INTERNATIONAL ISOTOPES INC
Form 424B3
November 15, 2011

Filed Pursuant to Rule 424(b)(3)

Registration No. 333-171140

Prospectus Supplement No. 4

(To Prospectus dated July 20, 2011)

59,687,333 Shares

Common Stock, par value $0.01

This Prospectus Supplement No.4 supplements the prospectus of International Isotopes Inc. (the Company) dated July 20, 2011, as supplemented by Prospectus Supplement No. 1 dated August 10, 2011, Prospectus Supplement No. 2 dated September 14, 2011 and Prospectus Supplement No. 3 dated October 5, 2011 (collectively, the Prospectus), relating to the offer and sale of up to 29,075,000 shares of our outstanding common stock and 30,612,333 shares of our common stock issuable upon the exercise of warrants previously issued to certain shareholders named in the Prospectus pursuant to a private placement completed on October 29, 2010. This Prospectus Supplement No. 4 should be read in conjunction with the Prospectus and is qualified by reference to the Prospectus, except to the extent that the information in this Prospectus Supplement No. 4 supersedes the information contained in the Prospectus, and may not be delivered or utilized without the Prospectus.

This Prospectus Supplement No. 4 is being filed to include the Company s Quarterly Report on Form 10-Q for the quarter ended September 30, 2011, filed with the Securities and Exchange Commission on November 14, 2011.

Our common stock is quoted on the OTC Bulletin Board® under the ticker symbol INIS.OB. On November 14, 2011, the last sale price of the common stock, as reported on the OTC Bulletin Board®, was $0.10 per share.

Investing in our securities involves risk. You should carefully review the risks and uncertainties described under the heading Risk Factors beginning on page 1 of the Prospectus and in the documents which are incorporated by reference therein.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this Prospectus Supplement No. 4 is November 15, 2011.

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2011

OR

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

For the transition period from _____ to _____

Commission file number:

0-22923

INTERNATIONAL ISOTOPES INC.

(Exact name of registrant as specified in its charter)

Texas	**74-2763837**
(State or other jurisdiction of incorporation or organization)	*(IRS Employer Identification Number)*

4137 Commerce Circle

Idaho Falls, Idaho, 83401

(Address of principal executive offices, including zip code)

(208) 524-5300

(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. ý Yes ¨ No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). ý Yes ¨ No

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 the definitions of large accelerated filer, "accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act.

Large accelerated filer ¨	Accelerated Filer ¨
Non-accelerated filer ¨	Smaller reporting company ý

(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). ¨ Yes ý No

As of October 26, 2011, the number of shares of Common Stock, $.01 par value, outstanding was 357,202,750.

INTERNATIONAL ISOTOPES INC.

For The Quarter Ended September 30, 2011

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Part I. Financial Information

Item 1. Financial Statements

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES
Unaudited Condensed Consolidated Balance Sheets

	September 30, 2011	December 31, 2010
Assets		
Current assets		
Cash and cash equivalents	$ 2,517,586	$ 4,237,303
Accounts receivable	1,170,747	844,258
Inventories	1,575,273	1,681,840
Due from related party	-	87,500
Prepaids and other current assets	159,839	122,016
Total current assets	5,423,445	6,972,917
Long-term assets		
Restricted certificate of deposit	428,785	428,365
Property, plant and equipment, net	1,965,665	2,090,781
Capitalized lease disposal costs, net	108,983	140,934
Investment	1,433,420	1,365,851
Patents and other intangibles, net	213,404	228,745
Total long-term assets	4,150,257	4,254,676
Total assets	$ 9,573,702	$ 11,227,593
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable	$ 1,500,033	$ 717,363
Accrued liabilities	1,008,079	623,111
Convertible debentures, net of beneficial conversion feature of $0 and $292,863, respectively	-	2,782,137
Current installments of notes payable	543,416	454,811
Current installments of capital leases	-	9,930
Total current liabilities	3,051,528	4,587,352
Long-term liabilities		
Obligation for lease disposal costs	473,912	446,578
Notes payable, excluding current installments	-	505,382
Mandatorily redeemable convertible preferred stock	850,000	850,000

Total long-term liabilities		1,323,912		1,801,960
Total liabilities		4,375,440		6,389,312
Stockholders' Equity				
Common stock, $0.01 par value; 750,000,000 shares authorized; 357,171,610 and 323,032,866 shares issued and outstanding respectively		3,571,716		3,230,328
Additional paid-in capital		115,735,402		107,462,007
Accumulated deficit		(114,300,428)		(106,044,054)
Equity attributable to International Isotopes Inc. stockholders		5,006,690		4,648,281
Equity attributable to non-controlling interest		191,572		190,000
Total equity		5,198,262		4,838,281
Total liabilities and stockholders' equity	$	9,573,702	$	11,227,593

See accompanying notes to condensed consolidated financial statements.

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES
Unaudited Condensed Consolidated Statements of Operations

	Three Months ended		Nine Months ended	
	September 30,		September 30	
	2011	2010	2011	2010
Sale of product	$ 2,229,947	$ 1,783,047	$ 7,258,006	$ 4,377,891
Cost of product	1,454,068	1,164,187	4,563,869	2,646,430
Gross profit	775,879	618,860	2,694,137	1,731,461
Operating costs and expenses:				
Salaries and contract labor	1,523,618	415,333	2,669,940	1,383,209
General, administrative and consulting	474,667	355,188	1,375,828	1,205,391
Research and development	1,239,345	1,469,027	4,238,229	3,487,997
Total operating expenses	3,237,630	2,239,548	8,283,997	6,076,597
Net operating loss	(2,461,751)	(1,620,688)	(5,589,860)	(4,345,136)
Other income (expense):				
Other income (expense)	3,181	23,663	6,339	39,726
Equity in net income of affiliate	43,451	-	119,697	-
Interest income	712	865	3,989	2,579
Interest expense	(2,463,326)	(168,225)	(2,794,967)	(433,486)
Total other expense	(2,415,982)	(143,697)	(2,664,942)	(391,181)
Net loss	(4,877,733)	(1,764,385)	(8,254,802)	(4,736,317)
Less income attributable to non-controlling interest	6,557	-	(1,572)	-
Net loss attributable to International Isotopes Inc.	$ (4,871,176)	$ (1,764,385)	$ (8,256,374)	$ (4,736,317)
Net loss per common share - basic and diluted	$ (0.01)	$ (0.01)	$ (0.03)	$ (0.02)
Weighted average common shares outstanding - basic and diluted	335,249,349	293,941,928	327,291,515	293,913,991

See accompanying notes to condensed consolidated financial statements.

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES
Unaudited Condensed Consolidated Statements of Cash Flows

	Nine Months ended September 30,	
	2011	**2010**
Cash flows from operating activities:		
Net loss	$ (8,254,802)	$ (4,736,317)
Adjustments to reconcile net loss to net cash used in operating activities		
Net income in equity method investment	(119,697)	-
Depreciation and amortization	317,326	343,767
(Gain)/Loss on disposal of property, plant and equipment	(5,926)	14,635
Accretion of obligation for lease disposal costs	27,334	25,253
Accretion of beneficial conversion feature	292,863	292,853
Equity based compensation	1,429,839	593,847
Changes in operating assets and liabilities:		
Accounts receivable	(326,489)	15,181
Prepaids and other assets	(37,823)	(30,728)
Inventories	106,567	180,424
Accounts payable and accrued liabilities	3,724,281	578,438
Net cash used in operating activities	(2,846,527)	(2,722,647)
Cash flows from investing activities:		
Restricted certificate of deposit	(420)	(163,090)
Due from related party	87,500	-
Dividends received from equity method investment	52,128	-
Proceeds from sale of property, plant and equipment	21,282	3,800
Purchase of property, plant and equipment	(160,273)	(9,931)
Net cash provided by (used in) investing activities	217	(169,221)
Cash flows from financing activities:		
Proceeds from sale of stock	9,550	17,482
Proceeds from exercise of warrants, net of issuance costs	1,543,750	
Proceeds from issuance of convertible debentures	-	3,075,000
Proceeds from issuance of debt	45,000	-
Principal payments on notes payable and capital leases	(471,707)	(124,724)
Net cash provided by financing activities	1,126,593	2,967,758
Net increase (decrease) in cash and cash equivalents	(1,719,717)	75,890
Cash and cash equivalents at beginning of period	4,237,303	461,091
Cash and cash equivalents at end of period	$ 2,517,586	$ 536,981
Supplemental disclosure of cash flow activities:		

Cash paid for interest	$	59,692	$	58,893
Supplemental disclosure of noncash transactions:				
Increase in equity for the beneficial conversion feature associated with the convertible debentures	$	2,372,143	$	702,857
Increase in equity for the conversion of the convertible debentures of $3,075,000 and accrued interest of $184,500	$	3,259,500	$	-

See accompanying notes to condensed consolidated financial statements.

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES

Notes to Unaudited Condensed Consolidated Financial Statements

September 30, 2011

(1)

The Company and Basis of Presentation

International Isotopes Inc. (the Company) was incorporated in Texas in November 1995. The Company has three wholly owned subsidiaries: International Isotopes Idaho, Inc., a Texas corporation, and International Isotopes Fluorine Products, Inc., and International Isotopes Transportation Services, Inc., both of which are Idaho corporations. The Company also owns a 50% interest in TI Services, LLC, which is headquartered in Ohio.

Nature of Operations The Company s business consists of six major business segments which include: Nuclear Medicine Standards, Cobalt Products, Radiochemical Products, Fluorine Products, Radiological Services and Transportation.

With the exception of certain unique products, the Company s normal operating cycle is considered to be one year. Due to the time required to produce some cobalt products, the Company s operating cycle for those products is considered to be three years. All assets expected to be realized in cash or sold during the normal operating cycle of business are classified as current assets.

Principles of Consolidation The condensed consolidated financial statements include the accounts of the Company, its wholly owned subsidiaries and its 50% owned joint venture, TI Services, LLC. All significant intercompany accounts and transactions have been eliminated in consolidation.

Interim Financial Information The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP) for interim financial information and pursuant to the rules and regulations of the U.S. Securities and Exchange Commission (SEC). Accordingly, they do not include all of the information and notes required by GAAP for

complete financial statements. In the opinion of management, all adjustments and reclassifications considered necessary in order to make the financial statements not misleading and for a fair and comparable presentation have been included and are of a normal recurring nature. Operating results for the three and nine month period ended September 30, 2011, are not necessarily indicative of the results that may be expected for the year ended December 31, 2011. The accompanying financial statements should be read in conjunction with the Company s Annual Report on Form 10-K for the year ended December 31, 2010 filed with the SEC on March 31, 2011.

(2)

Current Developments and Liquidity

Business Condition Since inception, the Company has suffered substantial losses. During the nine-month period ended September 30, 2011, the Company reported a net loss of $8,254,802 and net cash used in operating activities of $2,846,527. During the same period in 2010, the Company reported a net loss of $4,736,317 and net cash used in operating activities of $2,722,647. The Company has made significant investments in, and will continue to invest in, the design, licensing and construction of a large scale uranium de-conversion and fluorine extraction facility. Assuming the Company continues development work on this project at the current schedule, the Company expects that these continued expenses will exceed current revenue from sales by a significant amount for the remainder of 2011 and the next several years as well. As a result, the Company expects to continue to incur significant losses until the planned uranium de-conversion facility commences commercial production, which the Company does not expect to occur until at least the first quarter of 2014. Current expenditures on that project include licensing, design, and related subcontractor project efforts. Management expects to generate sufficient cash flows from the existing business segments to meet operational needs during 2011 and beyond; however, there is no assurance that these cash flows will occur. In addition, the Company will require additional capital to support ongoing efforts for the planned uranium de-conversion and fluorine extraction plant. There can be no assurance that the Company will be able to secure additional capital or financing on terms acceptable to the Company or at all.

The Company s uranium de-conversion project began in 2004 with the acquisition of patents for its Fluorine Extraction Process (FEP). Since that time, the Company has made significant investments to construct the first commercial depleted uranium de-conversion and fluorine extraction facility in the U.S. The Company believes this will provide a commercial opportunity because there are several companies constructing, or planning to construct, new uranium enrichment facilities in the U.S. These facilities are expected to produce large amounts of depleted uranium hexafluoride (UF6) that would require de-conversion prior to disposal. In the process of de-conversion, the Company plans to use FEP to produce high-value, high-purity fluoride gases. Additional design and licensing activities for this new facility will continue throughout the remainder of 2011.

In April 2010, the Company entered into an agreement with URENCO U.S.A. (UUSA), a wholly-owned subsidiary of URENCO, to provide depleted uranium de-conversion services for its enrichment facility located in Eunice, New Mexico. These services will begin once commercial operations of the Company s planned de-conversion facility, to be built in Lea County, near Hobbs, New Mexico, are underway. The term of the agreement extends through the first five years of the Company s operation of the planned uranium de-conversion facility. It will require significant capital and time to design, license, and construct such a uranium de-conversion facility before the Company can recognize revenue under this agreement.

In July 2011, the Company announced the selection of Parsons Corporation as the lead design-build contractor for the planned uranium de-conversion facility. The Company plans to execute a design and build contract with Parsons Corporation if and when it secures additional capital to further support the project.

In August 2011, the Company announced it had completed the acquisition of property for the planned uranium de-conversion facility with Lea County, New Mexico. The property is a 640 acre parcel that was offered to the Company as part of an incentives package prepared by the Economic Development Corporation of Lea County. Pursuant to a project participation agreement and an industrial revenue bond transaction, the property was transferred to the Company in accordance with the Local Economic Development Act of Lea County, New Mexico. Under the project participation agreement, the Company is required to commence construction on the facility no later than December 2014 and to substantially complete Phase 1 of the facility and have hired at least 75 persons by December 2015. If the Company fails to perform either of these obligations, and at the time of such failure has not secured financing for Phase 1 of the facility and expended at least $200,000 in costs of improvement of the property, then the Company must either reconvey the property to Lea County, New Mexico or purchase the property from Lea County in accordance with the project participation agreement. The Company has not recorded the value of this property as an asset and will not until such time that sufficient progress on the project has been made to meet the Company s obligations under the agreements for permanent transfer of the title.

The Company continues to explore the opportunity to raise funds to support the engineering, construction and start-up of the planned uranium de-conversion facility through debt financing and equity offerings over the next year.

(3)

Net Loss Per Common Share - Basic and Diluted

For the three and nine months ended September 30, 2011, the Company had 25,700,000 stock options outstanding, 33,556,783 warrants outstanding, 370,917 restricted stock awards outstanding and 425,000 shares of Series B redeemable convertible preferred stock outstanding that were not included in the computation of diluted loss per common share because they would be anti-dilutive.

For the three and nine months ended September 30, 2010, the Company had 26,700,000 stock options outstanding, 25,940,637 warrants outstanding, 556,374 restricted stock awards outstanding, 425,000 shares of Series B redeemable convertible preferred stock outstanding and 8,998,036 potential shares related to convertible debentures that were not included in the computation of diluted loss per common share because they would be anti-dilutive. The following table shows the amounts used in computing basic and diluted weighted-average number of shares outstanding during the three and nine-month periods ended September 30, 2011 and 2010:

	For the three months ended September 30,		For the nine months ended September 30,	
	2011	2010	2011	2010
Basic weighted-average shares outstanding	335,249,349	293,941,928	327,291,515	293,913,991
Effect of dilutive securities and convertible debt:				
Stock options	n/a	n/a	n/a	n/a
Warrants	n/a	n/a	n/a	n/a
Restricted stock awards	n/a	n/a	n/a	n/a
Convertible preferred stock	n/a	n/a	n/a	n/a
Convertible debentures	n/a	n/a	n/a	n/a
Diluted weighted-average shares outstanding	335,249,349	293,941,928	327,291,515	293,913,991

(4)

Investments

At September 30, 2011, the Company owned a 24.5% interest in RadQual, LLC, with which the Company has an exclusive manufacturing agreement for nuclear medicine products. The remaining 75.5% ownership of RadQual, LLC is concentrated among a small group of investors, and due to this concentration, the Company has historically been unable to exert significant control or influence over the operations or policies of RadQual, LLC. In December 2010, TI Services, LLC was formed. TI Services, LLC is owned 50% by RadQual, LLC and 50% by the Company. It was presumed that this added relationship allowed the Company to exert additional influence with regard to the operations and policies of RadQual, LLC and, accordingly, the Company s investment in RadQual, LLC is now recorded on the equity method at the lower of cost or fair value. The 24.5% ownership of RadQual, LLC has a balance of $1,433,420 and is reported as an asset at September 30, 2011. For the nine months ended September 30, 2011, member distributions from RadQual, LLC totaled $52,129 and were recorded as a reduction of the investment, and for the same period in 2010, member distributions totaled $54,801. During the nine months ended September 30, 2011, earnings allocated to the Company from RadQual, LLC totaled $119,697. These allocated earnings were recorded as equity in net income of affiliate on the Company s condensed consolidated balance sheets.

At September 30, 2011 and 2010, the Company had receivables from RadQual, LLC in the amount of $511,890 and $438,343, respectively, which are recorded as part of accounts receivable. For the nine months ended September 30, 2011 and 2010, the Company had revenues from RadQual, LLC in the amount of $2,799,237 and $2,534,713, respectively, which are recorded as sale of product.

(5)

Inventories

Inventories consisted of the following at September 30, 2011 and December 31, 2010:

	September 30, 2011	December 31, 2010
Raw materials	$ 249,929	$ 260,972
Work in progress	1,216,279	1,388,550
Finished goods	109,065	32,318
	$ 1,575,273	$ 1,681,840

Work in progress includes cobalt-60 which is located in the U.S. federal government s Advanced Test Reactor (ATR) located outside of Idaho Falls, Idaho. The cobalt is at various stages of irradiation with some cobalt near completion and some cobalt requiring several more years to complete. At September 30, 2011 and December 31, 2010, the cobalt had a carrying value of $886,882 and $1,007,056, respectively, which is based on accumulated costs allocated based on the length of time the cobalt remains in the reactor.

(6)

Stockholders Equity, Options and Warrants

Employee Stock Purchase

During the nine months ended September 30, 2011 and 2010, the Company issued 56,183 and 47,539 shares of common stock, respectively, to employees for proceeds of $9,550 and $17,482, respectively. All of these shares were issued in accordance with the Company s employee stock purchase plan.

Stock-based Compensation Plans

Employee/Director Grants - The Company accounts for issuances of stock-based compensation to employees by recognizing, as compensation expense, the cost of employee services received in exchange for the equity instruments. The expense is based on the grant date fair value of the award. Stock option compensation expense is recognized over the period during which an employee is required to provide service in exchange for the award (the vesting period).

Non-Employee Grants - The Company accounts for its issuances of stock-based compensation to non-employees by measuring the value of any awards that were vested and non-forfeitable at their date of issuance based on the grant date fair value of the award. The non-vested portion of awards that are subject to the future performance of the counterparty are adjusted at each reporting date to their fair values based upon the then current market value of the Company s stock and other assumptions that management believes are reasonable.

Option awards outstanding as of September 30, 2011, and changes during the nine months ended September 30, 2011, were as follows:

Fixed Options	Shares	Weighted Average Exercise Price	Weighted Average Remaining Term	Aggregate Intrinsic Value
Outstanding at December 31, 2010	26,700,000	$ 0.16		
Granted	-	-		
Exercised	(1,000,000)	$ 0.08		
Forfeited	-	-		
Outstanding at September 30, 2011	25,700,000	$ 0.17	3.8	$ 1,020,000
Exercisable at September 30, 2011	21,170,000	$ 0.12	3.1	$ 1,020,000

The intrinsic value of outstanding and exercisable shares is based on the closing price of the Company s common stock of $0.10 per share on September 30, 2011.

On April 23, 2011, 552,941 shares of common stock were issued upon the cashless exercise of 1,000,000 options.

As of September 30, 2011, there was approximately $274,402 of unrecognized compensation expense related to stock options that will be recognized over a weighted average period of 1.3 years.

Restricted Stock Grants

Restricted stock awards outstanding as September 30, 2011, and changes during the nine months ended September 30, 2011, were as follows:

Restricted Stock Awards	**Shares**
Non-vested at December 31, 2010	556,374
Granted	-
Vested	(185,457)
Forfeited	-
Non-vested at September 30, 2011	370,917

The value of non-vested stock under the 2006 Equity Incentive Plan at September 30, 2011 was $37,092, based on the closing price of the Company s common stock of $0.10 per share on September 30, 2011. As of September 30, 2011, there was approximately $11,583 of unamortized deferred compensation that will be recognized over a weighted average period of 1.0 years.

Total stock-based compensation expense for the nine-month period ended September 30, 2011 and 2010 was $257,307 and $593,847, respectively.

Warrants

On March 25, 2011, the Company issued Series J Warrants to purchase a total of 13,333,331 shares of the Company s common stock at an exercise price of $0.43 per share. The Series J Warrants expired on September 25, 2011. The Series J Warrants were offered to the holders of the Series E Warrants that expired on March 20, 2011. The Company recognized compensation expense of $105,000 resulting from the valuation of the Series J Warrants. The fair value of the warrants, determined using the Black-Scholes Option Pricing Model, was calculated using the following assumptions: risk free interest rate of .4%, expected dividend yield of 0%, expected volatility of 111%, and an expected life of 184 days.

On August 24, 2011, in connection with the maturity of certain convertible debentures, the Company issued Series H Warrants to purchase a total of 9,054,175 shares of the Company's common stock. The Series H Warrants expire on August 24, 2015 and carry an exercise price of $0.22. The Series H Warrants were offered to the holders of the convertible debentures. The convertible debentures were convertible into one share of common stock and one Warrant at the conversion price of $0.18 per share. The Company recognized compensation expense of $591,238 resulting from the valuation of the Series Warrants. The fair value of the Series H Warrants, determined using the Black-Scholes Option Pricing Model, was calculated using the following assumptions: risk free interest rate of 1.05%, expected dividend yield of 0%, expected volatility of 83%, and an expected life of 1,825 days.

On September 8, 2011, in an effort to raise capital to support its ongoing planned uranium de-conversion project, the Company authorized an offer to its current warrant holders to encourage them to exercise outstanding warrants. The offer allowed holders of the Company s outstanding warrants to purchase the Company s common stock at a discounted warrant exercise price of $0.10 per share until close of business on September 30, 2011. The Company discounted the exercise price of (i) its Class F Warrants, which were issued on November 7, 2008, from $0.30 to $0.10, (ii) its Class G Warrants, which were issued on September 8, 2009 from $0.36 to $0.10, (iii) its Class H Warrants, which were issued August 24, 2011, from $0.22 to $0.10, (iv) its Class I Warrants, which were issued on October 29, 2010, from $0.40 to $0.10 and (v) its Class J Warrants, which were issued on March 25, 2011, from $0.43 to $0.10 per share. In addition, on September 8, 2011, in order to give certain warrant holders sufficient time to exercise their warrants in accordance with the offer described above, the Company authorized the extension of the expiration date of its Class G Warrants from September 18, 2011 to September 30, 2011 and its Class J Warrants from September 25, 2011 to September 30, 2011. As a result of this offer, 15,437,501 warrants were exercised and the Company issued 15,437,501 shares of its common stock for proceeds of $1,543,750. The Company recognized compensation expense of $476,294 resulting from the valuation of the warrants involved in the offer. The fair value of the warrants, determined using the Black-Scholes Option Pricing Model, was calculated using the following assumptions: risk free interest rate of .01%, expected dividend yield of 0%, expected volatility of 87%, and an expected life of 17 to 22 days.

Warrants outstanding at September 30, 2011 and changes during the nine months ended September 30, 2011 were as follows:

Warrants	
Outstanding at December 31, 2010	56,552,970
Issued	9,054,174
Exercised	(15,437,501)
Forfeited	(16,612,860)
Outstanding at September 30, 2011	33,556,783

(7)

Notes Payable and Convertible Debentures

Notes Payable

On June 28, 2011, the Company entered into an agreement with a related party to obtain financing for certain equipment. The amount financed is $45,000 and includes a security interest in the equipment financed. The note accrues interest at 8.5% per annum, resulting in a monthly payment of $3,925, with the note maturing on June 28, 2012. This note is included in notes payable on the Company s condensed consolidated balance sheets. The Company also carries an unsecured note payable totaling $500,000 which is payable to the former Chairman of the Board. The loan requires annual interest payments on the principal balance at 7% per year, payable each April 1st, and the note matures on April 1, 2012

In June 2011, the Company was notified by Compass Bank that the note payable, which matured April 20, 2011, would not be renewed. In June 2011, a sixty-day extension was granted by the bank and the loan balance of $366,788 was paid in full in August 2011.

Convertible Debentures

On August 24, 2011, the maturity date of the convertible debentures pursuant to the terms of the Securities Purchase Agreement, the Company automatically converted the debentures into common stock and Class H warrants. The Securities Purchase Agreement required one Class H warrant to be issued for every two shares of common stock. A total of 18,108,340 shares of common stock and 9,054,175 Class H warrants were issued. The debentures were converted at the lesser of the average stock price for the prior 120 consecutive trading days or $0.18 per share. The Class H Warrants issued at the time of conversion have an exercise price of $0.22 and expire August 24, 2015.

(8)

Commitments and Contingencies

Leases

On May 1, 2011, the Company entered into two new lease agreements on its facilities located in Idaho Falls, Idaho. The new lease for the main facility at 4137 Commerce Circle, Idaho Falls, Idaho, is for a period of ten years and includes an option to extend the term of the lease for an additional five years. The monthly rental payment under the terms of this lease is $11,359. The new lease for the FEP facility at 1359 Commerce Way, Idaho Falls, Idaho, is for a period of one year and includes an option to extend for an additional five years. The monthly rental payment under the terms of this lease is $4,717.

Dependence on Third Parties

The production of cobalt is dependent upon the U.S. Department of Energy (DOE) and its prime operating contractor, which controls ATR operations and, therefore, controls the continued production of cobalt in the government funded ATR. Previously, the Company s agreement with the prime operating contractor had been on a reactor cycle-by-cycle contract basis. In July 2010, the Company entered into a three-year Work For Others (WFO) agreement with the DOE prime operating contractor to continue cobalt production and cask handling. In January 2011, the Company was

informed that the DOE intended to transfer the existing WFO agreement to the National Isotope Development Center (NIDC). Negotiations have been underway since that time between the Company and NIDC on contract terms and costs for cobalt production services. While the Company believes it will be able to complete these contract negotiations with NIDC under reasonable contract pricing terms, there is the possibility that the new contract costs imposed by NIDC will make it prohibitive to continue cobalt production in the DOE reactor. Should that happen the Company would be forced to terminate cobalt production in the DOE reactor and attempt to locate an alternate source of supply of cobalt-60 from outside the U.S. In addition to the continued contract issues with NIDC, the Company s continued access to the ATR for cobalt production, remains subject to approval by the prime operating contractor based upon the priorities of its experiments program.

Nuclear Medicine Reference and Calibration Standard manufacturing is conducted under an exclusive contract with RadQual, LLC, which in turn has an agreement in place with several companies for distributing the products. The contract states that the Company will manufacture these products exclusively for RadQual, LLC, will not manufacture any products that would directly compete with RadQual, LLC, and that the Company holds the right of first refusal to contract manufacture products that RadQual, LLC wishes to supply to its customers. The current contract with RadQual, LLC was originally executed in January 2006, and automatically renews for additional one-year terms unless terminated in writing by either party 90 days prior to the end of the current term. A discontinuation of the Company s relationship with RadQual, LLC could adversely affect operating results by causing a possible loss of sales.

The majority of the sales in the radiochemicals business segment are attributed to sales of radiochemical iodine. The iodine is purchased by the Company through a sole supply agreement with NTP Radioisotopes (Pty) Ltd. of South Africa. The supply agreement extends through August 2013, and includes annual provisions for price adjustment. The termination of this relationship with NTP Radioisotopes could adversely affect operating results by causing a delay in production or a possible loss of sales in this segment. The processing of iodine is also subject to inspection and the regulatory authority of the U.S. Food and Drug Administration (FDA). The FDA has inspected the Company s facility and determined that the Company s handling of iodine is considered by the FDA as manufacturing of a drug product. The Company is implementing improvements in its Quality Assurance methods and controls to meet the FDA requirements resulting from this determination. However, these regulatory issues could impact the Company s business decision to continue future iodine production.

The Company s gemstone production is tied to an exclusive agreement with Quali-Tech, Inc., and future gemstone irradiation services are dependent upon the continuation of that agreement. Should this agreement terminate, sales in the Company s Radiological Services would be negatively impacted because the agreement prohibits it from processing gemstones for other customers for two years after the agreement terminates.

Contingencies

Because all of the Company s business segments involve radioactive material, the Company is required to have an operating license from the Nuclear Regulatory Commission (NRC) and specially trained staff to handle these materials. The Company has an NRC operating license and has amended this license several times to increase the amount of material permitted within its facility. Additional processing capabilities and license amendments could be implemented that would permit processing of other reactor produced radioisotopes by the Company. Should this occur, the current license does not restrict the volume of business operation performed or projected to be performed in the coming year. An irrevocable, automatically renewable letter of credit against a Certificate of Deposit at Wells Fargo Bank has been used to provide the financial assurance required by the NRC for the operating license.

(9)

Subsequent Events

On October 19, 2011, the Company issued 31,140 shares of common stock to employees for proceeds of $2,647.

(10)

Segment Information

The Company has six reportable segments which include; Nuclear Medicine Standards, Cobalt Products, Radiochemical Products, Fluorine Products, Radiological Services, and Transportation. Information regarding the operations and assets of these reportable business segments is contained in the following table:

	Three months ended September 30,		Nine months ended September 30,	
Sale of Product	2011	2010	2011	2010
Radiochemical Products	$ 480,562	$ 446,533	$ 1,397,763	$ 1,295,193
Cobalt Products	401,745	832,858	1,635,989	1,479,120
Nuclear Medicine Standards	1,246,417	459,769	3,825,973	1,376,807
Radiological Services	55,523	21,421	189,773	126,955
Fluorine Products	-	-	-	-
Transportation	45,700	22,466	208,508	99,816
Total Segments	2,229,947	1,783,047	7,258,006	4,377,891
Corporate revenue	-	-	-	-
Total Consolidated	$ 2,229,947	$ 1,783,047	$ 7,258,006	$ 4,377,891

	Three months ended September 30,		Nine months ended September 30,	
Depreciation and Amortization	2011	2010	2011	2010
Radiochemical Products	$ 9,153	$ 9,154	$ 27,461	$ 27,953
Cobalt Products	27,549	27,452	82,318	82,690
Nuclear Medicine Standards	4,760	1,278	10,714	3,833
Radiological Services	2,599	2,600	7,799	7,799
Fluorine Products	48,486	50,402	136,532	157,278
Transportation	3,396	6,806	10,413	23,330
Total Segments	95,942	97,691	275,236	302,882
Corporate depreciation and amortization	8,158	14,964	42,090	40,884
Total Consolidated	$ 104,100	$ 112,655	$ 317,326	$ 343,766

Segment Income (Loss)	Three months ended September 30, 2011	Three months ended September 30, 2010	Nine months ended September 30, 2011	Nine months ended September 30, 2010
Radiochemical Products	$ 34,490	$ 29,134	$ 124,344	$ 106,684
Cobalt Products	158,471	278,588	782,050	541,931
Nuclear Medicine Standards	175,677	178,413	575,641	575,016
Radiological Services	33,413	(5,801)	116,973	29,626
Fluorine Products	(3,571,230)	(1,614,943)	(6,863,889)	(3,847,873)
Transportation	(7,715)	(44,200)	15,750	(95,173)
Total Segments	(3,176,893)	(1,178,810)	(5,249,130)	(2,689,788)
Corporate loss	(1,692,711)	(585,575)	(3,005,672)	(2,046,527)
Net Loss	$ (4,869,604)	$ (1,764,385)	$ (8,254,802)	$ (4,736,315)

Expenditures for Segment Assets	Three months ended September 30, 2011	Three months ended September 30, 2010	Nine months ended September 30, 2011	Nine months ended September 30, 2010
Radiochemical Products	$ -	$ -	$ -	$ -
Cobalt Products	1,228	-	3,193	-
Nuclear Medicine Standards	3,084	-	86,149	-
Radiological Services	-	-	-	-
Fluorine Products	3,399	2,725	40,560	9,931
Transportation	-	-	18,047	-
Total Segments	7,711	2,725	147,949	9,931
Corporate purchases	2,493	-	12,324	-
Total Consolidated	$ 10,204	$ 2,725	$ 160,193	$ 9,931

Segment Assets	September 30, 2011	December 31, 2010
Radiochemical Products	$ 227,739	$ 269,673
Cobalt Products	1,893,938	1,931,262
Nuclear Medicine Standards	586,563	732,790

Radiological Services		22,592		45,677
Fluorine Products		1,589,195		1,691,917
Transportation		42,506		60,227
Total Segments		4,362,533		4,731,546
Corporate assets		5,211,169		6,496,047
Total Consolidated	$	9,573,702	$	11,227,593

ITEM 2.

MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Quarterly Report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and within the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical fact, including statements regarding industry prospects and future results of operations or financial position, made in this Quarterly Report are forward-looking. In particular, statements regarding growth in our business segments; progress on our depleted uranium de-conversion and fluorine extraction processing facility; potential future sales of fluoride products; the potential market for de-conversion services; increased cash flow to meet operational needs; improvement in our financial strength, debt ratio and attractiveness to investors and lenders; future liquidity requirements; NRC licensing requirements; and the consequences of the loss of any of our major customers or suppliers are forward-looking. Forward-looking statements reflect management s current expectations, plans or projections. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this report. Certain risks and uncertainties that could cause our actual results to differ significantly from management s expectations are described in the risk factors set forth in our Annual Report on Form 10-K for the fiscal year ended December 31, 2010 filed with the Securities and Exchange Commission (SEC) on March 31, 2011 and our Quarterly Report on form 10-Q for the quarter ended June 30, 2011 filed with the SEC on August 10, 2011. These factors, describe some but not all of the factors that could cause actual results to differ significantly from management s expectations. We will not publicly release any revisions to these forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events. Readers are urged, however, to review the factors set forth in reports that we file from time to time with the SEC.

RESULTS OF OPERATIONS

Three months ended September 30, 2011 compared to three months ended September 30, 2010

Revenues for the three-month period ended September 30, 2011 were $2,229,947, as compared to $1,783,047 for the same period in 2010, an overall increase of $446,900, or approximately 25%. All business segments reported increases in revenues for the period with the exception of the Cobalt Products segment which reported a decrease in revenue of $431,113. This reported decrease is due to the fact that there were no bulk cobalt sales for the three months ended September 30, 2011 whereas we reported $551,728 in bulk cobalt sales for this same period in 2010. In December 2010, we entered into a 50/50 joint venture with RadQual, LLC and formed TI Services, LLC. Revenues generated by TI Services, LLC during the three months ended September 30, 2011are reported on a consolidated basis in our nuclear medicine business segment and total revenue generated by TI Services, LLC for this period was

$716,728.

We recorded no bulk cobalt sales for the three-month period ended September 30, 2011 and $551,728 in bulk cobalt sales during the same period in 2010. Fluctuations in bulk cobalt sales can create large variations in period-to-period revenue comparisons. The following table presents a period-to-period comparison of total revenue by segment, as well as a period-to-period comparison of total revenue by segment excluding bulk cobalt sales. Management believes that a comparison of total revenue excluding bulk cobalt sales provides meaningful information to investors because of the large period-to-period fluctuations in bulk cobalt sales. However, this information has limitations as an analytical tool and you should not consider it in isolation or as a substitute for total revenue. Further discussion of the performance of each business segment is described more fully in the following paragraphs.

Sale of Product	**For the three months ended September 30, 2011**	**% of Total Sales 2011**	**For the three months ended September 30, 2010**	**% of Total Sales 2010**
Radiochemical Products	$ 480,562	22%	$ 446,533	25%
Cobalt Products **(including bulk cobalt sales)**	401,745	18%	832,858	47%
Nuclear Medicine Standards	1,246,418	56%	459,769	26%
Radiological Services	55,523	2%	21,421	1%
Fluorine Products	-	0%	-	0%
Transportation	45,700	2%	22,466	1%
Corporate revenue	-	0%	-	0%
Total Segments	$ 2,229,947	100%	$ 1,783,047	100%
Radiochemical Products	$ 480,562	22%	$ 446,533	36%
Cobalt Products **(excluding bulk cobalt sales)**	401,745	18%	281,130	23%
Nuclear Medicine Standards	1,246,418	56%	459,769	37%
Radiological Services	55,523	2%	21,421	2%
Fluorine Products	-	0%	-	0%
Transportation	45,700	2%	22,466	2%
Corporate revenue	-	0%	-	0%
Total Segments	$ 2,229,947	100%	$ 1,231,319	100%

Gross profit for the three-month period ended September 30, 2011 was $775,879, compared to $618,860 for the same period in 2010. This represents an increase of $157,019, or approximately 25%. Cost of sales increased to $1,454,068 for the three-month period ended September 30, 2011 from $1,164,187 for the same period in 2010. Cost of sales for the period ended September 30, 2011 includes $551,515 of cost of sales for TI Services, LLC, whereas there was no such expense reported for the same period in 2010. The overall increase of $289,881 is due to consolidated reporting of TI Services, LLC s cost of sales along with a total combined decrease of all other business segment s cost of sales. The gross profit percentage for the three months ended September 30, 2011 was 35% which is unchanged from the same period in 2010.

Gross profit for the three-month period ended September 30, 2011 also includes TI Services, LLC revenue in the amount of $723,611. TI Services, LLC s activity was first reported on a consolidated basis with all other business segments in 2011, therefore, there are no corresponding sales or cost of sales to report for TI Services, LLC in 2010.

The following table presents gross profit data for each of our business segments for the three months ended September 30, 2011 and 2010.

Sale of Product	For the three months ended September 30, 2011	For the three months ended September 30, 2010	$ change	% change
Radiochemical Products	$ 480,562	$ 446,533	34,029	7.62%
Cobalt Products	401,745	832,858	(431,113)	-51.76%
Nuclear Medicine Standards	529,690	459,769	69,921	15.21%
TI Services LLC	716,728	-	716,728	-
Radiological Services	55,523	21,421	34,102	159.20%
Fluorine Products	-	-	-	-
Transportation	45,700	22,466	23,234	103.42%
Total Segments	2,229,947	1,783,047	446,900	25.06%
Corporate revenue	-	-	-	-
Total Consolidated	$ 2,229,947	$ 1,783,047	446,900	25.06%
Cost of Sales	$ 1,454,068	$ 1,164,187	289,881	24.90%
Gross Profit	$ 775,879	$ 618,860	157,019	25.37%
	35%	35%		

Operating expenses increased to $3,237,630 for the three-month period ended September 30, 2011 from $2,239,548 for the same period in 2010. Operating expense for the three-month period includes $171,771 of operating expense attributable to TI Services, LLC. This overall increase from period-to-period represents an increase of $998,082, or approximately 45%.

The following table shows a comparison of total operating expenses for the three-months ended September 30, 2011 and 2010:

	For the three months ended September 30, 2011	For the three months ended September 30, 2010	% change	$ change
Operating Costs and Expenses:				

Salaries and Contract Labor	$	1,523,618	$	415,333	267%	$ 1,108,285
General, Administrative and Consulting		474,667		355,188	34%	119,479
Research and Development		1,239,345		1,469,027	-16%	(229,682)
Total operating expenses	$	3,237,630	$	2,239,548	45%	$ 998,082

As illustrated in the above table, the increase in operating costs and expenses is primarily attributable to the increase in salaries and contract labor expense. This significant increase of approximately 267% is largely the result of recording non-cash equity-based compensation expense. For the three-month period ended September 30, 2011, we recorded $1,127,990 of non-cash equity-based compensation expense related to outstanding stock options, the issuance of Class H Warrants, and a modification in the terms in all outstanding warrants in connection with a discounted warrant exercise offering made by us. Salaries and contract labor for the three-month period ended September 30, 2011 also included $90,525 of TI Services, LLC salary and wage expense. Research and development costs decreased by $229,682, or approximately 16%. This decrease is the result of economizing on funds spent on licensing and engineering design work being done for the planned uranium de-conversion facility.

General administrative costs increased by $119,479, or approximately 34%, to $474,667 for the three months ended September 30, 2011, compared to $355,188 for the same period in 2010. General administrative expense attributable to TI Services, LLC totaled approximately $85,000 for the three-month period ended September 30, 2011 and accounted for a significant amount of this increase. Research and development costs decreased by $229,682, or approximately 16%, for the three months ended September 30, 2011, compared to same period in 2010. The decrease in research and development expense was entirely attributable to the decrease in research and development expense related to the planning and licensing activities with regard to the planned uranium de-conversion facility. We are incurring these costs only as funds are available, and with current market conditions and the limited availability of funding, we have scaled back on some aspects of this project. Our net loss for the three-month period ended September 30, 2011 was $4,869,604, compared to $1,764,385 for the same period in 2010. This is an increase in loss of $3,105,219, or approximately 176%, and is attributable to reporting non-cash equity-based compensation expense and $2,372,143 in non-cash expense related to the maturity of convertible debentures which were converted in October 2011. The debentures were converted at a per share price of $0.18 which was less than market value per share at the date the agreement was entered into in February 2010, and thus presented a beneficial conversion feature to holders of the debentures. The value of this beneficial feature was recorded as additional interest expense at the time of conversion.

Interest expense for the three-month period ended September 30, 2011 was $2,463,326, compared to $168,225 for the same period in 2010. The increase of $2,295,101 is attributable to the $2,372,143 of interest expense recorded upon the maturity of the convertible debentures which matured during the three-month period ended September 30, 2011. As discussed above, the convertible debentures were issued in February 2010 to various institutional and private investors and contained a beneficial conversion feature. Accordingly, we recorded this feature as a contra-liability and simultaneously accreted the beneficial portion of the convertible debenture to interest expense over the 18-month life of the convertible debentures and recorded the final interest amount upon maturity in August 2011.

Radiochemical Products. Revenues from the sale of radiochemical products for the three-month period ended September 30, 2011 were $480,562, compared to $446,533 for the same period in 2010. This represents an increase in revenue of $34,029, or approximately 8%. Although competitive market conditions persist, we believe that our marketing efforts, commitment to high-quality customer service, our pricing structure and our recent ISO certification have strengthened our competitive position in the market. Gross profit of radiochemical products for the three months ended September 30, 2011 was $78,144, compared to $64,415 for the same period in 2010. Gross profit percentages were approximately 15% and 14% for the three-month periods ended September 30, 2011 and 2010, respectively. This slight increase in gross profit is attributable to the marketing efforts mentioned above, and to lower freight prices which were renegotiated during the first quarter of 2011. Operating expense for this segment for the three-month period ended September 30, 2011 was $44,654, compared to $35,281 for the same period in 2010. This increase of $9,373, or approximately 27%, is attributable to labor, training and software costs associated with U.S. Food and Drug Administration (FDA) compliance work performed during the period. Net income for this segment increased for the three-month period ended September 30, 2011 to $34,490 from $29,134 for the same period in 2010, an increase of $5,356, or approximately 19%.

The processing of iodine is subject to inspection and the regulatory authority of the FDA. The FDA has inspected our facility and determined that our handling of iodine is considered by the FDA a manufacturing process. We are implementing improvements in our Quality Assurance methods and controls to meet these FDA requirements. In addition, FDA compliance may require us to incur further regulatory fees and issues that could impact our business decision to continue future iodine production.

Cobalt Products. Revenues from the sale of cobalt products for the three-month period ended September 30, 2011 were $401,745, compared to $832,858 for the same period in 2010. This represents a decrease in revenue of $431,113, or approximately 52%. We recorded no bulk cobalt sales for the three-month period ended September 30, 2011 and there were $551,728 in cobalt sales recorded during the same period in 2010. The decrease in segment revenue is the result of the timing of large bulk cobalt product sales which have a dramatic effect on period-to-period comparisons, as illustrated in the table below. We believe that a period-to-period comparison excluding bulk cobalt sales offers a more useful comparison for the shareholder. However, this information has limitations as an analytical tool and you should not consider it in isolation or as a substitute for total revenue. Excluding bulk cobalt sales, total cobalt product sales for the three-month period ended September 30, 2011 increased $120,614, or approximately 43%, compared to the same period in 2010. This increase in revenue can be attributed to increases in both sealed source and other cobalt product sales during the three-months ended September 30, 2011, compared to the same period in 2010. The following table presents cobalt products sales for the three months ended September 30, 2011 and 2010:

Cobalt Products	For the three month period ended September 30, 2011	For the three month period ended September 30, 2010	% change	$ Change
HSA Cobalt Sales (bulk cobalt)	$ -	$ 551,728	-100%	$ (551,728)
Sealed Source Manufacturing	347,745	261,530	33%	86,215
Other Cobalt Product Sales	54,000	19,600	176%	34,400
	$ 401,745	$ 832,858	-52%	$ (431,113)

Gross profit for the three months ended September 30, 2011 was $226,426, compared to $341,708 for the same period in 2010. The decrease is due to reporting no bulk cobalt sales during the three months ended September 30, 2011 while reporting $551,728 in bulk cobalt sales for the same period in 2010. Exclusive of bulk cobalt sales, the gross profit for the period ended September 30, 2011 was $226,426 as compared to $91,053 for the same period in 2010.

Operating expense in this segment increased by $4,834, or approximately 8%, for the three-month period ended September 30, 2011, as compared to the same period in 2010, and was attributable to increased spending in production supplies. Net income for cobalt products was $158,471 for the three-month period ended September 30, 2011, as compared to $278,588 for the same period in 2010. The decrease in net income of $120,117, or approximately 43%, is attributable to period-to-period differences in bulk cobalt sales as well as decreased cost of sales and increased operating expense. We anticipate strong sales in this segment for the remainder of 2011 based on current customer commitments for sealed source sales, as well as our contractual commitments for bulk cobalt sales. We have also received certification under both ISO-9001 and ISO-13485 standards for the manufacture and design of certain cobalt-60 products. The ISO certifications are important to our plans for continued expansion of sales of several products into international markets. We anticipate that these certifications will strengthen our teletherapy source sales internationally as well as benefit our customers in terms of the quality of our products.

We have a contract with one customer, GE-Hitachi, for 100% of our bulk cobalt sales. This contract was renewed in April 2010 and carries a term of four years. The contract states a minimum purchase of material each year (yearly periods are each April 1 March 31), and any shortages in annual purchases will be invoiced to GE Hitachi. Under this contract, we expect to have a minimum of $2,656,000 in bulk cobalt sales over the four-year period.

The production of cobalt, which we use in both bulk cobalt sales and sealed source sales, is dependent on the U.S. Department of Energy and its prime-operating contractor, which manages the U.S. government s Advanced Test Reactor in Idaho Falls, Idaho. Loss of the ability to use these irradiation services would significantly impact our cobalt products business segment because there is not currently another reactor available in the U.S. that is capable of providing this type of service for us. Previously, our agreement with the prime-operating contractor had been on a reactor cycle-by-cycle contract basis, but in July 2010, we entered into a three-year Work For Others agreement with the DOE s prime operating contractor to continue cobalt production and cask handling. In January 2011, we were informed that the DOE intended to transfer the existing WFO agreement to the National Isotope Development Center (NIDC). Negotiations have been underway since that time between us and NIDC on contract terms and costs for cobalt production services. While we believe we will be able to complete these contract negotiations with NIDC under reasonable contract pricing terms, there is the possibility, however, that the new contract costs imposed by NIDC will make it prohibitive to continue cobalt production in the Advanced Test Reactor. Should that happen we would be forced to terminate cobalt production in the Advanced Test Reactor and attempt to locate an alternate source of supply of cobalt-60 from outside the U.S. A termination of our cobalt production business would have a material adverse effect on the financial results and our operations. In addition to the continued contract issues with NIDC, our continued access to the Advanced Test Reactor for cobalt production remains subject to approval by the prime operating contractor of the reactor based upon the priorities of its experiments program.

Nuclear Medicine Standards. Revenues from nuclear medicine products for the three-month period ended September 30, 2011 were $1,246,418, compared to $459,769 for the same period in 2010. This represents an increase in revenue attributable to this segment of $786,649, or approximately 171%. In December 2010, we formed a 50/50 joint venture, TI Services, LLC, with RadQual, LLC, to distribute products and services for nuclear medicine, nuclear cardiology and Positron Emission Tomography (PET) imaging. For the three-month period ended September 30, 2011, revenues from this joint venture totaled $716,728. The following table presents total sales for this segment for the three months ended September 30, 2011 and 2010.

Nuclear Medicine Standards Sales	**For the three months ended September 30, 2011**	**For the three months ended September 30, 2010**	**% change**
Flood Source Sales	$ 447,230	$ 374,025	20%
Miscellaneous Source Sales	82,460	85,744	-4%
TI Services LLC	716,728	-	-
	$ 1,246,418	$ 459,769	171%

Gross profit for the three-month period ended September 30, 2011 was $390,295, as compared to $208,231 for the same period in 2010, an increase of $182,064, or approximately 87%. Because we started reporting our investment in TI Services, LLC on a consolidated basis in 2011, gross profit for the three months ended September 30, 2011 includes $551,515 of cost of sales attributable to TI Services, LLC with no corresponding expense for the same period in 2010. The following table presents cost of sales for this segment for the three months ended September 30, 2011 and 2010:

Nuclear Medicine Standards	**For the three months ended September 30, 2011**	**For the three months ended September 30, 2010**	**% change**
Cost of Sales			
Flood Sources	$ 255,904	$ 210,080	22%
Miscellaneous Sources	48,704	41,458	17%
TI Services LLC	551,515	-	-
	$ 856,123	$ 251,538	240%

Operating expense for this segment for the three-month period ended September 30, 2011 increased to $214,617, from $29,818 for the same period in 2010, an increase of $184,799. Operating expense for the three months ended September 30, 2011 includes $171,771 of expense for TI Services, LLC, whereas there was no such expense to report for the same period in 2010. The increase in operating expenses was primarily due to the inclusion of TI Services, LLC expense and an increase in training and software costs associated with FDA compliance work performed during the period. Net income for this segment decreased $2,735, or approximately 2%, to $175,678 for the three-month period ended September 30, 2011, compared $175,413 for the same period in 2010. Net loss generated by TI Services, LLC for this time period was $6,558. We will continue to expand this line of business through our new joint venture, TI Services, LLC, which we anticipate will result in increased sales and profitability. In addition, we have received certification under both ISO-9001 and ISO-13485 standards for the manufacture and design of certain nuclear medicine products which will permit expansion of product sales internationally. ISO certification also improves our capabilities and value as a contract manufacturer of nuclear medicine products for RadQual, LLC.

Radiological Services. Revenues from radiological services for the three-month period ended September 30, 2011 were $55,523, compared to $21,421 for the same period in 2010, an increase of $34,101, or approximately 159%. Revenue in this segment is generated by gem stone processing and radiological service consulting work which is performed in conjunction with sealed source sales and expended source disposal services. Gem stone processing sales in this segment increased by $32,427, or approximately 153%. Gross profit for this segment for the three-month period ended September 30, 2011 was $38,988, compared to $2,263 for the same period in 2010. Operating expense for the three months ended September 30, 2011 was $5,575, as compared to $8,064 for the same period in 2010. This is a decrease of $2,489, or approximately 31%, and is the result of overall cost control with regard to operations. Net income for the three-month period ended September 30, 2011 was $33,413, as compared to a $5,801 net loss for the same period in 2010. Historically, most of our radiological services have been performed in support of gemstone processing for Quali-Tech, Inc. There are very few companies in the U.S. that possess the mix of qualifications and licensing necessary to provide this type of gemstone related service, and although the volume of gemstones to be processed has not been at historical levels we have experienced increased demand for this type of service during the past three-month period and anticipate that demand for these services will continue to improve as overall market and economic conditions improve.

Fluorine Products. There were no revenues to report from the fluorine products segment for the three-month period ended September 30, 2011 or for the same period in 2010. We are developing our fluorine products in conjunction with planned uranium de-conversion facility in order to take advantage of the anticipated need for depleted uranium de-conversion services. Our Fluorine Extraction Process (FEP) patents provide a unique opportunity to provide certain high-purity fluoride compounds while also offering a for fee de-conversion service to the uranium enrichment industry. During the three-month period ended September 30, 2011, we incurred approximately $1,309,000 of planning, licensing, and other expense as compared to approximately $1,615,000 in 2010. This is a decrease of approximately of $306,000, or approximately 19%. During the remainder of 2011, we will continue to use our existing FEP facility in Idaho for testing individual components and analytical processes required for the planned uranium de-conversion facility in New Mexico as funding for the project permits. We do not anticipate any revenues from sales of fluoride products in 2011.

Transportation Services. This segment was established to provide for transportation of our products (such as cobalt sources) and to offer for hire transportation services of hazardous and non-hazardous cargo materials. This business segment provides us with considerable savings for the transportation of our products and produces a small revenue stream by providing transportation of products for other companies. The transportation services segment will also provide some of the transportation services for the planned uranium de-conversion facility. Revenues from transportation services for the three-month period ended September 30, 2011 were $45,700, compared to $22,466 for the same period in 2010. This is an increase of $23,234, or approximately 103%. This increase in revenue is the result of greater utilization of our transportation services segment for the transport of our cobalt products including sealed source products and expended source disposal. Gross profit was $41,023 for the three-month period ended September 30, 2011, compared to $2,243 for the same period in 2010. Operating expense was $48,738 for the three-month period ended September 30, 2011, compared to $46,443 for the same period in 2010. This represents an increase of $2,295, or approximately 5%, and is largely the result of increased labor costs due to increased transportation services provided to our cobalt products segment. For the three-month period ended September 30, 2011, net loss for this segment was $7,715, compared to a net loss of $44,200 for the same period in 2010.

Nine months ended September 30, 2011 compared to nine months ended September 30, 2010

Revenues for the nine-month period ended September 30, 2011 were $7,258,006, as compared to $4,377,891 for the same period in 2010, an increase of $2,880,115, or approximately 66%. In December 2010, we entered into a 50/50 joint venture with RadQual, LLC and formed TI Services, LLC. Total revenue generated by TI Services, LLC for the nine months ended September 30, 2011 was $2,272,096 and is being reported on a consolidated basis with the Nuclear Medicine Standards business segment revenue. We recorded $502,533 of bulk cobalt sales for the nine-month period ended September 30, 2011, and recorded $551,728 in bulk cobalt sales during the same period in 2010. Because each bulk cobalt sale represents a material dollar amount, we believe that a comparison of total revenue excluding bulk cobalt sales provides meaningful information to investors. However, this information has limitations as an analytical tool and it should not be considered in isolation or as a substitute for total revenue.

The following table presents a period-to-period comparison of total revenue by segment, as well as a period-to-period comparison of total revenue by segment excluding bulk cobalt sales, for the nine months ended September 30, 2011 and 2010.

Sale of Product	**For the nine months ended September 30, 2011**	**% of Total Sales 2011**	**For the nine months ended September 30, 2010**	**% of Total Sales 2010**
Radiochemical Products	$ 1,397,763	19%	$ 1,295,193	30%
Cobalt Products **(including bulk cobalt sales)**	1,635,989	23%	1,479,120	34%
Nuclear Medicine Standards	3,825,973	53%	1,376,807	31%
Radiological Services	189,773	3%	126,955	3%
Fluorine Products	-	0%	-	0%
Transportation	208,508	3%	99,816	2%
Corporate revenue	-	0%	-	0%
Total Segments	$ 7,258,006	100%	$ 4,377,891	100%
Radiochemical Products	$ 1,397,763	21%	$ 1,295,193	34%
Cobalt Products **(excluding bulk cobalt sales)**	1,133,456	17%	927,392	24%
Nuclear Medicine Standards	3,825,973	57%	1,376,807	36%
Radiological Services	189,773	3%	126,955	3%
Fluorine Products	-	0%	-	0%
Transportation	208,508	3%	99,816	3%
Corporate revenue	-	0%	-	0%

Total Segments	$	6,755,473	100%	$	3,826,163	100%

Gross profit for the nine-month period ended September 30, 2011 was $2,694,137, compared to $1,731,461, for the same period in 2010. This represents an increase of $962,676, or approximately 56%. Gross profit for the nine-month period ended September 30, 2011 includes TI Services, LLC revenues in the amount of $2,272,096 and TI Services, LLC cost of sales in the amount of $1,786,246. The first year of reporting TI Services, LLC activity on a consolidated basis with all other business segments was 2011, therefore, there are no corresponding sales or cost of sales to report for TI Services, LLC in 2010.

Operating expenses were $8,283,997 for the nine-month period ended September 30, 2011, compared to $6,076,597 for the same period in 2010. This represents an increase of $2,207,400, or approximately 36%. This increase is attributable to the significant amount of non-cash equity-based compensation in the amount of $1,429,839 recorded during the nine-month period ended September 30, 2011, as compared to the same period in 2010, in which we reported non-cash equity-based compensation in the amount of $593,847. This expense is based on the valuation of outstanding stock options, the issuance of Class H Warrants, and a modification in the terms of all outstanding warrants in connection with a discounted warrant exercise offering made by us in September 2011. Research and development costs generated by work related to the continued planning and licensing of the uranium de-conversion facility increased by $750,232 for the nine-month period ended September 30, 2011 to $4,238,229, as compared to $3,487,997 for the same period in 2010. The following table shows a year to year comparison of total operating expenses for the nine-month periods ended September 30, 2011 and 2010:

	For the nine months ended September 30, 2011	**For the nine months ended September 30, 2010**	**% change**	**$ change**
Operating Costs and Expenses:				
Salaries and Contract Labor	$ 2,669,940	$ 1,383,209	93%	$ 1,286,731
General, Administrative and Consulting	1,375,828	1,205,391	14%	170,437
Research and Development	4,238,229	3,487,997	22%	750,232
Total operating expenses	$ 8,283,997	$ 6,076,597	36%	$ 2,207,400

Our net loss for the nine-month period ended September 30, 2011 was $8,254,802, as compared to $4,736,317 for the same period in 2010. This is an increase in loss of 3,518,485, or 74%, and was largely attributable to $2,372,143 of non-cash interest expense recorded upon the maturity of convertible debt which was incurred to support the on-going development of the depleted uranium project, to $591,238 of non-cash compensation expense related to the issuance of Class H Warrants, and to non-cash expense in the amount of $476,294 resulting from a discounted warrant exercise offering.

Radiochemical Products. Revenues from the sale of radiochemical products for the nine-month period ended September 30, 2011 were $1,397,763, compared to $1,295,193 for the same period in 2010. This represents an increase in revenue of $102,571, or approximately 8%. Increase in this segment s performance is attributable to increased sales of radiochemical iodine-131 which have remained strong for the nine-month period. In August and September 2011, we phased in a price increase of iodine-131 which accounts for nearly 100% of this segment s sales revenue for the period ended September 30, 2011 and for the same period in 2010. Gross profit in this segment for the nine months ended September 30, 2011 was $238,334, compared to $210,579 for the same period in 2010. Operating expense for this segment for the nine-month period ended September 30, 2011 was $113,990, compared to $103,895 for the same period in 2010. This increase of approximately 10% is attributable to labor, training and software costs associated with FDA compliance work performed during the period. Net income for this segment increased for the nine-month period ended September 30, 2011 to $124,344, an increase of $17,660 or approximately 17%, compared

to net income of $106,684 for the same period in 2010.

The majority of the sales in the Radiochemical business segment are attributed to sales of radiochemical iodine. The iodine is purchased by us through a sole supply agreement with NTP Radioisotopes (Pty) Ltd. of South Africa. This agreement extends through August 2013 and includes provisions for annual price adjustments. The termination of our relationship with NTP Radioisotopes could adversely affect operating results by causing a delay in production or a possible loss of sales in this segment. The processing of iodine is also subject to inspection and the regulatory authority of the FDA. The FDA has inspected our facility and determined that our handling of iodine is considered by the FDA as manufacturing. We have begun to implement improvements in our Quality Assurance methods and controls to meet the FDA requirements resulting from this determination. Any of these regulatory issues could impact our business decision to continue future iodine production.

Cobalt Products. Revenues from the sale of cobalt products for the nine-month period ended September 30, 2011 were $1,635,989, compared to $1,479,120 for the same period in 2010. This represents an increase in revenue of $156,868, or approximately 11%. Bulk cobalt sales reported for the nine-month period ended September 30, 2011 were $502,533, compared to $551,728 for the same period in 2010. This is a decrease of $49,195, or approximately 9%, and is due to a reduction in bulk cobalt sales to GE Hitachi, our single bulk cobalt sales customer. We have a contract GE-Hitachi which was renewed in April 2010 for a term of four years. The contract states a minimum purchase of material each year (yearly periods are each April 1 March 31), and any shortages in annual purchases will be invoiced to GE Hitachi. Under this contract, we expect to have a minimum of $2,656,000 in bulk cobalt sales over the four-year period. Sales of sealed sources increased by $212,224 to $1,006,796 for the nine months ended September 30, 2011, from $794,572 during the same period in 2010. This represents an increase in sealed source sales of 27%. This increase reflects our marketing efforts of cobalt products into new markets such as Australia and South America. Sales of other cobalt products, which include expended gamma knife recovery and cobalt-60 recycling, were $126,660 for the period ended September 30, 2011, as compared to $132,820 for the same period in 2010. This is a decrease of $6,160, or approximately 5%. The following table summarizes the Company s cobalt product sales for the nine-months ended September 30, 2011 and 2010.

Cobalt Products	For the nine month period ended September 30, 2011	For the nine month period ended September 30, 2010	% Change	$ Change
HSA Cobalt Sales (bulk cobalt)	$ 502,533	$ 551,728	-9%	-49,195
Sealed Source Manufacturing	1,006,796	794,572	27%	212,224
Other Cobalt Product Sales	126,660	132,820	-5%	-6,160
	$ 1,635,989	$ 1,479,120	11%	156,868

Gross profit for the nine-month period ended September 30, 2011 was $970,991, as compared to $753,509 for the same period in 2010. Contributing to this increase in gross profit is a reduction in cost of sales which have decreased due to the use of recovered cobalt-60 material as well as the use of lower specific activity (LSA) material in the production of sealed sources. Operating expense in this segment increased slightly by $5,362 to $188,941 for the nine-month period ended September 30, 2011, from $183,579 for the same period in 2010. Net income for the nine months ended September 30, 2011 was $782,050, compared to $541,931 for the same period in 2010. This increase of $240,120, or approximately 44%, is primarily attributable to strong sales of cobalt products combined with reduction in cost of sales in sealed source manufacturing. We believe that both the continued development of our Quality Program as well as our recent ISO-9001 and ISO-13485 certification will enhance our efforts to expand teletherapy source sales into international markets and we anticipate continued strong performance in our cobalt products line of products.

The production of cobalt is dependent upon the DOE and its prime operating contractor, which controls the ATR operations and, therefore, controls the continued production of cobalt in the government funded reactor. Previously, our agreement with the prime operating contractor had been on a reactor cycle-by-cycle contract basis. In July 2010, we entered into a three-year Work For Others (WFO) agreement with the DOE prime operating contractor to continue cobalt production and cask handling. In January 2010, we were informed that the DOE intended to transfer the existing WFO agreement to the National Isotope Development Center (NIDC). Negotiations have been underway since that time between us and NIDC on contract terms and costs for cobalt production services. While we believe that we will be able to complete these contract negotiations with NIDC under reasonable contract pricing terms, there is the possibility, however, that the new contract costs imposed by NIDC will make it prohibitive to continue cobalt production in the DOE reactor. Should that happen, we would be forced to terminate cobalt production in the DOE reactor and attempt to locate an alternate source of supply of cobalt-60 from outside the U.S. A termination of our cobalt production business would have a material adverse effect on ourfinancial results and the operations. In addition to the continued contract issues with NIDC, our continued access to the reactor for cobalt production remains subject to approval by the prime operating contractor of the reactor based upon the priorities of its experiments program.

Nuclear Medicine Standards. Revenues from nuclear medicine products for the nine-month period ended September 30, 2011 were $3,825,973, compared to $1,376,807 for the same period in 2010. This represents an increase in revenue attributable to this segment of $2,449,166, or approximately 178%. In December 2010, we formed a 50/50 joint venture, TI Services, LLC, with RadQual, LLC, to distribute products and services for nuclear medicine, nuclear cardiology, and PET imaging. For the nine-month period ended September 30, 2011, revenues from this joint venture totaled $2,272,096. Gross profit for the nine-month period ended September 30, 2011 was $1,186,737, as compared to $668,311 for the same period in 2010, an increase of $518,426, or approximately 78%. Because we are first reporting our investment in TI Services, LLC on a consolidated basis in 2011, gross profit for this segment for the nine months ended September 30, 2011 includes $485,850 in gross profit attributable to TI Services, LLC with no corresponding gross profit amount reported for the same period in 2010. The following table presents sales and cost of sales for this business segment for the nine months ended September 30, 2011 and 2010.

Nuclear Medicine Standards	**For the nine months ended September 30, 2011**	**For the nine months ended September 30, 2010**	**% change**
Sales			
Flood Source Sales	$ 1,285,815	$ 1,071,590	20%
Miscellaneous Source Sales	268,063	305,218	-12%
TI Services LLC	2,272,096	-	-
	$ 3,825,973	$ 1,376,807	178%
Cost of Sales			
Flood Sources	$ 715,861	$ 588,520	22%
Miscellaneous Sources	137,129	119,977	14%
TI Services LLC	1,786,246	-	-
	$ 2,639,236	$ 708,497	273%
Gross Profit	$ 1,186,737	$ 668,311	
Gross Profit %	31%	49%	

Operating expense for this segment for the nine-month period ended September 30, 2011 increased to $611,096, from $93,295 for the same period in 2010, an increase of $517,801. Operating expense for the nine months ended September 30, 2011 includes $484,178 of expense for TI Services, LLC, whereas there was no such expense to report for the same period in 2010. The increase in operating expenses is primarily attributable to the TI Services, LLC expenses and increased expense for general production of nuclear medicine products, and an increase in depreciation expense related to new equipment purchased during the period. Net income for this segment increased by $625, or less than 1%, to 575,641 for the nine-month period ended September 30, 2011, compared to $575,016 for the same period in 2010. The change in net income included $1,672 attributable to net income generated by TI Services, LLC. We anticipate that sales of our nuclear medicine products will continue to increase as we expand this line of business through our new joint venture, TI Services, LLC. We believe our recent ISO certifications will also strengthen our value as a contract manufacturer of nuclear medicine products for RadQual, LLC as well as enhancing overall financial performance of this business segment by permitting expansion of international sales.

Radiological Services. The radiological services segment reported revenues of $189,773 for the nine-month period ended September 30, 2011 and $126,955 for the same period in 2010. This is an increase of $62,818, or approximately 49%. Gross profit was $135,446 for this segment for the nine months ended September 30, 2011 and $64,649 for the same period in 2010. This is an increase in gross profit of $70,796, or approximately 110%. Operating costs were $18,473 and $35,024 in the nine-month periods ended September 30, 2011 and 2010, respectively. Topaz gemstone processing revenues for the nine-month period ended September 30, 2011 increased by approximately 21% to $145,760 as compared to $120,554 for the same period in 2010. There are very few companies in the U.S. that possess the qualifications and licensing necessary to perform this type of gemstone related service and management believes that demand will improve as economic conditions improve. Although the performance of this segment is largely dependent on topaz gemstone processing, both radiological source disposal services and radiological consulting services reported increased revenues for the nine months ended September 30, 2011, as compared to the same period in 2010. Combined revenues for these services increased to $44,012 for the nine-month period ended September 30, 2011, compared to $6,401 for the same period in 2010. This is an increase of $37,611 and is primarily attributable to increased radiological consulting work and expended source disposal services which are performed in conjunction with sealed source sales in our cobalt products segment. We anticipate that along with cobalt product sales, our radiological services segment s performance will continue to improve based on customer orders and contractual customer obligations.

Fluorine Products. There were no revenues to report for our fluorine products segment for the nine-month period ended September 30, 2011. We are developing our fluorine products in conjunction with planned uranium de-conversion facility in order to take advantage of the anticipated need for depleted uranium de-conversion services. Our FEP patents provide a unique opportunity to provide certain high-purity fluoride compounds while also offering a for fee de-conversion service to the uranium enrichment industry and, based on market studies, we believe that as funding becomes available continued financial investment in the planned uranium de-conversion facility is justified. During the nine month period ended September 30, 2011, we incurred approximately $3,900,000 of planning, licensing, and other expense as compared to approximately $3,500,000 for the same period in 2010. This is an approximate increase of $400,000, or approximately 12%. During the remainder of 2011, we will continue to use the FEP facility in Idaho for testing individual components and analytical processes required for the planned uranium de-conversion facility in New Mexico. We do not anticipate any revenues from the sales of fluoride products in 2011.

Transportation Services. Revenues from the transportation services segment for the nine-month period ended September 30, 2011 were $208,508, compared to $99,816 for the same period in 2010. This is an increase of $108,692, or approximately 92%, and is largely the result of increased for hire revenues. Gross profit for this segment was $162,628 for the nine-month period ended September 30, 2011 and $62,413 for the same period in 2010. This is an increase in gross profit of $100,215, or approximately 161%. Operating expense for this segment was $146,878 for the nine-month period ended September 30, 2011 and $157,586 for the same period in 2010. This represents a decrease of $10,708, or approximately 10%, which is attributable to decreases in several operating costs such as depreciation and indirect labor costs.. The transportation services business segment continues to provide hazardous and non-hazardous transportation services to us at significant savings as compared to outside commercial carriers. Our specially trained drivers and equipped vehicles are well suited to meeting the security and regulatory requirements necessary for the transport of these types of shipments while significantly reducing the costs of transport to our Company. It is anticipated that this segment will also provide some of the transportation services for the planned uranium de-conversion facility.

LIQUIDITY AND CAPITAL RESOURCES

On September 30, 2011, we had cash and cash equivalents of $2,517,586. For the nine months ended September 30, 2011, net cash used in operating activities was $2,846,527. Use of cash in operating activities is a combination of typical operating purchases, including inventory purchases, as well as cash paid for services in support of the planned uranium de-conversion facility.

Inventories at September 30, 2011 totaled $1,575,273, and inventories at December 31, 2010 totaled $1,681,840. This significant investment in inventory is due to the time required to produce some cobalt products and the operating cycle for those products is considered to be approximately three years. Irradiation costs paid to the DOE s prime contractor account for approximately 89% of total work in process inventory cost for the nine-month period ended September 30, 2011, and approximately 87% of total inventory cost for the same period in 2010.

Increases in accounts receivable reflect normal fluctuations in segment sales as well as payment terms. Historically, we have not written off any accounts receivable and we expect that trend to continue. For the nine-month period ended September 30, 2011, cash provided by investing activities totaled $217. During this nine-month period, we purchased a new computer server, transportation equipment, gamma camera scanning equipment, and other capital equipment used in our manufacturing processes for a total of approximately $130,000. During this same period we sold assets for proceeds of approximately $21,000. Financing activities provided cash of $1,126,593 as the result of cash proceeds from the exercise of warrants. In June 2011, we borrowed $45,000 from RadQual, LLC, for the purchase of a gamma camera for use in the quality assurance processes related to the manufacture of flood source products which are manufactured by our nuclear medicine products business segment. The loan is for one year and bears an interest rate of 8.5%.

In August 2011, we paid in full one of two outstanding loans with Compass Bank. The loan had an outstanding balance of $362,534 (the Term Loan) and was paid with existing cash. The Term Loan matured April 20, 2011, and in June 2011, we received a notice of non-renewal with an extension to August 29, 2011. A second loan with Compass Bank matured on September 15, 2011 and was paid in full at that time. We also have an unsecured note payable totaling $500,000 which is payable to the former Chairman of the Board. The loan requires annual interest payments on the principal balance at 7% per year, payable each April 1st, and the note matures on April 1, 2012. We may seek additional debt financing for our projects and operations in the future. There is no assurance that we will be able to secure additional debt financing on acceptable terms to us, or at all.

We are continuing to pursue the planning, licensing and construction of a depleted uranium de-conversion and fluorine extraction processing facility. We spent approximately $4,572,000 during the first nine months of 2011 on planning, licensing, and other expense for this project, and will continue this work as funding becomes available to us. During the first nine months of 2011, we continued work in support of the licensing process with the NRC, finalized the transfer of property for the facility, completed contract negotiations and selected a design and build contractor for the project, and continued to work towards completing sales agreements for the sale of products from the proposed facility. In July 2011, we announced the selection of Parsons Corporation as the design-build contractor for the facility and completed a letter of intent documenting the contract terms.

It will require significant capital and time to design, license, and construct such a uranium de-conversion facility. Nonetheless, we believe that the commercial opportunity will justify this investment and we have taken several actions in 2010 and 2011 to put this plan in place. In February 2010, we issued convertible debentures with an aggregate principal balance of $3,075,000. In October 2010, we completed a private offering generating proceeds of approximately $5,800,000 and in September 2011, made an offer to current warrant holders to encourage them to exercise outstanding warrants which generated proceeds of $1,543,750. All of these funds were raised to provide continuing support for the costs associated with the construction and licensing of the planned uranium de-conversion facility, and it is planned, as funds become available, that significant costs will continue to be incurred.

We are exploring several options for funding of the project at this time including a loan under the DOE Loan Guarantee Program solicitation for renewable energy and energy savings in manufacturing projects. Under that program, the DOE makes relatively low interest loans through the Federal Financing Bank to approved projects. We have submitted an application under this program and anticipate some indication from the DOE of award status in 2012. There can be no guarantee that the DOE will determine our project to be a qualifying project or that the DOE will award us a loan. If the loan application is unsuccessful, we will have to raise the balance of the funds required for the planned facility through additional equity or debt financing. There can be no assurance that we will be able to secure additional equity or debt financing on acceptable terms, or at all, if the DOE loan is not available.

We have a long term investment of $1,433,420, which represents a 24.5% ownership in units of RadQual, LLC. The value of this asset is based upon the purchase price of those shares and the continued business performance of RadQual, LLC. We purchased these shares with the intent to eventually acquire the remaining shares of RadQual,

LLC and thus improve the revenues and profit margin for the nuclear medicine business segment. At the present time, there is no immediate action pending or planned to acquire the remainder of those shares. Future plans to complete this acquisition will depend upon our ability to obtain additional capital and RadQual, LLC members being willing to sell.

Our future liquidity and capital funding requirements will depend on numerous factors, including, contract manufacturing agreements, commercial relationships, technological developments, market factors, available credit, and voluntary warrant redemption by shareholders. There is no assurance that additional capital and financing will be available on acceptable terms to the Company or at all.

On October 29, 2010, we completed a private placement for cash proceeds of $5,815,000. We issued 29,075,000 units with each unit consisting of one share of common stock and one warrant to purchase one share of common stock for an exercise price of $0.40. The warrants expire in five years and contain a call provision that permits us to call the warrants in the event that our closing stock price is greater than $0.80 per share for any 20 consecutive trading days. The proceeds of this offering will be used to continue our efforts on the licensing and design of our planned uranium de-conversion and fluorine extraction processing facility in New Mexico.

At September 30, 2011, there were 33,556,783 outstanding warrants to purchase our common stock. Included in these are 7,700,000 Class F Warrants issued in November 2008, with an exercise price of $0.30 per share and an expiration date of November 10, 2013; 7,714,451 Class H Warrants issued August 2011, with an exercise price of $0.22 per share and an expiration date of September 15, 2015; and, 18,142,332 Class I Warrants issued in October 2010, with an exercise price of $0.40 per share and an expiration date of October 24, 2015.

On September 8, 2011, in an effort to raise capital to support our ongoing planned uranium de-conversion project, we authorized an offer to our current warrant holders to encourage them to exercise outstanding warrants. The offer allowed holders of our outstanding warrants to purchase our common stock at a discounted warrant exercise price of $0.10 per share until close of business on September 30, 2011. We discounted the exercise price of (i) our Class F Warrants, which were issued on November 7, 2008, from $0.30 to $0.10, (ii) our Class G Warrants, which were issued on September 8, 2009 from $0.36 to $0.10, (iii) our Class H Warrants, which were issued August 24, 2011, from $0.22 to $0.10, (iv) our Class I Warrants, which were issued on October 29, 2010, from $0.40 to $0.10 and (v) our Class J Warrants, which were issued on March 25, 2011, from $0.43 to $0.10 per share. In addition, on September 8, 2011, in order to give certain warrant holders sufficient time to exercise their warrants in accordance with the offer described above, we authorized the extension of the expiration date of its Class G Warrants from September 18, 2011 to September 30, 2011 and our Class J Warrants from September 25, 2011 to September 30, 2011. As a result of this offer, 15,437,501 warrants were exercised and we issued 15,437,501 shares of its common stock for proceeds of $1,543,750.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, (the Exchange Act) that are designed to ensure that material information relating to us is made known to the officers who certify our financial reports and to other members of senior management and the Board of Directors. These disclosure controls and procedures are designed to ensure that information required to be disclosed in our reports that are filed or submitted under the Exchange Act, are 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 an issuer in the reports that it files or submits under the Exchange Act is accumulated and communicated to our management, including our principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Management, with the participation of our CEO and CFO, has evaluated the effectiveness, as of September 30, 2011, of our disclosure controls and procedures. Based on that evaluation, our CEO and CFO have concluded that our disclosure controls and procedures were effective as of September 30, 2011.

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the three months ended September 30, 2011, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1A. Risk Factors

There have been no material changes or updates to the risk factors previously disclosed in the Risk Factors sections of our Annual Report on Form 10-K for the year ended December 31, 2010 and our Quarterly Report on Form 10-Q for the quarter ended June 30, 2011.

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

On August 24, 2011, in connection with the maturity of certain convertible debentures, we issued 9,054,175 Series H warrants to the holders of our convertible debentures. Each Series H warrant represents the right to purchase one share of our common stock. The Series H warrants expire on August 24, 2015 and carry an exercise price of $0.22 per share. The issuance of the Series H warrants was made pursuant to Section 4(2) of the Securities Exchange Act of 1933, as amended.

As disclosed above, on September 8, 2011, in an effort to raise capital to support our ongoing planned uranium de-conversion project, we authorized an offer to our current warrant holders to encourage them to exercise outstanding warrants. The offer allowed holders of our outstanding warrants to purchase our common stock at a discounted warrant exercise price of $0.10 per share until close of business on September 30, 2011. As a result of this offer, 15,437,501 warrants were exercised and we issued 15,437,501 shares of its common stock for proceeds of $1,543,750. The shares of common stock issued upon exercise of the warrants was made pursuant to Section 4(2) of the Securities Exchange Act of 1933, as amended.

Item 6. Exhibits

3(i)

Restated Certificate of Formation, as amended (incorporated by reference to Exhibit 3(i) of the Company s Quarterly Report on Form 10-Q for period ended June 30, 2010).

3(ii)

Bylaws (incorporated by reference to Exhibit 3.2 to the Company's Registration Statement on Form SB-2 filed on May 1, 1997 (Registration No. 333-26269)).

31.1

Certification under Section 302 of the Sarbanes-Oxley Act of 2002 for Chief Executive Officer.*

31.2

Certification under Section 302 of the Sarbanes-Oxley Act of 2002 for Chief Financial Officer.*

32.1

Certification by the Chief Executive Officer furnished pursuant to 18 U.S.C. Section 1350 adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.*

32.2

Certification by the Chief Financial Officer furnished pursuant to 18 U.S.C. Section 1350 adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.*

101

The following financial statements, formatted in XBRL: (i) Unaudited Condensed Consolidated Balance Sheets as of September 30, 2011 and December 31, 2010, (ii) Unaudited Condensed Consolidated Statements of Operations for the three and nine months ended September 30, 2011 and the three and nine months ended September 30, 2010 (iii) Unaudited Condensed Consolidated Statements of Cash Flows for the nine months ended September 30, 2011 and September 30, 2010 and (v) Notes to Unaudited Condensed Consolidated Financial Statements, tagged as blocks of text. The information in Exhibit 101 is furnished and not filed, as provided in Rule 402 of Regulation S-T.*

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* 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.

International Isotopes Inc.
(Registrant)

By: /s/ Steve T. Laflin
Steve T. Laflin
President and Chief Executive Officer

By: /s/ Laurie McKenzie-Carter
Laurie McKenzie-Carter
Chief Financial Officer

Date: November 14, 2011

EXHIBIT INDEX

Exhibit Number	**Description of Document**
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