TORONTO, March 26, 2014 /CNW/ - Golden Star is pleased to announce the results of its Feasibility Study on the development of an underground mining operation ("Wassa Underground") at its currently operating Wassa open pit mine ("Wassa Open Pit" and, together with Wassa Underground, the "Wassa Mine") in Ghana. The Feasibility Study estimates the Wassa Mine will produce an average of 163,000 ounces of gold per annum over its production life with average cash operating costs of $780 per ounce.

All references to "$" in this news release are to United States dollars.

Highlights:

- Internal rate of return ("IRR") of 83% estimated for the Wassa Mine at $1,200 per ounce gold price
- Net present value, assuming a 5% discount rate ("$NPV_{5\%}$"), of $176 million estimated for Wassa Mine, at $1,200 per ounce gold price
- Total Proven and Probable Mineral Reserves for Wassa Mine as of December 31, 2014 are 24.1 million tonnes at 2.04 grams per tonne of gold ("g/t Au") for 1.6 million ounces of gold
- Total Measured and Indicated Mineral Resources as of December 31, 2014 are 49.5 million tonnes at 2.21 g/t Au for 3.5 million ounces of gold, inclusive of Mineral Reserves
- Wassa Underground Mineral Reserves as of December 31, 2014 are 5.4 million tonnes at 4.26 g/t Au for 745,000 ounces of gold
- Wassa Open Pit Mineral Reserves, including stockpiles, as of December 31, 2014 are 18.7 million tonnes at 1.39 g/t Au for 834,000 ounces of gold
- Inferred Mineral Resources as of December 31, 2014 are 11.6 million tonnes at 3.79 g/t Au for 1.4 million ounces of gold
- Pre-production incremental capital expenditure for Wassa Underground estimated at $39 million
- First production from Wassa Underground expected early 2016 and estimated to continue into 2024
- LOM cash operating cost of $780 per ounce and all-in sustaining costs of $938 per ounce estimated for combined Wassa operation
- Payback at $1,200 per ounce gold price of 3.25 years

Sam Coetzer, President and CEO of Golden Star commented:
"We are excited to announce this positive Feasibility Study on the combined existing Wassa Open Pit operation and the Wassa Underground extension. The strong rate of return on investment suggested by the study validates the Preliminary Economic Assessment of Wassa Underground we published in 2014 and is a confirmation of the decisions made for the expenditures on drilling and these studies of the last few years.

The Wassa Underground project has been underway since December 2014 when we purchased certain underground mining equipment and received the exploration decline permit. The Wassa Underground deposit remains open down plunge and has great potential to grow and the Company plans to extend development. The Wassa Mine will help transform Golden Star into a lower cost gold producer going forward."

Introduction

The Wassa Mine is in the Western Region of Ghana. It has a carbon-in-leach processing plant with a rated capacity of 2.7 million tonnes per annum ("Mtpa"). Golden Star has been mining the Wassa open pits since commissioning the plant in 2005. Mining is currently at the Wassa Open Pit, which is within 500 meters of the plant.

Drilling below the Wassa Open Pit has been ongoing since late 2011. This drilling has been successful in increasing the Wassa Mineral Resource.

In November 2014, SRK Consulting (UK) Ltd. ("SRK") was awarded the contract to prepare a Feasibility Study to determine the economic viability of an underground mine beneath the Wassa Open Pit. An underground mine is envisioned in the Feasibility Study that will operate in conjunction with the existing open pit mine into 2024.

The Feasibility Study assumes owner mining in the Wassa Open Pit and Wassa Underground. A gold price of $1,200 per ounce was used in the economic modeling as well as the base case for the open pit and underground optimizations.

Mineral Reserve Estimate

The Feasibility Study is based on an updated mineral resource model completed in August 2014 which has incorporated all of the recent drilling, including infill drilling at depth, in addition to step out fences over 600 meters to the south of the Wassa Open Pit.

Open pit optimization is conducted using Whittle Optimization software with historic operating cost data for the mining, processing, and general and administration ("G&A") costs; suitable dilution and recovery factors; stable pit slope estimates; and a gold price of $1,200 per ounce.

Open pit design is based on the $1,200 per ounce Whittle shell with modifications for the current pit mining and access strategy. Mineral Reserves are reported in the open pit design using a cut-off grade of 0.77 g/t Au.

Underground stope optimization has been carried out using a cut-off grade of 2.5 g/t Au estimated based on zero-based underground mining costs and historic processing and G&A costs. The Deswick Stope Optimizer software was used incorporating cut-off grade and various mineable stope parameters such as stope height, width, footwall and hangingwall angles, and minimum distance between parallel stopes.

The underground mine design process utilized Surpac software and included stope design based on the optimization results, stope access development, mine access development, and supporting infrastructure development.

A mining schedule was developed using MineSched software and includes realistic development and stoping productivity rates based on manpower and mining equipment proposed, stope sequencing taking into account geotechnical considerations, backfill requirements, ventilation requirements, and emergency egress.

Economic modeling confirmed the viability of the Mineral Reserve estimate presented in the table below.

The Feasibility Study Mineral Reserve has been estimated by SRK Consulting (UK) Ltd. in accordance with guidelines set out in the Definition Standards for Mineral Resources and Mineral Reserves published by the Canadian Institute of Mining, Metallurgy, and Petroleum and as required by Canada's National Instrument 43-101 ("NI 43-101").

The following table provides a breakdown of the Proven Mineral Reserves and Probable Mineral Reserves at the Wassa Mine as at December 31, 2014.

Mineral Reserves	Dec 31, 2014 Proven Mineral Reserve			Dec 31, 2014 Probable Mineral Reserve			Dec 31, 2014 Proven and Probable Mineral Reserve		
	tonnes	grade	ounces	tonnes	grade	ounces	tonnes	grade	ounces
	(000)	g/t Au	(000)	(000)	g/t Au	(000)	(000)	g/t Au	(000)
Wassa Open Pit	-	-	-	17,831	1.42	812	17,831	1.42	812
Wassa Underground	-	-	-	5,437	4.27	746	5,437	4.27	746
Stockpiles	820	0.73	19	-	-	-	820	0.73	19
Subtotal Wassa	820	0.73	19	23,268	2.08	1,558	24,089	2.04	1,578

Notes to the Mineral Reserve statement:

(1) The stated Mineral Reserves have been prepared in accordance with the requirements of NI 43-101 and are classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards – For Mineral Resources and Mineral Reserves". Mineral Reserve estimates reflect the Company's reasonable expectation that all necessary permits and approvals will be obtained and maintained. Mining dilution and mining recovery vary by deposit and have been applied in estimating the Mineral Reserves.

(2) The 2014 Mineral Reserves were prepared under the supervision of Mr. Mike Beare, CEng BEng ACSM MIMMM, SRK Corporate Consultant (Mining Engineering). Mr. Beare is a "Qualified Person" as defined by Canada's NI 43-101 and is independent of the Company.

(3) The Mineral Reserves were estimated using a gold price assumption of $1,200 per ounce.

(4) The slope angles of all pit designs are based on geotechnical criteria as established by external consultants. The size and shape of the pit designs are guided by consideration of the results from a pit optimization program.

(5) Cut off grades have been estimated based on operating cost projections, mining dilution and recovery, royalty payment requirements and applicable metallurgical recovery estimates as follows: Wassa Open Pit 0.77 g/t Au and Wassa Underground 2.50 g/t Au.

(6) Numbers may not add due to rounding.

Open Pit Mining

Golden Star has been mining the Wassa open pits since 2005. Prior to 2013, mining was in a number of smaller satellite pits

which were combined into a single large Wassa Open Pit in late 2013 allowing for operational efficiencies and cost savings.

Open pit mining is expected to continue in the Wassa Open Pit area at a total material mined rate of approximately 1.2 million tonnes per month until 2021 when the strip ratio is expected to start to decrease. On average, we anticipate that the Wassa Open Pit will produce approximately 2.0 Mtpa of ore feed, with the balance of the total plant capacity of 2.7 Mtpa being supplied by Wassa Underground.

Underground Mining

Access development to the underground stoping areas will be via a twin decline system from the north east wall of the current Wassa Open Pit. The twin decline system will enable efficient ventilation during the early stages of the underground life and will remove the requirement for a raisebore ventilation raise and escape way close to the start of the decline. The main decline will be 5.8 meters high and 5.2 meters wide and developed using standard trackless mechanized mining methods.

The upper stopes will be mined using longitudinal longhole open stoping with waste rock fill. This will enable efficient early production before a cemented rock fill preparation and delivery system is installed. The Wassa Open Pit will eventually mine down to the top of these upper stopes, but only towards the end of the life of mine.

In the deeper, wider areas of the deposit a transverse longhole open stoping method will be used. A primary-secondary mining sequence will be implemented with the primary stopes filled with cemented rock fill and the secondary stopes with waste rock fill. The overall stoping sequence will be bottom-up to reduce the incidence of sill pillar development.

New surface infrastructure to support the underground mining will be constructed including electrical power supply from the grid with backup genset support, surface mechanical and electrical workshops.

At steady state production, the Wassa Underground is expected to produce an average of approximately 2000 tonnes per day across the life of mine.

Mineral Processing

The Wassa processing plant was constructed in 2005 and is currently operating at its rated capacity of 2.7 Mtpa. The plant is 500 meters from the current Wassa Open Pit mining operations. Processing currently includes a four stage crushing circuit, grinding, gravity recovery, carbon in leach circuits and a thickener. A final recovery circuit using electrowinning is also in place along with associated secure gold room facilities. Average metallurgical recovery in fresh ore is currently 93% and future recovery from combined Wassa Open Pit and Wassa Underground operations is estimated to be the same.

Capital Expenditure

A summary of the estimated capital costs and timing thereof from the Feasibility Study is presented below in $ millions:

Capital	Total	2015	2016	2017	2018	2019	2020-2024
Underground Project Capital	38.5	20.5	13.0	5.0	-	-	-
Underground Sustaining Capital	36.5	-	-	5.3	8.1	10.8	12.3
Plant & Open Pit Project Capital	5.7	5.5	0.2	-	-	-	-
Plant & Open Pit Sustaining Capital	89.8	8.7	18.9	18.4	14.0	9.5	20.3
Closure	18.9	-	-	-	-	-	18.9
Total Capital	189.4	34.7	32.2	28.7	22.1	20.3	51.4

Pre-production incremental capital costs for the underground mine are estimated to total $39 million, primarily comprised of equipment purchase, infrastructure construction and underground development.

The construction of the new tailings impoundment and open pit mobile equipment replacement make up the bulk of the plant and open pit sustaining capital.

Economic Summary and Sensitivity to Gold Price and Discount Rate

The following table is a summary of Wassa Underground's sensitivity of Net Present Value (NPV) to changes in gold prices and discount rates, as well as the sensitivity of IRR to gold prices:

Post – Tax ($M)		$NPV_{5\%}$	$NPV_{10\%}$	IRR
Gold Price	$1,000	38	-5	8
	$1,100	99	70	37
	$1,200	176	136	83
	$1,300	252	201	505
	$1,400	327	265	-

Operating Metrics

A summary of the projected production and operating metrics for the combined Wassa Open Pit and Wassa Underground mines and resulting operating costs from the Feasibility Study are summarized below:

FS baseline metrics	Total	2015	2016	2017	2018	2019	2020-2024
Average pit Run of Mine ("ROM") (tpd[1])	5,603	7,444	6,854	5,896	4,274	5,518	4,945
Average underground ROM (tpd[1])	1,870	N/A	1,498	1,913	2,241	2,364	1,961
Daily tonnes processed (tonnes)	7,448	7,465	7,485	7,465	7,465	7,465	7,465
Average mill feed grade (g/t Au)	2.04	1.47	1.51	2.14	2.53	2.76	1.98
Average gold recoveries	93%	93%	93%	93%	94%	94%	93%
Average annual gold production (k oz.[2])	1,470	116	120	170	201	220	159

Cost Summary ($/ounce)	Total	2015	2016	2017	2018	2019	2020-2024
Cash operating cost	780	929	1,024	844	747	673	736
All-in sustaining cost[3]	938	1,064	1,242	1,043	916	826	876
All-in Cost[3]	968	1,288	1,353	1,073	916	826	876

(1) "tpd" means tonnes per day.

(2) "k oz" means thousand ounces.

(3) See non-GAAP Measures

Near Term Development Plans and Ongoing Exploration

The majority of underground equipment for the development of the exploration decline was ordered late 2014 and delivery is expected over the next three months. An owner operated team has been assembled and the team is currently being formed at Wassa. The starter-pit mining which will host the two portals has been completed and the preparations that will form the platform and the sumps for the declines have been established.

The Wassa Mine has received the necessary permits to commence with the exploration decline. The Wassa Open Pit mine is now fully established as a single large pit which will operate separately from the two declines resulting in little impact of one on the other.

Management believes that with additional drilling from underground there is an opportunity to firstly optimize the mine plan and secondly to potentially add more ounces to the resource base. However there is no certainty that additional drilling would result in all or any such ounces being included in a mine plan.

Technical Information and Quality Control

The technical contents of this press release have been reviewed and approved by Mike Beare CEng BEng ACSM MIMMM, a Qualified Person pursuant to National Instrument 43-101. Mr. Beare is a Corporate Consultant (Mining Engineering) with SRK Consulting (UK) Ltd. and is independent of the Company.

Company Profile

Golden Star Resources (NYSE MKT: GSS; TSX: GSC; GSE: GSR) ("Golden Star" or the "Company") is an established gold mining company that holds a 90% interest in the Wassa, Prestea and Bogoso gold mines in Ghana. In 2014, Golden Star produced 261,000 ounces of gold and is expected to produce 250,000 – 275,000 ounces in 2015. The Company is pursuing brownfield development projects at its Wassa and Prestea mines that are expected to transform these mines into lower cost producers from 2016 onwards. As such, Golden Star offers investors leveraged exposure to the gold price in a stable African mining jurisdiction with significant development upside potential.

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 "forward looking information" within the meaning of Canadian securities laws. Generally, forward-looking information and statements can be identified by the use of forward-looking terminology such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", "believes" or variations of such words and phrases (including negative or grammatical variations) or statements that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved" or the negative connotation thereof. Investors are cautioned that forward-looking statements and information are inherently uncertain and involve risks and uncertainties that could cause actual results to differ materially. Such statements and information include comments regarding: operating metrics, including estimated gold production, tonnes processed, grade, gold recoveries and operating costs; estimated pre-tax and post-tax internal rate of return and net present value of Wassa Underground (including assumed discount rates); the timing for first production from Wassa Underground; the life of mine at Wassa and Wassa Underground; cash operating costs per ounce; all-in sustaining costs per ounce; the use of mining contractors at Wassa Underground; timing for the delivery of underground exploration and development equipment; mining methods and estimated recovery at Wassa Underground; capital costs, including pre-production capital costs, for Wassa Underground and the timing thereof; metallurgical recovery rates; potential to extend the Wassa Underground deposit; required investments in mine infrastructure; the mining sequence and backfilling at Wassa Underground; the amount and priority of materials to be processed at the Wassa processing plant; the impact on mining operations at Wassa Underground and Wassa Open Pit on each other; estimates and expectations for Mineral Reserves and Mineral Resources; total gold production in 2015; and the transformation of Golden Star into a lower cost producer and the timing thereo Factors that could cause actual results to differ materially include timing of and unexpected events at the Wassa 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 Wassa Underground; 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 the year ended December 31, 2013. Our Annual Information Form for the year ended December 31, 2013 will be superseded by our Annual Information From for the year ended December 31, 2014, which will contain similar information and will be made available on SEDAR at www.sedar.com. 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.

Cautionary Note to US Investors concerning estimates of Inferred Mineral Resources

This press release uses the term "Inferred Mineral Resources". The Company advises US investors that while this term is recognized and required by National Instrument 43-101, the SEC does not recognize it. "Inferred Mineral Resources" have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of Inferred Mineral Resources will ever be upgraded to a higher category. In accordance with Canadian rules, estimates of Inferred Mineral Resources cannot form the basis of feasibility or other economic studies. US

investors are cautioned not to assume that any part or all of the Inferred Mineral Resource exists, or is economically or legally mineable.

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, 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.

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