

Golden Star's Prestea Mine PEA Indicates NPV of \$121 M for Initial Capital Expenditure of \$40 M

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TORONTO, ONTARIO--(Marketwire - Nov 13, 2014) - Golden Star (TSX:GSC)(NYSE MKT:GSS)(GHANA:GSR) is pleased to announce the results of its Preliminary Economic Assessment ("PEA") of the development of its Prestea Mine in Ghana.

The Company released a feasibility study on the development of a mechanized mining operation at Prestea in June 2013. The PEA announced today is based on the development of a non-mechanized mining operation at Prestea. The capital expenditure associated with a non-mechanized mine is substantially lower and delivers a superior IRR.

All references to currency are to United States dollars.

Highlights

- Post-tax IRR of 72% at \$1,200/oz gold price
- NPV_{5%} of \$121 million at \$1,200/oz gold price
- Initial capital \$40 million required to first production
- Total project life of five years, after one year of development
- LOM cash operating costs of \$370/oz
- LOM all-in sustaining costs of \$518/oz
- Payback period of 2.5 years from the start of development

Sam Coetzer, President and CEO of Golden Star commented:

"The high grade nature of the deposit at Prestea's West Reef is truly remarkable and offers us the opportunity to mine at exceptionally low cash costs per ounce. With the infrastructure of haul roads and a processing plant already in place, the capital requirements to bring Prestea into production are also relatively low. This makes the project ideally suited to our strategy to transform Golden Star into a low cost producer. Once production from the West Reef is attained, I am confident that we will be able to extend the life of mine materially. As such, I believe that this project offers us the opportunity to reduce the Company's cash operating costs over the long term to the benefit of enhanced returns to our shareholders."

Golden Star will be hosting a webcast today, November 13, 2014 to discuss the findings of this PEA. Details of this webcast can be found at the end of this release.

INTRODUCTION

Prestea is an underground mine which has been in existence for over 100 years and has produced an estimated 9 million ounces of gold to date. It was acquired by Golden Star in 2002 and placed on care and maintenance while evaluation and exploration activities continued. The mine, located 16 km south of the Bogoso Mine along a dedicated haul road and adjacent to the town of Prestea, is accessible by road from Accra as well as via the port city of Takoradi 150 kilometers away.

Subsequent to Golden Star's acquisition of Prestea, the Company has completed 284 holes of underground drilling for approximately 47,000 meters and has identified and defined a new mineral resource in the West Reef. This steeply dipping, high-grade, narrow vein deposit lies at a depth of 600 m to 950 m below surface

approximately two kilometers to the south of the Prestea Central Shaft and is host to non-refractory free milling gold.

In June 2013, a feasibility study of the development of the West Reef at Prestea was released by Golden Star. This study showed positive economics for the development of an underground mechanized mine. Mineral Reserves were estimated at 1.4 million tonnes at a diluted mined grade of 9.6 g/t Au for 443,000 ounces. The initial capital outlay was estimated at \$91 million with a development timeline of approximately three years.

In line with the Company's strategy to pursue growth from low cost ounces, the decision was taken to review the optimal mining method for Prestea. An internal concept study was concluded in early 2014 on the development of Prestea using shrinkage stoping. The concept study yielded favorable results which prompted the Company to embark on a PEA, the results of which are announced today.

MINERAL RESOURCES

As at December 31, 2013 Prestea had quantified Indicated Mineral Resources of 1,356 thousand tonnes at an average grade of 14.50 g/t Au for 632,000 ounces. This PEA has been based on these Indicated Mineral Resources and includes only a small proportion (<10%) of Inferred Mineral Resources.

PRESTEA PEA FINDINGS

The PEA demonstrates positive economics for the extraction of the West Reef using shrinkage stoping. In conducting this assessment, a gold price of \$1,200/oz was assumed. The results indicate an IRR of 72%, NPV at a 5% discount rate of \$121 million and a payback period of 2.5 years from the start of development.

Capital Expenditure

Initial capital expenditure is estimated at \$40 million with life of mine capital totaling \$94 million. The table below presents the major capital items during the life of the project.

Infrastructure rehabilitation	\$30 M
Refurbishment and development overheads	\$24 M
Sustaining capital	\$22 M
Development and initial stoping	\$7 M
Mining equipment	\$6 M
Owner costs	\$2 M
Closure	\$2 M
Total capital expenditure	\$94 M

The infrastructure rehabilitation includes shaft and hoist upgrades, electrical infrastructure, process plant upgrade, ventilation, compressed air and pumping. This forms the bulk of the initial capital expenditure. The refurbishment and development overhead capital relates to manpower, power, consumables and refurbishment costs for items not directly related to the West Reef project during the pre-development and production ramp-up phase.

Economic Summary

The project is robust as the following sensitivities to gold price for post - tax NPV and IRR presented in the table below demonstrate:

Gold Price	NPV _{5%}	IRR
\$ 1,000	\$75 M	50%
\$ 1,100	\$98 M	62%
\$ 1,200	\$121 M	72%
\$ 1,300	\$144 M	82%
\$ 1,400	\$167 M	92%

Project Infrastructure

The plan to extract the West Reef at Prestea is an expansion of a previously operating underground mining operation, therefore most of the required services, infrastructure and community support are already in place:

- Surface access to the mine is via the public road network that extends onto the minesite and mineralized material will be hauled to the Bogoso processing plant along an existing private haul road;
- Labor with underground mining experience is plentiful and the care and maintenance activities at Prestea already employ 160 experienced staff and employees;
- Utilities are available including electricity from the Ghana national grid which is currently used to power the existing Prestea mine surface and underground infrastructure;
- Processing of the mineralized material is planned to be carried out at Golden Star's existing processing plant at Bogoso, 16 km to the northeast of the Prestea Mine; and
- Tailings will be deposited in Golden Star's existing and permitted Bogoso Mine tailings storage facility.

At Prestea there is an extensive infrastructure of surface and underground vertical shafts, inclined shafts, horizontal development, raises and stopes developed along the 9km of strike length of the gold mineralization. The primary access shaft for the West Reef is the Central Shaft located in the town of Prestea and the secondary shaft is the Bondaye Shaft, 5 km to the south. The Central Shaft will be used for personnel access, materials transport, dewatering and hoisting. The Bondaye Shaft will act as the secondary means of egress as well as for dewatering.

Operating Metrics

A summary of the operating metrics for Prestea are presented in the table below:

PEA baseline metrics	Steady state production 2017 - 2019
Average Run of Mine ("ROM") (tpd)	470
Average mill feed grade (g/t Au)	17.2
Average gold recoveries	90%
Average annual gold production (oz)	82,000

The table below presents the life of mine costs:

Cost summary	Life of Mine (LOM)
Cash Operating Costs (\$/oz)	370
Total Operating Cost (incl. royalty) (\$/oz)	429
All in Sustaining Cost (\$/oz)	518
All-in Cost (\$/oz)	659

Mining

The West Reef mineralization lies approximately 2 km south of Central Shaft and 2 km north of the Bondaye Shaft at a depth of between 570 m and 950 m below surface. The mineralization dips at approximately 60° to 85° to the west and varies in width from 0.5 m to 3.5 m with an average width of approximately 2.0 meters.

The PEA proposes shrinkage stoping, which was the mining method historically used at Prestea. The main haulage level will be established on the existing 24 level to move mineralized and waste rock to the Central Shaft for hoisting to surface. An incline/decline system will be developed in the footwall of the mineralization to access sublevels at a vertical spacing of approximately 40 m between existing levels 17 and 24. Shrinkage stopes will be developed between open raises spaced 60 m on strike. Drawcones will be developed out of the sublevels into the stopes and will be equipped with chutes for controlled shrinkage mucking into rail cars in the sublevels. The stopes will be advanced up dip with only the swell material (30% of total blasted) removed from the stopes during the mining phase. When the stope is mined up to the sill pillar below the upper sublevel, the remaining mineralized material in the stope can be drawn as required. Total mining operating costs are estimated to be an average of \$133/tonne.

The PEA schedule assumes mining of 649,000 tonnes of mineralized material at an average grade of 17.2 g/t for 359,000 ounces of contained gold.

Metallurgy and Processing

The metallurgical testwork results indicate that the Prestea West Reef material is non-refractory with greater than 90% metallurgical recovery using Carbon-in-Leach ("CIL") processing. The proportion of gravity recoverable gold in the Prestea mineralization is high at approximately 80%. It is therefore suited to processing through the CIL section of the existing Bogoso Refractory Processing Plant which will be available to process this ore post the completion of mining at the Bogoso North and Chujah pits in late 2015. Modifications to the refractory plant to isolate the CIL circuit and to resize the crushing and grinding circuit are estimated to cost \$8 million and are included in the initial capital expenditure of \$40 million. Total haulage and processing costs are expected to average \$29/tonne over the life of mine.

FUNDING

The Company is in discussions with a number of providers of capital to secure the funding necessary to develop Prestea. With the short payback period for the project identified, funding will ideally be raised at a project level. Consideration will be given to the cost of capital as well as the ability to repay this capital with no or limited penalties.

NI 43-101 TECHNICAL REPORT

The complete NI 43-101 Technical Report which will include the PEA will be filed on SEDAR (www.sedar.com) within 45 days and will also be available on the Company's website (www.gsr.com).

The technical contents of this press release have been reviewed and approved by Dr. Martin Raffield, P.Eng., a Qualified Person pursuant to National Instrument 43-101. Dr. Raffield is Senior Vice President Technical Services for Golden Star.

WEBCAST

The Company will conduct a conference call and webcast today to discuss the results of this PEA 2:00 pm EST.

The call can be accessed by telephone or by webcast as follows:

Participants - toll free: +1 888-428-9490

Participants - toll: +1 719-457-2689

Participant passcode (all numbers): 3869966

Webcast: www.gsr.com

Please call in at least five minutes prior to the conference call start time to ensure prompt access to the conference.

A recording of the conference call will be available until December 13, 2014 by dialing:

Toll free: +1 888-203-1112

Toll: +1 719-457-0820

Replay passcode: 3869966

The webcast will also be available after the call at www.gsr.com

COMPANY PROFILE

Golden Star Resources (TSX:GSC)(NYSE MKT:GSS)(GHANA:GSR) ("Golden Star" or the "Company") is an established gold mining company that holds a 90% interest in both the Bogoso and Wassa gold mines in Ghana. The Company also has a 90% interest in the Prestea mine in Ghana. Golden Star has Mineral Reserves of 3.9 million ounces and 6.0 million ounces in Measured and Indicated Mineral Resources. In 2013, Golden Star sold 331,000 ounces of gold and in 2014 the Company expects to produce 260,000 - 280,000 ounces. The Company offers investors leveraged exposure to the gold price in a stable African mining jurisdiction with exploration and development upside potential.

For further information regarding Golden Star's Mineral Reserves and Mineral Resources, see Golden Star's Annual Information Form for the year ended December 31, 2013, available on SEDAR at www.sedar.com. For further information on the Company, please visit www.gsr.com.

STATEMENTS REGARDING FORWARD-LOOKING INFORMATION

Some statements contained in this news release are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 and applicable Canadian securities laws. Investors are cautioned that forward-looking statements are inherently uncertain and involve risks and uncertainties that could cause actual results to differ materially. Such statements include comments regarding: PEA operating metrics, including estimated gold production, tonnes processed, grade and gold recoveries; estimated pre-tax and post-tax internal rate of return and net present value of Prestea mine (including assumed discount rates) and sensitivities to gold price; the timing for first production from Prestea mine; the life of mine at Prestea and the ability to extend the life of mine; cash operating costs per ounce; all-in sustaining costs per ounce; the availability and quantum of funding to advance the development of Prestea mine; mining methods and estimated recovery at Prestea mine; capital costs, including pre-production capital costs, for Prestea mine; potential modifications to the Bogoso processing plant; required investments in mine infrastructure; production and operating metrics; the timing for ramping up production at Prestea mine; estimates of indicated mineral resources, including tonnage, grade and contained ounces of gold; and future work to be completed at Prestea mine. Factors that could cause actual results to differ materially include timing of and unexpected events at the Bogoso processing plant; variations in ore grade, tonnes mined, crushed or milled; variations in relative amounts of refractory, non-refractory and transition ores; delay or failure to receive board or government approvals and permits; the availability and cost of electrical power; timing and availability of external financing on acceptable terms; technical, permitting, mining or processing issues, including difficulties in establishing the infrastructure for Prestea mine; changes in U.S. and Canadian securities markets; and fluctuations in gold price and input costs and general economic conditions. There can be no assurance that future developments affecting the Company will be those anticipated by management. Please refer to the discussion of these and other factors in our Annual Information Form for 2013. The forecasts contained in this press release constitute management's current estimates, as of the date of this press release, with respect to the matters covered thereby. We expect that these estimates will change as new information is received and that actual results will vary from these estimates, possibly by material amounts. While we may elect to update these estimates at any time, we do not undertake to update any estimate at any particular time or in response to any particular event. Investors and others should not assume that any forecasts in this press release represent management's estimate as of any date other than the date of this press release.

CAUTIONARY NOTE TO US INVESTORS CONCERNING ESTIMATES OF MEASURED AND INDICATED MINERAL RESOURCES

This press release uses the terms "Measured Mineral Resources" and "Indicated Mineral Resources". The Company advises US investors that while these terms are recognized and required by National Instrument 43-101, the US Securities and Exchange Commission ("SEC") does not recognize them. Also, disclosure of contained ounces is permitted under Canadian regulations; however the SEC generally requires Mineral Resource information to be reported as in-place tonnage and grade. 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.

NON-GAAP FINANCIAL MEASURES

In this press release, we use the terms "cash operating cost per ounce" and "all-in sustaining costs per ounce". These terms should be considered as Non-GAAP Financial Measures as defined in applicable Canadian and United States securities laws and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with GAAP. "Cash operating cost per ounce" for a period is equal to the cost of sales excluding depreciation and amortization for the period less royalties and production taxes, minus the cash component of metals inventory net realizable value adjustments divided by the number of ounces of gold sold during the period. "All-in sustaining costs per ounce" commences with cash operating costs and then adds sustaining capital expenditures, corporate general and administrative costs, mine site exploratory drilling and greenfield evaluation costs and environmental rehabilitation costs. This measure seeks to represent the total costs of producing gold from operations. These measures are not representative of all cash expenditures as they do not include income tax payments or interest costs. These measures are not necessarily indicative of operating profit or cash flow from operations as would be determined under International Financial Reporting Standards. 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.

Source: [Golden Star Resources Ltd.](#)

Financial Analysis

Internal Rate of Return (IRR)	72%
Net Present Value at 5% discount (NPV _{5%})	\$121 million
Gold price assumption	\$1,200/oz
Sales revenue	\$369 million
Operating costs	\$119 million
Operating profit (EBITDA)	\$269 million
Mining	\$133/t-milled
Processing	\$29/t-milled
G&A	\$28/t-milled
Total operating cost	\$190/t-milled
Ore mined	649,000 tonnes
Ore dilution (waste/(waste+ore))	17%
Development waste meters	3,240 m
Head grade (diluted)	17.2 g/t
Gold content in ore	359 koz
Metallurgical recovery	90%
Ounces sold	323 koz

Contact

Angela Parr, Vice President Investor Relations
+1 416-583-3800
investor@gsr.com

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