Golden Minerals Co Form 10-K March 29, 2010

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

ý ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2009

OR

o 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 1-13627

GOLDEN MINERALS COMPANY

(Exact Name of Registrant as Specified in its Charter)

DELAWARE

(State of Incorporation or Organization)

26-4413382

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

350 Indiana Street, Suite 800 Golden, Colorado

(Address of principal executive office)

80401 Not Applicable (Zip Code)

(303) 839-5060

(Registrant's telephone number, including area code)

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

Title of each class

Name of each exchange on which registered

Common Stock, \$0.01 par value

NYSE Amex LLC

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 o No ý

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 o No ý

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 \circ No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes o No o

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. o

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.

Large accelerated filer o Accelerated filer o Non-accelerated filer o Smaller reporting company ý

(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 o No ý

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Section 12, 13, or 15(d) of the Securities Exchanges Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court. Yes \(\xi\) No o

The aggregate market value of the voting and non-voting common equity held by non-affiliates as of June 30, 2009 was approximately \$5.0 million, based on the last sale price of the registrant's common stock of \$2.45 per share as reported by The Pink Sheets LLC at www.pinksheets.com. For the purpose of this calculation, the registrant has assumed that its affiliates as of June 30, 2009 included two shareholders who collectively held approximately 32% of its outstanding common stock. The number of shares of common stock outstanding on March 24, 2010 was 9,040,608.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Definitive Proxy Statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A in connection with the 2010 Annual Meeting of Stockholders are incorporated by reference in Part III of this Report on Form 10-K.

All references to "Golden Minerals," "our," "we," or "us" are to Golden Minerals Company, including its subsidiaries and predecessors, except where it is clear that the term refers only to Golden Minerals Company. Many of the terms used in our industry are technical in nature. We have included a glossary of some of these terms below.

FORWARD-LOOKING STATEMENTS

Some information contained in or incorporated by reference into this annual report on Form 10-K may contain forward-looking statements. These statements include statements relating to our plans, expectations and assumptions concerning the El Quevar project, the timing and budget for exploration of our portfolio of exploration properties, our expected cash needs, and statements concerning our financial condition, operating strategies and operating and legal risks.

We use the words "anticipate," "continue," "likely," "estimate," "expect," "may," "could," "will," "project," "should," "believe" and similar expressions to identify forward-looking statements. Statements that contain these words discuss our future expectations, contain projections or state other forward-looking information. Although we believe the expectations and assumptions reflected in those forward-looking statements are reasonable, we cannot assure you that these expectations and assumptions will prove to be correct. Our actual results could differ materially from those expressed or implied in these forward-looking statements as a result of the factors described under "Risk Factors" in this annual report on Form 10-K, including:

Results of future exploration at the El Quevar project;

The economic viability of the El Quevar project;

Our ability to raise necessary capital to finance advancement of the El Quevar project;

Our ability to retain key management and mining personnel necessary to successfully operate and grow our business;

Our ability to successfully manage our existing management agreement and successfully expand our mine services business, particularly if metals prices experience significant declines;

Worldwide economic and political events affecting the market prices for silver, gold and other minerals which may be found on our exploration properties; and

Political and economic instability in Argentina, Bolivia, Chile, Mexico, Peru, and other countries in which we conduct our business, and future actions of the government with respect to nationalization of natural resources or other changes in mining or taxation policies that may affect our management of the San Cristóbal mine.

Many of those factors are beyond our ability to control or predict. You should not unduly rely on any of our forward-looking statements. These statements speak only as of the date of this annual report on Form 10-K. Except as required by law, we are not obligated to publicly release any revisions to these forward-looking statements to reflect future events or developments. All subsequent written and oral forward-looking statements attributable to us and persons acting on our behalf are qualified in their entirety by the cautionary statements contained in this section and elsewhere in this annual report on Form 10-K.

CONVERSION TABLE

In this annual report on Form 10-K, figures are presented in both United States standard and metric measurements. Conversion rates from United States standard to metric and metric to United

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States standard measurement systems are provided in the table below. All currency references in this annual report on Form 10-K are to United States dollars, unless otherwise indicated.

U.S. Unit	Metric Measure	Metric Unit	U.S. Measure
1 acre	0.4047 hectares	1 hectare	2.47 acres
1 foot	0.3048 meters	1 meter	3.28 feet
1 mile	1.609 kilometers	1 kilometer	0.62 miles
1 ounce (troy)	31.103 grams	1 gram	0.032 ounces (troy)
1 ton	0.907 tonnes	1 tonne	1.102 tons

GLOSSARY OF SELECTED MINING TERMS

"Base Metal" means a classification of metals usually considered to be of low value and higher chemical activity when compared with the precious metals (gold, silver, platinum, etc.). This nonspecific term generally refers to the high-volume, low-value metals copper, lead, tin, and zinc.

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

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

"Concentrates" means the clean product of ore or metal separated from its containing rock or earth by froth flotation or other methods of mineral separation.

"Concentrator" means a plant where ore is separated into values (concentrates) and rejects (tails).

"Concession" means a grant or lease of a tract of land made by a government or other controlling authority in return for stipulated services or a promise that the land will be used for a specific purpose.

"Diamond Core" means a rotary type of rock drill that cuts a core of rock and is recovered in long cylindrical sections, two centimeters or more in diameter.

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

"Exploration Stage" means a prospect that is not yet in either the development or production stage.

"Feasibility Study" means an engineering study designed to define the technical, economic, and legal viability of a mining project with a high degree of reliability.

"Formation" means a distinct layer of sedimentary rock of similar composition.

"Grade" means the metal content of ore, usually expressed in troy ounces per ton (2,000 pounds) or in grams per ton or metric tons which contain 2,204.6 pounds or 1,000 kilograms. This report refers to ounces per tonne.

 $\hbox{$"$Mineralization"$ means the concentration of metals within a body of rock.}$

"Mining" means the process of extraction and beneficiation of mineral reserves to produce a marketable metal or mineral product. Exploration continues during the mining process and, in many cases, mineral reserves are expanded during the life of the mine operations as the exploration potential of the deposit is realized.

"Net Smelter Return Royalty" means a defined percentage of the gross revenue from a resource extraction operation, less a proportionate share or transportation, insurance, and processing costs.

[&]quot;Assay" means to test ores or minerals by chemical or other methods for the purpose of determining the amount of valuable metals contained.

"Open Pit" means a mine working or excavation open to the surface.

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

"Outcrop" means that part of a geologic formation or structure that appears at the surface of the earth.

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

"Precious Metal" means any of several relatively scarce and valuable metals, such as gold, silver, and the platinum-group metals.

"Probable Reserves" means reserves for which quantity and grade and/or quality are computed from information similar to that used for Proven Reserves, but the sites for inspection, sampling and measurement are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for Proven Reserves, is high enough to assume continuity between points of observation.

"Proven Reserves" means reserves for which quantity is computed from dimensions revealed in outcrops, trenches, workings or drill holes; grade and/or quality are computed from the results of detailed sampling and the sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are well-established.

"**Production Stage**" means a project that is actively engaged in the process of extraction and beneficiation of mineral reserves to produce a marketable metal or mineral product.

"Reclamation" means the process of returning land to another use after mining is completed.

"Recovery" means that portion of the metal contained in the ore that is successfully extracted by processing, expressed as a percentage.

"Reserves" means that part of a mineral deposit that could be economically and legally extracted or produced at the time of reserve determination.

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

"Sediment" means solid fragmental material that originates from weathering of rocks and is transported or deposited by air, water, or ice, or that accumulates by other natural agents, such as chemical precipitation from solution or secretion by organisms, and that forms in layers on the Earth's surface at ordinary temperatures in a loose, unconsolidated form.

"Sedimentary" means formed by the deposition of sediment.

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

"Tertiary" means the first period of the Cenozoic Era (after the Cretaceous of the Mesozoic Era and before the Quaternary), thought to have covered the span of time between 65 million years and 3 to 2 million years ago.

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

"Waste" means rock lacking sufficient grade and/or other characteristics of ore.

AVAILABLE INFORMATION

We make available, free of charge through our website at *www.goldenminerals.com*, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "*Exchange Act*"), as soon as reasonably practicable after such material is electronically filed with or furnished to the United States Securities and Exchange Commission ("SEC"). Information on our website is not incorporated into this annual report on Form 10-K and is not a part of this report.

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PART I

ITEMS 1 AND 2: BUSINESS AND PROPERTIES

Overview

We are a mineral exploration and mining services company with a diversified portfolio of precious metals and other mineral exploration properties located in or near the traditional precious metals producing regions of Mexico and South America. Our management team is comprised of experienced mining professionals with over 160 years of combined experience in mineral exploration, mine construction and development, and mine operations. Our principal offices are located in Golden, Colorado at 350 Indiana Street, Suite 800, Golden, CO 80401 and our registered office is the Corporation Trust Company, 1209 Orange Street, Wilmington, DE 19801. We also maintain exploration offices in Argentina, Mexico and Peru.

We are currently focused on advancement of our 100% controlled El Quevar silver project in northwestern Argentina. From the inception of our exploration activities in 2004 through December 31, 2009, we have spent approximately \$12.8 million on exploration and related activities at El Quevar. Based on an independent technical report completed in January 2010, there are an estimated 866,000 tonnes of mineralized material at an average silver grade of approximately 412 grams per tonne. See " *El Quevar Geology and Mineralization.*" We are engaged in additional drilling, metallurgical analysis and other advanced exploration work at El Quevar, as well as preparation of a feasibility study.

In addition to El Quevar, we own and control a portfolio of approximately 35 exploration properties located primarily in Mexico and South America. Our 100% controlled Zacatecas silver and base metals project in Mexico is at an intermediate stage of exploration, with four separate target areas on which we are currently conducting exploration activities, including drilling at the Pánuco target. We are also conducting drilling programs to explore several of our other projects, including Elisa de Bordos in Chile.

Our team of mining professionals also provides mine management services. We currently manage the San Cristóbal silver, zinc and lead mine in Bolivia for Sumitomo Corporation.

Company History

We were incorporated in Delaware under the Delaware General Corporation Law in March 2009, and are the successor to Apex Silver Mines Limited ("Apex Silver"), for purposes of reporting under the U.S. Exchange Act. In January 2009, Apex Silver and its wholly-owned subsidiary, Apex Silver Mines Corporation, filed voluntary petitions for relief under Chapter 11 of the U.S. Bankruptcy Code. In connection with its Joint Plan of Reorganization (the "Plan"), Apex Silver sold its interest in the San Cristóbal mine to Sumitomo. Substantially all of Apex Silver's remaining assets, including its various subsidiaries that hold a broad portfolio of exploration properties, were assigned to us.

Under the Plan, the holders of subordinated notes of Apex Silver received a pro rata distribution of Golden Minerals common stock and cash. Apex Silver's equity holders received no recovery under the Plan, and the ordinary shares of Apex Silver were cancelled in connection with a Cayman Islands liquidation proceeding that was completed in December 2009. Apex Silver and Apex Silver Mines Corporation were also discharged from any and all claims arising prior to the effective date of the Plan, except as provided by the Plan, and all persons holding such claims are enjoined from asserting such claims against Apex Silver, Apex Silver Mines Corporation (now owned by Golden Minerals and renamed Golden Minerals Services Corporation), Golden Minerals and certain third parties, including present and former directors and officers. On December 17, 2009, the Bankruptcy Court for the Southern District of New York entered an Order of Final Decree closing the Chapter 11 case of Apex Silver. A Final Decree closing the Chapter 11 case of Apex Silver Mines Corporation (now named Golden Minerals Services Corporation) was entered on October 16, 2009.

Corporate Structure

Golden Minerals Services Corporation, our wholly-owned subsidiary headquartered in Golden, Colorado, is the operating entity through which we conduct our business. We also wholly-own a number of subsidiaries organized throughout the world, including in Canada, Mexico, Central America, South America, the Caribbean, Europe, and Australia. We generally hold our exploration rights and properties through subsidiaries organized in the countries in which our rights and properties are located.

Our Competitive Strengths and Business Strategy

Our business strategy is to discover, build and operate our own mines and to continue to provide mine development and operations services to mines owned by others. We believe we are well positioned to implement this strategy for the reasons described below.

Experienced Management Team. We are led by a team of mining professionals with over 160 years of combined experience in exploration, project development, construction and operations all over the world. Our executive officers have held senior positions at various large mining companies including Cyprus Amax Minerals Company, Phelps Dodge Corporation, Inco Limited, Homestake Mining Company and Kinross Gold Corporation. Our executive team has a proven ability to manage large projects in challenging environments, as evidenced by our successful development, construction and continued operation of the San Cristóbal mine in Bolivia. The San Cristóbal mine, which we currently manage on behalf of Sumitomo, cost approximately \$1.0 billion to develop and construct, and is one of the largest silver, zinc and lead mines in the world. We seek to leverage the experience and skill of our management team by providing mine management services.

El Quevar Advanced Exploration Project. Our most advanced exploration project, the El Quevar project, is located in the Salta Province in Argentina, a jurisdiction that has established protocols for, and has historically been receptive to, mining investment. The project is situated in an advantageous location, with nearby infrastructure, including natural gas and power, and no community in the immediate vicinity. Based on our exploration work to date, the Yaxtché zone, one of 13 currently identified target areas, appears to be a relatively high grade silver deposit. We also have significant opportunity for expansion as we solely control 19 concessions totaling approximately 64,000 hectares in addition to the concession on which the Yaxtché deposit is located.

Broad Exploration Portfolio. In addition to El Quevar, we control a portfolio of approximately 35 exploration properties primarily in certain traditional precious metals producing regions of Argentina, Chile, Mexico and Peru, including several focus properties in the Zacatecas state of Mexico. We have been successful at generating value from the sale or farm-out for cash, stock and/or royalties of certain properties that do not meet our minimum economic requirements for potential advancement.

El Quevar

Location and Access

Our El Quevar silver project is located in the San Antonio de los Cobres municipality, Salta province, in the Altiplano region of northwestern Argentina, approximately 300 kilometers by road northwest of the city of Salta, the capital city of the province. The project is also accessible by a 300 kilometer dirt and gravel road from the city of Calama in northern Chile. The village of Pocitos, located about 20 kilometers to the west of El Quevar, is the nearest settlement with approximately 150 inhabitants. A high tension power line is located approximately 40 kilometers from the site, and a high pressure gas line devoted to the mining industry and subsidized by the Salta government is located within 20 kilometers of El Quevar. We have established a camp approximately 10 kilometers west of the project, which currently houses approximately 45 workers.

The El Quevar project is located near Nevado Peak with altitudes on the concessions ranging from 3,800 to 6,130 meters above sea level. The climate of the area is high mountain desert, with some precipitation in summer (as snow) and little snow in winter. The map below shows the location of the El Quevar project.

Property History

Mining activity in and around the El Quevar project dates back at least 80 years. Between 1930 and 1950, there was lead and silver production from small workings in the area. We do not have production records from that period. The first organized exploration activities on the property occurred during the 1970s, although no data from that period remains. Over the last 30 years, several companies have carried out exploration activity in the area, including BHP Billiton, Industrias Peñoles, Mansfield Minerals and Hochschild Mining Group, consisting primarily of local sampling with some limited drilling programs in the area.

Title and Ownership Rights

The El Quevar project is comprised of 20 concessions, including 14 exploitation concessions and six exploration concessions. In total, the El Quevar project encompasses approximately 64,000 hectares.

The area of most of our exploration activities at El Quevar is within the concessions that are owned or controlled by Minera El Quevar, our indirect wholly-owned subsidiary. Prior to January 2010, Minera El Quevar was jointly owned by us and an Argentine subsidiary of Hochschild, a publicly traded Peru-based mining company. In January 2010, we purchased Hochschild's 35% interest and became the sole owner of Minera El Quevar. See "Management's Discussion and Analysis and Result of Operations Hochschild Transaction."

Three of the concessions near the primary Yaxtché target are subject to options to purchase from the existing third-party concession owners. One option agreement covers the El Quevar II concession and one-half of the Castor concession, and another option agreement covers the Nevado I concession. Our remaining payments on those option agreements are set forth below:

El Quevar II/Castor		Nev	Nevado I		
Amount	Date	Amount	Date		
\$1,100,000	March 16, 2011	\$200,000	June 22, 2010		
		\$300,000	June 22, 2011		
		\$750.000	June 22, 2012		

We intend to make the remaining option payments assuming funding continues to be available and the results of our additional drilling and planned feasibility work are promising. Upon making the final option payment, Minera El Quevar will acquire all of the optioning party's rights in the concessions. If we continue to make the payments in a timely fashion, our ability to purchase the concession rights may not be revoked by the existing concession owners.

In addition, under the terms of the option agreements, we are required to pay a 1% net smelter return royalty on the value of all metals extracted from the El Quevar II or Nevado I concessions and one-half of the minerals extracted from the Castor concession. We are also required to pay a 3% net smelter return royalty to the Salta province. To maintain the concessions, we make yearly aggregate rental payments to the Argentine government of approximately \$28,500.

The surface rights at El Quevar are controlled by the Salta Province. There are no private properties within the concession area. To date, no issues involving surface rights have impacted the project.

Preliminary Exploration Activities

We initiated exploration at El Quevar during 2004, and through December 31, 2009 we have spent approximately \$12.8 million on exploration and related activities. Through December 31, 2009, we completed 195 diamond drill holes totaling approximately 38,500 meters. Approximately 141 of the holes intersected significant silver mineralization. See " *Geology and Mineralization*."

In 2008, we built a camp approximately 10 kilometers west of the project site to accommodate a work force of approximately 75 people. The camp currently relies on power generated from two diesel-powered generators. Water for camp use is pumped from a 100-meter deep well in the alluvial fan at the camp, and additional water can be supplied by drilling more wells. Our camp has sufficient infrastructure for expansion to project development and production stage capacity.

Geology and Mineralization

The geology of the El Quevar project is characterized by silver-rich veins and disseminations in Tertiary volcanic rocks that are part of an eroded stratovolcano. Silver mineralization at El Quevar is hosted within a broad, generally east-west-trending structural zone and occurs as a series of north-dipping parallel sheeted vein zones, breccias and mineralized faults situated within an envelope of pervasively silicified brecciated volcanic rocks and intrusive breccias. There are at least three sub-parallel structures that extend for an aggregate length of approximately 12 kilometers. Several volcanic domes (small intrusive bodies) have been identified and mineralization is also found in breccias associated with these domes, especially where they are intersected by the structures. The silver mineralization at the Yaxtché zone is of epithermal origin. The cross-cutting nature of the mineralization, the assemblage of sulfide and alteration minerals, and the presence of open spaces with euhedral minerals, all point to an origin at shallow to moderate depths (a few hundred meters below surface) from hydrothermal solutions.

Our work to date has identified at least 13 potential zones of mineralization at the El Quevar project. As of December 31, 2009, we completed approximately 38,500 meters of diamond drilling in 195 drill holes. Of these holes, 168 were drilled to test the main Yaxtché zone for potential mineralization, with 141 of the Yaxtché holes intersecting significant silver mineralization. Our work indicates that the Yaxtché central zone is at least 650 meters in strike length, with other drilling results to the east and west indicating a total length of more than 1,900 meters, and between 40 to 150 meters in width. Our drilling further indicates that the silver mineralization is continuous laterally and to depths of 250 to 300 meters below surface in the main area. The zone appears to be faulted on the east and west ends, but geological mapping and a geophysical survey suggest that the zone has been faulted down and preserved, and is continuous in both directions.

Set forth below are the results of three independent technical reports on the Yaxtché deposit.

"Mineralized material" as used in this annual report on Form 10-K, although permissible under SEC Industry Guide 7, does not indicate "reserves" by SEC standards. We cannot be certain that any part of the Yaxtché deposit will ever be confirmed or converted into SEC Industry Guide 7 compliant "reserves." You are cautioned not to assume that all or any part of the mineralized material will ever be confirmed or converted into reserves or that mineralized material can be economically or legally extracted.

February 2009 Technical Report

Technical reports for the El Quevar project were prepared, dated February 27, 2009, by SRK Consulting (US), Inc. ("SRK") in accordance with the requirements of the SEC's Guide 7 and National Instrument 43-101 of the Canadian Securities Administrators ("Canadian NI 43-101"). Data from the 78 diamond drill holes then drilled was used as the data base for the report. The SRK estimate was based on the assumption that sulfide and mixed sulfide/oxide material would be mined by underground methods and oxide material would be mined from an open pit. Due to the higher mining costs associated with underground mining, the cut-off grade for mixed and sulfide material was significantly higher than the cut-off grade for oxide. The estimate assumed 65% recovery for oxide material, 90% recovery for mixed oxide and sulfide material, and 95% for sulfide material.

According to the February 2009 SRK technical report, estimated mineralized material in the Yaxtché zone, assuming a price of \$12.00 per ounce of silver, was as follows:

Material	Cut-off grade (g/tonne)	Tonnes (000s)	Average silver grade (g/tonne)
Oxide	85	304	168
Mixed	120	156	237
Sulfide	120	939	197
Total		1,399	195

October 2009 Technical Report

During 2009, we continued to conduct exploratory drilling on the El Quevar concessions and the Yaxtché zone in particular. Using this additional drilling data, CAM prepared updated technical reports for the El Quevar project. The reports, completed in October 2009, were prepared in accordance with the requirements of the SEC's Guide 7 and Canadian NI 43-101. We engaged CAM to prepare the updated technical reports, rather than SRK, because of CAM's experience in assessing narrow vein deposits, which we expect to be the type of deposit at El Quevar based on preliminary drilling results. A 141 diamond drill hole database was used in the CAM resource estimates, which include 63 additional drill holes that were not present in the database used by SRK Consulting in its February

2009 report. The additional drill holes include infill drilling in the Yaxtché central zone and holes in the east and west extensions of the Yaxtché central zone.

The CAM resource estimate assumes selective underground mining with continuity along strike and down dip supported by geologic interpretation of all holes logged to date in the mineralized zone, as compared to the February 2009 SRK estimate which assumed open pit mining of surface oxide materials. The CAM estimate was prepared on the assumption that all mineralized material would be mined by underground methods.

According to the October 2009 CAM technical report, estimated mineralized material in the Yaxtché zone, at a cut-off grade of 100 grams of silver per tonne, was as follows:

Tonnes	Average silver grade
(000s)	(g/tonne)
310	430

January 2010 Technical Report

We continued to conduct exploratory drilling at the Yaxtché zone throughout 2009. The additional drill holes include infill drilling in the Yaxtché central zone and holes in the east and west extensions of the Yaxtché central zone. Utilizing this additional infill and step-out drilling, CAM prepared updated technical reports for the El Quevar project. The reports, completed in January 2010, were prepared in accordance with the requirements of the SEC's Guide 7 and Canadian NI 43-101.

Data from 156 drill holes was used in the January 2010 estimate. Consistent with CAM's October 2009 estimate, the January 2010 resource estimate assumes highly selective underground mining with continuity along strike and down dip supported by geologic interpretation of almost all holes logged to date in the mineralized zone. We have assumed concentration by flotation.

According to the January 2010 CAM technical report, estimated mineralized material in the Yaxtché zone at a cut-off grade of 100 grams of silver per tonne was as follows:

Tonnes	Average silver grade
(000s)	(g/tonne)
866	412

The cut-off grade of 100 grams of silver per tonne is consistent with a silver price of \$14.35 per ounce, the three-year historic average price.

Sampling

Through December 31, 2009, we completed 195 diamond drill holes totaling approximately 38,500 meters. Drill cores are maintained in a locked facility at the El Quevar campsite before and after splitting. Golden Minerals personnel were responsible for logging, sampling, splitting, and shipping core to the laboratory facilities. The insertion of standards and blanks is carried out at the project site, while the duplicate coarse rejects and pulps are selected by each commercial laboratory. El Quevar samples have been analyzed at two independent laboratories. The quality assurance/quality control program used at El Quevar includes regular insertion and analysis of blanks and standards to monitor laboratory performance. Blanks are used to check for contamination and standards are used to check for grade-dependent biases. Duplicate samples are used to monitor sample batches for potential sample mix-ups and to monitor the data variability as a function of laboratory error and sample homogeneity.

Metallurgical Analysis

We have completed preliminary metallurgical analyses of composites made from core samples from the central portion of the El Quevar project. This preliminary work was focused on determining the response to various types of processing and recovery methods, including whole ore cyanidation, sulfide flotation, and a combination of cyanidation of flotation concentrates and tailings leach. As drilling activities at El Quevar have continued, our understanding of the potential orebody has increased. We are in the process of conducting an additional and more comprehensive metallurgical study using composite samples derived from drill cores collected at various locations along the Yaxtché central and western zones. We believe this study will give us a more reliable and conservative estimate of ore grade values than does metallurgical sampling of individual cores with high ore grade values. We also expect that the metallurgical study will detect the presence of any elements that could make ore extraction and processing more difficult or costly. We expect to complete this metallurgical study in the second quarter of 2010.

Underground Exploration and Feasibility Study

We are currently conducting additional drilling to better define the resource in the western extension of the Yaxtché zone and to obtain further information on the continuity of mineralization. We expect additional drilling will also be conducted on selected targets in the project area, including the Viejo Campo target. See " Viejo Campo.". All of the drilling is designed to support feasibility work for the El Quevar project.

In July 2009, we engaged independent consultants to assist with pre-feasibility work, including metallurgical analysis and engineering studies, and preparation of a feasibility study for the development of the Yaxtché zone. After consultation, we determined to proceed with a feasibility study that includes the construction of underground workings to develop additional information regarding the continuity of the ore grade material inside the mineralized corridor and to better define the stoping characteristics and operating costs for the length of the Yaxtché zone. Work to date indicates that underground mining of the Yaxtché zone should be more economically feasible than open pit mining methods. We believe that underground investigation will provide us with more accurate and conservative data than relying solely on drilling results. Moreover, costs spent on underground workings will not be duplicated in the event the project goes into further development and production, as we intend to construct the necessary infrastructure to be sufficient in both size and quality so as to permit its use in the event the project goes into further development and production.

Underground exploration workings will include a ramp system that will intersect the ore zone at two locations 350 meters apart, along strike, and at a depth of approximately 200 meters. We expect the underground workings to consist of approximately 1,000 meters of four meter by five meter decline with all supporting excavations, ventilation, accesses, sumps, muck bays, and load center excavations. The surface work will consist of excavating approximately 112,000 cubic meters of material, developing an access road, and construction of the required mine site buildings (additions to these facilities would be required if the El Quevar project were to proceed to production). The camp will also be expanded to accommodate an additional 25 workers. Preliminary construction activities in connection with the construction of the underground drift commenced in the first quarter of 2010.

The underground drift is expected to encounter two veins of mineralized material in the Yaxtché zone. We anticipate that data achieved shortly after the first vein access, which we expect to encounter near the end of the third quarter 2010, will provide sufficient data for us to complete a feasibility study for the Yaxtché zone in the fourth quarter of 2010.

Viejo Campo

In addition to the Yaxtché zone, we are continuing to explore other potential zones of mineralization at the El Quevar project, including the Viejo Campo target. In October 2008, we entered into an option agreement to acquire the Viejo Campo concession with Salta Exploraciones S.A. ("SESA"), from whom we optioned the Castor and El Quevar I concessions. Under the terms of the Viejo Campo option agreement, we can earn a 60% interest in the Viejo Campo concession after making \$600,000 in payments to SESA and a \$1,000,000 investment on the concession in the amounts and by the dates set forth below:

Viejo Campo Payment		ampo Payment	Viejo Campo Investment		
	Amount	Date	Amount Date		
	\$50,000	October 27, 2009	\$150,000 October 27, 2009		
	\$100,000	October 27, 2010	\$250,000 October 27, 2010		
	\$200,000	October 27, 2011	\$250,000 October 27, 2011		
	\$200,000	October 27, 2012	\$350,000 October 27, 2012		

In addition to the required payments shown above, we paid \$50,000 upon execution of the agreement. We completed the first payment of \$50,000 and the first investment of \$150,000, which were due in October 2009. Subject to the availability of funding and the results of our additional drilling, we intend to make all remaining payments and investments. Upon completing our payment and investment obligations, we will acquire a 60% interest in the Viejo Campo concession and have an option to increase our interest to an 80% interest by paying an additional \$250,000 and completing a feasibility study at Viejo Campo within three years from the exercise of the option. If we do not exercise our option to increase our interest in Viejo Campo to 80%, SESA has the ability to convert its 40% interest into a 3% net smelter return royalty on precious metal produced from Viejo Campo and a 1% net smelter return royalty on the remaining metals produced from Viejo Campo, although we have a right to buy back half of those royalty interests at amounts set forth in the option agreement.

An initial drilling program has recently been completed at the Viejo Campo concession where two hydrothermal breccia structures, the Jenna and the Pamela structures, have been identified. The Viejo Campo concession is approximately six kilometers northwest of the main Yaxtché zone. The Jenna structure is approximately 600 meters in strike length. The Pamela structure has an exposed strike length of approximately 150 meters. Preliminary results from diamond drill holes completed as part of a first stage drill program at the Viejo Campo concession have returned silver values.

Advancement of El Quevar

We anticipate spending approximately \$30.0 million during 2010 in connection with the advancement of the Yaxtché deposit at El Quevar for engineering, construction and related costs associated with the underground drift and preparation of the feasibility study. We also expect to spend approximately \$2.0 million for drilling and other exploration activities outside of the Yaxtché zone, notably in the Viejo Campo target.

While we currently expect to proceed with the construction of the underground drift and preparation of the feasibility study as projected, the plan contains a number of "stop/continue" points, such as the completion of a hydrology study, close-spaced confirmation drilling results and first vein access. If it is determined at any one of those points that the project is not economically viable, our costs will be limited to costs incurred up to that point, with the exception of any prepaid expenses or supply purchase commitments.

We currently estimate that at least an additional \$65.0 to \$85.0 million would be required following completion of the feasibility study anticipated in the fourth quarter 2010. The actual amount required could vary substantially from this estimate based on the final results of the feasibility study. If the

project advances to development and construction, we will need to obtain additional external financing. This estimate is part of an internal study prepared under the direction of Robert Blakestad, our Senior Vice President, Exploration and a Qualified Person as defined in Canadian NI 43-101, and is not supported by a technical report compliant with NI 43-101. We currently plan to spend approximately \$30.0 million on the advancement of El Quevar, prior to establishing the economic viability of the project in a NI 43-101 compliant technical report. There can be no assurance that such expenditures will demonstrate the economic viability of the project.

Environmental Liability and Permitting

The El Quevar project is inside the Reserva Natural Los Andes, which was established principally to provide habitat for local wildlife. However, the reserve is designated for multiple uses, including mineral exploration and mining. The holder of any mineral concession in Salta province must submit an Environmental Information Report prior to exploration or mining activity. This report must be re-submitted every two years. There are three levels of permitting: prospecting, drilling and exploration, and mineral production.

We have obtained all necessary permits for our current exploration activities at the El Quevar project. In order to construct the underground drift and related workings as described above, we will be required to obtain a permit from the Mining Secretary of the Salta Province, Argentina. We have had an initial meeting with the Mining Secretary regarding the permit and we do not expect the issuance of the permit to delay the construction of the underground drift.

If the El Quevar project proceeds to development and construction, we will be required to obtain numerous additional permits from national, provincial and municipal authorities in Argentina. We have selected a contractor and have initiated the environmental baseline studies and environmental impact assessment process required to support the permits necessary for construction and operations. While we are not aware of any significant obstacle to obtaining the required permits, we have not yet formally begun to seek the necessary approvals.

Republic of Argentina

The Republic of Argentina is a federal republic located in South America and bordered by Chile, Bolivia, Paraguay, Brazil and Uruguay. The federal government coexists with the governments of 23 provinces and one autonomous city, Buenos Aires. Each province regulates its own administrative, legislative and judicial structure, complying with the republican system of government and the division of powers.

Certain Laws Affecting Mining in Argentina

According to Argentine law, mineral resources are subject to regulation in the provinces where the resources are located. Each province has the authority to grant exploration permits and exploitation concession rights to applicants. The Federal Congress has enacted the National Mining Code and other substantive mining legislation, which is applicable throughout Argentina, however, each province has the authority to regulate the procedural aspects of the National Mining Code and to organize the enforcement authority within its own territory.

In the province of Salta, where the El Quevar project is located, all concessions are granted by a judge in the Salta Mining Court. The types of mineral concessions relevant to the El Quevar project are exploration concessions and exploitation concessions. Exploration concessions are granted for up to 1,100 days depending on the size of the claim. The size of an exploration claim must be reduced periodically unless the owner applies to the Mining Court to convert it, or at least part of it, to an exploitation concession. Exploration concessions are subject to a yearly payment (*canon*), which is fixed each year by the federal government. For 2009, we paid a total of approximately \$28,500 to maintain

our El Quevar exploration concessions. An exploration plan must be filed for each exploration concession along with an environmental report that must be approved by the provincial mining authority. Additional environmental reports are required on a bi-annual basis while the exploration concession is valid. Upon expiration of the exploration concession, all data and documentation from the activities carried out on the concession must be filed with the provincial mining authority.

Exploitation concessions may be granted if any mineral discovery is made either by the concessionaire or authorized third parties. Exploitation concessions are also subject to a yearly de minimis payment fixed by the National Ministry of Economy. An exploitation concession may be maintained indefinitely by timely payment of annual fees, capital investment, and continuity of work program (exploration, infrastructure, or mining). In addition to the annual payment of maintenance fees, metals mines in the Salta Province are subject to a net smelter return royalty of 3% of metals produced.

Taxes in Argentina

Argentina has a federal income tax rate of 35%, and the income tax law allows for a five year carryforward of net operating losses. Argentina has several taxes in addition to income tax. The more significant taxes include (i) a Value Added Tax ("VAT") charged at a general rate of 21% for all goods and services provided in Argentina, as well as for imports into Argentina, unless specifically exempted; (ii) an import duty for certain goods and services entering the country; (iii) a provincial gross receipts tax applied to non-exported sales transactions in addition to VAT; (iv) a minimum presumed tax equivalent to 1% of the total asset value of an entity; and (v) a wealth tax of 0.5% of the equity value of an entity. For the metals extraction business, there is a 5% royalty on the value of the mineral extracted. Also, for exported minerals, Argentina imposes an export tax of 5% for silver dore and 10% for silver concentrates.

The tax laws applicable to exploration, prospecting, development, and mining extraction, as set forth in the Argentina Mining Investment Law, provide for significant benefits to the general tax system for those companies inscribed under this law and which meet certain conditions. These benefits include: (i) fiscal stability; (ii) double deductions for certain mining costs; (iii) accelerated amortization for certain project costs; (iv) import duty exemptions; (v) an exemption from the minimum presumed tax described in the previous paragraph and (vi) a decrease from 5% to 3% on the royalty on mineral extracted. A fiscal stability agreement with the federal government can be obtained with a term of 30 years from the date a project's economic feasibility is presented along with the corresponding application. During the 30 year term, in general, a party to such an agreement with the federal government will neither be subject to new taxes or increases in tax rates, nor suffer the elimination of tax exemptions or deductions. However, a fiscal stability agreement does not limit changes in VAT, contributions to the social security system, or indirect taxes, and it does not impede the government from extending rules passed for a specified term or exempt the government from eliminating tax exemptions that have a scheduled date of expiration. Also, VAT paid on the import and purchase of goods and services used to carry out exploration activities that remains as a credit for greater than 12 years, may be refunded. Argentina also allows for the exemption from import duties when importing capital goods and special equipments or components, spare parts of said goods, or leased goods used to carry out mining and exploration activity defined by the Mining Department.

As mentioned in the preceding paragraph, one of the benefits from the Argentina Mining Investment Law given to mining companies is a double deduction on certain mining related costs. If we begin production at El Quevar, activities such as prospecting, exploration, special studies of mineralogy, metallurgy, feasibility and pilot plant studies may be offset 100% against taxable profits, and such costs may also be depreciated for tax purposes. In addition, we may benefit from tax depreciation on an accelerated basis on investments in infrastructure, machinery, equipment and vehicles used in developing production capacity or carrying out new mining projects.

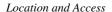
Other Exploration Properties

In addition to El Quevar, we own and control a portfolio of approximately 35 exploration properties located primarily in South America and Mexico. In evaluating whether an exploration project warrants potential future development, we establish minimum requirements for reserves and annual saleable metal production rates and estimated mine development, capital and operating cost requirements. We seek to generate value from exploration properties that do not satisfy our minimum economic requirements through sale or farm-out of the property to a third party, and/or through retaining a royalty interest.

The map below shows the location of some of our projects:

Zacatecas (Mexico)

Our 100% controlled Zacatecas silver and base metals project in Mexico is in an intermediate stage of exploration. Although we believe that the Zacatecas project may contain significant silver and/or other mineralization, we have not completed a feasibility study on the property, and the property may not advance further.



The Zacatecas project surrounds the municipalities of Zacatecas, Veta Grande, Guadalupe, Pánuco, and Morelos in the state of Zacatecas, Mexico. All of our Zacatecas properties can be easily reached within 10 kilometers from the city of Zacatecas by paved and dirt roads. A location map is shown below.

Title and Ownership Rights

We own or control approximately 180 concessions totaling approximately 14,850 hectares in the Zacatecas project. Of these concessions, all but four are currently owned exclusively by us, and the remaining four concessions are under our exclusive control under purchase options with private third-party owners. The purchase options require option payments of \$53,000 due in 2009, which payments have been made, \$72,500 in 2010, \$375,000 in 2011, and \$204,000 in 2012. To maintain all of the concessions, we also pay approximately \$62,500 per year to the Mexican government. We are party to a finder's fee agreement with an individual, which requires that we pay a 1% net smelter return royalty on any mineral production from certain of our Zacatecas claims.

Property History

The Zacatecas Mining District is located in the central part of Mexico, in the Faja de Plata mineral belt. A map of the mineral belt is shown below. Production from the Zacatecas district is estimated by the Mexican Federal Mining Agency to exceed 750 million ounces of silver. The existence of mining operations or mineral deposits on adjacent properties is not indicative of whether mineral deposits occur on our properties.

Exploration Activities

From 1994 to 2005, we performed sporadic reconnaissance work on some of the Zacatecas concessions, including taking approximately 2,000 surface samples. In 2006, we began systematic reconnaissance work on all concessions that we controlled. On the basis of this and the previous work, we identified the Muleros, El Cristo and San Manuel-San Gil areas of interest. In these areas, we performed more detailed mapping work, as well as trenching and detailed sampling, and in the Muleros area, we completed a two-stage diamond drilling program of 37 holes totaling approximately 6,800 meters. We have also recently identified a fourth target area, the Pánuco target, which is located in the northeastern part of the Zacatecas district about 10 kilometers east of the Muleros area. We believe that each of the target areas has potential for the discovery of silver with associated base metals and gold. We have spent approximately \$9.8 million through December 31, 2009 on exploration and property acquisition in the Zacatecas district.

Geology and Mineralization

At a regional level, the Zacatecas Mining District is located within the physiographical provinces of the Western Sierra Madre and the Central Plateau. The basement rock units in the area include the metamorphic rocks of the Zacatecas Formation of Upper Triassic age. Overlying these rocks are the volcano-sedimentary units of the Chilitos Formation of Upper Jurassic-Lower Cretaceous age. During the Tertiary period, a polymictic conglomerate known as the "Red Zacatecas Conglomerate" was discordantly deposited, and overlying this, andesitic to rhyolitic flows and tuffs were deposited. All units are intruded by small stocks and plugs of rhyolitic to andesitic composition.

The Zacatecas Formation is composed of a sequence of sericitized phyllites and metamorphosed shales, sandstones, conglomerates and limestones. These rocks are host to some veins such as those of the El Bote vein system and the deeper portions of the Mala Noche vein system.

The Chilitos Formation of Upper Jurassic-Lower Cretaceous age is a volcano-sedimentary sequence made up of massive and pillowed lavas of basaltic-andesitic composition with intercalations of sedimentary, volcaniclastic and calcareous rocks, metamorphosed to greenschist facies. This sequence is locally thrust over the Zacatecas Formation and is the main host rock for mineral systems in several mining districts in the region, including Zacatecas and Fresnillo.

During the Oligocene-Miocene period, extensive deformation occurred that produced normal faulting, forming grabens and horsts bearing generally north-northeast/south-southwest. It was during this phase of deformation that most of the epigenetic mineral deposits were formed.

In the four target areas identified by us, rocks of the Chilitos Formation are host to the veins. The four main target areas Muleros, Pánuco, El Cristo and San Manuel-San Gil are described in more detail below.

Muleros Area

Located in the northern part of the Zacatecas Mining District, the Muleros area covers an area of roughly 1,800 meters by 2,400 meters, where four sub-parallel epithermal vein-faults outcrop. The veins are composed of quartz and calcite, and contain silver mineralization associated with minor antimony and lead and zinc. The main vein system bears N40° to 70°W and dips 60° to 85° mainly to the southwest, with thicknesses that vary from 0.1 meters to 6.2 meters, and lengths from 1,000 to 2,500 meters, with shorter offshoots. The total length of all the outcropping veins is about 6,500 meters, and of the inferred veins (i.e., those that do not continuously outcrop) is 2,100 meters, with an average width of 1.33 meters. From 2006 to the present, we have taken approximately 1,100 surface samples from outcrops and trenches.

At Muleros, we have drilled 37 diamond drill holes totaling approximately 6,800 meters. There were two stages of drilling. The first program was carried out with a total of 3,840 meters distributed over 31 short bore holes. The purpose of this program was to determine the structural behavior of the veins, the vein textures and the geochemistry at a vertical depth of about 100 meters from the surface. The second program was carried out with a total of 2,976 meters distributed over six boreholes. These holes were deeper tests (over 300 meters in depth), meant to intersect the veins in a postulated zone of high grade mineralization. The results indicate that the dip of the veins changed, becoming less steep than indicated at the surface and the intersections were less deep than planned (meaning they may have intercepted the upper part of a possible zone). Results from this drilling returned narrow intercepts of silver mineralization. Our results to date indicate that the more promising part of the Muleros target may be in the southeastern part of the area.

We anticipate conducting an additional drill program during the second quarter of 2010 consisting of 10 to 15 holes at a cost of approximately \$500,000 to further test this area. If the results of this program warrant further exploration, we intend to conduct a more extensive drilling program.

Pánuco Area

The Pánuco target area is located in the northeastern part of the Zacatecas district about 10 kilometers east of the Muleros area and is comprised of two main veins hosted in sedimentary rocks that outcrop for an aggregate of about 5 kilometers in a northwesterly direction. Vein widths range from one to three meters. Several small pits indicate mining of silver from oxidized surface rocks during Colonial times. There has been no modern exploration at Pánuco. We have mapped the area in detail and collected approximately 400 samples from the veins and wall rocks.

We are currently conducting a first phase drill program consisting of 10 diamond core holes totaling about 2000 meters at an estimated cost of approximately \$350,000. If the results from this work appear promising, we intend to conduct additional drilling and analytical work to advance the project in 2010.

El Cristo Area

Located in the central portion of the Zacatecas Mining District, the El Cristo area covers a surface area of 800 meters by 2000 meters, where five sub-parallel epithermal quartz-calcite veins outcrop. These veins correspond to the northwestern extension of the Vetagrande vein system. From 2006 to October 2008, we took approximately 1,017 surface samples from outcrops and trenches, of which 516 are from the veins. These samples have returned silver and gold values, with anomalous values in copper, lead and zinc. The average vein width is 1.5 meters. The main vein system bears N50 to 60? W and dips 60 to 80? SW, with thicknesses varying from 0.15 meters to 5.0 meters, and lengths from 500 to 2400 meters, with shorter offshoots. The total length of the outcropping veins and their respective offshoots is approximately 8,000 meters.

The area has been mapped at a 1:2,500 scale and we completed an environmental impact report in June 2007. We have planned an exploration program during 2010 including 3,000 meters of diamond drilling at an estimated cost of approximately \$500,000.

San Manuel-San Gil Area

Located in the central portion of the Zacatecas Mining District, the San Manuel-San Gil area covers an area of 8 square kilometers, where sub-parallel epithermal veins and alteration zones outcrop. The main vein system bears N60W to East-West and dips to the north and south, with thicknesses varying from 0.10 meters to 7 meters, and lengths from 400 to 1400 meters with shorter offshoots. The total length of all the outcropping veins and their respective offshoots is about 7000 meters, with an average width of 1.2 meters. We have taken 167 chip-channel samples that have returned silver and gold values, and highly anomalous values in copper, lead and zinc.

We carried out a geochemical soil sampling program in an area measuring 4.2 kilometers by 2 kilometers with east-west lines every 100 meters and samples every 50 meters. A total of 785 samples were taken. The strongest anomaly in silver, gold and copper is located in the southeastern portion of the area.

We have planned an exploration program including approximately 2,000 meters of drilling at an estimated cost of \$350,000 to test this target.

Early Stage Exploration Properties

We believe that the properties described below, while not as advanced as El Quevar and Zacatecas, appear promising based on our activities to date. We intend to conduct further mapping, sampling and drilling on these properties. Although we believe that these properties merit further exploration activities, our activities are at a preliminary stage and we do not yet consider any one of these properties to be individually material.

Palca (Peru)

The Palca project is located in the Puno province in southern Peru and is distinguished by an extensive series of veins aggregating more than 10 kilometers in length containing silver, gold and base metals in locally significant amounts. We have a 100% interest in the project, which is made up of nine concessions totaling approximately 4,800 hectares. The veins at Palca are hosted by Tertiary volcanic rocks and associated intrusive bodies and range in width from two to fifteen meters. Sampling has returned silver, gold, lead and zinc values. There has been some limited production from one of the veins, but little modern exploration has been conducted.

We are planning an initial drill test of 10 holes totaling 3,000 meters at a cost of \$500,000 to begin in the second quarter 2010. If the program results are encouraging, we intend to conduct additional drilling and analytical work to advance the project.

Elisa de Bordos (Chile)

The Elisa de Bordos project is located about 40 kilometers southeast of the city of Copiapó in north-central Chile. We have an option agreement to acquire a 75% interest by conducting \$1.5 million in work prior to 2012 and establishing a resource estimate that meets industry standards. We may increase our interest under certain conditions. There has been historical production of an unknown amount of silver ores from replacement-style mineralization hosted in sedimentary and volcanic rocks from this project. There are about 4,500 meters of underground workings that we have mapped and sampled in some detail.

Our sampling has returned silver values from exposures in the workings and we have established that silver is present in similar host rocks for at least one kilometer from the old mine site. There has been no modern exploration on the project. Our work has shown that silver is present over a sufficient area and the indicated grade of the potentially mineralized zone is such that a silver resource may be present at Elisa de Bordos.

We are currently conducting a 10 hole, 1,700 meter drilling program to test this area at an estimated cost of \$300,000.

Matehuapil (Mexico)

The Matehuapil Project is located in northeastern Zacatecas state in central Mexico. Significant projects in the region surrounding Matehuapil include the Peñasquito Mine, the Concepcíon del Oro district and the new Camino Rojo discovery. Thman; font-size: 13px"> Ms C Thomas

b)

Position/status

SVP, Human Resources

c)

Initial notification/amendment

Initial notification

2.

Details of the issuer, emission allowance market participant, auction platform, auctioneer or auction monitor

a)

Name

GlaxoSmithKline plc

b)

LEI

5493000HZTVUYLO1D793

3

Details of the transaction(s): section to be repeated for (i) each type of instrument; (ii) each type of transaction; (iii) each date; and (iv) each place where transaction(s) has been conducted

a)

Description of the Financial instrument

Ordinary shares of 25 pence each ('Ordinary Shares')

ISIN: GB0009252882

b)

Nature of the transaction

Acquisition of Ordinary Shares following the re-investment of dividends paid to shareholders on 10 January 2019, on shares held through the Company's Share Reward Plan.

c)

Price(s) and volume(s)

Price(s)

Volume(s)

£15.2440

73

d)

Aggregated information

Aggregated volume Price n/a (single transaction)

e)

Date of the transaction

2019-01-10

f)

Place of the transaction

London Stock Exchange (XLON)

1. Details of PDMR/person closely associated with them ('PCA')

a) Name Mr P C Thomson

b) Position/status President, Global Affairs

c) Initial notification/amendment Initial notification

Details of the issuer, emission allowance market participant, auction

platform, auctioneer or auction monitor

a) Name GlaxoSmithKline plc

b) LEI 5493000HZTVUYLO1D793

Details of the transaction(s): section to be repeated for (i) each type of

 $3. \ \ instrument; (ii) each type of transaction; (iii) each date; and (iv) each$

place where transaction(s) has been conducted

Ordinary shares of 25 pence each ('Ordinary Shares')

a) Description of the financial instrument

ISIN: GB0009252882

Acquisition of Ordinary Shares following the re-investment of dividends paid to shareholders on 10

b) Nature of the transaction

January 2019, on shares held

through the Company's Share

Reward Plan.

c) Price(s) and volume(s) $\begin{array}{c} \text{Price(s)} & \text{Volume(s)} \\ \text{£15.2440} & \text{41} \end{array}$

Aggregated information n/a (single transaction)

Aggregated volume Price

e) Date of the transaction 2019-01-10

Place of the transaction London Stock Exchange

(XLON)

1. Details of PDMR/person closely associated with them ('PCA')

a) Name Mrs V A Whyte

b) Position/status Company Secretary
c) Initial notification/amendment Initial notification

Details of the issuer, emission allowance market participant, auction

platform, auctioneer or auction monitor

a) Name GlaxoSmithKline plc

b) LEI 5493000HZTVUYLO1D793

Details of the transaction(s): section to be repeated for (i) each type of

3. instrument; (ii) each type of transaction; (iii) each date; and (iv) each

place where transaction(s) has been conducted

Ordinary shares of 25 pence each ('Ordinary Shares')

a) Description of the financial instrument

ISIN: GB0009252882

Acquisition of Ordinary Shares following the re-investment of dividends paid to shareholders on 10 January 2019, on shares held

through the Company's Share

Reward Plan.

c) Price(s) and volume(s) $\begin{array}{c} \text{Price(s)} & \text{Volume(s)} \\ \text{£15.2440} & \text{52} \end{array}$

Aggregated information

b) Nature of the transaction

d) Aggregated volume Price n/a (single transaction)

e) Date of the transaction 2019-01-10

Place of the transaction London Stock Exchange

(XLON)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorised.

GlaxoSmithKline plc (Registrant)

Date: January 11, 2019

By: VICTORIA WHYTE

Victoria Whyte Authorised Signatory for and on behalf of GlaxoSmithKline plc