# Preliminary Economic Assessment for the Springpole Gold Project, Ontario, Canada

## **Report Prepared for**





## **Report Prepared by**



SRK Consulting (Canada) Inc. 2CG026.000

Effective Date: March 25, 2013 Report Date: May 3, 2013



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## **Important Notice**

This preliminary economic assessment (PEA) report is intended to provide an initial review of the Gold Canyon Resources Inc. Springpole Gold Project's potential and is preliminary in nature. The PEA includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA based on these mineral resources will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

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## **Executive Summary**

SRK Consulting (Canada) Inc. was retained by Gold Canyon Resources Inc. of Vancouver, British Columbia, to prepare a technical report summarizing the mineral resources for the Springpole Gold Project. The mineral resource estimate forms the basis of this preliminary economic assessment (PEA) prepared by SRK.

## **Project Concept**

The proposed Springpole Gold Project concept is to develop a low-grade, greenfield gold and silver bulk tonnage deposit with open pit mining and conventional milling methods. The production rate was assumed to be 20,000 tonnes per day (t/d) with a total of 72.4 million tonnes (Mt) of mineralized material mined and processed during the project life. The overall strip ratio (the ratio of waste rock to economic mineralized rock) of the mine is approximately 1:7 and the average grade of the plant feed is estimated at 1.2 grams per tonne (g/t) of gold and 6.0 g/t of silver.

## **Property Description and Ownership**

The Springpole Gold Project is located 110 km northeast of Red Lake, Ontario, and is 100% controlled by Gold Canyon. The project's land position comprises 30 patented claims and 300 unpatented, contiguous mining claims and 6 leased unpatented mining claims totalling an area of approximately 32,448 hectares (80,181 acres).

During late spring, summer, and early fall, the project is accessible by float-plane direct to Springpole Lake or Birch Lake. During winter, an ice road approximately 85 km long is constructed from the South Bay landing point on Confederation Lake to a point about 1 km from the Springpole camp.

#### **Geology and Mineralization**

The Springpole area is underlain by a polyphase alkali, trachyte intrusive displaying autolithic breccia. The intrusive is comprised of a system of multiple phases of trachyte that is believed to be part of the roof zone of a larger syenite intrusive; fragments displaying phaneritic textures were observed from deeper drill cores in the southeast portion of the Portage zone. Early intrusive phases consist of megacrystic feldspar phenocrysts of albite and orthoclase feldspar in an aphanitic groundmass Successive phases show progressively finer grained porphyritic texture while the final intrusive phases are aphanitic. Within the country rocks to the north and east are trachyte and lamprophyre dikes and sills that source from the trachyte- or syenite-porphyry intrusive system.

The main intrusive complex appears to contain many of the characteristics of alkaline, porphyry style mineralization associated with diatreme breccias (e.g., Cripple Creek, Colorado). This style of mineralization is characterized by the Portage zone and portions of the East Extension zone where mineralization is hosted by diatreme breccia in aphanitic trachyte. It is suspected that the ductile shearing and brittle faulting have played a significant role in redistributing structurally controlled blocks of the mineralized rock. Diamond drilling in the winter of 2010 revealed a more complex alteration with broader, intense zones of potassic alteration replacing the original rock mass with biotite and pyrite. In the core area of the deposit where fine grained disseminated gold mineralization occurs with biotite, the primary potassic alteration mineral, gold displays a good correlation with potassium/rubidium.

## **Exploration Status**

The initial geologic and engineering studies at the end of 2009 resulted in the establishment of systematic drill sections at 50 m intervals across the three identified prospect areas, namely Portage zone, East Extension zone, and Camp zone. The subsequently developed drill program lead to a multi-phase drill campaign starting in the summer of 2010 and ending in the summer of 2012, resulting in completion of 77,275 m of diamond core drilling in 196 drill holes. During the course of the 2010, 2011, and 2012 programs, drilling identified a precious metal deposit of significant strike, depth and width within the Portage zone.

#### Mineral Resource and Mineral Reserve Estimates

The mineral resource model prepared by SRK considers 512 core boreholes drilled by Gold Canyon and previous owners of the property during the period of 2003 to 2012. The resource estimation work was completed by Dr. Gilles Arseneau, PGeo (APEGBC #23474), an appropriate independent qualified person as this term is defined in NI 43-101. The effective date of the resource statement is October 17, 2012.

The revised mineral resource estimate (October 17, 2012) was based on a gold price of \$1,400/oz and a silver price of \$15/oz, both considered reasonable economic assumptions by SRK. To establish a reasonable prospect of economic extraction in an open pit context, the resources were defined within an optimized pit shell with pit walls set at 45°. Assumed recoveries of 80% for gold and 60% for silver were used. (Note: A silver recovery assumption of 85% was used for mine design and evaluation based on more recent data.) Mining costs were estimated at \$2/tonne (t) of total material, processing costs estimated at \$12/t and general and administrative (G&A) costs estimated at \$2/t. A cut-off grade (COG) of 0.4 g/t gold was calculated, and is considered to be an economically reasonable value corresponding with breakeven mining costs. Approximately 90% of the revenue for the proposed project is derived from gold and 10% from silver.

<u>Note</u>: For the mine development (Whittle<sup>™</sup> optimization) and economic analysis in this PEA, updated input parameters were used.

Mineral resources were estimated by ordinary kriging using Gemcom block modelling software in  $10 \text{ m} \times 10 \text{ m} \times 6 \text{ m}$  blocks. Grade estimates were based on capped, 3 m composited assay data. Capping levels were set at 25 g/t for gold and 200 g/t for silver. Blocks were classified as indicated mineral resources if at least two drill holes and six composites were found within a  $60 \text{ m} \times 60 \text{ m} \times 40 \text{ m}$  search ellipse. All other interpolated blocks were classified as inferred mineral resource. Mineral resources were then validated using Gemcom GEMS (6.4) software.

This resource model includes mineralized material in the Main, East Extension and Portage zones spanning from geologic sections 0-1, 500 m in the northwest to 0-250 m in the southeast. Along the axis of the Portage zone, resource modelling includes mineralized material generally ranging from the surface to a depth of 340-440 m below surface.

Mineral resources that are not mineral reserves do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources would be converted into mineral reserves. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues. The quantity and grade of reported