

GOLDEN STAR ANNOUNCES COMMENCEMENT OF STOPING AT PRESTEA UNDERGROUND GOLD MINE

Toronto, ON – September 29, 2017- Golden Star Resources (NYSE American: GSS; TSX: GSC; GSE: GSR) ("Golden Star" or the "Company") is pleased to announce that stoping has commenced at its high grade Prestea Underground Gold Mine in Ghana ("Prestea Underground").

The successful blasting of the initial ore from the first stope in the West Reef ore body took place on September 27, 2017. The first stope is being mined using mechanized shrinkage, utilizing Alimak raise climbers, and it will be hauled to surface for processing via the Central Shaft.

Since mid-April 2017 Golden Star has been processing development ore from Prestea Underground and in the second quarter of 2017 the mine delivered its maiden gold production for Golden Star of 325 ounces.

Prestea Underground is expected to achieve commercial production in the fourth quarter of 2017. The mine has Mineral Reserves of 1.09 million tonnes at 13.93 grams per tonne of gold. It is expected to produce 90,000 ounces of gold per annum at a cash operating cost¹ of \$468 per ounce and an All-In Sustaining Cost¹ of \$615 per ounce over an initial mine life of 5.5 years.² Exploration drilling is underway at the mine with the objective of increasing the annual production rate and extending the mine life.

Notes:

1. See "Non-GAAP Financial Measures".

2. Numbers are derived from the Company's Mineral Reserves and Mineral Resources estimate as of December 31, 2016 and the technical report entitled "NI 43-101 Technical Report on a Feasibility Study of the Prestea Underground Gold Project in Ghana", effective November 3, 2015, filed under the Company's profile on SEDAR at www.sedar.com.

Sam Coetzer, President and Chief Executive Officer of Golden Star, commented:

"I am delighted to announce that stoping has commenced at Prestea Underground. We believe that this is the first time that a production stope has been blasted since 2001 and it is a historical achievement for both Golden Star and the Prestea community in Ghana. I would like to thank Martin Raffield, our SVP of Project Development & Technical Services, Jerry Agala, the General Manager of the Prestea mine, and the development team for all of their hard work and dedication in transforming a century old mine to a completely modern mine. I would also like to thank our Chief Operating Officer, Daniel Owiredu, and the operations team for their commitment to achieving this important milestone. The development of the next four stopes is progressing well and we are on track to achieve commercial production in the fourth quarter of 2017. Prestea Underground is one of Golden Star's two cornerstone mines and we will continue to build upon the momentum within the Company to deliver a sustainable, mid-tier gold producer."

For further information, please visit www.gsr.com or contact:

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Company Profile:

Golden Star is an established gold mining company that owns and operates the Wassa and Prestea mines situated on the prolific Ashanti Gold Belt in Ghana, West Africa. Listed on the NYSE American, the TSX, and the GSE, Golden Star is strategically focused on increasing operating margins and cash flow through the development of its two high grade, low cost underground mines both in conjunction with existing open pit operations. The Wassa Underground Gold Mine commenced commercial production in January 2017 and the Prestea Underground Gold Mine is expected to achieve commercial production in the fourth quarter of 2017. Gold production in 2017 is expected to be 255,000-280,000 ounces with cash operating costs of US\$780-860 per ounce.

Non-GAAP Financial Measures

In this press release, we use the terms "cash operating cost per ounce" and "All-In Sustaining Cost". These 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 "Cost of sales excluding depreciation and amortization" for the period less royalties, the cash component of metals inventory net realizable value adjustments and severance charges divided by the number of ounces of gold sold during the period. We use cash operating cost per ounce as a key operating indicator. We monitor this measure monthly, comparing each month's values to prior quarters' values to detect trends that may indicate increases or decreases in operating efficiencies. We provide this measure to investors to allow them to also monitor operational efficiencies of the Company's mines. We calculate this measure for both individual operating units and on a consolidated basis. Since cash operating costs 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 International Financial Reporting Standards ("IFRS").

"All-In Sustaining Costs" commences with cash operating costs and then adds sustaining capital expenditures, corporate general and administrative costs excluding non-cash share based compensation, mine site exploratory drilling and greenfield evaluation costs and environmental rehabilitation costs. This measure seeks to represent the total costs of producing gold from current operations, and therefore it does not include capital expenditures attributable to projects or mine expansions, exploration and evaluation costs attributable to growth projects, income tax payments, interest costs or dividend payments. Consequently, this measure is not representative of all of the Company's cash expenditures. In addition, the calculation of All-In Sustaining Costs does not include depreciation expense as it does not reflect the impact of expenditures incurred in prior periods. Therefore, it is not indicative of the Company's overall profitability. Non-cash share-based compensation expenses are now also excluded from the Company's current method of calculating All-In Sustaining Costs, as the Company believes that such expenses may not be representative of the actual payout on the equity and liability based awards. Non-cash share-based compensation expenses were previously included in the calculation of All-In Sustaining Costs. The Company has presented comparative figures to conform with the computation of All-In Sustaining Costs as currently calculated by the Company.

Changes in numerous factors including, but not limited to, our share price, risk free interest rates, gold prices, mining rates, milling rates, ore grade, gold recovery, costs of labor, consumables and mine site general and administrative activities can cause these measures to increase or decrease. The Company believes that these measures are similar to the measures of other gold mining companies, but may not be comparable to similarly titled measures in every instance.

In the current market environment for gold mining equities, many investors and analysts are more focused on the ability of gold mining companies to generate free cash flow from current operations, and consequently the Company believes these measures are useful non-IFRS operating metrics ("non-GAAP measures") and supplement the IFRS disclosures made by the Company. These measures are not representative of all of Golden Star's cash expenditures as they do not include income tax payments or interest costs. There are material limitations associated with the use of such non-GAAP measures. Since these measures do not incorporate all non-cash expense and income items, 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 IFRS.

For additional information regarding the non-GAAP measures used by the Company, please refer to the heading "Non-GAAP Financial Measures" in the Company's Management Discussion and Analysis of Financial Condition and Results of Operations for the full year ended December 31, 2016, which is available at www.sedar.com.

Cautionary note regarding forward-looking information

This press release contains "forward looking information" within the meaning of applicable Canadian securities laws and "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995, concerning the business, operations and financial performance and condition of Golden Star. Generally, forward-looking information and statements can be identified by the use of forward-looking terminology such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", "believes" or variations of such words and phrases (including negative or grammatical variations) or statements that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved" or the negative connotation thereof. Forward-looking information and statements in this press release include, but are not limited to, information or statements with respect to: the ability of Prestea Underground to commence commercial production in Q4 2017; the anticipated production rate for Prestea Underground; the anticipated cost structure for Prestea Underground, including cash operating costs per ounce and All-In Sustaining Costs; the grade of ore from Prestea Underground; the Company's ability to transform into a sustainable, mid-tier gold producer; and the Company's production guidance for 2017.

Forward-looking information and statements are made based upon certain assumptions and other important factors that, if untrue, could cause the actual results, performances or achievements of Golden Star to be materially different from future results, performances or achievements expressed or implied by such statements. Such statements and information are based on numerous assumptions regarding present and future business strategies and the environment in which Golden Star will operate in the future, including the price of gold, anticipated costs and ability to achieve goals. Forward-looking information and statements are subject to known and unknown risks, uncertainties and other important factors that may cause the actual results, performance

or achievements of Golden Star to be materially different from those expressed or implied by such forward-looking information and statements, including but not limited to: risks related to international operations, including economic and political instability in foreign jurisdictions in which Golden Star operates; risks related to current global financial conditions; risks related to joint venture operations; actual results of current exploration activities; environmental risks; future prices of gold; possible variations in Mineral Reserves, grade or recovery rates; mine development and operating risks; accidents, labor disputes and other risks of the mining industry; delays in obtaining governmental approvals or financing or in the completion of development or construction activities and risks related to indebtedness and the service of such indebtedness. Although Golden Star has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information and statements, there may be other factors that cause results not to be as anticipated, estimated or intended.

There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking information and statements. Forward-looking information and statements are made as of the date hereof and accordingly are subject to change after such date. Forward-looking information and statements are provided for the purpose of providing information about management's current expectations and plans and allowing investors and others to get a better understanding of the Company's operating environment. Golden Star does not undertake to update any forward-looking information or forward looking statements that are included in this news release except in accordance with applicable securities laws.

Technical Information

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

Additional scientific and technical information relating to the mineral property referenced in this news release is contained in the following current technical report for this property available at www.sedar.com: Prestea Underground - "NI 43-101 Technical Report on a Feasibility Study of the Prestea Underground Gold Project in Ghana" effective date November 3, 2015.

Source: Golden Star Resources Ltd.