

GOLDEN STAR RESOURCES LTD

Form 10-K

February 25, 2009

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**SECURITIES AND EXCHANGE COMMISSION**

**Washington, DC 20549**

**FORM 10-K**

x **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934**  
For the Fiscal Year ended December 31, 2008

Commission file number 1-12284

**GOLDEN STAR RESOURCES LTD.**

(Exact Name of Registrant as Specified in Its Charter)

**Canada**  
(State or other Jurisdiction of  
Incorporation or Organization)  
**10901 West Toller Drive, Suite 300**

**98-0101955**  
(I.R.S. Employer  
Identification No.)  
**80127-6312**

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**Littleton, Colorado**  
(Address of Principal Executive Office) (Zip Code)  
**Registrant's telephone number, including area code (303) 830-9000**

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

<b>Title of Each Class</b>	<b>Name of each exchange on which registered</b>
<b>Common Shares</b>	<b>NYSE Alternext US</b>

**Securities registered or to be registered pursuant to Section 12(g) of the Act: None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 (the Act) during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. (See definition of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act). (Check one):

Large accelerated filer:  Accelerated filer:  Non-accelerated filer:  Smaller reporting company:

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act) Yes  No

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the Registrant was approximately \$594.7 million as of June 30, 2008, based on the closing price of the shares on the NYSE Alternext US as of that date of \$2.69 per share.

Number of Common Shares outstanding as at February 24, 2009: 236,005,311.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of our Definitive Proxy Statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A in connection with the 2009 Annual Meeting of Shareholders are incorporated by reference to Part III of this Annual Report on Form 10-K.

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**REPORTING CURRENCY, FINANCIAL AND OTHER INFORMATION**

All amounts in this report are expressed in United States ( US ) dollars, unless otherwise indicated. Canadian currency is denoted as Cdn\$.

Financial information is presented in accordance with accounting principles generally accepted in Canada ( Cdn GAAP or Canadian GAAP ). Differences between accounting principles generally accepted in the US ( US GAAP ) and Canadian GAAP, as applicable to Golden Star Resources Ltd., are explained in Note 25 to the Consolidated Financial Statements.

References to Golden Star, the Company, we, our, and us mean Golden Star Resources Ltd., its predecessors and consolidated subsidiaries, or any one or more of them, as the context requires.

**NON-GAAP FINANCIAL MEASURES**

In this Form 10-K, we use the terms total operating cost per ounce , total cash cost per ounce and cash operating cost per ounce which are considered Non-GAAP financial measures as defined in SEC Regulation S-K Item 10 and applicable Canadian securities law and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with Cdn GAAP or US GAAP. See Item 7 Management s Discussion and Analysis of Financial Condition and Results of Operations for a definition of these measures as used in this Form 10-K.

**STATEMENTS REGARDING FORWARD-LOOKING INFORMATION**

This Form 10-K contains forward-looking statements, within the meaning of Section 27A of the Securities Act of 1933, as amended and Section 21E of the Securities Exchange Act of 1934, as amended, and within the meaning of applicable Canadian securities law, with respect to our financial condition, results of operations, business prospects, plans, objectives, goals, strategies, future events, capital expenditures, and exploration and development efforts. Words such as anticipates, expects, intends, forecasts, plans, believes, seeks, estimates, may, and similar expressions (including negative and grammatical variations) tend to identify forward-looking statements.

Although we believe that our plans, intentions and expectations reflected in these forward-looking statements are reasonable, we cannot be certain that these plans, intentions or expectations will be achieved. Actual results, performance or achievements could differ materially from those contemplated, expressed or implied by the forward-looking statements contained in this Form 10-K.

These statements include comments regarding: anticipated attainment of gold production rates; production and cash operating cost estimates for 2009; anticipated commencement dates of mining and production, including at Prestea South and the Hwini-Butre property; estimated development costs for the Hwini-Butre property in 2009; anticipated ore delivery from and life of Prestea South pits; production capacity, production rates, and production costs; cash operating costs generally; gold sales; mining operations and recovery rates; ore delivery; ore processing; potential mine life; permitting; establishment and estimates of Mineral Reserves and Resources; geological, environmental, community and engineering studies; timing and results of feasibility studies; exploration efforts and activities; availability, cost and efficiency of mining equipment; ore grades; reclamation work; our anticipated investing and exploration spending in 2009; identification of acquisition and growth opportunities; power costs, the ability to meet total power requirements, commencement and completion of construction of the Bogoso power plant and access to the power plant once completed; retention of earnings from our operations; our objectives for 2009; and sources of and adequacy of liquidity to meet capital and other needs in 2009.

The following, in addition to the factors described under Risk Factors in Item 1A below, 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 from changes in operating costs and/or gold prices;

failure of exploration efforts to expand Mineral Reserves around our existing mines;

unexpected changes in business and economic conditions;

inaccuracies in Mineral Reserves and non-reserves 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;

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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 new Mineral Reserves;

weather, including drought or excessive rainfall in West Africa;

changes in regulatory frameworks based upon perceived climate trends;

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 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 and shipping incidents and losses;

accidents, labor disputes and other operational hazards;

environmental costs and risks;

unanticipated title issues;

competitive factors, including competition for property acquisitions;

possible litigation; and

availability of capital at reasonable rates or at all.

These factors are not intended to represent a complete list of the general or specific factors that could affect us. Your attention is drawn to other risk factors disclosed and discussed in Item 1A below. We undertake no obligation to update forward-looking statements except as may be required by applicable laws.

#### CONVERSION FACTORS AND ABBREVIATIONS

For ease of reference, the following conversion factors are provided:

1 acre	= 0.4047 hectare	1 mile	= 1.6093 kilometers
1 foot	= 0.3048 meter	1 troy ounce	= 31.1035 grams
1 gram per metric tonne	= 0.0292 troy ounce/short ton	1 square mile	= 2.59 square kilometers
1 short ton (2000 pounds)	= 0.9072 tonne	1 square kilometer	= 100 hectares
1 tonne	= 1,000 kg or 2,204.6 lbs	1 kilogram	= 2.204 pounds or 32.151 troy oz
1 hectare	= 10,000 square meters	1 hectare	= 2.471 acres

The following abbreviations may be used herein:

Au	= gold	m <sup>2</sup>	= square meter
g	= gram	m <sup>3</sup>	= cubic meter
g/t	= grams per tonne	mg	= milligram
ha	= hectare	mg/m <sup>3</sup>	= milligrams per cubic meter
km	= kilometer	T or t	= tonne
km <sup>2</sup>	= square kilometers	oz	= troy ounce
kg	= kilogram	ppb	= parts per billion
m	= meter	Ma	= million years

Note: All units in this report are stated in metric measurements unless otherwise noted.

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**GLOSSARY OF TERMS**

We report our Mineral Reserves to two separate standards to meet the requirements for reporting in both Canada and the United States ( US ). Canadian reporting requirements for disclosure of mineral properties are governed by National Instrument 43-101 ( NI 43-101 ). The definitions in NI 43-101 are adopted from those given by the Canadian Institute of Mining, Metallurgy and Petroleum. US reporting requirements for disclosure of mineral properties are governed by the Securities and Exchange Commission (the SEC ) Industry Guide 7. These reporting standards have similar goals in terms of conveying an appropriate level of confidence in the disclosures being reported, but embody differing approaches and definitions.

We estimate and report our Mineral Resources and Mineral Reserves according to the definitions set forth in NI 43-101 and modify them as appropriate to conform to SEC Industry Guide 7 for reporting in the U.S. The definitions for each reporting standard are presented below with supplementary explanation and descriptions of the similarities and differences.

**NI 43-101 DEFINITIONS**

<b>Mineral Reserve</b>	The term <b>Mineral Reserve</b> refers to the economically mineable part of a Measured or Indicated Mineral Resource demonstrated by at least a preliminary feasibility study. The study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. A Mineral Reserve includes diluting materials and allowances for losses that may occur when the material is mined.
<b>Proven Mineral Reserve</b>	The term <b>Proven Mineral Reserve</b> refers to the economically mineable part of a Measured Mineral Resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.
<b>Probable Mineral Reserve</b>	The term <b>Probable Mineral Reserve</b> refers to the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.
<b>Mineral Resource</b>	The term <b>Mineral Resource</b> refers to a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge.
<b>Measured Mineral Resource</b>	The term <b>Measured Mineral Resource</b> refers to that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.
<b>Indicated Mineral Resource</b>	The term <b>Indicated Mineral Resource</b> refers to that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.



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<b>Inferred Mineral Resource</b>	The term <b>Inferred Mineral Resource</b> refers to that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.
<b>Qualified Person</b> <sup>(1)</sup>	The term <b>qualified person</b> refers to an individual who is an engineer or geoscientist with at least five years of experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these, has experience relevant to the subject matter of the mineral project and the technical report and is a member in good standing of a professional association.

**SEC INDUSTRY GUIDE 7 DEFINITIONS**

<b>Reserve</b>	The term <b>reserve</b> refers to that part of a mineral deposit which could be economically and legally extracted or produced at the time of the reserve determination. Reserves must be supported by a <b>feasibility</b> <sup>(2)</sup> study done to bankable standards that demonstrates the economic extraction. ( <b>bankable standards</b> implies that the confidence attached to the costs and achievements developed in the study is sufficient for the project to be eligible for external debt financing.) A reserve includes adjustments to the in-situ tonnes and grade to include diluting materials and allowances for losses that might occur when the material is mined.
<b>proven reserve</b>	The term <b>proven reserve</b> refers to reserves for which (a) quantity is computed from dimensions revealed in outcrops, trenches, workings or drill holes; grade and/or quality are computed from the results of detailed sampling and (b) the sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape depth and mineral content of reserves are well-established.
<b>probable reserve</b>	The term <b>probable reserve</b> refers to reserves for which quantity and grade and/or quality are computed from information similar to that used for proven (measured) reserves, but the sites for inspection, sampling, and measurement are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for proven reserves, is high enough to assume continuity between points of observation.
<b>mineralized material</b> <sup>(3)</sup>	The term <b>mineralized material</b> refers to material that is not included in the reserve as it does not meet all of the criteria for adequate demonstration for economic or legal extraction.
<b>non-reserves</b>	The term <b>non-reserves</b> refers to mineralized material that is not included in the reserve as it does not meet all of the criteria for adequate demonstration for economic or legal extraction.
<b>exploration stage</b>	An <b>exploration stage</b> prospect is one which is not in either the development or production stage.
<b>development stage</b>	A <b>development stage</b> project is one which is undergoing preparation of an established commercially mineable deposit for its extraction but which is not yet in production. This stage occurs after completion of a feasibility study.
<b>production stage</b>	A <b>production stage</b> project is actively engaged in the process of extraction and beneficiation of Mineral Reserves to produce a marketable metal or mineral product.

(1.) Industry Guide 7 does not require designation of a qualified person.

(2.) For Industry Guide 7 purposes the feasibility study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.

(3.)

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This category is substantially equivalent to the combined categories of Measured Mineral Resource and Indicated Mineral Resource specified in NI 43-101.

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### **ADDITIONAL DEFINITIONS**

**alteration** - any change in the mineral composition of a rock brought about by physical or chemical means

**arsenopyrite** - a gray-to-white metallic mineral consisting of sulfide of iron and arsenic

**Archean** - the earliest eon of geologic time, dating from about 3800-2500 million years ago

**assay** - a measure of the valuable mineral content

**Au** - gold

**bio-oxidation** - a processing method that uses bacteria to oxidize refractory sulfide ore to make it amenable to normal oxide ore processing techniques such as carbon-in-leach

**Birimian** - a thick and extensive sequence of Proterozoic age metamorphosed sediments and volcanics first identified in the Birim region of southern Ghana

**cash operating cost** - total cash costs for the period less production royalties and production taxes

**CIL or carbon-in-leach** - an ore processing method involving the use of cyanide where activated carbon which has been added to the leach tanks is used to absorb gold as it is leached by cyanide

**craton** - a stable relatively immobile area of the earth's crust

**cut-off grade** - when determining economically viable Mineral Reserves, the lowest grade of mineralized material that qualifies as ore, i.e. that can be mined and processed at a profit

**cyanidation** - the process of introducing cyanide to ore to recover gold

**diamond drilling** - rotary drilling using diamond-set or diamond-impregnated bits, to produce a solid continuous core of rock sample

**dip** - the angle that a structural surface, a bedding or fault plane, makes with the horizontal, measured perpendicular to the strike of the structure

**diorite** - a group of intrusive rocks intermediate in composition between acidic and basic, characteristically composed of dark-colored amphibole, acid plagioclase, pyroxene and sometimes a small amount of quartz.

**disseminated** - where minerals occur as scattered particles in the rock

**doré** - unrefined gold bullion bars containing various impurities such as silver, copper and mercury, which will be further refined to near pure gold

**fault** - a surface or zone of rock fracture along which there has been displacement

**feasibility study** - a comprehensive study of a mineral deposit in which all geological, engineering, legal, operating, economic, social, environmental and other relevant factors are considered in sufficient detail that it could reasonably serve as the basis for a final decision by a financial institution to finance the development of the deposit for mineral production.

**formation** - a distinct layer of sedimentary rock of similar composition

**gabbro** - a group of dark-colored basic intrusive igneous rocks (the intrusive equivalent to basalt)

**gabbroic** - rock masses made up of gabbro and other similar dark-colored basic igneous rock

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**geochemistry** - the study of the distribution and amounts of the chemical elements in minerals, ores, rocks, solids, water, and the atmosphere

**geochemical prospecting** - a prospecting technique which measures the content of certain metals in soils and rocks used to define anomalies for further testing

**geophysics** - the study of the mechanical, electrical and magnetic properties of the earth's crust

**geophysical surveys** - a survey method used primarily in the mining industry as an exploration tool, applying the methods of physics and engineering to the earth's surface

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**geotechnical** - the study of ground stability

**graben** - an elongate, relatively depressed crustal unit or block that is bounded by faults on its long sides

**grade** - quantity of metal per unit weight of host rock

**greenstone** - a sequence of usually metamorphosed volcanic-sedimentary rock assemblages

**granodiorite** - a group of coarse-grained plutonic rocks intermediate in composition between quartz diorite and quartz monzonite containing quartz, plagioclase, potassium feldspar with biotite and hornblende

**granophyric** - of or pertaining to granophyre which is an igneous rock containing mainly of crystals of feldspar and quartz that have crystallized together

**heap leach** - a mineral processing method involving the crushing and stacking of an ore on an impermeable liner upon which solutions are sprayed to dissolve metals i.e. gold, copper etc.; the solutions containing the metals are then collected and treated to recover the metals

**host rock** - the rock in which a mineral or an ore body may be contained

**hydrothermal** - the products of the actions of heated water, such as a mineral deposit precipitated from a hot solution

**in-situ** - in its natural position

**laterite** - a reddish mixture of clayey iron and aluminum oxides and hydroxides formed by the weathering of basalt under humid, tropical conditions.

**life-of-mine** - a term commonly used to refer to the likely term of a mining operation and normally determined by dividing the tonnes of Mineral Reserve by the annual rate of mining and processing

**lithology** - the character of the rock described in terms of its structure, color, mineral composition, grain size and arrangement of its component parts, all those visible features that in the aggregate impart individuality to the rock

**mafic** - an adjective describing a silicate mineral or rock that is rich in magnesium and iron. Common mafic rocks include basalt and gabbro

**mapped or geological mapping** - the recording of geologic information including rock units and the occurrence of structural features, and mineral deposits on maps

**metavolcanic** - a volcanic rock which shows evidence of having been subjected to metamorphism

**mineral** - a naturally occurring inorganic crystalline material having a definite chemical composition

**mineralization** - a natural accumulation or concentration in rocks or soil of one or more potentially economic minerals, also the process by which minerals are introduced or concentrated in a rock

**National Instrument 43-101 or NI 43-101** - standards of disclosure for mineral projects prescribed by the Canadian Securities Administration

**non-refractory** - ore containing gold that can be satisfactorily recovered by basic gravity concentration or simple cyanidation

**outcrop** - that part of a geologic formation or structure that appears at the surface of the earth

**open pit or open cut** - surface mining in which the ore is extracted from a pit or quarry, the geometry of the pit may vary with the characteristics of the ore body

**ore** - mineral bearing rock that can be mined and treated profitably under current or immediately foreseeable economic conditions

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**ore body** - a mostly solid and fairly continuous mass of mineralization estimated to be economically mineable

**ore grade** - the average weight of the valuable metal or mineral contained in a specific weight of ore i.e. grams per tonne of ore

**oxide** - gold bearing ore which results from the oxidation of near surface sulfide ore

**Precambrian** - period of geologic time, prior to 700 million years ago

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**preliminary assessment** - a study that includes an economic analysis of the potential viability of Mineral Resources taken at an early stage of the project prior to the completion of a preliminary feasibility study

**preliminary feasibility study** and **pre-feasibility study** - each mean a comprehensive study of the viability of a mineral project that has advanced to a stage where the mining method, in the case of underground mining, or the pit configuration in the case of an open pit, has been established and an effective method of mineral processing has been determined, and includes a financial analysis based on reasonable assumptions of technical, engineering, legal, operating, economic, social, and environmental factors and the evaluation of other relevant factors which are sufficient for a qualified person, acting reasonably, to determine if all or part of the Mineral Resource may be classified as a Mineral Reserve

**Proterozoic** - the more recent time division of the Precambrian; rocks aged between 2,500 million and 550 million years old

**put** - a financial instrument that provides the right, but not the obligation, to sell a specified number of ounces of gold at a specified price

**pyrite** - common sulfide of iron

**QA/QC** - Quality Assurance/Quality Control is the process of controlling and assuring data quality for assays and other exploration and mining data

**quartz** - a mineral composed of silicon dioxide, SiO<sub>2</sub> (silica)

**RAB (rotary air blast) drilling** - relatively inexpensive and quick exploration drilling method returning rock chips from the drill hole using high pressure air

**RC (reverse circulation) drilling** - a drilling method using a tri-cone bit, during which rock cuttings are pushed from the bottom of the drill hole to the surface through an outer tube, by liquid and/or air pressure moving through an inner tube

**reef** - general term that typically refers to a tabular ore body

**refractory** - ore containing gold that cannot be satisfactorily recovered by basic gravity concentration or simple cyanidation

**rock** - indurated naturally occurring mineral matter of various compositions

**sampling and analytical variance/precision** - an estimate of the total error induced by sampling, sample preparation and analysis

**schist** - rocks derived from clays and muds which have passed through a series of metamorphic processes involving the production of shales, slates and phyllites as intermediate steps

**sediment** - particles transported by water, wind or ice

**sedimentary rock** - rock formed at the earth's surface from solid particles, whether mineral or organic, which have been moved from their position of origin and re-deposited

**sericitic** - a rock with abundant amounts of sericite, a white fine grained potassium mica occurring as an alteration product of various aluminosilicate minerals

**shear** - a form of strain resulting from stresses that cause or tend to cause contiguous parts of a body of rock to slide relatively to each other in a direction parallel to their plane of contact

**shield** - a large area of exposed basement rocks often surrounded by younger rocks, e.g. Guiana Shield

**stratigraphic** or **stratigraphically** - geology that deals with the origin and succession of strata

**strike** - the direction or trend that a structural surface, e.g. a bedding or fault plane, takes as it intersects the horizontal

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**strip** - to remove overburden in order to expose ore

**sulfide** - a mineral including sulfur (S) and iron (Fe) as well as other elements; metallic sulfur-bearing mineral often associated with gold mineralization

**tailings** - fine ground wet waste material produced from ore after economically recoverable metals or minerals have been extracted

**Tarkwaian** - a group of sedimentary rocks of Proterozoic age named after the town of Tarkwa in southern Ghana where they were found to be gold bearing



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**tectonic** - relating to the forces that produce movement and deformation of the Earth's crust

**tonne** - metric tonne, equal to 1,000 kilograms or 2,204.6 pounds

**total operating cost** - Cost of sales for the period after adjusting for inventory write-offs and operations-related foreign currency (gains)/losses

**total cash cost** - total operating costs for the period less mining related depreciation and amortization and accretion of asset retirement obligations costs

**transition ore** - is an ore zone lying between the oxide ore and the sulfide ore; ore material that is partially weathered and oxidized

**vein** - a thin, sheet-like crosscutting body of hydrothermal mineralization, principally quartz

**volcanics** - those originally molten rocks, generally fine grained, that have reached or nearly reached the earth's surface before solidifying

**volcano-sedimentary** - rocks composed of materials of both volcanic and sedimentary origin

**wall rock** - the rock adjacent to a vein

**weathering** - near surface alteration and oxidation of minerals and rocks by exposure to the atmosphere or ground water

**wire frame** - a mesh of triangles used to define a volume in generating computerized geological models

## PART I

### **Item 1. BUSINESS**

#### OVERVIEW OF GOLDEN STAR

We are a Canadian federally incorporated international gold mining and exploration company producing gold in Ghana, West Africa. We also conduct gold exploration in West Africa and in South America. 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 *Alberta Business Corporations Act* on March 7, 1984 as Southern Star Resources Ltd. Our principal office is located at 10901 West Toller Drive, Suite 300, Littleton, Colorado 80127, and our registered and records offices are located at 66 Wellington St. W, suite 3700, Box 20, Toronto Dominion Bank Tower - Toronto Dominion Centre, Toronto, ON M5K 1N6. Our fiscal year ends on December 31.

We own controlling interests in several gold properties in southern Ghana:

Through a 90% owned subsidiary, Golden Star Bogoso/Prestea Limited ( GSBPL ), we own and operate the Bogoso/Prestea gold mining and processing operations ( Bogoso/Prestea ) located near the town of Bogoso, Ghana. In July 2007, we commissioned a nominal 3.5 million tonnes per year processing facility at Bogoso that uses bio-oxidation technology to treat refractory sulfide ore. In addition Bogoso/Prestea has a carbon-in-leach processing facility which we expect to use to treat oxide ores as they are available. Bogoso/Prestea produced and sold 120,216 ounces of gold in 2007 and 170,499 ounces of gold in 2008.

Through another 90% owned subsidiary, Golden Star (Wassa) Limited ( GSWL ), we own and operate the Wassa open-pit gold mine and carbon-in-leach processing plant ( Wassa ), located approximately 35 kilometers east of Bogoso/Prestea. The design capacity of the carbon-in-leach processing plant at Wassa is nominally 3.0 million tonnes per annum but varies depending on the ratio of hard and soft ore. Wassa produced and sold 126,062 ounces of gold in 2007 and 125,427 ounces of gold in 2008. GSWL also owns the Hwini-Butre and Benso concessions ( HBB properties ) in southwest Ghana. We spent approximately \$40 million on the Benso

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property during 2008 developing the Benso mine which began shipping ore to Wassa in the third quarter of 2008. An extension of the haul road from Benso to Hwini-Butre commenced in the fourth quarter of 2008 and is expected to be commissioned during the second quarter of 2009. The Hwini-Butre and Benso concessions are located approximately 80 and 50 kilometers, respectively, by road south of Wassa.

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We also hold interests in several gold exploration projects in Ghana and elsewhere in West Africa including Sierra Leone, Burkina Faso, Niger and Côte d'Ivoire, and hold and manage exploration properties in Suriname, Brazil and French Guiana in South America.

**GOLD SALES AND PRODUCTION**

Ghana has been a significant gold producing country for over 100 years with AngloGold Ashanti's Obuasi mine and our inactive underground mine at Prestea historically being the two major producers. Several other areas in Ghana have also produced significant amounts of gold. Annual gold production in Ghana has exceeded two million ounces in recent years.

Currently all our gold production is shipped to a South African gold refinery in accordance with a long-term gold sales contract. Our gold is sold in the form of doré bars which average approximately 90% gold by weight with the remaining portion being primarily silver. 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, recession, fluctuation in the relative values of the US 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 afternoon fixed prices for gold per ounce on the London Bullion Market over the past ten years:

<b>Year</b>	<b>High</b>	<b>Low</b>	<b>Average</b>	<b>Average Price Received by Golden Star</b>
1999	326	253	279	293
2000	313	264	279	280
2001	293	256	271	271
2002	349	278	310	311
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
To February 24, 2009	990	813	894	

Data Source: [www.kitco.com](http://www.kitco.com)

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

**BUSINESS STRATEGY AND DEVELOPMENT**

Our business and development strategy has been focused primarily on the acquisition of producing and development-stage gold properties in Ghana and on the exploration, development and operation of these properties.

In line with our business strategy, we acquired Bogoso in 1999 and have operated a nominal 1.5 million tonne per year carbon-in-leach ( CIL ) processing plant most of the time since then to process oxide and other non-refractory ores ( Bogoso oxide plant ). In 2001, we acquired Prestea and mined surface deposits at Prestea from late 2001 to late 2006. In late 2002, we acquired Wassa, and constructed a new nominal 3.0 million tonne per annum CIL processing plant at Wassa, which began commercial operation in April 2005. In July 2007, we completed construction and development of a new nominal 3.5 million tonnes per annum processing facility at Bogoso/Prestea that uses bio-oxidation technology to treat refractory sulfide ore ( Bogoso sulfide plant ).

In late 2005, we acquired the HBB properties consisting of the Benso and Hwini-Butre properties. Development activities were initiated in late 2007 at Benso, and in the third quarter of 2008, Benso began trucking ore to the Wassa plant for processing.

Our overall objective is to grow our business to become a mid-tier gold producer with an annualized production rate in excess of 500,000 ounces. We continue to evaluate potential acquisition and merger opportunities that could further increase our annual gold production. However, we presently have no agreement or understanding with respect to any specific potential transaction.

In addition to our gold mining and development activities, we actively explore for gold in West Africa and South America, investing approximately \$15.8 million on such activities during 2008 and \$13.9 million in 2007. We are conducting regional reconnaissance projects in Ghana, Cote d'Ivoire and Sierra Leone and have drilled more advanced targets in Ghana, Niger and Burkina Faso. We are also evaluating a property in French Guiana and participating in a joint venture in Suriname.

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See Item 2 Description of Properties for additional details on our assets

**GOLD PRODUCTION AND UNIT COSTS**

The following table shows historical and projected gold production and cash operating costs.

<b>Production and Cost Per Ounce<sup>(1) (2)</sup></b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009 Projected</b>
<b>BOGOSO/PRESTEA (Sulfide and Oxide Plants)</b>				
Gold Sales (thousands of ounces)	103.8	120.2	170.5	200.0
Cash Operating Cost (\$/oz)	412	766	837	650
<b>WASSA (Wassa and HBB)</b>				
Production (thousands of ounces)	97.6	126.1	125.4	200.0
Cash Operating Cost (\$/oz)	475	444	554	450
<b>CONSOLIDATED</b>				
Consolidated Total Sales (thousands of ounces)	201.4	246.3	295.9	400.0
Consolidated Cash Operating Cost (\$/oz)	442	602	717	550

- (1) See Management's Discussion and Analysis of Financial Condition and Results of Operations for definitions of cash operating cost per ounce.
- (2) Gold production is shown on a 100% basis, which represents our current beneficial interest in gold production and revenues. The Government of Ghana, which has a 10% carried interest in Bogoso/Prestea, Wassa, and the HBB Properties would receive 10% of any dividends distributed from Bogoso/Prestea and Wassa once all capital costs have been repaid.
- (3) See Management's Discussion and Analysis of Financial Condition and Results of Operations for discussion of increasing trends in gold sales.

**MINERAL RESERVES**

Our Proven and Probable Mineral Reserves are estimated in conformance with definitions set out in NI 43-101. We have filed Technical Reports regarding the initial disclosure of Mineral Reserves and Mineral Resources for Bogoso / Prestea and Wassa/ HBB as required by NI 43-101. The Proven and Probable Mineral Reserves are those ore tonnages contained within economically optimized pits, configured using current and predicted mining and processing methods and related operating costs and performance parameters. We believe that our Mineral Reserves are estimated on a basis consistent with the definition of proven and probable reserves prescribed for use in the US by the US Securities and Exchange Commission and set forth in SEC Industry Guide 7. See our Glossary of Terms.

In estimating Mineral Reserves, we first design an economically optimized pit based on all operating costs, including the costs to mine. Since all material lying within the optimized pit will be mined, the cut-off grade used in determining our Mineral Reserves is estimated on the basis of material that, having been mined, is economic to transport and process without regard to primary mining costs (i.e. mining costs that were appropriately applied at the economic optimization stage).

The QA/QC controls program used in connection with the estimation of our Mineral Reserves consists of regular insertion and analysis of blanks and standards to monitor laboratory performance. Blanks are used to check for contamination. Standards are used to check for grade-dependence biases.

The following table summarizes our estimated Proven and Probable Mineral Reserves as of December 31, 2008 and December 31, 2007:

**Table of Contents****PROVEN AND PROBABLE MINERAL RESERVES**

Property Mineral Reserve Category	As at December 31, 2008			As at December 31, 2007		
	Tonnes (millions)	Gold Grade (g/t)	Ounces (millions)	Tonnes (millions)	Gold Grade (g/t)	Ounces (millions)
<b>Bogoso/Prestea(1)</b>						
Proven Mineral Reserves						
Non-refractory	1.2	1.89	0.08	0.5	2.10	0.03
Refractory	9.6	3.34	1.03	14.8	2.89	1.38
<b>Total Proven</b>	<b>10.8</b>	<b>3.18</b>	<b>1.11</b>	<b>15.3</b>	<b>2.86</b>	<b>1.41</b>
Probable Mineral Reserves						
Non-refractory	3.9	2.90	0.36	7.3	2.59	0.61
Refractory	9.1	3.07	0.90	22.1	2.66	1.89
<b>Total Probable</b>	<b>13.0</b>	<b>3.02</b>	<b>1.26</b>	<b>29.4</b>	<b>2.64</b>	<b>2.50</b>
Total Proven and Probable						
Non-refractory	5.1	2.66	0.43	7.8	2.55	0.64
Refractory	18.7	3.21	1.93	36.9	2.75	3.27
<b>Total Bogoso/Prestea Proven and Probable</b>	<b>23.8</b>	<b>3.09</b>	<b>2.36</b>	<b>44.8</b>	<b>2.72</b>	<b>3.91</b>
<b>Wassa(2)</b>						
Proven Mineral Reserves						
Non-refractory	0.4	1.01	0.01	0.7	0.99	0.02
Probable Mineral Reserves						
Non-refractory	11.3	2.47	0.90	16.9	1.82	0.99
<b>Total Wassa Proven &amp; Probable</b>	<b>11.7</b>	<b>2.42</b>	<b>0.91</b>	<b>17.6</b>	<b>1.79</b>	<b>1.01</b>
<b>Totals</b>						
Proven Mineral Reserves						
Non-refractory	1.6	1.68	0.09	1.2	1.45	0.06
Refractory	9.6	3.34	1.03	14.8	2.89	1.38
<b>Total Proven</b>	<b>11.2</b>	<b>3.10</b>	<b>1.12</b>	<b>16.1</b>	<b>2.78</b>	<b>1.44</b>
Probable Mineral Reserves						
Non-refractory	15.2	2.58	1.26	24.2	2.06	1.60
Refractory	9.1	3.07	0.90	22.1	2.66	1.89
<b>Total Probable</b>	<b>24.3</b>	<b>2.76</b>	<b>2.16</b>	<b>46.3</b>	<b>2.35</b>	<b>3.49</b>
Total Proven and Probable						
Non-refractory	16.8	2.49	1.35	25.4	2.03	1.66
Refractory	18.7	3.21	1.93	36.9	2.75	3.27
<b>Total Proven and Probable</b>	<b>35.5</b>	<b>2.87</b>	<b>3.28</b>	<b>62.3</b>	<b>2.46</b>	<b>4.93</b>

Notes to the Mineral Reserve Statement:

- (1) The stated Mineral Reserve for Bogoso/Prestea includes Prestea South, Pampe and Mampon.
- (2) The stated Mineral Reserve for Wassa includes the Hwini-Butre and Benso properties.
- (3) The stated Mineral Reserves have been prepared in accordance with Canada's National Instrument 43-101 Standards of Disclosure for Mineral Projects 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 Reserves are equivalent to Proven and Probable Reserves as defined by the SEC Industry Guide 7. Mineral Reserve estimates reflect the Company's reasonable expectation that all necessary permits and approvals will be obtained and maintained.
- (4) The 2008 and 2007 Mineral Reserves have been prepared under the supervision of Mr. Peter Bourke, P.Eng., Vice President Technical Services for the Company. Mr. Bourke is a Qualified Person as defined by Canada's National Instrument 43-101.
- (5) The Mineral Reserves at December 31, 2008 were estimated using a gold price of \$700 per ounce, which is approximately equal to the three year average gold price. At December 31, 2007 Mineral Reserves were estimated using a gold price of \$560 per ounce.
- (6) The terms non-refractory and refractory refer to the metallurgical characteristics of the ore and are defined in the Glossary of Terms. We plan to process the refractory ore in our sulfide bio-oxidation plant at Bogoso and to process the non-refractory ore using our more traditional gravity, flotation and/or cyanidation techniques.
- (7) Optimized pit parameters are based on historical and projected operating costs at Bogoso/Prestea, Wassa and Hwini-Butre and Benso. Metallurgical recoveries are based on historical performance or estimated from test work and typically range between 80% to 95% for non-refractory ores and between 70% to 85% for refractory ores. Pit designs are based on geotechnical criteria established by external consultants. Mining dilution and mining recovery vary by deposit and have been applied in estimating the Mineral Reserves. A government royalty of 3% is allowed as are other applicable royalties.

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(8) Mineral Reserves are expressed on a 100% basis. Our share of the Mineral Reserves is subject to the Government of Ghana's 10% carried interest which entitles it to a 10% dividend once our capital costs have been recovered.

(9) Numbers may not add due to rounding.

**Stockpiled Ores**

Stockpiled ores are included in the Mineral Reserves for both Bogoso/Prestea and Wassa. Details of the proven stockpiles included in the Mineral Reserves at year-end 2008 and 2007 are summarized in the table below.

**PROVEN STOCKPILES INCLUDED IN MINERAL RESERVES**

Property Mineral Reserve Category	As at December 31, 2008			As at December 31, 2007		
	Tonnes (millions)	Gold Grade (g/t)	Ounces (millions)	Tonnes (millions)	Gold Grade (g/t)	Ounces (millions)
<b>Bogoso/Prestea</b>						
Proven Stockpiles						
Non-refractory	0.0	2.32	0.00	0.1	2.49	0.01
Refractory	0.1	2.32	0.01	0.9	2.72	0.08
<b>Total Proven Stockpiles</b>	<b>0.1</b>	<b>2.32</b>	<b>0.01</b>	<b>1.0</b>	<b>2.69</b>	<b>0.09</b>
<b>Wassa</b>						
Proven Stockpiles						
Non-refractory	0.3	0.98	0.01	0.5	0.85	0.01
<b>Totals</b>						
Proven Stockpiles						
Non-refractory	0.4	1.10	0.01	0.6	1.18	0.02
Refractory	0.1	2.32	0.01	0.9	2.72	0.08
<b>Total Proven</b>	<b>0.5</b>	<b>1.36</b>	<b>0.02</b>	<b>1.5</b>	<b>2.09</b>	<b>0.10</b>

**Reconciliation of Mineral Reserves as shown under NI 43-101 and under SEC Industry Guide 7**

Since we report our Mineral Reserves to both NI 43-101 and SEC Industry Guide 7 standards, it is possible for our Mineral Reserve figures to vary between the two. Where such a variance occurs it will arise from the differing requirements for reporting Mineral Reserves. For example, NI 43-101 has a minimum requirement that Mineral Reserves be supported by a pre-feasibility study, whereas SEC Industry Guide 7 requires support from a detailed feasibility study that demonstrates that economic extraction is justified.

For the Mineral Reserves at December 31, 2008 and 2007, there is no difference between the Mineral Reserves as disclosed under NI 43-101 and those disclosed under SEC Industry Guide 7, and therefore no reconciliation is provided.



**Table of Contents****Reconciliation of Proven and Probable Mineral Reserves - December 31, 2007 to December 31, 2008**

Reconciliation	Tonnes (millions)	Contained Ounces (millions)	Tonnes (% of Opening)	Ounces (% of Opening)
<b>Opening Mineral Reserves at December 31, 2007</b>	62.3	4.93	100	100
Gold Price Increase(1)	31.2	1.54	50	31
Exploration Changes(2)	(1.0)	(0.10)	(2)	(2)
Mining Depletion(3)	(5.5)	(0.39)	(9)	(8)
Engineering (4)	(51.5)	(2.70)	(83)	(55)
Closing Mineral Reserves at December 31, 2008 (5)	35.5	3.28	57	67

Notes to the reconciliation of Mineral Reserves:

- (1) Gold Price Increase represents changes resulting from an increase in gold price used in the Mineral Reserve estimates from \$560 per ounce in 2007 to \$700 per ounce in 2008.
- (2) Exploration Changes include changes due to geological modeling, data interpretation and resource block modeling methodology as well as due to exploration discovery of new mineralization.
- (3) Mining Depletion represents 2007 Mineral Reserve mined and processed in 2008 before considering recovery losses and therefore does not correspond with 2008 actual gold production.
- (4) Engineering includes changes as a result of engineering facts such as changes in operating costs, mining dilution and recovery assumptions, metallurgical recoveries, pit slope angles and other mine design and permitting considerations.
- (5) Numbers may not add due to rounding.

**NON-RESERVES - MEASURED AND INDICATED MINERAL RESOURCES*****Cautionary Note to US Investors concerning estimates of Measured and Indicated Mineral Resources***

This section uses the terms Measured Mineral Resources and Indicated Mineral Resources. We advise US investors that while those terms are recognized and required by Canadian regulations, the US Securities and Exchange Commission does not recognize them. **US investors are cautioned not to assume that any part or all of the mineral deposits in these categories will ever be converted into Mineral Reserves.**

Our Measured and Indicated Mineral Resources which are reported in this Form 10-K **do not include** that part of our Mineral Resources that have been converted to Proven and Probable Mineral Reserves as shown above, and have been estimated in compliance with definitions set out in NI 43-101. Golden Star Resources has filed Technical Reports regarding the initial disclosure of Mineral Reserves and Mineral Resources for Bogoso/Prestea, Wassa and the HBB properties as required by NI 43-101 regulations. See our Glossary of Terms.

Except as otherwise provided, the total Measured and Indicated Mineral Resources for all properties have been estimated at an economic cut-off grade based on a gold price of \$700 per ounce for December 31, 2008 and \$640 per ounce for December 31, 2007 and on economic parameters deemed realistic. The economic cut-off grades for Mineral Resources are higher than those for Mineral Reserves and are indicative of the fact that the Mineral Resource estimates include material that may become economic under more favorable conditions including increases in gold price.

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The following table summarizes our estimated non-reserves - Measured and Indicated Mineral Resources as of December 31, 2008 as compared to the totals for December 31, 2007:

Property	Measured		Indicated		Measured & Indicated	
	Tonnes (millions)	Gold (g/t)	Tonnes (millions)	Gold (g/t)	Tonnes (millions)	Gold (g/t)
<b>Bogoso/Prestea(1)</b>	5.4	2.24	11.9	2.54	17.3	2.44
Prestea Underground			1.4	13.92	1.4	13.92
Wassa			3.9	0.89	3.9	0.89
Benso			0.8	2.24	0.8	2.24
Hwini-Butre (9)			1.0	3.43	1.0	3.43
Goulagou(8)			2.7	1.75	2.7	1.75
<b>Total 2008</b>	5.4	2.24	21.6	2.89	27.0	2.76
Total 2007	3.1	1.75	20.0	2.72	23.2	2.59

*Notes to Non-Reserves - Measured and Indicated Mineral Resources Table:*

(1) The Mineral Resources for Bogoso/Prestea include Pampe and Mampon.

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- (2) The Mineral Resources were estimated in accordance with the definitions and requirements of Canada's National Instrument 43-101. The Mineral Resources are equivalent to Mineralized Material as defined by the SEC Industry Guide 7.
- (3) The Mineral Resources, other than for Goulagou (see Note 8), were estimated using optimized pit shells at a gold price of \$800 per ounce from which the Mineral Reserves have been subtracted. 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. The Prestea Underground resource was estimated using an \$800 per ounce gold price and operating cost estimates. In 2007, we used a gold price of \$640 per ounce for the optimized shell.
- (4) The Mineral Resources are not included in and are in addition to the Mineral Reserves described above.
- (5) The Qualified Person for the estimation of the Mineral Resources is S. Mitchel Wasel, Golden Star Resources Vice President of Exploration.
- (6) Numbers may not add due to rounding.
- (7) Mineral Resources are shown on a 100% basis. The Mineral Resources shown above, other than for Goulagou, are subject to the Government of Ghana's 10% carried interest which entitles it to a 10% dividend once capital costs have been recovered, in the case of Bogoso/Prestea, Wassa and Hwini-Butre and Benso. The Mineral Resources at Prestea Underground are subject to the Government of Ghana's 19% minority interest, with Golden Star having an 81% beneficial interest. Goulagou is 10% owned by a third party.
- (8) The Mineral Resources for Goulagou were estimated using optimized pit shells at a gold price of \$560. Pit optimization parameters for the Goulagou Mineral Resources were estimated based on feasibility studies on other similar gold deposits in Burkina Faso, Golden Star's experience in West Africa, and from limited metallurgical test work on the Goulagou ores. Heap leach processing was the assumed processing option for this deposit.
- (9) The Hwini Butre Indicated Mineral Resource includes 0.2 million tonnes at a grade of 5.31 g/t which occurs below the \$800 pit shells and which we believe may be exploitable by under ground mining.

**NON-RESERVES - INFERRED MINERAL RESOURCES**

***Cautionary Note to US Investors concerning estimates of Inferred Mineral Resources***

This section uses the term Inferred Mineral Resources. We advise US investors that while this term is recognized and required by NI 43-101, the US Securities and Exchange Commission does not recognize it. Inferred Mineral Resources have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of Inferred Mineral Resources will ever be upgraded to a higher category. In accordance with Canadian rules, estimates of Inferred Mineral Resources cannot form the basis of feasibility or other economic studies. **US investors are cautioned not to assume that part or all of the Inferred Mineral Resource exists, or is economically or legally mineable.**

Our Inferred Mineral Resources have been estimated in compliance with definitions defined by NI 43-101. Golden Star Resources has filed Technical Reports regarding the initial disclosure of Mineral Reserves and Mineral Resources for Bogoso/Prestea, Wassa and the HBB properties as required by NI 43-101. See our Glossary of Terms.

The total Inferred Mineral Resources for all our open pit deposits are those ore tonnages contained within economically optimized pits, configured using current and predicted mining and processing methods and related operating costs and performance parameters. Except as otherwise indicated, the Inferred Mineral Resources for all properties have been estimated at economic cut-off grades based on gold prices of \$800 per ounce and \$640 per ounce as of December 31, 2008 and December 31, 2007, respectively, and economic parameters deemed realistic.

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The following table summarizes estimated non-reserves Inferred Mineral Resources as of December 31, 2008 as compared to the total for December 31, 2007:

<b>Property</b>	<b>Tonnes (millions)</b>	<b>Gold Grade (g/t)</b>
Bogoso/Prestea(1)	2.5	3.43
Prestea Underground	5.0	7.44
Benso	0.4	4.04
Hwini-Butre (10)	0.5	4.53
Chichiwelli Manso	1.0	2.12
Goulagou(8)	0.5	1.02
Paul Isnard(9)	9.2	2.51
<b>Total 2008</b>	19.1	3.94
Total 2007	20.2	3.68

*Notes to Non-Reserves - Inferred Mineral Resources Table*

- (1) The Inferred Mineral Resources for Bogoso/Prestea incorporates Pampe and Mampon.

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- (2) The Inferred Mineral Resources were estimated in accordance with the definitions and requirements of Canada's National Instrument 43-101. Inferred Mineral Resources are not recognized by the United States Securities and Exchange Commission.
- (3) The Inferred Mineral Resources, other than for Goulagou and Paul Isnard, were estimated using an optimized pit shell at a gold price of \$800 per ounce from which the Mineral Reserves have been subtracted. 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. For Goulagou and Paul Isnard optimized pit shells at a gold price of \$560 and \$640 were respectively used. In 2007, we used a gold price of \$640 per ounce for the optimized shell. The Prestea Underground resource was estimated using an \$800 per ounce gold price and operating cost estimates.
- (4) The Inferred Mineral Resources are not included in and are in addition to the Mineral Reserves described above.
- (5) The Qualified Person for the estimation of the Inferred Mineral Resources is S. Mitchel Wasel, Golden Star Resources Vice President of Exploration.
- (6) Numbers may not add due to rounding.
- (7) Inferred Mineral Resources are shown on a 100% basis. The Inferred Mineral Resources shown are subject to the Government of Ghana's 10% carried interest which entitles it to a 10% dividend once our capital costs have been recovered, in the case of Bogoso/Prestea, Wassa, Hwini-Butre and Benso. The Inferred Mineral Resources at Prestea Underground, are subject to the Government of Ghana's 19% minority interest, with Golden Star currently having an 81% beneficial interest.
- (8) Pit optimization parameters for the Goulagou Inferred Mineral Resources were estimated based on feasibility studies on other similar gold deposits in Burkina Faso, Golden Star's experience in West Africa, and from limited metallurgical test work on the Goulagou ores. Heap leach processing was the assumed processing option for this deposit.
- (9) This property is held in trust for Golden Star. See Note 15 to our financial statements in this December 31, 2008 Form 10-K.
- (10) The Hwini Butre Inferred Mineral Resource includes 0.2 million tonnes at a grade of 5.08 g/t which occurs below the \$800 pit shells and which we believe may be exploitable by under ground mining.

### **EMPLOYEES**

As of December 31, 2008, Golden Star, including our majority-owned subsidiaries, had approximately 2,400 full time employees and approximately 400 contract employees, for a total of 2,800, a 30% increase from the approximately 2,150 people employed at the end of 2007. The 2008 total includes 18 employees at our principal office in Littleton, Colorado and 7 exploration personnel in South America.

### **CUSTOMERS**

Currently all of our gold production is shipped to a South African gold refinery in accordance with a long-term gold sales contract. The refiner arranges for sale of the gold on the day it is shipped from the mine site and we receive payment for gold sold approximately three working days or less 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 customers would not materially delay or disrupt revenues.

### **COMPETITION**

Our competitive position depends upon our ability to successfully and economically explore, acquire and develop 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,

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cost of operation, and the acquisition and retention of qualified employees. We compete with other mining companies and other natural mineral resource companies in the acquisition, exploration, financing and development of new mineral properties. Many of these companies are larger and better capitalized than we are. There is significant competition for the 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, geologists, geophysicists and other technical personnel.

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**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 but mine plans are formulated to compensate for the periodic decreases and typically mining operations are not materially affected by rainy seasons. Exploration activities in Ghana and in the Guiana Shield in South America are generally timed to avoid the rainy periods to ease transportation logistics associated with wet roads and swollen rivers. In 2006 and early 2007, decreases in rainfall in the Volta River catchment basin resulted in reduced electric power availability from a hydroelectric power plant that produces a major portion of Ghana's electric power. During 2008 rainfall in Ghana was within the normal range and adequate power was available.

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### **AVAILABLE INFORMATION**

We make available, free of charge, on or through our Internet website, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Our Internet address is www.gsr.com. Our Internet website and the information contained therein or connected thereto are not intended to be, and are not incorporated into this Annual Report on Form 10-K.

### **ITEM 1A. RISK FACTORS** **RISK FACTORS**

*You should consider the following discussion of risks in addition to the other information contained in or included by reference in this Form 10-K. In addition to historical information, the information in this Form 10-K contains forward-looking statements about our future business and performance. Our actual operating results and financial performance may be very different from what we expect as of the date of this Form 10-K. The risks below address material factors that may affect our future operating results and financial performance.*

#### **Financial 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 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 adversely impacts our revenues, profits and cash flows. In particular, a sustained low gold price could:

cause suspension of our mining operations at Bogoso/Prestea, Wassa and Benso 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 payment obligations;

halt or delay the development of new projects; and

reduce funds available for exploration, with the result that depleted Mineral Reserves are not replaced.

Furthermore, the need to reassess the feasibility of any of our projects because of declining gold prices could cause substantial delays or could interrupt operations until a reassessment could be completed. Mineral Reserve estimations and life-of-mine plans using significantly lower gold prices could result in reduced estimates of Mineral Reserves and non-reserve Mineral Resources and in material write-downs of our investment in mining properties and increased amortization, reclamation and closure charges.

**We may incur substantial losses in the future that could make financing our operations and business strategy more difficult.**



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We experienced a net loss of \$120.1 million in 2008 and have experienced net losses in other prior fiscal years. Numerous factors, including declining gold prices, lower than expected ore grades or higher than expected operating costs, and impairment write-offs of mine property and/or exploration property costs, could cause us to continue to be unprofitable in the future. Future operating losses could make financing our operations and our business strategy, including pursuit of the growth opportunities anticipated at the HBB properties, or raising additional capital, difficult or impossible and could materially and adversely affect our operating results and financial condition.

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

We had total consolidated debt and liabilities as of December 31, 2008 of \$266.1 million, including \$0.6 million payable to banks; \$31.1 million in equipment financing loans; \$93.7 million (\$125.0 million including the loan's equity portion) in convertible senior unsecured debentures maturing November 30, 2012; \$74.2 million of current trade payables, accrued current and other liabilities; \$33.1 million of future taxes; \$1.7 million of derivative liabilities and a \$31.7 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;

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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 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.

**Our estimates of Mineral Reserves and non-reserves could be inaccurate, which could cause production and costs to differ from estimates.**

There are numerous uncertainties inherent in estimating Proven and Probable Mineral Reserves and non-reserve Measured, Indicated and Inferred Mineral Resources, including many factors beyond our control. The accuracy of estimates of Mineral Reserves and non-reserves 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 non-reserves may not be accurate, and Mineral Reserves and non-reserves may not be able to be mined or processed profitably.

Fluctuation 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 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 non-reserves, or of our ability to extract these Mineral Reserves and non-reserves, 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.**

While we have received significant infusions of cash from sales of equity and debt, our only current significant internal sources of funds are operational cash flows from Bogoso/Prestea and Wassa/HBB. The anticipated continuing exploration and development of our properties are expected to require significant expenditures over the next several years as we continue to focus on development of the HBB properties and Prestea South and other deposits at Bogoso. Although we expect sufficient internal cash flow to cover all of these projects, such expenditures may exceed free cash flows generated by Bogoso/Prestea and Wassa/HBB in future years and therefore we may require additional external debt or equity financing. 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. In light of the current limited global availability of credit, 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. As a result, we could lose our interest in, or could be forced to sell, some of our properties.

**We are subject to fluctuations in currency exchange rates, which could materially adversely affect our financial position.**

Our revenues are in United States dollars, and we maintain most of our working capital 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/Prestea and Wassa/HBB is based on the Ghanaian currency, the Cedi. We are required to convert into Cedis 20% of the foreign exchange proceeds that we receive from selling gold, but the Government of Ghana could require us to convert a higher percentage of gold sales proceeds into Cedis in the future. In addition, we currently have future obligations that are payable in South African Rand and Euros, and receivables collectible in Euros. 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, Euros, the South African Rand or other currencies. Consequently, operation and development of our properties could be more costly than anticipated.

In the past, we have entered into forward purchase contracts for South African Rand and Australian dollars to hedge expected purchase of capital assets in South Africa and Australia. As of February 24, 2009 we had no currency-related derivatives.

**Our hedging activities might be unsuccessful and incur losses.**

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During the third and fourth quarters of 2008, we entered into gold forward price contracts in response to a significant increase in recent gold price volatility. All of these contracts had terms of 180 days or less. All of the contracts entered into in the third quarter expired by December 31, 2008. All of the contracts entered into during the fourth quarter of 2008 will expire by March 31, 2009. These hedges and any further 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 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.

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### **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 ore body 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 not to realize the anticipated benefits of an acquisition of properties or companies, and could have a material adverse effect on our current business and financial condition 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. We are currently involved in litigation relating to crop compensation, transfer of ownership of an exploration project and to the validity of various concession contracts and settlements related to the Hwini-Butre concession. We believe these actions are frivolous and entirely without merit, and we are vigorously defending against these action on numerous grounds. We are also 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.

### **Operational Risks**

#### **We are subject to a number of operational events 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 ore grades

unexpected changes in ore 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;

slope failures and failure of pit walls or dams;

fire;

marine and transit damage and/or loss;

changes in the regulatory environment; 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.

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### **Our mining operations are subject to numerous environmental laws, regulations, 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.

A significant portion of our Dunkwa property and portions of our Wassa property, as well as some of our exploration properties in Ghana, 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 the south end of the Prestea property and from the Mampon property as well as the other planned activities will require mining, environmental, and other permits and approvals from the Government of Ghana. These permits and approvals may not be issued on a timely basis or at all, and such permits and approvals, when issued, may be subject to requirements or conditions with which it is burdensome or uneconomic to comply. Such permitting issues could adversely affect our projected production commencement dates, production amounts and costs.

Our pit at Dumasi will require us to implement a resettlement action plan and reach agreements with the residents that live close to the pits. These negotiations could be difficult or unsuccessful and may materially affect our ability to access these Mineral Reserves and Mineral Resources.

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 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 various jurisdictions.

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 materially and adversely affect 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, including our recent development at Benso and expansion at Bogoso/Prestea 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, 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;

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environmental and community considerations, 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 might not prove to be accurate.

The management of mine development projects and start up of new operations are complex. Completion of development and the commencement of production may be subject to delays, as occurred at Wassa and in connection with the Bogoso sulfide expansion project. 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;

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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;

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 (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, financial condition, results of operations and cash flow. Because of these uncertainties, and others identified in these Risk Factors, our production estimates at Bogoso/Prestea and Wassa may not be achieved.

**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 reserves, but our estimates may not be correct. In addition, mine life would be shortened if we expand production or if we lose 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 significant 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, including the exploration of the Prestea Underground and other projects, 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. As a result 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 and the development of mines.

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### **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 properties producing, or 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/Prestea, Wassa, Prestea Underground and HBB properties. As of February 2009, our mineral rights at the Paul Isnard gold property in French Guiana and various concession contracts and settlements related to the Hwini-Butre concession are being challenged by third parties. Although we are vigorously defending these challenges, we cannot guarantee that title to our properties will not be challenged. 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 a small number of 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 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;

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

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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.

### **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 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 our convertible notes 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.

**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;

labor 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.

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/Prestea and Wassa are currently our only sources of internally generated operating cash flows.

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### **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 given the current disruptions in the world financial markets. If we are unable to meet any such increased requirements or negotiate an acceptable solution with the Ghanaian government, 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.**

In accordance with the Minerals and Mining Act, 2006 (Act 703), 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/Prestea mine, the HBB properties, the Wassa mine, and the Prestea Underground property.

Under Act 703, the Government 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 various 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;

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, is difficult to control, can disrupt our business and can expose us to liability.**

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We continue to experience illegal mining activity on our mining and exploration properties. Most of this activity is on our Prestea South and Hwini-Butre 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 non-reserves, the presence of illegal miners can lead to project delays and disputes and delays regarding the development or operation of commercial gold deposits. The work performed by the 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 and 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 such requirements could adversely affect operating and development costs, the timing of operations, the ability to operate and financial results.

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### **Failure to maintain effective internal controls in accordance with Section 404 of the Sarbanes-Oxley Act could have a material adverse effect on our business and share price.**

We are required to annually test our internal control over financial reporting to satisfy the requirements of Section 404 of the Sarbanes-Oxley Act of 2002, which requires annual management assessments of the effectiveness of our internal control 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 Alternext US, the Toronto Stock Exchange 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 common shares 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 common shares;

the size of the public float in our common shares 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 the NYSE Alternext US and the Toronto Stock Exchange further reducing market liquidity.

As a result of any of these factors, the market price of our common shares at any given point in time might not accurately reflect our long-term value. The stock markets in general have recently suffered major declines. 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, certain of our directors and our experts.**

Golden Star is a Canadian corporation. Substantially all of our assets are located outside of Canada and the United States, and our head office is located in the United States. It might not be possible for investors to collect judgments obtained in Canadian courts predicated on the civil liability provisions of Canadian or U.S. securities legislation. It could also be difficult for you to effect service of process in connection with any action brought in the United States upon our directors and officers. Execution by United States courts of any judgment obtained against us, or any of the directors or executive officers, in the United States courts would be limited to our assets or the assets of such persons in the United States. The enforceability in Canada of United States judgments or liabilities in original actions in Canadian courts predicated solely upon the civil liability provisions of the federal securities laws of the United States is doubtful.

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

Holders of our common shares, warrants or options to purchase our common shares or convertible debentures (collectively, Equity Securities) who are U.S. taxpayers should consider that we could be considered to be a passive foreign investment company ( PFIC ) for U.S. federal income tax purposes. Although we believe that we were not a PFIC for 2008, and do not expect to become a PFIC in 2009 and in the foreseeable future, the tests for determining PFIC status depend upon a number of factors, some of which are beyond our control, and can be subject to



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uncertainties, and we cannot assure you that we will not be a PFIC. We undertake no obligation to advise holders of our Equity Securities as to our PFIC status for any year.

If we are a PFIC for any year, any person who holds our Equity Securities who is a U.S. person for U.S. income tax purposes (a U.S. Holder ) and whose holding period for those Equity Securities 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 Equity

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Securities (including certain transfers that would otherwise be tax free) also would be treated as an 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 warrants or options or the conversion of convertible debentures includes the holder's holding period in the warrant, option or convertible debt.

The portion of any excess distribution (including gains treated as excess distributions) allocated to the current year would be includible as ordinary income in the current year. The portion of any excess distribution allocated to a prior 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 accelerate the recognition of taxable income and may result in the recognition of ordinary income. The QEF and mark-to-market elections are not available to U.S. Holders with respect to warrants or options to acquire our common shares or convertible debentures. 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 to investors who are 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 Equity Securities if we are a PFIC.

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

The conversion price of our 4% Convertible Senior Unsecured Debentures due November 2012 is \$5.00 and represented a 31% premium over the closing price of the common shares on the NYSE Alternext US on October 23, 2007, the day prior to commencement of the debenture offering. In the event 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 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 February 24, 2009, approximately 7.6 million common shares are issuable on exercise of options to purchase common shares at prices ranging from Cdn\$1.02 to Cdn\$9.07. In addition, 25.0 million common shares are currently issuable upon conversion of our 4% Convertible Senior Unsecured Debentures due in November 2012 (additional shares may be issuable in certain circumstances). During the life of the options, 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, 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 Condition may impact our ability to obtain financing and may negatively affect our asset values and results of operations.**

Current global financial conditions have been characterized by increased volatility and several financial institutions have either gone into bankruptcy or have had to be rescued by governmental authorities. Access to public financing has been negatively impacted by both the rapid decline in value of sub-prime mortgages and the liquidity crisis affecting the asset-backed commercial paper market. These factors may impact our ability to obtain equity or debt financing in the future on favorable terms. 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, our operations could be adversely impacted and the trading price of the common shares may be adversely affected.

### **ITEM 1B. UNRESOLVED STAFF COMMENTS**

None



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**ITEM 2. DESCRIPTION OF PROPERTIES  
MAPS OF OPERATIONS AND PROPERTIES**

**The maps below** show the locations of Bogoso, Prestea, Wassa, Pampe, the HBB properties and Mampon in Ghana, and various exploration properties in other areas of West Africa. These properties are described in further detail below.

**Table of Contents****PROPERTY STATUS TABLE**

The chart below summarizes information regarding our more significant properties, which are described in further detail below:

						2008
Property		Type of Interest	Expiry Date	Property size	Status	Comments
Bogoso (Ghana)	Bogoso Mining Lease 1	Government granted mining leases held by a 90% owned subsidiary	8/20/2017	50 km <sup>2</sup>	Active	Mining stage
	Bogoso Mining Lease 2		8/15/2018	45 km <sup>2</sup>		
Bogoso (Ghana)	Bogoso Prospecting License	Prospecting License	3/10/2004 Renewal under application	58.52 km <sup>2</sup>	Inactive	Exploration stage
Prestea (Ghana)	Prestea Mining Surface Lease	Government granted mining lease held by a 90% owned subsidiary	6/28/2031	115.5 km <sup>2</sup>	Active	Mining and development stage
Prestea Underground(Ghana)	Prestea Underground Mining Lease	Government granted mining lease held by a 81% beneficial interest	7/6/2031	115.5 km <sup>2</sup> lies directly below Prestea surface lease	Active	Exploration stage
Wassa (Ghana)	Wassa Mining Lease	Government granted mining lease held by a 90% owned subsidiary	9/16/2022	52.89 km <sup>2</sup>	Active	Mining stage
Wassa Regional (Ghana)	Accra	Prospecting license	5/9/2009	15.68 km <sup>2</sup>	Active	Exploration stage
	Newtown Adaase	Reconnaissance license	10/10/2006 Renewal process in advance stage	45.6km <sup>2</sup>		Exploration stage
	Ateiku-Twifo	Reconnaissance license (RL)	Processing of RL (new) in advance stage	39.45km <sup>2</sup>		Exploration stage

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				2008		
Property	Type of Interest	Expiry Date	Property size	Status	Comments	
	Dwabem (Saftric)	Reconnaissance license	2/7/2007, renewal under application	24.05km <sup>2</sup>		Exploration stage
	Nyenase	Reconnaissance license	8/17/2005, renewal under application	129.3km <sup>2</sup>		Exploration stage
Dunkwa-Asikuma (Ghana)		Prospecting license	12/20/2008  Renewal under application,	66 km <sup>2</sup>	Active	Development stage
Dunkwa-Mansiso (Ghana)		Prospecting license	9/3/2009	56 km <sup>2</sup>	Active	Exploration stage
Akropong (Ghana)	Alkebulan	Prospecting licenses	7/15/2006  Renewal under application	25.04 km <sup>2</sup>		Exploration stage
	Joset		11/15/2008	40.25km <sup>2</sup>	Active	
	Kobra-Riyadh East		Renewal under application	138 km <sup>2</sup>		
	Moseaso		01/10/2010	43.2 km <sup>2</sup>	Active	
Pampe	Pampe Mining Lease	Mining lease	6/3/2012	50 km <sup>2</sup>	Active	Mining and exploration stage
Hwini-Butre (Ghana)		Mining lease	01/10/2012	40 km <sup>2</sup>	Active	Development stage/advanced exploration stage
Manso (Ghana)		3 Prospecting licenses and joint venture agreements	Various	221.11 km <sup>2</sup>	Active	Exploration stage
Benso Subriso Block (Ghana)		Mining lease	09/26/2011	20.38 km <sup>2</sup>	Active	Mining and Exploration stage
Benso-Amantin & Chichiwelli Blocks (Ghana)		Prospecting license	9/6/2008  Renewal under application	22.46 km <sup>2</sup>	Active	Exploration Stage

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Ghana Regional	Abura	Reconnaissance license joint venture	9/6/2008 Renewal under application	129.05km <sup>2</sup>	Active	Exploration Stage
	Adubrim	Reconnaissance license	12/03/2008  Renewal under application	85.17km <sup>2</sup>		
	Afranse	Prospecting license joint venture	7/24/2009	77.46km <sup>2</sup>		
	Hotopo	Reconnaissance licences-joint venture	12/19/2008  Renewal under application	18.06km <sup>2</sup>		
	Osenese	Prospecting license joint venture	9/7/2008,  Renewal under application	66.21 km <sup>2</sup>		
	Takoradi North	Reconnaissance license	6/6/2008	1282.43 km <sup>2</sup>		
Côte d'Ivoire Regional	Amelekia	Exploration License	8/10/2010	810.05 km <sup>2</sup>	Active	Exploration Stage
	Abengourou	Exploration License	8/10/2010	998.03 km <sup>2</sup>		
	Agboville	Exploration License	8/10/2010	999.7 km <sup>2</sup>		
	Seguela	Prospecting License	1/9/2010	988 km <sup>2</sup>		
Mano JV (Sierra Leone)	Sonfon South	Mano River Resources Inc	8/3/2007  Renewal under application	160 km <sup>2</sup>	Active	Exploration stage
	Sonfon North	Mano River Resources Inc	8/3/2007  Renewal under application	100 km <sup>2</sup>		Exploration stage

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					2008	
Property		Type of Interest	Expiry Date	Property size	Status	Comments
Burkina Faso	Goulagou	Agreement allow earning up to 90%	11/19/2011	181.25 km <sup>2</sup>	Active	Optioned to Riverstone Resources Inc.
	Rounga	Agreement allow earning up to 90%	10/9/2012	240 km <sup>2</sup>		Optioned to Riverstone Resources Inc.
	Youba	Agreement allow earning up to 90%	10/17/2017	61.75 km <sup>2</sup>		Optioned to Riverstone Resources Inc. Formerly part of the optioned Goulagou permit
	Tougou	Exploration Permit 100% held by GSE-BF (GSR subsidiary)	8/21/2017	128 km <sup>2</sup>		Exploration stage
	Bangodo	Exploration Permit 100% held by GSE-BF (GSR subsidiary)	10/17/2017	249.77 km <sup>2</sup>		Exploration stage
	Kampouaga	100 % held by GSR-BF (GSR Subsidiary)	10/17/2017	243.99 km <sup>2</sup>		Exploration stage
Niger	Deba	n/a	12/27/2010	742 km <sup>2</sup>	Active	Exploration stage
	Tialkam	n/a	12/27/2010	1100 km <sup>2</sup>		
French Guiana	Bon Espoir PER	Exploration permit	10/31/2006	465.5 km <sup>2</sup>	Active	Exploration stage
French Guiana (cont d)			Renewal under application			
	Paul-Isnard PER	Exploration permit	11/30/2007	140 km <sup>2</sup>	Active	Exploration stage
			Renewal under application			
		Mining lease	12/31/2018	1.32 km <sup>2</sup>		



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	Paul-Isnard Concession					
	Paul-Isnard Concession	Mining lease	12/31/2018	5 km <sup>2</sup>		
	Paul-Isnard Concession	Mining lease	12/31/2018	18.47 km <sup>2</sup>		
	Paul-Isnard Concession	Mining lease	12/31/2018	16.07 km <sup>2</sup>		
	Paul-Isnard Concession	Mining lease	12/31/2018	23.92 km <sup>2</sup>		
	Paul-Isnard Concession	Mining lease	12/31/2018	25 km <sup>2</sup>		
	Paul-Isnard Concession	Mining lease	12/31/2018	25 km <sup>2</sup>		
	Paul-Isnard Concession	Mining lease	12/31/2018	25 km <sup>2</sup>		
	Brazil Regional:	Various exploration permits and applications	Various	980 km <sup>2</sup>	Active	Exploration stage
Suriname	Saramacca	Various government granted rights and option agreements with property owners	Rights of exploration renewals and transfers pending under option agreements	536 km <sup>2</sup>	Active	Exploration stage joint venture with Newmont
	Benzdorp South	Various government granted rights and option agreements with property owners	Rights of exploration and rights of reconnaissance	970 km <sup>2</sup>	Active	Farm out agreement of underlying option rights

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**MINING IN GHANA**

**Ghanaian Ownership and Special Rights**

Ghana is situated on the West Coast of Africa, approximately 600 kilometers north of the equator on the Gulf of Guinea. Accra, the capital city of Ghana, is located on the Prime Meridian. Following a period as a British colony, Ghana achieved independence in 1957 and it is now a republic with a democratically elected government. Ghana has a population of approximately 21 million people. English is 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 in the western region.

Rights to explore and develop a mine are administered by the Minister of Lands, Forestry and Mines through the Minerals Commission, a governmental organization designed to promote and control the development of Ghana's mineral wealth in accordance with the Minerals and Mining Act of 2006 (Act 703), which came into effect in March 2006 (The 2006 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. Production must typically begin within two years of the date of grant of a mining lease.

The 2006 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 and obtain its consent prior to acquiring a controlling share.

Under the 2006 Act, the Government of Ghana continues to hold a 10% carried interest in all companies that hold mining leases. The 10% 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 \$476 million and \$188 million, respectively, to Golden Star or its subsidiaries as of December 31, 2008 for past advances and interest on these advances, and these amounts would be repaid before payment of any dividends.

Under the 2006 Act, the Government of Ghana continues to be entitled to acquire a special or golden share in any mining company at any time for no consideration or for such consideration as the Government and the mining company might agree. The special share would constitute a separate class of shares with such rights as the Government and the mining company might agree. 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 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;

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.

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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 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 preemption was exercised. The Government of Ghana has agreed to take no preemptive 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 Requirements**

The holder of a mining lease is required to pay quarterly a royalty of not less than 3% and not more than 6% of gold revenues. The Government of Ghana determines the royalty percentage each year based on the ratio that the operating margin bears to the value of gold produced from a mining lease in that year. Based on the Mineral Royalty Regulation currently in force, the royalty is 3% when

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the operating ratio is 30% or less, and increases 0.075% for each 1% increase in operating ratio until it reaches a maximum of 6% at an operating ratio of 70%. In 2008, 2007 and 2006 the royalty rate for GSBPL was 3% of revenues and GSBPL paid \$4.5 million, \$2.6 million and, \$1.9 million, respectively. The royalty payments from GSBPL have not exceeded 3% per annum in any year. GSWL paid a 3% royalty of \$3.3 million, \$2.7 million and \$1.5 million in 2008, 2007 and 2006, respectively.

### **Ghanaian Environmental Regulations**

Environmental matters in Ghana, including those related to mining, fall under the oversight of the Environmental Protection Agency ( EPA ), with some responsibilities lying with the Minerals Commission. The EPA has rules and guidelines that govern environmental impact statements, environmental management plans, mine operations, and mine closure and reclamation, to which our operations are subject. Additional provisions governing surface uses by our stakeholders are provided in the 2006 Act.

In 2005, pursuant to a reclamation bonding agreement between the EPA and GSWL, we bonded \$3.0 million to cover future reclamation obligations at Wassa. To meet the bonding requirements, we established a \$2.85 million letter of credit and deposited \$0.15 million of cash with the EPA. Pursuant to a further bonding agreement between the EPA and GSBPL, we bonded \$9.5 million in early 2006 to cover our future obligations at Bogoso/Prestea. To meet these requirements, we deposited \$0.9 million of cash with the EPA with the balance covered by a letter of credit. In 2008 the bond was increased by \$0.5 million to cover the Pampe mining site.

In 2008, the EPA required Bogoso/Prestea to resubmit their Environmental Management Plan ( EMP ) with an updated estimate of the reclamation and closure costs prepared by a third party consultant. A consultant was commissioned to prepare the cost estimate and the EMP was submitted to the EPA in February, 2009. We are currently waiting for the EPA 's review and comments.

Reclamation activities were ongoing at both Wassa and Bogoso/Prestea during 2008 to rehabilitate disturbed lands and reduce some of the long-term liabilities including re-profiling waste dumps, capping hard rock with oxide materials, topsoil spreading and planting for both slope stabilization and long-term rehabilitation. Our consolidated reclamation expenditures totaled \$1.2 million, \$0.9 million and \$1.1 million respectively in 2008, 2007 and 2006. We believe all our operations in Ghana are currently in substantial compliance with all environmental requirements.

### **Environmental Laws and Regulations**

All phases of our operations are subject to environmental laws and regulations in the various jurisdictions where we operate. These regulations may define, among other things, air and water quality standards, waste management requirements, and land rehabilitation obligations. In general, environmental legislation is evolving to require stricter operating standards, more detailed social and environmental assessments of proposed projects, and a heightened degree of responsibility for companies and their officers, directors, and employees for social responsibility and safety. Future changes in environmental regulations, will likely affect the way in which we operate, resulting in higher environmental and social operating costs that may affect the viability of our operations.

We use hazardous chemicals in our gold recovery activities that result in the generation of environmental contaminants that may adversely affect air and water quality. To mitigate these effects, we have established objectives in meeting, or surpassing, regulatory requirements in all of our exploration, development, operation, closure, and post-closure activities so that the local environment and 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 have:

Educated our leaders and managers so that they are committed to creating a culture that makes social and environmental matters an integral part of the short- and long-term operations and performance management systems;

Worked with our employees so that they understand and accept environmental and social policies and procedures as a fundamental part of the business;

Signed the International Cyanide Management Code ( the Code );

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Implemented the Code aiming to ensure that our established policies and procedures adhere to the Code's best practices;

Established, or are in the process of establishing, 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 performance requirements into all relevant contracts;

Provided training to employees and contractors in environmental matters;

Regularly prepared, reviewed, updated and implemented site-specific environmental management and closure plans;

Worked to progressively rehabilitate disturbed areas in conformance with the site-specific environmental management and closure plans;

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Consulted local communities and regulators to provide us with input to our environmental management policies and procedures;

Regularly reviewed our environmental performance; and

Publicly reported our social, health, safety, and environmental performance.

Governmental approvals and permits are currently required and will likely continue to be required in the future in connection with our operations. To the extent that such approvals are required and not obtained, we could be limited or prohibited from continuing our mining and processing operations or from proceeding with planned exploration or the development of mineral properties.

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

## **CORPORATE SOCIAL RESPONSIBILITY**

In keeping with our health and safety, environmental, 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 incorporating broader stakeholder comments and addressing their concerns in our developing projects and ongoing operations. We believe our success as an employer, as a neighbor and as an important part of the local economy is furthered by contributing to the diversification of the local economy with projects such as our Oil Palm Project and by our support of community-driven projects through our Development Foundation. During 2008, the Development Foundation worked with the local Community Mine Consultation Committees to fund and sponsor several community driven projects including a medical clinic, scholarships for local students, a police station and school buildings.

The Oil Palm Project continued to attract much favorable attention during 2008 and approximately doubled in size during the year. In July 2008, the first Bogoso plantation plots were handed over to plot holders in a ceremony attended by the Minister of Lands, Forestry, and Mines, and presided over by the Paramount Chief. In all, 69 people were assigned 4 hectare plots within the plantation. Further plantation development and oversight will remain with Golden Star but the ongoing work on the farms and profits generated will be assigned to the individual plot holders. To further transparency, a full suite of procedures governing the operation of Project is now being implemented. For its community efforts, the Project was designated as the first project outside South Africa to be honored with the prestigious Nedbank Green Mining Award.

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 the Oil Palm Project, we will 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.

## **OPERATING PROPERTIES**

### **The Bogoso/Prestea Gold Mine**

Bogoso/Prestea consists of a gold mining and processing operation located along the Ashanti Trend in western Ghana, approximately 35 kilometers northwest of the town of Tarkwa. It can be reached by paved roads from Tarkwa, a local commercial center, and from Accra, the capital of Ghana. Bogoso and Prestea are adjoining mining concessions that together cover approximately 40 kilometers of strike along the southwest trending Ashanti gold district. Mining areas at Bogoso and Prestea are linked to the Bogoso processing plants by paved and gravel haul-roads located on our properties.

There are two ore processing facilities at Bogoso/Prestea, and open pit mining methods are employed. Ore is hauled by truck from the pits to the processing plants. Equipment and facilities include a nominal 1.5 million tonne per annum oxide ore processing plant, a nominal 3.5 million tonne per annum sulfide ore processing plant, a fleet of haul trucks, loaders and mining support equipment. In addition, there are numerous ancillary support facilities including warehouses, maintenance shops, roadways, administrative offices, an employee residential complex, power and water supply systems, a medical clinic, and a tailings disposal facility.

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We acquired Bogoso in 1999 and Prestea in 2001. Historical gold output at the Bogoso processing plant has typically ranged between 90,000 and 150,000 ounces per year in recent years but increased to 170,499 ounces in 2008 following start-up of the new bio-oxidation sulfide plant in mid-2007. See the Operating Results for Bogoso/Prestea section below for additional details on historical production and operating costs.

In addition to the two plants and mining complex at Bogoso/Prestea, this property incorporates the Pampe deposit which is located approximately 19 kilometers west of the Bogoso processing plants. As at December 31, 2008 we have estimated a Probable Mineral Reserve of 1.3 million tonnes at an average gold grade of 3.67 g/t and we are mining at this property using open pit mining methods. Pampe ore is hauled by truck to the Bogoso processing plants.

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In addition to the Bogoso/Prestea complex described above, Bogoso/Prestea assets include the following non-operating properties:

**Mampon** - The Mampon deposit is located approximately 35 kilometers north of the Bogoso processing plant. Mampon is an undeveloped gold deposit with as at December 31, 2008, an estimated 1.2 million tonnes of Probable Mineral Reserves at an average gold grade of 5.48g/t, which we plan to mine by open pit mining methods. It is expected that Mampon ore will be hauled by truck to the Bogoso processing plants starting at some time after 2009.

**Prestea South** - This property is discussed in more detail below under the DEVELOPMENT PROPERTIES section.

**Prestea Underground** - This property is discussed in more detail below under the EXPLORATION STAGE PROPERTIES IN GHANA section.

### ***Geology at Bogoso/Prestea***

Bogoso/Prestea lies within the Eburnean Tectonic Province in the West African Precambrian Shield along the Ashanti Trend located immediately south of the town of Bogoso. The area is dominated by a major northeast-southwest trending structural fault zone referred to as the Ashanti Trend, which hosts the Prestea, Bogoso, Obuasi and Konongo gold deposits, among others. Parallel to the Ashanti Trend is the Akropong Trend, which hosts the Ayanfuri deposit. The Akropong Trend is about 15 kilometers west of the Ashanti Trend in the Bogoso region, and gradually converges with it at Obuasi forming the basis for the Obuasi mine, which is owned and operated by AngloGold Ashanti Limited.

### ***Mineral Reserves at Bogoso/Prestea***

At December 31, 2008, Bogoso/Prestea had Proven and Probable Mineral Reserves, including the Probable Mineral Reserves at Prestea South, Mampon and Pampe, of 23.8 million tonnes grading 3.09 g/t containing approximately 2.4 million ounces of gold before any reduction for recovery losses and the Government of Ghana's 10% minority interest. See the Proven and Probable Mineral Reserves table and the Non-Reserves Measured and Indicated Mineral Resource table in Item 1 of this Form 10-K. Bogoso/Prestea's Mineral Reserves declined during 2008 from 3.9 million ounces to 2.4 million ounces primarily due to increases in operating costs during the year, especially in the cost of electric power. Lower gold recovery assumptions also contributed to the decrease in Bogoso/Prestea's Mineral Reserves, as did mining depletion of ore during the year. Most of the ounces of gold removed from Mineral Reserves have now been reclassified as Mineral Resources. Future decreases in operating costs and/or increases in gold prices could result in portions of these Mineral Resource being reclassified as Mineral Reserves.

### ***Operating Results for Bogoso/Prestea***

The following tables show historical operating results:

<b>Bogoso/Prestea Non-refractory ore</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
Non-refractory ore processed (t)	359,669	1,429,309	1,493,948
Grade milled (g/t)	2.38	2.04	3.56
Recovery %	66.0	73.3	60.4
<b>Bogoso/Prestea Refractory ore<sup>(2)</sup></b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
Refractory ore processed (t)	2,736,379	1,640,318	
Grade milled (g/t)	2.82	2.44	
Recovery %	66.5	52.1	
<b>Bogoso/Prestea Total</b>	<b>2008</b>	<b>2007<sup>(2)</sup></b>	<b>2006</b>
Total gold sales (oz) <sup>(1)</sup>	170,499	120,216	103,792
Cash operating costs (\$/oz)	837	766	412

(1) Gold sales are shown on a 100% basis, which represents our current beneficial interest in gold production and revenues. Once all capital has been repaid, the Government of Ghana would receive 10% of the dividends from the subsidiary owning Bogoso/Prestea.



(2) The Bogoso/Prestea sulfide processing plant was placed in service in July 2007.

***Exploration at Bogoso/Prestea***

Exploration efforts in 2008 concentrated on delineating and testing targets in an effort to provide additional feed for the Bogoso processing plants. We continued with the interpretation and interrogation of the time domain electro magnetic (VTEM) airborne geophysical data. Ranking of targets has been initiated and is expected to be finalized in 2009. Target ranking will be based on zones with favorable geology and structure coinciding with zones of high conductivity. We expect this exercise to generate targets for drill testing over the next several years, commencing in 2009.

**Table of Contents****Bogoso/Prestea Outlook for 2009**

During 2009 we expect that the Bogoso sulfide plant will continue to process refractory sulfide ores from the pits at Bogoso/Prestea. The oxide plant at Bogoso and the Pampe oxide mining operation is scheduled to remain on care and maintenance until late in 2009, when we anticipate start-up of oxide ore mining at Prestea South, subject to receiving environmental permits. Once oxide ore mining begins at Prestea South, mining is also expected to resume at Pampe with ore from both properties being transported by truck to the Bogoso oxide plant for processing. We expect to eventually source additional oxide ore from the Mampon deposit. We expect Bogoso/Prestea will produce approximately 200,000 ounces of gold in 2009 at an average cash operating cost of approximately \$650 per ounce.

**The Wassa Gold Mine*****Overview of the Wassa Gold Mine***

We own and operate the Wassa gold mine located approximately 35 kilometers east of Bogoso/Prestea in southwest Ghana. The property was acquired in 2001 from a former owner who had operated the mine as a heap leach gold mine. The property, as now constituted, includes a series of open-pits, a nominal 3.0 million tonne per annum CIL processing plant with its crushing and grinding circuits, a fleet of mining equipment, ancillary facilities including an administration building, a warehouse, a maintenance shop, a stand-by power generating facilities and an employee residential complex. We completed construction of the CIL processing plant in early 2005, and the plant was placed in commercial service on April 1, 2005.

In mid-2008, ownership of the Benso and Hwini-Butre concessions was transferred from St. Jude Resources to GSWL. In the third quarter of 2008, following completion of a 50 km haul road, we started mining at Benso and began hauling its ore to Wassa for processing. In the fourth quarter of 2008 we began construction of a 30 km haul road south to the Hwini-Butre ore deposit and expect to begin mining there in the second half of 2009. Ore grades at both Benso and Hwini-Butre are significantly higher than at Wassa and are expected to contribute to increased gold output at Wassa.

***Geology at Wassa***

Wassa lies within the Eburnean Tectonic Province in the West African Precambrian Shield. The Proterozoic rocks that comprise most of the West African craton and host the major gold mineralization in Ghana are subdivided into met sedimentary and volcanic rocks of the Birimian and Tarkwaian sequences. Wassa is hosted within the same Birimian volcano-sedimentary greenstone package as Bogoso/Prestea. However, Wassa is situated on the southeastern flank of the Ashanti Belt while Bogoso and Prestea occur along the northwestern flank.

***Mineral Reserves at Wassa***

As at December 31, 2008, Wassa, including the HBB properties, had Proven and Probable Mineral Reserves of 11.7 million tonnes with an average grade of 2.42 g/t containing approximately 0.9 million ounces of gold before recovery losses and any reduction for the Government of Ghana's 10% minority interest. See the Proven and Probable Mineral Reserves table and the Non-Reserves Measured and Indicated Mineral Resource table in Item 1 of this Form 10-K. While Wassa's Mineral Reserves declined during 2008, mostly due to mining depletion, this was partially offset by drilling at the HBB ore bodies which added 90,000 ounces.

***Operating Results for Wassa***

The following table displays historical operating results at Wassa.

<b>Wassa Operating Results</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
Ore processed (t)	3,187,230	3,752,376	3,690,672
Grade milled (g/t)	1.33	1.17	0.90
Recovery %	93.6	92.0	88.8
Total gold production (oz)	125,427	126,062	97,614
Cash operating cost (\$/oz)	554	444	474

***Exploration at Wassa***

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Exploration activities in the Wassa area during 2008 concentrated on the Wassa and Benso mining leases, as well as Chichiwelli. At Wassa and Benso, development drilling targeted inferred Mineral Resources within optimized pit shells with the objective of converting these Mineral Resources to the indicated Mineral Resource category. Benso development drilling was conducted in two

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phases with the first phase being incorporated into an updated mineral resource estimate done mid-year which was used for the 2008 year end Mineral Reserve and Mineral Resource statements. Further development drilling at the remaining Wassa and Hwini Butre-Benso pits has been budgeted for the first half of 2009.

Drilling activities at Chichiwelli continued during 2008, and an initial Mineral Resource estimate has been completed. The Chichiwelli resource is located approximately 28 km from the Wassa plant, with the newly completed Benso haul road passing within one kilometer of the areas drilled so far. While exploration results to date have been encouraging, further development would require preparation of a feasibility study to fully evaluate the area's potential and to determine if transporting the material to the Wassa plant for processing is economically viable.

### **Wassa Outlook for 2009**

Wassa is expected to process approximately 3,500 tonnes per day of HBB ore in 2009, with the balance of the plant feed to come from the local Wassa pits. Wassa/HBB is expected to produce approximately 200,000 ounces in 2009 at an average cash operating cost of approximately \$450 per ounce.

## **DEVELOPMENT PROPERTIES**

### **Prestea South Properties**

The Prestea South project is located on the Ashanti Trend, southwest of the town of Prestea and approximately 20 km southeast of the Bogoso processing plants. Gold mineralization is associated with the same Ashanti Trend fault structure that continues to the north through our Bogoso and Prestea properties. While various sections of the mineral resources at Prestea South were mined by prior owners using underground methods, the surface oxide mineral resources have not been extensively mined, and there are sulfide mineral resources accessible by open pit mining. Our exploration efforts in recent years have identified several deposits along this trend which can be mined by surface mining methods.

We received mining permits for this area in 2008. We have applied for environmental permits and expect to receive them during 2009. If the permits are approved in a timely basis following the hearing, Prestea South development is expected to begin in 2009 with production anticipated to start in late 2009. The Prestea South oxide ore will be transported to Bogoso and processed through the Bogoso oxide plant. The Prestea South sulfide ore will be processed through the Bogoso sulfide plant.

As at December 31, 2008, the Prestea South properties had a total Probable Mineral Reserve of 3.7 million tonnes grading 2.71g/t containing approximately 0.32 million ounces before any reduction for the Government of Ghana's 10% minority interest. There was an increase in illegal mining activity at the Prestea South properties during 2008, and the impact on mineral reserves is not known. Approximately 50% of the Mineral Reserve is non-refractory. Ore from the Prestea South pits will be hauled by truck to the Bogoso oxide processing plant along a 20 km haul road.

### **HBB Properties**

The HBB properties, which lie at the southeastern end of the Ashanti trend in Ghana, were acquired in December 2005. Hwini-Butre is located approximately 80 kilometers south of Wassa and occupies an area of approximately 40 square kilometers. Benso is located directly north of the Hwini-Butre property and about 50 kilometers south of Wassa. We currently hold a 90% interest in the Benso property (through our subsidiaries) and the Government of Ghana holds a 10% carried interest.

The HBB properties lie along the southeastern flank of the Birimian-aged (lower Proterozoic) Ashanti Belt, along the same structural trend as Wassa. The southwestern part of the Hwini-Butre property covers a syn-volcanic mafic intrusive that is bound to the east and north by the Butre volcanic sequence. The Butre volcanic sequence, which also underlies the Benso property further north, mostly comprises volcanic flows with minor meta sediment horizons. The main regional structural orientation trends northeasterly and extensive north to northwest trending cross-cutting fracture systems are also well developed. The latter host much of the mineralization in the district. Mineralization on the Hwini-Butre property is typically associated with shallow west-dipping narrow quartz veins and their alteration halos, with coarse free gold associated with sulfides and within the quartz veins.

We initiated development of the Benso mine in late 2007. During 2008, the haul road was completed to Wassa, a truck maintenance facility was completed, as was employee housing and offices. We began mining and shipping Benso ore to Wassa at the end of the third quarter of 2008, and a total of 291,000 tonnes of ore averaging 4.14 g/t was hauled from Benso to the Wassa plant by December 31, 2008.

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An extension of the haul road 30 km south to the Hwini-Butre pits was commenced in the fourth quarter of 2008, and is expected to be commissioned during the second quarter of 2009. Benso project capital expenditures totaled approximately \$40 million during 2008, and we expect to spend approximately \$10 million on the Hwini-Butre road and pit development in 2009.

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Wassa plant throughput was lower in the fourth quarter of 2008 than in earlier periods, due to ball mill repairs and to the higher clay and moisture content of the initial ore from Benso which required blending with fresh Wassa ores. No significant metallurgical difficulties were encountered with the Benso ore, and predicted recoveries were achieved from the tonnages processed to date.

## **EXPLORATION STAGE PROPERTIES IN GHANA**

### **Prestea Underground**

The Prestea Underground is an inactive underground gold mine located to the south of Bogoso and adjacent to the town of Prestea. The property consists of two surface access shafts and extensive underground workings and support facilities. Access to the mine site is via a paved road from Tarkwa and Accra maintained by the Government of Ghana.

From the 1870s to 2002 when mining ceased following an extended period of low gold prices, the Prestea Underground operations produced approximately nine million ounces of gold, the second highest production of any mine in Ghana. The underground workings are extensive, reaching depths of approximately 1,450 meters and extending along a strike length of approximately nine kilometers. Underground workings can currently be accessed via two surface shafts, one near the town of Prestea (Central Shaft) and a second approximately four kilometers to the southwest at Bondaye.

GSBPL now holds a 90% ownership in the Prestea Underground with the Government of Ghana holding a 10% ownership in Prestea Underground as well as its 10% holding in GSBPL, resulting in an 81% beneficial ownership by Golden Star.

Exploration activities at the Prestea Underground in 2008 were limited to a surface infill drilling program targeting the Plant North Main Reef Footwall on 25 meter drill spacing. This drilling was completed early in 2008, and our consultant completed a Mineral Resource update for this target. Upon completion of the drilling and remodeling of this target the Prestea Underground was put on care and maintenance. A \$44.5 million impairment loss was recorded for this project at the end of 2008. See Item 7 Management's Discussion and Analysis of Operations below for additional discussion of the impairment.

### ***Geology of Prestea Underground***

The Prestea Underground deposits are located along the same Ashanti Trend structure as are our Bogoso deposits a few kilometers to the north and our Prestea South deposits a few kilometers to the south with most of the gold mineralization found in a narrow tabular fault zone which dips steeply to the northwest.

### **Akropong Trend Properties**

The Akropong properties are located along a fault structure which roughly parallels the Ashanti Trend and is located approximately 20 km to the west of our Bogoso processing plant. Our exploration continues to focus on smaller satellite deposits which can easily be trucked to Bogoso for processing as we have been doing with material from Pampe, located on the southern end of these properties. We expect to drill several soil anomalies delineated in previous exploration programs at Joset-Moseaso and Afransi during 2009.

### **Dunkwa Properties**

The Dunkwa Properties, which are located directly north of our Bogoso Mining lease consist of two prospecting licenses, Mansiso and Asikuma, the latter hosting our Mampon ore deposit.

The Mansiso and Asikuma concessions were both flown as part of the VTEM airborne geophysical survey and, as with Bogoso and Prestea, have been included in the 2008 interpretation and analysis of the VTEM data. The chargeability response from this survey has enhanced the understanding of the major structures running through the property and several new targets have been identified which we plan to follow up in 2009.

## **OTHER EXPLORATION STAGE PROPERTIES IN AFRICA**

### ***Mano River Joint Venture, Sierra Leone***

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In 2008 we concentrated our Sierra Leone exploration efforts on the Sonfon prospect located in north central Sierra Leone. We are earning into this joint venture property with Mano River and expect to meet our expenditure requirements to hold a 51% interest, as of the end of 2008. Exploration activities during 2008 intersected zones of massive sulfides exhibiting good gold grades and follow up drilling on these zones is planned in 2009.

### *Cote d Ivoire*

The 2008 exploration programs focused on our Amélikia, Abengourou and Agboville concessions located in the south eastern portion of Cote d Ivoire adjacent to the Ghanaian border along northeast trending structures located to the west of the Sefwi greenstone belt in Ghana. Between 2005 and 2007, we carried out a regional stream and laterite sampling program which identified two coincidental stream and laterite gold anomalies on the Ameleki license. These two zones cover an area approximately 4.5 kilometers by 20 and 24 kilometers long. In addition, a smaller 4 kilometer by 8 kilometer coincident laterite and stream anomaly was also outlined on the Abengourou license area. During 2009 we plan to follow up on these soil anomalies using tightly spaced soil sampling and prospecting with the aim to have drill targets for the first quarter of 2010.

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The Afema project was returned to its owner in December 2008 following our conclusion that the project was not viable.

### ***Goulagou, Burkina Faso***

We hold a 90% beneficial interest in the Goulagou and adjoining Rounga gold properties, which were acquired from St Jude along with the HBB properties in late 2005, with a local Burkina Faso partner owning a 10% interest. The Government of Burkina Faso will receive a statutory 10% carried interest upon the granting of a mining lease. The two properties are located approximately 100 kilometers west of Ouagadougou, the capital city of Burkina Faso, and 20 kilometers north of the city of Ouahigouya. Drilling programs carried out by the prior owner and its predecessors identified several areas of gold mineralization including two parallel zones on the Goulagou property – the Goulagou I and II deposits.

In October 2007, we granted Riverstone Resources Inc. ( Riverstone ) an option to purchase the Goulagou and Rounga concessions. Exploration programs in 2008 were managed and implemented by Riverstone and mainly consisted of infill reverse circulation drilling on the Goulagou concession. We expect that Riverstone will continue its exploration efforts during 2009.

In 2008, an engineering analysis indicated that only 100,000 ounces of gold resources could be economically recovered. A revised cash flow model based on 100,000 mineable ounces, showed that total free undiscounted cash flow is now nil and not the \$18 million originally expected. Based on this analysis the project has been written off and an impairment charge recorded in the consolidated statements of operations.

### ***Deba and Tialkam Projects, Niger***

The Deba and Tialkam gold properties in Niger were acquired along with the HBB properties from St. Jude in late 2005. We hold a 90% interest in the two exploration permits, subject to the 10% interest of the Government of Niger.

Soil sampling programs were carried out at both concessions in 2008 along with ground geophysics and 17,000 meters of drilling was done at Tialkam. Licenses with respect to both concessions were renewed in 2008, and we subsequently reapplied for portions of the properties surrendered, as required by Niger mining law, when the permits expired earlier in the year.

## **EXPLORATION STAGE PROPERTIES IN SOUTH AMERICA**

### ***Saramacca Property***

The Saramacca property, located in Suriname, consists of three concessions totaling 536 square kilometers. The area is underlain by lower Proterozoic greenstone rocks of the Paramaka and Armina formations which also host IamGold's Gross Rosebel Mine and Newmont's Nassau gold project.

Since mid-2006, the Saramacca project has been operated as a joint venture between Golden Star and an exploration subsidiary of Newmont. The joint venture's 2008 exploration program focused on diamond core drilling on four separate anomalies including Anomaly M, Pompoekampoe and Anomalies S and B. An extensive regional geochemical soil grid sampling program was also carried out on the western portion of the concession where stream sampling had defined gold anomalies.

During 2008, as in 2007, Newmont funded all of the exploration activities at Saramacca with Golden Star personnel managing the project. It is expected that Newmont will take over active project management in 2009 once Newmont's total spending reaches \$6 million. Newmont will at that time acquire in a 51% ownership position. Typical dilution clauses apply if either party fails to contribute its portion of approved budgets subsequent to Newmont acquiring its 51% interest. If either party's interest drops below 20%, its ownership will convert to a 1.25% net smelter royalty interest in the venture.

Upon Newmont completing a feasibility study, Golden Star may (i) elect to participate relative to its joint venture interest at that time; (ii) dilute its interest; or (iii) be assigned an automatic 1.25% net smelter royalty interest in the venture. If Golden Star elects to maintain its interest, it may elect to have Newmont carry all Golden Star's share of mine development costs. If this option is elected, Golden Star would repay Newmont from 80% of its share of eventual mine earnings plus interest at LIBOR plus 2.75%. In addition, Golden Star would receive an advance royalty of \$5.00 per ounce of gold reported on the date that Newmont approves development of a mine.

### ***Paul Isnard***



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The Paul Isnard project is located in the western part of French Guiana, some 200 km west of Cayenne. An option agreement between Golden Star and EURO Ressources S.A. ( EURO ) and a subsidiary of EURO provided Golden Star the right to acquire up to 100% of the 275 square kilometer property via a series of option payments and exploration spending. As of the end of 2007 we had made all of the requisite option payments and had met our spending target. Arrangements were underway to seek transfer of ownership of the

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property to us in 2008. However, lawsuits between Golden Star Resources Ltd. and EURO involving disputes over ownership of the property under the option agreement, which are still pending, and IAMGOLD's late 2008 acquisition of EURO, have interrupted completion of the transfer process.

The Paul Isnard project area covers rocks of the Lower Proterozoic Paramacca formation which contain gold mineralization in the form of pyritic disseminated zones or stringer zones and sulfide-rich shear zones, which can be reasonably correlated between the current widely spaced 200 meter drill sections from our late 1990's drilling.

In February 2008, as part of a feasibility study of Paul Isnard's Montagne d'Or deposit, a NI 43-101 preliminary assessment report was finalized by an external consultant. The preliminary assessment concluded that further exploration work was required to increase the overall resources of the project before advancing to a pre-feasibility assessment. The results of the 2008 study estimated an Inferred Mineral Resource of 9.2 million tonnes grading 2.51 g/t, constrained within a \$640 per ounce gold price optimized pit shell.

In early 2008 additional geochemical studies and airborne geophysical surveys were completed, indicating extensions of the geophysical anomaly characterized at Montagne d'Or to the west of the original geochemical anomaly and where most of the core drilling was done in the late 1990s. Our 2008 exploration program was limited following the French government's decision to halt the authorization of the development of IAMGOLD's Camp Caïman mining project in eastern French Guiana pending the establishment of a new Mining Scheme for the entire country.

Under the option agreement with EURO, once we acquire the property, we have agreed to pay a royalty to EURO on all future gold production, if any, from the Paul Isnard property up to 5.0 million ounces. The royalty varies from 10% of the difference between the market price of gold and \$400 for gold sales up to 2.0 million ounces, and five percent of the same for gold sales between 2.0 million and 5.0 million ounces.

### ***Brazil***

During 2008 Golden Star created an exploration subsidiary in Brazil known as Caystar Exploracao Mineral Brasil Limitada. Golden Star has been actively acquiring ground in Brazil since 2004, and we currently hold four active project areas in two states of Brazil (Minas Gerais and Mato Grosso).

### **ITEM 3. LEGAL PROCEEDINGS**

On August 29, 2008 B.D. Goldfields, Ltd., a Ghanaian registered company, and a shareholder of B.D. Goldfields, Ltd. filed suit in the United States District Court of the District of Colorado against Golden Star Resources Ltd. and our subsidiary St. Jude Resources Ltd. The plaintiffs are challenging the validity the various concession contracts and settlements related to the Hwini-Butre gold property in Ghana. We believe this action is frivolous and without merit, and we intend to vigorously defend against this action on numerous grounds. We have asserted that the United States court is without jurisdiction over the matter and that the claims asserted by the plaintiffs are barred by virtue of various settlements and judgments of the Ghanaian Courts. The Ghanaian government has already issued a lease to St. Jude's nominee in connection with such concession. Our initial motion to dismiss was presented to the Court on November 6, 2008. The plaintiffs have opposed the motion to dismiss, and we replied in support of the motion to dismiss on January 7, 2009. The Court has scheduled a hearing on the motion to dismiss for March 17, 2009. A decision on the motion to dismiss likely will be made at or after the hearing.

We are also engaged in other routine litigation incidental to our business none of which is deemed to be material. No material legal proceedings involving us or our business are pending, or, to our knowledge, contemplated, by any governmental authority.

### **ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS**

No matters were submitted to a vote of security holders during the fourth quarter of 2008.

## **PART II**

### **ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASE OF EQUITY SECURITIES**

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Our common shares trade on the Toronto Stock Exchange ( TSX ) under the trading symbol GSC , on the NYSE Alternext US (formerly known as the American Stock Exchange) under the symbol GSS And on the Ghana Stock Exchange under the symbol GSR . As of February 24, 2009, 236,005,311 common shares were outstanding and we had 1,037 registered shareholders. On February 24, 2009, the closing price per share for our common shares as reported by the TSX was Cdn\$1.87 and as reported by the NYSE Alternext US exchange was \$1.51.

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The following table sets forth, for the periods indicated, the high and low market closing prices per share of our common shares as reported by the TSX and the NYSE Alternext US.

	Toronto Stock Exchange		NYSE Alternext US	
	Cdn\$ High	Cdn\$ Low	\$ High	\$ Low
<b>2008</b>				
First Quarter	4.24	3.14	4.32	3.18
Second Quarter	3.85	2.62	3.83	2.57
Third Quarter	2.74	1.22	2.75	1.14
Fourth Quarter	1.76	0.50	1.66	0.40
	Toronto Stock Exchange		American Stock Exchange	
	Cdn\$ High	Cdn\$ Low	\$ High	\$ Low
<b>2007</b>				
First Quarter	5.37	3.32	4.56	2.82
Second Quarter	5.54	3.78	4.90	3.60
Third Quarter	4.38	3.12	4.28	2.92
Fourth Quarter	4.18	2.82	4.28	2.81

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.

**Performance Graph and Table**

The following graph and table illustrates the cumulative total shareholder return on the common shares for the fiscal years ended December 31, 2003 through 2008, together with the total shareholder return of the S&P/TSX Composite Index, and the AMEX Gold Bug Index for the same period. The graph and table assumes an initial investment of Cdn\$100 at December 31, 2003 and is based on the trading prices of the common shares for the periods indicated. Because we did not pay dividends on our common shares during the measurement period, the calculation of the cumulative total shareholder return on the common shares does not include dividends.

	2003	2004	2005	2006	2007	2008
<b>Golden Star Resources Ltd.</b>						
Dollar Value	\$ 100.00	\$ 53.57	\$ 34.16	\$ 38.16	\$ 34.67	\$ 13.60
Annualized Return Since Base Year		-46.43%	-41.55%	-27.47%	-23.27%	-32.91%
Return Over Previous Year		-46.43%	-36.23%	11.70%	-9.16%	-60.78%
<b>S&amp;P /TSX Composite Index</b>						

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Dollar Value	\$ 100.00	\$ 104.74	\$ 123.67	\$ 141.58	\$ 128.66	\$ 103.60
Annualized Return Since Base Year		4.74%	11.21%	12.29%	6.50%	0.71%
Return Over Previous Year		4.74%	18.08%	14.48%	-9.12%	-19.48%
<b>AMEX Gold Bug Index <sup>(1)</sup></b>						
Dollar Value	\$ 100.00	\$ 82.54	\$ 102.81	\$ 125.54	\$ 128.85	\$ 117.96
Annualized Return Since Base Year		-17.46%	1.39%	7.88%	6.54%	3.36%
Return Over Previous Year		-17.46%	24.55%	22.11%	2.63%	-8.45%

<sup>(1)</sup> Prior to 2007, we utilized the Canadian Gold Index. This index is no longer published. For 2007 and afterward, we utilized the AMEX Gold Bug Index, which is comparable to the Canadian Gold Index.

**RECENT SALE OF UNREGISTERED SECURITIES**

No sales of unregistered securities occurred during 2008.

**CERTAIN CANADIAN FEDERAL INCOME TAX CONSIDERATIONS**

The following is a summary of the principal Canadian federal income tax considerations that apply to the holding and disposition of our common shares. This summary only applies to a holder who is for Canadian income tax purposes not resident in Canada, is resident in the United States of America under the provisions of the *Canada-United States Income Tax Convention* (1980) (the Treaty) and holds our common shares as capital property.

This summary is based on the current provisions of the *Income Tax Act* (Canada) and the regulations there under (the Tax Act) and all amendments to the Tax Act publicly proposed by the Government of Canada to the date hereof. This summary is also based on the current provisions of the Treaty and our understanding of the current publicly available administrative and assessing practices published in writing by the Canada Revenue Agency.

It is assumed that each proposed amendment will be enacted as proposed and there is no other relevant change in any governing law, although no assurance can be given in these respects. This summary does not otherwise take into account any change in law or administrative practice, whether by judicial, governmental, legislative or administrative action, nor does it take into account provincial, territorial or foreign income tax consequences, which may vary from the Canadian federal income tax considerations described herein.

A particular US resident person may not be entitled to benefits under the Treaty if the "limitations of benefits" provisions of the Treaty apply to the particular US resident person. The limitation of benefits provisions under the Treaty are complex and US residents are advised to consult their own tax advisors in this regard.

Under the Treaty members of a limited liability corporation created under the limited liability company legislation in the U.S. and treated as a partnership or disregarded entity under US tax law ( LLC ) (and holders of interests in similarly fiscally transparent US entities) may be entitled to benefits under the Treaty in certain circumstances provided that the members of the LLC are taxed in the United States on any income, profits or gains earned through the LLC in the same way they would be if they had earned it directly.

Special rules, which are not discussed in this summary, may apply if you are an insurer carrying on business in Canada and elsewhere, or a financial institution as defined by section 142.2 of the Tax Act. If you are in any doubt as to your tax position, you should consult with your tax advisor.

This summary is of a general nature only and it is not intended to be, nor should it be construed to be, legal or tax advice to any holder of the common shares and no representation with respect to Canadian federal income tax consequences to any holder of common shares is made herein. **ACCORDINGLY, SHAREHOLDERS SHOULD CONSULT THEIR OWN TAX ADVISERS AS TO THE INCOME AND OTHER TAX CONSEQUENCES ARISING IN THEIR PARTICULAR CIRCUMSTANCES.**

*Taxation of Dividends*

Dividends paid or credited (or deemed to be paid or credited) by us to a holder of one or more common shares will be subject to Canadian non-resident withholding tax at the rate of 25% on the gross amount of the dividend. Under the Treaty, the rate of withholding tax is reduced to 15% if the holder is the beneficial owner of the dividends or 5% if the holder is a company that owns at least 10% of the company's voting stock and beneficially owns the dividend. Dividends paid to religious, scientific, charitable and similar tax exempt organizations and pension

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organizations that are resident and exempt from tax in the U.S. and that have complied with the administrative procedures specified in the Treaty are exempt from this Canadian withholding tax.

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*Taxation of Capital Gains*

Gains realized by a holder on a sale, disposition or deemed disposition of our common shares will not be subject to tax under the Tax Act unless the common shares constitute taxable Canadian property within the meaning of the Tax Act at the time of the sale, disposition or deemed disposition (including a deemed disposition upon death of a holder). Our common shares are not taxable Canadian property provided that they are listed on a designated stock exchange (which includes the TSX), and that neither you, nor one or more persons with whom the you did not deal at arm's length, alone or together, at any time in the five years immediately preceding the disposition, owned 25% or more of the issued shares of any class or series of our capital stock. Even if our common shares are taxable Canadian property to you, under the Treaty you will generally be exempt from paying Canadian income tax on any gain provided that you are a resident of the United States for the purposes of the Treaty (and are otherwise eligible for the benefits of the Treaty), and further provided that the value of our common share is not derived principally from real property situated in Canada.

Currently, our common shares do not derive their value principally from real property situated in Canada and therefore capital gains realized from the disposition of our common shares would be exempt from tax by virtue of the provisions of the Tax Treaty; however, the determination as to whether Canadian tax would be applicable on a sale, disposition or deemed disposition of common shares must be made at the time of that sale, disposition or deemed disposition.

**CERTAIN UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS**

**There are certain U.S. federal income tax risks associated with investments in Golden Star.**

Holders of our common shares, warrants or options to purchase our common shares, or convertible debentures (collectively, Equity Securities) who are U.S. taxpayers should consider that we could be considered to be a passive foreign investment company (PFIC) for U.S. federal income tax purposes. Although we believe that we were not a PFIC for 2008, and do not expect to become a PFIC in 2009, 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. We do not undertake any obligation to advise holders of our Equity Securities as to our PFIC status for any year. If we are a PFIC for any year, any holder of our Equity Securities who is a U.S. person for U.S. income tax purposes (a U.S. Holder) and whose holding period for those Equity Securities 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 Equity Securities (including certain transfers that would otherwise be tax free) also would be treated as an excess distributions. Such excess distributions (including gains treated as excess distributions) would be allocated ratably to the U.S. Holder's holding period. For these purposes, the holding period of common shares acquired through either an exercise of warrants or options or a conversion of debentures includes the holder's holding period in those warrants, options, or convertible debentures. The current year's allocation would be includible as ordinary income in the current year. Prior year's allocations would be taxed at the highest marginal rate applicable to ordinary income for each such year (regardless of the holder's actual marginal tax rate for the taxable year, and without reduction for any losses or 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 accelerate the recognition of taxable income and may result in the recognition of ordinary income. We have not decided whether we would provide to U.S. Holders of our common shares annual information that would be necessary to make the QEF election. The QEF and mark-to-market elections are not available to U.S. Holders with respect to warrants or options to acquire our common shares or with respect to convertible debentures.

Additional special adverse rules also apply to investors who are 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 could impact estate planning goals could apply to our Equity Securities if we are a PFIC.

**ITEM 6. SELECTED FINANCIAL DATA**

The selected financial data set forth below are derived from our audited consolidated financial statements for the years ended December 31, 2008, 2007, 2006, 2005 and 2004, and should be read in conjunction with those financial statements and the notes thereto. The consolidated financial statements have been prepared in accordance with Canadian GAAP. Selected financial data derived in accordance with US GAAP has also been provided and should be read in conjunction with Note 25 to the financial statements. Reference should also be made to Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations.

**Summary of Financial Condition**

(Amounts in thousands except per share data)

	As of Dec. 31, 2008	As of Dec. 31, 2007	As of Dec. 31, 2006	As of Dec. 31, 2005	As of Dec. 31, 2004
<b>Canadian GAAP</b>					
Working capital	\$ 1,651	\$ 72,362	\$ 28,258	\$ 91,974	\$ 61,366
Current assets	91,973	146,599	90,534	132,789	78,846
Total assets	696,202	792,548	663,774	564,603	252,160
Current liabilities	90,322	74,237	62,276	40,815	17,480
Long-term liabilities	175,810	167,181	131,974	124,919	10,367
Shareholder s equity	430,070	545,172	462,100	392,240	217,960



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	For the Year Ended Dec. 31, 2008	For the Year Ended Dec. 31, 2007	For the Year Ended Dec. 31, 2006	For the Year Ended Dec. 31, 2005	For the Year Ended Dec. 31, 2004
<b>Canadian GAAP</b>					
Revenues	\$ 257,355	\$ 175,614	\$ 128,690	\$ 95,465	\$ 65,029
Net income/(loss)	(120,071)	(36,404)	64,689	(13,351)	2,642
Net income/(loss) per share basic	(0.509)	(0.159)	0.312	(0.094)	0.019
	As of Dec. 31, 2008	As of Dec. 31, 2007	As of Dec. 31, 2006	As of Dec. 31, 2005	As of Dec. 31, 2004
<b>US GAAP</b>					
Working capital	\$ 1,651	\$ 71,407	\$ 21,383	\$ 91,794	\$ 61,366
Current assets	91,973	146,599	90,534	132,789	78,846
Total assets	663,444	728,977	606,095	522,443	219,972
Current liabilities	90,322	75,192	69,151	40,815	17,480
Long-term liabilities	193,871	202,870	129,624	135,832	22,432
Shareholder s equity	379,151	449,278	404,418	343,832	176,161
	For the Year Ended Dec. 31, 2008	For the Year Ended Dec. 31, 2007	For the Year Ended Dec. 31, 2006	For the Year Ended Dec. 31, 2005	For the Year Ended Dec. 31, 2004
<b>US GAAP</b>					
Revenues	\$ 257,355	\$ 175,614	\$ 128,690	\$ 102,237	\$ 65,029
Net income/(loss)	(73,717)	(41,759)	57,875	(24,470)	47,708
Net income/(loss) per share basic	(0.313)	(0.182)	0.279	(0.170)	0.345

Note: 2004 and 2005 US GAAP figures have been restated to reflect the correction of the accounting treatment of warrants issued in currencies other than US\$.

**ITEM 7. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

The following discussion and analysis should be read in conjunction with the accompanying audited consolidated financial statements and related notes. The financial statements have been prepared in accordance with Canadian GAAP. For a reconciliation to accounting principles generally accepted in the United States ( US GAAP ), see Note 25 to the consolidated financial statements. This Management s Discussion and Analysis of Financial Condition and Results of Operations includes information available to February 24, 2009.

**OVERVIEW OF GOLDEN STAR**

We are a Canadian federally incorporated international gold mining and exploration company producing gold in Ghana, West Africa. We also conduct gold exploration in West Africa and in South America. 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 *Alberta Business Corporations Act* on March 7, 1984 as Southern Star Resources Ltd. Our principal office is located at 10901 West Toller Drive, Suite 300, Littleton, Colorado 80127, and our registered and records offices are located at 66 Wellington St. W, 42nd floor, Box 20, Toronto Dominion Bank Tower - Toronto Dominion Centre, Toronto, ON M5K 1N6. Our fiscal year ends on December 31.

We own controlling interests in several gold properties in southern Ghana:

Through a 90% owned subsidiary, Golden Star Bogoso/Prestea Limited ( GSBPL ), we own and operate the Bogoso/Prestea gold mining and processing operations ( Bogoso/Prestea ) located near the town of Bogoso, Ghana. In July 2007, we commissioned a nominal 3.5 million tonnes per year processing facility at Bogoso that uses bio-oxidation technology to treat refractory sulfide ore. In addition Bogoso/Prestea has a carbon-in-leach processing facility which we expect to use to treat oxide ores as they are available. Bogoso/Prestea produced and sold 120,216 ounces of gold in 2007 and 170,499 ounces of gold in 2008.

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Through another 90% owned subsidiary, Golden Star (Wassa) Limited ( GSWL ), we own and operate the Wassa open-pit gold mine and carbon-in-leach processing plant ( Wassa ), located approximately 35 kilometers east of Bogoso/Prestea. The design capacity of the carbon-in-leach processing plant at Wassa is nominally 3.0 million tonnes per annum but varies depending on the ratio of hard and soft ore. Wassa produced and sold 126,062 ounces of gold in 2007 and 125,477 ounces of gold in 2008. GSWL also owns the Hwini-Butre and Benso concessions (the HBB properties ) in southwest Ghana. We spent approximately \$40 million on the Benso property during 2008 developing the Benso mine which began shipping ore to Wassa in the third quarter of 2008. An extension of the haul road from Benso to Hwini-Butre commenced in the fourth quarter of 2008 and is expected to be commissioned in the second quarter of 2009. The Hwini-Butre and Benso concessions are located approximately 80 and 50 kilometers, respectively, by road south of Wassa.

We also hold interests in several gold exploration projects in Ghana and elsewhere in West Africa including Sierra Leone, Burkina Faso, Niger and Côte d'Ivoire, and hold and manage exploration properties in Suriname, Brazil and French Guiana in South America.

All of our operations, with the exception of certain exploration projects, transact business in US dollars and keep financial records in US dollars. Our accounting records are kept in accordance with Canadian GAAP. We are a reporting issuer or the equivalent in all provinces of Canada and in the United States and file disclosure documents with the Canadian securities regulatory authorities and the United States Securities and Exchange Commission.

**NON-GAAP FINANCIAL MEASURES**

In this Form 10-K, we use the terms total operating cost per ounce, total cash cost per ounce and cash operating cost per ounce.

Total operating cost per ounce is equal to Cost of Sales for the period, as found in our statements of operations, after adjusting for inventory write-offs and operations-related foreign currency (gains)/losses, divided by the ounces of gold sold in the period. Cost of Sales include all mine-site operating costs, including the costs of mining, processing, maintenance, work-in-process inventory changes including inventory write-offs and adjustments, mine-site overhead as well as production taxes, royalties, mine site depreciation, depletion, amortization, asset retirement obligation accretion and by-product credits but does not include exploration costs, corporate office general and administrative expenses, impairment charges, corporate business development costs, gains and losses on asset sales, gains and losses on foreign currency conversions, interest expense, mark-to-market gains and losses on derivatives, gains and losses on investments and income tax.

Total cash cost per ounce for a period is equal to Total operating costs for the period, as found in the table below, less Mining related depreciation and amortization and Accretion of asset retirement obligations costs for the period, divided by the number of ounces of gold sold during the period.

Cash operating cost per ounce for a period is equal to Total cash costs for the period less production royalties and production taxes, divided by the number of ounces of gold sold during the period.

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The following table shows the derivation of these measures:

		2008	
	Wassa	Bogoso/ Prestea	Combined
Mining operations costs	\$ 71,271	\$ 149,040	\$ 220,311
Royalties	3,262	4,465	7,727
Costs (to)/from metals inventory	(1,153)	10,823	9,670
Mining related depreciation and amortization	29,879	31,333	61,212
Accretion of asset retirement obligations	385	393	