

GOLDEN STAR RESOURCES LTD

Form 10-K

February 03, 2005

**Table of Contents**

---

---

**SECURITIES AND EXCHANGE COMMISSION  
Washington, DC 20549  
FORM 10-K**

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

**For the Fiscal Year ended December 31, 2004**  
Commission file number 1-12284

**GOLDEN STAR RESOURCES LTD.**

(Exact Name of Registrant as Specified in Its Charter)

**Canada** **98-0101955**  
(State or other Jurisdiction of (I.R.S. Employer  
Incorporation or Organization) Identification No.)

**10901 West Toller Drive, Suite 300**  
**Littleton, Colorado** **80127-6312**  
(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:

<u>Title of Each Class</u>	<u>Name of each exchange on which registered</u>
Common Shares	American Stock Exchange

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

Warrants Issued February 2003

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

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

Indicate by check mark whether the registrant is an accelerated filer (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 \$609.4 million as of June 30, 2004, based on the closing price of the shares on the American Stock Exchange of \$4.64 per share.

Number of Common Shares outstanding as at January 31, 2005: 142,346,703.

---

---

---

**TABLE OF CONTENTS**

**PART I**

**ITEM 1. DESCRIPTION OF BUSINESS**

**ITEM 2. DESCRIPTION OF PROPERTIES**

**ITEM 3. LEGAL PROCEEDINGS**

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

**PART II OTHER INFORMATION**

**ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS**

**ITEM 6. SELECTED FINANCIAL DATA**

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

**ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

**ITEM 9 CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

**ITEM 9A CONTROLS AND PROCEDURES**

**PART III**

**ITEMS 10, 11, 12, 13 AND 14**

**PART IV**

**ITEM 15 EXHIBITS, FINANCIAL STATEMENT SCHEDULES**

**SIGNATURES**

**EXHIBITS**

**Second Amended and Restated 1997 Stock Option Plan**

**Amended and Restated Employment Agreement with Mr. Peter Bradford**

**Amended and Restated Employment Agreement with Mr. Allan J. Marter**

**Amended and Restated Employment Agreement with Mr. Douglas Jones**

**Amended and Restated Employment Agreement with Mr. Bruce Higson-Smith**

**Amended and Restated Employment Agreement with Richard Q. Gray**

**Mining Lease, dated September 17, 1992**

**Mining Lease, dated June 29, 2001**

**Letter Agreement between the Company and Guyanor Resource S.A. dated September 30, 2004**

**Subsidiaries of the Company**

**Consent of PricewaterhouseCoopers LLP**

**Consent of Colin Jones**

**Certification of Principal Executive Officer - Section 302**

**Certification of Principal Financial Officer - Section 302**

**Certification of Principal Executive Officer - Section 906**

**Certification of Principal Financial Officer - Section 906**

---

**Table of Contents**

**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 2005 Annual Meeting of Shareholders are incorporated by reference to Part III of this Report on Form 10-K.

**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\$ and the Euro is denoted as .

Financial information is presented in accordance with accounting principles generally accepted in Canada ( Cdn GAAP ). Differences between accounting principles generally accepted in the US ( US GAAP ) and those applied in Canada, as applicable to Golden Star Resources Ltd., are explained in Note 21 to the Consolidated Financial Statements.

Information in Parts I and II of this report includes data expressed in various measurement units and contains numerous technical terms used in the gold mining industry. To assist readers in understanding this information, a conversion table and glossary are provided below.

References to Golden Star , 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 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 should not be considered in isolation or as a substitute for measures of performance prepared in accordance with GAAP. See Item 7 Management s Discussion and Analysis for a definition of these measures as used in this Form 10-K.

**STATEMENTS REGARDING FORWARD-LOOKING INFORMATION**

This Form 10-K and the documents incorporated by reference in this Form 10-K contain forward-looking statements, within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act, 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, pla believes, seeks, estimates, may, will, and similar expressions 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 or incorporated by reference in this Form 10-K. These statements include comments regarding: the establishment and estimates of mineral reserves and resources, recovery rates, production, production commencement dates, production costs, cash operating costs, total cash costs, grade, processing capacity, potential mine life, feasibility studies, development costs, expenditures, exploration, our expansion plans for Bogoso/Prestea and the commencement of commercial production at Wassa.

The following, in addition to the factors described under Risk Factors in this Form 10-K, are among the factors that could cause actual results to differ materially from the forward-looking statements:

unexpected changes in business and economic conditions;

significant increases or decreases in gold prices;

changes in interest and currency exchange rates;

timing and amount of production;

unanticipated grade changes;

unanticipated recovery or production problems;

changes in mining and processing costs;

changes in metallurgy and processing;

---

**Table of Contents**

availability of skilled personnel, materials, equipment, supplies and water;

changes in project parameters;

costs and timing of development of new reserves;

results of current and future exploration activities;

results of pending and future feasibility studies;

joint venture relationships;

political or economic instability, either globally or in the countries in which we operate;

local and community impacts and issues;

timing of receipt of government approvals;

accidents and labor disputes;

environmental costs and risks;

competitive factors, including competition for property acquisitions; 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 elsewhere in this Form 10-K. We undertake no obligation to update forward-looking statements.

**Table of Contents****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 could be used herein:

Au	= gold	m <sup>2</sup>	= square meter
g	= gram	m <sup>3</sup>	= cubic meter
Au g/t	= grams of gold per tonne	Mg or 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.

**GLOSSARY OF TERMS**

We report our reserves to two separate standards to meet the requirements for reporting in both Canada and the United States ( U.S. ). Canadian reporting requirements for disclosure of mineral properties are governed by National Instrument 43-101 ( NI 43-101 ). The definitions given in NI 43-101 are adopted from those given by the Canadian Institute of Mining Metallurgy and Petroleum. U.S. reporting requirements for disclosure of mineral properties are governed by 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 resources and reserves according to the definitions set forth in NI 43-101 and modify and reconcile them as appropriate to conform to 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 parallels and differences.

**NI 43-101 Definitions****mineral reserve**

The term **mineral reserve** 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 might occur when the material is mined.

**proven mineral reserve<sup>1</sup>.**

The term **proven mineral reserve** refers to the economically mineable part of a measured mineral resource demonstrated by at least a preliminary feasibility study.

**Table of Contents**

<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 can be justified.
<b>mineral resource</b>	The term <b>mineral resource</b> refers to a concentration or occurrence of natural, solid, inorganic or fossilized organic material 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.
<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.

**qualified person**<sup>2</sup>.

The term **qualified person** refers to an individual who is an engineer or geoscientist with at least five years of experience in mineral exploration, mine development, production activities and project assessment, or any combination thereof, including experience relevant to the subject matter of the project or report and is a member in good standing of a self-regulating organization.

**SEC Industry Guide 7 Definitions**

**reserve**

The term **reserve** 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 feasibility study done to bankable standards that demonstrates the economic extraction. ( **Bankable standards** 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

4

---

**Table of Contents**

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.

**proven reserve**

The term **proven reserve** 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.

**probable reserve**

The term **probable reserve** 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.

**mineralized material<sup>3</sup>.**

The term **mineralized material** 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.

**non-reserves**

The term **non-reserves** 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.

**exploration stage**

An **exploration stage** prospect is one which is not in either the development or production stage.

**development stage**

A **development stage** 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.

**production stage**

A **production stage** project is actively engaged in the process of extraction and beneficiation of mineral reserves to produce a marketable metal or mineral product.

---

1. For Industry Guide 7 purposes 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. 2. Industry Guide 7 does not require designation of a qualified person. 3. This category is substantially equivalent to the combined categories of measured and indicated mineral resources specified in NI 43-101.

**ADDITIONAL DEFINITIONS**

**abrasion index** - measure by a standard test of how abrasive a rock type is with respect to wear and tear on grinding equipment

**acid rock drainage** - the result of rainwater reacting with sulfides in broken rock i.e. waste dumps

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

**ancillary equipment** - service equipment not directly associated with primary process

**Archaean** - the older time division of the Precambrian; applying to rocks older than 2,500 million years

**artisanal** - current or historic informal mining typically of a primitive nature (see also **galamsey**)

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

**Au** - gold

**bio-oxidation or BIOX<sup>®</sup>** - 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

**Table of Contents**

**cash operating cost per ounce** - is equal to total cash cost for the period less production royalties and production taxes, divided by the number of ounces of gold sold during the period. (This definition is consistent with the Gold Institute's definition)

**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 containing solutions

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

**cross-section** - a diagram or drawing that shows features transected by a vertical plane drawn at right angles to the longer axis of a geologic feature

**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

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

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

**dor** - 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 definitive engineering and economic study addressing the viability of a mineral deposit taking into consideration all associated technical factors, costs, revenues and risks

**fold** - a curve or bend of a planar structure such as rock strata, bedding planes, foliation, or cleavage

**footwall** - a geological or mining term meaning the rock below a fault or vein, or underlying a natural feature, or the mining floor

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

**graphitic phyllite** - a low-grade metamorphic rock with graphitic carbon

**galamsey** - an informal and usually unauthorized miner or miners (Ghana) typically using primitive methods

**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

**geotechnical** - the study of ground stability

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

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

**hanging wall** - a geological or mining term meaning the rock above a fault or vein, or overlying a natural feature (as opposed to footwall)

**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 containing a mineral or an ore body

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

**igneous** - a rock formed by the solidification of mineral-rich molten liquid which is intruded into bedrock or erupted from a volcano

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

**kriging** - a method of block grade interpolation which takes into account the statistical and spatial characteristics of the mineralization

**lithology** - the physical characteristic of a rock

**life-of-mine** - a term commonly used to refer to all aspects of a given mining project which covers the time period necessary to extract all of the current reserves

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

**Table of Contents**

**metamorphic** - term applied to pre-existing sedimentary and igneous rocks which have been altered in composition, texture, or internal structure by processes involving pressure, heat and/or the introduction of new chemical substances

**metasediment** - a sedimentary rock which shows evidence of having been subjected to metamorphism

**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

**mineralogy** - the science of minerals

**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** - Canadian standards of disclosure for mineral projects

**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, 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

**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

**plunge** - the angle from the horizontal of a linear geological feature on a plane

**pre-feasibility study** - the initial stage of the feasibility study in which the accuracy of the factors involved such as engineering achievements costs and revenues is  $\pm 25\%$

**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.

**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

**run-of-mine** - usually refers to the tonnage and grade of ore delivered to the processing plant

**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

**SAG** - semi-autogeneous grinding

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

**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

**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, 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

**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

**syncline** - a concave downward fold, the core of which contains the stratigraphically younger rocks

**Table of Contents**

**synform** - bent or folded downwards

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

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

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

**total cash cost per ounce** - is equal to total production costs as found on our consolidated statement of operations less depreciation, depletion, amortization and asset retirement obligation accretion divided by the number of ounces of gold sold during the applicable period. (this definition is consistent with the Gold Institute's definition)

**total production cost per ounce** - is equal to total production costs as found on our consolidated statement of operations divided by the ounces of gold sold in the period; total production costs include all mine-site operating costs, including the costs of mining, processing, maintenance, work in process inventory changes, mine-site overhead, production taxes and royalties, depreciation, depletion, amortization, asset retirement obligations and by-product credits, but does not include exploration costs, corporate general and administrative expense, impairment charges, corporate business development costs, gains and losses on asset sales, interest expense, foreign currency gains and losses, gains and losses on investments and income tax

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

**variogram/semi-variogram** - graphical representation of the rate of change of grade with distance which is used to define parameters for controlling sample layout and resource modeling

**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

**Table of Contents**

**PART I**

**ITEM 1. DESCRIPTION OF BUSINESS**

**OVERVIEW OF GOLDEN STAR**

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. We are a Canadian international gold mining and exploration company producing gold in Ghana, West Africa. Our principal office is located at 10901 West Toller Drive, Suite 300, Littleton, Colorado 80127, and our registered office is located at 19th Floor, 885 West Georgia Street, Vancouver, British Columbia, Canada V6C 3H4. Our records office is located at 66 Wellington St. W., 42<sup>nd</sup> floor, Box 20, Toronto Dominion Bank Tower, Toronto Dominion Centre, Toronto, ON M5K 1N6. Our fiscal year ends on December 31.

Through our subsidiaries and joint ventures we own a controlling interest in three significant gold properties in southern Ghana in West Africa: the Bogoso/Prestea property ( Bogoso/Prestea ), the Wassa property ( Wassa ) and the Prestea Underground property ( Prestea Underground ). Bogoso and Prestea are adjoining mining concessions, operating as a single operation and referred to as Bogoso/Prestea . Bogoso/Prestea and the Prestea Underground are owned by our 90% owned subsidiary Bogoso Gold Limited ( BGL ). In 2004 we sold 147,875 ounces of gold from Bogoso/Prestea for an average gold price of approximately \$410 per ounce having a cash operating cost of approximately \$250 per ounce. Essentially all of our gold production to date has come from Bogoso/Prestea.

Through another 90% owned subsidiary, Wexford Goldfields Limited ( WGL ), we own the Wassa gold property, located some 35 kilometers east of Bogoso/Prestea. A newly constructed ore processing plant at Wassa is now in its commissioning and testing phase, processing heap leach materials left by a former owner. We expect that the new plant will achieve its full design capacity of 10,000 tonnes per day in the first quarter of 2005. During 2005 plant feed is expected to consist of a mixture of heap leach material and newly mined ore from the open pit mine. The open pit is expected to become the sole source of plant feed in 2006 when all of the heap leach material has been processed.

The Prestea Underground is located on the Prestea property and consists of a currently inactive underground gold mine and associated support facilities. As of December 31, 2004, BGL, our 90% owned subsidiary, owned a 90% operating interest in this mine. We are currently carrying out exploration and technical studies to determine if the underground mine can be reactivated on a profitable basis.

We hold interests in exploration joint ventures, managed by joint venture partners, in Mali and Sierra Leone in West Africa and hold active exploration properties in Ghana, Suriname and French Guiana. We hold interests in gold exploration properties in Peru and Chile through our affiliate Goldmin Holdings, and in the Democratic Republic of the Congo through an investment in Moto Goldmines Limited.

During 2004 we received \$3.0 million from a participation right on the Rosebel gold mine in Suriname which was sold to our 53% owned subsidiary Guyanor Ressources S.A. ( Guyanor ) in December 2004.

We are a reporting issuer or the equivalent in all provinces and territories of Canada and the United States and file disclosure documents with the Canadian securities regulatory authorities and the United States Securities and Exchange Commission.

Our corporate headquarters is located in Littleton, Colorado. In addition to the Bogoso/Prestea and Wassa employees, we have a small administrative office and staff in Accra, the capital of Ghana, and a small staff in French Guiana. Our accounting records are kept in accordance with Canadian GAAP and all of our operations, except for the French Guiana office, transact business in US dollars and keep financial records in US dollars.

### **Gold Sales and Production**

Ghana has been a significant gold producing country for the last 100 years with AngloGold Ashanti's Obuasi mine and the underground mine at Prestea historically being the two major producers. Several other areas in Ghana have

**Table of Contents**

also produced significant amounts of gold. The gold industry in Ghana is currently experiencing growth in exploration and development and gold production. Gold production in Ghana exceeded 2 million ounces in each year from 1998 through 2004 and is projected to increase as planned developments and expansions now underway reach the production stage.

All of our gold is sold to a South African gold refinery to which it is sent in the form of doré bars which average approximately 91% gold with the remaining portion being primarily silver. Revenue is recognized when title is transferred at the refinery. The sales price is based on the London P.M. fix on the day of delivery to the refinery.

**Gold Price History**

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 relative values of the US dollar and foreign currencies, global and regional 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:

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

**Table of Contents**

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

**BUSINESS STRATEGY AND DEVELOPMENT**

Since 1999 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. We also explore for gold. Since 1999 our exploration efforts have been focused on Ghana, other West African countries and South America. We are currently carrying out technical and environmental studies to expand production at Bogoso/Prestea. We commenced development at Wassa in mid-2003, and expect it to be fully operational in early 2005. If the above mentioned expansion and development plans at Bogoso/Prestea are approved and permitted as expected, our annualized production is expected to range between 375,000 and 425,000 ounces of gold by 2007. Achievement of this target is subject to numerous risks. See the discussion of risk factors below.

Our overall objective is to grow our business to become a mid-tier gold producer (which we understand to be a producer with annual production of approximately 500,000 ounces) over the next few years. As part of the effort to achieve our goal, we are actively investigating potential acquisition and merger candidates. However, we presently have no agreement or understanding with respect to any specific potential transaction.

## **Table of Contents**

We conduct gold exploration in West Africa and South America. Spending on these activities totaled approximately \$18.2 million and \$13.6 million in 2004 and 2003 respectively. We employ a number of different strategies to achieve our exploration goals including the following:

We maintain a staff of full-time geologists at Bogoso and Wassa responsible for exploring and developing areas around the existing operations;

We contract with geologic consultants who seek to identify new exploration opportunities;

We have purchased equity ownership in gold exploration companies who use the equity funds provided by us to explore in their areas of expertise;

We provide funding to joint venture partners who use our funding to conduct active exploration efforts; and

We maintain a small international exploration group who carry out work on various properties in the Guiana Shield area of South America and in other areas of Africa.

## **IAMGold Tender Offer**

In 2004, we made an unsolicited tender offer to the shareholders of IAMGold Corporation. On August 11, 2004, IAMGold announced that it had agreed to combine IAMGold's mining assets with certain gold mining assets of another international gold mining company to form a new gold mining company. IAMGold's management and board subsequently recommended acceptance of this plan to their shareholders. After analyzing this development we concluded that it was not in the best interests of our shareholders to continue our offer for IAMGold and our board of directors elected not to extend our tender offer which expired on August 16. No shares of IAMGold were acquired. We incurred approximately \$4.1 million of direct, incremental acquisition costs resulting from the tender offer which were expensed in the third quarter. The majority of these costs were for legal, financial advisory, printing and accounting services.

## **OUR ASSETS**

**Bogoso/Prestea** - We own and operate the Bogoso/Prestea gold mine in southwest Ghana. Ore is currently mined from the Plant-North open-pit surface operation at Prestea and trucked approximately 15 kilometers from the Prestea mine site to the Bogoso processing plant where the ore is processed. The nominal capacity of the Bogoso processing plant ranges between approximately 4,000 and 6,000 tonnes-per-day depending on the type of ore being processed. The Bogoso processing plant utilizes CIL technology along with gravity and flotation processes to separate gold from the ore. CIL, gravity and flotation technologies are well known and are widely used for treating gold ores. In addition to the mine and processing plant facility, Bogoso/Prestea's assets include a fleet of mining equipment, numerous ancillary facilities including warehouses, maintenance shops, roadways and administrative offices. We also own infrastructural support facilities at Bogoso including a medical center, cafeteria, store, recreation facility and golf course.

Capacity of the processing plant at Bogoso is expected to vary between 4,200 and 4,500 tonnes per day in 2005 while processing transition and primary sulfide ores from the Plant-North pit at Prestea. Historical gold output at the Bogoso plant has typically ranged between 130,000 and 175,000 ounces per year. In 2004 we produced and sold 147,875 ounces, approximately 15% less than the 174,315 ounces sold in 2003 due primarily to lower plant throughput and, as expected, lower recoveries from processing refractory transitional and primary sulfide ores. Historical and projected production from Bogoso/Prestea is shown on the Gold Production and Cash Costs table below.

**Wassa** The physical plant at Wassa is similar to Bogoso/Prestea including an open-pit surface mine, a CIL processing plant, mining equipment and a residential site with associated facilities. Wassa was under development during 2004 and is in its commissioning phase at the date of this report. Projected 2005 production from Wassa is shown on the Gold Production and Cash Costs table below.

**Prestea Underground** The Prestea Underground is located directly beneath the Prestea property. It consists of a large underground gold mine that operated for over 100 years, under a number of former owners, producing a total



**Table of Contents**

of approximately nine million ounces of gold prior to its closure in early 2002. We are now performing engineering, geological and economic analysis of the mine to determine if it can be reopened on a profitable basis. The mine includes two useable shafts and several kilometers of underground workings on numerous levels extending as deep as 1,400 meters below the surface.

**Mampon** The Mampon project, located approximately 35 kilometers north of the Bogoso processing plant was acquired in 2003 as part of the Dunkwa property acquisition. An analysis of the drilling and other geologic data provided by the former owner allowed us to establish a probable reserve at the Mampon property as of year-end 2004.

**Moto Gold Mines** In October 2004 we acquired a 9.5% interest in Moto Goldmines Limited ( Moto ) for \$4.1 million. Moto controls the approximate 4,700 square kilometer Moto concessions located in the north east of the Democratic Republic of Congo. The Moto concessions form part of the Kilo-Moto gold belt which has historical production in excess of 11 million ounces with over two million ounces mined from ten small mines within the central 35 square kilometers on the Moto concessions.

**Rosebel Royalty** We began receiving royalty payments in early 2004 from Cambior Inc. ( Cambior ) related to our participation right in Cambior s Rosebel mine. Royalty income totaled \$3.0 million during 2004. On December 31, 2004 we sold the Rosebel interest to our 53% owned subsidiary Guyanor for \$12.0 million, of which \$6.0 million was paid on January 8, 2005 and the balance is due to Golden Star prior to June 30, 2005. Additionally, Golden Star will receive up to \$2.50 per ounce of Rosebel production for all production in excess of 2 million ounces but less than 4 million ounces and up to \$5.00 per ounce when production exceeds 4 million ounces up to 7 million ounces.

**Exploration Assets** We have interests in numerous gold exploration properties in Ghana, Sierra Leone, Mali, and South America. Most of the exploration properties in Ghana are within trucking or conveying distance of Bogoso/Prestea or Wassa. We have a staff of geologists in Ghana actively investigating the mineral resource potential of the various exploration properties, and we anticipate that such exploration effort will continue in 2005.

**Table of Contents****GOLD PRODUCTION AND UNIT COSTS**

The following table shows historical and projected gold production and unit costs. The 2005 projected unit costs are based on a gold price of \$400 per ounce.

<b>PRODUCTION AND CASH COST PER OUNCE <sup>(1)</sup></b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005 Projected</b>
<b>BOGOSO/PRESTEA</b>				
Ounces (thousands)	124.4	174.3	147.9	140 - 170
Total Production Cost (\$/oz)	235	216	323	250 - 270
Cash Operating Cost (\$/oz)	193	166	250	190-210
Total Cash Cost (\$/oz)	215	184	264	202-212
<b>WASSA <sup>(2)</sup></b>				
Ounces (thousands)				100 - 120
Total Production Cost (\$/oz)				380 - 400
Cash Operating Cost (\$/oz)				280 - 300
Total Cash Cost (\$/oz)				292 - 312
<b>CONSOLIDATED</b>				
<b>Total Ounces <sup>(3)</sup> (thousands)</b>	<b>124.4</b>	<b>174.3</b>	<b>147.9</b>	<b>240 - 290</b>
Consolidated Total Production Cost (\$/oz)	235	216	323	304 - 324
Consolidated Cash Operating Cost (\$/oz)	193	166	250	230 - 250
Consolidated Total Cash Cost (\$/oz)	215	184	264	240 - 259

- (1) See MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS for definitions of the cost per ounce measures as used in this table.
- (2) In late 2004 during its commissioning phase, Wassa began production by processing through its CIL plant heap leach materials left on heap leach pads by a former owner blended with newly mined ore from the open pit mine.
- (3) 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 and Wassa, would receive 10% of any dividends distributed from Bogoso/Prestea and Wassa once all of the capital has been repaid.

**Table of Contents**

**MINERAL RESERVES**

Our proven and probable mineral reserves are estimated in conformance with definitions set out in Canada's National Instrument 43-101( NI 43-101 ). Technical Reports on our mineral reserves for Bogoso/Prestea and Wassa have been filed as required in NI 43-101. We filed Technical Reports on our mineral reserves for Bogoso/Prestea and Wassa as of December 31, 2003 during the first quarter of 2004. 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 reserves are calculated on a basis consistent with the definition of proven and probable mineral 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 .

The estimates of our mineral reserves are prepared by Golden Star based on information compiled and/or validated by Mr. Dave Alexander, our employee and Projects Planning Manager. Mr. Alexander is a qualified mining engineer with 20 years of experience, a member of the Institute of Materials, Minerals and Mining, and a Chartered Engineer under the auspices of the Engineering Council of the United Kingdom. Mr. Alexander is considered a qualified person under NI 43-101.

The proven and probable mineral reserves as of December 31, 2004 have been estimated at an economic cut-off grade based on a gold price of \$360 per ounce. This compares to \$325 per ounce used for the estimate of our mineral reserves at December 31, 2003. The cut-off grade defines reserve material that is demonstrated to be technically and economically feasible to extract. In determining 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 shell will be mined, the cut-off grade used in determining our reserves is calculated 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 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. A total of eleven standards are used, five generated by Golden Star ranging from 0.24 to 4.55 g/t and six commercially available standards ranging from 0.22 to 3.42 g/t.

The Bogoso/Prestea and Wassa reserves, owned by our 90%-owned subsidiaries BGL and WGL, respectively, are shown in the following table on a 100% basis, which represents our current beneficial interest in these reserves, gold production and revenues. Once all capital has been repaid, the Government of Ghana, which owns 10% of BGL and WGL, would receive 10% of any dividends paid by the subsidiaries.

**Table of Contents**

The following table summarizes our estimated proven and probable mineral reserves as of December 31, 2004 and December 31, 2003:

**PROVEN AND PROBABLE MINERAL RESERVES**

Property Mineral Reserve Category	As of December 31, 2004			As of December 31, 2003		
	Tonnes (1) (millions)	Gold Grade (g/t)	Ounces (2) (millions)	Tonnes (1) (millions)	Gold Grade (g/t)	Ounces (2) (millions)
<b>Bogoso/Prestea (3)</b>						
Proven Mineral Reserves:						
Non-refractory	3.0	4.20	0.41	1.2	2.61	0.10
Refractory	11.5	2.97	1.09	7.0	3.43	0.78
	14.5	3.23	1.51	8.3	3.31	0.88
Probable Mineral Reserves:						
Non-refractory	7.3	2.34	0.55	8.5	3.22	0.88
Refractory	9.0	2.60	0.76	9.6	3.13	0.97
	16.4	2.48	1.31	18.2	3.17	1.85
Total Proven and Probable:						
Non-refractory	10.4	2.89	0.96	9.7	3.14	0.99
Refractory	20.5	2.81	1.85	16.7	3.25	1.74
Total Bogoso/Prestea Proven and Probable	30.9	2.83	2.81	26.4	3.21	2.73
<b>Mampon (4)</b>						
Probable Mineral Reserves:						
Non-refractory	0.3	4.63	0.04	0.2	4.94	0.04
Refractory	0.7	5.35	0.12	0.6	5.86	0.12
Total Mampon Probable	1.0	5.16	0.16	0.9	5.59	0.16
<b>Wassa (5)</b>						
Probable Mineral Reserves:						
Non-refractory	19.3	1.31	0.81	16.2	1.28	0.67
Total Wassa Probable	19.3	1.31	0.81	16.2	1.28	0.67
<b>Total</b>						
Proven Mineral Reserves:						
Non-refractory	3.0	4.20	0.41	1.2	2.61	0.10
Refractory	11.5	2.97	1.09	7.0	3.43	0.78
	14.5	3.23	1.51	8.3	3.31	0.88

Edgar Filing: GOLDEN STAR RESOURCES LTD - Form 10-K

Probable Mineral Reserves:						
Non-refractory	26.9	1.62	1.40	25.0	1.98	1.59
Refractory	9.7	2.60	0.88	10.3	3.13	1.09
	36.6	1.94	2.28	35.3	2.36	2.68
Total Proven and Probable:						
Non-refractory	29.9	1.89	1.82	26.2	2.00	1.69
Refractory	21.2	2.89	1.97	17.3	3.35	1.86
<b>Total Proven and Probable (6)</b>	<b>51.1</b>	<b>2.30</b>	<b>3.78</b>	<b>43.5</b>	<b>2.54</b>	<b>3.55</b>

Notes to Proven and Probable Mineral Reserves Table

(1) Tonnes of mineral reserves are net of a 5% dilution allowance to account for included waste, and a 98% ore recovery factor to account for losses in the ore handling process.

**Table of Contents**

(2) Calculation of contained ounces includes adjustments due to rounding.

(3) Approximately 67% of the 2004 Bogoso/Prestea mineral reserves are refractory ore. We are currently planning to add a bio-oxidation circuit to the Bogoso processing plant to process the refractory mineral reserves. The estimated recovery rates utilized in our mineral reserve calculations in 2004 ranged from 65% to 85% for oxides and other non-refractory ores, and from 78% to 85% for refractory ore. The estimated cut-off grades utilized in mineral reserve calculations in 2004 ranged from 0.7 g/t to 1.9 g/t for oxide ore and other non-refractory ores and from 1.35 g/t to 1.74 g/t for refractory ore.

(4) The Mampon property mineral reserves of 1.0 million tonnes of ore at an average grade of approximately 5.16 g/t containing approximately 160,000 ounces of gold are reported separately for the December 31, 2004 reserves. These mineral reserves were included in the total for Bogoso/Prestea in the reserve totals for December 31, 2003. Mampon was purchased as part of the Dunkwa properties acquisition in June 2003 and represents the northern extension of the Bogoso/Prestea deposits.

(5) All of the Wassa mineral reserves are non-refractory and should be treatable in the Wassa CIL processing plant. The estimated recoveries utilized in mineral reserve calculations in 2004 ranged from 92% to 93%. The estimated cut-off grades utilized in mineral reserve calculations in 2004 range from 0.5 g/t to 0.6 g/t. The mineral reserves include 4.2 million tonnes of material grading 0.7 g/t remaining on the leach pads established by the previous operator of the Wassa mine.

(6) The attributable share of tonnes and ounces for the year-ended 2004 and 2003 were 46.0 and 39.2 million tonnes and 3.41 and 3.20 million ounces, respectively.

Included in Bogoso/Prestea's proven mineral reserves for the year-end 2004 and 2003 are stockpiled ore of 0.3 and 0.8 million tonnes at an average grade of 2.69 g/t and 2.40 g/t, respectively. The table below summarizes the stockpiled ore tonnage and grade:

<b>STOCKPILES INCLUDED IN RESERVES</b>	<b>As of December 31, 2004</b>			<b>As of December 31, 2003</b>		
	<b>Tonnes</b>	<b>Gold Grade</b>	<b>Ounces (2)</b>	<b>Tonnes</b>	<b>Gold Grade</b>	<b>Ounces (2)</b>
<b>Property</b>	<b>(1)</b>	<b>(g/t)</b>	<b>(millions)</b>	<b>(1)</b>	<b>(g/t)</b>	<b>(millions)</b>
<b>Mineral Reserve Category</b>	<b>(millions)</b>	<b>(g/t)</b>	<b>(millions)</b>	<b>(millions)</b>	<b>(g/t)</b>	<b>(millions)</b>
<b>Bogoso/Prestea(3)</b>						
Proven Stockpiles:						
Non-refractory	0.1	2.74	0.01	0.8	2.40	0.06
Refractory	0.2	2.64	0.02			
Total Proven Stockpiles	0.3	2.69	0.03	0.8	2.40	0.06

**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 Industry Guide 7 standards, it is possible for our 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, the NI 43-101 has a minimum requirement that reserves be supported by a pre-feasibility study, whereas the Industry Guide 7 requires support from a full feasibility study done to bankable standards.

For the mineral reserves at December 31, 2004 and 2003, there is no difference between the mineral reserves as disclosed under NI 43-101 and those disclosed under SEC Industry Guide 7, and therefore we do not provide reconciliation.

**Table of Contents****Reconciliation of Proven and Probable Mineral Reserves <sup>(1)</sup>***(In millions of ounces of contained gold)*

<b>PROPERTY</b>	<b>December 31, 2003</b>	<b>2004 Depletion <sup>(2)</sup></b>	<b>Increase <sup>(3)</sup></b>	<b>December 31, 2004</b>
Bogoso/Prestea	2.73	(0.19)	0.27	2.81
Mampon	0.16			0.16
Wassa	0.67		0.15	0.81
<b>Total</b>	<b>3.55</b>	<b>(0.19)</b>	<b>0.42</b>	<b>3.78</b>

*Notes to Reconciliation of Proven and Probable Mineral Reserves Table*

(1) Reconciliations are important for monitoring accuracy in grade estimation, the effectiveness of grade control strategies and mining efficiency. The results of reconciliation programs are typically used to identify areas where improvements may be made, and to measure the impact of such improvements.

(2) Depletion represents contained ounces of mineral reserves processed during 2004 before considering recovery losses and therefore does not equal 2004 gold production.

(3) Increases and decreases in mineral reserves can result from the discovery of new mineralization, conversion of mineral resources to mineral reserves, changes in price assumptions, unit costs and recoveries or any combination of these factors. The increases in mineral reserves during 2004 were due primarily to the exploration successes at Bogoso/Prestea and Wassa, and an increase in the estimated gold price used to calculate reserves to \$360 per ounce from \$325 per ounce.

**NON-RESERVES MEASURED AND INDICATED MINERAL RESOURCES**

## 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, and have been estimated in conformance with definitions set out in NI 43-101. We have filed Technical Reports on our mineral reserves and mineral resources (mineral resources stated in the Technical Reports **include** mineral reserves) for Bogoso/Prestea and Wassa as required in NI 43-101. See our Glossary of Terms.

The total measured and indicated mineral resources for our properties have been estimated at an economic cut-off grade based on a gold price of \$430 per ounce for December 31, 2004 and \$375 per ounce for December 31, 2003 and on economic constraints that we believe are realistic. The economic cut-off grades for resources are higher than those for reserves and are indicative of the fact that the resource estimates include material that may become economic



under more favorable conditions including increases in gold price.

The Bogoso/Prestea and Wassa resources, owned by our 90%-owned subsidiaries BGL and WGL, respectively, are shown on a 100% basis, which represents our current beneficial interest in these resources, gold production and revenues. Once all capital has been repaid, the Government of Ghana, which owns 10% of BGL and WGL, would receive 10% of any dividends paid by the subsidiaries.

The following table summarizes our estimated non-reserves (measured and indicated mineral resources) as of December 31, 2004 and December 31, 2003:

**Table of Contents**

RESERVES MEASURED AND INDICATED MINERAL RESOURCES	As of December 31, 2004		As of December 31, 2003	
	Tonnes (millions)	Gold Grade (g/t)	Tonnes (millions)	Gold Grade (g/t)
<b>Bogoso/Prestea(2)</b>				
Measured	7.8	1.55	11.3	2.44
Indicated	26.1	2.12	15.9	2.54
	33.9	1.99	27.2	2.50
<b>Wassa(3)</b>				
Measured	1.7	2.44	9.4	0.96
Indicated	1.7	2.44	9.4	0.96
	7.8	1.55	11.3	2.44
	27.8	2.14	25.3	1.95
<b>Measured and Indicated</b>	<b>35.6</b>	<b>2.01</b>	<b>36.6</b>	<b>2.10</b>

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

(1) See Glossary Of Terms for definitions of non-reserves mineral resources, measured mineral resources and indicated mineral resources.

The estimation of the Bogoso/Prestea, Dunkwa and Wassa measured and indicated mineral resources are based on information compiled and/or validated by Mr. S. Mitchell Wasel, our employee and Exploration Manager. Mr. Wasel is a qualified geologist who has 16 years of experience in gold and base metal exploration and is a member of the Australasian Institute of Mining and Metallurgy. Mr. Wasel is considered a qualified person under NI 43-101.

(2) Approximately 81% of the 2004 Bogoso/Prestea measured and indicated mineral resources are refractory. The estimated cut-off grades utilized in mineral resource calculations in 2004 ranged from 0.7 g/t to 1.8 g/t for non-refractory material and from 0.9 g/t to 2.1 g/t for refractory material.

(3) All of the 2004 Wassa measured and indicated mineral resources are non-refractory. The estimated cut-off grades utilized in mineral resource calculations in 2004 ranged from 0.4 g/t to 0.6 g/t.

(4) The attributable share of tonnes for the year-ended 2004 and 2003 were 32.0 and 32.9 million tonnes, respectively.

**NON-RESERVES INFERRED MINERAL RESOURCES****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 Canadian regulations, 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 an 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, which are reported in this Form 10-K, **do not include** that part of the mineral resources converted to proven and probable mineral reserves or measured and indicated mineral resources, and have been estimated in conformance with definitions set out in NI 43-101. We have filed Technical Reports on our mineral reserves and mineral resources (mineral resources stated in the Technical Reports **include** mineral reserves) for Bogoso/Prestea and Wassa as required in NI 43-101. See our Glossary of Terms .

**Table of Contents**

The inferred mineral resources for our properties have been estimated at economic cut-off grades based on gold prices of \$430 and \$375 per ounce as of December 31, 2004 and December 31, 2003, respectively, and economic constraints that we believe are realistic.

The Bogoso/Prestea and Wassa resources, owned by our 90%-owned subsidiaries BGL and WGL, respectively, are shown on a 100% basis, which represents our current beneficial interest in these resources, gold production and revenues. Once all capital has been repaid, the Government of Ghana, which owns 10% of BGL and WGL, would receive 10% of any dividends. The Prestea Underground resources, 90%-owned by BGL and 10% by the Government of Ghana, are shown on a 100% basis, which represents our current beneficial interest in these resources. Once all capital has been repaid, the Government of Ghana, which owns 10% of BGL in addition to its 10% direct interest, would receive 10% of any dividends paid by BGL. The Paul Isnard resources are shown on a 100% basis. Paul Isnard is owned by our 53%-owned subsidiary, Guyanor, and Golden Star has a joint venture with Guyanor on Paul Isnard under which Golden Star can earn a 100% interest in the property.

The following table summarizes our estimated non-reserves inferred mineral resources as of December 31, 2004 and December 31, 2003:

NON-RESERVES PROPERTY	INFERRED MINERAL RESOURCES As of December 31, 2004		As of December 31, 2003	
	Tonnes(1) (millions)	Gold Grade (g/t)	Tonnes(1) (millions)	Gold Grade (g/t)
<b>Bogoso/Prestea (2)</b>	47.4	2.23	29.7	2.43
<b>Wassa (3)</b>	13.2	1.32	30.8	1.27
<b>Prestea Underground (4)</b>	1.6	8.58	1.6	8.58
<b>Paul Isnard (5)</b>	8.2	1.78	8.2	1.78
<b>Total Inferred</b>	<b>70.4</b>	<b>2.15</b>	<b>70.3</b>	<b>1.99</b>

Notes to Non-Reserves Inferred Mineral Resources Table

(1) See Glossary of Terms for definitions of non-reserves mineral resources and inferred mineral resources.

The estimation of the Bogoso/Prestea, Wassa, and Prestea Underground inferred mineral resources are based on information compiled and/or validated by Mr. S. Mitchell Wasel, our employee and Exploration Manager. Mr. Wasel is a qualified geologist who has 16 years of experience in gold and base metal exploration and is a member of the Australasian Institute of Mining and Metallurgy.

The primary qualified person responsible for the estimation of the inferred mineral resource for the Paul Isnard property is Mr. Colin Jones, who is a professional geologist with 22 years of experience. Mr. Jones is a Partner and Manager (Audits) of RSG Global Pty Ltd and a member of the Australasian Institute of Mining and Metallurgy. The amount of the mineral resource at the Paul Isnard property that might have been removed by illegal mining is not known but could be material.

We did not provide information on non-reserves inferred mineral resources for Yaou and Dorlin since they were sold during 2004.

(2) Approximately 84% of the 2004 Bogoso/Prestea inferred mineral resources are refractory. The estimated cut-off grades utilized in inferred mineral resource calculations in 2004 ranged from 0.7 g/t to 1.8 g/t for non-refractory material and from 0.9 g/t to 2.1 g/t for refractory material.

(3) All of the Wassa inferred mineral resources are non-refractory. The estimated cut-off grades utilized in mineral resource calculations in 2004 ranged from 0.5 g/t to 0.6 g/t.

(4) All of the Prestea Underground inferred mineral resources are refractory. Golden Star owns approximately a 81% beneficial interest in the property. The estimated cut-off grade utilized in mineral resource calculations in 2004 was 4.2 g/t.

## **Table of Contents**

(5) Paul Isnard is located in French Guiana, South America, and is owned by our 53% owned subsidiary Guyanor. Through a joint venture agreement, Golden Star has the right to earn a 100% ownership position in this property. The estimated cut-off grade utilized in mineral resource calculations in 2004 was 0.4 g/t. The property is undeveloped and has been on a care and maintenance basis in recent years.

(6) The attributable share of tonnes for the year-ended 2004 and 2003 were 60.2 and 61.4 million tonnes, respectively.

## **EMPLOYEE RELATIONS**

As of December 31, 2004 Golden Star, including our majority owned subsidiaries, had approximately 1,150 employees and contract employees, a 15% increase from the approximately 1,000 people employed at the end of 2003. Employees hired at the new Wassa operations made up the increase. The total includes 14 employees and two part-time or contract employees at our principal office in Littleton, Colorado and three people in South America. A review of staffing needs at the end of 2004 indicated that there were redundant staff in certain areas of our African operations and a reduction in workforce is now underway.

## **CUSTOMERS**

Currently all our gold production is sold to a South African gold refinery in accordance with a long-term contract. We receive payment for gold sold approximately five working days after the gold leaves the mine site. We recognize revenue when title passes upon delivery to the refinery unless we decide to retain title and hold the gold as inventory. During 2004 we sold all of the gold shipped in the normal course of delivery. The global gold market is competitive with numerous banks and refineries willing to buy gold on short notice, therefore we believe that the loss of our current customer would not materially delay or disrupt revenues.

## **COMPETITION**

We compete with major 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. Our competitive position depends upon our ability to successfully and economically explore, acquire and develop new and existing mineral properties. Factors that allow producers to remain competitive in the market over the long term include the quality and size of ore bodies, costs of operation, and the acquisition and retention of qualified employees. We also compete with other mining companies for skilled mining engineers, mine and processing plant operators and mechanics, geologists, geophysicists and other technical personnel. This could result in higher turnover and greater labor costs.

## **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](http://www.gsr.com). Our Internet website and the information contained therein or connected thereto are not intended to be incorporated into this Annual Report on Form 10-K.

**Table of Contents**

**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 extended decline in gold prices would have a material adverse effect on our company.**

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 extended 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 or at Wassa, if such operations become uneconomic at the then-prevailing gold price, thus further reducing revenues;

cause us to be unable to fulfill our obligations under our 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;

halt or delay the development of new projects; and

reduce funds available for exploration, with the result that depleted 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 might interrupt operations until the reassessment can be completed. Mineral reserve calculations 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.**

We had annual earnings of \$2.6 million, \$22.0 million and \$4.9 million in 2004, 2003 and 2002, respectively. We reported net losses of \$20.6 million, \$14.9 million and \$24.4 million in 2001, 2000 and 1999, respectively. 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 become unprofitable in the future. Any future operating losses could make financing our operations and our business strategy, 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 have total debts and liabilities as of December 31, 2004 of \$27.8 million, including \$3.0 million payable to financial institutions, \$16.2 million of current trade payables and accrued current liabilities and an \$8.7 million accrual for environmental rehabilitation liabilities. For additional information on our environmental rehabilitation liabilities, see note 12 to our Consolidated Financial Statements. We expect that our indebtedness and other liabilities will increase as a result of our corporate development activities. These liabilities could have important consequences, including the following:

increasing our vulnerability to general adverse economic and industry conditions;



**Table of Contents**

limiting our ability to obtain additional financing to fund future working capital, capital expenditures, operating and exploration costs and other general corporate requirements;

requiring us to dedicate a significant portion of our cash flow from operations to make debt service payments, which would reduce our ability to fund working capital, capital expenditures, operating and exploration costs 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 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 and production and the evaluation of mine plans subsequent to the date of any estimate could require revision of the estimate. 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 one major source of operational cash flows, which will likely be insufficient to fund our continuing exploration and development activities.**

While we have recently received significant infusions of cash from sales of equity, our only current significant internal source of funds is operational cash flows from Bogoso/Prestea. We expect to have a second source of operational cash flow when our newly constructed Wassa mine and plant reaches design capacity. This new operation is currently in a commissioning phase, and we expect it to achieve full design capacity in the first quarter of 2005, processing through the plant material from the prior owner's heap leach pads. However, our Wassa production goals may not be achieved. The anticipated continuing exploration and development of our properties will require significant expenditures over the next several years. We expect that these expenditures will exceed free cash flows generated by Bogoso/Prestea during that period, and therefore we expect to use our excess cash and in the future to require additional outside capital. Lower gold prices during the five years prior to 2002 adversely affected our ability to obtain financing, and recurring lower gold prices could have similar effects in the future. In the future, we may not be able to obtain adequate financing on acceptable terms. If we are unable to obtain additional financing, we might need to delay or indefinitely postpone further exploration and development of our properties, and as a result, we could lose our interest in, or could be forced to sell, some of our properties.

**Implementation of a hedging program might be unsuccessful and incur losses.**

We continue to review whether or not, in light of the potential for gold prices to fall, it would be appropriate to establish a hedging program. To date, we have not decided to implement a hedging program, although we have purchased and expect to continue to purchase puts from time to time, which give us the right to sell gold in the future

at a fixed price. The implementation of a hedging program might not, however, 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. In addition, the costs of any hedging program could further deplete our financial resources.

**Table of Contents**

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

Our revenues are in US dollars, and we maintain most of our working capital in US dollars or US dollar-denominated securities. We convert our US funds to foreign currencies as payment obligations become due. Accordingly, we are subject to fluctuations in the rates of currency exchange between the US dollar and these currencies, and such fluctuations could materially affect our financial position and results of operations. A significant portion of the operating costs at Bogoso/Prestea and Wassa is based on the Ghanaian currency, the Cedi. We are required to convert into Cedis only 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 such sales proceeds into Cedis in the future. In addition, we currently have future obligations that are payable in 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 due to changes in the value of the US dollar or the Cedi, the South African Rand or other currencies such as the recent decrease in the value of the US dollar relative to other currencies. In addition such changes may increase the salary costs of expatriate employees who are currently being paid in US dollars. Consequently, the operation and development of our properties might be more costly than we anticipate. Implementation of a currency hedging program may not adequately protect us from the effects of fluctuation in currency exchange rates.

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

We are actively pursuing the acquisition of producing, development and advanced stage exploration properties and companies, and have recently completed the acquisition and joint venture of exploration and development properties in Ghana, Sierra Leone and Mali. 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, as was our 2004 bid for IAMGold. As our operations to date have focused on a single property in Ghana, any acquisition that we may choose to complete may change the scale of our business and operations, and may expose us to new geographic, political, operating, financial and geological risks. Our success in our acquisition activities depends on our ability to complete acquisitions on acceptable terms and integrate the acquired operations successfully with those of our company. 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 our 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 involved in various routine legal proceedings, which include labor matters such as unfair termination claims, supplier matters and property issues incidental to our business. We believe it is unlikely that the final outcome of these legal proceedings will have a material adverse effect on our financial position or results of operation. However, 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 financial position and results of operations.



**Table of Contents**

**Operational Risks**

**The technology, capital costs and cost of production of refractory mineral reserves and non-reserves at Bogoso/Prestea remain subject to a number of uncertainties, including funding uncertainties.**

Based upon the completion of our Bogoso sulfide project feasibility study in 2001 and its subsequent review by Dave Alexander, a qualified person under NI 43-101, the refractory material at Bogoso/Prestea, which is ore that cannot be satisfactorily processed by basic gravity concentration or simple cyanidation, has been included in our proven and probable mineral reserves. While the sulfide project feasibility study indicated that refractory mineral reserves can be profitably mined and processed at current gold prices, the capital cost to upgrade the Bogoso processing plant with a bio-oxidation or BIOX<sup>®</sup> circuit to process refractory ore, together with related mining equipment and facilities, is significant. While the processing technology envisioned in the feasibility study has been successfully utilized at other mines and in spite of our testing, engineering and analysis, the technology may not perform successfully at commercial production levels on the Bogoso/Prestea refractory sulfide ores, in which case our production estimates may not be achieved.

**We are subject to a number of operational hazards that can delay production or result in liability to us.**

Our activities are subject to a number of risks and hazards including:

environmental hazards;

discharge of pollutants or hazardous chemicals;

industrial accidents;

labor disputes and shortages;

illegal miners and illegal mining;

community relocation issues;

community related delays;

shortage of trained managers and professionals;

supply and shipping problems and delays;

shortage of equipment and contractor availability;

difficulty in applying technology such as bio-oxidation processing;

unusual or unexpected geological or operating conditions including ore losses and dilution;

slope failures;

cave-ins of underground workings;

failure of pit walls or dams;

fire;

changes in the regulatory environment; and

natural phenomena such as inclement weather conditions, floods 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. We could incur liabilities as a result of pollution and other casualties. Satisfying such liabilities could be very costly and could have a material adverse effect on our financial position and results of operations.

**Our mining operations are subject to numerous environmental laws, regulations and permitting requirements 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 or development 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

## **Table of Contents**

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 expensive to comply.

Mining and processing gold from the south end of the Prestea property, conversion of the existing Bogoso/Prestea processing plant to process refractory sulfides and other activities will require mining and other permits from the Government of Ghana. These permits may not be issued on a timely basis or at all, and such permits, when issued, may be subject to requirements or conditions with which it is burdensome or expensive to comply. We have, for example, experienced delay in obtaining environmental permits at Bondaye. Such permitting issues could adversely affect our projected production commencement dates, production amounts and costs.

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 Wassa and anticipated 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 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;

anticipated metallurgical recovery rates;

environmental and community considerations and permitting;

future gold prices; and

anticipated capital and operating costs.

Our mine development projects could have limited relevant operating history upon which to base estimates of future operating costs and capital requirements. Estimates of proven and probable mineral reserves and operating costs determined in feasibility studies are based on 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, and we do not have a history of simultaneously managing an ongoing operation, the start-up of a new operation and a significant development project. Completion of development and the commencement of production may be subject to delays, as has occurred at Wassa. Any of the following events, among others, could affect the profitability or economic feasibility of a project:

unanticipated changes in grade, mining dilution and tonnage of ore to be mined and processed;

unanticipated adverse geotechnical conditions;

incorrect data on which engineering assumptions are made;

costs of constructing and operating a mine in a specific environment;

availability and cost of processing and refining facilities;

availability of economic sources of power;

adequacy of water supply;

adequate access to the site including competing land uses (such as agriculture and illegal mining);

unanticipated transportation costs;



## **Table of Contents**

government regulations (including regulations relating to prices, royalties, duties, taxes, permitting, restrictions on production, quotas on exportation of minerals, as well as the costs of protection of the environment and agricultural lands);

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 Risk Factors , our production estimates at Bogoso/Prestea and Wassa may not be achieved.

### **We need to continually obtain 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 our mineral reserves as our mines produce gold. At current average production rates, we estimate that Bogoso/Prestea has over ten years of mine life and Wassa has approximately five years of mine life, however our estimates might not be correct and the mine life would be shortened if we expand production. 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, involves a high degree of risk and exploration projects are frequently unsuccessful. Few prospects that are explored end up being ultimately developed into producing mines. To the extent that we continue to be involved in gold exploration, the long-term success of our operations will be related to the cost and success of our exploration programs. We cannot assure you that our gold exploration efforts will be successful. The success of gold exploration is determined in part on the following factors:

the identification of potential gold mineralization based on superficial analysis;

availability of prospective land;

availability of government-granted exploration permits;

the quality of our management and our geological and technical expertise; and

the capital 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.

### **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, precious metals. 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 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 and Prestea Underground properties. However, 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 secure claim to individual mineral properties or mining concessions could be severely constrained. We generally do not conduct surveys of

**Table of Contents**

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 executives and personnel as well as managers, professionals and skilled personnel associated with our operating and exploration activities. Due to the relatively small size of our management team, the loss of these persons or our inability to attract and retain additional highly skilled employees could adversely affect the exploration and development of our properties, which could have a material adverse effect on our business and future operations. We have obtained key person insurance only with respect to our President and Chief Executive Officer.

The period of weak gold prices prior to 2002 resulted in the depletion in the number of trained and experienced professionals and managers in our industry. Higher gold prices have resulted in an increased demand for these people, and it could therefore be more difficult to attract or retain such experienced professionals and managers without significantly increasing the cost to Golden Star.

**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;

natural phenomena such as inclement weather conditions, floods and earthquakes; and

political risks including expropriation, anarchy, terrorism and civil war.

Such occurrences could result in:

damage to mineral properties or production facilities;

personal injury or death;

loss of legitimate title to properties;

environmental damage to our properties or the properties of others;

delays in mining;

monetary losses; and

possible legal liability.

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

**Table of Contents**

**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 African) 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. Any such limitations, or the perception that such limitations might exist now or in the future, could have an adverse impact on 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

water disposal

toxic substances

development and permitting

exports

imports

labor standards

occupational health and safety

mine safety

environmental protections

Compliance with these regulations increases the costs of the following:

planning

designing

drilling

operating

developing

constructing

closure and reclamation

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. Due to the substantial increase in mining development in Ghana in recent years, the Government of Ghana has been reviewing the adequacy of reclamation bonds and guarantees throughout the country and in some cases has requested higher levels of bonding than previously had been required. Our bonds may be increased. 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, cause a reduction in levels of production and delay or prevent the development or expansion of our properties in Ghana.

Government regulations limit the proceeds from gold sales that could be withdrawn from Ghana. Changes in regulations that increase these restrictions could have a material adverse impact on us, as Bogoso/Prestea is currently our only source of internally generated operating cash flows.

**Table of Contents**

**The Government of Ghana has the right to increase its ownership and control of certain subsidiaries.**

The Government of Ghana currently has a 10% carried interest in our subsidiaries that own our Bogoso/Prestea mine, Wassa mine and Prestea Underground property. The Government of Ghana also has: (a) the right to acquire up to an additional 20% equity interest in each of these subsidiaries for a price to be determined by agreement or arbitration; (b) 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 (c) a pre-emptive right to purchase all gold and other minerals produced by such subsidiaries. The Government of Ghana may seek to exercise one or more of these rights, which could reduce our equity interest. A reduction in our equity interest could reduce our income or cash flows from Bogoso/Prestea and/or reduce our anticipated income or cash flows from Wassa, reducing amounts available to us for reinvestment and adversely affecting our ability to take certain actions.

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

Certain laws, regulations and statutory provisions in certain countries in which we have mineral rights could, as they are currently written, have a material negative impact on our ability to develop or operate a commercial mine. For countries where we have exploration or development stage projects, we intend to negotiate mineral agreements with the governments of these countries and seek variances or otherwise be exempted from the provisions of these laws, regulations and/or statutory provisions. We cannot assure you, however, that we will be successful in obtaining mineral agreements or variances or exemptions on commercially acceptable terms.

Our assets and operations are affected by various political and economic uncertainties, including:

the risks of war, civil unrest, 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 occurs on our properties, is difficult to control, can disrupt our business and can expose us to liability.**

We have experienced a significant increase in illegal mining activity in recent months on the Prestea property involving an estimated 3,000 or more illegal miners. Most of this activity is in the Beta Boundary area south of Prestea and includes areas where we have established reserves. While it is difficult to quantify the exact impact of this activity on our reserves and non-reserve mineral resources, it now appears, based on a survey completed in September 2004 that between 40,000 and 50,000 ounces of gold may have been removed by the illegal mining activity. The impact of this illegal mining to the extent known at this time, on our reported reserve and non-reserve

mineral resources has been included in our year-end 2004 reserve estimates. While we are proactively working with local, regional and national governmental authorities to obtain protection of our property rights on a timelier basis, 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 reserve and non-reserve resources, the presence of illegal miners could 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. While illegal miners work on other of our properties from time to time, they may in the future increase their presence and have increased negative impacts such as those described above on such other properties.



## **Table of Contents**

### **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.

### **Failure to achieve and 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 in the process of testing our internal control procedures in order to satisfy the requirements of Section 404 of the Sarbanes-Oxley Act, which requires annual management assessments of the effectiveness of our internal controls over financial reporting and a report by our independent auditor addressing these assessments. Any failure to implement, improve and expand our systems, processes, or controls efficiently could have a material adverse effect on our business and our ability to achieve and maintain an effective internal control environment. During the course of our testing we may identify deficiencies which we may not be able to remediate in time to meet the deadline imposed by the Sarbanes-Oxley Act for compliance with the requirements of Section 404. In addition, if we fail to maintain the adequacy of our internal controls, as such standards are modified, supplemented or amended from time to time, we may not be able to ensure that we can conclude on an ongoing basis that we have effective internal controls over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act. Failure to achieve and maintain an effective internal control environment could have a material adverse effect on our business and share price.

## **Market Risks**

### **The market price of our common shares could experience volatility and could decline significantly.**

Our common shares are listed on the American Stock Exchange and the Toronto Stock Exchange. Securities of small-cap companies 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 relatively small size of the public float will 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 American Stock Exchange 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. Securities class action litigation often has been brought against companies following periods of volatility in the market price of their securities. 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.

**Table of Contents**

**You could have difficulty or be unable to enforce certain civil liabilities on us, certain of our directors and our experts.**

We are a Canadian corporation. Substantially all of our assets are located outside of Canada and the US, and our head office is located in the US. Additionally, a number of our directors and the experts named in this prospectus are residents of Canada. Although we have appointed Koffman Kalef, Suite 1900, 885 West Georgia Street, Vancouver, British Columbia as our agents for service of process in the Province of British Columbia, it might not be possible for investors to collect judgments obtained in Canadian courts predicated on the civil liability provisions of securities legislation. It could also be difficult for you to effect service of process in connection with any action brought in the US upon such directors and experts. Execution by US courts of any judgment obtained against us or, any of the directors, executive officers or experts named in this prospectus in US courts would be limited to the assets of Golden Star Resources Ltd. or the assets of such persons or corporations, as the case might be, in the US. The enforceability in Canada of US judgments or liabilities in original actions in Canadian courts predicated solely upon the civil liability provisions of the federal securities laws of the US is doubtful.

**There may be certain tax risks associated with investments in our company.**

Potential investors that are US taxpayers should consider that we could be considered to be a passive foreign investment company ( PFIC ) for federal income tax purposes. Although we believe that we currently are not a PFIC and do not expect to become a PFIC in the near future, the tests for determining PFIC status are dependent upon a number of factors, some of which are beyond our control, and we can not assure you that we would not become a PFIC in the future. If we were deemed to be a PFIC, then a US taxpayer who disposes or is deemed to dispose of our shares at a gain, or who received a so-called excess distribution on the shares, generally would be required to treat such gain or excess distribution as ordinary income and pay an interest charge on a portion of the gain or distribution unless the taxpayer makes a timely qualified electing fund election (a QEF election). A US taxpayer who makes a QEF election generally must report on a current basis his or her share of any of our ordinary earnings and net capital gain for any taxable year in which we are a PFIC, whether or not we distribute those earnings. Special estate tax rules could be applicable to our shares if we are classified as a PFIC for income tax purposes.

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

As of December 31, 2004 approximately 14.1 million common shares are issuable on exercise of warrants, options or other rights to purchase common shares at prices ranging from Cdn\$1.02 to Cdn\$9.07. During the life of the warrants, options and other rights, the holders are given an opportunity to profit from a rise in the market price of our 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 warrants, options and other rights can be expected to exercise them at a time when we would, in all likelihood, be able to obtain any needed capital by new offering of securities on terms more favorable than those provided by the outstanding rights.

**Table of Contents**

**ITEM 2. DESCRIPTION OF PROPERTIES**

**MAPS OF OPERATIONS AND PROPERTIES**

The maps below show the locations of Bogoso, Prestea, Wassa, the Prestea Underground and Mampon in Ghana, and various exploration properties in Africa and South America. These properties are described in further detail below.

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

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

<b>Property</b>	<b>Type of Interest</b>	<b>Expiration Date</b>	<b>Property size</b>	<b>2004 Status</b>	<b>Comments</b>
Bogoso (Ghana)	Government granted mining leases held by a 90% owned subsidiary	8/21/2017 8/16/2018	95km <sup>2</sup>	Active	Mining stage
Prestea <sup>(1)</sup> (Ghana)	Government granted mining lease held by a 90% owned subsidiary	7/6/2031	129 km <sup>2</sup>	Active	Mining stage
Wassa (Ghana)	Government granted mining lease held by a 90% owned subsidiary	9/16/2022	102 km <sup>2</sup> , another 172 km <sup>2</sup> applied for	Active	Mining stage
Prestea Underground (Ghana)	Government granted mining lease, 81% <sup>(2)</sup> beneficial interest	7/6/2031	129km <sup>2</sup> lies directly below Prestea surface lease	Active	Exploration stage
Dunkwa-Mampon (Ghana)	Prospecting License	12/19/04 Renewals pending	66km <sup>2</sup>	Active	Development stage
Dunkwa-Mansiso(Ghana)	Exploration Leases	Various	56 km <sup>2</sup>	Active	Exploration stage
Akropong Trend (Ghana)	Option agreements	Various	697 km <sup>2</sup>	Active	Exploration stage
Obuom (Ghana)	52% interest in joint venture	Renewals pending	44 km <sup>2</sup> another 101 km <sup>2</sup> applied for	Inactive	Exploration stage
Other Africa	Various	Various	approximately 750 km <sup>2</sup>	Active	Exploration stage
Saramacca (Suriname)	Government granted right of exploration and option agreements	Renewals Pending	871 km <sup>2</sup>	Active	Exploration stage
Bon Espoir (French Guiana)	PER (Permit Exclusif de Recherches). 100% ownership	10/31/2006	466 km <sup>2</sup>	Active	Exploration stage

Edgar Filing: GOLDEN STAR RESOURCES LTD - Form 10-K

Paul Isnard (French Guiana)	8 Concessions. 53% ownership	12/31/2018	150km <sup>2</sup>	Inactive	Exploration stage
	PER (Permit Exclusif de Recherches). 53% ownership	12/1/2002 Renewals pending	283 km <sup>2</sup>	Inactive	Exploration stage

---

(1) Includes the Bondaye development stage property

(2) The Prestea Underground Joint Venture, which owns Prestea Underground, is owned 90% by BGL, our 90% owned subsidiary.

**Table of Contents**

**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 20.7 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.

Rights to explore and develop a mine are administered by the Minister of Mines through the Minerals Commission, a governmental organization designed to promote and control the development of Ghana's mineral wealth in accordance with the mining law. A company or individual can apply to the Minerals Commission for a renewable exploration concession granting exclusive rights to explore for a particular mineral in a selected area for a period of two years subject to renewal. When exploration has successfully delineated a mineable mineral reserve, an application is 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.

An amendment made to the mining law since 1994 requires that any person who intends to acquire a controlling share of the equity of any mining company that has been granted a mineral right by the Government of Ghana shall first give notice of such intention to the Government and obtain its consent prior to acquiring such controlling share. Consequently, any person who intends to acquire 20% or more of the total equity of BGL or WGL shall first seek the prior consent of the Government.

In accordance with the mining law, the Government of Ghana has a 10% carried interest in BGL and WGL, and is entitled to acquire up to an additional 20% interest in each of BGL and WGL. The carried interest entitles the Government of Ghana to a pro-rata share of future dividends (none have been declared to date), if any, from BGL and WGL once all capital is repaid, and the Government of Ghana has no obligation to contribute development or operating expenses. BGL and WGL owe \$82.3 million and \$86.6 million, respectively, to Golden Star or its subsidiaries as of December 31, 2004 for past advances and debts and such amounts would be repaid to us before payment of any dividends. If the Government of Ghana wishes to exercise its right to acquire an additional 20% interest, it must first give reasonable notice, and pay a mutually agreed price. If there is no agreement, the purchase price would be the fair market value of such interest at such time as determined by arbitration conducted by the International Centre for the Settlement of Investment Disputes or any similar international arbitration institution as may be mutually agreed to. The Government of Ghana could also acquire further interests in BGL and/or WGL on terms mutually acceptable to the Government and BGL or WGL. To date the Government has indicated no intent to obtain additional ownership in any of our properties.

The Government of Ghana is also entitled to acquire a special or golden share in BGL or WGL or any mining company at any time for no consideration or such consideration as the Government of Ghana and BGL or WGL might agree. The special share would constitute a separate class of shares with such rights as the Government of Ghana and BGL or WGL might agree. In the absence of such agreement, the special share would have the following rights:

the special share would carry no voting rights, but the holder would be entitled to receive notice of and attend and speak at any general meeting of the members or any separate meeting of the holders of any class of shares;

the special share 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 of the special share 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; and



## **Table of Contents**

the holder of the special share would be entitled to the payment of a nominal sum of 1,000 Ghanaian Cedis in a winding-up or liquidation of the company in priority to any payment to other members and could require the company to redeem the special share at any time for a nominal sum of 1,000 Cedis.

BGL and WGL have not issued nor to date been requested to issue any such special share to the Government of Ghana.

The Government of Ghana has a pre-emptive right to purchase all gold and other minerals produced by BGL and WGL. The purchase price would be such price as the Government of Ghana and BGL and WGL might agree on, or the price established by any gold hedging arrangement between BGL or WGL 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 such gold or other minerals so long as BGL and WGL sell gold in accordance with certain procedures approved by the Bank of Ghana.

The existing legal structure for mining in Ghana is currently under review to make it more competitive and bring it in line with international best practice. To this end a new mining bill was placed before the Ghanaian parliament in late 2004. It is expected that the bill will be considered by parliament and passed into law during 2005.

## **Ghanaian Royalty Requirements**

Under the laws of Ghana, a holder of a mining lease is required to pay quarterly a royalty of not less than 3% per annum and not more than 12% per annum of the total revenues earned from the lease area. 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 of 1987, the royalty is 3% when the operating ratio is 30% or less, the royalty increases 0.225% for each 1% increase in operating ratio until the royalty reaches a maximum of 12% at an operating ratio of 70%. In 2004, 2003 and 2002 the royalty rate for BGL was 3% of revenues, and the amounts paid were \$1.8 million, \$1.9 million and \$1.2 million, respectively. The royalty payments from BGL have not exceeded 3% per annum in any year.

## **Ghanaian Environmental Regulations**

Golden Star acquired a 90% beneficial interest in the Bogoso mine in 1999 and has maintained continuous operations of the pits and the processing plant since that time. As required by environmental regulations, an environmental management plan (EMP) was prepared in 2000 and submitted to the EPA. The EMP was due for renewal in 2003, but with the interim acquisition of the Prestea property this renewal was deferred, and BGL technically became out of compliance with Ghanaian regulations. After discussions with the EPA, we decided to combine Bogoso and Prestea into a single EMP for the whole operation, as the consolidation of the Bogoso and Prestea properties in 2003 led to the opportunity for significant synergies in environmental management. Consequently a new EMP was submitted to the EPA in the third quarter of 2004. Acceptance of the EMP by the EPA will allow BGL to apply for an Environmental Certificate, which will bring the company back into full compliance with regulations. As an integral part of this process we are negotiating with the EPA regarding the posting of a reclamation bond for the combined Bogoso/Prestea properties, and it is expected that agreement on the bonding arrangements will be completed during second quarter of 2005. The environmental reclamation bonds for Bogoso/Prestea and Wassa are expected to be for approximately \$9.0 million and \$3.9 million respectively. We plan to fund these obligations with a combination of cash on hand and letters of credit. Wassa is fully permitted and in compliance with all environmental requirements.

BGL completed significant work during 1999 to identify the outstanding reclamation liabilities for Bogoso/Prestea and to prepare a rehabilitation work plan. Significant work has been performed during 2002, 2003 and 2004 to advance this plan and to reduce the outstanding historic reclamation liability. Expenditures for ongoing rehabilitation

work, including the capping of sulfide material, backfilling of worked out pits, and the contouring and re-vegetation of waste dumps, were approximately \$0.7 million, \$0.8 million, and \$0.5 million for 2004, 2003, and 2002, respectively. As at December 31, 2004 BGL had \$3.3 million of restricted cash set aside for environmental reclamation of the Bogoso mine.

**Community Development Programs and Sustainability**

## **Table of Contents**

It is our policy and our intent to be a responsible corporate citizen of Ghana. We believe our success as an employer, as a citizen of the local community and as a participant in the local economy is dependent on achieving and maintaining good community relationships. As such, we strive to accommodate and support local efforts to improve the overall well being of the communities around our operations.

During 2004 we organized and funded a Community Relations department at BGL. The Community Relations department is charged with overseeing community assistance programs, alternative livelihood programs and with establishing effective and open communications with the local communities both at Bogoso/Prestea and at Wassa.

In mid-2001 we initiated an Alternative Livelihood and Sustainable Development Program ( ALSD ) in the Bogoso/Prestea area. During 2004 we expanded the program to Wassa. The goals of the program are to assist the communities in the vicinity of our mining operations to create alternative employment opportunities, promote growth of sustainable economic development and to reduce the community's dependence on mining.

Given the importance of agriculture in the local economy, much of our efforts have been focused on agricultural opportunities. A demonstration farm has been established at one of the backfilled pits at Prestea where we now have a fish farm, a mulberry plantation and a silk production and processing facility. We added demonstration plots of citrus crops and ginger in 2004. Studies have shown that Chinese silk production has fallen in recent years, providing an opportunity for new supply centers, and the climate of western Ghana appears to be well suited to sericulture.

The farm facility is used for training and assistance to the 150 local farmers who have signed up to participate in the program. In addition, the farm is providing participants with seed stock and fish and silk worms for use on their own farms.

Working with local Ghanaian government agencies, we have encouraged formation of agricultural cooperatives, the first of which has recently obtained a plot of ground in the Prestea area to initiate a silk operation. We have also made contact with various non-governmental developmental groups in hopes of facilitating availability of micro-project financing for the Bogoso/Prestea communities.

The ALSD program was expanded in 2004 to provide assistance to a diverse range of community self-help groups including a women's batik printing association and a dress-making school.

During 2005 we are investigating the feasibility of providing two new oil-palm/palm kernel processing facilities in the local area to more efficiently process the palm oil production already existing in the area. We also plan to test cultivate new cash crops such as mushrooms and other food sources for the local and regional markets.

In addition to the alternative livelihood projects, we are involved in the ongoing funding of several community assistance projects. We have provided funding and assistance for school improvements and equipment, libraries, a day care center, community centers, potable water systems, sports facilities and toilet facilities. We plan to spend approximately \$1.0 million during 2005 to assist with electrification projects, potable water wells, library support, health facilities, road improvements and hospital equipment. The majority of this expenditure is in conformity with the provisions of existing permits and agreements with the communities involved regarding our access to mine certain areas.

## **OPERATING PROPERTIES**

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

*Overview of the Bogoso/Prestea Operation*

Bogoso/Prestea consists of a gold mining/processing operation located along the Ashanti Trend in western Ghana, approximately 35 kilometers northwest of the town of Tarkwa from which it can be reached by paved roads from Accra, the capital of Ghana. Bogoso and Prestea are adjoining mining concessions that together cover approximately 40 kilometers of strike of the southwest trending Ashanti Trend gold trend. The mining areas at Prestea are linked to the Bogoso processing plant by approximately 12 kilometers of paved and gravel haul-roads located on our properties. Equipment and facilities at Bogoso/Prestea include several open pit mines, a nominal

**Table of Contents**

6,000 tonne per day CIL gold processing plant and a fleet of haul trucks, loaders and mining support equipment. In addition, there are numerous ancillary support facilities such as power and water supply equipment, haul roads, housing for management and technical staff, a medical clinic, tailings storage facility, waste dumps, warehouse, maintenance shops, offices and administrative facilities. The Bogoso/Prestea properties and mining rights are granted under four mining leases, which expire on or after August 2017.

Commercial mining at Bogoso dates back to the early years of the 20th century. During its 20-year period of operations from 1935 to 1955, production totaled over 900,000 ounces of gold at an average recovered grade of 3.73 g/t. Underground mining has been conducted at Prestea for more than 130 years. From 1873 to 1965, the current Prestea property was comprised of a number of different licenses operated by independent mining companies, which, in 1965, were amalgamated by the Government of Ghana into Prestea Goldfields Limited, under the aegis of the State Gold Mining Corporation.

Total gold production from the Prestea area since recorded mining commenced in the 1870s is reported by the Ghana Mineral Commission to be in excess of nine million ounces, making it the second largest historical gold producing area in Ghana, after the Obuasi mine.

Bogoso was acquired in 1999 and all of our production came from reserves located on the Bogoso concession until October 2001 when we commenced surface mining on the adjoining Prestea concession. The Prestea concession was acquired from Barnato Exploration Limited ( Barnex ) and Prestea Gold Resources Limited in mid-2001. Barnex retained a royalty interest in Prestea which we purchased from them in 2003 for \$12.0 million.

*Operating Results for Bogoso/Prestea*

The following table displays historical operating results at Bogoso/Prestea.

<b>Bogoso/Prestea Operating Results</b>	<b>2004</b>	<b>2003</b>	<b>2002</b>
Ore milled (t)	1,650,412	2,093,600	2,271,747
Rate (t/day)	4,526	5,736	6,223
Grade milled (g/t)	4.09	3.29	2.31
Recovery %	67.3	81.2	74.4
Total gold production(oz) <sup>(1)</sup>	147,875	174,315	124,400
Cash operating cost (\$/oz)	250	166	193
Total cash cost (\$/oz)	264	184	215

(1) Gold production is 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 subsidiaries owning the Bogoso/Prestea and Wassa mines.

We expect production in 2005 of 140,000 to 170,000 ounces of gold at a cash operating cost of between \$190 and \$210 per ounce.

*Bogoso/Prestea Expansion Project*

The known mineral reserves at Bogoso/Prestea can be grouped into two general ore categories based on the metallurgy of the ore and are known as non-refractory and refractory. Non-refractory ores can be processed through the Bogoso processing plant as currently configured. This category includes oxide ore, non-refractory sulfide ore and

non-refractory transition ore. Refractory ores are classified as either sulfide or transition, and these ores cannot be successfully processed by the existing Bogoso plant without first pre-oxidizing the ore.

## **Table of Contents**

The oxide ores are found at surface, down to the general level of the water table, while refractory and non refractory sulfide ores are located at depth and between these two distinct zones lays the transition ore, a zone of partially oxidized ore. Bogoso/Prestea reserves at the end of 2004 are comprised of approximately 33% non-refractory ore and 67% refractory ore on a gold content basis. As a percentage of total Bogoso/Prestea reserves, the non-refractory ore can be categorized as 12% oxide ore, 19% non-refractory sulfide ores, and 3% transition ores. The refractory ore can be categorized as either 54% refractory sulfide ore or 12% refractory transition ore.

The existing Bogoso processing plant was configured to process primarily oxide ores, but in recent years additions to the processing plant equipment have made it possible to treat non-refractory transition ores and non-refractory sulfide ores. By mid-2004 most of the oxide ores within the current operational pits at Bogoso/Prestea had been processed and since that time all of the ore processed has been transition and non-refractory sulfide ores. Gold recovery from oxide ores was typically around 80% to 85% but when processing non-refractory transition and sulfide ores the recovery rate drops to approximately 60% to 65% due to the more complex chemical nature of the non-refractory ores.

To facilitate efficient processing of the refractory sulfide ore and certain of the more refractory transition ores, major modifications are required to the existing Bogoso processing plant. At its January 2005 meeting, our Board of Directors approved in principle the upgrading of the Bogoso plant to process 3.5 million tonnes per annum and the installation of a BIOX<sup>®</sup> circuit. The approval is subject to the formalization of the necessary environmental approvals which is expected in the second quarter of 2005. Construction of the BIOX<sup>®</sup> circuit is timed to coincide with the depletion of the remaining non-refractory ores at Prestea in the second half of 2006. We expect construction of the expanded processing plant and the BIOX<sup>®</sup> circuit to be completed in 2006 following an approximately 15 to 18 month construction period after which Bogoso would process refractory sulfide, transition and non-refractory sulfide ores from Bogoso.

Upon completion of the BIOX<sup>®</sup> upgrade, the Bogoso processing plant is expected to have a nominal capacity of 3.5 million tonnes per annum to process refractory ores from our Bogoso and northern Prestea pits, where we currently have proven and probable refractory reserves of approximately 20.5 million tonnes at an average grade of 2.81 grams per tonne. Gold production from the Bogoso processing plant, following the expansion and installation of the BIOX<sup>®</sup> circuit and the expansion of the mining fleet, is expected to average approximately 270,000 ounces per annum and to vary between 260,000 to 290,000 ounces per annum at an average cash operating cost between \$250 to \$270 per ounce after commercial production is achieved. We estimate the capital cost for the BIOX<sup>®</sup> upgrade at the Bogoso plant to fall between \$80 and \$85 million, excluding the \$20 million cost to expand the existing mining fleet.

The BIOX<sup>®</sup> process is designed to treat refractory gold ores prior to cyanidization by utilizing naturally occurring bacteria capable of oxidizing gold-bearing sulfide concentrates under controlled conditions. Prior to the BIOX<sup>®</sup> processing, the ore will be crushed and ground utilizing existing equipment. A combination of flotation and gravity circuits, including circuits already in-place, will then separate a sulfide concentrate from the ore slurry with the gold locked in the matrix of the sulfide minerals. The bacteria used in the BIOX<sup>®</sup> process oxidize the sulfide minerals in the concentrate thereby liberating the gold particles which are then recovered by cyanidation. The bacteria used in the BIOX<sup>®</sup> process are non-pathogenic and pose no health risks.

The proprietary BIOX<sup>®</sup> process has been used to treat refractory gold ores and concentrates for over 18 years. A total of six BIOX<sup>®</sup> operations have been successfully commissioned since commercialization of the process of which four are still operating. Two new BIOX<sup>®</sup> plants are currently under construction, the Suzdal plant in Kazakhstan and the Fosterville plant in Australia, which are scheduled for commissioning during 2005. Four additional BIOX<sup>®</sup> plants are now in various stages of development and are currently scheduled for commissioning during 2005 and 2006.

One of the larger bio-oxidation plants which were built by GRD Minproc in the mid-1990s, is located at AngloGold Ashanti's Obuasi mine, which is also located on the Ashanti gold trend, 130 kilometers northeast of Bogoso/Prestea.

We believe that the sulfide mineralization at Obuasi is similar to the Bogoso/Prestea material. Our metallurgical assessment of the suitability of the bio-oxidation process for Bogoso/Prestea ores has been a four-year project. The work has involved metallurgical assessments on some 32 samples representative of the current sulfide reserves, including a flotation, BIOX<sup>®</sup> and neutralization pilot plant program on a nine-tonne bulk sample compiled by the blending of approximately 90 diamond drill hole cores.



## **Table of Contents**

BIOX® bench and pilot scale tests on Bogoso sulfide ores have consistently yielded gold recoveries averaging in excess of 86% that vary between 78% and 88%. This compares to 55% achievable by direct cyanide treatment.

The Bogoso expansion plan outlined above is subject to the completion of technical studies now underway, subsequent final board approval, obtaining all requisite environmental permits and successful resolution of potential technical difficulties that could be encountered during the construction and start-up of the new facilities.

### *Geology at Bogoso/Prestea*

The Bogoso/Prestea property lies within the Eburnean Tectonic Province in the West African Precambrian Shield along a 40 kilometers stretch of 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, converging at Obuasi and forming the basis for the world class Obuasi deposit, owned and operated by AngloGold Ashanti Limited.

### *Mineral Reserves and Non-Reserve Mineral Resources at Bogoso/Prestea*

Bogoso/Prestea has proven and probable mineral reserves of 30.9 million tonnes with a grade of 2.83 g/t containing approximately 2.81 million ounces of gold (before a reduction for the 10% minority interest). Total measured and indicated mineral resources total 33.9 million tonnes with a grade of 1.99 g/t before a reduction for the 10% minority interest. The current proven and probable mineral reserves should support mining operations for approximately ten years, although we expect the mine life to be extended as we continue to evaluate mineral resources through ongoing exploration efforts. 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.

### *Exploration at Bogoso/Prestea*

Exploration activities on the Bogoso Property during 2004 concentrated on drilling beneath the previously mined open pits along a southern six kilometer portion of the Ashanti trend. The drilling had two purposes in that we were determining whether we had additional potential for economic unweathered mineralization beneath the old pits or whether we could back fill and rehabilitate them. The drilling was initiated from the southern boundary of the concession to the Main Chujah unweathered planned open pits. Past exploration in this area had concentrated on the weathered mineralization with limited drilling testing the unweathered mineralization potential. Drilling was conducted on 100 meter spaced fences and involved approximately 10,700 meters of RC drilling with diamond drill core tails and 800 meters of RAB drilling. Results of this drilling has indicated that approximately two kilometers of this trend in the southern most portion has not intersected significant gold grades and the pits in this area can be back filled and rehabilitated. The 2004 drilling has also indicated there are several areas where higher grade mineralization exists and further drilling will be required to confirm these zones. The new drilling has been incorporated into the drill hole database and will be used for the 2004 year end mineralized material and reserve estimates. Optimized pit shells created on the non reserve portion of the estimate will be used to determine where additional drilling for 2005 will be conducted, areas where estimated grades support an optimized pit will be tested further to determine the viability of a minable reserve. Drilling for 2005 has also been planned to test for unweathered refractory mineralization north of the areas tested in 2004.

Surface exploration drilling on the Prestea property during 2004 focused on further delineation drilling at Tuappim, Bondaye, Beta Boundary and Buesichem. The Tuappim and Bondaye drilling tested the down dip and along strike extensions of these developing zones that were initially RAB drilled in 2003. Delineation drilling totaled

approximately 3,400 meters of RAB and 23,500 meters of RC drilling with deeper holes having diamond core tails. Results of this drilling have confirmed the continuation of mineralization both along strike and down dip. The new drilling has been incorporated in the database and has been used for updating the mineralized material and reserves for the 2004 year end. Definition drilling on approximate 25 meter spacing is planned for the Bondaye and Tuappim targets during 2005.

During 2004, 25 meter spaced infill drilling was initiated over the Beta Boundary resource focusing on the proposed southern pit area. In order to determine the continuity of mineralization between the old underground mining areas

## **Table of Contents**

and the bottom of planned open pits at Beta Boundary we drilled below these proposed pits. This deeper drilling indicates that the zones of mineralization below the proposed pits are narrowing or have been partially exploited by historical under ground mining. Infill drilling in the areas of the proposed pits has confirmed the zones previously interpreted, however several zones have been depleted by the illegal mining activity. The areas of illegal mining activity have been surveyed and these areas will be removed from the mineralized material and reserve estimates for the 2004 year end statement. Drilling at Beta Boundary totaled approximately 8,300 meters during 2004. Drilling at the northern Beta Boundary pit has been hindered by the illegal miners operating in the area. We are currently conferring with the government on a plan to remove the illegal miners and will initiate the infill drilling of the Northern Beta Boundary pits when they have been removed.

Buesichem exploration during 2004 involved infill drilling to collect additional samples for metallurgical sampling as well as infill drilling to a nominal 25 meter spacing. This drilling confirmed the mineralization previously tested but did show that grades and thickness of the mineralized zones does vary between the existing drill holes. Deeper drilling conducted in the central part of the Buesichem deposit showed that grades tended to increase slightly at depth. If the optimized pits using the non reserve (Inferred resources) indicate this deeper, higher grade mineralization is economic then further drilling at depth will be required in 2005. Drilling completed in 2004 involved 33 diamond drill holes totaling 4,700 meters of core.

A magnetic and radiometric helicopter-borne geophysical survey was carried out over the Bogoso/Prestea and Akropong concessions. The survey was flown at 50m line spacing using a horizontal gradient array and totalled 9,000 line km for a cost of \$0.2 million. The Bogoso/Prestea survey encompassed 5,500 line km while the Akropong area was flown with 3,500 line km. The Bogoso/Prestea survey has led to a better definition of the underlying geology in particular the Birimian Tarkwaian boundary. Due to its high resolution subtle features such as potential alteration halos have become apparent. Additional data gained from this survey which will aid the company in the long run are radiometrics and a detailed DTM.

## **DEVELOPMENT STAGE PROJECTS**

### **The Wassa Gold Mine**

#### *Overview of the Wassa Gold Mine*

The Wassa gold mine was initially developed in the late 1990s by a consortium of European mining companies and consisted of an open pit mine and a conventional heap leach operation. While operating as a heap leach property, Wassa produced approximately 90,000 ounces of gold per annum for a period of just over two years beginning in 1999 and ending in mid-2001.

In September 2002 our 90% owned subsidiary WGL acquired the Wassa gold property located 35 kilometers east of our Bogoso/Prestea gold operations in Ghana. As with Bogoso/Prestea, the Government of Ghana holds a 10% carried interest and is not required to contribute any development capital. Any future dividends (none have been declared to date) would be split 90% and 10% between us and the Government of Ghana, respectively. Dividend payments would not be made until WGL has repaid all capital.

Immediately following acquisition we began a drilling program and engineering studies designed to evaluate the economic viability of the property as a conventional 10,000 tonne per day CIL gold operation. Based on initial drill results and engineering data, a feasibility study was begun shortly after acquisition and was completed in July 2003. In July 2003 we announced that the project would proceed and construction of the CIL processing plant would commence immediately. The feasibility study was prepared by our staff supported by a team of independent consultants led by Metallurgical Design and Management (Pty) Ltd. ( MDM ) of South Africa. In July 2003 we also

awarded a fixed-price contract to MDM to construct the new CIL plant and associated processing facilities.

While we experienced significant construction delays during 2004, the construction phase of the Wassa project was substantially complete by December 31, 2004 except for the power line which is now under construction and which we expect to complete by mid-year 2005. Following discussions in November 2004, our contract with MDM was terminated on November 29, 2004. All of the required power line permits have been obtained, and all of the material power line construction equipment has been delivered and staged for construction or is on order. While the power line is still under construction, the existing

## **Table of Contents**

powerhouse at Wassa should generate all of the power needed to fully operate the plant and associated facilities until the connection to the local power grid is completed.

As of December 31, 2004 acquisition and development costs totaled \$66.5 million including feasibility study costs, development drilling and geology, operating equipment and plant and site construction costs. The remaining project costs at December 31, 2004 are estimated to be \$7.0 million, consisting of \$5.0 million for completion of the power line and \$2.0 million for completion of miscellaneous items at the plant site. An additional \$14 million is also budgeted in 2005 for purchase of additional mining equipment. During 2004 while testing and commissioning the mine we poured 5,292 ounces of gold resulting in \$2.3 million of preproduction revenues which were credited against mine development costs.

Our 2005 mining plan involves processing most of the heap leach material left on the pads by the former owner which will furnish a low cost ore feed to the new plant during its first year of operations and will also clear the pad area for use as a tailings dam site. Mining will be performed initially using a mixture of equipment transferred from Bogoso/Prestea and contract equipment until new equipment is procured. During 2005 we anticipate feeding the Wassa plant with approximately 45% heap leach material and 55% open pit ore. Recoveries are expected to average between 87% and 90% with recoveries from heap leach material and open pit ore ranging from 80% to 90% and 83% to 95%, respectively. During 2005 we expect to produce between 100,000 and 120,000 ounces of gold at Wassa at an average cash operating cost between \$280 and \$300 per ounce. We expect production costs to be higher than this in the first half of 2005 due to the higher costs of operating the power house. In the second half of 2005 cash operating costs are expected to fall by \$50 to \$80 per ounce following completion of the power line and the acquisition of new mining equipment. After 2005 we expect annual gold production to exceed 140,000 ounces per year, at an average cash operating cost of between \$200 and \$220 per ounce.

### *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 metasedimentary and volcanic rocks of the Birimian and Tarkwaian sequences.

Wassa is hosted within the same Birimian volcano-sedimentary greenstone package as Bogoso/Prestea. Wassa is situated on the southeastern limb of the Tarkwa Syncline while Bogoso and Prestea occur along the northwestern limb. The northwestern belt hosts the Obuasi, Prestea, and Bogoso gold mines but the southeastern limb also is characterized by gold mines and mineral occurrences. Tarkwaian hosted deposits along the south eastern limb include Goldfield's Tarkwa and Abosso mines, while Birimian hosted gold occurrences include St. Jude's Hwini-Butre property and Wassa.

### *Mineral Reserves and Mineral Resources at Wassa*

Wassa has a probable mineral reserve of 19.3 million tonnes with a grade of 1.31 g/t containing approximately 0.81 million ounces of gold before the reduction for the 10% minority interest. Total indicated mineral resources consist of 1.7 million tonnes with a grade of approximately 2.44 g/t before a reduction for the 10% minority interest. The current mineral reserves should support mining operations for approximately five years at planned mining rates. See the Proven and Probable Mineral Reserves table and the Non-Reserves Measured and Indicated Mineral Resource table in Item 1 of this 10-K.

### *Exploration at Wassa*

Exploration activities at Wassa during 2004 concentrated on completion of in-fill drilling of inferred mineral resources. Drilling results indicated that the mineralized corridors continue at depth with variable grade as has been observed closer to surface. The new drilling results have been incorporated into the database and will be used for the estimation of the Wassa mineralized materials and reserves.

Grass roots exploration activities during 2004 concentrated on further delineation of the two mineralized corridors extending southwest from the known gold mineralization. Gold in soil geochemical anomalies in the southern portion of the mining lease are located in the Subri Forest Reserve. We were successful in obtaining the appropriate

## **Table of Contents**

government permits and permissions for conducting exploration within the forest reserve this year and we progressed with deep auger drilling which outlined several anomalies.

A high resolution helicopter borne geophysical survey was carried out over the Wassa mining lease and surrounding prospecting and reconnaissance licenses. We identified several exploration targets which were prioritized on the basis of coincidental geophysical and geochemical anomalies as well as favorable geological characteristics. We initiated follow up of these targets in the last quarter of 2004 and have planned soil geochemistry and RAB drilling programs to test these further in 2005.

The 2005 exploration programs will involve; infill RC drilling along the strike extents of the known mineralized zones in proximity to the planned open pits; RAB drilling of geophysical and geochemistry targets delineated south of the mining area; and initial target testing of geophysical targets delineated on the surrounding mineral leases around the Wassa mining lease.

### **Bondaye Project**

In addition to the BIOX<sup>®</sup> expansion described above, we are in the process of investigating the addition of a second processing plant at Bogoso/Prestea to process oxide, non-refractory sulfide and transition ores from the southern areas of the Prestea property. In July 2003 we purchased a used 4,500 tonne per day conventional CIL processing plant, associated stores inventory, and a six-megawatt powerhouse from an inactive mine site in Ghana. This facility was dismantled in during 2003 and the plant was moved to Prestea in 2004 where it was refurbished. The power plant is currently being used at Wassa. With the appropriate modifications the plant should be able to process oxide, non-refractory sulfide and transition ores found at Prestea.

This project is referred to as the Bondaye project. We had originally planned to begin development of this new operation during 2005, but unanticipated delays in obtaining necessary environmental permits and the impact of the socio-economic aspects of the project have now led to a review of the optimal plant location. We plan to continue the evaluation of the potential of this expansion option during 2005.

### **The Mampon Project (See also Dunkwa Properties)**

The Mampon project, which is located within the Dunkwa properties, is approximately 35 kilometers north of the Bogoso plant. It was acquired in 2003, as part of the Dunkwa property acquisition. An analysis of the drilling and other geologic data provided by the former owner allowed us to establish a probable reserve at the Mampon property of approximately 1.0 million tonnes grading 5.16 grams per tonne or approximately 160,000 ounces of gold as of year-end 2004 which is accessible by open pit mining methods. These reserve estimates were determined in accordance with the policies and procedures set forth in the reserves section. The geology of the Mampon deposit is similar to the geology at Bogoso/Prestea. Our current plan is to haul the Mampon ore by truck to the Bogoso plant to supplement ores from the Bogoso/Prestea deposits.

## **EXPLORATION STAGE PROPERTIES IN GHANA**

The following is a summary of 2004 activity at each of the major exploration projects.

### **Prestea Underground (81% Golden Star)**

#### *Overview*

The Prestea Underground is an inactive underground gold operation located directly beneath our Prestea property consisting of several shafts and extensive underground workings and support facilities. Support facilities include an administrative office, maintenance shops, a warehouse and electrical substations. Access to the mine site is via a paved road maintained by the Government of Ghana. Any potential future production from the Prestea Underground would most likely be trucked to the Bogoso processing plant for processing.

The Prestea Underground has produced approximately nine million ounces of gold during the last 100 years, the second highest production of any mine in Ghana. The underground workings are extensive, reaching depths of approximately 1,400 meters and extending along a strike length of approximately ten kilometers. Underground workings can currently be accessed via two shafts, one near the town of Prestea and a second approximately four



## **Table of Contents**

kilometers to the southwest. Underground operation ceased in early 2002, following an extended period of low gold prices. In March 2002 our subsidiary BGL entered in to a joint venture agreement with the former owners to further explore and evaluate the remaining potential of the underground operations.

In late 2003, our partner in the Prestea Underground joint venture filed for bankruptcy in Ghana. This event resulted in our partner relinquishing its rights under the joint venture agreement and the transfer of the partner's remaining ownership position to our subsidiary, Bogoso Gold Limited, ( BGL ), thereby giving BGL a 90% ownership in the Prestea Underground. The Government of Ghana continues to hold a 10% ownership in Prestea Underground as well as its 10% holding in BGL, resulting in an 81% beneficial ownership by Golden Star.

### *Geology of Prestea Underground*

The Prestea deposits are found along the Ashanti Trend which extends over 220 kilometers and which accounts for 80% to 90% of the total quartz lode-hosted gold extracted in Ghana. Other mines located along the same shear are our Bogoso pits, and the Obuasi and Konongo mines owned by others.

Two types of gold hosts have historically been recognized at Prestea: fault-related hydrothermal quartz veins; and disseminated sulfide-hosted gold mineralization associated with metavolcanic pods; the first type of ore was the focus of intense mining during Prestea's past production. We intend to evaluate both types of mineralization.

### *Mineral Resources at Prestea Underground*

As of December 31, 2004 total inferred mineral resources consist of 1.6 million tonnes with a grade of 8.58 g/t before a reduction for the 19% minority interest.

### *Exploration Activities at Prestea Underground*

Underground exploration drilling was hampered late in 2004 by a higher than usual influx of water from surface, the result of a higher than average rainfall during the third quarter, and galamsey mining activities exacerbated the situation. Despite this we were able to continue testing the down-dip extensions of the West Reef confirming that the structure continues below the last drilled intersections with grades ranging from one to 12 grams gold per tonne over approximately one meter widths.

Other drilling identified narrow zones of mineralization down-dip of the mined-out Main Reef. Historical mining has not exploited the Main Reef between levels 17 and 24 in this area and the recent drill results indicate the potential for additional resources. Further drilling is budgeted for 2005.

A deep surface hole was initiated during 2004 to test the down plunge extension of the high grade mineralization below the Bondaye Main shoot. Drilling problems late in the year have delayed completion of the hole. The depth of the hole at the end of the year was just over 1,300 meters. The estimated depth to intersect the projected target is between 1,500 and 1,600 meters, approximately 200 to 250 meters below the lowest underground mining in this area. We now expect to reach the target zone in early 2005. Several daughter holes are planned off the initial hole, once it is completed, to test the structure along strike.

Spending at the Prestea Underground project totaled \$7.1 million in 2004 and \$3.7 million during 2003, including facility maintenance, engineering, drilling, geologic activities and equipment purchases. Support crews continue to maintain the underground and surface facilities in good working order and assist our underground drilling teams.

Prestea Underground exploration programs in 2005 will continue the programs begun in 2004.

**Akropong Trend Properties**

During 2004 we continued working on the Akropong Trend properties located approximately 10 to 20 kilometers to the west of the Bogoso/Prestea. The objective of this work was to identify additional mineral reserve opportunities in the immediate vicinity of Bogoso/Prestea that could, in the future, provide additional sources of processing plant feed for the Bogoso or planned Bondaye processing plants. All the Akropong Trend projects are at an early stage of exploration and to date they do not have, and ultimately might not have, proven and probable mineral reserves.

## **Table of Contents**

We spent approximately \$0.4 million on Akropong projects during 2004 compared to \$1.0 million in 2003. Most of the Akropong spending was related to RAB and RC drilling. While property access issues slowed down the 2004 efforts most of these were resolved by the end of the year and we plan to continue with solid sampling and drilling of more promising areas in 2005.

### **Dunkwa Properties (including Mampon)**

#### *Overview of the Dunkwa Properties*

In 2003 we purchased two prospecting licenses, Asikuma and Mansiso, along the Ashanti Trend from Birim Goldfields Inc., which we refer to as the Dunkwa properties. These properties cover 45 kilometers of strike along the Ashanti Trend directly north of and contiguous with the current Bogoso concession. It is accessible by Ghanaian public roads. The addition of the Asikuma and Mansiso prospecting licenses, which cover 56 and 69 square kilometers, respectively, increases our property holdings along the trend to over 100 kilometers in length. In 2003 we also acquired from Ashanti Goldfields Company Limited the rights to the Mampon prospect located on the Asikuma license. Ore from Mampon is expected to be trucked to the Bogoso processing plant after 2005.

The Mampon prospect was discovered in 1988 using regional geochemical methods and consists of narrow quartz veins with strong pyrite and arsenopyrite mineralization in the wall rocks ranging up to 15% total sulfides. These prospects are also associated with shearing and/or graphitic faults, similar to those seen at Bogoso. There are five known gold prospects on the Dunkwa concession. All of these occur in the same approximate stratigraphic position within Lower Birimian sediments from 1 to 1.5 kilometers west of the contact with the Birimian metavolcanics.

#### *Exploration Activities at the Dunkwa Properties*

Exploration activities were minimal at Dunkwa during 2004 but exploration plans for 2005 include drilling over the known occurrences as well as follow up drilling of any new targets generated. We also plan to drill an unexplored nine kilometer section of the property covered by Opon river valley sediments. We expect to spend approximately \$1.0 million on exploration activities at Dunkwa during 2005.

### **Other Active Properties in Africa**

#### *Mininko, Mali (may earn up to 82.5% interest)*

In 2003 we entered into a joint venture to explore the 250 square kilometer Mininko area of Mali in West Africa. Drilling in late 2003 and 2004 identified a broad zone of low grade gold mineralization along an 800 meter trend at the Nampala prospect but subsequent analysis of the data indicated the gold mineralization to be sub-economic given the relatively limited resource base. Work on the Mininko license was suspended in late 2004. The joint venture agreement with our partner at Mininko was renegotiated and the partner has now turned attention to regional soil sampling on two new licenses which are contiguous with the Mininko license, seeking additional resources that could be added to the Nampala resource. Subject to agreement to modify the terms of the joint venture agreement, we expect to spend approximately \$0.4 million on this work in 2005.

#### *Mano River Joint Venture, Sierra Leone (may earn up to 85% interest)*

In late 2003 we entered into a joint venture agreement with Mano River Resources Inc., which holds several gold prospects in Sierra Leone totaling approximately 700 square kilometers. A diamond core drilling program commenced in mid-March at the Yirisen prospect on the North Pampana license, and 26 holes were completed. Grades and gold mineralization proved to be variable and discontinuous. Due to the prospective nature of the local area, as evidenced

by numerous artisanal workings and favorable geology, a wide-area surface sampling program was initiated in late 2004 which will continue into 2005. Any additional drilling in 2005 will depend on the results of the surface sampling project. If good targets are generated, we have budgeted up to \$1.7 million for drilling during 2005.

## **Table of Contents**

### *Moto Goldmines Investment*

In October 2004 we acquired a 9.5% equity interest in Moto Goldmines Limited ( Moto ) for \$4.1 million and became Moto 's single largest shareholder. In addition to the common shares, we received warrants, which if exercised will raise our interest to 13.3%. At Moto 's annual general meeting in November 2004, shareholders elected Dr. Doug Jones, Golden Star 's Vice President, Exploration, as a director.

Moto controls the approximate 4,700 square kilometer Moto concessions located in the north east of the Democratic Republic of Congo. The Moto concessions form part of the Kilo-Moto gold belt which has historical production in excess of 11 million ounces with over two million ounces mined from ten small mines within the central 35 square kilometers on the Moto concessions. After securing control of the property in late 2003, Moto began a drilling program in February 2004 to confirm and expand the gold resource around the areas previously mined. Based upon this work Moto 's independent resource consultants have estimated an indicated resource of 7 million tonnes grading 2.7 grams per tonne and inferred resources of 36 million tonnes grading 3.2 grams per tonne.

During 2005 Moto plans to use the funds provided by our share purchase, along with other funding, for further exploration and development at the Moto concessions included additional drilling of the known targets and regional soil sampling and a pre-feasibility study.

## **THE SOUTH AMERICAN PROPERTIES**

We hold one exploration property in Suriname known as the Saramacca property, and we currently hold two properties in French Guiana. The Paul Isnard property is held through Guyanor, our 53% owned subsidiary. A new 100% owned subsidiary, also located in French Guiana, known as Golden Star Ressources Minière S.A.R.L. ( GSRM ) holds exploration permits for the Bon Espoir property located near Guyanor 's Paul Isnard property. Guyanor 's Yaou and Dorlin properties in French Guiana were sold late in 2004. A total of \$0.75 million was spent on the French Guiana properties during 2004, all related to acquisition of the properties or for care and maintenance.

### **Saramacca Property**

The Saramacca property is located in Suriname and is owned 100% by Golden Star. Two successive soil auger sampling programs were completed in late 2003 and early 2004 to evaluate a series of stream sediment gold anomalies. Field work through 2003 established an 18 kilometer long by 4 to 7 kilometer wide auger grid, with 154 kilometers of cut lines. Additional augering during 2004 focused on a 5 kilometer long soil anomaly forming a series of enechelon zones of gold mineralization. The deep augering in 2004 confirmed the anomaly with a 200 parts per billion contour extending for some 2,500 meters northwest-southeast and a 300 parts per billion contour extending over 1,600 meters with widths of 150 to 300 meters. Individual spot values ranged up to 100 grams per tonne. Trenching and diamond core drilling is planned for 2005 and we have budgeted approximately \$0.3 million for the project. Approximately \$0.2 million of direct field related costs were spent in each of the 2004 and 2003 field programs.

### **Bon Espoir Property Acquisition**

In October 2004 we acquired a 100% interest in the 466 square kilometer Bon Espoir exploration property in French Guiana from Gold Fields Exploration B.V. for a purchase price of \$0.3 million paid in common shares of Golden Star plus \$0.1 million in transaction costs. The Bon Espoir property is located north of our Paul Isnard Property in a geological setting interpreted by us as having many similarities to the Ashanti Trend area of Ghana including a sheared contact between sediments and volcanic formations.

The area is covered by the Bon Espoir exclusive exploration permit, dated October 24, 2001 and valid until October 31, 2006. This permit covers an area of 466 square kilometers. Our plan for 2005 includes a \$0.75 million budget to conduct regional soil sampling along much of the 40 kilometer long sediment-volcanic contact shear zone.

**Paul Isnard Property**

The Paul Isnard property is located in the western part of French Guiana, approximately 180 kilometers west of Cayenne. The Paul-Isnard exploration permit covers an area of 283 square kilometers, and we are waiting for the

**Table of Contents**

granting of its first renewal for a reduced surface area. Paul Isnard remained on care and maintenance during 2004 and total maintenance costs incurred were less than \$0.1 million. An additional \$0.2 million of acquisition costs were incurred.

In conjunction with the Guyanor restructuring plan, Golden Star acquired the right to earn-in to the Paul Isnard property by spending certain amounts performing exploration work on the property. Provisions of the agreement allow Golden Star to eventually earn up to a 100% ownership position in the property. Also in 2004 as part of the earn-in agreement, Golden Star acquired the Guiana Shield geologic data base from Guyanor for \$6 million, which was paid by reducing the inter-company loan balance Guyanor owed Golden Star by a similar amount.

During 2005 we plan to review past exploration results at Paul Isnard and the surrounding areas and possibly commence limited exploration of any targets identified by the review. A budget of \$0.15 million has been set for this work.

**ITEM 3. LEGAL PROCEEDINGS**

We are not currently subject to any material pending legal proceedings. We are, however, engaged in routine litigation incidental to our business. No material legal proceedings, involving us or our business are pending, or, to our knowledge, contemplated, by any governmental authority. We are not aware of any material events of noncompliance with environmental laws and regulations.

**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 2004.

**PART II OTHER INFORMATION**

**ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS**

Our common shares trade on the Toronto Stock Exchange ( TSX ) under the trading symbol GSC and on the American Stock Exchange under the symbol GSS . As of January 31, 2005, 142,346,703 common shares were outstanding and we had 954 shareholders of record. On January 31, 2005, the closing price per share for our common shares as reported by the TSX was Cdn\$4.51 and as reported by the American Stock Exchange was \$3.68.

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 American Stock Exchange:

	Toronto Stock Exchange		American Stock Exchange	
	Cdn\$	Cdn\$	\$	\$
2004	High	Low	High	Low
First Quarter	9.43	7.00	7.25	5.29
Second Quarter	9.20	5.90	7.07	4.27

Edgar Filing: GOLDEN STAR RESOURCES LTD - Form 10-K

Third Quarter	6.73	4.91	5.27	3.71
Fourth Quarter	7.10	4.32	5.61	3.50
	Toronto Stock Exchange		American Stock Exchange	
	Cdn\$	Cdn\$	\$	\$
2003	High	Low	High	Low
First Quarter	3.49	2.25	2.29	1.54



**Table of Contents**

Second Quarter	3.77	2.43	2.80	1.68
Third Quarter	6.15	3.42	4.53	2.46
Fourth Quarter	10.77	5.10	8.30	3.77

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.

**CERTAIN CANADIAN FEDERAL INCOME TAX CONSIDERATIONS**

The following summarizes the principal Canadian federal income tax considerations applicable to the holding and disposition of our common shares by a holder of one or more common shares, who for tax purposes is resident in the United States of America and holds the common shares as capital property. This summary is based on the current provisions of the Canada-United States Income Tax Convention (1980) (the Treaty), Income Tax Act (Canada) (the Tax Act), the regulations thereunder and all amendments to the Tax Act publicly proposed by the Government of Canada to the date hereof. It is assumed that each such 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. Limited liability corporations created under the limited liability company legislation of certain U.S. states cannot access any of the benefits of the Treaty as described in the paragraphs below.

Dividends 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%. Under the Treaty, the rate of withholding tax is reduced to 5% of the gross amount of the dividend where the holder is a company that owns at least 10% of the company's voting stock and beneficially owns the dividend, and 15% in any other case.

Under the Tax Act, a holder will not be subject to Canadian tax on any capital gain realized on an actual or deemed disposition of a common share, including a deemed disposition at death, provided that he did not hold the common share as capital property used in carrying on a business in Canada, and that neither he nor persons with whom he did not deal at arm's length, alone or together, owned (or have an option or interest in) 25% or more of the issued shares of any class of our stock at any time in the 60 month period immediately preceding the disposition.

A holder who is liable under the Tax Act for Canadian tax in respect of a capital gain realized on an actual or deemed disposition of a common share could be relieved under the Treaty from such liability unless:

- (a) the common share formed part of the business property of a permanent establishment or fixed base in Canada that the holder has or had within the twelve-month period preceding the disposition; or
- (b) the holder was an individual; and
  - (i) was resident in Canada for 120 months during any period of 20 consecutive years preceding the disposition; and
  - (ii) was resident in Canada at any time during the ten years immediately preceding the disposition; and
  - (iii) owned the common share when he ceased to be a resident of Canada.

To the extent that no Treaty relief is available, generally, one-half of any capital gain realized by a holder in a taxation year must be included in the income of the holder for the year, and one-half of any capital loss realized by a holder in a taxation year must be deducted from taxable capital gains realized by the holder in that year. Capital losses for a taxation year in excess of taxable capital gains for that year generally may be carried back and deducted in any of the

three preceding taxation years or carried forward and deducted in any subsequent taxation year against net taxable capital gains realized in such years. A holder is required to file a Canadian income tax return if such

**Table of Contents**

holder disposes of a common share and the gain or loss is subject to tax in Canada, based on the application of the rules outlined in the above paragraphs, even where the Treaty applies to relieve the Canadian tax liability.

This summary is of a general nature and is not intended, nor should it be construed, to be legal or tax advice to any particular shareholder. **SHAREHOLDERS SHOULD CONSULT THEIR OWN TAX ADVISERS AS TO THE INCOME AND OTHER TAX CONSEQUENCES ARISING IN THEIR PARTICULAR CIRCUMSTANCES.**

**CERTAIN UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS**

Potential investors that are US taxpayers should consider that we could be considered to be a passive foreign investment company ( PFIC ) for federal income tax purposes. Although we believe that we currently are not a PFIC and do not expect to become a PFIC in the near future, the tests for determining PFIC status are dependent upon a number of factors, some of which are beyond our control, and we can not assure you that we would not become a PFIC in the future. If we were deemed to be a PFIC, then a US taxpayer who disposes or is deemed to dispose of our shares at a gain, or who received a so-called excess distribution on the shares, generally would be required to treat such gain or excess distribution as ordinary income and pay an interest charge on a portion of the gain or distribution unless the taxpayer makes a timely qualified electing fund election (a QEF election). A US taxpayer who makes a QEF election generally must report on a current basis his or her share of any of our ordinary earnings and net capital gain for any taxable year in which we are a PFIC, whether or not we distribute those earnings. Special estate tax rules could be applicable to our shares if we are classified as a PFIC for income tax purposes.

**Table of Contents****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, 2004, 2003, 2002, 2001 and 2000, and should be read in conjunction with those financial statements and the footnotes 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 footnote 21 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)

<b>Canadian GAAP</b>	<b>As of Dec. 31, 2004</b>	<b>As of Dec. 31, 2003</b>	<b>As of Dec. 31, 2002</b>	<b>As of Dec. 31, 2001</b>	<b>As of Dec. 31, 2000</b>	
Working capital	\$ 61,366	\$ 96,784	\$ 21,963	\$ (5,149)	\$ 4,452	
Current assets	78,846	104,935	32,843	9,636	12,960	
Total assets	252,160	222,391	74,135	36,552	49,469	
Current liabilities	17,480	8,151	10,880	14,785	8,508	
Long-term liabilities	10,367	8,402	8,973	7,765	10,477	
Shareholder's equity	217,960	198,362	49,384	12,342	26,040	
	<b>For the Year Ended Dec. 31, 2004</b>	<b>For the Year Ended Dec. 31, 2003</b>	<b>For the Year Ended Dec. 31, 2002</b>	<b>For the Year Ended Dec. 31, 2001</b>	<b>For the Year Ended Dec. 31, 2000</b>	
Revenues	\$ 65,029	\$ 64,370	\$ 38,802	\$ 24,658	\$ 31,171	
Net income/(loss)	2,642	21,956	4,856	(20,584)	(14,881)	
Net income/(loss) per share - basic	0.019	0.198	0.067	(0.488)	(0.400)	
	<b>For the</b>	<b>For the</b>	<b>For the</b>	<b>For the</b>	<b>For the</b>	
	<b>US GAAP</b>	<b>As of Dec. 31, 2004</b>	<b>As of Dec. 31, 2003</b>	<b>As of Dec. 31, 2002</b>	<b>As of Dec. 31, 2001</b>	<b>As of Dec. 31, 2000</b>
Working capital	\$ 61,366	\$ 96,784	\$ 22,262	\$ (5,149)	\$ 4,452	
Current assets	78,846	104,935	33,391	9,636	12,960	
Total assets	219,972	200,337	62,644	24,232	24,020	
Current liabilities	17,480	8,151	10,880	14,785	8,508	
Long-term liabilities	10,367	8,402	8,973	7,818	11,173	
Shareholder's equity	188,226	180,417	41,069	1,533	(478)	
	<b>For the Year Ended</b>	<b>For the Year Ended</b>	<b>For the Year Ended</b>	<b>For the Year Ended</b>	<b>For the Year Ended</b>	

<b>US GAAP</b>	<b>Dec. 31, 2004</b>	<b>Dec. 31, 2003</b>	<b>Dec. 31, 2002</b>	<b>Dec. 31, 2001</b>	<b>Dec. 31, 2000</b>
Revenues	\$ 65,029	\$ 64,370	\$ 38,802	\$ 24,658	\$ 31,171
Net income/(loss)	(9,146)	13,357	6,752	(5,352)	(12,465)
Net income/(loss) per share - basic	(0.066)	0.120	0.093	(0.126)	(0.330)

**Table of Contents****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 consolidated financial statements and related notes. The financial statements have been prepared in accordance with accounting principles generally accepted in Canada ( Cdn GAAP ). For a reconciliation to accounting principles generally accepted in the United States ( US GAAP ), see Note 21 to the consolidated financial statements.

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

Total production cost per ounce is equal to Total production costs as found on our consolidated statement of operations divided by the ounces of gold sold in the period. Total production costs include all mine-site operating costs, including the costs of mining, processing, maintenance, work in process inventory changes, mine-site overhead, production taxes and royalties, depreciation, depletion, amortization, asset retirement obligations and by-product credits, but does not include exploration costs, corporate general and administrative expenses, impairment charges, corporate business development costs, gains and losses on asset sales, interest expense, foreign currency gains and losses, gains and losses on investments and income tax.

Total cash cost per ounce is equal to Total production costs , as found on our consolidated statement of operations less depreciation, depletion, amortization and asset retirement obligation accretion divided by the number of ounces of gold sold during the period.

Cash operating cost per ounce 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.

The following table shows the derivation of these measures and a reconciliation of total cash cost per ounce and cash operating cost per ounce .

	<b>2004</b>	<b>2003</b>	<b>2002</b>
Ounces sold	147,875	74,315	124,400
	(in thousands of \$)		
Mining operation expense	\$ 39,095	\$ 32,125	\$ 26,747
Depreciation, depletion & amortization	8,096	4,993	2,459
Accretion of asset retirement obligations	645	578	
Total production costs GAAP	\$ 47,836	\$ 37,696	\$ 29,206
	(in \$ per ounce)		
Total production cost per ounce GAAP	\$ 323	\$ 216	\$ 235
Less depreciation, depletion & amortization	55	29	20
Less accretion of asset retirement obligation	4	3	
Total cash cost per ounce	\$ 264	\$ 184	\$ 215
Total cash cost per ounce	\$ 264	\$ 184	\$ 215
Less royalties and production taxes	14	18	22
Cash operating cost per ounce	\$ 250	\$ 166	\$ 193

These calculations of cash operating cost per ounce and total cash costs per ounce are in compliance with an industry standard for such measures as established in 1996 by the Gold Institute, a non-profit industry group.

We use total cash cost per ounce and cash operating cost per ounce as key operating indicators. We monitor these measures monthly, comparing each month's values to prior period's values to detect trends that may indicate increases or decreases in operating efficiencies. These measures are also compared against budget to alert

## **Table of Contents**

management to trends that may cause actual results to deviate from planned operational results. We provide these measures to our investors to allow them to also monitor operational efficiencies of our mines. We calculate these measures for both individual operating units and on a consolidated basis.

Total cash cost per ounce and cash operating cost per ounce should be considered as non-GAAP financial measures as defined in SEC Regulation S-K Item 10 and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with GAAP. There are material limitations associated with the use of such non-GAAP measures. Since these measures do not incorporate revenues, changes in working capital and non-operating cash costs, they are not necessarily indicative of operating profit or cash flow from operations as determined under GAAP. Changes in numerous factors including, but not limited to, mining rates, milling rates, gold grade, gold recovery, and the costs of labor, consumables and mine site general and administrative activities can cause these measures to increase or decrease. We believe that these measures are the same or similar to the measures of other gold mining companies, but may not be comparable to similarly titled measures in every instance.

All figures and amounts in this Item 7 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 subsidiaries owning the Bogoso/Prestea and Wassa mines.

## **OUR BUSINESS**

Through our subsidiaries and joint ventures we own a controlling interest in three significant gold properties in southern Ghana in West Africa: the Bogoso/Prestea property ( Bogoso/Prestea ), the Wassa property ( Wassa ) and the Prestea Underground property ( Prestea Underground ). Bogoso and Prestea are adjoining properties, operating as a single operation and referred to as Bogoso/Prestea . Bogoso/Prestea and the Prestea Underground are owned by our 90% owned subsidiary Bogoso Gold Limited ( BGL ). In 2004 we sold 147,875 ounces of gold from Bogoso/Prestea for an average gold price of approximately \$410 per ounce having a cash operating cost of approximately \$250 per ounce. Essentially all of our gold production to date has come from Bogoso/Prestea.

Through another 90% owned subsidiary, Wexford Goldfields Limited ( WGL ), we own the Wassa gold property, located some 35 kilometers east of Bogoso/Prestea. A newly constructed ore processing plant at Wassa is now in its commissioning and testing phase, processing heap leach materials left by a former owner. We expect that the new plant will achieve its full design capacity of 10,000 tonnes per day in the first quarter of 2005.

The Prestea Underground is located on the Prestea property and consists of a currently inactive underground gold mine and associated support facilities. As of December 31, 2004, BGL, our 90% owned subsidiary, owned a 90% operating interest in this mine. We are currently seeking to determine if the underground mine can be reactivated on a profitable basis.

We hold interests in exploration joint ventures, managed by joint venture partners, in Mali and Sierra Leone in West Africa and hold active exploration properties in Ghana, Suriname and French Guiana. We hold interests in gold exploration properties in Peru and Chile through our affiliate Goldmin Holdings, and in the Democratic Republic of the Congo through an investment in Moto Goldmines Limited.

Our corporate headquarters is located in Littleton, Colorado. Our accounting records are kept in compliance with Canadian GAAP and all of our operations, except for the French Guiana office, transact business in US dollars and keep financial records in US dollars.

## **BUSINESS STRATEGY AND DEVELOPMENT**



Since 1999 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. We also explore for gold. Since 1999 our exploration efforts have been focused on Ghana, other West African countries and South America. We are currently carrying out technical and environmental studies to expand production at Bogoso/Prestea. We commenced development at Wassa in mid-2003, and expect it to be fully operational in early 2005. If the above mentioned expansion and development plans at Bogoso/Prestea are approved and permitted as expected, our annualized production is expected to range between 375,000 and 425,000 ounces of

## **Table of Contents**

gold by 2007. Achievement of this target is subject to numerous risks. See the discussion of Risk Factors in Item 1 above.

Our overall objective is to grow our business to become a mid-tier gold producer (which we understand to be a producer with annual production of approximately 500,000 ounces) over the next few years. As part of the effort to achieve our goal, we are actively investigating potential acquisition and merger candidates. However, we presently have no agreement or understanding with respect to any specific potential transaction.

## **TRENDS AND EVENTS**

### **2004 Operational Summary**

Gold production totaled 147,875 ounces in 2004, down from 174,315 ounces in 2003. Production during 2004 was adversely affected by mining and processing difficulties experienced in the latter part of the year as the Bogoso/Prestea processing plant transitioned from oxide ores to transition and non-refractory sulfide ores which are not as well suited for processing in the Bogoso plant as were the oxide ores milled earlier in the year. Start-up difficulties with the new flotation circuit and unusually high rainfall during the second and third quarters also reduced mine output and hampered efficient plant operations. To compensate for the ore shortage, the Bogoso plant supplemented the pit ore with stockpiled ores which were also not very well suited for processing in the Bogoso plant. The net result was a lower processing rate and reduced gold recovery which in turn reduced gold output and sales revenues as compared to 2003. Additional information on 2004 operations is contained below in the Result of Operations section.

The lower revenues resulted in earnings of \$2.6 million during 2004, down from \$22.0 million in 2003. Earnings were also reduced by \$4.1 million of expenses related to the IAMGold tender offer.

### **Guyanor and Guiana Shield Restructuring**

Work continued throughout the year on the restructuring plan for Guyanor Ressources S.A. ( Guyanor , a 53% owned subsidiary) and our other Guiana Shield assets in South America. The goal of the restructuring plan is to establish Guyanor as an independent and economically viable entity which will no longer be dependent on Golden Star for funding and which will at the same time bring new value to Golden Star 's investment in Guyanor.

The August 2004 Guyanor Restructuring Agreement provided for, among other things, a new business model for Guyanor as a metals royalty entity, restructuring of the inter-company debt owed by Guyanor to Golden Star and an opportunity for Golden Star to acquire a direct interest in certain French Guiana exploration assets. The restructuring plan accomplished the following during the year:

New management - Guyanor 's managing director resigned and a new managing director was appointed. The new management acquired nine million of Guyanor 's common shares from Golden Star for a nominal amount reducing Golden Star 's ownership of Guyanor to approximately 53%.

New business plan - Guyanor changed its business focus from gold exploration to metals royalties.

In line with the new focus, Guyanor and Golden Star each transferred their 50% ownership in the Yaou and Dorlin properties to a newly formed private company (managed by Guyanor 's former management). The new owner has agreed to pay a 0.5% production royalty to Guyanor and a 0.5% production royalty to Golden Star from any future gold production from Yaou and Dorlin.

The Class A and Class B shares were merged into a single class of stock which continues to trade on the Toronto Stock Exchange and the Nouveau Marché of the Paris Bourse.

Guyanor's office in French Guiana was closed and all local French Guiana employees were terminated or transferred to Golden Star by year-end.

Exploration rights to Guyanor's Paul Isnard property were optioned to Golden Star in an earn-in agreement that provides Golden Star the right to acquire up to 100% of the 433 square kilometer property via a series of option payments and exploration spending. Golden Star's earn-in payments will be netted against the loan owed to Golden Star by Guyanor as of the date of the agreement.

Golden Star also purchased Guyanor's French Guiana geologic data base, the \$6.0 million price also being netted against the loan Guyanor owed to Golden Star.

## **Table of Contents**

Further provisions of the restructuring agreement resulted in Golden Star's forgiveness of the remaining balance of the loan.

In December 2004 an agreement was closed which transferred ownership of the Rosebel royalty from Golden Star to Guyanor for a price of \$12.0 million. Upon closure of the sale, Guyanor recorded a new \$12 million inter-company payable due to Golden Star. In January 2005, Guyanor drew down \$6.0 million under a credit facility from a bank and paid the funds to Golden Star as the first installment on the sale price. The bank loan is repayable in nine equal payments of \$666,667 beginning July 29, 2005 and every three months thereafter. The interest rate is set at LIBOR plus 2.5%. Interest is payable at the end of each 1, 2 or 3 month period as the borrower may choose.

Guyanor is now in the process of seeking additional funding, some or all of which is expected to be equity funding, to pay the second \$6.0 million installment due Golden Star by June 30, 2005 on the Rosebel royalty and to allow Guyanor to fund its ongoing activities. Covenants in the January 2005 loan agreement preclude Guyanor from acquiring any additional debt without the bank's approval. If Guyanor is successful in obtaining equity funding, it is possible that Golden Star's ownership position could be diluted below 50% and at that point we would expect that Guyanor would no longer be consolidated with Golden Star.

As required by the loan agreement, Guyanor entered into a cash-settled forward sales agreement in January 2005 with a financial institution which obligates Guyanor to sell 5,700 ounces of gold to the financial institution at the end of each three month period, beginning April 20, 2005 and every three months thereafter until July 20, 2007. When the average gold price for the prior three month period is less than \$421 per ounce, the financial institution will pay an amount to Guyanor equal to the difference between the average price and \$421 times 5,700 ounces. If the prior three month average price exceeds \$421 per ounce Guyanor will pay the financial institution an amount equal to the difference between the average price and \$421 per ounce times 5,700 ounces. The hedge is structured to offset the floating price nature of the Rosebel royalty by tying the royalty payments to a gold price of \$421 per ounce.

## **Bon Espoir Property Acquisition**

In October 2004 we acquired a 100% interest in the 466 square kilometer Bon Espoir exploration property in French Guiana from Gold Fields Exploration B.V. for a purchase price of \$0.3 million paid in Golden Star common shares and \$0.1 million of transaction costs. The Bon Espoir property is located north of our Paul Isnard Property in a geological setting interpreted by us as having many similarities to the Ashanti Trend area of Ghana.

## **IAMGold Tender Offer**

In 2004, we made an unsolicited tender offer to the shareholders of IAMGold Corporation. On August 11, 2004, IAMGold announced that it had agreed to combine IAMGold's mining assets with certain gold mining assets of another international gold mining company to form a new gold mining company. IAMGold's management and board subsequently recommended acceptance of this plan to their shareholders. After analyzing this development we concluded that it was not in the best interests of our shareholders to continue our offer for IAMGold, and our board of directors elected not to extend our tender offer which expired on August 16. No shares of IAMGold were acquired. We incurred approximately \$4.1 million of direct, incremental acquisition costs resulting from the tender offer which were expensed in the third quarter. The majority of these costs were for legal, financial advisory, printing and accounting services.

## **Gold Prices**

Gold prices have generally trended upward during most of the last three and a half years, from a low of just under \$260 per ounce in early 2001 to a high of \$454 in late 2004. Much of the price increase has been attributed to a decrease in the value of the US dollar versus other major foreign currencies. Our realized gold price for shipments

during 2004 averaged \$410 per ounce, substantially above the \$364 per ounce average price received in 2003.

**Change in Ore Type**

The Bogoso processing plant completed processing Plant-North oxide ore during the second quarter of 2004 and subsequently processed exclusively transition and non-refractory sulfide ores from the Plant-North pit and from

## **Table of Contents**

stockpiles during the balance of the year, resulting in lower production and increased production costs. The Bogoso processing plant is scheduled to continue processing transition and non-refractory sulfide ores until 2006 when construction of a BIOX<sup>®</sup> bio-oxidation circuit is scheduled for completion, after which the Bogoso plant is expected to process refractory sulfide and transition ores.

In anticipation of the transition from oxide to transition and non-refractory sulfide ore in mid-2004, the Bogoso processing plant flotation circuit was redesigned, re-built and commissioned in the second quarter of 2004 and is now being used to assist in obtaining higher recoveries from the more complex transition ores. The total capital cost for the upgraded flotation circuit, which was managed in-house and which will become a component of the future BIOX<sup>®</sup> project, was approximately \$4 million. Based on metallurgical test work completed in 2003 the combination of gravity, flotation and intensive cyanide leaching of transition material was forecast to increase gold recoveries from Plant-North transition ores to a range of 60% to 70% compared to recoveries in the range of 42% to 50% for carbon-in-leach alone. Since commissioning the flotation plant, gold recovery from the Bogoso processing plant has averaged approximately 60%. We are working to optimize the milling process and to achieve higher recoveries in 2005.

## **Deferred Stripping Policy**

We initiated a deferred waste stripping policy at the Plant-North pit on the Prestea property in the third quarter of 2004. In the past, most of our pits have been relatively shallow and short-lived because the Bogoso plant could effectively process only near surface ores that had been naturally oxidized by relatively shallow ground water. With recent processing plant modifications we are now able to process certain deeper ores found at Prestea. As a result we anticipate deeper pits with longer lives than in the past. As such, a continuation of our current policy of expensing waste costs as incurred would result in a misallocation of stripping costs and associated revenues between accounting periods.

A total of \$1.4 million of Plant-North deferred waste stripping cost, which would have been included in operating costs under our previous policy, was capitalized in 2004. Engineering forecasts indicate that the Plant-North pit should continue to strip waste in excess of the Plant-North average strip rate for the first nine months of 2005 followed by approximately three months of stripping below the average rate which will continue through the end of the pit's life. At July 1, 2004, the date of the deferred stripping policy implementation, we estimated there were 17.9 million tonnes of waste remaining in the Plant-North pit and 3.9 million tonnes of ore.

The amount of stripping costs to be capitalized is determined each quarter by determining the tonnes of waste moved in excess of the life-of-pit average and valuing them at the average mining cost per tonne during the period. Costs are recovered in periods when the actual tonnes of waste moved are less than what would have been moved at the average life-of-pit rate, such tonnes being valued at the rolling average cost of the waste tonnage amounts capitalized.

We have included capitalized waste cost with mining properties on our consolidated balance sheets. The cost impact is included in the Statements of Operations in the line item titled Mining operations. In periods when the strip ratio exceeds the pit average, the costs of the excess stripping are excluded from our cost per ounce calculations. In periods when the strip ratio is less than the pit average, capitalized waste costs are added back to operating costs and included in cost per ounce calculations.

## **Illegal Mining**

We experienced a significant increase in illegal mining activity on the Prestea property during 2004 involving an estimated 3,000 or more illegal miners. Most of this activity is in the Beta Boundary area south of Prestea and includes areas where we have established reserves. While it is difficult to quantify the exact impact of this activity on

our reserves and mineral resources, it now appears, based on a preliminary survey completed in September 2004 that between 40,000 and 50,000 ounces may have been removed by the illegal activity. The impact of this illegal mining, to the extent known, on our reserves and mineral resources has been taken into account in calculating year-end 2004 reserve figures.

We continue to work with local, regional and national governmental authorities and have requested that they take a more active role in protecting our property rights on a more timely basis. The preferred solution to this situation is the establishment of a separate small-scale mining area, away from our mining licenses, where the illegal miners can operate officially under the control of the relevant governmental agencies. Plans to provide such an area and to

**Table of Contents**

provide independent funding to effect this relocation are underway. In addition to the operational and economic impact, we are concerned about the environmental degradation and safety issues where the illegal miners are operating.

**Prestea Underground Restructuring**

In late 2003, our Ghanaian partner in the Prestea Underground joint venture filed for bankruptcy. This event resulted in our partner relinquishing its rights under the joint venture agreement and transferring its remaining ownership position to BGL thereby giving BGL 90% ownership in the Prestea Underground. The Government of Ghana continues to hold a 19% ownership in Prestea Underground, resulting in 81% beneficial ownership by Golden Star.

**Royalty Income**

During 2004 we began receiving royalty payments from the Rosebel mine in Suriname that we sold to Cambior Inc. in 2001. Royalty income of approximately \$3.0 million was recorded in 2004. The Rosebel mine did not begin operations until early 2004 and thus there were no comparable royalty revenues for 2003. As mentioned above, effective December 31, 2004 we sold our rights in the Rosebel royalty to our 53% owned subsidiary, Guyanor, for \$12 million. The first \$6.0 million installment was paid in January 2005 and we expect the remaining \$6.0 million to be paid to us before the end of June 2005.

**RESULTS OF OPERATIONS****2004 Compared to 2003**

Net income for 2004 totaled \$2.6 million or \$0.019 per share on revenues of \$65.0 million, versus net income of \$22.0 million or \$0.198 per share on revenues of \$64.4 million during 2003. Higher gold prices and ore grades were more than offset by decreased gold production, higher costs per ounce and \$4.5 million of corporate development expenses mostly related to the tender offer for IAMGold. Recognition of future tax assets added \$1.5 million to net income in 2004 versus nil in the prior year.

Realized gold prices averaged \$410 per ounce for the year, a 13% increase from the \$364 per ounce realized in 2003. Gold revenues were based on sales of 147,875 ounces, a 15% decrease from 174,315 ounces in 2003. As explained in the Trends and Events section above, the change in ore type during 2004 was the major factor contributing to the reduced gold output versus the prior year. During 2003 we processed exclusively oxide ores while during most of 2004 we processed harder and more complex transition and non-refractory sulfide ores which, due to the harder ore and complex metallurgy, resulted in lower gold recovery and lower plant throughput. We processed a mixture of oxide, transition and non-refractory sulfide ores in the first half of 2004 and a mixture of transition and non-refractory ores in the second half of the year. Gold recovery averaged 73.6% during the first half of 2004 but dropped to approximately 60.2% in the second half. Plant throughput averaged 5,141 tonnes per day in the first half of the year but dropped to 3,884 tonnes per day in the second half. Unusually high rainfall also impeded ore availability and plant efficiency in the third quarter due to flooding in the pit and wet ore handling problems at the processing plant.

**FINANCIAL RESULTS**

	<b>2004</b>	<b>2003</b>	<b>2002</b>
Gold sold (ounces)	147,875	174,315	124,400
Average price realized	\$ 410	\$ 364	\$ 311
Revenues (in thousands)	\$ 65,029	\$ 64,370	\$ 38,802
Net income (in thousands)	\$ 2,642	\$ 21,956	\$ 4,856



Net income per share	basic	\$ 0.019	\$ 0.198	\$ 0.067
----------------------	-------	----------	----------	----------

**Table of Contents**

As anticipated, operating costs increased both in absolute terms and on a per unit basis at Bogoso/Prestea during 2004 due primarily to the harder nature of the transition and non-refractory sulfide ores processed after April 2004. Increases in fuel and electric power costs added approximately \$1.5 million to operating costs during the year. Plant maintenance, explosives, liner costs and grinding media costs all increased by a total of approximately \$1.6 million as compared to 2003. The harder ore also required increased amounts of certain consumables which increased costs by another \$0.7 million. We also experienced increased costs in other maintenance areas, labor, community assistance, camp costs and other overhead areas. A reduction in work-in-process inventory and a \$0.7 million provision for redundancies also contributed to the higher costs.

The lower gold output and higher mine operating costs resulted in a significant increase in unit costs. Cash operating costs averaged \$250 per ounce, compared to \$166 per ounce in 2003, and total cash costs averaged \$264 per ounce, up from \$184 per ounce in 2003.

Depreciation and amortization were higher than in 2003 mostly due to the amortization costs of new assets added in late 2003 and in 2004 such as the flotation plant at Bogoso. Increases in corporate general and administrative costs contributed to the lower income versus 2003. Higher compensation costs relating to additional administrative personnel relative to 2003, increases in investor relations costs, higher insurance costs, Sarbanes-Oxley compliance costs and an overall higher level of corporate activity in response to the growth of the company all contributed to the increase in general and administrative costs.

A \$1.5 million tax benefit was recorded during 2004. Recognition of a deferred tax asset was deemed appropriate at the end of 2004 in light of the continued Ghanaian operating profits at BGL. We have substantial tax assets in Canada and France mostly due to past losses, capital allowances and tax pools, but a tax valuation allowance has been provided in an amount equal to net tax assets in these jurisdictions.

<b>BOGOSO/PRESTEA OPERATIONS</b>	<b>2004</b>	<b>2003</b>	<b>2002</b>
Ore mined (t)	1,411,243	2,001,905	2,222,767
Waste mined (t)	8,065,915	6,791,926	5,211,335
Ore milled (t)	1,650,412	2,093,600	2,271,747
Grade milled (g/t)	4.09	3.29	2.31
Recovery (%)	67.3	81.2	74.4
Cash operating cost per ounce	\$ 250	\$ 166	\$ 193
Royalties per ounce	\$ 14	\$ 18	\$ 22
Total cash cost per ounce	\$ 264	\$ 184	\$ 215

The Bogoso processing plant processed an average of 4,509 tonnes per day in 2004, down from 5,736 tonnes per day in 2003. All of the ore processed in 2004 came from the Plant-North ore body and from old Bogoso transition ore stockpiles. The average ore grade processed in 2004 was 4.09 grams per tonne, up from 3.29 grams per tonne in 2003, but gold recovery dropped to 67.3% from 81% in 2003. Lower recovery was directly related to the non-refractory sulfide ores and to the transition ores which typically have lower recoveries than the oxide ores milled in 2003.

**2003 Compared to 2002**

Net income totaled \$22.0 million or \$0.198 per share on revenues of \$64.4 million for 2003, versus net income of \$4.9 million or \$0.067 per share on revenues of \$38.8 million during 2002. Higher gold prices, increased gold production, a \$2.3 million gain on currency exchange rates and a \$1.9 million gain on the sale of marketable securities

were the major factors contributing to the earnings improvement. Realized gold prices averaged \$364 per ounce for the year, a 17% increase from the \$311 per ounce realized in 2002. A weakened US dollar in 2003 versus most other major world currencies is thought to be responsible for much of the increased gold price during 2003.

## **Table of Contents**

Gold revenues for 2003 were based on sales of 174,315 ounces, a 49,915 ounce increase from 124,400 ounces in 2002. Increases in the grade milled and in gold recoveries were the major factors responsible for higher gold production in 2003 as compared to 2002. While Prestea property oxides were the main feed source to the Bogoso processing plant in both 2002 and in 2003, start-up of the higher grade Plant-North mine at Prestea at the end of 2002 yielded a much higher grade during 2003 than did the other Prestea oxide pits mined during 2002. As a result, the milled head grade increased from 2.31 grams per tonne in 2002 to 3.39 grams per tonne in 2003, and yielded higher recoveries.

Higher depreciation, depletion and amortization costs are related to higher gold production versus 2002. General and administrative costs rose by \$1.7 million from 2002 due to increases in compensation expense, including stock option expense, purchase of gold puts, travel and tax and other professional services related to an expanded scope of corporate activities. The increase in foreign exchange gains is mostly related to the effect of a weakening US dollar offset by the associated impact on the value of cash equivalents invested in Canadian dollar instruments.

We did not record a tax expense or benefit during 2003. While we have substantial tax assets in Canada, France and Ghana from past losses, capital allowances and tax pools, a tax valuation allowance has been provided in an amount equal to our net tax assets.

During 2003, Bogoso/Prestea processed an average of 5,736 tonnes per day of Plant North ore at an average grade of 3.29 grams per tonne. This compares to 6,223 tonnes per day at 2.31 grams per tonne in 2002. The lower processing plant throughput was related to increased amounts of transition ores versus 2002. Mechanical difficulties with a long lead-time component of the processing plant conveyor system during the second quarter of 2003 and other processing plant maintenance projects during the year also contributed to the reduced processing plant through-put. Recoveries rose to 81%, up from 74% in 2002. The improved grade and better recoveries combined to yield a 40% increase in gold production versus 2002. Bogoso/Prestea sold 174,315 ounces of gold in 2003, up from 124,400 ounces in 2002. Cash operating costs of \$166 per ounce were 14% better than the \$193 per ounce costs during 2002. Similarly, total cash costs fell from \$215 per ounce in 2002 to \$184 per ounce in the current year.

## **EXPANSION PROJECTS**

### **Bogoso Plant Upgrade**

Planning and engineering continued during 2004 for the proposed Bogoso processing plant BIOX<sup>®</sup> bio-oxidation conversion project. Current plans as approved in principle by our Board of Directors in January 2005, call for conversion of the Bogoso processing plant to a bio-oxidation process to treat 3.5 million tonnes per year of refractory sulfide and other ores from the Bogoso/Prestea property. In 2004 we issued a letter of intent to GRD Minproc Limited for the detailed design of the BIOX<sup>®</sup> circuit and to carry out the construction under a project management contract. Completion of detailed engineering is expected in the second quarter of 2005. We estimate that the total capital cost for the BIOX<sup>®</sup> upgrade at the Bogoso processing plant to fall between \$80 to \$85 million, plus an additional \$20 million for mining equipment. Separately, work on an environmental impact assessment is underway and we expect to present it to the authorities in the first quarter of 2005 and would expect to receive the environmental permits as early as the second quarter of 2005. Recent engineering studies have indicated that a larger-scale operation than was originally envisioned would add to the profitability of the project.

The proprietary BIOX<sup>®</sup> bio-oxidation process has been used to treat refractory gold ores and concentrates for over 18 years. A total of six BIOX<sup>®</sup> operations have been successfully commissioned since commercialization of the process, of which four are still operating. Two new BIOX<sup>®</sup> plants are currently under construction, the Suzdal plant in Kazakhstan and the Fosterville plant in Australia, which are scheduled for commissioning during 2005. Four additional BIOX<sup>®</sup> plants are now in various stages of development and are currently scheduled for commissioning during 2005

and 2006.

One of the larger bio-oxidation plants which was built by GRD Minproc in the mid-1990s, is located at AngloGold Ashanti's Obuasi mine, which is also located on the Ashanti gold trend, 130 kilometers northeast of Bogoso/Prestea. We believe that the sulfide mineralization at Obuasi is similar to the Bogoso/Prestea material. Our metallurgical assessment of the suitability of the bio-oxidation process for Bogoso/Prestea ores has been a four-year project. The work has involved metallurgical assessments on some 32 samples representative of the current sulfide reserves, including a flotation, BIOX<sup>®</sup> and neutralization pilot plant program on a nine-tonne bulk sample compiled by the blending of approximately 90 diamond drill hole cores.

## **Table of Contents**

Upon completion of the BIOX<sup>®</sup> upgrade, the Bogoso processing plant is expected to have a nominal capacity of 3.5 million tonnes per annum to process refractory sulfide ores from our Bogoso and northern Prestea pits, where we currently have proven and probable refractory reserves of approximately 20.5 million tonnes at an average grade of 2.81 grams per tonne. Gold production from the Bogoso mill, following a mining fleet upgrade and installation of the Bogoso BIOX<sup>®</sup> circuit, is expected to average approximately 270,000 ounces per annum and to vary between 260,000 to 290,000 ounces per annum at an average cash operating cost between \$250 to \$270 per ounce after commercial production is achieved in 2006. Estimated gold recoveries from the BIOX<sup>®</sup> process are expected to average 86% and vary between 78% and 88%.

## **Wassa Gold Mine**

While we experienced significant construction delays during 2004, the construction phase of the Wassa project was substantially complete by December 31, 2004 except for the power line which is now under construction and which we expect to complete by mid-year 2005. Following discussions in November 2004, our contract with MDM was terminated on November 29, 2004. All of the required power line permits have been obtained, and all of the material power line construction equipment has been delivered and staged for construction or are on order. While the power line is still under construction, the existing powerhouse at Wassa should generate all of the power needed to fully operate the plant and associated facilities until the connection to the local power grid is completed.

As of December 31, 2004 acquisition and development costs totaled \$66.5 million including feasibility study costs, development drilling and geology, operating equipment and plant and site construction costs. The remaining project costs at December 31, 2004 are estimated to be \$7.0 million, consisting of \$5.0 million for completion of the power line and \$2.0 million for completion of miscellaneous items at the plant site. An additional \$14 million is also budgeted in 2005 for purchase of additional mining equipment. During 2004 while testing and commissioning the mine we poured 5,292 ounces of gold resulting in \$2.3 million of preproduction revenues which were credited against mine development costs.

Commissioning and testing of the new Wassa processing plant began in late 2004. By December Wassa had poured 5,292 ounces of gold resulting in \$2.3 million of preproduction revenues which were credited against mine development costs. We expect Wassa will achieve commercial production during the first quarter of 2005, processing at its design capacity of approximately 10,000 tonnes per day.

Our 2005 mining plan involves processing most of the heap leach material left on the pads by the former owner which will furnish a low cost ore feed to the new plant during its first year of operations and will also clear the pad area for use as a tailings dam site. Mining will be performed initially using a mixture of equipment transferred from Bogoso/Prestea and contract equipment until new equipment is procured. During 2005 we anticipate feeding the Wassa plant with approximately 45% heap leach material and 55% open pit ore. Recoveries are expected to average between 87% and 90% with recoveries from heap leach material and open pit ore ranging from 80% to 90% and 83% to 95%, respectively. During 2005 we expect to produce between 100,000 and 120,000 ounces of gold at Wassa at an average cash operating cost between \$280 and \$300 per ounce. We expect production costs to be higher than this in the first half of 2005 due to the higher costs of operating the power house. In the second half of 2005 costs are expected to fall by \$50 to \$80 per ounce following completion of the power line and the acquisition of new mining equipment. After 2005 production we expect annual gold production to exceed 140,000 ounces per year, at an average cash operating cost of between \$200 and \$220 per ounce.

## **Bondaye Project**

In addition to the BIOX<sup>®</sup> expansion described above, we are in the process of investigating the addition of a second processing plant at Bogoso/Prestea to process oxide, non-refractory sulfide and transition ores from the southern areas

of the Prestea property. In July 2003 we purchased a used 4,500 tonne per day conventional CIL processing plant, associated stores inventory, and a six-megawatt powerhouse from an inactive mine site in Ghana. This facility was dismantled in during 2003 and the plant was moved to Prestea in 2004 where it was refurbished. The power plant is currently being used at Wassa. With the appropriate modifications the plant should be able to process oxide, non-refractory sulfide and transition ores found at Prestea.

This project is referred to as the Bondaye project. We had originally planned to begin development of this new operation during 2005, but unanticipated delays in obtaining necessary environmental permits and the impact of the

## Table of Contents

socio-economic aspects of the project have now led to a review of the optimal plant location. We plan to continue the evaluation of the potential of this expansion option during 2005.

## **EXPLORATION**

**Ghana** - We spent approximately \$14.8 million on exploration activities in Ghana during 2004 including \$2.5 million at Wassa establishing mineral reserves in the existing pits and in areas outside the pits; \$7.1 million at the Prestea Underground including underground care and maintenance costs, \$1.9 million on sulfide targets at Bogoso, \$2.8 million on Prestea area targets and approximately \$0.5 million on exploration projects outside the immediate Wassa and Bogoso/Prestea areas.

We plan to spend approximately \$14.8 million on exploration activities in Ghana during 2005 to delineate additional sulfide mineralization which would be a feed source to the planned new BIOX<sup>®</sup> plant at Bogoso; to further delineate, evaluate and expand the oxide and other gold resources on the southern end of the Prestea property; and to advance our understanding of the Prestea Underground potential.

During 2005 we expect to initiate RAB drilling in the forest reserve on the southern end of the Wassa property to further delineate the gold-in-soil geochemical anomaly discovered during the past two years.

**Other African Projects** - In October 2004 we acquired a 9.5% equity interest in Moto Goldmines Limited ( Moto ) for \$4.1 million and became Moto 's largest shareholder. We received common shares and warrants, which if exercised, would raise our interest to 13.3%. At Moto 's annual general meeting in November 2004, shareholders elected Dr. Doug Jones, Golden Star 's Vice President, Exploration, as a director. Moto controls the approximate 4,700 square kilometer Moto concessions located in the north east of the Democratic Republic of Congo. The Moto concessions form part of the Kilo-Moto gold belt which has historical production in excess of 11 million ounces with over two million ounces mined from ten small mines within the central 35 square kilometers on the Moto concessions. After securing control of the property in 2003, Moto began a drilling program in February 2004 to confirm and expand the gold resource around the areas previously mined. Based upon this work Moto 's independent resource consultants have estimated indicated resources at Moto of 7 million tonnes grading 2.7 grams per tonne and inferred resources of 36 million tonnes grading 3.2 grams per tonne.

While 2004 results from the Mano River project in Sierra Leone and the Mininko project in Mali were disappointing, we expect, subject to renegotiating the respective joint venture agreements, to continue funding the projects in both areas by refocusing on wide-area soil sampling to identify new targets in these prospective areas.

**South American Projects** Two years of surface sampling has identified a fairly extensive gold-in-soil anomaly at the Saramacca property in Suriname. We are planning to initiate core drilling at this project in 2005 and have budgeted \$0.75 million for the work program. We spent approximately \$0.2 million in 2004 to expand on the surface sampling initiated in the prior year.

In 2004 we acquired the 466 square kilometer Bon Espoir exploration property in French Guiana for \$0.4 million. Bon Espoir is located in French Guiana north of our Paul Isnard Property in a geological setting interpreted by us as having many similarities to the Ashanti Trend area of Ghana. Paul Isnard remained on care and maintenance in 2004 with expenditures of less than \$0.1 million. An additional \$0.2 million of acquisition costs were incurred. We plan to spend approximately \$0.9 million at Bon Espoir and Paul Isnard in 2005 conducting a wide-area soil sampling programs and assessing past work.

## **LIQUIDITY AND CAPITAL RESOURCES**



Our cash and cash equivalent balance stood at \$51.7 million at December 31, 2004, down from approximately \$90 million at the end of 2003. Even though operations generated \$13.9 million of new cash during the year and options and warrants contributed \$15.5 million, spending on Wassa and other capital projects including deferred exploration projects were the major factors contributing to the lower cash balance at the end of the year.

Cash flow from operations totaled \$13.9 million in 2004, down from \$29.1 million in 2003. Lower gold output, higher operating costs and costs of the IAMGold tender offer were the major factors contributing to the decrease. Gold sales were lower due to the difficulties experienced during the transition from oxide ores in the early part of the year to transition and non-refractory sulfide ores in the latter part of the year. The \$4.1 million of costs

**Table of Contents**

associated with the IAMGold tender offer also contributed to the lower cash flow. See Trends and Events Section above for additional discussion.

Investing activities consumed a net \$69.6 million of cash in 2004. Investing activities included the following:

<b>CAPITAL SPENDING</b>	<b>For the Year Ended December 31, 2004</b>	
	(in millions)	
Bogoso/Prestea equipment and mine property	\$	21.2
Wassa property, plant & equipment and development		24.5
Prestea Underground exploration and development		7.5
Deferred exploration and other development projects		12.0
Other		4.4
Total	\$	69.6

Stock option exercises provided \$1.2 million of cash during 2004 and warrant exercises provided an additional \$14.3 million. New debt contributed a net \$2.1 million. At December 31, 2004, working capital was \$61.4 million, versus \$96.8 million at the end of 2003.

In June 2004, an equipment financing credit facility was established between Caterpillar Financial Services Corporation and certain of our subsidiaries, with Golden Star as the guarantor of all amounts borrowed. The facility provides up to a maximum of \$25 million of credit for a mixture of new and used mining equipment. The facility can be renewed but expires on April 30, 2005, bears interest at a rate equal to the Five Year US\$ Swap Rate plus 2.28% for new equipment, is repayable over five years and requires monthly payments. The facility can also be applied to used equipment for which the interest rate is negotiable and must be repaid monthly over two years. As of December 31, 2004 the amount drawn on this facility was \$2.3 million. We anticipate drawing additional amounts in 2005 as we purchase mining equipment for Wassa and Bogoso/Prestea.

In addition to the capital spending shown in the table, liquidation of debt consumed \$0.2 million of cash leaving \$3.0 million of debt on the balance sheet at year-end. Shareholders' equity stood at \$218.0 million at December 31, 2004, up from \$198.4 million at the end of December 2003.

**Outlook**

We expect that Bogoso/Prestea will continue generating positive operating cash flows in 2005, but will require additional cash for the expansion projects described above. It is anticipated that Wassa will also generate a positive operational cash flow once in 2005 but will need additional funds in 2005 for the purchase of the mining fleet.

At December 31, 2004 there was \$51.7 million of cash and cash equivalents on hand. We anticipate capital spending of approximately \$111 million in 2005 on the following projects:

<b>CAPITAL SPENDING BY PROJECT</b>	<b>Amount (millions)</b>	<b>Nature of Expenditures</b>
Bogoso/Prestea	\$ 9	Mining equipment and plant sustaining capital

Edgar Filing: GOLDEN STAR RESOURCES LTD - Form 10-K

Biox Upgrade	58	Bogoso plant BIOX conversion
Mampon	1	Feasibility studies, metallurgical testing
Prestea Underground	8	Exploration Drilling and mine maintenance
		Power line construction, mining equipment,
Wasssa	25	exploration and sustaining capital
Other	10	Deferred exploration and sustaining capital
Total	\$ 111	

## **Table of Contents**

If additional cash is needed in connection with the projects described above or in connection with future acquisitions, we may seek external debt or equity financing, although we may not be able to obtain the funds required on acceptable terms if at all. In addition to the equipment financing facility, we have mandated a group of banks and are seeking debt under a revolving credit agreement.

## **LOOKING AHEAD**

Our main objectives in 2005 are:

Orderly and efficient mining of Prestea Plant-North ores to allow an adequate flow of transition and non-refractory sulfide ores to the Bogoso plant;

Commencement of commercial production at Wassa in the first quarter, followed by orderly and efficient operations;

Completion of permitting and reassessment/optimization of the Bondaye project;

Completion of permitting, planning, engineering and design work and initiation of construction of the Bogoso BIOX<sup>®</sup> conversion project;

Continued evaluation of the Prestea Underground potential;

A continued high level of exploration efforts; and

Continuation of efforts to identify and pursue acquisition and growth opportunities in Ghana and elsewhere. We expect gold production at Bogoso/Prestea of approximately 140,000 to 170,000 ounces in 2005 at a projected cash operating cost of \$190 to \$210 per ounce and production of approximately 100,000 to 120,000 ounces at Wassa at a cash operating cost of \$280 to \$300 per ounce bringing total 2005 production to approximately 240,000 to 290,000 ounces at an average cash operating cost of \$230 to \$250 per ounce.

As more fully disclosed in Item 1 Risk Factors, numerous factors could cause our estimates and expectations to be wrong or could lead changes in our plans. Under any of these circumstances, the estimates described above could change materially.

## **MINING IN GHANA**

We regularly monitor and evaluate the social and political aspects of Ghana in particular and of West Africa in general to apprise ourselves of the social situation and political risks that exist in the region. Ghana has benefited from an extended period of political stability and a democratic governmental system including orderly governmental transitions via free elections. It is our belief that Ghana is committed to creating a stable political and economic environment that will foster additional economic growth.

Ghana is endowed with abundant mineral resources and is actively pursuing policies designed to support expansion of its mineral industry. Because of the political stability and supportive policies, several international mineral companies have initiated exploration and mining activities in Ghana in recent years and we understand that these companies now have in place plans to make significant investments in gold exploration and development.

It is our policy and our intent to be a responsible corporate citizen of Ghana and as such we have worked diligently to establish good working relationships with both local and federal governmental authorities as well as with the local

citizens in the areas adjacent to our operations.

We have experienced ongoing and escalating incidents of artisanal miners illegally working on our properties in Ghana. While we are sympathetic to the economic needs of those engaged in this activity, this mining is illegal and typically results in uncontrolled environmental damage and is often conducted in an unsafe manner. In addition, failure to discourage illegal mining on our properties could jeopardize legal title to our mineral rights. As such we have sought to stop this activity both by dialogue and by establishing a security presence. The governmental

## **Table of Contents**

authorities in western Ghana are aware of the illegal mining situation and have been of assistance in our efforts to discourage such activity but more needs to be done.

## **SEASONALITY**

Most of our operations are in tropical climates which experience annual rainy seasons. Typically mining operations are not materially affected by the rainy seasons in Ghana but unusually high rainfall in the late summer of 2004 impeded mine production at Bogoso/Prestea and also interrupted underground drilling in the Prestea Underground. Exploration efforts 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.

## **RELATED PARTY TRANSACTIONS**

During 2004 we obtained legal services from a legal firm to which our Chairman is of counsel. Total value of all services purchased during 2004 was \$1.7 million. Our Chairman did not personally perform any legal services for us during 2004 nor did he benefit directly or indirectly from payments for the services performed by the firm.

## **CRITICAL ACCOUNTING POLICIES AND ESTIMATES**

Our financial statements reflect the application of Cdn GAAP, which is different in certain material respects from US GAAP. The accounting policies reflected therein are generally those applied by similarly situated mining companies in Canada. Our accounting policies under Canadian GAAP are described in Note 1 to our consolidated financial statements.

Preparation of our consolidated financial statements requires the use of estimates and assumptions that can affect reported amounts of assets, liabilities, revenues and expenses. Accounting policies relating to asset impairments, depreciation and amortization of mining property, plant and equipment, and site reclamation/closure accruals are subject to estimates and assumptions regarding reserves, gold recoveries, future gold prices and future mining activities.

Decisions to write off, or not to write off, all or a portion of our investment in various properties, especially exploration properties, subject to impairment analysis are based on our judgment as to the actual value of the properties and are therefore subjective in most cases. We have written off substantially all of our pre-1999 investments in exploration properties based upon our assessments of the amounts recoverable from these properties. Additional exploration properties have been found to be impaired and were written off in 2003 and 2004. We continue to retain title to certain properties after impairment write-offs as future events and discoveries may ultimately prove that they have significant value.

Listed below are the accounting policies and estimates that we believe are critical to our financial statements due to the degree of uncertainty regarding the estimates or assumptions involved and the magnitude of the asset, liability, revenue or expense being reported.

Ore stockpiles: Stockpiles represent coarse ore that has been extracted from the mine and is available for further processing. Stockpiles are measured by estimating the number of tons added and removed from the stockpile, the number of contained ounces based on assay data, and the estimated recovery percentage based on the expected processing method. Stockpiles are valued based on mining costs incurred up to the point of stockpiling the ore including applicable depreciation, depletion and amortization relating to mining operations. Costs are added to a stockpile based on current mining costs and removed at the average cost per recoverable ounce of gold in the stockpile. Stockpiles are reduced as material is removed and fed to the mill. A 10% adjustment of the stockpile

value, based on stockpile levels in recent periods, would change the carrying value of the stockpile inventory by approximately \$0.3 million and change operating costs by the same amount.

Impairment Charges: We periodically review and evaluate our long-lived assets for impairment when events or changes in circumstances indicate the related carrying amounts may not be recoverable from continued operation of the asset. An asset impairment is considered to exist if the sum of all estimated future cash flows, on an undiscounted basis, are less than the carrying value of the asset. The determination

## **Table of Contents**

of expected future cash flows requires numerous estimates about the future including gold prices, operating costs, gold recovery, reclamation spending, ore reserves and capital expenditures. A review of Bogeso/Prestea s expected future cash flows as of December 31, 2004 indicated that there is no impairment at gold prices in excess of \$355 per ounce and at Wassa there is no impairment at gold prices greater than \$320 per ounce.

Mining properties: Mine properties recorded on our financial records are amortized using a units-of-production method over proven and probable reserves. Reserve estimates, which serve as the denominator in units of production amortization calculations, involve the exercise of subjective judgment and are based on numerous assumptions about future operating costs, future gold prices, continuity of mineralization, future gold recovery rates, spatial configuration of gold deposits, and other factors that may prove to be incorrect. A 10% adjustment in estimated reserves could result in an approximately \$0.75 million annual change in amortization expense.

Asset retirement obligation and reclamation expenditures: Accounting for reclamation obligations requires management to make estimates at each mining operation of reclamation and closure costs to be incurred in the future as required to complete the reclamation and environmental remediation work mandated by existing laws and regulations. Actual costs incurred in future periods could differ from amounts estimated. Additionally, future changes to environmental laws and regulations could increase the extent of reclamation and remediation work required. Based upon our current situation, we estimate that a 10% increases in total future reclamation and closure costs would result in an approximately \$1.4 million increase in our asset retirement obligations.

## **RECENT ACCOUNTING PRONOUNCEMENTS**

### **Impact of new pronouncements effective in 2004**

In November 2003, the CICA amended CICA 3870 *Stock-based Compensation and Other Stock-based Payments* to require recognition at the date of grant, of expense for stock option grants after December 31, 2003 in an amount equal to the fair value of the option. We opted for an early adoption of this new guidance and began expensing stock options during 2003. The impact of this election resulted in recognition of approximately \$1.0 million of stock option expense in 2003 and approximately \$1.4 million in 2004.

In December 2001, the CICA issued Accounting Guideline 13 ( *AcG-13* ), *Hedging Relationships* . The guideline establishes requirements for the identification, documentation and effectiveness of hedging relationships, which would have been effective for fiscal years beginning on or before July 1, 2003. Since we had no hedging instruments there was no impact on our financial results from the adoption of the guidance.

### **New pronouncements effective in 2005**

#### **AcG 15 Consolidations of variable interest entities**

In November 2004, the CICA issued Accounting Guideline *Consolidation of Variable Interest Entities* ( *AcG-15* ) to provide guidance for determining when an enterprise includes assets, liabilities and results of activities of variable interest entities in its consolidated financial statements. Variable interest entities are those in which equity investors do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. We do not anticipate any material impact on our consolidated financial statements or financial results from the adoption of AcG-15.

For a discussion of recent accounting pronouncements under US GAAP, see Note 21 to the Consolidated Financial Statements.

## **OFF BALANCE SHEET ARRANGEMENTS**



We have no off balance sheet arrangements.

**Table of Contents****TABLE OF CONTRACTUAL OBLIGATIONS**

Contractual Obligations  (as of December 31, 2004)	Payments due by period (thousands)				
	Total	Less than 1 year	1-3 years	3-5 years	More Than 5 years
Long term debt	\$ 2,974	\$ 1,267	\$ 1,527	\$ 180	\$
Interest on long term debt	229	140	83	6	
Operating lease obligations	582	140	291	151	
Purchase obligations	200	200			
Other long term liabilities reflected on the balance sheet under GAAP (1)	15,945	3,726	2,976	2,306	6,937

- (1) Other long term liabilities represent asset retirement obligations. Asset retirement obligations include several estimates about future reclamation costs, mining schedules, timing of the performance of reclamation work and the quantity of ore reserves which in turn determine the ultimate closure date, which in turn impacts the discounted amounts of future asset retirement liabilities. The discounted value of these projected cash flows is recorded as Asset retirement obligations on the balance sheet of \$8.7 million as of December 31, 2004. The amounts shown above are undiscounted to show full expected cash requirements.

This MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATION includes information available to February 2, 2005. As of January 31, 2005 we had 142,346,703 common shares outstanding.

**ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

Our exposure to market risk includes, but is not limited to, the following risks: changes in interest rates on our investment portfolio, changes in foreign currency exchange rates, commodity price fluctuations and equity price risk.

**Interest Rate Risk**

We currently have minimal debt and thus no material interest rate exposure related to debt. From time to time we invest excess cash in high quality short-term debt instruments. The rates received on such investments may fluctuate with changes in economic conditions. As a result our investment income may fall short of expectations during periods of lower interest rates. We estimate that given the cash balances expected during 2005, a 1% change in interest rates would result in a \$0.3 to \$0.5 million change in annual interest income. We may in the future actively manage our exposure to interest rate risk.

**Foreign Currency Exchange Rate Risk**

While our major operating units transact most of their business in US dollars, many purchases of labor, operating supplies and capital assets are denominated in Euros, British pounds, Australian dollars, South African Rand and Ghanaian Cedis. As a result, currency exchange fluctuations may impact the costs incurred at our operations. Gold is sold throughout the world based principally on the US dollar price, but significant portions of our operating expenses and some of our capital purchases are incurred in currencies other than the US dollar. The appreciation of non-US dollar currencies against the US dollar increases production costs and the cost of capital assets in US dollar terms at

mines located outside the US, which would adversely impact our net income and cash flows. Conversely, a depreciation of non-US dollar currencies usually decreases production costs and capital asset purchases in US dollar terms.

The value of cash and cash equivalent investments denominated in foreign currencies also fluctuate with changes in currency exchange rates. Appreciation of non-US dollar currencies results in a foreign currency gain on such investments and a decrease in non-US dollar currencies results in a loss.

We do not currently utilize market risk sensitive instruments to manage our exposure to foreign currency exchange rates, although we may do so in the future.

**Table of Contents****Commodity Price Risk**

We are engaged in gold mining and related activities, including exploration, extraction, processing and reclamation. Gold is our primary product and, as a result, changes in the price of gold could significantly affect our results of operations and cash flows. According to current estimates, a \$10 change in the price of gold would result in a \$2 million to \$3 million change in pre-tax earnings and cash flows during 2005. We have in the past purchased puts to lock in minimum prices for portions of our annual gold sales but we have no puts outstanding at the end of 2004. We may in the future more actively manage our exposure through hedging programs.

**Equity Price Risk**

We have in the past and may in the future seek to acquire additional funding by sale of common shares. Movements in the price of our common shares have been volatile in the past and may also be volatile in the future. As a result, there is a risk that we may not be able to sell new common shares at an acceptable price should the need for new equity funding arise.

**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

Index to Consolidated Financial Statements of  
Golden Star Resources Ltd.

Management's Responsibility for Financial Information	67
Auditors' Report	68
Consolidated Balance Sheets as of December 31, 2004 and 2003	69
Consolidated Statements of Operations for the years ended December 31, 2004, 2003 and 2002	70
Consolidated Statement of Changes in Shareholders' Equity for the years ended December 31, 2004, 2003 and 2002	71
Consolidated Statements of Cash Flows for the years ended December 31, 2004, 2003 and 2002	72
Notes to the Consolidated Financial Statements	73-92

**Table of Contents**

**MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL INFORMATION**

To the Shareholders of  
Golden Star Resources Ltd.:

The consolidated financial statements and all information in the Annual Report are the responsibility of the Board of Directors and management. The consolidated financial statements have been prepared by management based on information available to February 2, 2005, and are in accordance with accounting principles generally accepted in Canada.

A system of internal accounting and administrative controls is maintained by management in order to provide reasonable assurance that financial information is accurate and reliable, and that our assets are safeguarded. Limitations exist in all cost effective systems of internal controls. Our systems have been designed to provide reasonable but not absolute assurance that financial records are adequate to allow for the completion of reliable financial information and the safeguarding of our assets. We believe that the systems are adequate to achieve the stated objectives.

The Audit Committee of the Board of Directors is comprised of three outside directors, operates in accordance with its charter and meets quarterly with management and the independent auditors to ensure that management is maintaining adequate internal controls and systems and to approve the annual and quarterly consolidated financial statements of the Company. The Committee also reviews the audit plan of the independent auditors and discusses the results of their audit and their report prior to submitting the consolidated financial statements to the Board of Directors for approval.

As of the date of filing this Form 10-K we are in the process of testing our internal control procedures in order to satisfy the requirements of Section 404 of the Sarbanes-Oxley Act, which requires an annual management report of the effectiveness of our internal controls over financial reporting and for our Independent Registered Public Accounting Firm to attest to this report. Golden Star is eligible for the 45 day extension of time allowed by the SEC for companies of a certain size to file this report and the attestation. We have elected to utilize this 45 day extension, and therefore, this Form 10-K does not include these reports. We anticipate completing this process and filing these reports in an amended Form 10-K, which we intend to file in April 2005. Currently, we are not aware of any material weakness in our internal controls over financial reporting and related disclosures.

The consolidated financial statements have been audited by PricewaterhouseCoopers LLP, Chartered Accountants, who were appointed by the shareholders. The auditors' report outlines the scope of their examination and their opinion on the consolidated financial statements.

/s/ Peter J. Bradford

---

Peter J. Bradford  
President and  
Chief Executive Officer

February 2, 2005

/s/ Allan J. Marter

---

Allan J. Marter  
Senior Vice President and  
Chief Financial Officer

February 2, 2005

**Table of Contents**

**AUDITORS REPORT**

To the Shareholders of  
Golden Star Resources Ltd.:

We have audited the consolidated balance sheets of **Golden Star Resources Ltd.** as of December 31, 2004 and 2003 and the consolidated statements of operations, changes in shareholders' equity and cash flows for each of the three years in the period ended December 31, 2004. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in Canada and in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform an audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2004 and 2003, and the consolidated results of its operations and cash flows for each of the three years in the period ended December 31, 2004, in accordance with accounting principles generally accepted in Canada.

/s/ PricewaterhouseCoopers LLP

Chartered Accountants  
Calgary, Alberta, Canada

February 2, 2005

**Table of Contents**

**GOLDEN STAR RESOURCES LTD.**  
**CONSOLIDATED BALANCE SHEETS**

(Stated in thousands of US dollars except shares issued and outstanding)

	As of December 31,	
	2004	2003
<b>ASSETS</b>		
<b>CURRENT ASSETS</b>		
Cash and cash equivalents (Note 1)	\$ 51,727	\$ 89,970
Accounts receivable	3,592	790
Inventories (Note 1 and 3)	15,366	12,661
Due from sale of property (Note 4)	1,000	1,000
Tax asset (Note 16)	1,542	
Deposits (Note 5)	5,102	
Prepays	517	514
<b>Total Current Assets</b>	<b>78,846</b>	<b>104,935</b>
<b>RESTRICTED CASH (Note 13)</b>	<b>3,351</b>	<b>3,317</b>
<b>DUE FROM SALE OF PROPERTY (Note 4)</b>		<b>1,000</b>
<b>LONG TERM INVESTMENTS (Note 6)</b>	<b>5,528</b>	<b>888</b>
<b>DEFERRED EXPLORATION AND DEVELOPMENT COSTS (Note 7)</b>	<b>7,452</b>	<b>9,108</b>
<b>PROPERTY, PLANT AND EQUIPMENT (Note 8)</b>	<b>28,653</b>	<b>18,202</b>
<b>MINING PROPERTIES (Note 9)</b>	<b>75,554</b>	<b>56,808</b>
<b>MINE CONSTRUCTION-IN-PROGRESS (Note 10)</b>	<b>51,159</b>	<b>27,376</b>
<b>OTHER ASSETS</b>	<b>1,617</b>	<b>757</b>
<b>Total Assets</b>	<b>\$ 252,160</b>	<b>\$ 222,391</b>
<b>LIABILITIES</b>		
<b>CURRENT LIABILITIES</b>		
Accounts payable	\$ 7,010	\$ 9,203
Construction retention payable		1,350
Other accrued liabilities	9,203	2,859
Current debt (Note 11)	1,267	142
<b>Total Current Liabilities</b>	<b>17,480</b>	<b>8,151</b>
<b>LONG TERM DEBT (Note 11)</b>	<b>1,707</b>	<b>657</b>
<b>ASSET RETIREMENT OBLIGATIONS (Note 12)</b>	<b>8,660</b>	<b>7,745</b>
<b>Total Liabilities</b>	<b>27,847</b>	<b>16,553</b>
<b>MINORITY INTEREST</b>	<b>6,353</b>	<b>7,476</b>
<b>COMMITMENTS AND CONTINGENCIES (Note 13)</b>		

**SHAREHOLDERS EQUITY**

## SHARE CAPITAL

First Preferred Shares, without par value, unlimited shares authorized. No shares issued

Common shares, without par value, unlimited shares authorized. Shares issued and outstanding: 142,244,112 at December 31, 2004; 132,924,278 at December 31, 2003

CONTRIBUTED SURPLUS

DEFICIT

Total Shareholders Equity

Total Liabilities and Shareholders Equity

342,494	326,623
2,040	955
(126,574)	(129,216)
217,960	198,362
\$ 252,160	\$ 222,391

*The accompanying notes are an integral part of these consolidated financial statements.*

By: /s/ David K. Fagin Director

By: /s/ Peter J. Bradford Director



**Table of Contents**

**GOLDEN STAR RESOURCES LTD.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
(Stated in thousands of US dollars except per share amounts)

	For the years ended December 31,		
	2004	2003	2002
<b>REVENUE</b>			
Gold sales	\$ 60,690	\$ 63,512	\$ 38,091
Royalty income	3,049		
Interest and other	1,290	858	711
	65,029	64,370	38,802
<b>EXPENSES</b>			
Mining operations	39,095	32,125	26,747
Depreciation, depletion and amortization	8,096	4,993	2,459
Accretion of asset retirement amortization	645	578	
Total production costs	47,836	37,696	29,206
Exploration expense (Note 1)	895	594	485
General and administrative expense	6,811	5,153	3,886
Corporate development expense	4,504	10	
Option expense (Note 15)	1,386	403	
Loss on equity investment	331		
Abandonment and impairment of mineral properties	470	175	
Loss on sale of assets			(425)
Interest	139	42	265
Foreign exchange (gain)/loss	280	(2,331)	(139)
Total expenses	62,652	41,742	33,278
<b>INCOME BEFORE THE UNDERNOTED</b>	<b>2,377</b>	<b>22,628</b>	<b>5,524</b>
Gain on sale of marketable securities		1,905	
Omai preferred share redemption premium			170
Income before minority interest	2,377	24,533	5,694
Minority interest	(1,277)	(2,577)	(838)
<b>NET INCOME BEFORE TAX</b>	<b>1,100</b>	<b>21,956</b>	<b>4,856</b>
Income tax recovery (Note 16)	1,542		
<b>NET INCOME</b>	<b>\$ 2,642</b>	<b>\$ 21,956</b>	<b>\$ 4,856</b>
<b>NET INCOME PER COMMON SHARE BASIC (Note 17)</b>	<b>\$ 0.019</b>	<b>\$ 0.198</b>	<b>\$ 0.067</b>
<b>NET INCOME PER COMMON SHARE DILUTED (Note 17)</b>	<b>\$ 0.018</b>	<b>\$ 0.186</b>	<b>\$ 0.063</b>

WEIGHTED AVERAGE SHARES OUTSTANDING (millions of shares)	138.3	111.0	72.4
--	-------	-------	------

*The accompanying notes are an integral part of these consolidated financial statements.*

**Table of Contents**

**GOLDEN STAR RESOURCES LTD.**  
**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS EQUITY**  
(Stated in thousands of United States dollars except share amounts)

	Number of Common Shares	Share Capital	Contributed Surplus	Warrants	Equity Component of Convertible Debentures	Deficit
Balance at December 31, 2001	49,259,548	\$ 167,929	\$	\$ 410	\$ 545	\$(156,511)
Shares issued	31,506,000	27,507				
Issue costs		(2,558)				
Shares issued under options	547,916	520				
Shares issued under warrants	2,535,960	1,778				
Stock bonus	107,000	78				
Debenture conversions	2,994,278	2,903			(545)	
Warrants issued				1,817		
Warrants exercised		397		(397)		
Warrants issued to acquire property				255		
Other	450,000	400				
Net income						4,856
Balance at December 31, 2002	87,400,702	198,954		2,085		(151,655)
Shares issued	33,030,000	107,598				
Issue costs		(6,455)				
Warrants issued				1,780		
Warrants exercised		1,504		(1,504)		
Option issued net of forfeitures			955			
Shares issued under options	1,518,420	2,858				
Shares issued under warrants	8,167,956	8,595				
Stock bonus	57,200	118				
Shares issued to acquire property	2,750,000	11,090				
Cummulative effect of change in accounting method						483
Net income						21,956
Balance at December 31, 2003	132,924,278	324,262	955	2,361		(129,216)
Warrants exercised		755		(755)		
Option issued net of forfeitures			1,218			
Shares issued under options	767,180	1,239	(133)			

Edgar Filing: GOLDEN STAR RESOURCES LTD - Form 10-K

Shares issued under warrants	8,494,609	14,332				
Shares issued to acquire property	58,045	300				
Net income						2,642
Balance at December 31, 2004	142,244,112	\$ 340,888	\$ 2,040	\$ 1,606	\$	\$ (126,574)

*The accompanying notes are an integral part of these consolidated financial statements.*

**Table of Contents**

**GOLDEN STAR RESOURCES LTD.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(Stated in thousands of US dollars)

	For the years ended December 31,		
	2004	2003	2002
<b>OPERATING ACTIVITIES:</b>			
<b>Net income</b>	\$ 2,642	\$ 21,956	\$ 4,856
<b>Reconciliation of net income to net cash used in operating activities:</b>			
Depreciation, depletion and amortization	8,096	4,993	2,459
Deferred stripping	(1,357)		
Loss on equity investment	331		
Convertible debentures accretion			46
Premium on Omai preferred share redemption			(170)
Non-cash employee compensation	1,386	1,085	78
Abandonment and impairment of mineral properties	470	175	
Tax asset	(1,542)		
Gain on sale of assets			(425)
Reclamation expenditures	(730)	(841)	(465)
Asset retirement obligation	645	578	
Minority interest	1,277	2,577	838
	11,218	30,523	7,217
Changes in assets and liabilities:			
Accounts receivable	(2,802)	1,187	(746)
Inventories	(2,705)	(4,240)	(424)
Accounts payable and accrued liabilities	8,204	690	45
Marketable securities		906	(906)
Other	(5)	10	(293)
<b>Net Cash Provided by Operating Activities</b>	<b>13,910</b>	<b>29,076</b>	<b>4,893</b>
<b>INVESTING ACTIVITIES:</b>			
Expenditures on deferred exploration and development	(5,260)	(4,539)	(208)
Expenditures on mining properties	(19,302)	(31,142)	(12,075)
Expenditures on property, plant and equipment	(12,286)	(10,691)	(3,430)
Expenditures on mine construction-in-progress	(23,783)	(22,833)	
Omai preferred share redemption			310
Asset retirement obligation assets	1,000	1,192	
Sale of property	1,000	1,000	5,425
Deposits	(5,102)		
Investments	(4,971)	(888)	
Other	(894)	(139)	(392)

Net Cash Used in Investing Activities	(69,598)	(68,040)	(10,370)
<b>FINANCING ACTIVITIES:</b>			
Issuance of share capital, net of issue costs	15,270	113,408	29,095
Debt repayment	(153)	(5,289)	(6,502)
Increase in debt	2,328	799	2,384
Other			7
Net Cash Provided by Financing Activities	17,445	108,918	24,984
Increase/(decrease) in cash and cash equivalents	(38,243)	69,954	19,507
Cash and cash equivalents, beginning of period	89,970	20,016	509
Cash and cash equivalents end of period	\$ 51,727	\$ 89,970	\$ 20,016

See Note 18 for supplemental cash flow information. Cash and cash equivalents at December 31, 2004 consisted of \$2.8 million in money market funds, \$38.9 million of short-term (less than 90 days) investments and \$10.0 million of cash in checking accounts.

*The accompanying notes are an integral part of these consolidated financial statements.*

**Table of Contents**

**GOLDEN STAR RESOURCES LTD.**

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

*(All amounts in tables are in thousands of US Dollars unless noted otherwise)*

---

**1. Summary of Significant Accounting Policies**

***Basis of Consolidation and the Preparation of Financial Statements***

These consolidated financial statements are prepared and reported in United States ( US ) dollars and in accordance with generally accepted accounting principles in Canada, ( Canadian GAAP ) which differ in some respects from GAAP in the United States ( US GAAP ). These differences are quantified and explained in Note 21. The consolidated financial statements include the accounts of the Company and its majority owned subsidiaries and joint ventures. All material inter-company balances and transactions have been eliminated.

***Fiscal Year***

Our fiscal year runs from January 1 to December 31.

***Use of Estimates***

Preparation of our consolidated financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that can affect reported amounts of assets, liabilities, revenues and expenses. The more significant areas requiring the use of estimates include asset impairments, depreciation and amortization of assets, and site reclamation and closure accruals. Accounting for these areas is subject to estimates and assumptions regarding, among other things, gold reserves, gold recoveries, future gold prices, future operating costs, asset usage rates, and future mining activities. Management bases its estimates on historical experience and on other assumptions we believe to be reasonable under the circumstances. However, actual results may differ from our estimates.

***Cash and Cash Equivalents***

Cash and cash equivalents consist of cash deposits and highly liquid short term investments. We consider all highly liquid marketable securities with maturities of less than 91 days at date of purchase to be cash equivalents. Our cash equivalents consist mostly of US and Canadian government treasury bills, agency notes, auction rate certificates and money market funds.

***Inventories***

Inventories classifications include stockpiled ore , in-process inventory , finished goods inventory and materials and supplies . All of our inventories are recorded at the lower of cost or market, including direct production costs and attributable overhead and depreciation.

Stockpiled ore represents coarse ore that has been extracted from the mine and is ready for further processing. Stockpile ore is measured by estimating the number of tonnes (via truck counts or by physical surveys) added or removed from the stockpile, the number of contained ounces (based on assay data) and the estimated gold recovery percentage. Stockpiled ore value is based on the costs incurred (including depreciation and amortization) in bringing the ore to the stockpile. Costs are added to the stockpiled ore based on current mining costs per tonne and are removed at the average cost per recoverable ounce of gold in the stockpile.

In-process inventory represents material that is currently in the process of being treated to extract the contained gold and to transform it into a saleable product. The amount of gold in the in-process inventory is determined by assay and by measure of the quantities of the various gold-bearing materials in the recovery process. The in-process gold is valued at the average of the beginning inventory and the cost of material fed into the processing stream plus in-process conversion costs including applicable depreciation and amortization related to the processing facilities.



## **Table of Contents**

Finished goods inventory is composed of saleable gold in the form of doré bars that have been poured but not yet delivered to the buyer. The bars are valued at the lower of total cost or market value. Included in the total costs are the direct costs of the mining and processing operations as well as direct overheads, amortization and depreciation.

Materials and supplies inventories consist mostly of equipment parts, fuel and lubricants and reagents consumed in ore processing. Materials and supplies are valued at the lower of average cost or replacement cost.

### ***Reserve Quantities Used in Units-of-Production Amortization***

Gold ounces contained in ore stockpiles recognized in inventory balances on the balance sheet are excluded from total reserves when determining units-of-production amortization of mining property, asset retirement assets and other assets.

### ***Marketable Securities***

Short term investments in publicly traded marketable securities are recorded at the lower of cost or quoted market prices, with unrealized losses included in income. The market value is based on the closing price at the end of the period, as reported on recognized securities exchanges.

### ***Exploration Costs***

Exploration costs related to specific, identifiable properties, including the cost of acquisition, exploration and development, are capitalized until viability of the exploration property is determined. Exploration costs not directly related to an identifiable property are expensed as incurred.

Management periodically reviews, on a property-by-property basis, the carrying value of such properties including the costs of acquisition, exploration and development incurred to date. A decision to abandon, reduce or expand a specific project is based upon many factors including general and specific assessments of contained or potential mineralized materials, potential reserves, anticipated future mineral prices, the anticipated costs of additional exploration and, if warranted, costs of potential future development and operational costs, and the expiration terms and ongoing expenses of maintaining leased mineral properties. We do not set a pre-determined holding period for properties with unproven reserves; however, properties which have not demonstrated suitable metal concentrations at the conclusion of each phase of an exploration program are re-evaluated to determine if future exploration is warranted and if their carrying values are appropriate.

If an exploration property is abandoned or it is determined that its carrying value cannot be supported by future production or sale, the related costs are charged against operations in the year of abandonment or determination of value. Any subsequent costs incurred for that property are expensed as incurred.

The accumulated costs of mineral properties are reclassified as mine property and depleted on a units-of-production basis at such time as production commences.

### ***Impairment of Long-Lived Assets***

We review and evaluate our long-lived assets for impairment at least annually and also when events or changes in circumstances indicate the related carrying amounts may not be recoverable. Asset impairment is considered to exist if the total estimated future cash flows, on an undiscounted basis, are less than the carrying amount of the asset. An impairment loss is measured and recorded based on discounted estimated future cash flows. Future cash flows are estimated based on estimated quantities of recoverable minerals, expected gold and other commodity prices

(considering current and historical prices, price trends and related factors), production levels and cash costs of production, capital and reclamation costs, all based on detailed engineering life-of-mine plans.

The significant assumptions used in determining the future cash flows for each operating unit at December 31, 2004, apart from production cost and capitalized expenditure assumptions unique to each operation, included a long-term gold price of \$400 per ounce. In estimating future cash flows, assets are grouped at the lowest levels for which there are identifiable cash flows that are largely independent of future cash flows from other asset groups. With the

## **Table of Contents**

exception of other mine-related exploration potential and exploration potential in areas outside of the immediate mine-site, all assets at a particular operation are considered together for purposes of estimating future cash flows. In the case of mineral interests associated with other mine-related exploration potential and exploration potential in areas outside of the immediate mine-site, cash flows and fair values are individually evaluated based primarily on recent exploration results.

Various factors could impact our ability to achieve forecasted production schedules from proven and probable reserves. Additionally, commodity prices, capital expenditure requirements and reclamation costs could differ from the assumptions used in the cash flow models used to assess impairment. The ability to achieve the estimated quantities of recoverable minerals from exploration stage mineral interests involves further risks in addition to those factors applicable to mineral interests where proven and probable reserves have been identified, due to the lower level of confidence that the identified mineralized material can ultimately be mined economically.

Material changes to any of these factors or assumptions discussed above could result in future impairment charges to operations.

### ***Property, Plant, Equipment and Mine Development***

Property, plant and equipment assets, including, machinery, processing equipment, mining equipment, mine site facilities, vehicles and expenditures that extend the life of such assets are recorded at cost, including direct acquisition costs. Depreciation for such assets is computed using the straight-line method at rates calculated to depreciate the cost of the assets, less their anticipated residual values, if any, over their estimated useful lives.

Mineral property acquisition, exploration and development costs, buildings, processing plants and other long-lived assets are amortized over the life of the reserves of the associated mining property using a units-of-production amortization method. The net book value of property, plant and equipment assets at property locations is charged against income if the site is abandoned and it is determined that the assets cannot be economically transferred to another project or sold.

### ***Deferred Stripping***

In open pit mines with highly variable waste-to-ore stripping ratios over the mine life, it is appropriate to defer and subsequently recover waste removal costs in a manner that effectively allocates an equal share of the waste mining costs to each tonne of ore extracted. This practice is typically referred to as deferred stripping accounting and is widely used in the mining industry. Deferred stripping matches the cost of production with the sale of such production.

Capitalized amounts are determined each period by determining the tonnes of waste moved in excess of the life-of-pit average stripping ratio and valuing them at the average mining cost per tonne during the period. Costs are recovered in periods when the actual tonnes of waste moved are less than what would have been moved at the average stripping rate. The estimates required to be made in establishing and operating a deferred stripping program include the amount and location of ores reserves yet to be uncovered by stripping and the amount of waste tonnes to be moved. Such estimates are subject to several uncertainties mainly related to the limited access to a buried ore body. Factors including fluctuating metal prices, unexpected changes in operating costs, discovery of additional reserves or discovery that certain areas of the mine thought to be ore bearing are not and unexpected changes in the geologic environment at depth can all impact the estimates used in a deferred stripping program. At least annually an engineering study evaluates the remaining ore and waste tonnages in the pit using the most recent information available and adjustments to the capitalization and recovery rates are made to insure that the capitalized costs and future waste costs will be appropriately expensed over ore tonnes remaining in the pit.

There are mixed accounting practices in this area and some mining companies expense waste removal costs as incurred, which may result in reporting greater volatility in period to period results of operations than would be expected from a company that employs a deferred stripping policy. Mining companies also use differing mechanisms for determining the amount and cost of the waste tonnages capitalized and amounts recovered.

## **Table of Contents**

We include capitalized waste cost with mining properties on our balance sheet. The cost impact is included in the statement of operations in the line titled Mining operations .

### ***Environmental Rehabilitation and Closure***

In accordance with the requirements of the CICA Handbook Section 3110, Asset Retirement Obligations environmental reclamation and closure liabilities are recognized at the time of environmental disturbance in amounts equal to the discounted value of expected future reclamation and closure costs. The discounted cost of future reclamation and closure activities is capitalized into mine property and amortized over the life of the property. The estimated future cash costs of such liabilities are based primarily upon environmental and regulatory requirements of the various jurisdictions in which we operate. Cash expenditures for environmental remediation and closure are netted against the accrual as incurred.

### ***Foreign Currencies and Foreign Currency Translation***

Our functional currency is the US dollar. Transaction amounts denominated in foreign currencies are translated to US dollars at exchange rates prevailing at the date of the transaction. The carrying value of monetary assets and liabilities is translated at the rate of exchange prevailing at the balance sheet date. Non-monetary assets are translated at the rates of exchange prevailing when the assets were acquired or the liabilities assumed. Revenue and expense items are translated at the average rate of exchange during the period. Translation gains or losses are included in net earnings for the period.

Canadian currency in these financial statements is denoted as Cdn\$ , European Common Market currency is denoted as Euro , and Ghanaian currency is denoted as Cedi or Cedis .

### ***Income and Mining Taxes***

Income and mining taxes comprise the provision (or relief) for taxes actually paid or payable and for future taxes. Future income and mining taxes are computed using the asset and liability method whereby future income and mining tax assets and liabilities are recognized for the expected future tax consequences attributable to temporary differences between the tax basis of assets and liabilities and their reported amounts in the financial statements. Future income and mining tax assets and liabilities are computed using income tax rates in effect when the temporary differences are expected to reverse. The effect on the future tax assets and liabilities of a change in tax rates is recognized in the period of substantive enactment. The provision or relief for future taxes is based on the changes in future tax assets and liabilities during the period. In estimating future income and mining tax assets, a valuation allowance is determined to reduce the future tax assets to amounts that are more likely than not to be realized.

### ***Net Income per Share***

Basic income per share is calculated by dividing income available to common shareholders by the weighted average number of common shares outstanding during the period. The calculation of diluted net income per common share uses the treasury stock method to compute the dilutive effects of stock options and warrants.

### ***Revenue Recognition***

Revenue from the sale of gold is recognized when title and the risk of ownership pass to the buyer. Title and risk of ownership pass to the buyer when doré is delivered into the buyer's custody. Our gold is sold to a South African gold refinery and revenue is recognized when title is transferred to the customer at the refinery. The sales price is based on the London P.M. fix on the day of delivery.

Credits from by-products are credited against operating costs and not included in revenues. By-product costs have been *de minimis* to date at our existing properties.

***Stock Based Compensation***

## **Table of Contents**

In accordance with the requirements of CICA Handbook Section 3870, *Stock Based Compensation and other Stock-based Payments* we use the fair value method to expense the fair value of options granted to employees and directors. The fair value of options granted is established at the date of the grant, using the Black-Scholes option-pricing model. Compensation expense for options with immediate vesting is recognized in the period of the grant. Compensation expense for options with graded vesting is recognized on a straight line basis over the vesting periods.

### ***Reclassifications***

For comparative purposes, certain prior year amounts have been reclassified to conform to the current year presentation.

### ***Recent Accounting Pronouncements***

In November 2003, the CICA amended CICA 3870 - *Stock-based Compensation and Other Stock-based Payments* to require recognition at the date of grant, of expense for stock option grants after December 31, 2003 in an amount equal to the fair value of the option. We opted for an early adoption of this new guidance and began expensing stock options during 2003. The impact of this election resulted in recognition of approximately \$1.0 million of stock option expense in 2003 and approximately \$1.4 million in 2004.

In December 2001, the CICA issued Accounting Guideline 13 ( *AcG-13* ), *Hedging Relationships* . The guideline establishes requirements for the identification, documentation and effectiveness of hedging relationships, which would have been effective for fiscal years beginning on or before July 1, 2003. Since we had no hedging instruments there was no impact on our financial results from the adoption of the guidance.

### **AcG 15 Consolidations of variable interest entities**

In November 2004, the CICA issued Accounting Guideline *Consolidation of Variable Interest Entities* ( *AcG-15* ) to provide guidance for determining when an enterprise includes assets, liabilities and results of activities of variable interest entities in its consolidated financial statements. Variable interest entities are those in which equity investors do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. We do not anticipate any material impact on our consolidated financial statements or financial results from the adoption of AcG-15.

For a discussion of recent accounting pronouncements under US GAAP, see Note 21 to the Consolidated Financial Statements.

## **2. Financial Instruments**

**(a) Fair Value** - Our financial instruments are comprised of cash, short-term investments, accounts receivable, restricted cash, accounts payable, accrued liabilities, accrued wages, payroll taxes and debt. The fair value of cash and short-term investments, accounts receivable, accounts payable, accrued liabilities and accrued wages, payroll taxes and debt equals their carrying value due to the short-term nature of these items. The fair value of restricted cash is equal to the carrying value as the cash is invested in short-term, high-quality instruments.

**(b) Commodity Instruments** In the past we have purchased put option contracts ( *puts* ). Puts provide the right, but not the obligation, to sell a specified number of ounces of gold at a specified price on a specified future transaction date. Put options thereby provide a floor price for a portion of future production but they do not limit the upside potential of higher gold prices in excess of the specified price. If we opt to forego exercising a put option, the put

expires on its specified transaction date. We have not entered into a hedging program nor do we currently otherwise manage exposure to commodity price risk.



**Table of Contents****3. Inventories**

	<b>As of December 31,</b>	
	<b>2004</b>	<b>2003</b>
Stockpiled ore	\$ 3,659	\$ 4,167
In-process	2,858	2,821
Materials and supplies	8,849	5,673
Total	\$ 15,366	\$ 12,661

There were approximately 15,400 and 28,000 recoverable ounces of gold in ore stockpile inventories at December 31, 2004 and 2003, respectively. These ounces contained in our ore stockpile inventories are included in ore reserves. The stockpile inventories are for the most part short-term surge piles which will be processed in the next 12 months or less.

**4. Guiana Shield transactions**

In 2001 we sold our 50% interest in the Rosebel exploration property in South America to Cambior Inc. In addition to a \$5.0 million payment received at closing in 2002 and a future royalty (or participation right) based on future Rosebel production, the terms of the sale agreement provided that Cambior would make three deferred payments of \$1.0 million each and also pays a royalty on future gold production. The first of the deferred payments was received in the first quarter of 2003. The second deferred payment was made in the first quarter of 2004, and the third and final payment is expected in the first quarter of 2005.

We began receiving royalty payments in early 2004 from Cambior Inc. related to the participation right. Royalty income totaled \$3.0 million during 2004. On December 31, 2004 we sold the Rosebel participation right to our 53% owned subsidiary Guyanor Ressources SA for \$12.0 million, of which \$6.0 million was paid on January 8, 2005 and the balance is due to Golden Star prior to June 30, 2005. There was no gain recognition on the sale. Additionally, Golden Star will receive up to \$2.50 per ounce of Rosebel production for all production in excess of 2 million ounces but less than 4 million ounces and \$5.00 per ounce when production exceeds 4 million ounces up to 7 million ounces.

**5. Deposits**

Represents cash advances for equipment and materials purchases at WGL and BGL.

**6. Long Term Investments**

Represents a \$1.4 million investment in Goldmin Holdings, a private exploration firm with a focus on South American projects and a \$4.1 million investment in the common shares of Moto Gold Mines Limited ( Moto ), a publicly traded gold exploration and development firm.

We invested an additional \$0.8 million in Goldmin Holdings during 2004 bringing our ownership to 30.5%. We carry this investment as an equity investment and recognized \$0.3 million of equity losses in 2004.

During 2004 when we acquired a 9.5% equity interest in Moto for \$4.1 million. In addition to the common shares, we received warrants, which if exercised will raise our interest to 13.3%. This investment is carried as a long-term investment. The fair value of our investment in Moto remained at \$4.1 million as of December 31, 2004.

**7. Deferred Exploration and Development Costs**

The consolidated property expenditures on our exploration projects for the year ended December 31, 2004 were as follows:

**Table of Contents**

	Deferred Exploration & Development Costs as of 12/31/03	Capitalized Exploration Expenditures	Acquisitions	Impairment Write-offs	Reclassified to Mining Property	Deferred Exploration & Development Costs as of 12/31/04
<b>GHANA:</b>						
Bogoso Sulfide Project	\$ 5,930	\$	\$	\$	\$ (5,930)	\$
Akropong Trend & Other Ghana	2,037	406				2,443
Prestea Property Projects		2,537		(470)		2,067
Beta Boundary	814				(814)	
<b>MALI:</b>						
Mininko	130	903				1,033
<b>SIERRA LEONE</b>						
Mano River		758				758
<b>FRENCH GUIANA:</b>						
Bon Espoir			501			501
Paul Isnard			256			256
<b>SURINAME:</b>						
Saramacca	197	197				394
<b>TOTAL</b>	<b>\$ 9,108</b>	<b>\$ 4,801</b>	<b>\$ 757</b>	<b>\$ (470)</b>	<b>\$ (6,744)</b>	<b>\$ 7,452</b>

The Bogoso Sulfide Project and the Beta Boundary Project (now referred to as the Bondaye Project) were reclassified as Mining Properties during 2004.

Consolidated property expenditures for our exploration projects for the year ended December 31, 2003 were as follows:

	Deferred Exploration & Development Costs as of 12/31/02	Capitalized Exploration Expenditures	Acquisitions	Impairment Write-offs	Deferred Exploration & Development Costs as of 12/31/03
<b>GHANA:</b>					
Obuom	\$ 269	\$ 9	\$	\$	\$ 278
Bogoso Sulfide Project	3,621	119	2,190		5,930
Akropong Trend & Other Ghana	787	972			1,759
Beta Boundary		814			814

Other Bogoso Area Properties		109		(109)	
<b>MALI:</b>					
Mininko		130			130
<b>FRENCH GUIANA:</b>					
Yaou	33			(33)	
Dorlin	33			(33)	
<b>SURINAME:</b>					
Saramacca		197			197
<b>TOTAL</b>		\$ 4,743	\$ 2,350	\$ 2,190	\$ (175) \$ 9,108

---

**8. Property, Plant and Equipment**

**Table of Contents**

	As of December 31, 2004			As of December 31, 2003		
	Property, Plant and Equipment at Cost	Accumulated Depreciation	Property, Plant and Equipment Net Book Value	Property, Plant and Equipment at Cost	Accumulated Depreciation	Property, Plant and Equipment Net Book Value
Bogoso/Prestea	\$ 27,722	\$ 5,057	\$ 22,665	\$ 15,765	\$ 4,143	\$ 11,622
Prestea Underground	238		238	227		227
Guyanor	1,969	1,951	18	1,985	1,952	33
Wassa	5,460		5,460	6,259		6,259
Corporate & other	1,060	788	272	782	721	61
Total	\$ 36,449	\$ 7,796	\$ 28,653	\$ 25,018	\$ 6,816	\$ 18,202

**9. Mining Properties**

	As of December 31, 2004			As of December 31, 2003		
	Mine Property at Cost	Accumulated Amortization	Mine Property, Net Book Value	Mine Property at Cost	Accumulated Amortization	Mine Property, Net Book Value
Bogoso/Prestea	\$ 43,420	\$ 23,113	\$ 20,307	\$ 41,885	\$ 16,856	\$ 25,029
Prestea Underground	12,984		12,984	8,560		8,560
Wassa	9,653		9,653	9,778		9,778
Bogoso Sulfide	13,065		13,065			
Mampon	13,676		13,676	13,441		13,441
Beta Boundary	4,512		4,512			
Deferred Stripping	1,357		1,357			
Total	\$ 98,667	\$ 23,113	\$ 75,554	\$ 73,664	\$ 16,856	\$ 56,808

Some prior period numbers have been adjusted to conform to the 2004 presentation.

In June 2004 due to financial difficulties experienced by our joint venture partner, the portion of the Prestea Underground owned by our joint venture partner reverted to our ownership per the terms of the original joint venture agreement. As a result, a \$2.4 million minority interest recorded when the partnership was originally organized was reversed and a \$2.4 million reduction was recorded in the carrying value of the Prestea Underground Mining Property assets.

The Bogoso Sulfide project, and the Beta Boundary project at Prestea, which is expected to feed the proposed Bondaye Plant, were deemed sufficiently advanced by early 2004 for reclassification as Mining Properties rather than as exploration properties. Reclassification was based upon having defined proven and probable reserves at both projects, completion of a feasibility study for the Bogoso Sulfide project showing it to be economically viable, and advanced engineering and design work on the Bondaye/Beta Boundary project which is now awaiting environmental permits. The Mining Properties costs associated with these two projects will be amortized over production ounces when gold production begins.

We initiated a deferred waste stripping policy at the Plant-North pit at Prestea in the third quarter of 2004. In the past, most of our pits have been relatively shallow and short-lived because the Bogoso plant could effectively process only near-surface ores that had been naturally oxidized by relatively shallow ground water. With recent plant modifications we are now able to process certain deeper ores from Prestea. As a result we anticipate deeper pits with longer lives than in the past. Adoption of this policy resulted in deferral of \$1.4 million of Plant-North waste stripping costs during the second half of 2004. There were no recoveries of stripping costs during 2004. We expect that the entire \$1.4 million of deferred stripping costs will be recovered during 2005. The value of capitalized waste costs is included in the Mining Properties balance on our consolidated balance sheets. The cost impact is included in the statement of operations in the line titled Mining operations .

**Table of Contents****10. Mine Construction-in-Progress**

Mine construction in progress represents costs incurred at the Wassa project subsequent to acquisition. The balance includes feasibility study costs, equipment purchases and construction costs, including interim payments to the construction contractor and development costs.

**11. Debt**

	As of December 31, 2004	As of December 31, 2003
<b>Current debt:</b>		
Equipment financing loans - Bogoso (Note a)	\$ 1,130	\$
Equipment financing loans Wassa (Note b)	137	142
Total current debt	\$ 1,267	\$ 142
<b>Long term debt:</b>		
Equipment financing loans - Bogoso (Note a)	1,198	
Equipment financing loans Wassa (Note b)	\$ 509	\$ 657
Total long term debt	\$ 1,707	\$ 657

(a) In June 2004 an equipment financing credit facility of up to \$25 million was established between Caterpillar Financial Services Corporation and BGL and WGL, subsidiaries of Golden Star, with Golden Star as the guarantor of all amounts borrowed. The facility provides credit for a mixture of new and used mining equipment and is available until April 2005. Amounts drawn under this facility are repayable over five years for new equipment and over two years for used equipment. The interest rate is fixed using the Federal Reserve Bank 2-year or 5-year swap rate plus 2.28% or we can opt for a floating interest rate of LIBOR plus 2.28%. As of December 31, 2004, \$2.3 million had been drawn to purchase used equipment and is repayable in 24 equal monthly installments beginning December 2004 with an interest rate of 6.01%.

(b) Caterpillar Financial Services Corporation A \$0.8 million installment loan was used to purchase mobile equipment at Wassa and is repayable in 60 equal monthly installments from December 2003 with an interest rate of 6.25%.

**12. Asset Retirement Obligations**

Effective January 1, 2003, we changed our accounting policy for asset retirement obligations to comply with CICA Handbook Section 3110, Asset Retirement Obligations. This change was made on a retroactive basis. Upon the adoption of this new standard, we recognized a \$0.5 million reduction in the carrying value of liabilities related to future reclamation and other asset retirement obligations. The cumulative effect of the adoption of this new standard totaled \$0.5 million and was recorded as a reduction in the deficit account in shareholders' equity.

Our Asset Retirement Obligations ( ARO ) recognize the present value of the ultimate closure cost associated with reclamation, demolition and stabilization of our mining properties. Included in this liability are the costs of mine

closure and reclamation, processing plant and infrastructure demolition, tailings pond stabilization and reclamation and environmental monitoring costs.

The changes in the carrying amount of the ARO during 2004 were as follows:

81

---



**Table of Contents**

**13. Commitments and Contingencies**

**(a) Environmental Regulations and Asset Retirement Obligations** - We are not aware of any events of material non-compliance with environmental laws and regulations in our operations which could have a material adverse effect on our operations or financial condition. The exact nature of 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. Asset retirement obligations, which include environmental rehabilitation liabilities for reclamation and for closure costs, were \$6.0 million at Bogoso/Prestea at December 31, 2004, up from \$5.2 million at December 31, 2003. Asset retirement obligations at Wassa totaled \$2.7 million at December 31, 2004, up from \$2.5 million at the end of 2003.

**(b) Cash Restricted for Environmental Rehabilitation Liabilities** - In 1999, we were required, according to the acquisition agreement with the sellers of BGL, to restrict \$6.0 million of cash to be used for the ongoing and final reclamation and closure costs at Bogoso. The withdrawal of these funds must be agreed to by the sellers, who are ultimately responsible for the reclamation in the event of our non-performance. There have been no agreements for disbursements since 2001. We are seeking to obtain an amendment to the agreement that would remove the restriction and in its place establish a reclamation bond to meet Ghana's Environmental Protection Agency reclamation bonding requirements as discussed below. At December 31, 2004, approximately \$3.4 million of restricted cash was held as a cash provision against future reclamation commitments at Bogoso.

**(c) Corporate Office Building Lease** Effective January 1, 2004, we entered into a five year office building lease for our corporate headquarters in Littleton, Colorado. The annual initial lease rate was \$19.00 per rentable square foot, which escalates to \$21.00 per rentable square foot in the last year of the lease.

**(d) Environmental Bonding in Ghana** - During 2004 the Ghana Environmental Protection Agency requested that we provide cash collateralized environmental reclamation bonds for both Bogoso/Prestea and Wassa while the Environmental Protection Agency has not specified the exact amount of the required bonds, we expect based on our cost estimates for required future reclamation spending, that the bonds will be approximately \$9.0 million for Bogoso/Prestea and approximately \$3.9 million for Wassa. We plan to fund these obligations with a combination of cash on hand and letters of credit.

**(e) Royalties** -

(i) Dunkwa Properties: As part of the acquisition of the Dunkwa properties in August 2003, we agreed to pay the seller a net smelter return royalty on future gold production from the Mansiso and Asikuma properties, excluding any royalty on the first 200,000 ounces produced from Mampon which is located on the Asikuma property. The amount of the royalty is based on a sliding scale which ranges from 2% of net smelter return at gold prices of or below \$300 per ounce up to 3.5% for gold prices in excess of \$400 per ounce.

(ii) Government of Ghana: Under the laws of Ghana, a holder of a mining lease is required to pay an annual royalty of not less than 3% and not more than 12% of the total revenues earned from the lease area. The royalty is payable on a quarterly basis. We currently pay a 3% annual royalty on gold production from Bogoso/Prestea and expect to pay a royalty at a similar rate on Wassa production. The Government of Ghana retains the right to increase the amount of the royalty to as much as 12% based upon a formula related to a company's operating margin.

**(f) Wassa Construction Contract** - We entered into a contract with Metallurgical Design and Management (Pty) Ltd. ( MDM ), a South African company, in July 2003, for the construction of the CIL processing plant facility and other associated processing facilities at Wassa. By the end of 2004 substantially all construction work had been



**Table of Contents**

completed at Wassa, except for the completion of the power line, and the contract with MDM was terminated and no further payments are due them.

**(g) Mano River Joint Venture** We entered into a joint venture agreement in late 2003 to invest up to \$6 million over four years in the Mano River project in Sierra Leone via an earn-in agreement with a junior exploration company which holds a group of gold exploration properties in Sierra Leone. The initial \$6 million, if fully funded (we can terminate the agreement after spending \$1.0 million) would yield a 51% interest in the joint venture. Further provisions of the joint venture agreement provide the opportunity to acquire up to 85% of the joint venture by continued long term funding. The joint venture agreement is subject to completion of documentation. Spending during 2003 was nil. Spending in 2004 totaled \$0.8 million leaving \$0.2 million left on our minimum commitment to the project.

**(h) Mininko Joint Venture** In late 2003 we entered into a joint venture agreement, agreeing to fund exploration work on the Mininko gold property in Mali. Funding of \$2.6 million would earn a 51% interest in the joint venture. We can terminate the joint venture after spending \$0.4 million of which \$0.1 million was spent in 2003. Spending during 2004 totaled \$0.9 million. The joint venture agreement provides that we can earn up to an 82.5% interest by continued funding of exploration and development, if warranted.

**14. Warrants**

At December 31, 2004, there were two series of warrants outstanding to purchase a total of 8.8 million common shares. Of the total, 8.4 million were issued during 2003 and 0.4 million were issued during 2002 as follows:

<b>Type :</b>	<b>Date issued</b>	<b>Warrants outstanding</b>	<b>Exercise price</b>	<b>Term</b>	<b>Expiration date</b>
Broker warrants	July 24, 2002	385,000	Cdn\$2.28	2 years (1)	July 24, 2005
Equity offering	February 14, 2003	8,448,334	Cdn\$4.60	4 years	February 14, 2007
Total		8,833,334			

(1) The July 24, 2002 broker warrants are exercisable during a two-year period ending July 24, 2005. During 2004, 8.5 million warrants were exercised resulting in cash proceeds of \$14.3 million to Golden Star.

The warrants issued in conjunction with the February 14, 2003 equity offering are traded on the Toronto Stock Exchange under the symbol GSC.WT.A. There is no public market for the broker warrants.

**15. Stock Based Compensation**

**(a) Stock Options** We have one stock option plan, the 1997 Stock Option Plan, as amended (the GSR Plan ) and options are granted under this plan from time to time at the discretion of the Compensation Committee. Options granted are non-assignable and are exercisable for a period of ten years or such other period as stipulated in a stock option agreement between Golden Star and the optionee. Under the GSR Plan, we may grant options to employees, consultants and directors of the Company or its subsidiaries for up to 15,000,000 shares of common stock. Options take the form of non-qualified stock options, and the exercise price of each option is not less than the market price of our stock on the date of grant. Options typically vest over periods ranging from immediately to four years from the date of grant. Vesting periods are determined at the discretion of the Compensation Committee.

The following tables summarize information about options under the GSR Plan:

**Table of Contents**

	2004		2003		2002	
	Weighted-Average Exercise		Weighted-Average Exercise		Weighted-Average Exercise	
	Shares	Price	Shares	Price	Shares	Price
<b>GSR Plan</b>	(000s)	(Cdn\$)	(000s)	(Cdn\$)	(000s)	(Cdn\$)
Outstanding at beginning of year	5,241	2.41	4,489	1.36	4,595	1.42
Granted	855	6.95	2,354	3.99	640	1.17
Exercised	(767)	2.12	(1,518)	1.73	(548)	1.49
Forfeited	(58)	4.31	(84)	2.92	(198)	1.76
Outstanding at end of year	5,271	3.17	5,241	2.41	4,489	1.36
Options vested and exercisable at year-end	4,140	2.54	3,803	1.81	4,006	1.40
Weighted-average fair value of options granted during the year		2.45		1.25		0.86

<b>GSR Plan</b>	Number Outstanding at December 31,	Options Outstanding	Weighted-Average Exercise Price (Cdn\$)	Options Exercisable	Weighted-Average Exercise Price (Cdn\$)
		Weighted-Average		Number at December 31,	
Range of Exercise Prices (Cdn\$)	2004 (000s)	Life (years)	Price (Cdn\$)	2004 (000s)	Price (Cdn\$)
1.00 to 2.50	2,869	5.6	1.39	2,794	1.36
2.51 to 4.00	1,162	8.2	3.46	757	3.38
4.01 to 7.00	1,026	9.3	6.65	482	6.63
7.01 to 10.00	214	8.9	8.83	107	8.83
	5,271	7.1	3.17	4,140	2.54

Options granted during 2004:

Date	Number of Options (000s)	Strike Price (Cdn\$)	Fair Value per option (Cdn\$)	Total Fair	
				Value (000s of Cdn\$)	Option Life
May 14, 2004	855	6.95	2.45	2,094	10 years
<b>Total</b>	855	6.95	2.45	2,094	10 years

Options granted during 2003:

<b>Date</b>	<b>Number of Options</b>	<b>Strike Price</b>	<b>Fair Value per option</b>	<b>Total Fair Value</b>	<b>Option</b>
<b>Granted</b>	<b>(000s)</b>	<b>(Cdn\$)</b>	<b>(Cdn\$)</b>	<b>(000s of Cdn\$)</b>	<b>Life</b>
January 30, 2003	1,134	3.14	0.96	1,093	10 years
March 21, 2003	225	2.39	0.9	203	10 years
July 30, 2003	556	4.00	1.17	648	10 years
September 18, 2003	225	5.25	1.94	436	10 years
October 30, 2003	32	7.45	2.21	71	10 years
December 18, 2003	182	9.07	2.67	486	10 years
<b>Total</b>	<b>2,354</b>	<b>3.99</b>	<b>1.25</b>	<b>2,937</b>	<b>10 years</b>

**Table of Contents**

The fair value of options granted during 2004, 2003 and 2002 were estimated at the grant dates using the Black-Scholes option-pricing model with the following weighted average assumptions:

	<b>2004</b>	<b>2003</b>	<b>2002</b>
Expected volatility	36%	34%	89% to 102%
Risk-free interest rate	3.72% - 4.06%	3.01% - 4.46%	3.68% - 4.47%
Expected lives	3.5 to 5 years	3.5 to 5 years	5 years
Dividend yield	0%	0%	0%

In November 2003 the Accounting Standards Board of the Canadian Institute of Certified Accountants amended CICA Handbook CICA 3870, Stock-based Compensation and other Stock-based Payments to require expensing of all stock based compensation awards for fiscal years beginning on or after January 1, 2004. In light of this development we adopted the new provision of CICA 3870 in 2003. As a result, we recognized stock based compensation expense of approximately \$1.4 million and \$1.0 million in 2004 and 2003 respectively for stock options granted during 2004 and 2003. During 2003 approximately \$0.5 million of the total option expense was included in mining operations expense.

Prior to 2003 we did not recognize compensation costs related to stock options granted. Had compensation costs been recognized for options vesting in 2002, our net income and earnings per share would have been reduced to the pro forma amounts shown below:

		<b>2004</b>	<b>2003</b>	<b>2002</b>
Net income	As reported	\$ 2,642	\$ 21,956	\$ 4,856
	Pro forma	\$ 2,633	\$ 21,882	\$ 4,339
Net income per share	As reported	\$ 0.019	\$ 0.198	\$ 0.067
	Pro forma	\$ 0.019	\$ 0.197	\$ 0.060

**(b) Stock Bonus Plan** - In December 1992, we established an Employees Stock Bonus Plan (the Bonus Plan) for any full-time or part-time employee (whether or not a director) of the Company or any of our subsidiaries who has rendered meritorious services which contributed to the success of the Company or any of its subsidiaries. The Bonus Plan provides that a specifically designated committee of the Board of Directors may grant bonus common shares on terms that it might determine, within the limitations of the Bonus Plan and subject to the rules of applicable regulatory authorities. The Bonus Plan, as amended, provided for the issuance of 900,000 common shares of bonus stock of which 445,820 common shares have been issued as of December 31, 2004.

During 2004, 2003 and 2002 a total of nil, 57,200 and 107,000 common shares respectively were issued to employees pursuant to the Bonus Plan. We recognized compensation expense related to bonuses under the Bonus Plan during 2004, 2003 and 2002 of nil, \$117,800 and \$78,000.

**16. Income Taxes**

We recognize future tax assets and liabilities based on the difference between the financial reporting and tax basis of assets and liabilities using the enacted tax rates expected to be in effect when the taxes are paid or recovered. We provide a valuation allowance against future tax assets for which we do not consider realization of such assets to meet the required more likely than not standard.

Our future tax assets and liabilities at December 31, 2004 and 2003 include the following components:

(in thousands)	<b>2004</b>	<b>2003</b>
<b>Future tax assets</b>		
Offering costs	\$ 2,218	\$ 2,835
Loss carryovers	59,795	62,745



**Table of Contents**

The composition of our valuation allowance is summarized as follows:

(in thousands)	<b>2004</b>	<b>2003</b>
Canada	\$ 32,756	\$ 31,826
France	26,141	27,065
Ghana	5,502	7,331
Total Valuation Allowance	\$ 64,399	\$ 66,222

During 2004, we reduced the valuation allowance by \$1.5 million. This allowance was related to our net future tax assets in Ghana.

A reconciliation of expected income tax on net income before income before minority interest at statutory rates with the actual expenses (recovery) for income taxes is as follows:

	<b>2004</b>	<b>2003</b>	<b>2002</b>
Net income (loss) before minority interest	\$ 2,377	\$ 24,533	\$ 5,694
Statutory tax rate	\$ 32.1%	34.1%	36.1%
Tax expense (recovery) at statutory rate	763	8,365	2,057
Enacted future tax rate reductions		(490)	(228)
Foreign tax rates	(152)	(6,489)	(797)
Change in tax rates			5,870
Nondeductable portion of capital losses	3,174		
Expired loss carryovers	1,450	2,866	1,861
Ghana investment allowance	(316)	(636)	(339)
Nondeductable stock option compensation	445	129	
Nondeductable expenses	119		
Tax loss on sale of Guyanor shares	(2,898)		
Loss carryover not previously recognized	4,447		(9,766)
Ghana property basis not previously recognized	(2,733)	716	(5,571)
Change in future tax assets due to exchange rates	(3,919)	(8,283)	(3,214)
Change in valuation allowance	(1,922)	3,822	10,127
Income tax expense (recovery)	\$ (1,542)	\$	\$

During 2004, 2003 and 2002, we recognized \$0.3 million, \$6.4 million and \$2.6 million, respectively, of share offering costs. Shareholders' equity has been credited in the amounts of \$0.1 million, \$2.1 million and \$0.8 million for the tax benefits of these deductions; however a valuation allowance had been provided against their full amount.

The \$1.5 million provision for taxes is a deferred foreign provision.

**Table of Contents**

At December 31, 2004 we had loss carryovers expiring as follows:

	<b>Canada</b>	<b>Ghana</b>	<b>France</b>
2005	\$ 10,187	\$	\$
2006	2,508		
2007	344		
2008	1,837		
2009	2,265		
2010	1,134		
2011	6,723		
Indefinite	39,583		73,215
Total	\$ 64,582	\$ 65,377	\$ 73,215

**17. Earnings per Common Share**

The following table provides a reconciliation between basic and diluted earnings per common share:

	<b>For the years ended December 31,</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
<b>Net Income/(Loss)</b>	\$ 2,642	\$ 21,956	\$ 4,856
<b>Shares (in millions)</b>			
Weighted average number of common shares	138.3	111.0	72.4
Dilutive Securities:			
Options	2.9	2.7	1.6
Warrants	2.5	4.2	2.7
<b>Weighted average number of dilutive common shares</b>	<b>143.7</b>	<b>117.9</b>	<b>76.7</b>
<b>Basic Income/(Loss) Per Common Share</b>	\$ 0.019	\$ 0.198	\$ 0.067
<b>Diluted Income/(Loss) Per Common Share</b>	\$ 0.018	\$ 0.186	\$ 0.063

**18. Supplemental Cash Flow Information**

The following is a summary of non-cash transactions:

	<b>For the years ended December</b>		
	<b>31,</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
<b>Investing:</b>			
Prestea acquisition costs paid with common shares	\$	\$	\$ (400)
Common shares issued for Prestea acquisition cost			400

Receivable on sale of property	(3,000)
Acquisition, deferred exploration and development	3,000
Wassa property acquisition	
Property, plant and equipment	(4,120)
Reclamation liability assumed	2,302
Assumption of bank debt	1,818
Minority interest in Prestea Underground joint venture	2,400
Mine property Prestea Underground joint venture	(2,400)

**Table of Contents**

	<b>For the years ended December 31,</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
Warrants issued for Obuom acquisition			255
Obuom property acquisition			(255)
Acquisition of properties in French Guiana			(66)
Guiana Shield transaction property exchange			66
Barnex royalty buy-back		12,045	
Common shares issued for Barnex royalty buy-back		(12,045)	
Common shares issued to purchase Goldfields Miniere S.A.	300		
Acquisition of Investment in Goldfields Miniere S.A.	(300)		
Acquisition of minority interest in Prestea Underground:			
Minority interest	(2,400)		
Mining Property	2,400		
<b>Financing:</b>			
Equity component of convertible debentures			(545)
Common shares issued upon conversion of convertible debentures			2,903
Conversion of convertible debentures			(2,358)

There was no cash paid for income taxes during 2004, 2003 and 2002. Cash paid for interest was \$0.1 million in 2004, \$0.1 million in 2003 and \$0.4 million in 2002.

**19. Operations by Segment and Geographic Area**

The following segment and geographic data includes revenues based on product shipment origin and long-lived assets based on physical location. The corporate entity is incorporated in Canada and domiciled in the United States.

**Africa - Ghana**

(as of December 31 or for the year ended)	<b>Bogoso/ Prestea</b>	<b>Wassa</b>	<b>Other</b>	<b>South America</b>	<b>Corporate</b>	<b>Total</b>
<b>2004</b>						
Revenues	\$ 61,002	\$	\$	\$ 3,145	\$ 882	\$ 65,029
Net Income/(Loss)	12,533	(168)		1,772	(11,495)	2,642
Total Assets	90,297	70,681	31,080	817	59,285	252,160
<b>2003</b>						
Revenues	\$ 63,640	\$	\$	102	\$ 628	\$ 64,370
Net Income/(Loss)	23,253	(171)		(1,411)	285	21,956
Total Assets	64,828	44,523	20,058	352	92,630	222,391
<b>2002</b>						
Revenues	\$ 38,199	\$	\$	\$ 466	\$ 137	\$ 38,802
Net Income/(Loss)	8,089			(1,106)	(2,127)	4,856

Total Assets	36,585	10,434	3,688	189	23,239	74,135
--------------	--------	--------	-------	-----	--------	--------

**20. Related Parties**

During 2004 we obtained legal services from a legal firm to which our Chairman is of counsel. Total cost of all services purchased during 2004 was \$1.7 million. Our Chairman did not personally perform any legal services for us during 2004 nor did he benefit directly or indirectly from payments for the services performed by the firm.

**21. Generally Accepted Accounting Principles in Canada and the United States**

**Table of Contents**

Our consolidated financial statements have been prepared in accordance with accounting principles generally accepted in Canada, which differ from US GAAP. The effect of applying US GAAP to our financial statements is shown below.

<b>(a) Balance Sheets Under US GAAP</b>	<b>As of December 31,</b>	
	<b>2004</b>	<b>2003</b>
<b>ASSETS</b>		
<b>Current assets:</b>		
Cash and short term investments	\$ 51,727	\$ 89,970
Accounts receivable	3,592	790
Inventories	15,366	12,661
Due from sale of property	1,000	1,000
Current tax asset	1,542	
Deposits	5,102	
Prepays	517	514
 Total current assets	 78,846	 104,935
 Restricted cash	 3,351	 3,317
Due from sale of property		1,000
Long term investments	4,132	
Deferred exploration and development costs (Note 2)		
Property, plant and equipment, net	28,653	18,202
Mining property (Note 3)	53,943	46,478
Mine construction in progress	49,430	25,647
Other assets	1,617	758
 Total Assets	 \$ 219,972	 \$ 200,337
 Current liabilities	 \$ 17,480	 \$ 8,151
Long term debt	1,707	657
Asset retirement obligations (Note 4)	8,660	7,745
 Total Liabilities	 27,847	 16,553
 Minority interest (Notes 2 and 3)	 3,899	 3,367
 Share capital (Note 6)	 339,524	 323,654
Contributed capital	2,040	955
Accumulated comprehensive income (Note 1)	1,316	1,316
Deficit (Note 4)	(154,654)	(145,508)
 Total Shareholders' Equity	 188,226	 180,417
 Total Liabilities and Shareholders' Equity	 \$ 219,972	 \$ 200,337



**Table of Contents**

<b>(b) Statements of Operations under US GAAP</b>	<b>For the Years ended December 31,</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
Net income under Cdn GAAP	\$ 2,642	\$ 21,956	\$ 4,856
Deferred exploration expenditures expensed per US GAAP (Note 2)	(5,735)	(5,252)	(529)
Gain on sale of exploration property (Note 5)			8,066
Effect of mining property depletion			
Capitalized mine property acquisition costs expensed for US GAAP (Note 3)	(6,799)	(4,763)	(7,246)
Other			(7)
Net income/(loss) under US GAAP before minority interest	(9,892)	11,941	5,140
Minority interest, as adjusted (Notes 2 and 3)	746	933	1,612
Net income/(loss) under US GAAP before cumulative effect of change in accounting method	(9,146)	12,874	6,752
Cumulative effect of change in accounting method (Note 4)		483	
Net Income/(loss) under US GAAP	(9,146)	13,357	6,752
Other comprehensive income gain on marketable securities (Note 1)		(548)	548
Comprehensive income/(loss)	\$ (9,146)	\$ 12,809	\$ 7,300
Basic net income/(loss) per share under US GAAP before cumulative effect of change in accounting method	\$ (0.066)	\$ 0.116	\$ 0.093
Cumulative effect of change in accounting method		0.004	
Basic net income/(loss) per share under US GAAP after cumulative effect of change in accounting method	\$ (0.066)	\$ 0.120	\$ 0.093
Diluted net income/(loss) per share under US GAAP before cumulative effect of change in accounting method	\$ (0.066)	\$ 0.109	\$ 0.088
Cumulative effect of change in accounting method		0.004	
Diluted net income/(loss) per share under US GAAP after cumulative effect of change in accounting method	\$ (0.066)	\$ 0.113	\$ 0.088
<b>(c) Statements of Cash Flows under US GAAP</b>	<b>For the years ended December 31,</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
Cash provided by (used in):			
Operating Activities	\$ 575	\$ 19,029	\$ 1,040
Investing activities	(56,263)	(57,993)	(6,517)
Financing activities	17,445	108,918	24,984
Increase/(Decrease) in cash and cash equivalents for the year	(38,243)	69,954	19,507
Cash and cash equivalent beginning of the year	89,970	20,016	509
Cash and cash equivalents end of the year	\$ 51,727	\$ 89,970	\$ 20,016



**(d) Notes**

(1) Under US GAAP, marketable securities available for sale are marked to market and gains or losses are recognized in Other Comprehensive Income until the securities are sold. Under Cdn GAAP, marketable securities are accounted for at the lower of cost or market.

(2) Under US GAAP, exploration, acquisition and general and administrative costs related to exploration projects are charged to expense as incurred. Under Cdn GAAP, exploration, acquisition and general and administrative costs related to exploration projects are capitalized. In each subsequent period, the exploration, engineering, financial and market information for each exploration project is reviewed by management to determine if any of the capitalized costs are impaired. If found impaired, the asset's cost basis is reduced in accordance with Cdn GAAP provisions.

## **Table of Contents**

(3) Under US GAAP, the initial purchase cost of mining properties is capitalized. Pre-acquisition costs and subsequent development costs incurred, until such time as a final feasibility study is completed, are expensed in the period incurred. Under Cdn GAAP, the purchase costs of new mine properties as well as all development costs incurred after acquisition are capitalized and subsequently reviewed each period for impairment. If found impaired, the asset's cost basis is reduced in accordance with Cdn GAAP provisions.

(4) Under US GAAP the cumulative effect of applying SFAS 143 *Accounting for Asset Retirement Obligations* in January 2003 is included in net income for the period. In Cdn GAAP, under CICA 3110 *Asset Retirement Obligations*, the cumulative effect of the application of this new standard was recorded as an adjustment to beginning deficit account.

(5) The US GAAP basis in the Rosebel deferred exploration had been expensed in prior periods. Thus under US GAAP the full amount of the sales price was a gain. In Cdn GAAP, this property's basis approximated the sales price and thus there was no material impact on the statement of operations from the sale.

(6) Numerous transactions since the Company's organization in 1992 have contributed to the difference in share capital versus the Canadian GAAP balance, including: i.) under US GAAP, compensation expense was recorded for the difference between quoted market prices and the strike price of options granted to employees and directors under stock option plans under Canadian GAAP, recognition of compensation expense was not required; ii.) in May 1992 our accumulated deficit was eliminated through an amalgamation (defined as a quasi-reorganization under US GAAP) under US GAAP the cumulative deficit was greater than the deficit under Canadian GAAP due to the past write-offs of certain deferred exploration costs; iii.) gains recognized in Canadian GAAP upon issuances of subsidiaries' shares were not allowed under US GAAP; and iv.) Canadian GAAP requires that convertible debentures be classified into its component parts as liability and equity under US GAAP convertible debentures are classified entirely as debt.

### **(e) Impact of Recently Issued Accounting Standards**

The adoption of the following recent accounting pronouncements did not have any impact on our results of operations and financial condition:

FASB Interpretation No. 46(R) ( *FIN 46R* ), *Consolidation of Variable Interest Entities - An Interpretation of ARE No. 51* .

EITF Issue No. 03-1, *The Meaning of Other-Than-Temporary Impairment and Its Application to Certain Investments* .

In November 2004, the FASB issued SFAS No. 151, *Inventory Costs - An Amendment of ARB No. 43, Chapter 4 ( SFAS 151 )*. SFAS 151 amends the guidance in ARB No. 43, Chapter 4, *Inventory Pricing*, to clarify the accounting for abnormal amounts of idle facility expense, freight, handling costs, and wasted material (spoilage). Among other provisions, the new rule requires that items such as idle facility expense, excessive spoilage, double freight, and rehandling costs be recognized as current-period charges regardless of whether they meet the criterion of so abnormal as stated in ARB No. 43. Additionally, SFAS 151 requires that the allocation of fixed production overheads to the costs of conversion be based on the normal capacity of the production facilities. SFAS 151 is effective for fiscal years beginning after June 15, 2005 and is required to be adopted by us in the first quarter of fiscal 2006, beginning on January 1, 2006. We are currently evaluating the effect that the adoption of SFAS 151 will have on our consolidated results of operations and financial condition but we do not expect SFAS 151 to have a material impact.

In December 2004, the FASB issued SFAS No. 123 (revised 2004), *Share-Based Payment ( SFAS 123R )*, which replaces SFAS No. 123, *Accounting for Stock-Based Compensation ( SFAS 123 )* and supersedes APB Opinion No. 25, *Accounting for Stock Issued to Employees*. SFAS 123R requires all share-based payments to employees,

including grants of employee stock options, to be recognized in the financial statements based on their fair values beginning with the first interim or annual period after June 15, 2005, with early adoption encouraged. The pro forma disclosures previously permitted under SFAS 123 no longer will be an alternative to financial statement

**Table of Contents**

recognition. We adopted a policy of recognizing the cost of stock options at the beginning of 2003 and as a result anticipate no impact on our consolidated results of operations and financial condition when Share-Based Payment ( SFAS 123R ) becomes effective.

In December 2004, the FASB issued SFAS No. 153, Exchanges of Nonmonetary Assets An Amendment of APB Opinion No. 29, Accounting for Nonmonetary Transactions ( SFAS 153 ). SFAS 153 eliminates the exception from fair value measurement for nonmonetary exchanges of similar productive assets in paragraph 2 l(b) of APB Opinion No. 29, Accounting for Nonmonetary Transactions, and replaces it with an exception for exchanges that do not have commercial substance. SFAS 153 specifies that a nonmonetary exchange has commercial substance if the future cash flows of the entity are expected to change significantly as a result of the exchange. SFAS 153 is effective for the fiscal periods beginning after June 15, 2005. We will adopt SFAS 153 in the first quarter of 2006. We are currently evaluating the effect that the adoption of SFAS 153 will have on our consolidated results of operations and financial condition but do not expect it to have a material impact.

**22. Quarterly Financial Data Unaudited**

	<b>First Quarter</b>	<b>Second Quarter</b>	<b>Third Quarter</b>	<b>Fourth Quarter</b>	<b>Total</b>
	<b>2004</b>				
Net Sales	\$ 19,857	\$ 16,494	\$ 13,445	\$ 15,233	\$ 65,029
Gross Profit	8,061	3,975	1,029	3,233	16,298
Net Income/(Loss)	5,194	1,115	(4,258)	591	2,642
Basic Earning/(Loss) Per Common Share	\$ 0.039	\$ 0.008	\$ (0.030)	\$ 0.004	\$ 0.019
	<b>2003</b>				
Net Sales	\$ 15,141	\$ 12,693	\$ 18,801	\$ 17,735	\$ 64,370
Gross Profit	5,572	3,434	7,838	9,236	26,080
Net Income	3,984	3,993	6,095	7,884	21,956
Basic Earning Per Common Share	\$ 0.041	\$ 0.037	\$ 0.053	\$ 0.063	\$ 0.198
	<b>2002</b>				
Net Sales	\$ 9,332	\$ 9,699	\$ 8,350	\$ 11,421	\$ 38,802
Gross Profit	2,447	2,954	1,762	1,948	9,111
Net Income	1,454	1,557	834	1,011	4,856
Basic Earning Per Common Share	\$ 0.024	\$ 0.024	\$ 0.010	\$ 0.009	\$ 0.067

**Table of Contents**

**ITEM 9 CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

There have been no disagreements with PricewaterhouseCoopers LLP, our auditors, regarding any matter of accounting principles or practices or financial statement disclosure.

**ITEM 9A CONTROLS AND PROCEDURES**

We carried out an evaluation, under the supervision and with the participation of our principal executive officer and principal financial officer, of the effectiveness of our disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) as of the end of the period covered by this report. Based on this evaluation, the principal executive officer and principal financial officer have concluded that our disclosure controls and procedures are effective.

We periodically conduct an evaluation, under the supervision and with the participation of our principal executive officer and principal financial officer as well as our Audit Committee, of our internal controls and procedures. There have been no significant changes in our internal controls or in other factors that could significantly affect our internal controls subsequent to the date of the most recent evaluation.

As of the date of filing this Form 10-K we are in the process of testing our internal control procedures in order to satisfy the requirements of Section 404 of the Sarbanes-Oxley Act, which requires an annual management report of the effectiveness of our internal controls over financial reporting and for our Independent Registered Public Accounting Firm to attest to this report. Golden Star is eligible for the 45 day extension of time allowed by the SEC for companies of a certain size to file this report and the attestation. We have elected to utilize this 45 day extension, and therefore, this Form 10-K does not include these reports. We anticipate completing this process and filing these reports in an amended Form 10-K, which we intend to file in April 2005. Currently, we are not aware of any material weakness in our internal controls over financial reporting and related disclosures.

**PART III**

**ITEMS 10, 11, 12, 13 AND 14**

In accordance with General Instruction G(3), the information required by Part III is hereby incorporated by reference from our proxy statement to be filed pursuant to Regulation 14A not later than 120 days after the fiscal year covered by this report.

**PART IV**

**ITEM 15 EXHIBITS, FINANCIAL STATEMENT SCHEDULES**

**(a) The following documents are filed as part of this Report:**

1. Financial Statements

Management's Report

Auditors' Report

Consolidated Balance Sheets as of December 31, 2004 and 2003

Consolidated Statements of Operations for the years ended December 31, 2004, 2003 and 2002

Consolidated Statements of Changes in Shareholders' Equity for the years ended December 31, 2004, 2003 and 2002

Consolidated Statements of Cash Flows for the years ended December 31, 2004, 2003 and 2002

Notes to the Consolidated Financial Statements

2. Financial Statement Schedules

Financial Statement schedules have been omitted since they are either not required, are not applicable, or the required information is shown in the financial statements or related notes.

(c) **Exhibits**

- 3(i) Incorporating Documents of the Company, including: Articles of Arrangement dated May 14, 1992, with Plan of Arrangement attached, with Certificate of Amendment with respect thereto dated May 15, 1992; Certificate of Amendment dated May 15, 1992, with Articles of Amendment; Certificate of Amendment dated March 26, 1993, with Articles of Amendment;

**Table of Contents**

- Articles of Arrangement dated March 7, 1995, with Plan of Arrangement attached, with Certificate of Amendment with respect thereto dated March 14, 1995; Certificate of Amendment dated July 29, 1996, with Articles of Amendment; and Certificate of Amendment dated July 10, 2002, with Articles of Amendment (all incorporated by reference to Exhibit 4.1 to the Company's Form 8-K filed on January 23, 2003)
- 3(ii) Bylaws of the Company, including: Bylaw Number One, amended and restated as of April 3, 2002 (incorporated by reference to Exhibit 4.3 to the Company's Registration Statement on Form S-3 (Reg. No. 333-102225) filed on December 27, 2002); Bylaw Number Two, effective May 15, 1992 (incorporated by reference to Exhibit 4.2 to the Company's Form 8-K filed on January 23, 2003); and Bylaw Number Three, effective May 15, 1992 (incorporated by reference to Exhibit 4.2 to the Company's Form 8-K filed on January 23, 2003)
- 4.1 Form of Specimen Certificate for Common Shares (incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-3/A (Reg. No. 333-91666) filed on July 15, 2002)
- 4.2 Amended and Restated Shareholder's Rights Plan dated as of May 20, 2004 between the Company and CIBC Mellon Trust Company, as rights agent (incorporated by reference to Exhibit 4.1 to the Company's Form 8-K filed June 3, 2004)
- 4.7 Form of Underwriters' Warrants (incorporated by reference to Exhibit 4.3 to the Company's Registration Statement on Form S-3/A (Reg. 333-91666) filed on July 15, 2002)
- 4.9 Warrant Indenture, dated as of February 14, 2003, between the Company and CIBC Mellon Trust Company, including the Form of Warrant (incorporated by reference to Exhibit 4.1 of the Company's Form 8-K filed on February 14, 2003)
- 4.10 Form of Underwriters' Warrant, dated February 14, 2003 (incorporated by reference to Exhibit 4.2 of the Company's Form 8-K filed on February 14, 2003)
- 10.1 Summary of Executive Management Performance Bonus Plan (incorporated by reference to Exhibit 10.1 of the Company's Form 8-K filed on January 23, 2003)
- 10.2 Second Amended and Restated 1997 Stock Option Plan, effective as of April 8, 2004
- 10.3 Form of Indemnification Agreement between the Company and its officers and directors (incorporated by reference to Exhibit 10.3 of the Company's Form 8-K filed on January 23, 2003)
- 10.4 Summary of Severance Arrangements between the Company and certain executive officers (incorporated by reference to Exhibit 10.4 of the Company's Form 8-K filed on January 23, 2003)
- 10.5 Employees' Stock Bonus Plan amended and restated to April 6, 2000 (incorporated by reference to Exhibit 10(j) to the Company's Form 10-K for the year ended December 31, 2000)
- 10.6 Guyanor Ressources S.A. Stock Option Plan amended and restated as of June 15, 1999 (English translation) (incorporated by reference to Exhibit 10.35(a) to the Company's Form 10-K for the year ended December 31, 1999)
- 10.7 Amended and Restated Employment Agreement with Mr. Peter Bradford dated April 30, 2004





**Table of Contents**

- 10.8 Amended and Restated Employment Agreement with Mr. Allan J. Marter dated April 30, 2004
- 10.9 Amended and Restated Employment Agreement with Dr. Douglas Jones dated April 30, 2004
- 10.10 Amended and Restated Employment Agreement with Mr. Bruce Higson-Smith dated April 30, 2004
- 10.11 Amended and Restated Employment Agreement with Mr. Richard Q. Gray dated April 30, 2004
- 10.12 Agreements between the Company and its outside directors granting them options to purchase Guyanor Class B common shares, (1) dated December 8, 1995, and December 10, 1996 (incorporated by reference as Exhibit 10.39 to the Company's Form 10-K for the year ended December 31, 1996), (2) dated December 9, 1997 (incorporated by reference to Exhibit 10.39(a) to the Company's Form 10-K for the year ended December 31, 1997), (3) dated December 8, 1998 (incorporated by reference to Exhibit 10.39(b) to the Company's Form 10-K for the year ended December 31, 1998), (4) dated June 15, 1999 (incorporated by reference to Exhibit 10.39(c) to the Company's Form 10-K for the year ended December 31, 1999), and (5) dated August 16, 2001 (incorporated by reference to Exhibit 10.11 to the Company's Form 10-K for the year ended December 31, 2002)
- 10.22 Agreement, dated November 16, 2001, between Bogoso Gold Limited and Prestea Gold Resources Limited for the purchase of Prestea mining lease rights and option payments (incorporated by reference to Exhibit 10.2 to the Company's Form 8-K filed on March 6, 2002)
- 10.24 Guiana Shield Transaction Agreement with Cambior Inc. dated October 25, 2001 for the sale and swap of Golden Star's interest in Gross Rosebel and other properties (incorporated by reference to Exhibit 10.3 to the Company's Form 8-K filed March 6, 2002)
- 10.25 Mining lease, dated June 29, 2001, between the Government of the Republic of Ghana and Bogoso Gold Limited, relating to the Prestea property (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed on March 6, 2002)
- 10.26 Mining lease, dated September 17, 1992 between the Government of the Republic of Ghana and Satellite Goldfields Limited, with letter dated April 25, 2002 from the Ministry of Mines consenting to assignment to Wexford Goldfields Ltd., relating to the Wassa property
- 10.27 Mining lease dated June 29, 2001, between the Government of the Republic of Ghana and Prestea Gold Resources, relating to the Prestea underground property
- 10.28 Joint Operating Agreement, dated January 31, 2002, between Bogoso Gold Limited and Prestea Gold Resources Limited (incorporated by reference to Exhibit 10.25 to the Company's Form 10-K for the year ended December 31, 2002)
- 10.29 Memorandum of Agreement, dated March 14, 2002, among Prestea Gold Resources, Bogoso Gold Limited and others (incorporated by reference to Exhibit 10.26 to the Company's Form 10-K for the year ended December 31, 2002)
- 10.30 Letter agreement between the Company and Guyanor Ressource S.A. dated September 30, 2004 relating to sale of Gross Rosebel Participation Right
- 21 Subsidiaries of the Company

23.1 Consent of PricewaterhouseCoopers LLP

95

---

**Table of Contents**

23.2 Consent of Colin Jones

31.1 Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

31.2 Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

32.1 Certificate of Principal Executive Officer pursuant to 18 U.S.C. 1350 (Section 906 of the Sarbanes-Oxley Act of 2002)

32.2 Certificate of Principal Financial Officer pursuant to 18 U.S.C. 1350 (Section 906 of the Sarbanes-Oxley Act of 2002)

**Table of Contents**

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

GOLDEN STAR RESOURCES LTD.  
Registrant

By: /s/ Peter J. Bradford

Peter J. Bradford  
President and Chief Executive Officer

Date: February 2, 2005

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

By: /s/ Peter J. Bradford

Name: Peter J. Bradford  
Title: President and Chief  
Executive Officer  
Date: February 2, 2005

By: /s/ Allan J. Marter

Name: Allan J. Marter  
Title: Senior Vice-President and Chief Financial  
Officer  
Date: February 2, 2005

By: /s/ James E. Askew

Name: James E. Askew  
Title: Director  
Date: February 2, 2005

By: /s/ David L. Bumstead

Name: David L. Bumstead  
Title: Director  
Date: February 2, 2005

By: /s/ David K. Fagin

Name: David K. Fagin  
Title: Director  
Date: February 2, 2005

By: /s/ Ian MacGregor

Name: Ian MacGregor  
Title: Director  
Date: February 2, 2005

By: /s/ Michael Martineau

Name: Michael Martineau  
Title: Director  
Date: February 2, 2005



**Table of Contents**

EXHIBITS

- 3(i) Incorporating Documents of the Company, including: Articles of Arrangement dated May 14, 1992, with Plan of Arrangement attached, with Certificate of Amendment with respect thereto dated May 15, 1992; Certificate of Amendment dated May 15, 1992, with Articles of Amendment; Certificate of Amendment dated March 26, 1993, with Articles of Amendment; Articles of Arrangement dated March 7, 1995, with Plan of Arrangement attached, with Certificate of Amendment with respect thereto dated March 14, 1995; Certificate of Amendment dated July 29, 1996, with Articles of Amendment; and Certificate of Amendment dated July 10, 2002, with Articles of Amendment (all incorporated by reference to Exhibit 4.1 to the Company's Form 8-K filed on January 23, 2003)
- 3(ii) Bylaws of the Company, including: Bylaw Number One, amended and restated as of April 3, 2002 (incorporated by reference to Exhibit 4.3 to the Company's Registration Statement on Form S-3 (Reg. No. 333-102225) filed on December 27, 2002); Bylaw Number Two, effective May 15, 1992 (incorporated by reference to Exhibit 4.2 to the Company's Form 8-K filed on January 23, 2003); and Bylaw Number Three, effective May 15, 1992 (incorporated by reference to Exhibit 4.2 to the Company's Form 8-K filed on January 23, 2003)
- 4.1 Form of Specimen Certificate for Common Shares (incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-3/A (Reg. No. 333-91666) filed on July 15, 2002)
- 4.2 Amended and Restated Shareholder's Rights Plan dated as of May 20, 2004 between the Company and CIBC Mellon Trust Company, as rights agent (incorporated by reference to Exhibit 4.1 to the Company's Form 8-K filed June 3, 2004)
- 4.7 Form of Underwriters' Warrants (incorporated by reference to Exhibit 4.3 to the Company's Registration Statement on Form S-3/A (Reg. 333-91666) filed on July 15, 2002)
- 4.9 Warrant Indenture, dated as of February 14, 2003, between the Company and CIBC Mellon Trust Company, including the Form of Warrant (incorporated by reference to Exhibit 4.1 of the Company's Form 8-K filed on February 14, 2003)
- 4.10 Form of Underwriters' Warrant, dated February 14, 2003 (incorporated by reference to Exhibit 4.2 of the Company's Form 8-K filed on February 14, 2003)
- 10.1 Summary of Executive Management Performance Bonus Plan (incorporated by reference to Exhibit 10.1 of the Company's Form 8-K filed on January 23, 2003)
- 10.2 Second Amended and Restated 1997 Stock Option Plan, effective as of April 8, 2004
- 10.3 Form of Indemnification Agreement between the Company and its officers and directors (incorporated by reference to Exhibit 10.3 of the Company's Form 8-K filed on January 23, 2003)
- 10.4 Summary of Severance Arrangements between the Company and certain executive officers (incorporated by reference to Exhibit 10.4 of the Company's Form 8-K filed on January 23, 2003)
- 10.5 Employees' Stock Bonus Plan amended and restated to April 6, 2000 (incorporated by reference to Exhibit 10(j) to the Company's Form 10-K for the year ended December 31, 2000)



**Table of Contents**

- 10.6 Guyanor Ressources S.A. Stock Option Plan amended and restated as of June 15, 1999 (English translation) (incorporated by reference to Exhibit 10.35(a) to the Company's Form 10-K for the year ended December 31, 1999)
  - 10.7 Amended and Restated Employment Agreement with Mr. Peter Bradford dated April 30, 2004
  - 10.8 Amended and Restated Employment Agreement with Mr. Allan J. Marter dated April 30, 2004
  - 10.9 Amended and Restated Employment Agreement with Dr. Douglas Jones dated April 30, 2004
  - 10.10 Amended and Restated Employment Agreement with Mr. Bruce Higson-Smith dated April 30, 2004
  - 10.11 Amended and Restated Employment Agreement with Mr. Richard Q. Gray dated April 30, 2004
  - 10.12 Agreements between the Company and its outside directors granting them options to purchase Guyanor Class B common shares, (1) dated December 8, 1995, and December 10, 1996 (incorporated by reference as Exhibit 10.39 to the Company's Form 10-K for the year ended December 31, 1996), (2) dated December 9, 1997 (incorporated by reference to Exhibit 10.39(a) to the Company's Form 10-K for the year ended December 31, 1997), (3) dated December 8, 1998 (incorporated by reference to Exhibit 10.39(b) to the Company's Form 10-K for the year ended December 31, 1998), (4) dated June 15, 1999 (incorporated by reference to Exhibit 10.39(c) to the Company's Form 10-K for the year ended December 31, 1999), and (5) dated August 16, 2001 (incorporated by reference to Exhibit 10.11 to the Company's Form 10-K for the year ended December 31, 2002)
  - 10.22 Agreement, dated November 16, 2001, between Bogoso Gold Limited and Prestea Gold Resources Limited for the purchase of Prestea mining lease rights and option payments (incorporated by reference to Exhibit 10.2 to the Company's Form 8-K filed on March 6, 2002)
  - 10.24 Guiana Shield Transaction Agreement with Cambior Inc. dated October 25, 2001 for the sale and swap of Golden Star's interest in Gross Rosebel and other properties (incorporated by reference to Exhibit 10.3 to the Company's Form 8-K filed March 6, 2002)
  - 10.25 Mining lease, dated June 29, 2001, between the Government of the Republic of Ghana and Bogoso Gold Limited, relating to the Prestea property (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed on March 6, 2002)
  - 10.26 Mining lease, dated September 17, 1992 between the Government of the Republic of Ghana and Satellite Goldfields Limited, with letter dated April 25, 2002 from the Ministry of Mines consenting to assignment to Wexford Goldfields Ltd., relating to the Wassa property
  - 10.27 Mining lease dated June 29, 2001, between the Government of the Republic of Ghana and Prestea Gold Resources, relating to the Prestea underground property
  - 10.28 Joint Operating Agreement, dated January 31, 2002, between Bogoso Gold Limited and Prestea Gold Resources Limited (incorporated by reference to Exhibit 10.25 to the Company's Form 10-K for the year ended December 31, 2002)
-



**Table of Contents**

- 10.29 Memorandum of Agreement, dated March 14, 2002, among Prestea Gold Resources, Bogoso Gold Limited and others (incorporated by reference to Exhibit 10.26 to the Company's Form 10-K for the year ended December 31, 2002).
- 10.30 Letter agreement between the Company and Guyanor Ressource S.A. dated September 30, 2004 relating to sale of Gross Rosebel Participation Right
- 21 Subsidiaries of the Company
- 23.1 Consent of PricewaterhouseCoopers LLP
- 23.2 Consent of Colin Jones
- 31.1 Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2 Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.1 Certificate of Principal Executive Officer pursuant to 18 U.S.C. 1350 (Section 906 of the Sarbanes-Oxley Act of 2002)
- 32.2 Certificate of Principal Financial Officer pursuant to 18 U.S.C. 1350 (Section 906 of the Sarbanes-Oxley Act of 2002)