

INTERNATIONAL ISOTOPES INC  
Form 10-Q  
August 14, 2012

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

**FORM 10-Q**

(Mark One)

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

For the quarterly period ended June 30, 2012

OR

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**  
*(State or other jurisdiction of  
incorporation*

**74-2763837**  
*(IRS Employer Identification  
Number)*

*or organization)*

**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.  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).  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

(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  No

As of July 13, 2012, the number of shares of Common Stock, \$.01 par value, outstanding was 360,192,010.

**INTERNATIONAL ISOTOPES INC.**

**FORM 10-Q**

**For The Quarter Ended June 30, 2012**

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## Part I. Financial Information

## Item 1. Financial Statements

**INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES**  
**Unaudited Condensed Consolidated Balance Sheets**

|  | <b>June 30,</b> | <b>December</b> |
|--|-----------------|-----------------|
| Assets   | <b>2012</b>     | <b>31,</b>      |
|  | <b>2011</b>     | <b>2011</b>     |
| Current assets   |                 |                 |
| Cash and cash equivalents  | \$ 434,962      | \$ 2,102,696    |
| Accounts receivable  | 847,191         | 803,350         |
| Inventories  | 1,408,509       | 1,465,293       |
| Prepays and other current assets   | 220,864         | 127,006         |
| Total current assets   | 2,911,526       | 4,498,345       |
| Long-term assets   |                 |                 |
| Restricted certificate of deposit  | 203,177         | 428,886         |
| Property, plant and equipment, net   | 2,045,371       | 1,967,154       |
| Capitalized lease disposal costs, net  | 108,649         | 113,503         |
| Investment   | 1,402,749       | 1,422,755       |
| Patents and other intangibles, net   | 4,393,736       | 3,500,162       |
| Total long-term assets   | 8,153,682       | 7,432,460       |
| Total assets   | \$ 11,065,208   | \$ 11,930,805   |
| Liabilities and Stockholders' Equity   |                 |                 |
| Current liabilities  |                 |                 |
| Accounts payable   | \$ 2,036,972    | \$ 1,833,843    |
| Accrued liabilities  | 620,442         | 804,788         |
| Current installments of notes payable  | 500,000         | 528,359         |
| Total current liabilities  | 3,157,414       | 3,166,990       |
| Long-term liabilities  |                 |                 |
| Obligation for lease disposal costs  | 502,920         | 483,391         |
| Mandatorily redeemable convertible preferred stock   | 850,000         | 850,000         |
| Total long-term liabilities  | 1,352,920       | 1,333,391       |
| Total liabilities  | 4,510,334       | 4,500,381       |
| Stockholders' Equity   |                 |                 |
| Common stock, \$0.01 par value; 750,000,000 shares authorized; 360,166,420 and 357,202,750 shares issued and | 3,601,671       | 3,572,024       |

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|   |               |               |
|---|---------------|---------------|
| outstanding respectively  |               |               |
| Additional paid-in capital                                      | 115,931,495   | 115,719,376   |
| Accumulated deficit   | (113,099,871) | (111,994,492) |
| Equity attributable to International Isotopes Inc. stockholders | 6,433,295     | 7,296,908     |
| Equity attributable to noncontrolling interest                  | 121,579       | 133,516       |
| Total equity  | 6,554,874     | 7,430,424     |
| Total liabilities and stockholders' equity                      | \$ 11,065,208 | \$ 11,930,805 |

*See accompanying notes to condensed consolidated financial statements.*

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

|   | <b>Three months ended June 30,</b> |                | <b>Six months ended June 30,</b> |                |
|---|------------------------------------|----------------|----------------------------------|----------------|
|   | <b>2012</b>                        | <b>2011</b>    | <b>2012</b>                      | <b>2011</b>    |
| Sale of product   | \$ 2,042,949                       | \$ 2,614,744   | \$ 3,992,292                     | \$ 5,028,059   |
| Cost of product   | 1,385,996                          | 1,615,523      | 2,664,599                        | 3,109,801      |
| Gross profit  | 656,953                            | 999,221        | 1,327,693                        | 1,918,258      |
| Operating costs and expenses:                               |                                    |                |                                  |                |
| Salaries and contract labor                                 | 470,910                            | 495,631        | 929,291                          | 1,146,322      |
| General, administrative and consulting                      | 444,346                            | 462,677        | 977,118                          | 901,161        |
| Research and development                                    | 279,073                            | 1,591,173      | 564,855                          | 2,998,884      |
| Total operating expenses                                    | 1,194,329                          | 2,549,481      | 2,471,264                        | 5,046,367      |
| Net operating loss  | (537,376)                          | (1,550,260)    | (1,143,571)                      | (3,128,109)    |
| Other income (expense):                                     |                                    |                |                                  |                |
| Other income (expense)                                      | 25,083                             | 13             | 25,083                           | 3,158          |
| Equity in net income of affiliate                           | 5,206                              | 31,390         | 31,982                           | 76,246         |
| Interest income   | 65                                 | 1,427          | 417                              | 3,277          |
| Interest expense  | (18,380)                           | (161,883)      | (31,227)                         | (331,641)      |
| Total other income (expense)                                | 11,974                             | (129,053)      | 26,255                           | (248,960)      |
| Net loss  | (525,402)                          | (1,679,313)    | (1,117,316)                      | (3,377,069)    |
| Less loss (income) attributable to non-controlling interest | 10,270                             | 9,127          | 11,937                           | (8,129)        |
| Net loss attributable to International Isotopes Inc.        | \$ (515,132)                       | \$ (1,670,186) | \$ (1,105,379)                   | \$ (3,385,198) |
| Net income (loss) per common share - basic and diluted      | \$ 0.00                            | \$ (0.01)      | \$ 0.00                          | \$ (0.01)      |
| Weighted average common shares outstanding -                |                                    |                |                                  |                |



|                   |             |             |             |             |
|-------------------|-------------|-------------|-------------|-------------|
| basic and diluted | 360,127,509 | 323,425,663 | 359,802,715 | 323,312,599 |
|-------------------|-------------|-------------|-------------|-------------|

*See accompanying notes to condensed consolidated financial statements.*

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

|  | <b>Six months ended June 30,</b> |                |
|--|----------------------------------|----------------|
|  | <b>2012</b>                      | <b>2011</b>    |
| Cash flows from operating activities:                                      |                                  |                |
| Net loss   | \$ (1,117,316)                   | \$ (3,377,069) |
| Adjustments to reconcile net loss to net cash used in operating activities |                                  |                |
| Net income in equity method investment                                     | (31,982)                         | (76,246)       |
| Depreciation and amortization  | 203,591                          | 213,226        |
| Gain on disposal of property, plant and equipment                          | -                                | (3,145)        |
| Accretion of obligation for lease disposal costs                           | 19,529                           | 18,042         |
| Accretion of beneficial conversion feature                                 | -                                | 234,282        |
| Equity based compensation  | 144,137                          | 301,849        |
| Noncash interest expense   | 17,950                           | -              |
| Changes in operating assets and liabilities:                               |                                  |                |
| Accounts receivable  | (43,841)                         | (294,255)      |
| Prepays and other assets   | (70,974)                         | 66,112         |
| Inventories  | 56,784                           | 129,185        |
| Accounts payable and accrued liabilities                                   | 18,783                           | 652,938        |
| Net cash used in operating activities                                      | (803,339)                        | (2,135,081)    |
| Cash flows from investing activities:                                      |                                  |                |
| Restricted certificate of deposit  | 225,709                          | (318)          |
| Due from related party   | -                                | 87,500         |
| Dividends received from equity method investment                           | 51,988                           | 27,350         |
| Proceeds from sale of property, plant and equipment                        | -                                | 18,500         |
| Purchase of property, plant and equipment                                  | (1,170,528)                      | (150,069)      |
| Net cash used in investing activities                                      | (892,831)                        | (17,037)       |
| Cash flows from financing activities:                                      |                                  |                |
| Proceeds from sale of stock  | 56,795                           | 6,510          |
| Proceeds from issuance of debt   | -                                | 45,000         |
| Principal payments on notes payable and capital leases                     | (28,359)                         | (79,117)       |
| Net cash provided by (used in) financing activities                        | 28,436                           | (27,607)       |
| Net decrease in cash and cash equivalents                                  | (1,667,734)                      | (2,179,725)    |
| Cash and cash equivalents at beginning of period                           | 2,102,696                        | 4,237,303      |
| Cash and cash equivalents at end of period                                 | \$ 434,962                       | \$ 2,057,578   |
| Supplemental disclosure of cash flow activities:                           |                                  |                |
| Cash paid for interest   | \$ 39,527                        | \$ 52,177      |
| Supplemental disclosure of noncash financing and investing transactions    |                                  |                |

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|  |    |        |    |   |
|--|----|--------|----|---|
| Increase in equity and prepaid interest for stock issuance in lieu of interest on note | \$ | 40,834 | \$ | - |
|--|----|--------|----|---|

*See accompanying notes to condensed consolidated financial statements.*

**INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES**

**Notes to Unaudited Condensed Consolidated Financial Statements**

**For the Quarter Ended June 30, 2012**

(1)

**The Company and Basis of Presentation**

International Isotopes Inc. (the Company) was incorporated in Texas in November 1995. The accompanying condensed consolidated financial statements are presented in conformity with accounting principles generally accepted in the United States of America (GAAP) and include all operations and balances of the Company and its 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 condensed consolidated financial statements also include the accounts of the Company's 50% owned joint venture, TI Services, LLC which is located in Ohio. The Company's headquarters and all operations, with the exception of TI Services, LLC, are located in Idaho Falls, Idaho.

*Nature of Operations* The Company's business consists of six major business segments: 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 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 six month period ended June 30, 2012 are not necessarily indicative of the results that may be expected for the year ended December 31, 2012. 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, 2011 filed with the SEC on March 28, 2012.

(2)

#### Current Developments and Liquidity

*Business Condition* Since inception, the Company has suffered substantial losses. During the six-month period ended June 30, 2012, the Company reported a net loss of \$1,105,379 and net cash used in operating activities of \$803,339. During the same period in 2011, the Company reported a net loss of \$3,385,198 and net cash used in operating activities of \$2,135,081. The Company has made significant investments in, and intends to 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 2012 and for the next year 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 2012 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 (UF<sub>6</sub>) that would require de-conversion prior to disposal. In the process of de-conversion, the Company plans to use the FEP and other processes to produce a range of fluoride products, which it intends to sell. Additional design and licensing activities for this new facility will continue throughout the remainder of 2012 and into 2013.

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 re-convey the property to Lea County, New Mexico or purchase the property from Lea County in accordance with the project participation agreement. In accordance with ASC 360-10-Property, Plant and Equipment, the land was recorded at zero basis representing the costs incurred by the Company for the acquisition. Should the Company not meet its obligations of the project participation agreement, thus requiring the re-conveyance or purchase of the land, and should the Company decide to purchase the land, the Company would adjust the carrying value of the land to include the costs paid to Lea County to keep the land.

In March 2012, the Company announced the start of sales of radioactive material transportation containers through an exclusive worldwide distributor agreement with Alpha Omega Services Inc. (AOS), of Bellflower, California, signed

in August 2007. AOS and the Company had been awaiting NRC approval as well as the NRC Certificate of Compliance for the containers in order to begin marketing efforts. The series of AOS model containers will address a wide range of needs for the transportation of radioactive materials and provide the Company with some expanded business opportunities in the Radiological Services and Cobalt Products segments.

In April 2012, the Company announced the receipt of its air permit from the New Mexico Environment Department for the proposed depleted uranium de-conversion facility which completes permitting actions required in New Mexico. Although other state permits are required prior to the commencement of operations, the air permit will allow the Company to start construction on its planned project.

In May 2012, the Nuclear Regulatory Commission (NRC) approved and published the Safety Evaluation Report (SER) pertaining to the license application for the de-conversion facility. The SER documents the NRC's staff review and their evaluation of safety and potential adverse impacts on workers and the public under both normal operations and accident conditions. The NRC review also considers the management organization, administrative programs, and financial qualifications provided by the Company to ensure safe design and operation of the facility. The NRC staff concluded, in this SER, that the Company's descriptions, specifications, and analyses provide an adequate basis for safety of facility operations and that operation of the facility does not pose an undue risk to workers or public health and safety. The NRC approval and publication of the SER is a major milestone in the licensing process for the Company's planned facility. The only remaining NRC action to be completed before the Company is issued its combined forty-year construction and operating licenses for the facility is the final Environmental Impact Statement (EIS), which is expected to be issued as a final document around October 2012.

The Company will continue to explore opportunities to raise funds to support the engineering, construction, and start-up of the planned uranium de-conversion facility through debt financing, equity offerings, or other means over the next year.

(3)

Net Loss Per Common Share - Basic and Diluted

For the three and six months ended June 30, 2012, the Company had 15,700,000 stock options outstanding, 33,556,783 warrants outstanding, 178,525 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 six months ended June 30, 2011, the Company had 25,700,000 stock options outstanding, 56,552,970 warrants outstanding, 370,917 restricted stock awards outstanding, 425,000 shares of Series B redeemable convertible preferred stock outstanding and 9,266,180 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.

(4)

Investments



The Company has a 24.5% interest in RadQual, LLC (RadQual), with which the Company has an exclusive manufacturing agreement for nuclear medicine products. The 24.5% ownership of RadQual has a balance of \$1,402,749 and is reported as an asset at June 30, 2012. For the six months ended June 30, 2012, member distributions from RadQual totaled \$51,988 and were recorded as a reduction of the investment, and for the same period in 2011, member distributions totaled \$27,350. During the six months ended June 30, 2012, and 2011, earnings allocated to the Company from RadQual totaled \$31,982 and \$76,246, respectively. These allocated earnings were recorded as equity in net income of affiliate on the Company's condensed consolidated statements of operations.

At June 30, 2012 and 2011, the Company had receivables from RadQual in the amount of \$403,723 and \$514,163 respectively, which are recorded as part of accounts receivable. For the six months ended June 30, 2012 and 2011, the Company had revenues from RadQual in the amount of \$1,551,432 and \$1,843,498, respectively, which are recorded as sale of product.

(5)

#### Inventories

Inventories consisted of the following at June 30, 2012 and December 31, 2011:

|                  | <b>June 30, 2012</b> |    | <b>December 31, 2011</b> |
|------------------|----------------------|----|--------------------------|
| Raw materials    | \$ 247,915           | \$ | 249,232                  |
| Work in progress | 1,093,214            |    | 1,135,834                |
| Finished goods   | 67,380               |    | 80,227                   |
|                  | \$ 1,408,509         | \$ | 1,465,293                |

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 June 30, 2012 and December 31, 2011, the cobalt had a carrying value of \$893,706 and \$717,352, 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 six months ended June 30, 2012 and 2011, the Company issued 74,046 and 35,141 shares of common stock, respectively, to employees for proceeds of \$6,792 and \$6,510, respectively. All of these shares were issued in accordance with the Company's employee stock purchase plan.

In July 2012, in accordance with the Company's employee stock purchase plan, the Company issued 25,590 shares of common stock, to employees for proceeds of \$3,480

#### 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 June 30, 2012, and changes during the six months ended June 30, 2012, were as follows:

| <b>Fixed Options</b>             | <b>Shares</b> | <b>Weighted<br/>Average<br/>Exercise<br/>Price</b> | <b>Weighted<br/>Average<br/>Remaining<br/>Contractual<br/>Life</b> | <b>Aggregate<br/>Intrinsic<br/>Value</b> |
|----------------------------------|---------------|--|--|--|
| Outstanding at December 31, 2011 | 25,700,000    | \$ 0.17  |  |  |
| Granted                          | -             | -  |  |  |
| Exercised                        | (2,500,000)   | 0.02   |  | \$ 450,000                               |
| Forfeited                        | (7,500,000)   | 0.02   |  |  |
| Outstanding at June 30, 2012     | 15,700,000    | 0.26   | 5.3  | \$ 580,000                               |
| Exercisable at June 30, 2012     | 13,585,000    | \$ 0.23  | 5.0  | \$ 580,000                               |

The intrinsic value of outstanding and exercisable shares is based on the closing price of the Company's common stock of \$0.16 per share on June 30, 2012. The intrinsic value of exercised shares is based on the closing price of the Company's common stock on the days exercised with a weighted average price of \$0.18 per share.

As of June 30, 2012, there was approximately \$101,474 of unrecognized compensation expense related to stock options that will be recognized over a weighted average period of 1 year.

#### Restricted Stock Grants

Restricted stock awards outstanding at June 30, 2012, and changes during the three months ended June 30, 2012, were as follows:

| <b>Restricted Stock Awards</b>  | <b>Shares</b> |
|---------------------------------|---------------|
| Non-vested at December 31, 2011 | 370,917       |
| Granted                         | -             |
| Vested                          | (185,457)     |
| Forfeited                       | (6,935)       |
| Non-vested at June 30, 2012     | 178,525       |



The value of non-vested stock under the 2006 Equity Incentive Plan at June 30, 2012 was \$28,564, based on the closing price of the Company's common stock of \$0.16 per share on June 30, 2012. As of June 30, 2012, there was approximately \$4,548 of unamortized deferred compensation that will be recognized over a weighted-average period of 0.5 years.

Total stock-based compensation expense for the six months ended June 30, 2012 and 2011 was \$144,137 and \$93,805, respectively.

Warrants

Warrants outstanding at June 30, 2012, and changes during the six months June 30, 2012, were as follows:

|                                  |            |
|----------------------------------|------------|
| Warrants                         |            |
| Outstanding at December 31, 2011 | 33,556,783 |
| Issued                           | -          |
| Exercised                        | -          |
| Forfeited                        | -          |
| Outstanding at June 30, 2012     | 33,556,783 |

(7)

Notes Payable

Notes Payable

In March 2012, the Company renegotiated the terms of a \$500,000 unsecured note payable to its former Chairman of the Board. The original loan required annual interest payments on the principal balance at 7% per year, payable each April 1<sup>st</sup>, and the note was to mature on April 1, 2012. Pursuant to the new terms of the loan, the maturity date was extended from April 1, 2012 to November 1, 2012, and accrued interest in the amount of \$35,000 was paid in cash on March 30, 2012. Additionally, 204,167 shares of the Company's common stock were issued on April 1, 2012 to the former Chairman in lieu of the interest to be paid in cash on the loan from April 1, 2012 to November 1, 2012, based on an annual interest rate of 14% and the closing price of the Company's common stock of \$0.20 per share on March 23, 2012. On July 26, 2012, as part of a private placement transaction that was executed on July 27, 2012, our former Chairman of the Board converted \$100,000 of this \$500,000 note due from the Company as consideration for

purchase of convertible notes, thereby reducing the amount due from the Company under the original note to \$400,000. The remaining terms of this note remain in full force and effect and are discussed above.

(8)

Commitments and Contingencies

Dependence on Third Parties

The production of HSA Cobalt is dependent upon the U.S. Department of Energy (DOE), and its prime operating contractor, which controls the reactor and laboratory operations. In January 2011, the Company was informed that the DOE intended to transfer the existing Work For Others agreement to the National Isotope Development Center (NIDC). In December 2011, the Company entered into an Isotope and Technical Services Order Form with the DOE, pursuant to which the DOE will provide certain cobalt target fabrication and irradiation services using the Advanced Test Reactor (ATR) at the Idaho National Laboratory (INL) which is operated by Battelle Energy Alliance, LLC (BEA). Previously, the agreement had been directly with the prime-operating contractor, BEA, however, this agreement with BEA was terminated, by written direction from the DOE, on January 20, 2012. Continued access to the ATR for cobalt production continues to remain subject to the approval of BEA based upon the priorities of the experiments program.

Nuclear Medicine Reference and Calibration Standard manufacturing is conducted under an exclusive contract with RadQual, which in turn has an agreement in place with several companies for distributing the product. The majority of the radiochemical products sold by the Company is provided through a supply agreement with a single entity. A loss of any of these customers or suppliers could adversely affect operating results by causing a delay in production or a possible loss of sales.

### 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 upcoming year. Previously, the Company maintained an irrevocable, automatically renewable letter of credit against a Certificate of Deposit at Wells Fargo Bank to provide the financial assurance required by the NRC for the operating license. However, in April 2012, that letter of credit was replaced by a surety bond issued by Argonaut Insurance Company naming the NRC as beneficiary. The surety bond renews annually and requires a letter of credit against a certificate of deposit at Wells Fargo bank in the amount of 50% of the face value of the surety bond. In April 2012, the Company placed \$203,177 into a certificate of deposit for this purpose. At June 30, 2012, restricted cash consisted of the new certificate of deposit in the amount of \$203,177.

### (9) Subsequent Events

On July 27, 2012, the Company entered into a securities purchase agreement with certain institutional and private investors pursuant to which it sold convertible debentures for an aggregate of \$3,069,900. The debentures bear interest at 8%, mature July 2017 and are unsecured. These debentures are convertible at any time into shares of the Company's common stock at an initial conversion price of \$0.225 per share, subject to adjustment in certain conditions. Under certain conditions, the Company may force the conversion of the debentures any time following the one year anniversary of the Closing Date. In addition, after the second anniversary of the Closing Date, the Company will have the right to redeem all or part of the debentures at any time prior to the Maturity Date. The Company also has the right prior to the second anniversary to redeem all or part of the debentures if the Company successfully consummates a financing of the proposed Hobbs, New Mexico de-conversion facility in the amount of at least \$25 million. Any redemption of the debentures by the Company requires the payment of a redemption fee as set forth in the Notes.

Each investor also received a common stock purchase warrant to purchase common stock equal to twenty five percent (25%) of the shares issuable upon conversion of the debentures. The warrants are immediately exercisable at a price of \$0.30 per share and have a term of five years.

In accordance with FASC 470-20, the Company allocated the proceeds to the debentures and warrants based on their relative fair value resulting in \$2,703,144 being allocated to the debentures and \$366,756 being allocated to the warrants. Subsequent to the allocation, the Company calculated a beneficial conversion feature of \$25,656. The

allocated warrant value and the beneficial conversion feature were recorded as debt discount and will be accreted to interest expense over the five year life of the debentures.

In connection with this offering, the Company paid a fee and issued to the placement agent a warrant to purchase 1,091,520 shares of the Company's common stock. The placement warrant had a fair value of \$133,285. The value of the placement warrant and the fees are recorded as offering costs and will be amortized to expense over the life of the debentures.

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 .65%, expected dividend yield of 0%, expected volatility of 88%, and an expected life of 5 years.

(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:



| Sale of Product            | Three months ended June 30, |              | Six months ended June 30, |              |
|----------------------------|-----------------------------|--------------|---------------------------|--------------|
|                            | 2012                        | 2011         | 2012                      | 2011         |
| Radiochemical Products     | \$ 405,118                  | \$ 475,901   | \$ 787,033                | \$ 917,201   |
| Cobalt Products            | 484,098                     | 821,409      | 833,430                   | 1,234,244    |
| Nuclear Medicine Standards | 1,074,124                   | 1,186,399    | 2,202,129                 | 2,579,556    |
| Radiological Services      | 40,593                      | 57,635       | 65,883                    | 134,250      |
| Flourine Products          | -                           | -            | -                         | -            |
| Transportation             | 39,016                      | 73,400       | 103,817                   | 162,808      |
| Total Segments             | 2,042,949                   | 2,614,744    | 3,992,292                 | 5,028,059    |
| Corporate revenue          | -                           | -            | -                         | -            |
| Total Consolidated         | \$ 2,042,949                | \$ 2,614,744 | \$ 3,992,292              | \$ 5,028,059 |

| Depreciation and Amortization           | Three months ended June 30, |            | Six months ended June 30, |            |
|---|-----------------------------|------------|---------------------------|------------|
|   | 2012                        | 2011       | 2012                      | 2011       |
| Radiochemical Products                  | \$ 9,294                    | \$ 9,155   | \$ 18,587                 | \$ 18,308  |
| Cobalt Products                         | 23,766                      | 27,401     | 46,846                    | 54,769     |
| Nuclear Medicine Standards              | 6,585                       | 3,090      | 10,720                    | 5,954      |
| Radiological Services                   | 2,600                       | 2,600      | 5,200                     | 5,200      |
| Flourine Products                       | 35,845                      | 48,483     | 103,303                   | 88,045     |
| Transportation                          | 3,351                       | 3,395      | 6,746                     | 7,018      |
| Total Segments                          | 81,441                      | 94,124     | 191,402                   | 179,294    |
| Corporate depreciation and amortization | 10,800                      | 17,039     | 12,189                    | 33,932     |
| Total Consolidated                      | \$ 92,241                   | \$ 111,163 | \$ 203,591                | \$ 213,226 |

| Segment Income (Loss)      | Three months ended June 30, |             | Six months ended June 30, |             |
|----------------------------|-----------------------------|-------------|---------------------------|-------------|
|                            | 2012                        | 2011        | 2012                      | 2011        |
| Radiochemical Products     | \$ 22,232                   | \$ 54,459   | \$ 18,257                 | \$ 89,854   |
| Cobalt Products            | 146,267                     | 392,070     | 251,601                   | 623,579     |
| Nuclear Medicine Standards | 157,943                     | 195,051     | 321,844                   | 399,964     |
| Radiological Services      | 33,641                      | 30,655      | 33,367                    | 83,560      |
| Flourine Products          | (307,358)                   | (1,701,456) | (558,477)                 | (3,292,659) |
| Transportation             | (22,939)                    | 13,184      | (24,702)                  | 23,465      |
| Total Segments             | 29,786                      | (1,016,037) | 41,890                    | (2,072,237) |
| Corporate loss             | (544,918)                   | (654,149)   | (1,147,269)               | (1,312,961) |

Net Loss \$ (515,132) \$ (1,670,186) \$ (1,105,379) \$ (3,385,198)

|                                 | <b>Three months ended June 30,</b> |             | <b>Six months ended June 30,</b> |             |
|---------------------------------|------------------------------------|-------------|----------------------------------|-------------|
|                                 | <b>2012</b>                        | <b>2011</b> | <b>2012</b>                      | <b>2011</b> |
| Expenditures for Segment Assets |                                    |             |                                  |             |
| Radiochemical Products          | \$ -                               | \$ -        | \$ 2,793                         | \$ -        |
| Cobalt Products                 | 23,181                             | 1,965       | 31,742                           | 1,965       |
| Nuclear Medicine Standards      | 823                                | 44,759      | 823                              | 83,065      |
| Radiological Services           | -                                  | -           | -                                | -           |
| Flourine Products               | 455,639                            | 19,865      | 1,131,756                        | 37,161      |
| Transportation                  | -                                  | -           | -                                | 18,047      |
| Total Segments                  | 479,643                            | 66,589      | 1,167,114                        | 140,238     |
| Corporate purchases             | -                                  | -           | 3,414                            | 9,831       |
| Total Consolidated              | \$ 479,643                         | \$ 66,589   | \$ 1,170,528                     | \$ 150,069  |

|                            | <b>June 30,</b> | <b>December 31,</b> |
|----------------------------|-----------------|---------------------|
|                            | <b>2012</b>     | <b>2011</b>         |
| Segment Assets             |                 |                     |
| Radiochemical Products     | \$ 209,283      | \$ 196,065          |
| Cobalt Products            | 1,751,816       | 1,586,748           |
| Nuclear Medicine Standards | 467,201         | 1,019,239           |
| Radiological Services      | 8,698           | 19,646              |
| Flourine Products          | 5,930,078       | 4,922,409           |
| Transportation             | 32,866          | 39,112              |
| Total Segments             | 8,399,942       | 7,783,219           |
| Corporate assets           | 2,665,266       | 4,147,586           |
| Total Consolidated         | \$ 11,065,208   | \$ 11,930,805       |

## 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 statements. 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, 2011 filed with the Securities and Exchange Commission (SEC) on March 28, 2012. 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 other factors set forth in reports that we file from time to time with the SEC.*

International Isotopes, Inc. consists of six major business segments:

### Nuclear Medicine Standards

This segment consists of the manufacture of sources and standards associated with SPECT (Single Photon Emission Computed Tomography), patient positioning, and calibration or operational testing of dose measuring equipment for the nuclear pharmacy industry.

### Cobalt Products

Our Cobalt Products segment includes the production of bulk cobalt (cobalt-60), fabrication of cobalt capsules for teletherapy or irradiation devices, and recycling of expended cobalt sources.

### Radiochemical Products

This segment includes production and distribution of various isotopically pure radiochemicals for medical, industrial, or research applications. These products are either directly produced by us or are purchased in bulk from other producers and distributed by us in customized packages and chemical forms tailored to meet customer requirements.

#### Fluorine Products

We established the fluorine products business segment in 2004 to support production and sale of the gases produced using our Fluorine Extraction Process (FEP). We currently use this business segment as a pilot facility which focuses on the production of high purity gas products and examines methods of scaling up the size of production operations in support of the proposed de-conversion facility we plan to build in New Mexico.

#### Radiological Services

This segment includes a variety of miscellaneous services, including processing gemstones which have undergone irradiation for color enhancement, radiological engineering consultant services, field service work, sales of radioactive material transportation containers, research and development activities, and Type A package certification testing.

#### Transportation

This segment was established in 2006 to provide transportation of our products and to offer for hire transportation services of hazardous and non-hazardous cargo materials.

Beginning in 2004, we began a major undertaking to construct the first commercial uranium de-conversion facility in the U.S. Since that time we have made significant progress on the project and expect to obtain our operating license during the fourth quarter of 2012. While the commercial uranium de-conversion business represents a significant opportunity for us, that opportunity does not change our commitment to our current core business segments. Over the course of the past several years we have continued to invest in these segments and worked to reduce production costs and expand sales in each of them.

## RESULTS OF OPERATIONS

### *Three Months Ended June 30, 2012 Compared to Three Months Ended June 30, 2011*

Revenues for the three months ended June 30, 2012 were \$2,042,949, as compared to \$2,614,744 for the same period in 2011, an overall decrease of \$571,795, or approximately 22%. All business segments reported decreases in revenues for this three-month period.

There were no bulk cobalt sales for the three months ended June 30, 2012, whereas we reported \$502,533 of bulk cobalt sales for this same period in 2011. 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 should not be considered 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.

|  | <b>For the three<br/>months ended</b> | <b>% of<br/>Total<br/>Sales</b> | <b>For the three<br/>months ended</b> | <b>% of<br/>Total<br/>Sales</b> |
|--|---------------------------------------|---------------------------------|---------------------------------------|---------------------------------|
|  | <b>June 30,<br/>2012</b>              | <b>2012</b>                     | <b>June 30,<br/>2011</b>              | <b>2011</b>                     |
| Sale of Product                                      |                                       |                                 |                                       |                                 |
| Radiochemical Products                               | \$ 405,118                            | 20%                             | \$ 475,901                            | 18%                             |
| Cobalt Products <b>(including bulk cobalt sales)</b> | 484,098                               | 24%                             | 821,409                               | 31%                             |
| Nuclear Medicine Standards                           | 1,074,124                             | 53%                             | 1,186,399                             | 46%                             |
| Radiological Services                                | 40,593                                | 2%                              | 57,635                                | 2%                              |
| Fluorine Products                                    | -                                     | 0%                              | -                                     | 0%                              |
| Transportation                                       | 39,016                                | 2%                              | 73,400                                | 3%                              |
| Corporate revenue                                    | -                                     | 0%                              | -                                     | 0%                              |

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|  |    |           |      |    |           |      |
|--|----|-----------|------|----|-----------|------|
| Total Segments   | \$ | 2,042,949 | 100% | \$ | 2,614,744 | 100% |
| Radiochemical Products                                 | \$ | 405,118   | 20%  | \$ | 475,901   | 23%  |
| Cobalt Products ( <b>excluding bulk cobalt sales</b> ) |    | 484,098   | 24%  |    | 318,876   | 15%  |
| Nuclear Medicine Standards                             |    | 1,074,124 | 53%  |    | 1,186,399 | 56%  |
| Radiological Services                                  |    | 40,593    | 2%   |    | 57,635    | 3%   |
| Fluorine Products                                      |    | -         | 0%   |    | -         | 0%   |
| Transportation   |    | 39,016    | 2%   |    | 73,400    | 3%   |
| Corporate revenue                                      |    | -         | 0%   |    | -         | 0%   |
| Total Segments   | \$ | 2,042,948 | 100% | \$ | 2,112,211 | 100% |

Gross profit for the three months ended June 30, 2012 was \$656,953, compared to \$999,221 for the same period in 2011. This represents a decrease of \$342,268, or approximately 34%. Cost of sales decreased to \$1,385,996 for the three months ended June 30, 2012 from \$1,615,523 for the same period in 2011. This is a decrease of \$229,527, or approximately 14%, and is tied directly to the decrease in sales for the same period comparison.

The following table presents gross profit data for each of our business segments for the three months ended June 30, 2012 and 2011.

|                            | <b>For the Three-<br/>Month Period<br/>Ended June 30,<br/>2012</b> | <b>% of<br/>Total<br/>Sales<br/>2012</b> | <b>For the Three-<br/>Month Period<br/>Ended June 30,<br/>2011</b> | <b>% of<br/>Total<br/>Sales<br/>2011</b> |
|----------------------------|--|--|--|--|
| Total Sales                | \$ 2,042,949   |  | \$ 2,614,744   |  |
| Cost of Sales              |  |  |  |  |
| Radiochemical Products     | \$ 353,957   | 17%                                      | \$ 394,221   | 15%                                      |
| Cobalt Products            | 226,323  | 11%                                      | 369,212  | 14%                                      |
| Nuclear Medicine Standards | 766,163  | 38%                                      | 815,837  | 31%                                      |
| Radiological Services      | 17,255   | 1%                                       | 20,368   | 1%                                       |
| Flourine Products          | -  | -  | -  | -  |
| Transportation             | 22,298   | 1%                                       | 15,885   | 1%                                       |
| Total Segments             | \$ 1,385,996   | 68%                                      | \$ 1,615,523   | 62%                                      |
| Gross Profit               | \$ 656,953   |  | \$ 999,221   |  |
| Gross Profit %             | 32%  |  | 38%  |  |

Operating expenses decreased to \$1,194,329 for the three months ended June 30, 2012, from \$2,549,481 for the same period in 2011. This overall decrease of \$1,355,152, or approximately 53%, is the result of capitalizing certain research and development costs related to the planning, licensing, and construction of the proposed de-conversion facility we plan to build in New Mexico. These costs were previously treated as research and development expense, but once it became reasonably certain that the NRC would likely issue our license to build and operate the de-conversion facility, we began to capitalize these costs rather than expense them according to ASC 730, Accounting for Research and Development Costs. We expect that the NRC will issue our operating license by about October of 2012. When issued, the license will be valid for 40 years and the capitalized costs associated with obtaining the license will be amortized over that time period. We will continue to incur capital costs associated with this project in 2012 based on our ability to raise funds in support of the project.

The following table shows a comparison of total operating expenses for the three months ended June 30, 2012 and 2011:

| <b>For the three<br/>months ended</b> | <b>For the three<br/>months ended</b> |
|---------------------------------------|---------------------------------------|
|---------------------------------------|---------------------------------------|

|  | <b>June 30,<br/>2012</b> | <b>June 30,<br/>2011</b> | <b>% change</b> |
|--|--------------------------|--------------------------|-----------------|
| <u>Operating Costs and Expenses:</u>   |                          |                          |                 |
| Salaries and Contract Labor            | \$ 470,910               | \$ 495,631               | -5%             |
| General, Administrative and Consulting | 444,346                  | 462,677                  | -4%             |
| Research and Development               | 279,073                  | 1,591,173                | -82%            |
| Total operating expenses               | \$ 1,194,329             | \$ 2,549,481             | -53%            |

The decrease in operating costs and expenses for the three months ended June 30, 2012 is primarily attributable to the decrease in research and development expense as explained above. Salaries and contract labor expense also decreased by \$24,271, or approximately 5%, as a result of a decrease in the amount of non-cash equity based compensation expense recorded for the three months ended June 30, 2012. General administrative costs decreased by \$18,331, or approximately 4%. Our net loss for the three months ended June 30, 2012 was \$515,132, compared to \$1,670,186 for the same period in 2011. This is a decrease in loss of \$1,155,054, or approximately 69%, and is primarily due to the decrease in research and development expense related to the licensing and planning for the proposed de-conversion facility.



Interest expense for the three months ended June 30, 2012 was \$18,380, compared to \$161,883 for the same period in 2011. The decrease of \$143,503 is attributable to the maturity of the convertible debentures which matured in August 2011, and were converted into shares of common stock and warrants on the maturity date. Interest expense recorded for the convertible debentures for the three months ended June 30, 2011 was \$148,482, whereas no interest was recorded for these debentures for the same period in 2012. 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 months ended June 30, 2012 were \$405,118, compared to \$475,901 for the same period in 2011. This represents a decrease in revenue of \$70,783, or approximately 15%. Sales of radiochemical product decreased in 2011 after we received a warning letter from the U.S. Food and Drug Administration (FDA) for violations of Current Good Manufacturing Practices (CGMP), and we have been slow to regain previous sales levels. We have completed an upgrade and currently meet all CGMP requirements. Having attained CGMP compliance, we believe that our combined efforts in marketing, continued excellent customer service, and competitive product pricing will once again place us in a strong market position and that sales in this segment will increase.

Gross profit of radiochemical products for the three months ended June 30, 2012 was \$51,160, compared to \$81,680 for the same period in 2011. Gross profit percentages were approximately 13% and 17% for the three months ended June 30, 2012 and 2011, respectively. The decrease in gross profit is attributable to decreased sales and increased unit cost of radiochemical product production due to additional process requirements. Operating expense for this segment for the three-month period was up slightly to \$28,929, for the three months ended June 30, 2012, compared to \$27,222 for the same period in 2011. This segment reported net income of \$22,232 for the three months ended June 30 2012, as compared to net income of \$54,459 for the same period in 2011.

*Cobalt Products.* Revenues from the sale of cobalt products for the three months ended June 30, 2012 were \$484,098, compared to \$821,409 for the same period in 2011. This decrease in revenue of \$337,311, or approximately 41%, is the result of the timing of large bulk cobalt product sales as mentioned above. For the three-month period ended June 30, 2012 we recorded no bulk cobalt sales whereas for the three months ended June 30, 2011 we recorded \$502,533 in bulk cobalt sales. Because fluctuations in bulk cobalt sales can create large variations in period-to-period revenue comparisons, the table below presents cobalt product sales including and excluding bulk cobalt sales for comparative purposes. However, this information has limitations as an analytical tool and should not be considered in isolation.

| <b>For the Three-</b> | <b>For the Three-</b> |
|-----------------------|-----------------------|
| <b>Month Period</b>   | <b>Month Period</b>   |

|   | Ended June 30, |         | Ended June 30, |         |           |             |
|---|----------------|---------|----------------|---------|-----------|-------------|
|   | 2012           |         | 2011           |         | %         |             |
|   |                |         |                |         | change    |             |
|   |                |         |                |         | \$ Change |             |
| Cobalt Products                         |                |         |                |         |           |             |
| HSA Cobalt Sales (bulk cobalt)          | \$             | -       | \$             | 502,533 | -100%     | \$ -502,533 |
| Cobalt Recycle                          |                | 54,210  |                | 54,660  | -1%       | -450        |
| Sealed Source Manufacturing             |                | 429,888 |                | 264,216 | 63%       | 165,672     |
|   | \$             | 484,098 | \$             | 821,409 | -41%      | \$ -337,312 |
|   |                |         |                |         | %         |             |
| Cobalt Products                         |                | 2012    |                | 2011    | change    | \$ Change   |
| HSA Cobalt Sales (bulk cobalt excluded) | \$             | -       | \$             | -       | 0%        | \$ 0        |
| Cobalt Recycle                          |                | 54,210  |                | 54,660  | -1%       | -450        |
| Sealed Source Manufacturing             |                | 429,888 |                | 264,216 | 63%       | 165,672     |
|   | \$             | 484,098 | \$             | 318,876 | 52%       | \$ 165,222  |

Sealed source sales for the three months ended June 30, 2012, were \$429,888 as compared to \$264,216 for the same period in 2011. This is an increase of approximately 63% and is attributable to further growth in sales of finished cobalt source products. Furthermore, we continue to anticipate strong sales in this segment for the remainder of 2012 based on current customer commitments. 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 continue to strengthen our international source sales and benefit all of our customers in terms of the quality of the products supplied.

Gross profit of cobalt products for the three months ended June 30, 2012 was \$257,774, compared to \$452,197 for the same period in 2011. The difference of \$194,423, or approximately 43% is due to the timing of bulk cobalt sales as discussed above. Operating expense in this segment increased by \$51,380, or approximately 85%, for the three months ended June 30, 2012, as compared to the same period in 2011, and was attributable to increased professional fees and project management and contract fees related to new cobalt-60 service agreements with both the National Isotopes Development Center and the prime operating contractor for the DOE's advanced test reactor in Idaho Falls, ID. These service agreements are discussed in more detail below. Net income for cobalt products was \$146,267 for the three months ended June 30, 2012, as compared to \$392,070 for the same period in 2011. The decrease in net income of \$245,803, or approximately 63%, is attributable to timing of bulk cobalt sales as well as increased operating costs.

The production of cobalt is dependent upon the U.S. Department of Energy (DOE) and its prime operating contractor, which controls the Advanced Test Reactor (ATR) operations and, therefore, controls the continued production of cobalt in the government funded ATR. For more than 10 years, our agreement with the prime operating contractor had been on a reactor cycle-by-cycle contract basis. In July 2010, we entered into a new three-year Work For Others agreement with the DOE prime operating contractor to continue cobalt production and cask handling. However, in January 2011, we were informed that the DOE intended to terminate this existing agreement and we would be required to establish a new contract with the National Isotope Development Center (NIDC), which is a subprogram of the DOE Office of Science. Negotiations on this process took place during most of 2011 and in December 2011, we were notified that the site contractor was unilaterally terminating the WFO agreement. At that point we had no other option than to contract with NIDC in order to continue cobalt production. We have three major concerns with this change in contract control. First, the contract with NIDC only covers certain specific activities and if any cobalt production requires additional activities it must be separately contracted which will cause interruptions in production. Second, the NIDC has significantly increased the cost of all charges for its activities associated with cobalt production. And third, the NIDC is only contracting for one year time periods which are not compatible with the production cycle of cobalt. We are continuing to argue against these NIDC contracting methods and plan to use all reasonable means to reduce the impact of these new charging practices and contract terms. However, if we are unable to gain relief from the NIDC contract pricing and terms and are unable to pass along significant price increases to our customers it may become cost prohibitive within several years to continue cobalt production in the DOE reactor. Should that happen we would be forced to either terminate cobalt production in the U.S. or attempt to locate an alternate source of supply of cobalt-60 from outside the U.S.

*Nuclear Medicine Standards.* Revenues from nuclear medicine products for the three months ended June 30, 2012 were \$1,074,124, compared to \$1,186,399 for the same period in 2011. This represents a decrease in revenue attributable to this segment of \$112,275, or approximately 9%. We believe this decline is the result of medical facilities delaying the replacement of imaging sources due to budgetary constraints and a decline in operating nuclear medicine clinics. However, in 2011, we received both ISO-9000 and ISO-13485 quality program certifications that will allow us to start selling nuclear medicine products into several foreign countries that require this additional quality certification for manufacturers. We believe that as the global economy improves and with our added certifications, our sales in this segment will soon return to historical growth levels.

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. We report our investment in TI Services, LLC on a consolidated basis in our Nuclear Medicine Standards business segment. TI Services, LLC reported a net loss of \$20,541 for the three month period ended June 30, 2012.

Gross profit for our nuclear medicine business segment for the three months ended June 30, 2012 was \$307,960, as compared to \$370,564 for the same period in 2011, a decrease of \$62,604, or approximately 17%. Operating expense for this segment for the three months ended June 30, 2012 decreased to \$155,222, from \$192,769 in 2011. This decrease of \$37,547 is largely attributable to decreased operating expense reported by our investment in TI Services, LLC, with operating expense reported by the remaining nuclear medicine areas remaining relatively unchanged. Net income for this segment decreased \$25,056, or approximately 14%, to \$152,738 for the three months ended June 30, 2012, compared to \$177,794 for the same period in 2011. We will continue to work to expand this line of business both through our joint venture, TI Services, LLC, and expansion of foreign sales of nuclear medicine products.

*Radiological Services.* Revenues from radiological services for the three months ended June 30, 2012 were \$40,593, compared to \$57,635 for the same period in 2011, a decrease of 17,042, or approximately 30%. Revenue in this segment is generated by gemstone processing and radiological service consulting work which is performed in conjunction with sealed source sales and expended source disposal services. Gross profit for this segment for the three months ended June 30, 2012 was \$23,339, compared to \$37,267 for the same period in 2011. Operating expense for the three months ended June 30, 2012 was \$10,059, as compared to \$6,613 for the same period in 2011. The net income for the three months ended June 30, 2012 was \$33,641, as compared to \$30,665 net income for the same period in 2011. Historically, most of our radiological services have been performed in support of gemstone processing for Quali-Tech, Inc. and we will continue to perform these radiological services under our contract with Quali-Tech, Inc. with periodic modifications in per unit gemstone processing cost as well as transportation cost. We believe the current global market conditions have had a significant impact on the purchase of luxury items, such as topaz, the primary gemstone we process for Quali-Tech, Inc., which in turn has affected our revenue from processing gemstones. Although radiological consulting services and source disposal services have dropped off for the three-month period ended June 30, 2012, as compared to the same period in 2011, we believe that both these service areas will improve and the availability of the new type B(U) casks will allow us to expand our field services activity in 2013.

In March 2012, we announced the start of sales of radioactive material transportation containers through an exclusive worldwide distributor agreement with Alpha Omega Services Inc. (AOS), of Bellflower, California, signed in August 2007. Along with AOS, we had been awaiting NRC approval as well as the NRC Certificate of Compliance for the containers in order to begin marketing efforts. The NRC issued the certificate to AOS in February 2012 which will allow us to initiate container sales. In July 2012 the Company entered into a purchase agreement with Alpha Omega Services Inc. (AOS) for the purchase of one of these containers and anticipates receipt of the cask by February 2013. The Company will use the container for a wide range of needs such as target transfers, source installations, and type B shipments of radioactive material. We will also lease the container to customers for use in transportation of radioactive material. We believe that the availability of these containers for use in our current business operations as well as acting as sole distributor for container sales should enhance revenue in our radiological services business segment.

*Fluorine Products.* There were no revenues to report from the fluorine products segment for the three months ended June 30, 2012 or for the same period in 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 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 months ended June 30, 2012, we expensed approximately \$278,000 of planning, licensing, and other expense as compared to approximately \$1,735,000 in 2011. This is a decrease of \$1,457,000, or approximately 84%, and is the result of reduced project spending due to the decrease in funds available for the project, as well as capitalizing certain research and development costs during the three months ended June 30, 2012, rather than expensing them as we had done in prior periods. Although funding was limited during this period, we continued to make excellent progress towards obtaining our NRC operating license for the planned de-conversion facility which we anticipate receiving by about October 2012. As funding permits, we will also continue engineering design work and testing in our Idaho pilot facility of components and analytical processes required for the planned uranium de-conversion facility in New Mexico.

Transportation. 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 months ended June 30, 2012 were \$39,017, compared to \$73,400 for the same period in 2011. This is a decrease of \$34,383, or approximately 47%. The decline in revenue was attributable to reduced opportunities for transportation contracting during the period. As revenues for our cobalt products and radiological services segments regain strength through expansion of teletherapy source sales, cask sales, and field service work we anticipate that our transportation segment revenues will grow as well since these transportation services are used in the transport of our products, such as teletherapy sources, as well as in the transportation of shipping containers such as the type B(U) casks. Gross profit was \$16,719 for the three months ended June 30, 2012, compared to \$57,515 for the same period in 2011, and operating expense was \$34,505 for the three months ended June 30, 2012, compared to \$33,043 for the same period in 2011. Net loss for this segment was \$22,939, for the three months ended June 30, 2012 compared to net income of \$13,184 for the same period in 2011.

*Six Months Ended June 30, 2012 Compared to Six Months Ended June 30, 2011*

Revenues for the six-month period ended June 30, 2012, were \$3,992,292, as compared to \$5,028,059 for the same period in 2011, a decrease of \$1,035,767, or approximately 20%. The Company recorded no bulk cobalt sales for the six-month period ended June 30, 2012, and recorded \$502,533 of bulk cobalt sales for the same period in 2011.

Because each bulk cobalt sale represents a material dollar amount, these sales can create significant variations in period-to-period comparisons. Therefore, management believes that a comparison of total revenue excluding bulk cobalt sales provides meaningful information to investors because of these large period-to-period variations. This information does have limitations as an analytical tool and 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.

|  | <b>For the six</b>  | <b>% of</b>  | <b>For the six</b>  | <b>% of</b>  |
|--|---------------------|--------------|---------------------|--------------|
|  | <b>months ended</b> | <b>Total</b> | <b>months ended</b> | <b>Total</b> |
|  | <b>June 30,</b>     | <b>Sales</b> | <b>June 30,</b>     | <b>Sales</b> |
|  | <b>2012</b>         | <b>2012</b>  | <b>2011</b>         | <b>2011</b>  |
| Sale of Product                                      |                     |              |                     |              |
| Radiochemical Products                               | \$ 787,033          | 20%          | \$ 917,201          | 18%          |
| <b>Cobalt Products (including bulk cobalt sales)</b> | 833,430             | 21%          | 1,234,244           | 25%          |
| Nuclear Medicine Standards                           | 2,202,129           | 55%          | 2,579,556           | 51%          |
| Radiological Services                                | 65,883              | 2%           | 134,250             | 3%           |
| Fluorine Products                                    | -                   | 0%           | -                   | 0%           |
| Transportation                                       | 103,817             | 2%           | 162,808             | 3%           |
| Corporate revenue                                    | -                   | 0%           | -                   | 0%           |
| <b>Total Segments</b>                                | <b>\$ 3,992,292</b> | <b>100%</b>  | <b>\$ 5,028,059</b> | <b>100%</b>  |
| <br>   |                     |              |                     |              |
| Radiochemical Products                               | \$ 787,033          | 20%          | \$ 917,201          | 20%          |
| <b>Cobalt Products (excluding bulk cobalt sales)</b> | 833,430             | 21%          | 731,711             | 16%          |
| Nuclear Medicine Standards                           | 2,202,129           | 55%          | 2,579,556           | 57%          |
| Radiological Services                                | 65,883              | 2%           | 134,250             | 3%           |
| Fluorine Products                                    | -                   | 0%           | -                   | 0%           |
| Transportation                                       | 103,817             | 2%           | 162,808             | 4%           |
| Corporate revenue                                    | -                   | 0%           | -                   | 0%           |
| <b>Total Segments</b>                                | <b>\$ 3,992,292</b> | <b>100%</b>  | <b>\$ 4,525,526</b> | <b>100%</b>  |

Gross profit for the six-month period ended June 30, 2012 was \$1,327,693, compared to \$1,918,258, for the same period in 2011. This represents a decrease of \$590,565, or approximately 31%. The decrease in gross profit for the six-month period is tied directly to the decrease in sales for this same period comparison.

Operating expenses were \$2,471,264 for the six-month period ended June 30, 2012, compared to \$5,046,367 for the same period in 2011. This represents decrease of \$2,575,103 or approximately 51%. This decrease is largely attributable to the decrease in research and development costs which were down by approximately 81%. As previously discussed, these costs were previously treated as research and development expense, but once it became reasonably certain that the NRC would likely issue our license to build and operate the planned de-conversion facility, we began to capitalize these costs rather than expense them according to ASC 730, Accounting for Research and Development Costs. Once the license is issued the capitalized costs will be amortized to expense over the 40 year life of the license. Salaries and Contract Labor expense decreased by \$217,031, or approximately 19%, which is the result of recording less non-cash equity compensation for the six-month period ended June 30, 2012 as compared to the same period in 2011. We will continue to incur capital costs associated with this project in 2012 based on our ability to raise funds to support the project. The following table shows a year-to-year comparison of total operating expenses for the six-month period:

|  | <b>For the six<br/>months ended<br/>June 30,<br/>2012</b> | <b>For the six<br/>months ended<br/>June 30,<br/>2011</b> | <b>% change</b> |
|--|---|---|-----------------|
| <u>Operating Costs and Expenses:</u>   |   |   |                 |
| Salaries and Contract Labor            | \$ 929,291  | \$ 1,146,322  | -19%            |
| General, Administrative and Consulting | 977,118   | 901,161   | 8%              |
| Research and Development               | 564,855   | 2,998,884   | -81%            |
| Total operating expenses               | \$ 2,471,264  | \$ 5,046,367  | -51%            |



Interest expense for the six months ended June 30, 2012 was \$31,227, compared to \$331,641 for the same period in 2011. The decrease of \$300,414, or approximately 91%, is attributable to the maturity of the convertible debentures which matured in August 2011, and were converted into shares of common stock and warrants on the maturity date. Interest expense recorded for the convertible debentures for the six months ended June 30, 2011 was approximately \$297,000. There was no interest was recorded for these debentures for the same period in 2012. 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.

Our net loss for the six-month period ended June 30, 2012, was \$1,105,379 as compared to \$3,385,198 for the same period in 2011. This significant decrease in loss of \$2,279,819, or approximately 67%, is the combined result of decreased operating expense and the large decreases in both research and development expense and interest expense.

*Radiochemical Products.* Revenues from the sale of radiochemical products for the six-month period ended June 30, 2012, were \$787,033, compared to \$917,201 for the same period in 2011. This is a decrease in revenue of \$130,168, or approximately 14%. Approximately 99% of this segment's revenue comes from the sale of iodine-131. Sales of this radiochemical product decreased in 2011 after we received a warning letter from the U.S. Food and Drug Administration (FDA) for violations of Current Good Manufacturing Practices (CGMP), and we have been slow to regain previous sales levels. We have completed an upgrade and currently meet all CGMP requirements. Having attained CGMP compliance, we believe that our combined efforts in marketing, continued excellent customer service, and competitive product pricing will once again place us in a strong market position and that sales in this segment will increase.

Gross profit percentages for the six months ended June 30, 2012 and 2011 were approximately 11% and 17%, respectively. Operating expense for this segment for the six-month period ended June 30, 2012 was \$71,095, compared to \$69,336 for the same period in 2011. This slight increase of less than 3% is due to increases in operating expense including small equipment and contract services costs incurred to meet CGMP compliance. Net income for this segment decreased for the six-month period ended June 30, 2012, to \$18,257, from \$89,854 for the same period in 2011.

*Cobalt Products.* Revenues from the sale of cobalt products for the six-month period ended June 30, 2012 were \$833,430, compared to \$1,234,244 for the same period in 2011. This represents a decrease in revenue of \$400,814, or approximately 32%. This decrease in segment revenue is largely 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 Sale of Product table above. Excluding bulk cobalt sales, other cobalt product sales increased to \$833,430 for the six months ended June 30, 2012, compared to \$731,711 for the same period in 2011. This is an increase of \$101,719, or approximately 14%. This increase in sales of the other cobalt products reflects our on-going marketing efforts of sealed source cobalt products into new markets.

Gross profit of cobalt products for the six-month period ended June 30, 2012 was \$499,127, as compared to \$744,566 for the same period in 2011. Operating expense in this segment increased by \$126,540, to \$247,526 for the six-month period ended June 30, 2012, from \$120,986 for the same period in 2011. This is an increase of approximately 105% and is due to additional professional expenses incurred in relation to additional contract requirements imposed by the DOE Isotopes Business Office. Net income for the six months ended June 30, 2012 was \$251,601, compared to \$623,579 for the same period in 2011. This decrease of \$371,978, or approximately 60%, is attributable to the comparative differential of bulk cobalt sales as well as current period increases in contractual costs related to irradiation charges and DOE contract policies.

*Nuclear Medicine Standards.* Revenues from nuclear medicine products for the six-month period ended June 30, 2012 were \$2,202,129 compared to \$2,579,556 for the same period in 2011. This represents a decrease in revenue attributable to this segment of \$377,427, or approximately 15%. We believe this decline is the result of medical facilities delaying the replacement of imaging sources due to budgetary constraints and a decline in the number of operating nuclear medicine clinics. However, in 2011, we received both ISO-9000 and ISO-13485 quality program certifications that will allow us to start selling nuclear medicine products into several foreign countries that require this additional quality certification for manufacturers. We believe that as the global economy improves and with our added certifications, our sales in this segment will soon return to historical growth levels.

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. We report our investment in TI Services, LLC on a consolidated basis in our Nuclear Medicine Standards business segment. TI Services, LLC reported a net loss of \$7,012 for the six-month period ended June 30, 2012. However, this net loss was adjusted for a prior period unrecorded expense of approximately \$17,000 resulting in a year-to-date net loss of \$24,073. As a result the Nuclear Medicine Standards business segment has included its 50% share of that loss, or \$11,937, in results of operations for the three-month period.

Gross profit for the six-month period ended June 30, 2012 was 657,934, as compared to \$796,442 for the same period in 2011, a decrease of \$138,508, or approximately 17%. Operating expense for this segment for the six-month period ended June 30, 2012 decreased to \$341,294, from \$396,479 for the same period in 2011. This is a decrease of \$55,185 or approximately 14%. This decrease is the result of management's implementation of cost control efforts within both the nuclear medicine segment as well as TI Services, LLC. Net income for this segment decreased by \$83,325 or approximately 21%, to \$316,639 for the six month period ended June 30, 2012 from \$399,964 for the same period in 2011. We will continue efforts to work towards expanding sales in this segment through TI Services, LLC and believe that these efforts, along with our recent ISO certifications, will help to strengthen our value as a contract manufacturer of nuclear medicine products for RadQual, LLC and help to improve overall financial performance of this business segment by permitting expansion of international sales.

*Radiological Services.* The radiological services segment reported revenues of \$65,883 for the six-month period ended June 30, 2012 and \$134,250 for the same period in 2011. This is a decrease of \$68,367, or approximately 51%. Gross profit was \$28,849 for this segment for the six months ended June 30, 2012 and \$96,458 for the same period in 2011. This is a decrease in gross profit of \$67,609, or approximately 70%. Operating costs were \$15,843 and \$12,898 for 2012 and 2011, respectively, for the same six-month period. Topaz gemstone processing revenues continue to remain modest compared to historical levels, however 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 radiological consulting services and source disposal services dropped off for the six month ended June 31, 2012, as compared to the same period in 2011, we believe that both these service areas will improve and the availability of new type B(U) casks will allow us to expand our field services activity in 2013.

In March 2012, we announced the start of sales of radioactive material transportation containers through an exclusive worldwide distributor agreement signed in August 2007 with Alpha Omega Services Inc. (AOS), of Bellflower, California. Along with AOS, we had been awaiting NRC approval as well as the NRC Certificate of Compliance for the containers in order to begin marketing efforts. This certificate was issued in February 2012 which will allow us to initiate container sales. In July 2012 the Company entered into a purchase agreement with Alpha Omega Services Inc. (AOS) for the purchase of one of these containers and anticipates receipt of the cask by February 2013. The Company will use the container for a wide range of needs such as target transfers, source installations, and type B shipments of radioactive material. We will also lease the container to customers for use in transportation of radioactive material. We believe that the availability of these containers for use in our current business operations as well as acting as sole distributor for container sales should enhance revenue in our radiological services business segment.

*Fluorine Products.* There were no revenues to report from the fluorine products segment for the six months ended June 30, 2012 or for the same period in 2011. We are developing our fluorine products in conjunction with the 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 six months ended June 30, 2012, we incurred expenses of approximately \$558,000 for planning, licensing, and other expense as compared to approximately \$3,293,000 in 2011. This is a decrease of approximately \$2,735,000, or approximately 83%, and is the result of reduced project spending due to the decrease in funds available for the project, as well as capitalizing certain research and development costs during the three months ended March 31, 2012, rather than expensing them as we had done in prior periods. Although funding was limited during this period, we continued to make excellent progress towards obtaining our NRC operating license for the planned de-conversion facility which we anticipate receiving by about October 2012. As funding permits, we will also continue engineering design work and testing in our Idaho pilot facility of components and analytical processes required for the planned uranium de-conversion facility in New Mexico.

Transportation. 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 six months ended June 30, 2012 were \$103,817, compared to \$162,808 for the same period in 2011. This is a decrease of \$58,991, or approximately 36%. Revenues in this business segment were directly affected by decreased for-hire services provided. However, we use our transportation services in our cobalt products business segment to support the transport of cobalt products. As revenues for our cobalt products and radiological services segments regain strength, through expansion of teletherapy source sales, cask sales, and field service work, we anticipate that our transportation segment revenues will grow as well since these transportation services are used in the transport of our products, such as teletherapy sources, and in the transportation of shipping containers such as the type B(U) casks.

Gross profit was \$52,431 for the six months ended June 30, 2012, compared to \$121,605 for the same period in 2011, and operating expense was 66,179 for the three months ended June 30, 2012, compared to \$76,065 for the same period in 2011. Net loss for this segment was \$24,702 for the six-month period ended June 30, 2012 and net income for the same period in 2011 was \$23,465.

#### LIQUIDITY AND CAPITAL RESOURCES

On June 30, 2012, we had cash and cash equivalents of \$434,962. For the six months ended June 30, 2012, net cash used in operating activities was \$803,339. 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 June 30, 2012 totaled \$1,408,509, and inventories at December 31, 2011 totaled \$1,465,293. 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 82% of total work in process inventory cost for the six months ended June 30, 2012, and approximately 79% of total inventory cost for the same period in 2011.

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 six months ended June 30, 2012, cash used in investing activities totaled \$892,831. During this six-month period, we purchased approximately \$38,000 of new equipment for use in our current business segments and capitalized approximately \$1,115,000 of costs incurred in the planning and licensing of the planned de-conversion facility.

Financing activities provided cash of \$28,436 which included \$56,795 in cash proceeds from the sale of our common stock and cash payments of \$28,359 for principal payments on notes payable and capital leases.

Total decrease in cash for the period ended June 30, 2012 was \$1,667,734 which included \$203,177 placed into a restricted certificate of deposit which supports our decommissioning funding plan, a \$35,000 interest payment made pursuant to the terms of a note payable to our former chairman of the board, and approximately \$196,000 paid to the NRC for licensing activities performed with regard to our de-conversion project. We expect that cash from operations, cash obtained through equity offerings, and our current cash balance will be sufficient to fund operations for the next twelve months.

At June 30, 2012, we had an unsecured note payable totaling \$500,000 which is payable to the former Chairman of the Board. The loan required annual interest payments on the principal balance at 7% per year, payable each April 1st, and the note matured on April 1, 2012. In April 2012, we renegotiated the terms of the note to extend the maturity date to November 1, 2012, and issued 204,167 shares of our common stock in lieu of interest to be paid in cash on the loan from April 1, 2012 to November 1, 2012, based on an annual interest rate of 14% and the closing price of our stock of \$0.20 per share on March 23, 2012. In July 2012, \$100,000 of the principal amount due on this note was converted into a convertible debenture via a private placement offered by the Company thus reducing the principal amount due on November 1, 2012 to \$400,000. 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 incurred expense of approximately \$558,000 during the first six months of 2012 on planning, licensing, and other expense for this project, and will continue this work as funding becomes available to us. During the first six months of 2012, we continued work in support of the licensing process with the NRC, received the air permit from the New Mexico Environment Department in April 2012, NRC published the final Safety Evaluation Report in May 2012, and we continue to work towards completing additional sales agreements for the sale of products from the proposed facility. 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 continued to take actions in 2012 in support of this project.

We have a long term investment of \$1,402,749, 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 July 27, 2012, the Company entered into a securities purchase agreement with certain institutional and private investors pursuant to which it sold convertible debentures for an aggregate of \$2,779,900. The debentures bear interest at 8%, mature July 2017 and are unsecured. These debentures are convertible at any time into shares of the Company's common stock at an initial conversion price of \$0.225 per share, subject to adjustment in certain conditions. The Company may force the conversion of the Notes if, at any time following the one year anniversary of the Closing Date, (i) the 30-day volume-weighted daily average price of the Company's common stock exceeds \$0.40 per share, (ii) the average daily trading volume is at least 500,000 shares during such 30-day period, in each case subject to certain adjustments, and (iii) the Company meets certain equity conditions. In addition, from and after the second anniversary of the Closing Date, the Company will have the right to redeem all or part of the Notes at any time prior to the Maturity Date. Notwithstanding the foregoing, the Company will also have the right prior to the second anniversary of the issuance of the Notes to redeem all or part of the Notes if, but only if, the Company successfully consummates a financing of the proposed Hobbs, New Mexico de-conversion facility in the amount of at least \$25 million. Any redemption of the Notes by the Company requires the payment of a redemption fee as set forth in the Notes.

Each investor also received a common stock purchase warrant to purchase such number of shares of the Company's common stock equal to twenty five percent (25%) of the number of shares of common stock that the note purchased by such investor may be convertible into on the Closing Date. The warrants are immediately exercisable at a price of \$0.30 per share and have a term of five years. As part of this transaction, on July 26, 2012, our former Chairman of the Board converted \$100,000 of a \$500,000 note due from the Company as consideration for purchase of convertible notes in the private placement, thereby reducing the amount due from the Company under the original note to \$400,000. The remaining terms of this note remain in full force and effect and are discussed above. In July 2012, the Company recognized compensation expense of approximately \$387,000 resulting from the valuation of the 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 .65%, expected dividend yield of 0%, expected volatility of 87%, and an expected life of 1,825 days.

At June 30, 2012, 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.

#### Off-Balance Sheet Arrangements

As of June 30, 2012, we had no off-balance sheet arrangements or obligations.



## **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 June 30, 2012, of our disclosure controls and procedures. Based on that evaluation, our CEO and CFO concluded that our disclosure controls and procedures were effective as of June 30, 2012.

### **Changes in Internal Control over Financial Reporting**

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

## **PART II. OTHER INFORMATION**

### **ITEM 1A. RISK FACTORS**

There have been no material changes or updates to the risk factors previously disclosed in Item 1A. Risk Factors of our Annual Report on Form 10-K for the year ended December 31, 2011.

**ITEM 6. EXHIBITS**

**Exhibit**

**No.**

**Description**

3.1

Restated Certificate of Formation, as amended (incorporated by reference to Exhibit 3.1 of the Company's Quarterly Report on Form 10-Q for quarter ended June 30, 2010).

3.2

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

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

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The following financial statements, formatted in XBRL: (i) Unaudited Condensed Consolidated Balance Sheets as of June 30, 2012 and December 31, 2011, (ii) Unaudited Condensed Consolidated Statements of Operations for the three and six months ended June 30, 2012 and 2011, (iii) Unaudited Condensed Consolidated Statements of Cash Flows for the six months ended June 30, 2012 and 2011 and (v) Notes to Unaudited Condensed Consolidated Financial Statements. 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.

\*\* Furnished herewith.

This exhibit constitutes a management contract or compensatory plan or arrangement.

**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.

Date: August 14, 2012

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

## EXHIBIT INDEX

### Exhibit

#### No.

#### Description

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