
**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, 2019

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 or organization)*

74-2763837

(IRS Employer Identification No.)

**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)

Securities registered pursuant to Section 12(b) of the Act: None

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 every Interactive Data File required to be submitted 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 such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Non-accelerated filer

Accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards pursuant to Section 13(a) of the Exchange Act.

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 August 9, 2019, the number of shares of common stock, \$0.01 par value, outstanding was 419,805,440.

INTERNATIONAL ISOTOPES INC.
FORM 10-Q
For The Quarter Ended June 30, 2019

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Part I. Financial Information
Item I. Financial Statements

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES
Condensed Consolidated Balance Sheets

Assets	June 30, 2019 (unaudited)	December 31, 2018
Current assets		
Cash and cash equivalents	\$ 443,310	\$ 828,039
Accounts receivable	1,402,893	820,370
Inventories	3,219,941	2,765,729
Prepays and other current assets	310,620	315,042
Total current assets	5,376,764	4,729,180
Long-term assets		
Restricted cash	629,446	622,428
Property, plant and equipment, net	1,876,602	1,906,182
Operating lease right-of-use asset	758,666	—
Goodwill	1,384,255	1,384,255
Patents and other intangibles, net	4,272,043	4,348,031
Total long-term assets	8,921,012	8,260,896
Total assets	\$ 14,297,776	\$ 12,990,076
Liabilities and Stockholders' Equity (Deficit)		
Current liabilities		
Accounts payable	\$ 3,882,312	\$ 2,285,165
Accrued liabilities	803,210	939,918
Current portion of unearned revenue	1,561,458	3,783,541
Current portion of operating lease right-of-use liability	99,236	—
Current portion of related party notes payable	120,000	180,000
Current installments of notes payable	1,933,415	7,956
Total current liabilities	8,399,631	7,196,580
Long-term liabilities		
Obligation for lease disposal costs	526,915	507,968
Unearned revenue, net of current portion	7,500	7,500
Related party notes payable, net of current portion and debt discount	459,767	446,356
Notes payable, net of current portion	16,602	20,786
Operating lease right-of-use liability, net of current portion	659,430	—
Mandatorily redeemable convertible preferred stock, net of discount	4,720,919	4,656,752
Total long-term liabilities	6,391,133	5,639,362
Total liabilities	14,790,764	12,835,942
Commitments and contingencies (Note 8)	—	—
Stockholders' equity (deficit)		
Common stock, \$0.01 par value; 750,000,000 shares authorized; 419,774,105 and 413,168,301 shares issued and outstanding respectively	4,197,741	4,131,683
Additional paid in capital	121,125,897	120,805,997
Accumulated deficit	(127,750,572)	(126,541,421)
Deficit attributable to International Isotopes Inc. stockholders	(2,426,934)	(1,603,741)
Equity attributable to noncontrolling interest	1,933,946	1,757,875
Total equity (deficit)	(492,988)	154,134
Total liabilities and stockholders' equity (deficit)	\$ 14,297,776	\$ 12,990,076

See accompanying notes to the unaudited condensed consolidated financial statements.

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

	<u>Three months ended June 30,</u>		<u>Six months ended June 30,</u>	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
Sale of product	\$ 2,135,839	\$ 2,392,306	\$ 4,663,691	\$ 5,193,332
Cost of product	971,384	1,363,564	2,059,812	2,805,972
Gross profit	<u>1,164,455</u>	<u>1,028,742</u>	<u>2,603,879</u>	<u>2,387,360</u>
Operating costs and expenses				
Salaries and contract labor	596,045	561,058	1,219,744	1,130,517
General, administrative and consulting	600,580	582,614	1,227,443	1,115,748
Research and development	50,354	84,464	96,658	190,884
Total operating expenses	<u>1,246,979</u>	<u>1,228,136</u>	<u>2,543,845</u>	<u>2,437,149</u>
Net operating (loss) income	<u>(82,524)</u>	<u>(199,394)</u>	<u>60,034</u>	<u>(49,789)</u>
Other income (expense):				
Other (expense) income	(867,660)	(381)	(843,028)	52,981
Interest income	3,611	2,317	7,033	3,624
Interest expense	(136,842)	(115,882)	(250,919)	(221,916)
Total other expense	<u>(1,000,891)</u>	<u>(113,946)</u>	<u>(1,086,914)</u>	<u>(165,311)</u>
Net loss	<u>(1,083,415)</u>	<u>(313,340)</u>	<u>(1,026,880)</u>	<u>(215,100)</u>
Less income attributable to noncontrolling interest	<u>73,779</u>	<u>18,939</u>	<u>182,271</u>	<u>82,775</u>
Net loss attributable to International Isotopes Inc.	<u>\$ (1,157,194)</u>	<u>\$ (332,279)</u>	<u>\$ (1,209,151)</u>	<u>\$ (297,875)</u>
Net income (loss) per common share - basic:	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>
Net income (loss) per common share - diluted:	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>
Weighted average common shares outstanding - basic and diluted:	<u>419,230,535</u>	<u>411,232,012</u>	<u>416,568,617</u>	<u>409,327,531</u>

See accompanying notes to the unaudited condensed consolidated financial statements.

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

	<u>Six months ended June 30,</u>	
	<u>2019</u>	<u>2018</u>
Cash flows from operating activities		
Net Loss	\$ (1,026,880)	\$ (215,100)
Adjustments to reconcile net loss to net cash used in operating activities		
Depreciation and amortization	130,445	136,086
Gain on disposal of property, plant and equipment	(1,700)	—
Accretion of obligation for lease disposal costs	18,947	11,277
Accretion of beneficial conversion feature and discount	77,578	77,579
Equity based compensation	92,540	125,133
Changes in operating assets and liabilities:		
Accounts receivable	(582,523)	(269,663)
Inventories	(454,212)	(709,324)
Prepays and other current assets	4,422	238,431
Accounts payable and accrued liabilities	1,666,419	320,689
Unearned revenues	(39,941)	(43,134)
Net cash used in operating activities	<u>(114,905)</u>	<u>(328,026)</u>
Cash flows from investing activities:		
Proceeds from sale of property, plant and equipment	1,700	—
Purchase of property, plant and equipment	(24,877)	(62,976)
Net cash used in investing activities	<u>(23,177)</u>	<u>(62,976)</u>
Cash flows from financing activities:		
Proceeds from sale of stock and exercise of stock options	87,438	73,304
Distribution to non-controlling interest	(6,200)	—
Proceeds from issuance of related party notes payable	—	120,000
Principal payments on notes payable	(320,867)	(3,656)
Net cash (used in) provided by financing activities	<u>(239,629)</u>	<u>189,648</u>
Net decrease in cash, cash equivalents, and restricted cash	(377,711)	(201,354)
Cash, cash equivalents, and restricted cash at beginning of period	1,450,467	1,250,368
Cash, cash equivalents, and restricted cash at end of period	<u>\$ 1,072,756</u>	<u>\$ 1,049,014</u>
Supplemental disclosure of cash flow activities:		
Cash paid for interest	<u>\$ 86,388</u>	<u>\$ 37,749</u>
Supplemental disclosure of noncash financing and investing transactions:		
Decrease in accrued interest and increase in equity for conversion of dividends to stock	<u>\$ 205,980</u>	<u>\$ 205,980</u>
Decrease in unearned revenue and increase in notes payable for repayment plan	<u>\$ 2,182,142</u>	<u>\$ —</u>
Reconciliation of cash, cash equivalents, and restricted cash as shown in the condensed consolidated statements of cash flows is presented in the table below:		
Six months ended June 30,	2019	2018
Cash and cash equivalents	\$ 443,310	\$ 412,385
Restricted cash included in current assets	—	20,000
Restricted cash included in long-term assets	629,446	616,629
Total cash, cash equivalents, and restricted cash shown in statement of cash flows	<u>\$ 1,072,756</u>	<u>\$ 1,049,014</u>

See accompanying notes to the unaudited condensed consolidated financial statements.

INTERNATIONAL ISOTOPES INC AND SUBSIDIARIES
Reconciliation of Stockholders' Equity
Three and Six Months Ended June 30, 2019
(Unaudited)

	Common stock		Additional Paid-in Capital	Accumulated Deficit	Deficit Attributable to Internat'l Isotopes Shareholders	Equity Attributable to Noncontrolling Interest	Total Equity
	Shares	Common					
	Outstanding	Stock					
Balance, January 1, 2019	413,168,301	\$4,131,683	\$ 120,805,997	\$(126,541,421)	\$ (1,603,741)	\$ 1,757,875	\$ 154,134
Shares issued under employee stock purchase plan	68,037	680	2,758	—	3,438	—	3,438
Stock grant	279,767	2,798	(2,798)	—	—	—	—
Stock in lieu of dividends on convertible preferred C	3,433,000	34,330	171,650	—	205,980	—	205,980
Shares issued for exercise of employee stock options	2,825,000	28,250	55,750	—	84,000	—	84,000
Stock based compensation	—	—	92,540	—	92,540	—	92,540
Distribution to non-controlling interest	—	—	—	—	—	(6,200)	(6,200)
Net (loss) income	—	—	—	(1,209,151)	(1,209,151)	182,271	(1,026,880)
Balance, June 30, 2019	<u>419,774,105</u>	<u>\$4,197,741</u>	<u>\$ 121,125,897</u>	<u>\$(127,750,572)</u>	<u>\$ (2,426,934)</u>	<u>\$ 1,933,946</u>	<u>\$ (492,988)</u>

	Common stock		Additional Paid-in Capital	Accumulated Deficit	Deficit Attributable to Internat'l Isotopes Shareholders	Equity Attributable to Noncontrolling Interest	Total Equity
	Shares	Common					
	Outstanding	Stock					
Balance April 1, 2019	416,912,686	\$4,169,127	\$ 121,039,851	\$(126,593,378)	\$ (1,384,401)	\$ 1,866,367	\$ 481,966
Shares issued under employee stock purchase plan	36,419	364	1,493	—	1,857	—	1,857
Shares issued for exercise of employee stock options	2,825,000	28,250	55,750	—	84,000	—	84,000
Stock based compensation	—	—	28,803	—	28,803	—	28,803
Distribution to non-controlling interest	—	—	—	—	—	(6,200)	(6,200)
Net (loss) income	—	—	—	(1,157,194)	(1,157,194)	73,779	(1,083,415)
Balance, June 30, 2019	<u>419,774,105</u>	<u>\$4,197,741</u>	<u>\$ 121,125,897</u>	<u>\$(127,750,572)</u>	<u>\$ (2,426,934)</u>	<u>\$ 1,933,946</u>	<u>\$ (492,988)</u>

See accompanying notes to the unaudited condensed consolidated financial statements.

INTERNATIONAL ISOTOPES INC AND SUBSIDIARIES
Reconciliation of Stockholders' Equity
Three and Six Months Ended June 30, 2018
(Unaudited)

	<u>Common stock</u>		<u>Additional Paid-in Capital</u>	<u>Accumulated Deficit</u>	<u>Deficit Attributable to Internat'l Isotopes Shareholders</u>	<u>Equity Attributable to Noncontrolling Interest</u>	<u>Total Equity</u>
	<u>Shares Outstanding</u>	<u>Common Stock</u>					
	Balance, January 1, 2018	406,790,703					
Shares issued under employee stock purchase plan	51,439	515	2,789	—	3,304	—	3,304
Stock grant	209,825	2,098	(2,098)	—	—	—	—
Stock in lieu of dividends on convertible preferred C	2,288,646	22,886	183,094	—	205,980	—	205,980
Shares issued for exercise of employee stock options	2,611,111	26,111	43,889	—	70,000	—	70,000
Stock based compensation	—	—	125,133	—	125,133	—	125,133
Net (loss) income	—	—	—	(297,875)	(297,875)	82,775	(215,100)
Balance, June 30, 2018	<u>411,951,724</u>	<u>\$ 4,119,517</u>	<u>\$ 120,751,427</u>	<u>\$ (125,994,720)</u>	<u>\$ (1,123,776)</u>	<u>\$ 1,660,020</u>	<u>\$ 536,244</u>

	<u>Common stock</u>		<u>Additional Paid-in Capital</u>	<u>Accumulated Deficit</u>	<u>Deficit Attributable to Internat'l Isotopes Shareholders</u>	<u>Equity Attributable to Noncontrolling Interest</u>	<u>Total Equity</u>
	<u>Shares Outstanding</u>	<u>Common Stock</u>					
	Balance April 1, 2018	409,922,096					
Shares issued under employee stock purchase plan	29,628	296	1,481	—	1,777	—	1,777
Shares issued for exercise of employee stock options	2,000,000	20,000	50,000	—	70,000	—	70,000
Stock based compensation	—	—	51,429	—	51,429	—	51,429
Net (loss) income	—	—	—	(332,279)	(332,279)	18,939	(313,340)
Balance, June 30, 2018	<u>411,951,724</u>	<u>\$ 4,119,517</u>	<u>\$ 120,751,427</u>	<u>\$ (125,994,720)</u>	<u>\$ (1,123,776)</u>	<u>\$ 1,660,020</u>	<u>\$ 536,244</u>

See accompanying notes to the unaudited condensed consolidated financial statements.

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES
Notes to Unaudited Condensed Consolidated Financial Statements
For the Quarter Ended June 30, 2019

(1) The Company and Basis of Presentation

International Isotopes Inc. (INIS) was incorporated in Texas in November 1995. The accompanying unaudited 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 INIS and its wholly owned subsidiaries. The unaudited condensed consolidated financial statements also include the accounts of INIS's 50% owned joint venture, TI Services, LLC (TI Services), and the accounts of INIS's 24.5% interest in RadQual, LLC (RadQual). TI Services is headquartered in Youngstown, Ohio and was formed with RadQual in December 2010 to distribute products and services for nuclear medicine, nuclear cardiology and Positron Emission Tomography (PET) imaging. RadQual is a global supplier of molecular imaging quality control and calibration devices, and is headquartered in Idaho Falls, Idaho. In August 2017, affiliates of INIS purchased 75.5% of RadQual and at the time INIS was named as one of the two managing members of RadQual. As a result of this ownership change, INIS has significant influence in management decisions with regard to RadQual's business operations. INIS, its wholly owned subsidiaries, TI Services, and RadQual are collectively referred to herein as the "Company," "we," "our" or "us."

Nature of Operations – INIS and its subsidiaries, TI Services and RadQual, manufacture a full range of nuclear medicine calibration and reference standards, a wide range of products, including cobalt teletherapy sources, and a varied selection of radioisotopes and radiochemicals for medical research, pharmacy compounding, and clinical applications. The Company also distributes a varied selection of radioisotopes and radiochemicals for medical and clinical research applications and offers contract manufacturing services for certain pharmaceutical products. The Company also provides a host of transportation, recycling, and radiological field services on a contract basis for customers and holds several patents for a fluorine extraction process that it plans to use in conjunction with a proposed commercial depleted uranium de-conversion facility which would be located in Lea County, New Mexico (the "De-Conversion Facility"). The Company's business consists of five business segments: Nuclear Medicine Standards, Cobalt Products, Radiochemical Products, Fluorine Products, and Radiological Services. The Company's headquarters and all operations, with the exception of TI Services, are located in Idaho Falls, Idaho.

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 two to three years. Accordingly, preliminary payments received on cobalt contracts, where shipment will not take place for greater than one year, have been recorded as unearned revenue and, depending upon estimated ship dates, classified under either current or long-term liabilities on the Company's consolidated balance sheets. These unearned revenues are being recognized as revenue in the periods during which the cobalt shipments take place. 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 accompanying unaudited condensed consolidated financial statements are presented in conformity with GAAP and include all operations and balances of INIS and its wholly-owned subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation. See Note 4 "Investment and Business Consolidation" for additional information regarding RadQual.

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, the accompanying unaudited condensed consolidated financial statements 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 periods ended June 30, 2019 are not necessarily indicative of the results that may be expected for the year ending December 31, 2019. The accompanying unaudited condensed consolidated financial statements should be read in conjunction with the Company's Annual Report on Form 10-K for the year ended December 31, 2018 filed with the SEC on March 22, 2019.

Recent Accounting Pronouncements – In February 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Updated ASU 2016-02, “Leases”, which was issued to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. The amendments in ASU 2016-02 are effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Results for reporting periods beginning January 1, 2019 are presented in accordance with Topic 842, while prior-period amounts have not been retrospectively adjusted and continue to be reported in accordance with Topic 840, Leases. Based upon the Company’s leases, the Company was not required to make an adjustment to the opening balance of retained earnings as of January 1, 2019. See Note 10, “Leases” for further discussion.

In June 2018, the FASB issued ASU 2018-07, “Compensation-Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting”, which expands the scope of Topic 718 to include all share-based payment transactions for acquiring goods and services from nonemployees. ASU 2018-07 specifies that Topic 718 applies to all share-based payment transactions in which the grantor acquires goods and services to be used or consumed in its own operations by issuing share-based payment awards. ASU 2018-07 also clarifies that Topic 718 does not apply to share-based payments used to effectively provide (1) financing to the issuer or (2) awards granted in conjunction with selling goods or services to customers as part of a contract accounted for under ASC 606. The amendments in ASU 2018-07 are effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. The Company adopted this standard effective January 1, 2019, and there was no material impact on the financial statements.

(2) Current Developments and Liquidity

Business Condition – Since inception, the Company has incurred substantial losses. During the six-month period ended June 30, 2019, the Company reported a net loss of \$1,209,151, net of non-controlling interest, and net cash used in operating activities of \$114,905. During the six-month period ended June 30, 2018, the Company reported net loss of \$297,875, net of non-controlling interest, and net cash used in operating activities of \$328,026.

During the six months ended June 30, 2019, the Company continued its focus on its long-standing core business segments which consist of its radiochemical products, cobalt products, nuclear medicine standards, and radiological services, and in particular, the pursuit of new business opportunities within those segments.

Additionally, the Company holds a Nuclear Regulatory Commission (NRC) construction and operating license for the depleted uranium facility in, as well as the property agreement with, Lea County, New Mexico, where the plant is intended to be constructed. The NRC license for the de-conversion facility is a forty (40) year operating license and is the first commercial license of this type issued in the United States. There are no other companies with a similar license application under review by the NRC. Therefore, the NRC license represents a significant competitive barrier and the Company considers it a valuable asset.

On April 5, 2019, the Company entered into a manufacturing and supply agreement with Progenics Pharmaceuticals Inc. Under this agreement, the Company will provide contract manufacturing services for AZEDRA® (Ultratrace® Iobenguane I-131) and other iodine products. The Company is expanding its existing facility and installing the equipment necessary to support this contract manufacturing opportunity. The Company expects to complete startup of these additional new manufacturing spaces by the end of 2019.

The Company expects that cash from operations, cash raised through equity or debt financing and its current cash balance will be sufficient to fund operations for the next twelve months. 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.

(3) Net Income (Loss) Per Common Share - Basic and Diluted

For the six months ended June 30, 2019, the Company had 23,488,000 stock options outstanding, 20,090,000 warrants outstanding, 4,213 outstanding shares of Series C redeemable convertible preferred stock (Series C Preferred Stock), and 850 outstanding shares of Series B redeemable convertible preferred stock (Series B Preferred Stock), each of which were not included in the computation of diluted income (loss) per common share because they would be anti-dilutive.

For the six months ended June 30, 2018, the Company had 30,350,000 stock options outstanding, 45,090,000 warrants outstanding, 4,213 outstanding shares of Series C Preferred Stock, and 850 outstanding shares of Series B Preferred Stock, each of which were not included in the computation of diluted income per common share because they would be anti-dilutive.

The table below summarizes common stock equivalents outstanding at June 30, 2019 and 2018:

Stock options	23,488,000	30,350,000
Warrants	20,090,000	45,090,000
850 Shares of Series B redeemable convertible preferred stock	425,000	425,000
4,213 Shares of Series C redeemable convertible preferred stock	42,130,000	42,130,000
	<u>86,133,000</u>	<u>117,995,000</u>

(4) Investment and Business Consolidation

The Company owns a 24.5% interest in RadQual, with which the Company has an exclusive manufacturing agreement for nuclear medicine products. In August 2017, affiliates of the Company, including the Company's Chairman of the Board and the Chief Executive Officer, acquired the remaining 75.5% interest in RadQual. The Company's Chairman of the Board and its Chief Executive Officer also each serve as the managing members of RadQual. As a result of this change in ownership, and other factors, the Company determined that it gained the ability to exercise significant management control over the operations of RadQual. Because of this increased management control, and pursuant to GAAP, the Company has consolidated the accounts of RadQual into its financial statements.

(5) Inventories

Inventories consisted of the following at June 30, 2019 and December 31, 2018:

	<u>June 30, 2019</u>	<u>December 31, 2018</u>
Raw materials	\$ 40,648	\$ 42,911
Work in process	3,175,017	2,719,786
Finished goods	4,276	3,032
	<u>\$ 3,219,941</u>	<u>\$ 2,765,729</u>

Work in process includes cobalt-60 targets that are located in the U.S. Department of Energy's (DOE) Advanced Test Reactor (ATR) located outside of Idaho Falls, Idaho. These targets are owned by the Company and contain cobalt-60 material at various stages of irradiation. The carrying value of the targets is based on accumulated irradiation and handling costs which have been allocated to each target based on the length of time the targets have been held and processed at the ATR. At June 30, 2019, and at December 31, 2018, this cobalt target inventory had a carrying value of \$403,076 and \$389,293, respectively.

Work in process also includes costs to irradiate cobalt-60 material under a contract with the DOE. This material has been placed in the ATR and the Company is making progress payments designed to coincide with the completion of the irradiation period. The Company has contracted with several customers for the sale of some of this product material and has collected advance payments for project management, up-front handling, and other production costs from those customers. The advance payments from customers were recorded as unearned revenue which are recognized in the Company's consolidated financial statements as cobalt products are completed and shipped. For the six months ended June 30, 2019 and 2018, the Company recognized approximately \$102,500 and \$74,500, respectively, of revenue in its consolidated statements of operations for customer orders filled during the period under these cobalt contracts.

(6) Stockholders' Equity, Options, and Warrants

Employee Stock Purchase Plan

The Company has an employee stock purchase plan pursuant to which employees of the Company may participate to purchase shares of common stock at a discount. During the six months ended June 30, 2019 and 2018, the Company issued 68,037 and 51,439 shares of common stock, respectively, to employees under the employee stock purchase plan for proceeds of \$3,438 and \$3,304, respectively. As of June 30, 2019, 511,977 shares of common stock remain available for issuance under the employee stock purchase plan.

Stock-Based Compensation Plans

2015 Incentive Plan - In April 2015, the Company's Board of Directors approved the International Isotopes Inc. 2015 Incentive Plan (as amended, the 2015 Plan), which was subsequently approved by the Company's shareholders in July 2015. The 2015 Plan was amended and restated in July 2018 to increase the number of shares authorized for issuance under the 2015 Plan by an additional 20,000,000 shares. The 2015 Plan provides for the grant of incentive and non-qualified stock options, stock appreciation rights, restricted stock, restricted stock units, performance shares and units, and other stock or cash-based awards. The 2015 Plan amended and restated the Company's Amended and Restated 2006 Equity Incentive Plan (2006 Plan). The 2015 Plan authorizes the issuance of up to 80,000,000 shares of common stock, plus 11,089,967 shares authorized, but not issued under the 2006 Plan. At June 30, 2019, there were 34,679,718 shares available for issuance under the 2015 Plan.

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 equity awards. The compensation 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, 2019, and changes during the six months ended June 30, 2019, were as follows:

Fixed Options	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life	Aggregate Intrinsic Value
Outstanding at December 31, 2018	27,805,000	\$ 0.06		
Granted	615,000	\$ 0.06		
Exercised	(3,700,000)	\$ 0.04		
Expired	(632,000)	\$ 0.10		
Forfeited	(600,000)	\$ 0.04		
Outstanding at June 30, 2019	23,488,000	\$ 0.05	6.8	\$ 235,000
Exercisable at June 30, 2019	15,101,000	\$.05	6.0	\$ 235,000

The intrinsic value of outstanding and exercisable shares is based on the closing price of the Company's common stock on the OTCQB of \$0.06 per share on June 28, 2019, the last trading day of the quarter.

As of June 30, 2019, there was \$104,740 of unrecognized compensation expense related to stock options that will be recognized over a weighted-average period of 1.93 years.

In April 2019, 1,500,000 qualified stock options were exercised under a cashless exercise. The Company withheld 875,000 shares to satisfy the exercise price and issued 625,000 shares of common stock. The options exercised were granted under the 2015 Plan, and, accordingly, there was not any income tax effect in the condensed consolidated financial statements for the six months ended June 30, 2019. In addition, in April 2019, 2,000,000 non-qualified stock options were exercised for a cash payment of \$70,000. The options exercised were granted under the 2015 Plan and, accordingly, there was not any income tax effect in the condensed consolidated financial statements for the six months ended June 30, 2019. In May 2019, 200,000 non-qualified stock options were exercised for cash payments of \$14,000. The options were granted under the 2015 Plan and, accordingly, there will not be any income tax effect in the condensed consolidated financial statements for the six months ended June 30, 2019.

During the three months ended June 30, 2019, the Company granted 615,000 qualified stock options to several of its employees. All options vest over a five-year period, with the exception of one award which vests over a four-year period, with the first vesting at one year anniversary for all grants and expiration at ten year anniversary for all grants. The weighted average exercise price for these options was \$0.06 per share. The options have a fair value of \$21,562 as estimated on the date of issue using the Black-Scholes options pricing model with the following weighted-average assumptions: risk free interest rate of 1.87% to 2.49%, expected dividend yield rate of 0%, expected volatility of 57.62% to 65.22% and an expected life between 5.5 and 7.5 years.

Total stock-based compensation expense for the six months ended June 30, 2019 and 2018 was \$92,540 and \$125,133 respectively.

Pursuant to an employment agreement with its Chief Executive Officer, the Company awarded 466,667 fully vested shares of common stock to its Chief Executive Officer in February 2019 under the 2015 Plan. The number of shares awarded was based on a \$28,000 stock award using a price of \$0.06 per share. The employment agreement provides that the number of shares issued will be based on the average closing price of common stock for the 20 trading days prior to issue date but not less than \$0.05 per share. Compensation expense recorded pursuant to this stock grant was \$16,786, which was determined by multiplying the number of shares awarded by the closing price of the common stock on February 28, 2019, which was \$0.06 per share. The Company withheld 186,900 shares of common stock to satisfy the employee's payroll tax obligations in connection with this issuance. The net shares issued on February 28, 2019 totaled 279,767.

Warrants

Warrants outstanding at June 30, 2019, included 17,165,000 Class M Warrants which are immediately exercisable at an exercise price of \$0.12 per share and expire on February 17, 2022; and, 2,925,000 Class N Warrants which are immediately exercisable at an exercise price of \$0.10 per share and expire on May 12, 2022. All 25,000,000 Class L Warrants expired on December 23, 2018.

Warrants outstanding at June 30, 2018, included 25,000,000 Class L Warrants with an exercise price of \$0.06 per share and an expiration date of December 23, 2018, 17,165,000, Class M Warrants which are immediately exercisable at an exercise price of \$0.12 per share and expire on February 17, 2022; and, 2,925,000 Class N Warrants which are immediately exercisable at an exercise price of \$0.10 per share and expire on May 12, 2022.

Preferred Stock

At June 30, 2019, there were 850 shares of the Series B Preferred Stock outstanding with a mandatory redemption date of May 2022 at \$1,000 per share or \$850,000. The shares of Series B Preferred Stock are also convertible into 425,000 shares of the Company's common stock at a conversion price of \$2.00 per share. These Series B Preferred Stock does not carry any dividend preferences. Due to the mandatory redemption provision, the Series B Preferred Stock has been classified as a liability in the accompanying condensed consolidated balance sheets.

At June 30, 2019, there were 4,213 shares of the Series C Preferred Stock outstanding with a mandatory redemption date of February 2022 at \$1,000 per share in either cash or shares of common stock, at the option of the holder. Holders of the Series C Preferred Stock do not have any voting rights except as required by law and in connection with certain events as set forth in the Statement of Designation of the Series C Preferred Stock. The Series C Preferred Stock accrues dividends at a rate of 6% per annum, payable annually on February 17th of each year. The Series C Preferred Stock are convertible at the option of the holders at any time into shares of the Company's common stock at an initial conversion price equal to \$0.10 per share, subject to adjustment. At any time after February 17, 2019, if the volume-weighted average closing price of the Company's common stock over a period of 90 consecutive trading days is greater than \$0.25 per share, the Company may redeem all or any portion of the outstanding Series C Preferred Stock at the original purchase price per share plus any accrued and unpaid dividends, payable in shares of common stock.

During the six-month period ended June 30, 2019 and 2018 dividends paid to holders of the Series C Preferred Stock totaled \$252,780 and \$241,730, respectively. Some holders of the Series C Preferred Stock elected to settle their dividend payments with shares of the Company's common stock in lieu of cash. For the six-month period ending June 30, 2019 the Company issued 3,433,000 shares of common stock in lieu of a dividend payment of \$205,980. The remaining \$46,800 of dividend payable was settled with cash. For the same period in 2018, the Company issued 2,288,646 shares of common stock in lieu of a dividend payment of \$205,980. The remaining \$35,750 of dividend payable was settled in cash.

(7) Debt

In December 2013, the Company entered into a promissory note agreement with its former Chairman of the Board and one of its major shareholders pursuant to which the Company borrowed \$500,000 (the 2013 Promissory Note). The 2013 Promissory Note is secured and bears interest at 6% per annum and was originally due on June 30, 2014. According to the terms of the 2013 Promissory Note, at any time, the lenders may settle any or all of the principal and accrued interest with shares of the Company's common stock. In connection with the 2013 Promissory Note, each of the two lenders was issued 5,000,000 warrants to purchase shares of the Company's common stock at \$0.06 per share. The warrants were immediately exercisable. In June 2014, the Company renegotiated the terms of the 2013 Promissory Note. Pursuant to the modification, the maturity date was extended to December 31, 2017 and each lender was granted an additional 7,500,000 warrants to purchase shares of the Company's common stock at \$0.06 per share. The warrants were immediately exercisable. In December 2016, the 2013 Promissory Note was further modified to extend the maturity date to December 31, 2022, with all remaining terms unchanged. On December 23, 2018, all 25,000,000 warrants expired. At June 30, 2019, the principal balance of the 2013 Promissory Note was \$500,000 and accrued interest payable on the 2013 Promissory Note was \$166,734. Interest expense recorded for the six-month period ended June 30, 2019, was \$15,000.

In March 2016, the Company entered into a note payable for the purchase of a vehicle. The principal amount financed was \$47,513. The term of the note is six years and carries an interest rate of 6.66% per annum. Monthly payments are \$805 and the note matures in April 2022. The note is secured by the vehicle that was purchased with the note's proceeds.

In August 2017, the Company entered into a promissory note agreement with its Chairman of the Board pursuant to which the Company borrowed \$60,000 (the 2017 Promissory Note). The 2017 Promissory Note accrues interest at 5% per annum, which is payable upon maturity of the 2017 Promissory Note. The 2017 Promissory Note is unsecured and was scheduled to mature on June 30, 2018. Pursuant to an amendment to the 2017 Promissory Note on June 29, 2018, the maturity date was extended to March 31, 2019 with all other provisions remaining unchanged. Pursuant to a second amendment to the 2017 Promissory Note on February 19, 2019, the maturity date was extended to July 31, 2019 with all other provisions of the 2017 Promissory Note remaining unchanged. On April 30, 2019, the 2017 Promissory Note and accrued interest were repaid in full with a cash payment of \$65,117.

In April 2018, the Company borrowed \$120,000 from its Chief Executive Officer and its Chairman of the Board pursuant to a short-term promissory note (the 2018 Promissory Note). The 2018 Promissory Note accrues interest at 6% per annum, which is payable upon maturity of the 2018 Promissory Note. The 2018 Promissory Note was originally unsecured and was originally scheduled to mature on August 1, 2018. At any time, the holder of the 2018 Promissory Note may elect to have any or all of the principal and accrued interest settled with shares of the Company's common stock based on the average price of the shares over the previous 20 trading days. Pursuant to an amendment to the 2018 Promissory Note on June 29, 2018, the maturity date was extended to March 31, 2019 with all other provisions remaining unchanged. Pursuant to a second amendment to the 2018 Promissory Note on February 12, 2019, the maturity date was extended to July 31, 2019, with all other provisions remaining unchanged. Pursuant to a third amendment to the 2018 Promissory Note in August 2019, the maturity date was extended to January 31, 2020, and the note was modified to be secured by all of the Company's assets. At June 30, 2019, accrued interest on the 2018 Promissory Note totaled \$8,570.

In February 2019, the Company borrowed \$185,474 from RadQual pursuant to a short-term promissory note with a stated interest rate of 6% per annum and a maturity date of July 31, 2019 (the 2019 Promissory Note). The 2019 Promissory Note is unsecured. In June 2019, the Company borrowed an additional \$180,000. Additionally, in June 2019, an amendment to the 2019 Promissory Note extended the maturity date to December 31, 2019 with all other terms remaining unchanged. At June 30, 2019, the principal balance of the 2019 Promissory Note totaled \$365,474 and accrued interest on the 2019 Promissory Note totaled \$3,982.

(8) Commitments and Contingencies

Dependence on Third Parties

The production of High Specific Activity Cobalt is dependent upon the DOE, and its prime operating contractor, which controls the ATR and laboratory operations at the ATR located outside of Idaho Falls, Idaho. In October 2014, the Company signed a ten-year contract with the DOE for the irradiation of cobalt targets for the production of cobalt-60. The Company will be able to purchase cobalt targets for a fixed price per target with an annual 5% escalation in price. The contract term is October 1, 2014, through September 30, 2024, however, the contract may be extended beyond that date. Also, the DOE may end the contract if it determines termination is necessary for the national defense, security or environmental safety of the United States. If this were to occur, all payments made by the Company, for partially irradiated undelivered cobalt material, would be refunded.

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 products. The radiochemical product sold by the Company is supplied to the Company through agreements with several suppliers. 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 the Company's business segments involve the handling or use of radioactive material, the Company is required to have an operating license from the NRC and specially trained staff to handle these materials. The Company has amended this operating license numerous times to increase the amount of material permitted within the Company's facility. Although this license does not currently restrict the volume of business operations performed or projected to be performed in the upcoming year, additional processing capabilities and license amendments could be implemented that would permit processing of other reactor-produced radioisotopes by the Company. The financial assurance required by the NRC to support this license has been provided for with a surety bond held with North American Specialty Insurance Company which is supported by a restricted money market account held with Merrill Lynch in the amount of \$629,446.

In August 2011, the Company received land from Lea County, New Mexico, pursuant to a Project Participation Agreement (PPA), whereby the land was deeded to the Company for no monetary consideration. In return, the Company committed to construct a uranium de-conversion and Fluorine Extraction Process facility on the land. In order to retain title to the property, the Company was to begin construction of the de-conversion facility no later than December 31, 2014, and complete Phase I of the project and have hired at least 75 persons to operate the facility no later than December 31, 2015, although commercial operations need not have begun by that date. In 2015, the Company negotiated a modification to the PPA that extended the start of construction date to December 31, 2015, and the hiring milestone to December 31, 2016. Those dates were not met, and the Company is currently in the process of renegotiating a second modification to the agreement to further extend those dates. If the Company is not successful in reaching an amendment to extend the performance dates in the PPA, then it may, at its sole option, either purchase or re-convey the property to Lea County, New Mexico. The purchase price of the property would be \$776,078, plus interest at the annual rate of 5.25% from the date of the closing to the date of payment. The Company has not recorded the value of this property as an asset and will not do so until such time that sufficient progress on the project has been made to meet the Company's obligations under the agreements for permanent transfer of the title.

On May 3, 2019, the Company's radiological services team was involved in a contamination event at an off-site location in the state of Washington. The Company is currently supporting clean-up operations at that location and is supporting an investigation, in conjunction with the DOE, to help determine the cause of this event. The Company has reported this incident to its insurance carrier and a claim is being processed to address the cost of recovery operations. During the six months ended June 30, 2019 the company incurred \$1,522,605 in expenses related to the contamination which is recorded as "other expense" in the Company's consolidated Statements of Operations. In July 2019, the company received \$634,919 in reimbursements from its insurance company for this ongoing claim which is recorded as "other income" in the Company's consolidated Statements of Operations. The Company is actively working with its insurance company and believes it will recover a majority of the external and subcontract costs of these clean-up operations.

(9) Revenue Recognition

Revenue from Product Sales

The following tables present the Company's revenue disaggregated by business segment and geography, based on management's assessment of available data:

	Three Months Ended June 30, 2019				Three Months Ended June 30, 2018			
	U.S.	Outside U.S.	Total Revenues	% of Total Revenues	U.S.	Outside U.S.	Total Revenues	% of Total Revenues
Radiochemical Products	\$ 774,107	\$ —	\$ 774,107	36%	\$ 545,344	\$ 57,000	\$ 602,344	25%
Cobalt Products	213,239	—	213,239	10%	324,768	—	324,768	14%
Nuclear Medicine Products	744,612	186,084	930,696	44%	961,653	1,021	962,674	40%
Radiological Services	217,797	—	217,797	10%	111,175	391,345	502,520	21%
Fluorine Products	—	—	—	0%	—	—	—	0%
	<u>\$1,949,755</u>	<u>\$186,084</u>	<u>\$2,135,839</u>	<u>100%</u>	<u>\$1,942,940</u>	<u>\$449,366</u>	<u>\$2,392,306</u>	<u>100%</u>

	Six Months Ended June 30, 2019				Six Months Ended June 30, 2018			
	U.S.	Outside U.S.	Total Revenues	% of Total Revenues	U.S.	Outside U.S.	Total Revenues	% of Total Revenues
Radiochemical Products	\$1,233,714	\$ 3,625	\$1,237,339	27%	\$1,073,961	\$ 111,924	\$1,185,885	23%
Cobalt Products	549,328	40,000	589,328	13%	652,546	—	652,546	13%
Nuclear Medicine Products	1,578,120	453,498	2,031,618	44%	1,959,386	5,401	1,964,787	38%
Radiological Services	805,406	—	805,406	17%	250,347	1,139,767	1,390,114	27%
Fluorine Products	—	—	—	0%	—	—	—	0%
	<u>\$4,166,568</u>	<u>\$497,123</u>	<u>\$4,663,691</u>	<u>100%</u>	<u>\$3,936,240</u>	<u>\$1,257,092</u>	<u>\$5,193,332</u>	<u>100%</u>

Under ASC Topic 606, the Company recognizes revenue when it satisfies a performance obligation by transferring control of the promised goods or services to its customers, in an amount that reflects the consideration the Company expects to receive in exchange for the product or service.

Product sales consist of a single performance obligation that the Company satisfies at a point in time. Most transactions in the radiochemical products and nuclear medicine standards segments fall into this category. Most sales transactions in the cobalt products business segment fall into this category but other cobalt product sales are recorded as deferred income as discussed below. The Company recognizes product revenue when the following events have occurred: (a) the Company has transferred physical possession of the products, (b) the Company has a present right to payment, (c) the customer has legal title to the products, and (d) the customer bears significant risks and rewards of ownership of the products. Based on the Company's historical practices and shipping terms specified in the sales agreements and invoices, these criteria are generally met when the products are:

- Invoiced.
- Shipped from the Company's facilities ("FOB shipping point", which is the Company's standard shipping term). For these sales, the Company determined that the customer is able to direct the use of, and obtain substantially all of the benefits from, the products at the time the products are shipped.

In the radiological services segment, the Company performs services under multiple types of contracts. In this segment, the Company processes gemstones and recovers various types of radioactive and/or hazardous materials from third-party facilities. Contracts for gemstone processing include two performance obligations and revenue for these contracts is recognized when each obligation is met. Recovery projects typically have only one performance obligation which is delivery of the final product or service. Under these contracts, the Company recognizes revenue once the work is complete and the customer has obtained substantially all of the benefits from the services, and the performance obligations under the contract have been met. Some recovery contracts have milestones at which point the Company can invoice and receive payments from the customer. With these contracts, the company considers each milestone a performance obligation and records revenue at the time each milestone is completed, and the customer has inspected and accepted the results of the services. The Company's standard payment terms for its customers are generally 30 days after the Company satisfies the performance obligations.

The Company's revenue consists primarily of products manufactured for use in the nuclear medicine industry, distribution of radiochemicals, cobalt source manufacturing, and providing radiological services on a contract basis for customers. 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 two to three years. Accordingly, preliminary payments received on cobalt contracts, where shipment will not take place for greater than one year, have been recorded as unearned revenue on the Company's consolidated balance sheets and classified under current or long-term liabilities, depending upon estimated ship dates. For the six months ended June 30, 2019, the Company reported current unearned cobalt products revenue of \$1,561,458 and non-current unearned revenue of \$7,500. For the period ended December 31, 2018, the Company reported current unearned revenue of \$3,783,541 and non-current unearned revenue of \$7,500. These unearned revenues will be recognized as revenue in the periods during which the cobalt shipments take place.

During the six months ended June 30, 2019, one of the prepaid revenue customers requested a refund of the amounts paid. The Company entered into an agreement to repay \$2,182,142 over the next 12 months. The modification was necessary to address the delays to cobalt delivery in 2019 caused by changes to the ATR operating schedule and also to accommodate this customer's request to reduce their cobalt purchase obligations in future years. The modifications require that the Company refund approximately \$1,050,000, of payments received for prior year undelivered material, plus interest at 12% per year, payable over a one-year period on a portion of that amount. The Company has also agreed with this customer to refund approximately \$1,100,000 paid for material that was to have been delivered in later years. There will be no interest charge on this refund. The Company has contracted for the sale of this cobalt to a new customer for approximately the same amount. The entire amount was reclassified from unearned revenue to short-term notes payable.

Contract Balances

The Company records a receivable when it has an unconditional right to receive consideration after the performance obligations are satisfied. As of June 30, 2019, and December 31, 2018, accounts receivable totaled \$1,402,893 and \$820,370, respectively. For the six months ended June 30, 2019, the Company did not incur material impairment losses with respect to its receivables.

Practical Expedients

The Company has elected the practical expedient not to determine whether contracts with customers contain significant financing components.

(10) Leases

In February 2016, the FASB issued ASU No. 2016-02, Leases (“ASU 2016-02”). ASU 2016-02 replaced most existing lease accounting guidance. In July 2018 the FASB approved an Accounting Standards Update which, among other changes, allowed a company to elect to adopt ASU 2016-02 using the modified retrospective method applying the transition provisions at the beginning of the period of adoption, rather than at the beginning of the earliest comparative period presented in these financial statements. ASU 2016-02 was effective for the Company beginning on January 1, 2019 and required the Company to record a right-of-use asset and a lease liability for its facilities leases that were previously treated as operating leases. The effect of ASU 2016-02 was to record a cumulative-effect adjustment on January 1, 2019 as a right-of-use asset and an operating lease liability totaling \$810,367. The Company has made an accounting policy election to not apply the recognition requirements of ASU 2016-02 to its short-term leases, which are leases with a term of one year or less. The Company has also elected certain practical expedients under ASU 2016-02 including not separating lease and non-lease components on its operating leases, not reassessing whether any existing contracts contained leases, not reconsidering lease classification, not reassessing initial direct costs and using hindsight in determining the reasonably certain term of its leases.

The Company leases office and warehouse space under operating leases. Right-of-use assets represent the Company’s right to use an underlying asset for the lease term and lease liabilities represent its obligation to make lease payments under the lease. Operating lease right-of-use assets and liabilities are recognized at the lease commencement date based on the present value of lease payments over the reasonably certain lease term. The implicit rates with the Company’s operating leases are generally not determinable and the Company uses its incremental borrowing rate at the lease commencement date to determine the present value of its lease payments. The determination of the Company’s incremental borrowing rate requires judgement. The company determines its incremental borrowing rate for each lease using its then-current borrowing rate. Certain of the Company’s leases include options to extend or terminate the lease. The Company establishes the number of renewal options periods used in determining the operating lease term based upon its assessment at the inception of the operating lease. The option to renew the lease may be automatic, at the option of the Company, or mutually agreed to between the landlord and the Company. Once the facility lease term has begun, the present value of the aggregate future minimum lease payments is recorded as a right-of-use asset. Lease expense is recognized on a straight-line basis over the term of the lease.

	Six Months Ended June 30, 2019
Operating lease costs	\$ 73,706
Short-term operating lease costs	\$ 3,039
Operating cash flows from operating leases	\$ (76,745)
Right-of-use assets obtained in exchange for new operating lease liabilities	\$ 810,367
Weighted-average remaining lease term (years) - operating leases	7
Weighted-average discount rate - operating leases	6.75%

The future minimum payments under these operating lease agreements are as follows:

2019 (excluding the six months ended June 30, 2019)	\$ 73,706
2020	145,563
2021	136,313
2022	136,313
2023	136,313
Thereafter	318,063
Total minimum operating lease obligations	946,271
Less-amounts representing interest	(187,605)
Present value of minimum operating lease obligations	758,666
Current maturities	(99,236)
Lease obligations, net of current maturities	<u>\$ 659,430</u>

(11) Segment Information

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

	Three months ended June 30,		Six months ended June 30,	
	2019	2018	2019	2018
Sale of Product				
Radiochemical Products	\$ 774,107	\$ 602,344	\$ 1,237,339	\$ 1,185,885
Cobalt Products	213,239	324,768	589,328	652,546
Nuclear Medicine Standards	930,696	962,674	2,031,618	1,964,787
Radiological Services	217,797	502,520	805,406	1,390,114
Fluorine Products	—	—	—	—
Total Segments	2,135,839	2,392,306	4,663,691	5,193,332
Corporate revenue	—	—	—	—
Total Consolidated	\$ 2,135,839	\$ 2,392,306	\$ 4,663,691	\$ 5,193,332

	Three months ended June 30,		Six months ended June 30,	
	2019	2018	2019	2018
Depreciation and Amortization				
Radiochemical Products	\$ 9,269	\$ 6,046	\$ 18,086	\$ 11,060
Cobalt Products	1,022	753	2,102	4,796
Nuclear Medicine Standards	15,673	16,530	31,292	34,468
Radiological Services	8,636	11,918	17,272	23,957
Fluorine Products	30,807	30,725	56,902	56,820
Total Segments	65,408	65,971	125,654	131,101
Corporate depreciation and amortization	53	141	4,791	4,985
Total Consolidated	\$ 65,461	\$ 66,112	\$ 130,445	\$ 136,086

	Three months ended June 30,		Six months ended June 30,	
	2019	2018	2019	2018
Segment Income (Loss)				
Radiochemical Products	\$ 252,946	\$ 103,037	\$ 349,002	\$ 143,557
Cobalt Products	122,252	93,113	315,122	277,905
Nuclear Medicine Standards	111,921	165,294	328,743	389,236
Radiological Services	(901,234)	164,441	(589,955)	566,453
Fluorine Products	(39,927)	(31,613)	(77,422)	(62,912)
Total Segments	(454,042)	494,273	325,490	1,314,239
Corporate loss	(703,152)	(826,552)	(1,534,641)	(1,612,114)
Net Income (Loss)	\$ (1,157,194)	\$ (332,279)	\$ (1,209,151)	\$ (297,875)

	Three months ended June 30,		Six months ended June 30,	
	2019	2018	2019	2018
Expenditures for Segment Assets				
Radiochemical Products	\$ 14,844	\$ —	\$ 14,845	\$ —
Cobalt Products	—	—	3,493	—
Nuclear Medicine Standards	4,950	3,914	4,950	22,062
Radiological Services	—	39,354	—	39,354
Fluorine Products	—	—	1,589	1,560
Total Segments	19,794	43,268	24,877	62,976
Corporate purchases	—	—	—	—
Total Consolidated	\$ 19,794	\$ 43,268	\$ 24,877	\$ 62,976

	June 30	December 31,
	2019	2018
Segment Assets		
Radiochemical Products	\$ 325,151	\$ 344,994
Cobalt Products	3,033,304	2,611,939
Nuclear Medicine Standards	2,102,076	2,113,960
Radiological Services	800,523	281,077
Fluorine Products	5,534,739	5,590,053
Total Segments	11,795,793	10,942,023
Corporate assets	2,501,983	2,048,053
Total Consolidated	\$ 14,297,776	\$ 12,990,076

(12) Subsequent Events

As discussed in Note 7 above, the 2018 Promissory Note was modified in August 2019 to extend the maturity date and to secure the note.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Quarterly Report on Form 10-Q (the "Quarterly Report") contains forward-looking statements within the meaning 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. Words such as "anticipates," "believes," "should," "expects," "future," "intends" and similar expressions identify forward-looking statements. In particular, statements regarding the future prospects of our business segments, future cash flow from operations, the Company's ability to achieve profitability, the business prospects and growth projection for our business segments, the U.S. Food and Drug Administration (FDA) approval for certain of our products, and the status of our proposed uranium de-conversion facility, are forward-looking statements. Forward-looking statements reflect management's current expectations, plans or projections, and are inherently uncertain. Actual results could differ materially from management's 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 Quarterly 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, 2018 filed with the Securities and Exchange Commission (SEC) on March 22, 2019 and in the other reports we file with the SEC. These factors describe some but not all of the factors that could cause actual results to differ significantly from management's expectations. We undertake no obligation to update any 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 risks and other factors set forth in the reports that we file from time to time with the SEC.

BUSINESS OVERVIEW

International Isotopes Inc., its subsidiaries and joint venture, TI Services, LLC, and RadQual, LLC (collectively, the Company, we, our, or us) manufacture a full range of nuclear medicine calibration and reference standards, a wide range of products including cobalt teletherapy sources, a varied selection of radioisotopes and radiochemicals for medical research and clinical applications, and provide contract manufacturing of radiochemical products. We also hold several patents for a fluorine extraction process that we intend to use in conjunction with a planned commercial depleted uranium de-conversion facility, and provide a host of transportation, recycling, and processing services on a contract basis for clients. We also own a 24.5% interest in, and have management control of, RadQual, LLC (RadQual), a global supplier of molecular imaging quality control and calibration devices, with which we have an exclusive manufacturing agreement.

In August 2017, affiliates of the Company, including the Company's Chairman of the Board and the Chief Executive Officer, acquired the remaining 75.5% interest in RadQual. The Company's Chairman of the Board and its Chief Executive Officer also serve as the managing members of RadQual. As a result of this change in ownership, and other factors, the Company determined that it had gained the ability to exercise significant management control over the operations of RadQual. Because of this increased management ability and pursuant to GAAP, the Company has consolidated the accounts of RadQual into its financial statements beginning as of August 2017. See Note 4 "Investment and Business Consolidation" to our unaudited consolidated financial statements in this report for additional information.

Our business consists of the following five major business segments:

Nuclear Medicine Standards. Our Nuclear Medicine Standards segment consists of the manufacture of sources and standards associated with Single Photon Emission Computed Tomography (SPECT) and Positron Emission Tomography (PET) imaging. These sources are used for indication of patient positioning for SPECT imaging, SPECT camera operational testing, and calibration of dose measurement equipment. Revenue from nuclear medicine products includes consolidated sales from TI Services, LLC (TI Services), a 50/50 joint venture that we formed with RadQual in December 2010 to distribute our products, as well as consolidated sales from RadQual, pursuant to the change in RadQual's ownership in August 2017, as discussed above. Our nuclear medicine standards products include a host of specially designed items used in the nuclear medicine industry. In addition to the manufacture of these products, we have developed a complete line of specialty packaging for the safe transport and handling of these products.

Cobalt Products. Our Cobalt Products segment includes the production of bulk cobalt (cobalt-60), fabrication of cobalt capsules for radiation therapy and various industrial applications, and recycling of expended cobalt sources. We are the only company in the U.S. that can provide all these unique services. There has been a significant increase in regulation by the Nuclear Regulatory Commission (NRC) in recent years that has created a significant barrier to new entrants into this market.

Radiochemical Products. Our Radiochemical Products 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 form from other producers and distributed by us in customized packages and chemical forms tailored to meet customer requirements. In addition, we provide contract manufacturing of radiochemical products for our customers, discussed below. This segment will also include our generic radiopharmaceutical and pharmaceutical products we plan to begin producing and selling pending FDA approval.

We have submitted an abbreviated New Drug Application (aNDA) to the FDA for a radiochemical product. The FDA has granted the Company's request for an expedited review of the application which could accelerate the approval of the product. Once approved we anticipate a quick start-up of commercial sales of the drug product which should have a significant positive impact on our revenues. We are also considering other generic drug opportunities and plan to expand the range of products offered within this business segment in the coming years.

Fluorine Products. We established the Fluorine Products segment in 2004 to support production and sale of the gases that we expected to produce using our Fluorine Extraction Process (FEP) in conjunction with the operation of the proposed depleted uranium de-conversion facility in Lea County, New Mexico. Near the end of 2013, due to changes in the nuclear industry, we placed further engineering work on this project on hold. We continue to hold discussions with potential future customers seeking this type of service, however, further development activity within this segment will be deferred until market and industry conditions change to justify resuming design and construction of the facility. In the meantime, the Company expects to continue to incur some costs associated with the maintenance of licenses and other necessary project investments, and to continue to keep certain agreements in place that will support resumption of project activities at the appropriate time.

Radiological Services. Our Radiological Services segment consists of a wide variety of miscellaneous services such as decommissioning disused irradiation units, performing sealed source exchanges in irradiation and therapy units, and gemstone processing. We are licensed through the NRC to perform certain field service activities in connection with the U.S. Department of Energy's (DOE) Orphan Source Recovery Program (OSRP). These activities include services to support recovery of disused sources under the DOE's OSRP and installation or removal of certain cobalt therapy units. We designed and built a mobile hot cell unit to use in the performance of OSRP field service jobs. This type of field service work is expected to generate the majority of revenue within this business segment in the coming years and has expanded to include similar international contract opportunities through the International Atomic Energy Agency (IAEA).

CRITICAL ACCOUNTING POLICIES

From time-to-time, management reviews and evaluates certain accounting policies that are considered to be significant in determining our results of operations and financial position.

A description of the Company's critical accounting policies that affect the preparation of the Company's financial statements is set forth in the Company's Annual Report on Form 10-K for the year ended December 31, 2018, filed with the SEC on March 22, 2019.

RESULTS OF OPERATIONS

Three Months Ended June 30, 2019 Compared to Three Months Ended June 30, 2018

Revenue for the three months ended June 30, 2019 was \$2,135,839 as compared to \$2,392,306 for the same period in 2018, an overall decrease of \$256,467, or approximately 11%. This decrease in revenue was largely the result of decreased revenue in our cobalt products and radiological services segments, as discussed in detail below.

The following table presents a period-to-period comparison of total revenue by segment for the three months ended June 30, 2019 and 2018:

Sale of Product	For the three-months ended June 30,	For the three-months ended June 30,	\$ change	% change
	2019	2018		
Radiochemical Products	\$ 774,107	\$ 602,344	\$ 171,763	29%
Cobalt Products	213,239	324,768	(111,529)	-34%
Nuclear Medicine Standards	930,696	962,674	(31,978)	-3%
Radiological Services	217,797	502,520	(284,723)	-57%
Fluorine Products	—	—	—	0%
Total Consolidated	\$ 2,135,839	\$ 2,392,306	\$ (256,467)	-11%

Cost of sales decreased to \$971,384 for the three months ended June 30, 2019 from \$1,363,564 for the same period in 2018. This is a decrease of \$392,180, or approximately 29%. The decrease in cost of sales in the three-month comparison was primarily due to the decreased sales activity in two of our five business segments, particularly the cobalt products and radiological services segments, as discussed in detail below. Gross profit for the three months ended June 30, 2019 was \$1,164,455, compared to \$1,028,742 for the same period in 2018. This represents an increase in gross profit of \$135,713, or approximately 13%, and is primarily due to the decrease in cost of sales in the cobalt products and radiological services segments as a result of the decreased revenue in these segments.

The following table presents cost of sales and gross profit data for each of our business segments for the three months ended June 30, 2019 and 2018:

	For the three- months ended June 30,	% of Total Sales	For the three- months ended June 30,	% of Total Sales
	2019	2019	2018	2018
Total Sales	\$ 2,135,839		\$ 2,392,306	
Cost of Sales				
Radiochemical Products	\$ 338,487	16%	\$ 439,600	18%
Cobalt Products	51,494	2%	182,729	8%
Nuclear Medicine Standards	446,699	21%	457,058	19%
Radiological Services	134,704	6%	284,177	12%
Fluorine Products	—	—	—	—
Total Segments	971,384	45%	1,363,564	57%
Gross Profit	\$ 1,164,455		\$ 1,028,742	
Gross Profit %	55%		43%	

Operating expense increased approximately 2% to \$1,246,979 for the three months ended June 30, 2019, from \$1,228,136 for the same period in 2018. This increase of \$18,843, is primarily due to an approximate 3% increase in General, Administrative and Consulting costs combined with an approximate 6% increase in Salaries and Contract Labor costs. The increase in General, Administrative and Consulting costs is a result of increased legal and general operating supply costs incurred during the three months ended June 30, 2019, as compared to the same period in 2018. The increase in Salaries and Contract Labor was a result of adding staff to our payroll. Research and Development costs decreased to \$50,354, for the three months ended June 30, 2019, as compared to \$84,464, for the same period in 2018. This is a decrease of \$34,110, or approximately 40% and is primarily the result of a decrease in expenditures for product development in several of our business segments for the three months ended June 30, 2019, as compared to the same period in 2018.

The following table presents a comparison of total operating expense for the three months ended June 30, 2019 and 2018:

Operating Costs and Expenses:	For the three- months ended June 30,	For the three- months ended June 30,	% change	\$ change
	2019	2018		
Salaries and Contract Labor	\$ 596,045	\$ 561,058	6%	\$ 34,987
General, Administrative and Consulting	600,580	582,614	3%	17,966
Research and Development	50,354	84,464	-40%	(34,110)
Total operating expenses	\$ 1,246,979	\$ 1,228,136	2%	\$ 18,843

Other expense was \$867,660 for the three months ended June 30, 2019, as compared to other expense of \$381 for the same period in 2018. This is an increase of \$867,279. The increase is due to income and expenses related to the costs resulting from the contamination event that occurred at an offsite location in the state of Washington in May 2019. For the three months ended June 30, 2019, net expenses for this cleanup were \$887,686. This is a combination of expenses related to the cleanup of \$1,522,605, offset by income from insurance proceeds for the claim of \$634,919 for payments received in July 2019.

Interest expense for the three months ended June 30, 2019 was \$136,842, compared to \$115,882 for the same period in 2018. This is an increase of \$20,960, or approximately 18%. Interest expense includes dividends accrued on our Series C Redeemable Convertible Preferred Stock (Series C Preferred Stock). As discussed below, we issued Series C Preferred Stock in February 2017 and May 2017. For the three months ended June 30, 2019, we accrued dividends payable of \$63,646, which have been recorded as interest expense. Additionally, non-cash interest expense in the amount of \$32,084 was recorded for this same period for the issuance of warrants related to the preferred stock issuances. In April 2019, we agreed to modify our cobalt supply agreement with one of our cobalt customers. The modification was necessary to address the delays to cobalt delivery in 2019 caused by changes to the ATR operating schedule and also to accommodate this customer's request to reduce their cobalt purchase obligations in future years. The modifications require that we refund \$2,182,142 for prior year undelivered material. The Company has been able to contract for the sale of this cobalt to a separate new customer for approximately the same amount. Approximately \$1,050,000 of this refund will include interest at 12% per year, payable over a one-year period on a portion of that amount. Interest for this refund for the three months ended June 30, 2019 was \$18,153 whereas there was no similar interest expense for the same period in 2018. Interest was also paid on a loan for a vehicle purchased in May 2016. See Note 7 "Debt" to our unaudited consolidated financial statements in this Quarterly Report for additional information about our indebtedness and the associated interest expense.

Our net loss for the three months ended June 30, 2019, was \$1,157,194, compared to a net loss of \$332,279, for the same period in 2018. This is an increase in loss of \$824,915 and is a result of net expenses of \$887,686 related to the cleanup of the contamination event that occurred at an offsite location in the state of Washington. These expenses are included in an ongoing insurance claim.

Radiochemical Products. Revenue from the sale of radiochemical products for the three months ended June 30, 2019 was \$774,107, compared to \$602,344 for the same period in 2018. This is an increase of \$171,763, or approximately 29%. The increase is primarily the result of payments related to our contract manufacturing and supply agreement with Progenics Pharmaceuticals, Inc. (Progenics), as discussed below.

Gross profit of radiochemical products for the three months ended June 30, 2019 was \$435,620, compared to \$162,745, for the same period in 2018, and gross profit percentages were approximately 56% and 27% for the three months ended June 30, 2019 and 2018, respectively. Cost of sales for radiochemical products decreased to \$338,487 for the three months ended June 30, 2019, as compared to \$439,600 for the same period in 2018. This is a decrease of \$101,112, or approximately 23%, and was primarily the result of improvements in the utilization of raw material purchased in this segment, in the three-month comparison. Our decrease in material costs is due to a reduction in freight charges as a result of purchasing our material within the U.S. thus eliminating international shipping and customs fees. We expect this cost savings in shipping to continue with future shipments from this domestic supplier. Operating expense for this segment increased to \$182,674 for the three months ended June 30, 2019, compared to \$59,707 for the same period in 2018. This increase in operating expense of \$122,967, or approximately 206%, is primarily due to costs related to the aNDA repairs to equipment, and costs incurred for contract manufacturing. This segment reported net income of \$252,946 for the three months ended June 30, 2019, as compared to net income of \$103,038 for the same period in 2018. The increase in net income of \$149,908 or approximately 145%, is primarily the result of a \$250,000 payment related to our contract manufacturing and supply agreement with Progenics. Other changes were the decrease in cost of goods sold as discussed above, and, increase in operating expenses as discussed above.

In April 2019, we entered into a contract manufacturing and supply agreement with Progenics. Under the agreement, we will provide contract manufacturing services for AZEDRA[®] (Ultratrace[®] Iobenguane I-131) and other iodine products. We believe that this contract manufacturing for Progenics helps further broaden our customer base and technical experience and positions us for future additional agreements under which we can use our license qualifications and experience in handling iodine-131.

Cobalt Products. Revenue from the sale of cobalt products for the three months ended June 30, 2019 was \$213,239, compared to \$324,768, for the same period in 2018. This represents a decrease of \$111,529, or approximately 34%. Our cobalt sealed source manufacturing is largely dependent on our ability to procure cobalt material from the DOE's Advanced Test Reactor (ATR). Although we have not been able to obtain cobalt from the ATR reactor since late 2013, we have been able to contract with another supplier for the purchase of cobalt material, and during the three months ended June 30, 2019, we were able to manufacture products for customers using this material. In addition, we have begun to supply cobalt to customers who previously paid for the material under supply agreements entered into with us in 2015. As we have supplied this material to our customers, we have recognized the sales on our statement of operations.

We have experienced delays in the delivery of cobalt material from the DOE's ATR. Because of these delays, we have been forced to purchase cobalt material, at lower activity levels, from alternate suppliers in order to meet contract obligations. Deliveries of cobalt from the ATR are expected to begin in the beginning of 2020.

In October 2014, we entered into a ten-year agreement with the DOE for the irradiation of cobalt targets. It takes approximately four to five years to irradiate the cobalt targets to the desired level of activity and we anticipate having high specific activity cobalt available to our customers early in 2020 and every year thereafter through at least 2024.

As of June 30, 2019, we continued to hold many in-progress, old design cobalt targets at the ATR. We believe that many of the older design targets we hold at the ATR, and that we report as inventory, still hold significant market value in excess of their current carrying values and we have concluded that no impairment existed at that time. We will periodically continue to review the residual value of this cobalt material for potential impairment and make adjustments as deemed appropriate.

During 2015, we entered into cobalt-60 supply agreements with several customers. The terms of the agreements required pre-payments to secure cobalt material in future years. Those prepayments were recorded as unearned revenue on our consolidated balance sheet. During the three months ended June 30, 2019, we began supplying material to some customers and have accordingly recognized approximately \$8,000 of revenue as a result of these deliveries.

In April 2019, because of our inability to supply high specific activity cobalt material produced by the DOE's ATR in 2018, we modified our supply agreement with one of our cobalt customers. The modification included our agreement to reduce the customers cobalt purchase obligations in future years and we agreed to refund approximately \$2,182,142. Approximately \$1,050,000 of this refund is for payments received from this customer for prior year undelivered material and will include interest at 12% per year, payable over a one-year period on a portion of the payments. We have also agreed with this customer to refund approximately \$1,100,000 paid for material that was to have been delivered in later years. There will be no interest charge on this portion of the refund. In addition, we have identified another customer ready to purchase this material. The Company does not anticipate any significant net negative effect of this change as sales under the new agreement are expected to completely offset refunds made under the old agreement. Accordingly, we will classify refund payments due within one year as a short-term liability and payments due beyond one year as a long-term liability, rather than as short-term deferred revenue on our consolidated balance sheets.

Cost of sales for the three months ended June 30, 2019, was \$51,494, as compared to \$182,729, for the same period in 2018. Gross profit for cobalt products for the three months ended June 30, 2019 was \$161,745 compared to \$142,040 for the same period in 2018. This is an increase of \$19,705, or approximately 14% and is primarily attributable to our increase in source manufacturing for the three months ended June 30, 2019, as compared to the same period in 2018. Our gross profit percentages were approximately 76% and 44% for the three-month periods ended June 30, 2019 and 2018, respectively. The increase in the gross profit percentage for the three months ended June 30, 2019 is primarily due to decreased costs of raw material used in the manufacture of sealed sources. Operating expense in this segment decreased to \$39,493 for the three months ended June 30, 2019, from \$48,927 for the same period in 2018. This is a decrease of \$9,434, or approximately 19%. This is due to a decrease in labor costs for the period. Our net income for cobalt products was \$122,252 for the three months ended June 30, 2019, as compared to a net income of \$93,112 for the same period in 2018. The increase in net income of \$29,140, or approximately 31%, was attributable to the decreased cost of sales for cobalt products during the quarter.

Nuclear Medicine Standards. Revenue from nuclear medicine products for the three months ended June 30, 2019, was \$930,696, compared to \$962,674 for the same period in 2018. This represents a decrease in revenue of \$31,978, or approximately 3%. As discussed above, due to a change in the member ownership of RadQual, in August 2017 we began reporting our investment in RadQual on a consolidated basis. Therefore, revenue in this segment includes all sales of RadQual and TI Services with all intercompany sales for the consolidated period eliminated.

We anticipate that our sales through RadQual will remain strong and that, because of our RadQual ownership, we will continue to have significant future opportunities to work on new product development and to further expand our international sales. Additionally, we have continued to work with TI Services on marketing strategies to boost customer service and sales of some unique nuclear medicine and pharmacy products.

Cost of sales for our nuclear medicine standards segment for the three months ended June 30, 2019, was \$446,699, as compared to \$457,058 for the same period in 2018. The decrease in cost of sales in the period-to-period comparison of \$10,359, or approximately 2%, was due to slight decreases in material purchased for flood source manufacturing for the three-month period ended June 30, 2019, as compared to the same period in 2018. Gross profit for our nuclear medicine standards segment for the three months ended June 30, 2019 was \$483,997 compared to \$505,616 for the same period in 2018. This is a decrease in gross profit of \$21,619, or approximately 4%. The decrease in gross profit in the period-to-period comparison is primarily the result of the decreased sales.

Operating expense for this segment for the three months ended June 30, 2019 increased to \$378,539, from \$306,728 for the same period in 2018. This is an increase of \$71,811, or approximately 23%, and is the result of increased wage expense for the three months ended June 30, 2019, as compared to the same period in 2018. Operating expense also includes consolidated net operating expense reported for RadQual of \$137,187 and non-controlling member interest expense of \$76,204, for the three months ended June 30, 2019, as compared to \$139,524 of net operating expense and non-controlling member interest expense of \$19,965 for the same period in 2018. Net operating expense included for TI Services was \$29,393 for the three months ended June 30, 2019, and \$27,810 for the same period in 2018. TI Services non-controlling interest included was (\$2,425) for the three-month period ended June 30, 2019, as compared to (\$1,026) for the same period in 2018. Net income for this segment for the three months ended June 30, 2019 was \$111,921, compared to \$165,295 for the same period in 2018. This is a decrease in net income of \$53,374, or approximately 32% and is primarily the result of the increase in operating expense reported for the three months ended June 30, 2019, as compared to the same period in 2018.

Radiological Services. Revenue from all radiological services for the three months ended June 30, 2019 was \$217,797, compared to \$502,520, for the same period in 2018, a decrease of \$284,723 or approximately 57%. The majority of our revenue in this segment is generated by the performance of activities in connection with contracts for the DOE and the IAEA. The decrease in the revenue for the period comparison is the result of the random timing of the work performed by us for these agencies. These contracts are historically awarded sporadically over time and thus will continue to create fluctuations in the period-to-period comparisons in radiological services revenue. The work performed for the DOE and the IAEA includes services to support recovery of disused sources and installation or removal of certain devices.

Cost of sales for the three months ended June 30, 2019, was \$134,704, as compared to \$284,178, for the same period in 2018. Gross profit for this segment for the three months ended June 30, 2019 was \$83,093, compared to \$218,342, reported for the same period in 2018. The decrease in gross profit of \$135,249, or approximately 62%, is the result of the decrease in service contracts completed and reported in this segment for the three months ended June 30, 2019, as compared to the same period in 2018. Operating expense for the three months ended June 30, 2019 was \$96,641, as compared to \$53,901, reported for the same period in 2018. This increase of \$42,740, or approximately 79%, is the result of an increase in costs in equipment repairs and professional fees.

On May 3, 2019, the Company's radiological services team was involved in a contamination event at an off-site location in the state of Washington. The Company is currently supporting clean-up operations at that location and is supporting an investigation into the possible causes of the event. The Company has reported this incident to its insurance carrier and a claim is being processed to address the cost of recovery operations. During the three months ended June 30, 2019 the company incurred \$1,522,605 in expenses related to the event which is included in "other expense" on the Company's P&L statements. The company has received \$634,919 to-date in reimbursements from its insurance company for this ongoing claim which is included in "other income". The Company is actively working with its insurance company and believes it will recover a majority of the external contract cost of these clean-up operations.

Net loss for this segment for the three months ended June 30, 2019 was (\$901,234), compared to net income of \$164,441, for the same period in 2018. This is a decrease in net income of \$1,065,675 is the result of costs associated with clean-up operations related to the contamination event as noted above. Additionally, the decrease in revenue reported for the three months ended June 30, 2019, as compared to the same period in 2018 contributes to the decrease in net income.

Fluorine Products. There was no revenue to report from the fluorine products segment for the three months ended June 30, 2019, or for the same period in 2018. During the three months ended June 30, 2019, we incurred \$39,927 of expense related to items in support of future planning and design for the proposed de-conversion facility, as compared to \$31,613 for the same three-month period in 2018. The increase of \$8,314, or approximately 26% is the result of increased costs for professional services recorded in the period-to-period comparison.

We established the Fluorine Products segment in 2004 to support production and sale of the gases produced using our Fluorine Extraction Process ("FEP"). We will continue to limit our expenditures to essential items such as maintenance of the NRC license, land use agreements, communication with our prospective FEP product customers, and interface with the State of New Mexico and Lea County officials.

Six Months Ended June 30, 2019 Compared to Six Months Ended June 30, 2018

Revenue for the six-month period ended June 30, 2019 was \$4,663,691, as compared to \$5,193,332 for the same period in 2018, a decrease of \$529,641, or approximately 10%. The performance of all our business segments for the six-month period is discussed in further detail below.

The following table presents a period-to-period comparison of total revenue by segment for the six months ended June 30, 2019 and June 30, 2018:

	For the six- months ended June 30, 2019	For the six- months ended June 30, 2018	\$ change	% change
Sale of Product				
Radiochemical Products	\$ 1,237,339	\$ 1,185,885	\$ 51,454	4%
Cobalt Products	589,328	652,546	(63,218)	-10%
Nuclear Medicine Standards	2,031,618	1,964,787	66,831	3%
Radiological Services	805,406	1,390,114	(584,708)	-42%
Fluorine Products	—	—	—	0%
Total Consolidated	<u>\$ 4,663,691</u>	<u>\$ 5,193,332</u>	<u>\$ (529,641)</u>	<u>-10%</u>

Gross profit for the six-month period ended June 30, 2019 was \$2,603,878, compared to \$2,387,361, for the same period in 2018. This represents a decrease of \$216,517 or approximately 9%.

The following table presents cost of sales and gross profit data for each of our business segments for the six months ended June 30, 2019 and 2018:

	For the six- months ended June 30, 2019	% of Total Sales 2019	For the six- months ended June 30, 2018	% of Total Sales 2018
Total Sales	<u>\$ 4,663,691</u>		<u>\$ 5,193,332</u>	
Cost of Sales				
Radiochemical Products	\$ 618,137	13%	\$ 931,053	18%
Cobalt Products	171,638	4%	263,243	5%
Nuclear Medicine Standards	917,842	20%	930,109	18%
Radiological Services	352,195	7%	681,567	13%
Fluorine Products	—	0%	—	0%
Total Segments	<u>2,059,812</u>	<u>44%</u>	<u>2,805,972</u>	<u>54%</u>
Gross Profit	<u>\$ 2,603,878</u>		<u>\$ 2,387,360</u>	
Gross Profit %	56%		46%	

Operating expenses were \$2,543,845 for the six-month period ended June 30, 2019, compared to \$2,437,149 for the same period in 2018. This represents an increase of \$106,696, or approximately 4%. This increase is primarily due to an approximate 10% increase in General, Administrative and Consulting costs combined with an approximate 8% increase in Salaries and Contract Labor costs. The increase in General, Administrative and Consulting costs is a result of increased legal and general operating supply costs incurred during the six months ended June 30, 2019, as compared to the same period in 2018. The increase in Salaries and Contract Labor was a result of adding staff to our payroll. Research and Development costs decreased to \$96,658, for the six months ended June 30, 2019, as compared to \$190,884, for the same period in 2018. This is a decrease of \$94,226, or approximately 49% and is primarily the result of a decrease in expenditures for product development in several of our business segments for the six months ended June 30, 2019, as compared to the same period in 2018.

The following table shows total operating expenses for the six-month period ended June 30, 2019 and 2018:

Operating Costs and Expenses:	For the six-months ended June 30, 2019	For the six-months ended June 30, 2018	% change	\$ change
Salaries and Contract Labor	\$ 1,219,744	\$ 1,130,517	8%	\$ 89,227
General, Administrative and Consulting	1,227,443	1,115,748	10%	111,695
Research and Development	96,658	190,884	-49%	(94,226)
Total operating expenses	\$ 2,543,845	\$ 2,437,149	4%	\$ 106,696

Interest expense for the six months ended June 30, 2019 was \$250,919, compared to \$221,916 for the same period in 2018. This is an increase of \$29,003, or approximately 13%. Interest expense includes dividends accrued on our Series C Preferred Stock. As discussed below, we issued Series C Preferred Stock in February and May 2017. For the six months ended June 30, 2019, we accrued dividends payable of \$115,538 which have been recorded as interest expense. Additionally, non-cash interest expense in the amount of \$64,167 was recorded for this same period for the issuance of warrants related to the preferred stock issuances. Interest was also paid on a loan for a vehicle purchased in May 2016.

Our net loss for the six-month period ended June 30, 2019, was \$1,209,151 as compared to \$297,875 for the same period in 2018. This is an increase in loss of \$911,276 or approximately 306%. This increase in net loss is a result of net expenses of \$887,686 related to the cleanup resulting from the contamination event occurring at an offsite location in the state of Washington in May 2019. These expenses are included in an ongoing insurance claim.

Radiochemical Products. Revenue from the sale of radiochemical products for the six-month period ended June 30, 2019 was \$1,237,339 compared to \$1,185,885 for the same period in 2018. This is an increase of \$51,454, or approximately 4%.

Cost of sales was \$618,137 for the six-month period ended June 30, 2019, and \$931,053 for the same period in 2018. This is a decrease of \$312,916, or approximately 34%. This decrease is primarily the result of decreased sales of product and improvements in the utilization of raw material purchased in this segment, in the six-month comparison. Our decrease in material costs is due to a reduction in freight charges as a result of purchasing our material within the U.S. thus eliminating international shipping and customs fees. We expect this cost savings in shipping to continue with future shipments from this domestic supplier.

Gross profit percentages for our radiochemical products for the six months ended June 30, 2019 and 2018 were approximately 50% and 21%, respectively. Operating expense for this segment for the six-month period ended June 30, 2019 was \$270,200, compared to \$111,276 for the same period in 2018. This is an increase of \$158,924, or approximately 143%, and is primarily due primarily due to increased salaries and wages, costs related to the aNDA, repairs to equipment, and costs incurred for contract manufacturing. Net income for this segment increased to \$349,002 for the six-month period ended June 30, 2019, from \$143,557 for the same period in 2018. This increase of \$205,445, or approximately 143%, is primarily the result of a \$250,000 payment related to our contract manufacturing and supply agreement with Progenics. Other changes were the decrease in cost of goods sold as discussed above and increase in operating expenses as discussed above.

Cobalt Products. Revenues from the sale of cobalt products for the six-month period ended June 30, 2019 were \$589,328, compared to \$652,546 for the same period in 2018. This is a decrease of \$63,218, or approximately 10%, and is the result of decreased Cobalt Recycling. Our cobalt sealed source manufacturing is largely dependent on our ability to procure cobalt material from the DOE's ATR. Although we have not been able to obtain cobalt from the ATR reactor since late 2013, we have been able to contract with another supplier for the purchase of cobalt material and during the six months ended June 30, 2018, we were able to resume manufacturing products for customers using this material.

In November 2018, we entered into a supply agreement with an additional customer under which we will begin delivering cobalt material in late 2019 or early 2020. During the six months ended June 30, 2019, we began fulfilling contract milestones of this agreement. All pre-payments for material have been recorded as unearned revenue on our consolidated balance sheets.

We have experienced delays in the delivery of cobalt material from the DOE's ATR. Because of these delays, we have been forced to purchase cobalt material, at lower activity levels, from alternate suppliers in order to meet contract obligations.

In October 2014, we entered into a ten-year agreement with the DOE for the irradiation of cobalt targets. It takes approximately three to four years to irradiate the cobalt targets to the desired level of activity and we anticipate having high specific activity cobalt available to our customers early 2020 and every year thereafter through at least 2024. As mentioned above, we are continuing to purchase some bulk cobalt from another supplier, which will allow us to complete some additional source manufacturing sales during 2019 in advance of the cobalt that is being produced in the ATR.

During 2015, we entered into cobalt-60 supply agreements with several customers. The terms of the agreements required pre-payments to secure cobalt material in future years. Those prepayments were recorded as unearned revenue on our consolidated balance sheet. Beginning in 2019, we began supplying material to some customers and have accordingly recognized approximately \$102,360 of revenue as a result of these deliveries.

In April 2019, because of our inability to supply high specific activity cobalt material produced by the DOE's ATR in 2018, we modified our supply agreement with one of our cobalt customers. The modification included our agreement to reduce the customers cobalt purchase obligations in future years and we agreed to refund approximately \$1,100,000, of payments received from this customer for prior year undelivered material, plus interest at 12% per year, payable over a one-year period. We have also agreed with this customer to refund approximately \$1,100,000 paid for material that was to have been delivered in later years. There will be no interest charge on this refund. In addition, we have identified another customer ready to purchase this material. The Company does not anticipate any significant net negative effect of this change as sales under the new agreement are expected to completely offset refunds made under the old agreement. Accordingly, we will classify refund payments due within one year as a short-term liability and payments due beyond one year as a long-term liability, rather than as short-term deferred revenue on our consolidated balance sheet.

Cost of sales for the six months ended June 30, 2019, was \$171,638, as compared to \$263,243, for the same period in 2018. Gross profit for cobalt products for the six months ended June 30, 2019 was \$417,689 compared to \$389,304 for the same period in 2018. This is an increase of \$28,385, or approximately 7% and is primarily attributable to our increase in source manufacturing and decrease in cost of sales for the six months ended June 30, 2019, as compared to the same period in 2018. Our gross profit percentages were approximately 71% and 60% for the six-month periods ended June 30, 2019 and 2018, respectively. The increase in the gross profit percentage for the six months ended June 30, 2019 is primarily due to decreased costs of raw material used in the manufacture of sealed sources. Operating expense in this segment decreased to \$102,567 for the six months ended June 30, 2019, from \$111,399 for the same period in 2018. This is a decrease of \$8,832, or approximately 8%. Our net income for cobalt products was \$315,122 for the six months ended June 30, 2019, as compared to a net income of \$277,905 for the same period in 2018. The increase in net income of \$37,217 or approximately 13%, was attributable to the significant decrease in cost of sales as well as the decrease in operating expense in this segment for the six months ended June 30, 2019, as compared to the same period in 2018.

Nuclear Medicine Standards. Revenue from nuclear medicine products for the six-month period ended June 30, 2019 was \$2,031,618 compared to \$1,964,787 for the same period in 2018. This represents an increase in revenue attributable to this segment of \$66,831, or approximately 3%.

As discussed above, due to a change in the member ownership of RadQual, during 2017, we began reporting our investment in RadQual on a consolidated basis. Therefore, revenue in this segment includes all sales of RadQual and sales of TI Services, a 50/50 joint venture that we formed with RadQual in December 2010, to distribute products and services for nuclear medicine, nuclear cardiology, and PET imaging. All intercompany sales for the consolidated period have been eliminated.

Gross profit for the six-month period ended June 30, 2019 was \$1,113,776, as compared to \$1,034,678 for the same period in 2018, an increase of \$79,098, or approximately 8%. Operating expense for this segment for the six-month period ended June 30, 2019 increased to \$800,601, from \$651,152 for the same period in 2018. This is an increase of \$149,449 or approximately 23% and includes consolidated net operating expense reported for RadQual of \$277,081 and non-controlling member interest expense of \$179,593, for the six months ended June 30, 2019, compared to consolidated net operating expense of \$263,377 and non-controlling member interest expense of \$84,328, for the six months ended June 30, 2018. Net income for this segment for the six-month period ended June 30, 2019, decreased to \$328,743, approximately 16%, from \$389,236 for the same six-month period in 2018.

Radiological Services. The radiological services segment reported revenue of \$805,406 for the six-month period ended June 30, 2019 compared to \$1,390,114 for the same period in 2018. This is a decrease of \$584,708, or approximately 42%. The majority of our revenue in this segment is generated by the performance of activities in connection with contracts for the DOE and the IAEA. The decrease in the revenue for the period comparison is the result of the random timing of the work performed by us for these agencies. These contracts are historically awarded sporadically over time and thus will continue to create fluctuations in the period-to-period comparisons in radiological services revenue.

Gross profit was \$453,211 for this segment for the six months ended June 30, 2019, and \$708,547 for the same period in 2018. This is a decrease in gross profit of \$255,336, or approximately 36% and is the result of decreased revenue reported in this business segment. Operating costs were \$155,480 and \$142,093 for the six months ended June 30, 2019 and 2018, respectively. The increase in operating expense of \$13,387, or approximately 9%, is due to increased professional services.

On May 3, 2019, the Company's radiological services team was involved in a contamination event at an off-site location in the state of Washington. The Company is currently supporting clean-up operations at that location and is supporting an investigation into the possible causes of the event. The Company has reported this incident to its insurance carrier and a claim is being processed to address the cost of recovery operations. During the three months ended June 30, 2019 the company incurred \$1,522,605 in expenses related to the event which is included in "other expense" on the Company's P&L statements. The company has received \$634,919 to-date in reimbursements from its insurance company for this ongoing claim which is included in "other income". The Company is actively working with its insurance company and believes it will recover a majority of the external contract cost of these clean-up operations.

Net loss for the six-month period ending June 30, 2019, was \$589,956, as compared to net income \$566,453 for the same period in 2018.

Fluorine Products. There was no revenue to report from the fluorine products segment for the six months ended June 30, 2019 or for the same period in 2018. During the six months ended June 30, 2019, we incurred \$77,422 of expense related to essential items in support of future planning and design for the proposed de-conversion facility, as compared to \$62,912 for the same six-month period in 2018. The increase of \$14,510, or approximately 23% is the result of increased travel and professional services expenses in the period-to-period comparison.

We established the Fluorine Products segment in 2004 to support production and sale of the gases produced using our Fluorine Extraction Process ("FEP"). We will continue to limit our expenditures to essential items such as maintenance of the NRC license, land use agreements, communication with our prospective FEP product customers, and interface with the State of New Mexico and Lea County officials.

LIQUIDITY AND CAPITAL RESOURCES

At June 30, 2019, we had cash and cash equivalents of \$443,310 as compared to \$828,039 at December 31, 2018. This is a decrease of \$384,729 or approximately 46%. For the six months ended June 30, 2019, net cash used in operating activities was \$114,905 and for the six months ended June 30, 2018, net cash used in operating activities was \$328,026. The decrease in cash used in operating activities and decrease in cash and cash equivalents at period end in the period-to-period comparison is the result of increased inventory reported as well as an increase in accounts receivable.

Inventories at June 30, 2019 totaled \$3,219,941, and inventories at December 31, 2018 totaled \$2,765,729. A significant amount of our inventory consists of work-in-process cobalt raw material held at the ATR located outside of Idaho Falls, Idaho. At June 30, 2019, this raw cobalt material inventory accounted for approximately 93% of our work-in-process inventory. At December 31, 2018, this in-process raw material inventory accounted for approximately 89% of our work in process inventory. We periodically evaluate the carrying value of our raw materials to determine their future market value to the Company. As of June 30, 2019, we determined that no impairment of this raw material inventory was necessary.

Cash used in investing activities was \$23,177 for the six months ended June 30, 2019, and cash used in investing activities was \$62,976 for the same period in 2018. The cash used for the six months ended June 30, 2019, and for the same period in 2018, was for the purchase of equipment.

Financing activities used cash of \$239,629, during the six months ended June 30, 2019, and cash provided by financing activities for the same period in 2018 was \$189,648. During the six months ended June 30, 2019, cash paid for interest was \$86,388 and during the same six-month period in 2018, cash paid for interest was \$37,749. Additionally, during the six months ended June 30, 2019, we received \$3,438 in proceeds from the sale of our common stock through our Employee Stock Purchase Plan, as compared to \$3,304 for the same period in 2018.

In February 2017, we entered into subscription agreements with certain investors, including two of our directors, for the sale of (i) an aggregate of 3,433 shares of Series C Preferred Stock, and (ii) Class M warrants to purchase an aggregate of 17,165,000 shares of our common stock (Class M Warrants), for gross proceeds of \$3,433,000. The Series C Preferred Stock accrues dividends at a rate of 6% per annum, payable annually on February 17th of each year. Shares of Series C Preferred Stock are convertible at the option of the holder at any time into shares of our common stock at an initial conversion price equal to \$0.10 per share, subject to adjustment. At any time after February 17, 2019, if the volume-weighted average closing price of our common stock over a period of 90 consecutive trading days is greater than \$0.25 per share, we may redeem all or any portion of the outstanding Series C Preferred Stock at the original purchase price per share plus any accrued and unpaid dividends, payable in shares of common stock. All outstanding shares of Series C Preferred Stock must be redeemed by us on February 17, 2022 at the original purchase price per share, payable in cash or shares of common stock, at the option of the holder. Holders of Series C Preferred Stock do not have any voting rights, except as required by law and in connection with certain events as set forth in the Statement of Designation of the Series C Preferred Stock. The Class M Warrants are immediately exercisable at an exercise price of \$0.12 per share, subject to adjustment as set forth in the warrant, and have a term of five years.

In February 2019, the Company paid its second annual dividend on the Series C Preferred Stock. Dividends payable totaled \$252,780. Some holders of the Series C Preferred Stock elected to settle their dividend payments with shares of the Company's common stock in lieu of cash. The Company issued 3,433,000 shares of common stock in lieu of a dividend payment of \$205,980. The remaining \$46,800 of dividend payable was settled with cash.

Total decrease in cash for the six-month period ended June 30, 2019, was \$377,711 compared to a cash decrease of \$201,354 for the same period in 2018.

We expect that cash from operations, cash raised via equity financing, and our current cash balance will be sufficient to fund operations for the next twelve months. 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.

At June 30, 2019, there were 20,090,000 outstanding warrants to purchase our common stock. Included in this number are 17,165,000 Class M Warrants issued February 17, 2017, with an exercise price of \$0.12 per share and an expiration date of February 17, 2022; and, 2,925,000 Class N Warrants issued May 12, 2017, with an exercise price of \$0.10 per share and an expiration date of May 12, 2022.

Debt

In December 2013, we entered into a promissory note agreement with our then Chairman of the Board and one of our major shareholders, pursuant to which we borrowed \$500,000 (the "2013 Promissory Note"). The 2013 Promissory Note is secured and bears interest at 6% per annum and was originally due June 30, 2014. According to the terms of the 2013 Promissory Note, at any time, the lenders may settle any or all of the principal and accrued interest with shares of our common stock. In connection with the 2013 Promissory Note, each of the two lenders was issued 5,000,000 warrants to purchase shares of our common stock at \$0.06 per share. The warrants were immediately exercisable. In June 2014, we renegotiated the terms of the 2013 Promissory Note. Pursuant to the modification, the maturity date was extended to December 31, 2017 and each lender was granted an additional 7,500,000 warrants to purchase shares of our common stock at \$0.06 per share. The warrants were immediately exercisable. In December 2016, the 2013 Promissory Note was further modified to extend the maturity date to December 31, 2022, with all remaining terms unchanged. On December 23, 2018, all 25,000,000 warrants expired. At June 30, 2019, the principal balance of the 2013 Promissory Note was \$500,000 and accrued interest payable on the 2013 Promissory Note was \$166,734. Interest expense recorded for the six-month period ended June 30, 2019, was \$15,000.

In March 2016, we entered into a note payable for the purchase of a vehicle. The principal amount financed was \$47,513. The term of the note is six years and the note carries an interest rate of 6.66%. Monthly payments are \$805 and the note matures April 2022. The note is secured by the vehicle that was purchased with the note's proceeds.

In August 2017, we entered into a short-term promissory note agreement with our Chairman of the Board, pursuant to which we borrowed \$60,000 (the “2017 Promissory Note”). The 2017 Promissory Note accrues interest at 5% per annum, which is payable upon maturity of the 2017 Promissory Note. The 2017 Promissory Note is unsecured and was scheduled to mature on June 30, 2018. Pursuant to an amendment to the 2017 Promissory Note on June 29, 2018, the maturity date was extended to March 31, 2019, with all other provisions remaining unchanged. Pursuant to a second amendment to the 2017 Promissory Note on February 12, 2019, the maturity date was extended to July 31, 2019 with all other provisions of the 2017 Promissory Note remaining unchanged. On April 30, 2019, the 2017 Promissory Note and accrued interest were repaid in full with a cash payment of \$65,117.

In April 2018, we borrowed \$120,000 from our Chief Executive Officer and Chairman of the Board pursuant to a short-term promissory note (the “2018 Promissory Note”). The 2018 Promissory Note accrues interest at 6% per annum, which is payable upon maturity of the 2018 Promissory Note. The 2018 Promissory Note is unsecured and was originally scheduled to mature on August 1, 2018. At any time, the holder of the 2018 Promissory Note may elect to have any or all of the principal and accrued interest settled with shares of our common stock based on the average price of the shares over the previous 20 trading days. Pursuant to an amendment to the 2018 Promissory Note on June 29, 2018, the maturity date was extended to March 31, 2019, with all other provisions remaining unchanged. Pursuant to a second amendment to the 2018 Promissory Note on February 12, 2019, the maturity date was extended to July 31, 2019, with all other terms remaining unchanged. Pursuant to a third amendment to the 2018 Promissory Note in August 2019, the maturity date was extended to January 31, 2020, and the note was modified to be secured. At June 30, 2019, accrued interest on the 2018 Promissory Note totaled \$8,570.

In February 2019, we borrowed \$185,474 from RadQual pursuant to a short-term promissory note with a stated interest rate of 6% and a maturity date of July 31, 2019 (the “2019 Promissory Note”). The 2019 Promissory Note is unsecured. In June 2019, we borrowed an additional \$180,000. Additionally, in June 2019, an amendment to the 2019 Promissory Note extended the maturity date to December 31, 2019 with all other terms remaining unchanged. At June 30, 2019, the principal balance of the 2019 Promissory Note totaled \$365,474 and accrued interest on the 2019 Promissory Note totaled \$3,982.

OFF-BALANCE SHEET ARRANGEMENTS

As of June 30, 2019, 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 Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness, as of June 30, 2019, of our disclosure controls and procedures. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of June 30, 2019.

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 quarter ended June 30, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION**ITEM 1. LEGAL PROCEEDINGS**

We were not a party to any legal proceedings that we believe to be material and we are not aware of any pending or threatened litigation against us that we believe could have a material adverse effect on our business, operating results, financial condition, or cash flows.

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, 2018.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

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	Statement of Designation of the Series C Convertible Redeemable Preferred Stock of International Isotopes Inc. (incorporated by reference to Exhibit 3.1 of the Company’s Current Report on Form 8-K filed on February 24, 2017).
3.3	Bylaws (incorporated by reference to Exhibit 3.2 of the Company’s Registration Statement on Form SB-2 filed on May 1, 1997 (Registration No. 333-26269)).
10.1†	Manufacturing and Supply Agreement, dated April 5, 2019, between International Isotopes Inc. and Progenics Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.1 of the Company’s Quarterly Report on Form 10-Q for the quarter ended March 31, 2019, filed on May 15, 2019). +
31.1	Certification by the Chief Executive Officer under Section 302 of the Sarbanes-Oxley Act of 2002. *
31.2	Certification by the Chief Financial Officer under Section 302 of the Sarbanes-Oxley Act of 2002. *
32.1	Certification by the Chief Executive Officer furnished pursuant to 18 U.S.C. Section 1350 adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. **
32.2	Certification by the Chief Financial Officer furnished pursuant to 18 U.S.C. Section 1350 adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. **
101	The following financial statements, formatted in XBRL: (i) Unaudited Condensed Consolidated Balance Sheets as of June 30, 2019 and December 31, 2018, (ii) Unaudited Condensed Consolidated Statements of Operations for the three months and six months ended June 30, 2019 and 2018, (iii) Unaudited Condensed Consolidated Statements of Cash Flows for the three months and six months ended June 30, 2019 and 2018 and (iv) Notes to Unaudited Condensed Consolidated Financial Statements.*

* Filed herewith.

** Furnished herewith.

† Certain portions of the exhibit have been omitted pursuant to Rule 601(b)(10) of Regulation S-K. The omitted information is (i) not material and (ii) would likely cause competitive harm to the Company if publicly disclosed.

+ Certain schedules and exhibits have been omitted pursuant to Item 601(a)(5) of Regulation S-K under the Securities Exchange Act of 1934, as

amended. The Company hereby undertakes to supplementally furnish copies of any omitted schedules to the Securities and Exchange Commission upon request.

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, 2019

International Isotopes Inc.

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

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