

4251 Kipling Street, Suite 390

Wheat Ridge, Colorado 80033

(303) 534-1030

(Name, address, including zip code and telephone number, including area code,
of agent for service)

It is requested that copies of all correspondence be sent to:

With a copy to:

Clifford R. Pearl, Esq.

Peter F. Waltz, Esq.

Polsinelli Shughart PC

1515 Wynkoop Street, Suite 600

Denver, Colorado 80202

Phone: (303) 572-9300

Facsimile: (303) 572-7883

Approximate date of commencement of proposed sale to public: From time to time after this Registration Statement becomes effective.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box: []

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box: [x]

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act Registration Statement number of the earlier effective Registration Statement for the same offering. []

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act Registration Statement number of the earlier effective Registration Statement for the same offering. []

If this form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box: []

If this form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box: []

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.

Non-accelerated filer
Large accelerated filer Accelerated filer S (do not check if a smaller reporting company) S
reporting company)

CALCULATION OF REGISTRATION FEE

TITLE OF EACH CLASS OF SECURITIES TO BE REGISTERED	AMOUNT TO BE REGISTERED (1)	PROPOSED MAXIMUM OFFERING PRICE PER SHARE (2)	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE (2)	AMOUNT OF REGISTRATION FEE (2)
Common Stock	1,624,748	\$1.5387		
Par Value \$0.01 Per Share, Upon Exercise of Warrants			\$2,500,000	\$ 287
Total	1,624,748	\$1.5387	\$2,500,000	\$287

(1) This registration statement shall also cover any additional shares of common stock which become issuable by reason of any stock dividend, stock split, recapitalization or any other similar transaction

effected without the receipt of consideration which results in an increase in the number of the Registrant's outstanding shares of common stock in accordance with Rule 416 of the Securities Act.

(2) Calculated in accordance with Rule 457(g) under the Securities Act.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(A) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE SECURITIES AND EXCHANGE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(A), MAY DETERMINE.

PROSPECTUS

SUBJECT TO COMPLETION,

DATED AUGUST 31, 2012

SOLITARIO EXPLORATION & ROYALTY CORP.

1,624,748 SHARES OF COMMON STOCK

This prospectus covers the offer and sale by the selling stockholder identified in this prospectus of up to 1,624,748 shares of common stock, \$0.01 par value per share, of Solitario Exploration & Royalty Corp. (referred to herein as “we” or “us” or the “Company”) to be issued upon the exercise of a warrant held by the selling stockholder (the “Warrant”). The Warrant was issued on August 21, 2012 to the selling stockholder in a private placement transaction as partial consideration for financing services provided in connection with the Company entering into a Facility Agreement on August 10, 2012. The Warrant is exercisable at \$1.5387 per share for a term of three years from its date of issuance. The exercise price, and the number of shares of common stock that may be acquired upon exercise of the Warrant, are subject to certain anti-dilution provisions. We are not selling any common stock under this prospectus and will not receive any of the proceeds from the sale or other disposition of shares by the selling stockholder. We will, however, receive proceeds from the exercise of the Warrant if the Warrant is exercised for cash.

Upon the exercise of the Warrant the selling stockholder may sell the common stock acquired upon exercise (the “Warrant Shares”) from time to time in the principal market on which the stock is traded at the prevailing market price or in negotiated transactions. The selling stockholder will bear all commissions and discounts, if any, attributable to the sales of shares. The selling stockholder may be deemed an underwriter of the Warrant Shares which it is offering. However, we will pay the expenses of registering the resale of the Warrant Shares.

Our Common Stock is registered under Section 12(b) of the Securities Exchange Act of 1934 (the “Exchange Act”) and is listed on the NYSE MKT under the symbol "XPL". The last reported sales price per share of our Common Stock as reported on August 29, 2012 by the NYSE MKT was \$1.26.

You should carefully read this prospectus and any applicable prospectus supplement before you invest. INVESTING IN THESE SECURITIES INVOLVES SIGNIFICANT RISKS. SEE "RISK FACTORS" BEGINNING ON PAGE 3.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this Prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this Prospectus is September [___], 2012.

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. THE SELLING STOCKHOLDER MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

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ABOUT THIS PROSPECTUS

You should rely only on the information contained or incorporated by reference in this prospectus. We have not, and the selling stockholder has not, authorized anyone to provide you with additional or different information. If anyone provides you with additional, different or inconsistent information, you should not rely on it. You should not assume that the information we have included in this prospectus is accurate as of any date other than the date of this prospectus or that any information we have incorporated by reference is accurate as of any date other than the date of the document incorporated by reference. Our business, financial condition, results of operations and prospects may have changed since that date.

All references to “we”, “us”, “our”, “Solitario” or the “Company” in this prospectus are to Solitario Exploration & Royalty Corp and its subsidiaries, unless the context suggests otherwise.

PROSPECTUS SUMMARY

This prospectus relates to the offer and sale by the selling stockholder identified in this prospectus, of up to 1,624,748 shares of our common stock. The number of shares the selling stockholder may sell consists solely of shares of common stock that it may receive if it exercises a warrant that was issued to the selling stockholder on August 21, 2012 (the “Warrant”). We are filing the registration statement (of which this prospectus is a part) to fulfill a contractual obligation to do so, which we undertook on August 10, 2012 pursuant to the terms of a Facility Agreement whereby the selling stockholder agreed to extend a loan to the Company. We will not receive any of the proceeds from the sale of the common stock by the selling stockholder, but we may receive the exercise price of the warrants if they are exercised for cash.

ABOUT SOLITARIO EXPLORATION & ROYALTY CORP.

Solitario is a development stage company that focuses on the acquisition of precious and base metal properties with exploration potential and the development or purchase of royalty interests. We acquire and hold a portfolio of exploration properties for future sale, joint venture, or to create a royalty prior to the establishment of proven and probable reserves. Although our mineral properties may be developed in the future on our own or through a joint venture, Solitario has never previously developed a mineral property. However, in August 2010 we signed a Letter of Intent related to the Mt. Hamilton project in Nevada, and in December 2010 we signed a Limited Liability Company Operating Agreement to form Mt. Hamilton LLC (“MH-LLC”). On February 22, 2012 we announced the completion of a feasibility study on our Mt. Hamilton project. As a result of the completion of that feasibility study, we have earned an 80% interest in the Mt. Hamilton project and intend to develop the Mt. Hamilton project, subject to a number of factors including obtaining necessary permits and availability of required capital, none of which is currently in place. Further, we are exploring on other mineral properties that may be developed in the future by us or through a joint venture. We may also evaluate mineral properties to potentially buy a royalty.

We have been actively involved in mineral exploration since 1993. We have recorded revenues from joint venture delay rental payments of \$200,000 each year, respectively, related to our Bongará project in Peru during 2011, 2010

and 2009, and during 2011 recorded \$42,000 of payment revenue related to our Mercurio project in Brazil. Previously, our 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, will also occur on an infrequent basis. At August 31, 2012, we had 12

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mineral exploration properties in the United States, Mexico, Brazil, Bolivia and Peru and our Yanacocha and La Tola royalty properties in Peru.

On August 10, 2012, we entered into a Facility Agreement (the “Facility Agreement”) with RMB Australia Holdings Limited, (“RMBAH”) and RMB Resources Inc., corporation (“RMBR”). Under the Facility Agreement, the Company may borrow up to \$5,000,000 at any time during the 24 month period commencing on the date of initial funding. The Company anticipates that, in addition to paying certain fees and costs associated with the Facility Agreement, the Company will use the proceeds from the loan(s) to be used for: (i) ongoing permitting and other pre-development efforts at the Mt. Hamilton gold project; (ii) ongoing earn-in payments related to MH-LLC, the Company’s 80% owned subsidiary, which owns the Mt. Hamilton project; (iii) general corporate purposes as set forth in a corporate and project budget approved by RMBAH, and (iv) for any other purpose approved by RMBAH.

Corporate Information

We were incorporated in Colorado on November 15, 1984 under the name Solitario Resources Corporation as a wholly-owned subsidiary of Crown Resources Corporation, or Crown. On June 12, 2008, our shareholders approved an amendment to the Articles of Incorporation to change our name from Solitario Resources Corporation to Solitario Exploration & Royalty Corp. In July 1994, Solitario became a publicly traded company on the Toronto Stock Exchange through its Initial Public Offering. On July 26, 2004, Crown completed a spin-off of its holdings of our shares to its shareholders as part of the acquisition of Crown by Kinross Gold Corporation. Our website address is www.solitarioxr.com. The information contained in, or that can be accessed through, our website is not incorporated by reference into this prospectus and is not part of this prospectus.

Our common stock is listed on the NYSE MKT under the symbol “XPL” and on the Toronto Stock Exchange under the symbol “SLR.” Our principal executive offices are located at 4251 Kipling Street, Suite 390, Wheat Ridge, Colorado 80033. Our telephone number is (303) 534-1030.

Note of Caution Regarding Forward-Looking Statements

This prospectus contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that involve risks and uncertainties, as well as assumptions that, if they never materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. All statements other than statements of historical fact are statements that could be deemed forward-looking statements, including any projections of financing needs, revenue, expenses, earnings or losses from operations, or other financial items; any statements of the plans, strategies and objectives of management for future operations; any statements concerning exploration and development plans and timelines; any statements of expectation or belief; and any statements of assumptions underlying any of the foregoing. In addition, forward looking statements may contain the words “believe,” “anticipate,” “expect,” “estimate,” “intend,” “plan,” “project,” “will be,” “will continue,” “will result,” “seek,” “could,” “may,” “might,” or any variations of such words or other words with similar meanings.

The forward-looking statements included in this prospectus represent our estimates as of the date of this prospectus. We specifically disclaim any obligation to update these forward-looking statements in the future, except as required by law. These forward-looking statements should not be relied upon as representing our estimates or views as of any date subsequent to the date of this prospectus.

The Company is under no duty to update any of these forward-looking statements after the date of this prospectus. You should not place undue reliance on these forward-looking statements.

RISK FACTORS

An investment in our common stock involves significant risks. You should carefully consider and evaluate all of the information included and incorporated by reference in this prospectus, including the risk factor set forth below, the risk factors incorporated herein by reference from “Item 1A. Risk Factors” of our Annual Report on Form 10-K for the year ended December 31, 2011, filed with the SEC on March 12, 2012, and as further updated by our subsequent Securities Exchange Act of 1934 filings we file with the SEC after the date of this prospectus and that are, in each case, incorporated by reference herein. Any of these risks could materially and adversely affect our business, results of operations and financial condition, which in turn could materially and adversely affect the price of our common stock and the value of your investment in our common stock.

Our substantial debt could adversely affect our financial condition; and our related debt service obligations may adversely affect our cash flow and ability to invest in and grow our businesses.

We have, and for the foreseeable future will continue to have, a significant amount of indebtedness. As of June 30, 2012 we had in excess of \$4,500,000 in short and long term indebtedness, and on or about August 10, 2012 we incurred an additional \$1,500,000 in indebtedness pursuant to the Facility Agreement. We likely will seek to draw down additional amounts under the terms of the Facility Agreement. Amounts outstanding under the Facility Agreement incur interest at the LIBOR plus 5% with interest being payable quarterly. Accordingly, if the LIBOR rates increase the corresponding interest rate under the Facility Agreement will increase. The servicing of this debt will require the Company to devote a substantial portion of its financial resources to its repayment, and as a result such funds will not be available to use in future operations, or investing in our businesses. Further, loans extended under the Facility Agreement are secured by substantially all of the Company’s assets and therefore if the Company defaults under the Facility Agreement it could result in the lender attempting to foreclose on those assets to satisfy the Company’s debt obligations.

USE OF PROCEEDS

We will not receive any of the proceeds from the sale or other disposition of shares of our common stock by the selling stockholder pursuant to this prospectus. The shares covered by this prospectus are issuable upon exercise of a warrant to acquire our common stock (the “Warrant”). Upon any exercise of the Warrant for cash, the selling stockholder would pay us the exercise price of the Warrants. The cash exercise price of the warrants is currently \$1.5387 per share of our common stock. It is expected that cash received from exercise of the Warrant will be used to repay any outstanding balance under the Facility Agreement, including any unpaid interest and fees. Any cash received from the exercise of the Warrant in excess of these payments will be used for general corporate purposes although we may use a portion of the proceeds to invest in or acquire additional mineral properties or royalty interests.

Additionally, under certain conditions set forth in the Warrant, the warrant is exercisable on a cashless basis. If all or any portion of the Warrant is exercised on a cashless basis, we would not receive any cash payment from the selling

stockholder upon exercise.

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SELLING STOCK HOLDER

On August 10, 2012, we entered into the Facility Agreement with and RMBAH and RMBR whereby RMBAH agreed to loan us up to \$5,000,000. In connection with the Facility Agreement, on August 21, 2012 we issued RMBAH a warrant to acquire 1,624,748 shares of Company common stock as partial consideration for the financing services it provided in connection with the Facility Agreement. The Warrant expires three years from its date of its issuance and has an exercise price of \$1.5387 per share, subject to customary anti-dilution adjustments. In the Facility Agreement we agreed to use our best efforts to register the resale of the shares of common stock underlying the Warrant.

The selling stockholder may sell up to 1,624,748 shares of our common stock pursuant to this prospectus. The following table sets forth information regarding beneficial ownership of our common stock by the selling stockholder as of August 31, 2012. All of the shares of common stock included in the table are issuable upon the exercise of the Warrant. This prospectus will only permit the selling stockholder to resell the shares of Company common stock that may be acquired upon the exercise of the Warrant, and no other Company securities it holds or may later acquire. We will not receive any proceeds from the resale of the common stock by the selling stockholder.

The selling stockholder has not held any position or office, or has otherwise had a material relationship, with us or any of our subsidiaries within the past three years other than with respect to the terms set forth in the Facility Agreement.

The table below sets forth information concerning the resale of the shares of common stock by the selling stockholder. The following table also sets forth the name of the selling stockholder who is offering the resale of shares of common stock by the Prospectus, the number of shares of common stock beneficially owned by such person, the number of shares of common stock that may be sold in this offering and the number of shares of common stock such person will own after the offering, assuming they sell all of the shares offered. There were 34,454,958 shares of our common stock outstanding as of August 31, 2012.

Name	Number of Shares of Common Stock Beneficially Owned Prior to This Offering (1)	Number of Shares of Common Stock Offered Hereby	Number of Shares of Common Stock and Percent of Class After This Offering (2)
RMB Australia Holdings Limited (3)	<u>1,624,748</u> (4)	<u>1,624,748</u>	0
TOTAL	1,624,748	1,624,748	0

(1) The beneficial ownership of the common stock by the selling stockholder set forth in the table is determined in accordance with Rule 13d-3 under the Securities Exchange Act of 1934, as amended, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under such rule, beneficial ownership

includes any shares as to which the selling stockholder has sole or shared voting power or investment power and also any shares, which the selling stockholder has the right to acquire within 60 days. Further, the inclusion of shares in the table does not constitute an admission that the named selling stockholder is a direct or indirect beneficial owner of such shares.

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- (2) Assumes that all securities registered will be sold.

Each of Arnold Vogel, Michael Louis Schonfeld, and Gregory Steven Gay of RMB Australia Holdings Limited (3) hold voting and investment power over any Company securities held by RMB Australia Holdings Limited. Each of the foregoing persons is a director of RMB Australia Holdings Limited.

- (4) Consists solely of the shares of common stock issuable upon the exercise of the Warrant.

PLAN OF DISTRIBUTION

The selling stockholder, from time to time may, sell, transfer or otherwise dispose of any or all of the shares of common stock issuable upon the exercise of the Warrant on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. The selling stockholder may use one or more of the following methods when disposing of shares of common stock issuable upon exercise of the Warrant:

§ ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;

§ block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;

§ purchases by a broker-dealer as principal and resale by the broker-dealer for its account;

§ an exchange or market distribution in accordance with the rules of the applicable exchange or market;

§ privately negotiated transactions;

§ settlement of short sales;

§ broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;

§ through options, swaps or derivatives;

§ combination of any such methods of sale; and

§ any other method permitted pursuant to applicable law.

The selling stockholder may also sell shares under Rule 144 under the Securities Act as amended (the “Securities Act”), if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholder may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders

(or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated. The selling stockholders do not expect these commissions and discounts to exceed what is customary in the types of transactions involved.

The selling stockholder may from time to time pledge or grant a security interest in some or all the shares of common stock respectively owned by it and, if the selling stockholder defaults in the performance of its secured obligations, the pledgees or secured parties may offer and sell the shares of common stock from time to time under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling stockholder to include the pledgee, transferee or other successors in interest as selling stockholder under this prospectus.

The selling stockholder and any broker-dealers or agents that are involved in selling the shares of common stock may be deemed to be “underwriters” within the meaning of the Securities Act, in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares of common stock purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act.

The selling stockholder has advised us that it has not entered into any agreements, understandings or arrangements with any underwriters or broker-dealers regarding the sale of their shares of common stock, nor is there an underwriter or coordinating broker acting in connection with a proposed sale of shares of common stock by the selling stockholder. If we are notified by the selling stockholder that any material arrangement has been entered into with an underwriter or a broker-dealer for the sale of shares of common stock, if required, we will file a supplement to this prospectus. If the selling stockholder uses this prospectus for any sale of the shares of common stock, it will be subject to the prospectus delivery requirements of the Securities Act.

We have agreed to keep the registration statement effective until such date that is the earlier of (i) the Warrant expiration date; (ii) the date on which all of the shares of common stock underlying the Warrant are eligible to be sold without restriction pursuant to Rule 144 under the Securities Act; or (iii) the date on which the selling stockholder no longer holds any of the shares of common stock offered hereby. The selling stockholder may sell all, some or none of their shares in this Offering.

We are required to pay certain fees and expenses incurred incident to the registration of the shares. We have agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

Once sold under the registration statement, of which this prospectus forms a part, the shares of common stock will be freely tradable in the hands of persons other than our affiliates.

EXPERTS

Ehrhardt Keefe Steiner & Hottman PC, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2011, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ehrhardt Keefe Steiner & Hottman PC's report, given on their authority as experts in accounting and auditing.

Certain information regarding our Mt. Hamilton project incorporated by reference in this prospectus is included in reliance on portions of an independent technical report prepared by SRK Consulting (US), Inc., concerning the Mt. Hamilton project and has been included herein in reliance on the authority of such firm as experts in geology and engineering.

LEGAL MATTERS

Polsinelli Shughart PC has opined as to the legality of the shares of common stock being offered by this registration statement.

INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to incorporate by reference the information and reports we file with it, which means that we can disclose important information to you by referring you to these documents. Our SEC file number is 001-32978. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede the information already incorporated by reference. We are incorporating by reference the documents listed below, which we have already filed with the SEC. We are also incorporating by reference all other reports that we file with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act between the date of this prospectus and the termination of the Offering (other than information that is not deemed filed under the Exchange Act). To the extent that any information contained in any Current Report on Form 8-K or any exhibit thereto, was furnished to, rather than filed with, the SEC, such information or exhibit is specifically not incorporated by reference in this prospectus.

§ our Annual Report on Form 10-K for the fiscal year ended December 31, 2011;

§ our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2012 and June 30, 2012 and filed on May 7, 2012 and August 9, 2012 respectively;

§ our Current Reports on Form 8-K (other than information furnished rather than filed) filed with the SEC on June 13, 2012, June 15, 2012, July 2, 2012, and August 16, 2012; and

§ The description of our common stock contained in our registration statement on Form 8-A, which was filed with the SEC on August 9, 2006, including any amendment or report filed for the purpose of updating such description.

Upon request, we will provide, without charge, to each person, including any beneficial owner, to whom a copy of this prospectus is delivered a copy of the documents incorporated by reference into this prospectus. You may request a copy of these filings, and any exhibits we have specifically incorporated by reference as an exhibit in this prospectus, at no cost by writing or telephoning us at the following address:

Solitario Exploration & Royalty Corp.

Attn: Corporate Secretary

4251 Kipling Street, Suite 390

Wheat Ridge, Colorado 80033

(303) 534-1030

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This prospectus is part of a registration statement we filed with the SEC. We have incorporated exhibits into this registration statement. You should read the exhibits carefully for provisions that may be important to you.

You should rely only on the information incorporated by reference or provided in this prospectus or any prospectus supplement. We have not authorized anyone to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus or in the documents incorporated by reference is accurate as of any date other than the date on the front of this prospectus or those documents.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the information requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and in accordance with the Exchange Act, file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room. These documents also may be accessed through the SEC's electronic data gathering, analysis and retrieval system, or EDGAR, via electronic means, including the SEC's home page on the Internet (www.sec.gov).

We have the authority to designate and issue more than one class or series of stock having various preferences, conversion and other rights, voting powers, restrictions, limitations as to dividends, qualifications, and terms and conditions of redemption. See "Description of Preferred Stock" and "Description of Common Stock." We will furnish a full statement of the relative rights and preferences of each class or series of our stock which has been so designated and any restrictions on the ownership or transfer of our stock to any stockholder upon request and without charge. Written requests for such copies should be directed to Solitario Exploration & Royalty Corp., Attn: Corporate Secretary, 4251 Kipling Street, Suite 390, Wheat Ridge, Colorado 80033. Our telephone number is (303) 534-1030. Our website is located at www.solitarioxr.com. Information contained on our website is not incorporated by reference into this prospectus and, therefore, is not part of this prospectus or any accompanying prospectus supplement.

INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

Our Articles of Incorporation limit the liability of our directors to the fullest extent permitted by Colorado law and provide that we are authorized to indemnify them to the fullest extent permitted by such law. Our By-laws provide that we are authorized to indemnify our officers to the fullest extent permitted by Colorado law. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Company pursuant to the foregoing provisions, or otherwise, the Company has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth an itemization of all estimated expenses, all of which we will pay, in connection with the issuance and distribution of the securities being registered:

NATURE OF EXPENSE AND AMOUNT

SEC Registration fee	\$287
Legal fees and expenses	5,000*
Accounting fees	2,000*
Miscellaneous	1,000*
TOTAL	8,287*

* Estimated.

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

The Colorado Business Corporation Act allows a corporation to indemnify its directors, officers, employees, fiduciaries and agents against liability in certain situations. Our Articles of Incorporation authorize us to indemnify our directors to the fullest extent permitted by Colorado law.

Under the Colorado Business Corporation Act indemnification would be mandatory with respect to a director or officer who was wholly successful in defense of an action, suit or proceeding. As permitted by the Colorado Business Corporation Act and our By-laws, we will indemnify directors and officers, and may indemnify employees, fiduciaries and agents, against reasonably incurred expenses, judgments, penalties, fines and amounts paid in settlement

reasonably incurred by them in connection with an action, suit or proceeding if it is determined that they conducted themselves in good faith and that they reasonably believed (i) in the case of conduct in their official capacity, that their conduct was in the company's best interests, or (ii) in all other cases (except criminal cases), that their conduct was at least not opposed to the company's best interests, or (iii) in the case of a criminal proceeding, that they had no reasonable cause to believe their conduct was unlawful. In proceedings brought by or in the right of the Company, indemnification will be limited to reasonable expenses incurred in connection with the proceeding. No indemnification will be provided with respect to any claim, issue or matter in connection with a proceeding by or in the right of the Company in which the person was adjudged to be liable to the Company on in any proceeding charging that the person derived an improper personal benefit, whether or not involving action in an official capacity, in which they were adjudged to be liable to the Company on the basis that they derived an improper personal benefit. Additional indemnification may be provided to officers, employees, fiduciaries or agents if they are not also directors, so long as such additional indemnification is provided for by general or specific action by the board of directors or stockholders or by contract and would not be inconsistent with public policy.

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Section 7-109-108 of the Colorado Business Corporation Act provides that a corporation shall have the power to purchase and maintain insurance on behalf of its officers, directors, employees, fiduciaries and agents, against any liability asserted against and incurred by such persons in any such capacity.

Section 7-108-403 of the Colorado Business Corporation Act provides, among other things, that a director, who votes for or assents to an unlawful payment of dividends or an unlawful stock purchase or redemption, may be held liable for such actions.

Section 7-108-402 of the Colorado Business Corporation Act allows a Colorado corporation to eliminate or limit the personal liability of a director to the corporation or to its shareholders for monetary damages for a breach of fiduciary duty as a director, except for liabilities arising from any breach of the director's duty of loyalty to the corporation or its shareholders, from acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, from any transaction from which the director derived an improper personal benefit, or from any other act, omission or transaction as to which the Colorado Business Corporation Act prohibits the elimination or limitation of liability. Our Articles contain a provision limiting director liability for monetary damages for his or her conduct as a director.

Our directors and officers are covered by insurance policies maintained by us against specified liabilities for actions taken in their capacities as such, including liabilities under the Securities Act of 1933.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers or persons controlling the registrant pursuant to the foregoing provisions, the registrant has been informed that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is therefore unenforceable.

ITEM 16. EXHIBITS

4.1 Form of Common Stock Certificate of Solitario Exploration & Royalty Corp. (incorporated by reference from Exhibit 4.1 to Solitario's Form 10-Q filed on August 7, 2008).

4.2 Form of Warrant (incorporated by reference from Exhibit 99.2 to Solitario's Form 8-K filed on August 16, 2012).

5.1	Opinion of Polsinelli Shughart PC., filed herewith.
23.1	Consent of Ehrhardt Keefe Steiner & Hottman PC, filed herewith.
23.2	Consent of Polsinelli Shughart PC, included in Exhibit 5.1.
23.3	Consent of SRK Consulting (US), Inc., filed herewith.
24.1	Power of Attorney, filed herewith.

ITEM 17. UNDERTAKINGS

a) The undersigned registrant hereby undertakes:

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(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price, set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that the information required to be included in a post-effective amendment by paragraphs (a)(1)(i) and (a)(1)(ii) above may be contained in periodic reports filed with or furnished to the Commission by the Company pursuant to Section 13 or 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) [Paragraph omitted]

(5) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) If the registrant is relying on Rule 430B:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of

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prospectus is first used after effectiveness or the date of the first contract of sale of 314 securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or

(ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(6) (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(e) The undersigned registrant hereby undertakes to deliver or cause to be delivered with the prospectus, to each person to whom the prospectus is sent or given, the latest annual report to security holders that is incorporated by reference in the prospectus and furnished pursuant to and meeting the requirements of Rule 14a-3 or Rule 14c-3 under the Securities Exchange Act of 1934; and, where interim financial information required to be presented by Article 3 of Regulation S-X are not set forth in the prospectus, to deliver, or cause to be delivered to each person to whom the prospectus is sent or given, the latest quarterly report that is specifically incorporated by reference in the prospectus to provide such interim financial information.

(h) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or

controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director,

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officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

(i) The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and duly caused this amended Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Wheat Ridge, Colorado on August 31, 2012.

SOLITARIO
EXPLORATION &
ROYALTY CORP.

By: /s/
Christopher
E.
Herald

Christopher
E. Herald,
*President
and Chief*

*Executive
Officer*

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Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

KNOW ALL BY THESE PRESENTS, that each individual whose signature appears below hereby severally constitutes and appoints Christopher E. Herald and James R. Maronick and each of them singly, as such person's true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such person in such person's name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement (or any registration statement that is to be effective upon filing pursuant to Rule 462(b) of the Securities Act of 1933), and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission, granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that any said attorney-in-fact and agent, or any substitute or substitutes of them, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Capacity	Date
/S/ CHRISTOPHER E.HERALD Christopher E. Herald	President, Chief Executive Officer and Director (Principal Executive Officer)	August 31, 2012
/S/ JAMES R. MARONICK James R. Maronick	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	August 31, 2012
/S/ MARK E. JONES, III Mark E. Jones, III	Director	August 31, 2012
/S/ BRIAN LABADIE Brian Labadie	Director	August 31, 2012
/S/ LEONARD HARRIS Leonard Harris	Director	August 31, 2012
/S/ JOHN HAINEY John Hainey	Director	August 31, 2012

