of the Company approved the dismissal of PricewaterhouseCoopers LLP (PwC) and engaged UHY LLP (UHY) as the Company s independent registered public accounting firm for the fiscal year ending December 31, 2012.

In conjunction with the suspension of MTI Micro in late 2011, sales of certain surplus equipment on hand were made during the three months ended June 30, 2012. This resulted in a net gain on sale of \$130 thousand. As of June 30, 2012, \$91 thousand of the sales proceeds have been received and \$51 thousand was due to the Company and included in Prepaid expenses and other current assets on the Condensed Consolidated Balance Sheet as of June 30, 2012.

### **Results of Operations**

*Results of Operations for the Three and Six Months Ended June 30, 2012 Compared to the Three and Six Months Ended June 30, 2011.* 

### **Test and Measurement Instrumentation Segment**

**Product Revenue.** Product revenue in our Test and Measurement Instrumentation segment for the three months ended June 30, 2012 decreased by \$774 thousand, or 36.2%, to \$1.4 million in 2012 from \$2.1 million in 2011. This decrease in product revenue was primarily attributed to a 65% decline in capacitance product shipments stemming from production slowdowns at our customers in Asia. Also contributing to the second quarter decline was a \$340 thousand drop in aviation balancing system sales due to fewer shipments to commercial customers. For the quarter ended June 30, 2012, the largest commercial customer for the segment was a European distributor, which accounted for \$152 thousand, or 11.1%, of the second quarter revenue. In 2011, the largest commercial customer for the segment was a distributor in China which accounted for \$250 thousand, or 11.7%, of the second quarter revenue. The U.S. Air Force was the largest government customer for the quarter ended June 30, 2012 and accounted for \$239 thousand, or 17.5%, of the second quarter revenue. The U.S. Air Force was the largest government customer for the quarter for the quarter ended June 30, 2011 and accounted for \$246 thousand, or 11.5%, of the second quarter revenue.

Product revenue in our Test and Measurement Instrumentation segment for the six months ended June 30, 2012 decreased by \$2.1 million, or 45.1%, to \$2.6 million in 2012 from \$4.7 million in 2011. This decrease in product revenue was due primarily to a \$1.1 million decline in aviation balancing equipment sales. In 2011, first quarter product revenue had included unique order activity for aviation balancing systems which began during the fourth quarter of 2010 and shipped during the first quarter of 2011. Also in 2011, commercial aviation balancing equipment sales were higher during the second quarter as compared to the second quarter of 2012. Further contributing to the current year-to-date decline has been a 47% drop in capacitance product shipments stemming from production slowdowns at our customers in Asia, fewer wafer metrology equipment shipments, most notably to the solar industry, and a 17.0% drop in other general instrumentation revenue. For the six months ended June 30, 2012, the largest commercial customer for the segment was an Asian distributor, which accounted for \$246 thousand, or 9.6%, of the year-to-date revenue. In 2011, the largest commercial customer for the segment was a U.S. Air Force was the largest government customer for the six months ended June 30, 2012 and accounted for \$378 thousand, or 14.7%, of the year-to-date revenue. The U.S. Air Force was the largest government customer for the six months ended June 30, 2011 and accounted for \$358 thousand, or 7.7%, of the year-to-date revenue.

### Information regarding government contracts included in product revenue is as follows:

(Dollars in thousands)		Revenue	es for the			
	Three Months Ended			Revenue Contract	Total Contract Orders Received	
Contract (1)	Expiration	June 30, 2012 2011		to Date June 30, 2012	to Date June 30, 2012	
	1	2012	2011	2012	June 2	0, 2012
\$6.5 million Air Force Retrofit and Maintenance of PBS-4100 Systems	$09/27/2014^{(2)}$	\$ 49 ¢ 171	\$ 120	\$ 3,017	\$	3,017
\$4.1 million Air Force PBS-4100 Systems \$917 thousand Air Force PBS Calibration Kits	$\begin{array}{r} 08/29/2015  {}^{(3)}\\ 09/30/2014  {}^{(4)} \end{array}$	\$ 171 \$	\$ \$	\$ 855 \$	\$ \$	855 769
	0,20,2011	4	Ŷ	Ψ	÷	

(1) Contract values represent maximum potential values and may not be representative of actual results.

(2) Date represents expiration of contract, including all four potential option extensions.

(3) Date represents expiration of contract, including all four potential option extensions.

(4) Date represents expiration of contract, including two potential option extensions.

(Dollars in thousands)		Revenu	es for the			
		Six Mo Ended	nths	Revenue	Ord	ntract ers
Contract (1)	Expiration	June 30 2012	, 2011	Contract to Date June 30, 2012	to E	e 30,
\$6.5 million Air Force Retrofit and Maintenance of PBS-4100 Systems \$4.1 million Air Force PBS-4100 Systems	09/27/2014 (2)	\$ 112 \$ 171	\$ 203 \$	\$ 3,017 \$ 855	\$ \$	3,017 855

09/30/2014		08/29/20 (3)	015		
\$917 thousand Air Force PBS Calibration Kits(4)\$\$769	\$917 thousand Air Force PBS Calibration Kits		014 \$	\$ \$	\$ 769

- (1) Contract values represent maximum potential values and may not be representative of actual results.
- (2) Date represents expiration of contract, including all four potential option extensions.
- (3) Date represents expiration of contract, including all four potential option extensions.
- (4) Date represents expiration of contract, including two potential option extensions.

*Cost of Product Revenue*. Cost of product revenue in our Test and Measurement Instrumentation segment for the three months ended June 30, 2012 decreased by \$110 thousand, or 12.9%, to \$740 thousand in 2012 from \$850 thousand in 2011 in conjunction with the aforementioned 36.2% decrease in product revenue. Gross profit, as a percentage of product revenue, decreased to 45.8%, compared to 60.3% for the same period in 2011 due to the change in product mix, higher production overhead costs related to personnel additions and an increase to the inventory reserve to account for potentially obsolete/slow moving inventory.

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Cost of product revenue in our Test and Measurement Instrumentation segment for the six months ended June 30, 2012 decreased by \$471 thousand, or 26.3%, to \$1.3 million in 2012 from \$1.8 million in 2011 in conjunction with the aforementioned 45.1% decrease in product revenue. Gross profit, as a percentage of product revenue, decreased to 48.7%, compared to 61.8% for the same period in 2011 due to the change in product mix, higher production overhead costs related to personnel additions and an increase to the inventory reserve to account for potentially obsolete/slow moving inventory.

*Unfunded Research and Product Development Expenses.* Unfunded research and product development expenses in our Test and Measurement Instrumentation segment for the three months ended June 30, 2012 increased by \$69 thousand, or 25.6%, to \$337 thousand in 2012 from \$268 thousand in 2011. This increase was due to additional personnel costs.

Unfunded research and product development expenses in our Test and Measurement Instrumentation segment for the six months ended June 30, 2012 increased by \$113 thousand, or 18.9%, to \$711 thousand in 2012 from \$598 thousand in 2011. This increase was due to additional personnel costs and higher external development spending for new development projects.

*Selling, General and Administrative Expenses.* Selling, general and administrative expenses in our Test and Measurement Instrumentation segment for the three months ended June 30, 2012 decreased by \$112 thousand, or 20.5%, to \$433 thousand in 2012 from \$545 thousand in 2011. This decrease is the result of reduced personnel costs and sales commissions, partially offset by higher consultant costs.

Selling, general and administrative expenses in our Test and Measurement Instrumentation segment for the six months ended June 30, 2012 decreased by \$127 thousand, or 11.8%, to \$951 thousand in 2012 from \$1.1 million in 2011. This decrease is the result of reduced personnel costs and sales commissions, partially offset by higher consultant costs.

**New Energy Segment** 

*Funded Research and Development Revenue.* There was no funded research and development revenue in our New Energy segment for the three months ended June 30, 2012 and June 30, 2011. The final billings for both the DOE and the New York State Energy Research and Development Authority (NYSERDA) grants were done in the first quarter of 2011 for approximately \$6 thousand each, as the majority of work was finished in 2010. There are no active grants at this time.

There was no funded research and development revenue in our New Energy segment for the six months ended June 30, 2012 compared to \$13 thousand in the prior year. The final billings for both the DOE and the New York State Energy Research and Development Authority (NYSERDA) grants were done in the first quarter of 2011 for approximately \$6 thousand each, as the majority of work was finished in 2010. There are no active grants at this time.

Information regarding our contracts included in funded research and development revenue is as follows:

(Dollars in thousands)			Revenue		Revenue	
			Six Months		Six Months	Revenue Contract to
	Expiration		Ended		Ended	Date
Contract	(1)		June 30, 2012		June 30, 2011	June 30, 2012
\$2.99 million DOE <sup>(2)</sup> \$296 thousand NYSERDA	3/31/2011 12/31/10	\$ \$		-	7 6	2,994 296

(1) Dates represent expiration of contract, not date of final billing.

(2) The DOE contract was initially awarded for \$2.4 million, effective for January 2009 through March 31, 2010. An extension to this was granted in April 2010, increasing total funding to \$2.99 million and an expiration date of March 31, 2011. The DOE contract was a cost share contract.

*Funded Research and Product Development Expenses.* There was no funded research and product development expenses in our New Energy segment for the three months ended June 30, 2012 or June 30, 2011. There are no active grants at this time.

There was no funded research and product development expenses in our New Energy segment for the six months ended June 30, 2012, compared to \$25 thousand in 2011. There are no active grants at this time.

Unfunded Research and Product Development Expenses. There was no unfunded research and product development

expenses in our New Energy segment for the three months ended June 30, 2012, compared to \$105 thousand in 2011. This decrease is attributable to the suspension of operations in late 2011, and no further research is being performed at this time.

There was unfunded research and product development income of \$1 thousand in our New Energy segment for the six months ended June 30, 2012, compared to unfunded research and product development expenses of \$160 thousand in 2011. This decrease is attributable to the suspension of operations in late 2011, and no further research is being performed at this time.

*Selling, General and Administrative Expenses.* Selling, general and administrative expenses in our New Energy segment decreased by \$328 thousand to \$60 thousand for the three months ended June 30, 2012, compared to \$388 thousand in 2011. This decrease is attributable to the suspension of operations in late 2011. Currently, MTI Micro has no employees and projects to spend between \$5 and \$10 thousand per month for operating activities including rent, preparing prototypes for customer demonstrations, minimal sales efforts, patent fees to keep the patent portfolio current and minimal consultant costs to perform these initiatives. During the remainder of 2012, MTI Micro also expects to incur a one time expense of approximately \$20 thousand for lab set up fees in its modified leased space.

Selling, general and administrative expenses in our New Energy segment decreased by \$685 thousand to \$96 thousand for the six months ended June 30, 2012, compared to \$781 thousand in 2011. This decrease is attributable to the suspension of operations in late 2011 and future spending is noted above in the three month explanation.

### **Results of Consolidated Operations**

*Operating Loss.* Operating loss for the three months ended June 30, 2012 was \$689 thousand compared to \$401 thousand in 2011. This increase in operating loss was a result of the factors noted above.

Operating loss for the six months ended June 30, 2012 was \$1.5 million compared to \$505 thousand in 2011. This increase in operating loss was a result of the factors noted above.

*Gain on Derivatives.* We had no gain on derivatives for the three months ended June 30, 2012 compared to a gain on derivatives of \$29 thousand in 2011. We had no gain on derivatives for the six months ended June 30, 2012 compared to a gain on derivatives of \$73 thousand in 2011. Gain on derivatives was the result of derivative treatment of the freestanding warrants issued to investors in conjunction with our December 2006 capital raise. These warrants expired on December 19, 2011.

*Income Tax Benefit (Expense).* There was no income tax benefit (expense) for the three and six months ended June 30, 2012 and 2011. During the six months ended June 30, 2012, our effective income tax rate was 0%. The projected annual effective tax rate is less than the Federal statutory rate of 35%, primarily due to the permanent difference related to the stock-based compensation expense for employees of MTI Micro who transferred to MTI. For the six months ended June 30, 2011, our effective income tax rate was also 0%. The difference between the annual effective tax rate and the Federal statutory rate was the result of the change in the valuation allowance and the gain on derivative. The valuation allowance against our deferred tax assets was approximately \$18 million at June 30, 2012 and \$20 million at December 31, 2011, respectively. This decrease was primarily the result of a one-time adjustment in the deferred tax asset related to stock compensation expense for options that have lapsed or been voluntarily surrendered to the Company. We will continue to evaluate the ability to realize our deferred tax assets and related valuation allowances on a quarterly basis.

*Net (Income) Loss Attributed to Non-Controlling Interests (of MTI Micro).* The net income attributed to non-controlling interests for the three months ended June 30, 2012 was \$61 thousand compared to a net loss of \$298 thousand in 2011. This is the result of net income of MTI Micro of \$116 thousand in 2012 compared to a net loss of MTI Micro of \$581 thousand in 2011 as a result of the suspension of operations in late 2011

and the money received from the sales of certain surplus equipment on hand.

The net income attributed to non-controlling interests for the six months ended June 30, 2012 was \$46 thousand compared to a net loss of \$553 thousand in 2011. This is the result of net income of MTI Micro of \$88 thousand in 2012 compared to a net loss of MTI Micro of \$1.1 million in 2011 as a result of the suspension of operations in late 2011 and the money received from the sales of certain surplus equipment on hand.

*Net (Loss) Income.* Net loss for the three months ended June 30, 2012 was \$570 thousand compared to net loss of \$97 thousand for the same period in 2011. The increase in net loss of \$473 thousand is primarily attributed to a decrease of MTI Instruments net income of \$703 thousand, a reduction of the net loss of MTI Micro of \$697 thousand, and a reduction in the net loss attributed to non-controlling interests of \$359 thousand. These are a result of the factors discussed above.

Net loss for the six months ended June 30, 2012 was \$1.4 million compared to net income of \$97 thousand for the same period in 2011. The decrease in net income of \$1.5 million is primarily attributed to a decrease of MTI Instruments net income of \$1.8 million, a reduction of the net loss of MTI Micro of \$1.2 million, and a reduction in the net loss attributed to non-controlling interests of \$600 thousand. These are a result of the factors discussed above.

### Liquidity and Capital Resources

Several key indicators of our liquidity are summarized in the following table:

(Dollars in thousands)	Six Months Ended	Six Months Ended	Year Ended				
	June 30,	June 30,	Dec 31,				
	2012	2011	2011				
Cash	\$ 1,444	\$ 1,592	\$ 1,669				
Working capital	1,985	1,852	3,142				
Net (loss) income attributed to MTI	(1,391 )	97	2,386				
Net cash (used in) provided by operating activities	(306)	124	67				
Purchase of property, plant and equipment	(10)	(108)	(175)				

We have historically incurred significant losses, the majority stemming from the direct methanol fuel cell product development and commercialization programs of MTI Micro, and had a consolidated accumulated deficit of \$121.5 million as of June 30, 2012. During the six months ended June 30, 21012, we generated a net loss attributed to MTI of \$1.4 million and had working capital at June 30, 2012 of approximately \$2.0 million, a \$1.1 million decrease from \$3.1 million at December 31, 2011. We used operating cash flows of \$306 thousand for the six months ended June 30, 2012 and currently have no debt outstanding. While it cannot be assured, management believes that, due in part to our current backlog and cost control initiatives, the Company will resume positive cash flows in the second half of 2012 to fund the Company s operations for the foreseeable future.

Although MTI Micro continues to believe in the potential of its Mobion<sup>®</sup> based power solutions, operations have been suspended at MTI Micro until such time as market demand and other deciding factors, including obtaining additional external financing, the successful completion of customer trials, a new development program with a government agency, and/or a customer order, come to fruition. MTI Micro will continue to seek additional capital from external sources to resume operations and fund future development, if any. If MTI Micro is unable to secure additional financing, a new development program or customer order, the MTI Micro Board of Directors will assess other options for MTI Micro, including the sale of MTI Micro is intellectual property portfolio and other assets.

During the six months ended June 30, 2012, cash used in operating activities was \$306 thousand, consisting of a net loss of \$1.3 million, non-cash expenses of \$124 thousand (including \$73 thousand for depreciation, \$68 thousand for excess and obsolete inventory, and \$113 thousand for stock based compensation partially offset by a \$130 thousand gain on the disposal of equipment), and other changes in operating assets and liabilities of \$915 thousand (primarily due to the decrease in accounts receivable from the prior year end). Cash provided by investing activities for the six months ended June 30, 2012 was \$81 thousand. There were no outstanding commitments for capital expenditures as of June 30, 2012. There was no cash provided by financing activities for the six months ended June 30, 2012.

As of June 30, 2012, we had approximately \$1.4 million of cash available to fund future operations. During the six months ended June 30, 2012, our results of operations resulted in a net loss attributed to MTI of \$1.4 million and cash used in operating activities totaling \$306 thousand. We expect to continue funding our operations from current cash, our projected 2012 cash flow pursuant to management s current plan, and possible

draw downs from our existing line of credit, if necessary. We may also seek to supplement our resources through the sales of assets (including our investment in MTI Micro). Besides the line of credit at MTI Instruments, we have no other commitments for funding future needs of the organization at this time and such additional financing during 2012 may not be available to us on acceptable terms, if at all.

Line of Credit

On September 20, 2011, MTI Instruments entered into a working capital line of credit with First Niagara Bank, N.A. Pursuant to the Demand Grid Note, MTI Instruments may borrow from time to time up to \$400 thousand to support its working capital needs. The note is payable upon demand, and the interest rate on the note is equal to the prime rate with a floor of 4.0% per annum. The note is secured by a lien on all of the assets of MTI Instruments and is guaranteed by the Company. The line of credit was renewed on May 7, 2012. The line of credit is subject to a review date of June 30, 2013. Under the line of credit, MTI Instruments is required to hold a line balance of \$0 for 30 consecutive days out during each consecutive year. As of June 30, 2012 and December 31, 2011 there were no amounts outstanding under the line of credit.

#### Backlog, Inventory and Accounts Receivable

At June 30, 2012, our order backlog was \$1.1 million compared to \$861 thousand at December 31, 2011 due to the new Air Force contract for calibration kits which was received during the second quarter and is expected to ship during the fourth quarter of 2012.

Our inventory turnover ratios and accounts receivable days outstanding for the trailing twelve month periods and their changes at June 30, 2012 and 2011 are as follows:

	2012	2011	Change
Inventory turnover	3.0	4.0	(1.0)
Average accounts receivable days outstanding	44	41	3

The decrease in inventory turns is due to a 22% increase in average inventory balances, driven by current production schedules, combining with 9% lower sales volume during the comparable periods.

The average accounts receivable days outstanding for the last twelve months increased three days due to the recent product mix, now consisting of a higher percentage of international sales which have slightly longer payment cycles.

Net cash used in operating activities was \$306 thousand for the six months ended June 30, 2012 compared with cash provided by operating activities of \$124 thousand in 2011. This cash decrease of \$430 thousand was driven by the timing of cash payments and receipts associated with prior quarter billings as well as the increase in net loss.

There were \$10 thousand in capital expenditures during the six months ended June 30, 2012, compared with \$108 thousand in the same period for 2011. There were no outstanding commitments for capital expenditures as of June 30, 2012. As production levels rise at MTI Instruments, additional capital equipment may be required in the foreseeable future. We expect to finance any such potential future expenditures with our current cash position.

#### **Off-Balance Sheet Arrangements**

There were no off balance sheet arrangements.

#### **Contractual Payment Obligations**

We have entered into various agreements with non-cancelable terms that result in contractual payment obligations in future years. These contracts include manufacturing, laboratory and office facility lease agreements as well as purchase commitments for general operations of the Company. The following table summarizes cash payments that we are committed to make under the existing terms of contracts to which we are a party as of June 30, 2012. This table does not include contingencies.

	Le	SS					More		
<b>Contractual Payment Obligations</b>	Th	an 1	1-3	3	3-5		Than 5		
(in thousands)	Ye	ar	Ye	ears	Yea	rs	Years	Tota	al
Operating lease obligations	\$	16	\$	571	\$	120	\$	\$	707
Purchase obligations		484							484
Total Contractual Payment Obligations	\$	500	\$	571	\$	120	\$	\$	1,191

#### **Market Risk**

Market risk is the risk that changes in market conditions will adversely affect earnings or cashflow. We categorize our market risks as interest rate risk and credit risk. Immediately below are detailed descriptions of the market risks and explanations as to how each of these risks are managed.

**Interest Rate Risk.** Interest rate risk is the risk that changes in interest rates could adversely affect earnings or cashflows. The Company s cash equivalents are sensitive to changes in interest rates. Interest rate changes would result in a change in interest income due to the difference between the current interest rates on cash. Interest rate risk sensitivity analysis is used to measure interest rate risk by computing estimated changes in cashflow as a result of assumed changes in market interest rates. A 10% decrease in 2012 interest rates would be immaterial to the Company s consolidated financial statements.

**Credit Risk.** Credit risk is the risk of loss we would incur if counterparties fail to perform their contractual obligations. Financial instruments that subject the Company to concentrations of credit risk principally consist of cash equivalents, trade accounts receivable and unbilled contract costs.

Our trade accounts receivable and unbilled contract costs and fees are primarily from sales to commercial customers, the U.S. government and state agencies. We do not require collateral and have not historically experienced significant credit losses related to receivables or unbilled contract costs and fees from individual customers or groups of customers in any particular industry or geographic area.

Our deposits are primarily in cash and deposited in commercial banks and investment companies. The Company has cash deposits in excess of federally insured limits. The amount of such deposits is essentially all cash at June 30, 2012.

### **Critical Accounting Policies and Significant Judgments and Estimates**

The discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. Note 2, Accounting Policies, to the consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2011 includes a summary of our most significant accounting policies. There have been no material changes to the critical accounting policies previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2011. The preparation of these condensed consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of assets and liabilities. On an ongoing basis, we evaluate our estimates and judgments, including those related to revenue recognition, inventories, income taxes, stock-based compensation and derivatives. Management bases its estimates on historical experience and on various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. Periodically, we review our critical accounting estimates with the Audit Committee of our Board of Directors.

### **Recent Accounting Pronouncements**

A discussion of recent accounting pronouncements is included in Note 14, New Accounting Pronouncements, of the unaudited condensed consolidated financial statements in Part I, Item 1 of this Form 10-Q.

### Statement Concerning Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements that involve risks and uncertainties within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Any statements contained in this Form 10-Q that are not statements of historical fact may be forward-looking statements. When we use the words anticipate, estimate. plans, projects. continuing, 0 expects. management believes, we believe, we intend, should. could. may, will and similar words or ph identifying forward-looking statements. Forward-looking statements involve risks, uncertainties, estimates and

assumptions which may cause our actual results, performance or achievements to be materially different from those expressed or implied by forward-looking statements. Important factors that could cause these differences include the following:

- sales revenue growth of our test and measurement instrumentation business may not be achieved or maintained;
- the dependence of our test and measurement instrumentation business on a small number of customers and potential loss of government contracts;
- our inability to build and maintain relationships with our customers;
- our lack of long-term purchase commitments from our customers and the ability of our customers to cancel, reduce, or delay orders for our products;
- risks related to protection and infringement of intellectual property;
- our inability to develop and utilize new technologies that address the needs of our customers;
- intense competition in the instrumentation business;
- our history of recurring net losses and the risk of continued net losses;
- the impact of future exchange rate fluctuations;
- the uncertainty of the U.S. economy;
- the historical volatility of our stock price;
- the cyclical nature of the electronics industry;
- failure of our strategic alliances to achieve their objectives or perform as contemplated and the risk of cancellation or early termination of such alliance by either party;
- product liability or defects;

- the loss of services of one or more of our key employees or the inability to hire, train, and retain key personnel;
- significant periodic and seasonal quarterly fluctuations in our results of operations;
- our dependence on sole suppliers or a limited group of suppliers for both business segments;
- our ability to generate income to realize our net operating losses;
- risks related to the limitation of the use of our net operating losses in the event of certain ownership changes;
- MTI Micro s need to raise additional financing;
- our ownership position in MTI Micro may be reduced further as a result of our need to seek external financing for MTI Micro s operations;
- risks related to developing Mobion<sup>®</sup> direct methanol fuel cells and whether MTI Micro will ever successfully develop reliable and commercially viable Mobion<sup>®</sup> fuel cell solutions;
- MTI Micro s dependence on OEMs integrating Mobion fuel cell systems into their devices; and
- other factors discussed under the heading Risk Factors in our Annual Report on Form 10-K for the fiscal year ended December 31, 2011 and in Part II, Item 1A of this Quarterly Report on Form 10-Q.

Forward-looking statements speak only as of the date they are made. You should not put undue reliance on any forward-looking statements. We assume no obligation to update forward-looking statements to reflect actual results, changes in assumptions, or changes in other factors affecting forward-looking information, except to the extent required by applicable securities laws. If we do update one or more forward-looking statements, no inference should be drawn that we will make additional updates with respect to those or other forward-looking statements.

### Item 4. Controls and Procedures

The certifications of our Chief Executive Officer and Chief Financial Officer attached as Exhibits 31.1 and 31.2 to this Quarterly Report on Form 10-Q include, in paragraph 4 of such certifications, information concerning our disclosure controls and procedures and internal control over financial reporting. Such certifications should be read in conjunction with the information contained in this Item 4 for a more complete understanding of the matters covered by such certifications.

Our management, with the participation of our chief executive officer and our chief financial officer, evaluated the effectiveness of MTI s disclosure controls and procedures as of June 30, 2012. The term disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits 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 include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. We recognize that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and we necessarily apply our judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of June 30, 2012, our chief executive officer and chief financial officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

### (b) Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act, during our fiscal quarter ended June 30, 2012 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## PART II. OTHER INFORMATION

Item 1. Legal Proceedings

At any point in time, we may be involved in various lawsuits or other legal proceedings. Such lawsuits could arise from the sale of products or services or from other matters relating to our regular business activities, compliance with various governmental regulations and requirements, or other transactions or circumstances. We do not believe there are any such proceedings presently pending that could have a material adverse effect on our financial condition. See Note 11, Commitments and Contingencies, to our condensed consolidated financial statements for further information.

Item 1A. Risk Factors

Our Annual Report on Form 10-K for the year ended December 31, 2011 contains a detailed discussion of our risk factors. In addition, information regarding risk factors appears in Management's Discussion and Analysis of Financial Condition and Results of Operations Statement Concerning Forward Looking Statements . These risk factors could cause our actual results to differ materially from those stated in forward-looking statements contained in this document and elsewhere. Pursuant to the instructions to this Quarterly Report on Form 10-Q, we have provided below only those risk factors that are new or that have been materially amended since the time that we filed our 2011 Annual Report on Form 10-K. Accordingly, the information presented below should be read in conjunction with the risk factors and information disclosed in our 2011 Annual Report on Form 10-K.

Historically, we have incurred net losses as a result of MTI Micro. Despite the suspension of MTI Micro s operations in late 2011, there can be no assurance that there will be adequate resources to fund our future operations.

For the six months ended June 30, 2012, we had a net loss of \$1.4 million. For the year ended December 31, 2011, we generated net income of \$2.4 million primarily attributable to the reversal of a portion of the deferred tax asset s valuation reserve of \$1.5 million, representing the portion of our deferred tax asset that management has estimated is more likely than not to be realized, and MTI Instrument s strong performance. Prior to 2011, we had incurred recurring net losses, including net losses of \$1.8 million in 2010, and \$3.1 million in 2009. As a result of historic operating losses, we had an accumulated deficit of approximately \$121.5 million as of June 30, 2012. MTI Micro suspended its operations at the end of 2011 and, therefore, expects to incur minimal ongoing operating expenses unless additional funding becomes available to fund its operations in the future. If MTI Micro is unable to secure additional financing, MTI Micro could be forced to sell assets at unfavorable prices; or merge, consolidate, or combine with a company with greater financial resources in a transaction that may be unfavorable to us.

Since we no longer expect to fund MTI Micro, MTI Micro has sought and will continue to seek other sources of funding, but there is no assurance that such funding will be available on acceptable terms, if at all.

### We have experienced an ownership change in MTI Micro that has resulted in a limitation of tax attributes relating to the use of their net operating losses, and we may experience further ownership changes in both MTI and MTI Micro which would result in a further limitation of the use of our net operating losses.

As of June 30, 2012, it is estimated that MTI has net operating loss (NOL) carryforwards of approximately \$51.8 million and MTI Micro has NOL carryforwards of approximately \$16.5 million. As a result of the conversion of the bridge notes in December 2009, MTI no longer maintained an 80% or greater ownership in MTI Micro. Thus, MTI Micro is no longer included in Mechanical Technology, Incorporated and Subsidiaries' consolidated federal and combined New York State tax returns, effective December 9, 2009. Pursuant to the Internal Revenue

Service's consolidated tax return regulations (IRS Regulation Section 1.1502-36), upon MTI Micro leaving the Mechanical Technology, Incorporated and Subsidiaries consolidated group, MTI elected to reduce a portion of its stock tax basis in MTI Micro by "reattributing" a portion of MTI Micro's NOL carryforwards to MTI, for an amount equivalent to its built-in loss amount in MTI's investment in MTI Micro's stock. As the result of MTI making this election with its December 31, 2009 tax return, MTI reattributed approximately \$45.2 million of MTI Micro's NOLs (reducing its tax basis in MTI Micro's stock by the same amount), leaving MTI Micro with approximately \$13 million of separate company NOL carryforwards at the time of conversion of the Bridge Notes.

The Company and its subsidiaries have undergone a formal Section 382 study. A corporation generally undergoes an ownership change when the ownership of its stock, by value, changes by more than 50 percentage points over any three-year testing period. In the event of an ownership change, Section 382 of the Internal Revenue Code of 1986 imposes an annual limitation on the amount of post-ownership change taxable income a corporation may offset with pre-ownership change NOL carryforwards and certain recognized built-in losses. As a result of MTI Micro s issuance of stock between 2009 and 2011, MTI Micro has experienced a Section 382 ownership change, which has reduced their NOLs by an estimated \$14.6 million.

Our ability to utilize the MTI and remaining MTI Micro NOL carryforwards, including any future NOL carryforwards that may arise, may be limited by Section 382, if we or MTI Micro undergo any further ownership changes as a result of subsequent changes in the ownership of our outstanding common stock pursuant to the exercise of the MTI Micro warrants, MTI or MTI Micro options outstanding, additional financings obtained, or otherwise.

Our ownership position in MTI Micro has been reduced as a result of external financing for MTI Micro's operations, which could limit our ability to control the operations.

As of June 30, 2012, we owned approximately 47.6% of MTI Micro s Common Stock issued. Between September 2008 and September 2011, MTI Micro entered into numerous debt and equity financings with third parties, primarily, Dr. Walter L. Robb, a member of the Company s and MTI Micro s boards of directors, and Counter Point Ventures Fund II, LP (Counter Point). Counter Point is a venture capital fund sponsored and managed by Dr. Robb. After these series of transactions, MTI now holds an aggregate of approximately 47.6% of the outstanding common stock of MTI Micro or 53.3% of the outstanding common stock and warrants issued of MTI Micro, and Dr. Robb and Counter Point hold approximately 5.1% and 45.2%, respectively of the outstanding common stock of MTI Micro or 4.3% and 40.3%, respectively of the outstanding common stock and warrants issued of MTI Micro. Since no entity of the related parties has power but, as a group, the Company and its related parties have the power, then the party within the related party group that is most closely associated with the VIE, MTI Micro, is the primary beneficiary. Even though Dr. Robb and Counterpoint combined control a majority of the outstanding common stock, and they have the ability to elect the directors of MTI Micro and decide whether to continue to seek business opportunities for MTI Micro or instead seek opportunities to sell the intellectual property, they have not elected to do so. The Company continues to oversee the day to day operations, exercise management decision making, seek opportunities to sell intellectual properties, and have a vested interest in the commercialization of MTI Micro s fuel cell technology. Since inception in 2001, the Company has made the largest investment and been the principal funder of MTI Micro. The Company has also been exposed to losses and has the ability to benefit from MTI Micro. Considering the facts and circumstances, management believes the Company is most closely associated with the VIE, MTI Micro, and therefore, it is the primary beneficiary of MTI Micro. Should there be a change in the facts and circumstances (such as a change in governance or a change to the related party group) management will reassess whether they act as the primary beneficiary and should continue to include MTI Micro in the Company s consolidated results of operations.

### MTI Micro currently does not have sufficient funds to commercialize its portable power source products.

In order to resume operations and continue full commercialization of its micro fuel cell solution, MTI Micro will need to do one or more of the following to raise additional resources, or reduce its cash requirements:

- obtain additional government grants or private funding of its direct methanol fuel cell research, development, manufacturing readiness and commercialization;
- receive a purchase order from government agencies or OEM s MTI Micro is currently with; or
- secure additional debt or equity financing.

There is no guarantee that resources will be available to MTI Micro on terms acceptable to it, or at all, or that such resources will be received in a timely manner, if at all, or that MTI Micro will be able to resume operations or reduce its expenditure run-rate further. MTI Micro had cash and cash equivalents of \$125 thousand as of June 30, 2012. Since 2008, MTI Micro has raised \$5.4 million in external debt and equity financing. At the end of 2011, MTI Micro suspended its operations while additional necessary funding is being pursued. If MTI Micro raises additional funds by issuing equity securities, MTI Micro s stockholders, including MTI, will experience further dilution. Additional debt financing, if available, may involve restrictive covenants. There is no assurance that funds raised in any future debt financing or additional equity financing arrangements will be sufficient, that the financing will be available on terms favorable to MTI Micro or to existing stockholders and at such times as required, or that MTI Micro will be able to obtain the additional financing arrangements with third parties, it may be necessary to relinquish some rights to

MTI Micro s technologies or its products, or grant licenses on terms that are not favorable to MTI Micro. If MTI Micro is unable to secure additional financing, MTI Micro could be forced to sell assets at unfavorable prices; or merge, consolidate, or combine with a company with greater financial resources in a transaction that may be unfavorable to us.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None

### Item 3. Defaults Upon Senior Securities

None

### Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None



Item 6. Exhibits

#### Exhibit No.Description

- 10.1 Mechanical Technology, Incorporated 2012 Equity Incentive Plan (Incorporated by reference from Exhibit 10.1 of the Company s Form S-8 Registration Statement (File No. 333-182730) filed July 18, 2012).
- 10.2 Form of Restricted Stock Agreement Notice for Board of Directors and Employees for Mechanical Technology, Incorporated 2012 Equity Incentive Plan.
- 10.3 Form of Incentive Stock Option Notice for Mechanical Technology, Incorporated 2012 Equity Incentive Plan.
- 10.4 Form of Non-Qualified Stock Option Notice for Employees for Mechanical Technology, Incorporated 2012 Equity Incentive Plan.
- 10.5 Form of Non-Qualified Stock Option Notice for Board of Directors for Mechanical Technology, Incorporated 2012 Equity Incentive Plan.
- 31.1 Rule 13a-14(a)/15d-14(a) Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, of Peng K. Lim
- 31.2 Rule 13a-14(a)/15d-14(a) Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, of Frederick W. Jones
- 32.1 Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, of Peng K. Lim
- 32.2 Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, of Frederick W. Jones
- 101.INS XBRL Instance Document
- 101.SCH XBRL Taxonomy Extension Schema Document
- 101.CAL XBRL Taxonomy Extension Calculation Linkbase Document
- 101.DEF XBRL Taxonomy Definition Linkbase Document
- 101.LAB XBRL Taxonomy Extension Label Linkbase Document
- 101.PRE XBRL Taxonomy Extension Presentation Linkbase Document

All other exhibits for which no other filing information is given are filed herewith.

### SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Mechanical Technology, Incorporated

Date: August 9, 2012

- By: /S/ PENG K. LIM Peng K. Lim Chief Executive Officer
- By: /S/ FREDERICK W. JONES Frederick W. Jones Chief Financial Officer