

SOLITARIO EXPLORATION & ROYALTY CORP.  
Form 10-K  
February 16, 2010

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

FORM 10-K

(Mark One)

Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2009

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 **001-32978**

**SOLITARIO EXPLORATION & ROYALTY CORP.**

(Exact name of registrant as specified in charter)

Colorado

84-1285791

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

4251 Kipling St. Suite 390, Wheat Ridge, CO

80033

(Address of principal executive offices)

(Zip Code)

Registrant's telephone number, including area code

(303) 534-1030

Securities registered pursuant to Section 12(b) of the Act:

Title of each class  
Common Stock, \$0.01 par value

Name of exchange on which registered  
NYSE: Amex Equities

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  
YES [ ] NO [X]

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. YES [ ] NO [X]

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES [X] NO [ ]

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (sub section 232.405 of this

chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES  NO

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained to the best of registrant's knowledge in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer <input type="checkbox"/>	Accelerated filer <input type="checkbox"/>	Non accelerated Filer <input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller Reporting Company <input checked="" type="checkbox"/>
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Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). YES  NO

The aggregate market value of the voting stock held by non-affiliates of the registrant as of the last business day of the registrant's most recently completed second fiscal quarter, based upon the closing sale price of the registrant's common stock on June 30, 2009 as reported on the NYSE Amex was approximately \$44,150,000.

There were 29,750,242 shares of common stock, \$0.01 par value, outstanding on February 10, 2010.

#### DOCUMENTS TO BE INCORPORATED BY REFERENCE

Portions of the definitive Proxy Statement for the Registrant's Annual Meeting of Shareholders which is expected to be filed by April 30, 2010 have been incorporated by reference into Part III of this Annual Report on Form 10-K.1

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EXPLANATORY NOTE

This Annual Report on Form 10-K of Solitario Exploration & Royalty Corp ("Solitario" or the "Company") for the year ended December 31, 2009, restates Solitario's consolidated financial statements included in Item 8, Financial Statements and Supplementary Data, as of December 31, 2008 and for the year ended December 31, 2007 as discussed in Note 11 to the consolidated financial statements.

In connection with the preparation of its consolidated financial statements for the year ended December 31, 2009, Solitario identified an error in its previously reported financial statements. Solitario determined that it should credit payments received from Anglo by Solitario's PBM subsidiary to deferred noncontrolling shareholder payments, a deferred capital account, in the liability section of its balance sheet. Previously, Solitario recorded the payments as additional paid-in-capital and noncontrolling interest in the equity section of its balance sheet. Upon Anglo earning any additional interest in PBM, Solitario is required to credit additional paid-in-capital and noncontrolling interest for any payments accumulated to that date in deferred noncontrolling shareholder payments. The restatement included in the consolidated financial statements reflects the recording of payments received from Anglo as deferred noncontrolling shareholder payments. In addition certain payments received from Anglo from 2003 through September 30, 2007 were recorded as credits to exploration expense. Because Solitario had correctly recorded Anglo's noncontrolling interest upon Anglo earning its initial interest in PBM on that date, the restatement of the consolidated financial statements contained herein reflect those payments from 2003 through 2007 recorded as exploration expense

resulting in an increase in additional paid-in-capital with a corresponding increase in Solitario's accumulated deficit.

Accordingly, this Annual Report on Form 10-K reflects adjustments to Solitario's previously issued consolidated financial statements as discussed in more detail in Note 11 to the consolidated financials.

Solitario has also made appropriate changes in this Annual Report on Form 10-K to the Balance Sheet Data as of December 31, 2005, 2006, 2007 and 2008 and the Statement of Operations Data for the years ended December 31, 2005, 2006 and 2007 set forth in Item 6, Selected Financial Data and to the comparison of the year ended December 31, 2008 to the year ended December 31, 2007 set forth in Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations. This Annual Report on Form 10-K contains related disclosure identifying the restatement as a material weakness in Item 9A.

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## PART I

This Annual Report on Form 10-K contains statements that constitute "forward-looking statements" within the meaning of section 27A of the Securities Act of 1933 and section 21E of the Securities Exchange Act of 1934. These statements can be identified by the fact that they do not relate strictly to historical information and include the words "expects", "believes", "anticipates", "plans", "may", "will", "intend", "estimate", "continue" or other similar expressions. These forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from those currently anticipated. These risks and uncertainties include, but are not limited to, items discussed below in Item 1A "Risk Factors" in this Form 10-K. Forward-looking statements speak only as of the date made. We undertake no obligation to publicly release or update forward-looking statements, whether as a result of new information, future events or otherwise. You are, however, advised to consult any further disclosures we make on related subjects in our quarterly reports on Form 10-Q and any reports made on Form 8-K to the United States Securities and Exchange Commission (the "SEC").

### Item 1. Business

#### The Company

Solitario Exploration & Royalty Corp. ("Solitario") is an exploration stage company with a focus on the acquisition of precious and base metal properties with exploration potential and the development or purchase of royalty interests. Solitario acquires and holds a portfolio of exploration properties for future sale, joint venture, or to create a royalty prior to the establishment of proven and probable reserves. Although its mineral properties may be developed in the future through a joint venture, Solitario has never developed a mineral property and Solitario does not anticipate developing any currently owned mineral properties on its own in the future. Solitario may also evaluate mineral properties to potentially buy a royalty. At December 31, 2009 we had interests in 15 exploration properties in Mexico, Brazil, Bolivia and Peru. We also have interest in our Yanacocha and La Tola royalty properties in Peru.

Solitario was incorporated in the state of Colorado on November 15, 1984 as a wholly owned subsidiary of Crown Resources Corporation ("Crown"). In July 1994, Solitario became a publicly traded company on the Toronto Stock Exchange (the "TSX") through its Initial Public Offering. On July 26, 2004, Crown completed a spin-off of its holdings of our shares to its shareholders. Crown was acquired by Kinross Gold Corporation of Toronto, Canada ("Kinross") upon the completion of a merger on August 31, 2006 whereby Kinross acquired all of the outstanding shares of Crown common stock (the "Crown - Kinross merger"). Kinross currently owns less than one percent of our outstanding common stock.

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On June 12, 2008, our shareholders approved an amendment to the Articles of Incorporation of Solitario to change the name of the corporation to Solitario Exploration & Royalty Corp. from Solitario Resources Corporation.

Our corporate structure is as follows - all of the subsidiaries are 100%-owned, with the exception of Pedra Branca Mineracao, Ltd., and Minera Chambara, which are 70%-owned and 85%,-owned, respectively, by Solitario.

- Solitario Exploration & Royalty Corp. [Colorado]
- Altoro Gold Corp. [British Columbia, Canada]
  - Altoro Gold (BVI) Corp. [British Virgin Islands]
    - Minera Altoro (BVI) Ltd. [British Virgin Islands]
    - Minera Andes (BVI) Corp. [British Virgin Islands]
      - Compania Minera Andes del Sur S.A. [Bolivia]
    - Minera Altoro Brazil (BVI) Corp. [British Virgin Islands]
      - Altoro Mineracao, Ltda. [Brazil]
- Pedra Branca Mineracao, Ltda. [Brazil] (70%-owned)
- Minera Chambara, S.A. [Peru] (85%-owned)
- Minera Solitario Peru, S.A. [Peru]
- Minera Bongara, S.A. [Peru]
- Minera Soloco, S.A. [Peru]
- Mineracao Solitario Brazil, Ltd [Brazil]

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### General

Our principal expertise is in identifying mineral properties with promising mineral potential, acquiring these mineral properties and exploring them to enable us to sell, joint venture or create a royalty on these properties prior to the establishment of proven and probable reserves. We also have used the same expertise to obtain royalty interests. Currently we have no mineral properties with reserves and we have no mineral properties in development. We do not anticipate developing any currently owned properties on our own in the future. Our goal is to discover economic deposits on our mineral properties and advance these deposits, either on our own or through joint ventures, up to the development stage (development activities include, among other things, the completion of a feasibility study, the identification of proven and probable reserves, as well as permitting and preparing a deposit for mining). At that point, or sometime prior to that point, we would attempt to either sell our mineral properties, or pursue their development through a joint venture with a partner that has expertise in mining operations, or create a royalty with a third-party that continues to advance the property.

In analyzing our activities, the most significant aspect relates to results of our exploration activities and those of our joint venture partners' on a property-by-property basis. When our exploration activities, including drilling, sampling and geologic testing indicate a project may not be economic or contain sufficient geologic or economic potential we may impair or completely write-off the property. Another significant factor in the success or failure of our activities is the price of commodities. For example, when the price of gold is up, the value of gold-bearing mineral properties increases, however, it may also become more difficult and expensive to locate and acquire new gold-bearing mineral properties with potential to have economic deposits.

The potential sale, joint venture or development through a joint venture of our mineral properties will occur, if at all, on an infrequent basis. Accordingly, while we conduct exploration activities, we need to maintain and replenish our capital resources. We have met our need for capital in the past through (i) the sale of properties, which last occurred in 2000 with the sale of our Yanacocha property for \$6,000,000; (ii) joint venture delay rental payments,

including a payment of \$200,000 in August 2009 and 2008 and \$100,000 in August 2007 on our Bongara property and previous payments on our exploration properties which occurred during the years from 1996 through 2000; (iii) sale of our investment in Kinross; and (iv) issuance of common stock, including exercise of options, and through private placements, most recently as part of a strategic alliance with a major mining company. We have reduced our exposure to the costs of our exploration activities through the use of joint ventures. We anticipate these practices will continue for the foreseeable future although we expect that our primary funds for the next year will come from the sale of our investment in Kinross.

We operate in one segment, mining geology and mineral exploration. We currently conduct exploration in Peru, Brazil, Mexico, and, to a limited extent, Bolivia. As of February 10, 2010, we had five full-time employees, located in the United States and 23 full-time employees, located in Latin America outside of the United States. We extensively utilize contract employees and laborers to assist us in the exploration on most of our projects.

A large number of companies are engaged in the exploration of mineral properties, many of which have substantially greater technical and financial resources than we have and, accordingly, we may be at a disadvantage in being able to compete effectively for the acquisition and exploration of mineral properties. We are not aware of any single competitor or group of competitors that dominate the exploration of mineral properties. In acquiring mineral properties for exploration, we rely on the experience, technical expertise and knowledge of our employees, which is limited by the size of our company compared to many of our competitors who may have either more employees or employees with more specialized knowledge and experience.

#### Investment in Kinross

Solitario has a significant investment in Kinross at December 31, 2009, which consists of 1,050,000 shares of Kinross common stock. Solitario received 1,942,920 shares in exchange for 6,071,626 shares of Crown common stock it owned on the date of the Crown - Kinross merger. During 2009 and 2008, subsequent to the Crown - Kinross merger, Solitario sold 100,000 and 192,920 shares, respectively, of Kinross common stock for net proceeds of \$1,852,000 and \$4,430,000, respectively. As of February 10, 2010, Solitario owns 1,050,000 shares of Kinross common stock. Solitario entered into the Kinross Collar which limits its ability to sell 500,000 of these shares. Accordingly, 550,000 shares are not subject to the Kinross Collar, discussed below. As of February 10, 2010, these 550,000 shares have a value of approximately \$9.7 million based upon the market price of \$17.55 per Kinross share. Any significant fluctuation in the market value of Kinross common shares could have a material impact on Solitario's liquidity and capital resources. As of December 31, 2009 we sold covered call options for 40,000 shares of Kinross common stock, discussed below, which expire May 22, 2010.

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#### Kinross Collar and Kinross Calls

On October 12, 2007 Solitario entered into a Zero-Premium Equity Collar (the "Kinross Collar") pursuant to a Master Agreement for Equity Collars and a Pledge and Security Agreement between Solitario and UBS AG, London, England, an Affiliate of UBS Securities LLC (collectively "UBS") whereby Solitario has remaining pledged 500,000 shares of Kinross common stock to be sold (or delivered back to us with any differences settled in cash). As of December 31, 2009 the Kinross Collar pricing is (i) 400,000 shares due on April 13, 2010 for a lower threshold price of no less than \$13.69 per share (the "Floor Price") and an upper threshold price of no more than \$24.34 per share; and (ii) 100,000 shares due on April 12, 2011 for no less than the Floor Price and an upper threshold price of no more than \$27.50 per share. On April 14, 2009, a tranche of the Kinross Collar due on that date expired, and 400,000 shares under the Kinross Collar were released. No shares were delivered to UBS under the Kinross Collar and no cash was paid or received upon the termination of that tranche of the Kinross Collar. Kinross' quoted closing price was \$16.37

per share on October 12, 2007, the date of the initiation of the Kinross Collar.

The business purpose of the Kinross Collar is to provide downside price protection of the Floor Price on 500,000 shares of the total Kinross common stock we currently own, in the event Kinross stock were to drop significantly from the price on the date we entered into the Kinross Collar. In consideration for obtaining this price protection, we have given up the upside appreciation above the upper threshold during the term of the respective tranches. We have not designated the Kinross Collar as a hedging instrument (as described in ASC 815 "Derivative Instruments and Hedging Activities") and any changes in the fair market value of the Kinross Collar are recognized in the statement of operations in the period of the change. Solitario recorded a gain on derivative instrument of \$522,000 and \$1,189,000 during 2009 and 2008, respectively, and a loss of \$1,702,000 during 2007 for the change in the fair market value of the Kinross Collar. As of December 31, 2009 we have recorded a derivative liability of \$11,000 in current liabilities and an asset of \$20,000 in other assets related to the fair value of the Kinross Collar.

On December 10, 2008 Solitario sold two covered call options covering 50,000 for proceeds of \$104,000 both of which expired unexercised in February 2009. Solitario recorded a gain on sale of derivative instruments of \$116,000 and a loss of \$12,000, respectively, on these calls in the years ended December 31, 2009 and 2008. On March 31, 2009 Solitario sold a covered call option covering 50,000 shares of Kinross (the "April 09 Kinross Call") for \$21,000. The call option had a strike price of \$20.00 per share and expired unexercised on April 21, 2009. Solitario recorded a gain on derivative instruments of \$21,000 on the April 09 Kinross Call during the year ended December 31, 2009. On April 16, 2009 Solitario sold a covered call option covering 40,000 shares of Kinross (the "August 09 Kinross Call") for net proceeds of \$45,000. Solitario repurchased the option in July for \$80,000 and concurrently sold a covered call option covering 40,000 shares with a strike price of \$17.50 expiring on November 21, 2009 (the "November 09 Kinross Call") for \$158,000. Solitario repurchased the November 09 Kinross call on November 13, 2009 for \$77,000 and concurrently sold a covered call option covering 40,000 shares of Kinross with a strike price of \$22.00 expiring on May 22, 2010 (the "May 10 Kinross Call") for \$76,000. As of December 31, 2009, Solitario recorded a liability of \$42,000 for the May 10 Kinross Call and has recorded a gain on derivative instrument of \$34,000 during 2009 related to the May 10 Kinross Call.

#### Mineral properties - General

We have been involved in the exploration for minerals in Latin America, focusing on precious and base metals, including gold, silver, platinum, palladium, copper, lead and zinc. We have held concessions in Peru since 1993 and in Bolivia and Brazil since 2000. During 2004, we began a reconnaissance exploration program in Mexico and acquired mineral interests there in 2005.

#### Financial information about geographic areas

Included in the consolidated balance sheet at December 31, 2009 and 2008 are total assets of \$3,310,000 and \$3,751,000, respectively, related to Solitario's foreign operations, located in Brazil, Peru, Mexico and Bolivia. Included in mineral properties in the consolidated balance sheet at December 31, 2009 and 2008 are net capitalized costs related to the Pedra Branca Property, located in Brazil, of \$2,607,000, respectively.

#### Available Information

We file our Annual Report on Form 10-K, our quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports electronically with the SEC. The public may read and copy any materials we file with the SEC at the SEC's public reference room at 100 F Street NE, Washington, DC 20549 or by calling the SEC at 1-800-SEC-0330. In addition the SEC maintains an internet website, <http://www.sec.gov>, which contains reports, proxy information and other information regarding issuers that file electronically with the SEC.



Paper copies of our Annual Report to Shareholders, our Annual Report on Form 10-K, our quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports are available free of charge by writing to the company at its address on the front of this Form 10-K. In addition, electronic versions of the reports we file with the SEC are available on our website, <http://www.Solitarioresources.com>, as soon as practicable, after filing with the United States Securities and Exchange Commission.

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#### Item 1A. Risk Factors

In addition to considering the other information in this Form 10-K, you should consider carefully the following factors. The risks described below are the significant risks we face and include all material risks. Additional risks not presently known to us or risks that we currently consider immaterial may also adversely affect our business.

Our mineral exploration activities involve a high degree of risk; our business model envisions the sale or joint venture of mineral property, prior to the establishment of reserves. If we are unable to sell or joint venture our properties, the money spent on exploration may never be recovered and we could incur an impairment on our investments in our projects.

The exploration for mineral deposits involves significant financial and other risks over an extended period of time. Few properties that are explored are ultimately developed into producing mines. Major expenses are required to determine if any of our mineral properties may have the potential to be commercially viable and be salable or joint ventured. We have never established reserves on any of our properties. Significant additional expense and risks, including drilling and determining the feasibility of a project, are required prior to the establishment of reserves. These additional costs potentially diminish the value of our properties for sale or joint venture. It is impossible to ensure that the current or proposed exploration programs on properties in which we have an interest will be commercially viable or that we will be able to sell or joint venture our properties. Whether a mineral deposit will be commercially viable depends on a number of factors, some of which are the particular attributes of the deposit, such as its size and grade, costs and efficiency of the recovery methods that can be employed, proximity to infrastructure, financing costs and governmental regulations, including regulations relating to prices, taxes, royalties, infrastructure, land use, importing and exporting of gold or other minerals, and environmental protection.

Even if our exploration activities determine that a project is commercially viable, it is impossible to ensure that such determination will result in a profitable sale of the project or development by a joint venture in the future and that such project will result in profitable commercial mining operations. If we determine that capitalized costs associated with any of our mineral interests are not likely to be recovered, we would incur an impairment of our investment in such property interest. All of these factors may result in losses in relation to amounts spent, which are not recoverable. We have experienced losses of this type from time to time including during 2009, when we wrote down our investment in the Purica project in Mexico and the Chonta project in Peru, recording a mineral property impairment of \$51,000 and during 2007, when we wrote down our investment in the Titicayo project in Bolivia, and the Purisima and Corazon projects in Mexico, recording mineral property impairments of \$20,000. We did not impair any mineral properties during 2008.

We have a significant investment in Kinross common stock. We have no control over fluctuations in the price of Kinross common stock and reductions in the value of this investment could have a negative impact on the market price of our common stock.

We have a significant investment in Kinross as of February 10, 2010, which consists of 1,050,000 shares of Kinross common stock. Of these shares, 550,000 are not subject to the Kinross Collar, discussed above. These 550,000 shares have a value of approximately \$9.7 million based upon the market price of \$17.55 per Kinross share. A significant fluctuation in the market value of Kinross common shares could have a material impact on our investment in Kinross, the market price of our common stock and our liquidity and capital resources.

We have entered into the Kinross Collar on our investment in Kinross. This Kinross Collar limits our ability to sell 500,000 of our Kinross shares and limits the potential future cash from the sale of our shares of Kinross subject to the Kinross Collar during the period of the Kinross Collar.

We entered into the Kinross Collar on 900,000 shares of our Kinross stock during 2007. This Kinross Collar limits our ability to sell 400,000 shares of Kinross until settlement on April 13, 2010 and limits the maximum sale price for those shares on that day to \$24.34, and it limits our ability to sell 100,000 shares until settlement on April 12, 2011 and limits the maximum sale price on that day for those shares to \$27.50. (We have the option to settle all of these contracts for cash on the respective settlement day). Because the Kinross Collar effectively limits the potential future cash from the sale of our investment in Kinross shares subject to the Kinross Collar, we may not have enough cash to fund our operations from the sale of Kinross stock, when needed. This could require us to seek other sources of liquidity, such as borrowing money or additional equity sales of Solitario to fund our operations until the Kinross stock subject to the Kinross Collar is available for sale. We may not be able to obtain such borrowings or equity sales financings on reasonable terms, if at all. The inability to utilize our entire investment in Kinross and/or the limit on the cash proceeds from a future sale of Kinross shares subject to the Kinross Collar could have a material impact on our liquidity, capital resources and the market price of our common stock.

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Our Kinross Collar is subject to counterparty risk. If the price of Kinross stock falls below the Floor Price and our counterparty defaults on its obligations under the Kinross Collar we may not receive price protection of the Floor Price on the shares subject to the Kinross Collar.

The Kinross Collar is subject to counterparty risk in the event the price of Kinross stock falls below the Floor Price and UBS, the counterparty to the Kinross Collar, defaults on its obligation. If we liquidate some or all of our 500,000 shares of Kinross currently subject to the Kinross Collar on or after termination of one or more of the Kinross Collar contracts, we may receive a price below the Floor Price. Failure to receive the price protection for which we entered into the Kinross Collar could have a material impact on our liquidity, capital resources and the market price of our common stock.

We sold covered call options on Kinross during 2009 and 2008. The sale of call options may reduce the future gains on our Kinross stock and limit our ability to sell our Kinross stock.

We sold three covered calls covering 130,000 shares of Kinross common stock during 2009. 50,000 of these call options expired unexercised in April 2009, 40,000 were repurchased in July 2009 and 40,000 were repurchased in November 2009. As of December 31, 2009, we have sold the May 10 Kinross Call covering 40,000 shares of Kinross common stock, with a strike price of \$22.00. If the price of Kinross exceeds the call price on the May 10 Kinross Call and or if we sell additional covered call options against our Kinross common stock, such call options could significantly reduce future gains on our Kinross stock and limit our ability to sell our Kinross stock covered by the call

options.

The market for shares of our common stock has limited liquidity and the market price of our common stock has fluctuated and may decline.

An investment in our common shares involves a high degree of risk. The liquidity of our shares, or ability of the shareholder to buy or sell our common stock, may be significantly limited for various unforeseeable periods. The average combined daily volume of our shares traded on the Toronto Stock Exchange (the "TSX") and the NYSE Amex during 2009 was approximately 30,000 shares, with no shares traded on many days. The market price of our shares has historically fluctuated in a large range. Please see Item 5 - "Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities." The price of our common stock may be affected by many factors, including adverse change in our business, a decline in gold or other commodity prices, and general economic trends.

Our mineral exploration activities are inherently dangerous and could cause us to incur significant unexpected costs including legal liability for loss of life, damage to property and environmental damage; any of which could materially adversely affect our financial position or results of operations.

Our operations are subject to the hazards and risks normally related to exploration of a mineral deposit including mapping and sampling, drilling, road building, trenching, assaying and analyzing rock samples, transportation over primitive roads or via small contract aircraft or helicopters, any of which could result in damage to life or property, environmental damage and possible legal liability for such damage. Any of these risks could cause us to incur significant unexpected costs that could have a material adverse effect on our financial condition and ability to finance our exploration activities.

We have a history of losses and if we do not operate profitably in the future it could have a material adverse effect on our financial position or results of operations and the trading price of our common shares would likely decline.

We have reported losses in 14 of our 16 years of operations. We reported losses of \$1,786,000, \$617,000 and \$5,440,000 for the years ended December 31, 2009, 2008, and 2007, respectively. We can provide no assurance that we will be able to operate profitably in the future. We have had net income in only two years in our history, during 2003, as a result of a \$5,438,000 gain on derivative instrument related to our investment in certain Crown warrants and during 2000, when we sold our Yanacocha property. We cannot predict when, if ever, we will be profitable again. If we do not operate profitably, the trading price of our common shares will likely decline.

Our operations outside of the United States of America may be adversely affected by factors outside our control, such as changing political, local and economic conditions; any of which could materially adversely affect our financial position or results of operations.

Our mineral properties located in Latin America consist primarily of mineral concessions granted by national governmental agencies and are held 100% by us or under lease, option or purchase agreements. The mineral properties are located in Peru, Bolivia, Mexico and Brazil. We act as operator on all of our mineral properties that are not held in joint ventures. The success of projects held under joint ventures that are not operated by us is substantially dependent on the joint venture partner, over which we have limited or no control.

Our exploration activities and mineral properties located outside of the United States of America ("US") are subject to the laws of Peru, Bolivia, Brazil and Mexico, where we operate. Exploration and development activities in these countries are potentially subject to political and economic risks, including:

- cancellation or renegotiation of contracts;
- disadvantages of competing against companies from countries that are not subject to US laws and regulations, including the Foreign Corrupt Practices Act;
- changes in foreign laws or regulations;
- changes in tax laws;
- royalty and tax increases or claims by governmental entities, including retroactive claims;
- expropriation or nationalization of property;
- currency fluctuations (particularly related to declines in the US dollar compared to local currencies);
- foreign exchange controls;
- restrictions on the ability for us to hold US dollars or other foreign currencies in offshore bank accounts;
- import and export regulations;
- environmental controls;
- risks of loss due to civil strife, acts of war, guerrilla activities, insurrection and terrorism; and
- other risks arising out of foreign sovereignty over the areas in which our exploration activities are conducted.

During 2006, the government of Bolivia took steps toward the nationalization of its oil and gas industry by unilaterally increasing taxes payable by private owners of oil and gas properties. In 2007 the government effectively increased corporate taxes on mining companies from 25% to 37.5% of profits. More recently, the government has proposed sweeping changes in the mining law concerning the amount private companies may own of mining rights, and the potential for the Bolivian government to effectively become a carried 50% partner in mining operations. These political and legal uncertainties could have an adverse effect upon our projects in Bolivia. We have significantly reduced our activities in Bolivia, while monitoring this situation. Our capitalized costs in Bolivia are approximately \$25,000 as of December 31, 2009 and 2008.

Consequently, our current exploration activities outside of the US may be substantially affected by factors beyond our control, any of which could materially adversely affect our financial position or results of operations. Furthermore, in the event of a dispute arising from such activities, we may be subject to the exclusive jurisdiction of courts outside of the US or may not be successful in subjecting persons to the jurisdictions of the courts in the US, which could adversely affect the outcome of a dispute.

We may not have sufficient funding for exploration; which may impair our profitability and growth.

The capital required for exploration of mineral properties is substantial. We have financed operations through utilization of joint venture arrangements with third parties (generally providing that the third party will obtain a specified percentage of our interest in a certain property or a subsidiary owning a property in exchange for the expenditure of a specified amount), the sale of interests in properties or other assets, the sale of strategic investments in other companies such as Kinross and the issuance of common stock. At some point in the future, we will need to raise additional cash, or enter into joint venture arrangements, in order to fund the exploration activities required to determine whether mineral deposits on our projects are commercially viable. New financing or acceptable joint venture partners may or may not be available on a basis that is acceptable to us. Inability to obtain new financing or joint venture partners on acceptable terms may prohibit us from continued exploration of such mineral properties. Without successful sale or future development of our mineral properties through joint venture we will not be able to realize any profit from our interests in such properties, which could have a material adverse effect on our financial position and results of operations.

A large number of companies are engaged in the exploration of mineral properties, many of which have substantially greater technical and financial resources than us and, accordingly, we may be unable to compete effectively in the

mining industry which could have a material adverse effect on our financial position or results of operations.

We may be at a disadvantage with respect to many of our competitors in the acquisition and exploration of mining projects. The marketing of mineral properties is affected by numerous factors, many of which are beyond our control. These include the price of the raw or refined minerals in the marketplace, imports of minerals from other countries, the availability of adequate milling and smelting facilities, the number and quality of other mineral properties that may be for sale or are being explored. Our competitors with greater financial resources than us will be better able to withstand the uncertainties and fluctuations associated with the marketing of exploration projects. In addition, we compete with other mining companies to attract and retain key executives and other employees with technical skills and experience in the mineral exploration business. We also compete with other mineral exploration and development companies for exploration projects. There can be no assurance that we will continue to attract and retain skilled and experienced employees or to acquire additional exploration projects. The realization of any of these risks from competitors could have a material adverse affect on our financial position or results of operations.

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The title to our mineral properties may be defective or challenged which could have a material adverse effect on our financial position or results of operations.

In connection with the acquisition of our mineral properties, we conduct limited reviews of title and related matters, and obtain certain representations regarding ownership. These limited reviews do not necessarily preclude third parties from challenging our title and, furthermore, our title may be defective. Consequently, there can be no assurance that we hold good and marketable title to all of our mineral interests. If any of our mineral interests were challenged, we could incur significant costs in defending such a challenge. These costs or an adverse ruling with regards to any challenge of our titles could have a material adverse effect on our financial position or results of operations.

We have no reported mineral reserves and if we are unsuccessful in identifying mineral reserves in the future, we may not be able to realize any profit from our property interests

We are an exploration stage company and have no reported mineral reserves. Any mineral reserves will only come from extensive additional exploration, engineering and evaluation of existing or future mineral properties. The lack of reserves on our mineral properties could prohibit us from sale or joint venture of our mineral properties. If we are unable to sell or joint venture for development our mineral properties, we will not be able to realize any profit from our interests in such mineral properties, which could materially adversely affect our financial position or results of operations. Additionally, if we or partners to whom we may joint venture our mineral properties are unable to develop reserves on our mineral properties we may be unable to realize any profit from our interests in such properties, which could have a material adverse effect on our financial position or results of operations.

Our operations could be negatively affected by existing as well as potential changes in laws and regulatory requirements that we are subject to, including regulation of mineral exploration and land ownership, environmental regulations and taxation.

The exploration of mineral properties is subject to federal, state, provincial and local laws and regulations in the countries in which we operate in a variety of ways, including regulation of mineral exploration and land ownership, environmental regulation and taxation. These laws and regulations, as well as future interpretation of or changes to existing laws and regulations may require substantial increases in capital and operating costs to us and delays,

interruptions, or a termination of operations.

In the countries in which we operate, in order to obtain a permit for exploration, environmental regulations generally require a description of the existing environment, both natural, archeological and socio-economic, at the project site and in the region; an interpretation of the nature and magnitude of potential environmental impacts that might result from project activities; and a description and evaluation of the effectiveness of the operational measures planned to mitigate the environmental impacts. Currently the expenditures to obtain exploration permits to conduct our exploration activities are not material to our total exploration cost.

The laws and regulations in all the countries in which we operate are continually changing and are generally becoming more restrictive, especially environmental laws and regulations. As part of our ongoing exploration activities, we have made expenditures to comply with such laws and regulations, but we cannot predict that the regulatory environment in which we operate could change in ways that would substantially increase our costs to achieve compliance. Delays in obtaining or failure to obtain government permits and approvals or significant changes in regulation could have a material adverse effect on our exploration activities, our ability to locate economic mineral deposits, and our potential to sell, joint venture or eventually develop our properties, which could have a material adverse effect on our financial position or results of operations.

Occurrence of events for which we are not insured may materially adversely affect our business.

Mineral exploration is subject to risks of human injury, environmental liability and loss of assets. We maintain limited insurance coverage to protect ourselves against certain risks related to loss of assets for equipment in our operations; however, we have elected not to have insurance for other risks because of the high premiums associated with insuring those risks or for various other reasons including those risks where insurance may not be available. There are additional risks in connection with investments in parts of the world where civil unrest, war, nationalist movements, political violence or economic crisis are possible. These countries may also pose heightened risks of expropriation of assets, business interruption, increased taxation and a unilateral modification of concessions and contracts. We do not maintain insurance against political risk. Occurrence of events for which we are not insured could have a material adverse effect on our financial position or results of operations.

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Severe weather or violent storms could materially affect our operations due to damage or delays caused by such weather.

Our exploration activities in Peru, Bolivia, Brazil and Mexico are subject to normal seasonal weather conditions that often hamper and may temporarily prevent exploration activities. There is a risk that unexpectedly harsh weather or violent storms could affect areas where we conduct exploration activities. Delays or damage caused by severe weather could materially affect our operations or our financial position.

Our business is extremely dependent on gold, commodity prices and currency exchange rates over which we have no control.

Our operations are significantly affected by changes in the market price of gold and other commodities since the evaluation of whether a mineral deposit is commercially viable is heavily dependent upon the market price of gold and other commodities. The price of commodities also affects the value of exploration projects we own or may wish to acquire. These prices of commodities fluctuate on a daily basis and are affected by numerous factors beyond our control. The supply and demand for gold and other commodities, the level of interest rates, the rate of inflation, investment decisions by large holders of these commodities, including governmental reserves, and stability of

exchange rates can all cause significant fluctuations in prices. Such external economic factors are in turn influenced by changes in international investment patterns and monetary systems and political developments. Currency exchange rates relative to the US dollar can affect the cost of doing business in a foreign country in US dollar terms, which is our functional currency. Consequently, the cost of conducting exploration in the countries where we operate, accounted for in US dollars, can fluctuate based upon changes in currency rates and may be higher than we anticipate in terms of US dollars because of a decrease in the relative strength of the US dollar to currencies of the countries where we operate. We currently do not hedge against currency fluctuations. The prices of commodities have fluctuated widely and future serious price declines could have a material adverse effect on our financial position or results of operations.

Our business is dependent on key executives and the loss of any of our key executives could adversely affect our business, future operations and financial condition.

We are dependent on the services of key executives, including our Chief Executive Officer, Christopher E. Herald, our Chief Financial Officer, James R. Maronick, and our Vice President of Operations, Walter H. Hunt. All of the above named officers have many years of experience and an extensive background in Solitario and the mining industry in general. We may not be able to replace that experience and knowledge with other individuals. We do not have "Key-Man" life insurance policies on any of our key executives. The loss of these persons or our inability to attract and retain additional highly skilled employees may adversely affect our business, future operations and financial condition.

In the future, we may look to joint venture with another mining company to develop and or operate one of our projects, therefore, in the future, our results may become subject to risks associated with development and production of mining projects in general.

We are not currently involved in mining development or operating activities at any of our properties. In order to realize a profit from our mineral interests we either have to: (1) sell such properties outright at a profit; (2) form a joint venture for the project with a larger mining company with more appropriate resources, both technical and financial, to further develop and/or operate the project at a profit; (3) develop and operate such projects at a profit on our own; or, 4) create and retain a royalty interest in a property with a third-party that agrees to advance the property. However, we have never developed a mineral property and we do not anticipate developing any currently owned mineral properties on our own in the future. In the future, if our exploration activities show sufficient promise in a project, we may either look to form a joint venture with another mining company to develop and or operate the project, or sell the property outright and retain partial ownership or a retained royalty based on the success of such project. Therefore, in the future, our results may become subject to the additional risks associated with development and production of mining projects in general.

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In the future, we may participate in a transaction to acquire a property, royalty or another company that requires a substantial amount of capital or Solitario equity to complete. Our acquisition costs may never be recovered due to changing market conditions, or our own miscalculation concerning the recoverability of our acquisition investment. Such an occurrence could adversely affect our business, future operations and financial condition.

We are currently involved in evaluating a wide variety of acquisition opportunities involving mineral properties and companies for acquisition. Some of these opportunities may involve a substantial amount of capital or Solitario equity to successfully acquire. As many of these opportunities do not have reliable feasibility-level studies, we may have to rely on our own estimates for investment analysis. Such estimates, by their very nature, contain substantial uncertainty. In addition, economic assumptions, such as future costs and commodity prices, also contain significant uncertainty. Consequently, if our estimates prove to be in error, either through miscalculations or changing market conditions, this

could have a material adverse effect on our financial position or results of operations.

Item 1B. Unresolved Staff Comments

None

Item 2.

Properties

Joint Ventures, Royalty and the Strategic Alliance Properties

Bongara Zinc Project (Peru)

1. Property Description and Location

(Map of Bongara Property)

The Bongara project consists of 16 concessions comprising 12,600 hectares of mineral rights granted to or under option to Minera Bongara S.A., a subsidiary of ours incorporated in Peru. The property is located in the Department of Amazonas, northern Peru. On August 15, 2006 Solitario signed a Letter Agreement with Votorantim Metais Cajamarquilla, S.A., a wholly owned subsidiary of Votorantim Metais (both companies referred to as "Votorantim"), on Solitario's 100%-owned Bongara zinc project. On March 24, 2007, Solitario signed a definitive agreement, the Framework Agreement for the Exploration and Potential Development of Mining Properties, (the "Framework Agreement") pursuant to, and replacing, the previously signed Bongara Letter Agreement with Votorantim Metais. Solitario's and Votorantim's property interests will be held through the ownership of shares in Minera Bongara S.A., a joint operating company that holds a 100% interest in the mineral rights and other project assets. Solitario currently owns 100% of the shares in Minera Bongara S.A..

Votorantim can earn up to a 70% shareholding interest in the joint operating company by funding an initial \$1.0 million exploration program (completed), by completing future annual exploration and development expenditures until a production decision is made or the agreement is terminated. The option to earn the 70% interest can be exercised by Votorantim any time after the first year commitment by committing to place the project into production based upon a feasibility study. The Framework Agreement calls for Votorantim to have minimum annual exploration and development expenditures of \$1.5 million in each of years two and three which have been met as of December 31, 2009, and \$2.5 million in all subsequent years until a minimum of \$18.0 million has been expended by Votorantim. Votorantim is the project manager. Votorantim, in its sole discretion, may elect to terminate the option to earn the 70% interest at any time after the first year commitment. In addition, Votorantim is required to make annual rental payments of \$100,000 to Solitario on August 15, 2007 (completed) and cash payments of \$200,000 on August 15, 2008 and 2009 (completed), and by making further payments to Solitario of \$200,000 on all subsequent anniversaries, until a production decision is made. Once Votorantim has fully funded its \$18.0 million work commitment and committed to place the project into production based upon a feasibility study, it has further agreed to finance Solitario's 30% participating interest through production. Solitario will repay the loan facility through 50% of Solitario's cash flow distributions from the joint operating company.

According to Peruvian law, concessions may be held indefinitely, subject only to payment of annual fees to the government. Each year a payment of \$3.00 per hectare must be made by the last day of June to keep the claims in good standing. Because some of the Bongara concessions are more than 6 years old beginning in 2005, there is a \$6.00 surcharge per hectare, if less than \$100 per hectare is invested in exploration and development of the claim. Peru also imposes a sliding scale net smelter return royalty (NSR) on all precious and base metal production. This NSR assesses a tax of 1% on all gross proceeds from production up to \$60,000,000, a 2% NSR on proceeds between



\$60,000,000 and \$120,000,000 and a 3% NSR on proceeds in excess of \$120,000,000.

Votorantim signed a new surface rights agreement with the local community in 2009, which controls the surface of the primary area of interest of our Bongara joint venture. This agreement provides for an annual payment of \$31,250 and funding for mutually agreed social development programs in return for the right to perform exploration work including road building and drilling. From time to time we enter into surface rights agreements with individual landowners or communities to provide access for exploration work. Generally, these are short term agreements. Votorantim is responsible for all joint venture costs as part of the Framework Agreement.

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Environmental permits are required for exploration and development projects in Peru that involve drilling, road building or underground mining. The requisite environmental and archeological studies were completed for all past work, but new studies are ongoing to allow for the expanded activities planned for 2010 and beyond. Although we believe that these permits will be obtained in a timely fashion, the timing of government approval of permits remains beyond our control.

## 2. Accessibility, Climate, Local Resources, Infrastructure and Physiology

The Bongara property is accessed by the paved Carretera Marginal road, which provides access from the coastal city of Chiclayo. The area of the majority of past drilling and the most prospective mineralization, Florida Canyon, is currently inaccessible by road, the work to date having been done by either foot or helicopter access. The nearest town is Pedro Ruiz located 15 kilometers southeast of the property and the Carretera Marginal is situated approximately eight kilometers south of the deposit. Votorantim is planning on initiating road access to the site in 2010. Votorantim maintains project field offices in Pedro Ruiz and a drill core processing facility and operations office in the nearby community of Shipasbamba. The climate is tropical and the terrain is mountainous and jungle covered. Seasonal rains hamper exploration work for four to five months of the year by limiting access. Several small villages are located within five kilometers of the drilling area.

## 3. History

We discovered the Florida Canyon mineralized zone of the Bongara Project in 1996. Subsequently, we optioned the property in December 1996 to Cominco. Cominco withdrew from the joint venture in February 2001. We maintained the most important claims from 2001 to 2006, until the Votorantim Letter Agreement was signed. All of the significant work on the property has been conducted by Cominco, and more recently by Votorantim, and is described below in section 5, Prior Exploration.

## 4. Geological Setting

The geology of the Bongara area is relatively simple consisting of a sequence of Jurassic and Triassic clastic and carbonate rocks which are gently deformed. The Mississippi Valley type mineralization occurs in the carbonate facies of the Chambara (rock) Formation. This sedimentary sequence is part of what is referred to as the Pucura Group that hosts mineral deposits throughout Peru.

## 5. Prior Exploration

We conducted a regional stream sediment survey and reconnaissance geological surveys leading to the discovery of the Florida Canyon area in 1996. The discovered outcropping mineralization is located in two deeply incised canyons within the limestone stratigraphy.

Subsequent to our initial work, Cominco conducted extensive mapping, soil and rock sampling, stream sediment surveys and drilling. This work was designed to determine the extent and grade of the zinc-lead mineralization, the controls of deposition and to identify area of potential new mineralization. All work performed by us, Cominco or Votorantim was done by direct employees of the respective companies with the exception of the drilling which was performed by Bradley Drilling Co.

## 6. Mineralization

Mineralization occurs as massive to semi-massive replacements of sphalerite and galena localized by specific sedimentary facies (rock strata) within the limestone stratigraphy and by structural feeders and karst breccias. A total of eleven preferred beds for replacement mineralization have been located within the middle unit of the Chambara Formation. Mineralization is associated with the conversion of limestone to dolomite, which creates porosity and permeability within the rock formations, promoting the passage of mineralizing fluids through the rock formations forming stratigraphically controlled manto deposits. Drilling of stratigraphic targets has shown that certain coarser bioclastic or pseudo-breccia facies of the stratigraphy are the best hosts for mineralization.

Karst features are localized along faults and locally produce "breakout zones" where mineralization may extend vertically across thick stratigraphic intervals along the faults where collapse breccias have been replaced by ore minerals. Mineralized karst structures are up to fifty meters in width. The stratigraphically controlled mineralization is typically one to several meters in thickness but locally attains thicknesses of eight to ten meters. Generally the stratigraphic mineralization, while thinner, is of higher grade and laterally more extensive. Evidence for these breakout zones are provided by the following drill holes from various locations on the property:

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Breakout Zone Name	Drill Hole Number	Intercepts (meters)	Zinc %	Lead %	Zinc+Lead %
Sam	GC-17	58.8	12.0	2.8	14.8
	FC-23	81.5	4.8	0.8	5.6
Karen	A-1*	36.2	12.8	2.7	15.5
North Zone	V-21	92.0	5.5	1.7	7.2
South Zone	V-44	28.3	15.2	0.8	16.0
	V-169	51.6	7.1	0.7	7.8

The middle unit of the Chambara formation, where mineralized, is commonly dolomitized within the zone of highest sedimentary-induced permeability. Dolomitization reaches stratigraphic thicknesses in excess of 100 meters locally. This alteration is thought to be related to the mineralizing event in most cases and is an important exploration tool. Continuity of the mineralization is thought to be demonstrable in areas of highest drilling density by correlation of mineralization within characteristic sedimentary facies typical of specific stratigraphic intervals.

## 7. Drilling

A total of 205 diamond drill holes (HQ and NQ size) have been completed by Cominco and Votorantim since the project's inception. These holes vary in depth up to 610 meters. Total meters drilled through the end of 2009 are 60,572 meters. A summary of drilling by year is provided in the table below:

Operator	Year	Number of Holes	Meters Drilled
Cominco	Pre-2006	80	24,696

Votorantim	2006	26	4,354
	2007	32	11,443
	2008	54	16,468
	2009	13	3,611
Project Total		205	60,572

The mineralized area that has been drilled measures approximately two by two kilometers. Votorantim's drilling has been predominantly infill drilling designed to better define mineralization and demonstrate continuity. This infill drilling program has served to better define the quality and spatial distribution of mineralization, but additional infill drilling will be required to establish reserves. All drilling was done by a LF-70 core-drilling rig.

#### 8. Sampling and Analysis

Rock samples taken were composited from mineralization or alteration within an outcrop. The samples were pulverized and analyzed by Inductively Coupled Plasma (ICP) for a variety of elements including zinc and lead. Soil samples were screened to - minus 80 mesh prior to pulverization and analysis by ICP.

Core samples were transported from the drill by helicopter in sealed boxes to the processing facility in Shipasbamba where they were split by a diamond saw. Half of the core was taken of intervals selected according to geologic criteria under the supervision of the geologist in charge and shipped in sealed bags by land. Cominco used SGS Laboratories and Votorantim used ALS-Chemex, both in Lima, Peru, where all samples were analyzed by ICP. Any samples that contained greater than 1% zinc were then analyzed by wet chemistry assay for zinc and lead to provide a more accurate analysis of grade.

It was found that ICP systematically underestimated the true grade in high-grade samples in excess of 1% zinc. This systematic error varies according to grade with the higher samples having the largest error. The average error of all reported core results for ICP was approximately 10% below the true grade. All grades reported to the public have been based on assay rather than geochemical techniques in order to represent the most accurate data possible.

#### 9. Security of Samples

Since August 2006, Votorantim has been in control of all field activities on the project and is responsible for the security of samples. Votorantim has indicated to us that there have been no breaches in the security of the samples. We have reviewed Votorantim's sampling procedures and believe that adequate procedures are in place to ensure the future security and integrity of samples. No breaches of security of samples are known to have occurred prior to Votorantim's work on the project.

#### 10. Feasibility Studies

Votorantim is currently working on scoping-level studies to provide order-of-magnitude estimates of deposit size and grade, sizing of appropriate scale of operations, infrastructure and operating cost estimates.

#### 10. Mineral Resource and Mineral Reserve Estimations

There are no reported mineral reserves or resources.

#### 11. Mining Operations

No mining operations have occurred on the project.

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## 12. Planned Exploration and Development

For 2010 Votorantim is planning to initiate road construction to the project area, underground access to the San Jorge zone of the Florida Canyon deposit, metallurgical testing and an aggressive continuation of surface drilling to further define mineralization.

The planned road construction encompasses approximately 23 kilometers of new road alignment to the deposit. To date, access to the deposit has occurred via helicopter and foot-trails. The initiation of 700 meters of underground access to mineralization is also scheduled for this field season. Initially the underground work will be supported by helicopter transportation of personnel and materials, until road access is completed. Construction of additional infrastructure near the underground portal site is planned for personnel and underground operations.

Advanced metallurgical testing will also be conducted on mineralized material to further evaluate metallurgical recovery and ore characterization. Finally, Votorantim is planning on completing approximately 10,000 meters of helicopter-assisted core drilling from the surface during 2010 to further define and extend mineralization. Timing of many of the aforementioned activities is substantially contingent upon obtaining permits required by the Peruvian government.

### Pedra Branca Platinum Group Metals Project (Brazil)

#### 1. Property Description and Location

(Map of Pedra Branca Property)

We are exploring the Pedra Branca property for platinum and palladium mineralization (platinum group metals, or "PGM"). At December 31, 2009, the Pedra Branca project consisted of 57 exploration concessions totaling approximately 70,000 hectares in Ceara State, Brazil. We have applied to the National Department of Mineral Production ("DNPM") to convert five exploration concessions to mining concessions. These applications are under review by the DNPM. Pedra Branca do Mineracao S.A. ("PBM"), a 70%-owned subsidiary of ours incorporated in Brazil, holds a 100%-interest in all concessions. Anglo Platinum Ltd. ("Anglo") owns a 30% interest in PBM as of December 31, 2009. Eldorado Gold Corporation is entitled to a 2% NSR royalty on 10 of the concessions totaling 10,000 hectares.

On January 28, 2003, we entered into a Letter Agreement with Anglo whereby Anglo could earn various incremental interests in PBM up to a 65% interest by making annually increasing exploration expenditures totaling \$7.0 million, completing a bankable feasibility study, or spending an additional \$10 million on exploration and development, whichever occurs first, and arranging financing to put the project into commercial production. The Letter Agreement was amended four times between July 2004 and April 2006, generally to extend various work commitment deadlines mandated in the Letter Agreement. On July 14, 2006, we signed the Pedra Branca Framework Agreement with Anglo that specified actions we and Anglo would take to establish and govern PBM, the corporate entity that now holds 100% title to all the assets of the Pedra Branca project, and the mechanics for Anglo's continued funding of Pedra Branca exploration.

On April 24, 2007, we signed the definitive agreement, the Shareholders Agreement, relating to the Pedra Branca Project in Brazil, pursuant to the previously signed Pedra Branca Letter Agreement with Anglo for the exploration and development of the Pedra Branca Project. The Shareholders Agreement provides for Solitario's and Anglo's property interests to be held through the ownership of shares in PBM. As part of the agreement, Anglo earned

a 30% interest in PBM as of December 31, 2008, as a result of funding a total of \$4.0 million on exploration at Pedra Branca. Anglo funded an additional \$1.5 million for exploration during 2009. The Shareholders Agreement provides that Anglo may incrementally earn up to a 51% interest in PBM by spending a total of \$7 million on exploration (\$1.5 million in addition to the \$5.5 million spent as of December 31, 2009) at Pedra Branca by December 31, 2010. However, Anglo is not required to fund any future exploration expenditures. Anglo can earn an additional 9% interest in PBM (for a total of 60%) by completing either (i) a bankable feasibility study or (ii) spending an additional \$10.0 million on exploration or development, whichever comes first. Anglo can also earn an additional 5% interest in PBM (for a total of 65%) by arranging for 100% financing to put the project into commercial production.

We also entered into a Services Agreement with Anglo whereby Solitario (and/or our subsidiaries) would act as an independent contractor directing the exploration and administrative activities for PBM and its shareholders. Solitario receives a 5% management fee based upon total expenditures

We continued to prioritize our land holdings in 2009 and consequently reduced our holdings by 34 concessions totaling 50,000 hectares. Land payments for 2010 are projected to be approximately \$84,000 including annual claim maintenance payments and smaller surface rights payments to local landowners. This amount may change due to the reduction or addition of properties, changes in planned drilling activities or a change in the currency exchange rate.

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The mineral interests currently held by us, through PBM, are subject to the mining regulations of Brazil. These rights are granted by the Brazilian government and administered by the National Department of Mineral Production ("DNPM"). To initially obtain mineral concessions from the DNPM, we must provide the DNPM with work plans and pay an initial fee of approximately \$310 per concession depending upon the Brazil-U.S. exchange rate. To keep the concessions in good standing, we must continue to pay regular annual fees of \$1.00 per hectare for the first three years and approximately \$1.50 per hectare after the first three years and provide the DNPM with annual progress reports. We are subject to yearly inspections by the DNPM for compliance with reported plans and environmental regulations.

Exploration concessions are granted by the DNPM for a maximum period of three years with the right of the applicant to apply for an extension which may be granted for up to an additional three years. Upon expiration of the exploration concession the concessionaire must apply for conversion of the claim to a mining concession or abandon the property. We have applied for the conversion of five claims to mining concessions. Unlike exploration concessions, mining concessions do not expire but do have requirements for advancing feasibility and development work toward production. Approval of the conversion is at the discretion of the DNPM and we can give no assurance that the conversion of the concessions will be granted.

Prior to mining on the claims we must reach an agreement with the surface rights owners of the affected land. Additionally, we must pay a royalty to governmental agencies based on the materials produced. This amount is 0.2% of the sales for precious metals excluding gold, which is subject to a 3% royalty.

We currently hold no surface rights to the property but have entered into short-term agreements with the surface rights owners to compensate for exploration activities.

## 2. Accessibility, Climate, Local Resources, Infrastructure and Physiology

Access to the project is by paved road from the state capital of Fortaleza in Ceara State and by local farm roads. Local access is constructed where necessary. The largest towns in the immediate vicinity of the project are Pedra Branca and Boa Viagem. A field camp is located at the small community of Capitaó Mor. The climate is warm and dry for eight months of the year with a warm wet season prevailing for the remaining four months (December-March).

Year-round operation can be conducted. The topography is rolling to flat and vegetation is sparse to heavy brush. The elevation ranges from 500 to 800 meters.

### 3. History

In the 1980's Rio Tinto Ltd., ("Rio Tinto") and Gencore, Ltd. ("Gencore") performed exploration work on part of the project now operated by us. Both companies did surface exploration and drilling, including 42 diamond drill holes by Rio Tinto and 8 diamond drill holes by Gencore on the former Eldorado lease. In October 2000, we completed a plan of arrangement (the "Plan of Arrangement") whereby we acquired Altoro Gold Corp. ("Altoro"). In 1999, Altoro had acquired concessions from the government over some of the property previously held by Rio Tinto. We acquired additional concessions in 2000 and 2001, through our subsidiary Altoro Mineracao, Ltda. to cover extensions of the mineralized trend.

Altoro, prior to the Plan of Arrangement with us, conducted surface work, drilled 18 diamond drill holes and entered into a Joint Venture agreement with Rockwell Ventures, Inc. ("Rockwell") of Vancouver, British Columbia. Rockwell conducted further surface exploration and drilled an additional 31 holes. Rockwell terminated its agreement with us in June 2001. From July 2001 until late-2002, we conducted geochemical sampling, geophysical surveys and independently drilled 22 diamond drill holes. From January 2003 to date, Anglo funded five drilling programs that focused on better defining the Esbarro and Curiu deposits, further testing the Cedro, Trapia and Santo Amaro prospects, and initial drill testing of 20 other target areas.

### 4. Geological Setting

The project lies within an Archean-aged block in the Brazilian shield, which is characterized by amphibolite grade metamorphic rocks of various compositions. The most common rock types in the area are unmineralized intermediate to felsic composition gneisses and granitic intrusive phases.

The PGM mineralization occurs in specific stratigraphic intervals within a segmented mafic-ultramafic layered complex. The mineralized intervals comprise concordant layers, originally of composition varying from peridotite to dunite. These layers contain chromite and/or minor sulfides of iron, copper and/or nickel. The primary silicate ultramafic minerals in the rocks have been variably converted to amphibole, serpentine or talc. A number of separate bodies of the ultramafic phases of the complex have been discovered, some of which contain the PGM-bearing stratigraphic intervals. All of the rocks have been folded and faulted to differing degrees during dynamic metamorphism in the area.

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### 5. Prior Exploration

Surface exploration conducted, initially by Altoro, and subsequently by Rockwell and then us, consists of:

- Reconnaissance geologic mapping and rock sampling
- Systematic line cutting, soil sampling and geologic mapping of lines
- Ground magnetics and induced polarization ("IP") geophysical surveys
- Stream sediment and panned-concentrate geochemistry
- Diamond drilling of 25 prospect areas

All of the above work has been conducted directly by us, our predecessor or its partners with the exception of diamond drilling which was performed by Boart-Longyear Geoserv do Brasil, Major Drilling and Layne do Brazil

Sondagens Ltda. Ground magnetometry was conducted primarily using a Scintrex Portable EnviMag or a Gem GSM-19 Overhauser hand-held magnetometer, with a base station for recording diurnal corrections. Magnetometric surveys are conducted by Solitario personnel. An internationally recognized third-party geophysical contractor conducted the IP survey. An independent geophysical consultant has been utilized to further interpret the magnetic and IP data.

Our surface work has generally been focused to identify outcroppings of ultramafic rocks, detect anomalous concentrations of PGM in soils or rocks and determine if magnetic minerals are present in bedrock. Soil and rock surveying conducted to date shows that both methods reliably reflect the location of outcropping and subcropping PGM mineralization. Detailed geologic mapping has been conducted over some of the known ultramafic rock outcroppings to determine the source of anomalous PGM values.

The targeted ultramafic rocks are generally more magnetic than the surrounding rocks and magnetometry has been shown to be effective at locating these bodies, though magnetometry and surface geochemical sampling does not determine the PGM content of an ultramafic body with certainty. IP geophysics is not consistently effective in detecting buried ultramafic bodies and elevated concentrations of sulfide minerals within bedrock.

We believe the data obtained from the above exploration activities to be reliable, however the nature of exploration mineral properties and analysis of geological information is subjective and data and conclusions are subject to uncertainty including invalid data as a result of many reasons, including sample contamination, analysis variation, extrapolation, undetected instrumentation malfunctions and the use of geologic and economic assumptions.

## 6. Mineralization

Approximately 25 prospects have been located within the project area. All of these identified prospects display either anomalous PGM values in soils or rocks and/or magnetic signatures indicating the presence of magnetic minerals. Drilling has intersected significant mineralization on thirteen of the prospects.

The stratigraphic layering of an ultramafic body controls the PGM content of the ultramafic rocks. In many cases the PGM grade is associated with the mineral chromite. In other areas the PGM is more closely related with minor sulfide concentration. However, the presence of either chromite or sulfides within ultramafic rocks does not assure elevated PGM grade.

Within PGM-enriched ultramafics, grade and thickness can vary considerably. Widths encountered vary from less than a meter to tens of meters in interpreted true thickness. In no location has drilling been conducted on spacing of sufficient density to assure the continuity necessary to define reserves. For this reason no representation can be made as to the probability of defining reserves.

## 7. Drilling

A total 318 holes totaling 23,811 meters of core drilling have been completed on the project to date. Of this, 3,217 meters were drilled by Rio Tinto and Gencore for which the core itself is not available, nor are the procedures documented under which the holes were completed.

Operator	Year	Number of Holes	Meters Drilled
Rio Tinto, Gencore	Pre-1999	50	3,320
Altoro	1999-2000	18	1,200
Rockwell	2001	31	2,132
Solitario	2002	22	2,363

Solitario*	2003	57	3,993
	2004	30	2,466
	2007	35	3,251
	2008	27	1,839
	2009	48	3,247
Project Total		318	23,811

\*funded by Anglo

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In the case of holes drilled by Altoro, Rockwell and us, the following procedures were followed. Drill holes were either of NQ (1 and 7/8 inch) or HQ (2 and 1/2 inch) diameter and were boxed in the field under the supervision of the geologist in charge. With the exception of weathered material near surface, at least 90% of the core had recoveries exceeding 90%. The core was transported to the field camp in sealed core boxes where processing took place under the supervision of the geologist in charge.

Based on drill results to date we believe the prospects Esbarro, Cedro I, II, III and IV, Curiu, Trapia I, Trapia West and Santo Amaro exhibit results warranting further definition drilling of high priority. We are planning on drilling additional targets in future programs.

The Esbarro prospect, with 107 holes, has the largest database of information of the drilled prospects. Drilling was conducted on approximately 50-meter spaced centers. The Curiu prospect is the second most detailed prospect drilled with 44 holes completed to date. Drilling was conducted on generally 25-meter spaced centers. Fifteen drill holes have been completed at Santa Amaro, 13 at Trapia I, 18 at Trapia West and 64 on the Cedro I through Cedro IV prospects. Drill spacing on these latter four prospects range from 50 to 200 meters. Although significant mineralized material was encountered in many of the drill holes within these nine deposits, we have not undertaken a formal estimate of reserves or resources as we believe additional work is required to make such an estimate.

The inability to resample the drilling of the Rio Tinto core holes has reduced the confidence which would normally be attributed to these results. However, one twin hole drilled next to a Rio Tinto hole at Esbarro showed excellent reproducibility of results. During the current exploration phase of the program, the Rio Tinto and Gencore results are accepted as accurately representing the sampled interval. However, in order to establish a resource or reserve, additional twin holes and/or infill holes may be necessary to provide a degree of confidence commensurate with assignment to these categories.

## 8. Sampling and Analysis

Rock sampling at Pedra Branca generally employed the use of composite surface samples, which are representative aggregates of available material from an outcrop or sub-cropping body collected on the surface. Selective sampling was occasionally used to identify the geochemical character of a rock not representative of an outcrop. This technique represents a small percentage of the total samples collected. Soil samples were collected of soil horizons thought to be derived from the decomposition of underlying bedrock. Soils were screened to -80 mesh prior to pulverization. Stream sediment geochemistry has been applied to both active wet stream beds and dry stream beds. Panned concentrate sampling of both dry and wet stream beds has been effectively utilized on a regional basis.



No known significant factors relating to sampling, drilling or recovery exist that are thought to have an impact on interpreted results. Core recovery is rarely less than 90%, but such cases are sufficiently uncommon as to not have an adverse effect on the interpretation of results.

Assays results for the Rio Tinto and Gencore core samples cannot be checked, as the core is not available for resampling. For all other samples we have collected, assaying for PGM was done by Bondar Clegg Laboratories of Vancouver, British Columbia, Canada or its successor, ALS Chemex Laboratories prior to 2008. Since early 2008 assaying for PGM was done by SGS Laboratories. All of our programs have been, and will continue to be conducted under a program of standards assaying and check assay of selected samples are periodically sent to a third party laboratory (Lakefield Laboratories, SGS Laboratories or ALS Chemex Laboratories).

#### 9. Security of Samples

Core samples are sawed on site into two halves, one submitted to the laboratory and one kept in a secure location on site. The half-core, selected according to geologic criteria or regularly spaced intervals, is sent by land or air to the sample preparation laboratory in Belo Horizonte, Brazil operated by SGS Laboratories. The samples are sealed on site under the supervision of the geologist in charge and the laboratory is instructed to report any breaks in the seal to the Project Manager. No such security breaches have been noted since Solitario has taken over operation of the project.

#### 10. Mineral Resource and Mineral Reserve Estimations

There are no reported reserves.

#### 11. Mining Operations

There are no current mining operations associated with this project.

#### 12. Planned Exploration

Currently Anglo is evaluating the results of the 2009 exploration program. Anglo is expected to make a decision on whether or not it will fund the proposed \$1.5 million 2010 program within the next month. The proposed 2010 budget emphasizes drilling in the first half of 2010, followed by scoping-level economic and resource studies.

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Yanacocha Royalty Property (Peru)

#### 1. Property Description and Location

(Map of Yanacocha Property)

The Yanacocha royalty property consists of 69 concessions totaling approximately 61,000 hectares in northern Peru 25 kilometers north of the city of Cajamarca. The property position consists of a rectangular-shaped contiguous block of concessions nearly 50 kilometers long in an east-west direction and 25 kilometers wide in a north-south direction. The southern boundary of the royalty property abuts Newmont Mining Corporation's Minera Yanacocha mining operation, a large gold mine currently in operation.

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We held the concessions until April 2000, at which time we signed an agreement with Newmont Peru, Ltd., a wholly-owned subsidiary of Newmont Mining Corporation (both companies referred to as "Newmont"), whereby we sold our Yanacocha Property to Newmont for \$6,000,000 and a sliding scale net smelter return royalty ("NSR-Royalty") that varied from two to five percent, depending on the price of gold. Newmont has not reported reserves on our Yanacocha property and we have not received any royalty income from Newmont.

In 2004, the Peruvian government implemented a national net smelter return royalty on gold that ranges from 1 to 3 percent, depending upon the total annual revenue from an operation. The top royalty rate applies to operations that produce in excess of \$120 million in annual revenues. Operations producing between \$60 million to \$120 million in annual revenues are subject to a two percent royalty, while a one percent royalty is imposed on smaller operations of less than \$60 million in annual revenues.

In January 2005, we signed an Amended and Restated Royalty Grant with Minera Los Tapados S.A., a subsidiary of Newmont Peru Limited, Minera Yanacocha S.R.L., and Minera Chaupiloma Dos de Cajamarca, S.R.L. (affiliates of Newmont Peru, Ltd., collectively "Newmont Peru") to modify the NSR-Royalty schedule that recognizes the impact that Peru's national NSR-Royalty has on the exploration and development of new mining operations. The modified royalty structure is classified into several categories, depending on the type of process used to recover each metal, gold and copper prices, as well as any government royalty burden imposed by Peru on the project ores. The following summarizes the revised royalty structure:

### Heap leach ores:

For gold recovered by heap leach processing, the lesser of the sliding scale royalty set out below (the "Base Rate"), or a royalty such that the royalty to Solitario plus any government royalty required to be paid in Peru is no more than 5.25% NSR unless the gold price is greater than \$500 per ounce, in which case then a royalty such that the royalty to Solitario plus any royalty due to the government is no more than 5.75% NSR.

### Base Rate

:		
	<u>Gold price/oz.</u>	2%
<u>NSR Royalty</u>		3%
Less than \$320		4%
Equal to or greater than \$320 and less than \$360		5%
Equal to or greater than \$360 and less than \$400		
Equal to or greater than \$400		

### Dore end-product, non-flotation mill ores:

For gold recovered as dore in a non-flotation mill, the lesser of the Base Rate, or a royalty such that the royalty to Solitario plus any government royalty required to be paid in Peru is no more than 4.5% NSR unless the gold price is greater than \$500 per ounce, in which case then a royalty such that the royalty to Solitario plus any royalty due to the government is no more than 5% NSR.

### Concentrate-producing, Cu-Au flotation mill ores:

For gold and copper recovered in a concentrate producing, copper-gold flotation mill, the lesser of the Base Rate, or a royalty such that the royalty to Solitario plus any government royalty required to be paid in Peru is no more than 3.5% NSR unless the gold price is greater than \$500 per ounce and the copper price is greater than a PPI-indexed price of \$1.50 per pound, in which case then a royalty such that the royalty to Solitario plus any royalty due to the government is no more than 4% NSR.

Silver:

For silver, the lesser of 3% NSR, or a royalty such that the royalty to Solitario plus any government royalty required to be paid Peru is no more than 4.5% NSR unless the gold price is greater than \$500 per ounce, in which case then a royalty such that the royalty to Solitario plus any royalty due to the government is no more than 5% NSR.

As part of the NSR-Royalty modification, Newmont Peru, through its subsidiaries and/or affiliates, agreed to spend an aggregate of \$4.0 million on Solitario's royalty property during the next eight years. Details of the work commitment calls for the following expenditure schedule:

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<u>Period</u>	<u>Amount</u>	<u>Cumulative</u>
Between 1/1/05 to 12/31/06	\$1,000,000	\$1,000,000
Between 1/1/07 to 12/31/08	\$1,000,000	\$2,000,000
Between 1/1/09 to 12/31/10	\$1,000,000	\$3,000,000
Between 1/1/11 to 12/31/12	\$1,000,000	\$4,000,000

Newmont has met all of its required expenditure requirements through December 31, 2009.

## 2. Accessibility, Climate, Local Resources, Infrastructure and Physiology

The property is easily accessed within an hour by paved and improved gravel roads from the city of Cajamarca, a regional hub for commerce and government administration. The terrain ranges from gently rolling to mountainous and varies in altitude from 2,800 to over 4,200 meters. A rainy season of approximately four months hampers exploration and access, but year-round work can be done. Vegetation in the area consists of alpine tundra type conditions.

## 3. History

The majority of concessions were acquired in 1993, with several concessions added in 1994 and 1995. We conducted regional surface exploration on the property in 1994 and 1995, which included a limited core-drilling program on two gold targets. At various times between 1995 and 1999, we joint ventured the property with three major mining companies, Barrick Gold Corporation, Rio Tinto, Ltd., and Placer Dome, Inc. All three companies conducted limited surface exploration programs and each elected to terminate its respective option to earn an interest in the property. Barrick Gold Corporation was the only company to conduct exploration drilling on the property. Newmont Peru purchased the property, subject to our NSR-Royalty, in April 2000.

## 4. Geological Setting

The property is situated within a northwest trending belt of Tertiary-aged volcanic and associated intrusive rocks that overlie and intrude Cretaceous-aged sedimentary rocks. The Cretaceous sediments are strongly deformed and consist of a lower sequence of sandstones, shales and quartzites and an upper sequence of carbonate rocks. Approximately half the property is underlain by Tertiary volcanic rocks consisting mainly of older andesitic to dacitic flows and tuffs. Locally these older volcanics are covered by a younger rhyo-dacitic tuff unit. Mineralization usually is hosted in the older volcanic unit.

## 5. Prior Exploration

We have independently, and through the efforts of our various joint venture partners, collected rock, soil and stream sediment samples on the surface. Geologic mapping has revealed 15 medium-to-large areas of hydrothermal alteration contained within both the volcanic and sedimentary rock units. Three gold targets were tested by us and our joint venture partner Barrick Gold prior to Newmont Peru purchasing the project in 2000. We conducted a large-scale helicopter-bourn geophysical program in 1994 that identified a number of magnetic anomalies. Newmont Peru conducted a more detailed and comprehensive helicopter-bourn geophysical program in 2003. During the past eight years Newmont Peru has conducted extensive surface sampling in the central portion of our NSR-Royalty property, from our southern BORDER=0 to the northern border, and has conducted a limited amount of drilling. The results of these Newmont Peru programs are made available to us for review on an annual basis as part of Newmont Peru's work commitment obligations.

## 6. Mineralization

Gold mineralization has been identified in at least 15 separate areas within altered volcanic and sedimentary rocks. Alteration generally consists of silicification (addition of quartz to the host rock) and argillization (destruction of feldspar minerals to clay). Rock chip sampling within these altered areas often contains anomalous values of gold, silver, mercury, arsenic or antimony. Alteration appears to be partially controlled by fault structures in the underlying rock formations or proximity to intrusive rocks.

## 7. Drilling

Twenty-one core-holes totaling approximately 2,700 meters were drilled on three gold targets prior to Newmont Peru purchasing the project in 2000. We drilled eight holes on the Los Negritos prospect and Barrick Gold drilled nine holes at the Shuito prospect and four holes at the Chalhuaquero prospect. Anomalous to low-grade gold, silver and base metal mineralization has been intersected in some of the drill holes conducted by us, Barrick Gold and Newmont. However, the tenor of mineralization and the lack of detailed drill hole spacing does not allow for an estimate of reserves.

## 8. Sampling and Analysis

Newmont is responsible for all sampling and analysis conducted on our royalty property and has been responsible for this activity for the past seven years. We review the results of Newmont's sampling and analysis activities on an annual basis.

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## 9. Security of Samples

Newmont has been responsible for the security of samples for the past eight years.

## 10. Mineral Resource and Mineral Reserve Estimations

No resources or reserves have been delineated on the property.

## 11. Mining Operations

No mining is conducted on the property.

## 12. Planned Exploration

Newmont has not provided us with their planned exploration budget for 2010.

### Chambara Zinc Property (Peru)

In September of 2006, we acquired 3,700 hectares of 100%-owned mineral rights through concessions for our Chambara (formerly called Amazonas) property in northern Peru. We formerly held 300 hectares in the project since 1997. We capitalized \$17,000 during the year ended December 31, 2007 in lease acquisition costs related to new concessions covering an additional 5,600 hectares at the Chambara project. At December 31, 2007, the Chambara project consisted of six widely spaced areas where previous sampling had identified high-grade zinc mineralization at surface similar to that found at Florida Canyon, discussed above under our Bongara zinc property. The land holdings consisted of 13 concessions totaling 9600 hectares,

On April 4, 2008 we signed the Minera Chambara shareholders' agreement with Votorantim Metais Cajamarquilla, S.A., a wholly owned subsidiary of Votorantim Metais (both companies referred to as "Votorantim") for the exploration of a large area of interest in northern Peru measuring approximately 200 by 85 kilometers. Votorantim, is the project manager, funds and conducts all exploration on the project. Votorantim contributed 52 mineral concessions within the area of interest totaling 52,000 hectares to Minera Chambara for a 15% interest in Minera Chambara. We contributed 9,600 hectares of mineral claims and certain exploration data in our possession for an 85% interest in Minera Chambara. Existing and future acquired properties subject to the terms of the shareholders' agreement will be held by Minera Chambara. As of December 31, 2009, Minera Chambara's only assets are the properties and Minera Chambara has no debt. Votorantim may increase its shareholding interest to 49% by expending \$6,250,000 over seven years and may increase its interest to 70% by funding a feasibility study and providing for construction financing for Solitario's interest. If Votorantim provides such construction financing, we would repay that financing, including interest, from 80% of Solitario's portion of the project cash flow.

We have determined that Votorantim controls Minera Chambara pursuant to the terms of the shareholders' agreement and accordingly, we have recorded our investment in Minera Chambara using the equity-method of accounting. During the second quarter of 2008, we transferred our interest in the claims of \$30,000 from mineral properties, net to equity method investment. During 2008, we reduced our equity method investment in Minera Chambara to zero, through a non-cash charge to exploration expense. We do not anticipate we will record an increase in the book value of our 85% equity-method investment in the shares of Minera Chambara in the foreseeable future, if at all.

In 2009 Votorantim compiled existing geochemical and geologic information to prioritize areas for future work. One drill hole was completed in late 2008. Also in 2008 and 2009, Votorantim added and dropped various concessions. Minera Chambara now controls 195 concessions totaling approximately 175,000 hectares of mineral rights. Votorantim is planning to conduct additional surface exploration work, as well as drilling, for 2010. The timing of any drilling is dependent upon the receipt of permit approvals.

### Newmont Alliance (Peru)

On January 18, 2005, we signed a Strategic Alliance Agreement (the "Alliance Agreement") with Newmont Overseas Exploration Limited ("Newmont"), to explore for gold in South America (the "Strategic Alliance"). Prior to the definitive agreement, we had signed a Letter of Intent on November 17, 2004, with Newmont. Concurrent with the signing of the Alliance Agreement, Newmont Mining Corporation of Canada purchased 2.7 million shares of Solitario (at the time, an approximately 9.9% equity interest) for Cdn\$4,590,000. As part of the Alliance Agreement we were committed to spend \$3,773,000 over the four years, which was subsequently extended by mutual agreement to five years, from the date of the Alliance Agreement on gold exploration in regions ("Alliance Projects Areas") that were mutually agreed upon by Newmont and us. In late July 2009 we completed the required expenditure commitment and

informed Newmont. In December 2009 we granted Newmont a 2% net smelter royalty on five properties ("Strategic Alliance Properties") that fall within Strategic Alliance areas. If we meet certain minimum exploration expenditures on Strategic Alliance Properties, Newmont will have the right to joint venture acquired properties and earn up to a 75% interest by taking the project through feasibility and financing Solitario's retained 25% interest into production. Newmont may elect to earn a lesser interest or no interest at all, in which case it would retain its 2% net smelter return royalty. As of December 31, 2009, Newmont also has a right of first offer on our Santiago and Espanola properties, which are non-alliance Solitario properties in South America, acquired after signing of the Alliance Agreement and before fulfillment of the required expenditure completed in 2009, that we may elect to sell and interest in or joint venture with a third party.

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As of December 31, 2009 we had established five property positions that fell within Strategic Alliance areas and are subject to the provisions of the Newmont Alliance as discussed above. These include the La Promesa, Paria Cruz, Cajatambo, Excelsior and Cerro Azul (formerly Twin Lakes) properties. The Cerro Azul property was staked in 2007, the La Promesa, Paria Cruz, Cajatambo and Excelsior properties were staked in early 2008. All five properties are 100%-owned, subject to the Alliance Agreement, and are situated within the central Peru mineral belt that is proximal to the giant Cerro de Pasco silver-base metal district. During 2010, additional surface work is planned on the Cerro Azul, Paria Cruz and Excelsior properties to potentially define drill targets, while drilling is planned on the Cajatambo and La Promesa properties.

#### 1. La Promesa

The La Promesa property, acquired in 2008, consists of three concessions totaling 2,600 hectares. No payments are due to third parties so the only holding costs for the mineral rights are annual payments of three dollars per hectare to the Peruvian government during the first six years that the claims are held.

The property represents a new Solitario surface discovery. At least five high-grade polymetallic veins have been identified and sampled at surface. Although sampling on the project is limited to date, it is encouraging. Two of the veins, about 300 meters apart, have been traced for at least 400 meters along strike. There appears to be a systematic trend towards greater vein thickness with depth, as the widest observed vein in outcrop occurs at the lowest elevation sampled to date. Channel sampling along 300 meters of strike length from the best exposed vein yielded the following high-grade results:

Chip Channel Number	True Width	Silver grams/t	Zinc %	Lead %	Indium grams/t
A	2.8	758	19.4	7.2	153
B	1.1	181	21.0	2.4	190
C	0.5	433	10.5	6.3	23
D	0.4	458	10.2	10.8	15
E	1.0	346	5.9	3.4	27
F	1.2	1975	33.1	5.6	430

During 2009, our efforts were primarily directed towards securing a land agreement with the local community that controls the area in which our concessions are located. In 2010, we will continue to pursue signing an agreement with the local community that will allow us to file for a drilling permit. Upon reaching an agreement with the community, additional surface work to further define drill targets is planned, followed by an initial ten-hole, 1,200 meter drilling program that is scheduled for the second half of 2010, pending receipt of drilling permits.

## 2. Cajatambo

The Cajatambo property consists of eleven concessions totaling 10,500 hectares that was acquired in 2008 and 2009. No payments are due to third parties so the only holding costs for the mineral rights are annual payments of three dollars per hectare to the Peruvian government during the first six years that the claims are held. Solitario currently has land agreements with the local communities that allows us to conduct exploration activities, including drilling.

The geology of the property consists of Tertiary volcanic and intrusive rocks that have been significantly altered by silicification, quartz-alunite and argillic alteration. The alteration system can be intermittently traced over an area ten kilometers long by two-three kilometers wide. There are high-sulfidation type mineralized occurrences and shallow hypabyssal porphyry related systems that are geologically similar in character to many of the large gold deposits situated throughout the Cordillera of Peru. In 2008 we drilled 7 reverse circulation exploration holes totaling 892 meters. Assay results for all 7 holes were generally low with the best drill hole intercept, hole CJ-002, intersecting 8 meters of 1.32 grams per tonne ("gpt") gold.

In 2009 we conducted further follow-up on several isolated gold anomalies located approximately nine kilometers south of the previously drilled areas. This follow-up work resulted in defining a very large area of significant gold and silver mineralization in rocks and soils, where rock exposure is poor. Nearly a thousand rock and soil samples were collected to define the 3.5 by 1.5 kilometer zone of gold-silver mineralization. Seventeen line kilometers of induced polarization geophysical survey was conducted in late-2009 and indicates gold-silver mineralization occurs along the margin of a strong chargeability anomaly. The chargeability anomaly reflects high concentrations of metal-sulfide minerals in the underlying bedrock. Based upon this work, Solitario has filed for drilling permits with the appropriate Peruvian regulatory agency. Drilling is expected to commence near the end of the second quarter of 2010. The initial plan is for a eight-hole, reverse circulation drilling campaign totaling approximately 1,500 meters.

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## 3. Cerro Azul

The Cerro Azul property acquired in 2007 (formerly named Twin Lakes) consists of one concession totaling 1,000 hectares. The geology of the property consists of Tertiary volcanics cut by a system of parallel quartz veins. Veins are up to two meters wide and can be traced along strike up to 1.2 kilometers. The veins are polymetallic in character, within a low-sulfidation geologic environment. A limited amount of surface work was conducted in 2009. Based upon this work, additional surface sampling is planned for 2010 to determine if the property warrants drilling in 2011.

## 4. Excelsior

The Excelsior property, acquired in 2008, consists of two concessions totaling 2,000 hectares. The geology of the property consists of sequence of metamorphosed Ordovician sedimentary formations. Mineralization consists of gold-bearing massive and stockwork quartz-iron replacements associated with an intrusive dike in phyllites. The quartz replacements can be traced intermittently over a length of eight kilometers and a width of up to one kilometer. Mineralization is also associated with regional faulting along the hinge of an anticline. A limited amount of surface work was conducted in 2009. Based upon this work, additional surface sampling is planned for 2010 to determine if the property warrants drilling in 2011.

## 5. Paria Cruz

The Paria Cruz property consists of three concessions totaling 3,000 hectares staked in the first half of 2008. We capitalized \$10,000 in mineral property payments for initial acquisition costs during the second quarter of 2008. No payments are due to third parties so the only holding costs for the mineral rights are annual payments of three dollars per hectare to the Peruvian government during the first six years that the claims are held.

The geology of the property consists of Tertiary-aged volcanics and intrusive rocks. Quartz-tourmaline breccia dikes cut these rocks and appear to partially control gold and base metal mineralization. Due to other, currently higher priority projects, we are not planning any work on Paria Cruz in 2010, but plan to keep the property in good standing.

### Wholly-owned Exploration Properties

#### Pachuca Real Silver-Gold Property (Mexico)

##### 1. Property Description and Location

(Map of Pachuca-Real Property)

The Pachuca-Real property consists of approximately 31,000 hectares of mineral rights encompassing about 10% of the historic Pachuca-Real del Monte silver-gold mining district of central Mexico, but mainly areas situated to the north and northwest of the historic district, termed the North District, and areas east of the historic district. Solitario owns 100% of the property, except for the 6,240-hectare El Cura claim, that is subject to an Option to Purchase agreement with a private Mexican party completed in October 2005. The option requires payments of \$500,000 over four years for a 100% interest in the claim. Solitario has made payments totaling \$90,000 through December 31, 2009. In May 2009 we amended the option agreement. Under the revised terms, Solitario is required to pay \$15,000 every six months, starting in May of 2009 (paid), to the underlying owner to keep the option in good standing. By May of 2012, Solitario must either exercise the option to acquire 100% interest in the concession by paying the underlying owner \$500,000, or the option will terminate. Solitario may terminate its option at anytime without any further costs. Claims fees to be paid to the government of Mexico totaling approximately \$76,000 are due in 2010.

On September 25, 2006 we signed a definitive venture agreement regarding the Pachuca project (the "Venture Agreement") with Newmont de Mexico, S.A. de C.V. ("Newmont"), a wholly owned subsidiary of Newmont Mining Corporation. The Venture Agreement called for a work commitment by Newmont of \$12.0 million over 54 months to earn a 51% interest in the property. Newmont had the right to earn an additional 19% interest (70% total) by completing a feasibility study and by financing Solitario's 30% interest in construction costs. In December 2008 Newmont terminated its right to earn an interest in the Pachuca Real property. Solitario retains a 100% interest in the Pachuca Real property.

##### 2. Accessibility, Climate, Local Resources, Infrastructure and Physiology

The project is located about 80 kilometers north of Mexico City near the city of Pachuca. Access is excellent throughout much of the project area with moderately maintained gravel roads. The city of Pachuca, with excellent modern infrastructure, lies in the southern portion of the property. The project topography ranges in elevation from 2,100 to 3,000 meters. The climate ranges from semi-arid in the lower elevations, which tend to be sparsely vegetated; to temperate in the higher elevations, that tend to be well-forested.

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##### 3. History



Pachuca has a long, nearly unbroken history of silver and gold production beginning somewhere around 1550 by the Spaniards, although it is generally thought that pre-Hispanic smelting of Pachuca ores occurred by the indigenous population inhabiting the area. Total silver production during this five and a half-century period is estimated at approximately 1.4 billion ounces and more than seven million ounces of gold. Nearly 80% of its total production occurred during a 60-year period from 1900 to 1960. Mining in the old district ceased in 2004 due to the depletion of ore reserves. Our claim position, predominantly situated north of the historic district, was held by the Mexican government from 1947 to the early 1990's, whereupon the concessions were sold to a private Mexican company and held by that same company until early 2006, when the land became free to staking. We immediately applied, and were granted, title to the concessions.

#### 4. Geological Setting

The geology of the Pachuca-Real project area is dominated by a thick sequence of Tertiary-aged volcanic and volcanic-related rock formations of dominantly andesitic composition. This thick pile of volcanic rocks is cut by a series of younger east-west trending and northwest-southeast trending quartz porphyry and dacite porphyry dikes. The volcanic rocks are gently dipping on a regional scale, but locally display moderate dips of up to 40 degrees. In the old district, structures typically have a west-northwest to east-southeast trend, except in the Real del Monte area that has a north-south trend. Basement rocks within the project area consist of Cretaceous-aged sedimentary rocks. Overlying the thick andesitic pile of volcanic rocks is another sequence of volcanic and volcanic-related rocks that are thin to moderately thick formations of primarily dacitic composition. These rocks are generally post-mineralization in age.

#### 5. Prior Exploration

The old Pachuca-Real del Monte mining district has been intensely explored and mined throughout its long history, but is not the area of our current exploration focus. We believe the area of greatest potential lies about 10 kilometers north of the main district and an area immediately east of the historic district. Exploration in this area (North District) during the past 60 years was restricted to mainly surface sampling with a very limited amount of drilling. We have compiled all the historical data that we were able to obtain and conducted a limited surface rock and soil sampling program in the first half of 2006, prior to Newmont becoming our joint venture partner. Newmont accelerated the surface sampling program and also conducted detailed geologic mapping to define drill targets. Newmont completed two campaigns of core drilling from mid-2007 to mid-2008, believed to have been the first ever drilling by a modern exploration company in the North District.

#### 6. Mineralization

The old Pachuca-Real del Monte mining district is a classic large-scale vein district nearly 11 kilometers in an east-west direction and 7 kilometers in a north-south direction. Hundreds of near-vertical veins associated with fractures, faults and dikes occur throughout the district. The major veins have productive stopes in excess of a kilometer in length, up to 600 meters in vertical extent and 2-5 meters in average width. The veins are characterized by low sulfide and base metal content and weak wallrock alteration. Historical average grades for the district are 500 g/t silver and 2.5 g/t gold.

In the North District, a major 15-kilometer long east-west fault system, the "Arevalo trend," localizes mineralization along fractures and dikes. The largest historic mines in the North District, the Arevalo mine near the town of El Chico and the Capula mine further west, partially exploited this large potential area of mineralization. Further north, a major series of east-west and northwest-southeast trending veins occupy an area over 12 kilometers long and 7 kilometers wide. South of the Arevalo trend, on its western extent, another series of east-west and northwest-southeast trending veins occurs. In total, Newmont identified, geologically mapped and sampled 38 separate vein target areas as defined by geologically mappable trends of at least 700 meters in strike length. The geology, alteration and style of mineralization in the North District are very similar to that of the historic district to the south.

## 7. Drilling

In 2009 we obtained a limited amount of underground drilling records thought to date to the 1930's for a limited area in the North District west of the Arevalo mine and also east of the historic district. Although this information indicates very interesting grades of mineralization, we cannot verify its accuracy at this time. This is the only historical drill data we know of prior to Newmont's involvement. Newmont tested 11 different target areas in 2007 and 2008 by completing 19 core holes totaling 7,873 meters. Ten of the holes intersected significant mineralization in six different prospects. Better intercepts included:

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Prospect Name	Drill Hole	From/To	Interval (m)*	Au g/t	Ag g/t
San Juan Gallo	PAC-08	210.4 - 212.95	2.55	0.17	37.0
		266.4 - 267.3	0.90	2.03	754.0
El Escribano	PAC-09	129.3 - 129.9	0.6	0.19	144.0
		245.0 - 245.5	0.5	0.75	468.0
		300.4 - 301.4	1.0	0.09	63.8
		323.3 - 323.8	0.5	0.26	163.0
Tierras Colorados	PAC-10	380.3 - 381.7	1.4	0.03	119.3
Investigadora	PAC-11	314.4 - 315.25	0.85	1.28	173.0
San Juan Gallo	PAC-13	142.85 - 145.0	2.15	0.29	87.1
		156.9 - 158.85	1.95	0.63	144.67
		158.4 - 158.85	0.45	1.98	335.0
		235.0 - 236.0	1.0	0.44	141.8
San Juan Gallo	PAC-17	234.75 - 237.5	2.75	0.16	86.4
El Escribano	PAC-18	73.1 - 73.4	0.3	1.37	1685
		274.65 - 276.05	1.4	1.00	458.4

\* True thickness has not been determined and could be substantially less than the drill thickness for some intervals.

## 8. Sampling and Analysis

A total of 2,865 geochemical samples from outcrops, dumps, old mine workings, and channel sampling have been collected on the project by Newmont. Prior to Newmont's work, we had collected rock chip samples and soil samples over select parts of the property.

## 9. Security of Samples

From September 2006 to December 2008, Newmont controlled all field activities on the project and was responsible for the security of samples. Newmont has indicated to us that there have been no breaches in the security of the samples. We retained control of all samples since December 2008 and believe that adequate procedures are in place to ensure the future security and integrity of samples.

## 10. Mineral Resource and Mineral Reserve Estimations

There are no reported reserves or resources.

#### 11. Mining Operations

There are no current mining operations associated with this project.

#### 12. Planned Exploration

We are currently negotiating with two third party mining companies to joint venture the property. If negotiations are successful and an agreement is reached, our new joint venture partner would be responsible for developing an exploration plan and managing operations on the property. If we are unable to reach an agreement, we are considering a limited drilling program in the second half of 2010.

La Noria Copper Property (Mexico)

<http://www.solitarioresources.com/lanoria.html>

##### 1. Property Description and Location

The La Noria Copper property was staked in the second quarter of 2008 and is located in the state of Sonora in northern Mexico approximately 140 km south of the state capital of Hermosillo. It consists of one exploration concession totaling approximately 10,000 hectares. It is 100% owned by Solitario with no underlying property owners. We completed a surface access agreement with the surface owner in early 2009 that allowed for access to the property and the approval to conduct exploration.

##### 2. Accessibility, Climate, Local Resources, Infrastructure and Physiology

The property is easily accessed by unpaved roads year-round. The climate is hot and dry from May through September and warm and dry during the remaining months of the year. Monsoon rains can occur during July and August. The nearest town with services is Ciudad Obregon which is situated 70 kilometers south of the project area. The local area is used mainly for low density cattle grazing. The terrain is flat to gently rolling hills that is covered with sparse desert vegetation. Work at the property is based out of a nearby ranch house.

##### 3. History

There is no evidence of any historic mining or exploration on the property prior to Solitario's work.

##### 4. Geological Setting

The geology of the property is relatively simple with fine- to medium-grained granitic rocks that are overlain by volcanic rocks ranging in composition from older andesites to younger felsic rocks,

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##### 5. Prior Exploration

No known formal exploration has been conducted on the property prior to our 2009 program. Solitario acquired the property based upon strong alteration of rocks observed in satellite images.

## 6. Mineralization

A mineralized bedrock zone has been delineated over an area that is at least 700 meters long and 100 to 200 meters wide at surface. This zone is characterized by altered granite. Copper mineralization occurs in the oxide form and is most commonly associated with hematite, and to a lesser extent with jarosite. The copper bearing hematite occurs as disseminated blebs within the granite matrix. The grade of this zone, based upon 100 rock chip channel samples, averages 0.32 copper. It appears that the granite originally contained disseminated chalcopyrite, a copper bearing sulfide mineral that was subsequently oxidized to a copper bearing hematitic mineral. The mineralized zone is covered by a thin veneer of outwash gravels on three sides. The depth of oxidation is currently unknown.

An Induced Polarization/resistivity geophysical survey consisting of seven lines totaling 8.9 kilometers was completed in late 2009. The interpretive results of this survey suggest that mineralization could be approximately one-kilometer square in size and at least 200 meters deep.

## 7. Drilling

No drilling has ever been conducted on the property.

## 8. Sampling and Analysis

Copper mineralization was detected by a relatively detailed rock chip channel sampling and soil sampling program conducted by us over an area approximately 900 meters long and 500 meters wide. One-hundred rock chip channel samples, that were more or less evenly distributed, were collected. The copper grade of these samples over the mineralized zone averaged 0.32% copper.

## 9. Security of Samples

The geologist in charge supervised the collection of samples on site and the shipping from the site to laboratory pickup location in Hermosillo. Samples collected from this project were processed and analyzed by Chemex.

## 10. Mineral Resource and Mineral Reserve Estimations

No mineral reserves or resources are reported on the property.

## 11. Mining Operations

There are no mining operations on the property.

## 12. Planned Exploration

We expect to complete an approximately six-hole, 1,500 meter reverse circulation drilling program before the end of the first quarter of 2010. In addition, we are planning to conduct acid leach metallurgical testing to see if the copper mineralization is amenable to SX/EW processing techniques, if drill results indicate significant oxide copper concentrations down-hole. If results warrant, a second round of drilling is anticipated for 2010.

Mercurio Gold Property (Brazil)

<http://www.solitarioresources.com/tapajos.html>

## 1. Property Description and Location

The Mercurio Gold Property is located in Para State in Northern Brazil approximately 250 km south of the town of Itaituba. It consists of three exploration concessions totaling 8,476 hectares. An agreement dated March 14, 2005 with the underlying claim and surface rights holder provides for transfer of a 100% interest of the mineral estate to Solitario and payment by Solitario of approximately \$350,000 over a period of 60 months. The owner retains a 1.5% net smelter return that is subject to purchase by Solitario for approximately \$1,220,000. All payments are made in local currency and the amounts in U.S. currency will fluctuate with exchange rates. On completion of all payments we will receive title to 1,500 hectares of surface rights. In 2009 we negotiated a suspension in payments to the claims owner of one year. During 2009, 2008, 2007 and 2006, \$19,000, \$82,000, \$55,000 and \$25,000, respectively, were paid under the terms of the contract.

## 2. Accessibility, Climate, Local Resources, Infrastructure and Physiology

The property can be accessed by a local unpaved road that services the region. This road is open for approximately eight months of the year but is subject to intermittent closing due to weather conditions during the four month rainy season. Additionally, an unpaved landing strip for light aircraft is located on the property. The climate is hot and humid year round. Work at the property is difficult during the rainy season from December through March and generally field activities are suspended during this time. Solitario maintains a camp constructed of wooden buildings on the site that can accommodate up to 30 people. At the same location is a small community of artisanal miners and a store for basic goods. The nearest town with services is Almedia, approximately 100 kilometers by road from the project. The terrain is flat to gently rolling and is covered with tropical vegetation.

## 3. History

Small scale artisanal mining for gold by gravity methods has been conducted on the property for ten years. No systematic exploration prior to Solitario's arrival had ever been conducted.

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## 4. Geological Setting

The region is underlain by granite rocks and granitic gneisses. Most of these rocks are medium- to coarse-grained but later dikes occur that are fine- to very fine-grained. Basaltic dikes locally cut the basement. Weathering is intense and has converted the rocks to saprolite (leached oxidized soil) to depths of up to 50 meters.

## 5. Prior Exploration

No known exploration has been conducted on the property prior to the Solitario 2005 program except for local artisanal exploration and mining. During 2005 and 2006, we conducted extensive geochemical sampling that included both detailed and widely spaced grid sampling of soils, and to a lesser extent mechanized auger sampling of soils up to 10 meters in depth. All soil and auger samples were analyzed for gold. In 2005 we conducted a widespread ground magnetic survey to further define potential drill targets. In 2006 we conducted induced polarization (IP) geophysical survey to further aid us in selecting drill-hole locations.

## 6. Mineralization

Gold mineralization has been detected by detailed soil sampling over an area that is at least five kilometers long in an east-west direction and 4 kilometers wide in a north-south direction. In bedrock, gold mineralization occurs along steeply dipping shears in the granite and along dike boundaries of later, finer grained phases of granite. Gold enrichment occurs in E-W trending zones. Pyrite is the only common sulfide mineral but it occurs only in small

amounts, generally from 1/2% to 3%. Rarely, galena, chalcopyrite and sphalerite have been observed in trace amounts. Quartz as veinlets and as veins up to 30 cm are most commonly associated with gold mineralization, though silicification as a replacement texture is important locally. Silver values and the quantities of other valuable metals are uniformly low.

## 7. Drilling

Solitario drilled 12 core holes totaling 2,435 meters in 2005 and 11 core holes totaling 1,596 meters in 2006 and 13 core hole totaling 1,481 meters in 2008. Drilling results for 2008 are provided below.

### 2008 Mercurio Drill Hole Assay Results

Prospect Name	Hole Number	From Meters	To Meters	<u>Interval</u> Meters	Gold Grade g/t
Colonia	SB-25	6	8	2	1.8
	And	48.1	58.5	10.4	8.0
	including	52.0	57.6	5.6	12.8
Colonia	SB-26	99.6	103.7	4.1	4.2
Patoa	SB-29	77.0	83.0	6.0	1.6
Patoa	SB-31	43.6	48.0	4.4	1.7
	And	111.0	112.0	1.0	4.0
Tucanare	SB-33	124.0	125.0	1.0	2.1
Colonia	SB-35	49.0	51.0	2.0	10.1
		65.0	68.9	3.0	1.2
		72.0	74.0	2.0	1.2

No estimate of true width of mineralized intercepts shown above can yet be made.

A total of 36 drill holes totaling 4,621 meters have thus far tested three principal target areas: the Colonia, Patoa and Tucanare prospects. At the main Colonia trend, a mineralized east-west structure has been traced by drilling for about 500 meters. This trend remains open in both directions along horizontal strike and at depth. Of the two holes drilled this year at the new Jamil prospect in the southern part of the Colonia area, one contained 10.4 meters of 8 g/t gold. The one hole drilled in another completely new area, Dorado, in the northern part of the Colonia area intersected 10.1 g/t over 2 meters.

At Patoa, previously announced drill holes SB-04, that intersected 12.2 meters grading 12.2 g/t gold, and SB-18, that intersected 34 meters grading 2.7 g/t gold, may represent the same mineralized trend. In addition, SB-20, that contained 25.5 meters of 1.6 g/t gold, was drilled 600 meters west of the main Patoa area and represents significant untested potential of the Patoa zone. Finally, at the Tucanare prospect, all five drill holes have intersected gold mineralization.

## 8. Sampling and Analysis

Soils were taken over large areas and analyzed by assay and by panning to aid in exploration. Auger samples up to 10 meters in depth were also taken in selected areas and analyzed similarly. Sawed core samples were transported

from the drill to the camp by vehicle then by truck, boat or plane to the nearest population center where they were air transported to central Brazil for sample preparation at ALS Chemex Laboratories in Goiania or SGS Laboratories in Minas Gerais, Brazil. Final analysis for samples sent to ALS Chemex was completed in the ALS Chemex laboratory in Vancouver, Canada or in Lima, Peru.

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#### 9. Security of Samples

The geologist in charge supervised the collection of samples on site and the shipping from the site to the point of air transport. Sample tracking by Solitario incorporated transport records and sample receipt by the laboratory in Brazil. Shipping outside of Brazil was supervised by the laboratory.

#### 10. Mineral Resource and Mineral Reserve Estimations

No mineral reserves or resources are reported on the property.

#### 11. Mining Operations

With exception of small scale artisanal mining for gold by gravity methods that has been conducted on the property for ten years, there are no mining operations on the property.

#### 12. Planned Exploration

We are currently seeking a joint venture partner to advance this project. However, there can be no assurance that a joint venture partner can be secured.

#### Palmira Massive Sulfide (Copper) Property (Mexico)

We optioned the Palmira property in the state of Zacatecas in November 2009 from a private Mexican individual. The Palmira property is 2,600 hectares in size and situated 20 kilometers south of the historic state capital city of Zacatecas. We can acquire a 100% interest in the property by making scheduled payments over a five year term totaling \$1.0 million to the underlying owner. The initial option payment of \$5,000 has been made. The next payment of \$10,000 is due on May 20, 2010.

To date, Solitario has conducted reconnaissance stage geologic mapping and geochemical sampling. The geology of the property consists of a mixed greenstone package of Mesozoic aged andesitic volcanic rocks and fine-grained sedimentary rocks with minor occurrence of older granitic intrusives and a younger rhyolite dome complex. Within the greenstone package, a stratigraphically controlled exhalative horizon predominantly consisting of jasperoid has been noted in numerous locations, some of which have been traced for over a kilometer and measured in widths of tens of meters. Surface rocks are leached of copper sulfides but copper oxides are noted in prospect pits at shallow depths.

We are planning to conduct more detailed mapping and geochemical sampling, followed by geophysical surveys over prioritized areas. Based upon this work we anticipate an initial drilling program could commence early in the third quarter of 2010.

#### Santiago Gold Property (Peru)

The Santiago prospect was acquired in 2007 and consists of one mining concession totaling 1,000 hectares. The prospect geology consists of nearly flat lying tertiary volcanics that have been silicified and pyritized. Alteration can be traced discontinuously for 9 km x 2.5 km. Post alteration lava flows cover up the underlying altered rocks leaving only "windows" through the fresh rock into mineralization that can be sampled. Much of the alteration is high sulfidation epithermal gold in character but has been overprinted by low sulfidation type mineral assemblages. Work to date consists mainly of stream sediment sampling, rock chip channel sampling and reconnaissance geologic mapping. Some detailed geologic mapping has been initiated in areas of higher potential. Due to other, currently higher priority projects, we are not planning any work on the Santiago project in 2010, but plan to keep the property in good standing.

#### La Tola Royalty Property (Peru)

In October 2003, we acquired the La Tola project in southern Peru to explore for gold and possibly silver. The project is located in southern Peru. In April 2004, we signed a Letter Agreement with Newmont Peru, whereby Newmont Peru could earn a 51%-interest in the La Tola property by completing \$7.0 million of exploration over four years and an additional 14% interest by completing a feasibility study and by arranging 100% project financing. On June 22, 2005, Newmont Peru informed Solitario that it had elected to terminate its option to earn an interest in the La Tola project and Solitario recorded an \$18,000 impairment related to the La Tola project. We retained one claim covering 1,000 hectares.

In August 2007 we signed a Letter of Intent with Canadian Shield Resources ("CSR") allowing CSR to earn a 100%-interest in the property, subject to a 2% net smelter return royalty ("NSR") to our benefit. To earn its interest, CSR is required to spend \$2.0 million in exploration by December 31, 2011. CSM has the right to purchase the 2% NSR for \$1.5 million anytime before commercial production is reached. Because the Letter of Intent with CSR provides that our ending interest in La Tola will be a 2% net smelter royalty, rather than a working interest, we currently classify the La Tola gold property as a royalty property interest.

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#### Triunfo Gold-Silver-Lead-Zinc Property (Bolivia)

We signed an Option to Purchase a 100% interest in the mineral rights on the 256-hectare gold, silver, lead and zinc Triunfo property in Bolivia in July 2003. Amendments modifying the option were signed in March of 2004, September of 2005, June of 2006 and June of 2008. The option, as amended, calls for Solitario to spend up to \$2.3 million on exploration activities over a five-year period and make payments to the underlying owners of up to \$170,000 over the first four years, with an option for us to acquire a 100% interest in the property by making a one-time payment of \$1.0 million by the fifth anniversary of the signing of the option. The June 2008 amendment to the contract suspends all future payments agreed to under the contract. For the right to suspend payments we are required to pay \$5,000 per year until such time as we decide to continue exploration drilling. The first payment of the "stand-by" period was made on signing of the amendment and such suspension shall continue for so long as we pay \$5,000 on the anniversary of the signing of the amendment. We may elect to terminate the option at anytime without any additional payment or work commitment obligations due to the underlying owner.

The project is located about 50 kilometers east of the Bolivian capital of La Paz at an elevation of approximately 4,500 meters. Access is gained by a well-maintained gravel road from La Paz. We have completed construction of a 2.5-kilometer road to the property. The project hosts a large mineralized area extending for at least 800 meters in length and up to 200 meters in width. Mineralization occurs as a stockwork zone of veining within a sequence of Paleozoic shales, siltstones and quartzites. Within the mineralized zone, surface sampling has returned elevated values of gold, silver, lead and zinc.



In mid-2007 we completed three core holes totaling 679 meters. All three holes intersected significant widths of low-grade polymetallic mineralization. Drill hole T-1 intersected 94.2 meters grading 0.65% lead, 0.39% zinc, 21.8 gpt silver and 0.39 gpt gold. We currently have the project on care and maintenance status until the political situation in Bolivia becomes sufficiently positive to justify a more significant exploration program.

#### Espanola (Bolivia)

We optioned the Espanola gold-copper property in western Bolivia in July 2008. The initial option payment was \$5,000, with annual payments of \$10,000 until drilling commences, at which time another \$10,000 payment will be due followed by a \$55,000 payment will be due on the anniversary date of when drilling commenced. We have the right to earn a 90% interest in the property from a private Bolivian party. For 2010, we are evaluating the possibility of drilling several holes. Our decision on whether or not to drill is mainly dependent upon geopolitical considerations, prioritization with other projects and personnel, and the availability of a drill rig.

The geology of the Espanola property consists of Tertiary volcanic and sub-volcanic rocks that have been intensely altered over widespread areas. Geologic mapping and geochemical sampling were undertaken by a major mining company in 1993. A limited drilling program yielded several holes that intersected widespread anomalous gold and copper values.

#### Discontinued Projects

During the fourth quarter of 2009 we abandoned the Chonta property and recorded a mineral property write-down of \$42,000. The Chonta property was optioned in 2008 from a private Peruvian party. Surface work was conducted throughout the remainder of 2008 and drilling was conducted in mid-2009. Drilling results were not considered to be of economic interest and the decision was made to terminate our option to earn an interest in the property.

During the first quarter of 2009 we terminated any additional work on the Purica copper property and recorded a loss of \$9,000 on our initial acquisition costs. The property was originally acquired in 2008 through an option agreement with an underlying private Mexican party and through our own staking. We conducted geologic mapping, geochemical sampling and a geophysical survey. Based upon the results of this work, a six-hole reverse circulation drilling program totaling 1,255 meters was completed in the third quarter of 2008. Low grade copper was intersected in three of six holes with the other three holes essentially barren. After reviewing the drilling results, in conjunction with the previously generated surface exploration work, we elected to abandon the property.

#### Item 3. Legal Proceedings

None

#### Item 4. Submission of Matters to a Vote of Security Holders

None

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Our common stock had traded predominantly on the TSX under the symbol SLR prior to August 2, 2006 when Solitario received approval to list its common shares on the NYSE Amex (formerly known as the American Stock Exchange). Trading on the NYSE Amex began on Friday, August 11, 2006, under the symbol XPL. Since 2008 trading on the NYSE Amex has exceeded the trading on the TSX.

The following table sets forth the high and low sales prices on the NYSE Amex Equities ("NYSE Amex") for our common stock for the quarterly periods from January 1, 2008 to December 31, 2009.

Period	All prices are in USD\$			
	2009		2008	
	High	Low	High	Low
First quarter	\$1.65	\$1.07	\$6.00	\$4.90
Second quarter	2.29	1.09	5.75	4.71
Third quarter	2.10	1.50	5.19	3.20
Fourth quarter	2.41	1.86	3.49	1.32

The following table sets forth the high and low sales prices on the TSX for our common stock for the quarterly periods from January 1, 2008 to December 31, 2009.

Period	All prices are in CDN\$			
	2009		2008	
	High	Low	High	Low
First quarter	\$2.00	\$1.44	\$5.90	\$5.00
Second quarter	2.41	1.32	5.80	4.83
Third quarter	2.32	1.66	5.00	3.41
Fourth quarter	2.53	1.97	3.75	1.57

## Shares authorized for issuance under equity compensation plans

On June 27, 2006 Solitario's shareholders approved the 2006 Stock Option Incentive Plan (the "2006 Plan"). Under the terms of the 2006 Plan, the Board of Directors may grant up to 2,800,000 options to Directors, officers and employees with exercise prices equal to the market price of Solitario's common stock at the time of grant. However, under the terms of the 2006 Plan, the total number of outstanding options from all plans may not exceed 2,800,000. As of December 31, 2009, we have granted options for 519,000 shares that remain unexercised at Cdn\$1.55 per share.

## Equity Compensation Plan Information as of December 31, 2009

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights Cdn\$	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
2006 Plan	519,000	\$1.55	2,230,250

Equity compensation plans approved by security holders

Equity compensation plans not approved by security holders

	-	N/A	-
Total	519,000	\$1.55	2,230,250

Recent Sales of Unregistered Securities

None

Holders of our common shares

As of February 10, 2010 we have approximately 2,026 holders of our common shares.

Dividend Policy

We have not paid a dividend in our history and do not anticipate paying a dividend in the foreseeable future.

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Item 6. Selected Financial Data

The following table summarizes the consolidated statements of operations and balance sheet data for our business since January 1, 2005. This data has been derived from the audited consolidated statements of operations for our business for each of the five years ended December 31, 2009 and the audited consolidated balance sheets of our business as of December 31, 2009, 2008, 2007, 2006, and 2005. You should read this information in conjunction with Item 7 - "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Solitario's historical consolidated financial statements and notes included in Item 8 - "Financial Statements and Supplementary Data." The information set forth below is not necessarily indicative of future results.

Balance sheet data:

(in thousands)	<u>As of December 31,</u>				
	2009 <sup>(1)</sup>	2008 <sup>(1)</sup>	2007 <sup>(1)</sup>	2006 <sup>(1)</sup>	2005
Total current assets	\$ 6,742	\$ 4,997	\$ 7,972	\$ 6,387	\$ 5,665
Total assets	\$24,641	\$26,463	\$30,430	\$25,038	\$19,037
Working capital	\$ 4,318	\$ 3,415	\$ 6,245	\$ 4,555	\$ 4,189
<sup>(2)</sup> Shareholders' equity	\$15,114	\$18,051	\$18,267	\$14,121	\$14,373

Statement of operations data:

(in thousands, except per share amounts)	<u>Year ended December 31,</u>				
	2009	2008 <sup>(1)</sup>	2007 <sup>(1)</sup>	2006 <sup>(1)</sup>	2005
Property and joint venture revenue	\$ 200	\$ 200	\$ 100	\$ -	\$ -

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Loss before change in accounting principle	(1,786)	(617)	(5,440)	(5,915)	(2,180)
Change in accounting principle	-	-	-	(1,231)	-
Net loss	<u>\$(1,786)</u>	<u>\$(617)</u>	<u>\$(5,440)</u>	<u>\$(7,146)</u>	<u>\$(2,180)</u>
Per share information:					
Basic and diluted					
Income (loss) before change in accounting principle	\$ (0.06)	\$ (0.02)	\$ (0.18)	\$ (0.21)	\$ (0.08)
Change in accounting principle	<u>-</u>	<u>-</u>	<u>-</u>	<u>(0.04)</u>	<u>-</u>
Net loss	<u>\$(0.06)</u>	<u>\$(0.02)</u>	<u>\$(0.18)</u>	<u>\$(0.25)</u>	<u>\$(0.08)</u>

(1) As restated. See Note 11 to the consolidated financial statements included in Item 8.

(2) Working capital consists of current assets less current liabilities.

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Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

As discussed in Note 11 to the consolidated financial statements, the financial statements as of and for the years ended December 31, 2008 and 2007 have been restated to reflect certain payments as deferred noncontrolling shareholder payments. The following management's discussion and analysis of financial condition and results of operations gives effect to the restatement.

The following discussion should be read in conjunction with the information contained in the consolidated financial statements and notes thereto included in Item 8 "Financial Statements and Supplementary Data." Our financial condition and results of operations are not necessarily indicative of what may be expected in future years.

(a). Business Overview and Summary

We are an exploration stage company with a focus on the acquisition of precious and base metal properties with exploration potential. We acquire and hold a portfolio of exploration properties for future sale or joint venture prior to the establishment of proven and probable reserves. Although our mineral properties may be developed in the future through a joint venture, we have never developed a mineral property and we do not anticipate developing any currently owned mineral properties on our own in the future. We may also evaluate mineral properties to potentially buy a royalty.

Solitario was incorporated in the state of Colorado on November 15, 1984 as a wholly owned subsidiary of Crown. We have been actively involved in this business since 1993. We recorded revenues from joint venture delay rental payments of \$200,000 \$200,000 and \$100,000, respectively, related to our Bongara Project during 2009, 2008 and 2007. Previously, our last significant revenues were recorded in 2000 upon the sale of our Yanacocha property for \$6,000,000. We expect that future revenues from joint venture payments or the sale of properties, if any, would also occur on an infrequent basis. At December 31, 2009 we had 15 exploration properties in Peru, Bolivia, Mexico and Brazil, and two royalty properties in Peru. We are conducting exploration activities in all of those countries.

Our principal expertise is in identifying mineral properties with promising mineral potential, acquiring these mineral properties and exploring them to enable us to sell, joint venture or create a royalty on these properties prior to the establishment of proven and probable reserves. Currently we have no mineral properties in development and we do not anticipate developing any currently owned properties on our own in the future. We currently own 15 mineral properties under exploration and we own our Yanacocha and La Tola royalty interests. Our goal is to discover

economic deposits on our mineral properties and advance these deposits, either on our own or through joint ventures, up to the development stage (development activities include, among other things, the completion of a feasibility study, the identification of proven and probable reserves, as well as permitting and preparing a deposit for mining). At that point, or sometime prior to that point, we would attempt to either sell our mineral properties, pursue their development through a joint venture with a partner that has expertise in mining operations or create a royalty with a third party that continues to advance the property.

In analyzing our activities, the most significant aspect relates to results of our exploration activities and those of our joint venture partners on a property-by-property basis. When our exploration activities, including drilling, sampling and geologic testing indicate a project may not be economic or contain sufficient geologic or economic potential we may impair or completely write-off the property. Another significant factor in the success or failure of our activities is the price of commodities. For example, when the price of gold is up, the value of gold-bearing mineral properties increases, however, it also becomes more difficult and expensive to locate and acquire new gold-bearing mineral properties with potential to have economic deposits.

The potential sale, joint venture or development through a joint venture of our mineral properties will occur, if at all, on an infrequent basis. Accordingly, while we conduct exploration activities, we need to maintain and replenish our capital resources. We have met our need for capital in the past through (i) the sale of properties, which last occurred in 2000 with the sale of our Yanacocha property for \$6,000,000; (ii) joint venture payments, including delay rental payments of \$200,000, \$200,000 and \$100,000, respectively, received during 2009, 2008 and 2007 on our Bongara property; (iii) sale of our investment in Kinross; and (iv) issuance of common stock, including exercise of options, and through private placements, most recently as part of a strategic alliance with a major mining company. We have reduced our exposure to the costs of our exploration activities through the use of joint ventures. We anticipate these practices will continue for the foreseeable future although we expect that our primary funds will come from the sale of our investment in Kinross.

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(b). Recent Developments

On August 24, 2009 we entered into a definitive arrangement agreement ("Agreement") with Metallic Ventures Gold Inc. ("Metallic Ventures") whereby we would acquire, through a friendly statutory plan of arrangement under Canadian Law, all outstanding shares of Metallic Ventures, subject to certain conditions. On October 13, 2009, we entered into an amendment to the Agreement (the "Amendment") whereby we increased our bid to acquire all outstanding shares of Metallic Ventures. The Agreement, as amended, provided that we would issue 19.5 million shares of Solitario common stock and would pay cash consideration of \$18 million for all of the outstanding shares of Metallic Ventures. The Agreement, as amended, also provided for a termination deadline of February 28, 2010 and that Metallic Ventures would pay a termination fee of \$2.2 million under certain circumstances, including if Metallic Ventures accepted a superior offer, as defined in the Agreement, as amended. The Agreement, as amended, was subject to shareholder and regulatory approval. In order to offer Metallic Ventures' shareholders the increased number of shares, we entered into agreements with certain of our Officers, Directors and employees to voluntarily cancel 1,935,000 previously granted options concurrently with the signing of the Amendment.

On October 29, 2009 Metallic Ventures announced that they had determined that an offer from International Minerals Corporation constituted a superior offer as defined in the Agreement, as amended. On November 2, 2009, Metallic Ventures terminated the Agreement, as amended, and paid us a termination fee of \$2.2 million.

We have a significant investment in Kinross of \$19,320,000 at December 31, 2009, which consists of 1,050,000 shares of Kinross common stock. Of these shares, 550,000 are not subject to the Kinross Collar, discussed below

under "Liquidity and Capital Resources - Hedge of the Investment in Kinross." As of February 10, 2010, Solitario's 550,000 shares have a value of approximately \$9.7 million based upon the market price of \$17.55 per Kinross share. During 2009, 2008 and 2007 Solitario sold 100,000, 192,920, and 400,000 shares, respectively, of Kinross common stock for net proceeds of \$1,852,000, \$4,430,000 and \$5,548,000. Any significant fluctuation in the market value of Kinross common shares could have a material impact on Solitario's liquidity and capital resources.

As of December 31, 2009, 500,000 shares of Kinross common stock are subject to the Kinross Collar as follows: (i) 400,000 shares due on April 13, 2010 for a lower threshold price of no less than \$13.69 per share (the "Floor Price") and an upper threshold price of no more than \$24.34 per share; and (ii) 100,000 shares due on April 12, 2011 for no less than the Floor Price and an upper threshold price of no more than \$27.50 per share. On April 14, 2009, a tranche of the Kinross Collar due on that date expired and 400,000 shares under the Kinross Collar were released. No shares were delivered to UBS under the Kinross Collar and no cash was paid or received upon the termination of that tranche of the Kinross Collar. As of February 10, 2010, 500,000 shares of Kinross stock are subject to the Kinross Collar. We also sold several covered calls related to our unhedged shares of Kinross common stock and as of December 31, 2009, we have sold a covered call covering 40,000 shares of Kinross common stock as discussed below under Hedge of the Investment in Kinross.

During the twelve months ended December 31, 2009, we capitalized a total of \$5,000 related to initial staking and lease costs on Palmira project in Mexico. All exploration costs on our properties, including any additional costs incurred for subsequent lease payments or exploration activities related to our projects are expensed as incurred.

#### (c). Results of Operations

##### Comparison of the year ended December 31, 2009 to the year ended December 31, 2008

We had a net loss of \$1,786,000 or \$0.06 per basic and diluted share for the year ended December 31, 2009 compared to net loss of \$617,000 or \$0.02 per basic and diluted share for the year ended December 31, 2008. As explained in more detail below, the primary reasons for the increase in net loss during 2009 compared to the net loss during 2008 were (i) a reduction in the gain on sale of Kinross common stock to \$1,409,000 during 2009, compared to a gain of \$3,576,000 during 2008; (ii) a reduction in our stock option benefit to \$269,000 during 2009 compared to a stock option benefit of \$3,255,000 during 2008; (iii) a reduction in our gain on derivative instruments to \$694,000 during 2009 compared to a gain on derivative instruments of \$1,177,000 during 2008. Partially offsetting these items were (i) a reduction in exploration expense during 2009 to \$3,579,000 compared to exploration expense of \$4,589,000 during 2008; (ii) the receipt of a break fee of \$2,200,000 on our attempted acquisition of Metallic Ventures; and (iii) a reduction in our income tax expense to \$996,000 during 2009 compared to an income tax expense of \$2,128,000 during 2008. Each of these items is discussed in greater detail below.

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Our most important activity is the exploration on our mineral properties and reconnaissance exploration to locate mineral properties to acquire and to advance or delineate deposits to enable us to sell or joint venture the mineral property. During 2009, we decreased our exploration effort in Peru and reduced our exploration activities in Brazil related to our Pedra Branca project, which is 30% owned by Anglo as of December 31, 2009. Anglo is providing all of the funding for the Pedra Branca project with all payments recorded as deferred noncontrolling shareholder payments until such time as Anglo earns its incremental interest in PBM. As can be seen in the table below, our exploration expense decreased to \$3,579,000 during 2009 compared to \$4,589,000 in 2008. This reduction is primarily the result of our decision to limit our exploration in Brazil to only the Pedra Branca project, and because of delays in being able to begin drilling on two exploration projects in Peru. These delays were a result of increased permitting requirements and ongoing evaluations of exploration results from sampling, geochemistry and geophysical

work. In addition although we reduced our reconnaissance work in both Peru and Brazil during 2009, we increased this effort in Mexico, which resulted in the addition of one property during the year, the Palmira project, the drilling of our Purica and La Noria projects and the planned drilling of our Palmira project in Mexico during the first half of 2010.

During 2009 we added the Palmira project with the capitalization of initial acquisition costs of \$5,000. We added significantly less new properties in 2009 than in 2008 when we added several properties as a result of our reconnaissance exploration during 2007 and 2008. These were the Cajatambo, Excelsior, Chonta, Paria Cruz and La Promesa exploration projects in Peru, our La Noria and Purica exploration projects in Mexico and our Espanola exploration project in Bolivia. We capitalized \$111,000 to mineral properties during 2008 for the initial staking or lease payments on these properties during 2008.

Our 2010 exploration expenditure budget is approximately \$4,705,000 which includes approximately \$1,306,000 for drilling of exploration projects. This budget also includes approximately \$1,428,000 for the Pedra Branca project, which is budgeted to be funded by capital contributions from Anglo. The primary factors in our decision to increase exploration expenditures in 2010 relate to an increase in gold commodity prices and an increase in equity prices for mineral exploration companies. However we believe we will be able to modify our planned exploration activities for changes in joint venture funding, commodity prices, and access to capital.

Exploration expense (in thousands) by property consisted of the following:

<u>Property Name</u>	<u>2009</u>	<u>2008</u>
Pedra Branca	\$1,196	\$1,422
Chonta	524	435
Cajatambo	413	685
Newmont Alliance	120	79
Pachuca	111	9
La Promesa	74	64
La Noria	71	-
Cerro Azul	65	59
Mercurio	65	452
Bongara	35	4
La Purica	32	390
Palmira	32	-
Espanola	10	4
Paria Cruz	7	44
Excelsior	3	2
Santiago	3	-
Triunfo	5	9
Chambara	-	40
Titicayo	-	25
Reconnaissance	<u>813</u>	<u>866</u>
Total exploration expense	<u>\$3,579</u>	<u>\$4,589</u>

We recorded a credit (reduction of expense) of \$419,000, \$227,000 and \$17,000, respectively, during 2009, 2008 and 2007, for Anglo's noncontrolling interest in the losses of the consolidated subsidiary, PBM, during the year. On September 30, 2007, Anglo earned its initial 15% interest in PBM and on December 23, 2008, Anglo earned an additional 15% interest in PBM, for a total of 30% pursuant to the Shareholders Agreement between Solitario and Anglo, as discussed above. During 2009 we recorded management fees of \$65,000, to PBM, which are eliminated in consolidation, net of \$19,000 of noncontrolling interest. During 2008 we recorded management fees of \$75,000, to PBM, which are eliminated in consolidation, net of \$11,000 of noncontrolling interest. We anticipate the noncontrolling interest credit will be similar in 2010 based upon our budgeted expenditures at PBM.

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We believe a discussion of our general and administrative costs should be viewed without the non-cash stock option compensation expense or benefit which is discussed below. Excluding these costs, general and administrative costs were \$2,348,000 during 2009 compared to \$2,319,000 in 2008. We incurred salary and benefits expense of \$1,187,000 during 2009 compared to \$1,193,000 in 2008, which decreased due to reduced bonuses paid during 2009 compared to 2008. We recorded no consulting expense during 2009 compared to \$53,000 during 2008 which was related to the Mark Jones consulting contract that expired in 2008 as discussed below under related party transactions. In addition, other general and administrative costs including rent, travel, and insurance decreased to \$332,000 during 2009 compared to \$467,000 in 2008 primarily related to a reduction in non-exploration general administrative cost and activities to reduce expenses, which included lower rent costs, reduced telephone and internet expenses and lower freight office and postage. Although some of these costs were shifted to our exploration staff and field offices, and a portion were related to reduced exploration activity, a significant portion represented reduced costs which we intend to continue in the future. We also recorded a gain on currency and exchange rates during 2009 of \$35,000, compared to a loss of \$62,000 in 2008. We also recorded a reduction in our shareholder relations costs which decreased to \$223,000 during 2009 compared to \$267,000 during 2008 as a result of lower costs for exchange fees and lower costs to produce our annual report. Offsetting these reductions in costs was an increase in our legal and accounting costs to \$637,000 during 2009 from \$275,000 in 2008, due to the legal and accounting work associated with our attempted acquisition of Metallic Ventures, discussed above and work associated with the restatement of our 2007 financial statements. We anticipate general and administrative costs will decrease in the future as a result of our continued effort to reduce costs and consolidate exploration and administrative duties. We have forecast 2010 general and administrative costs to be approximately \$1,643,000, excluding non-cash stock option compensation.

On January 1, 2006, we adopted ASC 718, Compensation - Stock Compensation, and we have classified our stock options as liabilities as they are priced in Canadian dollars and our functional currency is United States dollars. We record the fair value of the vested portion of our outstanding options as a liability and record changes in the fair value as stock option compensation expense in the statement of operations in the period of the change. Upon exercise, the fair value of the options on the date of exercise, which is equal to the intrinsic value, is credited to additional paid-in capital. We estimate the fair values of the options granted using a Black-Scholes option pricing model. During the year ended December 31, 2009, we recognized \$269,000 of non-cash stock-based compensation benefit as part of general and administrative expense for the decrease in the fair value of our stock option liability during 2009 compared to non-cash stock option compensation benefit of \$3,255,000 during 2008. Our stock option compensation expense changes as a result of changes in the fair value of the vested portion of our outstanding stock options. This fair value is primarily affected by the effect of increases or decreases in the price of our common stock, changes in the Canadian dollar and United States dollar exchange rate and by increases in the vesting of outstanding options from period to period. In addition we cancelled options for 1,935,000 shares under the 2006 Plan as discussed above under Metallic Ventures, which reduced the number of options outstanding in calculating the fair value of outstanding options at December 31, 2009. The price of Solitario's stock as quoted on the TSX increased to Cdn\$2.40 at December 31, 2009 from Cdn\$1.82 at December 31, 2008. Generally as the price of our common stock increases our stock option liability and our stock option compensation expense increases and the converse is true as well. See Employee



stock compensation plans in Note 1 to the consolidated financial statements for an analysis of the changes in the fair value of our outstanding stock options and the components that are used to determine the fair value.

The following amounts are included in loss (gain) on derivative instruments in the consolidated statement of operations for the years ended December 31, 2009 and 2008:

<u>(in thousands)</u>	<u>Year ended</u> <u>December 31,</u> <u>2009</u>		<u>Year ended</u> <u>December 31,</u> <u>2008</u>	
	<u>(1)</u>		<u>(1)</u>	
Loss (gain) on derivatives not designated as hedging instruments under ASC 815	<u>realized</u>	<u>unrealized</u>	<u>realized</u>	<u>unrealized</u>
	\$ -	\$(522)	\$ -	\$ (1,189)
Kinross Collar				
	(116)	-	-	12
February 09 Kinross Call				
	(21)	-	-	-
April 09 Kinross Call				
	80	-	-	-
August 09 Kinross Call				
	(81)	-	-	-
November 09 Kinross Call				
	<u>-</u>	<u>(34)</u>	<u>-</u>	<u>-</u>
May 10 Kinross Call				
	<u>\$(138)</u>	<u>\$(556)</u>	<u>\$-</u>	<u>\$ (1,177)</u>
Total (gain) loss				

(1) Gains and losses on derivative instruments are realized upon expiration or repurchase. Cash received for the derivative instrument may occur in a different period.

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The business purpose of selling covered calls is to provide additional income on a limited portion of shares of Kinross that Solitario may sell in the near term, which is generally defined as less than one year. In exchange for receiving the additional income from the sale of the covered call option, we have given up the potential upside on the shares covered by the call option sold in excess of the strike price. We intend to continue to sell a limited number of covered calls in the future to provide income on a portion of our Kinross common stock.

We have not designated the Kinross Collar or the Kinross Calls as hedging instruments as described in ASC 815 and any changes in the fair market value of the Kinross Collar and the Kinross Calls are recognized in the statement of operations in the period of the change. The quoted market price of a share of Kinross common stock was \$18.40 on December 31, 2009 compared to \$18.42 on December 31, 2008. The business purpose of the Kinross Collar was to provide price protection against a significant decline in the market value of 900,000 shares of our Kinross stock, which has been reduced to 500,000 shares as a result of the expiration of the portion of the Kinross Collar covering 400,000 shares during 2009, for which we limited the potential price appreciation on the shares covered by the Kinross Collar. We do not actively manage or attempt to anticipate the fair value of the Kinross Collar.

We had \$91,000 of depreciation and amortization expense during 2009 compared to \$98,000 in 2008 primarily as a result of a reduction in the amount of undepreciated furniture and fixtures during 2009 compared to 2008. We amortize these assets over a three year period. We anticipate our 2010 depreciation and amortization costs will be similar to our 2009 amount.

During 2008, we recognized an asset impairment of \$107,000 for an other-than-temporary decline in the value of our TNR stock. The loss was previously included in unrecognized gain on marketable equity securities in other comprehensive income. No similar loss was recognized in 2009 and we do not anticipate recognizing any other-than-temporary declines in 2010.

During 2009, we recorded interest and dividend income of \$106,000 compared to \$157,000 during the same period in 2008. During 2009, we recorded dividend income of \$104,000 compared to \$95,000 during 2008 from dividends on our Kinross stock. The primary reason for the decrease in interest and dividend income during 2009 related to a reduction in interest income which was reduced as a result of lower interest rates and lower outstanding cash balances during 2009 compared to 2008. The interest income recorded during 2009 and 2008 consisted of payments on cash and cash equivalent deposit accounts. We anticipate our interest and dividend income will decrease in 2010 as a result of our budget for planned sales of approximately 250,000 shares of Kinross and continued low rates of interest earned on our cash balances in 2010.

During 2009, we sold 100,000 shares of Kinross stock for proceeds of \$1,852,000 and recorded a gain on sale of \$1,409,000 compared to the sale of 192,920 shares of Kinross for proceeds of \$4,430,000 and a gain on sale of \$3,576,000 during 2008. We anticipate we will continue to liquidate our holdings of Kinross to fund our exploration activities and our 2010 budget anticipates the sale of 250,000 shares of Kinross for assumed proceeds of \$4,600,000 during 2010. These proceeds are significantly dependent on the quoted market price of Kinross on the date of sale and may be at prices significantly below our projected price. Please see risk factors above.

During 2009, we recorded income tax expense of \$996,000 compared to \$2,128,000 during 2008. Our tax expense decreased during 2009 primarily as a result of the decrease in deferred taxes from the reduction in taxes associated with the reduction in the gain on sale of marketable equity securities to \$1,409,000 during 2009 from the sale of 100,000 shares of Kinross stock compared to a gain of \$3,576,000 from the sale of 192,920 shares of Kinross stock during 2008. In addition our deferred tax expense was reduced related to the reduction in the stock option compensation benefit to \$269,000 during 2009 compared to the stock option compensation benefit of \$3,255,000 during 2008. These reductions in taxable items were partially offset by taxes due on the \$2,200,000 break fee we received in connection with our attempted acquisition of Metallic Ventures discussed above. In addition we provide a valuation allowance for our foreign net operating losses, which are primarily related to our exploration activities in Peru, Mexico, Bolivia and Brazil. We anticipate we will continue to provide a valuation allowance for these net operating losses until we are in a net tax liability position with regards to those countries where we operate or until it is more likely than not that we will be able to realize those net operating losses in the future.

We regularly perform evaluations of our mineral property assets to assess the recoverability of our investments in these assets. All long-lived assets are reviewed for impairment whenever events or circumstances change which indicate the carrying amount of an asset may not be recoverable utilizing guidelines based upon future net cash flows from the asset as well as our estimates of the geologic potential of early stage mineral property and its related value for future sale, joint venture or development by us or others. During 2009 we recorded \$51,000 of mineral property impairments related to our Purica and Chonta properties, discussed below, compared to 2008, when we recorded no property impairments.

Comparison of the year ended December 31, 2008 to the year ended December 31, 2007

We had a net loss of \$617,000 or \$0.02 per basic and diluted share for the year ended December 31, 2008 compared to net loss of \$5,440,000 or \$0.18 per basic and diluted share for the year ended December 31, 2007. As explained in more detail below, the primary reasons for the decrease in net loss during 2008 compared to the net loss during 2007 were (i) a decrease in our stock option compensation to a benefit of \$3,255,000 during 2008 compared to stock option compensation expense of \$1,991,000 during 2007, and (ii) an unrealized gain on our derivative instruments of \$1,177,000 during 2008 compared to an unrealized loss on derivative instruments of \$1,702,000 during 2007. Partially mitigating these items was an increase in exploration expense, a decrease in the gain on sale on our sale of Kinross stock and an increase in our tax expense in 2008 compared to 2007.

During 2008, we increased our exploration effort in Mexico and Peru and reduced our exploration activities during the year in Brazil to primarily our Pedra Branca project, which is 30% owned by Anglo as of December 31, 2008. Anglo is providing all of the funding for the Pedra Branca project. As can be seen in the table below, our exploration expense increased to \$4,589,000 during 2008 compared to \$4,155,000 in 2007. Part of the increase in our net exploration cost relates to the way Anglo is funding the Pedra Branca project. The increase in exploration on our Cajatambo, and Chonta properties in Peru along with our La Purica property in Mexico, all of which were drilled during 2008, more than offset the decrease in exploration at our Pedra Branca project in Brazil in 2008.

We added several properties during 2008 as a result of our reconnaissance exploration during 2007 and 2008. These were the Cajatambo, Excelsior, Chonta, Paria Cruz and La Promesa exploration projects in Peru, our La Noria and Purica exploration projects in Mexico and our Espanola exploration project in Bolivia. We capitalized \$111,000 to mineral properties during 2008 for the initial staking or lease payments on these properties during 2008. We increased our surface sampling and evaluation programs during 2008 compared to 2007 including reconnaissance activities related to our Strategic Alliance projects in Peru and increased our Mexico exploration program during 2008 after establishing a field office in Hermosillo, Mexico in 2007. In addition to the increase in surface exploration activities, we increased our drilling expenditures, including assay and geochemical expenditures, to \$1,223,000 at our Pedra Branca, our Cajatambo and our Purica projects, compared to expenditures of \$1,016,000 during 2007.

Exploration expense (in thousands) by property consisted of the following:

<u>Property Name</u>	<u>2008</u>	<u>2007</u>
Pedra Branca	\$1,422	\$1,069
Mercurio	452	667
Cajatambo	685	-
Chonta	435	-
La Purica	390	-
Newmont Alliance	79	647
La Promesa	64	-
Cerro Azul (formerly Twin Lakes)	59	-
Paria Cruz	44	-
Chambara	40	8
Titicayo	25	257
Triunfo	9	197
Pachuca	9	13
Espanola	4	-
Bongara	4	22

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Excelsior	2	-
Santiago	-	51
Conception del Oro	-	21
Pau d'Arco	-	19
Zinda	-	6
Purisima	-	2
Pozos	-	1
Reconnaissance	<u>866</u>	<u>1,175</u>

Total exploration expense	<u>\$4,589</u>	<u>\$4,155</u>
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We recorded a credit (reduction of expense) of \$227,000 and \$17,000 during 2008 and 2007, for Anglo's 15% noncontrolling interest in the losses of the consolidated subsidiary, PBM, during the year. On September 30, 2007, Anglo earned a 15% interest in PBM and on December 23, 2008, Anglo earned an additional 15% interest in PBM, for a total of a 30% interest, pursuant to the Shareholders Agreement between Solitario and Anglo, as discussed above. During 2008 we recorded management fees of \$75,000, to PBM, which are eliminated in consolidation, net of \$11,000 of noncontrolling interest. During 2007 we recorded \$52,000 of management fees.

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Excluding stock option benefit and expense, general and administrative costs were \$2,319,000 during 2008 compared to \$1,948,000 in 2007. We incurred salary and benefits expense of \$1,193,000 during 2008 compared to \$966,000 in 2007, which increased in 2008 due to additional administrative personnel to support our expanded exploration effort and increased salaries. We recorded consulting expense of \$53,000 during 2008 compared to \$110,000 during 2007, of which \$30,000 related to an executive recruiting fee during 2007. The remaining costs, \$53,000 during 2008 and \$80,000 during 2007, related to an agreement entered into in 2006 with Mark Jones, discussed below under "Related Party Transactions." In addition, other general and administrative costs including rent, travel, insurance and gain and loss on currencies, increased to \$530,000 during 2008 compared to \$426,000 in 2007 primarily related to increased administrative costs in support of exploration, such as travel which increased to \$126,000 in 2008 compared to \$98,000 in 2007 and loss on exchange rates which increased to \$62,000 in 2008 compared to a loss of \$8,000 in 2007. Our legal and accounting costs increased to \$275,000 during 2008 from \$225,000 in 2007, these costs increased due to additional legal work associated with expansion of our exploration efforts and additional accounting costs associated with Sarbanes-Oxley compliance and increases in audit fees. We also had increases in our shareholder relations costs to \$267,000 in 2008 compared to \$220,000 in 2007. These shareholder relations costs include corporate and exchange related costs and primarily increased due to increased efforts to promote our company in the mining exploration industry by attending additional trade shows in 2008.

During the year ended December 31, 2008, we recognized \$3,255,000 of non-cash stock-based compensation benefit as part of general and administrative expense for the decrease in the fair value of our stock option liability during 2008 compared to non-cash stock option compensation expense of \$1,991,000 during 2007. Our stock option compensation expense changes as a result of changes in the fair value of the vested portion of our outstanding stock options. This fair value is primarily affected by the effect of increases or decreases in the price of our common stock, changes in the Canadian dollar and United States dollar exchange rate and by increases in the vesting of outstanding options from period to period. The price of Solitario's stock as quoted on the TSX decreased to Cdn\$1.82 at December 31, 2008 from Cdn\$5.30 at December 31, 2007. Generally as the price of our common stock decreases our stock option liability and our stock option compensation expense decreases.

We recorded an unrealized gain on derivative instruments of \$1,177,000 during 2008 of which \$1,189,000 related to a gain on the change in the fair value of the Kinross Collar and \$12,000 related to a loss on the change in the fair value of the Kinross Calls, discussed above under "Recent Developments." Our unrealized loss on derivative instruments of \$1,702,000 during 2007 related to a change in the fair value of the Kinross Collar. We do not actively manage or attempt to anticipate the fair value of the Kinross Collar.

We had \$98,000 of depreciation and amortization expense during 2008 compared to \$85,000 in 2007 primarily as a result of the addition of furniture and fixtures of \$46,000 and \$176,000, respectively, which were added during 2008 and 2007. We amortize these assets over a three year period.

During 2008, we recognized an asset impairment of \$107,000 for an other-than-temporary decline in the value of our TNR stock. The loss was previously included in unrecognized gain on marketable equity securities in other comprehensive income.

During 2008, we recorded interest and dividend income of \$157,000 compared to interest income of \$76,000 during the same period in 2007. During 2008, we recorded dividend income of \$95,000 from dividends on our Kinross stock, which accounted for the increase. The interest income recorded during 2008 and 2007 consisted of payments on cash and cash equivalent deposit accounts.

During 2008, we sold 192,920 shares of Kinross stock for proceeds of \$4,430,000 and recorded a gain on sale of \$3,576,000 compared to the sale of 400,000 shares of Kinross for proceeds of \$5,548,000 and a gain on sale of \$4,085,000 during 2007.

During 2008, we recorded income tax expense of \$2,128,000 compared to an income tax benefit of \$184,000 during 2007. Our tax expense increased during 2008 primarily as a result of our stock option compensation benefit during 2008 of \$3,255,000, compared to the stock option compensation expense of \$1,991,000 recorded in 2007, discussed above, as a timing difference in determining tax expense. This increase in net tax expense was partially mitigated by the decrease in deferred taxes from the reduction in taxes associated with the reduction on the gain on sale of marketable equity securities to \$3,576,000 during 2008 from the sale of 192,920 shares of Kinross stock compared to a gain of \$4,085,000 from the sale of 400,000 shares of Kinross stock during 2007. In addition we provide a valuation allowance for our foreign net operating losses, which are primarily related to our exploration activities in Peru, Mexico, Bolivia and Brazil.

During 2008, we recorded no property impairments, compared to \$20,000 of property impairments, related to our Corazon, Purisima and Titicayo projects in Mexico and Bolivia during 2007.

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(d). Liquidity and Capital Resources

Due to the nature of the mining business, the acquisition, and exploration of mineral properties requires significant expenditures prior to the commencement of development and production. In the past, we have financed our activities through the sale of our properties, joint venture arrangements, the sale our securities and most recently from the sale of our marketable equity security investment in Kinross. We received \$200,000, \$200,000 and \$100,000, respectively, from joint venture payments during 2009, 2008 and 2007 related to delay rental payments on our Bongara project, discussed above. Receipts from joint venture payments previously occurred during the years from 1996 through 2000 and the sale of properties last occurred in 2000 upon the sale of our Yanacocha property for \$6,000,000. Our current agreement with Votorantim on our Bongara project calls for annual delay rental payments of \$200,000 until Votorantim makes a decision to place the project in production or decides to drop the project.

However, other than the potential Votorantim payment, we expect future revenues from joint venture payments and from the sale of properties, if any, would occur on an infrequent basis. To the extent necessary, we expect to continue to use similar financing techniques to those discussed above; however, there is no assurance that such financing will be available to us on acceptable terms, if at all.

### Investment in Marketable Equity Securities

Our marketable equity securities are classified as available-for-sale and are carried at fair value, which is based upon market quotes of the underlying securities. At December 31, 2009 and 2008, we owned 1,050,000 and 1,150,000 shares of Kinross common stock, respectively. The Kinross shares are recorded at their fair market value of \$19,320,000 and \$21,183,000 at December 31, 2009 and December 31, 2008, respectively. Of these, 500,000 Kinross shares are subject to the Kinross Collar and another 40,000 shares are subject to the May 10 Kinross Call, discussed below. In addition we own other marketable equity securities with a fair value of \$286,000 and \$33,000 as of December 31, 2009 and December 31, 2008, respectively. At December 31, 2009, we have classified \$15,006,000 of our marketable equity securities as a long-term asset. Changes in the fair value of marketable equity securities are recorded as gains and losses in other comprehensive income in stockholders' equity. During the year ended December 31, 2009, we recorded a gain in other comprehensive income on marketable equity securities of \$242,000, less related deferred tax expense of \$90,000.

During the year ended December 31, 2009, we sold 100,000 shares of Kinross stock for proceeds of \$1,852,000 resulting in a gain of \$1,409,000 which was transferred, less related deferred tax expense of \$526,000, from previously unrealized gain on marketable equity securities in other comprehensive income. We own 1,000,000 shares of TNR that are classified as marketable equity securities held for sale and are recorded at their fair market value of \$286,000. During 2008, Solitario recognized an asset impairment of \$107,000, net of deferred taxes of \$40,000, representing the difference between the cost basis and the fair value at December 31, 2008, for an other-than-temporary decline in the value of its investment in TNR Gold, which was previously included as an unrealized loss on marketable equity securities in other comprehensive income. See marketable equity securities in Note 1 to the consolidated financial statements.

Any change in the market value of the shares of Kinross common stock could have a material impact on our liquidity and capital resources. The price of shares of Kinross common stock has varied from a high of \$23.91 per share to a low of \$8.41 per share during the year ended December 31, 2009.

### Hedge of the Investment in Kinross

#### Kinross Collar

On October 12, 2007 we entered into a Zero-Premium Equity Collar (the "Kinross Collar") pursuant to a Master Agreement for Equity Collars and a Pledge and Security Agreement with UBS whereby we pledged 900,000 shares of Kinross common shares to be sold (or delivered back to us with any differences settled in cash). On April 14, 2009, 400,000 shares under the Kinross Collar were released upon the expiration of the tranche of the Kinross Collar due on that date. No shares were delivered to UBS under the Kinross Collar and no cash was paid or received upon the termination of that tranche of the Kinross Collar.

The business purpose of the Kinross Collar is to provide downside price protection of the Floor Price on approximately 500,000 shares of the total shares we currently own, in the event Kinross stock were to drop significantly from the price on the date we entered the Kinross Collar. In consideration for obtaining this price protection, we have given up the upside appreciation above the upper threshold price discussed above during the term of the respective tranches. Our risk management policy related to the Kinross Collar is to reduce the potential price risk on assets which represent a significant proportion of total assets, where economically feasible. Our Board considered several alternatives prior to entering the Kinross Collar to meet this risk management policy. These

alternatives included the use of listed options, use of covered calls and an outright sale of the investment. The use of the Kinross Collar meets a long-term need for price protection to reduce the potential of paying significant taxes on a near term sale of the entire investment in Kinross shares based upon both (i) the projected future needs for the use of funds from any sales of the investment in Kinross shares and (ii) the potential generation of future United States net operating losses which could be used to offset any taxable gains on future sale of the investment in Kinross shares.

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The Kinross Collar is subject to counterparty risk in the event the price of Kinross stock falls below the Floor Price and UBS, the counterparty to the Kinross Collar, defaults on its obligation. If we liquidate some or all of our 500,000 shares of Kinross currently subject to the Kinross Collar on or after termination of one or more of the Kinross Collar contracts, we may receive a price below the Floor Price.

The Kinross Collar is structured as a European-style synthetic hedge, which allows for the close of the position of each tranche (the "Termination") of the Kinross Collar only on the specific dates for each tranche, 18, 30 and 42 months from the date of entering into the Kinross Collar. Solitario has the option to satisfy its obligations under the Kinross Collar upon Termination of each tranche in either cash or Kinross shares. The settlement price on the Termination date of each tranche will be the volume weighted-average price of Kinross shares on such date (the "Reference Price").

If the Kinross Collar is to be settled in cash on the relevant Termination date, the cash settlement amount will be determined in the following manner: (a) if, on the Termination date, the Reference Price is less than the Floor Price, UBS will pay to us a cash settlement amount equal to the product of (x) the number of underlying shares multiplied by (y) the excess of the Floor Price over the Reference Price, and (b) if, on the Termination date, the Reference Price is greater than the relevant upper threshold price, we will pay to UBS a cash settlement amount equal to the product of (x) the number of underlying shares multiplied by (y) the excess of the Reference Price over the relevant upper threshold price. If the Reference Price is neither greater than the Cap Price nor less than the Floor Price, the cash settlement amount shall be zero.

If the Kinross Collar is to be settled in Kinross shares on the relevant Termination date, the settlement will be structured as follows: (a) if, on the Termination date, the Reference Price is greater than the relevant upper threshold price, (i) UBS will pay to us a dollar amount equal to the product of (x) the number of underlying shares and (y) the relevant upper threshold price and (ii) we will deliver to UBS the underlying shares, and (b) if, on the Termination date, the Reference Price is less than the Floor Price, (i) we will deliver to UBS the underlying shares and (ii) UBS will pay to us a dollar amount equal to the product of (x) the number of underlying shares and (y) the Floor Price.

Pursuant to the Master Agreement for Equity Collars, appropriate adjustments may be made if during the life of the collar if any event shall occur that has a dilutive or concentrative effect on the value of the underlying Kinross shares such as an extraordinary dividend, recapitalization, merger, consolidation or similar reorganization.

We have not designated the Kinross Collar as a hedging instrument as described in ASC 815 and any changes in the fair market value of the Kinross Collar are recognized in the statement of operations in the period of the change. As of December 31, 2009, we have recorded a derivative instrument asset of \$20,000 for fair market value of the tranche of the Kinross Collar for 100,000 shares which expires in April 2011. We have recorded liability of \$11,000 for the fair market value of the tranche of the Kinross Collar for 400,000 shares which expires in April 2010. As of December 31, 2008 we have recorded a derivative instrument liability of \$513,000 for the fair market value of the Kinross Collar. As of February 10, 2010, we are restricted from selling the 500,000 shares under the Kinross Collar prior to the Termination dates discussed above.

## Kinross Calls

On December 10, 2008 we sold two covered call options covering 50,000 shares of Kinross each (the "February 09 Kinross Calls"). The first call option had a strike price of \$20.00 per share and expired unexercised on February 21, 2009. We sold the option for \$65,000 cash and had a fair market value of \$76,000 recorded as derivative instrument liability on December 31, 2008. The second call option had a strike price of \$22.50 per share and expired unexercised on February 21, 2009. We sold the option for \$39,000 cash and had a fair market value of \$40,000 recorded as derivative instrument liability on December 31, 2008. We recorded an unrealized loss of \$12,000 related to the February 09 Kinross Calls in unrealized gain (loss) on derivative instrument in the statement of operations during 2008. We recorded a gain in unrealized gain (loss) on derivative instruments of \$116,000 during 2009 upon the expiration of the February 09 Kinross Calls.

On March 31, 2009 we sold a covered call option covering 50,000 shares of Kinross (the "April 09 Kinross Call") for \$21,000. The call option had a strike price of \$20.00 per share and expired unexercised on April 21, 2009. We recorded a gain on derivative instruments of \$21,000 on the April 09 Kinross call during the year ended December 31, 2009.

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On April 16, 2009 we sold a covered call option covering 40,000 shares of Kinross (the "August 09 Kinross Call") for net proceeds of \$45,000. The option had a strike price of \$17.50 per share and an expiration date of August 19, 2009. On July 21, 2009, we repurchased the August 09 Kinross Call for cash of \$125,000 and recorded a loss on derivative instrument during the year ended December 31, 2009 of \$80,000. On July 21, 2009, concurrently with the purchase of the August 09 Kinross Call, we sold a covered call option covering 40,000 shares of Kinross with a strike price of \$17.50 expiring on November 21, 2009 (the "November 09 Kinross Call") for \$157,000. On November 13, 2009 we repurchased the November 09 Kinross Call for \$76,000 and recorded a gain on derivative instruments of \$81,000 during the year ended December 31, 2009. On November 13, 2009, concurrently with the purchase of the November 09 Kinross Call, we sold a covered call option covering 40,000 shares of Kinross with a strike price of \$22.00 expiring on May 22, 2010 (the "May 10 Kinross Call") for \$76,000. As of December 31, 2009 we recorded a liability for the May 10 Kinross Call of \$42,000 and have recorded a gain in gain (loss) on derivative instrument of \$34,000 during the year ended December 31, 2009 related to the May 10 Kinross Call.

## Income taxes

We have estimated that we will pay approximately \$385,000 in income taxes during the first quarter of 2010 as a result of the taxes due on our gain on sale of \$1,409,000 from the sale of Kinross common stock and from the \$2,200,000 break fee associated with our attempted acquisition of Metallic Ventures. See Note 4 to the consolidated financial statements.

## Working Capital

We had working capital of \$4,318,000 at December 31, 2009 compared to working capital of \$3,415,000 as of December 31, 2008. Our working capital at December 31, 2009 consists of our cash and equivalents and marketable equity securities, primarily consisting of the current portion of our investment in 1,050,000 shares of Kinross common stock of \$4,600,000, less related current deferred taxes of \$1,567,000. We intend to liquidate a portion of our Kinross shares over the next three years, subject to the Kinross Collar discussed above, to reduce our exposure to a single asset, taking into consideration our cash and liquidity requirements, tax implications, the market price of gold and the market price of Kinross stock. We have budgeted the anticipated sale of 250,000 shares of Kinross stock for assumed proceeds of \$4,750,000. We intend to use funds received from the sale of Kinross shares and from Metallic Ventures



termination fee primarily to fund exploration on our existing properties, for the acquisition and exploration of new properties and general working capital.

Cash and cash equivalents were \$1,946,000 as of December 31, 2009 compared to \$1,942,000 at December 31, 2008. As of December 31, 2009, our cash balances along with our investment in marketable equity securities not subject to the Kinross Collar are considered adequate to fund our expected expenditures over the next year.

The nature of the mining exploration business requires significant sources of capital to fund exploration, development and operation of mining projects. We will need additional resources if we choose to develop on our own any mineral deposits we have. We anticipate that we would finance these activities through the use of joint venture arrangements, the issuance of debt or equity, the sale of interests in our properties or the sale of our shares of Kinross common stock. There can be no assurance that such sources of funds will be available on terms acceptable to us, if at all.

### Stock-Based Compensation Plans

On June 27, 2006 Solitario's shareholders approved the 2006 Stock Option Incentive Plan (the "2006 Plan"). During 2009, no options were exercised from the 2006 Plan. During 2009, we granted 519,000 options from the 2006 Plan. The options have a five year term, vest 25% on date of grant and 25% on each of the next three anniversary dates and have an exercise price of Cdn\$1.55 per share. In order to offer Metallic Venture shareholders the increased number of shares called for by the amendment, certain of our Officers, Directors and employees agreed with us to voluntarily cancel 1,935,000 previously granted options concurrently with the signing of the Amendment.

See Note 1 to the consolidated financial statements for a summary of the activity for stock options outstanding under the 1994 Plan and the 2006 Plan as of December 31, 2009. We do not expect that any of our remaining vested options from the 2006 Plan will be exercised in the next year.

The stock option liabilities of \$262,000 and \$531,000, respectively, as of December 31, 2009 and 2008 do not affect working capital or require the use of cash for settlement. Any increase or decrease in the fair value of our stock option liability is charged or credited to stock option compensation expense, including forfeitures and expirations. Upon exercise of any option, the fair value on the date of exercise is transferred to additional paid-in capital.

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### Deferred noncontrolling shareholder payments

We record any proceeds from parties earning an interest in subsidiaries as deferred noncontrolling shareholder payments until the party earns an interest in the subsidiary. Upon earning an initial or subsequent interest in the subsidiary, we record noncontrolling interest equal to the earned percentage interest in the net book value of the subsidiary and any difference between the proceeds and the noncontrolling interest as additional paid-in-capital. In the event the parties do not earn either an initial interest or a subsequent interest in the subsidiary, we record any payments remaining in deferred noncontrolling shareholder payments to the statement of operations. On September 30, 2007, Anglo earned its initial 15% interest in PBM and we recorded \$392,000 of noncontrolling interest for Anglo's 15 % interest in PBM and recorded an increase in paid-in-capital of \$1,886,000 for the balance of the payments in deferred noncontrolling shareholder interest on that date. On December 23, 2008, Anglo earned an additional 15% interest in PBM, for a total of a 30% interest, and we transferred \$685,000 to noncontrolling interest to equal 30% of the net book value of PBM on that date and recorded an increase of \$1,105,000 in additional paid-in-capital for the balance of the payments in deferred noncontrolling interest on December 23, 2008. During 2009, Anglo paid \$1,286,000 for capital contributions to PBM to fund 2009 exploration that were recorded to deferred

noncontrolling shareholder payments. Any additional funds from Anglo will be recorded as deferred noncontrolling shareholder payments until such time as Anglo earns any additional interest in PBM. See Joint Ventures, Royalty and Strategic Alliance below.

#### Off-balance sheet arrangements

As of December 31, 2009 and 2008, we have no off-balance sheet arrangements.

#### (e). Cash Flows

Net cash used in operations during the year ended December 31, 2009 decreased to \$3,213,000 compared to \$6,533,000 for 2008 primarily as a result of (i) reduced exploration expenses of \$3,579,000 in 2009 compared to \$4,589,000 in 2008; (ii) the receipt of a \$2,200,000 break fee associated with our attempted acquisition of Metallic Ventures, discussed above; (iii) a decrease in prepaid expenses and other current assets of \$96,000 during 2009 compared to an increase in prepaid expenses and other current assets of \$90,000 during 2008; (iv) a decrease in accounts payable and other current liabilities of \$112,000 during 2009 compared to a decrease in accounts payable and other current liabilities of \$78,000 during 2008. The remaining uses of cash for operations were comparable in 2009 and 2008.

Net cash provided from investing activities decreased to \$1,931,000 during 2009 compared to \$4,377,000 during the year ended December 31, 2008 primarily related to the \$1,852,000 proceeds from the sale of Kinross stock during 2009 compared with \$4,430,000 proceeds from the sale of Kinross stock in 2008. During 2009 we sold 100,000 shares of Kinross at an average price of \$18.52 compared to the sale of 192,920 shares of Kinross during 2008 at an average price of \$22.96. The remaining uses of cash from investing activities were comparable in 2009 and 2008.

Net cash provided from financing activities was \$1,286,000 during the year ended December 31, 2009 compared to \$1,848,000 during 2008. The primary reason for the decrease in cash provided from financing activities in 2009 consisted of a reduction in the contribution of Anglo to deferred noncontrolling interest related to PBM during the year to \$1,286,000 compared to \$1,700,000 during 2008. In addition, no options were exercised during the year ended December 31, 2009 compared to the exercise of options for 130,750 shares of our common stock for proceeds of \$148,000 during 2008.

#### (f). Exploration Activities, Environmental Compliance and Contractual Obligations

##### Exploration Activities

A significant part of our business involves the review of potential property acquisitions and continuing review and analysis of properties in which we have an interest, to determine the exploration and development potential of the properties. In analyzing expected levels of expenditures for work commitments and property payments, our obligations to make such payments fluctuate greatly depending on whether, among other things, we make a decision to sell a property interest, convey a property interest to a joint venture, or allow our interest in a property to lapse by not making the work commitment or payment required. In acquiring our interests in mining claims and leases, we have entered into agreements, which generally may be canceled at our option. We are required to make minimum rental and option payments in order to maintain our interest in certain claims and leases. Our net 2009 mineral and surface property rental and option payments were approximately \$258,000. In 2010 we estimate property rentals and option payments for properties we own or operate to be approximately \$390,000, assuming that our joint ventures continue in their current status and that we do not appreciably change our property positions on existing properties. Approximately \$95,000 of these annual payments are reimbursable to us by our joint venture partners. In addition, we may be required to make further payments in the future if we elect to exercise our options under those agreements.

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In July of 2009 we completed our expenditure commitment under the Newmont Alliance Agreement of \$3,773,000, discussed below under Joint Ventures, Royalty and the Strategic Alliance properties. As part of the terms of the Alliance Agreement, Newmont has subsequently been granted a 2% Net Smelter Return Royalty on five existing projects within previously established Alliance Project Areas.

### Environmental Compliance

We are subject to various federal, state and local environmental laws and regulations in the countries where we operate. We are required to obtain permits in advance of completing certain of our exploration activities, to monitor and report on certain activities to appropriate authorities, and to perform remediation of environmental disturbance as a result of certain of our activities. However the nature of our activities of review, acquisition and exploration of properties prior to the establishment of reserves, which may include mapping, sampling, geochemistry and geophysical studies, as well as some limited exploration drilling, has not resulted in significant environmental impacts in the past. We have historically carried on our required environmental remediation expenditures and activities, if any, concurrently with our exploration activities and expenditures. The expenditures to comply with our environmental obligations are included in our exploration expenditures in the statement of operations and have not been material to our capital or exploration expenditures, and have not had a material effect on our competitive position. For the years ended December 31, 2009 and 2008, we have not capitalized any costs related to environmental control facilities. We do not anticipate our current or planned exploration activities will result in any material new or additional environmental expenditures or liabilities in the future.

### Contractual Obligations

As of December 31, 2009, with the exception of our office lease in Wheat Ridge, CO, we have no outstanding long-term debt, capital or operating leases or other purchase obligations. We estimate our facility lease costs will be approximately \$38,000 per year, related to the Wheat Ridge, Colorado office.

As of December 31, 2009 we have a current tax liability of \$385,000 primarily related to the taxes due from the \$2,200,000 break fee from our attempted acquisition of Metallic Ventures, discussed above, our \$1,409,000 gain on the sale of Kinross stock, less current United States expenses and the use of available net operating losses. Additionally, deferred tax liabilities of \$7,122,000 have been recorded as of December 31, 2009, which primarily relate to our unrealized holding gains on our Kinross shares. We expect that a portion of these deferred tax liabilities may become currently payable as we sell the Kinross shares.

We have recorded an asset of \$20,000 and a current liability of \$11,000 for the fair value of the Kinross Collaras of December 31, 2009.

(in thousands)	As of December 31, 2009				
	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Operating Lease Obligations	\$ 107	\$ 38	\$ 69	\$ -	\$ -
Land Holding Costs					
(1)	295	295		-	-
Kinross call option	42	42			

Fair Value of the Kinross Collar	<u>11</u>	<u>11</u>	<u>-</u>	<u>-</u>	<u>-</u>
(2)					
Total	<u>\$455</u>	<u>\$386</u>	<u>\$69</u>	<u>\$-</u>	<u>\$-</u>

(1). Our land holding contractual obligations, which are generally cancelable at our option, include all required payments for the next 12 months to maintain our existing mineral properties. As of December 31, 2009 we have no minimum or required land holding contractual obligations beyond one year.

(2). The obligations under the Kinross Collar allow, but do not require cash payment upon settlement. See a description of the Kinross Collar under "Derivative Instruments." The total excludes the fair market value of the tranche of the Kinross Collar due in April 2011, which is an asset of \$20,000 as of December 31, 2009.

Our deferred noncontrolling shareholder payments of \$1,286,000 represent payments received from Anglo related to the funding requirement to earn their interest in PBM discussed above. Upon Anglo earning an incremental interest in PBM, the deferred noncontrolling interest will be transferred to noncontrolling interest and additional paid in capital in the equity section of our balance sheet. Under no circumstance will any portion of the payments included in noncontrolling shareholder payments be refunded to Anglo or paid in cash. In the event Anglo does not earn any additional interest in PBM, the amounts included in noncontrolling interest will be credited in the statement of operations.

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(g). Joint Ventures, Royalty and the Strategic Alliance properties

#### Bongara

The Bongara project is an advanced-stage project in which we are exploring for primarily zinc, with lesser amounts of lead and silver. Our joint venture partner, Votorantim Metais ("Votorantim"), is funding and managing all work conducted on the project. On August 15, 2006 we signed a Letter Agreement with Votorantim on our 100%-owned Bongara zinc project in northern Peru. The Bongara project hosts the Florida Canyon zinc deposit, where high-grade zinc mineralization has been encountered in drill holes over an area approximately 2.0 kilometers by 2.0 kilometers in dimension. On March 24, 2007, we signed a definitive agreement, the Framework Agreement pursuant to and replacing, the previously signed Bongara Letter Agreement with Votorantim. Solitario's and Votorantim's property interests will be held through the ownership of shares in a joint operating company that holds a 100% interest in the mineral rights and other project assets.

Votorantim can earn up to a 70% interest in the joint operating company by funding an initial \$1.0 million exploration program (completed), by completing future annual exploration and development expenditures. The option to earn the 70% interest can be exercised by Votorantim any time after the first year commitment by committing to place the project into production based upon a feasibility study. Additionally, Votorantim, in its sole discretion, may elect to terminate the option to earn the 70% interest at any time. The agreement calls for Votorantim to have minimum annual exploration and development expenditures of \$1.5 million in each of years two and three, which Votorantim has met as of December 31, 2009, and \$2.5 million in all subsequent years until a minimum of \$18.0 million has been expended by Votorantim. Votorantim is the as project operator. In addition, Votorantim was required to make delay rental payments to Solitario of \$100,000, \$200,000 and \$200,000, by August 15 of 2007, 2008 and 2009, respectively, and all of which were made, and recorded as joint venture property payment revenue, and to make future delay rental payments to Solitario of \$200,000 on all subsequent annual anniversaries of that date until a

production decision is made or the agreement is terminated. Once Votorantim has fully funded its \$18.0 million work commitment and committed to place the project into production based upon a feasibility study, it has further agreed to finance our 30% participating interest through production. We will repay the loan facility through 50% of the cash flow distributions that we receive from the joint operating company.

### Pedra Branca

The Pedra Branca project is an advanced-stage project in which we are exploring for platinum and palladium in Brazil. Our joint venture partner, Anglo Platinum ("Anglo"), is funding, through PBM, all work conducted on the project. Currently, we manage all exploration activities. On January 28, 2003, we entered into a Letter Agreement with Anglo on our 100%-owned Pedra Branca project. The Letter Agreement was amended four times between July 2004 and April 2006, generally to extend various work commitment deadlines mandated in the Letter Agreement. On July 14, 2006, we signed the Pedra Branca Framework Agreement with Anglo that specified actions we and Anglo would take to establish and govern PBM, the corporate entity that now holds 100% title to all the assets of the Pedra Branca project, and the mechanics for Anglo's continued funding of Pedra Branca exploration. On April 24, 2007, we signed the Shareholders Agreement relating to the Pedra Branca Project in Brazil with Anglo for the exploration and development of the Pedra Branca Project. Solitario's and Anglo's property interests are held through the ownership of shares in PBM. Anglo has earned a 30% interest in PBM as of December 31, 2009, as a result of funding a total of \$4.0 million on exploration at Pedra Branca. Additionally, the Shareholders Agreement, as amended, provides that Anglo may incrementally earn up to a 51% interest in PBM by funding a total of \$7 million on exploration at Pedra Branca by December 31, 2010. As of December 31, 2009, Anglo had funded \$5.5 million of the \$7 million required to earn a 51% interest, of which \$1,286,000 of those payments were recorded as deferred noncontrolling shareholder payments. Anglo is not required to make any future funding of exploration expenditures. However future cash payments by Anglo will be recorded as deferred noncontrolling shareholder payments until such time as Anglo earns its next interest in PBM, when any accumulated payments included in deferred noncontrolling shareholder payments will be reclassified as noncontrolling interest for Anglo's share of the net book value of PBM and an increase to additional paid-in capital for any excess over the noncontrolling interest. Should Anglo earn a controlling interest in PBM, we will deconsolidate our interest in PBM, and record a gain or loss in the statement of operations for any difference between the fair value of PBM on the date Anglo earns its controlling interest in PBM and our recorded interest in PBM, less Anglo's noncontrolling interest. Solitario would account for its noncontrolling interest from that date as an equity-method investment. Anglo can earn an additional 9% interest in PBM (for a total of 60%) by either (i) completing a bankable feasibility study or (ii) spending an additional \$10.0 million on exploration or development. Anglo can also earn an additional 5% interest in PBM (for a total of 65%) by arranging 100% financing to put the project into commercial production. Should Anglo choose not to earn any additional interest in PBM, any balance in deferred noncontrolling shareholder payments would be credited to the statement of operations.

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We recorded a noncontrolling interest in PBM of \$414,000, \$833,000 and \$375,000, respectively, as of December 31, 2009, 2008 and 2007 equal to Anglo's 30% and 15% interest in the book value of PBM. During 2009, 2008 and 2007 we recorded \$414,000, \$227,000, and \$17,000, respectively, for Anglo's noncontrolling interest in the loss of PBM. Anglo contributed \$1,286,000, \$1,700,000 and \$1,133,000, respectively, of deferred noncontrolling interest payments pursuant to the Shareholders Agreement to fund PBM exploration activities. When Anglo earned its 15% interest on December 23, 2008, for a total of a 30% interest, we reclassified \$685,000 and \$1,105,000, respectively, to noncontrolling interest and additional paid-in-capital from deferred noncontrolling shareholder payments.

During 2010 we have budgeted approximately \$1,500,000 for exploration that will focus on delineation drilling of our most prospective targets and various scoping level studies to help assess the economic viability of the project.

Land payments to the government to keep the claims in good standing at Pedra Branca are projected to be approximately \$75,000. Anglo is in the process of evaluating the proposed program and has not yet made a decision on whether or not to fund it. If Anglo decides not to fund the program, we will probably reduce the 2010 expenditures significantly. Anglo would subsequently forfeit its right to earn any more than its currently held 30% interest in PBM.

As part of the Shareholders Agreement, we also entered into a Services Agreement with Anglo whereby Solitario (and/or our subsidiaries) would act as an independent contractor directing the exploration and administrative activities for PBM and its shareholders. Under the Services Agreement, Solitario receives a 5% management fee based upon total expenditures. During 2009 and 2008 we recorded management fees of \$65,000 and \$75,000, respectively, which are eliminated in consolidation, net of \$19,000 and \$11,000, respectively, of noncontrolling interest, as discussed above under "Results of operations."

#### Newmont Alliance

On January 18, 2005, we signed a Strategic Alliance Agreement (the "Alliance Agreement") with Newmont Overseas Exploration Limited ("Newmont"), to explore for gold in South America (the "Strategic Alliance"). Prior to the definitive agreement, we had signed a Letter of Intent on November 17, 2004, with Newmont. Concurrent with the signing of the Alliance Agreement, Newmont Mining Corporation of Canada purchased 2.7 million shares of Solitario (approximately 9.9% equity interest) for Cdn\$4,590,000. As part of the Alliance Agreement we were committed to spend \$3,773,000 over the four years, which was subsequently extended by mutual agreement to five years, from the date of the Alliance Agreement on gold exploration in regions ("Alliance Projects Areas") that were mutually agreed upon by Newmont and us. In late July 2009 we completed the required expenditure commitment and informed Newmont. In December 2009 we granted Newmont a 2% net smelter royalty on five properties (Strategic Alliance Properties") that fall within Strategic Alliance areas. If we meet certain minimum exploration expenditures on Strategic Alliance Properties, Newmont will have the right to joint venture acquired properties and earn up to a 75% interest by taking the project through feasibility and financing Solitario's retained 25% interest into production. Newmont may elect to earn a lesser interest or no interest at all, in which case it would retain a 2% net smelter return royalty. As of December 31, 2009, Newmont also has a right of first offer on our Santiago and Espanola properties, which are non-alliance Solitario properties in South America, acquired after the signing of the Alliance Agreement, and prior to our completion of the expenditure requirement completed this year that we may elect to sell an interest in, or joint venture with a third party.

As of December 31, 2009 we have established five property positions that fall within the currently defined Strategic Alliance areas and are subject to the provisions of the Newmont Alliance as discussed above. These include the La Promesa, Paria Cruz, Cajatambo, Excelsior and Cerro Azul (formerly Twin Lakes) properties. The Cerro Azul property was staked in 2007, the La Promesa, Paria Cruz, Cajatambo, Excelsior properties were staked in early 2008. All five properties are 100%-owned by Solitario, subject to the Alliance Agreement, and are situated within the central Peru mineral belt that is proximal to the giant Cerro de Pasco silver-base metal district. During 2010, additional surface work is planned on the Cerro Azul, Paria Cruz and Excelsior properties to potentially define drill targets, while drilling is planned on the Cajatambo and La Promesa properties.

#### 1. La Promesa

We are exploring for high-grade silver-zinc-lead-indium veins on the early-stage La Promesa project in Peru. The La Promesa property, acquired in 2008, consists of three concessions totaling 2,600 hectares. No payments are due to third parties so the only holding costs for the mineral rights are annual payments of three dollars per hectare to the Peruvian government during the first six years that the claims are held. A priority for 2010 is to secure a land agreement with the local community to allow for exploration drilling. Additional surface work to further define drill targets followed by an initial ten-hole, 1,200 meter drilling program are scheduled for the second and third quarters of 2010, pending regulatory permit approvals.

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## 2. Cajatambo

The Cajatambo property in Peru, acquired in 2008 and 2009, consists of eleven concessions totaling 10,500 hectares. No payments are due to third parties so the only holding costs for the mineral rights are annual payments of three dollars per hectare to the Peruvian government during the first six years that the claims are held. Solitario currently has a land agreement with the local community that allows us to conduct exploration activities, including drilling.

In 2009 our exploration work defined a very large area, a 3.5 by 1.5 kilometer zone, of significant gold and silver mineralization in rocks and soils. Based upon this work, Solitario has filed for drilling permits with the appropriate Peruvian regulatory agency. Drilling is expected to commence sometime towards the end of the second quarter of 2010. The initial plan is for an eight-hole reverse circulation drilling campaign totaling approximately 1,500 meters.

## 3. Paria Cruz, Excelsior and Cerro Azul

The Paria Cruz property in Peru consists of three concessions totaling 3,000 hectares staked in the first half of 2008. We capitalized \$10,000 in mineral property payments for initial acquisition costs during the second quarter of 2008. The Excelsior property, also in Peru, consists of two concessions totaling 2,000 hectares. The Cerro Azul property (formerly named Twin Lakes) consists of one concession totaling 1,000 hectares. During 2007, Solitario capitalized \$3,000 in lease acquisition costs related to this concession. We are planning to conduct additional surface work on the Excelsior and Cerro Azul properties in 2010 to determine if drilling is warranted for 2011. We plan to keep the Paria Cruz property in good standing for 2010, but no work is currently planned.

## Yanacocha Royalty Property

Concurrent with the signing of the Strategic Alliance Letter of Intent, was the signing of a second Letter of Intent by us and Newmont Peru, Ltd. ("Newmont Peru"), to amend our net smelter return ("NSR") royalty on a 61,000-hectare property located immediately north of the Newmont Mining-Buenaventura's Minera Yanacocha Mine, the largest gold mine in South America. In addition to amending the NSR royalty schedule, the Letter Agreement committed Newmont Peru to a long-term US\$4.0 million work commitment on our royalty property and provides us access to Newmont Peru's future exploration results on an annual basis. In January 2005, the Yanacocha royalty amendment and work commitment Letter of Intent was subsequently replaced by a definitive agreement with the same terms. Newmont continues to conduct annual exploration work on our royalty property, and we see this work continuing for the foreseeable future.

## La Tola Royalty Property

In October 2003, we acquired the La Tola project in southern Peru to explore for gold and possibly silver. The project is located in southern Peru. In April 2004, we signed a Letter Agreement with Newmont Peru, whereby Newmont Peru could earn a 51%-interest in the La Tola property by completing \$7.0 million of exploration over four years and an additional 14% interest by completing a feasibility study and by arranging 100% project financing. On June 22, 2005, Newmont Peru informed Solitario that it had elected to terminate its option to earn an interest in the La Tola project and Solitario recorded an \$18,000 impairment related to the La Tola project. Solitario retains one claim covering 1,000 hectares. In August 2007 we signed a Letter of Intent with Canadian Shield Resources ("CSR") allowing CSR to earn a 100%-interest in the property, subject to a 2% net smelter return royalty ("NSR") to our benefit. To earn its interest, CSR is required to spend \$2.0 million in exploration by December 31, 2011. CSR has the

right to purchase the 2% NSR for \$1.5 million anytime before commercial production is reached. Because the Letter of Intent with CSR provides that our ending interest in La Tola will be a 2% net smelter royalty, rather than a working interest, we currently classify the La Tola gold property as a royalty property interest.

### Chambara

The Chambara project is an early-stage project in which we are exploring for primarily zinc, with lesser amounts of lead and silver. Our joint venture partner, Votorantim, is funding and managing all work conducted on the project. In September of 2006, we acquired 3,700 hectares of 100%-owned mineral rights through concessions for our Chambara (formerly called Amazonas) property in northern Peru. We formerly held 300 hectares in the project since 1997. We capitalized \$17,000 during the year ended December 31, 2007 in lease acquisition costs related to new concessions covering an additional 5,600 hectares at the Chambara project. At December 31, 2007, the Chambara project consisted of six widely spaced areas where previous sampling had identified high-grade zinc mineralization at surface similar to that found at Florida Canyon, discussed above under our Bongara zinc property. The land holdings consisted of 13 concessions totaling 9,600 hectares,

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On April 4, 2008 we signed the Minera Chambara shareholders' agreement with a wholly owned subsidiary of Votorantim Metais ("Votorantim") for the exploration of a large area of interest in northern Peru measuring approximately 200 by 85 kilometers. Votorantim contributed titled mineral properties within the area of interest totaling approximately 52,000 hectares for a 15% interest in Minera Chambara. We contributed 9,600 hectares of mineral claims and certain exploration data in our possession for an 85% interest in Minera Chambara. Existing and future properties subject to the terms of the joint venture will be held by Minera Chambara. As of December 31, 2009, Minera Chambara's only assets are the properties and Minera Chambara has no debt. Votorantim has increased its land holding within the Area of Interest of the joint venture and will transfer the claims subject to the agreement to Minera Chambara, increasing the total holdings to approximately 175,000 hectares subject to their decision to hold all of the claims acquired. Votorantim may increase its shareholding interest to 49% by expending \$6,250,000 over seven years and may increase its interest to 70% by funding a feasibility study and providing for construction financing for our interest. If Votorantim provides such construction financing, we would repay such financing, including interest from 80% of Solitario's portion of the project cash flow. We determined Votorantim controls Minera Chambara, and accordingly, we record our investment in Minera Chambara using the equity-method of accounting. During the second quarter of 2008, we transferred our interest in the claims of \$30,000 from mineral properties, net to equity method investment. During 2008, we reduced our equity method investment in Minera Chambara to zero, through a non-cash charge to exploration expense. Solitario does not anticipate it will record an increase in the book value of its 85% equity-method investment in the shares of Minera Chambara in the foreseeable future, if at all.

Votorantim is planning to conduct additional surface exploration work, as well as drilling, for 2010. The timing of any drilling is dependent upon the receipt or permit approvals.

(h). Wholly-owned exploration properties

### Pachuca Real

We are exploring for silver and gold on the early-staged Pachuca Real project in central Mexico. The approximately 31,000 hectare Pachuca Real property was acquired by staking in late 2005 and early 2006. Part of the property, the approximately 6,200 hectare El Cura claim, is held under an option agreement with a private Mexican party. The option agreement completed in October 2005, originally provided for payments of \$500,000 over four years. Payments totaling \$90,000 have been made through December 31, 2009. In May 2009 we amended the option



agreement. Under the revised terms, Solitario is required to pay \$15,000 every six months, starting in May of 2009 (of which May and November 2009 payments have been paid), to the underlying owner to keep the option in good standing. By May of 2012, Solitario must either exercise the option to acquire 100% interest in the concession by paying the underlying owner \$500,000, or the option will terminate. Claims fees to be paid to the government of Mexico for all of the Pachuca Real claims total approximately \$77,000 in 2010.

On September 25, 2006 we signed a definitive venture agreement (the "Venture Agreement") with Newmont de Mexico, S.A. de C.V. ("Newmont"), a wholly owned subsidiary of Newmont Mining Corporation. The Venture Agreement called for a work commitment by Newmont of \$12.0 million over 54 months to earn a 51% interest in the property. Newmont had the right to earn an additional 19% interest (70% total) by completing a feasibility study and by financing Solitario's 30% interest in construction costs. In December 2008 Newmont terminated its right to earn an interest in the Pachuca Real property. Solitario retains a 100% interest in the Pachuca Real property. Newmont transferred its extensive technical data base to Solitario in the first quarter of 2009, including the assay results from 19 drill holes. Several companies have expressed an interest in possibly joint venturing the Pachuca Real property. After reviewing all Newmont data in detail, we may elect to seek a joint venture partner.

We are currently negotiating with two third party mining companies to joint venture the property. If negotiations are successful and an agreement is reached, our new joint venture partner would be responsible for developing an exploration plan and managing operations on the property. If we are unable to reach an agreement, we are considering a limited drilling program in the second half of 2010.

#### La Noria

The early-staged La Noria copper property was staked in the second quarter of 2008 and is located in the state of Sonora in northern Mexico. It consists of one exploration concession totaling approximately 10,000 hectares. It is 100% owned by Solitario with no underlying property owners. We completed a surface access agreement with the surface owner in early 2009 that allowed for access to the property and the approval to conduct exploration. Claim fees payable to the government in 2010 are approximately \$12,000.

A mineralized bedrock zone has been delineated over an area that is at least 700 meters long and 100 to 200 meters wide at surface. The grade of this zone based upon 100 rock chip channel sample averaged 0.32 copper. The mineralized zone is covered by a thin veneer of outwash gravels on three sides. The depth of oxidation is currently unknown.

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An Induced Polarization/resistivity geophysical survey consisting of seven lines totaling 8.9 kilometers was completed in late 2009. The interpretive results of this survey suggest that mineralization could be approximately one-kilometer square in size and at least 200 meters deep. We expect to complete a six-hole, 1,500 meter reverse circulation drilling program before the end of the first quarter of 2010. In addition, we are planning to conduct acid leach metallurgical testing to see if the copper mineralization is amenable to SX/EW processing techniques, if drill results indicate significant oxide copper concentrations down-hole. If results warrant, a second round of drilling is anticipated for 2010.

#### Palmira

We optioned the Palmira property in the state of Zacatecas in November 2009 from a private Mexican individual. The Palmira property is 2,600 hectares in size and situated 20 kilometers south of the historic state capital city of Zacatecas. We can acquire 100% interest in the property by making scheduled payments over a five year term

totaling \$1.0 million to the underlying owner. The initial option payment of \$5,000 has been made. The next payment of \$10,000 is due on May 20, 2010. To date, Solitario has conducted reconnaissance-stage geologic mapping and geochemical sampling. We are planning to conduct more detailed mapping and geochemical sampling, followed by geophysical surveys over prioritized areas. Based upon this work we anticipate an initial drilling program could commence early in the third quarter of 2010.

### Mercurio

We are exploring for gold on the early-staged Mercurio property in the state of Para, Brazil. The property consists of three exploration concessions totaling 8,476 hectares. An agreement dated March 14, 2005 with the underlying claim and surface rights holder provides for transfer of a 100% interest of the mineral estate to Solitario and payment by Solitario of approximately \$350,000 over a period of 60 months. The owner retains a 1.5% net smelter return that is subject to purchase by Solitario for approximately \$1,200,000. All payments are made in local currency and the amounts in U.S. currency will fluctuate with exchange rates. On completion of all payments we will receive title to 1,500 hectares of surface rights. In 2009 we amended the terms of the contract that provided for a one-year suspension of the annual land payments. During 2009, 2008, 2007 and 2006, \$19,000, \$82,000, \$55,000 and \$25,000, respectively, were paid under the terms of the contract. We may terminate the agreement at any time at our sole discretion.

We have conducted extensive soil sampling and auger testing of soils over a large portion of the property during the past four years and three rounds of core drilling of 36 holes. The third round of core drilling was completed in the first quarter of 2008. We are currently seeking a joint venture partner to advance this project. However, there can be no assurance that a joint venture partner can be secured. A payment of approximately \$7,000 to the government of Brazil during 2010 will be required to keep the Mercurio claims in good standing.

### Triunfo and Espanola

We are exploring for gold-silver-zinc-lead on the 256-hectare Triunfo polymetallic early-stage exploration property in Bolivia. In June of 2008 we amended the contract with the option holder for the Triunfo property that suspends the payments agreed to under the contract. For the right to suspend payments we are required to pay \$5,000 per year until such time as we decide to continue exploration drilling. The first payment of the "stand-by" period was made on signing of the amendment and such suspension shall continue for so long as we pay \$5,000 on the anniversary of the signing of the amendment. Three holes were drilled in the first half of 2007. The results of these three holes were encouraging, but we are monitoring the political situation in Bolivia before committing to a second round of drilling. Claim fees of approximately \$400 to the Bolivian government are due in 2010.

### Espanola

We optioned the Espanola gold-copper property in western Bolivia in July 2008. The initial option payment was \$5,000, with annual payments of \$10,000 until drilling commences, at which time another \$10,000 payment is due followed by a \$55,000 payment on the anniversary date of drilling. We have the right to earn an 85% interest in the property from a private Bolivian party with completion of payments totaling \$1.0 million over a period of four years beginning 10 months after the initiation of drilling. For 2010, we are evaluating the possibility of drilling several holes. Our decision on whether or not to drill is mainly dependent upon geopolitical considerations, prioritization with other projects and personnel, and the availability of a drill rig. Claim fees payable to the government in 2010 are approximately \$5,000.

(i) Discontinued Projects

During the fourth quarter of 2009 we abandoned the Chonta property and recorded a mineral property write down of \$42,000. The Chonta property was optioned in 2008 from a private Peruvian party. Surface work was conducted throughout the remainder of 2008 and drilling was conducted in mid-2009. Drilling results were not considered to be of economic interest and the decision was made to terminate our option to earn an interest in the property.

During the first quarter of 2009 we terminated any additional work on the Purica copper property and recorded a mineral property write down of \$9,000. The property was originally acquired in 2008 through an option agreement with an underlying private Mexican party and through our own staking. We conducted geologic mapping, geochemical sampling and a geophysical survey. Based upon the results of this work, a six-hole reverse circulation drilling program totaling 1,255 meters was completed in the third quarter of 2008. Low grade copper was intersected in three of six holes with the other three holes essentially barren. After reviewing the drilling results, in conjunction with the previously generated surface exploration work, we elected to abandon the property.

During 2008 we did not abandon any properties.

(j). Critical Accounting Estimates

Mineral Properties, net

We classify our interest in mineral properties as Mineral Properties, net (tangible assets) pursuant to ASC 930. Prior to adoption of ASC 930 in April 2004, we classified our interests in mineral properties as intangible assets, Mineral Interests, net. Our mineral properties represent mineral use rights for parcels of land we do not own. All of our mineral properties relate to exploration stage properties and the value of these assets is primarily driven by the nature and amount of economic minerals believed to be contained, or potentially contained, in such properties. Prior to the adoption of ASC 930, we amortized the excess cost of our mineral interests over their estimated residual value over the lesser of (i) the term of any mineral interest option or lease or (ii) the estimated life of the mineral interest, which was our estimated exploration cycle. We amortized our mineral interests over a three-to-eight year period based upon facts and circumstances for each mineral interest on a property-by-property basis. We no longer amortize our mineral properties pursuant to the adoption of ASC 930.

Impairment

We regularly perform evaluations of our investment in mineral properties to assess the recoverability and/or the residual value of its investments in these assets. All long-lived assets are reviewed for impairment whenever events or circumstances change, such as negative drilling results or termination of a joint venture, which indicate the carrying amount of an asset may not be recoverable, utilizing established guidelines based upon discounted future net cash flows from the asset or upon the determination that certain exploration properties do not have sufficient potential for economic mineralization as a result of our analysis of exploration activities including surveys, sampling and drilling. We recorded \$51,000 of mineral property impairments during 2009 related to our Chonta and Purica properties discussed above under Discontinued Projects. We recorded no impairments related to our mineral properties during 2008. We may record future impairment if certain events occur, including loss of a venture partner, reduced commodity prices or unfavorable geologic results from sampling assaying surveying or drilling, among others.

Fair Value

Effective January 1, 2008, we adopted ASC 820 "Fair Value Measurements". ASC 820 establishes a framework for measuring fair value and requires enhanced disclosures about fair value measurements. ASC 820 clarifies that fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an

orderly transaction between market participants. ASC 820 also requires disclosure about how fair value is determined for assets and liabilities and establishes a hierarchy for which these assets and liabilities must be grouped, based on significant levels of inputs as follows:

Level 1

: Quoted prices in active markets for identical assets or liabilities;

**Level 2:** Quoted prices in active markets for similar assets and liabilities and inputs that are observable for the asset or liability; or

**Level 3:** Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

The determination of where assets and liabilities fall within this hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

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Marketable equity securities

Our investments in marketable equity securities are classified as available-for-sale and are carried at fair value, which is based upon quoted prices of the securities owned. The cost of marketable equity securities sold is determined by the specific identification method. Changes in market value are recorded in accumulated other comprehensive income within stockholders' equity, unless a decline in market value is considered other than temporary, in which case the decline is recognized as a loss in the consolidated statement of operations. At December 31, 2009 and December 31, 2008, we have recorded unrealized holding gains of \$18,571,000 and \$19,738,000, respectively, net of deferred taxes of \$6,849,000 and \$7,284,000, respectively, related to our marketable equity securities.

During 2008, we recognized an asset impairment of \$107,000 for an other-than-temporary decline in the value of our TNR stock. The loss was previously included in unrecognized gain on marketable equity securities in other comprehensive income.

Derivative instruments

We account for our derivative instruments in accordance with ASC 815, "Accounting for Derivative Instruments and Hedging Activities." Pursuant to ASC 815, we have not designated the Kinross Collar or the Kinross Calls as hedging instruments and any changes in the fair market value of the Kinross Collar or the Kinross Calls are recognized in the statement of operations in the period of the change. See results of operations above for the gain (loss) on derivative instrument related to the Kinross Collar and the Kinross Calls during 2009, 2008 and 2007.

Revenue Recognition

We record any proceeds from parties earning an interest in subsidiaries as deferred noncontrolling shareholder payments until the party earns an interest in the subsidiary. Upon earning an initial or subsequent interest in the subsidiary, we record noncontrolling interest equal to the earned percentage interest in the net book value of the subsidiary and any difference between the recorded deferred noncontrolling shareholder payments as additional paid-in-capital. In the event the parties do not earn either an initial interest or a subsequent interest in the subsidiary, we record any payments included in noncontrolling shareholder payments to the statement of operations. We recorded deferred noncontrolling shareholder payments from Anglo of \$1,286,000 as of December 31, 2009. We record delay rental payments as revenue in the period received. We recorded \$200,000, \$200,000 and \$100,000, respectively, of joint venture and property payments for delay rental payments on our Bongara joint venture agreement during 2009,

2008 and 2007. Any payments received for the sale of property interests are recorded as a reduction of the related property's capitalized cost. Proceeds which exceed the capitalized cost of the property are recognized as revenue.

#### Stock-based compensation

We account for our stock options under the provisions of ASC 718, Compensation "Stock Compensation". Pursuant to ASC 718 We classify our stock options as liabilities as they are priced in Canadian dollars and our functional currency is United States dollars. We record a liability for the fair value of the vested portion of outstanding options based on a Black-Scholes option pricing model. This model requires the input of subjective assumptions, including a risk free interest rate, the contractual term, the exchange rate between the US Dollar and the Canadian Dollar, a zero dividend yield, a zero forfeiture rate, and an expected volatility equal to the historical volatility based upon the daily quoted price of our common stock on the Toronto Stock Exchange (the "TSX") over the period corresponding to the expected life of the options. These estimates involve inherent uncertainties and the application of management judgment. As a result, if other assumptions had been used, our recorded and stock-based compensation expense could have been materially different from that reported.

#### Income taxes

We account for income taxes in accordance with ASC 740, "Accounting for Income Taxes." Under ASC 740, income taxes are provided for the tax effects of transactions reported in the financial statements and consist of taxes currently due plus deferred taxes related to certain income and expenses recognized in different periods for financial and income tax reporting purposes. Deferred tax assets and liabilities represent the future tax return consequences of those differences, which will either be taxable or deductible when the assets and liabilities are recovered or settled. Deferred taxes also are recognized for operating losses and tax credits that are available to offset future taxable income and income taxes, respectively. A valuation allowance is provided if it is more likely than not that some or all of the deferred tax assets will not be realized. Currently we believe our deferred tax assets, exclusive of our foreign net operating losses and our Yanacocha royalty asset are recoverable. Recovery of these assets is dependent upon our expected gains on the Kinross securities we own. If these values are not realized, we may record additional valuation allowances in the future.

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#### Accounting for Uncertainty in Income Taxes

We adopted ASC 740, "Accounting for Uncertainty in Income Taxes, as of January 1, 2007. ASC 740-10 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. ASC 740-10 also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition. ASC 740-10 provides that a company's tax position will be considered settled if the taxing authority has completed its examination, the company does not plan to appeal, and it is remote that the taxing authority would reexamine the tax position in the future. The adoption of ASC 740-10 had no effect on our financial position or results of operations.

(k). Related Party Transactions

#### Mark Jones Consulting Agreement

On September 1, 2006, we entered into a two-year consulting agreement with Mark E. Jones, III, a director and vice-chairman of our Board of Directors. The consulting agreement terminated on August 31, 2008. Under the agreement, Mr. Jones advised us on matters of strategic direction, planning, and identification of corporate

opportunities, when and as requested by us. In consideration for the services to be performed, Mr. Jones was paid a one time lump sum payment of \$160,000, plus he was entitled to receive pre-approved, documented expenses incurred in performance of the consulting services. We incurred \$53,000 and \$80,000, respectively, for consulting expense related to the agreement in general and administrative expense, for the years ended December 31, 2008 and 2007.

#### TNR Gold Corp.

As of December 31, 2009, we own 1,000,000 shares of TNR that are classified as marketable equity securities available-for-sale and are recorded at their fair market value of \$286,000 and \$33,000 at December 31, 2009 and 2008, respectively. During 2008, we recognized an asset impairment of \$107,000 for an other-than-temporary decline in the value of our TNR stock. The loss was previously included in unrecognized gain on marketable equity securities in other comprehensive income. Christopher E. Herald, our CEO, was a member of the Board of Directors of TNR until June 3, 2009.

#### (l). Recent Accounting Pronouncements

In June 2009, the Financial Accounting Standards Board ("FASB") issued FASB Accounting Standards Codification ("ASC") 105, "Generally Accepted Accounting Principles," which establishes the FASB ASC as the sole source of authoritative generally accepted accounting principles ("GAAP"). Rules and interpretive releases of the Securities and Exchange Commission ("SEC") under authority of federal securities laws are also sources of authoritative GAAP for SEC registrants. The ASC supersedes all non-SEC accounting and reporting standards. Pursuant to the provisions of FASB ASC 105, we have updated the references to GAAP in our financial statements issued for the period ended December 31, 2009. The adoption of FASB ASC 105 did not impact our financial position or results of operations.

In December 2007, the Financial Accounting Standards Board ("FASB") issued ASC 810-10-65. ASC 810-10-65 establishes accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary and amends certain consolidation procedures of ASC 810-10-10 for consistency with the requirements of ASC 810. ASC 810-10-65 is effective for fiscal years beginning on or after December 15, 2008 and early adoption was prohibited. We adopted ASC 810-10-65 on January 1, 2009 and as a result have retrospectively reported the equity related to our shareholders and the noncontrolling interest held by Anglo Gold in our Pedra Branca Mineracao, Ltd. subsidiary in the equity section of the consolidated balance sheet, as well as reporting the noncontrolling interest in the consolidated statement of operations included with this report.

In December 2007, the FASB issued ASC 805-10-65, "Business Combinations (revised 2007)." ASC 805-10-65 establishes principles and requirements for how an acquirer in a business combination recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, and any noncontrolling interest; recognizes and measures the goodwill acquired in the business combination or a gain from a bargain purchase; and determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of the business combination. ASC 805-10-65 is to be applied prospectively to business combinations for which the acquisition date is on or after the beginning of an entity's fiscal year that begins on or after December 15, 2008. We adopted ASC 805-10-65 on January 1, 2009 and it did not have any impact on our financial position, results of operations or cash flows.

In February 2008, the FASB issued ASC 820-10-15 "Effective Date of ASC 820-10-05." ASC 820-10-15 delayed the effective date of ASC 820-10-05 for non-financial assets and non-financial liabilities that are recognized or disclosed at fair value in the financial statements on a nonrecurring basis. Solitario adopted the provisions of ASC 820-10-15 on January 1, 2009 and it did not have any impact on its financial position, results of operations or cash flows.

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In March 2008, the FASB issued ASC 815-10-65, "Disclosures about Derivative Instruments and Hedging Activities," an amendment of ASC 815-10-05. ASC 815-10-65 requires enhanced disclosures about derivative instruments and hedged items that are accounted for under 815-10-05 and related interpretations. ASC 815-10-65 will be effective for all interim and annual financial statements for periods beginning after November 15, 2008, with early adoption permitted. We adopted ASC 815-10-65 on January 1, 2009 and have included the required disclosures in our consolidated financial statements.

In May 2009, the FASB issued ASC 855-10-05 "Subsequent Events". ASC 855-10-05 establishes accounting and reporting standards for events that occur after the balance sheet date but before financial statements are issued or are available to be issued. The statement sets forth (i) the period after the balance sheet date during which management of a reporting entity should evaluate events or transactions that may occur for potential recognition or disclosure in the financial statements, (ii) the circumstances under which an entity should recognize events or transactions occurring after the balance sheet in its financial statements, and (iii) the disclosures that an entity should make about events or transactions occurring after the balance sheet date in its financial statements. We adopted the provisions of ASC 855-10-05 on June 30, 2009. We have evaluated events subsequent to December 31, 2009 through February 12, 2010 which is the issuance date of this report. This report reflects all material events noted in the subsequent period that would have impacted the results reported herein or in our results going forward. The adoption of ASC 855-10-05 had no impact on our consolidated financial position, results of operations or cash flows.

#### Item 7A. Quantitative and Qualitative Disclosures About Market Risk

##### (a) Equity Price Risks

###### (1) Solitario's investment in Kinross is subject to equity market risk.

As of December 31, 2009 a hypothetical increase of ten percent in the price of Kinross common stock would increase the value of our holdings of Kinross by \$1,932,000 and increase other comprehensive income and total stockholders' equity by the same amount, net of deferred taxes of \$720,000. Additionally our working capital would also be increased by \$460,000 from a hypothetical increase of ten percent in the price of Kinross common stock, net of deferred taxes of \$172,000. This increase is based upon all of our 1,050,000 Kinross common shares as of December 31, 2009, and is subject to the Kinross Collar discussed above.

A hypothetical decrease of ten percent in the price of Kinross common stock would have the opposite effect of the increase discussed above. This decrease is based upon all of our 1,050,000 Kinross common shares as of December 31, 2009, and is subject to the Kinross Collar discussed above.

###### (2) Solitario's Kinross Collar derivative instrument is subject to equity market risk.

We have estimated, using a Black-Scholes option pricing model that as of December 31, 2009 a hypothetical increase of ten percent in the price of Kinross common stock would increase the value of our liability under the Kinross Collar by \$152,000, net of deferred taxes of \$57,000 and increase our net loss in the statement of operations by \$95,000. We have also estimated that as of December 31, 2009 a hypothetical decrease of ten percent in the price of Kinross common stock would decrease the value of our liability under the Kinross Collar by \$135,000, net of deferred taxes of \$50,000 and would decrease our net loss in the statement of operations by \$85,000.

###### (3) Solitario's stock option liability is subject to equity market risk for changes in the price of our own stock

We have estimated, using a Black-Scholes option pricing model that as of December 31, 2009 a hypothetical increase of ten percent in the price of our common stock as traded on the TSX would increase our stock option

liability by \$38,000, net of deferred taxes of \$14,000 and increase our net loss in the statement of operations by \$24,000. We have also estimated that as of December 31, 2009 a hypothetical decrease of ten percent in the price of our common stock as traded on the TSX would decrease our stock option liability by \$38,000, net of deferred taxes of \$14,000 and would decrease our net loss in the statement of operations by \$24,000.

(b.) Interest Rate Risks

We have no material interest rate risks at December 31, 2009 as we have no interest bearing debt and our interest bearing cash deposits do not generate a material amount of interest income. Additionally, a change in the risk free interest rate would not materially change the determination of our Kinross Collar or our stock option liability at December 31, 2009.

(c.) Exchange Rate Risks

Our stock option liability is subject to exchange rate risk.

We have estimated, using a Black-Scholes option pricing model that as of December 31, 2009 a hypothetical increase of ten percent in the relative value of the Canadian dollar compared to the United States dollar would increase our stock option liability by \$26,000, net of deferred taxes of \$10,000 and increase our net loss in the statement of operations by \$16,000. We have also estimated that as of December 31, 2009 a hypothetical decrease of ten percent in the relative value of the Canadian dollar compared to the United States dollar would decrease our stock option liability and our net loss in the statement of operations by the opposite amount.

The portion of our cash that is denominated in foreign currency is subject to exchange rate risk.

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Solitario's cash accounts in foreign subsidiaries not denominated in United States dollars represent the only significant foreign currency denominated assets. Foreign currency denominated cash accounts totaled \$280,000 and \$326,000, respectively, at December 31, 2009 and 2008. We have estimated that as of December 31, 2009 an increase in the value of the Brazilian Real to the United States Dollar of 10% would decrease our cash on hand by \$25,000, net of deferred taxes of \$9,000 and increase our net loss in the statement of operations by \$16,000. A decrease in the value of the Brazilian Real to the United States Dollar of 10% would increase the value of our cash and reduce our loss in the statement of operations by the opposite amount. We have no other material exchange rate risks as of December 31, 2009, as our other foreign denominated cash accounts are not significant to our total assets, liabilities or operating results.

Our other operating assets and liabilities are generally dominated in United States Dollars and do not have material exchange rate risks.

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Item 8. Financial Statements and Supplementary Data

Consolidated Financial Statements

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#### REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of  
Solitario Exploration & Royalty Corp.  
Wheat Ridge, Colorado

We have audited the accompanying consolidated balance sheets of Solitario Exploration & Royalty Corp. (the "Company") as of December 31, 2009 and 2008, and the related consolidated statements of operations, changes in shareholders' equity and comprehensive loss and cash flows for each of the years in the three-year period ended December 31, 2009. We also have audited the Company's internal control over financial reporting as of December 31, 2009, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting included in Item 9A. Our responsibility is to express an opinion on these consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the consolidated financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our

audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Solitario Exploration & Royalty Corp. as of December 31, 2009 and 2008 (restated), and the results of its operations and its cash flows for the years ended December 31, 2009, December 31, 2008 (restated) and December 31, 2007 (restated) in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 11 of the consolidated financial statements, the Company has restated its consolidated financial statements as of December 31, 2008 and for each of the years in the two-year period ended December 31, 2008 to classify and record payments received by its subsidiary from a non-controlling shareholder as deferred non-controlling shareholder payments instead of as a reimbursement for exploration expenditures incurred on behalf of the Company.

A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis. The following material weakness has been identified and included in management's assessment. Management has identified a material weakness in its internal control over its interpretation of generally accepted accounting principles related to the restatements discussed above and in Note 11 of the consolidated financial statements. This material weakness was considered in determining the nature, timing, and extent of the audit tests applied in our audit of the December 31, 2009 financial statements.

In our opinion, because of the effect of the material weakness described above on the achievement of the objectives of the control criteria, Solitario Exploration & Royalty Corp. has not maintained effective internal control over financial reporting as of December 31, 2009, based on the COSO criteria.

Ehrhardt Keefe Steiner & Hottman PC

February 12, 2010  
Denver, Colorado

SOLITARIO EXPLORATION & ROYALTY CORP.  
CONSOLIDATED BALANCE SHEETS

(in thousands of U.S. dollars, except share and per share amounts)	December 31, 2009	December 31, 2008 (as restated)
Assets		
Current assets:		
Cash and cash equivalents	\$1,946	\$1,942
Investments in marketable equity securities, at fair value	4,600	2,763
Prepaid expenses and other	<u>196</u>	<u>292</u>
Total current assets	6,742	4,997
Mineral properties, net	2,739	2,785
Investments in marketable equity securities, at fair value	15,006	18,453
	<u>154</u>	<u>228</u>
Other assets		
Total assets	<u>\$24,641</u>	<u>\$26,463</u>
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	\$ 269	\$ 291
Derivative instruments fair value	53	393
Current taxes payable	385	-
Deferred income taxes	1,567	884
	<u>150</u>	
Other		<u>14</u>
Total current liabilities	2,424	1,582
Derivative instrument fair value	-	236
Deferred income taxes	5,555	6,063
Stock option liability	262	531
Deferred noncontrolling shareholder payments	1,286	-
Commitments and contingencies (Notes 2 and 7)		
Equity:		
Solitario shareholders' equity		
Preferred stock, \$0.01 par value, authorized 10,000,000 shares (none issued and outstanding at December 31, 2009 and 2008)	-	-
Common stock, \$0.01 par value, authorized, 50,000,000 shares (29,750,242 shares issued and outstanding at December 31, 2009 and 2008)	297	297
Additional paid-in capital	35,611	35,611
Accumulated deficit	(32,930)	(31,144)

	<u>11,722</u>	<u>12,454</u>
Accumulated other comprehensive income		
Total Solitario shareholders' equity	14,700	17,218
	<u>414</u>	<u>833</u>
Noncontrolling interest		
	<u>15,114</u>	<u>18,051</u>
Total shareholders' equity		
Total liabilities and shareholders' equity	<u>\$24,641</u>	<u>\$26,463</u>

See Notes to Consolidated Financial Statements.

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SOLITARIO EXPLORATION & ROYALTY CORP.  
CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands of U.S. Dollars, except per share amounts)	For the year ended December 31,		
	2009	2008	2007
			(as restated)
Property and joint venture revenue			
Joint venture property payments	\$200	\$200	\$100
Costs, expenses and other:			
Exploration expense	3,579	4,589	4,155
Depreciation and amortization	91	98	85
General and administrative (benefit)	2,079	(936)	3,939
Loss (gain) on derivative instruments	(694)	(1,177)	1,702
Property abandonment and impairment	51	107	20
(Gain) loss on sale of assets	18	(32)	1
Interest and dividend income	<u>(106)</u>	<u>(157)</u>	<u>(76)</u>
Total costs, expenses and other	5,018	2,492	9,826
Other income - break fee on attempted acquisition	2,200	-	-
Other income - gain on sale of marketable equity securities	<u>1,409</u>	<u>3,576</u>	<u>4,085</u>
Income (loss) before income tax	(1,209)	1,284	(5,641)
Income tax (expense) benefit	<u>(996)</u>	<u>(2,128)</u>	<u>184</u>
Net loss	<u>(2,205)</u>	<u>(844)</u>	<u>(5,457)</u>
	<u>419</u>	<u>227</u>	<u>17</u>

Less net loss attributable to noncontrolling interest

Net loss attributable to Solitario shareholders	\$(1,786)	\$ (617)	\$(5,440)
Loss per common share attributable to Solitario shareholders:			
Basic and diluted	\$(0.06)	\$(0.02)	\$(0.18)
Weighted average shares outstanding:			
Basic and diluted	<u>29,750</u>	<u>29,691</u>	<u>29,467</u>

See Notes to Consolidated Financial Statements.

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SOLITARIO EXPLORATION & ROYALTY CORP. CONSOLIDATED STATEMENTS OF SHAREHOLDERS'  
EQUITY

FOR THE YEARS ENDED DECEMBER 31, 2009, 2008 AND 2007

(in thousands, except Share amounts)	Solitario Shareholder's							
	Common Shares	Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income	Total Solitario Shareholder Equity	Non- Control Interest	Total Shareholders' Equity
Balance at December 31, 2006 (as restated)	28,689,992	\$287	\$28,470	\$(25,087)	\$10,451	\$14,121	\$ -	\$14,121
Shares issued:								
Option exercise	929,500	9	3,526	-	-	3,535	-	3,535
Noncontrolling interest equity contribution	-	-	1,886	-	-	1,886	392	2,278
Comprehensive income:								
Net loss	-	-	-	(5,440)	-	(5,440)	(17)	(5,457)
Net unrealized gain on marketable equity securities (net of tax of \$1,794)	-	-	-	-	3,790	<u>3,790</u>	<u>-</u>	<u>3,790</u>
Comprehensive loss	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(1,667)</u>
Balance at December 31, 2007 (as restated)	29,619,492	296	33,882	(30,527)	14,241	17,892	375	18,267
Shares issued:								
Option exercise	130,750	1	624	-	-	625	-	625
Noncontrolling interest equity contribution	-	-	1,105	-	-	1,105	685	1,790
Comprehensive income:								

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Net loss	-	-	-	(617)	-	(617)	(227)	(844)
Net unrealized loss on marketable equity securities (net of tax of \$1,063)	-	-	-	-	(1,787)	(1,787)	-	(1,787)
Comprehensive loss	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(2,631)</u>
Balance at December 31, 2008 (as restated)	29,750,242	297	35,611	(31,144)	12,454	17,218	833	18,051
Comprehensive income:								
Net loss	-	-	-	(1,786)	-	(1,786)	(419)	(2,205)
Net unrealized loss on marketable equity securities (net of tax of \$435)	-	-	-	-	(732)	(732)	-	(732)
Comprehensive loss	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(2,937)</u>
Balance at December 31, 2009	<u>29,750,242</u>	<u>\$297</u>	<u>\$35,611</u>	<u>\$(32,930)</u>	<u>\$11,722</u>	<u>\$14,700</u>	<u>-</u>	<u>\$15,114</u>
			)				<u>\$ 414</u>	

See Notes to Consolidated Financial Statements.

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SOLITARIO EXPLORATION & ROYALTY CORP.  
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands of U.S. Dollars)

	For the year ended December 31,		
	2009	2008	2007 (as restated)
Operating activities:			
Net loss	\$(1,786)	\$ (617)	\$(5,440)
Adjustments to reconcile net loss to net cash used in operating activities:			
(Gain) loss on derivative instruments	(694)	(1,177)	1,702
Depreciation and amortization	91	98	85
Loss on equity method investment	-	30	-
Asset write down	51	107	20
Employee stock option expense (benefit)	(269)	(3,255)	1,991
Deferred income taxes	611	2,128	(184)
Gain on asset and equity security sales	(1,391)	(3,608)	(4,085)

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Noncontrolling interest in loss of consolidated subsidiary	(419)	(227)	(17)
Changes in operating assets and liabilities:			
Prepaid expenses and other current assets	96	(90)	158
Accounts payable and other current liabilities	112	78	15
Current income taxes payable	<u>385</u>	<u>-</u>	<u>-</u>
Net cash used in operating activities	<u>(3,213)</u>	<u>(6,533)</u>	<u>(5,755)</u>
	)	)	)
Investing activities:			
Additions to mineral properties	(5)	(111)	(37)
Additions to other assets	(15)	(46)	(150)
Sale of derivative instrument, net	99	104	-
Proceeds from sale of marketable equity securities	<u>1,852</u>	<u>4,430</u>	<u>5,548</u>
Net cash provided by investing activities	<u>1,931</u>	<u>4,377</u>	<u>5,361</u>
Financing activities:			
Deferred noncontrolling shareholder payments	<u>-</u>	<u>148</u>	<u>607</u>
Issuance of common stock			
Net cash provided by financing activities	<u>1,286</u>	<u>1,848</u>	<u>1,740</u>
Net increase (decrease) in cash and cash equivalents	4	(308)	1,346
Cash and cash equivalents, beginning of year	<u>1,942</u>	<u>2,250</u>	<u>904</u>
Cash and cash equivalents, end of year	<u>\$1,946</u>	<u>\$1,942</u>	<u>\$ 2,250</u>
Supplemental disclosure of cash flow information:			
Reclassification of stock option liability to additional paid-in capital upon exercise of stock options	\$ -	\$ 477	\$2,928
Reclassification of deferred noncontrolling shareholder payments to additional paid in capital	\$ -	\$1,105	\$1,886
Reclassification of deferred noncontrolling shareholder payments to noncontrolling interest	\$ -	\$ 685	\$ 392

See Notes to Consolidated Financial Statements.59

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1. Business and Summary of Significant Accounting Policies:

Business and company formation

Solitario Exploration & Royalty Corp. ("Solitario") is an exploration stage company with a focus on the acquisition of precious and base metal properties with exploration potential and the development or purchase of royalty interests. Solitario acquires and holds a portfolio of exploration properties for future sale, joint venture or to create a royalty prior to the establishment of proven and probable reserves. Although its mineral properties may be developed in the future through a joint venture, Solitario has never developed a mineral property and Solitario does not anticipate developing any currently owned mineral properties on its own in the future. Solitario has been actively involved in this business since 1993. Solitario recorded revenues from joint venture delay rental payments of \$200,000, \$200,000 and \$100,000, respectively, related to its Bongara project during 2009, 2008 and 2007. Previously, Solitario's last significant revenues were recorded in 2000 upon the sale of the Yanacocha property for \$6,000,000. Future revenues from joint venture payments or the sale of properties, if any, would also occur on an infrequent basis. At December 31, 2009 Solitario had 15 mineral exploration properties in Peru, Bolivia, Mexico and Brazil and its Yanacocha and La Tola royalty properties in Peru. Solitario is conducting exploration activities in all of those countries.

Solitario was incorporated in the state of Colorado on November 15, 1984 as a wholly owned subsidiary of Crown Resources Corporation ("Crown"). In July 1994, Solitario became a publicly traded company on the Toronto Stock Exchange (the "TSX") through its Initial Public Offering. On June 12, 2008, the shareholders of Solitario approved an amendment to the Articles of Incorporation of Solitario to change the name of the corporation to Solitario Exploration & Royalty Corp. from Solitario Resources Corporation.

Investment in Kinross

Solitario has a significant investment in Kinross at December 31, 2009, which consists of 1,050,000 shares of Kinross common stock. During 2009, Solitario sold 100,000 shares of Kinross common stock for proceeds of \$1,852,000 and during 2008 Solitario sold 192,920 Kinross common shares for net proceeds of \$4,430,000. As of February 10, 2010, Solitario owns 1,050,000 shares of Kinross common stock. Solitario's investment in Kinross common stock represents a significant concentration of risk and any significant fluctuation in the market value of Kinross common shares could have a material impact on Solitario's liquidity and capital resources. In October 2007, Solitario entered into a collar that limited the proceeds on 900,000 shares of Solitario's investment in Kinross common shares. On April 14, 2009, a tranche of the Kinross Collar due on that date expired, and 400,000 shares under the Kinross Collar were released. No shares were delivered to UBS under the Kinross Collar and no cash was paid or received upon the termination of that tranche of the Kinross Collar. In December 2008 Solitario sold two call options covering 100,000 shares of Kinross, which expired in February 2009. In March 2009, Solitario sold a covered call option covering 50,000 shares of Kinross, which expired in April 2009. In April 2009, Solitario sold a covered call option covering 40,000 shares on Kinross, which was repurchased in August 2009 concurrently with the sale of a covered call option covering 40,000 shares of Kinross, which was repurchased in November 2009 concurrently with the sale of a covered call option that expires in May 2010. Both the Kinross Collar and the call options are discussed below under "Derivative instruments."

Financial reporting

The consolidated financial statements include the accounts of Solitario and its wholly owned subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation. The consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States of America ("generally accepted accounting principles"), and are expressed in US dollars.



In performing its activities, Solitario has incurred certain costs for mineral properties. The recovery of these costs is ultimately dependent upon the sale of mineral property interests or the development of economically recoverable ore reserves, the ability of Solitario to obtain the necessary permits and financing to successfully place the properties into production, and upon future profitable operations, none of which is assured.

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Certain headings and descriptions from prior years have been changed to conform to current year presentation.

#### Revenue recognition

Solitario records any proceeds from parties earning an interest in subsidiaries as deferred noncontrolling shareholder payments until the party earns an interest in the subsidiary. Upon earning an initial or subsequent interest in the subsidiary by the other party, Solitario records noncontrolling interest equal to the earned percentage interest in the net book value of the subsidiary and any difference between the proceeds recorded in deferred noncontrolling interest is recorded as additional paid-in-capital. In the event the parties do not earn either an initial interest or a subsequent interest in the subsidiary, Solitario records any payments included in deferred noncontrolling shareholder payments to the statement of operations. Solitario recorded deferred noncontrolling shareholder payments from Anglo of \$1,286,000 as of December 31, 2009. Solitario records delay rental payments as revenue in the period received. Solitario recorded \$200,000, \$200,000 and \$100,000, respectively, of delay rental payments on its Bongara joint venture agreement during 2009, 2008 and 2007. Any payments received for the sale of property interests are recorded as a reduction of the related property's capitalized cost. Proceeds which exceed the capitalized cost of the property are recognized as revenue.

#### Noncontrolling interest

Solitario records noncontrolling interest for the portion of its assets and net loss in any subsidiaries which are less than 100% owned. During 2008, Solitario's share of its investment in its subsidiary Pedra Branca Mineracao, Ltda. ("PBM") was reduced to 70% from 85% as a result of Anglo earning an additional 15% interest in PBM on December 23, 2008, in accordance with the terms of PBM's Shareholder Agreement. Solitario recorded a noncontrolling interest in the equity section of its balance sheet of \$414,000 and \$833,000, respectively, as of December 31, 2009 and 2008 and recorded a credit of \$419,000, \$227,000 and \$17,000, respectively, in its statements of operations for the noncontrolling interest in the loss of PBM during 2009, 2008 and 2007.

#### Use of estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Some of the more significant estimates included in the preparation of Solitario's financial statements pertain to the recoverability of mineral properties and their future exploration potential, the estimate of the fair value of Solitario's stock option liability and related changes recorded as stock option compensation included in the statement of operations, the ability of Solitario to realize its deferred tax assets, the current portion of Solitario's investment in Kinross shares included in marketable equity securities, the fair value of the call options on Kinross stock as of December 31, 2009 and the fair value of Solitario's Zero Premium Equity Collar with respect to its holdings of Kinross, discussed below.

#### Cash equivalents

Cash equivalents include investments in highly liquid money-market securities with original maturities of three months or less when purchased. As of December 31, 2009 and 2008, Solitario had concentrations of cash and cash equivalents in excess of federally insured amounts and cash in foreign banks for which there was no US federal insurance.

#### Mineral properties

Solitario expenses all exploration costs incurred on its mineral properties prior to the establishment of proven and probable reserves. Initial acquisition costs of its mineral properties are capitalized. Solitario regularly performs evaluations of its investment in mineral properties to assess the recoverability and/or the residual value of its investments in these assets. All long-lived assets are reviewed for impairment whenever events or circumstances change which indicate the carrying amount of an asset may not be recoverable, utilizing established guidelines based upon discounted future net cash flows from the asset or upon the determination that certain exploration properties do not have sufficient potential for economic mineralization. During the year ended December 31, 2009 Solitario recorded an impairment of \$51,000 on its mineral properties. During the year ended December 31, 2008 Solitario did not impair any of its mineral properties. During the year ended December 31, 2007, Solitario recorded an impairment of \$20,000 on its mineral properties.

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Solitario's net capitalized mineral properties of \$2,739,000 and \$2,785,000 at December 31, 2009 and 2008, respectively, related to gross land, leasehold and acquisition costs of \$3,762,000 and \$3,808,000 at December 31, 2009 and 2008, respectively, less accumulated amortization of \$1,023,000 at December 31, 2009 and 2008. Solitario has not identified any proven and probable reserves related to its mineral properties. The recoverability of these costs is dependent on, among other things, the potential to sell, joint venture or develop through a joint venture its interests in the properties. These activities are ultimately dependent on successful identification of proven and probable reserves.

#### Derivative instruments

Solitario accounts for its derivative instruments in accordance with ASC 815 "Accounting for Derivative Instruments and Hedging Activities." On October 12, 2007 Solitario entered into a Zero-Premium Equity Collar (the "Kinross Collar") pursuant to a Master Agreement for Equity Collars and a Pledge and Security Agreement with UBS whereby Solitario pledged 900,000 shares of Kinross common shares to be sold (or delivered back to us with any differences settled in cash) .

Beginning in December 2008, Solitario has sold covered calls covering its shares of Kinross common stock. Solitario sold three covered calls covering 130,000 shares of Kinross common stock during 2009. 50,000 of these call options expired unexercised in April 2009, 40,000 were repurchased in July 2009 and 40,000 were repurchased in November 2009. As of December 31, 2009, Solitario has sold the May 10 Kinross Call, covering 40,000 shares of Kinross common stock, with a strike price of \$22.00. During 2008 Solitario sold two covered calls covering 50,000 shares for cash proceeds of \$104,000, which expired in February 2009.

Solitario has not designated its Kinross Collar or its covered calls as hedging instruments as described in ASC 815 and any changes in the fair market value of the Kinross Collar or the Kinross covered calls are recognized in the statement of operations in the period of the change. See Note 5, Derivative instruments below.

#### Metallic Ventures

On August 24, 2009 Solitario and Metallic Ventures Gold Inc. ("Metallic Ventures") entered into a definitive arrangement agreement ("Agreement") whereby Solitario would acquire, through a friendly statutory plan of arrangement under Canadian Law, all outstanding shares of Metallic Ventures, subject to certain conditions. On October 13, 2009, Solitario and Metallic Ventures entered into an amendment to the Agreement (the "Amendment"), whereby Solitario increased its bid to acquire all outstanding shares of Metallic Ventures. The Agreement, as amended, provided that Solitario would issue 19.5 million shares of Solitario common stock and would pay cash consideration of \$18 million for all of the outstanding shares of Metallic Ventures. The Agreement, as amended, also provided for a termination deadline of February 28, 2010 and that Metallic Ventures would pay a termination fee of \$2.2 million under certain circumstances, including if Metallic Ventures accepted a superior offer, as defined in the Agreement, as amended. The Agreement, as amended, was subject to shareholder and regulatory approval. In order to offer Metallic Ventures' shareholders the increased number of shares, Solitario and certain of its Officers, Directors and employees agreed to voluntarily cancel 1,935,000 previously granted options concurrently with the signing of the Amendment.

On October 29, 2009 Metallic Ventures announced that they had determined that an offer from International Minerals Corporation constituted a superior offer as defined in the Agreement, as amended. On November 2, 2009, Metallic Ventures terminated the Agreement, as amended, and paid Solitario a termination fee of \$2.2 million, which is included in other income in the statement of operations for the year ended December 31, 2009.

#### Fair Value

Effective January 1, 2008, Solitario adopted ASC 820 "Fair Value Measurements." ASC 820 establishes a framework for measuring fair value and requires enhanced disclosures about fair value measurements. ASC 820 clarifies that fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. For certain of Solitario's financial instruments, including cash and cash equivalents, and accounts payable, the carrying amounts approximate fair value due to their short-term maturities. Solitario's marketable equity securities and the Kinross Calls are carried at their estimated fair value based on quoted market prices. See Note 6 to the consolidated financial statements.

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#### Marketable equity securities

Solitario's investments in marketable equity securities are classified as available-for-sale and are carried at fair value, which is based upon quoted prices of the securities owned. The cost of marketable equity securities sold is determined by the specific identification method. Changes in market value are recorded in accumulated other comprehensive income within stockholders' equity, unless a decline in market value is considered other than temporary, in which case the decline is recognized as a loss in the consolidated statement of operations. Solitario had marketable equity securities with fair values of \$19,606,000 and \$21,216,000, respectively, and cost of \$1,035,000 and \$1,478,000, respectively, at December 31, 2009 and 2008. Solitario has accumulated other comprehensive income for unrealized holding gains of \$18,571,000 and \$19,738,000, respectively, net of deferred taxes of \$6,849,000 and \$7,284,000, respectively, at December 31, 2009 and 2008 related to our marketable equity securities. Solitario sold 100,000 and 192,920 shares, respectively, of its Kinross common stock during 2009 and 2008 for gross proceeds of \$1,852,000 and \$4,430,000, respectively. Solitario has classified \$4,600,000 and \$2,763,000, respectively, of marketable equity securities as current, as of December 31, 2009 and December 31, 2008, which represents Solitario's estimate of what portion of marketable equity securities will be liquidated within one year. During 2008, Solitario recognized an asset impairment of \$107,000, net of deferred taxes of \$40,000, representing the difference between the cost basis and the fair value at December 31, 2008, for an other-than-temporary decline in the value of its investment in TNR Gold, which was previously included as an unrealized loss on marketable equity securities in other

comprehensive income.

The following table represents changes in marketable equity securities (000's).

	2009	2008	2007
Gross cash proceeds	\$ 1,852	\$ 4,430	\$ 5,548
Cost	<u>443</u>	<u>854</u>	<u>1,463</u>
Gross gain on sale included in earnings during the period	1,409	3,576	4,085
Unrealized holding gain arising during the period included in other comprehensive income, net of tax of \$90, \$231 and \$3,317	152	389	6,352
Reclassification adjustment for net losses (gains) included in earnings during the period, net of tax of \$526, \$1,334 and \$1,523	(884)	(2,242)	(2,562)
Foreign exchange			

The United States dollar is the functional currency for all of Solitario's foreign subsidiaries. Although Solitario's exploration activities have been conducted primarily in Brazil, Bolivia, Peru and Mexico, a significant portion of the payments under the land, leasehold, and exploration agreements of Solitario are denominated in United States dollars. Solitario expects that a significant portion of its required and discretionary expenditures in the foreseeable future will also be denominated in United States dollars. Foreign currency gains and losses are included in the results of operations in the period in which they occur. During 2009, 2008 and 2007, Solitario recorded foreign exchange gain (loss) of \$35,000, \$(62,000) and \$(8,000), respectively. Solitario's cash accounts in foreign subsidiaries not denominated in United States dollars represent the only significant foreign currency denominated assets. Foreign currency denominated cash accounts totaled \$280,000 and \$326,000, respectively, at December 31, 2009 and 2008.

#### Income taxes

Solitario accounts for income taxes in accordance with ASC 740, "Accounting for Income Taxes." Under ASC 740, income taxes are provided for the tax effects of transactions reported in the financial statements and consist of taxes currently due plus deferred taxes related to certain income and expenses recognized in different periods for financial and income tax reporting purposes. Deferred tax assets and liabilities represent the future tax return consequences of those differences, which will either be taxable or deductible when the assets and liabilities are recovered or settled. Deferred taxes are also recognized for operating losses and tax credits that are available to offset future taxable income and income taxes, respectively. A valuation allowance is provided if it is more likely than not that some portion or all of the deferred tax assets will not be realized.

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#### Accounting for Uncertainty in Income Taxes

Solitario adopted ASC 740, "Accounting for Uncertainty in Income Taxes", as of January 1, 2007. ASC 740 clarifies the accounting for uncertainty in income taxes recognized in a company's financial statements. ASC 740 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. ASC 740 also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition. ASC 740 provides that a company's tax position will be considered settled if the taxing authority has completed its examination, the company

does not plan to appeal, and it is remote that the taxing authority would reexamine the tax position in the future. The adoption of ASC 740 had no effect on Solitario's financial position or results of operations. See Note 4-Income Taxes.

#### Earnings per share

The calculation of basic and diluted loss per share is based on the weighted average number of common shares outstanding during the years ended December 31, 2009, 2008 and 2007. Potentially dilutive shares related to outstanding common stock options of 519,000, 2,135,000, and 2,294,500 for the years ended December 31, 2009, 2008 and 2007, respectively, were excluded from the calculation of diluted loss per share because the effects were anti-dilutive.

#### Employee stock compensation plans

Solitario accounts for its stock options under the provisions of ASC 718 Compensation - Stock Compensation. Pursuant to ASC 718 Solitario classifies its stock options as liabilities as they are priced in Canadian dollars and Solitario's functional currency is United States dollars. Solitario records a liability for the fair value of the vested portion of outstanding options based upon a Black-Scholes option pricing model. This model requires the input of subjective assumptions, including a risk free interest rate, the contractual term, the exchange rate between the United States dollar and the Canadian dollar, a zero dividend yield, a zero forfeiture rate, and an expected volatility based upon the historical volatility of Solitario's common stock on the Toronto Stock Exchange (the "TSX") over the period corresponding to the expected life of the options. These estimates involve inherent uncertainties and the application of management judgment. As a result, if other assumptions had been used, Solitario's recorded and stock-based compensation expense could have been materially different from that reported.

Solitario's outstanding options on the date of grant have a five year term, and vest 25% on date of grant and 25% on each anniversary date. Solitario recognizes stock option compensation expense (benefit) for the change in fair value of vested options. Solitario records stock option liability for the vested fair value of each option grant on the measurement date by multiplying the estimated fair value determined using the Black-Scholes model by a vesting percentage, with 25% recognized immediately, and the remaining 75% recognized over three years on a straight line basis.

#### Segment reporting

Solitario operates in one business segment, minerals exploration. At December 31, 2009, all of Solitario's operations are located in Peru, Bolivia, Brazil and Mexico as further described in Note 2 to these consolidated financial statements.

Included in the consolidated balance sheet at December 31, 2009 and 2008 are total assets of \$3,310,000 and \$3,751,000, respectively, related to Solitario's foreign operations, located in Bolivia, Brazil, Peru and Mexico. Included in mineral properties, net in the consolidated balance sheet at December 31, 2009 and 2008 are net capitalized costs related to the Pedra Branca Property, located in Brazil, of \$2,607,000. Solitario is not aware of any foreign exchange restrictions on its subsidiaries located in foreign countries.

#### Recent accounting pronouncements

In June 2009, the Financial Accounting Standards Board ("FASB") issued FASB Accounting Standards Codification ("ASC") 105, "Generally Accepted Accounting Principles," which establishes the FASB ASC as the sole source of authoritative generally accepted accounting principles ("GAAP"). Rules and interpretive releases of the Securities and Exchange Commission ("SEC") under authority of federal securities laws are also sources of authoritative GAAP for SEC registrants. The ASC supersedes all non-SEC accounting and reporting standards. Pursuant to the provisions of FASB ASC 105, Solitario has updated the references to GAAP in its financial statements

issued for the year ended December 31, 2009. The adoption of FASB ASC 105 did not impact Solitario's financial position or results of operations.

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In December 2007, the Financial Accounting Standards Board ("FASB") issued ASC 810-10-65, "Noncontrolling Interests in Consolidated Financial Statements," an Amendment of ASC 810-10-10. ASC 810-10-65 establishes accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary and amends certain consolidation procedures of ASC 810-10-10 for consistency with the requirements of ASC 810. ASC 810-10-65 is effective for fiscal years beginning on or after December 15, 2008 and early adoption is prohibited. Solitario adopted 810-10-65 on January 1, 2009 and as a result has retrospectively reported its equity related to Solitario shareholders and the noncontrolling interest held by Anglo Gold of Solitario's Pedra Branca Mineracao, Ltd. subsidiary in the equity section of the consolidated balance sheet, as well as reporting the noncontrolling interest in the consolidated statement of operations included with this report.

In December 2007, the FASB issued ASC 805-10-65, "Business Combinations (revised 2007)." ASC 805-10-65 establishes principles and requirements for how an acquirer in a business combination recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, and any noncontrolling interest; recognizes and measures the goodwill acquired in the business combination or a gain from a bargain purchase; and determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of the business combination. ASC 805-10-65 is to be applied prospectively to business combinations for which the acquisition date is on or after the beginning of an entity's fiscal year that begins on or after December 15, 2008. Solitario adopted ASC 805-10-65 on January 1, 2009 and it did not have any impact on its financial position, results of operations or cash flows.

In February 2008, the FASB issued ASC 820-10-15 "Effective Date of ASC 820-10-05." ASC 820-10-15 delayed the effective date of ASC 820-10-05 for non-financial assets and non-financial liabilities that are recognized or disclosed at fair value in the financial statements on a nonrecurring basis. Solitario adopted the provisions of ASC 820-10-15 on January 1, 2009 and it did not have any impact on its financial position, results of operations or cash flows.

In March 2008, the FASB issued ASC 815-10-65, "Disclosures about Derivative Instruments and Hedging Activities," an amendment of ASC 815-10-05. ASC 815-10-65 requires enhanced disclosures about derivative instruments and hedged items that are accounted for under 815-10-05 and related interpretations. ASC 815-10-65 was effective for all interim and annual financial statements for periods beginning after November 15, 2008, with early adoption permitted. Solitario adopted ASC 815-10-65 on January 1, 2009 and has included the required disclosures in its consolidated financial statements.

In May 2009, the FASB issued ASC 855-10-05 "Subsequent Events". ASC 855-10-05 establishes accounting and reporting standards for events that occur after the balance sheet date but before financial statements are issued or are available to be issued. The statement sets forth (i) the period after the balance sheet date during which management of a reporting entity should evaluate events or transactions that may occur for potential recognition or disclosure in the financial statements, (ii) the circumstances under which an entity should recognize events or transactions occurring after the balance sheet in its financial statements, and (iii) the disclosures that an entity should

make about events or transactions occurring after the balance sheet date in its financial statements. Solitario adopted the provisions of ASC 855-10-05 for the interim period ended June 30, 2009. Solitario's management has evaluated events subsequent to December 31, 2009 through February 12, 2010 which is the issuance date of this report. This report reflects all material events noted in the subsequent period that would have impacted the results reported herein or in Solitario's results going forward. The adoption of ASC 855-10-05 had no impact on Solitario's consolidated financial position, results of operations or cash flows.

## 2. Mineral Properties:

Solitario's mineral properties consist of use rights related to exploration stage properties, and the value of such assets is primarily driven by the nature and amount of economic mineral ore believed to be contained, or potentially contained, in such properties. The amounts capitalized as mineral properties include concession and lease or option acquisition costs. Capitalized costs related to a mineral property represent its fair value at the time it was acquired. Solitario has no production (operating) or development stage mineral properties nor any interests in properties that contain proven or probable reserves. Solitario's exploration stage mineral properties represent interests in properties that Solitario believes have exploration potential that is not associated with any other production or development stage property. Solitario's mineral use rights generally are enforceable regardless of whether proven and probable reserves have been established.

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The following represents Solitario's investment in mineral properties:

(in thousands)	December 31,	
	2009	2008
Mineral interests	\$3,762	\$3,808
Accumulated amortization	<u>(1,023)</u>	<u>(1,023)</u>
Net mineral interests	<u>\$2,739</u>	<u>\$2,785</u>

Solitario classifies its interest in mineral properties as Mineral Properties, net pursuant to authoritative literature. Prior to 2004, Solitario classified its interests in mineral properties as intangible assets, Mineral Interests, net and recorded amortization of the intangible asset. Solitario no longer amortizes its interest in Mineral Properties, net.

### Peru

Solitario holds exploration concessions or has filed applications for concessions covering approximately 28,000 hectares in Peru excluding properties held under joint ventures and operated by other parties. Applications to acquire mineral concessions in Peru are subject to formalized administrative review and approval. According to Peruvian law, concessions may be held indefinitely, subject only to payment of annual fees to the government. Each year a payment of \$3.00 per hectare (approximately 2.477 acres per hectare) must be made by the last day of June to keep the claims in good standing. For concessions that are more than 6 years old, there is a \$6.00 surcharge per hectare, if less than \$100 per hectare is invested in exploration and development of the claim. Approximately 2,200 hectares of Solitario's concessions are subject to the \$6.00 per hectare surcharge. Peru also imposes a sliding scale net smelter return royalty (NSR) on all precious and base metal production. This NSR assesses a tax of 1% on all gross proceeds from production up to \$60,000,000, a 2% NSR on proceeds between \$60,000,000 and \$120,000,000 and a 3% NSR on proceeds in excess of \$120,000,000.

#### (a) Bongara

Solitario acquired the initial Bongara exploration concessions in 1993. Bongara mineral concessions now total 16 concessions covering approximately 12,600 hectares in northern Peru. On August 15, 2006 Solitario signed a Letter Agreement with Votorantim Metais Cajamarquilla, S.A., a wholly owned subsidiary of Votorantim Metais (both companies referred to as "Votorantim"), on Solitario's 100%-owned Bongara zinc project. On March 24, 2007, Solitario signed a definitive agreement, the Framework Agreement for the Exploration and Potential Development of Mining Properties, (the "Framework Agreement") pursuant to, and replacing, the previously signed Bongara Letter Agreement with Votorantim Metais ("Votorantim"). Solitario's property interests are held through the ownership of shares in Minera Bongara, a joint operating company that holds a 100% interest in the mineral rights and other project assets. At December 31, 2009, Solitario owns 100% of the shares in this company (Minera Bongara S.A.).

Votorantim can earn up to a 70% shareholder interest in the joint operating company by funding an initial \$1.0 million exploration program (completed), by completing future annual exploration and development expenditures until a production decision is made or the agreement is terminated. The option to earn the 70% interest can be exercised by Votorantim any time after the first year commitment by committing to place the project into production based upon a feasibility study. The agreement calls for Votorantim to have minimum annual exploration and development expenditures of \$1.5 million in each of years two and three, which commitments have been met as of December 31, 2009, and \$2.5 million in all subsequent years until a minimum of \$18.0 million has been expended by Votorantim. Votorantim will act as project operator. Votorantim, in its sole discretion, may elect to terminate the option to earn the 70% interest at any time after the first year commitment. In addition Votorantim is required to make annual delay rental payments of \$100,000 by August 15, 2007 (completed), \$200,000 by August 15, 2008 and 2009 (completed), and by making further delay rental payments to Solitario of \$200,000 on all subsequent anniversaries until a production decision is made. Once Votorantim has fully funded its \$18.0 million work commitment and committed to place the project into production based upon a feasibility study, it has further agreed to finance Solitario's 30% participating interest through production. Solitario will repay the loan facility through 50% of Solitario's cash flow distributions from the joint operating company.

Votorantim signed a new surface rights agreement with the local community in 2009, which controls the surface of the primary area of interest of our Bongara joint venture. This agreement provides for an annual payment of \$31,250 and funding for mutually agreed social development programs in return for the right to perform exploration work including road building and drilling. From time to time Solitario enters into surface rights agreements with individual landowners or communities to provide access for exploration work. Generally, these are short term agreements. Votorantim is responsible for all joint venture costs as part of the Framework Agreement. Votorantim has conducted annual drilling programs at Bongara for the years 2006-2009.

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(b) Yanacocha Royalty property

The Yanacocha royalty property consists of 69 concessions totaling approximately 61,000 hectares in northern Peru 25 kilometers north of the city of Cajamarca. In January 2005, Solitario signed an Amended and Restated Royalty Grant with Minera Los Tapados S.A., a subsidiary of Newmont Peru Limited, Minera Yanacocha S.R.L., and Minera Chaupiloma Dos de Cajamarca, S.R.L. (affiliates of Newmont Peru, Ltd., collectively "Newmont Peru") to modify the net smelter return ("NSR") royalty on the Yanacocha Royalty property located immediately north of the Newmont Mining-Buenaventura's Minera Yanacocha Mine, the largest gold mine in South America. The amended royalty provides for a sliding scale royalty which pays a maximum of 5.75% in the aggregate to the government of Peru and Solitario when the gold price is greater than \$500 per ounce. Solitario may receive up to a 5% royalty, however that royalty to Solitario is reduced by any royalty paid to the government of Peru, which is currently between one and three percent, depending on the mine's annual revenues. In addition to amending the NSR royalty schedule, the Letter Agreement committed Newmont Peru to a long-term US\$4.0 million work commitment on Solitario's



royalty property and provides Solitario access to Newmont Peru's future exploration results on an annual basis. The Yanacocha royalty amendment and work commitment Letter Agreements were subsequently replaced by a definitive agreement with the same terms. Newmont has not reported reserves on the Yanacocha property and Solitario has not received any royalty income from Newmont.

(c) La Tola Royalty property

In October 2003, Solitario acquired the La Tola project in southern Peru to explore for gold and possibly silver. Solitario retains one claim covering 1,000 hectares. In August 2007 Solitario signed a Letter of Intent with Canadian Shield Resources ("CSR") allowing CSR to earn a 100%-interest in the property, subject to a 2% net smelter return royalty ("NSR") to Solitario's benefit. To earn its interest, CSR is required to spend \$2.0 million in exploration by December 31, 2011. CSR has the right to purchase the 2% NSR for \$1.5 million anytime before commercial production is reached.

(d) Chambara

In September of 2006, Solitario acquired 3,700 hectares of 100%-owned mineral rights through concessions for its Chambara property in northern Peru. Solitario formerly held 300 hectares in the project since 1997. Solitario capitalized \$17,000 during the year ended December 31, 2007 in lease acquisition costs related to new concessions covering an additional 5,600 hectares at the Chambara project. At December 31, 2007, the Chambara project consisted of six widely spaced areas consisting of 13 concessions totaling 9600 hectares,

On April 4, 2008 Solitario signed the Minera Chambara shareholders' agreement with Votorantim Metais Cajamarquilla, S.A., a wholly owned subsidiary of Votorantim Metais (both companies referred to as "Votorantim") for the exploration of a large area of interest in northern Peru measuring approximately 200 by 85 kilometers. Votorantim is the project manager, funds and conducts all exploration on the project. Votorantim contributed 52 mineral concessions within the area of interest totaling 52,000 hectares to Minera Chambara for a 15% interest in Minera Chambara. Solitario contributed 9,600 hectares of mineral claims and certain exploration data in its possession for an 85% interest in Minera Chambara. Existing and future acquired properties subject to the terms of the shareholders' agreement will be held by Minera Chambara. As of December 31, 2009, Minera Chambara's only assets are the properties and Minera Chambara has no debt. In 2008 and 2009, Votorantim added and dropped various concessions. Minera Chambara now controls 195 concessions totaling approximately 175,000 hectares of mineral rights. Votorantim may increase its shareholding interest to 49% by expending \$6,250,000 over seven years and may increase its interest to 70% by funding a feasibility study and providing for construction financing for Solitario's interest. If Votorantim provides such construction financing, Solitario would repay that financing, including interest, from 80% of Solitario's portion of the project cash flow.

Solitario determined that Votorantim controls Minera Chambara pursuant to the terms of the shareholders' agreement and accordingly, Solitario has recorded its investment in Minera Chambara using the equity-method of accounting. During the second quarter of 2008, Solitario transferred its interest in the claims of \$30,000 from mineral properties, net to equity method investment. During 2008, Solitario reduced its equity method investment in Minera Chambara to zero, through a non-cash charge to exploration expense. Solitario does not anticipate it will record an increase in the book value of our 85% equity-method investment in the shares of Minera Chambara in the foreseeable future, if at all.

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(e) Newmont Strategic Alliance

On January 18, 2005, Solitario signed a Strategic Alliance Agreement (the "Alliance Agreement") with Newmont Overseas Exploration Limited ("Newmont"), to explore for gold in South America (the "Strategic Alliance"). Prior to the definitive agreement, Solitario had signed a Letter of Intent on November 17, 2004, with Newmont. Concurrent with the signing of the Alliance Agreement, Newmont Mining Corporation of Canada purchased 2.7 million shares of Solitario (approximately 9.9% equity interest) for Cdn\$4,590,000. Solitario was required to spend \$3,773,000 over the four years, which was subsequently extended by mutual agreement to five years, from the date of the Alliance Agreement on gold exploration in regions ("Alliance Projects Areas") that were mutually agreed upon by Newmont and Solitario. In late July 2009 Solitario completed the required expenditure commitment and informed Newmont. In December 2009 Solitario granted Newmont a 2% net smelter royalty on five properties (Strategic Alliance Properties") that fall within Strategic Alliance areas. If Solitario meets certain minimum exploration expenditures on Strategic Alliance Properties, Newmont will have the right to joint venture acquired properties and earn up to a 75% interest by taking the project through feasibility and financing Solitario's retained 25% interest into production. Newmont may elect to earn a lesser interest or no interest at all, in which case it would retain a 2% net smelter return royalty. As of December 31, 2009, Newmont also has a right of first offer on Solitario's Santiago and Espanola properties, which are non-alliance Solitario properties in South America, acquired after the signing of the Alliance Agreement, that Solitario may elect to sell an interest in, or joint venture with a third party.

As of December 31, 2009 Solitario has established five property positions that fall within the currently defined Strategic Alliance areas and are subject to the provisions of the Newmont Alliance as discussed above. These include the La Promesa, Paria Cruz, Cajatambo, Excelsior and Cerro Azul (formerly Twin Lakes) properties. The Cerro Azul property was staked in 2007, the La Promesa, Paria Cruz, Cajatambo, Excelsior properties were staked in early 2008. All five properties are 100%-owned by Solitario, subject to the Alliance Agreement, and are situated within the central Peru mineral belt that is proximal to the giant Cerro de Pasco silver-base metal district.

The La Promesa property, acquired in 2008, consists of three concessions totaling 2,600 hectares. No payments are due to third parties so the only holding costs for the mineral rights are annual payments of three dollars per hectare to the Peruvian government during the first six years that the claims are held. The Cajatambo property in Peru, acquired in 2008 and 2009, consists of eleven concessions totaling 10,500 hectares. No payments are due to third parties so the only holding costs for the mineral rights are annual payments of three dollars per hectare to the Peruvian government during the first six years that the claims are held.

## Brazil

### (a) Pedra Branca

In October 2000, Solitario recorded \$3,627,000 in mineral interest additions for the Pedra Branca project in connection with the acquisition of Altoro Gold Corp. ("Altoro"). At December 31, 2009, the Pedra Branca project consisted of 57 exploration concessions totaling approximately 70,000 hectares in Ceará State, Brazil. Solitario has applied to the National Department of Mineral Production ("DNPM") to convert five exploration concessions to mining concessions. These applications are under review by the DNPM. Pedra Branca do Mineracao S.A., a 70%-owned subsidiary of Solitario incorporated in Brazil, holds 100%-interest in all concessions. Eldorado Gold Corporation is entitled to a 2% NSR royalty on 10 of the concessions totaling 10,000 hectares.

On January 28, 2003, Solitario entered into a Letter Agreement with Anglo Platinum Ltd. ("Anglo") whereby Anglo could earn various incremental interests, in Pedra Branca do Mineracao up to a 65% interest, by making annually increasing exploration expenditures totaling \$7.0 million, completing a bankable feasibility study, or spending an additional \$10 million on exploration and development, whichever occurred first, and arranging financing to put the project into commercial production. On July 14, 2006, Solitario signed the Pedra Branca Framework Agreement with Anglo to establish and govern PBM, which holds 100% title to all the assets of the Pedra Branca project, and the mechanics for Anglo's continued funding of Pedra Branca exploration.

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On April 24, 2007, Solitario signed the definitive agreement, the Shareholders Agreement, relating to the Pedra Branca Project in Brazil, (the "Shareholders Agreement") pursuant to the previously signed Pedra Branca Letter Agreement with Anglo for the exploration and development of the Pedra Branca Project. The Shareholders Agreement provides for Solitario and Anglo property interests to be held through the ownership of shares of PBM. As part of the agreement, Anglo earned a 15% interest in PBM as of December 31, 2007 and an additional 15% interest during 2008 for a total of a 30% interest in PBM as of December 31, 2008, as a result of spending a total of \$4.0 million on exploration at Pedra Branca. Additionally, the Shareholders Agreement provides that Anglo may incrementally earn up to a 51% interest in PBM by spending a total of \$7 million on exploration (\$3.0 million in addition to the \$4.0 million spent as of December 31, 2008) at Pedra Branca by June 30, 2010. However, Anglo is not required to fund any future exploration expenditures. Anglo can earn an additional 9% interest in PBM (for a total of 60%) by completing either (i) a bankable feasibility study or (ii) spending an additional \$10.0 million on exploration or development. Anglo can also earn an additional 5% interest in PBM (for a total of 65%) by arranging for 100% financing to put the project into commercial production.

As part of the Shareholders Agreement, Solitario entered into a Services Agreement with Anglo whereby Solitario (and/or our subsidiaries) would act as an independent contractor directing the exploration and administrative activities for PBM and its shareholders. Under the Services Agreement, Solitario receives a 5% management fee based upon total expenditures. During 2009 Solitario recorded management fees of \$65,000, to PBM, which are eliminated in consolidation, net of \$20,000 of noncontrolling interest. During 2008 Solitario recorded \$75,000 of management fees included as joint venture reimbursements. Land payments to the government to keep the claims in good standing at Pedra Branca are projected to be approximately \$75,000 for 2010.

(b) Mercurio

In September 2005, Solitario completed an option agreement for the purchase of 100% of the mineral rights over the 8,476-hectare Mercurio property in the state of Para, Brazil. An initial payment of 20,000 Brazilian Reals (approximately \$7,000) was paid on signing of the agreement and the next payment of 36,000 Reals (approximately \$12,000) was made in 2005 on signing of a definitive agreement upon conversion of the existing washing claims to exploration claims. Further payments are required upon the conversion of garimpeiro licenses to exploration claims which occurred in the third quarter of 2006. During 2008 and 2007 payments totaled approximately \$60,000 and \$55,000, respectively. In 2009 Solitario amended the terms of the underlying agreement to suspend payments for one year. To purchase the property, an escalating scale of payments totaling 780,000 Reals (approximately \$325,000) is required over a sixty month period. A net smelter return of 1.5% is retained by the owner. This NSR can be extinguished with a payment of 2,300,000 Reals (approximately \$1,958,000). All payments are indexed to inflation as of the signing of the agreement. The owner of the mineral rights also owns the surface rights, the use of which is included in the exploration of the property. On completion of all payments Solitario will receive title to 1,500 hectares of surface rights. Solitario may terminate the agreement at any time at its sole discretion. During the past four years, Solitario has conducted three rounds of core drilling totaling 36holes. The third round of core drilling was completed in the first quarter of 2008. A payment of approximately \$7,000 to the government of Brazil during 2010 will be required to keep the Mercurio claims in good standing.

Bolivia

(a) Triunfo

The 256-hectare Triunfo poly-metallic exploration property in Bolivia was acquired in 2003. Lease obligations were renegotiated in 2006 providing for a payment of \$12,000, which was paid in July of 2006, a payment of \$35,000,

which was paid in June 2007. In June of 2008 Solitario amended the contract with the option holder for the Triunfo property that suspends the payments schedule agreed to under the contract. For the right to suspend payments Solitario is required to pay \$5,000 per year until such time as Solitario decides to continue exploration drilling. The first payment of the "stand-by" period was made on signing of the amendment and such suspension shall continue for so long as Solitario pays \$5,000 on the anniversary of the signing of the amendment. An option to purchase the property for \$1,000,000 would be due upon completion of the currently suspended payment schedule. Solitario may terminate the contract at any time at its sole discretion.

(b) Espanola

Solitario optioned the Espanola gold-copper property in western Bolivia in July 2008. The initial option payment was \$5,000, with annual payments of \$10,000 until drilling commences. Solitario must pay the mineral rights owner \$65,000 prior to the end of the first year after which drilling has commenced. Total payments of \$1.0 million must be made during a period of four years and ten months after initiation of drilling to purchase an 85% interest in the property.

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Mexico

(a) Pachuca

The 30,700 hectare Pachuca Real silver-gold property in central Mexico was acquired by staking in late 2005 and early 2006. Part of the property, the approximately 6,200 hectare El Cura claim, is held under an option agreement with a private Mexican party. The option agreement was completed in October 2005 and provides for payments of \$500,000 over four years, of which Solitario has made payments totaling \$90,000 as of December 31, 2009. In May 2009 the option agreement was amended. Under the revised terms, Solitario is required to pay \$15,000 every six months, starting in May of 2009 (of which the payments due in May 2009 and November 2009 have been paid), to the underlying owner to keep the option in good standing. By May of 2012, Solitario must either exercise the option to acquire 100% interest in the concession by paying the underlying owner \$500,000, or the option will terminate. Claims fees to be paid to the government of Mexico totaling approximately \$77,000 are due in 2010. Solitario may terminate its option at anytime without any further costs.

On September 25, 2006 Solitario signed a definitive venture agreement (the "Venture Agreement") with Newmont de Mexico, S.A. de C.V. ("Newmont"), a wholly owned subsidiary of Newmont Mining Corporation. The Venture Agreement called for a work commitment by Newmont of \$12.0 million over 54 months to earn a 51% interest in the property. Newmont had the right to earn an additional 19% interest (70% total) by completing a feasibility study and by financing Solitario's 30% interest in construction costs. In December 2008 Newmont terminated its right to earn an interest in the Pachuca Real property. Solitario retains 100% interest in the Pachuca Real property. Newmont transferred its extensive technical data base to Solitario in the first quarter of 2009, including the assay results from 19 drill holes

(b) La Noria

During the second quarter of 2008 Solitario staked 10,000 hectares in Sonora State of Mexico comprising the La Noria project. It is 100% owned by Solitario with no underlying property owners. Solitario completed a surface access agreement with the surface owner in early 2009 that allowed for access to the property and the approval to conduct exploration. Drilling is planned in the first quarter of 2010.

## (c) Palmira

Solitario optioned the Palmira property in the state of Zacatecas in November 2010 from a private Mexican individual. The Palmira property is 2,600 hectares in size and situated 20 kilometers south of the historic state capital city of Zacatecas. Solitario can acquire 100% interest in the property by making scheduled payments over a five year term totaling \$1.0 million to the underlying owner. The initial option payment of \$5,000 has been made. The next payment of \$10,000 is due on May 20, 2010. To date, Solitario has conducted reconnaissance-stage geologic mapping and geochemical sampling.

## Discontinued Projects

During the fourth quarter of 2009 Solitario abandoned the Chonta property in Peru and recorded a mineral property write-down of \$42,000. The Chonta property was optioned in 2008 from a private Peruvian party. Surface work was conducted in 2008 and drilling was conducted in 2009. Drilling results were not considered to be of economic interest and the decision was made to terminate Solitario's option to earn an interest in the property.

During the first quarter of 2009 Solitario terminated work on the Purica copper property in Mexico and recorded a mineral property write-down of \$9,000. The property was acquired in 2008 through an option agreement with an underlying private Mexican party and through our own staking. Solitario conducted geologic mapping, geochemical sampling, geophysical surveying and a six-hole reverse circulation drilling program totaling 1,255 meters in 2008. Low grade copper was intersected in three holes with the other three holes being barren. After reviewing all the exploration results, Solitario elected to abandon the property.

## Exploration Expense

The following items comprised exploration expense:

(in thousands)	2009	2008	2007
Geologic, drilling and assay	\$1,503	\$1,669	\$1,569
Field expenses	836	1,394	1,369
Administrative	<u>1,240</u>	<u>1,526</u>	<u>1,217</u>
Total exploration expense	<u>\$3,579</u>	<u>\$4,589</u>	<u>\$4,155</u>

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3. Related party transactions:

## Mark Jones Consulting Agreement

On September 1, 2006, Solitario entered into a two-year consulting agreement with Mark E. Jones, III, a director and vice-chairman of our Board of Directors. The consulting agreement terminated on August 31, 2008. Under the agreement, Mr. Jones advised Solitario on matters of strategic direction, planning, and identification of corporate opportunities, when and as requested by Solitario. In consideration for the services to be performed, Mr. Jones was paid a one time lump sum payment of \$160,000, plus he was entitled to receive pre-approved, documented expenses incurred in performance of the consulting services. Solitario included \$53,000, and \$80,000, respectively, for consulting expense related to the agreement, incurred in general and administrative expense for the years ended

December 31, 2008 and 2007.

TNR Gold Corp.

Solitario owns 1,000,000 shares of TNR that are classified as marketable equity securities available-for-sale and are recorded at their fair market value of \$286,000 and \$33,000 at December 31, 2009 and 2008, respectively. During 2008, Solitario recognized an asset impairment of \$107,000 for an other-than-temporary decline in the value of its TNR stock, less deferred taxes of \$40,000. The loss was previously included as a loss in other comprehensive income. Christopher E. Herald, our CEO, was a member of the Board of Directors of TNR until June 3, 2009.

#### 4. Income Taxes:

Solitario's income tax expense (benefit) consists of the following as allocated between foreign and United States components:

(in thousands)	2009	2008	2007
Current:			
United States	\$385	\$ -	\$ -
Foreign	-	-	-
Deferred:			
United States	\$162	\$1,362	\$ (721)
Foreign	-	-	86
Operating loss and credit carryovers:			
United States	449	766	537
Foreign	<u>-</u>	<u>-</u>	<u>(86)</u>
Income tax expense (benefit)	<u>\$996</u>	<u>\$2,128</u>	<u>\$ (184)</u>

Consolidated income (loss) before income taxes includes losses from foreign operations of \$3,894,000, \$4,987,000, and \$3,872,000, in 2009, 2008 and 2007, respectively.

During 2009, 2008 and 2007, Solitario recognized other comprehensive income related to unrealized gains on marketable equity securities of \$242,000, \$620,000, and \$9,669,000, respectively. Other comprehensive income has been charged \$90,000, \$231,000, and \$3,317,000, respectively, for the income tax expense associated with these gains. During 2009, 2008 and 2007, Solitario transferred unrealized gain of \$1,409,000, \$3,576,000 and \$4,085,000, respectively from other comprehensive income upon the sale of 100,000, 192,920 and 400,000 shares, respectively, of Kinross common stock, less income tax of \$526,000, \$1,334,000 and \$1,524,000, respectively, associated with these unrealized gains. In addition, during 2008, Solitario recognized an asset impairment of \$107,000 for an other-than-temporary decline in the value of its TNR stock, less deferred taxes of \$40,000. The loss was previously included as a loss in other comprehensive income.

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The net deferred tax assets/liabilities in the December 31, 2009 and 2008 consolidated balance sheets include the following components:

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(in thousands)	<u>2009</u>	<u>2008</u>
Deferred tax assets:		
Loss carryovers	\$ 8,480	\$ 7,770
Stock option compensation expense	98	188
Royalty	1,492	1,492
Derivative instruments	-	235
Severance	47	-
Other	25	25
Valuation allowance	<u>(9,173)</u>	<u>(7,968)</u>
Total deferred tax assets	<u>969</u>	<u>1,742</u>
Deferred tax liabilities:		
Unrealized gain on derivative securities	311	477
Exploration costs	845	845
Unrealized gains on marketable equity securities	6,927	7,362
Other	<u>8</u>	<u>5</u>
Total deferred tax liabilities	<u>8,091</u>	<u>8,689</u>
Net deferred tax liabilities	<u>\$7,122</u>	<u>\$6,947</u>

At December 31, 2009 and 2008, Solitario has classified \$1,567,000 and \$884,000, respectively, of its deferred tax liability as current, primarily related to the current portion of its investment in Kinross common stock.

A reconciliation of expected federal income taxes on income (loss) from operations at statutory rates, with the expense (benefit) for income taxes is as follows:

(in thousands)	<u>2009</u>	<u>2008</u>	<u>2007</u>
Expected income tax expense (benefit)	\$(411)	\$436	\$(1,947)
Non-deductible foreign expenses	13	75	(12)
Non-deductible foreign stock compensation expense	(9)	(60)	66
Foreign tax rate differences	107	100	53
State income tax	88	188	(2)
Change in enacted tax rates	-	-	191
Change in valuation allowance	1,205	1,532	1,505
Permanent differences and other	<u>3</u>	<u>(143)</u>	<u>(38)</u>
	)		
Income tax expense (benefit)	<u>\$996</u>	<u>\$2,128</u>	<u>\$(184)</u>

During 2009, 2008 and 2007, the valuation allowance was increased primarily as a result of increases in Solitario foreign net operating loss carryforwards, for which it was more likely than not that the deferred tax benefit would not be realized.

At December 31, 2009, Solitario has no unused US Net Operating Loss ("NOL") carryovers. Solitario has foreign loss carryforwards for which Solitario has provided a full valuation allowance and which expire over various periods from five years to no expiration depending on the foreign jurisdiction

On January 1, 2007, Solitario adopted the provisions ASC 740-10, which prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. ASC 740-10 requires that Solitario recognize in its consolidated financial statements, only those tax positions that are "more-likely-than-not" of being sustained as of the adoption date, based on the technical merits of the position. As a result of the implementation of ASC 740-10, Solitario performed a comprehensive review of its material tax positions in accordance with recognition and measurement standards established by ASC 740-10. The provisions of ASC 740-10 had no effect on Solitario's financial position, cash flows or results of operations at January 1, 2007, December 31, 2007, December 31, 2008, or December 31, 2009 as Solitario had no unrecognized tax benefits.

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Solitario and its subsidiaries are subject to the following material taxing jurisdictions: United States Federal, State of Colorado, Mexico, Peru and Brazil. The tax years that remain open to examination by the United States Internal Revenue Service are years 2006 through 2009. The tax years that remain open to examination by the State of Colorado are years 2005 through 2009. The tax years that remain open to examination by Mexico are years 2006 through 2009. All tax years remain open to examination in Peru and Brazil. Solitario's policy is to recognize interest and penalties related to uncertain tax benefits in income tax expense. Solitario has no accrued interest or penalties related to uncertain tax positions as of January 1, 2007, December 31, 2007, December 31, 2008, or December 31, 2009.

##### 5. Derivative instruments

Solitario accounts for its derivative instruments in accordance with ASC 815, "Accounting for Derivative Instruments and Hedging Activities." On October 12, 2007 Solitario entered into a Zero-Premium Equity Collar (the "Kinross Collar") pursuant to a Master Agreement for Equity Collars and a Pledge and Security Agreement with UBS whereby Solitario pledged 900,000 shares of Kinross common shares to be sold (or delivered back to us with any differences settled in cash) . On April 14, 2009, 400,000 shares under the Kinross Collar were released upon the expiration of the tranche of the Kinross Collar that expired on that date. No shares were delivered to UBS under the Kinross Collar and no cash was paid or received upon termination of that tranche of the Kinross Collar. In accordance with the terms of the Kinross Collar, as the result of dividends that Kinross paid on each of March 31, 2008 and September 30, 2008 of \$0.04 per share, the prices under the Kinross Collar have been reduced, by the \$0.08 per share from the price originally set on October 12, 2007. As of December 31, 2009 the Kinross Collar pricing has been adjusted to (i) 400,000 shares due on April 13, 2010 for a lower threshold price of \$13.69 per share (the "Floor Price") and an upper threshold price of \$24.34 per share; and (ii) 100,000 shares due on April 12, 2011 for the Floor Price and an upper threshold price of \$27.50 per share. Kinross' quoted closing price was \$16.37 per share on October 12, 2007, the date of the initiation of the Kinross Collar.

The business purpose of the Kinross Collar is to provide downside price protection of the Floor Price on 500,000 shares of the total shares Solitario owns as of December 31, 2009, in the event Kinross stock were to drop significantly from the price on the date Solitario entered into the Kinross Collar. In consideration for obtaining this price protection, Solitario has given up the upside appreciation above the upper threshold prices discussed above during the term of the respective tranches.



Solitario has not designated the Kinross Collar as a hedging instrument as described in ASC 815 Derivatives and Hedging and any changes in the fair market value of the Kinross Collar are recognized in the statement of operations in the period of the change. As of December 31, 2009, Solitario recorded \$9,000 for the fair market value of the Kinross Collar, of which \$20,000 is recorded as other assets and \$11,000 is recorded as a derivative instrument in current liabilities. Solitario recorded the fair market value of the Kinross Collar as a liability of \$513,000 as of December 31, 2008 of which \$393,000 is included in derivative instruments in current liabilities. Solitario recorded an unrealized gain of \$522,000 during 2009, an unrealized gain of \$1,189,000 during 2008 and an unrealized loss \$1,702,000 during 2007 in gain (loss) on derivative instrument for the change in the fair value of the Kinross Collar.

On December 10, 2008 Solitario sold two covered call options covering 50,000 shares of Kinross each (the "February 09 Kinross Calls"). The first call option had a strike price of \$20.00 per share and expired unexercised on February 21, 2009. Solitario sold the option for \$65,000 cash and had a fair market value of \$76,000 recorded as derivative instrument liability on December 31, 2008. The second call option had a strike price of \$22.50 per share and expired unexercised on February 21, 2009. Solitario sold the option for \$39,000 cash and had a fair market value of \$40,000 recorded as derivative instrument liability on December 31, 2008. Solitario recorded an unrealized loss of \$12,000 related to the February 09 Kinross Calls in gain (loss) on derivative instrument in statement of operations during 2008. Solitario recorded a gain in gain (loss) on derivative instruments of \$116,000 during 2009 upon the expiration of the February 09 Kinross Calls.

On March 31, 2009 Solitario sold a covered call option covering 50,000 shares of Kinross (the "April 09 Kinross Call") for \$21,000. The call option had a strike price of \$20.00 per share and expired unexercised on April 21, 2009. Solitario recorded a gain on derivative instruments of \$21,000 on the April 09 Kinross call during the year ended December 31, 2009.

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On April 16, 2009 Solitario sold a covered call option covering 40,000 shares of Kinross (the "August 09 Kinross Call") for net proceeds of \$45,000. The option had a strike price of \$17.50 per share and an expiration date of August 19, 2009. On July 21, 2009, Solitario repurchased the August 09 Kinross Call for cash of \$125,000 and recorded a loss on derivative instrument during the year ended December 31, 2009 of \$80,000. On July 21, 2009, concurrently with the purchase of the August 09 Kinross Call, Solitario sold a covered call option covering 40,000 shares of Kinross with a strike price of \$17.50 expiring on November 21, 2009 (the "November 09 Kinross Call") for \$157,000. On November 13, 2009 Solitario repurchased the November 09 Kinross Call for \$76,000 and recorded a gain on derivative instruments of \$81,000 during the year ended December 31, 2009. On November 13, 2009, concurrently with the purchase of the November 09 Kinross Call, Solitario sold a covered call option covering 40,000 shares of Kinross with a strike price of \$22.00 expiring on May 22, 2010 (the "May 10 Kinross Call") for \$76,000. As of December 31, 2009 Solitario recorded a liability for the May 10 Kinross Call of \$42,000 and has recorded a gain in gain (loss) on derivative instrument of \$34,000 during the year ended December 31, 2009 related to the May 10 Kinross Call.

The business purpose of selling covered calls is to provide additional income on a limited portion of shares of Kinross that Solitario may sell in the near term, which is generally defined as less than one year. In exchange for receiving the additional income from the sale of the covered call option, Solitario has given up the potential upside on the shares covered by the call option sold in excess of the strike price. Solitario has not designated its covered calls as hedging instruments as described in ASC 815 and any changes in the fair market value of its covered calls are recognized in the statement of operations in the period of the change.

Solitario does not use its Kinross Collar or its covered call derivative instruments as trading instruments and any cash received or paid related its derivative instruments are shown as investing activities in the consolidated statement

of cash flows.

The following table provides a detail of the location and amount of the fair values of Solitario's derivative instruments presented in the consolidated balance sheet as of December 31, 2009 and December 31, 2008:

<u>(in thousands)</u>	<u>Derivatives</u>		
	<u>Balance Sheet Location</u>	<u>December 31, 2009</u>	<u>December 31, 2008</u>
Derivatives not designated as hedging instruments under ASC 815			
Kinross Collar	Current liabilities	\$ 11	\$277
Kinross Collar	Long-term other assets	20	-
Kinross Collar	Long-term liabilities	-	236
May 10 Kinross Call	Current liabilities	42	-
February 09 Kinross Call	Current liabilities	-	116

The following amounts are included in loss (gain) on derivative instruments in the consolidated statement of operations for the years ended December 31, 2009 and 2008:

<u>(in thousands)</u>	<u>Year ended December 31, 2009 (1)</u>		<u>Year ended December 31, 2008 (1)</u>	
	<u>Realized</u>	<u>Unrealized</u>	<u>Realized</u>	<u>Unrealized</u>
Loss (gain) on derivatives not designated as hedging instruments under ASC 815				
	\$ -	\$(522)	\$ -	\$(1,189)
Kinross Collar	(116)	-	-	12
February 09 Kinross Call	(21)	-	-	-
April 09 Kinross Call	80	-	-	-
August 09 Kinross Call	(81)	-	-	-
November 09 Kinross Call	-	(34)	-	-
May 10 Kinross Call				
	\$(138)	\$(556)	\$ -	\$(1,177)
Total (gain) loss				

(1) Gains and losses on derivative instruments are realized upon expiration or repurchase. Cash received for the derivative instrument may occur in a different period.

Solitario is required to maintain its holdings of Kinross common stock associated with the Kinross Collar in a separate account at UBS, which is held as collateral for the Kinross Collar. Solitario is not required to maintain any other

collateral for its derivative instruments.

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#### 6. Fair Value of Financial Instruments:

For certain of Solitario's financial instruments, including cash and cash equivalents, and payables, the carrying amounts approximate fair value due to their short maturities. Solitario's marketable equity securities the Kinross Collar and the Kinross Calls are carried at their estimated fair value based on quoted market prices.

Effective January 1, 2008, Solitario adopted ASC 820, "Fair Value Measurements." ASC 820 establishes a framework for measuring fair value and requires enhanced disclosures about fair value measurements. ASC 820 clarifies that fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. ASC 820 also requires disclosure about how fair value is determined for assets and liabilities and establishes a hierarchy for which these assets and liabilities must be grouped, based on significant levels of inputs as follows:

**Level 1:** Quoted prices in active markets for identical assets or liabilities;

**Level 2:** Quoted prices in active markets for similar assets and liabilities and inputs that are observable for the asset or liability; or

**Level 3:** Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

The determination of where assets and liabilities fall within this hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

The following is a listing of Solitario's financial assets and liabilities required to be measured at fair value on a recurring basis and where they are classified within the hierarchy as of December 31, 2009:

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
(000's)				
Assets				
Marketable equity securities	\$19,606	-	-	\$19,606
Kinross Collar derivative instrument	-	20	-	20
Liabilities				
Kinross Collar derivative instrument	-	11	-	11
Kinross Calls derivative instrument	42	-	-	42

The following is a listing of Solitario's financial assets and liabilities required to be measured at fair value on a recurring basis and where they are classified within the hierarchy as of December 31, 2008:

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
(000's)				
Assets				
Marketable equity securities	\$21,216	-	-	\$21,216

Liabilities		-	-	
Kinross Calls derivative instrument	116	-	-	116
Kinross Collar derivative instrument	-	513	-	513

Marketable equity securities: At December 31, 2009 and 2008 the fair value of Solitario's marketable equity securities

are based upon quoted market prices.

Covered call options: The May 10 Kinross Calls at December 31, 2009 and the April 09 Kinross Call at December 31, 2008 are exchange traded options and fair values based upon quoted market prices. See Derivative instruments above.

Kinross Collar: The Kinross Collar between Solitario and UBS is a contractual hedge that is not traded on any public exchange. Solitario determines the fair value of the Kinross Collar using a Black-Scholes model using inputs, including the price of a share of Kinross common stock, volatility of Kinross common stock price, that are readily available from public markets, and discount rates that include an assessment of performance risk, therefore, they are classified as Level 2 inputs. See Derivative instruments above.

## 7. Commitments and Contingencies

In acquiring its interests in mineral claims and leases, Solitario has entered into lease agreements, which may be canceled at its option without penalty. Solitario is required to make minimum rental and option payments in order to maintain its interests in certain claims and leases. See Note 2. Solitario estimates its 2010 mineral property rental and option payments to be approximately \$390,000. If Solitario's current joint venture partners elect to continue funding their respective joint ventures throughout the remainder of 2010, the joint venture partners will pay or Solitario will be reimbursed for approximately \$95,000 of those costs.

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Solitario has entered into certain month-to-month office leases for its field offices in Peru, Mexico and Brazil. The total rent expense for these offices during 2009, 2008 and 2007 was approximately \$60,000, \$36,000, and \$42,000, respectively. In addition, Solitario leases office space under a non-cancelable operating lease for the Wheat Ridge, Colorado office which provides for minimum annual rent payments through October of 2012 of \$38,000.

## 8. Stock Option Plans:

### a.) 2006 Plan

On June 27, 2006 Solitario's shareholders approved the 2006 Stock Option Incentive Plan (the "2006 Plan"). Under the terms of the 2006 Plan, the Board of Directors may grant up to 2,800,000 options to Directors, officers and employees with exercise prices equal to the market price of Solitario's common stock at the date of grant. However, under the terms of the 2006 Plan, the total number of outstanding options from all plans may not exceed 2,800,000.

Solitario granted 519,000 options during 2009. The options were granted on May 19, 2009, with a grant date fair value of \$339,000, based upon a Black-Scholes pricing model resulting in a weighted average grant date fair value of \$0.65 per share. There were no options granted in 2008. The grant date fair value of the 2006 Plan options granted on September 7, 2007, June 14, 2007 and February 8, 2007, respectively, was \$976,000, \$223,000 and \$17,000, using

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a Black-Scholes option pricing model resulting in a weighted average fair value of \$1.94, \$2.23, and \$1.71 respectively, per share.

On October 13, 2009, concurrent with the signing of the Amendment to the Agreement with Metallic Ventures, discussed above, certain holders of 1,935,000 options agreed to voluntarily cancel the options listed below. None of the cancelled options had any intrinsic value on the date of cancellation. The cancellations of the options were effected to allow Solitario to have enough authorized and unissued shares of its common stock to increase the share consideration offered to Metallic Ventures pursuant to the Amendment. No consideration was paid or received for the cancellation of the options.

Option Price	Cdn\$ 2.77	Cdn\$ 4.38	Cdn\$ 4.53	Cdn\$ 5.12
Option expiration date	06/27/2011	02/08/2012	09/07/2012	06/14/2012
Cancelled options	1,388,000	5,000	442,000	100,000

There were no options exercised during 2009. Solitario options from the 2006 Plan for 20,750 and 12,500 shares, respectively, were exercised during 2008 and 2007 for proceeds of \$61,000 and \$35,000, respectively. The intrinsic value of the shares issued on the date of exercise from the 2006 Plan during 2008 and 2007 was \$48,000 and \$27,000, respectively. Options for 200,000, 28,750 and 52,500 shares, respectively, were forfeited during 2009, 2008 and 2007.

At December 31, 2009 and 2008, the fair value of outstanding options granted under the 2006 Plan was determined utilizing the following assumptions and a Canadian dollar to United States dollar exchange rate of 0.9529 and 0.8183, respectively.

Fair Value at December 31, 2009

Grant Date	5/19/09
Plan	2006 Plan
Option price (Cdn\$)	\$1.55
Options outstanding	519,000
Expected Life	4.4 yrs
Expected volatility	57%
Risk free interest rate	2.2%
Weighted average fair value	\$1.27
Portion of vesting at measurement date	39.5%
Fair value of outstanding vested options	\$262,000

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Fair Value at December 31, 2008

Grant Date	6/27/06	2/08/07	6/14/07	9/07/07
Plan	2006 Plan	2006 Plan	2006 Plan	2006 Plan
Option price (Cdn\$)	\$2.77	\$4.38	\$5.12	\$4.53
Options outstanding	1,548,000	5,000	100,000	482,000
Expected Life	2.5 yrs	3.1 yrs	3.5 yrs	3.7 yrs

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Expected volatility	57%	54%	54%	53%
Risk free interest rate	0.8%	1.0%	1.0%	1.3%
Weighted average fair value	\$0.33	\$0.20	\$0.19	\$0.24
Portion of vesting at measurement date	87.5%	72.9%	63.5%	58.3%
Fair value of outstanding vested options	\$450,000	\$1,000	\$12,000	\$68,000

During 2009 and 2008, Solitario recognized stock option benefit of \$269,000 and \$3,255,000, respectively, net of deferred taxes of \$100,000 and \$1,149,000, respectively. During 2007 Solitario recognized stock option compensation expense of \$1,991,000, net of deferred taxes of \$670,000.

b.) 1994 Stock Option Plan

As of December 31, 2009 and 2008 there are no outstanding options from the 1994 Stock Option Plan (the "1994 Plan") and the 1994 Plan has been terminated and no additional options may be granted under the 1994 Plan. As of December 31, 2007, Solitario had vested and outstanding options for 110,000 shares of its common stock under the 1994 Plan. Under the 1994 Plan, these options were granted at option prices equal to the fair market value of the underlying common stock as quoted on the TSX on the date of grant.

There were no options exercised during 2009. Options from the 1994 Plan for 110,000 and 917,000 shares, respectively, were exercised during the years ended December 31, 2008 and 2007 for proceeds of \$87,000 and \$574,000, respectively. The intrinsic value of the shares issued on the date of exercise from the 1994 Plan during 2008 and 2007 was \$429,000 and \$2,901,000. No options from the 1994 Plan were forfeited during 2008 and 2007.

c.) Summary of stock-based compensation plans

The activity in the 1994 Plan and the 2006 Plan for the three years ended December 31, 2009 is as follows:

	2009		2008		2007	
	Options	Weighted Average Exercise Price(Cdn\$)	Options	Weighted Average Exercise Price (Cdn\$)	Options	Weighted Average Exercise Price (Cdn\$)
1994 Plan						
Outstanding, beginning of year	-	n/a	110,000	\$0.81	1,027,000	\$0.74
			<u>(110,000)</u>		<u>(917,000)</u>	
Exercised	<u>-</u>	n/a		\$0.81	<u>110,000</u>	\$0.73
Outstanding, end of year	<u>-</u>	n/a	<u>-</u>	n/a	<u>110,000</u>	\$0.81
Exercisable, end of year	<u>-</u>	n/a	<u>-</u>	n/a		\$0.81
2006 Plan						
Outstanding, beginning of year	2,135,000	\$3.28	2,184,500	\$3.29	1,637,500	\$2.77

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Granted	519,000	\$1.55	-		612,000	\$4.62
Forfeited	(200,000)	\$3.12	(28,750)	\$4.13	(52,500)	\$2.77
Cancelled	(1,935,000)	\$3.30	-		-	
Exercised	<u>-</u>		<u>(20,750)</u>	\$2.96	<u>(12,500)</u>	\$2.77
					<u>2,184,500</u>	
Outstanding, end of year	<u>519,000</u>	\$1.55	<u>2,135,000</u>	\$3.28		\$3.29
					<u>933,000</u>	
Exercisable, end of year	<u>129,750</u>	\$1.55	<u>1,451,000</u>	\$3.15		\$3.07

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The following table summarizes Solitario's stock options as of December 31, 2009:

	Options Outstanding				Options Exercisable		
	Number	Weighted Average Remaining Contractual Life (in years)	Weighted Average Exercise Price (Cdn\$)	Aggregate intrinsic value(1)	Number Exercisable	Weighted Average Exercise Price (Cdn\$)	Aggregate intrinsic value(1)
2006 Plan	519,000	4.4	\$1.55	\$420,000	129,750	\$1.55	\$105,000

(1)The intrinsic value at December 31, 2009 based upon the quoted market price of Cdn\$2.40 per share for our common stock on the TSX and an exchange ratio of 0.9529 Canadian dollars per United States dollar.

9. Stockholders' Equity and Noncontrolling Interest:

On December 23, 2008 Anglo earned a 30% interest in PBM, discussed above under Pedra Branca. Anglo had previously earned a 15% interest in PBM as of September 30, 2007. Prior to earning its interest in PBM, all payments from Anglo were recorded as deferred noncontrolling shareholder payments. Upon Anglo earning its initial 15% interest in PBM, Solitario recorded \$392,000 of noncontrolling interest in the equity section of its balance sheet for Anglo's noncontrolling interest in PBM and recorded \$1,886,000 as additional paid in capital for the excess of Anglo's payments over Anglo's noncontrolling interest in PBM from the inception of the Shareholder Agreement to the date of Anglo earning its 15% interest in PBM. Upon Anglo earning its subsequent 15% interest in PBM, Solitario recorded \$685,000 of noncontrolling interest in the equity section of its balance sheet for Anglo's noncontrolling interest in PBM and recorded \$1,105,000 as additional paid in capital for the excess of Anglo's payments over Anglo's noncontrolling interest from September 30, 2007 to December 23, 2008, the date Anglo earned its next 15% interest, for a total of a 30% interest in PBM. As of December 31, 2009, Anglo had made payments of \$1,286,000 under the Shareholder Agreement which have been recorded as deferred noncontrolling shareholder payments. All deferred noncontrolling shareholder payments had been transferred to noncontrolling interest and additional paid-in-capital as of December 31, 2008, as described above.

10. Selected Quarterly Financial Data (Unaudited):

(in thousands)

2009

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	March 31,	June 30,	Sept. 30,	Dec. 31,
	(1)(4)(5)	(1)(4)(5)	(1) (3)(4)(5)	(1)(2)(4)(5)(6)
Revenue	\$ -	\$ -	\$ 200	\$ -
Net income (loss)	\$ (671)	\$ (1,388)	\$ (377)	\$ 650
Earnings (loss) per share:				
Basic and diluted	\$ (0.02)	\$ (0.05)	\$ (0.01)	\$ 0.02
Weighted shares outstanding:				
Basic and diluted	29,750	29,750	29,750	29,750

(in thousands)

	2008			
	March 31,	June 30,	Sept. 30,	Dec. 31,
	(7)(8)(10)(11)(12)	(7)(8)(10)(11)(12)	(7)(8)(9)(10)(11)(12)	(8)(10)(11)(12)
Revenue	\$ -	\$ -	\$ 200	\$ -
Net income (loss)	\$ (1,513)	\$ (1,409)	\$ 3,193	\$ (888)
Earnings (loss) per share:				
Basic and diluted	\$ (0.05)	\$ (0.05)	\$ 0.11	\$ (0.03)
Weighted shares outstanding:				
Basic	29,628	29,642	29,744	29,750
Diluted	29,628	29,642	30,049	29,750

(1) Solitario sold 40,000 shares of Kinross common stock in the second quarter for proceeds of \$667,000 and a gain of \$490,000 and sold 60,000 shares of Kinross stock in the third quarter for proceeds of \$1,185,000 and a gain of \$919,000. Solitario did not sell any Kinross shares in the first or fourth quarters of 2009, which contributed to the larger loss in the second quarter and the smaller loss in the third quarter.

(2) In the fourth quarter Solitario received a break fee of \$2,200,000 from Metallic Ventures related to the Agreement. This contributed to the net income in the fourth quarter of 2009.

(3) In the third quarter Solitario received a payment of \$200,000 in joint venture revenue on its Bongara project in Peru, which reduced the loss in the third quarter.

(4) Exploration expense was \$681,000, \$797,000, \$1,118,000 and \$983,000, respectively, in the first, second, third and fourth quarters of 2009, which contributed to the fluctuation in the losses in the quarters.

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(5) Solitario recorded general and administrative costs (benefit), \$514,000, \$1,410,000, (\$472,000) and \$627,000, respectively, in the first second, third and fourth quarters of 2009. The fluctuation in general and administrative costs were primarily caused by fluctuations in stock option compensation costs (benefit) in each quarter of (\$121,000), \$868,000, (\$1,082,000), and \$214,000, respectively during



the first, second, third and fourth quarters of 2009.

(6) Fully diluted earnings per share during the fourth quarter is the same as basic earnings per share.

(7) Solitario sold 100,000 shares of Kinross common stock in the first quarter for proceeds of \$2,229,000 and a gain of \$1,787,000, sold 42,920

shares of Kinross common stock in the second quarter for proceeds of \$986,000 and a gain of \$796,000, and sold 50,000 shares of Kinross common

stock in the third quarter for proceeds of \$1,214,000 and a gain of \$993,000. The large gain in the first quarter contributed to the net income in that

quarter compared to the other three. Solitario did not sell any Kinross shares in the fourth quarter, which contributed to the loss in the fourth

quarter.

(8) Exploration expense increased from \$1,021,000 in the first quarter to \$1,026,000 in the second quarter to \$1,265,000 in the third quarter to

\$1,277,000 in the fourth quarter, contributing to the increasing loss by quarter after consideration of the Kinross stock sales in the first, second, and

third quarters, discussed above.

(9) In the third quarter Solitario received a payment of \$200,000 in joint venture revenue on its Bongara project in Peru.

(10) In the first, second and fourth quarters, Solitario recognized \$1,867,000, \$864,000 and \$789,000 derivative loss on the Kinross Collar,

however in the third quarter Solitario recognized a \$4,697,000 derivative gain which contributed to the lower loss in the quarter.

(11) Solitario recognized stock option compensation expense of \$102,000 in the first quarter, and recognized stock option compensation benefit of

\$85,000, \$1,377,000 and \$1,896,000 in the second, third and fourth quarters.

(12) Solitario recognized income tax benefit of \$213,000 and \$130,000 during the first and second quarter, compared to an income tax expense of

\$2,347,000 and \$124,000 during the third and fourth quarters of 2008, which contributed to the variation in the quarter net income and (loss).

## 11. Restatement

In connection with the preparation of its consolidated financial statements for the year ended December 31, 2009, Solitario identified an error in its previously reported consolidated financial statements. Solitario determined that it should credit payments received from Anglo by its PBM subsidiary to deferred noncontrolling shareholder payments, a deferred capital account, in the liability section of its consolidated balance sheet. Previously, Solitario recorded the payments received from Anglo after September 2007 as noncontrolling interest and additional paid-in-capital in the equity section of its consolidated balance sheet. Upon Anglo earning any additional interest in PBM, Solitario is required to credit noncontrolling interest for the earned percentage of the net book value of PBM on that date and credit additional paid-in-capital for the difference between the payments accumulated to that date in deferred noncontrolling shareholder payments. The restatement included in the consolidated financial statements reflects the recording of payments received from Anglo as deferred noncontrolling shareholder payments until such time as Anglo earned its percentage interest in PBM by increasing accumulated deficit and additional paid-in-capital by \$2,276,000 at December 31, 2008 as further described below.

The restatement of the consolidated financial statements contained herein records payments of \$2,276,000 received from Anglo from 2003 through September 30, 2007 as deferred noncontrolling shareholder payments that were previously recorded as reductions (credits) to exploration expense. Of these, payments of \$1,043,000 were credited to exploration expense during 2007. The restatement of the consolidated financial statements contained herein records those payments from 2003 through September 30, 2007 as deferred noncontrolling shareholder payments,

with \$1,043,000 of those payments being recorded as an increase in exploration expense during 2007 and \$1,233,000 as an increase in accumulated deficit as of January 1, 2007. The restatement also reflects the transfer of the balance of that adjustment of \$2,276,000 to additional paid in capital from deferred noncontrolling shareholder payments as of the date Anglo's earned its percentage of the net book value of PBM on September 30, 2007. Because Solitario had correctly recorded Anglo's noncontrolling interest as of that date, the restatement of the consolidated financial statements contained herein had no effect on previously reported noncontrolling interest.

Solitario has recorded an allowance for all tax benefits related to the increase in foreign exploration expense related to the Anglo payments from 2003 through September 2007 in accordance with Solitario's tax policies described in Note 4 above. Accordingly the gross and net of tax effect of the increase to exploration expense from the restatement included in the consolidated financial statements for the year ended September 30, 2007 is \$1,043,000.

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The accompanying consolidated financial statements as of December 31, 2008 and for the year ended December 31, 2007 have been restated from the amounts previously reported. A summary of the significant effects of the restatement is as follows:

BALANCE SHEET INFORMATION

(in thousands)	<u>As of</u> <u>December 31, 2008</u>	
	As previously <u>reported</u>	As <u>restated</u>
Stockholders' equity:		(1)
Additional paid-in-capital	33,335	35,611
Accumulated deficit	(28,868)	(31,144)

(1) Beginning accumulated deficit on January 1, 2008 was previously reported as \$28,251 and was restated to \$30,527 as a result of the correction of the error discussed above. Beginning accumulated deficit on January 1, 2007 was previously reported as \$23,854 and was restated to \$25,087 as a result of the correction of the error discussed above.

STATEMENT OF OPERATIONS INFORMATION

(in thousands, except per share amounts)	<u>Year ended</u> <u>December 31, 2007</u>	
	As previously <u>reported</u>	As <u>restated</u>
Cost expenses and other:		
Exploration expenses	\$3,112	\$4,155
Net Loss	\$4,397	\$5,440
Basic and diluted loss per share	\$0.15	\$0.18

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Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None

Item 9A. Controls and Procedures

The management of Solitario is responsible for establishing and maintaining adequate internal control over financial reporting. During the fiscal period covered by this report, Solitario's management, with the participation of the Chief Executive Officer and Chief Financial Officer, carried out an evaluation of the effectiveness of the design and operation of Solitario's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")). This evaluation of the effectiveness of our internal control over financial reporting was based on the framework and criteria established in *Internal Control - Integrated Framework*, issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on such evaluation, Solitario's Chief Executive Officer and Chief Financial Officer have concluded that, as of December 31, 2009, there was a material weakness in our disclosure controls and procedures that caused our system of internal control over financial reporting to not be effective to ensure that information required to be disclosed by Solitario in reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the required time periods and are designed to ensure that information required to be disclosed in its reports is accumulated and communicated to Solitario's management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure, as discussed below. However, subsequent to December 31, 2009 we made changes to our internal control over financial reporting as discussed below.

Reported material weaknesses and corrective actions -

The restatement discussed in Note 11 to the consolidated financial statements in this report was the result of a material weakness in our disclosure controls and procedures and our internal control over financial reporting. This weakness was the failure to evaluate, interpret and apply existing accounting principles generally accepted in the United States of America ("GAAP") in our financial statements and disclosures. This weakness resulted in the classification of payments by Anglo as additional paid-in-capital and noncontrolling interest, and for payments received between 2003 and September 30, 2007, prior to when Anglo received its initial interest in PBM, as credits to exploration expense rather than as deferred noncontrolling shareholder payments. Please see Note 11 to the consolidated financial statements for a detailed discussion of these items and other disclosures contained in this 2009 Annual Report on Form 10-K.

We have taken measures to cure this weakness, which include implementing, as part of our policies and procedures, a requirement that management document in writing, at least quarterly, the impact of new and existing GAAP to our financial statements and disclosures. Additionally, this work will be reported to and reviewed by our Audit Committee. We believe this additional oversight of our financial reporting and implementation of generally accepted accounting principles by our management, as well as increased review and consultation between management and our Audit Committee has adequately addressed and eliminated the material weakness in our disclosure controls and procedures and our internal control over financial reporting and that with the implementation of these corrective actions our disclosure controls and procedures are now effective.

Management's assessment of the effectiveness of our internal control over financial reporting as of December 31, 2009 has been audited by Ehrhardt Keefe Steiner & Hottman PC, an independent registered public accounting firm, as stated in their report which is included in Item 8 of this Report.

Item 9A(T). Controls and Procedures

Not Applicable

Item 9B. Other Information

None

PART III

Item 10 Directors, Executive Officers and Corporate Governance

The information required under Item 10 is incorporated herein by reference to the information set forth under the following sections in our definitive proxy statement in connection with the annual meeting of shareholders to be filed with the Securities and Exchange Commission within 120 days after the end of our fiscal year ended December 31, 2009 pursuant to Section 14(a) of the Securities Exchange Act of 1934 (the "2010 Proxy"):

"Election of Directors"

**"Executive and Director Compensation"**

Item 11. Executive Compensation

The information required under Item 11 is incorporated herein by reference to the information set forth under the following sections of the 2010 Proxy:

**"Executive and Director Compensation"**

**"Summary Compensation Table"**

**"Outstanding Equity Awards at Fiscal Year End"**

**"Election of Directors"**

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Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information with respect to Item 12 is incorporated herein by reference to the information set forth under the following section of the 2010 Proxy:

**"Compensation Plans"**

**"Security Ownership of Certain Beneficial Owners"**

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information with respect to Item 13 is incorporated herein by reference to the information set forth under the following section of the 2010 Proxy:

**"Certain Relationships and Related Transactions"**

**"Election of Directors"**

1. Item 14. Principal Accounting Fees and Services

The information required under Item 14 is incorporated herein by reference to the information set forth under the following section of the 2010 Proxy:

**"Principal Accountant Fees and Services"**

PART IV

Item 15. Exhibits, Financial Statement Schedules

The following documents are filed as a part of this Annual Report on Form 10-K:

1. Financial Statements

The following financial statements contained in Part II, Item 8 are filed as part of this Annual Report on Form 10-K:

Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

Consolidated Balance Sheets as of December 31, 2009, and December 31, 2008

Consolidated Statements of Operations for the years ended December 31, 2009, December 31, 2008, and December 31, 2007

Consolidated Statements of Stockholders' Equity for the years ended December 31, 2009, December 31, 2008, and December 31, 2007

Consolidated Statements of Cash Flows for the years ended December 31, 2009, December 31, 2008,

and December 31, 2007

Notes to Consolidated Financial Statements

2. Financial Statement Schedules

Financial statement schedules are omitted because they are not required or are not applicable, or the required information is provided in the consolidated financial statements or notes thereto described in Item 15(1) above.

3. Exhibits

The Exhibits listed in the Index to Exhibits, which appears immediately following the signature page and is incorporated herein by reference, are filed as part of this Annual Report on Form 10-K.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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.

SOLITARIO EXPLORATION & ROYALTY CORP.

By: /s/ James R. Maronick

Chief Financial Officer

Date: February 12, 2010

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ Christopher E. Herald</u> Christopher E. Herald Chief Executive Officer	Principal Executive Officer and Director	<u>February 12, 2010</u>
<u>/s/ James R. Maronick</u> James R. Maronick Chief Financial Officer	Principal Financial and Accounting Officer	<u>February 12, 2010</u>
<u>/s/ Mark E. Jones, III</u> Mark E. Jones, III	—   	
<u>/s/ Brian Labadie</u> Brian Labadie	                 	A majority of the Board of Directors
<u>/s/ Leonard Harris</u> Leonard Harris	                   	<u>February 12, 2010</u>
<u>/s/ John Hainey</u> John Hainey	                     	
By: <u>/s/ James R. Maronick</u> James R. Maronick, Attorney-in-fact	—                           	

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INDEX TO EXHIBITS

Description

2.1 Arrangement Agreement, dated August 24, 2009, among Solitario Exploration & Royalty Corp. and Metallic Ventures Gold, Inc. (incorporated by reference to Exhibit 2.1 to Solitario's Form 8-K filed on August 24, 2009). This agreement was terminated

- on November 2, 2009.
- 2.2 Amendment No. 1 dated October 13, 2009, to the Arrangement Agreement, dated August 24, 2009, among Solitario Exploration & Royalty Corp. and Metallic Ventures Gold, Inc. (incorporated by reference to Exhibit 2.1 to Solitario's Form 8-K filed on October 13, 2009). This agreement was terminated on November 2, 2009.
- 3.1 Articles of Incorporation of Solitario Exploration & Royalty Corp., as Amended (incorporated by reference to Exhibit 3.1 to Solitario's Form 10-Q filed on August 7, 2008)
- 3.2 Amended and Restated By-laws of Solitario Exploration & Royalty Corp. (incorporated by reference to Exhibit 3.2 to Solitario's Form 10-Q filed on August 7, 2008)
- 4.1 Form of Common Stock Certificate of Solitario Exploration & Royalty Corp. (incorporated by reference to Exhibit 4.1 to Solitario's Form 10-Q filed on August 7, 2008)
- 10.1 Support agreement dated August 24, 2009 between Solitario Exploration & Royalty Corp. and Richard D. McNeely (incorporated by reference to Exhibit 10.1 to Solitario's Form 8-K filed on August 24, 2009). This agreement was terminated on November 2, 2009.
- 10.2 Amended support agreement dated October 13, 2009 between Solitario Exploration & Royalty Corp. and Richard D. McNeely (incorporated by reference to Exhibit 10.1 to Solitario's Form 8-K filed on October 13, 2009). This Agreement was terminated on November 2, 2009.
- 10.3 Support agreement dated August 24, 2009 between Solitario Exploration & Royalty Corp. and Jeffrey R Ward (incorporated by reference to Exhibit 10.2 to Solitario's Form 8-K filed on August 24, 2009). This agreement was terminated on November 2, 2009.
- 10.4 Amended support agreement dated October 13, 2009 between Solitario Exploration & Royalty Corp. and Jeffrey R Ward (incorporated by reference to Exhibit 10.2 to Solitario's Form 8-K filed on October 13, 2009). This agreement was terminated on November 2, 2009.
- 10.5 Solitario Resources Corporation 2006 Stock Option Incentive Plan (As Amended), an amendment of the Solitario Resources Corporation 2006 Stock Option Incentive Plan (incorporated by reference to Exhibit A to Solitario's Proxy Statement Pursuant to Section 14(a) filed on April 30, 2007)
- 10.6 Alliance Agreement, dated January 18, 2005, between Solitario Resources Corporation and Newmont Overseas Exploration Limited (incorporated by reference to Exhibit 99.1 to Solitario's Form 8-K filed on January 20, 2005)
- 10.7 Stock Purchase Agreement, dated January 18, 2005, between Solitario Resources Corporation and Newmont Mining Corporation of Canada Limited (incorporated by reference to Exhibit 99.2 to Solitario's Form 8-K filed on January 20, 2005)
- 10.8 Amended and Restated Royalty Grant, dated January 18, 2005, between Solitario Resources Corporation and Minera Los Tapados S.A. (incorporated by reference to Exhibit 99.3 to Solitario's Form 8-K filed on January 20, 2005)
- 10.9 Change in Control Severance Benefits Agreement between Solitario Resources Corporation and Christopher E. Herald, dated as of March 14, 2007. (incorporated by reference to Exhibit 99.1 to Solitario's Form 8-K filed on March 14, 2007)
- 10.10

- Change in Control Severance Benefits Agreement between Solitario Resources Corporation and James R. Maronick, dated as of March 14, 2007. (incorporated by reference to Exhibit 99.2 to Solitario's Form 8-K filed on March 14, 2007)
- 10.11 Change in Control Severance Benefits Agreement between Solitario Resources Corporation and Walter W. Hunt, dated as of March 14, 2007. (incorporated by reference to Exhibit 99.3 to Solitario's Form 8-K filed on March 14, 2007)
- 10.12 Framework Agreement for the Exploration and Development of Potential Mining Properties, related to Solitario's 100% owned Bongara project in Peru between Minera Bongara S.A., Minera Solitario Peru S.A.C, Solitario Resources Corporation, and Votorantim Metais - Cajamarquilla S.A dated March 24, 2007. (incorporated by reference to Exhibit 10.2 to Solitario's Form 8-K filed on October 4, 2007)
- 10.13 Shareholders Agreement relating to the Pedra Branca Project in Brazil, between Anglo Platinum Brasil, S.A. and Altoro Mineracao, LTDA and Pedra Branca do Brasil Mineração S.A. and Rustenburg Platinum Mines Limited and Solitario Resources Corporation dated April 24, 2007. (incorporated by reference to Exhibit 10.1 to Solitario's Form 8-K filed on October 4, 2007)
- 10.14 Master Agreement for Equity Collars between Solitario Resources Corporation and UBS AG, London, England, an affiliate of UBS Securities, LLC, Stamford, CT, dated October 5, 2007, providing the terms and conditions for entering a Zero-Premium Equity Collar on 900,000 shares of Kinross common stock pledged by Solitario. (incorporated by reference to Exhibit 10.1 to Solitario's Form 10-Q filed on November 8, 2007)
- 10.15 Pledge and Security Agreement between Solitario Resources Corporation and UBS AG, London, England, an affiliate of UBS Securities, LLC, Stamford, CT, dated October 5, 2007 providing the terms and conditions to allow for the pledge by Solitario of 900,000 shares of Kinross common stock pursuant to a Master Agreement for Equity Collars dated of the same day. (incorporated by reference to Exhibit 10.2 to Solitario's Form 10-Q filed on November 8, 2007)
- 10.16 Single Pay Collar Confirmations between Solitario Resources Corporation and UBS AG, London, England, an affiliate of UBS Securities, LLC, Stamford, CT dated October 12, 2007 for the pledge of 900,000 shares of Kinross common stock pursuant to the Master Agreement for Equity Collars and the Pledge and Security Agreement, filed above in item 10.1 and 10.2 respectively, setting the trade and termination date, upper and lower threshold prices, number of shares and other terms and conditions of three equity collars entered into on the same date. (incorporated by reference to Exhibit 10.3 to Solitario's Form 10-Q filed on November 8, 2007)
- 14.1 Code of Ethics for the Chief Executive Officer and Senior Financial Officer (incorporated by reference to Exhibit 99.1 to Solitario's Form 8-K filed on July 18, 2006)
- 21.1 Subsidiaries of Solitario Resources Corporation
- 23.1 Consent of Ehrhardt Keefe Steiner & Hottman PC
- 24.1 Power of Attorney
- 31.1 Certification of Chief Executive Officer pursuant to SEC Rule 13a-14(a)/15d-14(a) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 31.2 Certification of Chief Financial Officer pursuant to SEC Rule 13a-14(a)/15d-14(a) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 32.1 Certification of Chief Executive Officer pursuant to 18 U.S.C Section 1350 as



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