

SOLITARIO EXPLORATION & ROYALTY CORP.  
Form 10-K  
March 11, 2011

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, 2010

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	Name of exchange on which registered
Common Stock, \$0.01 par value	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 (SS 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  Accelerated filer  Non accelerated Filer  Smaller Reporting Company  
] ] (Do not check if a smaller reporting company) [X]

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 and non-voting common 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, 2010 as reported on NYSE Amex Equities was approximately \$50,271,000.

There were 29,775,242 shares of common stock, \$0.01 par value, outstanding on March 8, 2011.

#### DOCUMENTS INCORPORATED BY REFERENCE

None

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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. We acquire and hold 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 our mineral properties may be developed in the future on our own or through a joint venture, Solitario has never developed a mineral property. However, in August 2010 and December 2010, respectively, Solitario signed a Letter of Intent and a Limited Liability Company Operating Agreement to earn up to an 80% interest in and develop the Mt. Hamilton project located in Nevada, discussed below under "Ely Gold Investment and the Mt. Hamilton Joint Venture" and we intend to develop the Mt. Hamilton project. Solitario may also evaluate mineral properties to potentially buy a royalty. At December 31, 2010, Solitario's mineral properties are located in the State of Nevada in the United States and in Mexico, Brazil, Bolivia and 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 as part of the acquisition of Crown (the "Crown - Kinross Merger") by Kinross Gold Corporation ("Kinross"). On June 12, 2008, our shareholders approved an amendment to the Articles of Incorporation to change our name from Solitario Resources Corporation to Solitario Exploration & Royalty Corp.

Our corporate structure is as follows - all of the subsidiaries are 100%-owned, with the exception of Minera Chambara, which is 85%,-owned by Solitario, and Mt. Hamilton LLC, which is 10% owned 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]
- 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]
- Minera Solitario Mexico, S.A. [Mexico] - 100%
- Mt. Hamilton, LLC [Colorado] - 10%

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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. During 2010 we entered into the Limited Liability Company Operating Agreement for Mt. Hamilton, LLC. We currently working on feasibility related activities related to Mt. Hamilton and intend to develop the Mt. Hamilton project, but we have never developed a property in our history. In addition to our activities at Mt. Hamilton, one of our primary goals 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, completion of a feasibility study for 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 either on our own or 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, either on our own or through a joint venture of our mineral properties will occur, if at all, on an infrequent basis. Accordingly, while we conduct exploration activities and planned development of the Mt. Hamilton project, we need to maintain and replenish our capital resources. We have met our need for capital in the past through (i) sale of our investment in Kinross common stock; ii) issuance of short-term margin debt secured by our investment in Kinross; (iii) joint venture delay rental payments, including payments of \$200,000 each year, respectively, in 2010, 2009 and 2008 on our Bongara property and previous payments on our exploration properties which occurred during the years from 1996 through 2000; (iv) the sale of properties, which last occurred in 2000 with the sale of our Yanacocha property for \$6,000,000, (v) issuance of common stock, including the exercise of options. 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.

We operate in one segment, mining geology and mineral exploration. We currently conduct exploration in Peru, Brazil, Mexico, Nevada in the United States and, to a limited extent, Bolivia. As of March 8, 2011, 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 and development 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, exploration and development of mineral properties. We are not aware of any single competitor or group of competitors that dominate the exploration and development of mineral properties. In acquiring mineral properties for exploration and development, 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.

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#### Ely Gold Investment and the Mt. Hamilton Joint Venture.

On August 26, 2010, we signed a Letter of Intent ("LOI") with Ely Gold and Minerals, Inc., ("Ely") to make certain equity investments into Ely and to joint venture Ely's Mt. Hamilton gold project, which was wholly-owned by DHI-Minerals (US) Ltd. ("DHI-US") an indirect wholly-owned subsidiary of Ely. On August 26, 2010 and October 19, 2010, we made private placement investments of Cdn\$250,000 each in Ely securities. We received a total of 3,333,333 shares of Ely common stock and warrants to purchase a total of 1,666,667 shares of Ely common stock (the "Ely Warrants") for an exercise price of Cdn\$0.25 per share, which expire two years from the date of purchase. The private placements were pursuant to the LOI to joint venture Ely's Mt. Hamilton gold project. On November 12, 2010 we made an initial contribution of \$300,000 for a 10% membership interest in, upon the formation, of Mt. Hamilton LLC ("MH-LLC") which was formed in December 2010. The terms of the joint venture are set forth in the Limited Liability Company Operating Agreement of MH-LLC between Solitario and DHI-US (the "MH Agreement"). MH-LLC owns 100% of the Mt. Hamilton Gold project. Pursuant to the MH Agreement, we may earn up to an 80% interest in MH-LLC, and indirectly, the Mt. Hamilton project, by completing various staged commitments. See a more complete discussion of Ely and MH-LLC below in Note 12 to the consolidated financial statements, "Ely Gold investment and the Mt. Hamilton Joint Venture" in Item 8 "Financial Statements and Supplementary Data."

#### Investment in Kinross

We have a significant investment in Kinross at December 31, 2010, which consists of 980,000 shares of Kinross common stock. In August 2006, 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. Subsequent to the Crown - Kinross Merger, we have sold 982,920 shares of Kinross common stock to fund our operations. As of March 8, 2011, Solitario owns 960,000 of Kinross common stock. In October 2007, Solitario entered into a Zero-Premium Equity Collar (the "Kinross Collar") with UBS Securities, LLC ("UBS"), which currently limits our ability to sell 100,000 of these shares until April 12, 2011, when the Kinross Collar expires. Under the Kinross Collar, upon termination on April 12, 2011, if the price of a share of Kinross common stock falls below \$13.69 per share UBS will buy the shares for that amount. Furthermore, the Kinross Collar provides for an upper limit that we would receive of \$27.50 per share on that date for the sale of those shares. As of March 8, 2011, the 860,000 shares of Kinross common stock that are not subject to the Kinross Collar have a value of approximately \$13.36 million based upon the market price of \$15.54 per Kinross share. Any significant fluctuation in the market value of Kinross common stock could have a material impact on Solitario's liquidity and capital resources.

Pedra Branca do Mineracao, Ltd., ("PBM")

On July 21, 2010, Anglo Platinum Limited ("Anglo") earned an additional 21% interest in PBM and now holds a 51% interest in PBM. Accordingly, we have deconsolidated our interest in PBM and have recorded our 49% interest in the fair market value of PBM as an equity investment in our consolidated balance sheet as of December 31, 2010. We recorded a gain on deconsolidation as of July 21, 2010 of \$724,000 and have recorded our equity in the net loss of PBM from that date as other income in the condensed consolidated statement of operations. Please see Note 11 to the consolidated financial statements "Deconsolidation of PBM" in Item 8 "Financial Statements and Supplementary Data."

Short-term debt

During the year ended December 31, 2010, we borrowed \$2,800,000 in short-term margin loans using our investment in Kinross as collateral for the short-term margin loan. At December 31, 2010, we have recorded \$2,823,000 of short-term debt including \$23,000 of accrued interest. See Note 3, to the consolidated financial statements "Short Term Debt" in Item 8 "Financial Statements and Supplementary Data."

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. In 2010 we acquired a 10% interest in MH-LLC with an option to earn up to an 80% interest. MH-LLC owns the Mt. Hamilton mining claims located in Nevada, USA.

Financial information about geographic areas

Included in the consolidated balance sheet at December 31, 2010 and 2009 are total assets of \$515,000 and \$3,310,000, 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 are net capitalized costs related to the Pedra Branca Property, located in Brazil, of \$2,607,000, which was deconsolidated during 2010.

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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 Solitario 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, [www.solitarioxr.com](http://www.solitarioxr.com), as soon as practicable, after filing with the United States Securities and Exchange Commission.

### **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.

During 2010, we entered into an agreement with Ely to acquire up to 80% of the Mt. Hamilton project through our membership interest in MH-LLC. We currently intend to develop this property. The potential development of the Mt. Hamilton project adds new risks to Solitario including permitting, finance, mining operations and closure, for which Solitario has limited experience, resources and personnel. Failure on any of these or other components of the planned development of the Mt. Hamilton project could contribute to our inability to profitably develop, operate and close the Mt. Hamilton project, which could result in the loss of our investment in MH-LLC, and the loss of all or a significant portion of our financial reserves.

The development of mining properties involves a high degree of risk including the requirement to obtain permits, significant financial resources for the construction and development of an operating mine, operational expertise and reclamation. Permitting of a mine for development can be an expensive and uncertain endeavor, with no assurance of receiving required permits in a timely manner, if ever. We do not have a history of developing or operating mines and may not be able to acquire the additional personnel to adequately manage such operations. In addition, the financial resources required to put a mine into production and to sustain profitable operating mines is significant and far exceed our existing financial resources and there can be no assurance that we could obtain such financial resources. Should we fail to timely complete any of the activities required for the planned development of the Mt. Hamilton project or if upon completion of the development of the Mt. Hamilton project we are unable to operate the project profitably, it could result in the loss of our investment in Mt. Hamilton, the loss of all or a significant portion of our financial reserves and be a detriment to our other exploration assets. The failure to permit, develop, operate and close the Mt. Hamilton project on a timely and profitable basis could negatively affect our stock price and our financial position and operational results.

Our mineral exploration activities involve a high degree of risk; a significant portion of 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 these 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, joint venture or develop 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.

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We believe the data obtained from our own exploration activities or our partners' activities to be reliable, however the nature of exploration of 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.

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 2010 when we wrote down our investment in our Santiago, Cajatambo, La Noria and Palmira projects, recording mineral property impairment of \$55,000. We recorded mineral property impairment of \$51,000 during 2009.

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 March 8, 2011. 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.

During 2010 and 2011 we have borrowed money using short-term margin accounts, secured by our investment in Kinross. In the event this borrowing increases, or the price of a share of Kinross common stock decreases, we may be subject to a margin call against our investment in Kinross.

As of March 8, 2011 we have borrowed \$3,875,000 in short term margin loans, secured by our investment in Kinross. These margin loans provide that if the net equity in our investment in Kinross, defined as the market value our equity holdings, consisting primarily of Kinross common stock, falls below a minimum margin equity level of between 35% and 40%, the lender of the short term margin loans may demand immediate payment or sell as much Kinross stock to repay the margin loan (a "Margin Call"). A significant decline in the market value of Kinross could result in the sale of some or all our investment in Kinross at a steep discount to the current investment balance. Such a Margin Call could have a negative effect on our liquidity, capital resources and results of operations.

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

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An investment in our common stock 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 Equities ("NYSE Amex") during 2010 was approximately 30,000 shares, with no shares traded on many days. The market price of our shares has historically fluctuated in a wide 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 and severe weather conditions, 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.

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

We have reported losses in 15 of our 17 years of operations. We reported losses of \$4,066,000 and \$1,786,000 for the years ended December 31, 2010 and 2009, 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 stock 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. Our 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 ("United States") are subject to the laws of Peru, Bolivia, Brazil and Mexico, where we operate. Exploration and potential 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 of mining rights private companies may own, 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, 2010 and 2009.

Consequently, our current exploration activities outside of the United States 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 United States or may not be successful in subjecting persons to the jurisdictions of the courts in the United States, which could adversely affect the outcome of a dispute.

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

The capital required for exploration and potential development 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, short-term margin loans 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 and in the case of MH-LLC, potential funding for development activities to place the project into production. 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 or potential development of such mineral properties. Without successful sale or future development of our mineral properties through joint ventures, or on our own, 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.

Our investment in MH-LLC includes the obligation to make payments necessary to provide Ely with the funds for Ely to repay a long-term loan secured by the assets of the Mt. Hamilton project; failure to make all of the payments associated with MH-LLC including those due to underlying leaseholders may result in losing all of our interest in the Mt. Hamilton project.

In connection with the formation of MH-LLC, the Mt. Hamilton properties contributed by DHI-US to MH-LLC were subject to a security interest granted to Augusta Resource Corporation ("Augusta") related to Ely's acquisition of the Mt. Hamilton properties. Pursuant to the MH Agreement, as part of our earn-in, we agreed to make payments of \$3,750,000, with \$1,250,000 of that in cash to DHI-US and \$2,500,000 of that in the form of private placement investments in Ely common stock, all to provide Ely with the funds necessary for Ely to make the loan payments due to Augusta. Failure to make any of the payments or investments necessary to provide Ely with funds to make the required payments due to Augusta may result in the loss of all of our interest in the Mt. Hamilton project.

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.

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.

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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 develop either on our own or through a joint venture 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 and potential development 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 permits for exploration or potential future development of mineral properties 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 such 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.

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 as well as our activities associated with the exploration and potential development of the Mt. Hamilton project are subject to normal seasonal weather conditions that often hamper and may temporarily prevent exploration or development activities. There is a risk that unexpectedly harsh weather or violent storms could affect areas where we conduct these activities. Delays or damage caused by severe weather could materially affect our operations or our financial position.

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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 United States dollar can affect the cost of doing business in a foreign country in United States dollar terms, which is our functional currency. Consequently, the cost of conducting exploration in the countries where we operate, accounted for in United States dollars, can fluctuate based upon changes in currency exchange rates and may be higher than we anticipate in terms of United States dollars because of a decrease in the relative strength of the United States 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 Chief Operating Officer, 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 addition to our Mt. Hamilton project, we may look to joint venture with another mining company in the future to develop and or operate one of our foreign projects, therefore, in the future, our results may become subject to additional risks associated with development and production of our foreign mining projects.

We are not currently involved in mining development or operating activities at any of our properties located outside of the United States. In order to realize a profit from these 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 greater 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. In the future, if our exploration activities show sufficient promise in one of our foreign projects, 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.

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.

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Item 1B. Unresolved Staff Comments

None

Item 2.

Properties

Joint Ventures and Strategic Alliance Properties

Mt. Hamilton Gold Project (Nevada, USA)

1. Property Description and Location

The consolidated Mt. Hamilton project property consists of 120 unpatented mining claims, 9 patented mining claims and 200 acres of fee land. Ninety-nine of these claims and all of the private surface rights are subject to underlying leases. The unpatented claims are also subject to the US Mining Law of 1872 and US Department of Agriculture - Forest Service administration. The property is located in White Pine County, eastern Nevada.

On August 26, 2010, we signed the LOI with Ely to earn up to an 80% interest in DHI-US's Mt. Hamilton property. Subsequently, we entered into the MH Agreement with DHI-US with respect to MH-LLC, which now holds the Mt. Hamilton project assets. Per the terms of the MH Agreement, DHI-US contributed all of its interests in the Mt. Hamilton project to MH-LLC for a 90% initial interest in MH-LLC and Solitario has a 10% initial interest in MH-LLC by virtue of its initial \$300,000 advance royalty payment in November 2010 to one of the underlying property owners. On signing the LOI, Solitario subscribed for a private placement of 3,333,333 units of Ely at a price of CDN\$0.15 per Unit for an aggregate consideration of approximately CDN\$500,000. Each unit consists of one common share and one-half share purchase warrant entitling the holder of a whole warrant to purchase an additional share of Ely for CDN\$0.25, with such warrant expiring two years from the subscription date. The private placement consisted of two tranches. The first tranche of CDN\$250,000 was funded on August 31, 2010, the second tranche of CDN\$250,000 was funded on October 19, 2010. Solitario also committed to spend \$1.0 million on exploration and feasibility work during the first year and has met this spending requirement as of February 28, 2011. Solitario may elect to terminate its interest in the Mt. Hamilton project at any time and have no further earn-in obligations on the project.

To earn its full 80% interest in the project, Solitario is further required to fund the following:

Year	Cash Payments to DHI-US	Private Placement Funding to Ely(3)	Shares of Solitario Stock Issued to	Cash payments to Royalty Owner (4)
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			DHI-US	
2011	\$700,000(1)		50,000	\$300,000
2012	\$1,050,000(2)		50,000	\$300,000
2013	\$500,000	\$750,000	100,000	\$300,000
2014	\$500,000	\$750,000	100,000	\$300,000
2015		\$1,000,000		\$300,000
Royalty reduction (8.0% to 4.75% NSR) payment paid prior to commencement of commercial production				\$3,500,000
Royalty reduction (4.75% to 3.0%) payment paid within one-year after commercial production commences				\$1,500,000

(1) Includes \$500,000 to be distributed by DHI-US to Ely to enable Ely to make payment to Augusta on

long-term debt

(2) Includes \$750,000 to be distributed by DHI-US to Ely to enable Ely to make payment to Augusta on

long-term debt

(3) Payments are to enable Ely to make payment to Augusta for long-term debt, see Note 4, to the consolidated financial statements, in Item 8, below.

(4) Annual minimum advance royalty payments are due through production

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Alternatively, upon completion of a bankable feasibility study we will earn an 80% interest in MH-LLC, but we will still be required to make all of the payments listed above pursuant to the MH Agreement and the LOI.

Upon completion of a bankable feasibility study, all construction and permitting costs will be shared pro-rata. However, DHI-US may elect to have Solitario fund DHI-US's 20% share of all such costs, with Solitario to be repaid by DHI-US, with interest, out of 80% of DHI-US's share of net proceeds from MH-LLC.

We are the manager of MH-LLC under the terms of the MH Agreement, which provides that prior to our earn-in we have authority for all significant operating decisions. After earn-in, with a few limited exceptions that require unanimous consent, we will control all decisions under the MH Agreement, as a result of our ownership of a majority of the voting membership interests in MH-LLC.

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

Access to the Mt. Hamilton Project is relatively good from either of the two closest towns; Ely, Nevada or Eureka, Nevada. From Ely, Nevada the property is accessed by traveling 45 miles west on paved Highway 50 and then traveling 10 miles south via a County maintained gravel road. From Eureka, Nevada the property is accessed by traveling 50 miles east on Highway 50 and then traveling 10 miles south via a County maintained gravel road.

The climate is typical for high-desert, semiarid regions of Nevada with summer high-temperatures averaging around 85 degrees F and the winter lows averaging 10 degrees F. Average precipitation is approximately 10 inches per year, and occurs mainly in the winter and spring seasons. Ely, Nevada, the County Seat of White Pine County, has a population estimated at about 4,000 and offers the most services to the project area, with sufficient housing, schools, hospital and commercial business capable of servicing the needs of a mine at Mt. Hamilton. Quadra FNX Mining operates the Robinson open pit copper mine with over 500 employees eleven miles east of Ely, Nevada. Additionally,



Eureka, Nevada with a population of about 2,000, offers services and is also host to other mining operations.

With the exception of relatively good road access to the Mt. Hamilton property, and existing water wells with sufficient water to supply anticipated processing needs, there is no other infrastructure at the project site. The nearest power line to the property is approximately 17 miles away.

The property lies within the Basin and Range physiographic province of Nevada on the western flanks of the White Pine Mountains and the eastern margin of the topographically flat and broad Newark Valley. The Centennial gold deposit, which constitutes the main area of interest, is situated at an elevation of about 8,700 feet. The location of the proposed heap leach pads is located about 1.5 miles northwest of the Centennial gold deposit at an elevation of approximately 7,000 feet in a relatively flat area.

### 3. History

The general area reportedly produced 20 to 40 million ounces of silver and a limited amount of gold from 1868 to 1880. Phillips Petroleum acquired the property in 1968 and explored for tungsten, molybdenum and copper. In 1984 Westmont Gold Inc. entered into a joint venture with Phillips and Queenstake Resources Ltd. and commenced a large-scale exploration program focused on gold. In 1993 the property was fully transferred to Westmont. In June 1994 Rea Gold Corp. acquired the property and began production of the NE Seligman deposits in November 1994. Rea mined five small Seligman area deposits to June 1997, when Rea suspended mining. Rea filed for bankruptcy in November 1997.

In 2002, the US Bankruptcy Trustee abandoned all of the unpatented claims allowing them to lapse for failure to pay the annual maintenance fees. Centennial Minerals Company LLC ("Centennial") staked the claims covering the Centennial deposit in late-2002, and in 2003 purchased all of the patented and fee lands. Augusta acquired a 100% leasehold interest in the property, subject to an underlying royalty, from Centennial in late-2003. In November 2007, Augusta sold 100% of the shares of DHI Minerals, Ltd., of which DHI-US, its wholly-owned subsidiary that held the Mt. Hamilton property to Ely. From 2008 through August 2010, Ely engaged SRK Consulting (US), Inc. ("SRK"), an independent full-service mining engineering consulting company, to complete a detailed NI 43-101 compliant Preliminary Economic Assessment Study of the Centennial gold and silver deposit. The study was completed in May 2009, and updated in July 2010. In August 2010, Solitario signed the LOI to joint venture the Mt. Hamilton property with Ely, through DHI-US.

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### 4. Geologic Setting

The Mt. Hamilton property is located near the southern end of the Battle Mountain Gold Trend, a northwest-oriented trend that contains several major gold mines as well as dozens of smaller mines and prospects. The property's underlying geology is dominated by Cambrian-age sedimentary rocks that include the Eldorado Dolomite, Secret Canyon Shale and Dunderberg Shale. The sedimentary sequence has been intruded by two igneous stocks of Cretaceous-age: the Seligman granodiorite stock and the Monte Cristo granite stock; both of which are slightly over 100 million years in age. These two stocks variably altered the surrounding sedimentary rocks by metamorphic processes to skarn (calc-silicate mineral assemblage).

### 5. Prior Exploration

Prior to 1968, very little is known about exploration activities on the property. Phillips Petroleum acquired the property in 1968 and drilled over 100,000 feet by the early 1980's. The focus of Phillips' work was to evaluate

tungsten-molybdenum-copper mineralization in a skarn geologic setting. A study prepared for Phillips in June 1978 quoted an estimate of mineralized material of 6.2 million tons at a grade of 0.42% WO<sub>3</sub> (tungsten), 0.37% Mo and 0.6% Cu. These data are historical and have not been reviewed by a qualified person nor reconciled for a 43-101 compliant resource estimate and have not been shown to have economic viability within present day parameters.

In 1984 Westmont Gold Inc. entered into a joint venture with Phillips and Queenstake Resources Ltd. and commenced a large-scale exploration program focused on gold. By early 1989, this work defined the NE Seligman deposits and the Centennial deposit. Westmont conducted feasibility and permitting studies from 1990 through 1994, when the property was sold to Rea Gold Corp. Rea did not conduct any exploration on the project, but focused solely on placing the NE Seligman deposits into production and mining activities. Augusta, after acquiring the project in late-2003, conducted a limited confirmation drilling program and pre-feasibility related studies on the property for the next several years. Solitario conducted a limited infill and extension drilling program from November 2010 to the end of January 2011, as well as geotechnical, metallurgical and hydrologic drilling for feasibility-related issues.

#### 6. Mineralization

There are two primary styles of mineralization at Mt. Hamilton: early skarn-hosted tungsten +/- molybdenum +/- copper ("WO<sub>3</sub>-Mo-Cu") style; and, a later-stage epithermal gold style of mineralization. The likely source for both the WO<sub>3</sub>-Mo-Cu skarn mineralization and precious metal bearing late-stage hydrothermal fluids was the Seligman granodiorite stock that is Cretaceous in age (105 million years). Early metasomatic alteration converted shales to hornfels and silty carbonates to calc-silicate skarn. Mineralization is primarily hosted in a 200-300 foot thick skarn horizon.

Mineralization at the Centennial gold deposit, which is the primary focus of current Solitario activities, is controlled by stratigraphy, structure and magmatic hydrothermal alteration. Gold and silver are concentrated along two shallowly dipping sub-parallel faults and associated fracture zones that penetrate the skarn horizon and provided pathways for hydrothermal fluids from the Seligman stock situated to the north. The faulting also appears to have controlled oxidation of the gold zone. The Centennial gold deposit is a north-south oriented body that is about 1,500 feet long and approximately 700 feet wide.

#### 7. Drilling

The Centennial gold deposit has been defined by 303 reverse circulation ("RC") drill holes totaling approximately 137,140 feet and 11 core holes totaling 4,120 feet. These drill totals do not include Ely's 2008 drilling program consisting of five core holes totaling 2,241 feet nor Solitario's late-2010 and early 2011 core drilling program totaling eleven holes and 6,250 feet. RC recovery is reported to be in excess of 90% and core recovery is generally near 100%, with few exceptions.

Drill data included in resource modeling by SRK utilized historical data generated by Phillips Petroleum, Westmont Gold Inc. and Rea Gold. SRK concluded that the data from all three previous operators of the project to be valid and sufficiently well documented to provide a reasonable representation of the Centennial gold deposit and sufficiently verifiable for use in a Canadian Institute of Mining ("CIM")-compliant resource estimate.

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#### 8. Sampling, Analysis and Sample Security

SRK reviewed in detail procedures utilized by all prior managers of the project for drill hole sampling methods, including RC and core splitting, and sample preparation and analyses, including check assay procedures and

qualifications of the laboratories used for assay analyses. Methodology used by previous project managers included check assays by a second laboratory, insertion of standard and duplicate samples to the assay lab, and photography of core samples. SRK also undertook an independent program to verify data. This program consisted of field verifications, independent assay analysis, comparison of electronic drill-hole data to paper data, and checking the electronic assay data base against original assay certificates.

SRK opined that the sampling and analyses methodology utilized for both RC and core drilling were appropriate for the style of mineralization at the Centennial gold deposit and of sufficient quality to incorporate into a NI 43-101 compliant resource estimate. Furthermore, SRK believes the Centennial gold deposit drill hole assay database has been verified with substantial QA/QC checks, by both the original project managers and SRK's independent work, including the location of drill cuttings, core, analytical laboratory assay certificates, and that all aspects of the data base are satisfactory for use in resource estimation. Solitario's work to date supports SRK's opinions concerning the quality of the Centennial gold deposit data base.

Because much of the work at Mt. Hamilton was conducted prior to chain-of-custody/sample security methodology becoming an integral part of standard industry practice quality control procedures, it is difficult to assess pre-1998 sample security. However, Solitario believes that no serious sample security breaches occurred or are known to have occurred based upon other sample quality control procedures that all past project managers employed, such as splitting of core and splitting of RC course rejects and pulp samples to allow for subsequent new independent assay verification.

#### 9. Feasibility Studies

Solitario has engaged SRK to complete a bankable feasibility study on the Centennial gold and silver deposit located on the Mt. Hamilton property. Work began in November 2010 and is currently ongoing. See section "12. Planned Exploration and Development," for the details of completed and planned feasibility activities. We estimate that the feasibility report will be completed during the third quarter of 2011.

On May 13, 2009, SRK on behalf of Ely, completed a Preliminary Economic Assessment for the Centennial Gold and Silver Deposit on the Mt. Hamilton Property using Canadian industry accepted CIM "Best Practices and Reporting Guidelines" for disclosing mineral exploration information, the Canadian Securities Administrators revised regulations in NI 43-101 (Standards of Disclosure For Mineral Projects) and Companion Policy 43-101CP, and CIM Definition Standards for Mineral Resources and Mineral Reserves (December 11, 2005).

#### 10. Mineral Resource Estimations

There are no reported mineral reserves.

#### 11. Mining Operations

No mining operations have occurred on the project within the past 13 years.

#### 12. Planned Exploration and Development

Solitario's focus for 2011 is completion of a bankable feasibility report and a plan of operations that will be filed with the US Department of Agriculture - Forest Service. Feasibility field work began in November 2010 and consisted of feasibility-level geotechnical, metallurgical, and hydro-geologic drilling, and a limited amount of drilling to provide additional resource information. This eleven-hole, 6,250-foot core drilling program was completed in January 2011.

Auger drilling is planned in March 2011 for the proposed leach pad area for design purposes. Additional metallurgical testing began in February 2011 to test several areas within the Centennial gold deposit that have not

been adequately studied. Heap and waste rock geochemical characterization also began in the first quarter of 2011. Feasibility level economic evaluation is underway by SRK and will continue until the feasibility study is completed.

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Bongara Zinc Project (Peru)

1. Property Description and Location

The Bongara project consists of 16 concessions comprising 12,800 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 are 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, and \$2.5 million in all subsequent years until a minimum of \$18.0 million has been expended by Votorantim. Through December 31, 2010, Votorantim has met all minimum annual exploration and development commitments. 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 was required to make annual delay rental payments of \$100,000 to Solitario on August 15, 2007 (completed) and cash payments of \$200,000 on August 15, 2008, 2009 and 2010 (completed), and by making further payments to Solitario of \$200,000 on all subsequent anniversaries, until Solitario receives notice that \$18 million has been spent by Votorantim or 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. In June, 2011 payments of approximately \$51,000 to the Peruvian government will be due in order to maintain the mineral rights of Minera Bongara.

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.

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 future years. Although we believe that these permits will be obtained in a timely fashion, the timing of government approval of permits remains beyond our control.

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## 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 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. 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. Votorantim began construction of a road to the deposit in October 2010. Work is continuing on the road with approximately nine kilometers completed as of March 8, 2011. 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 (now Teck Resources). 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 areas 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 a third-party drilling company.

## 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 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 247 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 2010 are 72,814 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
	2010	42	12,242
Project Total		247	72814

The mineralized area that has been drilled measures approximately two by two kilometers. Votorantim's drilling during 2010 was both infill drilling designed to better define mineralization and demonstrate continuity and also step-out drilling to define new resources. The 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 LF-70 core-drilling rigs.

#### 8. Sampling, Analysis and Security of Samples

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.

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.

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#### 9. Pre-Feasibility Studies

Votorantim has engaged independent mining engineering and metallurgical firms to conduct and update a scoping-level study to provide order-of-magnitude estimates of deposit size and grade, sizing of appropriate scale of operations, infrastructure, and capital and operating cost estimates. The metallurgical testing has provided an evaluation of the mineralized material at Florida Canyon. Votorantim has reported to us that the results of this work has indicated that a standard flotation process on sulfide ore would achieve zinc recoveries of 93% and lead recoveries of 85% with 88% of the recoverable silver reporting to the lead concentrate. Votorantim is planning further independent analysis and studies to optimize overall recovery of metals.

#### 10. Mineralized Material Estimations

There are no reported mineral reserves.

#### 12. Mining Operations

No commercial mining operations to recover metals have occurred on the project. However, in September of 2010, Votorantim initiated an underground tunneling program to access mineralization. As of January 31, 2011, 270 meters of tunneling were completed which is expected to continue throughout 2011 until completion of a 700 meter access drift

### 13. Planned Exploration and Development

For 2011, Votorantim will continue road construction to the project area, tunneling to access the San Jorge zone of the Florida Canyon deposit, metallurgical testing, and other pre-feasibility activities in preparation to completing a full feasibility report in 2012. Drilling to further define mineralization will also be conducted from both the surface and underground workings that are currently being driven. The planned road construction will ultimately consist of approximately 23 kilometers of new road alignment to the deposit when all required permits and permissions are in place. To date, access to the deposit has occurred via helicopter and foot-trails. Permitting and social development activities with surrounding communities will also continue throughout 2011.

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

##### 1. Property Description and Location

We are exploring the Pedra Branca property for platinum and palladium mineralization (platinum group metals, or "PGM"). At December 31, 2010, 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 Brazilian entity in which we hold a 49% interest and which holds a 100%-interest in all concessions. Anglo Platinum Ltd. ("Anglo") owns a 51% interest in PBM as of December 31, 2010. 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 exploration expenditures totaling \$7.0 million (completed), 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.

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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. As a result of Anglo funding an additional \$3.0 million for exploration during 2009 and 2010, it earned an additional 21% interest in PBM on July 21, 2010, and now holds a 51% interest in PBM. We deconsolidated our interest in PBM as a result of Anglo earning its additional interest. 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.

PBM continued to prioritize its land holdings in 2010 and consequently reduced its holdings by 60 concessions totaling 71,200 hectares. Land payments for 2010 are projected to be approximately \$98,000 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.

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. PBM is 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. PBM has 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 PBM must reach an agreement with the surface rights owners of the affected land. Additionally, PBM 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.

PBM currently holds 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 operations 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.

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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 ultramafic bodies have been delineated, 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.

#### 5. Prior Exploration

Surface exploration conducted, initially by Altoro, and subsequently by Rockwell, us and then PBM, 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 26 prospect areas

All of the above work has been conducted directly by us or PBM, our predecessor or its partners with the exception of diamond drilling which was performed by contracted independent drilling companies. Magnetometric surveys are conducted by Solitario personnel. A third-party geophysical contractor conducted the IP survey and, an independent geophysical consultant has been utilized to further interpret the magnetic and IP data.

The 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.

## 6. Mineralization

Approximately 26 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 13 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. 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.

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## 7. Drilling

Prior to 2010, a total 318 holes totaling 23,811 meters of core drilling were completed on the project. 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. Due to a scarcity in drill rig availability in Brazil, PBM was unable to initiate drilling activities until late-November 2010. Most of the planned 2010 program has been delayed until early 2011. Consequently, the chart provided below does not include any 2010 drilling statistics.

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 & PBM*	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

In the case of holes drilled by Altoro, Rockwell, us and PBM, 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%.

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. PBM is 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 Curriu 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, PBM has 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, suggesting these results may be accepted as reasonably accurate. 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, Analysis and Security of Samples

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.

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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).

Core samples are transported to the field camp in sealed core boxes where processing takes place under the supervision of the geologist in charge. Potentially mineralized 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 or PBM has been in operation of the project.

#### 9. Mineral Resource and Mineral Reserve Estimations

There are no reported reserves.

10. Mining Operations

There are no current mining operations associated with this project.

11. Planned Exploration

Drilling that was originally scheduled for mid-2010 did not get started until late-November. This delay pushed much of the planned 2010 drilling program into 2011. PBM now anticipates completing the planned 25-hole, 2,000-meter core drilling program sometime in April 2011. Additional exploration, including drilling, for the remainder of 2011, is still in the planning stages and subject to funding approval by Anglo.

Pachuca Real Silver-Gold Property (Mexico)

1. Property Description and Location

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 \$120,000 through December 31, 2010. 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, 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. Concession fees to be paid to the government of Mexico totaling approximately \$82,000 are due in 2011 and will be funded by our joint venture partner. Additionally, \$30,000 is due in option payments to private individuals in 2011 in order to keep properties in good standing, if so elected, of which 100% will be funded by our joint venture partner. Certain other properties are under application for title by Solitario which may be granted during 2011. If these titles are granted then concession payments will be due to the government of Mexico. Those titles under application, if granted, are estimated to cost less than \$5,000 in 2011.

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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 property. Solitario retained a 100% interest in the Pachuca Real property.

On April 27, 2010, Solitario signed a definitive Venture Agreement with Compañía de Minas Buenaventura S.A.A. ("Buenaventura"). The Agreement calls for a firm work commitment by Buenaventura of \$2.0 million over the first 18 months. To earn a 51% interest in the project, Buenaventura must complete the following work commitment schedule:

Exploration Expenditures and Due Dates	Amount	Aggregate Amount
18 months from signing - firm commitment	\$2,000,000	\$2,000,000
30 months from signing - optional commitment	\$2,300,000	\$4,300,000
42 months from signing - optional commitment	\$3,500,000	\$7,800,000
54 months from signing - optional commitment	\$4,200,000	\$12,000,000

Buenaventura will have the right to earn an additional 14% (total 65%) by completing a positive feasibility study for the project. During the feasibility stage, Buenaventura is required to spend a minimum of \$5.0 million annually until such time as the positive feasibility study is completed. Buenaventura has the right to terminate the agreement at anytime following its firm initial work commitment.

Upon completion of the feasibility study, Solitario will have the option to self-finance its 35%-participating interest in the project, or to have Buenaventura fund its portion of construction costs at Libor + 3%. If Solitario elects to have Buenaventura fund its portion of construction costs, then Solitario's participating interest will be 30% and Buenaventura interest will be 70%. Buenaventura will be repaid for its funding plus interest from 80% of Solitario's 30% interest in the distribution of earnings from the Pachuca project.

## 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.

## 3. History

The Pachuca district 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 of silver 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.

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## 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 this 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 and tunneling. We 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 collected a total of 2,865 geochemical samples from outcrops, dumps, old mine workings, and channel samples. 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. In 2010, Buenaventura collected approximately 1,700 geochemical samples from the surface and existing underground workings.

## 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

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		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, Analysis and 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 were been no breaches in the security of the samples. We retained control of all samples from December 2008 to April 27, 2010, and believe that adequate procedures were in place to ensure the security and integrity of samples. Buenaventura has controlled all field activities since we signed the joint venture agreement on April 27, 2010 and we are not aware of any breaches in sample security since that time.

9. Mineral Resource and Mineral Reserve Estimations

There are no reported reserves or resources.

10. Mining Operations

There are no current mining operations associated with this project.

11. Planned Exploration

Buenaventura plans to continue surface exploration in 2011 consisting of mapping and sampling of vein structures on the property and rehabilitation of selected underground workings based on results of surface mapping. Additionally, a surface drilling program began in February 2011; however, the scope of this program has yet to be defined.

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. In 2007 we acquired 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,

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, 2010, 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.

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In 2010, Votorantim placed the project on care and maintenance, focusing all of their efforts on the Bongara project. The only field work conducted in 2010 and planned for 2011 is social work in preparation for any future exploration programs. 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 2009, Votorantim added and dropped various concessions. Minera Chambara now controls 185 concessions totaling approximately 162,000 hectares of mineral rights. In June, 2011 payments of approximately \$488,000 to the Peruvian government will be due in order to maintain the mineral rights.

#### 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 spent \$3,773,000 on exploration on Strategic Alliance areas covered by the Alliance Agreement. Under the terms of the Alliance Agreement, 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, 2010 we retain four 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, Excelsior and Cerro Azul properties. The Cerro Azul property was staked in 2007, the La Promesa, Paria Cruz, and Excelsior properties were staked in early 2008. All four 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, we recorded a mineral property write-down on Strategic Alliance Properties of \$16,000 for the Santiago property and \$28,000 related to the Cajatambo property.

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 2010, our efforts were exclusively directed towards social work in order to obtain community approval for exploration activities in 2011. If an agreement is reached with the community, additional surface work to further define drill targets is planned, followed by an initial ten-hole, 1,200 meter drilling program, pending receipt of drilling permits.

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2. Cerro Azul

The Cerro Azul property acquired in 2007 consists of three concessions totaling 2,400 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. Some of the veins are polymetallic in character, within a low-sulfidation geologic environment. Other veins are gold-rich and locally occur in sheeted zones of up to 80 meters in width. During 2010 a number of drill targets were identified for vein targets and one of the sheeted vein types. Permitting is in progress to obtain approvals necessary to complete a diamond drilling program of up to 2,000 meters by mid-year 2011.

3. Excelsior

The Excelsior property, acquired in 2008, consists of two concessions totaling 2,000 hectares. The geology of the property consists of a 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. During 2010 surface work was conducted that identified a trend of better defined mineralization that may represent a bulk mineable target. During 2011 we plan to review the results of the 2010 program and determine what additional work is required, if any.

#### 4. Paria Cruz

The Paria Cruz property consists of three concessions totaling 3,000 hectares staked in the first half 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. Surface work was done in 2010 to potentially define drill targets. These results are under review to determine what additional work is warranted, if any.

#### Royalty Properties

##### Yanacocha Royalty Property (Peru)

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.

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.

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.

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.

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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

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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:

<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, 2010. No resources or reserves have been reported by Newmont, nor has any mining been conducted on the property,

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#### Mercurio Gold Property (Brazil)

[www.solitarioxr.com.com/tapajos.html](http://www.solitarioxr.com.com/tapajos.html)

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% NSR royalty 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 until such time as title is received from the government for one of the claims. During 2009, \$19,000 was paid under the terms of the contract.

In November 2010, Solitario signed a definitive agreement with Regent Holdings, Ltd. ("Regent"), whereby Regent has agreed to pay to Solitario \$1,000,000 over the next four years, in the amounts of \$50,000, \$100,000, \$200,000 and \$650,000 beginning March 15, 2011 and on each anniversary of that date through March 15, 2014, and invest in minimum expenditure amounts totaling \$900,000 over the same period. However, this schedule is dependent upon issuance by the Brazilian government of one of the titles comprising the property which is currently pending and has thus far not occurred. Therefore it is likely that the schedule will be postponed until such time as this title has been issued. Upon the completion of all payments, Regent will own Mercurio and Solitario will retain a 1.5% NSR royalty on all ounces of gold produced at Mercurio up to 2 million ounces and Solitario will retain a 2.0% NSR royalty on all ounces of gold produced at Mercurio over 2 million ounces. Regent may terminate the agreement at any time after six months from the date of signing the agreement. Regent will be responsible for all payments to keep the Mercurio claims in good standing during the period of the agreement. No mineral reserves or resources are reported on the property. 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. Regent plans to conduct only limited surface exploration on the Mercurio property until a key concession title has been issued as discussed above.

#### 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 February 2011 we signed a definitive agreement with Estrella Gold Corp. (EGC), successor to Canadian Shield Resources allowing EGC to earn a 100%-interest in the property, subject to a 2% NSR royalty to our benefit. To earn its interest, EGC is required to spend \$2.0 million in exploration by December 31, 2015. EGC has the right to

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

#### 100%-Owned Properties

##### Atico

In April 2010 we acquired 1600 hectares by staking at the Atico property in southern Peru. Rock sampling has identified anomalous gold and copper values in skarn alteration of carbonate and intrusive rocks. Surface exploration will continue in 2011.

##### Norcan

In June 2010 we applied for 16,350 hectares of mineral rights in the state of Sonora north of the Cananea copper mine. We expect to receive title to all of this area in the first or second quarter of 2011. Geochemical and biogeochemical surveys in this area exhibit locally anomalous copper values. Most of the area is covered by recent gravel deposits. We plan additional surface sampling on the claims in 2011 and may seek a joint venture partner to advance the property more aggressively.

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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 1,800-acre Espanola gold-copper property in western Bolivia from a private third party in July 2008. The initial option payment was \$5,000, with annual payments of \$10,000 until drilling commences. Subsequent to the initiation of drilling, payments escalate over a five year schedule totaling \$1,000,000 for acquisition of an 85% interest in the mineral rights on the property. For 2011, we are evaluating the possibility of drilling several holes. Our decision on whether or not to drill is mainly dependent upon final changes to the proposed new Bolivian mining law, 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 third quarter of 2010 we abandoned the Santiago prospect and recorded a mineral property write down of \$16,000. The Santiago prospect was acquired in 2007 and consists of one mining concession totaling 1,000 hectares. We performed stream sediment sampling, rock chip channel sampling and reconnaissance geological mapping. Surface work was conducted and based on our exploration results the decision was made to abandon the project.

During the second quarter of 2010 we abandoned the Cajatambo, La Noria and Palmira properties and recorded a mineral property write down of \$28,000, \$6,000 and \$5,000, respectively. The Cajatambo property consisted of eleven concessions totaling 10,500 hectares that was acquired in 2008 and 2009. Drilling was conducted in mid-2009 and based on the drilling results we elected to abandon the project on June 30, 2010. The La Noria property was staked in the second quarter of 2008. Surface work was conducted throughout 2009 and drilling was conducted in the first quarter of 2010. Based on the results of this drilling, we elected to abandon the project on June 30, 2010. The Palmira property was optioned in November 2009. Surface sampling, geological mapping, IP-geophysics and drilling were conducted in the first quarter of 2010. Based on the results of drilling, we elected to abandon the project on June 30, 2010.

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#### GLOSSARY OF MINING TERMS

##### "Amphibolite"

means a metamorphic rock composed chiefly of amphibole and plagioclase and having little or no quartz.

"**Assay**" means to test minerals by chemical or other methods for the purpose of determining the amount of valuable metals contained.

##### "Bankable feasibility study"

means a comprehensive study of a mineral deposit in which all geological, engineering, legal, operating, economic, social, environmental and other relevant factors are considered in sufficient detail that it could reasonably serve as the basis for a final decision by a financial institution to finance the development of the deposit for mineral production.

"**Breccia**" means rock consisting of fragments, more or less angular, in a matrix of finer-grained material or of cementing material.

**"Claim or Concession"** means a mining interest giving its holder the right to prospect, explore for and exploit minerals within a defined area.

**"Clastic"**

means pertaining to rock or rocks composed of fragments or particles of older rocks or previously existing solid matter; fragmental.

**"Chromite"**

means a cubic mineral, ferrous chromate, usually with much of the ferrous iron and aluminum replaced by magnesium, and some of the chromium by ferric iron: the principal ore of chromium.

**"Cut-off grade"** means the grade below which mineralized material will be considered waste.

**"Dacite or Dacitic"**

means a fine-grained volcanic rock of intermediate composition between mafic and felsic.

**"Deposit"** means an informal term for an accumulation of mineral ores.

**"Development"**

means work carried out for the purpose of opening up a mineral deposit and making the actual ore extraction possible.

**"Dolomite"**

means calcium magnesium carbonate,  $\text{CaMg}(\text{CO}_3)_2$ , occurring in crystals and in masses.

**"Dunite"**

means a coarse-grained igneous rock composed almost entirely of olivine.

**"Facies"**

means the appearance and characteristics of a sedimentary deposit, especially as they reflect the conditions and environment of deposition and serve to distinguish the deposit from contiguous deposits.

**"Fault"** means a fracture in rock along which there has been displacement of the two sides parallel to the fracture.

**"gpt"** means grams per tonne.

**"Heap leach"** means a gold extraction method that percolates a cyanide solution through ore heaped on an impervious pad or base.

**"Hornfels"**

means a fine-grained metamorphic rock, the result of recrystallization of siliceous or argillaceous sediments by contact metamorphism.

**"Host rock"**

means the rock surrounding an ore deposit.



"Karst"

means a landscape that is characterized by the features of solution weathering and erosion in the subsurface. These features include caves, sinkholes, disappearing streams, subsurface drainage and deeply incised narrow canyons.

"**Mafic**" means silicate minerals or rocks that are rich in magnesium and iron. Most mafic minerals are dark in color with a high density.

"Magnetometric"

means the results from an analysis utilizing a magnetometer, an instrument for measuring the intensity of a magnetic field, in this case, the earth's magnetic field.

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**anto deposits**" means replacement orebodies that are stratabound, irregular to rod shaped ore occurrences usually horizontal or near horizontal in attitude.

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**Metasomatic**" means rocks that form from a series of metamorphic processes whereby chemical changes occur as a result of the introduction of material, often in hot aqueous solutions, from external sources.

"**Mineralization**" means the concentration of metals within a body of rock.

"**NSR**" means net smelter return royalty.

"Olivine"

means a group of magnesium iron silicates,  $(\text{MgFe})_2 \text{SiO}_4$ , occurring in olive-green to gray-green masses as an important constituent of basic igneous rocks.

"opt"

or "**oz/ton**" means ounces per ton.

"**Ore**" means material containing minerals that can be economically extracted.

"Ounce"

means a troy ounce.

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"**Oxide**" means mineralized rock in which some of the original minerals have been oxidized (*i.e.*, combined with oxygen). Oxidation tends to make the ore more porous and permits a more complete permeation of cyanide solutions so that minute particles of gold in the interior of the minerals will be more readily dissolved.

**"Patented mining claim"** means a mining claim for which the federal government of the United States has passed its title to the claimant, making it private land. A person may mine and remove minerals from a mining claim without a mineral patent. However, a mineral patent gives the owner exclusive title to the locatable minerals. It also gives the owner title to the surface and other resources.

**"Peridotite"**

means a dense, dark-colored, coarse-grained igneous rock consisting mostly of the minerals olivine and pyroxene. Peridotite is ultramafic in composition and contains less than 45% silica, is high in magnesium and iron.

**"Porphyry"**

means an igneous, usually hard, rock with large crystals embedded in a finer groundmass of minerals.

**"Phyllites"**

means a slate-type rock, the cleavage planes of which have a luster imparted by minute scales of mica.

**"Reserves"** or **"ore reserves"** mean that part of a mineral deposit, which could be economically and legally extracted or produced at the time of the reserve determination.

**"Sampling"** means selecting a fractional, but representative, part of a mineral deposit for analysis.

**"Sediment"** means solid material settled from suspension in a liquid.

**"Shales"**

means a fine-grained sedimentary rock consisting of compacted and hardened clay, silt, or mud that often form in many distinct layers and splits easily into thin sheets or slabs.

**"Sphalerite"**

means a very common mineral, zinc sulfide, usually containing some iron and a little cadmium, occurring in yellow, brown, or black crystals or cleavable masses with resinous luster and is the principal ore of zinc.

**"Stockwork"** means a rock mass interpenetrated by multiple, tightly packed small veins of mineralization.

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**"Stope"** means an excavation in the form of steps made by the mining of ore from steeply inclined or vertical veins.

**"Stratigraphy"** means the arrangement of rock strata, especially as to the geographic, chronologic order of sequence (age), classification, characteristics and formation.

**"Strike"**, when used as a noun, means the direction, course or bearing of a vein or rock formation measured on a level surface and, when used as a verb, means to take such direction, course or bearing.

**"Stripping ratio"** means the ratio of waste to ore in an open pit mine.

**"Sulfide"** means a compound of sulfur and some other element.

**"Tailings"** means material rejected from a mill after most of the valuable minerals have been extracted.

"**Ton**" means a short ton (2,000 pounds).

"**Tonne**" means a metric ton that contains 2,204.6 pounds or 1,000 kilograms.

"**Vein**" means a fissure, fault or crack in a rock filled by minerals that have traveled upwards from some deep source.

"**Volcaniclastic**" means clastic (made up of fragments of preexisting rocks) rock chiefly composed of volcanic material derived by ejection of volcanic material from a volcanic vent.

Item 3. Legal Proceedings

None

Item 4. (Removed and Reserved)

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PART II

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 NYSE Amex has exceeded the trading on the TSX.

The following table sets forth the high and low sales prices on the NYSE Amex for our common stock for the quarterly periods from January 1, 2009 to December 31, 2010.

Period	All prices are in USD\$			
	2010		2009	
	High	Low	High	Low
First quarter	\$2.49	\$2.02	\$1.65	\$1.07
Second quarter	2.60	1.96	2.29	1.09
Third quarter	2.34	1.79	2.10	1.50
Fourth quarter	4.06	2.12	2.41	1.86

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, 2009 to December 31, 2010.

Period	All prices are in CDN\$			
	2010		2009	
	High	Low	High	Low
First quarter	\$2.62	\$2.07	\$2.00	\$1.44
Second quarter	2.72	2.06	2.41	1.32
Third quarter	2.41	1.80	2.32	1.66

Fourth quarter 3.80 2.15 2.53 1.97  
 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, 2010, we have granted options for 519,000 shares that remain unexercised at Cdn\$1.55 per share and 2,065,000 shares that remain unexercised at Cdn\$2.40.

Equity Compensation Plan Information as of December 31, 2010:

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights Cdn\$ (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
2006 Plan			
Equity compensation plans approved by security holders	2,584,000	\$2.23	216,000
Equity compensation plans not approved by security holders	-	N/A	-
Total	2,584,000	\$2.23	216,000

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#### Holder of our common shares

As of March 8, 2011 we have approximately 2,742 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.

#### Item 6. Selected Financial Data

Smaller reporting companies are not required to provide the information required by this item.

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

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 and the development or purchase of royalty interests. We acquire and hold 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 our mineral properties may be developed in the future by us or through a joint venture, and we currently intend to develop the Mt. Hamilton project, we have never developed a mineral property. 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 Resources Corporation. We have been actively involved in this business since 1993. We recorded revenues from joint venture delay rental payments of \$200,000, each year, respectively, related to our Bongara Project during 2010 and 2009. 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, 2010 we had 12 exploration properties in Peru, Bolivia, Mexico and Brazil, and two royalty properties in Peru and one royalty property in Brazil. We are conducting exploration activities in all of those countries. In August 2010 and December 2010, respectively, we signed the LOI and the MH Agreement to earn up to an 80% interest in the Mt. Hamilton project located in Nevada, discussed below under "Recent Developments."

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. During 2010 we entered into the Limited Liability Company Operating Agreement for Mt. Hamilton, LLC. We are currently working on feasibility related activities related to Mt. Hamilton and intend to develop the Mt. Hamilton project, but we have never developed a property in our history. In addition to our activities at Mt. Hamilton one of our primary goals 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 for 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 either on our own or 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 and potential development activities 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. We anticipate the success of our activities on our Mt. Hamilton property will become increasingly important in the future.

The potential sale, joint venture or development of our mineral properties will occur, if at all, on an infrequent basis. Accordingly, while we conduct exploration activities and develop the Mt. Hamilton project, 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, each year, respectively, received during 2010 and 2009 on our Bongara property; (iii) sale of our investment in Kinross; (iv) short-term margin borrowing secured by our investment in Kinross; and (v) issuance of common stock, including exercise of options. We have reduced our exposure to the costs of our exploration activities in the past through the use of joint ventures. We anticipate these practices will continue for the foreseeable future.

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(b). Recent Developments

Ely Gold

investment and the Mt. Hamilton Joint Venture

On August 26, 2010, we signed the LOI with Ely to make certain equity investments into Ely and to joint venture Ely's Mt. Hamilton gold project, which was wholly-owned by DHI-US. The formation of the joint venture terms and certain equity investments, described below were subject to the approval (the "Approval") of the LOI by Ely shareholders and regulatory approval from the TSX Venture Exchange ("TSXV"), which was received on October 18, 2010.

On August 26, 2010 and October 19, 2010, we made private placement investments of Cdn\$250,000 each in Ely. We received a total of 3,333,333 shares of Ely common stock and warrants to purchase a total of 1,666,667 shares of Ely stock (the "Ely Warrants") for an exercise price of Cdn\$0.25 per share, which expire two years from the date of purchase. The placements were part of the LOI to joint venture Ely's Mt. Hamilton gold project. On November 12, 2010 we made an initial contribution of \$300,000 for a 10% interest in MH-LLC which was formed in December 2010. The term of the joint venture are set forth in the MH Agreement. Pursuant to the MH Agreement, we may earn up to an 80% interest in the Mt. Hamilton project by completing various staged commitments. Pursuant to the terms of the MH Agreement, we have determined that MH-LLC is a variable interest entity (a "VIE") and we control MH-LLC and are the primary beneficiary of MH-LLC in accordance with ASC 810. As a result of our controlling interest in MH-LLC, we have consolidated MH-LLC and its debt with an initial fair value of \$3,066,000 related to MH-LLC. See a more complete discussion in Note 12 to the consolidated financial statements, "Ely Gold investment and the Mt. Hamilton Joint Venture" in Item 8 "Financial Statements and Supplementary Data."

Pedra Branca do Mineracao, Ltd

On July 21, 2010, Anglo Platinum Limited ("Anglo") made a payment of \$746,000 to Pedra Branca do Mineracao, Ltd. ("PBM") required to fund the third work program at the Pedra Branca project, which is held by PBM. Upon making this payment, Anglo earned an additional 21% interest in PBM and now holds a 51% interest in PBM. Accordingly, we have deconsolidated our interest in Pedra Branca and have recorded its 49% interest in the fair market value of PBM as an equity investment in our consolidated balance sheet as of December 31, 2010. We recorded a gain on deconsolidation as of July 21, 2010 of \$724,000 and have recorded our equity in the net loss of PBM from that date as other income in the consolidated statement of operations. Please see Note 11 to the consolidated financial statements "Deconsolidation of PBM" in Item 8 "Financial Statements and Supplementary Data."

Short-term debt

During the year ended December 31, 2010, we borrowed \$2,800,000 in short-term margin loans using our investment in Kinross as collateral for the short-term margin loan and at December 31, 2010 have recorded \$2,823,000 of short-term debt including \$23,000 of accrued interest. See Note 3, to the consolidated financial statements "Short Term Debt" in Item 8 "Financial Statements and Supplementary Data."

Investment in Kinross

We have a significant investment in Kinross at December 31, 2010, which consists of 980,000 shares of Kinross common stock. During 2010, we sold 70,000 shares of Kinross common stock for proceeds of \$1,301,000 and during 2009 we sold 100,000 Kinross common shares for net proceeds of \$1,852,000. As of March 8, 2011, we own 960,000 shares of Kinross common stock. Our 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 our liquidity and capital resources. In October 2007, we entered into a collar that limited the proceeds on 900,000 shares of Solitario's investment in Kinross common shares. On April 13, 2010, a tranche of the Kinross Collar due on that date expired, and 400,000 shares under the Kinross Collar were released. 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 either tranche of the Kinross Collar. As of December 31, 2010, 100,000 shares remain subject to the Kinross Collar which expires in April 2011. The Kinross Collar is discussed below under "Derivative instruments."

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### Mineral property

During the year ended December 31, 2010, we capitalized a total of \$6,066,000 related to the acquisition of the Mt. Hamilton project, owned by MH-LLC. In addition we capitalized \$11,000 related to initial staking and lease costs on our Atico project in Peru and our Norcan 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, 2010 to the year ended December 31, 2009

We had a net loss of \$4,066,000 or \$0.14 per basic and diluted share for the year ended December 31, 2010 compared to net loss of \$1,786,000 or \$0.06 per basic and diluted share for the year ended December 31, 2009. As explained in more detail below, the primary reasons for the increase in net loss during 2010 compared to the net loss during 2009 were (i) \$1,214,000 of exploration costs on our Mt. Hamilton project; (ii) a reduction in the gain on sale of Kinross common stock to \$995,000 during 2010, compared to a gain of \$1,409,000 during 2009; (iii) an increase in our stock option expense of \$2,513,000 during 2010 compared to a stock option benefit of \$269,000 during 2009; (iv) a reduction in our gain on derivative instruments to \$152,000 during 2010 compared to a gain on derivative instruments of \$694,000 during 2009. Partially offsetting these items were (i) a gain on deconsolidation of PBM of \$724,000 during 2010; (ii) a reduction in non-Mt. Hamilton exploration expense during 2010 to \$2,819,000 compared to exploration expense of \$3,579,000 during 2009 and (iii) an income tax benefit of \$1,159,000 during 2010 compared to an income tax expense of \$996,000 during 2009. Each of these items is discussed in greater detail below.

Our most important activities are the exploration on our mineral properties to delineate deposits to enable us to sell or joint venture the mineral property; reconnaissance exploration to locate mineral properties to acquire and to advance and develop the Mt. Hamilton property by completing a feasibility study. During 2010, we increased our exploration efforts related to our newly acquired Mt. Hamilton project and spent \$1,214,000 including a \$300,000 advance royalty payment and \$914,000 in direct exploration expenditures related to Mt. Hamilton. We recorded a credit of \$1,110,000 during for DHI-US noncontrolling interest in the expenditures of MH-LLC, primarily related to these exploration expenditures. We decreased our exploration expenditures at our South American properties to \$2,819,000, partially due to the deconsolidation of PBM, as a result of which we did not include any exploration expenditures for PBM after July 21, 2010 and partially as a result of a shift in our focus to the Mt. Hamilton project. During 2010 we capitalized \$5,000 related to the addition of our Atico project in Peru and \$6,000 related to our

Norcan project in Mexico. During 2009 we capitalized \$5,000 related to the addition of our Palmira Project.

Our 2011 exploration expenditure budget is approximately \$4,676,000 which includes approximately \$1,581,000 for exploration costs related to Mt. Hamilton. The primary factor in our decision to increase exploration expenditures in 2011 relates to our intention to work toward the completion of a bankable feasibility study on the Mt. Hamilton property. 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.

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

<u>Property Name</u>	<u>2010</u>	<u>2009</u>
Mt. Hamilton	\$1,214	\$ -
Pedra Branca	402	1,196
Cajatambo	361	413
Cerro Azul	185	65
Palmira	146	32
La Noria	139	71
Pachuca	91	111
La Promesa	40	74
Excelsior	40	3
Mercurio	36	65
Paria Cruz	26	7
Espanola	21	10
Atico	20	-
El Sello	19	-
Norcan	6	-
Bongara	6	35
Triunfo	6	5
Chonta	3	524
Newmont Alliance	1	120
La Purica	-	32
Santiago	-	3
Reconnaissance	<u>1,271</u>	<u>813</u>
Total exploration expense	<u>\$4,033</u>	<u>\$3,579</u>

During 2010, we recorded a credit (reduction of expense) of \$1,110,000 for DHI-US's noncontrolling interest in the losses of MH-LLC. In addition, we recorded a credit of \$164,000 and \$419,000, respectively, during 2010 and 2009, for Anglo's noncontrolling interest in the losses of the consolidated subsidiary, PBM, during the year. On July 21, 2010 Anglo made a payment of \$746,000 to PBM required to fund the third work program at the Pedra Branca project, which is held by PBM. Upon making this payment, Anglo earned an additional 21% interest in PBM and now



holds a 51% interest in PBM. Accordingly, we have deconsolidated our interest in Pedra Branca and have recorded its 49% interest in the fair value of PBM on the date of deconsolidation as an equity investment. During 2010 we recorded management fees of \$47,000 to PBM of which \$36,000, net of \$11,000 of noncontrolling interest, were eliminated for those fees charged prior to deconsolidation of PBM on July 21, 2010. During 2009 we recorded management fees of \$65,000, to PBM, which were eliminated in consolidation, net of \$19,000 of noncontrolling interest.

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 \$1,767,000 during 2010 compared to \$2,348,000 in 2009. We incurred salary and benefits expense of \$985,000 during 2010 compared to \$1,187,000 in 2009, which decreased due to a lower number of employees in our South American operations and reduced bonuses in 2010 compared to 2009. We also recorded a reduction in our legal and accounting costs to \$279,000 during 2010 from \$637,000 in 2009, due to the legal and accounting work associated with our attempted acquisition of Metallic Ventures Gold Inc. ("Metallic Ventures") during 2009. In addition, other general and administrative costs including rent, travel, and insurance decreased to \$247,000 during 2010 compared to \$332,000 in 2009, primarily related to reduced exploration activity and continuing efforts to reduce overhead. These decreases were mitigated by a loss on currency exchange rates during 2010 of \$1,000, compared to a gain of \$35,000 in 2009 and an increase in our shareholder relations costs to \$254,000 during 2010 compared to \$223,000 during 2009. We anticipate general and administrative costs will increase in the future as a result of our new activities in the United States associated with the Mt. Hamilton project and additional regulatory burdens. We have forecast 2011 general and administrative costs to be approximately \$1,822,000, excluding non-cash stock option compensation expense or benefit.

We account for our employee stock options under the provisions of 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 or benefit 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, 2010, we recognized \$2,513,000 of non-cash stock-based compensation expense as part of general and administrative expense for the increase in the fair value of our stock option liability during 2010 compared to non-cash stock option compensation benefit of \$269,000 during 2009. Our stock option compensation expense changes as a result of an increase in the market price of our common stock and additional options outstanding at the end of 2010 compared to 2009. The price of our stock as quoted on the TSX increased to Cdn\$3.69 at December 31, 2010 from Cdn\$2.40 at December 31, 2009. 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 contained in Item 8 "Financial Statements and Supplementary Data" 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.

During 2010 we recorded a gain on derivative instruments of \$152,000 compared to a gain on derivative instruments of \$694,000 during 2009. The decrease in the gain was primarily related to a reduction to an unrealized loss on our Kinross Collar to \$7,000 during 2010 compared to an unrealized gain of \$522,000 during 2009. In addition during 2009, we recorded net realized gains of \$138,000 on call options on our Kinross stock compared to a realized gain of \$42,000 on Kinross call options during 2010. Mitigating this decline in gain on derivative instruments was a gain of \$117,000 on our Ely warrants, discussed below, during 2010 and there were no similar items in 2009. We have not designated the Kinross Collar or the Kinross call options as hedging instruments as described in ASC 815 and any changes in the fair market value of the Kinross Collar and the Kinross call options are recognized in the statement of operations in the period of the change. We have sold covered calls on a limited portion of our Kinross common stock that we intend to sell within one year, to enhance our return on Kinross common stock in exchange for some potential upside in those covered Kinross shares. We do not have any Kinross call options outstanding at December 31, 2010

and do not anticipate selling a material number of covered Kinross call options during 2011. The business purpose of the Kinross Collar was to provide price protection against a significant decline in the market value of our shares of our Kinross stock. At December 31, 2010 our Kinross Collar has been reduced to covering only 100,000 shares as a result of the expiration of the other portions of the Kinross Collar, and this portion of the Kinross Collar will expire in April 2011.

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We had \$67,000 of depreciation and amortization expense during 2010 compared to \$91,000 in 2009 primarily as a result of an increase in the amount of fully depreciated furniture and fixtures during 2010 compared to 2009. We amortize these assets over a three year period. We anticipate our 2011 depreciation and amortization costs will be similar to our 2010 amount.

During 2010, we recorded interest and dividend income, net, of \$63,000 compared to \$106,000 during the same period in 2009. During 2010, we recorded dividend income of \$103,000 compared to \$104,000 during 2009 from dividends on our Kinross stock. The primary reason for the decrease in interest and dividend income, net, resulted from interest expense of \$24,000 and \$19,000, respectively, from our short and long term borrowing during 2010. The interest income recorded during 2010 and 2009 consisted of payments on cash and cash equivalent deposit accounts. We anticipate our interest and dividend income, net, will decrease in 2011 as a result of our planned increase in short-term borrowing, to supplement our planned sales of our Kinross stock, which will reduce our dividend income.

During 2010, we sold 70,000 shares of Kinross stock for proceeds of \$1,301,000 and recorded a gain on sale of \$995,000 compared to 2009, when we sold 100,000 shares of Kinross stock for proceeds of \$1,852,000 and recorded a gain on sale of \$1,409,000. We anticipate we will continue to liquidate our holdings of Kinross stock to fund our exploration activities and our 2011 budget anticipates the sale of 275,000 shares of Kinross stock for assumed proceeds of \$5,214,000 during 2011. These proceeds are significantly dependent on the quoted market price of Kinross stock on the date of sale and may be at prices significantly below our projected price.

During 2010, we recorded an income tax benefit of \$1,159,000 compared to income tax expense of \$996,000 during 2009. Our tax benefit during 2010 primarily related to the increase in United States exploration expense at our Mt. Hamilton project and our stock option expense of \$2,513,000 compared to a stock option benefit during 2009 of \$269,000. In addition we recorded one-time break fee income of \$2,200,000 related to our attempt to acquire Metallic Ventures during 2009, which increased our taxable income in 2009. Furthermore our gain on the sale of Kinross stock decreased to \$995,000 in 2010 compared to a gain on sale of \$1,409,000 during 2009. These were partially offset by the gain on deconsolidation of our PBM subsidiary of \$724,000 recorded during 2010. 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 2010 we recorded \$55,000 of mineral property impairments related to our Santiago, La Noria and Palmira projects, discussed below, compared to 2009 when we recorded \$51,000 of mineral property impairments related to our Purica and Chonta properties.

(d). Liquidity and Capital Resources

Short term debt

We borrowed \$900,000, net, from RBC Capital Markets, LLC ("RBC") during 2010, in short-term margin loans, using our investment in Kinross stock held at RBC as collateral for the short-term margin loans. The loans carried interest at a margin loan rate of 4.25% per annum. The margin loan rate can be modified by RBC at any time. The margin loans are callable by RBC at any time. Per the terms of the margin loans, we are required to maintain a minimum equity value in the account of 35%, based upon the value of our Kinross shares and any other assets held at RBC, less any short term margin loan balance and any other balances owed to RBC. The equity value percentage may be modified by RBC at any time. If the equity value in our account at RBC falls below the minimum, RBC may call the loan, or may sell enough Kinross shares held in our brokerage account or liquidate any other assets to restore the minimum equity value. At December 31, 2010 the equity balance in our account at RBC was 81%. We recorded \$5,000 of interest expense related to the RBC short term margin loans for the year ended December 31, 2010.

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We borrowed \$1,900,000 during 2010 from UBS Bank, USA ("UBS Bank") pursuant to a secured credit line agreement between us and UBS Bank. The UBS Bank credit line carries an interest rate of 2.51% per annum as of December 31, 2010, which floats, based upon a base rate of 2.25% plus the one-month London Interbank Offered Rate ("LIBOR"), which is 0.26% as of December 31, 2010. UBS Bank may change the base rate at any time. The UBS Bank credit line provides that we may borrow up to \$2 million and that we maintain a minimum equity value percentage in our UBS brokerage account above 40%, based upon the value of our Kinross shares and any other assets held in our UBS brokerage account, less the value of its UBS Bank credit line and any other balances owed to UBS Bank. UBS Bank may modify the minimum equity value percentage of the loan at any time. In addition, if the equity value in our UBS brokerage account falls below the minimum equity value, UBS Bank may sell enough Kinross shares held in our UBS brokerage account or liquidate any other assets to restore the minimum equity value. At December 31, 2010, the equity value in our UBS brokerage account was 80%. We recorded \$18,000 of interest expense related to the UBS credit line for the year ended December 31, 2010.

We are using this short-term debt as an alternative source of capital to selling our Kinross stock. We intend to continue to borrow money for the next year or longer using our Kinross common stock as collateral to defer potential current United States income taxes if we were to sell our Kinross common stock in excess of our anticipated United States tax deductible expenses for the entire year of 2011, which consist primarily of United States general and administrative costs and a portion of our costs to develop the Mt. Hamilton project in Nevada. We anticipate the proceeds from the sale of Kinross common stock sold during 2011 will not exceed our anticipated United States tax deductible expenses, and accordingly, we do not anticipate having any currently payable United States income taxes for 2011. We anticipate proceeds from the sale of shares of Kinross common stock and proceeds from any loans against our investment in Kinross stock will provide adequate funds for our operations through the end of 2011. Our use of short-term borrowing is not considered critical to our liquidity, capital resources or credit risk strategies. We consider the use of short-term borrowing as a component of our overall strategy to potentially maximize our after-tax returns on the sale of our investment in Kinross stock. We currently intend repay the short-term debt with proceeds from the sale of Kinross stock in the future. Our maximum amount of short-term borrowing was \$2,823,000, including accrued interest, during the year ended December 31, 2010. Our average short term borrowing during the year ended December 31, 2010 was \$860,000. Subsequent to December 31, 2010 we borrowed an additional \$1,075,000 and as of March 8, 2011, we have a total of \$3,875,000 outstanding under short-term margin loans.

Long-term debt

In connection with the formation of MH-LLC, the Mt. Hamilton properties contributed by DHI-US to MH-LLC are subject to a security interest granted to Augusta to secure a debt obligation related to Ely's acquisition of the Mt.

Hamilton project. Pursuant to the MH Agreement, as part of our earn-in, we agreed to make payments totaling \$3,750,000, of which \$1,250,000 are to be paid in cash to DHI-US and of which \$2,500,000 are to be as private placement investments in Ely common stock, detailed below, all to provide Ely with the funds necessary for Ely to make the loan payments due to Augusta, which loan payment obligations are secured by the mining claims currently owned by MH-LLC. Failure to make any of the payments or investments necessary to provide Ely with the funds necessary for Ely to make the required payments due to Augusta may result in the loss of all of our interest in the Mt. Hamilton project. The payments due to Augusta are non-interest bearing. Accordingly, upon the contribution of the mineral properties by DHI-US to MH-LLC, MH-LLC recorded \$3,066,000 for the discounted fair value of the payments due to Augusta, discounted at 7.5%, which was based on our estimated cost of similar credit as of the formation of MH-LLC. Pursuant to the terms of the MH Agreement, we have the right to opt-out of these payments in the event we determine the Mt. Hamilton property is not economic, in which case we would record mineral property impairment for the capitalized costs of the Mt. Hamilton property and reduce any recorded liability for this associated long-term debt.

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Schedule of debt payments due to Augusta as of December 31, 2010:

<u>Date</u>	<u>Amount</u>
June 1, 2011	\$ 500,000
June 1, 2012	750,000
June 1, 2013	750,000
June 1, 2014	750,000
June 1, 2015	1,000,000
	<u>(665,000)</u>
Discount	)
Net due	<u>\$3,085,000</u>

During 2010, Solitario recorded \$19,000 for accretion of interest expense related to MH-LLC long-term debt due to Augusta.

#### Joint venture and delay rental payments

In the past, we have financed our activities through the sale of our properties, joint venture arrangements, the sale of our securities and, most recently, from the sale of our marketable equity security investment in Kinross. We received \$200,000, each year respectively, from joint venture payments during 2010 and 2009 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.

#### 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, 2010 and 2009, we owned 980,000 and 1,050,000 shares of Kinross common stock, respectively. The Kinross shares are recorded at their fair market value of \$18,581,000 and \$19,320,000 at December 31, 2010 and December 31, 2009, respectively. Of these, 100,000 Kinross

shares are subject to the Kinross Collar. In addition we own other marketable equity securities with a fair value of \$1,190,000 and \$286,000 as of December 31, 2010 and December 31, 2009, respectively. Our investment in Ely of \$1,000,000 was based upon market quote on the TSXV. At December 31, 2010, we have classified \$5,214,000 of our marketable equity securities as a short-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, 2010, we recorded a gain in other comprehensive income on marketable equity securities of \$1,223,000, less related deferred tax expense of \$534,000.

During the year ended December 31, 2010, we sold 70,000 shares of Kinross stock for proceeds of \$1,301,000 resulting in a gain of \$995,000 which was transferred, less related deferred tax expense of \$371,000, 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 available for sale and are recorded at their fair market value of \$190,000. During 2010 we acquired 3,333,333 shares of Ely that are classified as marketable equity securities available for sale and are recorded at their fair market value at December 31, 2010 of \$1,000,000. We also acquired Ely warrants for 1,666,666 shares that have an exercise price of Cdn\$0.25 per share and are recorded at their fair value of \$366,000, as determined using a Black Scholes option pricing model. Of these, warrants for 833,333 shares are classified as derivative instruments in other assets and expire August 30, 2012 and we recorded an unrealized gain on derivative instruments of \$117,000 in the statement of operations and warrants for 833,333 shares of Ely are classified as other assets, and we recorded an unrealized gain of \$114,000, which is included in our recorded gain on marketable equity securities in other comprehensive income during 2010.

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 \$19.90 per share to a low of \$14.84 per share during the year ended December 31, 2010.

#### 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 both April 13, 2010 and April 14, 2009, 400,000 shares (800,000 shares total) under the Kinross Collar were released upon the expiration of separate tranches of the Kinross Collar due on those dates. No shares were delivered to UBS under the Kinross Collar and no cash was paid or received upon the termination of the tranches of the Kinross Collar. As of December 31, 2010 100,000 shares are subject to the Kinross Collar, with a floor price of \$13.59 and a ceiling price of \$27.03, which expires in April 2011.

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The business purpose of the Kinross Collar is to provide downside price protection of the Floor Price on approximately 100,000 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. We are continuing to look toward other Kinross risk management options to meet our risk management policy. These alternatives include the use of short-term margin loans, discussed above, listed options, use of covered calls and sale of the investment. The use of these Kinross risk management strategies 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. 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 March 8, 2011, we are restricted from selling the 100,000 shares under the Kinross Collar prior to the termination of the Kinross Collar in April 2011.

#### Income taxes

As a result of the United States federal and state net operating loss generated during 2010, which we may carry back to 2009, we have estimated that we will receive an income tax refund of approximately \$275,000 during 2011. See Note 5 to the consolidated financial statements contained in Item 8 "Financial Statements and Supplementary Data."

#### Working Capital

We had working capital of \$134,000 at December 31, 2010 compared to working capital of \$4,318,000 as of December 31, 2009. Our working capital at December 31, 2010 consists of our cash and equivalents and marketable equity securities, primarily consisting of the current portion of our investment in 980,000 shares of Kinross common stock of \$5,214,000, less our short-term margin loans of \$2,823,000 and current deferred income taxes of \$1,945,000 related to our planned sales of Kinross common stock during the next year. We intend to liquidate a limited portion of our Kinross shares over the next year, in order to continue to defer current United States income taxes on the sale of shares of Kinross common stock. We also intend to continue to borrow on margin at RBC and on our UBS Bank secured credit line. We will continue to monitor 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 275,000 shares of Kinross stock during 2011 for assumed proceeds of \$5,214,000. Any funds received from the sale of our Kinross shares or borrowing against the value of our Kinross shares would be used primarily to fund exploration and development on our existing properties, for the acquisition and exploration of new properties and general working capital.

Cash and cash equivalents were \$478,000 as of December 31, 2010 compared to \$1,946,000 at December 31, 2009. As of December 31, 2010, our cash balances along with our investment in marketable equity securities not subject to the Kinross Collar and our UBS Bank credit line 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 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

During the year ended December 31, 2010 and 2009, no options were exercised from the 2006 Plan. During the year ended December 31, 2010 and 2009, we granted 2,065,000 and 519,000 options, respectively, from the 2006 Plan. See Note 1 to the consolidated financial statements for a summary of the activity for stock options outstanding under the 2006 Plan as of December 31, 2010. We do not expect a significant number of our vested options from the 2006 Plan will be exercised in the next year.

None of our outstanding options from the 2006 Plan expire during 2011. The stock option liabilities of \$2,775,000 and \$262,000, respectively, as of December 31, 2010 and 2009 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. As a result of the deconsolidation of PBM during 2010, we reduced our deferred noncontrolling shareholder payments to zero. We do not anticipate recording any additional deferred noncontrolling shareholder payments in the near future.

See a discussion of the deconsolidation in Note 11 to the consolidated financial statements, "Deconsolidation of PBM" contained in Item 8 "Financial Statements and Supplementary Data."

#### Off-balance sheet arrangements

As of December 31, 2010 and 2009, we have no off-balance sheet arrangements.

#### (e). Cash Flows

Net cash used in operations during the year ended December 31, 2010 increased to \$5,440,000 compared to \$3,213,000 for 2009 primarily as a result of i) an increase in exploration expenses to \$4,033,000 in 2010 compared to \$3,579,000 in 2009, primarily related to \$1,214,000 in expenditures at our Mt. Hamilton project during 2010; (ii) the receipt of the \$2,200,000 break-fee related to our attempted merger with Metallic Ventures during 2009; and (iii) the payment during 2010 of \$365,000 of income taxes currently due at December 31, 2009. These increased uses of cash were mitigated by an increase in our accounts payable and other current liabilities of \$414,000 during 2010 compared to an increase of \$112,000 during 2009. The remaining uses of cash for operations were comparable in 2010 and 2009.

Net cash (used) provided from investing activities decreased to \$324,000 cash used during 2010 compared to \$1,931,000 cash provided during the year ended December 31, 2009 primarily related to (i) the decrease in cash of \$1,083,000 from the deconsolidation of PBM during 2010; (ii) a reduction in the proceeds from the sale of Kinross common stock to \$1,301,000 during 2010 compared with \$1,852,000 proceeds from the sale of Kinross stock in 2009. During 2010 we sold 70,000 shares of Kinross at an average price of \$18.59 compared to the sale of 100,000 shares of Kinross during 2009 at an average price of \$18.52; and (iii) the purchase during 2010 of the Ely units for \$493,000 consisting of 3,333,333 shares of Ely common stock and warrants for 1,666,667 shares of Ely common stock. The remaining uses of cash from investing activities were comparable in 2010 and 2009.

Net cash provided from financing activities was \$4,296,000 during the year ended December 31, 2010 compared to \$1,286,000 during 2009. The primary reason for the increase in cash provided from financing activities in 2010 was related to our short-term margin loans of \$2,800,000 and (ii) an increase in the deferred noncontrolling

shareholder payments received by PBM from Anglo to \$1,496,000 during 2010 compared to \$1,286,000 during 2009.

(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 2010 mineral and surface property rental and option payments, including \$300,000 of advance royalty payments related to Mt. Hamilton were \$625,000. In 2011 we estimate exploration property rentals and option payments for properties we own or operate, excluding Mt. Hamilton, to be approximately \$874,000, assuming that our joint ventures continue in their current status and that we do not appreciably change our property positions on existing properties. Approximately \$734,000 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 or if we enter into new agreements.

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 four existing projects within previously established Alliance Project Areas.

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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. Historically, 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, 2010 and 2009, we have not capitalized any costs related to environmental control facilities. We anticipate our planned development activities will increase our environmental expenditures in the event we begin mining development activities, including building a mine, building and operating an open pit, an ore processing plant and leach pads and other similar activities. These mining development activities are dependent on, among other things, receiving a positive feasibility study, receiving required permits and obtaining necessary financing. None of which are in place currently, please see "Risk Factors" in Item 1A of Part I, above. Accordingly, we do not expect any of these additional environmental expenditures within the next year. We do not anticipate our other, non-Mt. Hamilton project, exploration activities will result in any material new or additional environmental expenditures or liabilities in



the near future.

### Contractual Obligations

The following table provides an analysis of our contractual obligations at December 31, 2010:

(in thousands)	As of December 31, 2010				
	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Operating Lease Obligations	\$ 151	\$ 95	\$ 56	\$ -	\$ -
Land Holding Costs					
(1)	140	140	-	-	-
Short-term margin loan (2)	2,823	2,823	-	-	-
Mt. Hamilton exploration (3)	86	86	-	-	-
Mt. Hamilton cash earn-in payments (3)	1,500	200	800	500	-
Mt. Hamilton earn in payments in stock of Solitario (3)(4)	1,090	182	545	363	-
Mt. Hamilton advance royalty (3)(5)	7,100	300	4,100	2,100	600
		<u>500</u>	<u>1,500</u>	<u>1,750</u>	<u>-</u>
Long-term debt (3)(6)	<u>3,750</u>				
		<u>\$4,326</u>	<u>\$7,001</u>	<u>\$4,713</u>	
Total	<u>\$16,640</u>				<u>\$600</u>

(1). Excluding Mt. Hamilton, discussed below, our other land holding contractual obligations, net of joint venture reimbursements, which are generally cancelable at our option, include all required payments for the next 12 months to maintain our existing mineral properties.

(2) The short term-margin loans are due on demand and include \$23,000 of accrued interest at December 31, 2010.

(3) Pursuant to the MH Agreement, in order to earn an additional 41% interest in MH-LLC, to a total of 51%, we must (i) spend a minimum of \$1,000,000 in exploration expenditures by August 23, 2011, which has been met as of February 28, 2011; (ii) invest \$300,000 into MH-LLC for an advance royalty payment to the underlying royalty holder, which was made in November 2010; (iii) make payments totaling \$1,250,000 to DHI-US, to enable Ely to make payments in satisfaction of the Augusta long-term debt and make payments totaling \$500,000 and deliver 100,000 shares of Solitario common stock to DHI-US by August 23, 2012 (the "Phase I earn-in"), of which \$100,000 was paid and 25,000 shares of our stock was delivered in February 2011. In order to earn an additional 19% interest in MH-LLC, to a total of 70%, Solitario is required to (i) invest \$300,000 into MH-LLC for an advance royalty payment to the underlying royalty holder, and (ii) make payments totaling \$500,000 to DHI-US and deliver 100,000 shares of Solitario common stock to DHI-US by August 23, 2013 (the "Phase II earn-in"). In order to earn an additional 10% interest in MH-LLC, to a total of 80%, Solitario is required to (i) invest \$600,000 into MH-LLC for an advance royalty payment to the underlying royalty holder; (ii) make payments totaling \$500,000 to DHI-US and deliver 100,000 shares of Solitario common stock to DHI-US by August 23, 2014; and (iii) buy down the existing 8% net smelter return ("NSR") royalty to a 3% NSR royalty by paying the underlying royalty holder \$5,000,000 by November 19, 2014 (the "Phase III earn-in"). After the completion of Phase I earn-in, Solitario may elect to cease

earning an additional interest in MH-LLC at any time prior to the Phase II earn-in or the Phase III earn-in, in which case Solitario's interest in MH-LLC will be reduced to 49% and DHI-US's interest will be increased to 51%.

(4) The commitment value of the shares of Solitario stock to be paid to DHI-US, discussed above in note (2) to this table, have been valued at \$3.63 per share, the December 31, 2010 ending stock price as quoted on the NYSE Amex.

(5) The minimum annual advance royalty payments of \$300,000 per year have been included in this table through December 2017, in addition to a \$3,500,000 royalty buy-down discussed above due in November 2013 and a \$1,500,000 royalty buy-down payment due in November 2014

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(6) Includes accrual of interest of \$665,000 as of December 31, 2010, see "Long-term debt" above. Of these payments, \$1,250,000 will be made in cash to DHI-US, discussed above in note 3 to this table, and \$2,500,000 of these payments will be made to Ely, in the form of private placements for Ely common stock, of \$750,000 in June 2013, \$750,000 in June 2014, and \$1,000,000 in June 2015, as further discussed below in Note 12 to the consolidated financial statements, "Ely Gold investment and the Mt. Hamilton Joint Venture" in Item 8 "Financial Statements and Supplementary Data."

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

The following discussion relates to an analysis of our exploration and potential development plans for our major properties as of December 31, 2010. Please also see Note 2 to the consolidated financial statements, "Mineral Properties" in Item 8 "Financial Statements and Supplementary Data," and our discussion of our properties under Item 2, "Mineral Properties" of this Annual Report on Form 10-K for a more complete discussion of all of our mineral properties.

#### Mt Hamilton joint venture

Our focus for 2011 is completion of a bankable feasibility report and a plan of operations that will be filed with the US Department of Agriculture - Forest Service. Feasibility field work began in November 2010 and consisted of feasibility-level geotechnical, metallurgical, and hydro-geologic drilling, and a limited amount of drilling to provide additional resource information. This eleven-hole, 6,250-foot core drilling program was completed in January 2011. Auger drilling is planned in March 2011 for the proposed leach pad area for geotechnical design purposes. Additional metallurgical testing began in February 2011 to test several areas within the Centennial gold deposit that have not been adequately studied. Heap and waste rock geochemical characterization also began in the first quarter of 2011. We are continuing our feasibility level economic evaluation utilizing an independent engineering firm and will continue until the feasibility study is completed. We have budgeted approximately \$2,800,000 for exploration, planned development, land and earn-in payments for 2011 at Mt. Hamilton.

#### 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. For 2011, Votorantim will continue road construction to the project area, tunneling to access the San Jorge zone of the Florida Canyon deposit, metallurgical testing, and other pre-feasibility activities in preparation for potentially completing a full feasibility report by 2012. Drilling to further define mineralization will also be conducted from both the surface and underground workings that are currently being driven. The planned road construction will

ultimately consist of approximately 23 kilometers of new road alignment to the deposit when all required permits and permissions are in place. To date, access to the deposit has occurred via helicopter and foot-trails. Permitting and social development activities with surrounding communities will also continue throughout 2011.

#### Pedra Branca

The Pedra Branca project is an advanced-stage project in which PBM is exploring for platinum and palladium in Brazil. Our joint venture partner, Anglo Platinum ("Anglo"), currently owns 51% of PBM and is funding, through PBM, all work conducted on the project. We deconsolidated PBM during 2010 and will record our share of any exploration expense as our equity interest in the gains and losses of PBM against its investment in PBM. As part of the Shareholders Agreement, we entered into a Services Agreement with Anglo whereby receive a 5% management fee for operating the project based upon total expenditures. For 2011, PBM anticipates completing the planned 25-hole, 2,000-meter core drilling program sometime in early April 2011. Additional exploration by PBM, including drilling, for the remainder of 2011, is still in the planning stages and subject to funding approval by Anglo.

#### Pachuca Real

On April 28, 2010, Solitario signed a definitive venture agreement with Compania De Minas Buenaventura S.A.A. ("Buenaventura") on Solitario's Pachuca Real silver-gold project in central Mexico. The Pachuca Real project (the "Pachuca Project") encompasses approximately 31,300 hectares of mineral rights in and around the Pachuca silver-gold mining district. Through our joint venture partner, Buenaventura, we are exploring for silver and gold on the early-staged Pachuca Real project in central Mexico. Buenaventura has the right to terminate the agreement at anytime following an initial 18-month work commitment. For 2011, Buenaventura plans to continue surface exploration in 2011 consisting of mapping and sampling of vein structures on the property and rehabilitation of selected underground workings based on results of surface mapping. Additionally, a surface drilling program began in February 2011; however, the scope of this program has yet to be defined.

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#### 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"). As of March 8, 2011, we have four property positions that fall within the currently defined Strategic Alliance areas and are subject to the provisions of the Newmont Alliance. These include the La Promesa, Paria Cruz, Excelsior and Cerro Azul properties. Our budget for 2011, discussed below under "Wholly-owned exploration projects includes funds for planned exploration on these properties including permitting, surface sampling, geophysical and geotechnical work and planned drilling at our Cerro Azul project during 2011.

#### 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.

(h). Wholly-owned exploration properties

We have budgeted approximately \$3,100,000 in 2011 for exploration on our wholly owned projects, our Newmont Strategic Alliance projects, discussed above, and reconnaissance exploration activities for 2011. This amount includes approximately \$800,000 for drilling related expenditures in 2011. These activities include mapping, sampling, geophysical and geochemical analysis in addition to our drilling activities. Our significant wholly owned projects include Triunfo and Espanola in Bolivia, Atico in Peru and Norcan in Mexico.

(i) Discontinued Projects

During 2010 we abandoned the Santiago, Cajatambo, La Noria and Palmira properties and recorded a mineral property write down of \$16,000, \$28,000, \$6,000 and \$5,000, respectively. We performed drilling, stream sediment sampling, rock chip channel sampling and reconnaissance geological mapping. The decision was made to abandon these projects, based upon this work.

During 2009 we abandoned the Chonta and Purica properties and recorded a mineral property write-down of \$51,000. 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 these 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. 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.

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.

Fair Value

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.

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.

Ely units and warrants

In connection with the LOI, we purchased 3,333,333 Ely units in two equal tranches consisting each of 1,666,666 shares of Ely common stock and warrants to purchase 833,333 shares of Ely common stock received on August 30, 2010 (the "First Tranche"). The second tranche was received on October 19, 2010 (the "Second Tranche"). The Ely common stock and any underlying shares to be received upon exercise of the warrants were subject to a four-month hold period from the date the units were purchased.

We allocated the purchase price of the units for both tranches between the shares of Ely common stock and the warrants based upon the relative fair values of the warrants and shares in the units on the dates of purchase. The fair value of the shares of Ely common stock was based upon the quoted market value of Ely shares as quoted on the TSXV. The fair value of the Ely warrants was based upon a Black-Scholes option pricing model. We did not discount these fair values for the four-month hold period because of our classification of these assets as long-term based upon our intent to hold the shares and any shares from the potential exercise of the warrants for a period of more than one year and because the relatively short hold period was not considered to create a material discount to our value as of the date of purchase of the units. We recorded a day-one unrealized gain on the Ely marketable equity securities, net of deferred taxes, to other comprehensive income, based upon the quoted fair market value of the Ely shares on the date of purchase. We classify our shares of Ely common stock as marketable equity securities available for sale and any unrealized gains or losses are recognized in unrealized gain or loss on marketable equity securities in other comprehensive income.

Pursuant to ASC 815 the warrants received in both tranches do not qualify as a derivative instrument until 31 days prior to the end of the hold period. Accordingly we recorded a day-one unrealized gain to other comprehensive income on the Ely warrants as of the date of purchase for both tranches. However, on November 30, 2010 the date the hold period for the potential shares from warrants from the First Tranche was less than 31 days, we changed the classification of the warrants received on August 30, 2011 to derivative instrument and concurrently transferred the unrealized gain on the warrants as of that date of \$62,000, net of deferred taxes of \$37,000, to unrealized gain on derivative instrument in the statement of operations to reflect the change in the classification of the warrants received in the First Tranche as deferred instruments on that date. Solitario recorded an additional gain on derivative instruments of \$17,000, for a total gain on derivative instruments in the statement of operations since the date of acquisition of \$117,000. The fair value of the warrants was calculated based upon a Black-Scholes option pricing model at each period end date.

Because the warrants received in the Second Tranche did not qualify as derivative instruments as of December 31, 2010 we recorded all changes in value of the warrants during 2010 in unrealized gain in other comprehensive income in the equity section of the consolidated balance sheet. We transferred the balance of unrealized gain in other comprehensive income to gain on derivative instrument in the statement of operations, when the warrants were reclassified as derivative instruments in accordance with ASC 815 in January 2011.

#### 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 call options as hedging instruments and any changes in the fair market value of the Kinross Collar or the Kinross call options 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 call options during 2010 and 2009.

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#### Revenue Recognition

We record delay rental payments as revenue in the period received. We received \$200,000 in delay rental payments during the years ended December 31, 2010 and 2009. 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.

#### 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 by the other party, we record 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, we record any payments included in deferred noncontrolling shareholder payments to the statement of operations.

#### Long-term debt

We record the long-term debt due to Augusta at the discounted fair value as of the date of the formation of MH-LLC in accordance with ASC 470. Upon the contribution of the mineral properties by DHI-US to MH-LLC, MH-LLC recorded \$3,066,000 for the discounted fair value of the payments due to Augusta, discounted at 7.5%, which was based on our estimated cost of similar credit as of the formation of MH-LLC.

#### 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 of our

common stock on 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.

#### Accounting for Uncertainty in Income Taxes

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 740-10 had no effect on our financial position or results of operations.

#### (k). Related Party Transactions

##### TNR Gold Corp.

As of December 31, 2010, 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 \$190,000 at December 31, 2010. Christopher E. Herald, our CEO, was a member of the Board of Directors of TNR until June 3, 2009.

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#### (l). Recent Accounting Pronouncements

In April 2010, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2010-13, "Effect of Denominating the Exercise Price of a Share-Based Payment Award in the Currency of the Market in Which the Underlying Equity Security Trades" ("ASU 2010-13"). ASU 2010-13 addresses the classification of a share-based payment award with an exercise price denominated in the currency of a market in which the underlying equity security trades. FASB Accounting Standards Codification ("ASC") Topic 718 was amended to clarify that a share-based payment award with an exercise price denominated in the currency of a market in which a substantial portion of the entity's equity securities trade shall not be considered to contain a market, performance or service condition. Therefore, such an award is not to be classified as a liability if it otherwise qualifies for equity classification. The amendments in ASU 2010-13 are effective for fiscal years, and interim periods within those fiscal years, beginning on or after December 15, 2010, with early application permitted. Solitario will change its

accounting for options upon the adoption of ASU 2010-13 from liability accounting to equity accounting in the first quarter of 2011 and is evaluating the impact on its financial statements.

In January 2010, ASC guidance for fair value measurements and disclosure was updated to require additional disclosures related to transfers in and out of level 1 and 2 fair value measurements and enhanced detail in the level 3 reconciliation. The guidance was amended to clarify the level of disaggregation required for assets and liabilities and the disclosures required for inputs and valuation techniques used to measure the fair value of assets and liabilities that fall in either level 2 or level 3. The updated guidance was effective for our fiscal year beginning January 1, 2010, with the exception of the level 3 disaggregation, which is effective for our fiscal year beginning January 1, 2011. The adoption had no impact on our consolidated financial position, results of operations or cash flows. See the discussion of our assets and liabilities measured at fair value above under "Fair Value."

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Smaller reporting companies are not required to provide the information required by this item.

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Item 8. Financial Statements and Supplementary Data

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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, 2010 and 2009, and the related consolidated statements of operations, changes in shareholders' equity and comprehensive loss and cash flows for each of the years in the two-year period ended December 31, 2010. The Company's management is responsible for these consolidated financial statements. Our responsibility is to express an opinion on these consolidated financial statements 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. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. 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. We believe that our audits provide a reasonable basis for our opinion.

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, 2010 and 2009, and the results of their operations and their cash flows for the years ended December 31, 2010 and December 31, 2009 in conformity with accounting principles generally accepted in the United States of America.

Ehrhardt Keefe Steiner & Hottman PC

March 11, 2011  
Denver, Colorado

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## SOLITARIO EXPLORATION &amp; ROYALTY CORP.

## CONSOLIDATED BALANCE SHEETS

(in thousands of U.S. dollars, except share and per share amounts)	December 31, 2010	December 31, 2009
Assets		
Current assets:		
Cash and cash equivalents	\$478	\$1,946
Investments in marketable equity securities, at fair value	5,214	4,600
Prepaid expenses and other	<u>421</u>	<u>196</u>

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Total current assets	6,113	6,742
Mineral properties, net	6,153	2,739
Investments in marketable equity securities, at fair value	14,557	15,006
Equity method investment	2,276	-
	<u>509</u>	<u>154</u>
Other assets		
Total assets	<u>\$29,608</u>	<u>\$24,641</u>
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	\$ 630	\$ 269
Derivative instruments fair value	-	53
Short-term margin loan	2,823	-
Current taxes payable	-	385
Current portion long-term debt	481	-
Deferred income taxes	1,945	1,567
	<u>100</u>	<u>150</u>
Other		
Total current liabilities	5,979	2,424
Long-term debt	2,604	-
Deferred income taxes	4,474	5,555
Stock option liability	2,775	262
Deferred noncontrolling shareholder payments	-	1,286
Commitments and contingencies (Notes 2 and 8)		
Equity:		
Solitario shareholders' equity		
Preferred stock, \$0.01 par value, authorized 10,000,000 shares (none issued and outstanding at December 31, 2010 and 2009)	-	-
Common stock, \$0.01 par value, authorized, 100,000,000 shares (29,750,242 shares issued and outstanding at December 31, 2010 and 2009)	297	297
Additional paid-in capital	36,799	35,611
Accumulated deficit	(36,996)	(32,930)
	<u>11,786</u>	<u>11,722</u>
Accumulated other comprehensive income		
Total Solitario shareholders' equity	11,886	14,700
Noncontrolling interest	<u>1,890</u>	<u>414</u>

	<u>13,776</u>	<u>15,114</u>
Total shareholders' equity		
Total liabilities and shareholders' equity	<u>\$29,608</u>	<u>\$24,641</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,	
	2010	2009
Property and joint venture revenue		
Joint venture property payments	\$200	\$200
Costs, expenses and other:		
Exploration expense	4,033	3,579
Depreciation and amortization	67	91
General and administrative	4,280	2,079
Gain on derivative instruments	(152)	(694)
Property abandonment and impairment	55	51
(Gain) loss on sale of assets	(22)	18
Interest and dividend income (net)	<u>(63)</u>	<u>(106)</u>
Total costs, expenses and other	8,198	5,018
Other Income		
Gain on sale of marketable equity securities	995	1,409
Equity in net loss of equity method investment	(220)	-
Gain on deconsolidation of PBM subsidiary	724	-
Break fee on attempted acquisition	<u>-</u>	<u>2,200</u>
Total other income	<u>1,499</u>	<u>3,609</u>
Loss before income tax	(6,499)	(1,209)
Income tax (expense) benefit	<u>1,159</u>	<u>(996)</u>

Net loss	(5,340)	(2,205)
	<u>1,274</u>	<u>419</u>
Less net loss attributable to noncontrolling interest		
Net loss attributable to Solitario shareholders	<u>\$(4,066)</u>	<u>\$(1,786)</u>
Loss per common share attributable to Solitario shareholders:		
Basic and diluted	<u>\$(0.14)</u>	<u>\$(0.06)</u>
Weighted average shares outstanding:		
Basic and diluted		<u>29,750</u>
	<u>29,750</u>	

See Notes to Consolidated Financial Statements.

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SOLITARIO EXPLORATION & ROYALTY CORP.  
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY AND COMPREHENSIVE LOSS  
FOR THE YEARS ENDED DECEMBER 31, 2010 AND 2009

(in thousands, except Share amounts)	Solitario Shareholder's					Accumulated Other Comprehensive Income	Total Solitario Shareholder's Equity	Non- Control- ling Interest	Total Shareholders' Equity
	Common Shares	Stock Amount	Additional Paid-in Capital	Accumulated Deficit					
Balance at December 31, 2008	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)				
Comprehensive loss	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>			<u>(2,937)</u>	
						<u>(2,518)</u>	<u>(419)</u>		
Balance at December 31, 2009	29,750,242	\$297	\$35,611	\$(32,930)	\$11,722	\$14,700	\$ 414	\$15,114	
Noncontrolling interest equity contribution			1,188			1,188	1,594	2,782	
Deconsolidation of PBM subsidiary							(1,844)	(1,844)	
Noncontrolling interest equity contribution							3,000	3,000	

Comprehensive income:

Net loss	-	-	-	(4,066)	(4,066)	(1,274)	(5,340)
Net unrealized gain on marketable equity securities (net of tax of \$163)	-	-	-	-	<u>64</u>	<u>64</u>	<u>64</u>
Comprehensive loss	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(5,276)</u>
						<u>(4,002)</u>	<u>(1,274)</u>
Balance at December 31, 2010	<u>29,750,242</u>	<u>\$297</u>	<u>\$36,799</u>	<u>\$(36,996)</u>			
			)		<u>\$11,786</u>	<u>\$11,886</u>	<u>\$1,890</u>
							<u>\$13,776</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,	
	2010	2009
Operating activities:		
Net loss	\$(5,340)	\$(2,205)
Adjustments to reconcile net loss to net cash used in operating activities:		
Gain on derivative instruments	(152)	(694)
Depreciation and amortization	67	91
Loss on equity method investment	220	-
Asset write down	55	51
Employee stock option expense (benefit)	2,513	(269)
Deferred income taxes	(867)	611
Amortization of interest on long-term debt	19	-
Gain on asset and equity security sales	(1,017)	(1,391)
Gain on deconsolidation of PBM subsidiary	(724)	-
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	49	96
Accounts payable and other current liabilities	414	112
Current income taxes payable	<u>(677)</u>	<u>385</u>
Net cash used in operating activities	<u>(5,440)</u>	<u>(3,213)</u>

) )

## Investing activities:

Additions to mineral properties	(11)	(5)
Additions to other assets	(60)	(15)
Purchase of marketable equity securities	(358)	-
(Purchase) sale of derivative instrument, net	(135)	99
Proceeds from sale of marketable equity securities	1,301	1,852
Decrease in cash from deconsolidation of PBM subsidiary	(1,083)	-
Proceeds from sale of other assets	<u>22</u>	<u>-</u>

Net cash (used in) provided by investing activities	<u>(324)</u>	<u>1,931</u>
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## Financing activities:

	2,800	-
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## Short-term borrowing (net)

	<u>1,496</u>	<u>1,286</u>
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## Deferred noncontrolling shareholder payments

Net cash provided by financing activities	<u>4,296</u>	<u>1,286</u>
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## Net increase (decrease) in cash and cash equivalents

	(1,468)	4
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## Cash and cash equivalents, beginning of year

	<u>1,946</u>	<u>1,942</u>
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## Cash and cash equivalents, end of year

	<u>\$ 478</u>	<u>\$1,946</u>
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## Supplemental disclosure of cash flow information:

Cash paid for income taxes	\$319	\$ -
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## Supplemental disclosure of non-cash flow investing and financing activities:

Assumption of Mt. Hamilton long-term debt on acquisition of Mt. Hamilton mineral property	\$3,066	\$ -
Noncontrolling shareholder contribution of Mt. Hamilton property	\$3,000	\$ -
Reclassification of deferred noncontrolling shareholder payments to additional paid-in-capital	\$1,188	\$ -
Reclassification of deferred noncontrolling shareholder payments to noncontrolling interest	\$1,594	\$ -

See Notes to Consolidated Financial Statements

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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. In August 2010, Solitario signed a Letter of Intent to earn up to an 80% interest in the Mt. Hamilton project located in Nevada, discussed below under "Recent developments." Solitario has been working on the exploration and potential development of the Mt. Hamilton project. However, Solitario has never developed a mineral property. Solitario is exploring on other mineral properties that may be developed in the future by Solitario or through a joint venture. Solitario has been actively involved in mineral exploration since 1993. Solitario recorded revenues from joint venture delay rental payments of \$200,000 each year, respectively, related to its Bongara project during 2010 and 2009. 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, 2010 Solitario had 12 mineral exploration properties in Peru, Bolivia, Mexico and Brazil and its Yanacocha and La Tola royalty properties in Peru and its Mercurio Royalty property in Brazil. 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.

## Recent developments

### Ely Gold and Minerals, Inc.

On August 26, 2010, Solitario signed a Letter of Intent ("LOI") with Ely Gold and Minerals, Inc., ("Ely") to make certain equity investments into Ely and to joint venture Ely's Mt. Hamilton gold project, which was wholly-owned by DHI-Minerals (US) Ltd. ("DHI-US"). DHI-US is an indirect wholly-owned subsidiary of Ely. The formation of the joint venture terms and certain equity investments, described below were subject to the approval (the "Approval") of the LOI by Ely shareholders and regulatory approval from the TSX Venture Exchange ("TSXV"), which was received on October 18, 2010.

On August 26, 2010 and October 19, 2010, Solitario made private placements investments of Cdn\$250,000 each in Ely. Solitario received a total of 3,333,333 shares of Ely common stock and warrants to purchase a total of 1,666,667 shares of Ely stock (the "Ely Warrants") for an exercise price of Cdn\$0.25 per share, which expire two years from the date of purchase. The placements were part of the LOI to joint venture Ely's Mt. Hamilton gold project. On November 12, 2010 Solitario made an initial contribution of \$300,000 for a 10% interest in, upon the formation of Mt. Hamilton LLC ("MH-LLC") which was formed in December 2010. The terms of the joint venture are set forth in the Limited Liability Company Operating Agreement of MH-LLC between Solitario and DHI-US (the "MH Agreement"). Pursuant to the MH Agreement, Solitario may earn up to an 80% interest in MH-LLC by completing various staged commitments. Pursuant to the terms of the MH Agreement Solitario has determined that MH-LLC is a variable interest entity (a "VIE") and that Solitario controls MH-LLC and is the primary beneficiary of MH-LLC in accordance with ASC 810. As a result of its controlling interest in MH-LLC, Solitario has consolidated MH-LLC and recorded \$3,066,000 of debt related to MH-LLC upon the formation of MH-LLC. See a more complete discussion in Note 12, "Ely Gold investment and the Mt. Hamilton Joint Venture" below.

### Pedra Branca do Minercao, Ltd

On July 21, 2010, Anglo Platinum Limited ("Anglo") made a payment of \$746,000 to Pedra Branca do Minercao, Ltd. ("PBM") required to fund the third work program at the Pedra Branca project, which is held by PBM. Upon making this payment, Anglo earned an additional 21% interest in PBM and now holds a 51% interest in PBM. Accordingly, Solitario has deconsolidated its interest in Pedra Branca and has recorded its 49% interest in PBM as an equity investment in the consolidated balance sheet as of December 31, 2010. Solitario recorded a gain on deconsolidation as of July 21, 2010 of \$724,000 and has recorded its equity in the net loss of PBM from that date as other income in the condensed consolidated statement of operations. Please see Note 11 "Deconsolidation of PBM" below.

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#### Investment in Kinross

Solitario has a significant investment in Kinross stock at December 31, 2010, which consists of 980,000 shares of Kinross common stock. During 2010, Solitario sold 70,000 shares of Kinross common stock for proceeds of \$1,301,000 and during 2009 Solitario sold 100,000 Kinross common shares for net proceeds of \$1,852,000. As of March 8, 2011, Solitario owns 960,000 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 stock 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 stock. On April 13, 2010, a tranche of the Kinross Collar due on that date expired, and 400,000 shares under the Kinross Collar were released. 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 either tranche of the Kinross Collar. As of December 31, 2010, 100,000 shares remain subject to the Kinross Collar which expires in April 2011. The Kinross Collar is discussed below under "Derivative instruments."

#### Financial reporting

The consolidated financial statements include the accounts of Solitario and its wholly owned subsidiaries, controlled non-wholly-owned subsidiaries and its equity investment in PBM. 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.

#### Revenue recognition

Solitario records delay rental payments as revenue in the period received. Solitario received \$200,000 in delay rental payments during the years ended December 31, 2010 and 2009. 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.



#### Deferred noncontrolling shareholder payments

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, Solitario records 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, Solitario records any payments remaining in deferred noncontrolling shareholder payments to the statement of operations.

On July 21, 2010, Anglo made a payment of \$746,000 to PBM required to fund the 2010 work program at the Pedra Branca project, which is held by PBM. Upon making this payment, Anglo earned an additional 21% interest in PBM and now holds a 51% interest in PBM. As a result of Anglo earning a 51% interest in PBM by meeting the requirements of the Shareholders Agreement, Solitario reclassified the balance of \$2,782,000 in deferred noncontrolling shareholder payments as \$1,594,000 to Anglo's interest in PBM and \$1,188,000 to additional paid-in-capital, for Solitario's share of the deferred noncontrolling shareholder payments. Accordingly, as it no longer controls PBM, Solitario deconsolidated PBM, in accordance with ASC 810 during year ended December 31, 2010, see Note 11 "Deconsolidation of PBM." This reduced the balance in the deferred noncontrolling shareholder account to zero as of July 21, 2010. Solitario recorded \$1,286,000 as deferred Noncontrolling shareholder payments as of December 31, 2009. During the years ended December 31, 2010 and 2009, Solitario received deferred noncontrolling shareholder payments of \$1,496,000 and \$1,286,000, respectively.

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#### 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: i) the recoverability of mineral properties and their future exploration potential; ii) 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; iii) the ability of Solitario to realize its deferred tax assets; iv) the current portion of Solitario's investment in Kinross stock and in Ely shares included in marketable equity securities; v) the fair value of Solitario's investment in the Ely Warrants; vi) the discounted value of the long-term debt recorded upon the formation of MH-LLC; vii) the fair value of PBM upon deconsolidation; viii) the fair value of the Mt. Hamilton property recorded upon the formation of MH-LLC; ix) 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, 2010 and 2009, 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 undiscounted 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, 2010 and 2009, Solitario recorded an impairment of \$55,000 and \$51,000, respectively, on its mineral properties.

Solitario's net capitalized mineral properties of \$6,153,000 and \$2,739,000 at December 31, 2010 and 2009, respectively, related to gross land, leasehold and acquisition costs of \$6,156,000 and \$3,762,000 at December 31, 2010 and 2009, respectively, less accumulated amortization of \$3,000 and \$1,023,000 at December 31, 2010 and 2009, respectively. 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, either on our own or 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 stock to be sold (or delivered back to us with any differences settled in cash) . As of December 31, 2010, 100,000 shares remained subject to the Kinross Collar which expires in April 2011.

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Beginning in December 2008, Solitario 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, of which 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. In November 2009, Solitario sold an option for 40,000 shares which expired in May 2010.

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 6, "Derivative instruments" below.

In connection with the LOI, Solitario acquired the Ely Warrants. On August 30, 2010 Solitario allocated its investment between the Ely common stock received of \$178,000 and the Ely Warrants received of \$65,000 based upon the fair values of each. Because the Ely Warrants had a 120 day hold period from the date of purchase, Solitario did not classify the Ely Warrants as derivative instruments and any gain or loss was recorded as other comprehensive income, prior to November 30, which was 31 days before the Ely Warrants could be freely traded, or approximately 89 days after the Ely Warrants were purchased. On November 30, 2010 the Ely Warrants received on August 30, 2010 became classified as derivative instruments and any changes in the fair value of the Ely Warrants as of that date were recorded in gain on derivative instruments in the statement of operations. On November 30, 2010 Solitario transferred \$99,000 to gain on derivative instrument from other comprehensive income for the 666,667 Ely Warrants received on August 30, 2010. Solitario recorded an additional \$18,000 in gain on derivative instrument for the increase in the fair

value of the Ely Warrants for a total gain on derivative instruments of \$117,000 for the year ended December 31, 2010 on the Ely Warrants received on August 30, 2010. For the 666,666 Ely Warrants received on October 19, 2010 Solitario has recorded other comprehensive income of \$114,000 as of December 31, 2010 for the increase in the fair value of the Ely Warrants received on October 19, 2010. Any gain or loss included in other comprehensive income on January 16, 2011 will be recorded to gain/loss on derivative instrument in the statement of operations for 2011 upon the Ely Warrants received on October 19, 2010 being classified as derivative instruments.

#### Variable interest entity

Pursuant to the terms of the MH Agreement Solitario has determined that MH-LLC is a VIE in accordance with ASC 810. Solitario has also determined that it is the primary beneficiary of MH-LLC. Accordingly, Solitario consolidates MH-LLC in its consolidated financial statements in accordance with ASC 810. Solitario has determined no separate presentation of assets or liabilities is necessary per ASC 810, as MH-LLC does not have any assets that can only be used to settle specific obligations or any liabilities for which creditors do not have recourse to Solitario. See Note 12, "Ely Gold investment and Mt. Hamilton Joint Venture" below for further discussion of MH-LLC.

#### Metallic Ventures

On August 24, 2009 Solitario and Metallic Ventures Gold Inc. ("Metallic Ventures") entered into a definitive arrangement agreement, as amended, ( the " MV Agreement") whereby Solitario would acquire, through a friendly statutory plan of arrangement under Canadian Law, all outstanding shares of Metallic Ventures, by issuing 19.5 million shares of Solitario common stock and pay \$18 million for all of the outstanding shares of Metallic Ventures. The MV Agreement, as amended, was subject to shareholder and regulatory approval. In order to offer Metallic Ventures' shareholders the Solitario 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 November 2, 2009, Metallic Ventures terminated the MV 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

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, short-term margin loans 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 7 "Fair value of financial instruments" below.

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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 shareholders' 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 \$19,771,000 and \$19,606,000, respectively, and cost of \$1,087,000

and \$1,035,000, respectively, at December 31, 2010 and 2009. Solitario has accumulated other comprehensive income for unrealized holding gains of \$18,684,000 and \$18,571,000, respectively, net of deferred taxes of \$6,969,000 and \$6,849,000, respectively, at December 31, 2010 and 2009 related to our marketable equity securities. Solitario acquired 3,333,333 shares of Ely common stock during the year ended December 31, 2010 at a cost of \$358,000, discussed in Note 12, "Ely Gold investment and the Mt. Hamilton joint venture" below. Solitario sold 70,000 shares of its Kinross common stock during the year ended December 31, 2010 for gross proceeds of \$1,301,000. Solitario sold 100,000 shares, respectively, of its Kinross common stock during the year ended December 31, 2009 for gross proceeds of \$1,852,000. Solitario has classified \$5,214,000 and \$4,600,000, respectively, of marketable equity securities as current, as December 31, 2010 and 2009, which represents Solitario's estimate of what portion of marketable equity securities will be liquidated within one year.

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

	2010	2009
Gross cash proceeds	\$ 1,301	\$ 1,852
Cost	<u>306</u>	<u>443</u>
Gross gain on sale included in earnings during the period	995	1,409
Unrealized holding gain arising during the period included in other comprehensive income, net of tax of \$534 and \$90	689	152
Reclassification adjustment for net losses (gains) included in earnings during the period, net of tax of \$371 and \$526	(624)	(884)
Foreign exchange		

The United States dollar is the functional currency for all of Solitario's foreign subsidiaries. Although Solitario's South American 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 2010 and 2009, Solitario recorded foreign exchange gain (loss) of \$(29,000) and \$35,000, 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 \$32,000 and \$280,000, respectively, at December 31, 2010 and 2009.

#### 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.

## Accounting for Uncertainty in Income Taxes

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. These provisions of ASC 740 had no effect on Solitario's financial position or results of operations. See Note 5 "Income Taxes" below.

## 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, 2010 and 2009. Potentially dilutive shares related to outstanding common stock options of 2,584,000 and 519,000 for the years ended December 31, 2010 and 2009, 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, and an expected volatility based upon the historical volatility of Solitario's common stock on 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 liability 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, 2010, Solitario's Mt. Hamilton project is located in Nevada and all of Solitario's remaining operations are located in Peru, Bolivia, Brazil and Mexico as further described in Note 2 to these consolidated financial statements. At December 31, 2010, Solitario has recorded \$6,066,000 of mineral property related to its Mt. Hamilton project in Nevada.

Included in the consolidated balance sheet at December 31, 2010 and 2009 are total assets of \$515,000 and \$3,310,000, 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, 2010 and 2009 are net capitalized costs related to the Pedra Branca Property, located in Brazil, of zero and \$2,607,000, respectively. Solitario is not aware of any foreign exchange restrictions on its subsidiaries located in foreign countries.

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## Recent accounting pronouncements

In April 2010, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2010-13, "Effect of Denominating the Exercise Price of a Share-Based Payment Award in the Currency of the Market in Which the Underlying Equity Security Trades" ("ASU 2010-13"). ASU 2010-13 addresses the classification of a share-based payment award with an exercise price denominated in the currency of a market in which the underlying equity security trades. FASB Accounting Standards Codification ("ASC") Topic 718 was amended to clarify that a share-based payment award with an exercise price denominated in the currency of a market in which a substantial portion of the entity's equity securities trade shall not be considered to contain a market, performance or service condition. Therefore, such an award is not to be classified as a liability if it otherwise qualifies for equity classification. The amendments in ASU 2010-13 are effective for fiscal years, and interim periods within those fiscal years, beginning on or after December 15, 2010, with early application permitted. Solitario will classify its options as equity options, in accordance with ASU 2010-13 and will no longer record a liability for the fair value of its outstanding options beginning January 1, 2011. Solitario is currently evaluating the impact ASU 2010-13 will have on its financial statements.

In January 2010, ASC guidance for fair value measurements and disclosure was updated to require additional disclosures related to transfers in and out of level 1 and 2 fair value measurements and enhanced detail in the level 3 reconciliation. The guidance was amended to clarify the level of disaggregation required for assets and liabilities and the disclosures required for inputs and valuation techniques used to measure the fair value of assets and liabilities that fall in either level 2 or level 3. The updated guidance was effective for Solitario's fiscal year beginning January 1, 2010, with the exception of the level 3 disaggregation, which is effective for Solitario's fiscal year beginning January 1, 2011. The adoption had no impact on Solitario's consolidated financial position, results of operations or cash flows. See the discussion of Solitario's assets and liabilities measured at fair value above under "Fair Value."

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 that contain proven or probable reserves, 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 and development potential. Solitario's mineral use rights generally are enforceable regardless of whether proven and probable reserves have been established.

The following represents Solitario's investment in mineral properties:

(in thousands)	December 31,	
	2010	2009
Mineral interests	\$6,156	\$3,762
Accumulated amortization	<u>(3)</u>	<u>(1,023)</u>
	)	
Net mineral interests	<u>\$6.153</u>	<u>\$2.739</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.

*United States*

As discussed in Note 1 above, on August 26, 2010, Solitario signed the LOI with Ely to make certain equity investments into Ely and to joint venture Ely's Mt. Hamilton gold project. MH-LLC recorded the Mt. Hamilton mineral properties at their fair value of \$6,066,000 on formation of MH-LLC. The Mt. Hamilton claims are subject to a security interest granted to Augusta Resources Corporation ("Augusta"), from whom Ely had previously acquired its interest in the Mt. Hamilton project that DHI-US contributed to MH-LLC. Upon formation, MH-LLC recorded a liability of \$3,066,000, discounted at 7.5%, which is Solitario's deemed market interest rate, for the secured liability to Augusta. MH-LLC recorded \$3,000,000 for the fair value of the net contribution of the Mt Hamilton properties by DHI-US as of the formation of MH-LLC. Pursuant to the MH Agreement, Solitario has control of MH-LLC and is consolidating the activities of MH-LLC in accordance with ASC 810. Accordingly, Solitario recorded an addition to mineral properties of \$6,066,000 during 2010. Pursuant to the MH Agreement, Solitario is required to fund all exploration expenditures to complete a feasibility study and fund a minimum of \$1,000,000 in exploration expenditures on or before August 21, 2011, which minimum has been met as of February 28, 2011. Including its initial investment, during 2010 Solitario has funded \$1,214,000 of exploration expenditures at Mt. Hamilton, which are included in exploration expense for 2010. In addition, MH-LLC recorded \$19,000 of interest expense related to the long-term debt due to Augusta. Solitario recorded a \$1,110,000 reduction in the noncontrolling interest for Ely's 90% interest in the losses of MH-LLC for 2010.

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Peru

Solitario holds exploration concessions or has filed applications for concessions covering approximately 5,200 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 12,800 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. 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, 2010, 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, which was met in 2010, 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 and by making further delay rental payments to Solitario of \$200,000 on all subsequent anniversaries (completed through 2010) 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 is responsible for all joint venture costs as part of the Framework Agreement. Votorantim has conducted annual drilling programs at Bongara for the years 2006-2010.

## Brazil

### (a) Pedra Branca

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. On July 21, 2010, Anglo made a payment of \$746,000 to PBM required to fund the second half of the 2010 work program at the Pedra Branca project, which is held by PBM. Upon making this payment, Anglo earned an additional 21% interest in PBM and now holds a 51% interest in PBM. 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.

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Upon Anglo earning a 51% interest on July 21, 2010, Solitario made the determination that Anglo had gained control of PBM per the terms of the PBM shareholders agreement between Solitario and Anglo. This necessitated the deconsolidation of our interest in PBM and the recording of a gain or loss on deconsolidation in accordance with ASC 810-10-40-5. Accordingly Solitario reduced its mineral properties and accumulated amortization by \$3,627,000 and \$1,020,000, respectively, as of July 21, 2010. See Note 11 "Deconsolidation of PBM," below.

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 2010 Solitario charged PBM management fees of \$47,000, to PBM of which \$36,000, received prior to July 21, 2010 were eliminated in consolidation, net of \$12,000 of noncontrolling interest. During 2009 Solitario recorded \$65,000 of management fees which were eliminated in consolidation, net of \$20,000 of noncontrolling interest.



(b) Mercurio

On March 9, 2010 Solitario signed a letter agreement with Regent Holdings, Ltd. ("Regent"), related to Solitario's Mercurio property, located in Brazil. In November 2010, Solitario signed a definitive agreement with Regent Holdings, Ltd. ("Regent"), whereby Regent has agreed to pay to Solitario \$1,000,000 over the next four years, in the amounts of \$50,000, \$100,000, \$200,000 and \$650,000 beginning March 15, 2011 and on each anniversary of that date through March 15, 2014, and invest in minimum expenditure amounts totaling \$900,000 over the same period. However, this schedule is dependent upon issuance by the Brazilian government of one of the titles comprising the property which is currently pending and has thus far not occurred. Upon the final payments to Solitario Regent will own Mercurio and Solitario will retain a net smelter royalty of 1.5% on all ounces of gold produced at Mercurio up to 2 million ounces and Solitario will retain a net smelter royalty of 2.0% on all ounces of gold produced at Mercurio over 2 million ounces. Regent may terminate the agreement at any time after six months from the date of signing the agreement.

Mexico

(a) Pachuca

The 31,300 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 \$82,000 are due in 2011. Solitario may terminate its option at anytime without any further costs.

On April 28, 2010, Solitario signed a definitive venture agreement with Compania De Minas Buenaventura S.A.A. ("Buenaventura") on the Pachuca Real silver-gold project. The agreement calls for a firm work commitment by Buenaventura of \$2.0 million over the first 18 months. Work commitments over the entire 4.5 years total \$12.0 million. Buenaventura will earn a 51% interest in the Pachuca Project upon the completion of \$12.0 million in expenditures. All work commitments will be performed by Buenaventura employees or contractors. Buenaventura will have the right to earn an additional 14% (total 65%) interest in the Pachuca Project by completing a positive feasibility study for the project. During the feasibility stage, Buenaventura is required make all required property payments and to spend a minimum of \$5.0 million annually until such time as the positive feasibility study is completed. Buenaventura has the right to terminate the agreement at anytime following its firm initial work commitment. Upon completion of the feasibility study, Solitario will have the option to self-finance its 35%-participating interest in the Pachuca Project, or to have Buenaventura fund Solitario's portion of construction costs at Libor + 3%. If Solitario elects to have Buenaventura fund its portion of construction costs, then Solitario's participating interest in the Pachuca Project will be 30% and Buenaventura's interest will be 70%. Buenaventura will be repaid for its funding plus interest from 80% of Solitario's 30% interest in the distribution of earnings from the Pachuca project.

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Discontinued projects

During the third quarter of 2010 Solitario abandoned the Santiago prospect and recorded a mineral property write down of \$16,000. The Santiago prospect was acquired in 2007 and consists of one mining concession totaling 1,000 hectares. During the second quarter of 2010 Solitario abandoned the Cajatambo, La Noria and Palmira properties and recorded a mineral property write down of \$28,000, \$6,000 and \$5,000, respectively.

During the fourth quarter of 2009 Solitario abandoned the Chonta property in Peru and recorded a mineral property write-down of \$42,000. 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.

#### Exploration Expense

The following items comprised exploration expense:

(in thousands)	2010	2009
Geologic and field expenses	\$2,420	\$2,339
Administrative	399	1,240
Mt. Hamilton exploration	<u>1,214</u>	<u>-</u>
Total exploration expense	<u>\$4,033</u>	<u>\$3,579</u>

#### 3. Short term debt

Solitario borrowed \$900,000, net, from RBC Capital Markets, LLC ("RBC") during 2010, in short-term margin loans, using Solitario's investment in Kinross held at RBC as collateral for the short-term margin loans. During 2010, the loans carried interest at a margin loan rate of 4.25% per annum, which floats based upon the London Interbank Offered Rate. The margin loan rate can be modified by RBC at any time. The margin loans are callable by RBC at any time. Per the terms of the margin loans, Solitario is required to maintain a minimum equity value in the account of 35%, based upon the value of its Kinross shares and any other assets held at RBC, less any short term margin loan balance and any other balances owed to RBC. The equity value percentage may be modified by RBC at any time. If the equity value in Solitario's account at RBC falls below the minimum, RBC may call the loan, or may sell enough Kinross shares held in Solitario's brokerage account or liquidate any other assets to restore the minimum equity value. At December 31, 2010 the equity balance in Solitario's account at RBC was 80%. Interest expense related to the short term margin loans for the year ended December 31, 2010 was \$5,000.

Solitario borrowed \$1,900,000 during 2010 from UBS Bank, USA ("UBS Bank") pursuant to a secured credit line agreement between Solitario and UBS Bank. The UBS Bank credit line carries an interest rate of 2.51% per annum as of December 31, 2010, which floats, based upon a base rate of 2.25% plus the one-month London Interbank Offered Rate ("LIBOR"), which is 0.26% as of December 31, 2010. UBS Bank may change the base rate at any time. The UBS Bank credit line provides that Solitario may borrow up to \$2 million and that Solitario maintain a minimum equity value percentage in its UBS brokerage account above 40%, based upon the value of its Kinross shares and any other assets held in Solitario's UBS brokerage account, less the value of its UBS Bank credit line and any other balances owed to UBS Bank. UBS Bank may modify the minimum equity value percentage of the loan at any time. In addition, if the equity value in Solitario's UBS brokerage account falls below the minimum equity value, UBS Bank may sell enough Kinross shares held in Solitario's UBS brokerage account or liquidate any other assets to restore the minimum equity value. At December 31, 2010, the equity value in Solitario's UBS brokerage account was 80%. Solitario recorded interest expense related to the UBS credit line of \$18,000 for the year ended December 31, 2010.

#### 4. Long-term debt

In connection with the formation of MH-LLC, the Mt. Hamilton properties contributed by DHI-US to MH-LLC were subject to a security interest granted to Augusta Resources Corporation ("Augusta") related to Ely's acquisition of the Mt. Hamilton properties. Pursuant to the MH Agreement, as part of its earn-in, Solitario has agreed to make payments totaling \$3,750,000, of which \$1,250,000 will be paid in cash to DHI-US and \$2,500,000 are to be made as private placement investments in Ely common stock, all to provide Ely with the funds necessary for Ely to make the loan payments due to Augusta. The payments due to Augusta are non-interest bearing. Accordingly upon formation and the contribution of the mineral properties by DHI-US to MH-LLC. MH-LLC recorded \$3,066,000 for the discounted fair value of the payments due to Augusta, discounted at 7.5%, which was Solitario's estimated cost of similar credit as of the formation of MH-LLC.

Schedule of debt payments due to Augusta as of December 31, 2010:

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	<u>Amount</u>
<u>Date</u>	
June 1, 2011	\$ 500,000
June 1, 2012	750,000
June 1, 2013	750,000
June 1, 2014	750,000
June 1, 2015	1,000,000
	<u>(665,000)</u>
Discount	)
Net due	<u>\$3,085,000</u>

During 2010, Solitario recorded \$19,000 for accretion of interest expense related to MH-LLC long-term debt due to Augusta, which increased the outstanding long-term debt balance to \$3,085,000 at December 31, 2010 from the balance on formation of \$3,066,000 upon formation of MH-LLC.

5. Income taxes:

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

(in thousands)	<u>2010</u>	<u>2009</u>
Current:		
United States	\$ (342)	\$385
Foreign	50	-
Deferred:		
United States	\$ (773)	\$162
Foreign	-	-
Operating loss and credit carryovers:		
United States	(94)	449

Foreign	—	—
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Income tax expense (benefit)	\$(1,159)	\$996
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Consolidated income (loss) before income taxes includes losses from foreign operations of \$2,721,000 and \$3,894,000 in 2010 and 2009, respectively.

During 2010 and 2009, Solitario recognized other comprehensive income related to unrealized gains on marketable equity securities of \$1,223,000 and \$242,000, respectively. Other comprehensive income has been charged \$534,000 and \$90,000, respectively, for the income tax expense associated with these gains. During 2010 and 2009, Solitario transferred unrealized gain of \$995,000 and \$1,409,000, respectively from other comprehensive income upon the sale of 70,000 and 100,000 shares, respectively, of Kinross common stock, less income tax of \$371,000 and \$526,000, respectively, associated with these unrealized gains.

The net deferred tax assets/liabilities in the December 31, 2010 and 2009 consolidated balance sheets include the following components:

(in thousands)	<u>2010</u>	<u>2009</u>
Deferred tax assets:		
Loss carryovers	\$ 9,387	\$ 8,480
Stock option compensation expense	976	98
Royalty	1,492	1,492
Severance	30	47
Other	74	25
Valuation allowance	(9,971)	(9,173)
Total deferred tax assets	<u>1,988</u>	<u>969</u>
Deferred tax liabilities:		
Unrealized gain on derivative securities	241	311
MH-LLC investment	305	-
Exploration costs	845	845
Unrealized gains on marketable equity securities	7,012	6,927
Other	<u>4</u>	<u>8</u>
Total deferred tax liabilities	<u>8,407</u>	<u>8,091</u>
Net deferred tax liabilities	<u>\$6,419</u>	<u>\$7,122</u>

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At December 31, 2010 and 2009, Solitario has classified \$1,945,000 and \$1,567,000, 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>2010</u>	<u>2009</u>
Expected income tax expense (benefit)	\$(2,210)	\$(411)
Non-deductible foreign expenses	1	13
Non-deductible foreign stock compensation expense	54	(9)
Foreign tax rate differences	98	107
State income tax	(94)	88
Change in valuation allowance	798	1,205
Permanent differences and other	<u>194</u>	<u>3</u>
Income tax expense (benefit)	<u>\$(1,159)</u>	<u>\$ 996</u>

During 2010 and 2009 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, 2010, Solitario has unused US federal Net Operating Loss ("NOL") carryovers of \$170,000 and unused US State NOL carryovers of \$1,078,000 both of which expire in 2030. 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.

Solitario adopted the provisions ASC 740, 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 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, Solitario performed a comprehensive review of its material tax positions in accordance with recognition and measurement standards established by ASC 740. The provisions of ASC 740 had no effect on Solitario's financial position, cash flows or results of operations at December 31, 2009 or December 31, 2010, or for the years then ended as Solitario had no unrecognized tax benefits.

Solitario and its subsidiaries are subject to the following material taxing jurisdictions: United States Federal, State of Nevada, State of Colorado, Mexico, Peru and Brazil. The tax years that remain open to examination by the United States Internal Revenue Service are years 2007 through 2010. The tax year that remains open to examination by the State of Nevada is 2010. The tax years that remain open to examination by the State of Colorado are years 2006 through 2010. The tax years that remain open to examination by Mexico are years 2007 through 2010. 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 December 31, 2009, or December 31, 2010 or for the years then ended.

## 6. Derivative instruments

Ely warrants

In connection with the equity investment in Ely on August 30, 2010 (the "First Ely Investment"), Solitario acquired warrants to purchase 833,333 shares of Ely common stock at Cdn\$0.25 per share for a period of two years. The warrants had a four month hold period from August 30, 2010 whereby any shares received upon exercise of the warrants could not be traded until after December 30, 2010. Accordingly, Solitario did not classify the warrants as derivative instruments in accordance with ASC 815-10-55-84, until November 30, 2010, or 31 days prior to the underlying shares being readily convertible to cash. Prior to that time, any gains and losses on the warrants were recorded in other comprehensive income. On November 30, 2010, Solitario transferred an unrecognized gain on derivative instrument of \$99,000 for the warrants received with the First Ely Investment to gain on derivative instrument. On December 31, 2010, Solitario recognized \$18,000 in gain on derivative instrument for the increase in the value of the warrants received. As of December 31, 2010 Solitario has recorded \$182,000 for the fair value of the warrants received from Ely as a long-term asset and recorded an unrealized gain on derivative instrument of \$117,000 in the statement of operations.

On October 19, 2010, Solitario made an additional equity investment into Ely, (the Second Ely Investment") and received warrants to purchase an additional 833,333 shares of Ely common stock at Cdn\$0.25 per share for a period of two years. However because the underlying shares' four-month hold period did not expire until February 2011, as of December 31, 2010 the warrants were not classified as derivative instruments. At December 31, 2010 Solitario has recorded \$184,000 for the fair value of the warrants received in the Second Ely Investments in other assets and has recorded \$114,000 unrealized gain in other comprehensive income.

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#### Kinross Collar

On October 12, 2007 Solitario entered into a Zero-Premium Equity Collar (the "Kinross Collar") whereby Solitario pledged 900,000 shares of Kinross common shares to be sold. As of December 31, 2010, 800,000 of those shares have been released from the Kinross Collar and no shares were delivered or sold pursuant to the terms of the Kinross Collar. As of December 31, 2010 the Kinross Collar provides for delivery of the remaining 100,000 shares due on April 12, 2011 for a lower threshold price of \$13.69 per share and an upper threshold price of \$27.50 per share. The business purpose of the Kinross Collar is to provide downside price protection of the Floor Price on 100,000 shares of the total shares Solitario owns as of December 31, 2010, 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 price during the remaining term of the Kinross Collar.

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, 2010, Solitario recorded \$2,000 for the fair market value of the Kinross Collar in other current assets. Solitario recorded the fair market value of the Kinross Collar as an asset of \$9,000 as of December 31, 2009 of which \$20,000 is recorded as other assets and \$11,000 is recorded as derivative instruments in current liabilities. Solitario recorded an unrealized gain of \$7,000 during 2010, and an unrealized gain of \$522,000 during 2009 in gain on derivative instrument for the change in the fair value of the Kinross Collar.

#### Covered call options

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 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.

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. Solitario recorded a gain on derivative instruments of \$42,000 during 2010 upon the expiration of 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.

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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, 2010 and December 31, 2009:

<u>(in thousands)</u>	<u>Derivatives</u>		
	<u>Balance Sheet Location</u>	<u>December 31,</u> <u>2010</u>	<u>December 31,</u> <u>2009</u>
Derivatives not designated as hedging			

instruments under ASC 815

First Ely Investment warrants	Long-term other assets	\$182	\$ -
Kinross Collar	Current assets	\$ 2	-
Kinross Collar	Long-term other assets	-	20
Kinross Collar	Current liabilities	-	11
May 10 Kinross Call	Current liabilities	-	42

The following amounts are included in loss (gain) on derivative instruments in the consolidated statement of operations for the years ended December 31, 2010 and 2009:

<u>(in thousands)</u>	<u>Year ended</u> <u>December 31,</u> <u>2010</u>		<u>Year ended</u> <u>December 31,</u> <u>2009</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>
		\$ -	\$(117)	\$ -	\$ -
First Ely Investment warrants		-	7	-	(522)
Kinross Collar		(42)	-	-	(34)
May 10 Kinross Call		-	-	(116)	-
February 09 Kinross Call		-	-	(21)	-
April 09 Kinross Call		-	-	80	-
August 09 Kinross Call		-	-	(81)	-
November 09 Kinross Call		-	-	-	-
		\$ (42)	\$ (110)	\$ (138)	\$ (556)
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 certain holdings of Kinross common stock held as collateral for the Kinross Collar in a separate account at UBS. The Kinross common stock held as collateral for the margin loans at UBS Bank and RBC are held in Solitario's brokerage accounts at UBS and RBC, respectively.



7. Fair value of financial instruments:

For certain of Solitario's financial instruments, including cash and cash equivalents, payables and short-term debt, the carrying amounts approximate fair value due to their short maturities. Solitario's marketable equity securities, First and Second Ely Equity Investments are carried at their estimated fair value primarily based on quoted market prices. The long-term debt associated with MH-LLC is carried at its estimated fair value based upon the discounted present value of the payments using an estimated discount rate and the Kinross Collar is carried at its estimated fair value based on a Black-Scholes option pricing model.

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. During the year ended December 31, 2010 and 2009, there were no reclassification in financial assets or liabilities between level 1, 2 or 3 categories.

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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, 2010:

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
(in thousands)				
Assets				
Marketable equity securities	\$18,771	\$ -	\$ -	\$18,771
Marketable equity securities - Ely common stock	500	500		1,000
Kinross Collar derivative instrument	-	2	-	2
Other assets - Ely investment warrants		366		366

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>
(in thousands)				
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

Items measured at fair value on a recurring basis:

Marketable equity securities

: At December 31, 2010 and 2009 the fair value of Solitario's investment in Kinross, TNR and unrestricted Ely trade-able marketable equity securities are based upon quoted market prices. The fair value of Solitario's investment in Ely common stock, subject to a hold period, which expires in February for the shares of Ely common stock from the Second Ely investment, are based upon quoted market prices, which Solitario has not adjusted for the hold period due to the short remaining time period of the hold. However these are classified as Level 2 inputs due to the restriction.

Ely warrants: The Ely warrants are not traded on any public exchange. Solitario determines the fair value of the Ely warrants using a Black-Scholes model, using inputs, including share price, volatility of Ely common stock, and discount rates that include an assessment of performance risk, that are readily available from public markets and for the hold period discussed above, therefore they are classified as Level 2 inputs.

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.

Covered call options: The May 10 Kinross Call at December 31, 2009 is an exchange traded option and fair value is based upon quoted market prices. See Derivative instruments above.

Items measured at fair value on a nonrecurring basis:

Mt. Hamilton long-term debt

: The long-term debt associated with the Mt. Hamilton claims was discounted using Solitario's estimate of a market interest rate to obtain similar financing. Solitario did not have access to a readily traded market for similar credit risks and estimated the interest rate based upon what similar interest rates were on publicly held debt instruments held by mining companies traded on public markets, what Solitario currently is borrowing money on its short-term margin accounts, and a discussion with an investment banking firm regarding what Solitario may be able to borrow to fund the Mt. Hamilton project. Solitario discounted the \$3,750,000 required payments at an interest rate of 7.5%. Accordingly these inputs are classified as Level 3 inputs.

Mt. Hamilton property valuation: Solitario determined the fair value of the mineral claims making up the Mt. Hamilton project upon its investment in MH-LLC based upon: i) Solitario's evaluation of similar non-producing mining properties, without proven and probable reserves based upon Solitario's experience in these types of transactions; ii) an analysis of the fair values of the liabilities assumed and the equity interests received upon the formation of MH-LLC; iii) a review of the funds previously expended and capitalized by Ely in their historical financial statements; and iv) a review of the stated estimated value of the Mt. Hamilton property transferred to MH-LLC in the transaction documents between DHI-US and Solitario upon the formation of MH-LLC. Accordingly, these inputs are classified as Level 3 inputs.

: Upon Anglo earning a 51% interest in PBM, discussed below in Note 11, "Deconsolidation of PBM," Solitario deconsolidated PBM in accordance with ASC 810-10-40 whereby Solitario performed a valuation using Level 3 inputs of its 49% interest in the assets of PBM on the date of deconsolidation. The fair value analysis examined four valuation techniques and used assumptions of management on future results and included; (i) the present value of future cash flows, (ii) a market valuation analysis of publicly traded entities with exploration exposure to platinum group metals, similar to PBM, (iii) an analysis of the market value based upon sales and joint ventures of similar exploration properties and projects, and (iv) the recent investment by Anglo to earn an additional 21% interest in PBM.

Allocation of purchase cost on investment in Ely: Solitario also recorded the allocated fair value to the Ely warrants included in the First and Second Tranche equity investments in Ely, discussed below in Note 12, "Ely Gold investment and Mt. Hamilton Joint Venture." The allocation is based on the ratio of (i) the quoted fair value of the shares of Ely and (ii) the fair value Solitario determined for the Ely warrants using a Black-Scholes model using inputs, including the price of a share of Ely common stock, volatility of Ely common stock prices that are readily available from public markets and discounts that include an assessment of performance risk, therefore the calculation of this fair value utilized a Level 2 input.

During the year ended December 31, 2010, Solitario did not change any of the valuation techniques used to measure its financial assets and liabilities at fair value.

#### 8. 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, above. Solitario estimates its 2011 property rentals and option payments, excluding Mt. Hamilton, discussed above, for properties we own or operate to be approximately \$874,000, assuming that our joint ventures continue in their current status and that we do not appreciably change our property positions on existing properties. Approximately \$734,000 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 or if we enter into new agreements.

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 2010 and 2009 was approximately \$89,000 and \$60,000, 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 \$36,000.

As a result of the MH Agreement, Solitario committed to spend a minimum of \$1,000,000 for exploration at the Mt. Hamilton project, which minimum was met as of February 28, 2011. As of December 31, 2010, Solitario had spent approximately \$933,000 towards this commitment. See Note 12, "Ely Gold investment and the Mt. Hamilton Joint Venture" below.

#### 9. Employee stock compensation 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.

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Solitario granted 2,065,000 options on May 5, 2010, with a grant date fair value of \$2,449,000, based upon a Black-Scholes option pricing model resulting in a weighted average fair value of \$1.19 per share. Solitario granted 519,000 options 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.

On October 13, 2009, concurrent with the signing of the Amendment to the MV 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. The following table details the options cancelled on October 13, 2009:

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

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There were no options exercised during 2010. There were no options forfeited during 2010. Options for 200,000 shares were forfeited during 2009.

At December 31, 2010 and 2009, 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 0.99994 and 0.95290, respectively.

Fair Value at December 31, 2010

Grant Date	5/5/10	5/19/09
Plan	2006 Plan	2006 Plan
Option price (Cdn\$)	\$2.40	\$1.55
Options outstanding	2,065,000	519,000
Expected Life	4.4 yrs	3.4 yrs
Expected volatility	62%	66%
Risk free interest rate	1.6%	1.1%
Weighted average fair value	\$2.24	\$2.54
Portion of vesting at measurement date	41.6%	64.6%
Fair value of outstanding vested options	\$1,924,000	\$851,000

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

During 2010 Solitario recognized stock option expense of \$2,513,000, net of deferred taxes of \$937,000. During 2009, Solitario recognized stock option benefit of \$269,000, net of deferred taxes of \$100,000.

b.) Summary of stock-based compensation plans

The activity in the 2006 Plan for the two years ended December 31, 2010 and 2009 is as follows:

	<u>2010</u>		<u>2009</u>	
	Options	Weighted Average Exercise Price(Cdn\$)	Options	Weighted Average Exercise Price (Cdn\$)
2006 Plan				
Outstanding, beginning of year	519,000	\$1.55	2,135,000	\$3.28
Granted	2,065,000	\$2.40	519,000	\$1.55
Forfeited	-		(200,000)	\$3.12
Cancelled	-		(1,935,000)	\$3.30
Exercised	<u>-</u>		<u>-</u>	
Outstanding, end of year	<u>2,584,000</u>	\$2.23	<u>519,000</u>	\$1.55
Exercisable, end of year	<u>775,750</u>	\$2.12	<u>129,750</u>	\$1.55

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The following table summarizes Solitario's stock options as of December 31, 2010:

	<u>Options Outstanding</u>				<u>Options Exercisable</u>		
	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	2,584,000	4.2	\$2.23	\$3,772,000	775,750	\$2.12	\$1,218,000

(1)The intrinsic value at December 31, 2010 based upon the quoted market price of Cdn\$3.69 per share for our common stock on the TSX and an exchange ratio of 0.99994 Canadian dollars per United States dollar.

10. Stockholders' equity and noncontrolling interest:

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The following provides a reconciliation of the beginning and ending balances of Solitario Shareholder's equity and noncontrolling interest in PBM and MH-LLC for the years ended December 31, 2010 and 2009. PBM has no debt or other guarantee obligations as of December 31, 2010 and December 31, 2009.

(in thousands)	<u>December 31, 2010</u>			
	Shareholder's <u>Equity</u>	Anglo noncontrolling <u>Interest</u>	Ely noncontrolling <u>Interest</u>	Total noncontrolling <u>Interest</u>
Beginning balance	\$14,700	\$414	\$ -	\$ 414
Transfer of deferred noncontrolling interest	1,188	1,594	-	1,594
Noncontrolling interest equity contribution	-	-	3,000	3,000
Deconsolidation of PBM subsidiary	-	(1,844)	-	(1,844)
Comprehensive income:				
Net income (loss)	(4,066)	(164)	(1,110)	(1,274)
	<u>64</u>	<u>-</u>	<u>-</u>	<u>-</u>
Net unrealized gain on marketable equity securities (net of tax of \$163)			<u>(1,110)</u>	
Comprehensive income (loss)	<u>(4,002)</u>	<u>(164)</u>		<u>(1,274)</u>
Ending balance	<u>\$11,886</u>	<u>\$ -</u>	<u>\$ 1,890</u>	<u>\$1,890</u>

(in thousands)	<u>December 31, 2009</u>	
	Shareholder's <u>Equity</u>	Noncontrolling <u>Interest</u>
Beginning balance	\$ 17,218	\$833
Noncontrolling interest equity contribution		
Comprehensive income:		
Net income (loss)	(1,786)	(419)
	<u>(732)</u>	<u>-</u>
Net unrealized loss on marketable equity securities (net of tax of \$435)		
Comprehensive loss	<u>(2,518)</u>	<u>(419)</u>
Ending balance	<u>\$ 14,700</u>	<u>\$ 414</u>

11. Deconsolidation of PBM

On July 21, 2010, Anglo made a payment of \$746,000 to PBM required to fund the 2010 work program at the Pedra Branca project, which is held by PBM. Upon making this payment, Anglo earned an additional 21% interest in PBM and now holds a 51% interest in PBM. As part of earning its interest, Solitario transferred \$1,594,000 of previously recorded deferred non-controlling shareholder payments to Anglo's minority interest and \$1,188,000 to additional paid-in-capital for Solitario's disproportionate share of the deferred noncontrolling shareholder payments as of that date.

Solitario reviewed the elements of control over PBM in accordance with ASC 810. Solitario made the determination that as a less than 50% owning non-controlling shareholder, Solitario did not have aspects of control to overcome the assumption of control by Anglo, the controlling shareholder. Accordingly, it was determined that Anglo had gained control of PBM per the terms of the PBM shareholders agreement between Solitario and Anglo. This necessitated the deconsolidation of our interest in PBM and the recording of a gain on deconsolidation in accordance with ASC 810.

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Solitario determined the fair value of PBM on the date of deconsolidation based upon a weighted average of four valuation analyses and used assumptions of management on future results that included; (i) the present value of future cash flows, (ii) a market valuation analysis of publicly traded entities with exploration exposure to platinum group metals, similar to PBM, (iii) an analysis by management of the market value based upon sales and joint ventures of similar exploration properties and projects to Pedra Branca, and (iv) the recent investment by Anglo to earn an additional 21% interest in PBM. Solitario determined the deconsolidation date fair value of its 49% interest in PBM to be \$2,496,000. Solitario recorded a non-cash gain on deconsolidation of PBM of \$724,000 for the year ended December 31, 2010 in other income in the consolidated statement of operations. Solitario recorded the cash decrease of \$1,083,000 from deconsolidation of PBM in its investment activities in the consolidated statement of cash flows for the year ended December 31, 2010.

Solitario will record its equity interest in the gains and losses of PBM against its investment in PBM after July 21, 2010 and has elected not to record its equity method investment in PBM at fair value after July 21, 2010. Solitario recorded a reduction of \$220,000 in its equity method investment in PBM for the year ended December 31, 2010 for its equity share in the loss of PBM since July 21, 2010.

## 12. Ely Gold investment and the Mt. Hamilton joint venture

On August 26, 2010, Solitario signed the LOI with Ely to make certain equity investments into Ely and to joint venture Ely's Mt. Hamilton gold project through the formation of MH-LLC. The formation of MH-LLC and certain equity investments, described below were subject to the approval (the "Approval") of the LOI by Ely shareholders and regulatory approval from the TSX Venture Exchange ("TSXV"), which was received on October 18, 2010.

### First Tranche equity investment in Ely

As part of the LOI, Solitario agreed to make up to five sequential equity investments in Ely. On August 30, 2010, Solitario acquired 1,666,666 units of Ely at a price of Cdn\$0.15 per unit for consideration of Cdn\$250,000 or \$243,000 (the "First Tranche"). Each unit consisted of one share of Ely common stock and one-half warrant entitling the holder of a full warrant to purchase an additional share of Ely for CDN\$0.25, with such warrant expiring two years from the subscription date. Any shares received from the units including any shares from the exercise of the warrants were subject to a hold period which expired on December 30, 2010. The warrants further provide that if the price of a share of Ely common stock trades above Cdn\$0.35 on the TSXV for twenty consecutive trading days Ely may give notice to Solitario that the warrants will expire in ten days from the date of the notice, to effectively force Solitario to exercise the warrants. Solitario allocated \$178,000 of the purchase price of the units of \$243,000 to the shares of Ely common stock and allocated \$65,000 of the purchase price to the warrants based upon the relative fair values of the warrants and shares in the units on August 30, 2010. The fair value of the shares of Ely common stock on August 30, 2010 was \$317,000 based upon the quoted market value of Ely shares as quoted on the TSXV. The fair value of the Ely warrants was \$117,000 on August 30, 2010 based upon a Black-Scholes option pricing model. Solitario did not discount these fair values for the four month hold period because the relatively short hold period did not create a material discount to Solitario's value as of the date of purchase of the units.

### Ely shares from the First Tranche

Solitario recorded a day-one unrealized gain on the Ely shares of common stock of \$87,000, net of deferred taxes of \$52,000, to other comprehensive income, based upon the quoted fair market value of the Ely shares on August 30, 2010, the date of purchase. During the year ended December 31, 2010, Solitario recognized an additional unrealized gain on marketable equity securities of \$115,000, net of deferred taxes of \$68,000, to a total of \$202,000, net of deferred taxes of \$120,000, in other comprehensive income related to the 1,666,666 shares of Ely acquired on August 30, 2010.

#### Ely warrants from the First Tranche

Pursuant to ASC 815 the warrants to purchase 833,333 shares of Ely common stock do not qualify as a derivative instrument until 31 days prior to the end of the hold period. Accordingly Solitario classifies any gain or loss on the Ely warrants to other comprehensive income, until such time as the warrants qualify as a derivative instrument, at which time all unrealized gains and losses are recorded in gain loss on derivative instrument in the statements of operations. Because the hold period for the Ely warrants from the First Tranche expired on December 30, 2010, Solitario has recorded a gain of \$117,000 to gain on derivative instrument for the year ended December 31, 2010. The fair value of the Ely warrants received on August 30, 2010 was calculated based upon a Black-Scholes option pricing model at each period end date.

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#### Second Tranche equity investment in Ely

On October 19, 2010 Solitario acquired an additional 1,666,666 units of Ely at a price of Cdn\$0.15 per unit for consideration of Cdn\$250,000 or \$250,000, (the "Second Tranche"). The warrants included in the units expire on October 18, 2012 and otherwise the units for the First and Second Tranches have the same terms and conditions. Solitario allocated \$180,000 of the purchase price of the Second Tranche units of \$250,000 to the shares of Ely common stock and allocated \$70,000 of the purchase price to the warrants based upon the relative fair values of the warrants and shares in the units on October 19, 2010. The fair value of the Second Tranche shares of Ely common stock on October 19, 2010 was \$508,000 based upon the quoted market value of Ely shares as quoted on the TSXV. The fair value of the Second Tranche Ely warrants was \$197,000 on October 19, 2010 based upon a Black-Scholes option pricing model.

#### Ely shares from the Second Tranche

Solitario recorded a day-one unrealized gain on the Ely shares of common stock of \$206,000, net of deferred taxes of \$122,000, to other comprehensive income, based upon the quoted fair market value of the Ely shares on the October 19, 2010, the date of purchase. During the year ended December 31, 2010, Solitario recognized an additional unrealized loss on marketable equity securities of \$5,000, net of deferred taxes of \$3,000, to a total of \$201,000, net of deferred taxes of \$119,000, in other comprehensive income related to the 1,666,666 shares of Ely acquired on October 19, 2010.

#### Ely warrants from the Second Tranche

Because the warrants did not qualify as derivative instruments as of December 31, 2010 because the hold period had more than 31 days remaining at December 31, 2010, Solitario has recorded a total of \$72,000, net of deferred taxes of \$43,000 to other comprehensive income for the increase in the fair market value over the allocated cost of the Ely warrants received in the Second Tranche. The fair value of the Ely warrants received on October 19, 2010 was calculated based upon a Black-Scholes option pricing model at each period end date. Solitario will transfer its balance of unrealized gain in other comprehensive income to gain on derivative instrument in the statement of operations, when the warrants are reclassified as derivative instruments in accordance with ASC 815 in January 2011.

#### Additional tranches of Ely common stock

The LOI provides that Solitario subscribe for three additional tranches of shares of Ely: (i) \$750,000 in shares of Ely common stock at a price equal to the 20 day weighted moving average price on the TSXV (the "WMAP") on or before June 1, 2013 (the "Third Tranche"), (ii) \$750,000 in shares of Ely common stock at a price equal to the WMAP



on or before June 1, 2014; (the "Fourth Tranche"), and \$1,000,000 in shares of Ely common stock at the WMAP on or before June 1, 2015 (the "Fifth Tranche"). However, the LOI provides that Solitario would have no obligation to subscribe for any of the shares if Solitario chooses to cease earning an additional interest in MH-LLC, discussed below, prior to the subscription for the shares.

#### Formation of MH-LLC joint venture of the Mt. Hamilton project

On November 12, 2010 Solitario made an initial contribution of \$300,000 for a 10% interest in, upon the formation of, MH-LLC which was formed in December 2010. The terms of the joint venture are set forth in the Limited Liability Company Operating Agreement of MH-LLC between Solitario and DHI-US (the "MH Agreement"). Pursuant to the MH Agreement, Solitario may earn up to an 80% interest in MH-LLC by completing various staged commitments, and has deemed its interest in MH-LLC as a controlling interest. As a result of its controlling interest in MH-LLC, Solitario has consolidated MH-LLC and recorded \$3,066,000 of debt related to MH-LLC.

Pursuant to the MH Agreement, in order to earn an additional 41% interest in MH-LLC, to a total of 51%, Solitario must (i) spend a minimum of \$1,000,000 in exploration expenditures by August 23, 2011, which minimum has been spent as of February 28, 2011, (ii) invest \$300,000 into MH-LLC for an advance royalty payment to the underlying royalty holder; (iii) make payments totaling \$1,750,000 to DHI-US, and deliver 100,000 shares of Solitario common stock to DHI-US by August 23, 2012 (the "Phase I earn-in"). In order to earn an additional 19% interest in MH-LLC, to a total of 70%, Solitario is required to (i) invest \$300,000 into MH-LLC for an advance royalty payment to the underlying royalty holder, and (ii) make payments totaling \$500,000 to DHI-US and deliver 100,000 shares of Solitario common stock to DHI-US by August 23, 2013 (the "Phase II earn-in"). In order to earn an additional 10% interest in MH-LLC, to a total of 80%, Solitario is required to (i) invest \$600,000 into MH-LLC for an advance royalty payment to the underlying royalty holder; (ii) make payments totaling \$500,000 to DHI-US and deliver 100,000 shares of Solitario common stock to DHI-US by August 23, 2014; and (iii) buy down the existing 8% net smelter return ("NSR") royalty to a 3% NSR royalty by paying the underlying royalty holder \$5,000,000 by November 19, 2014 (the "Phase III earn-in"). After the completion of Phase I earn-in, Solitario may elect to cease earning an additional interest in MH-LLC at any time prior to the Phase II earn-in or the Phase III earn-in, in which case Solitario's interest in MH-LLC will be reduced to 49% and DHI-US's interest will be increased to 51% and Solitario would cease to exercise control of MH-LLC if Phase II is not achieved.

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Including the payment of \$300,000 for advance royalty from its initial investment in MH-LLC, during 2010 Solitario has funded \$1,214,000 of exploration expenditures at Mt. Hamilton, which are included in exploration expense for 2010. In addition MH-LLC recorded \$19,000 of interest expense. Solitario recorded a \$1,110,000 reduction in the noncontrolling interest for Ely's 90% interest in the losses of MH-LLC for 2010.

Alternatively, Solitario may also earn an 80% interest in MH-LLC by completion of a bankable feasibility study at any time prior to the completion of Phase III. However, if Solitario completes a bankable feasibility study and earns an 80% interest in MH-LLC, as of that date, it will no longer be able to opt-out of any future required payments, and will be obligated to make any unpaid payments of cash and stock to DHI-US, any unpaid payments to the underlying royalty holder and any uncompleted investment Tranches due to Ely by the due dates described above. Solitario is required per the terms of the MH Agreement to fund all expenditures until completion of a bankable feasibility study.

Once Solitario has completed the bankable feasibility study, all costs will be shared by Solitario and DHI-US pro-rata. However DHI-US has the option of having Solitario contribute its share of costs through commercial completion as a loan, with such loan, plus interest, being repaid to Solitario from 80% of DHI-US's share of net proceeds from MH-LLC.

13. Related party transactions:

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 \$190,000 and \$286,000, respectively, at December 31, 2010 and 2009. Christopher E. Herald, our CEO, was a member of the Board of Directors of TNR until June 3, 2009.

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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 (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")). 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 Solitario's internal control over financial reporting and the design and operation of Solitario's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of 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, 2010, Solitario's internal control over financial reporting is effective and that its disclosure controls and procedures are 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.

This annual report does not include an attestation report of our independent registered public accounting firm regarding internal control over financial reporting. As a smaller reporting company, Solitario's management's report was not subject to attestation by our independent registered public accounting firm pursuant to rules of the Securities and Exchange Commission that permit us to provide only management's report in this annual report.

Item 9B. Other Information

None

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**PART III**Item 10 Directors, Executive Officers and Corporate Governance

## Directors

Name	Age	
Brian Labadie Chairman  (1)(2)(3)(4)	58	Mr. Labadie has been a director of Solitario since June 2006 and Chairman since March of 2009. He is an independent mining industry consultant. He was a director of Crown from June of 2002 until August 2006 upon completion of the Crown-Kinross Merger and a director of Battle Mountain Gold Exploration Corporation (BMGX:OTC) from June 2005 to June 2007. In evaluating Mr. Labadie's qualifications as a Director, Solitario's Board considered the experience Mr. Labadie had in over thirty years experience in the mining industry. The specific experience that Mr. Labadie brings to Solitario includes formal training and experience as a mining engineer including developing and operating mines, both as a mine manager and as a senior executive at Miramar Mining Corporation and Echo Bay Mines. The Board of Directors believes Mr. Labadie's operating experience complements and enhances the knowledge and understanding the other Board Members and management of Solitario have in mining exploration, and corporate finance. Mr. Labadie has ten years experience with Miramar Mining Corporation from November 1996 to September 2006 as the Executive Vice President, COO. Prior to that, Mr. Labadie spent nine years with Echo Bay Mines, Ltd. as Vice President of Operations. Mr. Labadie holds a Bachelor of Science degree in geological engineering from the University of Toronto.
Mark E. Jones, III, Vice-chairman  (1)(3)(4)	71	Mr. Jones has been a director of Solitario since August 1993 and served as Chairman until June 2006. Mr. Jones was also a director of Crown since it commenced operations in February 1989 until August 2006, upon completion of the Crown-Kinross Merger. In evaluating Mr. Jones's qualifications for serving as a Director, the Board of Solitario believes Solitario benefits both from his experience in founding Solitario and being the Chairman of Crown, but also his proven track record of founding and successfully operating other mining concerns including Brazauro Resources and TriStar Gold, Inc. Mr. Jones has exhibited leadership in this industry for many years and is well known in many mining circles. Mr. Jones' experience in mine finance and mergers and acquisitions related to the mining industry provides Solitario valuable insight and guidance. Mr. Jones was a founding partner of Jones, Lloyd & Webster, Inc., a Houston-based corporate finance and investment banking firm that specialized in oilfield equipment financing. Mr. Jones is Chairman of the Board of Directors and CEO of TriStar Gold, Inc., a gold exploration company based in Houston, Texas which is traded on the TSX Venture Exchange (TSG:V). Mr. Jones also served as a director and Chairman of the Board of Brazauro Resources (BZO:V), a gold exploration company, until its acquisition by Eldorado Gold during 2010. Mr. Jones attended the University of Texas.
John Hainey  (1)(2)(4)	78	Mr. Hainey has been a director of Solitario since 1999. He is a retired mining engineer and spent the last ten years of his career, before his retirement in 1998, as a mining analyst in the Canadian investment industry with Dundee Securities Corporation (formerly Eagle & Partners), Yorkton Securities Inc., Loewen, Ondaatje, McCutcheon & Company and Canaccord Capital Corporation. In evaluating Mr. Hainey's qualifications to serve as a Director, the Board of

Solitario has considered his financial experience, specifically related to finance and evaluation of companies in the mining industry, as well as his experience on Solitario's audit committee. The Board believes Mr. Hainey's formal training as a mining engineer coupled with his financial experience makes him uniquely suited to serve on Solitario's Board. Prior to 1988, Mr. Hainey spent over 30 years working in the mining industry, both in Canada and abroad, which covered engineering, operations, consulting and business development and included 17 years with BP Resources Canada Ltd. Mr. Hainey is a member of the Association of Professional Engineers of Ontario and of the Canadian Institute of Mining and Metallurgy. He is also a Chartered Engineer (U.K.) and a Fellow of the Institute of Materials, Minerals and Mining (U.K.). He is an honors graduate in Mining Engineering of The Camborne School of Mines in England.

Leonard Harris

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(1)(2)(3)

Mr. Harris has been a director of Solitario since June 1998. Prior to his retirement from Newmont Mining Corporation, Mr. Harris gained over 50 years experience in the mining industry including serving in various capacities including as General Manager of Minera Yanacocha, South America's largest gold mine, and Vice President and General Manager of Newmont Latin America. Mr. Harris has over 20 years experience in managing mining operations in Latin America that include base metal and gold deposits, underground and open pit mines, gold and base metal processing plants and smelting and refining operations. In evaluating Mr. Harris' qualifications to serve as a Director, the Board of Solitario believes Mr. Harris experience in managing and developing mines all over the world, but specifically in Peru and Latin America, where much of Solitario's exploration efforts have been is paramount to the success of Solitario. In addition, Mr. Harris' reputation and integrity in over 50 years in this business are well known throughout the mining industry and have provided Solitario with numerous opportunities and introductions that Solitario simply would not have without his association with Solitario as a Board member. Mr. Harris currently serves on the boards of Alamos Gold Inc., Aztec Metals Corp., Canarc Resources, Cardero Resources Corp., Endeavour Silver Corp., Indico Resources Ltd., Golden Arrow Resource Corp., Golden Alliance Resources Corp., and Sulliden Gold Corp. Ltd. He is a 1949 graduate metallurgist of The Mount Morgan School of Mines (Australia).

Christopher E. Herald 57

Mr. Herald has been a director of Solitario since August 1992. He has also served as Chief Executive Officer since June 1999 and President since August 1993. Mr. Herald also served as a director of Crown since April 1989, as Chief Executive Officer of Crown since June of 1999, President of Crown from November 1990 until August 2006, when he resigned from such positions upon completion of the Crown-Kinross Merger, and was Executive Vice President of Crown from January 1990 to November 1990. In evaluating Mr. Herald's qualifications to serve as a Director, the Board of Solitario believes his leadership of Solitario since Solitario's inception as Chief Executive Officer, as well as his knowledge of the operations, make him an invaluable member of the Board. In addition, Mr. Herald has shown a keen insight in the evaluation of various opportunities in the mining industry, including the acquisition of properties for exploration and potential merger and acquisition candidates for Solitario. Mr. Herald has a proven track record of operating mining companies both with Crown and Solitario and the Board believes these are significant contributors to the success of Solitario. Prior to joining Crown, Mr. Herald was a Senior Geologist with Echo Bay Mines and Anaconda Minerals. Mr. Herald is a director of Atna Resources Ltd. (ATN: TSX) and Underworld Resources Inc. (UW: V), which are mineral resource

companies. Mr. Herald was formerly a director of the following public companies: TNR Resources (TNR: V) from July 1998 to April 2009; Maestro Ventures (MAP: V) from April 2004 to July 2007; Gryphon Gold (GGN: TSX) from December 2005 to September 2007; and Battle Mountain Gold Exploration (BMGX: OTCBB) from February 2006 to August 2007. Mr. Herald also serves as the Chairman of the Denver Gold Group, a non-profit industry trade group that organizes the preeminent gold mining industry institutional conferences in the United States and Europe. Mr. Herald received a M.S. in Geology from the Colorado School of Mines and a B.S. in Geology from the University of Notre Dame.

1. The Board has determined this Director to be an independent member of the Board in accordance with the standards of independence as determined by the listing standards of NYSE Amex ("NYSE-Amex").
2. Member of the Audit Committee
3. Member of the Compensation Committee
4. Member of the Nominating Committee

#### Meetings of Board of Directors

During the fiscal year ended December 31, 2010, there were three meetings of the Board. Each of the incumbent Directors attended all of the meetings of the Board held while they served as a Director. Each of the incumbent Directors attended all meetings held by committees of the Board on which they served during 2009, except that Mr. Labadie missed one Audit Committee meeting. All of the references to meetings exclude actions taken by written consent. Board members are not required to attend annual meetings of shareholders. Mr. Herald attended the annual meeting of shareholders held on June 15, 2010.

#### Nominating Procedures

There have been no material changes to the procedures by which shareholders may recommend nominees to the board of directors since the filing of the definitive proxy statement with respect to our June 15, 2010 annual meeting of shareholders.

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#### Audit Committee

Solitario has a separately-designated standing audit committee established in accordance with section 3(a)(58)(A) of the Exchange Act. The Audit Committee consists of Mr. Hainey, Mr. Harris and Mr. Labadie, each of whom is independent in accordance with the definition of NYSE-Amex listing standards. The Board has determined that Mr. Hainey is an audit committee financial expert as defined in Item 407 of Regulation S-K. The Audit Committee acts under a written charter adopted and approved by the Board on July 26, 2006, a current copy of which is available on the Company website at [www.solitarioxr.com](http://www.solitarioxr.com). The Audit Committee reviews Solitario's financial reporting process on behalf of the Board. Management has the primary responsibility for the financial statements and the reporting processes, including the system of internal controls. The Audit Committee met six times during the year ended December 31, 2010.

#### Executive Officers

The following biographies describe the business experience of our executive officers (the "Named Executive Officers"):

Christopher E. Herald See Directors biographies above.

Walter H. Hunt (60) has been Chief Operating Officer of Solitario since June of 2008 and Vice President - Operations and President - South American Operations of Solitario since June 1999. He also served as Vice President - Peru Operations from July 1994 until June 1999. Mr. Hunt was also Vice President - Operations of Crown from 1994 until completion of the Crown - Kinross Merger in August of 2006. Mr. Hunt has over 20 years of exploration, development and operational experience with Anaconda Minerals, Noranda and Echo Bay Mines where he served as Superintendent, Technical Services and Chief Geologist at Echo Bay's Kettle River Operations. Mr. Hunt received his M.S. degree in Geology from the Colorado School of Mines and a B.S. degree from Furman University.

James R. Maronick (55) has served as Chief Financial Officer, Secretary and Treasurer of Solitario since 1999 and was Chief Financial Officer of Crown from June 1999 until completion of the Crown - Kinross Merger in August of 2006. Prior to that, Mr. Maronick served as Vice President - Finance and Secretary/Treasurer of Consolidated Nevada Gold Fields Corporation from November 1994 to September 1997. Mr. Maronick graduated with honors from the University of Notre Dame in 1977 with a BA in accounting and received his Masters degree in Finance with highest honors from the University of Denver in 1986.

#### Code of Ethics

We adopted a Code of Business Conduct and Ethics including a Code of Ethics applicable to the principal executive officer and the principal financial and accounting officer of Solitario (the "Code of Ethics") on June 27, 2006, a copy of which may be found on our website at [www.solitarioxr.com](http://www.solitarioxr.com). Any person who wishes to receive a copy of the Code of Ethics may do so at no charge by written request to Investor Relations, Solitario Exploration & Royalty Corp., 4251 Kipling St, Suite 390, Wheat Ridge, CO 80033.

#### Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934 requires Solitario's Directors and executive officers, and persons who own more than ten percent of a registered class of Solitario's equity securities, to file with the SEC initial reports of ownership and reports of changes in ownership of Common Stock and other equity securities of Solitario. Officers, Directors, greater than ten percent shareholders are required by SEC regulation to furnish Solitario with copies of all Section 16(a) forms they file. To Solitario's knowledge, based solely on review of the copies of such reports furnished to Solitario and written representations that no other reports were required, during the fiscal year ended December 31, 2010 no person failed to meet the Section 16(a) filing requirements applicable to officers, Directors, and greater than ten percent beneficial owners, except that Mr. Labadie, Mr. Jones, Mr. Hainey, Mr. Harris, Mr. Herald, Mr. Hunt, and Mr. Maronick each filed one report four days late relating to the receipt of stock options granted on May 5, 2010.

#### Involvement in certain legal proceedings

On March 8, 2002, Crown filed a voluntary petition under Chapter 11 of the United States Bankruptcy Code (the "Bankruptcy") in the United States Bankruptcy Court for the District of Colorado (the "Court"). As part of the Bankruptcy, Crown filed a Plan of Reorganization with the Court which was confirmed by the Court on May 30, 2002 and became effective June 11, 2002. Mr. Herald and Mr. Jones were officers and directors of Crown and Mr. Maronick and Mr. Hunt were officers of Crown prior to the filing of the Bankruptcy and since the filing of the Bankruptcy until August 31, 2006 when Crown was acquired by Kinross.

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Item 11. Executive Compensation

## Compensation of Directors

Other than options granted pursuant to the 2006 Plan, our Directors do not receive any other compensation in their capacities as Directors. The following table provides summary information regarding compensation earned by our Directors during the fiscal year ended December 31, 2010

## DIRECTOR COMPENSATION

Name(1)	Fees earned or paid in cash (\$)	Stock Awards (\$)	Option Awards (2) (\$)	Non-equity incentive plan compensation	Non-qualified deferred compensation earnings (\$)	All Other Compensation (\$)	Total (\$)
Mr. Labadie, Chairman (3)	-	-	204,012	-	-	-	204,012
Mr. Hainey (4)	-	-	166,233	-	-	-	166,233
Mr. Harris (5)	-	-	192,151	-	-	-	192,151
Mr. Jones (6)	-	-	237,224	-	-	-	237,224

(1) Mr. Herald received a salary, bonus, option award and other compensation for his services as an officer of Solitario during the year ended December 31, 2010, which are shown below under the "Summary Compensation Table".

(2) The amount represents the grant date fair value of option awards granted during the year ended December 31, 2010, in accordance with FASB ASC No. 718. The assumptions used in determining our 2010 grant date fair value are based upon a Black-Scholes model using a five year term, historical volatility of 57%, a risk-free interest rate of 2.2%, and a Canadian dollar - United States dollar exchange rate of 0.98123, as disclosed in footnote 8 to our financial statements included in Item 8 "Financial Statements and Supplementary Data," above.

(3) Mr. Labadie has an aggregate of 217,000 stock options outstanding at December 31, 2010

(4) Mr. Hainey has an aggregate of 175,000 stock options outstanding at December 31, 2010

(5) Mr. Harris has an aggregate of 162,000 stock options outstanding at December 31, 2010

(6) Mr. Jones has an aggregate of 236,000 stock options outstanding at December 31, 2010

Summary Compensation Table

The following table provides summary information regarding compensation earned by our Named Executive Officers for the fiscal years ended December 31, 2010 and 2009:

## SUMMARY COMPENSATION TABLE

Name and Principal Position	Year	Salary (\$)	Bonus(1) (\$)	Stock Awards (\$)	Option Awards (2)	Non-equity incentive plan compensation	Non-qualified deferred compensation	All Other Compensation	Total (\$)
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			(\$)	earnings (\$)		(\$)(3)	
Mr. Herald, CEO (4)	2010 210,000	94,500	- 587,822	-	-	22,000	914,322
	2009 210,000	-	- 98,022	-	-	20,073	328,095
			-				
Mr. Maronick, CFO	2010 150,000	52,500	- 326,182	-	-	22,000	550,682
	2009 150,000	-	- 53,585	-	-	19,031	222,616
Mr. Hunt, COO	2010 150,000	52,500	- 326,182	-	-	22,000	550,682
	2009 150,000	-	- 56,199	-	-	19,031	225,230

(1) Amount for bonus earned during the year. No bonus amount was earned during 2009.

(2) The amount represents the grant date fair value of option awards granted during the year in accordance with FASB ASC no. 718.

a. The options were granted on May 5, 2010, have a five-year term and vest 25% on grant date and 25% on the next three anniversary dates.

The assumptions used in determining our 2010 grant date fair value are based upon a Black-Scholes model using a five year term, historical volatility of 57%, a risk-free interest rate of 2.2%, and a Canadian dollar - United States dollar exchange rate of 0.98123, as disclosed in

footnote 8 to our financial statements included in Item 8 "Financial Statements and Supplementary Data," above.

b. The options were granted on May 19, 2009, have a five-year term and vest 25% on grant date and 25% on the next three anniversary

dates. The assumptions used in determining our 2009 grant date fair value are based upon a Black-Scholes model using a five year term,

historical volatility of 56%, a risk-free interest rate of 1.9%, and a Canadian dollar - United States dollar exchange rate of 0.85320.

(3) Mr. Herald, Mr. Maronick and Mr. Hunt each received a 401(K) match of the amounts listed during 2010 and 2009, respectively.

(4) Mr. Herald has an aggregate of 595,000 stock options outstanding at December 31, 2010

### Employment Agreements

None of our Named Executive Officers have ongoing employment agreements other than individual Change in Control Severance Benefits Agreements, discussed below.

### Change in Control Agreements

The Compensation Committee and Solitario consider it essential to the best interest of its stockholders to foster the continuous employment of key management personnel. In this regard, the Compensation Committee and Board recognize that, as is the case with many publicly held corporations and their subsidiaries, the possibility of a change in control may exist and that such possibility, and the uncertainty and questions which it may raise among management, may result in the departure or distraction of management personnel to the detriment of the Company and its stockholders.



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Accordingly, on March 14, 2007, the Compensation Committee approved separate Change in Control Severance Benefits Agreements (the "CIC") for Mr. Herald, Mr. Maronick and Mr. Hunt, our Named Executive Officers. Each CIC provides for the payment of severance benefits if the employment of one of the Named Executive Officers is terminated for a period of three years following the last day of the month in which a Change in Control of Solitario occurs (as defined in the CIC) equal to 2.5 times the base salary of the Named Executive Officer. In addition any unvested stock options held by the Named Executive Officer will vest upon the Change in Control. The CIC provides an additional gross up for any taxes due as a result of Excise Tax, as defined by Section 4999 of the Internal Revenue Service Code of 1986 (the "Code").

Generally, the CIC defines a "Change in Control" as (i) a person acquiring more than 50% of the outstanding stock of the Company, (ii) the shareholders of the Company approving a merger or acquisition whereby more than 50% of the outstanding shares held prior to the vote will be held by a new person or corporation, (iii) the shareholders of the Company approving the sale or disposition of substantially all of the company's assets or (iv) the shareholders of the Company approving a plan of liquidation or dissolution of the Company.

The Change in Control benefits are to be paid after a change in control if the Named Executive Officer terminates his employment for "good reason," or is terminated by the Corporation, other than for "cause." "Good reason" is generally defined as a reduction in the compensation, level of responsibility or forced relocation, among other things. "Cause" is generally defined in the CIC as the conviction of a felony, gross and willful failure to perform assigned duties, and dishonest conduct that is intentional and materially injurious to the Company.

#### Tax Implications of Executive Compensation

Under Section 162(m) of the Code, the Company generally receives a tax deduction for compensation on payments which total less than \$1,000,000 paid to our Named Executive Officers, unless that compensation is performance based. The total non-performance based compensation for any of our Named Executive Officers did not exceed \$1,000,000 during 2010, nor do we anticipate it will exceed \$1,000,000 for the foreseeable future.

#### Stock Ownership Guidelines

Solitario has not established formal stock ownership guidelines for our Named Executive Officers. The Company's Insider Trading Policy prohibits the Named Executive Officers, as well as other insiders, who may have access to material inside information, from purchasing, selling, entering into short sale transactions, engaging in hedging or offsetting transactions regarding Solitario's common stock during periods where such persons have access to material inside information.

#### Option exercises

No options were exercised by any Named Executive Officers during 2010 or 2009.

#### Outstanding Equity Awards at Fiscal Year End

At December 31, 2010 the following equity awards were outstanding:

#### OUTSTANDING EQUITY AWARDS AT FISCAL YEAR END

Name	Option Awards				Stock Awards			
	Number of securities	Number of Securities	Equity Incentive	Option Exercise	Option Expiration	Number of	Market Value	Equity Incentive

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Underlying Unexercised Options (#) Exercisable	Underlying Unexercised Options (#) Unexercisable	Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Price (Cdn\$)	Date	Shares or Units of Stock That Have Not Vested (#)	of Shares or Units of Stock That Have Not Vested (\$)	Plan Awards: Number of Unearned Shares, or Other Rights That Have Not Vested (#)	Plan Awards: Market or Payout Value of Unearned Shares, or Other Rights That Have Not Vested (\$)
Christopher E Herald,	75,000(1)	75,000	\$1.55	5/19/14				
CEO	111,250(2)	333,750	\$2.40	5/05/15	-	-	-	-
James R. Maronick,	41,000(1)	41,000	\$1.55	5/19/14				
CFO	68,750(2)	206,250	\$2.40	5/05/15	-	-	-	-
Walter H Hunt, COO	43,000(1)	64,500	\$1.55	5/19/14				
	68,750(2)	206,250	\$2.40	5/05/15	-	-	-	-

(1) Options were granted on 5/19/09 and vested 25% on date of grant and 25% on each anniversary date for the next three years.

(2) Options were granted on 5/05/10 and vested 25% on date of grant and 25% on each anniversary date for the next three years.

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

Shares authorized for issuance under equity compensation plans

Please see the table and related discussion under "Shares authorized for issuance under equity compensation plans" in Part II, Item 5 of this Annual Report on Form 10-K above.

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Security ownership of certain Beneficial Owners and Management

To our knowledge, as of March 8, 2010, no person beneficially owns more than five percent of our issued and outstanding common stock with the exception of Sprout Asset Management Inc. and Newmont Mining Corporation of Canada Limited ("Newmont"), which directly own 2,937,640 and 2,700,000 shares, respectively, representing 9.9 percent and 9.1 percent, respectively, of our issued and outstanding common stock.

The following table sets forth, as of March 8, 2010, the beneficial ownership of our outstanding common stock by each of our shareholders owning more than five percent, our Directors, nominees for Director, each Named Executive Officer and all of our executive officers and Directors as a group. Unless otherwise indicated, the persons listed in the table below have sole voting and investment powers with respect to the shares indicated.

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Name of Beneficial Owner		Amount and Nature of Beneficial Ownership <sup>(8)</sup> 121,200	Percent of Class
John Hainey, Director	(1)	146,000	*
Leonard Harris, Director	(2)	784,012	*
Christopher E. Herald, CEO and Director	(3)	426,000	2.6%
Mark E. Jones, III, Director	(4)	132,310	1.4%
Brian Labadie, Director	(5)	495,462	*
Walter H. Hunt, COO	(6)	657,739	1.6%
James R. Maronick, CFO	(7)		2.2%
All directors and executive officers as a group		2,762,723	8.5%
Sprott Asset Management Inc Suite 3450 South Tower Royal Bank Plaza Toronto, ON M5J 2J2		2,937,640	9.9%
Newmont Mining Corporation of Canada 20 Eglinton Ave West, Suite 1900 Toronto, Ontario M4R 1K8		2,700,000	9.1%

\* Indicates holdings of less than 1%.

(1) Includes 87,500 shares that he has the right to acquire within 60 days under options granted pursuant to the 2006 Plan.

(2) Includes 81,000 shares that he has the right to acquire within 60 days under options granted pursuant to the 2006 Plan.

(3) Includes 186,250 shares that he has the right to acquire within 60 days under options granted pursuant to the 2006 Plan.

(4) Includes 118,000 shares that he has the right to acquire within 60 days under options granted pursuant to the 2006 Plan.

(5) Includes 108,500 shares that he has the right to acquire within 60 days under options granted pursuant to the 2006 Plan.

(6) Includes 180,500 shares that he has the right to acquire within 60 days under options granted pursuant to the 2006 Plan.

(7) Includes 178,500 shares that he has the right to acquire within 60 days under options granted pursuant to the 2006 Plan.

(8) Percentage determined by the holder's shares plus the holder's options, if any, divided by the total outstanding shares plus shares under

option that the holder has the right to acquire within 60 days under the 2006 Plan, if any.

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

TNR Gold Corp.

As of December 31, 2010, we owned 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 \$190,000. Christopher E. Herald, our CEO, was a member of the Board of Directors of TNR until June of 2009.

Policy Regarding Related Party Transactions

The Board of Directors has adopted a written Related Party Transaction Policy. Pursuant to that policy, Solitario may enter into transactions with certain "related persons." Related persons include the Company's executive officers, directors, 5% or more beneficial owners of the Company's common stock, immediate family members of these persons and entities in which one of these persons has a direct or indirect material interest. These transactions are referred to as "related party transactions." All of the above related party transactions were approved according to the following related party transaction policy requirements:

the transaction is approved by disinterested members of the Board;  
the Audit Committee shall have approved or ratified such transaction and the terms of the transaction are comparable  
to that which could be attained in an arm's-length dealing with unrelated third parties; or  
the transaction involves compensation approved by the Compensation Committee.

Director Independence

Solitario's Board has determined Mr. Hainey, Mr. Harris, Mr. Jones and Mr. Labadie are independent member of the Board of Directors in accordance with the standards of independence as determined by the listing standards of NYSE Amex.

Mr. Hainey, Mr. Labadie and Mr. Harris are members of the Audit, Committee.  
Mr. Jones, Mr. Labadie and Mr. Harris are members of the Compensation Committee.  
Mr. Hainey, Mr. Jones and Mr. Labadie are members of the Nominating Committee.

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1. Item 14. Principal Accounting Fees and Services

PRINCIPAL ACCOUNTING FEES AND SERVICES

Audit Fees

The following table summarizes the aggregate fees billed to Solitario by Ehrhardt Keefe Steiner & Hottman PC for the fiscal years ended December 31, 2010 and 2009.

	2010	2009
Audit Fees (1)	\$51,000	\$60,000
Audit related fees (2)	27,000	27,000

Tax fees (3)	11,000	25,000
All other fees (4)	<u>30,000</u>	<u>57,000</u>
Total	<u>\$119,000</u>	<u>\$169,000</u>

- (1) Fees billed for audit services in 2010 and 2009 consisted of:  
 Audit of our annual financial statements for 2010 and 2009, respectively.  
 Consent and other services related to SEC filings.
- (2) Represents fees billed related to reviews of our quarterly reports for 2010 and 2009, respectively.
- (3) Represents fees billed in connection with the preparation and filing of our United States federal and Colorado state income tax returns.
- (4) All other fees in 2010 include fees billed related to the Ely Gold and Mt. Hamilton transaction, the deconsolidation of PBM and assistance with filings before the SEC. All other fees billed in 2009 includes fees billed related to the attempted acquisition of Metallic Ventures and the restatement of our 2008 and 2007 financial statements during the preparation of our 2009 Annual Report on Form 10-K.

Pre-approval of Audit Fees

On an annual basis the Audit Committee approves the proposed audit services and the fees related thereto by our independent auditors in advance of the year of service in accordance with the pre-approval policy adopted by the Audit Committee. The Audit Committee pre-approval policy requires that the Audit Committee determine that proposed services and related fees are required and reasonable under the circumstances. All of the fees billed to Solitario by Ehrhardt Keefe Steiner & Hottman PC during 2010 and 2009 were pre-approved by the audit committee pursuant to the Audit Committee pre-approval policy. The Audit Committee considered whether the provision of non-audit services is compatible with maintaining the principal accountant's independence and has determined that the provision is compatible.

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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, 2010, and December 31, 2009

Consolidated Statements of Operations for the years ended December 31, 2010 and December 31, 2009

Consolidated Statements of Stockholders' Equity and Comprehensive Loss for the years ended December 31, 2010 and

December 31, 2009

Consolidated Statements of Cash Flows for the years ended December 31, 2010 and December 31, 2009

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: March 11, 2011

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/</u> Christopher E. Herald, Chief Executive Officer	Principal Executive Officer and Director	<u>March 11, 2011</u>
<u>/s/</u> James R. Maronick, Chief Financial Officer	Principal Financial and Accounting Officer	<u>March 11, 2011</u>

/s/

Mark E. Jones, III

/s/  
Brian Labadie

/s/  
Leonard Harris

/s/  
John Hainey

| A majority of  
| the Board of  
| Directors

March 11, 2011

By: /s/  
James R. Maronick,  
Attorney-in-fact

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INDEX TO EXHIBITS

Description

- |      |  |
|------|--|
| 3.1  | Amended and Restated 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 10, 2010)   |
| 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 | Letter of intent between Solitario Exploration & Royalty Corp. and Ely Gold & Minerals Inc. regarding private placement and the Mt. Hamilton joint venture (incorporated by reference to Exhibit 99.1 to Solitario's 8-K filed on September 1, 2010)           |
| 10.2 | Limited Liability Company Operating Agreement of Mt. Hamilton LLC between Solitario Exploration & Royalty Corp. and DHI Minerals (U.S.) Ltd. dated December 22, 2010 (incorporated by reference to Exhibit 99.2 to Solitario's 8-K filed on December 28, 2010) |
| 10.3 | Limited Liability Company Contribution Agreement among Solitario Exploration & Royalty Corp., DHI Minerals (U.S.) Ltd. and Mt. Hamilton LLC dated December 22, 2010 (incorporated by reference to Exhibit 99.3 to Solitario's 8-K filed on December 28, 2010)  |

- 10.4 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)
- 10.5 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)
- 10.6 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)
- 10.7 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)
- 10.8 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)
- 10.9 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)
- 10.10 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)
- 10.11 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)
- 10.12 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 Mineracao 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)
- 10.13 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)
- 10.14 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)
- 10.15 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 Exploration & Royalty Corp.
- 23.1\* Consent of Ehrhardt Keefe Steiner & Hottman PC
- 23.2\* Consent of SRK Consulting (U.S.) Inc.
- 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 adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 32.2\* 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.

\* Filed herewith