

**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, 2008

or

Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the transition period from _____ to _____

Commission file number **0-50602**

SOLITARIO EXPLORATION & ROYALTY CORP.

(Exact name of registrant as specified in charter)

Colorado

(State or other jurisdiction of incorporation or organization)

4251 Kipling St. Suite 390, Wheat Ridge, CO

(Address of principal executive offices)

Registrant's telephone number, including area code

84-1285791

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

80033

(Zip 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 Alternext US

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 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 [X] Non accelerated Filer [] Smaller Reporting Company []
(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).
YES [] NO [X]

The aggregate market value of the voting stock held by non-affiliates of the registrant as of the last business day of the registrant's most recently completed second fiscal quarter, based upon the closing sale price of the registrant's common stock on June 30, 2008 as reported on the NYSE Alternext US was approximately \$111,772,000.

There were 29,750,242 shares of common stock, \$0.01 par value, outstanding on March 9, 2009.

DOCUMENTS TO BE INCORPORATED BY REFERENCE

Portions of the definitive Proxy Statement for the Registrant's Annual Meeting of Shareholders which is expected to be filed by April 30, 2009 have been incorporated by reference into Part III of this Annual Report on Form 10-K.

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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

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 create a royalty prior to the establishment of proven and probable reserves. Although our mineral properties may be developed in the future through a joint venture, we have never developed a mineral property and we do not anticipate developing any currently owned mineral properties on our own in the future. We may also evaluate mineral properties to potentially buy a royalty. At December 31, 2008 we had interests in 16 exploration properties in Mexico, Brazil, Bolivia and Peru and our Yanacocha and La Tola royalty properties in Peru.

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

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

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

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

General

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

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

The potential sale, joint venture or development through a joint venture of our mineral properties will occur, if at all, on an infrequent basis. Accordingly, while we conduct exploration activities, we need to maintain and replenish our capital resources. We have met our need for capital in the past through (i) the sale of properties, which last occurred in 2000 with the sale of our Yanacocha property for \$6,000,000; (ii) joint venture payments, including a payment of \$200,000 and \$100,000, respectively, in July 2008 and 2007 on our Bongará property and previous payments on our exploration properties which occurred during the years from 1996 through 2000; (iii) sale of our investment in Kinross; and (iv) issuance of common stock, including exercise of options, and through private placements, most recently as part of a strategic alliance with a major mining company. We have reduced our exposure to the costs of our exploration activities through the use of joint ventures. We anticipate these practices will continue for the foreseeable future although we expect that our primary funds for the next year will come from the sale of our investment in Kinross.

We operate in one segment, mining geology and mineral exploration. We currently conduct exploration in Peru, Brazil, Mexico, and, to a limited extent, Bolivia. As of March 9, 2009, we had five full-time employees, located in the United States and 25 full-time employees, located in Latin America outside of the United States. We extensively utilize contract employees and laborers to assist us in the exploration on most of our projects.

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

Prior to August 31, 2006, Crown provided management and technical services to us under a management agreement (the "Management Agreement") originally signed in 1994 and modified in April 1999, in December 2000 and July 2002. The agreement was terminated on August 31, 2006 upon the completion of the Crown-Kinross merger. The modified agreement, which had a three-year term, provided for reimbursement to Crown of direct out-of-pocket costs; payment of between twenty-five percent and seventy-five percent of executive and administrative salaries and benefits, rent, insurance and investor relations costs ("Administrative Costs") and payment of certain allocated indirect costs and expenses paid by Crown on our behalf. Management service fees paid to Crown by us in 2006 were \$232,000. We have directly paid all administrative expenses since August 31, 2006.

Investment in Kinross

We have a significant investment in Kinross at December 31, 2008, which consists of 1,150,000 shares of Kinross common stock. Solitario received 1,942,920 shares in exchange for 6,071,626 shares of Crown common

stock it owned on the date of the Crown - Kinross merger. During 2008 and 2007, subsequent to the Crown - Kinross merger, Solitario sold 192,920 and 400,000 shares, respectively, of Kinross common stock for net proceeds of \$4,430,000 and \$5,548,000, respectively. As of March 9, 2009, Solitario owns 1,150,000 shares of Kinross common stock. We entered into the Kinross Collar which limits our ability to sell 900,000 of these shares. Accordingly, 250,000 shares are not subject to the Kinross Collar, discussed below. As of March 9, 2009, these 250,000 shares have a value of approximately \$3.9 million based upon the market price of \$15.69 per Kinross share. Any significant fluctuation in the market value of Kinross common shares could have a material impact on Solitario's liquidity and capital resources. As of December 31, 2008 we sold covered call options for 100,000 shares of Kinross, discussed below, which expired unexercised on February 20, 2008.

Kinross Collar and Kinross Calls

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 between us and UBS AG, London, England, an Affiliate of UBS Securities LLC (collectively "UBS") whereby we 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, 2008 the Kinross Collar pricing is (i) 400,000 shares due on April 14, 2009 for a lower threshold price of no less than \$13.73 per share (the "Floor Price") and an upper threshold price of no more than \$21.69 per share ; (ii) 400,000 shares due on April 13, 2010 for a lower threshold of the Floor Price and an upper threshold price of no more than \$24.38 per share ; and (iii) 100,000 shares due on April 12, 2011 for no less than the Floor Price and an upper threshold price of no more than \$27.54 per share. Kinross' quoted closing price was \$16.37 per share on October 12, 2007, the date of the initiation of the Kinross Collar.

The business purpose of the Kinross Collar is to provide downside price protection of the Floor Price on 900,000 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 into the Kinross Collar. In consideration for obtaining this price protection, we have given up the upside appreciation above the upper threshold during the term of the respective tranches. We have not designated the Kinross Collar as a hedging instrument (as described in Statement of Financial Accounting Standards No. 133 "Accounting for Derivative Instruments and Hedging Activities") and any changes in the fair market value of the Kinross Collar are recognized in the statement of operations in the period of the change. We recorded a gain on derivative instrument of \$1,189,000 during 2008 and recorded a loss of \$1,702,000 during 2007 for the change in the fair market value of the Kinross Collar during 2008 and 2007, respectively. As of December 31, 2008 we have recorded a derivative liability of \$513,000 related to the Kinross Collar.

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

Mineral properties - General

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

Financial information about geographic areas

Included in the consolidated balance sheet at December 31, 2008 and 2007 are total assets of \$3,751,000 and \$3,404,000, 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, 2008 and 2007 are net capitalized costs related to the Pedra Branca Property, located in Brazil, of \$2,607,000.

Available Information

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

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

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 not the only ones facing Solitario. Additional risks not presently known to us or risks that we currently consider immaterial may also adversely affect our business. We have attempted to identify the major factors under this heading that could cause differences between actual and planned or expected results.

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

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

Even if our exploration activities determine that a project is commercially viable, it is impossible to ensure that such determination will result in a profitable sale of the project or development by a joint venture in the future and that such project will result in profitable commercial mining operations. If we determine that capitalized costs associated with any of our mineral interests are not likely to be recovered, we would incur an impairment of our investment in such property interest. All of these factors may result in losses in relation to amounts spent, which are not recoverable. We have experienced losses of this type from time to time including during 2007, when we wrote down our investment in the Titicayo project in Bolivia, and the Purisima and Corazon projects in Mexico, recording mineral property impairments of \$20,000. During 2006, we wrote down our Libertad and Pillune projects in Peru, our Pozos project in Mexico and our Pau d'Arco project in Brazil recording mineral property impairments of \$35,000. We did not impair any mineral properties during 2008.

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

We have a significant investment in Kinross as of March 9, 2009, which consists of 1,150,000 shares of Kinross common stock. Of these shares, 250,000 are not subject to the Kinross Collar, discussed above. These 250,000 shares have a value of approximately \$3.9 million based upon the market price of \$16.59 per Kinross share. A significant fluctuation in the market value of Kinross common shares could have a material impact on our investment in Kinross, the market price of our common stock and our liquidity and capital resources.

We have entered into the Kinross Collar on our investment in Kinross. This Kinross Collar limits the potential future cash from any sale of our shares of Kinross and limits our ability to sell 900,000 of our Kinross shares during the period of the Kinross Collar.

We entered into the Kinross Collar on 900,000 shares of our Kinross stock during 2007. This Kinross Collar limits our ability to sell 400,000 shares of Kinross until settlement on April 14, 2009 and limits the maximum sale price for those shares on that day to \$21.69, it also limits our ability to sell an additional 400,000 shares until settlement on April 13, 2010 and limits the maximum sale price on that day for those shares to \$24.38, and it limits our ability to sell 100,000 shares until settlement on April 12, 2011 and limits the maximum sale price on that day for those shares to \$27.54. (We have the option to settle all of these contracts for cash on the respective settlement day). Because the Kinross Collar effectively limits the potential future cash from any sale of our investment in Kinross, we may not have enough cash to fund our operations from the sale of Kinross stock, when needed. This could require us to seek other sources of liquidity, such as borrowing money or additional equity sales of Solitario to fund our operations until the Kinross stock is available for sale. We may not be able to obtain such borrowings or equity sales financings on reasonable terms, if at all. The inability to utilize our investment in Kinross and/or the limit on the cash proceeds from a future sale of Kinross could have a material impact on our liquidity, capital resources and the market price of our common stock.

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

The Kinross Collar is subject to counterparty risk in the event the price of Kinross stock falls below the Floor Price and UBS, the counterparty to the Kinross Collar, defaults on its obligation. If we liquidate some or all of our 900,000 shares of Kinross currently subject to the Kinross Collar on or after termination of one or more of the Kinross Collar contracts, we may receive a price below the Floor Price. Failure to receive the price protection for which we entered into the Kinross Collar, could have a material impact on our liquidity, capital resources and the market price of our common stock.

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

We sold two covered calls covering 100,000 shares of Kinross common stock in December 2008. These call options expired unexercised in February 2009. If we sell additional covered call options against our Kinross common stock, such call options could significantly reduce future gains on our Kinross stock and limit our ability to sell our Kinross stock covered by the call options.

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

An investment in our common shares involves a high degree of risk. The liquidity of our shares, or ability of the shareholder to buy or sell our common stock, may be significantly limited for various unforeseeable periods. The average combined daily volume of our shares traded on the Toronto Stock Exchange (the "TSX") and the NYSE Alternext US (the "ALTNEXT") during 2008 was approximately 12,000 shares, with no shares traded on many days. The market price of our shares has historically fluctuated in a large range. Please see Item 5 - "Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities." The price of our common stock may be affected by many factors, including adverse change in our business, a decline in gold or other commodity prices, and general economic trends.

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

Our operations are subject to the hazards and risks normally related to exploration of a mineral deposit including mapping and sampling, drilling, road building, trenching, assaying and analyzing rock samples, transportation over primitive roads or via small contract aircraft or helicopters, any of which could result in damage to life or property, environmental damage and possible legal liability for such damage. Any of these risks could

cause us to incur significant unexpected costs that could have a material adverse effect on our financial condition and ability to finance our exploration activities.

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

We have reported losses in 13 of our 15 years of operations. We reported losses of \$617,000, \$4,397,000 and \$6,881,000 for the years ended December 31, 2008, 2007, and 2006, respectively. We can provide no assurance that we will be able to operate profitably in the future. We have had net income in only two years in our history, during 2003, as a result of a \$5,438,000 gain on derivative instrument related to our investment in certain Crown warrants and during 2000, when we sold our Yanacocha property. We cannot predict when, if ever, we will be profitable again. If we do not operate profitably, the trading price of our common shares will likely decline.

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

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

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

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

During 2006, the government of Bolivia took steps toward the nationalization of its oil and gas industry by unilaterally increasing taxes payable by private owners of oil and gas properties. In 2007 the government effectively increased corporate taxes on mining companies from 25% to 37.5% of profits. More recently, the government has proposed sweeping changes in the mining law concerning the amount private companies may own of mining rights, and the potential for the Bolivian government to effectively become a carried 50% partner in mining operations. These political and legal uncertainties could have an adverse effect upon our projects in Bolivia. We have significantly reduced our activities in Bolivia, while monitoring this situation. Our capitalized costs in Bolivia are approximately \$26,000.

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

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

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

A large number of companies are engaged in the exploration of mineral properties, many of which have substantially greater technical and financial resources than us and, accordingly, we may be unable to compete effectively in the mining industry which could have a material adverse effect on our financial position or results of operations.

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

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

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

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

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

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

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

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

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

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

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

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

Our operations will be significantly affected by changes in the market price of gold and other commodities since the evaluation of whether a mineral deposit is commercially viable is heavily dependent upon the market price of gold and other commodities. The price of commodities also affects the value of exploration projects we own or may wish to acquire. These prices of commodities fluctuate on a daily basis and are affected by numerous factors beyond our control. The supply and demand for gold and other commodities, the level of interest rates, the rate of inflation, investment decisions by large holders of these commodities, including governmental reserves, and stability of exchange rates can all cause significant fluctuations in prices. Such external economic factors are in turn influenced by changes in international investment patterns and monetary systems and political developments. Currency exchange rates relative to the US dollar can affect the cost of doing business in a foreign country and the revenues received from production. For instance, the Brazilian Real fluctuated from a high of 1.560 Reals to the US dollar to a low of 2.498 Reals to the US Dollar during 2008. Consequently, the cost of conducting exploration in the countries where we operate, accounted for in US dollars, can fluctuate based upon changes in currency rates and may

be higher than we anticipate in terms of US dollars because of a decrease in the relative strength of the US dollar to currencies of the countries where we operate. We currently do not hedge against currency fluctuations. The prices of commodities have fluctuated widely and future serious price declines could have a material adverse effect on our financial position or results of operations.

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

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

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

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

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

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

Item 1B. Unresolved Staff Comments

None

Item 2. Properties

Joint Ventures, Royalty and the Strategic Alliance Properties

Bongará Zinc Project (Peru)

1. Property Description and Location

(Map of Bongará Property) Bongará.jpg

The Bongará project consists of 6 concessions comprising 4,100 hectares of mineral rights granted to or under option to Minera Bongará 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 Bongará 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 Bongará Letter Agreement with Votorantim Metais. Solitario's and Votorantim's property interests will be held through the ownership of shares in a joint operating company that holds a 100% interest in the mineral rights and other project assets. Solitario currently owns 100% of the shares in this company (Minera Bongará 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, by making cash payments of \$100,000 to Solitario on August 15, 2007 (completed), cash payment of \$200,000 on August 15, 2008 (completed), and by making further payments to Solitario of \$200,000 on all subsequent anniversaries 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. Additionally, Votorantim, in its sole discretion, may elect to terminate the option to earn the 70% interest at any time after the first year commitment. The 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. Votorantim will act as project operator. 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 Bongará 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.

We have a surface rights agreement with the local community, which controls the surface of the primary area of interest of our Bongará joint venture. This agreement provides for an annual payment of \$5,000 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.

An environmental permit is required for exploration projects in Peru that involve drilling or underground mining. The requisite environmental and archeological studies have been completed and the permit has been granted for future exploration activities subject to the periodic approval of amendments for newly planned work.

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

The Bongará property is accessed by the paved Carretera Marginal road, which provides access from the coastal city of Chiclayo. The area of the majority of past drilling and the most prospective mineralization, Florida Canyon, is currently inaccessible by road, the work to date having been done by either foot or helicopter access. The nearest town is Pedro Ruiz located 15 kilometers southeast of the property and the Carretera Marginal is situated approximately eight kilometers south of the deposit. Votorantim maintains project field offices in Pedro Ruiz and a staging 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 Bongará Project in 1996. Subsequently, we optioned the property in December 1996 to Cominco. Cominco withdrew from the joint venture in February 2001. We maintained the most important claims from 2001 to 2006, until the Votorantim Letter Agreement was signed. All of the significant work on the property has been conducted by Cominco, and more recently by Votorantim, and is described below in section 5, Prior Exploration.

4. Geological Setting

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

5. Prior Exploration

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

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

6. Mineralization

Mineralization occurs as massive to semi-massive replacements of sphalerite and galena localized by specific sedimentary facies 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 on stratigraphic targets has shown that certain coarser bioclastic or pseudo-breccia facies of the stratigraphy are the best hosts for mineralization.

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

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

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 80 diamond drill holes (HQ and NQ size) were completed by Cominco from 1997-2000 and 58 holes by Votorantim in 2008, 2007 and 2006 at the Florida Canyon deposit. These holes vary in depth up to 610 meters. Total meters drilled through 2008 are 56,961 meters. The mineralized area that has been drilled measures approximately two by two kilometers. Votorantim's drilling has been entirely infill drilling designed to better define mineralization and demonstrate continuity. This infill drilling program has served to better define the quality and spatial distribution of mineralization, but additional infill drilling will be required to establish reserves. All drilling was done by a LF-70 core-drilling rig.

8. Sampling and Analysis

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

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

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

9. Security of Samples

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

10. Feasibility Studies

Votorantim is currently working on scoping-level studies to provide order-of-magnitude estimates of deposit size and grade, sizing of appropriate scale of operations, infrastructure and operating cost estimates. Included within these studies is review of road access options from the paved Carretera Marginal road to the Florida Canyon deposit.

10. Mineral Resource and Mineral Reserve Estimations

There are no reported mineral reserves or resources.

11. Mining Operations

No mining operations have occurred on the project.

12. Planned Exploration

Votorantim is currently planning to conduct a core drilling program to better define mineralized areas in 2009. The scope of the drilling program is completely at Votorantim's discretion.

Pedra Branca Platinum Group Metals Project (Brazil)

1. Property Description and Location

(Map of Pedra Branca Property) [pedra.jpg](#)

We are exploring the Pedra Branca property for platinum and palladium mineralization (platinum group metals, or "PGM"). At December 31, 2008, the Pedra Branca project consisted of 89 exploration concessions totaling approximately 116,713 hectares in Ceará 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 Mineração S.A. ("PBM"), a 70%-owned subsidiary of ours incorporated in Brazil, holds 100%-interest in all concessions. Eldorado Gold Corporation is entitled to a 2% NSR royalty on 10 of the concessions totaling 10,000 hectares.

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

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

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

We added significantly to our Pedra Branca land holdings in 2007. Seventy-seven (77) new concessions were filed totaling 133,149 hectares. Through our 2008 exploration work, we were able to prioritize our entire land holdings and consequently reduced our holdings by 37 concessions totaling 62,455 hectares. Land payments for 2009 are projected to be approximately \$80,000 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, 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 \$230 depending upon the Brazil-U.S. exchange rate. To keep the concessions in good standing, we must continue to pay regular annual fees of \$0.80 per hectare for the first three years and approximately \$1.20 per hectare after the first three years and provide the DNPM with annual progress reports. We are subject to yearly inspections by the DNPM for compliance with reported plans and environmental regulations.

Exploration concessions are granted by the DNPM for a maximum period of three years with the right of the applicant to apply for an extension which may be granted for up to an additional three years. Upon expiration of the exploration concession the concessionaire must apply for conversion of the claim to a mining concession or abandon the property. We have applied for the conversion of five claims to mining concessions. Unlike exploration

concessions, mining concessions do not expire but do have requirements for advancing feasibility and development work toward production. Approval of the conversion is at the discretion of the DNPM and we can give no assurance that the conversion of the concessions will be granted.

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

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

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

Access to the project is by paved road from the state capital of Fortaleza in Ceará 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. Year-round operation can be conducted. The topography is rolling to flat and vegetation is sparse to heavy brush. The elevation ranges from 500 to 800 meters.

3. History

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

Altoro, prior to the Plan of Arrangement with us, conducted surface work, drilled 18 diamond drill holes and entered into a Joint Venture agreement with Rockwell Ventures, Inc. ("Rockwell") of Vancouver, British Columbia. Rockwell conducted further surface exploration and drilled an additional 31 holes. Rockwell terminated its agreement with us in June 2001. From July 2001 until January of 2003, we conducted geochemical sampling, geophysical surveys and drilled 54 diamond drill holes. From January 2003 to date, Anglo funded three 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 25 other target areas.

4. Geological Setting

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

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

5. Prior Exploration

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

- Reconnaissance geologic mapping and rock sampling
- Systematic line cutting, soil sampling and geologic mapping of lines

Ground magnetics and induced polarization ("IP") geophysical surveys
Stream sediment and panned-concentrate geochemistry
Diamond drilling of 25 prospect areas

All of the above work has been conducted directly by us, our predecessor or its partners with the exception of diamond drilling which was performed by Boart-Longyear Geoserv do Brasil and Major Drilling. Ground magnetometry was conducted primarily using a Scintrex Portable EnviMag or a Gem GSM-19 Overhauser hand-held magnetometer, with a base station for recording diurnal corrections. Magnetometric surveys are conducted by Solitario personnel. An internationally recognized third-party geophysical contractor conducted the IP survey. An independent geophysical consultant has been utilized to further interpret the magnetic and IP data.

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

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

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

6. Mineralization

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

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

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

7. Drilling

A total 270 holes totaling 20,202 meters of core drilling have been completed on the project to date. Of this, 3,217 meters were drilled by Rio Tinto and Gencore for which the core itself is not available, nor are the procedures documented under which the holes were completed.

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

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

The Esbarro prospect, with 107 holes, has the largest database of information of the drilled prospects. Drilling was conducted on approximately 50-meter spaced centers. The Curiu prospect is the second most detailed prospect drilled with 21 holes completed to date. Drilling was conducted on spacing varying from 100 meter to 25-meter spaced centers. Fifteen drill holes have been completed at Santa Amaro, 9 at Trapia I, 13 at Trapia West and 48 on the Cedro prospects. Drill spacing on these latter four prospects range from 50 to 200 meters. Although significant mineralized material was encountered in many of the drill holes within these nine deposits, we have not undertaken a formal estimate of reserves or resources as we believe additional work is required to make such an estimate.

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

8. Sampling and Analysis

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

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

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

9. Security of Samples

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

10. Mineral Resource and Mineral Reserve Estimations

There are no reported reserves.

11. Mining Operations

There are no current mining operations associated with this project.

12. Planned Exploration

In late-2008, Anglo elected to fund an additional \$1.5 million in exploration expenditures. The 2009 program emphasizes regional surface work to prioritize our land holdings, and select detailed work to refine new drill targets. A four-thousand meter drilling program is planned for the second half of 2009

Yanacocha Royalty Property (Peru)

1. Property Description and Location

(Map of Yanacocha Property) yanac.jpg

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.

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

In 2004, the Peruvian government implemented a national net smelter return royalty on gold that ranges from 1 to 3 percent, depending upon the total annual revenue from an operation. The top royalty rate applies to operations that produce in excess of \$120 million in annual revenues. Operations producing between \$60 million to \$120 million in annual revenues will have a 2 percent royalty, while a 1 percent royalty will be imposed on smaller operations of less than \$60 million in annual revenues.

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

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

Base Rate:

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

- **Doré end-product, non-flotation mill ores:** For gold recovered as doré 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

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

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

3. History

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

4. Geological Setting

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

5. Prior Exploration

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

6. Mineralization

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

7. Drilling

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

8. Sampling and Analysis

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

9. Security of Samples

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

10. Mineral Resource and Mineral Reserve Estimations

No resources or reserves have been delineated on the property.

11. Mining Operations

No mining is conducted on the property.

12. Planned Exploration

Newmont has not provided us with their planned exploration budget for 2008.

Chambara Zinc Property (Peru)

From 1997 through 2007 we acquired 13 concessions covering 9,300 hectares of 100%-owned mineral rights that now constitute our Chambara property. During 2007, Solitario capitalized \$17,000 in lease acquisition costs related to these concessions. The Chambara project, formerly called the Amazonas project, originally consisted of six widely spaced areas where previous sampling identified high-grade zinc mineralization at surface similar to that found at Florida Canyon (see Bongará Zinc project, above under "Joint Ventures, Royalty and the Strategic Alliance Properties").

On April 4, 2008 we signed the Minera Chambara, S.A.C. ("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 will conduct 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 9,500 hectares of mineral claims and certain exploration data in our possession for an 85% interest in Minera Chambara. Existing and future properties subject to the terms of the shareholders' agreement will be held by Minera Chambara. As of December 31, 2008, Minera Chambara's only assets are the properties and Minera Chambara has no debt. Votorantim may increase its shareholding interest to 49% by expending \$6,250,000 over seven years and may increase its interest to 70% by funding a feasibility study and providing for construction financing for Solitario's interest. If Votorantim provides such construction financing, we would repay that financing,

including interest, from 80% of Solitario's portion of the project cash flow. We have determined that Votorantim controls Minera Chambara pursuant to the terms of the shareholders' agreement and accordingly, we have recorded our investment in Minera Chambara using the equity-method of accounting. During the second quarter of 2008, we transferred our interest in the claims of \$30,000 from mineral properties, net to equity method investment. During 2008, we reduced our equity method investment in Minera Chambara to zero, through a non-cash charge to exploration expense. We do not anticipate we will record an increase in the book value of our 85% equity-method investment in the shares of Minera Chambara in the foreseeable future, if at all.

In 2008 Votorantim compiled existing geochemical and geologic information to prioritize areas for future work.

Newmont Alliance (Peru)

On January 18, 2005, we signed a Strategic Alliance Agreement (the "Alliance Agreement") with Newmont Overseas Exploration Limited ("Newmont Exploration"), 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 Exploration. Concurrent with the signing of the Alliance Agreement, Newmont Mining Corporation of Canada ("Newmont 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 are committed to spend \$3,773,000 over the four years from the date of the Alliance Agreement on gold exploration in regions ("Alliance Projects Areas") that are mutually agreed upon by Newmont Exploration and us. As of December 31, 2008, we have spent approximately \$2,997,000 of this commitment. Newmont elected to extend the four-year expenditure period for such additional time necessary to enable Solitario to spend the full \$3,773,000 on qualified exploration expenditures. If we acquire properties within Alliance Project Areas and meet certain minimum exploration expenditures, Newmont Exploration 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 Exploration may elect to earn a lesser interest or no interest at all, in which case it would retain a 2% net smelter return royalty. Newmont Exploration also has a right of first offer on any non-alliance Solitario property in South America, acquired after the signing of the Alliance Agreement, that we may elect to sell an interest in, or joint venture with a third party.

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

1. Chonta

During March 2008 we entered into an agreement with the underlying property owner for the 583 hectare Chonta property. We capitalized \$42,000 to mineral properties for initial acquisition costs, which included a \$40,000 payment to the underlying property owner. We are required to pay \$2,250,000 over five years to acquire 100% of the property. In December 2008 we modified the payment schedule to postpone the next payment of \$60,000 from March to September of 2009 by making an extra \$30,000 payment. Solitario can unilaterally terminate the agreement at any time. Additionally, we have staked four claims and now hold 4,583 hectares in Solitario's name that enlarges the outer perimeter of the Solitario held land position.

The Chonta property consists of Tertiary and Cretaceous sedimentary rocks that have been intensely altered over an area of approximately one-square kilometer. Numerous old small mine workings occur throughout this altered area. Mineralization consisting of silver, zinc, lead with minor tin and gold, are observed within near-vertical structures that cut the sedimentary rock formations and along bedding planes in a near horizontal orientation. We have extensively sampled exposed rocks and collected soil samples over a large area to define drilling targets. In addition, we compiled previously generated geologic and geophysical information from a third party in preparation for core drilling. Current plans call for an eight-hole, 1,600 meter drilling campaign in the second quarter of 2009.

2. La Promesa

The La Promesa property consists of three concessions totaling 2,600 hectares. We capitalized \$6,000 to mineral properties for initial acquisition costs. 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. 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

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. Additional surface work to further define drill targets followed by an initial ten-hole, 1,500 meter drilling program are scheduled for the second and third quarters of 2009.

3. Paria Cruz

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

The geology of the property consists of Tertiary-aged volcanics and intrusive rocks. Quartz-tourmaline breccia dikes cut these rocks and appear to partially control mineralization. We are evaluating the Paria Cruz project by the collection of rock and soil samples to determine if the project warrants drilling during 2009.

4. Cajatambo

The Cajatambo property consists of nine concessions totaling 9,000 hectares. The geology of the property consists of Tertiary volcanics that have been significantly altered by silicification, quartz-alunite and argillic alteration. The alteration system can be intermittently traced over an area eight kilometers long by two kilometers wide. It is considered to be a high-sulfidation epithermal gold system that is geologically similar in character to many of the large gold deposits situated throughout the Cordillera of Peru. In 2008 we drilled 7 reverse circulation exploration holes totaling 892 meters. Assay results for all 7 holes were generally low with the best drill hole intercept, hole CJ-002, intersecting 8 meters of 1.32 grams per tonne ("gpt") gold. We are currently reviewing all data collected to date to determine whether additional work is warranted.

5. Excelsior

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

6. Cerro Azul

The Cerro Azul property (formerly named Twin Lakes) consists of one concession totaling 1,000 hectares. During 2007, Solitario capitalized \$3,000 in lease acquisition costs related to this concession. The geology of the property consists of Tertiary volcanics cut by a system of parallel quartz veins. Veins are up to two meters wide and can be traced along strike up to 1.2 kilometers. The veins are polymetallic in character, within a low-sulfidation geologic environment. Additional surface work is planned for 2009 to determine if the property warrants drilling in 2010.

Wholly-owned Exploration Properties

Pachuca Real Silver-Gold Property (Mexico)

1. Property Description and Location

(Map of Pachuca-Real Property) pachuca.jpg

The Pachuca-Real property consists of approximately 30,700 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. 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 \$75,000 through December 31, 2008. Solitario may terminate its option at anytime without any further costs.

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

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

Pachuca has a long, nearly unbroken history of silver and gold production beginning somewhere around 1550 by the Spaniards, although it is generally thought that pre-Hispanic smelting of Pachuca ores occurred by the indigenous population inhabiting the area. Total silver production during this five and a half-century period is estimated at approximately 1.4 billion ounces and over 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 and we immediately applied, and were granted, title to the concessions.

4. Geological Setting

The geology of the Pachuca-Real project area is dominated by a thick sequence of Tertiary-aged volcanic and volcanic-related rock formations of dominantly andesitic composition. This thick pile of volcanic rocks is cut by a series of younger east-west trending and northwest-southeast trending quartz porphyry and dacite porphyry dikes. The volcanic rocks are generally only 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 trending overprint. Basement rocks within the project area consist of

Cretaceous-aged sedimentary rocks. Overlying the thick andesitic pile of volcanic rocks is another sequence of volcanic and volcanic-related rocks that are thin to moderately thick formations of primarily dacitic composition. These rocks are generally post-mineralization in age.

5. Prior Exploration

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

6. Mineralization

The old Pachuca-Real del Monte mining district is a classic large-scale vein district nearly 11 kilometers in an east-west direction and 7 kilometers in a north-south direction. Hundreds of generally 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, 600 meters in vertical extent and 2-5 meters in average width. The veins are characterized by low sulfide and base metal content and very 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

Prior to Newmont's 2007 drilling program, we do not have any authoritative data concerning past drilling in the North District but it is believed that there was none. 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:

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

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

8. Sampling and Analysis

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

9. Security of Samples

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

10. Mineral Resource and Mineral Reserve Estimations

There are no reported reserves or resources.

11. Mining Operations

There are no current mining operations associated with this project.

12. Planned Exploration

We are currently reviewing Newmont's data base for the project. Several intermediate to larger-sized mining and exploration companies have expressed an interest in possibly joint venturing the property. We are also allowing qualified companies to review the data with a view towards joint venturing the project in 2009.

Mercurio Gold Property (Brazil)

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

1. Property Description and Location

The Mercurio Gold Property is located in Para State in Northern Brazil approximately 250 km south of the town of Itaituba. It consists of three exploration concessions totaling 8,476 hectares. An agreement dated March 14, 2005 with the underlying claim and surface rights holder provides for transfer of a 100% interest of the mineral estate to Solitario and payment by Solitario of approximately \$350,000 over a period of 60 months. The owner retains a 1.5% net smelter return that is subject to purchase by Solitario for approximately \$1,220,000. Estimated payments to the land owner during 2009 are \$80,000. All payments are made in local currency and the amounts in U.S. currency will fluctuate with exchange rates. During 2008, 2007 and 2006 \$82,000, \$55,000 and \$25,000, respectively, were paid under the terms of the contract.

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

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

3. History

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

4. Geological Setting

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

5. Prior Exploration

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

6. Mineralization

Gold mineralization has been detected by detailed soil sampling over an area that is at least five kilometers long in an east-west direction and 4 kilometers wide in a north-south direction. In bedrock, gold mineralization occurs along steeply dipping shears in the granite and along dike boundaries of later, finer grained phases of granite. Gold enrichment occurs in E-W trending zones. Pyrite is the only common sulfide mineral but it occurs only in small amounts, generally from % to 3%. Rarely, galena, chalcopyrite and sphalerite have been observed in trace amounts. Quartz as veinlets and as veins up to 30 cm are most commonly associated with gold mineralization, though silicification as a replacement texture is important locally. Silver values and the quantities of other valuable metals are uniformly low.

7. Drilling

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

2008 Mercurio Drill Hole Assay Results

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

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

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

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

8. Sampling and Analysis

Soils were taken over large areas and analyzed by assay and by panning to aid in exploration. Auger samples up to 10 meters in depth were also taken in selected areas and analyzed similarly. Sawed core samples were transported from the drill to the camp by vehicle then by truck, boat or plane to the nearest population center where they were air transported to central Brazil for sample preparation at ALS Chemex Laboratories in Goiania or SGS Laboratories in Minas Gerais, Brazil. Final analysis for samples sent to ALS Chemex was completed in the ALS Chemex laboratory in Vancouver, Canada or in Lima, Peru.

9. Security of Samples

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

10. Mineral Resource and Mineral Reserve Estimations

No mineral reserves or resources are reported on the property.

11. Mining Operations

There are no mining operations on the property.

12. Planned Exploration

We are currently in discussions with potential joint venture partners. However, there can be no assurance that a joint venture partner can be secured.

Santiago Gold Zinc Property (Peru)

The Santiago prospect consists of 6 mining claims that total 5,600 hectares. During 2007, Solitario capitalized \$17,000 in lease acquisition costs related to these concessions. The prospect geology consists of nearly flat lying tertiary volcanics that have been silicified and pyritized. Alteration can be traced discontinuously for 9 km x 2.5 km. Post alteration lava flows cover up the underlying altered rocks leaving only "windows" through the fresh rock into mineralization that can be sampled. Much of the alteration is high sulfidation epithermal gold in character but has been overprinted by low sulfidation type mineral assemblages. Work to date consists mainly of stream sediment sampling, rock chip channel sampling and reconnaissance geologic mapping. Some detailed geologic mapping has been initiated in areas of higher potential. Surface work is planned for 2009 to determine if the property warrants drilling in 2010.

La Tola Gold Property (Peru)

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

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

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 stable to justify a more significant exploration program.

Española (Bolivia)

We optioned the Española gold-copper property in western Bolivia in July 2008. The initial option payment was \$5,000, with annual payments of \$10,000 until drilling commences, at which time a \$55,000 payment will be due on the anniversary date. We have the right to earn a 90% interest in the property from a private Bolivian party. In 2009, we plan on conducting limited surface mapping and sampling, and logging of existing core.

The geology of the Española 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.

La Noria (Mexico)

During the second quarter of 2008 we staked 10,000 hectares in Sonora State of Mexico comprising the La Noria project. Strong alteration of rocks detected by the study of satellite images suggests good potential for the discovery of porphyry copper deposits. We have recently concluded an access agreement with the surface owner and we will start a reconnaissance exploration program of surface work in the second quarter.

Purica (Mexico)

In early April 2008 we optioned 1,131 hectares in the Sonora state of Mexico over a large area of alteration between the La Caridad and Cananea open pit copper mines. Subsequently, we staked an additional 1,914 hectares in the name of Solitario's subsidiary in Mexico. An extensive geologic mapping and geochemical sampling program was completed in the first half of 2008 and showed a very well defined area of alteration and copper mineralization over an area 800 by 600 meters. An IP geophysical program was completed soon thereafter and revealed a moderate chargeability anomaly coincident with the anomalous geochemistry and alteration. A six-hole drilling program of reverse-circulation drilling totaling 1,255 meters was completed in the third quarter. Low grade copper was intersected in three of six holes. We are currently reviewing the data to determine if additional work is warranted on the property.

Discontinued Projects

During 2008 we did not abandon any projects.

Item 3. Legal Proceedings

None

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

None

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. On August 2, 2006 Solitario received approval to list its common shares on the ALTNEXT (formerly known as the American Stock Exchange). Trading on the ALTNEXT began on Friday, August 11, 2006, under the symbol XPL. In 2008 trading on the ALTNEXT exceeded the trading on the TSX.

The following table sets forth the high and low sales prices on the ALTNEXT for our common stock for the quarterly periods from January 1, 2007 to December 31, 2008.

Period	All prices are in USD\$			
	2008		2007	
	High	Low	High	Low
First quarter	\$ 6.00	\$ 4.90	\$ 4.19	\$ 3.55
Second quarter	5.75	4.71	5.15	4.01
Third quarter	5.19	3.20	5.50	4.20
Fourth quarter	3.49	1.32	5.87	4.69

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, 2007 to December 31, 2008.

Period	All prices are in CDN\$			
	2008		2007	
	High	Low	High	Low
First quarter	\$ 5.90	\$ 5.00	\$ 4.91	\$ 4.26
Second quarter	5.80	4.83	5.67	4.61
Third quarter	5.00	3.41	5.75	4.40
Fourth quarter	3.75	1.57	5.55	4.66

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, 2008, we have granted options for 2,135,000 shares that remain unexercised at prices between Cdn\$5.12 and Cdn\$2.77 per share.

On March 4, 1994, our Board of Directors adopted the 1994 Stock Option Plan (the "1994 Plan"). As of December 31, 2008, there are no remaining outstanding options under the 1994 Plan.

Equity Compensation Plan Information as of December 31, 2008			
Plan category	Number of securities to be issued upon exercise of outstanding options, warrants	Weighted-average exercise price of outstanding options, warrants and rights Cdn\$	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in

	and rights		column (a)
2006 Plan	(a)	(b)	(c)
Equity compensation plans approved by security holders	2,135,000	\$3.28	614,250
Equity compensation plans not approved by security holders	-	N/A	-
Total	2,135,000	\$3.28	614,250

Recent Sales of Unregistered Securities

None

Holders of our common shares

As of March 9, 2009 we have approximately 1,970 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

The following table summarizes the consolidated statements of operations and balance sheet data for our business since January 1, 2004. This data has been derived from the audited consolidated statements of operations for our business for each of the five years ended December 31, 2008 and the audited consolidated balance sheets of our business as of December 31, 2008, 2007, 2006, 2005, and 2004. You should read this information in conjunction with Item 7 – "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Solitario's historical consolidated financial statements and notes included in Item 8 – "Financial Statements and Supplementary Data." The information set forth below is not necessarily indicative of future results.

Balance sheet data:

(in thousands)	As of December 31,				
	2008	2007	2006	2005	2004
Total current assets	\$ 4,997	\$ 7,972	\$ 6,387	\$ 5,665	\$ 3,466
Total assets	\$26,463	\$30,430	\$25,038	\$19,037	\$15,370
Working capital (1)	\$ 3,415	\$ 6,245	\$ 4,555	\$ 4,189	\$ 3,245
Stockholders' equity	\$17,218	\$17,968	\$15,354	\$15,341	\$12,516

Statement of operations data:

(in thousands, except per share amounts)	Year ended December 31,				
	2008	2007	2006	2005	2004
Property and joint venture revenue	\$ 200	\$ 100	\$ -	\$ -	\$ -
Loss before change in accounting principle	(617)	(4,397)	(5,650)	(2,080)	(2,925)
Change in accounting principle	-	-	(1,231)	-	-
Net loss	<u>\$(617)</u>	<u>\$(4,397)</u>	<u>\$(6,881)</u>	<u>\$(2,080)</u>	<u>\$(2,925)</u>
Per share information:					
Basic and diluted					
Income (loss) before change in accounting principle	\$ (0.02)	\$ (0.15)	\$ (0.20)	\$ (0.08)	\$ (0.12)
Change in accounting principle	-	-	(0.04)	-	-
Net loss	<u>\$(0.02)</u>	<u>\$(0.15)</u>	<u>\$(0.24)</u>	<u>\$(0.08)</u>	<u>\$(0.12)</u>

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

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. 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 through a joint venture, we have never developed a mineral property and we do not anticipate developing any currently owned mineral properties on our own in the future. We may also evaluate mineral properties to potentially buy a royalty.

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

Our principal expertise is in identifying mineral properties with promising mineral potential, acquiring these mineral properties and exploring them to enable us to sell, joint venture or create a royalty on these properties prior to the establishment of proven and probable reserves. Currently we have no mineral properties in development and we do not anticipate developing any currently owned properties on our own in the future. We currently own 16 mineral properties under exploration and we own our Yanacocha and La Tola royalty interests. Our goal is to discover economic deposits on our mineral properties and advance these deposits, either on our own or through joint ventures, up to the development stage (development activities include, among other things, the completion of a feasibility study, the identification of proven and probable reserves, as well as permitting and preparing a deposit for mining). At that point, or sometime prior to that point, we would attempt to either sell our mineral properties, pursue their development through a joint venture with a partner that has expertise in mining operations or create a royalty with a third-party that continues to advance the property.

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

The potential sale, joint venture or development through a joint venture of our mineral properties will occur, if at all, on an infrequent basis. Accordingly, while we conduct exploration activities, we need to maintain and replenish our capital resources. We have met our need for capital in the past through (i) the sale of properties, which last occurred in 2000 with the sale of our Yanacocha property for \$6,000,000; (ii) joint venture payments, including payments of \$200,000 and \$100,000, respectively, received during 2008 and 2007 on our Bongará property from which we previously received payments during the years from 1996 through 2000; (iii) sale of our investment in Kinross (previously Crown); and (iv) issuance of common stock, including exercise of options, and through private placements, most recently as part of a strategic alliance with a major mining company. We have reduced our exposure to the costs of our exploration activities through the use of joint ventures. We anticipate these practices will continue for the foreseeable future although we expect that our primary funds will come from the sale of our investment in Kinross.

(b). Recent Developments

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

We have a significant investment in Kinross of \$21,183,000 at December 31, 2008, which consists of 1,150,000 shares of Kinross common stock. Of these shares, 250,000 are not subject to the Kinross Collar, discussed below under "Liquidity and Capital Resources - Hedge of the Investment in Kinross." As of March 9, 2009, Solitario's 250,000 shares have a value of approximately \$3.9 million based upon the market price of \$15.69 per Kinross share. During 2008 and 2007 Solitario sold 192,920 and 400,000 shares, respectively, of Kinross common stock for net proceeds of \$4,430,000 and \$5,548,000. Any significant fluctuation in the market value of Kinross common shares could have a material impact on Solitario's liquidity and capital resources.

As a result of a dividend of \$0.04 per share that Kinross paid on both September 30, 2008 and March 31, 2008, the prices under the Kinross Collar were adjusted to (i) 400,000 shares due on April 14, 2009 for a lower threshold price of no less than \$13.73 per share (the "Floor Price") and an upper threshold price of no more than \$21.69 per share ; (ii) 400,000 shares due on April 13, 2010 for a lower threshold of the Floor Price and an upper threshold price of no more than \$24.38 per share ; and (iii) 100,000 shares due on April 12, 2011 for no less than the Floor Price and an upper threshold price of no more than \$27.54 per share .

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

During the twelve months ended December 31, 2008, we capitalized a total of \$111,000 related to initial staking and lease costs on our Cajatambo, Excelsior, Chonta, Paria Cruz and La Promesa exploration projects in Peru, our La Noria and Purica exploration projects in Mexico and our Espanola exploration project in Bolivia. Any additional costs incurred for subsequent lease payments or exploration activities related to these projects will be expensed as incurred.

On April 4, 2008, we signed the Minera Chambara, S.A.C. ("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 operator and will conduct exploration on the project. Pursuant to the agreement, Votorantim contributed titled mineral properties within the area of interest totaling approximately 51,000 hectares to Minera Chambara for a 15% interest in Minera Chambara. We contributed 9,500 hectares of mineral claims and certain exploration data in our possession for an 85% interest in Minera Chambara. Existing and future properties subject to the terms of the shareholders' agreement will be held by Minera Chambara. As of December 31, 2008, Minera Chambara's only assets are its interest in 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 our interest. If Votorantim provides such construction financing, we would repay that financing, including interest, from 80% of Solitario's portion of the project cash flow. We have determined that Votorantim controls Minera Chambara pursuant to the terms of the shareholders' agreement and accordingly, we have recorded our investment in Minera Chambara using the equity-method of accounting. During the second quarter of 2008, Solitario transferred its interest in the claims of \$30,000 from mineral properties, net to equity method investment. During 2008, Solitario reduced its equity method investment in Minera Chambara to zero, through a non-cash charge to exploration expense. We do not anticipate we will record an increase in the book value of our 85% equity-method investment in the shares of Minera Chambara in the foreseeable future, if at all.

On April 24, 2007, we signed an agreement (the "Shareholders' Agreement") relating to the Pedra Branca Project in Brazil with Anglo for the exploration and development of the Pedra Branca Project. Solitario's and Anglo's property interests are held through the ownership of shares in PBM. As part of the agreement, Anglo earned a 15% interest in PBM, as of September 30, 2007. In December 2008, Anglo earned an additional 15% in PBM, to a total 30% interest pursuant to the terms of the Shareholders' Agreement. Anglo can earn an additional 21% interest in PBM, up to a 51% interest, by spending a total of \$7 million on the project and can earn a 60% interest by

completing a bankable feasibility study, or spending an additional \$10 million on exploration. Anglo can also earn an additional 5% interest in PBM (for a total of 65%) by arranging 100% financing to put the project into commercial production.

(c). Results of Operations

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

We had a net loss of \$617,000 or \$0.02 per basic and diluted share for the year ended December 31, 2008 compared to net loss of \$4,397,000 or \$0.15 per basic and diluted share for the year ended December 31, 2007. As explained in more detail below, the primary reasons for the decrease in net loss during 2008 compared to the net loss during 2007 were (i) a decrease in our stock option compensation to a benefit of \$3,255,000 during 2008 compared to stock option compensation expense of \$1,991,000 during 2007, and (ii) an unrealized gain on our derivative instruments of \$1,177,000 during 2008 compared to an unrealized loss on derivative instruments of \$1,702,000 during 2007. Partially mitigating these items was an increase in exploration expense, a decrease in the gain on sale on our sale of Kinross stock and an increase in our tax expense in 2008 compared to 2007.

Our most important activity is the exploration on our mineral properties and reconnaissance exploration to locate mineral properties to acquire and to advance or delineate deposits to enable us to sell or joint venture the mineral property. During 2008, we increased our exploration effort in Mexico and Peru and reduced our exploration activities during the year in Brazil to primarily our Pedra Branca project, which is 30% owned by Anglo as of December 31, 2008. Anglo is providing all of the funding for the Pedra Branca project. As can be seen in the table below, our exploration expense increased to \$4,589,000 during 2008 compared to \$3,112,000 in 2007. Part of the increase in our net exploration cost relates to the way Anglo is funding the Pedra Branca project. Prior to September 2007, Anglo reimbursed us for exploration activities, with such reimbursement being netted against our gross exploration cost. In 2007, that reimbursement was \$1,042,000 through September 30, 2007, when Anglo earned their initial 15% of PBM, the owner of the Pedra Branca project. After that date, Anglo cash advances were credited to additional paid-in capital, rather than as joint venture reimbursements against exploration expense. See note 8 to the consolidated financial statements.

We added several properties during 2008 as a result of our reconnaissance exploration during 2007 and 2008. These were the Cajatambo, Excelsior, Chonta, Paria Cruz and La Promesa exploration projects in Peru, our La Noria and Purica exploration projects in Mexico and our Espanola exploration project in Bolivia. We capitalized \$111,000 to mineral properties during 2008 for the initial staking or lease payments on these properties during 2008. We increased our surface sampling and evaluation programs during 2008 compared to 2007 including reconnaissance activities related to our Strategic Alliance projects in Peru and increased our Mexico exploration program during 2008 after establishing a field office in Hermosillo, Mexico in 2007. In addition to the increase in surface exploration activities, we increased our drilling expenditures, including assay and geochemical expenditures, to \$1,223,000 at our Pedra Branca, our Cajatambo and our Purica projects, compared to expenditures of \$1,016,000 during 2007. We acquired eight new projects during 2008 and we anticipate continuing to acquire mineral properties, either through staking, joint venture or lease, in Latin America during 2009. Our 2009 exploration expenditure budget is approximately \$4,404,000. This budget includes approximately \$1,500,000 for the Pedra Branca project, which will be funded by capital contributions from Anglo. The primary factors in our decision to slightly reduce exploration expenditures in 2009 relate to a reduction in non-gold commodity prices and a downturn in equity prices for mineral exploration companies and to allow us to conserve our limited resources in the event of a longer term down turn in the mineral exploration industry.

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

<u>Property Name</u>	<u>2008</u>	<u>2007</u>
Pedra Branca, net	\$1,422	\$ 26
Mercurio	452	667
Cajatambo	685	-
Chonta	435	-
La Purica	390	-
Newmont Alliance	79	647
La Promessa	64	-
Cerro Azul (formerly Twin Lakes)	59	-

Paria Cruz	44	-
Chambara	40	8
Titicayo	25	257
Triunfo	9	197
Pachuca	9	13
Espanola	4	-
Bongará	4	22
Excelsior	2	-
Santiago	-	51
Conception del Oro	-	21
Pau d'Arco	-	19
Zinda	-	6
Purisima	-	2
Pozos	-	1
Reconnaissance	<u>866</u>	<u>1,175</u>
Total exploration expense	<u>\$4,589</u>	<u>\$3,112</u>

We recorded a credit (reduction of expense) of \$227,000 and \$17,000 during 2008 and 2007, for Anglo's 15% minority interest in the losses of the consolidated subsidiary, PBM, during the year. On December 23, 2008, Anglo earned an additional 15% interest in PBM, to a total of 30%, and on September 30, 2007, Anglo earned a 15% interest pursuant to the Shareholders Agreement between Solitario and Anglo, as discussed above. During 2008 we recorded management fees of \$75,000, to PBM, which are eliminated in consolidation, net of \$11,000 of minority interest. During 2007 we recorded \$52,000 of management fees included as joint venture reimbursements. We anticipate the minority interest credit will be higher in 2009 because of the increase in Anglo's percentage ownership.

We believe a discussion of our general and administrative costs should be viewed without the non-cash stock option compensation expense or benefit which is discussed below. Excluding these costs, general and administrative costs were \$2,319,000 during 2008 compared to \$1,948,000 in 2007. We incurred salary and benefits expense of \$1,193,000 during 2008 compared to \$966,000 in 2007, which increased due to additional administrative personnel to support our expanded exploration effort and increased salaries. We recorded consulting expense of \$53,000 during 2008 compared to \$110,000 during 2007, of which \$30,000 related to an executive recruiting fee during 2007. The remaining costs, \$53,000 during 2008 and \$80,000 during 2007, related to an agreement entered into in 2006 with Mark Jones, discussed below under "Related Party Transactions." In addition, other general and administrative costs including rent, travel, insurance and gain and loss on currencies, increased to \$530,000 during 2008 compared to \$426,000 in 2007 primarily related to increased administrative costs in support of exploration, such as travel which increased to \$126,000 in 2008 compared to \$98,000 in 2007 and loss on exchange rates which increased to \$62,000 in 2008 compared to a loss of \$8,000 in 2007. Our legal and accounting costs increased to \$275,000 during 2008 from \$225,000 in 2007, these costs increased due to additional legal work associated with expansion of our exploration efforts and additional accounting costs associated with Sarbanes-Oxley compliance and increases in audit fees. We also had increases in our shareholder relations costs to \$267,000 in 2008 compared to \$220,000 in 2007. These shareholder relations costs include corporate and exchange related costs and primarily increased due to increased efforts to promote our company in the mining exploration industry by attending additional trade shows in 2008. We anticipate general and administrative costs will decrease slightly in the future as a result of reduced exploration activities as well as expected reduction in activities in Brazil and we have forecast 2009 general and administrative costs to be approximately \$1,681,000, excluding non-cash stock option compensation.

On January 1, 2006, we adopted SFAS No. 123R. Pursuant to SFAS 123R we have classified our stock options as liabilities as they are priced in Canadian dollars and our functional currency is United States dollars. We record the fair value of the vested portion of our outstanding options as a liability and record changes in the fair value as stock option compensation expense in the statement of operations in the period of the change. Upon exercise, the fair value of the options on the date of exercise, which is equal to the intrinsic value, is credited to additional paid-in capital. We estimate the fair values of the options granted using a Black-Scholes option pricing model. During the year ended December 31, 2008, we recognized \$3,255,000 of non-cash stock-based compensation benefit as part of general and administrative expense for the decrease in the fair value of our stock option liability during 2008 compared to non-cash stock option compensation expense of \$1,991,000 during 2007. Our stock option compensation expense changes as a result of changes in the fair value of the vested portion of our outstanding stock options. This fair value is primarily affected by the effect of increases or decreases in the price of our common stock, changes in the Canadian dollar and United States dollar exchange rate and by increases in the vesting of outstanding

options from period to period. The price of Solitario's stock as quoted on the TSX decreased to Cdn\$1.82 at December 31, 2008 from Cdn\$5.30 at December 31, 2007. Generally as the price of our common stock decreases our stock option liability and our stock option compensation expense decreases. See Employee stock compensation plans in Note 1 to the consolidated financial statements for an analysis of the changes in the fair value of our outstanding stock options and the components that are used to determine the fair value.

We recorded an unrealized gain on derivative instruments of \$1,177,000 during 2008 of which \$1,189,000 related to a gain on the change in the fair value of the Kinross Collar and \$12,000 related to a loss on the change in the fair value of the Kinross Calls, discussed above under "Recent Developments." Our unrealized loss on derivative instruments of \$1,702,000 during 2007 related to a change in the fair value of the Kinross Collar. We have not designated the Kinross Collar or the Kinross Calls as hedging instruments as described in SFAS No. 133 and any changes in the fair market value of the Kinross Collar and the Kinross Calls are recognized in the statement of operations in the period of the change. The quoted market price of a share of Kinross common stock was \$18.42 on December 31, 2008 compared to \$18.40 on December 31, 2007. The business purpose of the Kinross Collar was to provide price protection against a significant decline in the market value of 900,000 shares of our Kinross stock, for which we limited the potential price appreciation on those shares. We do not actively manage or attempt to anticipate the fair value of the Kinross Collar.

We had \$98,000 of depreciation and amortization expense during 2008 compared to \$85,000 in 2007 primarily as a result of the addition of furniture and fixtures of \$46,000 and \$176,000, respectively, which were added during 2008 and 2007. We amortize these assets over a three year period. We anticipate our 2009 depreciation and amortization costs will be similar to our 2008 amount.

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

During 2008, we recorded interest and dividend income of \$157,000 compared to interest income of \$76,000 during the same period in 2007. During 2008, we recorded dividend income of \$95,000 from dividends on our Kinross stock, which accounted for the increase. The interest income recorded during 2008 and 2007 consisted of payments on cash and cash equivalent deposit accounts. We anticipate our interest and dividend income will decrease in 2009 as a result of our budget for planned sales of approximately 150,000 shares of Kinross and reduced average cash balances in 2009 compared to 2008.

During 2008, we sold 192,920 shares of Kinross stock for proceeds of \$4,430,000 and recorded a gain on sale of \$3,576,000 compared to the sale of 400,000 shares of Kinross for proceeds of \$5,548,000 and a gain on sale of \$4,085,000 during 2007. We anticipate we will continue to liquidate our holdings of Kinross to fund our exploration activities and our 2009 budget includes the sale of 150,000 shares of Kinross for proceeds of \$2,475,000 during 2009. These proceeds are significantly dependent on the quoted market price of Kinross on the date of sale and may be at prices significantly below our projected price. Please see risk factors above.

During 2008, we recorded income tax expense of \$2,128,000 compared to an income tax benefit of \$184,000 during 2007. Our tax expense increased during 2008 primarily as a result of our stock option compensation benefit during 2008 of \$3,255,000, compared to the stock option compensation expense of \$1,991,000 recorded in 2007, discussed above, as a timing difference in determining tax expense. This increase in net tax expense was partially mitigated by the decrease in deferred taxes from the reduction in taxes associated with the reduction on the gain on sale of marketable equity securities to \$3,576,000 during 2008 from the sale of 192,920 shares of Kinross stock compared to a gain of \$4,085,000 from the sale of 400,000 shares of Kinross stock during 2007. In addition we provide a valuation allowance for our foreign net operating losses, which are primarily related to our exploration activities in Peru, Mexico, Bolivia and Brazil. 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 2008, we recorded no property impairments,

compared to \$20,000 of property impairments, related to our Corazon, Purisima and Titicayo projects in Mexico and Bolivia during 2007.

Comparison of the year ended December 31, 2007 to the year ended December 31, 2006

We had a net loss of \$4,397,000 or \$0.15 per basic and diluted share for the year ended December 31, 2007 compared to a net loss of \$6,881,000 or \$0.24 per basic and diluted share for the year ended December 31, 2006. As explained in more detail below, the primary reason for the decrease in net loss during 2007 compared to the net loss during 2006 was a decrease in general and administrative costs to \$3,939,000 during 2007 compared to \$5,877,000 during 2006. Included in the general and administrative costs were non-cash charges for stock option compensation expense of \$1,991,000 during 2007 compared to \$4,823,000 during 2006. In addition on January 1, 2006, we recorded a non-cash charge related to stock option compensation expense of \$1,957,000, net of deferred taxes of \$726,000, as a change in accounting principle upon the adoption of SFAS No. 123R, discussed below under new accounting pronouncements. The decrease in loss was also attributed to an increase in the gain on sale of marketable equity securities of \$4,085,000 during 2007 compared to a gain on sale of marketable equity securities of \$2,121,000 during 2006 on the sale of Kinross stock during 2006 and the elimination of the management services agreement in August of 2006. We recorded an income tax benefit of \$184,000 during 2007 compared to an income tax benefit of \$1,346,000 during 2006, primarily related to the stock option compensation expense, less the gain on sale of Kinross stock. This decrease in loss was partially mitigated by an increase in exploration expense to \$3,112,000 in 2007 from \$2,942,000 in 2006 and a non-cash charge of \$1,702,000 in loss on derivative instrument during 2007 related to the Kinross Collar entered into in October 2007.

Our net exploration expense increased to \$3,112,000 during 2007 compared to \$2,942,000 in 2006. During 2007 we further expanded our exploration efforts in Peru, Brazil and Mexico, portions of which led to the addition of certain exploration projects. We increased our surface sampling and evaluation programs during 2007 compared to 2006 including reconnaissance activities related to our Strategic Alliance projects and fully staffing our Mexico exploration program, including establishing a field office in Hermosillo, Mexico. We also increased our exploration expense at our Pedra Branca property in Brazil. Our gross exploration costs on all projects increased to \$4,154,000 in 2007 from \$3,207,000 in 2006. The exploration expenses were offset by joint venture reimbursements by Anglo Platinum on our Pedra Branca project of \$1,042,000 during 2007 and \$265,000 during 2006. In addition to the increase in surface exploration activities, we increased our direct drilling expenditures to \$771,000 at our Mercurio, Triunfo and Titicayo projects during 2007 compared to direct drilling exploration expenditures at our Mercurio and Pau d'Arco projects of \$590,000 during 2006. As a result of our exploration and evaluation activities we decided to drop or reduce our interests in three properties during 2007; Corazon, Purisima and Titicayo, resulting in \$20,000 in mineral property impairments.

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

<u>Property Name</u>	<u>2007</u>	<u>2006</u>
Newmont Alliance	\$ 647	\$ 470
Bongará	22	129
Pedra Branca, net	26	(13)
Mercurio	667	629
Pau d'Arco	19	495
Pachuca	13	189
Conception del Oro	21	30
Purisima	2	19
Pozos	1	18
Zinda	6	15
Titicayo	257	34
Triunfo	197	15
Chambara	8	-
Santiago	51	-
Libertad	-	144
Reconnaissance	<u>1,175</u>	<u>768</u>
Total exploration expense	<u>\$3,112</u>	<u>\$2,942</u>

We recorded a credit (reduction of expense) of \$17,000 during 2007, for Anglo Platinum's 15% interest in the losses at our 85% owned PBM subsidiary. Anglo Platinum earned its 15% interest pursuant to the Shareholders Agreement between Solitario and Anglo Platinum as of September 30, 2007 as discussed above. The \$17,000 represents Anglo Platinum's share of PBM losses since September 30, 2007, the date Anglo Platinum earned its 15% interest. There were no similar items in 2006.

General and administrative costs were \$3,939,000 during 2007 compared to \$5,877,000 in 2006. The largest change in general and administrative costs related to a decrease in the non-cash charge of \$1,991,000 during 2007 compared to \$4,823,000 during 2006 for stock option compensation expense discussed below. Partially mitigating this decrease was an increase in our non-stock option compensation general and administrative costs during 2007 related to the payment of a full year of costs, previously paid by Crown as part of the management services agreement compared to four months during 2006. We incurred salary and benefits expense of \$966,000 during 2007 compared to \$367,000 subsequent to August 31, 2006 as a result of the termination of the Crown management services agreement and the addition of our employees who previous to August 31, 2006, were paid by Crown. We recorded consulting expense of \$110,000 during 2007 compared to \$27,000 during 2006, of which \$30,000 related to an executive recruiting fee during 2007 and \$80,000 and \$27,000, during 2007 and 2006, respectively, related to an agreement entered into in 2006 with Mark Jones, discussed below under related party transactions. In addition, other general and administrative costs including rent, travel, insurance and gain and loss on currencies, increased to \$426,000 during 2007 compared to \$239,000 in 2006 primarily related to costs which had previously been allocated between Crown and Solitario. These increases in non-stock option compensation general and administrative costs were partially mitigated by decreases in shareholder relations costs, including corporate and exchange fees to \$220,000 in 2007 compared to \$239,000 in 2006, the decrease was primarily related to the one-time payment during 2006 of \$75,000 for listing fees on the ALTNEXT. In addition our legal and accounting costs decreased during 2007 to \$226,000 compared to \$239,000 primarily related to the completion of an SEC review of our financial statements and the application to list on the ALTNEXT during 2006, which did not occur during 2007.

On January 1, 2006, we adopted SFAS No. 123R. Pursuant to SFAS No. 123R we have classified our stock options as liabilities as they are priced in Canadian dollars and our functional currency is United States dollars. We record the fair value of the vested portion of our outstanding options as a liability and record changes in the fair value as stock option compensation expense in the statement of operations in the period of the change. Upon exercise, the fair value of the options on the date of exercise, which is equal to the intrinsic value, is credited to additional paid-in capital. We estimate the fair values of vested options using a Black-Scholes option pricing model. On January 1, 2006 we recorded \$1,957,000 in stock option liability for the fair value of the vested portion of our outstanding stock options on that date, net of \$726,000 for deferred taxes discussed below, as a change in accounting principle. During the years ended December 31, 2007 and 2006, we recognized \$1,991,000 and \$4,823,000, respectively, of stock option compensation expense as part of general and administrative expense for change in the fair value of the vested portion of our outstanding stock options.

We had \$85,000 of depreciation and amortization expense during 2007 compared to \$49,000 in 2006 primarily as a result of the addition of furniture and fixtures of \$176,000 and \$119,000, respectively, which were added during 2007 and 2006. We amortize these assets over a three year period.

We had no management fee expense during 2007 compared to \$232,000 in 2006. The decrease in management fees during 2007 was related to the termination of the agreement on August 31, 2006. Under the modified management agreement Solitario paid Crown for services by payment at 25% of Crown's corporate administrative costs for executive and technical salaries, benefits and expenses, 50% of Crown's corporate administrative costs for financial management and reporting salaries, benefits and expenses and 75% of Crown's corporate administrative costs for investor relations salaries, benefits and expenses. In addition, prior to the expiration of the management agreement, we reimbursed Crown for direct out-of-pocket expenses.

During 2007, we recorded interest income of \$76,000 compared to interest income of \$26,000 during the same period in 2007. The interest income recorded during 2007 and 2006 consisted of payments on cash and cash equivalent deposit accounts. Our average cash balances were larger during 2007 compared to 2006, which led to the increase in interest income.

During 2007, we recorded an income tax benefit of \$184,000 compared to an income tax benefit of \$1,346,000 during 2006. In addition, we recorded a deferred tax benefit of \$726,000 related to the change in accounting principle on January 1, 2006 for the vested portion of the fair value of our outstanding stock options except for those

owned by our foreign employees. We do not receive a deduction on our tax return for stock option compensation on options exercised by foreign employees, and accordingly compensation expense related to the vested portion of the fair value of our outstanding stock options held by foreign employees is treated as a permanent reconciling item in determining our deferred taxes. The reduction in the deferred tax benefit during 2007 compared to 2006 is primarily related to gain on sale of marketable equity securities of \$4,085,000 during 2007 from the sale of 400,000 shares of Kinross stock compared to a gain of \$2,121,000 from the sale of 200,000 shares of Kinross stock during 2006 and a decrease in our stock option compensation expense, discussed above, to \$1,991,000 during 2007 compared to \$4,823,000 during 2006. These items were offset by the increase in non-stock option compensation general and administrative expenses during 2007 compared to 2006 discussed above, which are included in the United States taxable income. During the year ended December 31, 2007, in computing its estimated deferred tax expense and related liability, Solitario reduced its estimated tax rate by 1.7%, to account for the estimated deductibility of state taxes against United States federal taxes. This change in estimate had the effect of reducing Solitario's deferred tax rate to 37.3% from the previous estimated rate of 39%.

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 2007, we recorded \$20,000 of property impairments, related to our Corazon, Purisima and Titicayo projects in Mexico and Bolivia, compared to \$35,000 of property impairments related to our Libertad and Pillune projects in Peru, our Pozos and Zinda projects in Mexico, and the Pau d'Arco project in Brazil during 2006.

(d). Liquidity and Capital Resources

Due to the nature of the mining business, the acquisition, and exploration of mineral properties requires significant expenditures prior to the commencement of development and production. In the past, we have financed our activities through the sale of our properties, joint venture arrangements, the sale our securities and most recently from the sale of our marketable equity security investment in Kinross. We received \$200,000 and \$100,000, respectively, from joint venture payments during 2008 and 2007 related to our Bongará 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 Bongará project calls for annual payments of \$200,000 until Votorantim makes a decision to place the project in production or decides to drop the project. However, other than the potential Votorantim payment, we expect future revenues from joint venture payments and from the sale of properties, if any, would occur on an infrequent basis. To the extent necessary, we expect to continue to use similar financing techniques to those discussed above; however, there is no assurance that such financing will be available to us on acceptable terms, if at all.

Investment in Marketable Equity Securities

Our marketable equity securities are classified as available-for-sale and are carried at fair value, which is based upon market quotes of the underlying securities. At December 31, 2008 and 2007, we owned 1,150,000 and 1,342,920 shares of Kinross common stock, respectively. The Kinross shares are recorded at their fair market value of \$21,183,000 and \$24,710,000 at December 31, 2008 and December 31, 2007, respectively. Of these, 900,000 Kinross shares are subject to the Kinross Collar and another 100,000 shares were subject to the Kinross Calls, discussed above. In addition we own other marketable equity securities with a fair value of \$33,000 and \$316,000 as of December 31, 2008 and December 31, 2007, respectively. At December 31, 2008, we have classified \$18,453,000 of our marketable equity securities as a long-term asset. Changes in the fair value of marketable equity securities are recorded as gains and losses in other comprehensive income in stockholders' equity. During the year ended December 31, 2008, we recorded a gain in other comprehensive income on marketable equity securities of \$620,000, less related deferred tax expense of \$231,000.

During the year ended December 31, 2008, we sold 192,920 shares of Kinross stock for proceeds of \$4,430,000 resulting in a gain of \$3,576,000 which was transferred, less related deferred tax expense of \$1,334,000, from previously unrealized gain on marketable equity securities in other comprehensive income. We own 1,000,000 shares of TNR that are classified as marketable equity securities held for sale and are recorded at their fair market value of \$33,000. During 2008, we recognized an asset impairment of \$107,000 for an other-than-temporary decline

in the value of its TNR stock, less deferred taxes of \$40,000. The loss was previously included as a loss in other comprehensive income. See marketable equity securities in Note 1 to the consolidated financial statements.

Any change in the market value of the shares of Kinross common stock could have a material impact on our liquidity and capital resources. The price of shares of Kinross common stock has varied from a high of \$26.84 per share to a low of \$7.66 per share during the year ended December 31, 2008.

Hedge of the Investment in Kinross

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) .

The business purpose of the Kinross Collar is to provide downside price protection of the Floor Price on approximately 900,000 shares of the total shares we currently own, in the event Kinross stock were to drop significantly from the price on the date we entered the Kinross Collar. In consideration for obtaining this price protection, we have given up the upside appreciation above the upper threshold price discussed above during the term of the respective tranches. Our risk management policy related to the Kinross Collar is to reduce the potential price risk on assets which represent a significant proportion of total assets, where economically feasible. Our Board considered several alternatives prior to entering the Kinross Collar to meet this risk management policy. These alternatives included the use of listed options, use of covered calls and an outright sale of the investment. The use of the Kinross Collar meets a long-term need for price protection to reduce the potential of paying significant taxes on a near term sale of the entire investment in Kinross shares based upon both (i) the projected future needs for the use of funds from any sales of the investment in Kinross shares and (ii) the potential generation of future United States net operating losses which could be used to offset any taxable gains on future sale of the investment in Kinross shares.

The Kinross Collar is subject to counterparty risk in the event the price of Kinross stock falls below the Floor Price and UBS, the counterparty to the Kinross Collar, defaults on its obligation. If we liquidate some or all of our 900,000 shares of Kinross currently subject to the Kinross Collar on or after termination of one or more of the Kinross Collar contracts, we may receive a price below the Floor Price if the counterparty defaults.

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

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

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

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

We have not designated the Kinross Collar as a hedging instrument (as described in Statement of Financial Accounting Standards No. 133 "Accounting for Derivative Instruments and Hedging Activities") and any changes in the fair market value of the Kinross Collar are recognized in the statement of operations in the period of the change. We have recorded a derivative instrument liability of \$513,000 for the fair market value of the Kinross Collar as of December 31, 2008 and a derivative instrument liability of \$1,702,000 for the fair market value of the Kinross Collar as of December 31, 2007. As of March 9, 2009, we are restricted from selling the 900,000 shares under the Kinross Collar prior to the Termination dates discussed above.

On December 10, 2008 we sold the Kinross Calls and received \$104,000 in cash and as of December 31, 2008, we had recorded a liability of \$116,000 for the Kinross Calls based upon quoted market prices. We recorded a loss on derivative instruments of \$12,000 during 2008. The Kinross Calls expired unexercised on February 20, 2009.

Working Capital

We had working capital of \$3,415,000 at December 31, 2008 compared to working capital of \$6,245,000 as of December 31, 2007. Our working capital at December 31, 2008 consists of our cash and equivalents and marketable equity securities, primarily consisting of the current portion of our investment in 1,150,000 shares of Kinross common stock of \$2,763,000, less related current deferred taxes of \$1,030,000. We intend to liquidate a portion of our Kinross shares over the next two years, subject to the Kinross Collar discussed above, to reduce our exposure to a single asset, taking into consideration our cash and liquidity requirements, tax implications, the market price of gold and the market price of Kinross stock and have forecasted the sale of 150,000 shares of Kinross during 2009 for expected proceeds of \$2,475,000. Any funds received from the sale of Kinross shares would be used primarily to fund exploration on our existing properties, for the acquisition and exploration of new properties and general working capital.

Stock-Based Compensation Plans

On June 27, 2006 Solitario's shareholders approved the 2006 Stock Option Incentive Plan (the "2006 Plan"). On March 4, 1994, our Board of Directors adopted the 1994 Stock Option Plan (the "1994 Plan"). During 2008, holders exercised options from the 1994 Plan for 110,000 shares at an exercise price of Cdn\$0.81 per share for proceeds of \$87,000 and exercised options from the 2006 Plan for 20,750 shares at an average exercise price of Cdn\$4.13 for proceeds of \$61,000. During 2007, holders exercised options from the 1994 Plan for 917,000 shares at an exercise price of Cdn\$0.73 per share for proceeds of \$572,000 and exercised options from the 2006 Plan for 12,500 shares at an exercise price Cdn\$2.77 for proceeds of \$35,000.

See Note 1 to the consolidated financial statements for a summary of the activity for stock options outstanding under the 1994 Plan and the 2006 Plan as of December 31, 2008. We do not expect that any of our remaining vested options from the 2006 Plan will be exercised in the next year.

The stock option liabilities of \$531,000 and \$4,263,000, respectively, as of December 31, 2008 and 2007 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.

(e). Cash Flows

Net cash used in operations during the year ended December 31, 2008 increased to \$6,533,000 compared to \$4,712,000 for 2007 primarily as a result of (i) increased exploration expenses of \$4,589,000 in 2008 compared to \$3,112,000 in 2007, (ii) increased non-stock compensation general and administrative costs of \$2,320,000 during 2008 compared to \$1,948,000 in 2007 and (iii) an increase in prepaid expenses and other current assets of \$90,000 during 2008 compared to a decrease in prepaid expenses and other current assets of \$158,000 during 2007. These increases in cash uses were partially mitigated by the provision of cash from increases in accounts payable and other current liabilities of \$78,000 during 2008 compared to \$15,000 during 2007. The remaining uses of cash for operations were comparable in 2008 and 2007.

Net cash provided from investing activities decreased to \$4,377,000 during 2008 compared to \$5,361,000 during the year ended December 31, 2007 primarily related to the \$4,430,000 proceeds from the sale of Kinross stock

during 2008 compared with \$5,548,000 proceeds from the sale of Kinross stock in 2007. During 2008 we sold 192,920 shares of Kinross at an average price of \$22.96 compared to the sale of 400,000 shares of Kinross during 2007 at an average price of \$13.87. The remaining uses of cash from investing activities were comparable in 2008 and 2007.

Net cash provided from financing activities was \$1,848,000 during the year ended December 31, 2008 compared to \$697,000 during 2007. The primary reason for the increase in cash provided from financing activities in 2008 consisted of the receipt of \$1,700,000 from Anglo for funding of our Pedra Branca project, included as additional paid-in capital compared to \$90,000 during 2007. In addition we received \$148,000 from the exercise of options for 130,750 shares of our common stock compared to \$607,000 in proceeds from the exercise of options for 929,500 shares of our common stock during 2007

(f). Exploration activities and contractual obligations

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 2008 mineral and surface property rental and option payments were approximately \$492,000. In 2009 we estimate property rentals and option payments to be approximately \$368,000. Approximately \$106,000 of these annual payments are reimbursable to us by our joint venture partners.

We may be required to make further payments in the future if we elect to exercise our options under those agreements. As part of the Alliance Agreement we are committed to spend \$3,773,000 over the four years from the date of the Alliance Agreement on gold exploration in regions ("Alliance Projects Areas") that are mutually agreed upon by Newmont Exploration and us. Newmont elected to extend the four-year expenditure period for such additional time necessary to enable Solitario to spend the full \$3,773,000 on qualified exploration expenditures. As of December 31, 2008, we have spent approximately \$2,997,000 of this commitment.

As of December 31, 2008, we have no outstanding long-term debt, capital or operating leases or other purchase obligations. We estimate our facility lease costs will be approximately \$35,000 per year, related to the Wheat Ridge, Colorado office.

As of December 31, 2008 we have deferred tax liabilities recorded in the amount of \$6,947,000. These deferred tax liabilities primarily relate to our unrealized holding gains on our Kinross shares. We expect that a portion of these deferred tax liabilities may become currently payable as we sell the Kinross shares.

We have recorded a liability of \$513,000 for the fair value of the Kinross Collar, of which \$277,000 is a current liability as of December 31, 2008 and we have recorded a current liability of \$116,000 for the fair value of the Kinross Calls, which expired unexercised on February 20, 2008.

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

Bongará

On August 15, 2006 we signed a Letter Agreement with Votorantim on our 100%-owned Bongará zinc project in northern Peru. The Bongará project hosts the Florida Canyon zinc deposit, where high-grade zinc mineralization has been encountered in drill holes over an area approximately 2.0 kilometers by 2.0 kilometers in dimension. On March 24, 2007, we signed a definitive agreement, the Framework Agreement pursuant to and replacing, the previously signed Bongará Letter Agreement with Votorantim. Solitario's and Votorantim's property interests will be held through the ownership of shares in a joint operating company that holds a 100% interest in the mineral rights and other project assets.

Votorantim can earn up to a 70% interest in the joint operating company by funding an initial \$1.0 million exploration program (completed), by completing future annual exploration and development expenditures, and by making cash payments to Solitario of \$100,000 by August 15, 2007 and \$200,000 by August 15, 2008, which were made during the third quarters of 2007 and 2008, respectively, and recorded as joint venture property payment revenue, and by making cash payments to Solitario of \$200,000 on all subsequent annual anniversaries of that date until a production decision is made or the agreement is terminated. The option to earn the 70% interest can be exercised by Votorantim any time after the first year commitment by committing to place the project into production based upon a feasibility study. Additionally, Votorantim, in its sole discretion, may elect to terminate the option to earn the 70% interest at any time. The agreement calls for Votorantim to have minimum annual exploration and development expenditures of \$1.5 million in each of years two and three, and \$2.5 million in all subsequent years until a minimum of \$18.0 million has been expended by Votorantim. Votorantim will act as project operator. Once Votorantim has fully funded its \$18.0 million work commitment and committed to place the project into production based upon a feasibility study, it has further agreed to finance our 30% participating interest through production. We will repay the loan facility through 50% of the cash flow distributions that we receive from the joint operating company.

Pedra Branca

On January 28, 2003, we entered into a Letter Agreement with Anglo on our 100%-owned Pedra Branca project in Brazil. The Letter Agreement was amended four times between July 2004 and April 2006, generally to extend various work commitment deadlines mandated in the Letter Agreement. On July 14, 2006, we signed the Pedra Branca Framework Agreement with Anglo that specified actions we and Anglo would take to establish and govern PBM, the corporate entity that now holds 100% title to all the assets of the Pedra Branca project, and the mechanics for Anglo's continued funding of Pedra Branca exploration. On April 24, 2007, we signed the Shareholders Agreement relating to the Pedra Branca Project in Brazil with Anglo for the exploration and development of the Pedra Branca Project. Solitario's and Anglo's property interests are held through the ownership of shares in PBM. Anglo has earned a 30% interest in PBM as of December 31, 2008, as a result of spending a total of \$4.0 million on exploration at Pedra Branca. Additionally, the Shareholders Agreement, as amended, provides that Anglo may incrementally earn up to a 51% interest in PBM by spending a total of \$7 million on exploration (\$3.0 million in addition to the \$4.0 million spent as of December 31, 2008) at Pedra Branca by December 31, 2010. Anglo is not required to make any future funding of exploration expenditures. However future cash contributions by Anglo will be recorded as an increase to additional paid-in capital, less minority interest. Anglo can earn an additional 9% interest in PBM (for a total of 60%) by either (i) completing a bankable feasibility study or (ii) spending an additional \$10.0 million on exploration or development. Anglo can also earn an additional 5% interest in PBM (for a total of 65%) by arranging 100% financing to put the project into commercial production.

We recorded a minority interest in PBM of \$833,000 and \$388,000, respectively, as of December 31, 2008 and December 31, 2007 equal to Anglo's 30% and 15% interest in the book value of PBM. During 2008 we recorded \$227,000, for Anglo's minority interest in the loss of PBM. During 2008, Anglo contributed \$1,700,000 to the paid-in capital of PBM pursuant to the Shareholders Agreement to fund PBM exploration activities. We recorded \$255,000 for the minority interest related to these contributions through a charge to additional paid-in capital during 2008 for Anglo's 15% minority interest. We recorded an additional \$416,000 minority interest during 2008 through a charge to additional paid-in capital when Anglo earned its additional 15% interest (to a total of 30%) in PBM.

During 2009 we have budgeted approximately \$1.5 million for exploration that will focus on regional reconnaissance exploration to prioritize our new concessions and drill approximately 4,000 meters of core to test two new targets and expand four areas of known mineralization. Land payments to the government to keep the claims in good standing at Pedra Branca are projected to be approximately \$89,000. Pursuant to the Shareholders Agreement, Anglo will fund all 2009 exploration work.

As part of the Shareholders Agreement, we also entered into a Services Agreement with Anglo whereby Solitario (and/or our subsidiaries) would act as an independent contractor directing the exploration and administrative activities for PBM and its shareholders. Under the Services Agreement, Solitario receives a 5% management fee based upon total expenditures. During 2008 we recorded management fees of \$75,000, to PBM, which are eliminated in consolidation, net of \$11,000 of minority interest. During 2007 we recorded \$52,000 of management fees included as joint venture reimbursements, discussed above under "Results of operations."

Newmont Alliance

On January 18, 2005, we signed a Strategic Alliance Agreement (the "Alliance Agreement") with Newmont Overseas Exploration Limited ("Newmont Exploration"), 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 Exploration. Concurrent with the signing of the Alliance Agreement, Newmont Mining Corporation of Canada ("Newmont Canada") purchased 2.7 million shares of Solitario (approximately 9.9% equity interest) for Cdn\$4,590,000. As part of the Alliance Agreement we are committed to spend \$3,773,000 over the four years from the date of the Alliance Agreement on gold exploration in regions ("Alliance Projects Areas") that are mutually agreed upon by Newmont Exploration and us. As of December 31, 2008, we have spent approximately \$2,997,000 of this commitment. Newmont elected to extend the four-year expenditure period for such additional time necessary to enable Solitario to spend the full \$3,773,000 on qualified exploration expenditures. If we acquire properties within Alliance Project Areas and meet certain minimum exploration expenditures, Newmont Exploration 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 Exploration may elect to earn a lesser interest or no interest at all, in which case it would retain a 2% net smelter return royalty. Newmont Exploration also has a right of first offer on any non-alliance Solitario property in South America, acquired after the signing of the Alliance Agreement, that we may elect to sell an interest in, or joint venture with a third party.

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

1. Chonta

During March 2008 we entered into an agreement with the underlying property owner for the Chonta property consisting of one claim of 583 hectares. We capitalized \$42,000 to mineral properties for initial acquisition costs, which included a \$40,000 payment to the underlying property owner upon the signing of the Chonta agreement. We are required to pay \$2,250,000 over five years to acquire 100% of the property. In December 2008 we modified the payment schedule to postpone the next payment of \$60,000 from March to September of 2009 by making an extra \$30,000 payment. Solitario can unilaterally terminate the agreement at any time. Additionally, we have staked four claims and now hold 4,583 hectares in Solitario's name that enlarges the outer perimeter of the Solitario held land position. We have collected rock and soil samples and plan to conduct a drilling program in the spring of 2009.

2. La Promesa

The La Promesa property consists of three concessions totaling 2,600 hectares. We capitalized \$6,000 to mineral properties for initial acquisition costs. 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. Additional surface work to further define drill targets followed by an initial ten-hole, 1,500 meter drilling program are scheduled for the second and third quarters of 2009.

3. Paria Cruz, Cajatambo, Excelsior and Cerro Azul

The Paria Cruz property consists of three concessions totaling 3,000 hectares staked in the first half of 2008. We capitalized \$10,000 in mineral property payments for initial acquisition costs during the second quarter of 2008. The Cajatambo property consists of nine concessions totaling 9,000 hectares. In 2008 we drilled 7 reverse circulation holes totaling 892 meters at Cajatambo. Assay results for all 7 holes were generally low. The Excelsior property consists of two concessions totaling 2,000 hectares. The Cerro Azul property (formerly named Twin Lakes) consists of one concession totaling 1,000 hectares. During 2007, Solitario capitalized \$3,000 in lease acquisition costs related to this concession. We are evaluating all four of the aforementioned properties by data review and additional surface work to determine if additional surface work, followed by potential drilling, is warranted during 2009 and 2010.

Yanacocha Royalty Property

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

La Tola Royalty Property

In October 2003, we acquired the La Tola project in southern Peru to explore for gold and possibly silver. The project is located in southern Peru. In April 2004, we signed a Letter Agreement with Newmont Peru, whereby Newmont Peru could earn a 51%-interest in the La Tola property by completing \$7.0 million of exploration over four years and an additional 14% interest by completing a feasibility study and by arranging 100% project financing. On June 22, 2005, Newmont Peru informed Solitario that it had elected to terminate its option to earn an interest in the La Tola project and Solitario recorded an \$18,000 impairment related to the La Tola project. Solitario retains one claim covering 1,000 hectares. In August 2007 we signed a Letter of Intent with Canadian Shield Resources ("CSR") allowing CSR to earn a 100%-interest in the property, subject to a 2% net smelter return royalty ("NSR") to our benefit. To earn its interest, CSR is required to spend \$2.0 million in exploration by December 31, 2011. CSM has the right to purchase the 2% NSR for \$1.5 million anytime before commercial production is reached. Because the Letter of Intent with CSR provides that our ending interest in La Tola will be a 2% net smelter royalty, rather than a working interest, we currently classify the La Tola gold property as a royalty property interest.

Chambara

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 formally held 300 hectares in the project since 1997. We capitalized \$17,000 during the year ended December 31, 2007 in lease acquisition costs related to new concessions covering an additional 5,600 hectares at the Chambara project. The Chambara project consists of six widely spaced areas where previous sampling has identified high-grade zinc mineralization at surface similar to that found at Florida Canyon, discussed above under our Bongará zinc property.

On April 4, 2008 we signed the Minera Chambara shareholders' agreement with Votorantim for the exploration of a large area of interest in northern Peru measuring approximately 200 by 85 kilometers. Votorantim contributed titled mineral properties within the area of interest totaling approximately 52,000 hectares for a 15% interest in Minera Chambara. We contributed 9,500 hectares of mineral claims and certain exploration data in our possession for an 85% interest in Minera Chambara. Existing and future properties subject to the terms of the joint venture will be held by Minera Chambara. As of December 31, 2008, 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 our interest. If Votorantim provides such construction financing, we would repay such financing, including interest from 80% of Solitario's portion of the project cash flow. We determined Votorantim controls Minera Chambara, and accordingly, we record our investment in Minera Chambara using the equity-method of accounting. During the second quarter of 2008, we transferred our interest in the claims of \$30,000 from mineral properties, net to equity method investment. During 2008, we reduced our equity method investment in Minera Chambara to zero, through a non-cash charge to exploration expense. Solitario does not anticipate it will record an increase in the book value of its 85% equity-method investment in the shares of Minera Chambara in the foreseeable future, if at all. Votorantim's 2009 exploration commitment is \$750,000. Votorantim controls the design of that program and we have not yet been presented with the program's details.

(h). Wholly-owned exploration properties

Pachuca Real

The 30,700 hectare Pachuca Real silver-gold property in central Mexico was acquired by staking in late 2005 and early 2006. Part of the property, the 13,600 hectare El Cura claim, is held under an option agreement with a private Mexican party. The option agreement completed in October 2005 provides for payments of \$500,000 over four years. Payments totaling \$75,000 have been made through December 31, 2008 and payments of \$75,000 are due to the underlying owner in 2009. Claims fees to be paid to the government of Mexico totaling approximately \$32,000 are due in 2009.

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

Santiago

In February of 2007, we acquired 5,600 hectares of 100%-owned mineral rights through concessions for our Santiago property in southern Peru. We capitalized \$17,000 during the year ended December 31, 2007 in lease acquisition costs related to these concessions. The Santiago project consists of two claim blocks where previous surface sampling of rocks identified anomalous concentrations of gold in altered Tertiary volcanic rocks. We plan to conduct additional surface sampling and geological mapping during 2009 to determine if the project warrants drill testing.

Mercurio

In September 2005, we completed an option agreement for the purchase of 100% of the mineral rights over the 8,476-hectare Mercurio property in the state of Para, Brazil. An initial payment of 20,000 Brazilian Reals (approximately \$7,000) was paid on signing of the agreement and the next payment of 36,000 Reals (approximately \$12,000) was made in 2005 on signing of a definitive agreement upon conversion of the existing washing claims to exploration claims. Further payments were required upon the conversion of garimpeiro licenses to exploration claims which occurred in the third quarter of 2006. During 2008 option payments totaled approximately \$60,000 compared to \$55,471 during 2007. To purchase the property, an escalating scale of payments totaling 780,000 Reals (approximately \$350,000) are required over a sixty month period. A net smelter return of 1.5% is retained by the owner. This NSR can be extinguished with a payment of 2,300,000 Reals (approximately \$1,350,000). All payments are indexed to inflation as of the signing of the agreement. The owner of the mineral rights also owns the surface rights, the use of which is included in the exploration of the property. On completion of all payments we will receive title to 1,500 hectares of surface rights. We may terminate the agreement at any time at our sole discretion. We have conducted extensive soil sampling and auger testing of soils over a large portion of the property during the past four years and three rounds of core drilling of 36 holes. The third round of core drilling was completed in the first quarter of 2008 and we are currently in discussions with a potential joint venture partner. A payment of approximately \$6,800 to the government of Brazil during 2009 will be required to keep the Mercurio claims in good standing.

Triunfo

The 256-hectare Triunfo poly-metallic exploration property in Bolivia was acquired in 2003. Lease obligations were renegotiated in 2006 providing for a payment of \$12,000, which was paid in July of 2006 and a payment of \$35,000, which was paid in June 2007. In June of 2008 we amended the contract with the option holder for the Triunfo property that suspends the payments agreed to under the contract. For the right to suspend payments we are required to pay \$5,000 per year until such time as we decide to continue exploration drilling. The first payment of the "stand-by" period was made on signing of the amendment and such suspension shall continue for so long as we pay \$5,000 on the anniversary of the signing of the amendment. An option to purchase the property for \$1,000,000 must be exercised by September 2009. A geophysical survey has been completed on the property and three holes were drilled in the first half of 2007. The results of these three holes were encouraging, but we are monitoring the

political situation in Bolivia before committing to a second round of drilling. Claim fees of approximately \$300 to the Bolivian government are due in 2009.

La Noria

During the second quarter of 2008 we staked 10,000 hectares in Sonora State of Mexico comprising the La Noria project. Strong alteration of rocks detected by the study of satellite images suggests good potential for the discovery of porphyry copper deposits. A reconnaissance exploration program is planned for 2009. Claim fees payable to the government in 2009 are approximately \$7,000.

Purica

In early April 2008 we optioned 1,131 hectares in the Sonora state of Mexico over a large area of alteration between the La Caridad and Cananea open pit copper mines. Subsequently, we staked an additional 1,914 hectares in the name of Solitario's subsidiary in Mexico. A six-hole core drilling program was completed in the third quarter of 2008. Low grade copper was intersected in three of six holes. We are currently reviewing the data to determine if additional work is warranted on the property.

Espanola

We optioned the Espanola gold-copper property in western Bolivia in July 2008. The initial option payment was \$5,000, with annual payments of \$10,000 until drilling commences, at which time a \$55,000 payment will be due on the anniversary date. We have the right to earn a 90% interest in the property from a private Bolivian party. During 2009, we plan on conducting limited surface mapping and sampling, and log existing core. Claim fees payable to the government in 2009 are approximately \$4,600.

(i) Discontinued Projects

During 2008 we did not abandon any projects. During 2007 we abandoned the La Purisima, Concepcion del Oro and Titicayo projects with a charge to property abandonment of \$20,000.

(j). Critical Accounting Estimates

Mineral Properties, net

We classify our interest in mineral properties as Mineral Properties, net (tangible assets) pursuant to EITF 04-2. Prior to adoption of EITF 04-2 in April 2004, we classified our interests in mineral properties as intangible assets, Mineral Interests, net. Our mineral properties represent mineral use rights for parcels of land we do not own. All of our mineral properties relate to exploration stage properties and the value of these assets is primarily driven by the nature and amount of economic minerals believed to be contained, or potentially contained, in such properties. Prior to the adoption of EITF 04-2, we amortized the excess cost of our mineral interests over their estimated residual value over the lesser of (i) the term of any mineral interest option or lease or (ii) the estimated life of the mineral interest, which was our estimated exploration cycle. We amortized our mineral interests over a three-to-eight year period based upon facts and circumstances for each mineral interest on a property-by-property basis. We no longer amortize our mineral properties pursuant to the adoption of EITF 04-2.

Impairment

We regularly perform evaluations of our investment in mineral properties to assess the recoverability and/or the residual value of its investments in these assets. All long-lived assets are reviewed for impairment whenever events or circumstances change, such as negative drilling results or termination of a joint venture, which indicate the carrying amount of an asset may not be recoverable, utilizing established guidelines based upon discounted future net cash flows from the asset or upon the determination that certain exploration properties do not have sufficient potential for economic mineralization as a result of our analysis of exploration activities including surveys, sampling and drilling. We recorded no impairments related to our mineral properties during 2008 and we recorded a \$20,000 impairment of our mineral properties during 2007. We may record future impairment if certain events occur,

including loss of a venture partner, reduced commodity prices or unfavorable geologic results from sampling assaying surveying or drilling, among others.

Fair Value

Effective January 1, 2008, Solitario adopted Statement of Financial Accounting Standards No. 157 "Fair Value Measurements" ("SFAS No. 157"). SFAS No. 157 establishes a framework for measuring fair value and requires enhanced disclosures about fair value measurements. SFAS No. 157 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. SFAS No. 157 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. At December 31, 2008 and December 31, 2007, we have recorded unrealized holding gains of \$19,738,000 and \$22,588,000, respectively, net of deferred taxes of \$7,284,000 and \$8,347,000, respectively, related to our marketable equity securities.

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

Derivative instruments

Solitario accounts for its derivative instruments in accordance with SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities." Pursuant to SFAS 133, we have not designated the Kinross Collar or the Kinross Calls as hedging instruments and any changes in the fair market value of the Kinross Collar or the Kinross Calls are recognized in the statement of operations in the period of the change. We recorded a gain on derivative instrument of \$1,189,000 for the change in the fair market value of the Kinross Collar during 2008. We recorded a loss on derivative instruments of \$12,000 for the change in the fair market value of the Kinross Calls during 2008.

Revenue Recognition

We record any proceeds from the sale of property interests subject to joint ventures or shareholder agreements as a reduction of the related property's capitalized cost. Proceeds which exceed the capitalized cost of the property are recognized as revenue. The proceeds are recorded as revenue in accordance with the terms of the joint venture or shareholder agreement; to the extent such proceeds are made in connection with properties subject to a joint venture or shareholder agreement where no property interests are transferred.

Stock-based compensation

We account for our stock options under the provisions of SFAS No. 123R. We account for our employee stock options as liability instruments pursuant to SFAS No 123R because our stock options are priced in Canadian dollars, and therefore are effectively indexed to the exchange rate between the Canadian dollar and the United States dollar in addition to price changes of a share of our stock as quoted on the TSX. We record 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, a zero dividend yield, a zero forfeiture rate, an exchange rate between the Canadian dollar and the United States dollar, and an expected volatility equal to the historical volatility based upon the daily quoted price 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, Solitario's recorded stock-based compensation expense could have been materially different from that reported.

Income taxes

Income taxes are provided for the tax effects of transactions reported in the financial statements and consist of 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

We adopted FASB Interpretation No. 48, "Accounting for Uncertainty in Income Taxes, an interpretation of FASB Statement No. 109" ("FIN 48") as of January 1, 2007. FIN 48 clarifies the accounting for uncertainty in income taxes recognized in a company's financial statements in accordance with SFAS No. 109, "Accounting for Income Taxes". FIN 48 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. FIN 48 also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition. We also adopted FASB Staff Position No. FIN 48-1, "Definition of Settlement in FASB Interpretation No.48" ("FSP FIN 48-1") as of January 1, 2007. FSP FIN 48-1 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 FIN 48 and FSP FIN 48-1 had no effect on our financial position or results of operations.

(k). Related Party Transactions

Crown Resources Corporation

Crown provided management and technical services to Solitario under a management and technical services agreement originally signed in April 1994 and modified in April 1999, December 2000 and July 2002. The agreement was terminated on August 31, 2006 upon the completion of the Crown - Kinross merger. Under the modified agreement we were billed by Crown for services at 25% of Crown's corporate administrative costs for executive and technical salaries, benefits and expenses, 50% of Crown's corporate administrative costs for financial management and reporting salaries, benefits, expenses and 75% of Crown's corporate administrative costs for investor relations salaries, benefits and expenses. In addition, we reimbursed Crown for direct out-of-pocket expenses. These allocations were based upon the estimated time and expenses spent by Crown management and employees on both Crown activities and Solitario activities. Our management believed these allocations were reasonable and the allocations were periodically reviewed by our management and approved by independent Board members of both Crown and Solitario. Management service fees were billed monthly, due on receipt and are generally paid within thirty days. We did not incur any management service fees during 2008 or 2007. Our management service fees were \$232,000 for the year ended December 31, 2006.

Christopher E. Herald, and Mark E. Jones, III were directors of both Crown and Solitario until August 31, 2006 when they resigned as directors of Crown upon the completion of the Crown - Kinross merger. Steven Webster and Brian Labadie were directors of both Crown and Solitario from June 27, 2006 to August 31, 2006, when they resigned as directors of Crown upon the completion of the Crown - Kinross merger. Christopher E. Herald, James R. Maronick and Walter H. Hunt were officers of both Crown and Solitario until August 31, 2006 when they resigned as officers of Crown upon the completion of the Crown - Kinross merger.

Mark Jones Consulting Agreement

On September 1, 2006, we entered into a consulting agreement with Mark E. Jones, III, a director and vice-chairman of our Board of Directors. The consulting agreement had a two-year term and terminated on August 31, 2008. Under the agreement, Mr. Jones advised the Company on matters of strategic direction, planning, and identification of corporate opportunities, when and as requested by the Solitario. In consideration for the services to be performed, Mr. Jones was paid a one time lump sum payment of \$160,000, plus he was entitled to receive pre-approved, documented expenses incurred in performance of the consulting services. We recognized \$53,000, \$80,000 and \$27,000, respectively, for consulting expense related to the agreement, included in general and administrative expense, for the years ended December 31, 2008, 2007 and 2006.

TNR Gold Corp.

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

(I). Recent Accounting Pronouncements

In December 2007, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standard No. 160, "Noncontrolling Interests in Consolidated Financial Statements, an Amendment of ARB No. 51" ("SFAS No. 160"). SFAS No. 160 establishes accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary and amends certain consolidation procedures of Accounting Research Bulletin ("ARB") 51 for consistency with the requirements of FASB Statement of Financial Accounting Standard No. 141. SFAS No. 160 is effective for fiscal years beginning on or after December 15, 2008 and early adoption is prohibited. Solitario has not yet determined the impact, if any, of adopting SFAS No. 160 on its consolidated financial position, results of operations or cash flows.

In December 2007, the FASB issued Statement of Financial Accounting Standard No. 141R, "Business Combinations (revised 2007)", ("SFAS No. 141R"). SFAS No. 141R establishes principles and requirements for how an acquirer in a business combination recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, and any noncontrolling interest; recognizes and measures the goodwill acquired in the business combination or a gain from a bargain purchase; and determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of the business combination. SFAS No. 141R is to be applied prospectively to business combinations for which the acquisition date is on or after the beginning of an entity's fiscal year that begins on or after December 15, 2008. Solitario has not yet determined the impact, if any, of adopting SFAS No. 141R on its consolidated financial position, results of operations or cash flows.

In March 2008, the FASB issued Statement of Financial Accounting Standard No. 161, "Disclosures about Derivative Instruments and Hedging Activities" ("SFAS No. 161"), an amendment of SFAS No. 133. SFAS No. 161 requires enhanced disclosures about derivative instruments and hedged items that are accounted for under SFAS No. 133 and related interpretations. SFAS No. 161 will be effective for all interim and annual financial statements for periods beginning after November 15, 2008, with early adoption permitted. Solitario has not yet determined the impact, if any, of adopting SFAS No. 161 on its consolidated financial position, results of operations or cash flows.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

(a) Equity Price Risks

- (1) Our investment in Kinross is subject to equity market risk.

As of December 31, 2008 a hypothetical increase of ten percent in the price of Kinross common stock would increase the value of our holdings of Kinross by \$2,118,000 and increase other comprehensive income and total stockholders' equity by the same amount, net of deferred taxes of \$790,000. Additionally our working capital would also be increased by \$276,000 from a hypothetical increase of ten percent in the price of Kinross common stock, net of deferred taxes of \$102,000. This increase is based upon all of our 1,150,000 Kinross common shares as of December 31, 2008, and is subject to the Kinross Collar discussed above.

A hypothetical decrease of ten percent in the price of Kinross common stock would have the opposite effect of the increase discussed above. This decrease is based upon all of our 1,150,000 Kinross common shares as of December 31, 2008, and is subject to the Kinross Collar discussed above.

(2) Our Kinross Collar derivative instrument is subject to equity market risk.

We have estimated, using a Black-Scholes option pricing model that as of December 31, 2008 a hypothetical increase of ten percent in the price of Kinross common stock would increase the value of our liability under the Kinross Collar by \$914,000 and increase our net loss in the statement of operations by \$573,000, net of deferred taxes of \$341,000. We have also estimated that as of December 31, 2008 a hypothetical decrease of ten percent in the price of Kinross common stock would decrease the value of our liability under the Kinross Collar by \$859,000 (thereby creating a derivative instrument asset) and would decrease our net loss in the statement of operations by \$539,000, net of deferred taxes of \$320,000.

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

We have estimated, using a Black-Scholes option pricing model that as of December 31, 2008 a hypothetical increase of ten percent in the price of our common stock as quoted on the TSX would increase our stock option liability by \$125,000 and increase our net loss in the statement of operations by \$81,000, net of deferred taxes of \$44,000. We have also estimated that as of December 31, 2008 a hypothetical decrease of ten percent in the price of our common stock as quoted on the TSX would decrease our stock option liability by \$114,000 and would decrease our net loss in the statement of operations by \$74,000, net of deferred taxes of \$40,000.

(b.) Interest Rate Risks

We have no material interest rate risks at December 31, 2008 as we have no interest bearing debt and our interest bearing cash deposits do not generate a material amount of interest income. Additionally, a change in the risk free interest rate would not materially change the determination of our Kinross Collar or our stock option liability at December 31, 2008.

(c.) Exchange Rate Risks

Our stock option liability is subject to exchange rate risk

We have estimated, using a Black-Scholes option pricing model that as of December 31, 2008 a hypothetical increase of ten percent in the relative value of the Canadian dollar compared to the United States dollar would increase the value of our stock option liability by \$53,000 and increase our net loss in the statement of operations by \$33,000, net of deferred taxes of \$20,000. We have also estimated that as of December 31, 2008 a hypothetical decrease of ten percent in the relative value of the Canadian dollar compared to the United States dollar would decrease the value of our stock option liability by \$53,000 and would decrease our net loss in the statement of operations by \$33,000, net of deferred taxes of \$20,000.

We have no other material exchange rate risks as of December 31, 2008 as our assets are generally denominated in United States Dollars. 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 \$326,000 and \$219,000, respectively, at December 31, 2008 and 2007.

Item 8. Financial Statements and Supplementary Data

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders 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, 2008 and 2007, and the related consolidated statements of operations, changes in stockholders' equity and comprehensive loss and cash flows for each of the three years ended December 31, 2008. We also have audited the Company's internal control over financial reporting as of December 31, 2008, based on criteria established in *Internal Control-Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting included in Item 9A. Our responsibility is to express an opinion on these consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits.

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

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

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Solitario Exploration & Royalty Corp. as of December 31, 2008 and 2007, and the results of their operations and their cash flows for each of the three years ended December 31, 2008 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, Solitario Exploration & Royalty Corp. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2008, based on criteria established in *Internal Control-Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

As discussed in Note 1 to the consolidated financial statements, in 2006, Solitario Exploration & Royalty Corp. changed its method of accounting for share-based payments in accordance with the guidance provided in Statement of Financial Accounting Standards No. 123(R), Share-Based Payment.

/s/ Ehrhardt Keefe Steiner & Hottman PC

March 12, 2009
Denver, Colorado

SOLITARIO EXPLORATION & ROYALTY CORP.
CONSOLIDATED BALANCE SHEETS

(in thousands except share and per share amounts)	December 31, 2008	December 31, 2007
Assets		
Current assets:		
Cash and cash equivalents	\$1,942	\$2,250
Joint venture receivable	-	4
Investments in marketable equity securities, at fair value	2,763	5,520
Prepaid expenses and other	<u>292</u>	<u>198</u>
Total current assets	4,997	7,972
Mineral properties, net	2,785	2,704
Investments in marketable equity securities, at fair value	18,453	19,506
Other assets	<u>228</u>	<u>248</u>
Total assets	<u>\$26,463</u>	<u>\$30,430</u>
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 291	\$ 195
Derivative instruments fair value	393	-
Deferred income taxes	884	1,515
Other	<u>14</u>	<u>17</u>
Total current liabilities	1,582	1,727
Derivative instrument fair value	236	1,702
Deferred income taxes	6,063	4,368
Stock option liability	531	4,263
Other	-	14
Commitments and contingencies (Notes 2 and 6)		
Minority interest		
	833	388
Stockholders' equity:		
Preferred stock, \$0.01 par value, authorized 10,000,000 shares (none issued and outstanding at December 31, 2008 and 2007)	-	-
Common stock, \$0.01 par value, authorized, 50,000,000 shares (29,750,242 and 29,619,492 shares issued and outstanding at December 31, 2008 and 2007, respectively)	297	296
Additional paid-in capital	33,335	31,682
Accumulated deficit	(28,868)	(28,251)
Accumulated other comprehensive income	<u>12,454</u>	<u>14,241</u>
Total stockholders' equity	<u>17,218</u>	<u>17,968</u>
Total liabilities and stockholders' equity	<u>\$26,463</u>	<u>\$30,430</u>

See Notes to Consolidated Financial Statements.

SOLITARIO EXPLORATION & ROYALTY CORP.
CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands except per share amounts)	For the year ended December 31,		
	2008	2007	2006
Property and joint venture revenue			
Joint venture property payments	\$200	\$100	\$ -
Costs, expenses and other:			
Exploration expense, net	4,589	3,112	2,942
Depreciation and amortization	98	85	49
General and administrative	(936)	3,939	5,877
Management fees to Crown	-	-	232
Unrealized (gain) loss on derivative instruments	(1,177)	1,702	5
Asset impairments	107	20	35
(Gain) loss on sale of assets	(32)	1	3
Interest and other, net	<u>(157)</u>	<u>(76)</u>	<u>(26)</u>
Total costs expenses and other	2,492	8,783	9,117
Other income - gain on sale of marketable equity securities	<u>3,576</u>	<u>4,085</u>	<u>2,121</u>
Income (loss) before income tax and minority interest	1,284	(4,598)	(6,996)
Income tax (expense) benefit	<u>(2,128)</u>	<u>184</u>	<u>1,346</u>
Loss before minority interest and change in accounting principle	(844)	(4,414)	(5,650)
Minority interest in loss of consolidated subsidiary	<u>227</u>	<u>17</u>	<u>-</u>
Loss before change in accounting principle	(617)	(4,397)	(5,650)
Change in accounting principle, net of tax of \$726	<u>-</u>	<u>-</u>	<u>(1,231)</u>
Net loss	<u>\$(617)</u>	<u>\$(4,397)</u>	<u>\$(6,881)</u>
Basic and diluted loss per common share			
Loss before change in accounting principle	\$(0.02)	\$(0.15)	\$(0.20)
Change in accounting principle	<u>-</u>	<u>-</u>	<u>(0.04)</u>
Net loss	<u>\$(0.02)</u>	<u>\$(0.15)</u>	<u>\$(0.24)</u>
Basic and diluted weighted average shares outstanding	<u>29,691</u>	<u>29,467</u>	<u>28,422</u>

See Notes to Consolidated Financial Statements.

SOLITARIO EXPLORATION & ROYALTY CORP.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
FOR THE YEARS ENDED DECEMBER 31, 2008, 2007 AND 2006

(in thousands, except
Share amounts)

	Common Stock		Additional	Accumulated	Accumulated Other Comprehensive	Total
	Shares	Amount	Paid-in Capital	Deficit	Income	
Balance at December 31, 2005	27,459,492	275	25,909	(16,973)	6,130	15,341
Shares issued:						
Option exercise	1,230,500	12	2,561	-	-	2,573
Comprehensive income:						
Net loss	-	-	-	(6,881)	-	(6,881)
Net unrealized gain on marketable equity Securities (net of tax of \$2,763)	-	-	-	-	4,321	4,321
Comprehensive loss	-	-	-	-	-	(2,560)
Balance at December 31, 2006	28,689,992	287	28,470	(23,854)	10,451	15,354
Shares issued:						
Option exercise	929,500	9	3,526	-	-	3,535
Minority interest	-	-	(404)	-	-	(404)
Minority shareholder equity contribution	-	-	90	-	-	90
Comprehensive income:						
Net loss	-	-	-	(4,397)	-	(4,397)
Net unrealized gain on marketable equity securities (net of tax of \$1,794)	-	-	-	-	3,790	3,790
Comprehensive loss	-	-	-	-	-	(607)
Balance at December 31, 2007	29,619,492	\$296	\$31,682	\$(28,251)	\$14,241	\$17,968
Shares issued:						
Option exercise	130,750	1	624	-	-	625
Minority interest	-	-	(671)	-	-	(671)
Minority shareholder equity contribution	-	-	1,700	-	-	1,700
Comprehensive income:						
Net loss	-	-	-	(617)	-	(617)
Net unrealized loss on marketable equity securities (net of tax of \$1,063)	-	-	-	-	(1,787)	(1,787)
Comprehensive loss	-	-	-	-	-	(2,404)
Balance at December 31, 2008	<u>29,750,242</u>	<u>\$297</u>	<u>\$33,335</u>	<u>\$(28,868)</u>	<u>\$12,454</u>	<u>\$17,218</u>

See Notes to Consolidated Financial Statements.

SOLITARIO EXPLORATION & ROYALTY CORP.
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)	For the year ended December 31,		
	2008	2007	2006
Operating activities:			
Net loss	\$(617)	\$(4,397)	\$(6,881)
Adjustments to reconcile net loss to cash used in operating activities:			
Unrealized (gain) loss on derivative instruments	(1,177)	1,702	5
Depreciation and amortization	98	85	49
Loss on equity method investment	30	-	-
Asset impairments	107	20	35
Employee stock option expense from vesting	(3,255)	1,991	6,780
Deferred income taxes	2,128	(184)	(2,073)
Gain on asset and equity security sales	(3,608)	(4,085)	(2,118)
Minority interest in loss of consolidated subsidiary	(227)	(17)	-
Changes in operating assets and liabilities:			
Prepaid expenses and other current assets	(90)	158	(164)
Accounts payable and other current liabilities	78	15	(71)
Due to Crown Resources Corporation	-	-	(45)
Net cash used in operating activities	<u>(6,533)</u>	<u>(4,712)</u>	<u>(4,483)</u>
Investing activities:			
Additions to mineral interests and other	(111)	(37)	(50)
Other assets	(46)	(150)	(119)
Sale of derivative instrument	104	-	-
Proceeds from sale of marketable equity securities	<u>4,430</u>	<u>5,548</u>	<u>2,442</u>
Net cash provided by investing activities	<u>4,377</u>	<u>5,361</u>	<u>2,273</u>
Financing activities:			
Minority shareholder equity contribution	1,700	90	-
Issuance of common stock	<u>148</u>	<u>607</u>	<u>994</u>
Net cash provided by financing activities	<u>1,848</u>	<u>697</u>	<u>994</u>
Net increase (decrease) in cash and cash equivalents	(308)	1,346	(1,216)
Cash and cash equivalents, beginning of year	<u>2,250</u>	<u>904</u>	<u>2,120</u>
Cash and cash equivalents, end of year	<u>\$1,942</u>	<u>\$ 2,250</u>	<u>\$ 904</u>
Supplemental disclosure of cash flow information:			
Reclassification of stock option liability to additional paid-in capital upon exercise of stock options	\$477	\$2,928	\$1,579

See Notes to Consolidated Financial Statements.

SOLITARIO EXPLORATION & ROYALTY CORP.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
For the years ended December 31, 2008, 2007 and 2006

1. Business and Summary of Significant Accounting Policies:

Business and company formation

Solitario Exploration & Royalty Corp. ("Solitario") is an exploration stage company with a focus on the acquisition of precious and base metal properties with exploration potential and the development or purchase of royalty interests. Solitario acquires and holds a portfolio of exploration properties for future sale, joint venture or to create a royalty prior to the establishment of proven and probable reserves. Although its mineral properties may be developed in the future through a joint venture, Solitario has never developed a mineral property and Solitario does not anticipate developing any currently owned mineral properties on its own in the future. Solitario has been actively involved in this business since 1993. Solitario recorded revenues from joint venture payments of \$200,000 and \$100,000, respectively, related to its Bongará project during 2008 and 2007. Previously, Solitario's last significant revenues were recorded in 2000 upon the sale of the Yanacocha property for \$6,000,000. Future revenues from joint venture payments or the sale of properties, if any, would also occur on an infrequent basis. At December 31, 2008 Solitario had 16 mineral exploration properties in Peru, Bolivia, Mexico and Brazil and its Yanacocha and La Tola royalty properties in Peru. Solitario is conducting exploration activities in all of those countries.

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

On July 26, 2004, Crown completed a spin-off of its holdings of our shares to its shareholders, whereby each Crown shareholder received 0.2169 shares of our common stock for each Crown share they owned. Solitario previously owned 6,071,626 shares of Crown common stock and as part of the spin-off Solitario received 1,317,142 shares of its own common stock, which were retired on August 11, 2004, and have the status of authorized but unissued shares of common stock. Crown was acquired by Kinross Gold Corporation of Toronto, Canada ("Kinross") on August 31, 2006 upon the completion of a merger on August 31, 2006 whereby Kinross acquired all of the outstanding shares of Crown common stock for 0.32 shares of Kinross common stock for each share of Crown common stock (the "Crown - Kinross merger"). Kinross currently owns less than one percent of Solitario outstanding common stock.

We have a significant investment in Kinross at December 31, 2008, which consists of 1,150,000 shares of Kinross common stock. Solitario received 1,942,920 shares in exchange for 6,071,626 shares of Crown common stock it owned on the date of the Crown - Kinross merger. During 2008, Solitario sold 192,920 shares of Kinross common stock for proceeds of \$4,430,000 and during 2007 Solitario sold 400,000 Kinross common shares for net proceeds of \$5,548,000. As of March 9, 2009, Solitario owns 1,150,000 shares of Kinross common stock. Any significant fluctuation in the market value of Kinross common shares could have a material impact on Solitario's liquidity and capital resources. In October 2006, Solitario entered into a collar that limits the proceeds on 900,000 shares of Solitario's investment in Kinross common shares and in December 2008 Solitario sold two call options covering 100,000 shares of Kinross, which expired in February 2009. Both the Kinross Collar and the call options are discussed below under "Derivative instruments."

Financial reporting

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

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

SOLITARIO EXPLORATION & ROYALTY CORP.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
For the years ended December 31, 2008, 2007 and 2006

Revenue recognition

Solitario records any proceeds from the sale of property interests subject to joint ventures or shareholder agreements as a reduction of the related property's capitalized cost. Proceeds which exceed the capitalized cost of the property are recognized as revenue. To the extent such proceeds are made in connection with properties subject to a joint venture or shareholder agreement where no property interests are transferred, the proceeds are recorded as revenue in accordance with the terms of the joint venture or shareholder agreement.

Minority interest

Solitario records minority interest for the portion of its assets and net loss in any subsidiaries which are less than 100% owned. During 2008 and 2007, Solitario's share of its investment in its subsidiary Pedra Branca Mineracao, Ltda. ("PBM") was reduced to 70% and 85%, respectively, in accordance with the terms of PBM's Shareholder Agreement. Solitario recorded a minority interest in its statement of financial position of \$833,000 and recorded a credit of \$227,000 in its statement of operations for the minority interest in the loss of PBM as of December 31, 2008. Solitario recorded a minority interest in its statement of financial position of \$388,000 and recorded a credit of \$17,000 in its statement of operations for the minority interest in the loss of PBM as of December 31, 2007.

Use of estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Some of the more significant estimates included in the preparation of Solitario's financial statements pertain to the recoverability of mineral properties and their future exploration potential, the estimate of the fair value of Solitario's stock option liability and related changes recorded as stock option compensation included in the statement of operations, the ability of Solitario to realize its deferred tax assets, the current portion of Solitario's investment in Kinross shares included in marketable equity securities, the fair value of the call options on Kinross stock as of December 31, 2008 and the fair value of Solitario's Zero Premium Equity Collar of 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, 2008 and 2007, Solitario had concentrations of cash and cash equivalents in excess of federally insured amounts and cash in foreign banks for which there was no US federal insurance.

Mineral properties

Solitario expenses all exploration costs incurred on its mineral properties prior to the establishment of proven and probable reserves. Initial acquisition costs of its mineral properties are capitalized. Solitario regularly performs evaluations of its investment in mineral properties to assess the recoverability and/or the residual value of its investments in these assets. All long-lived assets are reviewed for impairment whenever events or circumstances change which indicate the carrying amount of an asset may not be recoverable, utilizing established guidelines based upon discounted future net cash flows from the asset or upon the determination that certain exploration properties do not have sufficient potential for economic mineralization. During the year ended December 31, 2008 Solitario did not impair any of its mineral properties. During the years ended December 31, 2007 and 2006, Solitario recorded impairments of \$20,000 and \$35,000 of its mineral properties, respectively.

Solitario's net capitalized mineral properties of \$2,785,000 and \$2,704,000 at December 31, 2008 and 2007, respectively, related to gross land, leasehold and acquisition costs of \$3,808,000 and \$3,727,000 at December 31, 2008 and 2007, respectively, less accumulated amortization of \$1,023,000 and \$1,023,000 at December 31, 2008 and 2007, 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 through a joint venture its interests in the properties. These activities are ultimately dependent on successful identification of proven and probable reserves.

SOLITARIO EXPLORATION & ROYALTY CORP.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
For the years ended December 31, 2008, 2007 and 2006

Derivative instruments

Solitario accounts for its derivative instruments as provided in Statement of Financial Accounting Standards No. 133 "Accounting for Derivative Instruments and Hedging Activities," (SFAS No. 133). On October 12, 2007 Solitario entered into a Zero-Premium Equity Collar (the "Kinross Collar") pursuant to a Master Agreement for Equity Collars and a Pledge and Security Agreement with UBS whereby Solitario pledged 900,000 shares of Kinross common shares to be sold (or delivered back to us with any differences settled in cash). In accordance with the terms of the Kinross Collar, as the result of dividends that Kinross paid on each of March 31, 2008 and September 30, 2008 of \$0.04 per share, the prices under the Kinross Collar have been reduced, by the \$0.08 per share from the price originally set on October 12, 2007. As of December 31, 2008 the Kinross Collar pricing has been adjusted to (i) 400,000 shares due on April 14, 2009 for a lower threshold price of no less than \$13.73 per share (the "Floor Price") and an upper threshold price of no more than \$21.69 per share; (ii) 400,000 shares due on April 13, 2010 for a lower threshold of the Floor Price and an upper threshold price of no more than \$24.38 per share; and (iii) 100,000 shares due on April 12, 2011 for no less than the Floor Price and an upper threshold price of no more than \$27.54 per share. Kinross' quoted closing price was \$16.37 per share on October 12, 2007, the date of the initiation of the Kinross Collar.

The business purpose of the Kinross Collar is to provide downside price protection of the Floor Price on 900,000 shares of the total shares Solitario currently owned, in the event Kinross stock were to drop significantly from the price on the date Solitario entered into the Kinross Collar. In consideration for obtaining this price protection, Solitario has given up the upside appreciation above the upper threshold prices during the term of the respective tranches.

Solitario has not designated the Kinross Collar as a hedging instrument as described in SFAS No. 133 and any changes in the fair market value of the Kinross Collar are recognized in the statement of operations in the period of the change. Solitario recorded a derivative instrument liability of \$513,000 and \$1,702,000, respectively for the fair market value of the Kinross Collar as of December 31, 2008 and 2007. Solitario recorded an unrealized gain of \$1,189,000 and an unrealized loss of \$1,702,000 and \$5,000, respectively, in unrealized gain (loss) on derivative instrument for the change in the fair value of the Kinross Collar during 2008, 2007 and 2006.

On December 10, 2008 Solitario sold two covered call options covering 50,000 shares of Kinross each (the "Kinross Calls"). The first call option had a strike price of \$20.00 per share and expired unexercised on February 21, 2009. The option was sold by Solitario 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. The option was sold by Solitario 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 Kinross Calls in unrealized gain (loss) on derivative instrument in statement of operations during 2008.

Fair Value

Effective January 1, 2008, Solitario adopted Statement of Financial Accounting Standards No. 157 "Fair Value Measurements" ("SFAS No. 157"). SFAS No. 157 establishes a framework for measuring fair value and requires enhanced disclosures about fair value measurements. SFAS No. 157 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. SFAS No. 157 also requires disclosure about how fair value is determined for assets and liabilities and establishes a hierarchy for which these assets and liabilities must be grouped, based on significant levels of inputs as follows:

- Level 1:** quoted prices in active markets for identical assets or liabilities;
- Level 2:** quoted prices in active markets for similar assets and liabilities and inputs that are observable for the asset or liability; or
- Level 3:** Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

The determination of where assets and liabilities fall within this hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The following is a listing of our financial assets and liabilities required to be measured at fair value on a recurring basis and where they are classified within the hierarchy as of December 31, 2008:

SOLITARIO EXPLORATION & ROYALTY CORP.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
For the years ended December 31, 2008, 2007 and 2006

(000's)	<u>Level 1</u>	<u>Level 2</u>	<u>Total</u>
Assets			
Marketable equity securities	\$21,216	-	\$21,126
Liabilities			
Kinross Calls	116	-	116
Kinross Collar derivative instrument	-	513	513

Marketable equity securities: At December 31, 2008 the fair value of our marketable equity securities are based upon quoted market prices for the securities owned by Solitario.

Kinross Calls: The Kinross Calls are publicly-traded options and the fair value is based upon quoted market prices.

Kinross Collar: The Kinross Collar between Solitario and UBS is a contractual hedge that is not traded on any public exchange. We determine 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, and risk-free interest rates, that are readily available from public markets, therefore, they are classified as Level 2 inputs. We have not assigned any counter-party risk for the potential inability of UBS to perform under the Kinross Collar.

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. Unrealized changes in market value are recorded in accumulated other comprehensive income within stockholders' equity, unless a decline in market value is considered other than temporary, in which case the decline is recognized as a loss in the consolidated statement of operations. Solitario had marketable equity securities with fair values of \$21,216,000 and \$25,026,000, respectively, and cost of \$1,478,000 and \$2,438,000, respectively, at December 31, 2008 and 2007. Solitario has accumulated other comprehensive income for unrealized holding gains of \$19,738,000 and \$22,588,000, respectively, net of deferred taxes of \$7,284,000 and \$8,347,000, respectively, at December 31, 2008 and 2007 related to our marketable equity securities. Solitario sold 192,920 and 400,000 shares, respectively, of its Kinross common stock during 2008 and 2007 for gross proceeds of \$4,430,000 and \$5,548,000, respectively. Solitario has classified \$2,763,000 and \$5,520,000, respectively, of marketable equity securities as current, as of December 31, 2008 and December 31, 2007, which represents Solitario's estimate of what portion of marketable equity securities will be liquidated within one year. During 2008, Solitario recognized an asset impairment of \$107,000, net of deferred taxes of \$40,000, representing the difference between the cost basis and the fair value at December 31, 2008, for an other-than-temporary decline in the value of its investment in TNR Gold, which was previously included as an unrealized loss on marketable equity securities in other comprehensive income.

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

	<u>2008</u>	<u>2007</u>	<u>2006</u>
Gross cash proceeds	\$ 4,430	\$ 5,548	\$ 2,442
Cost	<u>854</u>	<u>1,463</u>	<u>321</u>
Gross gain on sale included in earnings during the period	3,576	4,085	2,121
Gross loss on sale included in earnings during the period	-	-	-
Unrealized holding gain arising during the period included in other comprehensive income, net of tax of \$231, \$3,317 and \$3,590	389	6,352	5,615
Reclassification adjustment for net losses (gains) included in earnings during the period, net of tax of \$1,334, \$1,523 and \$827	(2,242)	(2,562)	(1,294)

Foreign exchange

The United States dollar is the functional currency for all of Solitario's foreign subsidiaries. Although Solitario's exploration activities have been conducted primarily in Brazil, Bolivia, Peru and Mexico, a significant portion of the payments under the land, leasehold, and exploration agreements of Solitario are denominated in United States dollars. Solitario expects

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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 2008 and 2007, Solitario recorded foreign exchange loss of \$62,000 and \$8,000, respectively. Solitario's cash accounts in foreign subsidiaries not denominated in United States dollars represent the only significant foreign currency denominated assets. Foreign currency denominated cash accounts totaled \$326,000 and \$219,000, respectively, at December 31, 2008 and 2007.

Income taxes

Income taxes are provided for the tax effects of transactions reported in the financial statements and consist of 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

Solitario adopted FASB Interpretation No. 48, "Accounting for Uncertainty in Income Taxes, an interpretation of FASB Statement No. 109" ("FIN 48") as of January 1, 2007. FIN 48 clarifies the accounting for uncertainty in income taxes recognized in a company's financial statements in accordance with SFAS No. 109, "Accounting for Income Taxes". FIN 48 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. FIN 48 also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition. We also adopted FASB Staff Position No. FIN 48-1, "Definition of Settlement in FASB Interpretation No.48" ("FSP FIN 48-1") as of January 1, 2007. FSP FIN 48-1 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 FIN 48 and FSP FIN 48-1 had no effect on Solitario's financial position or results of operations. See Note 4—Income Taxes.

Earnings per share

The calculation of basic and diluted loss per share is based on the weighted average number of common shares outstanding during the years ended December 31, 2008, 2007 and 2006. Potentially dilutive shares related to outstanding common stock options of 2,135,000, 2,294,500, and 2,664,500 for the years ended December 31, 2008, 2007 and 2006, respectively, were excluded from the calculation of diluted loss per share because the effects were anti-dilutive.

Employee stock compensation plans

a.) The 2006 Stock option Incentive Plan

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

There were no options granted during 2008. The grant date fair value of the 2006 Plan options granted on September 7, 2007, June 14, 2007 and February 8, 2007, respectively, was \$976,000, \$223,000 and \$17,000, using a Black-Scholes option pricing model resulting in a weighted average fair value of \$1.94, \$2.23, and \$1.71 respectively, per share. The grant date fair value of the 2006 Plan options granted on June 27, 2006 was \$2,537,000 using a Black-Scholes option pricing model resulting in a weighted average fair value of \$1.53 per share.

Options for 20,750, 12,500 and 17,500 shares, respectively, from the 2006 Plan were exercised during 2008, 2007 and 2006 for proceeds of \$61,000, \$35,000 and \$42,000, respectively. The intrinsic value of the shares exercised during 2008,

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2007 and 2006 on the date of exercise of options from the 2006 Plan was \$48,000, \$27,000 and \$30,000, respectively. Options for 28,750 and 52,500 shares, respectively, were forfeited during 2008 and 2007. No options were forfeited during 2006.

b.) The 1994 Stock option Plan

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

Options from the 1994 Plan for 110,000, 917,000 and 1,213,000, shares, respectively, were exercised during the years ended December 31, 2008, 2007 and 2006 for proceeds of \$87,000, \$574,000 and \$952,000, respectively. The intrinsic value of the shares issued during 2008, 2007 and 2006 on the date of exercise of options from the 1994 Plan was \$429,000, \$2,901,000 and \$1,549,000. No options from the 1994 Plan were forfeited during 2008, 2007 or 2006.

c.) Stock-based compensation

Solitario accounts for its stock options under the provisions of SFAS No 123R. Solitario accounts for its employee stock options as liability instruments pursuant to SFAS No 123R because Solitario's stock options are priced in Canadian dollars, they are effectively indexed to the exchange rate between the Canadian dollar and the United States dollar in addition to price changes of a share of Solitario's stock as quoted on the TSX. 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, a zero dividend yield, a zero forfeiture rate, the exchange rate between the Canadian dollar and the United States dollar, and an expected volatility equal to the historical volatility based upon the daily quoted price 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 stock-based compensation expense could have been materially different from that reported.

Solitario's outstanding options have a five year term, and vest 25% on date of grant and 25% on each anniversary date. Solitario recognizes stock option compensation expense for the change in fair value of option grants over their vesting period. 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.

At December 31, 2008, Solitario determined the fair value of its outstanding options granted under the 2006 Plan utilizing the following assumptions:

Grant Date Plan	6/27/06 2006 Plan	2/08/07 2006 Plan	6/14/07 2006 Plan	9/07/07 2006 Plan
Option price (Cdn\$)	\$2.77	\$4.38	\$5.12	\$4.53
Options outstanding	1,548,000	5,000	100,000	482,000
Expected Life	2.5 yrs	3.1 yrs	3.5 yrs	3.7 yrs
Expected volatility	57%	54%	54%	53%
Risk free interest rate	0.8%	1.0%	1.0%	1.3%
Weighted average fair value (1)	\$0.33	\$0.20	\$0.19	\$0.24
Portion of vesting at measurement date	87.5%	72.9%	63.5%	58.3%
Fair value of outstanding vested options	\$450,000	\$1,000	\$12,000	\$68,000

(1) Utilizing a Canadian dollar to United States dollar exchange rate of 0.8183 to one.

At December 31, 2007, Solitario determined the fair value of its outstanding options granted under the 2006 Plan and 1994 Plan utilizing the following assumptions:

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Grant Date Plan	6/27/06 2006 Plan	2/08/07 2006 Plan	6/14/07 2006 Plan	9/07/07 2006 Plan	8/14/03 1994 Plan
Option price (Cdn\$)	\$2.77	\$4.38	\$5.12	\$4.53	\$0.81
Options outstanding	1,572,500	10,000	100,000	502,000	110,000
Expected Life	3.5 yrs	4.1 yrs	4.5 yrs	4.7 yrs	0.6 yrs
Expected volatility	48%	51%	51%	56%	45%
Risk free interest rate	3.1%	3.3%	3.3%	3.5%	3.3%
Weighted average fair value (1)	\$3.21	\$2.66	\$2.49	\$2.93	\$4.59
Portion of vesting at measurement date	62.5%	48.0%	38.5%	33.3%	100%
Fair value of outstanding vested options	\$3,159,000	\$13,000	\$96,000	\$490,000	\$505,000

(1) Utilizing a Canadian dollar to United States dollar exchange rate of 1.0194 to one.

During 2008, Solitario recognized stock option benefit of \$3,255,000, net of deferred taxes of \$1,149,000. During 2007 and 2006 Solitario recognized stock option compensation expense of \$1,991,000 and \$4,823,000, respectively, net of deferred taxes of \$670,000 and \$1,774,000, respectively. Solitario also recognized \$1,957,000 of stock option compensation expense, net of deferred taxes of \$726,000, as change in accounting principle on January 1, 2006, upon the adoption of SFAS No. 123R.

d.) Summary of stock-based compensation plans

The following table summarizes the activity for stock options outstanding under the 1994 Plan and the 2006 Plan as of December 31, 2008, with exercise prices equal to the fair market value, as defined, on the date of grant and no restrictions on exercisability after vesting:

	Shares issuable on outstanding Options	Weighted average exercise price (Cdn\$)	Weighted average remaining contractual term	Aggregate intrinsic value(1)
1994 Plan:				
Outstanding, beginning of year	110,000	<u>\$0.81</u>		
Exercised	(110,000)	<u>\$0.81</u>		
Outstanding at December 31, 2008	<u>-</u>			
Exercisable at December 31, 2008	<u>-</u>			
2006 Plan				
Outstanding, beginning of year	2,184,500	\$3.29		
Granted	-			
Forfeited	(28,750)	\$4.13		
Exercised	(20,750)	<u>\$2.96</u>		
Outstanding at December 31, 2008	<u>2,135,000</u>	<u>\$3.28</u>	<u>3.1</u>	<u>\$ -</u>
Exercisable at December 31, 2008	<u>1,451,500</u>	<u>\$3.15</u>	<u>3.0</u>	<u>\$ -</u>

(1)The intrinsic value at December 31, 2008 based upon the quoted market price of Cdn\$1.82 per share for our common stock on the TSX and an exchange ratio of 0.8183 Canadian dollars per United States dollar.

Segment reporting

Solitario operates in one business segment, minerals exploration. At December 31, 2008, all of Solitario's operations are located in Peru, Bolivia, Brazil and Mexico as further described in Note 2 to these consolidated financial statements.

Included in the consolidated balance sheet at December 31, 2008 and 2007 are total assets of \$3,751,000 and \$3,407,000, 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, 2008 and 2007 are net capitalized costs related to the Pedra Branca Property, located in Brazil, of \$2,607,000. Solitario is not aware of any foreign exchange restrictions on its subsidiaries located in foreign countries.

Recent accounting pronouncements

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In December 2007, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standard No. 160, "Noncontrolling Interests in Consolidated Financial Statements, an Amendment of ARB No. 51" ("SFAS No. 160"). SFAS No. 160 establishes accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary and amends certain consolidation procedures of Accounting Research Bulletin ("ARB") 51 for consistency with the requirements of FASB Statement of Financial Accounting Standard No. 141. SFAS No. 160 is effective for fiscal years beginning on or after December 15, 2008 and early adoption is prohibited. Solitario has not yet determined the impact, if any, of adopting SFAS No. 160 on its consolidated financial position, results of operations or cash flows.

In December 2007, the FASB issued Statement of Financial Accounting Standard No. 141R, "Business Combinations (revised 2007)", ("SFAS No. 141R"). SFAS No. 141R establishes principles and requirements for how an acquirer in a business combination recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, and any noncontrolling interest; recognizes and measures the goodwill acquired in the business combination or a gain from a bargain purchase; and determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of the business combination. SFAS No. 141R is to be applied prospectively to business combinations for which the acquisition date is on or after the beginning of an entity's fiscal year that begins on or after December 15, 2008. Solitario has not yet determined the impact, if any, of adopting SFAS No. 141R on its consolidated financial position, results of operations or cash flows.

In March 2008, the FASB issued Statement of Financial Accounting Standard No. 161, "Disclosures about Derivative Instruments and Hedging Activities" ("SFAS No. 161"), an amendment of SFAS No. 133. SFAS No. 161 requires enhanced disclosures about derivative instruments and hedged items that are accounted for under SFAS No. 133 and related interpretations. SFAS No. 161 will be effective for all interim and annual financial statements for periods beginning after November 15, 2008, with early adoption permitted. Solitario has not yet determined the impact, if any, of adopting SFAS No. 161 on its consolidated financial position, results of operations or cash flows.

2. Mineral Properties:

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

The following represents Solitario's investment in mineral properties:

(in thousands)

	December 31,	
	2008	2007
Mineral interests	\$3,808	\$3,727
Accumulated amortization	<u>(1,023)</u>	<u>(1,023)</u>
Net mineral interests	<u>\$2,785</u>	<u>\$2,704</u>

Solitario classifies its interest in mineral properties as Mineral Properties, net (tangible assets) pursuant to Emerging Issues Task Force No. 04-2 ("EITF No. 04-2"). Prior to adoption of EITF No. 04-2 in April 2004, we classified our interests in mineral properties as intangible assets, Mineral Interests, net and recorded amortization of the intangible asset. Pursuant to EITF No. 04-2, we no longer amortize our interest in Mineral Properties, net.

Peru

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Solitario holds exploration concessions or has filed applications for concessions covering approximately 28,000 hectares in Peru excluding properties held under joint ventures and operated by other parties. These applications are subject to normal administrative approvals and the mineral interests are subject to an annual rental of \$3.00 per hectare (approximately 2.477 acres per hectare) in June of each year, with 2,200 hectares subject to an additional \$6.00 per hectare surcharge as the concessions are more than 10 years old.

(a) Bongará

Solitario acquired the initial Bongará exploration concessions in 1993. Solitario currently owns 100% of the shares in Minera Bongará S.A., which holds a 100% interest in all the Bongará concessions covering approximately 6,000 hectares in northern Peru (the "Bongará project").

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 Bongará 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 Bongará Letter Agreement with Votorantim Metais ("Votorantim"). Solitario's and Votorantim's property interests will be held through the ownership of shares in a joint operating company that holds a 100% interest in the mineral rights and other project assets. At December 31, 2008, Solitario owns 100% of the shares in this company (Minera Bongará 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, by making cash payments of \$100,000 by August 15, 2007 (completed), \$200,000 by August 15, 2008 (completed), and by making further payments to Solitario of \$200,000 on all subsequent anniversaries 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. Additionally, Votorantim, in its sole discretion, may elect to terminate the option to earn the 70% interest at any time after the first year commitment. The 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. Votorantim will act as project operator. 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 has conducted annual drilling programs at Bongará for the years 2006-2008.

(b) Yanacocha Royalty property

The Yanacocha royalty property consists of 69 concessions totaling approximately 61,000 hectares in northern Peru 25 kilometers north of the city of Cajamarca. In January 2005, Solitario signed an Amended and Restated Royalty Grant with Minera Los Tapados S.A., a subsidiary of Newmont Peru Limited, Minera Yanacocha S.R.L., and Minera Chaupiloma Dos de Cajamarca, S.R.L. (affiliates of Newmont Peru, Ltd., collectively "Newmont Peru") to modify the net smelter return ("NSR") royalty on the Yanacocha Royalty property located immediately north of the Newmont Mining-Buenaventura's Minera Yanacocha Mine, the largest gold mine in South America. The amended royalty provides for a sliding scale royalty which pays a maximum of 5.75% joint government of Peru plus Solitario royalty when the gold price is greater than \$500 per ounce. Solitario may receive up to a 5% royalty, however that royalty to Solitario is reduced by any royalty paid to the government of Peru, which is currently between one and three percent, depending on the mine's annual revenues. In addition to amending the NSR royalty schedule, the Letter Agreement committed Newmont Peru to a long-term US\$4.0 million work commitment on Solitario's royalty property and provides Solitario access to Newmont Peru's future exploration results on an annual basis. The Yanacocha royalty amendment and work commitment Letter Agreements were subsequently replaced by a definitive agreement with the same terms. Newmont has not reported reserves on the Yanacocha property and Solitario has not received any royalty income from Newmont.

(c) La Tola Royalty property

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

(d) Santiago

In February of 2007, Solitario acquired 5,600 hectares of 100%-owned mineral rights through concessions for its Santiago property in southern Peru. Solitario capitalized \$17,000 during the year ended December 31, 2007 in lease acquisition costs related to these concessions. The Santiago project consists of a single property block where previous surface sampling of rocks identified anomalous concentrations of gold in altered Tertiary volcanic rocks.

(e) Chambara

In September of 2006, Solitario acquired 5,200 hectares of 100%-owned mineral rights through concessions for its Chambara property (formerly called the Amazonas property) in northern Peru. Solitario capitalized \$17,000 during the year ended December 31, 2007 in acquisition costs related to new concessions.

On April 4, 2008 Solitario signed the Minera Chambara shareholders' agreement with Votorantim for the exploration of a large area of interest in northern Peru measuring approximately 200 by 85 kilometers. Votorantim contributed titled mineral properties within the area of interest totaling approximately 52,000 hectares for a 15% interest in Minera Chambara. Solitario contributed 9,500 hectares of mineral claims and certain exploration data in its possession for an 85% interest in Minera Chambara. Existing and future properties subject to the terms of the joint venture will be held by Minera Chambara. As of December 31, 2008 Minera Chambara's only assets are the titles to 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 our interest. If Votorantim provides such construction financing, Solitario would repay such financing, including interest from 80% of Solitario's portion of the project cash flow. Because Votorantim controls Minera Chambara, Solitario records its investment in Minera Chambara using the equity-method of accounting. During the second quarter of 2008, Solitario transferred its interest in the claims of \$30,000 from mineral properties, net to equity method investment. During 2008, Solitario reduced its equity method investment in Minera Chambara to zero, through a non-cash charge to exploration expense. Solitario does not anticipate it will record an increase in the book value of its 85% equity-method investment in the shares of Minera Chambara in the foreseeable future.

(f) Newmont Strategic Alliance

On January 18, 2005, Solitario signed a Strategic Alliance Agreement (the "Alliance Agreement") with Newmont Overseas Exploration Limited ("Newmont Exploration"), to explore for gold in South America (the "Strategic Alliance"). Prior to the definitive agreement, Solitario had signed a Letter of Intent on November 17, 2004, with Newmont Exploration. Concurrent with the signing of the Alliance Agreement, Newmont Mining Corporation of Canada ("Newmont Canada") purchased 2.7 million shares of Solitario (approximately 9.9% equity interest) for Cdn\$4,590,000. Solitario is committed to spend \$3,773,000 over the four years from the date of the Alliance Agreement on gold exploration in regions ("Alliance Projects Areas") that are mutually agreed upon by Newmont Exploration and Solitario. As of December 31, 2008, Solitario has spent approximately \$2,997,000 of this commitment. Newmont elected to extend the four-year expenditure period for such additional time necessary to enable Solitario to spend the full \$3,773,000 on qualified exploration expenditures. If Solitario acquires properties within Alliance Project Areas and meet certain minimum exploration expenditures, Newmont Exploration 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 Exploration may elect to earn a lesser interest or no interest at all, in which case it would retain a 2% net smelter return royalty. Newmont Exploration also has a right of first offer on any non-alliance Solitario property in South America, acquired after the signing of the Alliance Agreement, that Solitario may elect to sell an interest in, or joint venture with a third party.

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

Brazil

(a) Pedra Branca

In October 2000, Solitario recorded \$3,627,000 in mineral interest additions for the Pedra Branca project in connection with the acquisition of Altoro Gold Corp. ("Altoro"). At December 31, 2008, the Pedra Branca project consisted of 89 exploration concessions totaling approximately 116,624 hectares in Ceará 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 Mineração S.A., a 70%-owned subsidiary of Solitario incorporated in Brazil, holds 100%-interest in all concessions. Eldorado Gold Corporation is entitled to a 2% NSR royalty on 10 of the concessions totaling 10,000 hectares.

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

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 30% interest in PBM as of December 31, 2008, as a result of spending a total of \$4.0 million on exploration at Pedra Branca. Additionally, the Shareholders Agreement provides that Anglo may incrementally earn up to a 51% interest in PBM by spending a total of \$7 million on exploration (\$3.0 million in addition to the \$4.0 million spent as of December 31, 2008) at Pedra Branca by June 30, 2010. However, Anglo is not required to fund any future exploration expenditures. Anglo can earn an additional 9% interest in PBM (for a total of 60%) by completing either (i) a bankable feasibility study or (ii) spending an additional \$10.0 million on exploration or development. Anglo can also earn an additional 5% interest in PBM (for a total of 65%) by arranging for 100% financing to put the project into commercial production.

As part of the Shareholders Agreement, Solitario entered into a Services Agreement with Anglo whereby Solitario (and/or our subsidiaries) would act as an independent contractor directing the exploration and administrative activities for PBM and its shareholders. Under the Services Agreement, Solitario receives a 5% management fee based upon total expenditures. During 2008 Solitario recorded management fees of \$75,000, to PBM, which are eliminated in consolidation, net of \$11,000 of minority interest. During 2007 Solitario recorded \$52,000 of management fees included as joint venture reimbursements.

(b) Mercurio

In September 2005, Solitario completed an option agreement for the purchase of 100% of the mineral rights over the 8,476-hectare Mercurio property in the state of Para, Brazil. An initial payment of 20,000 Brazilian Reals (approximately \$7,000) was paid on signing of the agreement and the next payment of 36,000 Reals (approximately \$12,000) was made in 2005 on signing of a definitive agreement upon conversion of the existing washing claims to exploration claims. Further payments are required upon the conversion of garimpeiro licenses to exploration claims which occurred in the third quarter of 2006. During 2008 and 2007 payments totaled approximately \$60,000 and \$55,000, respectively. To purchase the property, an

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escalating scale of payments totaling 780,000 Reals (approximately \$325,000) are required over a sixty month period. A net smelter return of 1.5% is retained by the owner. This NSR can be extinguished with a payment of 2,300,000 Reals (approximately \$1,958,000). All payments are indexed to inflation as of the signing of the agreement. The owner of the mineral rights also owns the surface rights, the use of which is included in the exploration of the property. On completion of all payments we will receive title to 1,500 hectares of surface rights. Solitario may terminate the agreement at any time at our sole discretion. Solitario has conducted extensive soil sampling and auger testing of soils over a large portion of the property during the past four years with three rounds of core drilling a total of 36holes. The third round of core drilling was completed in the first quarter of 2008.

Bolivia

(a) Triunfo

The 256-hectare Triunfo poly-metallic exploration property in Bolivia was acquired in 2003. Lease obligations were renegotiated in 2006 providing for a payment of \$12,000, which was paid in July of 2006, a payment of \$35,000, which was paid in June 2007. In June of 2008 we amended the contract with the option holder for the Triunfo property that suspends the payments agreed to under the contract. For the right to suspend payments we are required to pay \$5,000 per year until such time as we decide to continue exploration drilling. The first payment of the "stand-by" period was made on signing of the amendment and such suspension shall continue for so long as we pay \$5,000 on the anniversary of the signing of the amendment. An option to purchase the property for \$1,000,000 must be exercised by September 2009. A geophysical survey has been completed on the property and three holes were drilled in the first half of 2007.

(b) Espanola

Solitario optioned the Espanola gold-copper property in western Bolivia in July 2008. The initial option payment was \$5,000, with annual payments of \$10,000 until drilling commences, at which time a \$55,000 payment will be due on the anniversary date. Solitario has the right to earn a 90% interest in the property from a private Bolivian party.

Mexico

(a) Pachuca

The 30,700 hectare Pachuca Real silver-gold property in central Mexico was acquired by staking in late 2005 and early 2006. Part of the property, the 13,600 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 \$75,000 as of December 31, 2008.

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

(b) La Noria

During the second quarter of 2008 Solitario staked 10,000 hectares in Sonora State of Mexico comprising the La Noria project. Strong alteration of rocks detected by the study of satellite images suggests good potential for the discovery of porphyry copper deposits.

(c) Purica

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In April 2008 Solitario optioned 1,131 hectares in the Sonora state of Mexico over a large area of alteration between the La Caridad and Cananea open pit copper mines. Subsequently, we staked an additional 1,914 hectares in the name of Solitario's subsidiary in Mexico. An extensive geologic mapping and geochemical sampling program was completed in the first half of 2008 and showed a well defined area of alteration and copper mineralization over an area 800 by 600 meters. An IP geophysical program was completed soon thereafter and revealed a moderate chargeability anomaly coincident with the anomalous geochemistry and alteration.

Discontinued Projects

During 2008 Solitario did not abandon any projects.

Exploration Expense

The following items comprised exploration expense:

(in thousands)	2008	2007	2006
Geologic, drilling and assay	\$1,669	\$1,569	\$1,370
Field expenses	1,394	1,369	995
Administrative	1,526	1,216	842
Joint venture reimbursement	-	(1,042)	(265)
Total exploration expense	\$4,589	\$3,112	\$2,942

On December 23, 2008 Anglo earned a 30% interest in PBM, discussed above under Pedra Branca. Anglo had previously earned a 15% interest in PBM as of September 30, 2007. As a result of earning this minority interest, funding of PBM exploration expenses by Anglo were no longer recorded as joint venture reimbursements but are recorded as equity contributions to Solitario's additional paid-in capital for Solitario's 70% of the funding by Anglo. Additionally, Solitario recorded minority interest of \$227,000 and \$17,000, respectively, during 2008 and 2007 in the statement of operations for Anglo's share of PBM loss. PBM received cash payments of \$1,700,000 and \$90,000, respectively, for funding of PBM exploration expenses from Anglo during 2008 and 2007, which were recorded as addition to paid-in capital, less minority interest of \$255,000 and \$14,000. Upon Anglo earning an additional 15% interest in PBM during 2008, Solitario recorded an increase of \$416,000 to minority interest through a reduction to additional-paid-in capital.

3. Related party transactions:

Crown Resources Corporation

Crown provided management and technical services to Solitario under a management and technical services agreement originally signed in April 1994 and modified in April 1999, December 2000 and July 2002. The agreement was terminated on August 31, 2006 upon the completion of the Crown - Kinross merger. Under the modified agreement we were billed by Crown for services at 25% of Crown's corporate administrative costs for executive and technical salaries, benefits and expenses, 50% of Crown's corporate administrative costs for financial management and reporting salaries, benefits, expenses and 75% of Crown's corporate administrative costs for investor relations salaries, benefits and expenses. In addition, we reimbursed Crown for direct out-of-pocket expenses. These allocations were based upon the estimated time and expenses spent by Crown management and employees on both Crown activities and Solitario activities. Our management believed these allocations were reasonable and the allocations were periodically reviewed by our management and approved by independent Board members of both Crown and Solitario. Management service fees were billed monthly, due on receipt and are generally paid within thirty days. We did not incur any management service fees during 2008 or 2007. Our management service fees were \$232,000 for the year ended December 31, 2006.

Christopher E. Herald, and Mark E. Jones, III were directors of both Crown and Solitario until August 31, 2006 when they resigned as directors of Crown upon the completion of the Crown - Kinross merger. Steven Webster and Brian Labadie were directors of both Crown and Solitario from June 27, 2006 to August 31, 2006, when they resigned as directors of Crown upon the completion of the Crown - Kinross merger. Christopher E. Herald, James R. Maronick and Walter H. Hunt were

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officers of both Crown and Solitario until August 31, 2006 when they resigned as officers of Crown upon the completion of the Crown - Kinross merger.

Mark Jones Consulting Agreement

On September 1, 2006, Solitario entered into a consulting agreement with Mark E. Jones, III, a director and vice-chairman of our Board of Directors. The consulting agreement had a two-year term and terminated on August 31, 2008. Under the agreement, Mr. Jones advised Solitario on matters of strategic direction, planning, and identification of corporate opportunities, when and as requested by the Solitario. In consideration for the services to be performed, Mr. Jones was paid a one time lump sum payment of \$160,000, plus he was entitled to receive pre-approved, documented expenses incurred in performance of the consulting services. Solitario recognized \$53,000, \$80,000, and \$27,000, respectively, for consulting expense related to the agreement, included in general and administrative expense for the years ended December 31, 2008, 2007 and 2006.

TNR Gold Corp.

As of December 31, 2008, Solitario owns 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 \$33,000. During 2008, Solitario recognized an asset impairment of \$107,000 for an other-than-temporary decline in the value of its TNR stock, less deferred taxes of \$40,000. The loss was previously included as a loss in other comprehensive income. Christopher E. Herald, our CEO, is a member of the Board of Directors of TNR.

4. Income Taxes:

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

(in thousands)	2008	2007	2006
Deferred:			
United States	\$1,362	\$ (721)	\$ (1,350)
Foreign	-	86	-
Operating loss and credit carryovers:			
United States	766	537	4
Foreign	-	(86)	-
Income tax expense (benefit)	<u>\$2,128</u>	<u>\$ (184)</u>	<u>\$ (1,346)</u>

Consolidated income (loss) before income taxes includes losses from foreign operations of \$4,987,000, \$3,872,000, and \$3,286,000, in 2008, 2007 and 2006, respectively.

During 2008, 2007 and 2006, Solitario recognized other comprehensive income related to unrealized gains on marketable equity securities of \$620,000, \$9,669,000, and \$9,205,000, respectively. Other comprehensive income has been charged \$231,000, \$3,317,000, and \$3,590,000, respectively, for the income tax expense associated with these gains. During 2008, 2007 and 2006, Solitario transferred unrealized gain of \$3,576,000, \$4,085,000 and \$2,121,000, respectively from other comprehensive income upon the sale of 192,920, 400,000 and 200,000 shares, respectively, of Kinross common stock, less income tax of \$1,334,000, \$1,524,000 and \$827,000, respectively, associated with these unrealized gains. In addition, during 2008, Solitario recognized an asset impairment of \$107,000 for an other-than-temporary decline in the value of its TNR stock, less deferred taxes of \$40,000. The loss was previously included as a loss in other comprehensive income.

The net deferred tax assets/liabilities in the December 31, 2008 and 2007 consolidated balance sheets include the following components:

(in thousands)	2008	2007
Deferred tax assets:		
Net operating loss (NOL) carryovers	\$ 7,770	\$ 7,004

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Stock option compensation expense	188	1,509
Royalty	1,492	1,492
Derivative instruments	235	635
Other	25	24
Valuation allowance	<u>(7,968)</u>	<u>(6,436)</u>
Total deferred tax assets	<u>1,742</u>	<u>4,228</u>
Deferred tax liabilities:		
Unrealized gain on derivative securities	477	835
Exploration costs	845	845
Unrealized gains on marketable equity securities	7,362	8,425
Other	<u>5</u>	<u>6</u>
Total deferred tax liabilities	<u>8,689</u>	<u>10,111</u>
Net deferred tax liabilities	<u>\$6,947</u>	<u>\$ 5,883</u>

At December 31, 2008 and 2007, Solitario has classified \$884,000 and \$1,515,000, 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>2008</u>	<u>2007</u>	<u>2006</u>
Expected income tax expense (benefit)	\$436	\$(1,558)	\$(2,379)
Non-deductible foreign expenses	75	(12)	122
Non-deductible foreign stock compensation expense	(60)	66	23
Foreign tax rate differences	100	53	38
State income tax	188	(2)	(118)
Change in enacted tax rates	-	191	-
Change in valuation allowance	1,532	1,116	957
Permanent differences and other	<u>(143)</u>	<u>(38)</u>	<u>11</u>
Income tax expense (benefit)	<u>\$ 2,128</u>	<u>\$ (184)</u>	<u>\$ (1,346)</u>

During 2008, 2007 and 2006, 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, 2008, Solitario has unused US Net Operating Loss ("NOL") carryovers of \$1,203,000 which begin to expire commencing in 2012. Solitario also 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. In connection with the Bankruptcy of Crown and Solitario's acquisition of Altoro Gold Corp., Solitario had a greater than fifty percent change in ownership as defined in Section 382 of the Internal Revenue Code. Pursuant to Section 382, the resulting annual limitation on the amount of future taxable income in the United States available to be offset by Solitario's carryovers is approximately \$614,000 per year.

On January 1, 2007, Solitario adopted the provisions of FIN 48, 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. FIN 48 requires that Solitario recognize in our 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 FIN 48, Solitario performed a comprehensive review of our material tax positions in accordance with recognition and measurement standards established by FIN 48. The provisions of FIN 48 had no effect on Solitario's financial position, cash flows or results of operations at January 1, 2007, December 31, 2007, or December 31, 2008 as Solitario had no unrecognized tax benefits.

Solitario and its subsidiaries are subject to the following material taxing jurisdictions: United States Federal, State of Colorado, Mexico, Peru and Brazil. The tax years that remain open to examination by the United States Internal Revenue Service are years 2005 through 2008. The tax years that remain open to examination by the State of Colorado are years 2004

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through 2008. The tax years that remain open to examination by Mexico are years 2005 through 2008. All tax years remain open to examination in Peru and Brazil. Solitario's policy is to recognize interest and penalties related to uncertain tax benefits in income tax expense. Solitario has no accrued interest or penalties related to uncertain tax positions as of January 1, 2007, December 31, 2007, or December 31, 2008.

5. Fair Value of Financial Instruments:

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

The fair value of the Kinross shares was \$21,183,000 and \$24,710,000 at December 31, 2008 and 2007, respectively. The fair value of the TNR shares was \$33,000 and \$316,000 at December 31, 2008 and 2007, respectively. The fair value of the liability for the Kinross Calls was \$116,000 at December 31, 2008.

The fair value of the Kinross Collar at December 31, 2008 and 2007 was \$513,000 and \$1,702,000, respectively, recorded as a liability and a loss on derivative instrument of the same amount in the statement of operations based upon a determination of Solitario using a Black-Scholes option pricing model and an evaluation of what a willing buyer and willing seller would exchange the Kinross Collar for in an arm's-length transaction. Solitario used independent inputs to its Black-Scholes option pricing model for the market price of a share of Kinross common stock, the historical volatility of Kinross common stock, the risk-free interest rate and the life of the collar for each of the Floor Price and Cap Price in the Kinross Collar discussed above in Note 1.

6. Commitments and Contingencies

In acquiring its interests in mineral claims and leases, Solitario has entered into lease agreements, which may be canceled at its option without penalty. Solitario is required to make minimum rental and option payments in order to maintain its interests in certain claims and leases. See Note 2. Solitario estimates its 2009 mineral property rental and option payments to be approximately \$368,000. If Solitario's current joint venture partners elect to continue funding their respective joint ventures throughout the remainder of 2009, the joint venture partners will pay or Solitario will be reimbursed for approximately \$106,000 of those costs.

Solitario is required to spend \$3,773,000 on Alliance Properties as discussed above under "Newmont Alliance" over the four years ended January 18, 2009 on gold exploration in regions that are mutually agreed upon by Newmont Exploration and Solitario. As of December 31, 2008, we have expended \$2,997,000 of the total commitment of \$3,773,000. Newmont has elected to extend the four-year expenditure period for such additional time necessary to enable Solitario to spend the full \$3,773,000 on qualified exploration expenditures. Newmont may also elect to become the manager of the Alliance Agreement and direct and spend the remaining balance of the \$3,773,000 qualified exploration expenditures using Solitario funds.

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 2008, 2007 and 2006 was approximately \$36,000, \$42,000, and \$28,000, 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 2009 of \$28,000.

7. Stock Option Plans:

The activity in the 1994 Plan and the 2006 Plan for the three years ended December 31, 2008 is as follows:

	2008		2007		2006	
	Weighted Average Exercise Price(Cdn\$)	Options	Weighted Average Exercise Price (Cdn\$)	Options	Weighted Average Exercise Price (Cdn\$)	Options
1994 Plan						

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Outstanding, beginning of year	110,000	\$0.81	1,027,000	\$0.74	2,240,000	\$0.82
Exercised	<u>(110,000)</u>	\$0.81	<u>(917,000)</u>	\$0.73	<u>(1,213,000)</u>	\$0.90
Outstanding, end of year	<u>-</u>	n/a	<u>110,000</u>	\$0.81	<u>1,027,000</u>	\$0.74
Exercisable, end of year	<u>-</u>	n/a	<u>110,000</u>	\$0.81	<u>1,027,000</u>	\$0.74
2006 Plan						
Outstanding, beginning of year	2,184,500	\$3.29	1,637,500	\$2.77	-	-
Granted	-		612,000	\$4.62	1,655,000	\$2.77
Forfeited	<u>(28,750)</u>	\$4.13	<u>(52,500)</u>	\$2.77	-	-
Exercised	<u>(20,750)</u>	\$2.96	<u>(12,500)</u>	\$2.77	<u>(17,500)</u>	\$2.77
Outstanding, end of year	<u>2,135,000</u>	\$3.28	<u>2,184,500</u>	\$3.29	<u>1,637,500</u>	\$2.77
Exercisable, end of year	<u>1,451,000</u>	\$3.15	<u>933,000</u>	\$3.07	<u>396,250</u>	\$2.77

The following table summarizes Solitario's stock options as of December 31, 2008:

Exercise price	Options Outstanding			Options Exercisable	
	Number	Weighted Average Remaining Contractual Life (in years)	Weighted Average Exercise Price(Cdn\$)	Number Exercisable	Weighted Average Exercise Price(Cdn\$)
2006 Plan					
Cdn\$2.77	1,548,000	1.5	\$2.77	1,158,000	\$2.77
Cdn\$4.38	5,000	2.9	\$4.38	2,500	\$4.38
Cdn\$5.12	100,000	3.5	\$5.12	50,000	\$5.12
Cdn\$4.53	<u>482,000</u>	3.7	\$4.53	<u>241,000</u>	\$4.53
	<u>2,135,000</u>	3.1	\$3.28	<u>1,451,500</u>	\$3.15

8. Stockholders' Equity:

During 2008, options for 130,750 shares of Solitario common stock were exercised for cash proceeds of \$148,000 and Solitario transferred \$477,000 from stock option liability to additional paid-in capital upon the exercise of these shares. During 2007, options for 929,500 shares of Solitario common stock were exercised for cash proceeds of \$607,000 and we transferred \$2,928,000 from stock option liability to additional paid-in capital upon the exercise of these shares.

Anglo contributed \$1,700,000 and \$90,000, respectively, to fund PBM during 2007 and 2006 and these cash amounts were recorded as additional paid-in capital, less minority interest of \$255,000 and \$13,000. During each of 2008 and 2007, Anglo earned a 15% interest in PBM to a total of 30% at December 31, 2008, pursuant to the terms of the Shareholders' Agreement. Solitario transferred \$416,000 and \$391,000, respectively, from additional paid-in capital to minority interest to reflect Anglo's increased interest in PBM, during 2008 and 2007.

Solitario recorded \$620,000 and \$9,669,000, respectively, in unrealized gains on marketable equity securities, less taxes of \$231,000 and \$3,317,000, respectively, in unrealized gains on marketable equity securities in other comprehensive income during 2008 and 2007. Solitario also recognized gain on the sale of \$3,576,000 and \$4,085,000, respectively, less taxes of \$1,334,000 and \$1,523,000, respectively, which were reclassified from unrealized gain on marketable equity securities in other comprehensive income during 2008 and 2007. Solitario recognized an asset impairment of \$107,000, less taxes of \$40,000 which was reclassified from unrealized gain on marketable equity securities in other comprehensive income during 2008.

9. Selected Quarterly Financial Data (Unaudited):

(in thousands)	2008			
	March 31, (1)(2)(4)(5)(6)	June 30, (1)(2)(4)(5)(6)	Sept. 30, (1)(2) (3)(4)(5)(6)	Dec. 31, (2)(4)(5)(6)
Revenue	\$ -	\$ -	\$ 200	\$ -
Net income (loss)	\$ (1,513)	\$ (1,409)	\$ 3,193	\$ (888)
Earnings (loss) per share:	\$ (0.05)	\$ (0.05)	\$ 0.11	\$ (0.03)

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Basic and diluted				
Weighted shares outstanding:				
Basic	29,628	29,642	29,744	29,750
Diluted	29,628	29,642	30,049	29,750

(in thousands)	2007			
	March 31, <small>(7)(8)(9)</small>	June 30, <small>(7)(9)</small>	Sept. 30, <small>(7)(8)(9)(10)</small>	Dec. 31, <small>(7)(8)(9)(11)</small>
Revenue	\$ -	\$ -	\$ 100	\$ -
Net income (loss)	\$ 571	\$ (1,492)	\$ (1,135)	\$ (2,341)
Earnings (loss) per share:				
Basic and diluted	\$ 0.02	\$ (0.05)	\$ (0.04)	\$ (0.08)
Weighted shares outstanding:				
Basic	29,028	29,607	29,607	29,617
Diluted	30,228	29,607	29,607	29,617

(1) Solitario sold 100,000 shares of Kinross common stock in the first quarter for proceeds of \$2,229,000 and a gain of \$1,787,000, sold 42,920 shares of Kinross common stock in the second quarter for proceeds of \$986,000 and a gain of \$796,000, and sold 50,000 shares of Kinross common stock in the third quarter for proceeds of \$1,214,000 and a gain of \$993,000. The large gain in the first quarter contributed to the net income in that quarter compared to the other three. Solitario did not sell any Kinross shares in the fourth quarter, which contributed to the loss in the fourth quarter.

(2) Exploration expense increased from \$1,021,000 in the first quarter to \$1,026,000 in the second quarter to \$1,265,000 in the third quarter to \$1,277,000 in the fourth quarter, contributing to the increasing loss by quarter after consideration of the Kinross stock sales in the first, second, and third quarters, discussed above.

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

(4) In the first, second and fourth quarters, Solitario recognized \$1,867,000, \$864,000 and \$789,000 derivative loss on the Kinross Collar, however in the third quarter Solitario recognized a \$4,697,000 derivative gain which contributed to the lower loss in the quarter.

(5) Solitario recognized stock option compensation expense of \$102,000 in the first quarter, and recognized stock option compensation benefit of \$85,000, \$1,377,000 and \$1,896,000 in the second, third and fourth quarters.

(6) Solitario recognized income tax benefit of \$213,000 and \$130,000 during the first and second quarter, compared to an income tax expense of \$2,347,000 and \$124,000 during the third and fourth quarters of 2008, which contributed to the variation in the quarter net income and (loss).

(7) Solitario recorded incremental stock option compensation expense (credit) of \$(164,000), \$781,000, \$722,000 and \$652,000, respectively, in the quarters ended March 31, June 30, September 30 and December 31, 2007, related to changes in the fair value of our outstanding options.

(8) Solitario sold 200,000 shares of Kinross common stock in the first quarter for proceeds of \$2,645,000 and a gain of \$2,068,000, sold 100,000 shares of Kinross common stock in the third quarter for proceeds of \$1,332,000 and a gain of \$889,000, and sold 100,000 shares of Kinross common stock in the fourth quarter for proceeds of \$1,571,000 and a gain of \$1,128,000.

(9) Exploration expense increased from \$393,000 in the first quarter to \$659,000 in the second quarter to \$846,000 in the third quarter to \$1,214,000 in the fourth quarter, contributing to the increasing loss by quarter after consideration of the Kinross stock sales in the first, third and fourth quarters discussed above.

(10) In the third quarter Solitario received a payment of \$100,000 in joint venture revenue on its Bongará project in Peru.

(11) In the fourth quarter, we recognized \$1,702,000 derivative loss on the Kinross Collar, which contributed to the increased loss in the quarter.

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

None

Item 9A. Controls and Procedures

Disclosure controls and procedures

Disclosure controls and procedures are our controls and other procedures that are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports that we file under the Securities Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

As of the end of the period covered by this report (the "Evaluation Date"), we carried out an evaluation, under the supervision and with the participation of the Company's management, including the Company's Chief Executive Officer and the Company's Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Exchange Act Rule 13a-15. Based upon that evaluation, our Chief Executive Officer and the Chief Financial Officer concluded that as of the Evaluation Date, our disclosure controls and procedures were effective.

Internal control over financial reporting

The management of Solitario is responsible for maintaining effective internal controls over financial reporting. Internal control over financial reporting is a process designed by, or under the supervision of our Chief Executive Officer and our Chief Financial Officer, and effected by our Board of Directors, through our Audit Committee, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America. These include procedures that (i) pertain to maintenance of records in reasonable detail to accurately reflect our transactions and disposition of assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements and that receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Our management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework and criteria established in *Internal Control – Integrated Framework*, issued by the Committee of Sponsoring Organizations of the Treadway Commission. This evaluation included review of the documentation of controls, evaluation of the design effectiveness of controls, testing of the operating effectiveness of controls and a conclusion on this evaluation. Based on this evaluation, management concluded that Solitario's internal control over financial reporting was effective as of December 31, 2008. Management's assessment of the effectiveness of our internal control over financial reporting as of December 31, 2008 has been audited by Ehrhardt Keefe Steiner & Hottman PC, an independent registered public accounting firm, as stated in their report which is included in Item 8 of this Report.

In connection with Solitario's development, documentation and implementation of internal controls, within the quarter ended December 31, 2008 Solitario implemented certain changes to internal control over financial reporting, as defined in Rules 13a -15. These changes include the requirement for additional training and education of our financial personnel and the review and evaluation of accounting principles generally accepted in the United States of America ("GAAP") including a requirement that management document in writing the impact of new and existing GAAP to our financial statements and disclosures, which will be reported to and reviewed by our Audit Committee after each quarter prior to the issuance of financial reports. These changes have been implemented during the preparation of this Form 10-K to remediate previously disclosed weaknesses in internal controls.

Item 9A(T). Controls and Procedures

Not Applicable

Item 9B. Other Information

None

PART III

Item 10 Directors, Executive Officers and Corporate Governance

The information required under Item 10 is incorporated herein by reference to the information set forth under the following sections in our definitive proxy statement in connection with the annual meeting of shareholders to be filed with the Securities and Exchange Commission within 120 days after the end of our fiscal year ended December 31, 2008 pursuant to Section 14(a) of the Securities Exchange Act of 1934 (the "2009 Proxy"):

"Election of Directors"

"Executive and Director Compensation"

Item 11. Executive Compensation

The information required under Item 11 is incorporated herein by reference to the information set forth under the following sections of the 2009 Proxy:

"Executive and Director Compensation"

"Compensation Discussion and Analysis"

"Summary Compensation Table"

"Grants of Plan Based Awards"

"Outstanding Equity Awards at Fiscal Year End"

"Option Exercises and Stock Vested"

"Election of Directors"

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

The information with respect to Item 12 is incorporated herein by reference to the information set forth under the following section of the 2009 Proxy:

"Compensation Plans"

"Security Ownership of Certain Beneficial Owners"

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

The information with respect to Item 13 is incorporated herein by reference to the information set forth under the following section of the 2009 Proxy:

"Certain Relationships and Related Transactions"

"Election of Directors"

Item 14. Principal Accounting Fees and Services

The information required under Item 14 is incorporated herein by reference to the information set forth under the following section of the 2009 Proxy:

"Principal Accountant Fees and Services"

PART IV

Item 15. Exhibits, Financial Statement Schedules

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

1. Financial Statements

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

Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

Consolidated Balance Sheets as of December 31, 2008, and December 31, 2007

Consolidated Statements of Operations for the years ended December 31, 2008, December 31, 2007,
and December 31, 2006

Consolidated Statements of Stockholders' Equity for the years ended December 31, 2008, December 31, 2007,
and December 31, 2006

Consolidated Statements of Cash Flows for the years ended December 31, 2008, December 31, 2007,
and December 31, 2006

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.

INDEX TO EXHIBITS

Description

- 3.1 Articles of Incorporation of Solitario Exploration & Royalty Corp., as Amended (incorporated by reference to Exhibit 3.1 to Solitario's Form 10-Q filed on August 7, 2008)
- 3.2 Amended and Restated By-laws of Solitario Exploration & Royalty Corp. (incorporated by reference to Exhibit 3.2 to Solitario's Form 10-Q filed on August 7, 2008)
- 4.1 Form of Common Stock Certificate of Solitario Exploration & Royalty Corp. (incorporated by reference to Exhibit 4.1 to Solitario's Form 10-Q filed on August 7, 2008)
- 10.1 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)
- 10.2 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)
- 10.3 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)
- 10.4 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)
- 10.5 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)
- 10.6 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)
- 10.7 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)
- 10.8 Framework Agreement for the Exploration and Development of Potential Mining Properties, related to Solitario's 100% owned Bongará project in Peru between Minera Bongará 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)
- 10.9 Shareholders Agreement relating to the Pedra Branca Project in Brazil, between Anglo Platinum Brasil, S.A. and Altoro Mineracao, LTDA and Pedra Branca do Brasil Mineração S.A. and Rustenburg Platinum Mines Limited and Solitario Resources Corporation dated April 24, 2007. (incorporated by reference to Exhibit 10.1 to Solitario's Form 8-K filed on October 4, 2007)
- 10.10 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)
- 10.11 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)

- 10.12 Single Pay Collar Confirmations between Solitario Resources Corporation and UBS AG, London, England, an affiliate of UBS Securities, LLC, Stamford, CT dated October 12, 2007 for the pledge of 900,000 shares of Kinross common stock pursuant to the Master Agreement for Equity Collars and the Pledge and Security Agreement, filed above in item 10.1 and 10.2 respectively, setting the trade and termination date, upper and lower threshold prices, number of shares and other terms and conditions of three equity collars entered into on the same date. (incorporated by reference to Exhibit 10.3 to Solitario's Form 10-Q filed on November 8, 2007)
- 14.1 Code of Ethics for the Chief Executive Officer and Senior Financial Officer (incorporated by reference to Exhibit 99.1 to Solitario's Form 8-K filed on July 18, 2006)
- 21.1 Subsidiaries of Solitario Resources Corporation
- 23.1 Consent of Ehrhardt Keefe Steiner & Hottman PC
- 24.1 Power of Attorney
- 31.1 Certification of Chief Executive Officer pursuant to SEC Rule 13a-14(a)/15d-14(a) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 31.2 Certification of Chief Financial Officer pursuant to SEC Rule 13a-14(a)/15d-14(a) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 32.1 Certification of Chief Executive Officer pursuant to 18 U.S.C Section 1350 as 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.

SOLITARIO EXPLORATION & ROYALTY CORP.
Schedule of Subsidiaries

December 31, 2008

Solitario Exploration & Royalty Corp. [Colorado]

Subsidiaries-[jurisdiction] - percentage owned

- Altoro Gold Corp. [British Columbia, Canada] - 100%
- Altoro Gold (BVI) Corp. [British Virgin Islands] - 100%
- Minera Altoro (BVI) Ltd. [British Virgin Islands]- 100%
- Minera Andes (BVI) Corp. [British Virgin Islands] -100%
- Compañía Minera Andes del Sur S.A. [Bolivia] - 100%
- Minera Altoro Brazil (BVI) Corp. [British Virgin Islands] - 100%
- Altoro Mineração, Ltda. [Brazil] - 100%
- Pedra Branca do Mineração, Ltda. [Brazil] -70% owned
- Minera Chambaza, S.A [Peru] - 85% owned
- Minera Solitario Peru, S.A. [Peru] - 100%
- Minera Bongará, S.A. [Peru] - 100%
- Minera Soloco, S.A. [Peru] - 100%
- Mineração Solitario Brazil, Ltd [Brazil]- 100%

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints James R. Maronick, his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign the Annual Report on Form 10-K for the fiscal year ended December 31, 2008, of Solitario Exploration & Royalty Corp. and any and all amendments thereto, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent, and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

NAME	DATE
<u>/s/ Steven A. Webster</u> Mark E. Jones, III	<u>March 10, 2009</u>
<u>/s/ Mark E. Jones, III</u> Mark E. Jones, III	<u>March 10, 2009</u>
<u>/s/ Brian Labadie</u> Daniel E. Leonard	<u>March 10, 2009</u>
<u>/s/ Christopher E. Herald</u> Christopher E. Herald	<u>March 10, 2009</u>
<u>/s/ Leonard Harris</u> Leonard Harris	<u>March 10, 2009</u>
<u>/s/ John Hainey</u> John Hainey	<u>March 10, 2009</u>