



GOLDEN STAR RESOURCES LTD.

**Annual Information Form
For the Year Ended December 31, 2013**

DATED: March 21, 2014

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ABOUT INFORMATION IN THIS ANNUAL INFORMATION FORM

Unless specifically stated otherwise in this Annual Information Form:

- all dollar amounts are in United States dollars;
- information is presented as of December 31, 2013; and
- references to “Golden Star”, the “Company”, “its”, “our” and “we”, or related or similar terms, refer to Golden Star Resources Ltd., its predecessors and consolidated subsidiaries, or any one or more of them, as the context requires.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING INFORMATION

This Annual Information Form contains “forward-looking information” within the meaning of applicable Canadian securities laws and “forward-looking statements” within the meaning of the United States Private Securities Litigation Reform Act of 1995, concerning the business, operations and financial performance and condition of Golden Star and are based on expectations, estimates and projections as of the date of this Annual Information Form. Forward-looking information and statements include, but are not limited to information or statements with respect to: anticipated production and cash operating cost estimates; the receipt of environmental permits, including the approval of the environmental management plan at Wassa; anticipated commencement dates of mining and production; estimated costs and timing of the development of new deposits and sources of funding for such development; capital expenditures; project economics at Prestea Underground; government review of gold exploration areas; the mining laws, environmental laws and tax regime of Ghana; production capacity, rates and costs; estimated operating costs; currency exchange rate fluctuations; gold sales; mining operations and gold recovery rates; ore type, delivery and processing; use of waste rock; tailings processing; completion, use and capacity of TSF2 (as defined below); potential mine life; strip ratios; permitting and approvals; rehabilitation; estimates of mineral reserves and mineral resources and the timing of such estimates; geological, environmental, community and engineering studies; the timing for completion of a PEA (as defined below) at Wassa and the commencement of a feasibility study at Wassa; exploration efforts and activities; timing for commencing or completing drilling; updates to resource models; identification of acquisition and growth opportunities; timing for completion of pushbacks at Chujah and Bogoso North; relationships with local stakeholder communities; changes to management of the Company; and our ability to meet cash requirements.

Generally, forward-looking information and statements can be identified by the use of forward-looking terminology such as “plans”, “expects”, “is expected”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates”, “believes” or variations of such words and phrases (including negative or grammatical variations) or statements that certain actions, events or results “may”, “could”, “would”, “might” or “will be taken”, “occur” or “be achieved” or the negative connotation thereof.

Forward-looking information and statements are made based upon certain assumptions and other important factors that, if untrue, could cause the actual results, performance or achievements of Golden Star to be materially different from future results, performance or achievements expressed or implied by such statements. Such statements and information are based on numerous assumptions regarding present and future business strategies and the environment in which Golden Star will operate in the future, including the price of gold, anticipated costs and ability to achieve goals. Certain important factors that could cause actual results, performance or achievements to differ materially from those set forth in the forward-looking information and statements include, among others, gold price volatility, discrepancies between actual and estimated production, mineral reserves and mineral resources and metallurgical recoveries, mining operational and development risks, litigation risks, regulatory restrictions (including environmental regulatory restrictions and liability), activities by governmental authorities (including changes in taxation), currency fluctuations, the speculative nature of gold exploration, the global economic climate, dilution, share price volatility, the availability of capital on reasonable terms or at all, local and community impacts and issues, results of pending or future feasibility studies, competition, loss of key employees, additional funding requirements and defective title to mineral claims or property. Although Golden Star has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking information and statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended.

Forward-looking information and statements are subject to known and unknown risks, uncertainties and other important factors that may cause the actual results, performance or achievements of Golden Star to be materially different from those expressed or implied by such forward-looking information and statements. The following, in addition to the factors described under “Risk Factors”, are among the factors that could cause actual results to differ materially from the forward-looking statements:

- significant increases or decreases in gold prices;
- losses or gains in mineral reserves and mineral resources from changes in operating costs and/or gold prices;
- failure of exploration efforts to expand mineral reserves and mineral resources around our existing mines;
- unexpected changes in business and economic conditions;
- inaccuracies in mineral reserves and mineral resources estimates;
- changes in interest and currency exchange rates;
- timing and amount of gold production;
- unanticipated variations in ore grade, tonnes mined and crushed or milled;
- unanticipated recovery or production problems;
- effects of illegal mining on our properties;
- changes in mining and processing costs, including changes to costs of raw materials, supplies, services and personnel;
- changes in metallurgy and processing;
- availability of skilled personnel, contractors, materials, equipment, supplies, power and water;
- changes in project parameters or mine plans;
- costs and timing of development of mineral reserves;
- weather, including drought or excessive rainfall in West Africa;
- results of current and future exploration activities;
- results of pending and future feasibility studies;
- acquisitions and joint venture relationships;
- political or economic instability, either globally or in the countries in which we operate;
- changes in regulatory frameworks or regulations affecting our operations, particularly in Ghana; where our principal producing properties are located;
- local and community impacts and issues;
- availability and cost of replacing mineral reserves;
- timing of receipt and maintenance of government approvals and permits;
- unanticipated transportation costs including shipping incidents and losses;
- accidents, labor disputes and other operational hazards;
- environmental (including reclamation) costs and risks;
- changes in tax laws;
- title issues;
- competitive factors, including competition for property acquisitions;
- possible litigation;
- availability of capital at reasonable rates or at all;
- changes in the Ghanaian Cedi and government policies regarding payments in foreign currency; and
- changes to Golden Star’s mining licenses, including revocation.

Although Golden Star has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information and statements, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking information and statements. Forward-looking information and statements are made as of the date hereof and accordingly are subject to change after such date. Except as otherwise indicated by Golden Star, these statements do not reflect the potential impact of any non-recurring or other special items or of any dispositions, monetizations, mergers, acquisitions, other business combinations or other transactions that may be announced or that may occur after the date hereof. Forward-looking information and statements are provided for the purpose of providing information about management’s current expectations and plans and allowing investors and others to get a better understanding of our operating environment.

Golden Star does not undertake to update any forward-looking information and statements that are included in this Annual Information Form, except in accordance with and as required by applicable securities laws.

CAUTIONARY NOTE REGARDING MINERAL RESERVES AND MINERAL RESOURCES

Scientific and technical information contained in this Annual Information Form was reviewed and approved by Dr. Martin Raffield, Senior Vice- President, Technical Services and Mitch Wasel, Vice-President, Exploration for Golden Star. Each of Dr. Raffield and Mr. Wasel is a “qualified person” (“QP”) as defined by National Instrument 43-101 - Standards of Disclosure for Mineral Projects (“NI 43-101”). All mineral reserves and mineral resources have been calculated in accordance with the standards of the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) and NI 43-101. All mineral resources are reported inclusive of mineral reserves. Mineral resources which are not mineral reserves have not demonstrated economic viability. Information regarding the mineral properties mentioned in this Annual Information Form that are considered to be material mineral properties to the Company are set out under the heading “Description of the Properties - Golden Star Material Properties”.

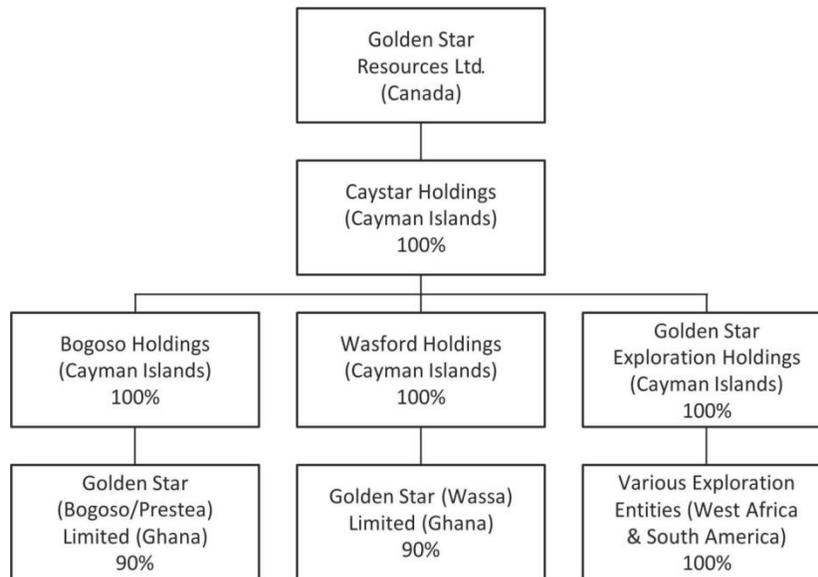
CAUTIONARY NOTE TO U.S. INVESTORS

This Annual Information Form has been prepared in accordance with the requirements of the securities laws in effect in Canada, which differ materially from the requirements of United States securities laws applicable to U.S. companies. Information concerning our mineral properties has been prepared in accordance with the requirements of Canadian securities laws, which differ in material respects from the requirements of the United States Securities and Exchange Commission (the “SEC”) set forth in Industry Guide 7. Under the SEC’s Industry Guide 7, mineralization may not be classified as a “reserve” unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time of the reserve determination, and the SEC does not recognize the reporting of mineral deposits which do not meet the SEC Industry Guide 7 definition of “Reserve”. In accordance with NI 43-101, the terms “mineral reserve”, “proven mineral reserve”, “probable mineral reserve”, “mineral resource”, “measured mineral resource”, “indicated mineral resource” and “inferred mineral resource” are defined in accordance with CIM standards. While the terms “mineral resource”, “measured mineral resource”, “indicated mineral resource” and “inferred mineral resource” are recognized and required by NI 43-101, the SEC does not recognize them. You are cautioned that, except for that portion of mineral resources classified as mineral reserves, mineral resources have not demonstrated economic value. Inferred mineral resources have a high degree of uncertainty as to their existence and as to whether they can be economically or legally mined. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. Therefore, you are cautioned not to assume that all or any part of an inferred mineral resource exists, that it can be economically or legally mined, or that it will ever be upgraded to a higher category. Likewise, you are cautioned not to assume that all or any part of measured or indicated mineral resources will ever be upgraded into mineral reserves.

CORPORATE STRUCTURE

Golden Star Resources Ltd. was established under the *Canada Business Corporations Act* on May 15, 1992 as a result of the amalgamation of South American Goldfields Inc., a corporation incorporated under the federal laws of Canada, and Golden Star Resources Ltd., a corporation originally incorporated under the provisions of the *Business Corporations Act* (Alberta) on March 7, 1984 as Southern Star Resources Ltd. Concurrent with the amalgamation, the common shares of the Company were consolidated on a one-for-two basis. All references to “common shares” in this document mean the common shares of the Company after the amalgamation and the share consolidation. The fiscal year of the Company ends on December 31 of each year. Our principal and registered office is located at 150 King Street West, Suite 1200, Toronto, Ontario, M5H 1J9 Canada.

The following diagram depicts the organizational structure of Golden Star and its significant subsidiaries:



GENERAL DEVELOPMENT OF THE BUSINESS

OVERVIEW OF GOLDEN STAR

Golden Star indirectly holds a 90% equity interest in Golden Star (Bogoso/Prestea) Limited (“GSBPL”) and Golden Star (Wassa) Limited (“GSWL”), which respectively own the Bogoso open-pit gold mine (and satellite pits) (“Bogoso”) and the Wassa open-pit gold mine (and satellite pits) (“Wassa”), and processing plants in Ghana. In addition, Golden Star has a 90% interest in the currently inactive Prestea Underground mine (“Prestea Underground”) in Prestea, Ghana. Golden Star also holds gold exploration interests elsewhere in Ghana, in other parts of West Africa and in Brazil, South America.

Our objective is to continue to grow our mining business through the appropriate development of our projects. In the near term, we are focused on reducing our operating costs and managing our capital expenditures appropriately.

All our operations, with the exception of certain exploration projects, transact business in U.S. dollars and keep financial records in U.S. dollars. Our accounting records are kept in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board. Our fiscal year ends December 31. We are a reporting issuer or the equivalent in all provinces of Canada, in Ghana and in the United States, and file disclosure documents with securities regulatory authorities in Canada and Ghana and with the SEC.

THREE YEAR HISTORY

2011

On April 28, 2011, the Company provided an update on strong grade and widths from Buesichem South Drilling. The Company announced that a total of seven drill rigs were operating at both the GSBPL and GSWL concessions in Ghana. Over 14,700 meters (“m”) of infill and expansion drilling on the Buesichem South and Bogoso North deposits at Bogoso were completed through April 28, 2011. A total of 12,550 m of drilling was completed on the GSWL properties testing new exploration targets at Essaman and Amantin as well as step-out and infill drilling at Wassa Main, Chichiwelli and the Subriso Deeps underground target.

On September 1, 2011, the Company re-commenced mining of the free milling Pampe Deposit located 26 kilometers west of the Company’s Bogoso processing plant in Ghana, West Africa. The Company also announced that an exploratory drilling program was underway focused on increasing Pampe’s proven and probable mineral reserves of 191,000 ounces (“oz”) of gold.

On September 15, 2011, the Company provided an update on its continuing exploration success. The Company’s exploration drilling programs in Ghana continued during the second quarter with three drill rigs operating at the GSBPL concessions and four operating at the GSWL concessions. On the GSBPL concessions, 11,900 m of infill and expansion drilling at the Buesichem South and Bogoso North deposits were completed. On the GSWL concessions, 22,818 m of drilling focused on the new exploration targets at Wiredukrom North, the southern extension of Wassa Main, infill drilling at Wassa Main, and Father Brown underground targets.

On December 28, 2011, True Gold Mining Inc. (“TGM”) (formerly Riverstone Resources Inc.) exercised its option to purchase Golden Star’s Goulagou-Rounga properties in Burkina Faso, West Africa. The sale of the Company’s Burkina Faso subsidiary to TGM closed on February 2, 2012 and generated \$6.6 million of cash plus 21.7 million TGM shares. The Company recognized the shares at their fair value of \$15.8 million.

2012

On May 17, 2012, the Company entered into certain definitive agreements to purchase an aggregate of \$74.5 million of the principal outstanding under its 4.00% Convertible Senior Unsecured Debentures due November 30, 2012 (“Original Debentures”) by way of privately negotiated transactions with certain holders of Original Debentures. After purchasing and cancelling \$74.5 million of Original Debentures, an aggregate of \$50.5 million principal amount of Original Debentures remained outstanding. As consideration for purchasing \$74.5 million of Original Debentures, on May 31, 2012, the Company issued an aggregate of approximately \$77.5 million principal amount of 5.00% Convertible Senior Unsecured Debentures due June 1, 2017 (“Convertible Debentures”).

On July 25, 2012, the Company announced continued drilling success at Wassa Main and added three drilling rigs to the program.

On September 14, 2012, the Company redeemed \$6.13 million of its Original Debentures by way of a privately negotiated transaction initiated by a certain holder of Original Debentures.

On October 15, 2012, the Company updated its exploration activities at its Wassa mine in Ghana. The addition of three contractor rigs at the end of July 2012 enabled Golden Star to accelerate drilling beneath the current Wassa pit designs. The Company completed an additional 49 drill holes in the third quarter of 2012 totaling 16,485 meters comprising approximately 67% HQ sized drill core and 33% reverse circulation (“RC”).

On November 30, 2012, the Company redeemed the remaining \$44.37 million of its Original Debentures.

On December 13, 2012, the Company announced the relocation of its head office from Denver, Colorado to Toronto, Ontario. In connection with the relocation of its head office, the Company announced that Tom Mair and Roger Palmer would resign as the Chief Executive Officer and Chief Financial Officer of the Company, respectively. Tom Mair was replaced as Chief Executive Officer of the Company by Samuel Coetzer effective January 1, 2013. Samuel Coetzer was also appointed to the Company’s board of directors effective December 14, 2012. Roger Palmer was replaced as Chief Financial Officer of the Company by Jeffrey Swinoga effective January 7, 2013. In addition, Timothy Baker was appointed as the new Chairman of the board of directors of the Company.

2013

On March 21, 2013, the Company filed a NI 43-101 compliant technical report for Wassa, Ghana that culminated from the Company updating its proven and probable mineral reserves and mineral resources estimates as at December 31, 2012. The Company increased its mineral reserves at Wassa by 85% to 1.47 million ounces of contained gold, relative to December 31, 2011.

On April 30, 2013, the Company announced that drilling at Wassa Main continued to show encouraging results. From September 1, 2012 to March 31, 2013, the Company drilled an additional 194 holes for 70,332 m drilled. Drilling in the first quarter of 2013 alone amounted to 89 holes covering 32,863 m.

On June 11, 2013, the results of a positive feasibility study, prepared by an independent party SRK Consulting (UK) Ltd. (“SRK”), to develop its Prestea Underground West Reef project in Ghana were disclosed. The Prestea Underground Feasibility Study (as defined below) estimated the project will produce an average of 66,000 ounces of gold per annum over its six year production life, with steady-state production of approximately 80,000 ounces per annum for four of those years.

Effective as of the second quarter of 2013, the Company transitioned from preparing its financial statements in accordance with U.S. generally accepted accounting principles to preparing its financial statements in accordance with IFRS as issued by the International Accounting Standards Board.

On July 30, 2013, the Company closed a US\$50 million secured medium term loan facility (the “Loan”) with Ecobank Ghana Limited (“Ecobank”), a pan-African full service bank, who acted as sole lender and arranger to the Company. The Loan has a term of 60 months from the date of initial drawing and is secured, among other things, against GSWL’s existing plant, machinery and equipment. The interest rate will be three month LIBOR + 9%, per annum, payable monthly in arrears. Payment of interest and principal commences six months following the first drawdown.

On November 7, 2013, the Company announced a 45% increase in gold ounces of Wassa Main’s indicated mineral resource as at September 30, 2013. The indicated mineral resources at Wassa Main increased to 46.4 million tonnes (“Mt”) with an average grade of 1.75 grams per tonne (“g/t”) gold (“Au”) for 2.6 million ounces and are inclusive of mineral reserves. This is a 28% increase in grade and a 13% increase in tonnes over the indicated mineral resources as at December 31, 2012.

2014

On January 9, 2014, the Company announced 2013 fourth quarter and full year production results for its Bogoso and Wassa mines as well as operational and financial guidance for 2014. The Company also announced the appointment of Daniel Owiredo to the position of Chief Operating Officer.

On January 30, 2014, the Company reported that the Wassa drilling program identified significant grades and widths of mineralization 250 meters to the south of previously known mineralization at Wassa. Further, step out drilling confirmed that the Wassa mineral body is open down plunge. The current drilling program is expected to be completed and assays received by mid-2014.

On February 10, 2014, the Company announced its proven and probable mineral reserves and mineral resources as of December 31, 2013. The Company’s mineral reserves declined to 3.9 million ounces from depletion and a lower gold price assumption of \$1,300 per ounce. The Company’s measured and indicated mineral resources declined to 6.4 million ounces with lower gold price assumption of \$1,400 per ounce.

On February 21, 2014 Golden Star announced the approval and adoption by its Board of Directors of a new by-law relating to advance notice to the Company in certain circumstances where nominations of persons for election to the Board of Directors are made by shareholders of the Company (the “Advance Notice By-law”). The purposes of the Advance Notice By-law are to (i) facilitate an orderly and efficient annual general or, where the need arises, special meeting, process, (ii) ensure that all shareholders receive adequate notice of the proposed director and sufficient information regarding all director nominees, and (iii) allow shareholders to register an informed vote on director nominees after having been afforded reasonable time for appropriate deliberation.

On March 14, 2014, Golden Star filed with the Canadian securities regulators the Bogoso Technical Report (as defined below).

On March 18, 2014, Golden Star announced that Jeffrey Swinoga will resign as Executive Vice President and Chief Financial Officer of the Company effective April 7, 2014. André van Niekerk, Golden Star's Vice President and Controller, will be appointed as Golden Star's new Chief Financial Officer effective April 7, 2014.

DESCRIPTION OF THE BUSINESS

GOLD SALES AND PRODUCTION

We produced 330,806 ounces of gold in 2013 and 331,278 ounces in 2012. Currently, all of our gold production is shipped to a South African gold refinery which arranges for the sale of our gold. Our gold is sold in the form of doré bars that average approximately 90% gold by weight with the remaining portion being silver and other metals. The sales price is based on the London P.M. fix on the day of shipment to the refinery.

GOLD PRICE HISTORY

The price of gold is volatile and is affected by numerous factors all of which are beyond our control such as the sale or purchase of gold by various central banks and financial institutions, inflation, fluctuation in the relative values of the U.S. dollar and foreign currencies, changes in global and regional gold demand, and the political and economic conditions of major gold-producing countries throughout the world.

The following table presents the high, low and average London P.M. fixed prices for gold per ounce on the London Bullion Market over the past ten years.

Year	High	Low	Average	Average Price Received by Golden Star
2003	416	320	363	364
2004	454	375	410	410
2005	537	411	445	446
2006	725	525	603	607
2007	841	608	695	713
2008	1,011	713	872	870
2009	1,213	810	972	978
2010	1,421	1,058	1,225	1,219
2011	1,895	1,319	1,572	1,565
2012	1,792	1,540	1,670	1,662
2013	1,694	1,192	1,411	1,273

BUSINESS STRATEGY AND DEVELOPMENT

Our business and development strategy is focused primarily on the exploration, development and operation of gold properties in Ghana. We also pursue gold exploration activities in South America and other countries in West Africa.

We acquired the Bogoso property and began operating its mines and carbon-in-leach ("CIL") processing plant in 1999. In 2001, we acquired the Prestea property located adjacent to the Bogoso property. In early 2002 GSBPL acquired a 45% interest in the Prestea Underground property, and since then our interest increased to 90% as a result of subsequent exploration and maintenance expenditures incurred on the property.

In late 2002, we acquired Wassa and constructed the Wassa processing plant, which began commercial operation in April 2005. In July 2007, we completed construction and development of the Bogoso refractory plant. In late 2005,

we acquired the Hwini Butre and Benso properties. Benso began sending ore to the Wassa processing plant in 2008, and in 2009, following its development phase, Hwini-Butre began sending ore to the Wassa processing plant.

The Company's long-term objective is to continue the growth of its mining business through the appropriate development of its projects. In the near term, the Company is focused on reducing its operating costs and managing its capital expenditures. Development spending will be focused on projects that are expected to provide a sufficient risk-adjusted return on investment in the near to medium term.

Customers

Gold can be readily sold on numerous markets throughout the world and its market price can be readily ascertained at any time. Because there are a large number of gold purchasers, the Company is not economically dependent upon the sale of gold to any one customer.

Currently all of our gold production is shipped to a South African gold refinery. The refinery arranges for sale of the gold on the day it is shipped from the mine site and we receive payment for gold sold two working days after the gold leaves the mine site. The global gold market is competitive with numerous banks and refineries willing to buy gold on short notice. Therefore, we believe that the loss of our current customer would not materially delay or disrupt revenues.

Employees

As of December 31, 2013, Golden Star, including our majority-owned subsidiaries, had approximately 1,923 full time employees and approximately 189 contract employees, for a total of 2,132, a 10% decrease from the approximately 2,000 full time and 360 contract employees at the end of 2012.

Competition

Our competitive position depends upon our ability to successfully and economically explore, acquire, develop and operate new and existing gold properties. Factors that allow gold producers to remain competitive in the market over the long term include the quality and size of ore bodies, cost of operation, and the acquisition and retention of qualified employees. We compete with other mining companies in the acquisition, exploration, financing and development of new mineral properties. There is significant competition for a limited number of gold acquisition and exploration opportunities. We also compete with other mining companies for skilled mining engineers, mine and processing plant operators and mechanics, mining equipment, geologists, geophysicists and other experienced technical personnel.

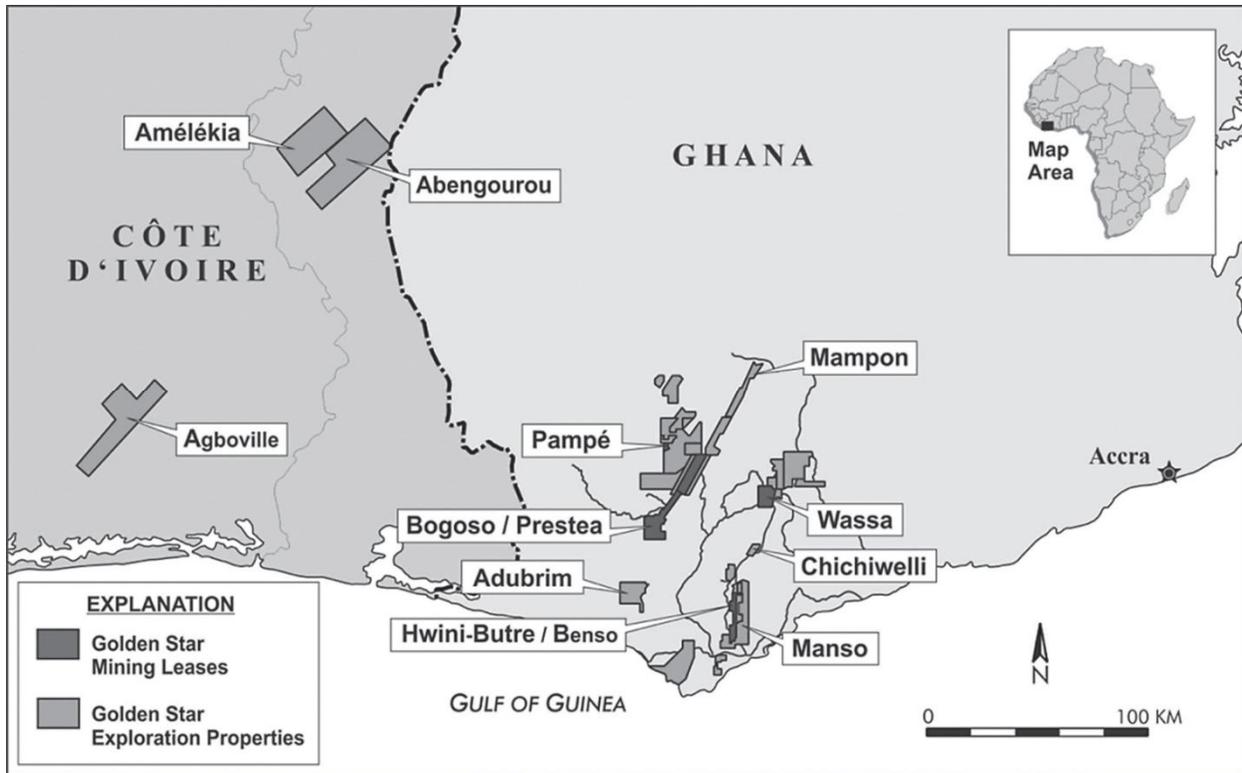
Seasonality

All of our operations are in tropical climates that experience annual rainy seasons. Ore output from our surface mining operations can be reduced during wet periods. Our mine plans anticipate periods of high rain fall each year. Exploration activities are generally timed to avoid the rainy periods to ease transportation logistics associated with wet roads and swollen rivers.

DESCRIPTION OF THE PROPERTIES

MAP OF OPERATIONS AND PROPERTIES

The map below show the locations of Bogoso, Prestea, Wassa, Pampe, Hwini-Butre, Benso and Mampon in Ghana, and various exploration properties in certain other areas of West Africa. Golden Star's material properties are described in further detail below.



MINING IN GHANA

Ghanaian Ownership and Special Rights

Ghana is situated on the west coast of Africa, approximately 600 km north of the Equator on the Gulf of Guinea. Accra, the capital city of Ghana, is located almost exactly on the Prime Meridian. The former British colony changed its name from the Gold Coast to Ghana on achieving independence on March 6, 1957. Ghana is now a republic with a population of approximately 23 million people and a democratically elected government. English remains the official and commercial language.

The total land area of the country is approximately 238,000 square kilometers and the topography is relatively flat. Ghana has a tropical climate with two rainy seasons and two dry seasons each year. The natural vegetation in the Western Region where Golden Star has its two operations is moist tropical forest, now found only in forest reserves, with a majority of the land converted to agricultural pursuits.

Rights to explore and develop a mine are administered by the Minister of Lands and Natural Resources, through the Minerals Commission, a governmental organization designed to promote and regulate the development of Ghana's mineral wealth in accordance with the Minerals and Mining Act of 2006, which came into effect in March 2006 ("2006 Mining Act").

A company or individual can apply to the Minerals Commission for a renewable exploration license granting exclusive rights to explore for a particular mineral in a selected area for an initial period not exceeding three years. When exploration has successfully delineated a mineral reserve, an application may be made to the Minerals Commission for conversion to a mining lease, granting a company the right to produce a specific product from the concession area, normally for a period of 20 to 30 years or a lesser period that may be agreed upon with the applicant.

The 2006 Mining Act requires that any person who intends to acquire a controlling share of the equity of any mining company that has been granted a mining lease, must first give notice of its intent to the Government of Ghana and also obtain its consent prior to acquiring a controlling share.

Under the 2006 Mining Act, the Government of Ghana holds a 10% free-carried interest in all companies that hold mining leases. The 10% free-carried interest entitles the Government to a pro-rata share of future dividends. The Government has no obligation to contribute development capital or operating expenses. GSBPL and GSWL owe \$552.0 million and \$53.7 million, respectively, to Golden Star or its subsidiaries as of December 31, 2013, for past advances and interest on these advances, and these amounts would be repaid before payment of any dividends to the government.

Under the 2006 Mining Act, the Government of Ghana is empowered to acquire a special or golden share in any mining company. The special share would constitute a separate class of shares with such rights as the Government and the mining company might agree. Though deemed a preference share, it could be redeemed without any consideration or for a consideration determined by the mining company and payable to the holder on behalf of the Government of Ghana.

In the absence of such agreement, the special share would have the following rights:

- it would carry no voting rights but the holder would be entitled to receive notice of, and to attend and speak at, any general meeting of the members or any separate meeting of the holders of any class of shares;
- it could only be issued to, held by, or transferred to the Government of Ghana or a person acting on behalf of the Government;
- the written consent of the holder would be required for all amendments to the organizational documents of the company, the voluntary winding-up or liquidation of the company, or the disposal of any mining lease, or the whole or any material part of the assets of the company;
- it would not confer a right to participate in the dividends, profits or assets of the company or a return of assets in a winding up or liquidation of the company; and
- the holder of a special share may require the company to redeem the special share at any time for no consideration or for a consideration determined by the company.

GSBPL and GSWL have not issued, nor to date been requested to issue, a special share to the Government of Ghana.

The Government of Ghana has a pre-emptive right to purchase all gold and other minerals produced by mines in Ghana. The purchase price would be agreed by the Government of Ghana and the mining company, or the price established by any gold hedging arrangement between the company and any third party approved by the Government, or the publicly quoted market price prevailing for the minerals or products as delivered at the mine or plant where the right of pre-emption was exercised. The Government of Ghana has agreed to take no pre-emptive action pursuant to its right to purchase gold or other minerals so long as mining companies sell gold in accordance with certain procedures approved by the Bank of Ghana.

Ghanaian Royalty

Ghanaian law sets mineral royalties at a flat rate of 5% of mineral revenues. We paid royalties of \$23.4 million and \$27.6 million in 2013 and 2012, respectively.

Ghanaian Corporate Tax

The corporate income tax rate for 2013 has been consistent with 2012, however in 2012 the Government increased the corporate income tax rate from 25% to 35% of taxable income for mining companies. Additionally, the use of capital allowances (tax depreciation) was changed in 2012 to be deductible at a flat rate of 20% over a five year period instead of an 80% deduction in the year that the capital spending was incurred and the majority of the remaining 20% deductible over the following two years.

During 2012, the Government enacted new tax regulations that would disallow expenditures from one mining area as a deduction from revenues in a separate mining area belonging to the same company in determining the company's taxable income for tax purposes.

In 2012, the Government of Ghana announced its intent to introduce a 10% windfall profit tax on mining companies in 2013. As a result of the decline in spot gold prices during 2013 the Government of Ghana suspended its implementation of the proposed windfall profit tax. However if gold prices increase the Government of Ghana may proceed with its plan to implement the proposed 10% windfall profit tax.

In 2011, the Government announced that it intends to establish a tax stability renegotiation team which plans to review the existing tax stability agreements of mining companies operating in Ghana. While our mines do not have tax stability agreements, it is not clear at this time if the tax stability renegotiation team will review our Deeds of Warranty which specify certain tax agreements for our properties.

Environmental and Other Laws and Regulations

In the various jurisdictions where we operate, all phases of our exploration, project development, and operations are subject to environmental laws and regulations. These laws and regulations may define, among other things, air and water quality standards, waste management requirements, and closure and rehabilitation obligations. In general, environmental legislation is evolving to require more strict operating standards, more detailed socio-economic and environmental impact assessments for proposed projects, and a heightened degree of accountability for companies and their officers, directors, and employees for corporate social responsibility, and health and safety. Changes in environmental regulations, and the way they are interpreted by the regulatory authorities, could affect the way we operate, resulting in higher environmental and social operating costs that may affect the viability of our operations.

Environmental matters in Ghana, including those related to mining, fall primarily under the oversight of the Environmental Protection Agency (“EPA”), with some primary responsibilities lying with the Minerals Commission. The EPA has rules and guidelines that govern, among other things, environmental and socioeconomic impact assessments and statements, environmental management plans, the quality of water discharges to the environment, environmental auditing and review, and mine closure and reclamation, to which our operations are subject. Additional provisions governing surface land use are provided in the 2006 Mining Act, with further requirements being defined in the associated regulations that were published in 2012.

We note a continuing trend toward substantially increased environmental requirements and greater corporate social responsibility expectations in Ghana, including the requirement for more permits, analysis, data gathering, community hearings, and negotiations than have been required in the past for both routine operational needs and for new development projects. The trend to longer lead times in obtaining environmental permits has reached a point where we are no longer able to accurately estimate permitting times for our planning purposes. The increases in permitting requirements could affect our environmental management activities including, but not limited to, tailings storage facilities, water management, and rehabilitation and closure planning and implementation at our mines.

Our mining, processing, development, and mineral exploration activities are also subject to various laws governing prospecting, development, production, taxes, labor standards, occupational health and safety, land rights of local people and other matters. New rules and regulations may be enacted or existing rules and regulations may be modified and applied in a manner that could have an adverse effect on our financial position and results of operations.

We use hazardous chemicals in our gold recovery activities, and thus generate environmental contaminants that may adversely affect air and water quality. To mitigate these effects, we have established objectives to achieve regulatory requirements in all of our exploration, development, operation, closure, and post-closure activities so that our employees, the local environment, and our stakeholder communities are protected and that the post-closure land use contributes to the sustainability of the local economy. In order to meet our objectives, we:

- educate our managers so that they are committed to creating a culture that makes social and environmental matters an integral part of short-term and long-term operations and performance management systems;
- work with our employees so they understand and accept environmental and social policies and procedures as a fundamental part of the business;
- signed and publicly stated our support for the UN Global Compact and completed our commitments that are provided in our communications on progress;

- establish, and continue to improve, operating standards and procedures that aim to meet or exceed requirements in relevant laws and regulations, the commitments made in our environmental impact statements, environmental and socioeconomic management plans, rehabilitation and closure plans, and any international protocols to which we are a signatory;
- incorporated environmental and human rights performance requirements into relevant contracts;
- provide training to employees and contractors in environmental matters;
- regularly prepare, review, update, and implement site-specific environmental management and rehabilitation and closure plans;
- work to progressively rehabilitate disturbed areas in conformance with the site-specific environmental management and rehabilitation and closure plans;
- consult local communities and regulators to provide us with input on our environmental management policies and procedures;
- regularly review our environmental performance;
- complete our resettlement projects in accordance with the International Finance Corporation Performance Standard 5 on land acquisition and involuntary resettlement; and
- publicly report our social, health, safety and environmental performance.

Rehabilitation activities were ongoing at both Wassa and Bogoso during 2013 aiming to reduce some of the long-term liabilities. Our ongoing rehabilitation includes re-profiling waste dumps, capping hard rock with oxide material, topsoil spreading, and planting for both slope stabilization and long-term rehabilitation. Our consolidated reclamation expenditures totaled \$5.7 million, \$6.2 million and \$26.9 million in 2013, 2012 and 2011, respectively. The 2011 spending reflects backfilling of the Plant North Pit. We believe all our operations in Ghana are currently in substantial compliance with all environmental requirements.

Corporate Social Responsibility

In keeping with our health, safety and well-being, environmental, and community relations and human rights policies, we strive at all times to conduct our business as a responsible corporate citizen. We believe our ongoing success in Ghana depends on our continuing efforts to build good relations with our local stakeholder communities, and by reviewing broader stakeholder comments and addressing stakeholder concerns in our developing projects and ongoing operational activities. We believe our success as an employer, as a neighbor, and as an important part of the local and national economy is furthered by contributing to the diversification of the local economy with initiatives such as our Golden Star Oil Palm Project and by our support of community-driven improvement projects through our Golden Star Development Foundation. During 2013, the Development Foundation worked with our local Community Mine Consultation Committees to fund and sponsor several community-driven projects including public toilets, community centres, the delivery of medical supplies to clinics, and scholarships for local students.

Our Oil Palm Project continued to advance during 2013 and production from the 790 hectares of palm oil trees continues to increase, as do the incomes of the farmers. Golden Star also supports a skills training program for stakeholders aimed at local economic development. The Golden Star Skills Training and Employability Program continued in 2013. Within the broader GSSTEP program, in 2013 we initiated a Community Youth Apprenticeship Programme (CYAP) at our Wassa site, which offers selected local residents a one-year attachment within the company. The pilot project enrolled 44 young people (34 male and 10 female) from 15 catchment communities in disciplines ranging from welding and drill rig maintenance, to fixing plant, heavy equipment, and pump operations. As a result of CYAP, local graduates will be better positioned to fill skilled employment vacancies within the Company to further boost local hiring.

In our efforts to promote transparency in governance, we continue to work with the Extractive Industry Transparency Initiative, and throughout 2013 we published our payments to the government of Ghana (e.g. taxes, royalties, fees). We furthered our work in human rights and against discrimination by way of a training program within Golden Star and with a review of our supply chains and we then completed actions to improve knowledge within the supply chain and Golden Star.

Our commitment to the development of our stakeholder communities demonstrates Golden Star's dedication to Ghana and to sharing the success of our operations with our local communities. As we continue to expand our community development programs, we integrate more local people and communities into our economic development and outreach programs, so assisting the Western Region of Ghana to achieve its full potential within the broader Ghana development.

GOLDEN STAR MATERIAL PROPERTIES

The technical and scientific information in this Annual Information Form has been prepared under the supervision of, or reviewed by, Dr. Martin Raffield and Mr. Mitch Wasel, each of which is a QP under NI 43-101, and an officer of the Company.

Technical Reports

Unless otherwise stated, the information in this section in respect of Wassa, Bogoso and Prestea Underground is based upon the following technical reports (collectively, the "Technical Reports"):

- *Wassa* – "NI 43-101 Technical Report on Mineral Resources and Mineral Reserves Golden Star Resources Ltd., Wassa Gold Mine, Ghana" effective date December 31 2012 and filed on March 21, 2013 and prepared by SRK under the supervision of Richard Oldcorn, Dr. Lucy Roberts, Chris Bray and Yan Bourassa, each of whom is a "qualified person" for the purposes of NI 43-101 (the "Wassa Technical Report");
- *Bogoso* – "NI 43-101 Technical Report on Resources and Reserves Golden Star Resources Ltd., Bogoso Prestea Gold Mine, Ghana" effective date December 31, 2013 and filed on March 14, 2014 and prepared by SRK under the supervision of Richard Oldcorn, Chris Bray, Dr. John Arthur and Yan Bourassa, each of whom is a "qualified person" for the purposes of NI 43-101 (the "Bogoso Technical Report"); and
- *Prestea Underground* – "NI 43-101 Technical Report for the Prestea West Reef Feasibility Study, Ghana" effective date May 1, 2013 and filed on July 26, 2013 and prepared by SRK under the supervision of Michael Beare, Dr. John Arthur, Neil Marshall, Dr. Anthony Rex, Krzysztof Czajewski and John Willis, each of whom is a "qualified person" for the purposes of NI 43-101 (the "Prestea Underground Feasibility Study").

The Technical Reports have been filed with the Canadian securities regulatory authorities pursuant to NI 43-101 and are available for review electronically on the System for Electronic Document Analysis and Retrieval ("SEDAR") website at www.sedar.com.

Wassa Gold Mine

Project Description and Location

Golden Star, through its subsidiary GSWL, owns 90% of and operates Wassa and the CIL processing plant located in the Western Region of Ghana. Wassa includes several open-pit mines, the nominal 3.0 million tonne per annum CIL processing plant with its crushing and grinding circuits, a fleet of mining equipment, a tailings storage facility ("TSF"), equipment repair shops and ancillary facilities, including an administration building, a warehouse, a maintenance shop, an 8 megawatt stand-by power generating facility and an employee residential complex. Wassa also includes the Hwini-Butre and Benso mines located 80 km and 50 km, respectively, south of Wassa. The Benso and Hwini-Butre mines include multiple open pits at both locations. Mining was completed at Benso in February 2012. Mining is expected to continue at Hwini-Butre into the second quarter of 2014.

Accessibility, Climate, Local Resources, Infrastructure and Physiography

The climate is tropical with annual temperatures varying between 25°C to 35°C. There are two rainy seasons, one from April to June and then a minor rainy season in October and November. During December to February, wind blows from the north and frequently brings dust from the Sahara. The south west of Ghana receives the highest rainfall in the region. In the concession areas, the humidity is high all year round and rainfall averages 1,700 millimeters (mm) annually.

The closest major town to the mine is Takoradi which lies on the coast approximately 130 kilometers (km) by road to the south of Wassa. Takoradi is Ghana's second port after Tema (Accra) and is capable of handling large cargo ships and provides storage, bonded warehouses and customs and excise facilities for the majority of the mining equipment shipped to Ghana. The main powerline from Takoradi runs through the project area between the Benso and Hwini-Butre concessions.

Wassa

The project area is characterized by gently rolling hills with elevations up to 1,000 and 1,100 meters (m), incised by an extensive drainage network. The area comprises tropical rainforest and is relatively wet, with many low lying swampy areas. Paved roads are complete from the coast to Twifu-Praso, some 28 km from the project site.

Hwini-Butre, Benso and Chichiwelli

The concessions can be accessed by tarred highway from the capital Accra to the southern boundary of the concessions, and finally by dirt road. The southern portion of the Hwini-Butre concession is covered extensively by large scale commercial palm oil plantations and is, therefore, crossed by many roads and tracks which provide access to all areas.

The Chichiwelli vein deposits are located on the east side of the Bonsa river, just west of the Subri River Forest Reserve, and about 7.5 km southeast of Wassa Nkran (or about 25 km due east of Tarkwa) on the Bonsa River. Access is via the dirt road branching to the southeast from Abosso.

Road access to within 12 km of Hwini-Butre is good from the main Takoradi-Tarkwa highway and then on unpaved but serviceable roads. From Hwini-Butre, the Wassa haul road provides good access northwards through Benso, Chichiwelli, and on to Wassa.

The area is well populated, with the large villages of Mpohor and Edum Bansa having populations of 10,000 and 5,000, respectively. Elsewhere, the area is extensively farmed by small scale or family enterprises.

History

Wassa

The Wassa area has witnessed several periods of local small scale and colonial mining activity from the beginning of the 20th century and mining of vein structures are evident from the numerous pits and adits covering the Wassa lease area.

From 1988, the property was operated as a small scale gravity circuit by a Ghanaian company, Wassa Mineral Resources Limited. In 1993, Satellite Goldfields Limited ("SGL") was formed between Wassa Mineral Resources, Glencar Exploration Limited ("Glencar") and Moydow Ltd. The mining lease, which is valid for a 30 year period expiring in 2022, was assigned by Wassa Mineral Resources Limited to SGL.

Extensive satellite imagery and geophysical interpretations were carried out, which identified a strong gold target (>1 g/t). Exploration drilling commenced in February 1994, and by March 1997 a total of 58,709 m of reverse circulation ("RC") and diamond drilling ("DD") had been completed. In September 1997, consulting engineers Pincock, Allen and Holt completed a feasibility study, which determined a proven and probable mineable reserve of 17.6 Mt at 1.7 g/t of gold, for a total of 932,000 contained ounces. Construction of the Wassa mine was initiated in September 1998. The reporting code and key assumptions and parameters used to report this mineral resource are not known and a QP has not done sufficient work to classify this historical estimate as a current mineral resource or mineral reserve. Hence the Company is not treating the historical estimate as a current mineral resource or mineral reserve.

The Wassa mine was originally developed as a 3 million tonnes per annum ("Mtpa") open pit heap leach operation with a forecast life of mine ("LoM") gold production of approximately 100,000 ounces per annum. The first ore from the pit was mined in October 1998. After approximately one year of production it became evident that the predicted heap leach gold recovery of 85% could not be achieved, mainly due to the high clay content of the ore. After a number of attempts to improve the recovery, it was concluded that the achievable gold recovery by heap

leach was between 55% and 60%. The combined effect of the lower than planned gold recovery and the lull in the gold price at the time resulted in the SGL not being able to service its debt to the banks.

In early 2001, financial institutions together with Glencar decided to sell the project to recover some of the accumulated debt. The project was put up for sale and GSWL subsequently acquired the Wassa assets.

Hwini-Butre, Benso and Chichiwelli

The alluvial gold deposits in the immediate vicinity of Mphohor (Hwini-Butre) were important historically and some early European reports indicate that the Dabokrom area in particular may have been a major source for gold sold to the Portuguese explorers who first came to the region in the late 1400s.

Direct European interest in the Mphohor area probably dates back to the late 1800s given its proximity to the town of Sekondi-Takoradi, which was to become a major port and railhead city to service the inland gold operations at Tarkwa, Prestea and Obuasi. The area was covered by exploration licences in the gold boom of 1898-1902 and the 1930s saw much more sustained interest when virtually the whole area was under license; in many cases, to local Ghanaian businessmen and entrepreneurs.

At Dabokrom, a vertical and inclined shaft was sunk by Oceania Consolidated in the mid 1930's to intersect and follow the shallow dipping quartz veins. It continued to work on the property for several years but stopped at the beginning of WW2 in late 1939. Earlier, a shaft was sunk just after WW1 (1918) on a quartz vein at the Chichiwelli prospect at the very north end of the Benso concession, just along the boundary of the Subri River Forest Reserve. Many collapsed adits and shallow shafts are scattered over several parts of the concessions which attest to European activities, dating mainly to the 1930s.

Extensive reconnaissance work (1989-92) by BHP Billiton Ltd. ("BHP") identified significant soil geochemical anomalies at Chichiwelli, Subriso, Denerawah and Amantin. The work consisted of regional soil sampling, with a total of 5,400 samples collected. BHP also undertook some advanced exploration work, especially at Chichiwelli where twelve drill holes were completed, but only one of the targets were deemed large enough to meet BHP's size threshold and BHP relinquished all of its interests in the concessions. Shortly thereafter, a local Ghanaian Company called Architect Co-Partners acquired a 150 square kilometre ("km") prospecting concession covering the Amantin, Subriso and Chichiwelli prospects.

St. Jude Resources Ltd. ("SJR") acquired the Hwini-Butre concession in the mid 1990s and began exploring the concession in February 1995. SJR undertook ground geophysical surveys which included magnetic, radiometrics and induced polarization ("IP") surveys, and soil geochemical surveys were also completed on the concessions, resulting in the identification of numerous targets. Trenching and pitting were conducted in areas of geophysical and geochemical anomalies and over historical prospects or old workings in an attempt to outline near surface mineralization. Subsequent drilling of the surface targets resulted in the delineation of the Adoikrom, Father Brown and Dabokrom prospects along a combined strike length of 900 m. Further exploration conducted in 2005 identified the Adoikrom North prospect. A total of some 22,100 m over 267 drill holes were completed on the main mineralized zones and the exploration targets. Golden Star acquired the Hwini-Butre concession in late 2005 and commenced exploration work in early 2006.

Fairstar Exploration Limited of Canada ("Fairstar") took over the Benso concession in 1995 and carried out extensive work. The work program between 1995 and 1997 consisted of 800 prospecting pits averaging 4.5 m depth and 100 trenches totalling 4,245 m, plus 1,400 m of old trenches were re-opened and mapped. Also, approximately 8,000 m of DD was carried out and almost 10,000 drill samples were logged and assayed. By the end of the decade, work on the concession had largely ceased because of a lack of funds. By mid-2001, SJR completed an agreement with Fairstar and took over the exploration work.

From early 2002 to about mid-2004, SJR's focus was mostly on the Subriso area where substantial mineral resources were outlined at two important prospects, Subriso East and West. Numerous other prospects such as I-Zone, C-Zone and G-Zone located nearby were also drill tested during this period. SJR's exploration efforts were rewarded in 2005 when Golden Star acquired SJR in 2005. Between 2006 and 2008, Golden Star conducted more exploration work including DD and RC drilling, as well as geotechnical and metallurgical testing. Mining by Golden Star on the Benso and Hwini-Butre concession group began in late 2008 at Subriso-East

Geological Setting

Wassa

Wassa lies in the Birimian Province of the West African Precambrian Shield, within the southern portion of the Ashanti Greenstone Belt along the eastern margin of the belt. Rock assemblages from the southern area of the Ashanti belt were formed during a period spanning from 2,080 million years (“Ma”) to 2,240 Ma, with the Birimian super-group being the oldest rock package and the Tarkwa sediments being the youngest. The Ashanti belt is host to numerous gold occurrences, which are believed to be related to various stages of the Eoeburnean and Eburnean deformational event. Mineralization at Wassa is believed to be of Eoeburnean timing while the Chichiwelli, Benso and Hwini-Butre mineralization are considered to be of Eburnean age.

The Wassa mineralization is subdivided into a number of domains, namely; F Shoot, B Shoot, 242, South East, Starter, 419, Mid East and Dead Man’s Hill. Each of these represents discontinuous segments of the main mineralized system. The mineralization is hosted in highly altered multi-phased greenstone-hosted quartz-carbonate veins interlaced with sedimentary pelitic units. Mineralization within the Wassa mine is structurally controlled and related to vein densities and sulphide contents. Three vein generations have been distinguished on the basis of structural evidence, vein mineralogy, textures and associated gold grades.

The gold-bearing veins were re-folded along a large-scale synform during the Eburnean event. A series of early isoclinal folds control the distribution of high grade mineralization at depths which have been intercepted by the Company’s deep drilling program.

Hwini-Butre, Benso and Chichiwelli

The Hwini-Butre deposits are characterized by different styles of mineralization to the Wassa deposits, but are all hosted within the Mpoho mafic complex, which consists mainly of gabbroic and gabbro-dioritic intrusive horizons. The Adoikrom deposit is hosted with a potassic-rich shear zone while the Father Brown deposit is hosted with a fault fill extensional quartz vein.

The Benso deposits are characterized by similar style of mineralization. As with Hwini-Butre, the Benso deposits are hosted within mafic intrusive rocks of gabbroic to dioritic composition, which intrude a thick volcano-sedimentary sequence mainly composed of mafic volcanic flows. Mineralization at both Benso and Hwini-Butre is associated with late deformational stages of the Eburnean orogeny and deposits are shear hosted along subsidiary structures.

The Chichiwelli deposit consists of two sub-parallel mineralized trends which hosts two distinct types of mineralization. The Chichiwelli West trend is a shear zone hosted deposit with a quartz, carbonate, sericite and potassic alteration assemblage, the mineralization is associated with pyrite. The Chichiwelli East trend is a quartz vein associated deposit with an ankerite and sericite alteration assemblage. Mineralization is also associated with pyrite along vein selvages and in the wall rocks.

Exploration

In addition to the drilling (as described below), extensive exploration work has been conducted on and around Wassa, Hwini-Butre, Benso and Chichiwelli. Previously, several airborne and ground geophysical surveys consisting of aero-magnetics, radiometrics and IP were conducted. The geophysical surveys targeted geochemical anomalies which had previously been identified following multiple stream and soil geochemical sampling programs, which are described below for each concession.

Wassa

In March 2002, Golden Star started an exploration program consisting mainly of pit mapping and drilling below the pits to test the continuity of mineralization at depth. Exploration drilling resumed in November 2002 under Golden Star with the aim to increase the quoted reserves and resources for the feasibility study which was completed in 2003.

Simultaneously with the resource drilling program, which targeted resource increases in the pit areas, Golden Star also undertook grass roots exploration along two previously identified mineralized trends. The 419 area was located south of the main pits and the South-Akyempim anomaly was a soil target which had never been previously drilled and was located west of the main pits. Deep auger campaigns were also undertaken in the Subri forest reserve which is located in the southern portion of the Wassa mining lease.

In March and April 2004, a high resolution helicopter geophysical survey was carried out over the Wassa mining lease and surrounding prospecting and reconnaissance licenses. Five different survey types were conducted, namely: Electromagnetic, Resistivity, Magnetic, Radiometric and Magnetic Horizontal Gradient. The surveys consisted of 9,085 km of flown lines covering a total area of 450 square km. The geophysical surveys identified several anomalies with targets being prioritized on the basis of supporting geochemical and geological evidence.

The exploration program in 2005 continued to focus on drill testing anomalies identified by the airborne geophysical survey as well as infill drilling within the pit area. The following years were subject to more infill and resource definition drilling in the pit areas at Wassa until the 2011 exploration program was undertaken, at which point a shift toward drilling deep high grade targets below the pits became the main focus of the exploration programs and remain the priority for the 2014 program.

Hwini-Butre

The drilling program focused mainly on infill drilling and extending the continuity of the deposits at depth. The previous drilling by SJR reached a maximum vertical depth of approximately 130 m, whereas Golden Star extended the modelled mineralization at vertical depths of over 250 m.

Golden Star also undertook regional exploration programs over the concession by targeting a number of geochemical and geophysical anomalies previously identified by SJR. These anomalies were mainly tested by use of rotary air blast ("RAB") drilling. A combination of 4 m deep auger and shallow auger at a grid spacing of 400 m by 50 m was also carried out to further test the existing gold in soil anomalies and gaps in the geochemistry sampling over the Hwini-Butre concessions.

In 2007 and 2008, Golden Star focused its Hwini-Butre exploration activities on the northern portion of the concession where several colonial gold occurrences are located. Previous soil sampling in these areas identified several anomalies and the follow up programs included deep auger and RAB drilling. A total of 1,384 auger holes and 41 RAB holes totalling 725 m were completed.

In 2009, 5,992 m RC (83 holes) and 2,100 m DD (21 holes) were completed on the Hwini-Butre property (Father Brown, Adoikrom and Dabokrom) to test the strike extensions of the zones and also upgrade the existing quoted resources. The drilling program also identified potential underground target beneath the Subriso West pit. Also, 86 RAB holes, totalling 2,195 m were drilled at Abada to test coincidental gold in soil and geophysical anomalies. IP geophysical surveys were conducted over the Hwini-Butre and Benso concessions in 2009. The program generated targets that were coincidental with lithological trends and gold in soil anomalies.

The resource definition drilling program continued in 2010 at Father Brown, Adoikrom and Dabokrom where 5,075 m of RC drilling (72 holes) and 5,207 m of DD drilling (24 holes) were completed. The drilling program also tested the underground potential of the deposits with significant success.

Exploration activities conducted at Hwini-Butre in 2011 included the testing of deeper targets at Father Brown and Adoikrom to evaluate the underground potential of the deposits. In all, 13 DD holes totalling 3,690 m were drilled at Father Brown and Adoikrom. RAB drilling, totalling 2,941 m (174 holes) were undertaken at Semkrom on the Hwini-Butre property to test IP and aeromagnetic/radiometric anomalies. In 2012, exploration at Hwini-Butre concentrated on Father Brown and Adoikrom infill and step out underground drilling program, with 33 DD holes totalling 10,094 m being completed. Further exploration activities at Hwini Butre since the completion of the 2012 exploration program have been limited to structural interpretation and ore modeling to determine the underground potential at Father Brown. An updated resource estimation exercise is expected to be completed in the second quarter of 2014.

Benso and Chichiwelli

Golden Star acquired the Benso and Chichiwelli concessions in late 2005 and commenced exploration work in early 2006, with exploration activities focusing on the previously defined mineralization at Subriso East, Subriso West, I Zone and G Zone. The drilling program focused mainly on infill drilling and extending the continuity of the deposits at depth. The 2006 exploration program was also the focus of regional exploration programs over the concession by targeting a number of geochemical and geophysical anomalies previously identified by SJR.

Exploration on the Benso property in 2007 and 2008 concentrated on drill testing new zones of mineralization delineated by the RAB drilling in 2006. A total of 81 holes and 10,232 m of RC and DD drilling was completed at Subriso East, Subriso West, G Zone and I Zone. At Amantin, follow-up programs included deep auger sampling on a 200 m by 50 m grid and RAB drilling was undertaken to test the previously defined soil anomalies. A total of 3,717 m of RAB drilling from 178 holes and 1,684 m of deep auger drilling over 487 holes were completed at Amantin.

The 2009 exploration program at the Benso concession focused on resource delineation and definition drilling at the Subriso East, Subriso West and G Zone deposits. A total of 3,159 m RC (35 holes) and 2,538 m DD were completed. IP geophysical surveys were conducted over the Benso concessions in 2009 and the program generated targets that were coincidental with lithological trends and gold in soil anomalies.

The 2010 exploration activities at Benso included the continuation of the resource delineation and definition drilling in and around the pits and also drilling of the potential underground target at Subriso West. A total of 8,815 m RC (112 holes) and 8,286 m DD (18 holes) were completed. A deep auger program totalling 1,114 m over 319 holes was undertaken to test IP targets at Subriso West.

On the Benso property in 2011, 12 DD holes totalling 4,557 m were drilled at Subriso West to close up the spacing along strike and down dip of the high grade zone of mineralization intersected beneath the pit. At Amantin, a shallow RC program totalling 1,177 m (22 holes) was completed to follow up on widely spaced RAB and RC intersections from earlier drilling programs. A deep auger (6 m) program totalling 908 m from 174 holes was completed at K Zone and I Zone to test additional targets generated by IP survey program.

Exploration activity at Benso since 2012 has been limited to structural interpretation of the controls on mineralization to determine the underground potential at Subriso West.

Mineralization

Wassa

Mineralization within the Wassa mine is structurally controlled and related to vein densities and sulphide contents. The mineralization generally consists of broadly tabular zones containing dismembered and folded ribbon-like bodies of narrow quartz vein material. Three vein generations have been distinguished on the basis of structural evidence, vein mineralogy, textures and associated gold grades, suggesting that the majority of gold mineralization relates to the earliest recognized vein generation which is believed to be syn-Eoeburnean.

Gold grades broadly correlate with the presence of quartz-dolomite/ankerite-tourmaline bearing quartz veins and the presence of sulphide minerals (predominantly pyrite) within and around the quartz veins. Gold grades appear to be spatially restricted to the quartz veins, vein selvages and the immediate wall rocks. The alteration haloes developed around the veins and pervasively developed within the core of the Wassa Fold contain lower grade mineralization.

Hwini-Butre

The timing of the mineralization at Hwini-Butre is considered to be of late to post Eburnean age with the period of hydrothermal activity likely to have spanned over a considerable length of time. At Father Brown and Dabokrom, mineralization is associated with quartz vein systems which are locally surrounded by extensive, lower grade, disseminated quartz stockwork bodies, especially at Dabokrom. The Father Brown deposit is characterized by well-developed fault-filled quartz veins which are, as is the case for Dabokrom, light grey with carbonate and mica accessory minerals and minor tourmaline and feldspar. Wallrock alteration is commonly associated with elevated gold grades and consists of silicification with carbonates, muscovite and sericite. Secondary strain fabrics are also

present, with mylonitic and cataclastic fabrics common in the heavily altered zones. Visible gold occurs as disseminations in discrete quartz veins and within zones of silicification associated with pyrite. Gold is medium to coarse grained and generally occurs with pyrite and is free milling. At Adoikrom, the mineralization is shear hosted and characterized by the absence of quartz veins; gold is associated with fine grained pyrite and intense potassic alteration and silicification.

Benso and Chichiwelli

The Benso concession is underlain by four main deposits: Subriso East, Subriso West, G Zone and I Zone. All the deposits are characterized by similar style of mineralization. As with Hwini-Butre, the Benso deposits are hosted within mafic intrusive rocks of gabbroic to dioritic composition, which intrude a thick volcano-sedimentary sequence mainly composed of mafic volcanic flows. Mineralization at Benso is associated with late deformational stages of the Eburnean orogeny and deposits are shear hosted along subsidiary structures.

Mineralogy is relatively simple with fine grained but visible gold disseminated in the shear fabric and associated with pyrite which can be locally abundant. Zones of intense alteration with chlorite, carbonates and epidote are common. Arsenopyrite is absent from the deposits and in microscopic section the gold appears to be free milling.

The Chichiwelli deposit consists of two sub-parallel mineralized trends which hosts two distinct types of mineralization. The Chichiwelli West trend is a shear zone hosted deposit with a quartz, carbonate, sericite and potassic alteration assemblage, the mineralization is associated with pyrite. The Chichiwelli East trend is a quartz vein associated deposit with an ankerite and sericite alteration assemblage. Mineralization is also associated with pyrite along vein selvages and in the wall rocks.

Drilling

Drilling is carried out by a combination of DD, RC and RAB techniques. In general the RAB method is used at early stages for follow up to soil geochemical sampling and during production for testing contacts and mineralization extensions around the production areas and has a maximum drilling depth of around 30 m. The RC drilling is used as the main method for obtaining suitable samples for mineral resource estimation and is carried out along drill lines spaced between 25 and 50 m apart along prospective structures and anomalies defined from soil geochemistry and RAB drilling results. RC drilling is typically extended to depths in the order of 150 m. The DD method is used to provide more detailed geological data and in those areas where more structural and geotechnical information is required. Generally the deeper intersections are also drilled using DD and, as a result, most section lines contain a combination of RC and DD drilling.

Sampling and Analysis

Sampling is typically carried out along the entire drilled length. For RC drilling, samples are collected every 1 m. Where DD holes have been pre-collared using RC, the individual 1 m RC samples are combined to produce 3 m composites which are then sent for analysis. Should any 3 m composite sample return a significant gold grade assay, the individual 1 m samples are then sent separately along with those from the immediately adjacent samples. DD samples are collected, logged and split with a diamond rock saw in maximum 1 m lengths. The core is cut according to mineralization, alteration or lithology. The core is split into two equal parts along a median. The sampling concept is to ensure a representative sample of the core is assayed. The remaining half core is retained in the core tray, for reference and additional sampling if required.

Sample assays are then performed at either SGS Laboratories in Tarkwa (“SGS”) or Transworld (now Intertek) Laboratories (“TWL”) which is also based in Tarkwa. Golden Star has used both laboratories and regularly submits quality control samples to each for testing purposes.

Specific gravity (“SG”) determinations were carried out by Golden Star. SG is measured on representative core samples from each drill run. This ensures representative specific gravity data across all rock types irrespective of gold grade. SG is measured at the core facility using a water immersion method. Each sample is weighed in air, then coated in wax and weighed in air and immersed in water.

Quality control measures are typically set in place to ensure the reliability and trustworthiness of exploration data, and to ensure that it is of sufficient quality for inclusion in the subsequent mineral resource estimates. Quality

control measures include written field procedures and independent verifications of aspects such as drilling, surveying, sampling and assaying, data management and database integrity. Appropriate documentation of quality control measures and analysis of quality control data are an integral component of a comprehensive quality assurance program and an important safeguard of project data.

The field procedures implemented by Golden Star are comprehensive and cover all aspects of the data collection process such as surveying, drilling, core and RC cuttings handling, description, sampling and database creation and management. At Wassa, each task is conducted by appropriately qualified personnel under the direct supervision of a qualified geologist. The measures implemented by Golden Star are considered to be consistent with industry best practices.

Security of Samples

Samples are collated at the mine site after splitting and then transported to the primary laboratory for the completion of the sample preparation and chemical analysis. Exploration samples are trucked by road to the laboratories in Tarkwa.

Sample security involves two aspects, namely maintaining the chain of custody of samples to prevent inadvertent contamination or mixing of samples, and rendering active tampering of samples as difficult as possible.

No specific security safeguards have been put in place by Golden Star to maintain the chain of custody during the transfer of core between drilling sites, the core library, and sample preparation and assaying facilities. Core and rejects from the sample preparation are archived in secure facilities at the core yard and remain available for future testing.

Independent consulting group, SRK, considers the security measures to be adequate and appropriate given the location of the sample preparation and storage facilities within the main mining complex and the additional security surrounding the storage compound.

Mineral Resource and Reserve Estimates

See “Consolidated Mineral Resources and Mineral Reserve Estimation”.

Mining Operations

The mining methods used at the Wassa open pit and satellite pits are conventional excavator and truck methods typical for this type and style of gold mineralization. Drilling and blasting of ore and waste is conducted over bench heights of 5 m or 6 m and explosives are delivered to the hole by the manufacturer. Oxide or weathered ore is generally only required to be lightly blasted and in some areas can be excavated as ‘free dig’.

In the Wassa Main pit hydraulic excavators are used to mine a 2.5 m flitch height. Ore and waste is loaded to 95 tonne (t) capacity off-highway haul trucks to the run-of-mine (“ROM”) stockpile or to the waste dump.

At the Father Brown pit, 85 km to the South of the Wassa pit and processing complex, a contractor is mining the pit using hydraulic excavators and articulated dump trucks. Ore is moved from the pit to a stockpile and then loaded onto 20 t highway trucks for transport on the haul road to the processing plant. Waste is transported to the waste dump adjacent to the pit.

Gold recovery is achieved at Wassa through the use of conventional CIL technology. The CIL plant has a nominal design capacity of 3.5 Mtpa, which was historically achieved using a feed blend of 45% fresh and 25% oxide ore and 30% reclaimed spent heap leach material. The current feed to the plant is 90% fresh ore and 10% reclaimed spent heap leach material. The plant is able to achieve a throughput rate of 2.7 Mtpa with an approximate 94% process recovery.

The existing TSF was raised during 2012 and a new TSF (“TSF2”) is currently being constructed to address the tailings storage requirements. The new TSF2 site is located approximately 1.5 km northwest of the crushing plant and will comprise a main downstream embankment, a total of five saddle dams and a network of finger drains on top of a compacted clay liner. TSF2 is projected to have a maximum storage capacity of 46.2 Mt.

In advance of the expiry of their existing environmental certificate, GSWL submitted an Environmental Management Plan (“EMP”) in 2013 for review by the EPA. This included an updated rehabilitation and closure plan and costs for the closure. The approval of the EMP is expected in 2014. Ongoing rehabilitation work at the Benso site is nearing completion and the rehabilitation of the Father Brown waste dump is expected to start once mining is suspended in 2014. GSWL continues to work with stakeholder communities to define next land use plans. The ongoing operation of the current TSF is expected to continue until it is at capacity. Once full, the new, permitted TSF2 will address the LoM tailings storage requirements.

Exploration and Development

The main focus of Exploration at Wassa from 2012 to 2014 has been the delineation and expansion of the high grade mineralized zone below the main pit. In 2013 and 2014 the Company has been conducting deep drilling utilizing between two to six multipurpose drill rigs. In August 2012 an updated resource model was completed which was the basis for the 2013 resource and reserve statements as well as a conceptual underground study. The updated model and underground conceptual study showed that the high grade mineralization below the Wassa Main pit could be exploited via underground mining methods. The results of this conceptual underground study prompted the Company to further test the continuity, geometry and extent of the high grade mineralization both below the current pit as well as the down plunge extensions to the south. Late in 2013 four drill rigs commenced infill drilling along the known 500 meter strike length of the high grade trend and also began stepping out 200 meter drill fences to test the extents down plunge. This program has continued into 2014, and the first phase is expected to be completed by mid-2014, at which point the drilling information will be used to update the resource model. In conjunction with this drilling the Company has embarked on a Preliminary Economic Assessment (PEA) to determine the viability of mining the high grades from underground. Upon completion of a positive PEA and the updated resource estimate in the second half of 2014, the Company expects to advance the study to a feasibility level.

During 2013, exploration efforts at Hwini-Butre were limited to RC drilling from the ramp at the bottom of the phase 1 Father Brown pit where 23 holes were completed totaling 1,298 meters. This drilling combined with all the grade control RC drilling will be used to update the resource models. The updated resource model will then be used to evaluate the viability of a Father Brown open pit push back as well as look at the underground mining potential of the Father Brown and Adiokrom deposits.

Bogoso Gold Mine

Project Description and Location

Golden Star, through its subsidiary GSBPL, owns 90% of and operates Bogoso and the processing operation located along the Ashanti Trend in western Ghana, approximately 35 km northwest of the town of Tarkwa. Bogoso and Prestea are adjoining mining concessions that together cover approximately 40 km of strike along the southwest-trending Ashanti gold district.

There are two ore processing facilities at Bogoso and open pit mining methods are employed. Ore is hauled by truck from the pits to the processing plants. Equipment and facilities include the nominal 1.5 million tonne per annum non-refractory processing plant, the nominal 3.5 million tonne per annum refractory processing plant, a fleet of haul trucks, loaders, drills and mining support equipment. In addition, there are numerous ancillary support facilities including warehouses, maintenance shops, roadways, administrative offices, an employee residential complex, a water supply system, a stand-by 12 megawatt power plant, a medical clinic, and a TSF. Electric power is available from the Ghana power grid.

Golden Star acquired Bogoso and its non-refractory processing plant in 1999. The Prestea property was acquired in 2001. In July 2007, Golden Star completed construction and development of the Bogoso refractory processing plant.

Ore for the Bogoso refractory processing plant is mined at the Bogoso North and Chujah pits located a few kilometres north of the refractory processing plant. The non-refractory plant was refurbished during the last quarter of 2011.

Accessibility, Climate, Local Resources, Infrastructure and Physiography

The climate is tropical with mean daily temperatures varying between 25°C to 35°C. There are two rainy seasons, one from April to June and then a minor rainy season in October and November. During December to February, wind blows from the north and frequently brings dust from the Sahara. The south west of Ghana receives the highest rainfall in the region. In the concession areas, the humidity is high all year round and rainfall averages 2,030 mm annually.

Wet and moist evergreen forest types of Western Ghana are the natural vegetation types in the concession area. The natural vegetation has been degraded by earlier logging activities, and past and present farming activities, and now largely comprises broken forest, secondary-forest, farmland and abandoned farmland, with upland type re-growth with swamps in some valley areas.

Takoradi is Ghana's second port after Tema (Accra) and is capable of handling large cargo ships and provides storage, bonded warehouses and customs and excise facilities for the majority of the mining equipment shipped to the goldfields of Ghana.

Bogoso is located on the main road from Tarkwa to Kumasi and there is a paved road between Bogoso and Prestea. The property has paved road access to Accra, Tarkwa and the major port at Takoradi. There are airports at Kumasi and Takoradi, which provide daily services to the International Airport at Accra.

The topography of the area within which the GSBPL assets are located is characterized by a series of northeast-southwest trending sub-parallel ridges. The altitude in the valleys where the main population centres occur is around 100 m above sea level ("asl"). The mineralization tends to occur on the western slopes of the ridges with the intervening valleys occupied by farming communities and seasonal streams.

Local population centres are Bogoso Town north of the Bogoso concession and Prestea Town in the centre of the Prestea concession. Power is supplied from the Ghana national grid with appropriate backup capacity provided by diesel generators at Bogoso.

History

Mampon, Aboronye and Opon

The first recorded work in the Mampon area was in 1929 when maps of the Dunkwa area were produced as part of a soil and stream sediment sampling campaign. In the mid 1930s, the Ghanaian Geological Survey mapped the area as part of an extensive investigation of the volcanic-sedimentary boundary between Prestea and Obuasi. Gold exploration is also recorded from this time, although no production records exist. Work at Aniamote in the south of the concession during the 1930s included the digging of trial pits and shafts which revealed auriferous quartz vein and wall rocks over a strike length of 250 m.

Very little information is available for the area between 1940 and the early 1980s. In 1988, BHP obtained the prospecting license for the Dunkwa concession and conducted regional scale geochemical and Very Low Frequency – Electromagnetic ("VLF-EM") surveys which located the deposits at Mampon, Aboronye and Adiokrom. Follow up detailed geochemical and VLF-EM surveys were then conducted and six diamond drillholes explored the extent of the Aboronye deposit.

BHP gave up its interest in the concession in the early 1990s and it was taken over by Sikaman Gold Resources Ltd, which subsequently sold its rights to Birim Goldfields Inc. ("BGI") in 1994. Bogoso Gold Limited ("BGL") entered into a joint venture with Hemlo Gold Mines Inc. ("HGM") who committed to a Cdn.\$7 million exploration programme over four years. HGM gave up its joint venture rights in 1999, at which point some 4,500 m of trenching, 10,100 m of RC drilling and 8,500 m of DD had been carried out across the concession. During this period, the consultants Watts, Griffis and McOuat completed an independent technical review of the projects and produced an indicated and inferred mineral resource estimate totaling 1.6 Mt at 3.2 g/t Au of oxide material and a further 1.4 Mt at 1.4 g/t Au of fresh material at Mampon and Aboronye combined. The reporting code and key assumptions and parameters used to report this mineral resource are not known and a QP has not done sufficient work to classify this historical estimate as a current mineral resource or mineral reserve. Hence, the Company is not treating the historical estimate as a current mineral resource or mineral reserve.

In 1999, Ashanti Goldfields became a joint venture partner and exploration continued for a further three years with 84 RC holes (5,300 m) and 26 DD (5,500 m) being drilled on the Mampon deposit. In 2002, Resource Services Group completed a technical review of an Ashanti pre-feasibility study and produced an inferred mineral resource estimate of 1.5 Mt at 4.75 g/t Au for oxide, transition and fresh horizons combined at Mampon. The reporting code and key assumptions and parameters used to report this mineral resource are not known and a QP has not undertaken sufficient work to classify this historical estimate as a current mineral resource or mineral reserve and the Company is not treating the historical estimate as current mineral resources or mineral reserves.

In 2003, the properties were acquired from BGI by Golden Star.

Bogoso North and Marlu

Marlu Gold Mining Areas Limited (“MGMAL”) explored for gold and operated a medium scale open pit and underground mining operation from 1935 to 1955. Surface gold mineralization was systematically explored utilizing trenching and shallow adits driven across strike. Deeper exploration, well below the depth of oxidation, was conducted on the Marlu deposits, where underground workings extended approximately 250 m below the surface. In 1935, MGMAL commenced mining oxide ore from a series of open pits extending from Bogoso North to Buesichem. During the period 1935 to 1955, MGMAL processed between 0.36 and 0.45 Mtpa of ore yielding 35,000 to 51,000 oz per year. During the 15 year period of mining (the mine was shut down for the duration of World War II), 6.9 Mt of ore with a recoverable grade of 4.1 g/t Au was processed through the plant generating about 0.9 Moz of gold. The average grade of the Marlu tailings is approximately 1.0 g/t Au, therefore, the RoM feed to the plant averaged around 5.0 g/t Au. Marlu also mined a small amount of ore from underground at Bogoso North. The Marlu mining operation terminated in 1955.

The 30 year period between the closure of the Marlu mining operations in 1955, and the acquisition of the Bogoso concession by Denison Mines Limited, a Canadian company, in early 1986 only saw sporadic exploration activities. These activities included the sampling of old adits and two separate drilling programs, one by the State Gold Mining Corporation (“SGMC”) and the other by the United Nations Development Program.

In 1986, Canadian Bogoso Resources Limited, a Ghanaian company, commenced exploration on the Bogoso concession. Exploration between 1986 and 1988 outlined potential for development of mining operations on the concession. Included as part of this work was drilling of the Marlu tailings, dewatering and sampling of the Marlu underground workings to a depth of about 100 m, DD beneath the old open pits, adit sampling and trenching at Chujah, Dumasi, Dumasi North, and Boppos.

Golden Star acquired the Bogoso concession in 1999, and since that time has operated a nominal 1.5 Mtpa CIL processing plant to process oxide and other non-refractory ores (termed the Bogoso non-refractory plant). In 2001, Golden Star acquired the Prestea property located adjacent to the Bogoso property and mined surface deposits at Prestea from late 2001 to late 2006. In July 2007, GSBPL completed construction and development of a nominal 3.5 Mtpa processing facility at Bogoso Prestea that uses BIOX® technology to treat refractory sulphide ore.

Chujah, Dumasi, Ablifa and Buesichem

Gold was first commercially mined at the Bogoso property in the early 20th century. Notably, in 1935, MGMAL started commercial scale mining of high-grade oxide material from a series of open pits extending south from Bogoso North to Buesichem, just south of the Bogoso property. MGMAL also mined a small amount of material from underground at Bogoso North, Marlu and Bogoso South and was still mining the Buesichem pit when it shut down its operations in 1955. According to BGL’s records, during its 20 year period of operating from 1935 to 1955, MGMAL produced over 900,000 oz of gold at an average recovered grade of 3.73 g/t Au.

Billiton Plc (“Billiton”), now known as BHP Billiton Limited, then part of the Royal Dutch Shell Group, took control of the Bogoso property in the late 1980s and its initial feasibility study established a “mineable reserve” of 5.96 Mt with a mean grade of 4.0 g/t Au, of which 461,000 t (or less than 8%) comprised oxidised material and the remainder fresh (sulphide) material. The reporting code and key assumptions and parameters used to report this mineral resource are not known and a QP has not done sufficient work to classify this historical estimate as a current mineral resource or mineral reserve. Hence, the Company is not treating the historical estimate as current mineral resources or mineral reserves. The feasibility study forecast gold recoveries of 83% from sulphide ore and 78% from oxide ore and estimated a stripping ratio (waste:tore) of 5.6:1. The construction of a mining and processing facility

was completed in 1991, the latter comprising a conventional CIL circuit to treat the oxidised material at a rate of 1.36 Mtpa and a flotation, fluidized bed roasting, and CIL circuit with a design capacity of 0.9 Mtpa. However, Billiton encountered operation difficulties with the fluidized bed roaster, as a result of which the operation was then focussed solely on the oxide ore. The resulting standalone CIL plant had a capacity of approximately 2 Mtpa and on-going exploration was successful in delineating further ore thereby prolonging the mine life.

Mining and exploration at Prestea has been ongoing since 1873. During the majority of this period, the work was concentrated around the Prestea Village area with the development of the underground operation and a small open pit at Plant North in the north of the Prestea concession. In 1994, JCI Limited took over the Prestea Underground operation and carried out exploration and feasibility studies in the area immediately north and south of the mine infrastructure.

Beta Boundary, Bondaye and Tuapim

Before 2001, little, if any work was carried out in the Bondaye and Tuapim areas. Exploration sampling was carried out over the Beta Boundary deposit immediately to the north. In June 2001, Golden Star was awarded the surface rights for the Prestea concession and commenced a programme of detailed stream and outcrop geochemical sampling over the entire concession. The results from this work led to the recognition of potential exploration targets in the Bondaye and Tuapim areas and RAB drilling commenced in 2003. There are no historical (Pre-2004) mineral resource estimates for the Bondaye and Tuapim deposits.

Geological Setting

The Bogoso-Prestea properties lie within the southern portion of the Ashanti Greenstone Belt along the western margin of the belt. Rock assemblages from the southern area of the Ashanti belt were formed between a period spanning from 2,080 to 2,240 Ma with the Sefwi Group being the oldest rock package and the Tarkwa sediments being the youngest. The Ashanti belt is host to numerous gold occurrences, which are believed to be related to various stages of the Eoeburnean and Eburnean deformational events.

The geology of the Bogoso-Prestea mine site is divided into three main litho-structural assemblages, which are fault bounded and steeply dipping to the west, which suggests that the contacts are structurally controlled and that the litho structural assemblages are unconformable. These packages are from the eastern footwall to the western hanging wall by the Tarkwaian litho-structural assemblage, and the tectonic breccia assemblage composed of sheared graphitic sediments and volcanic flows which is commonly referred to as the Main Crush Zone ("MCZ"), and the last assemblage is composed of undeformed sedimentary units of the Kumasi basin which is located to the west of the Ashanti fault zone.

The Asikuma and Mansiso licenses host the Opon, Mampom and Aboronye deposits; structural setting controlling the style of mineralization is similar for all three deposits. Both concessions are underlain by north-northeast trending metasedimentary rocks of the Kumasi basin, including coarse-grained wackes, mudstones and argillites, interpreted to represent turbiditic sedimentary sequences. Discontinuous mafic to intermediate metavolcanic rocks occur in the footwall of the main shear zones. These lithologies have been subjected to intense compressional deformation and lower-greenschist facies metamorphism. Mineralization at Mampon and Aboronye is associated with pyrite and arsenopyrite dissemination within the wallrock surrounding the quartz veins and within the quartz veins themselves. Veins range from narrow stringers to robust quartz bodies up to 4 m in width. The veining is also suggested to be associated with north-northwest striking splays or oblique shears close to their intersection with a major north south trending shear zone. Mampon is modeled over a 1 km strike length while the Aboronye deposit is modeled over 700 m along strike.

Gold mineralization between Marlu and Bogoso North is restricted to a narrow graphitic fault zone characterised by low gold tenors. The Bogoso North deposit consists of two splays of the MCZ; a quartz vein dominated hanging wall splay, and a highly graphitic footwall structure. The two splays of the MCZ at Bogoso North extend for approximately 500 m along strike and range in true width from 5 to 15 m. Gold mineralization at Bogoso North dips moderately to the northwest at 40 to 50°. The mineralization is modelled over a 2 km strike at Bogoso North and an additional 2.7 km to a depth of some 300 m. Bogoso North gold mineralization is associated with either quartz veins or graphitic cataclases.

The Chujah/Dumasi area comprises both Birimian and Tarkwaian lithologies, separated by a deformation corridor referred to as the central structural corridor or tectonic breccia. The tectonic breccia is characterized by an anastomosing network of faults and imbricated fault slices. The thickness of the main shear zone ranges from a few m to over 50 m in true width. The combined length of Chujah and Dumasi is some 3 km along strike and the deposit has been modelled to a vertical depth of 500 m.

The Ablifa deposits are situated on the Ashanti Trend. Mineralization occurs within a narrow north-east striking corridor, in which mineralization dips predominantly to the northeast at angles ranging between 50° and 70°. The deposit is modelled over a strike length of 4.3 km and to a maximum vertical depth of 250 m.

In the vicinity of the Buesichem deposit the MCZ appears to encroach on the Birimian – Tarkwaian contact, whereas this contact is typically 250 to 300 m east of the MCZ on the Bogoso concession. In the Buesichem pit the eastern high wall is composed of a phyllite unit which, has been interpreted as Tarkwaian. The deposit is modelled over a 1.3 km strike length and to a maximum depth of 500 m.

Locally, mineralization at Beta Boundary, Bondaye and Tuapim is characterised by lode gold mineralization, which typically contains non-refractory, free milling gold associated with arsenopyrite. Oxidation of the upper layers of the deposits is extensive and in places can reach tens of m in depth. Beta Boundary is modelled over a 4 km strike length and to a depth of 450 m, whilst Bondaye is modelled over a 1.3 km strike and Tuapim over 2 km. Bondaye and Tuapim are modelled to a maximum vertical depth of 150 m.

Exploration

Bogoso-Prestea

In 2007, Golden Star contracted Geotech Airborne Geophysical Surveys (“GEOTECH”) to run a VTEM survey which they flew over the entire project area. The total drill production up to end of 2013 stands at 89,216 m of RAB, 141,115 m of RC and 195,133 m of DD drilling. A number of targets were generated from the VTEM survey and a drilling program was embarked upon in 2009 ending in 2011 resulting in some 22,475 m of RC and 93,425 m of DD drilled over a total of 230 RC and 364 diamond holes over the various deposits.

Mampon-Aboronye

Golden Star entered into an agreement with BGI in 2003 to acquire the Asikuma and Mansiso concessions. Golden Star took over ownership of the concession following the agreement and undertook exploration activities which included auger sampling, regolith mapping, RAB, RC and DD.

In 2006, a baseline environmental monitoring study as part of the environmental impact assessment for the Mampon project was conducted. Community consultations for the Mampon project were conducted throughout the various exploration programs.

In 2007, Golden Star contracted GEOTECH to run a VTEM survey over both concessions. A total of 17 RC holes, 30 DD holes and 4 geotechnical holes were drilled at Mampon over the years by BGI and Golden Star for a total of 7,454 m of drilling.

In 2013 Golden Star completed 35 holes totaling 3,551 m. This drilling consisted of sterilization drilling of proposed waste dump foot prints as well as additional infill metallurgical sampling holes. The results of the drilling were used to update the Mampon feasibility study.

Pampe

Golden Star conducted soil geochemistry programs followed by shallow and deep auger programs over previously identified anomalies. Several phases of RAB drilling were conducted over the anomalous soil and auger geochemical targets which were followed by extensive RC and DD programs, a total of 36,010 meters of RC and DD has been achieved to date by Golden Star.

Mineralization

The deposits are located on the 250 km long northeast southwest trending Ashanti Belt, a Paleoproterozoic granitoid-greenstone assemblage of southwest Ghana. These greenstone belts and dividing sedimentary basins were formed and deformed during the Eoeburnean and Eburnean orogeny. The Prestea-Bogoso area occurs at the southern termination of the Ashanti Belt, where the gold deposits, mined or under exploration, are localised principally along a steep to subvertical major crustal structures referred to as the Ashanti trend. The principal structures are graphitic shear zones and mineralized fault filled quartz veins which occur only at Prestea.

The Bogoso-Prestea section of the Ashanti Trend shows a range of mineralization styles associated with graphitic shear zones, which represent the principal displacement zone of a regional-scale shear zone that defines the mineral belt. These styles include laminated quartz vein deposits containing free gold, highly deformed graphitic shear zones containing disseminations of arsenopyrite as the principal gold bearing phase (e.g. Buesichem, Chujah-Dumasi and Bogoso North) and disseminations of sulphides in mafic/intermediate volcanic rocks generally found in the footwall of the main shear zone.

The Bogoso-Prestea deposits can be classified as a lode gold deposits or orogenic mesothermal gold deposits, which are the most common gold systems found within Archean and Paleoproterozoic terrains. In the West African shield, orogenic gold deposits are typically underlain by geology considered to be of Eburnean age and are generally hosted by volcano-sedimentary sequences. The Ashanti belt is considered prospective for orogenic mesothermal gold deposits and hosts numerous other lode gold deposits such as the Obuasi mine.

At Bogoso-Prestea, gold mineralization exhibits a strong relationship with major shear zones, fault zones and second order structures. Three types of mineralization have been identified at Prestea, which are both characterised as mesothermal gold mineralization:

- Arsenopyrite-pyrite rich graphitic shear zones;
- Fault-fill quartz veins along fault zones and second order structures, which typically contains non-refractory, free milling gold; and
- Disseminated mineralization associated with brecciated zones of iron-rich footwall volcanic lenses, which are characterized by finely disseminated arsenopyrite-pyrite rich and silicified replacement zone.

The graphite rich shear-hosted and volcanic hosted mineralization types are refractory and generally lower grade in comparison to fault-filled quartz vein hosted mineralization type.

The weathering profile at Bogoso-Prestea is deep and typically results in extensive surface oxidation of bedrock, to a depth of up to one hundred m. Generally, the weathering profile typically consists of a lateritic surface, a saprolitic horizon, a transitional zone and a deeper primary sulphide zone.

Drilling

Drilling is carried out by a combination of DD, RC and RAB techniques at the GSBPL operations. In general, the RAB method is used at early stages as a follow up to soil geochemical sampling and during production for testing contacts and deposit extensions around the production areas and has a maximum drilling depth of around 30 m. RC drilling is used as the main method for obtaining suitable samples for mineral resource estimation and is carried out along drill lines spaced between 25 and 50 m apart along prospective structures and anomalies defined from soil geochemistry and the RAB drilling results. RC drilling is typically extended to depths of around 150 m. The DD method is used to provide more detailed geological data and in those areas where more structural and geotechnical information is required. Generally the deeper intersections are also drilled using DD and, as a result, most section lines contain a combination of RC and DD drilling.

With over 5,000 holes drilled and over 400,000 m of drilling conducted on the various deposits, the continued production and grade control drilling is providing appropriate reconciliation with the original drilling. The interpretation of the relevant results is directly related to the wireframe modelling used for the purpose of defining the volume of material used for the mineral resource volume.

All drillhole data is verified by GSBPL staff and independently by consultants and there are no recovery or survey factors which are considered to materially impact the accuracy and reliability of the results.

Sampling and Analysis

For all drilling programs in Ghana, Golden Star follows a standardised approach to drilling and sampling. Sampling is typically carried out along the entire drilled length. For RC drilling, samples are collected every 1 m. Where DD holes have been pre-collared using RC, the individual 1 m RC samples are combined to produce 3 m composites which are then sent for analysis. Should any 3 m composite sample return a significant gold grade assay, the individual 1 m samples are then sent separately along with those from the immediately adjacent samples.

DD samples are collected, logged and split with a diamond rock saw in maximum 1 m lengths. Detailed logging of the core is done by an appropriate qualified geologist at the core shed, recording colour, lithology, alteration, weathering, structure and mineralization. The core is cut according to mineralization, alteration or lithology. The sampling concept is to ensure a representative sample of the core is assayed. The remaining half core is retained in the core tray, for reference and additional sampling if required.

Sample assays are performed at either SGS in Tarkwa or TWL which is also based in Tarkwa. Golden Star has used both laboratories and regularly submits quality control samples to each for testing purposes. Both laboratories are independent of Golden Star and are currently in the process of accreditation for international certification for testing and analysis.

SG determinations were carried out by Golden Star and are measured on representative core samples from each drill run which ensures representative data across all rock types irrespective of gold grade. SG is measured at the core facility using a water immersion method. Each sample is weighed in air, then coated in wax and weighed in air and immersed in water.

Quality control measures are typically set in place to ensure the reliability and trustworthiness of exploration data, and to ensure that it is of sufficient quality for inclusion in the subsequent mineral resource estimates. Quality control measures include written field procedures and independent verifications of aspects such as drilling, surveying, sampling and assaying, data management and database integrity. Appropriate documentation of quality control measures and analysis of quality control data are an integral component of a comprehensive quality assurance program and an important safeguard of project data.

The field procedures implemented by Golden Star are comprehensive and cover all aspects of the data collection process such as surveying, drilling, core and RC cuttings handling, description, sampling and database creation and management. At GSBPL, each task is conducted by appropriately qualified personnel under the direct supervision of a qualified geologist. The measures implemented by Golden Star are considered to be consistent with industry best practice.

Security of Samples

Sample preparation on site is restricted to core logging and splitting, which is carried out by Golden Star. The facilities consist of enclosed core and coarse reject storage facilities, covered logging sheds and areas for the splitting of RC and RAB samples. Core samples are logged geologically and geotechnically on-site prior to being split. Core is halved using a diamond saw and bagged by Golden Star for collection by representatives of the analytical laboratory. Sub-sampling of RC and RAB samples is carried out using a Jones Riffle splitter.

Samples are collated at the mine site after splitting and then transported to the primary laboratory for the completion of the sample preparation and chemical analysis. Exploration samples are trucked by road to the laboratories in Tarkwa.

Sample security involves two aspects, namely maintaining the chain of custody of samples to prevent inadvertent contamination or mixing of samples, and rendering active tampering of samples as difficult as possible.

No specific security safeguards have been put in place by Golden Star to maintain the chain of custody during the transfer of core between drilling sites, the core library, and sample preparation and assaying facilities. Core and

rejects from the sample preparation are archived in secure facilities at the core yard and remain available for future testing.

Independent consulting group, SRK, considers the security measures to be adequate and appropriate given the location of the sample preparation and storage facilities within the main mining complex and the additional security surrounding the storage compound.

Mineral Resource and Reserve Estimates

See “Consolidated Mineral Resources and Mineral Reserve Estimation”.

Mining Operations

The mining methods used at the Bogoso main and satellite pits are conventional excavator and truck methods typical for this style of gold mineralization. Drilling and blasting of ore and waste is conducted over bench heights of 6 m or 9 m and explosives are delivered to the hole by the manufacturer.

Currently mining is being undertaken in the Chujah Main and Bogoso North pits with primarily refractory ore being produced to feed the refractory bio-oxidation processing plant at a rate of 2.7 Mtpa with a process recovery of approximately 72%. These pits are expected to continue to feed the refractory plant until the second half of 2015.

The Dumasi pit, Mampon pit and Prestea South pits constitute the Bogoso mine development projects and will supply ore to both the refractory and non-refractory plants, should the decision be taken to develop these pits.

The non-refractory plant is currently being fed at a rate of 1.7 Mtpa with reclaimed tails from the historic TSF1. The reclaimed material is currently not included in the mineral reserves although plans to drill the material are in place for 2014. If the Dumasi, Mampon and Prestea South pits are developed, the non-refractory plant will receive non-refractory ore from the pits and reclaimed tails.

The mine currently utilises a tailings storage facility referred to as TSF2. Initially designed in 2004, the Bogoso TSF2 comprises of a dual-cell paddock-type facility, located in a valley approximately 1.5 km north east of the Plant site.

Water management at Bogoso incorporates effective water re-use and recycling, with water chemistry forming an integral element in the overall concept of water use at the mine. Over the past 12 to 18 months there have been some significant changes to how water is managed at the site. In summary, these changes comprise:

- The use of Buesichem pit for process water storage, allowing excess supernatant water to be pumped from TSF2 cell 2;
- The subsequent management of cyanide-bearing water in TSF2 cells 2 and 2A, with improvement in water quality through natural degradation of cyanide species (and treatment with hydrogen peroxide as a back-up option);
- The dewatering and capture of pit water ‘runoff’ from Chujah Main in the adjacent Dumasi pit for use as plant supply water; and
- The commissioning of the Process Water Treatment Plant (“PWTP”) in January 2013 including reverse osmosis to provide a high quality permeate, suitable for discharge in compliance with the EPA guidelines to the downstream receiving environment.

The EMP was submitted for the GSBPL operation in 2012 and payment was made for the issuance of the associated Environmental Certificate following a request from the EPA in 2013, which should be issued in 2014. The EMP included a revised rehabilitation and closure plan with the associated costs. As part of the operation’s environmental management and control, concurrent rehabilitation is being carried out with a focus on the Bogoso North/Marlu site and the Chujah East waste dump.

Exploration and Development

There are no planned exploration programs for any Bogoso deposits in 2014. The only exploration and development program planned for 2014 at Bogoso is an auger drilling program to estimate the grade and gold content of TSF1, a historic tailings dam which is currently being retreated through the non-refractory plant. A total of 156 holes totalling approximately 3,350 m have been planned.

Prestea Underground Project

Project Description and Location

The Prestea concession is located in the Western Region of Ghana approximately 200 km from the capital Accra and 50 km from the coast of the Gulf of Guinea. Bogoso and Prestea comprise a collection of adjoining mining concessions that together cover a 40 km section of the Ashanti gold district in the central eastern section of the Western Region of Ghana, with the processing facilities situated approximately 10 km south of the town of Bogoso. GSBPL currently holds five mining leases as well as several prospecting licenses to the southwest, northeast and west of Bogoso. The Buesichem deposit and Prestea Underground lie to the north of the Prestea lease with the Beta Boundary South, Bondaye and Tuapim deposits located south east, in the central part of the lease.

Accessibility, Climate, Local Resources, Infrastructure and Physiography

Local population centres are Bogoso town in the northern half of the Bogoso concession, and Prestea town, which is about in the centre of the Prestea concession. Bogoso is located on the main road from Tarkwa to Kumasi and there is a paved road between Bogoso and Prestea. The town of Prestea is located adjacent to the backfilled workings of the Plant North open pit. The Central Shaft complex and offices for Prestea Underground are also located within the town limits.

The topography of the area within which the GSBPL assets are located is characterized by a series of northeast-southwest trending sub-parallel ridges. The mineralization tends to occur on the western slopes of the ridges with the intervening valleys occupied by farming communities and seasonal streams. Vegetation in the area has been largely disturbed by the various activities and consists of a patchwork of small farms, urban development with some secondary growth on the steep slopes and hill tops that are not suitable for farming.

As Prestea Underground is an underground mine, the climate has no significant impact on the operations. In the tropical environment, work on the surface can continue year round with short breaks during the mostly short-lived storm events.

Access to the property by road is a six hour drive from Accra via the port city of Takoradi. The road is paved from Accra to Tarkwa with the last one hour to Prestea being paved road in poor condition. There are airports at Kumasi and Takoradi, which provide daily services to the international airport at Accra. Kumasi is situated approximately 3.5 hours' drive from the Prestea Underground project. Road surfaces in the area vary from poor (on the section between Bogoso and Tarkwa) to good (Accra to Takoradi). There have been government plans to re-surface the road between Bogoso and Tarkwa for several years, but it remains in poor condition but is passable throughout the year.

Prestea Underground is in an area where mining has occurred more or less continuously since the late 1800s. Therefore, a significant portion of the required services, infrastructure and community support are already in place. The following services and infrastructure are relevant to the assessment of the Prestea Underground project:

- Surface access to Prestea Underground is via the public road network that extends to the project;
- Electricity and water are available – electricity from the Ghanaian national grid is currently used to power the existing underground dewatering pumps;
- Surface infrastructure in the area consists of a variety of government, municipal, and other roads with good overall access;
- Processing of the ore will be carried out at the existing Bogoso non-refractory processing facility, 16 km by road from Prestea;
- Tailings storage will be in the existing TSF at Bogoso;

- Any waste rock generated at the site will be disposed in an engineered storage facility close to the new hoisting shaft site; and
- The extensive history of mining in the local area and also in Ghana provides opportunities to obtain skilled underground workers. Any additional training requirements can be sourced within Ghana.

History

Recorded production for the Prestea mine began in 1912 under the British company Ariston Mining, which operated the mine until the 1950s and was responsible for the majority of the underground development including shaft sinking, ventilation and level development. The mine was nationalized in the late 1950s, following the independence of Ghana, when all mining operations in the Prestea region were consolidated under the management of Prestea Gold Limited, a subsidiary of the SGMC.

In the early 1990s, the government of Ghana reopened the mining industry to foreign companies and a joint venture agreement was formed between Barnex JCI Ltd. (“JCI”), Prestea Gold Ltd., the SGMC and the government of Ghana. JCI withdrew from the joint venture in 1998 due to low gold price and aging infrastructure. A consortium supported by the Ghana Mine Workers Union was then founded to operate the mine under the name “PGR”. The mine operated for 3 years until closure in early 2002 due to depressed gold prices and financial difficulties. Golden Star acquired an initial interest in the mine in 2002 (followed by the subsequent acquisition of an additional interest in the mine) which has remained on care and maintenance since that time.

Geological Setting

The Prestea-Bogoso mineralization occurs at the southern end of the Ashanti Belt, where eleven gold deposits, mined or under exploration, are localized principally along up to three steep to sub vertical major crustal structures. Rock assemblages from the southern area of the Ashanti belt were formed between a period spanning from 2,080 to 2,240 Ma with the Sefwi Group being the oldest rock package and the Tarkwa sediments being the youngest. The Ashanti belt is host to numerous gold occurrences, which are believed to be related to various stages of the Eoeburnean and Eburnean deformational events.

The geology of the Prestea mine site is divided into four main litho-structural assemblages, which are fault bounded and steeply dipping to the west. This suggests that the contacts are structurally controlled and that the litho-structural assemblages are unconformable. These packages are from the eastern footwall to the western hanging wall, the Tarkwaian litho-structural assemblage, the tectonic breccia assemblage, the graphitic Birimian sedimentary assemblage and the undeformed Birimian sedimentary assemblage.

At Prestea, the principal structure is the mineralized fault filled network of quartz veins, known as the Main Reef which is relatively continuous and has been modelled and worked over a strike length of some six km and to a depth of approximately 1,450 m below surface (35 L). The subordinate West Reef and East Reef, in the immediate hangingwall and footwall respectively of the former structure, are discontinuous. West Reef occurs some 200 m into the hangingwall of the Main Reef structure and, at present is known to occur over a strike length of 800 m and has currently been defined by underground drilling between 550 to 1,150 m below topography as far as the 24 L.

Exploration

The historical Prestea Underground exploration data includes underground cross cut samples and JCI era drilling data (surface drilling) which accounts for some 92 % of the available data. The remainder of the underground data is a mixture of surface RC, DD holes, underground DD holes and channel samples collected by Golden Star.

The cross cut and JCI data extends over a strike length of some 8 km while sampling covers a depth extent of 1,400 m from surface. The Golden Star surface and underground drilling and channel data is largely concentrated in the area underlying the Plant North open pit, Central Shaft, Prestea South area and the West Reef target.

The previous mineral resource estimate for the Prestea Underground orebodies was based on a combination of Golden Star underground sampling from some 157 drillholes, 117 rock saw samples and channel sampling from 2 cross cuts. During late 2005 and throughout 2006 Golden Star drilled an additional 106 underground holes into the

Main Reef and West Reef orebodies. This drilling has been carried out using fan drilling from cubbies on the most accessible levels but predominantly from the 12, 17 and 24 Levels.

The Prestea Underground West Reef target was the last area to be mined by PGR in 2002. The subsequent exploration of the West Reef underground target has been planned and managed by Golden Star and was initiated in 2004. The 17 L West Reef drive exposes the vein structure from 7618 N in the south to 8065 N in the north a distance of approximately 450 m. Along the West Reef drive the backs have been sampled approximately every 5 m with a 2 x 2 inch channel sample cut using an air driven diamond blade rock saw. The channel samples were cut orthogonal to the main structure. The channel samples and the reef drive have been surveyed and tied into the mine grid at surface.

The results from the 17 L channel sampling show that the mineralization along the reef is hosted in several higher grade pods. These high grade pods were drill tested at depth from cubbies on the 17 L and 24 L, drilled from the footwall to the hanging wall obliquely to the moderately west dipping foliation and reef.

In addition to the exposures on 17 L the West Reef has been encountered on a small reef drive on 24 L, approximately 300 m below 17 L. On the 24 L West Reef drive the structure was encountered but the vein here has pinched. Drilling from 24 L has delineated wider vein widths to the north of this reef drive alluding to a steep northern plunge of the higher grade mineralized zone hosted in the West Reef structure. Prior to 30 L being flooded, two hangingwall crosscuts were excavated for drill access to test the Main Reef between 30 L and 35 L. In the 270S 30 L cross-cut the West Reef was sampled intersecting a horizontal width of 5.8 m grading 3.1 g/t Au and 5 m at a grade of 3.3 g/t Au on the north and south sides of the excavation respectively. Neither of these samples has been included in the current West Reef mineral resource estimates and show that the structure continues at depth below 24 L.

Mineralization

The Prestea deposit can be classified as a lode gold or an orogenic mesothermal gold deposit, which are the most common gold systems found within Achaean and Paleoproterozoic terrains. The Ashanti belt, which hosts the Prestea deposit, is considered prospective for orogenic mesothermal gold deposits and hosts numerous other lode gold deposits such as the Obuasi mine.

At Prestea, gold mineralization exhibits a strong relationship with major shear zones, fault zones and second order structures. Two types of mineralization have been identified at Prestea, which are both characterised as mesothermal gold mineralization:

- Fault-fill quartz veins along fault zones and second order structures, which typically contains non-refractory, free milling gold; and
- Disseminated mineralization associated with brecciated zones of iron-rich footwall volcanic lenses, which are characterized by finely disseminated arsenopyrite and silicified replacement zones. This type of mineralization is generally lower grade, refractory and locally termed 'sulphide ore'.

The weathering profile at Prestea is deep and typically results in extensive surface oxidation of bedrock, to a depth of up to 100 m. Generally, the weathering profile typically consists of a lateritic surface, a saprolitic horizon, a transitional zone and a deeper primary sulphide zone.

Drilling

Fan drilling is carried out from drill cubbies in order to reduce the movement of the drill rigs. In addition to the drilling, rock saw channels have been cut on a number of levels to provide samples across the orebody and to investigate the grade distribution in the immediate contact zones adjacent to the orebody. Surface drilling of the Main Reef orebody has been carried out at roughly 80-100 m spacing along strike. The underground drilling has concentrated on the West Reef orebody and consists of fan drilling from individual cubbies with up to 21 holes drilled from a single collar location. Underground collar locations are spaced approximately 80 m apart along strike on the 17, 24 and 30 Levels. Drilling of the West Reef target was conducted from underground drill stations, predominantly on 17 and 24 Levels.

The underground drilling of the West Reef target was conducted in several campaigns from 2004 to 2006 with a total of 128 holes and 28,790 m being completed during this time. All drilling was conducted with underground diamond drill core rigs using NQ2 (~ 50 mm) sized core. All drill hole collars were surveyed using the underground survey control brought down from surface using the mine grid. The holes were also surveyed nominally every 25 to 30 m down hole using a Reflex single shot survey instrument.

Core recovery through the mineralized zone was optimized by using chrome core barrels, viscous muds and short drilling runs but in some holes some of the “graphitic fissures” (graphic rich fault gouge) were washed away. Areas of lost core were not sampled and in the database are identified as insufficient sample and were given a zero grade. Generally core recovery was good through the zone.

Sampling and Analysis

Sampling from RC drilling is carried out using a standard single cyclone with samples collected at 1 m intervals through the expected orezone. In zones of waste rock the sample interval is occasionally increased to a 3 m composite. However all samples are assayed and if a 3 m sample returns a significant grade value the original 1 m samples will be assayed individually. All samples are bagged at the drill site and then returned to core shed facilities for riffle splitting using a single stage one splitter.

DD core from surface drilling is collected using HQ size core barrels (63.5 mm). The core is logged and sawn in half at the Bogoso mine site and 1 m samples are prepared through the prospective orezone. However, geological contacts are taken into account and samples will therefore vary slightly in length. In waste zones samples are collected at 1 m nominal intervals where alteration, sulfidation or quartz veins are observed. Underground drilling is carried out using NQ or HQ size core and the core is sawn in half and prepared for assay. The orebodies dip steeply to the west and depending if the drilling is from surface or underground is angled to intersect the mineralized zone orthogonally, however from underground drilling cobbles this is often not possible. DD core recoveries are recorded in the database and with 80% of the diamond core having recoveries greater than 95%.

Samples used for the West Reef resource estimations were of two types, rock sawn channel samples on 17 L and 24 L reef drives and NQ sized diamond drill core.

Core samples generated from the underground drilling were processed at either the core logging facilities at Prestea Central Shaft or at the main core storage facility near the Bogoso processing plant. Core boxes with lids were delivered to the logging facilities at the end of every shift by the drillers. The core logging process involved initial cleaning of the core and checking of the metre blocks and mark ups on the individual boxes, if there are any discrepancies they are addressed with the driller who was responsible for the core. All core was photographed prior to being logged and sampled. Two teams logged the core at surface one being responsible for recording geotechnical information and over all core recovery between drilling runs. Following the geotechnical drilling the core is logged by the geologist who pays particular attention to structure, lithology, alteration and mineralization. All of the core has been orientated with a spear orientation device and this has been used to take structural measurements while the core is being logged.

Sampling intervals are laid out by the geologist logging the core and are based on geological contacts with samples in mineralized zones generally not exceeding one metre. The core was sawn in half along the line marked by the geologist to ensure a representative sample is taken. The half sawn core samples were deposited into individual plastic bags where the sample number was both written on the bag as well as on a piece of flagging tape which was inserted into the bag. The remaining half core sample was returned to the core boxes and kept for future reference. During the sampling, standards and blanks are inserted in the sample numbering sequence and these are recorded on the lab dispatch sheets. Every 20 samples that are submitted to the laboratory are accompanied by a sample standard and a blank to check the precision of the analysis.

Security of Samples

Samples are dispatched to either SGS or TWL in Tarkwa. Samples were organized in the core logging facilities where they were checked and put into numeric order. The transportation to the laboratory in Tarkwa is provided by the lab. Sample turnaround and dispatch are recorded either in a spreadsheet (earlier samples) or with the database software acQuire.

Sample rejects and pulps were returned to the Bogoso core logging facility where they are stored for up to a year and then disposed of. Approximately 10% of the coarse reject samples, above detection limit that are returned to site are renumbered and resubmitted to the laboratory for duplicate analysis and used for QA/QC evaluations. The processing, handling, analysis and storage of the samples for Prestea Underground are considered to be within or exceed industry standards.

Mineral Resource and Mineral Reserve Estimates

See “Consolidated Mineral Resources and Mineral Reserve Estimations”.

Mining Operations

The Prestea Underground Feasibility Study was completed by SRK in June 2013. The Prestea Underground Feasibility Study considered the mining of ore from the West Reef between 17 L and 24 L using a mechanised cut and fill method at an average ore production rate of 250 ktpa. The ore will be processed in the Bogoso non-refractory processing plant situated at the Bogoso mine some 16 km away from Prestea, close to the Chujah open pit operation. The underground ore will be trucked from a storage facility at the new hoisting shaft.

The main requirement for new project infrastructure is the construction of mine accesses comprising raisebored hoisting and ventilation shafts. Significant additional work is required to bring the current underground infrastructure up to a suitable operating standard. This includes: upgrades to the Central and Bondaye hoisting systems and shaft infrastructure; ventilation system; electrical distribution system; pumping infrastructure; and drift rehabilitation.

In general, waste rock produced from the West Reef will be kept underground and used for backfill. The exception to this is during the early years when there are insufficient voids available to allow backfilling to commence. In this case, the waste rock will be transported to surface. In the first year of project development, 100 kt will be hoisted up the central shaft and transported to the waste rock dump site location at the raisebored hoisting shaft where an engineered storage facility will be constructed.

The tailings from the underground operations will be processed in the facilities at Bogoso and the tailings will be delivered to the present tailings storage facility, termed TSF2.

The corporate responsibility undertaken by GSBPL on the environmental and social aspects of planning for the West Reef mine has been extensive with the ongoing involvement of the environmental team in the design and location of the infrastructure and a broad community consultation program completed as part of the due diligence. The resettlement action plan (“RAP”) for the West Reef project was incorporated into the Prestea Projects RAP, which is currently under review by the Prestea Huni Valley District Assembly. There are some additional studies that are ongoing to complete the draft environmental impact statement for submission to the EPA.

Based on the Prestea Underground Feasibility Study, the project economics for Prestea Underground were as follows:

- total project capital costs of \$150.1 million (comprised of \$90.6 million initial capital, \$35.8 million capitalized operating cost and \$23.7 million sustaining capital);
- post-tax internal rate of return (“IRR”) of 15% at an assumed gold price of \$1,300 per ounce. At an assumed gold price of \$1,500 per ounce, as per the Prestea Underground Feasibility Study, the IRR would be 23%;
- net present value (“NPV”) at a 5% discount rate of \$59 million at an assumed gold price of \$1,300 per ounce. At an assumed gold price of \$1,500 per ounce, as per the Prestea Underground Feasibility Study, NPV is \$114 million;
- total project life of nine years, including a four year pre-development period prior to production;
- cash operating costs of \$734 per ounce of gold; and
- payback period of 3 years from the start of production.

Certain additional material assumptions, among others, include the following:

- expressed in post-tax and pre-financing terms which assumes 100% equity;
- corporate tax rate of 35%; and
- value added tax is not included.

For further details on the project economics for Prestea Underground, please refer to the Prestea Underground Feasibility Study.

Exploration and Development

Several targets remain untested at depth below the current mineral resource and drilling along the West Reef and Main Reef is expected to resume once financing for the Prestea Underground project has been secured.

CONSOLIDATED MINERAL RESOURCES AND MINERAL RESERVE ESTIMATIONS

Consolidated Mineral Resources

The measured and indicated mineral resources reported below are inclusive of proven and probable mineral reserves as have been estimated in compliance with the requirements of NI 43-101. Previously the Company reported mineral resources exclusive of mineral reserves. This change in reporting has been made to align the Company with what it believes to be best practice in Canada.

The total measured and indicated mineral resources as well as the inferred mineral resources have been estimated on a gold price assumption of \$1,400 per ounce for December 31, 2013. The economic cut-off grades for mineral resources are lower than those for mineral reserves and are indicative of the fact that the mineral resource estimates include material that may become economically viable under more favorable conditions including increases in gold price.

The table below presents Golden Star's measured and indicated mineral resources for the year ended December 31, 2013.

	December 31, 2013 Measured Mineral Resources			December 31, 2013 Indicated Mineral Resources			December 31, 2013 Measured and Indicated Mineral Resources		
	tonnes (000)	grade g/t Au	ounces (000)	tonnes (000)	grade g/t Au	ounces (000)	tonnes (000)	grade g/t Au	ounces (000)
Wassa Main	270	1.44	13	44,812	1.78	2,568	45,082	1.78	2,580
Wassa Underground	-	-	-	2,446	3.67	289	2,446	3.67	289
Father Brown	-	-	-	692	3.86	86	692	3.86	86
Father Brown Underground	-	-	-	1,000	6.47	208	1,000	6.47	208
Wassa Other	-	-	-	2,115	2.40	163	2,115	2.40	163
Subtotal Wassa	270	1.44	13	51,066	2.02	3,314	51,336	2.02	3,327
Chujah/ Bogoso North	2,697	2.94	255	1,856	2.95	176	4,553	2.94	431
Dumasi	3,255	2.56	268	9,868	2.41	764	13,123	2.45	1,032
Mampon	-	-	-	1,553	4.79	239	1,553	4.79	239
Prestea South	986	2.87	91	3,318	2.62	279	4,304	2.67	370
Prestea Underground	-	-	-	1,356	14.50	632	1,356	14.50	632
Bogoso Other	-	-	-	3,835	2.64	325	3,835	2.64	325
Subtotal Bogoso	6,938	2.75	614	21,786	3.45	2,415	28,724	3.28	3,029
Total	7,208	2.70	627	72,852	2.45	5,729	80,062	2.47	6,356

The table below presents Golden Star's inferred mineral resources for the year ended December 31, 2013.

	December 31, 2013 Inferred Mineral Resources		
	tonnes (000)	grade g/t Au	ounces (000)
Wassa Main	313	1.28	13
Wassa Underground	646	3.10	64
Father Brown	40	1.85	2
Father Brown Underground	881	6.35	180
Wassa Other	85	2.93	8
Subtotal Wassa	1,964	4.23	267
Chujah/ Bogoso North	290	2.04	19
Dumasi	-	-	-
Mampon	220	1.84	13
Prestea South	581	6.00	112
Prestea Underground	3,289	8.02	848
Bogoso Other	890	2.38	68
Subtotal Bogoso	5,270	6.25	1,060
Total	7,235	5.71	1,327

Notes to the measured and indicated mineral resources and the inferred mineral resources statement:

- (1) The mineral resources were estimated in compliance with the requirements of NI 43-101.
- (2) The mineral resources for Wassa Other include Benso and Chichiwelli.
- (3) The mineral resources for Bogoso Other include Buesichem and Ablifa.
- (4) The Wassa Underground mineral resource has been estimated below the \$1,400 per ounce of gold pit shell using an economic gold grade cut-off of 2.6 g/t Au, which the Company believes would be the lower cut-off for underground.
- (5) The Father Brown Underground mineral resource has been estimated below the \$1,400 per ounce of gold pit shell using an economic gold grade cut-off of 2.9 g/t Au, which the Company believes would be the lower cut-off for underground.
- (6) Prestea Underground mineral resource has been estimated below the \$1,400 per ounce of gold pit shell of Prestea South down to 3,800 m elevation using a gold cut-off at 4.74 g/t Au.
- (7) Mineral resources were estimated using optimized pit shells at a gold price of \$1,400 per ounce. Other than gold price, the same optimized pit shell parameters and modifying factors used to determine the mineral reserves were used to determine the mineral resources.
- (8) The stated mineral resources for Wassa have been prepared based on an updated resource model and the updated gold price assumptions noted above and, as such, may vary from the mineral resources set out in the Wassa Technical Report. The stated mineral resources were prepared under the supervision of S. Mitchel Wasel, Vice President of Exploration for the Company. Mr. Wasel is a QP as defined by Canada's NI 43-101.
- (9) Numbers may not add due to rounding.

Consolidated Mineral Reserves

Mineral reserves were estimated based on a gold price assumption of \$1,300 per ounce.

During 2013, the Company's development strategy focused on drilling at Wassa. The cut-off grade used to determine the Wassa Main mineral reserves was 0.76 g/t Au and the LoM strip ratio for Wassa Main is expected to be 6.0:1.

At Bogoso, mining in the Chujah and Bogoso North pits is expected to continue until the second half of 2015. Grade in these pits is in line with previous estimates. Cut-off grades used to determine the mineral reserves in these pits averaged 1.5 g/t Au. After anticipated completion of the current pushbacks in the Chujah and Bogoso North pits in the second quarter of 2014, the remaining LoM stripping ratio is expected to be 2.0:1.

A mineral reserve estimate for Prestea Underground has been included for the first time subsequent to the conclusion of a positive feasibility study in June of 2013 by SRK.

The table below presents Golden Star's proven and probable mineral reserves for the year ended December 31, 2013.

	December 31, 2013 Proven Mineral Reserve			December 31, 2013 Probable Mineral Reserve			December 31, 2013 Proven and Probable Mineral Reserve		
	tonnes (000)	grade g/t Au	ounces (000)	tonnes (000)	grade g/t Au	ounces (000)	tonnes (000)	grade g/t Au	ounces (000)
Wassa Main	-	-	-	33,721	1.72	1,863	33,721	1.72	1,863
Father Brown	-	-	-	694	4.31	96	694	4.31	96
Stockpiles	438	0.68	10	59	0.54	1	497	0.67	11
Subtotal Wassa	438	0.68	10	34,473	1.77	1,960	34,911	1.75	1,970
Bogoso	2,930	2.65	250	1,731	2.59	144	4,662	2.63	394
Dumasi	3,116	2.39	239	5,826	2.36	443	8,941	2.37	682
Mampon	-	-	-	1,133	5.24	191	1,133	5.24	191
Prestea South	969	2.74	85	2,170	2.52	176	3,139	2.59	261
Prestea Underground	-	-	-	1,434	9.61	443	1,434	9.61	443
Stockpiles	106	1.79	6	-	-	-	106	1.79	6
Subtotal Bogoso	7,122	2.54	581	12,294	3.53	1,397	19,415	3.17	1,977
Total	7,559	2.43	590	46,767	2.23	3,357	54,327	2.26	3,947

Notes to the proven and probable mineral reserve statement:

- (1) The stated mineral reserve for Bogoso includes the currently operational pits of Bogoso North and Chujah.
- (2) The stated mineral reserves have been prepared in compliance with NI 43-101 and are classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards – For mineral resources and mineral reserves". Mineral reserve estimates reflect the Company's reasonable expectation that all necessary permits and approvals will be obtained and maintained. Mining dilution and mining recovery vary by deposit and have been applied in estimating the mineral reserves.
- (3) The stated mineral reserves for Wassa have been prepared based on an updated resource model and the updated gold price assumptions noted below and, as such, may vary from the mineral reserves set out in the Wassa Technical Report. The stated mineral reserves were prepared under the supervision of Dr. Martin Raffield, Senior Vice President Technical Services for the Company. Dr. Raffield is a QP as defined by Canada's NI 43-101.
- (4) The mineral reserves at December 31, 2013 were estimated using a gold price assumption of \$1,300 per ounce.
- (5) The slope angles of all pit designs are based on geo-technical criteria as established by external consultants. The size and shape of the pit designs are guided by consideration of the results from a pit optimization program. The parameters for the pit optimization program are based on a gold price of \$1,300 per ounce, and historical and projected operating costs at Bogoso and Wassa. Metallurgical recoveries are based on historical performance or estimated from test work and typically range from 60% to 95% for non-refractory ores and from 70% to 85% for refractory ores. A Ghanaian government royalty of 5% is included in the mineral reserves.
- (6) Numbers may not add due to rounding.

RISK FACTORS

The following sets forth certain risks and uncertainties that could have a material adverse effect on our business, financial condition and/or results of operations and the trading price of our common shares, which may decline, and investors may lose all or part of their investment. Additional risks and uncertainties that we do not presently know or that we currently deem immaterial also may impair our business operations. We cannot assure you that we will successfully address these risks. In addition, other currently unknown risks exist that may affect our business. The risks described below address the material factors that may affect our future operating results and financial performance.

GENERAL RISKS

A substantial or prolonged decline in gold prices would have a material adverse effect on us.

The price of our common shares, our financial results and financial condition, and our exploration, development and mining activities have previously been, and would in the future be significantly adversely affected by a substantial or prolonged decline in the price of gold. The price of gold is volatile and is affected by numerous factors beyond our control such as the sale or purchase of gold by various central banks and financial institutions, inflation or deflation, fluctuation in the value of the United States dollar and foreign currencies, global and regional demand, and the political and economic conditions of major gold-producing countries throughout the world. Any drop in the price of gold would adversely impact our revenues, profits and cash flows. In particular, a sustained low gold price could:

- cause suspension of our mining operations at Wassa, Hwini-Butre and Bogoso if these operations become uneconomic at the then-prevailing gold price, thus further reducing revenues;
- cause us to be unable to fulfill our obligations under agreements with our partners or under our permits and licenses which could cause us to lose our interests in, or be forced to sell, some of our properties;
- cause us to be unable to fulfill our debt repayment obligations;
- halt or delay the development of new projects; and
- reduce funds available for exploration and/or development activities, with the result that depleted mineral reserves may not be replaced by new exploration activities.

Furthermore, the need to reassess the feasibility of any of our development projects because of declining gold prices could cause substantial delays or could interrupt development until a reassessment could be completed. LoM plans incorporating significantly lower gold prices could result in reduced estimates of mineral reserves and mineral resources and in material write-downs of our investment in mining properties and increased amortization, reclamation and closure charges.

We have incurred and may in the future incur substantial losses that could make financing our operations and business strategy more difficult and that may affect our ability to service our debts as they become due.

The Company's net loss attributable to Golden Star shareholders was \$265.9 million in 2013, a net income attributable to Golden Star shareholders of \$7.2 million in 2012 and a net loss attributable to Golden Star shareholders of \$2.1 million (US GAAP) in 2011. In recent years increasing operating costs, lower ore grades from our mines, lower gold recovery rates and impairment write-offs of mine property and/or exploration property costs have been the primary factors contributing to such losses. In the future, these factors, as well as declining gold prices, could cause us to continue to be unprofitable. Future operating losses could adversely affect our ability to raise additional capital if needed, and could materially and adversely affect our operating results and financial condition. In addition, continuing operating losses could affect our ability to meet our debt repayment obligations.

Our obligations could strain our financial position and impede our business strategy.

We had total consolidated debt and liabilities as of December 31, 2013, of \$299.0 million, including \$13.4 million in equipment financing loans; \$4.7 million in finance leases; \$28.9 million pursuant to the Ecobank Loan net of loan fees, \$47.3 million (\$77.5 million face value) pursuant to our outstanding Convertible Debentures; \$109.0 million of current trade payables and accrued liabilities; \$9.5 million of current tax liabilities; and a \$86.3 million accrual for environmental rehabilitation liabilities. Our indebtedness and other liabilities may increase as a result of general corporate activities. These liabilities could have important consequences, including the following:

- increasing our vulnerability to general adverse economic and industry conditions;
- limiting our ability to obtain additional financing to fund future working capital, capital expenditures, exploration costs and other general corporate requirements;
- requiring us to dedicate a significant portion of our cash flow from operations to make debt service payments, which would reduce our ability to fund working capital, capital expenditures, exploration and development projects and other general corporate requirements;

- limiting our flexibility in planning for, or reacting to, changes in our business and the industry; and
- placing us at a disadvantage when compared to our competitors that have less debt relative to their market capitalization.

Estimates of our mineral reserves and mineral resources could be inaccurate, which could cause actual production and costs to differ from estimates.

There are numerous uncertainties inherent in estimating proven and probable mineral reserves and measured, indicated and inferred mineral resources, including many factors beyond our control. The accuracy of estimates of mineral reserves and mineral resources is a function of the quantity and quality of available data and of the assumptions made and judgments used in engineering and geological interpretation, which could prove to be unreliable. These estimates of mineral reserves and mineral resources may not be accurate, and mineral reserves and mineral resources may not be able to be mined or processed profitably.

Fluctuations in gold prices, results of drilling, metallurgical testing, changes in operating costs, production, and the evaluation of mine plans subsequent to the date of any mineral reserve or mineral resource estimate could require revision of the estimates. The volume and grade of mineral reserves mined and processed and recovery rates might not be the same as currently anticipated. Any material reductions in estimates of our mineral reserves and mineral resources, or of our ability to extract these mineral reserves and mineral resources, could have a material adverse effect on our results of operations and financial condition.

We currently have only two sources of operational cash flows, which could be insufficient by themselves to fund our continuing exploration and development activities.

Our only current significant internal sources of funds are operational cash flows from Bogoso and Wassa. The anticipated continuing exploration and development of our properties are expected to require significant expenditures over the next several years. If cash on hand, free cash flows generated by Bogoso and Wassa and our equipment financing facility and any other available facilities are insufficient to cover all of our capital investment needs, we may require additional financing or we may consider rescheduling capital spending. Our ability to raise significant new capital will be a function of macroeconomic conditions, future gold prices, our operational performance and our then current cash flow and debt position, among other factors. Continued uncertainty in the global economy may affect lending practices and our ability to access capital. As a result, we may not be able to obtain adequate financing on acceptable terms or at all, which could cause us to delay or indefinitely postpone further exploration and development of our properties. Consequently, we could lose our interest in, or could be forced to sell, some or all of our properties.

We are subject to fluctuations in currency exchange rates and policies on foreign currencies, which could materially adversely affect our financial position.

Our revenues are in United States dollars, and we maintain most of our cash and cash equivalents in United States dollars or United States dollar-denominated securities. We convert our United States funds to foreign currencies as certain payment obligations become due. Accordingly, we are subject to fluctuations in the rates of currency exchange between the United States dollar and these foreign currencies, and these fluctuations could materially affect our financial position and results of operations. A significant portion of the operating costs at Bogoso and Wassa is based on the Ghanaian currency, the Cedi. We are required by the Government of Ghana to convert into Cedis 20% of the foreign exchange proceeds that we receive from selling gold, but the Government could require us to convert a higher percentage of gold sales proceeds into Cedis in the future. We obtain construction and other services and materials and supplies from providers in South Africa and other countries. The costs of goods and services could increase or decrease due to changes in the value of the United States dollar or the Cedi, the Euro, the South African Rand or other currencies. Consequently, operation and development of our properties could be more costly than anticipated.

Any hedging activities might be unsuccessful and incur losses.

While we held no hedging instruments during 2013, we may enter into hedging arrangements in the future. Future hedging activities might not protect adequately against declines in the price of gold. In addition, although a hedging program could protect us from a decline in the price of gold, it might also prevent us from benefiting fully from gold

price increases. For example, as part of a hedging program, we could be obligated to sell gold at a price lower than the then-current market price.

Risks inherent in acquisitions that we might undertake could adversely affect our current business and financial condition and our growth.

We plan to continue to pursue the acquisition of producing, development and advanced stage exploration properties and companies. The search for attractive acquisition opportunities and the completion of suitable transactions are time consuming and expensive, divert management attention from our existing business and may be unsuccessful. Success in our acquisition activities depends on our ability to complete acquisitions on acceptable terms and integrate the acquired operations successfully with our operations. Any acquisition would be accompanied by risks. For example, there may be a significant change in commodity prices after we have committed to complete a transaction and established the purchase price or exchange ratio, a material mineral deposit may prove to be below expectations or the acquired business or assets may have unknown liabilities which may be significant. We may lose the services of our key employees or the key employees of any business we acquire or have difficulty integrating operations and personnel. The integration of an acquired business or assets may disrupt our ongoing business and our relationships with employees, suppliers and contractors. Any one or more of these factors or other risks could cause us to not realize the anticipated benefits of an acquisition of properties or companies, and could have a material adverse effect on our current business, financial condition, results of operations and on our ability to grow.

We are subject to litigation risks.

All industries, including the mining industry, are subject to legal claims, with and without merit. As such, we are involved in various routine legal proceedings incidental to our business. Defense and settlement costs can be substantial, even with respect to claims that have no merit. Due to the inherent uncertainty of the litigation process, the resolution of any particular legal proceeding could have a material effect on our future financial position and results of operations.

We are subject to operational risks.

We are subject to a number of operational hazards that can delay production or result in liability to us. Our activities are subject to a number of risks and hazards including:

- power shortages;
- mechanical and electrical equipment failures;
- parts availability;
- unexpected changes in mineralization grades;
- unexpected changes in mineralization chemistry and gold recoverability;
- environmental hazards;
- discharge of pollutants or hazardous chemicals;
- industrial accidents;
- labor disputes and shortages;
- supply and shipping problems and delays;
- shortage of equipment and contractor availability;
- unusual or unexpected geological or operating conditions;
- cave-ins of underground workings;
- failure of pit walls or dams;
- fire;
- marine and transit damage and/or loss;

- changes in the regulatory environment, including in the area of climate change;
- delayed or restricted access to mineral deposits and/or properties due to community interventions; and
- natural phenomena such as inclement weather conditions, floods, droughts and earthquakes.

These or other occurrences could result in damage to, or destruction of, mineral properties or production facilities, personal injury or death, environmental damage, delays in mining, delayed production, monetary losses and possible legal liability. Satisfying such liabilities could be very costly and could have a material adverse effect on our financial position and results of operations.

Our mining operations are subject to numerous environmental laws, regulations and permitting requirements and bonding requirements that can delay production and adversely affect operating and development costs.

Compliance with existing regulations governing the discharge of materials into the environment, or otherwise relating to environmental protection, in the jurisdictions where we have projects may have a material adverse effect on our exploration activities, results of operations and competitive position. New or expanded regulations, if adopted, could affect the exploration, development, or operation of our projects or otherwise have a material adverse effect on our operations.

Portions of our Wassa property, as well as some of our exploration properties in Ghana, including Dunkwa, are located within forest reserve areas. Although Dunkwa and Wassa have been identified by the Government of Ghana as eligible for mining permits, subject to normal procedures and a site inspection, permits for projects in forest reserve areas may not be issued in a timely fashion, or at all, and such permits may contain special requirements with which it is burdensome or uneconomic to comply.

Mining and processing gold from our future development projects in Ghana will require mining, environmental, and other permits and approvals from the Government of Ghana. The trend to longer lead times in obtaining environmental permits has reached a point where we are no longer able to accurately estimate permitting times for our planning purposes. The increases in permitting requirements could affect our environmental management activities including, but not limited to, tailings disposal facilities and water management projects at our mines.

Due to an increased level of non-governmental organization activity targeting the mining industry in Ghana, the potential for the Government of Ghana to delay the issuance of permits or impose new requirements or conditions upon mining operations in Ghana may increase. Any changes in the Government of Ghana's policies, or their application, may be costly to comply with and may delay mining operations. The exact nature of other environmental control problems, if any, which we may encounter in the future, cannot be predicted primarily because of the changing character of environmental requirements that may be enacted within the various jurisdictions where we operate.

As a result of the foregoing risks, project expenditures, production quantities and rates and cash operating costs, among other things, could be materially and adversely affected and could differ materially from anticipated expenditures, production quantities and rates, and costs. In addition, estimated production dates could be delayed materially. Any such events could have a materially adverse effect on our business, financial condition, results of operations and cash flows.

The development and operation of our mining projects involve numerous uncertainties that could affect the feasibility or profitability of such projects.

Mine development projects typically require a number of years and significant expenditures during the development phase before production is possible.

Development projects are subject to the completion of successful feasibility studies and environmental and socioeconomic assessments, the issuance of necessary governmental permits and receipt of adequate financing. The economic feasibility of development projects is based on many factors such as:

- estimation of mineral reserves and mineral resources;

- mining rate, dilution and recovery;
- anticipated metallurgical characteristics of the ore and gold recovery rates;
- environmental and community considerations including resettlement, permitting and approvals;
- future gold prices; and
- anticipated capital and operating costs.

Estimates of proven and probable mineral reserves and operating costs developed in feasibility studies are based on reasonable assumptions including geologic and engineering analyses and may not prove to be accurate.

The management of mine development projects and the start-up of new operations are complex. Completion of development and the commencement of production may be subject to delays. Any of the following events, among others, could affect the profitability or economic feasibility of a project:

- unanticipated changes in grade and tonnage of ore to be mined and processed;
- unanticipated adverse geotechnical conditions;
- incorrect data on which engineering assumptions are made;
- costs of constructing and operating a mine in a specific environment;
- cost of processing and refining;
- availability of economic sources of power and fuel;
- availability of qualified staff;
- adequacy of water supply;
- adequate access to the site including competing land uses (such as agriculture and illegal mining);
- unanticipated transportation costs and shipping incidents and losses;
- significant increases in the cost of diesel fuel, cyanide or other major components of operating costs;
- government regulations and changes to existing regulations (including regulations relating to prices, royalties, duties, taxes, permitting, restrictions on production, quotas on exportation of minerals, protection of the environment and agricultural lands, including bonding requirements);
- fluctuations in gold prices; and
- accidents, labor actions and force majeure events.

Adverse effects on the operations or further development of a project could also adversely affect our business (including our ability to achieve our production estimates), financial condition, results of operations and cash flow.

We need to continually discover, develop or acquire additional mineral reserves for gold production and a failure to do so would adversely affect our business and financial position in the future.

Because mines have limited lives based on proven and probable mineral reserves, we must continually replace and expand mineral reserves as our mines produce gold. We are required to estimate mine life in connection with our estimation of mineral reserves, but our estimates may not be correct. In addition, mine life would be shortened if we expand production or if we lose mineral reserves due to changes in gold price or operating costs. Our ability to maintain or increase our annual production of gold will be dependent in part on our ability to bring new mines into production and to expand or extend the life of existing mines.

Gold exploration is highly speculative, involves substantial expenditures, and is frequently non-productive.

Gold exploration, involves a high degree of risk. Exploration projects are frequently unsuccessful. Few prospects that are explored are ultimately developed into producing mines. We cannot assure you that our gold exploration efforts will be successful. The success of gold exploration is dependent in part on the following factors:

- the identification of potential gold mineralization based on surface analysis;
- availability of prospective land;
- availability of government-granted exploration and exploitation permits;
- the quality of our management and our geological and technical expertise; and
- the funding available for exploration and development.

Substantial expenditures are required to determine if a project has economically mineable mineralization. It could take several years to establish proven and probable mineral reserves and to develop and construct mining and processing facilities. Because of these uncertainties, we cannot assure you that current and future exploration programs will result in the discovery of mineral reserves, the expansion of our existing mineral reserves or the development of mines.

We face competition from other mining companies in connection with the acquisition of properties.

We face strong competition from other mining companies in connection with the acquisition of producing properties or properties capable of producing gold. Many of these companies have greater financial resources, operational experience and technical capabilities. As a result of this competition, we might be unable to maintain or acquire attractive mining properties on terms we consider acceptable or at all. Consequently, our future revenues, operations and financial condition could be materially adversely affected.

Title to our mineral properties could be challenged.

We seek to confirm the validity of our rights to title to, or contract rights with respect to, each mineral property in which we have a material interest. We have mining leases with respect to our Bogoso, Wassa, Prestea Underground and Hwini-Butre properties. Title insurance generally is not available, and our ability to ensure that we have obtained a secure claim to individual mineral properties or mining concessions is limited. We generally do not conduct surveys of our properties until they have reached the development stage, and therefore, the precise area and location of such properties could be in doubt. Accordingly, our mineral properties could be subject to prior unregistered agreements, transfers or claims, and title could be affected by, among other things, undetected defects. In addition, we might be unable to operate our properties as permitted or to enforce our rights with respect to our properties.

We depend on the services of key executives.

We are dependent on the services of key executives including our President and Chief Executive Officer and Chief Financial Officer, and a number of other highly skilled and experienced executive personnel. Due to the relatively small size of our management team, the loss of one or more of these persons or our inability to attract and retain additional highly skilled employees could have an adverse effect on our business and future operations.

Our use of contractors may expose us to a number of risks and increase our mining costs.

We use mining contractors at Bogoso and Wassa. The use of contractors subjects us to certain risks, some of which are outside our control, including:

- our ability to negotiate agreements with contractors on acceptable terms;
- reduced control over those aspects of operations which are the responsibility of the contractor;
- failure of a contractor to perform under its agreement;
- interruption of operations or increased costs in the event that a contractor ceases to do business due to insolvency or other unforeseen events;
- failure of a contractor to comply with applicable legal and regulatory requirements;
- labor relation issues from a contractors' workforce; and
- the potential to incur liability to third parties as a result of the actions of our contractors.

The occurrence of one or more of these risks could adversely affect our financial position and results of operations.

Our insurance coverage could be insufficient.

Our business is subject to a number of risks and hazards generally, including:

- adverse environmental conditions;
- industrial accidents;
- labor disputes;
- unusual or unexpected geological conditions;
- ground or slope failures;
- cave-ins;
- fire damage;
- changes in the regulatory environment;
- marine transit and shipping damage and/or losses;
- natural phenomena such as inclement weather conditions, floods and earthquakes; and
- political risks including expropriation and civil war.

Such occurrences could result in:

- damage to mineral properties or production facilities and equipment;
- personal injury or death;
- loss of legitimate title to properties;
- environmental damage to our properties or the properties of others;
- delays in mining, processing and development;
- monetary losses; and
- possible legal liability.

Although we maintain insurance in amounts that we believe to be reasonable, our insurance might not cover all the potential risks associated with our business. We might also be unable to maintain insurance to cover these risks at economically feasible premiums. Insurance coverage might not continue to be available or might not be adequate to cover any resulting liability. Moreover, insurance against risks such as environmental pollution or other hazards as a result of exploration and production is not generally available to us or to other companies in the mining industry on acceptable terms. We might also become subject to liability for pollution or other hazards which we cannot insure against or which we might elect not to insure against because of premium costs or other reasons. Losses from these events might cause us to incur significant costs that could have a material adverse effect upon our financial performance and results of operations.

We are dependent on information technology systems, which are subject to certain risks, including cybersecurity risks and data leakage risks.

We are dependent upon information technology systems in the conduct of our operations. Any significant breakdown, invasion, virus, cyber-attack, security breach, destruction or interruption of these systems by employees, others with authorized access to our systems, or unauthorized persons could negatively impact our operations. To the extent any invasion, cyber-attack or security breach results in disruption to our operations, loss or disclosure of, or damage to, our data or confidential information, our reputation, business, results of operations and financial condition could be materially adversely affected. Our systems and insurance coverage for protecting against cyber security risks may not be sufficient. Although to date we have not experienced any material losses relating to cyber-attacks, we may suffer such losses in the future. We may be required to expend significant additional resources to

continue to modify or enhance our protective measures or to investigate and remediate any information security vulnerabilities.

GOVERNMENTAL AND REGULATORY RISKS

As a holding company, limitations on the ability of our operating subsidiaries to make distributions to us could adversely affect the funding of our operations.

We are a holding company organized under the federal laws of Canada that conducts operations through foreign (principally Ghanaian) subsidiaries and joint ventures, and substantially all of our assets consist of equity in these entities. Accordingly, any limitation on the transfer of cash or other assets between the parent corporation and these entities, or among these entities, could restrict our ability to fund our operations efficiently, or to repay the Convertible Debentures or other debt. Any such limitations, or the perception that such limitations might exist now or in the future, could have an adverse impact on available credit and our valuation and stock price.

The Government of Ghana may make or propose changes to the mining fiscal regime that will have a significant impact on our overall costs.

In 2012, the Government of Ghana announced its intent to introduce a 10% windfall profit tax on mining companies. In 2013, as a result of the decline in spot gold prices during 2013 the Government of Ghana suspended its implementation of the proposed windfall profit tax. However if gold prices increase the Government of Ghana may proceed with its plan to implement the proposed 10% windfall profit tax.

The Government of Ghana could review the existing tax stability agreements of mining companies operating in Ghana. While our mines do not have tax stability agreements, the Government of Ghana could decide to review our Deeds of Warranty which specify certain tax agreements for our properties. Such a review could result in some of our financial concessions being revoked or changes which could have a significant impact on our profitability, results of operations and financial resources.

We are subject to changes in the regulatory environment where we operate which may increase our costs of compliance.

Our mining operations and exploration activities are subject to extensive regulation governing various matters, including:

- licensing;
- production;
- taxes;
- disposal of process water or waste rock;
- toxic substances;
- development and permitting;
- exports and imports;
- labour standards;
- mine and occupational health and safety;
- environmental protection and corporate responsibility, and
- mine reclamation and closure plans.

Compliance with these regulations increases the costs of the following:

- planning;
- designing;
- drilling;

- operating;
- developing;
- constructing; and
- closure, reclamation and rehabilitation and post-closure.

We believe that we are in substantial compliance with current laws and regulations in Ghana and elsewhere. However, these laws and regulations are subject to frequent change and reinterpretation. Amendments to current laws and regulations governing operations and activities of mining companies or more stringent implementation or interpretation of these laws and regulations could have a material adverse impact on us. These factors could cause a reduction in levels of production and delay or prevent the development or expansion of our properties in Ghana.

The implementation of changes in regulations that limit the amount of proceeds from gold sales that could be withdrawn from Ghana could also have a material adverse impact on us, as Bogoso and Wassa are currently our only sources of internally generated operating cash flows.

Environmental bonding requirements are under review in Ghana and bonding requirements may be increased.

As part of its periodic assessment of mine reclamation and closure costs, the EPA reviews the adequacy of reclamation bonds and guarantees. In certain cases, it has requested higher levels of bonding based on its findings. If the EPA were to require additional bonding at our properties, it may be difficult, if not impossible, to provide sufficient bonding. If we are unable to meet any such increased bonding requirements or negotiate an acceptable solution with the Government of Ghana, our operations and exploration and development activities in Ghana may be materially adversely affected.

The Government of Ghana has the right to increase its interest in certain subsidiaries.

The Government of Ghana has a 10% carried interest in the mineral operations of Ghanaian mining companies. The carried interest comes into existence at the time the government issues a mining license. As such, the Government of Ghana currently has a 10% carried interest in our subsidiaries that own the Bogoso properties and the Wassa properties.

The Government of Ghana has the right to acquire a special share or “golden share” in such subsidiaries at any time for no consideration or such consideration as the Government of Ghana and such subsidiaries might agree, and a pre-emptive right to purchase all gold and other minerals produced by such subsidiaries. A “golden share” carries no voting rights and does not participate in dividends, profits or assets. While the Government of Ghana has not sought to exercise any of these rights at our properties, any such attempts to do so in the future could adversely affect our financial results.

We are subject to risks relating to exploration, development and operations in foreign countries.

Our assets and operations are affected by various political and economic uncertainties in the countries where we operate, including:

- war, civil unrest, terrorism, coups or other violent or unexpected changes in government;
- political instability and violence;
- expropriation and nationalization;
- renegotiation or nullification of existing concessions, licenses, permits, and contracts;
- illegal mining;
- changes in taxation policies;
- unilaterally imposed increases in royalty rates, such as the increase in royalty rates imposed by the Government of Ghana, effective March 2011, which changed the method of calculating the

royalties from not less than 3% and not more than 6% of a mine's total mineral revenues to a flat rate of 5% of mineral revenues;

- restrictions on foreign exchange and repatriation; and
- changing political conditions, currency controls, and governmental regulations that favor or require the awarding of contracts to local contractors or require foreign contractors to employ citizens of, or purchase supplies from, a particular jurisdiction.

Illegal mining has occurred on our properties, which is difficult to control, can disrupt our business and can expose us to liability.

We continue to experience illegal mining activity on our mining and exploration properties. Most of this activity is on our Prestea South properties. While we are proactively working with local, regional and national governmental authorities to obtain protection of our property rights, any action on the part of such authorities may not occur, may not fully address our problems or may be delayed.

In addition to the impact on our mineral reserves and mineral resources, the presence of illegal miners can lead to project delays and disputes and delays regarding the development or operation of commercial gold deposits. Illegal miners could cause environmental damage or other damage to our properties, or personal injury or death, for which we could potentially be held responsible. Illegal miners may work on other of our properties from time to time, and they may in the future increase their presence and have increased negative impacts such as those described above on such other properties.

Our activities are subject to complex laws, regulations and accounting standards that can adversely affect operating and development costs, the timing of operations, the ability to operate our mines and our financial results.

Our business, mining operations and exploration and development activities are subject to extensive Canadian, United States, Ghanaian and other foreign, federal, state, provincial, territorial and local laws and regulations governing exploration, development, production, exports, taxes, labor standards, waste disposal, protection of the environment, reclamation, historic and cultural resource preservation, mine safety and occupational health, toxic substances, reporting and other matters, as well as accounting standards. Compliance with these laws, regulations and standards or the imposition of new requirements could adversely affect exploration, operating and development costs, the timing of operations and the ability to operate, as well as our financial results.

Failure to maintain effective internal controls could have a material adverse effect on our business and share price.

Annually, we are required to test our internal controls over financial reporting to satisfy the requirements of applicable securities laws, which requires annual management assessments of the effectiveness of our internal controls over financial reporting. Failure to maintain effective internal controls could have a material adverse effect on our business and share price.

MARKET RISKS

The market price of our common shares has experienced volatility and could continue to do so in the future.

Our common shares are listed on the NYSE MKT, the TSX and the Ghana Stock Exchange. Companies with market capitalizations similar to ours have experienced substantial volatility in the past, often based on factors unrelated to the financial performance or prospects of the companies involved. These factors include macroeconomic developments in North America and globally and market perceptions of the attractiveness of particular industries. Our share price is also likely to be significantly affected by short-term changes in gold prices or in our financial condition or results of operations as reflected in our quarterly earnings reports. Other factors unrelated to our performance that could have an effect on the price of our securities, include the following:

- the extent of analytical coverage available to investors concerning our business could be limited if investment banks with research capabilities do not continue to follow our securities;

- the trading volume and general market interest in our securities could affect an investor’s ability to trade significant numbers of our securities;
- the size of the public float in our securities may limit the ability of some institutions to invest in our securities; and
- a substantial decline in our stock price that persists for a significant period of time could cause our securities to be delisted from NYSE MKT, the TSX and/or the Ghana Stock Exchange, further reducing market liquidity.

As a result of any of these factors, the market price of our securities at any given point in time might not accurately reflect our long-term value. Stock markets in general have recently experienced higher levels of volatility. Securities class action litigation often has been brought against companies following periods of market price volatility that affects the market price of particular securities without regard to the performance of the company whose stock price is affected. We could in the future be the target of similar litigation. Securities litigation could result in substantial costs and damages and divert management’s attention and resources.

Investors could have difficulty or be unable to enforce certain civil liabilities on us.

A majority of our assets are located outside of Canada. Accordingly, it might not be possible for investors to collect judgments obtained in Canadian courts predicated on the civil liability provisions of Canadian securities legislation or to realize upon our assets in connection with such judgments.

There are certain U.S. federal income tax risks associated with ownership of Golden Star common shares.

To ensure compliance with requirements imposed by the Internal Revenue Service, any U.S. federal tax advice contained in this communication (including any attachments) is not intended or written to be used, and cannot be used, for the purpose of avoiding penalties under the Internal Revenue Code. This communication is used to promote the marketing of the securities described herein, and each potential investor should seek advice based on the investor’s particular circumstances from an independent tax advisor.

Holders of our common shares who are U.S. taxpayers should consider that we may or could become a “passive foreign investment company” (“PFIC”) for U.S. federal income tax purposes. We do not expect to be a PFIC for the year ending December 31, 2014, and do not expect to become a PFIC in the foreseeable future, but the tests for determining PFIC status depend upon a number of factors, some of which are beyond our control, and can be subject to uncertainties, and we cannot assure you that we will not be a PFIC for the year ending December 31, 2014, or any future year. We undertake no obligation to advise holders of our common shares as to our PFIC status for the year ending December 31, 2014, or any future year.

If we are a PFIC for any year, any person who holds our common shares who is a U.S. person for U.S. income tax purposes (a “U.S. Holder”) and whose holding period for those common shares includes any portion of a year in which we are a PFIC generally would be subject to a special adverse tax regime in respect of “excess distributions.” Excess distributions include certain distributions received with respect to PFIC shares in a taxable year. Gain recognized by a U.S. Holder on a sale or other transfer of our common shares (including certain transfers that would otherwise be tax free) also would be treated as excess distributions. Such excess distributions and gains would be allocated ratably to the U.S. Holder’s holding period. For these purposes, the holding period of shares acquired either through an exercise of options or the conversion of convertible debentures includes the holder’s holding period in the option or convertible debt.

The portion of any excess distribution (including gains treated as excess distributions) allocated to the current year or to a year prior to the first year in which the Company was a PFIC would be includible as ordinary income in the current year. The portion of any excess distribution allocated to the first year in the U.S. Holder’s holding period in which the Company was a PFIC and any subsequent year or years (excluding the current year) would be taxed at the highest marginal rate applicable to ordinary income for each such year (regardless of the taxpayer’s actual marginal rate for that year and without reduction by any losses or loss carryforwards) and would be subject to interest charges to reflect the value of the U.S. income tax deferral.

Elections may be available to mitigate the adverse tax rules that apply to PFICs (the so-called “QEF” and “mark-to-market” elections), but these elections may cause the recognition of taxable income or gain. The QEF and mark-to-market elections are not available to U.S. Holders with respect to options or convertible securities. We have not decided whether we would provide to U.S. holders of our common shares the annual information that would be necessary to make the QEF election.

Additional special adverse rules also apply U.S. Holders who own our common shares if we are a PFIC and have a non-U.S. subsidiary that is also a PFIC. Special adverse rules that impact certain estate planning goals could apply to our common shares if we are a PFIC.

The conversion feature of the Convertible Debentures could limit increases in the trading price of our common shares.

The conversion price of our outstanding Convertible Debentures is \$1.65 per share. During periods when our share price is greater than the conversion price, this conversion feature may limit the increase in the price of our common shares, since any increase in the stock price above the conversion price will make it more likely that the Convertible Debentures will be converted, thereby exerting a downward pressure on the market price of the common shares.

The existence of outstanding rights to purchase or acquire common shares could impair our ability to raise capital.

As of March 21, 2014, there were options outstanding to purchase up to 16,465,157 common shares at exercise prices ranging from Cdn.\$0.50 to Cdn.\$6.95 per share. In addition, 811,228 common shares are available for future issuance under our stock option plans. Furthermore, approximately 46,963,636 common shares are currently issuable upon the full conversion of our outstanding Convertible Debentures (additional shares may be issuable to debenture holders in certain circumstances). During the life of the options, Convertible Debentures and other rights, the holders are given an opportunity to profit from a rise in the market price of common shares, with a resulting dilution in the interest of the other shareholders. Our ability to obtain additional financing during the period such rights are outstanding could be adversely affected, and the existence of the rights could have an adverse effect on the price of our common shares. The holders of the options, Convertible Debentures and other rights can be expected to exercise or convert them at a time when we would, in all likelihood, be able to obtain any needed capital by a new offering of securities on terms more favorable than those provided by the outstanding rights.

Current global financial conditions may affect our ability to obtain financing and may negatively affect our asset values and results of operations.

Global financial conditions during recent years have been characterized by heightened volatility and uncertainty. As a result, access to financing has been negatively impacted, which may affect our ability to obtain equity or debt financing in the future on favorable terms or at all. Additionally, these factors, as well as other related factors, may cause decreases in asset values that are deemed to be other than temporary, which may result in impairment losses. If such increased levels of volatility and market turmoil continue or worsen, our operations could be adversely impacted and the trading price of our common shares may be adversely affected.

DIVIDEND POLICY

We have not declared or paid cash dividends on our common shares since our inception and we expect for the foreseeable future to retain all of our earnings from operations for use in expanding and developing our business. Future dividend decisions will consider then current business results, cash requirements and our financial condition.

LEGAL PROCEEDINGS

There are currently no material pending legal proceedings to which the Company or any of its subsidiaries is a party or to which any of its properties or those of any of its subsidiaries is subject. The Company and its subsidiaries are, however, engaged in routine litigation incidental to their business. No material legal proceedings involving the Company are pending, or, to the knowledge of the Company, contemplated, by any governmental authority. The Company is not aware of any material events of non-compliance with environmental laws and regulations. The exact nature of environmental control problems, if any, which the Company may encounter in the future cannot be

predicted, primarily because of the changing character of environmental requirements that may be enacted within foreign jurisdictions.

CAPITAL STRUCTURE

The Company is authorized to issue an unlimited number of common shares. As at December 31, 2013, there were 259,105,970 common shares issued and outstanding. As of March 21, 2014, 259,105,970 common shares were issued and outstanding.

The Company is also authorized to issue an unlimited number of first preferred shares. As at December 31, 2013, there were no first preferred shares issued and outstanding. As of March 21, 2014, there were no first preferred shares issued and outstanding.

Description of common shares

All common shares are of the same class and, once issued, rank equally as to dividends, voting powers, and participation in assets.

Dividend Rights

Holders of common shares are entitled to receive such dividends as may be declared from time to time by the Board of Directors of Golden Star, in its discretion, subject to the preferential dividend rights of any other classes or series of shares of our company. In no event may a dividend be declared or paid on the common shares if payment of the dividend would cause the realizable value of Golden Star's assets to be less than the aggregate of its liabilities and the amount required to redeem all of the shares having redemption or retraction rights, which are then outstanding.

Voting Rights

Holders of common shares are entitled to one vote for each share held of record on all matters to be acted upon by the shareholders.

Liquidation

In the event of any liquidation, dissolution or winding up of Golden Star, holders of common shares have the right to a ratable portion of the assets remaining after payment of liabilities and liquidation preferences of any Preferred Shares or other securities that may then be outstanding.

Redemption

No shares have been issued subject to call or assessment. There are no pre-emptive or conversion rights and no provisions for redemption or purchase for cancellation, surrender, or sinking or purchase funds.

Rights Agreement

Rights to purchase Common Shares have been issued to holders of common shares under an amended and restated shareholder rights plan agreement (the "Rights Agreement") dated May 9, 2013 between Golden Star and Canadian Stock Transfer Company Inc. (now CST Trust Company) One right is attached to each common share. Prior to the occurrence of certain triggering events, each right will entitle the holder, within certain limitations, to purchase one common share at an exercise price equal to three times the market price of the common share, as determined under the terms of the agreement. In certain events (including when a person or group becomes the beneficial owner of 20% or more of any class of our voting shares without complying with the "permitted bid" provisions of the rights agreement or without the approval of Golden Star's Board of Directors), any exercise of the rights would entitle the holders of the rights (other than the acquiring person or group) to acquire that number of common shares having an aggregate market price on the date of the event equal to twice the exercise price of the rights for an amount in cash equal to the exercise price. Accordingly, any exercise of the rights may cause substantial dilution to a person who attempts to acquire Golden Star. The rights, which expire at the close of business on the date of our 2016 annual shareholders' meeting (unless extended as provided in the Rights Agreement), may be redeemed at a price of

C\$0.00001 per right at any time until a person or group has acquired 20% of our common shares, except as otherwise provided in the Rights Agreement. The Rights Agreement may have certain anti-takeover effects.

Other Provisions

All outstanding common shares are fully paid and non-assessable.

This section is a summary and may not describe every aspect of our common shares or preferred shares that may be important to you. We urge you to read the *Canada Business Corporations Act* and our articles of arrangement, because they, and not this description, define the rights of a holder of Golden Star's common shares or preferred shares.

Description of Preferred Shares

We are authorized to issue an unlimited number of preferred shares. Preferred shares are issuable in such classes or series as are determined by the Board of Directors, who have the authority to determine the relative rights and preferences of each such class or series. The Board of Directors has not designated any class or series of preferred shares.

Description of Convertible Debentures

On May 31, 2012, the Company issued an aggregate of approximately \$77.5 million principal amount of 5.00% Convertible Debentures due June 1, 2017. Approximately 46,963,636 common shares are currently issuable upon the full conversion of our outstanding Convertible Debentures at a price of \$1.65 per share.

Description of Stock Option Plan

The Company has a stock option plan in place which is administered pursuant to the Third Amended and Restated 1997 Stock Option Plan (the "Stock Option Plan"). The Stock Option Plan provides for discretionary grants of stock options to certain key employees, consultants and directors (including non-employee directors) of the Company and its subsidiaries. Subject to certain other limitations, the maximum number of common shares authorized for issuance under the Stock Option Plan is 25,000,000 common shares (or approximately 9.65% of the issued and outstanding common shares of the Company). The Stock Option Plan provides that it will terminate, unless earlier terminated in accordance with its terms, on the tenth anniversary of its approval. The Stock Option Plan was approved on May 6, 2010 at the annual general and special meeting of the Company's shareholders.

Description of Performance Share Unit Plan

In 2014, the Company introduced a performance share unit plan that provides for performance share units ("PSUs") to vest over three years based on total shareholder return relative to a peer group of gold companies. The PSU plan is designed to align management's interests with those of shareholders through grants of PSUs and will comprise at least fifty percent of our long term incentive plan for our named executive officers.

Description of Deferred Share Unit Plan

In March 2011, the Company implemented a Deferred Share Unit Plan (the "DSU Plan") for directors and executive officers of the Company which (i) encourages the directors and executive officers of the Company to own common shares of the Company and to facilitate such common share ownership; and (ii) provides directors and executive officers of the Company with incentives in the form of DSUs in order to allow the Company to reduce its reliance on stock options and other long-term incentive plans for the same purposes, so as to conform with current best practices regarding directors' and executive officers' compensation. The maximum number of common shares that may be issued under the DSU Plan is 7,500,000, representing approximately 2.90% of the current number of outstanding common shares. Pursuant to the DSU Plan, directors may elect to receive all or part of their retainer in DSUs having a market value equal to the portion of the retainer to be received in that form.

Description of Share Appreciation Rights Plan

In February 2012, the Company adopted a Share Appreciation Rights Plan (the “SARs Plan”) to provide incentive compensation based on the appreciation in value of the common shares over a specified period of time. Under the SARs Plan, the Company may from time to time grant awards of share appreciation rights (“SARs”) to current and future directors, executive officers, employees and consultants of the Company and/or its subsidiaries. The maximum number of SARs that may be granted to any participant in any one calendar year under the SARs Plan is 800,000. No SARs will be settled in shares; rather, all SAR exercises will be settled solely in cash.

MARKET FOR GOLDEN STAR SECURITIES

Our common shares trade on the Toronto Stock Exchange (“TSX”) under the trading symbol GSC, on the NYSE MKT under the symbol GSS and on the Ghana Stock Exchange under the symbol GSR. As of March 21, 2014, 259,105,970 common shares were outstanding. On March 21, 2014, the closing price per share for our common shares as reported by the TSX was Cdn\$0.70 and as reported by the NYSE MKT exchange was \$0.60.

The following table sets forth the high, low and market closing prices per common share on a monthly basis as reported by the TSX and the NYSE MKT during the year ending December 31, 2013.

TSX: GSC	Cdn\$ High	Cdn\$ Low	Cdn\$ Close	Volume
January	1.90	1.84	1.90	7,740,300
February	1.73	1.69	1.73	2,454,400
March	1.76	1.71	1.76	2,094,600
April	1.64	1.57	1.57	4,758,500
May	1.09	1.06	1.09	5,466,100
June	0.74	0.70	0.73	6,581,100
July	0.58	0.53	0.55	2,763,700
August	0.88	0.76	0.79	2,954,500
September	0.60	0.57	0.59	7,281,700
October	0.57	0.52	0.56	3,589,100
November	0.60	0.56	0.59	4,805,700
December	0.52	0.50	0.50	1,810,600

NYSE MKT: GSS	US\$ High	US\$ Low	US\$ Close	Volume
January	1.92	1.86	1.90	30,795,400
February	1.69	1.64	1.66	28,299,100
March	1.73	1.67	1.70	35,948,000
April	1.65	1.55	1.56	51,297,300
May	1.09	1.05	1.08	66,404,900
June	0.72	0.69	0.71	91,060,200
July	0.57	0.51	0.53	47,125,600
August	0.85	0.72	0.76	70,471,300
September	0.58	0.55	0.55	83,689,800
October	0.54	0.49	0.52	58,858,800
November	0.57	0.53	0.57	39,552,500
December	0.49	0.46	0.47	38,191,600

DIRECTORS AND OFFICERS

Officers and directors of the Company beneficially owned, or controlled or directed, directly or indirectly, 951,824 common shares of the Company, representing approximately 0.4% of the issued and outstanding common shares of the Company.

DIRECTORS

Set forth below is information regarding the directors of Golden Star as of March 21, 2014.

Name and place of residence	Director since
TIM BAKER, Toronto, Ontario, Canada ⁴	January 1, 2013
SAMUEL T. COETZER, Toronto, Ontario, Canada	December 13, 2012
ANU DHIR, Mississauga, Ontario, Canada ^{3,4}	February 21, 2014
ROBERT E. DOYLE, Toronto, Ontario, Canada ^{2,3,4}	February 2, 2010
TONY JENSEN, Superior, Colorado, USA ²	January 13, 2012
CRAIG J. NELSEN, Centennial, Colorado, USA ^{1,4}	May 11, 2011
CHRISTOPHER M.T. THOMPSON, Denver, Colorado, USA ^{1,3}	February 2, 2010
WILLIAM L. YEATES, Denver, Colorado, USA ^{1,2}	October 4, 2011

Notes:

1. Member of the Compensation Committee
2. Member of the Audit Committee
3. Member of the Nominating and Corporate Governance Committee
4. Member of the Sustainability Committee

The terms of office of each director of the Company will expire at the next annual meeting of shareholders of the Company or when their successors are duly elected or appointed.

Below is a biography of each of the directors of Golden Star:

Tim Baker

Mr. Baker was appointed Chairman of the Company effective January 1, 2013. Mr. Baker served as the Chief Operating Officer and Executive Vice President of Kinross Gold Corporation from June 2006 to November 2010. Mr. Baker, who earned his BSc in Geology from Edinburgh University in 1974, has substantial experience in operating mines and projects, including projects in Chile, the United States, Africa and the Dominican Republic. Prior to working with Kinross Gold Corporation, Mr. Baker served as an Executive General Manager of Placer Dome Chile, where he was responsible for the Placer Dome operations, including at the Zaldivar mine and Kinross-Placer joint venture at La Coipa as well as the Pueblo Viejo project in the Dominican Republic. Mr. Baker was an Independent Director of Eldorado Gold Corporation between May 2011 and December 2012, and of Pacific Rim Mining Corp. from March 2012 to November 2013. Mr. Baker's extensive and ongoing experience as a Director and as an executive of various mining companies along with his ICD.D certification obtained from the Institute of Corporate Directors, makes him a vital part of the Board.

Samuel T. Coetzer

Mr. Coetzer was appointed President and Chief Executive Officer of the Company, effective January 1, 2013 and a director of the Company in December 2012. Prior to this appointment, he served the Company as Executive Vice President and Chief Operating Officer from March 2011 to December 2012. Mr. Coetzer is a mining engineer graduate from the University of Pretoria, a member of the World Gold Council and has over 25 years of international mining experience, having held increasing levels of responsibility in various mining companies including Kinross Gold Corporation ("Kinross"), Xstrata Nickel, Xstrata Coal South Africa, and Placer Dome Inc. From September 2010 until joining the Company, he was the Senior Vice President of Red Back Integration at Kinross. Mr. Coetzer consulted to Kinross from February 2009 and was appointed in May 2009 as Senior Vice President, South American Operations for Kinross, serving in this role until September 2010. In this role, Mr. Coetzer was responsible for overseeing the Kinross assets in Brazil, Chile and Ecuador. From June 2007 to October 2008, Mr. Coetzer was the Chief Operating Officer of Xstrata Nickel, and from March 2006 to June 2007, he was the Chief Operating Officer of Xstrata Coal South Africa. Mr. Coetzer also has significant experience in Africa, having been with Placer Dome Inc.'s South African and Tanzanian operations, where he was Managing Director - South Africa and the Executive General Manager - Tanzania, from 2003 to February 2006. Mr. Coetzer's

experience and expertise in managing mining operations of various mining companies positions him well to serve as the Chief Executive Officer and member of the Board. As Chief Executive Officer and formerly Chief Operating Officer of the Company, Mr. Coetzer has demonstrated strong leadership skills and extensive knowledge of operational issues facing the Company.

Anu Dhir

Anu Dhir is a founder and, from 2010 to present, has been a Managing Director of Miniqs Limited (“Miniqs”), a private group primarily interested in resource projects that have the capability to grow into major producing operations. From 2006 to 2009, Ms. Dhir served as Vice President, Corporate Development and Company Secretary at Katanga Mining Limited a publicly listed mining company. Her portfolio of responsibilities at Katanga covered corporate development, investor relations, legal advisory, governance, and communications.

Ms. Dhir has a unique combination of business, operations and legal experiences in the mining, oil and gas and technology sectors on several continents. She has a history of successfully developing and negotiating business development deals including joint ventures, mergers and acquisitions, and key partnerships. Ms. Dhir has also helped finance and lead private companies to the public markets. She has been instrumental in helping companies heighten their profile and increase overall shareholder value.

Ms. Dhir was a Non-Executive Director, Great Basin Gold Limited, South Africa (TSX, NYSE, JSE) until 2013, and also served as its Chair of its Corporate Governance Committee, Member of its Remuneration Committee, and as a member of its Member Audit & Risk Committee.

Robert E. Doyle

Mr. Doyle was Chief Executive Officer of Medoro Resources Ltd. From January 2008 to October 2009 (pursuant to a merger in June 2011, Medoro is now known as Gran Colombia Gold Corp.), a Canadian gold exploration and development company with activities in Africa and South America. Mr. Doyle was with Pacific Stratus Energy as Executive Vice President from 2005 through 2006, Chief Financial Officer from October 2006 to May 2007 and Vice President from March 2006 to May 2007. He also was Chief Financial Officer of Coalcorp Mining Inc. from November 2005 to May 2007 and Chief Financial Officer of Bolivar Gold Corp. from January 2003 to February 2006. Mr. Doyle served as a director of Gran Columbia Gold Corp. from April 2008 to July 2013, and as a director of NXA Inc. from June 2009 to February 2014. Mr. Doyle, a chartered accountant and a chartered director, has over 30 years’ experience in all facets of international resource exploration, development and production. Mr. Doyle brings a broad skill set to the Board, including a thorough understanding of operations, accounting and financial strategy of international mining companies. Mr. Doyle is a member of the Company’s Audit Committee. He is an audit committee financial expert as defined by the SEC.

Tony Jensen

Mr. Jensen has been serving as President and Chief Executive Officer of Royal Gold Inc., a mining royalty company, since 2006. Previously, Mr. Jensen had served as the President and Chief Operating Officer of Royal Gold Inc. from 2003 to 2006. Mr. Jensen was elected to the board of directors of Royal Gold Inc. in 2004. Prior to joining Royal Gold Inc., Mr. Jensen held various positions with Placer Dome Inc., including engineering and management positions at the Golden Sunlight Mine in Montana, Assistant Mine General Manager of Operations at the La Coipa mine in Chile, Director, Finance and Strategic Growth for Placer Dome Latin America, and Mine General Manager of the Cortez Joint Venture. Mr. Jensen is a mining engineering graduate of the South Dakota School of Mines and Technology and holds a Certificate of Finance from Golden Gate University in San Francisco. In addition, Mr. Jensen is a member of the World Gold Council Board, the National Mining Association Board and Finance Committee, and the Industrial Advisory Board of the South Dakota School of Mines and Technology. Mr. Jensen brings to the Board extensive operating knowledge and ongoing experience as an executive of companies involved in the global mining and mineral processing industries. Mr. Jensen is experienced in finance, capital management and sourcing and is a member of the Company’s Audit Committee.

Craig J. Nelsen

Mr. Nelsen was a founder, and served as President, Chief Executive Officer and a member of the Board of Directors, of Avanti Mining Inc. (“Avanti”) from May 2007 to October 2013. He is currently Executive Chairman of Avanti.

From April 1999 to June 2007, Mr. Nelsen served as the Executive Vice-President, Exploration, for Gold Fields Limited, one of the world's largest gold mining companies. Mr. Nelsen was the founder, and served as Chairman of the board of directors, of Metallica Resources Inc. from 1994 to 2008, and was Metallica's Chief Executive Officer from 1994 to 1999. In June 2008, a three company merger between Metallica, Peak Gold, and New Gold Inc. was finalized, forming the new, larger gold producer known as New Gold Inc., which is listed on both the Toronto Stock Exchange and NYSE MKT. From June 2008 until May 2012, Mr. Nelsen served as a member of the board of directors of New Gold Inc. Mr. Nelsen holds a M.S. degree in geology from the University of New Mexico and a B.A. degree in geology from the University of Montana. Mr. Nelsen's experience includes, among other things, his knowledge in mineral property evaluation, including resource and reserve assessment; international mining; mergers and acquisitions; exploration and mine operations; health, safety, environment and community relations; company formation and strategic planning.

Christopher M.T. Thompson

From 1998 through 2002, Mr. Thompson served as Chairman and Chief Executive Officer of Gold Fields Limited, an international gold producer based in South Africa, and as Chairman from 2002 through 2005. Since 2005 to the present, Mr. Thompson served on the boards of several public and private companies. From April 2002 to April 2005 he was the Chairman of the World Gold Council, an industry organization that promotes gold consumption, and from 1991 through 1998 he was the Founder, President and Chief Executive Officer of Castle Group Inc., manager of three privately owned gold mining venture funds. Mr. Thompson has served as director on over 25 public gold mining company boards and he currently sits on the board of two public companies in addition to Golden Star. Mr. Thompson is a member of the Board of Governors of the Colorado School of Mines. Mr. Thompson is familiar with all aspects of the gold industry from exploration to marketing. He understands the intricacies of international gold producing operations, and also has specific gold mining experience in Ghana. Mr. Thompson's 20 plus years' experience in the gold mining investment and venture capital field enables him to provide the Board valuable insight on financial aspects of the industry.

William L. Yeates

Mr. Yeates was one of the founding partners of Hein & Associates LLP (Hein). He was previously served on Hein's Executive Committee and was their National Director of Auditing and Accounting for many years. He retired from Hein in 2013. He has over 40 years of auditing experience working with public companies specializing in extractive industries. From 2005 to 2009, Mr. Yeates served on the Financial Accounting Standards Advisory Council ("FASAC"). He also has served on: the Professional Practice Executive Committee of the Center for Audit Quality; the Executive Committee of the Center for Public Company Audit Firms of the American Institute of Charter Public Accountants ("AICPA"); the SEC Practice Section Executive Committee and of the SEC Regulations Committee of the AICPA. In addition to being a Charter Public Accountant ("CPA"), Mr. Yeates holds an MBA in accounting and a B.S. in finance and marketing from the University of Colorado, Boulder. Mr. Yeates' extensive experience as an auditor for companies in extractive industries and involvement in numerous accounting committees enables him to provide the Board with valuable insight in the areas of financial reporting and strategic planning. Mr. Yeates has over 35 years of experience in accounting with expertise in the areas of SEC reporting and is a member of the Company's Audit Committee.

OFFICERS

The following table sets forth the names of each of the executive officers of Golden Star and all offices held by each of them as of March 21, 2014.

Name	Office Held
SAMUEL T. COETZER, Toronto, Ontario, Canada	President and Chief Executive Officer
DANIEL OWIREDU, Accra, Ghana	Chief Operating Officer
JEFFREY A. SWINOGA, Oakville, Ontario, Canada	Executive Vice President and Chief Financial Officer ⁽¹⁾
MARTIN RAFFIELD, Wheat Ridge, Colorado, USA	Senior Vice President, Technical Services
S. MITCHEL WASEL Takoradi, Western Region, Ghana	Vice President, Exploration

<u>Name</u>	<u>Office Held</u>
BRUCE HIGSON-SMITH, Denver, Colorado, USA	Senior Vice President, Corporate Strategy
KAREN WALSH, Fox Point, Wisconsin, USA	Vice President, People and Organizational Development

Notes:

- (1) Jeffrey Swinoga will resign as Executive Vice President and Chief Financial Officer of the Company effective April 7, 2014. André van Niekerk, Golden Star's Vice President and Controller, will be appointed as Golden Star's new Chief Financial Officer effective April 7, 2014.

The following sets forth biographical information for each of the above officers of Golden Star who is not also a director of Golden Star:

Daniel Owiredu

Mr. Owiredu was appointed Executive Vice President Operations of the Company effective January 1, 2013. Mr. Owiredu has more than 20 years' experience in the mining sector in Ghana and West Africa. Mr. Owiredu previously served the Company as Senior Vice President Ghana Operations since May 10, 2012. Prior to that, he was Vice President Ghana Operations since September 2006. Prior to joining the Company, Mr. Owiredu served as Deputy Chief Operating Officer Africa for AngloGold Ashanti Ltd. following the amalgamation of AngloGold Ltd. and Ashanti Goldfields Co. Ltd. Mr. Owiredu's prior experience includes successfully managing the construction and operation of the Bibiani mine for Ashanti. He also managed the Siguiri mine in Guinea and the Obuasi mine in Ghana for Ashanti.

Jeffrey A. Swinoga

Mr. Swinoga was appointed Executive Vice President and Chief Financial Officer of the Company in January 2013. From July 2009 to December 2012, Mr. Swinoga served as Vice President, Finance and Chief Financial Officer of North American Palladium Ltd. He served as Senior Vice President of Finance and Chief Financial Officer of MagIndustries Corporation from September 2008 to July 2009, and Vice President of Finance and Chief Financial Officer of HudBay Minerals Inc. from October 2005 to August 2008. He previously served as Director, Finance of Barrick Gold Corporation from 1998 to 2005. In addition, Mr. Swinoga served as a Director and Audit Committee Chairman of Tonbridge Power Inc. in 2011. He is a Chartered Professional Accountant and a member of the Institute of Chartered Accountants of Ontario.

Dr. Martin Raffield

Dr. Raffield was hired by Golden Star Resources in August 2011 as Senior Vice President, Technical Services. Prior to this, he worked from June 2007 as Principal Consultant and Practice Leader for SRK Consulting (US) Ltd in Denver. Dr. Raffield started his career in 1992 in South Africa working in geotechnical engineering at a number of deep level gold mines for Johannesburg Consolidated Investments. In 2000, he relocated to Canada with Placer Dome and held the positions of Chief Engineer and Mine Superintendent at their Campbell Mine. Dr. Raffield moved to Breakwater Resources, Myra Falls Operation in 2006 and held the position of Manager of Mining until moving to SRK in 2007. Dr. Raffield has a Ph.D. in geotechnical engineering from the University of Wales and is a Professional Engineer registered in Ontario, Canada.

S. Mitchel Wasel

Mr. Wasel has served as Vice President Exploration since September 2007, prior to which he served the Company as Regional Exploration Manager for West Africa from March 2004. Mr. Wasel served as the Company's Exploration Manager - Ghana from 2000 to March 2004. Mr. Wasel has acted in various other roles with the Company since 1993 when he commenced his service with the Company as an exploration geologist, where he worked in the Company's regional exploration program in Suriname and later with the Gross Rosebel project, ultimately as Project Manager. Prior to joining the Company, he worked with several companies in northern Canada in both exploration and mine geology.

Bruce Higson-Smith

Mr. Higson-Smith has served as Senior Vice President, Corporate Strategy since January 2013. Prior to that, he served the Company as Senior Vice President Finance and Corporate Development from January 2012 to January

2013 and Vice President, Corporate Development from September 2003 to January 2012. Mr. Higson-Smith is a qualified mining engineer with over 25 years of experience in the mining business. Following several years in underground mining operations in Africa and after earning an MBA in finance, Mr. Higson-Smith spent 10 years reviewing projects, conducting due diligence, negotiating and structuring mining transactions around the world, initially with the Castle Group, a mining investment management company, and then with Resource Capital Funds. Since joining the Company in 2003, he has been responsible for evaluating and executing M&A opportunities for the Company and also spent a year in Ghana as General Manager of Bogoso.

Karen Walsh

Ms. Walsh has served as Vice President People and Organizational Development since July 2012. Prior to joining the Company, Ms. Walsh did consulting work for six years in the mining industry from September 2007 to July 2012. Prior to that, Ms. Walsh was Senior Vice President, Human Resources for Placer Dome Inc. from 2005 to August 2006. Ms. Walsh has a broad range of human resources expertise including recruiting, succession planning, cultural change initiatives, HR process optimization, project development feasibility studies, global leadership development and performance management.

CEASE TRADE ORDERS, BANKRUPTCIES, PENALTIES OR SANCTIONS

To the best of Golden Star's knowledge, no director or executive officer of Golden Star or a shareholder holding a sufficient number of securities to affect materially the control of Golden Star is, or within the ten years prior to the date hereof has been, a director or executive officer of any company (including Golden Star) that, while that person was acting in that capacity: (i) was the subject of a cease trade or similar order or an order that denied the relevant company access to any exemption under securities legislation, for a period of more than 30 consecutive days; (ii) was subject to an event that resulted, after the director or executive officer ceased to be a director or executive officer, in the company being the subject of a cease trade or similar order or an order that denied the relevant company access to any exemption under securities legislation for a period of more than 30 consecutive days; or (iii) within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets.

CONFLICT OF INTEREST

To the best of Golden Star's knowledge, and other than as disclosed in this Annual Information Form, in the notes to Golden Star's financial statements and in management's discussion and analysis of financial condition and results of operations ("MD&A"), there are no known existing or potential conflicts of interest between Golden Star and any director or officer of Golden Star. Certain of the directors and officers of Golden Star serve as directors and officers of other public companies and therefore it is possible that a conflict may arise between their duties as a director or officer of Golden Star and their duties as a director or officer of such other companies.

The directors and officers of Golden Star are aware of the existence of laws governing accountability of directors and officers for corporate opportunity and requiring disclosure by directors of conflicts of interest and Golden Star will rely upon such laws in respect of any directors' and officers' conflicts of interest or in respect of any breaches of duty by any of its directors or officers. All such conflicts will be disclosed by such directors or officers in accordance with the *Canada Business Corporations Act* and they will govern themselves in respect thereof to the best of their ability in accordance with the obligations imposed upon them by law.

AUDIT COMMITTEE

AUDIT COMMITTEE CHARTER

The written charter of the Audit Committee is disclosed as Schedule "A" to this Annual Information Form.

COMPOSITION OF THE AUDIT COMMITTEE

The Audit Committee has three members: Robert E. Doyle, Tony Jensen and William L. Yates, all of whom are independent. All members of the Audit Committee are financially literate for the purposes of National Instrument 52-110 - *Audit Committee*.

RELEVANT EDUCATION AND EXPERIENCE

See “*Directors and Officers - Directors*” for the biography of each Audit Committee member, including the education and experience of each Audit Committee member that is relevant to the performance of responsibilities as an Audit Committee member. Each committee member maintains an understanding of the detailed responsibilities of committee membership and the Company’s business, operations and risks.

RELIANCE ON CERTAIN EXEMPTIONS

At no time since the commencement of the Company’s most recently completed financial year has the Company relied on an exemption in Section 2.4 of NI 52-110 (De Minimis Non-audit Services), Section 3.2 of NI 52-110 (Initial Public Offerings), Section 3.3(2) of NI 52-110 (Controlled Companies), Section 3.4 of NI 52-110 (Events Outside Control of Member), Section 3.5 of NI 52-110 (Death, Disability or Resignation of Audit Committee Member) or Section 3.6 of NI 52-110 (Temporary Exemption for Limited and Exceptional Circumstances), or an exemption from NI 52-110, in whole or in part, granted under Part 8 of NI 52-110 (Exemptions) or on Section 3.8 of NI 52-110 (Acquisition of Financial Literacy).

AUDIT COMMITTEE OVERSIGHT

At no time since the commencement of the Company’s most recently completed financial year was a recommendation of the Audit Committee to nominate or compensate an external auditor not adopted by the Board of Directors.

PRE-APPROVAL POLICIES AND PROCEDURES

The Audit Committee has established a policy requiring pre-approval of all permissible non-audit services performed by the independent auditors. Such services may be approved at a meeting or by unanimous written consent of the Audit Committee, or the Audit Committee may delegate to one or more of its members the pre-approval of audit services and permissible non-audit services provided that any pre-approval by such member or members shall be presented to the Audit Committee at each of its scheduled meetings.

EXTERNAL AUDITOR SERVICE FEES

The aggregate fees billed by the Company’s external auditor in the last two fiscal years ended December 31, 2013 and 2012 are as follows:

Financial Year Ended	Audit Fees ⁽¹⁾	Audit-Related Fees ⁽²⁾	Tax-Related Fees ⁽³⁾	All Other Fees ⁽⁴⁾
December 31, 2013	\$602,880	\$65,000	\$131,402	\$118,812
December 31, 2012	\$564,552	\$61,500	\$76,930	\$9,781

Notes:

- (1) The aggregate audit fees billed for the audit of the financial statements for the financial year indicated, including with respect to the Company’s internal control over financial reporting.
- (2) Includes fees related to the review of the Company’s quarterly financial statements and any other type of related services by the Company’s external auditor that are reasonably related to the performance of the audit or review of financial statements and that are not reported above.
- (3) Includes fees related to assistance in filing annual tax returns and tax planning and any other fees billed for professional services rendered by external auditor for tax compliance, tax advice, and tax planning.
- (4) Includes other fees, such as fees related to review of documents required for offerings, any other products and services provided by external auditor, other than services reported above. These fees for 2013 also included fees billed for professional services rendered by the Company’s external auditor with respect to the Company’s transition to reporting in accordance with IFRS.

INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

There are no material interests, direct or indirect, of any director, executive officer, or any shareholder who beneficially owns, directly or indirectly, more than 10% of the outstanding common shares or any known associate or affiliate of such persons, in any transaction during the three most recently completed financial years or during the

current financial year which has materially affected or would materially affect the Company or a subsidiary of the Company.

TRANSFER AGENT AND REGISTRAR

The transfer agent and registrar for Golden Star's common shares is CST Trust Company at its principal offices at 1066 West Hastings Street, Suite 1600, Vancouver, British Columbia, Canada V6E 3X1 and 320 Bay Street, Toronto, Ontario, Canada M5H 4A6, telephone 1-800-387-0825.

MATERIAL CONTRACTS

The only material contracts entered into by the Company within the financial year ended December 31, 2013 or before such time that are still in effect, other than in the ordinary course of business, are as follows:

- The Loan. See "General Development of the Business —Three Year History".
- The Convertible Debentures. See "General Development of the Business —Three Year History".

INTEREST OF EXPERTS

The Company's independent auditors for fiscal 2013, PricewaterhouseCoopers LLP, Chartered Professional Accountants, have audited the consolidated financial statements of Golden Star for the two years ended December 31, 2013. In connection with their audit, PricewaterhouseCoopers LLP has confirmed that they are independent within the meaning of the Rules of Professional Conduct of the Institute of Chartered Accountants of Ontario.

Dr. Martin Raffield and Mr. Mitch Wasel are the QPs who supervised the preparation of the property descriptions contained herein and the Company's mineral reserve and mineral resource estimates as at December 31, 2013. Dr. Raffield and Mr. Wasel are officers of the Company and beneficially owned, directly or indirectly, less than 1% of any class of shares of the Company's outstanding shares at the time of the preparation of the mineral reserve and resource estimates and the Technical Reports.

ADDITIONAL INFORMATION

Additional information relating to the Company can be found on SEDAR at www.sedar.com. Additional information, including directors' and officers' remuneration and indebtedness, principal holders of the Company's securities and securities authorized for issuance under equity compensation plans is contained in the management information circular of the Company filed for its most recent annual meeting of shareholders. Additional financial information is provided in the Company's audited consolidated financial statements and the MD&A for the financial year ended December 31, 2013.

SCHEDULE “A”

GOLDEN STAR RESOURCES LTD.

AUDIT COMMITTEE CHARTER (Confirmed October 31, 2013)

There shall be a committee of the Board of Directors (the “Board”) of Golden Star Resources Ltd., a Canadian corporation (“Golden Star”), to be known as the Audit Committee (the “Committee”) whose membership, authority and responsibilities shall be as set out in this Charter.

PRIMARY FUNCTION

The primary function of the Committee is to assist the Board in fulfilling its oversight responsibilities, primarily through (a) overseeing the integrity of Golden Star’s financial statements and financial reporting process and Golden Star’s systems of internal accounting and financial controls; (b) overseeing the performance of the internal auditors; (c) recommending the selection of, retaining and monitoring the independence and performance of Golden Star’s outside auditors, including overseeing the audits of Golden Star’s financial statements, and approving any non audit services; and (d) facilitating communication among the outside auditors, management, internal auditors and the Board.

MEMBERSHIP

Following each annual meeting of the shareholders of Golden Star, the Board shall elect no fewer than three directors (the “Members”) to the Committee and shall appoint one of the Members to chair the Committee. Each Member shall meet the independence requirements imposed by applicable law and stock exchange requirements (the “Listing Rules”).

The Committee may form and delegate authority to subcommittees when and where appropriate.

Any Member may be removed from office or replaced at any time by the Board and shall cease to be a Member upon ceasing to be a director. Each Member shall hold office until the close of the next annual meeting of shareholders of Golden Star or until the Member ceases to be a director, resigns or is removed or replaced, whichever first occurs.

A Member shall be considered independent if (a) he or she is not currently and has not been during the past three years, an employee or executive officer of Golden Star or its subsidiaries, other than as allowed by law and the Listing Rules; (b) he or she has not accepted, directly or indirectly, any consulting, advisory or other compensatory fee from Golden Star or its subsidiaries other than in connection with serving on the Committee, any other Board committee or as a Board member; (c) he or she is not an “affiliated person” of Golden Star or any Corporation subsidiary as defined by rules of the Securities and Exchange Commission (“SEC”), including Rule 10A-3 under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and the Listing Rules; (d) he or she does not have a “material relationship” with Golden Star as defined by National Instrument 52-110 – *Audit Committees* (“NI 52-110”); and (e) he or she meets all other requirements for independence imposed by law and the Listing Rules from time to time and any requirements imposed by any applicable body having jurisdiction over Golden Star.

No Member shall have participated in the preparation of the financial statements of Golden Star or its subsidiaries at any time during the past three years.

All Members shall from and after the time of their respective appointments to the Committee have a practical knowledge of finance and accounting and be able to read and understand financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity that can reasonably be expected to be raised by Golden Star’s financial statements. In addition, Members may be required to participate in continuing education if required by applicable law or the Listing Rules.

At least one of the Members shall be a “financial expert” as defined in the applicable SEC and NYSE rules and regulations, and at least one of the Members shall meet the financial sophistication standards under the Listing Rules.

MEETINGS

The Committee shall meet as frequently as is necessary to carry out its responsibilities, but at least quarterly, at such times and location determined by the Committee chairman. The Committee is governed by the rules regarding meetings (including meetings by conference telephone or similar communications equipment), action without meetings, notice, waiver of notice, and quorum and voting requirements as are applicable to the Board.

The Committee is authorized and empowered to adopt its own rules of procedure not inconsistent with (a) any provision of this Charter, (b) any provision of the constating documents or bylaws of Golden Star, or (c) applicable law and Listing Rules.

In the absence of the Committee chairman for any meeting, the Members shall elect a chairman from those in attendance to act as chairman of that meeting.

REPORTING

Following meetings of the Committee, the Committee chairman shall report to the Board issues before the Committee and actions taken by the Committee.

RESPONSIBILITIES, DUTIES AND POWERS

1. The Committee’s principal responsibility is one of oversight. Golden Star’s management is responsible for preparing Golden Star’s financial statements, and Golden Star’s outside auditors are responsible for auditing and reviewing those financial statements. In carrying out these oversight responsibilities, the Committee is not providing any expert or special assurance as to Golden Star’s financial statements or any professional certification as to the outside auditors’ work.
2. The designation or identification of a Member as a “financial expert” or “financially literate” does not impose on such person any duties, obligations, or liability that are greater than the duties, obligations, and liability imposed on such person as a Member of the Committee and Board in the absence of such designation or identification; and the designation or identification of a Member as a “financial expert” or “financially literate” does not affect the duties, obligations, or liability of any other Member or Board member.
3. The Committee’s specific responsibilities and powers are as set forth below.

General Duties And Responsibilities

- Periodically review with management and the outside auditors the applicable law and the Listing Rules relating to the qualifications, activities, responsibilities and duties of audit committees and compliance therewith, and also take, or recommend that the Board take, appropriate action to comply with such law and rules.
- Review, at least annually, the Committee’s duties, responsibilities and performance and determine if any changes in practices of the Committee or amendments to this Charter are necessary.
- Meet separately at least annually with each of Golden Star’s senior management, including its Chief Financial Officer, Director of Internal Audit, Controller and outside auditors in separate executive sessions to discuss any matters that the Committee or each of these persons believes should be discussed privately.
- Establish procedures for: (a) the receipt, retention and treatment of complaints received by Golden Star regarding accounting, internal accounting controls or auditing matters; and (b) the confidential, anonymous submission by employees of Golden Star of concerns regarding questionable business conduct, accounting or auditing matters.

- Retain, at Golden Star's expense, independent counsel, accountants or other advisors for such purposes as the Committee, in its sole discretion, determines to be appropriate to carry out its responsibilities.
- Determine the necessary funding for the payment of: (a) compensation to outside auditors engaged for the purpose of preparing or issuing an audit report or performing other audit, review or attest services for Golden Star; (b) compensation to any advisors employed by the Committee and (c) ordinary administrative expenses of the Committee that are necessary or appropriate in carrying out its duties.
- Review and approve Golden Star's hiring policies regarding partners, employees, former partners and former employees of the present and former external auditor of Golden Star.
- Prepare or approve annual reports of the Committee for inclusion in the management information circular for Golden Star's annual meetings.
- Investigate any matter brought to its attention related to reports of improper business conduct, financial, accounting and audit matters and have full access to all books, records, facilities and personnel of Golden Star.
- Undertake such additional responsibilities as from time to time may be delegated to it by the Board, required by Golden Star's articles or bylaws or required by law or Listing Rules.

Auditor Independence

- Be directly responsible for the recommendation of, appointment of, compensation, retention, termination and oversight, subject to the requirements of applicable law, of the work of any outside auditor engaged by Golden Star for the purpose of preparing or issuing an audit report or performing other audit, review or attest services. The outside auditors shall report directly to the Committee.
- Receive from the outside auditors, review and discuss not less frequently than annually, a formal written statement delineating all relationships between the outside auditors and Golden Star which may impact the objectivity and independence of the outside auditors, and other applicable standards. The statement shall include a description of all services provided by the outside auditors and the related fees. The Committee shall actively discuss any disclosed relationships or services that may impact the objectivity and independence of the outside auditors and take appropriate action to satisfy itself of the independence of the auditors.
- Pre-approve all engagement letters and fees for all auditing services (including providing comfort letters in connection with securities offerings) and permitted non-audit services performed by the outside auditors, subject to any de minimus exception under Section 10A(i)(1)(B) of the Exchange Act and Section 2.4 under NI 52-110 and any rules promulgated thereunder. Pre-approval authority may be delegated to one or more independent Members, and any such Member shall report any decisions to the full Committee at its next scheduled meeting. The Committee shall not approve an engagement of outside auditors to render non-audit services that are prohibited by law or the Listing Rules.
- Obtain annual assurance from the outside auditors that they (a) have complied with Section 10A (Audit Requirements), of the Exchange Act and the rules promulgated thereunder, and (b) they know of no violation of Rule 13b2-2 (Representations and Conduct in Connection with the Preparation of Required Reports and Documents) of the Exchange Act having occurred.
- Review with the outside auditors, at least annually, the auditors' internal quality control procedures and any material issues raised by the most recent internal quality peer review of the outside auditors.

Internal Control

- Review annually the adequacy and quality of Golden Star's financial and accounting staff, the need for and scope of internal audit reviews, and the plan, budget and the designations of responsibilities for any internal audit.

- Review the performance and material findings of internal audit reviews.
- Review annually, evaluate and discuss with the outside auditors, management and internal audit, management's report on internal controls over financial reporting and the related auditor's report, when and as required by Section 404 of the Sarbanes-Oxley Act and National Instrument 52-109 - *Certification of Disclosure in Issuers' Annual and Interim Filings*. Discuss any significant deficiencies in the design or operation of the Company's internal controls, material weaknesses in internal controls, any fraud (regardless of materiality), as well as any significant changes in internal controls implemented by management during the most recent reporting period. Determine whether any internal control recommendations made by outside auditors have been implemented by management.
- Review major financial, operating and other risk exposures and the guidelines, policies and insurance that management has put in place to govern the process of assessing, controlling, managing and reporting such exposures. Receive reports from officers responsible for oversight of particular risks within the Golden Star upon change of any relevant policy, practice or circumstance within their department.
- Review and evaluate at least annually Golden Star's policies and procedures for maintaining and investing cash funds and for hedging (metals, foreign currency, etc.) as detailed in the corporate treasury policy. Approve any variations from the corporate treasury policy that may be required from time to time.
- Evaluate whether management is setting the appropriate tone at the top by communicating the importance of internal controls and ensuring that all supervisory and accounting employees understand their roles and responsibilities with respect to internal controls.

Annual And Interim Financial Statements

- Review, evaluate and discuss with Golden Star's management and outside auditors (a) the nature and extent of any significant changes in Canadian accounting principles including under international financial reporting standards ("IFRS"), (b) the application of accounting principles and significant accounting and reporting principles, (c) practices and procedures applied in preparing the financial statements, (d) all critical accounting policies and practices to be used, (e) any major changes to Golden Star's accounting or reporting principles, practices or procedures, including those required or proposed by professional or regulatory pronouncements and actions, as brought to its attention by management or the outside auditors, (f) information related to significant unusual transactions, including the business rationale for such transactions, and (g) any material written communications between the outside auditors and management, such as any management letter or schedule of unadjusted differences.
- Review and discuss with outside auditors alternative treatments of financial information under generally accepted accounting principles including IFRS, including pro forma financial information, the ramifications of each treatment and the method preferred by the outside auditors.
- Review the scope, plan and procedures to be used on the annual audit and receive confirmation from the outside auditors that no limitations have been placed on the scope or nature of their audit scope, plan or procedures.
- Review the results of any difficulties, differences or disputes with management encountered by the outside auditors during the course of the audit or reviews and be responsible for overseeing the resolution of such difficulties, differences and disputes.
- Review, evaluate and discuss with the outside auditors and management Golden Star's audited annual financial statements and other information that is to be included in Golden Star's annual information form, annual financial statements and the Form 40-F (or such other annual report as may be required by the rules and regulations of the SEC), including the disclosures in respect of Golden Star's "management's discussion and analysis of financial condition and results of operations", and the results of the outside auditors' audit of Golden Star's annual financial statements, including the accompanying notes, and the outside auditors' report, and determine whether to recommend to the Board that the financial statements are satisfactory in form and substance for filing on SEDAR and with the SEC. Review and discuss with the

outside auditors and management Golden Star's quarterly financial statements and other information to be included in Golden Star's quarterly management discussion and analysis of financial condition and results of operations, prior to filing such reports on SEDAR and with the SEC.

Related Party Transactions

- Review and oversee any transaction exceeding US\$120,000 or otherwise material to Golden Star involving Golden Star and a related party, and review and approve any other related party transactions.

Earnings Press Releases

- Review and discuss with management and the outside auditors prior to release all earnings press releases of Golden Star, as well as any financial information and/or earnings guidance, if any, to be provided by Golden Star to analysts and rating agencies.

Compliance With Law And Regulations

- Meet at least annually with management, and as appropriate outside auditors and outside counsel, to discuss compliance matters, including compliance with laws and regulations (including insider reporting) in all operating jurisdictions, any correspondence with, or other action by, regulators or governmental agencies, any employee complaints or published reports that raise concerns regarding Golden Star's financial statements, the effectiveness of Golden Star's systems for monitoring compliance with laws and regulations and the results of the investigation and follow-up (including disciplinary action) on any fraudulent acts or accounting irregularities.

Compliance With Corporate Business Conduct Or Ethics Policies

- Review with management, the outside auditors and legal counsel, as the Committee deems appropriate, actions taken to ensure compliance with any code of ethics or conduct for Golden Star established by the Board.
- Review at least annually Golden Star's Business Conduct Policy and any other code of ethics adopted by the Board to comply with Section 406 of the Sarbanes-Oxley Act and National Instrument 58-101 - *Disclosure of Corporate Governance Practices* and National Policy 58-201 - *Corporate Governance Guidelines* or otherwise.
- Evaluate whether management is setting the appropriate tone at the top by communicating the importance of Golden Star's ethics and conduct codes.

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