

GOLDEN STAR ANNOUNCES ITS 2018 EXPLORATION STRATEGY**Wassa Underground drilling is primary focus in 2018
Five new underground targets under review**

Toronto, ON – February 22, 2018 - Golden Star Resources (NYSE American: GSS; TSX: GSC; GSE: GSR) ("Golden Star" or the "Company") is pleased to announce its exploration strategy for 2018.

HIGHLIGHTS

- Primary focus of 2018 exploration strategy is to gain a stronger understanding of the scale of the Wassa Underground Gold Mine ("Wassa Underground") deposit at depth (B Shoot South and F Shoot South)
- Secondary focus is to continue Mineral Resource expansion drilling at the Prestea Underground Gold Mine ("Prestea Underground") and to investigate five new underground targets
- The objective of the exploration strategy is to investigate the potential to increase Golden Star's high grade, low cost production profile and to extend the life of mine of the Wassa and Prestea complexes
- First phase of 2018 exploration program is expected to comprise approximately 46,000 metres ("m") of drilling – further drilling may be conducted subject to the results received
- \$6.6 million budgeted for first phase of 2018 exploration program, including \$2.4 million allocated to Wassa Underground (36%)
- 2018 drilling has commenced at Wassa Underground, Prestea Underground and the South Gap

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

"The initial results from the 2017 exploration program demonstrated that Wassa Underground remains open to the south and in 2018 we will be doing further work to assess the scale of the deposit at depth. We believe that Wassa Underground represents a significant exploration upside opportunity and we are excited to further investigate its potential. We will also continue to explore Prestea Underground's potential for Mineral Resource expansion and to review five new underground targets, which may be able to provide additional high margin ore to fill our two mills. I look forward to releasing the drilling results during the course of the year as our focus turns to expanding our high margin production profile and increasing the lives of our mines."

2018 Budget

Phase one of the 2018 exploration strategy comprises approximately 46,000m of drilling. If the results are positive, it is expected that further drilling will be conducted. Golden Star stated in its 2018 guidance for capital expenditures that \$6.6 million would be allocated to exploration. The breakdown by asset is as follows:

Breakdown of 2018 exploration budget by asset^{1,2}

Asset	Planned Drilling (m)	Expected Cost (\$ million)
Wassa Underground		
B Shoot and F Shoot South Step Out	11,665	2.4
Prestea Underground		
West Reef	18,825	2.3
Main Reef	4,155	0.5
Five underground targets		
242 FW, South Gap and Mansiso	11,550	1.4
TOTAL	46,195	6.6

Notes

1. This budget includes drilling and assay costs but excludes exploration fixed costs.
2. The above table shows the Company's current plans with respect to its planned drilling targets, the metres planned to be drilled and the approximate costs thereof. However, the Company may determine it appropriate to change the above drilling plan for various business reasons.

Wassa Underground

Golden Star believes there is strong exploration upside potential at Wassa Underground as the deposit remains open to the south. As previously announced, drilling results have confirmed that the B Shoot extends approximately 50m to the north of the current planned stoping area and that the B Shoot and F Shoot extend approximately 180m to the south of Wassa's Inferred Mineral Resources¹.

If additional Mineral Resources are delineated at depth there is expected to be potential to increase near-term production and to extend Wassa Underground's mine life, without the requirement for significant additional capital expenditures. This is due to the twin decline and processing plant, which both have excess capacity. Exploration at Wassa Underground represents 36% of the 2018 budget and it is the Company's primary exploration focus in 2018.

2018 Targets

The objective of the 2018 drilling program is to further delineate the southern, down plunge extensions of the B Shoot and F Shoot's Inferred Mineral Resources. This is designed to increase Golden Star's understanding of the geometry of the down plunge extensions of the higher grade zones and to increase Wassa Underground's Inferred Mineral Resources. The total cost of the phase one deep drilling at Wassa, is expected to be \$2.4 million.

Notes

1. See press release entitled 'Golden Star extends high grade B Shoot zone through step out drilling at Wassa Underground Gold Mine', dated September 19, 2017, and press release entitled 'Golden Star reports further high grade drilling results from Wassa Underground Gold Mine', dated February 14, 2018

Prestea Underground

Golden Star's secondary exploration focus in 2018 is to expand Prestea Underground's Mineral Resources as this would provide compelling potential for increasing near-term production.

2018 Targets

Phase one of the 2018 exploration program will target both the West Reef and the Main Reef at Prestea Underground. The objective of the West Reef drilling is to demonstrate that the ore body extends beyond the current Mineral Resource estimate, targeting the projected up and down plunge extensions of the West Reef Mineral Reserve.

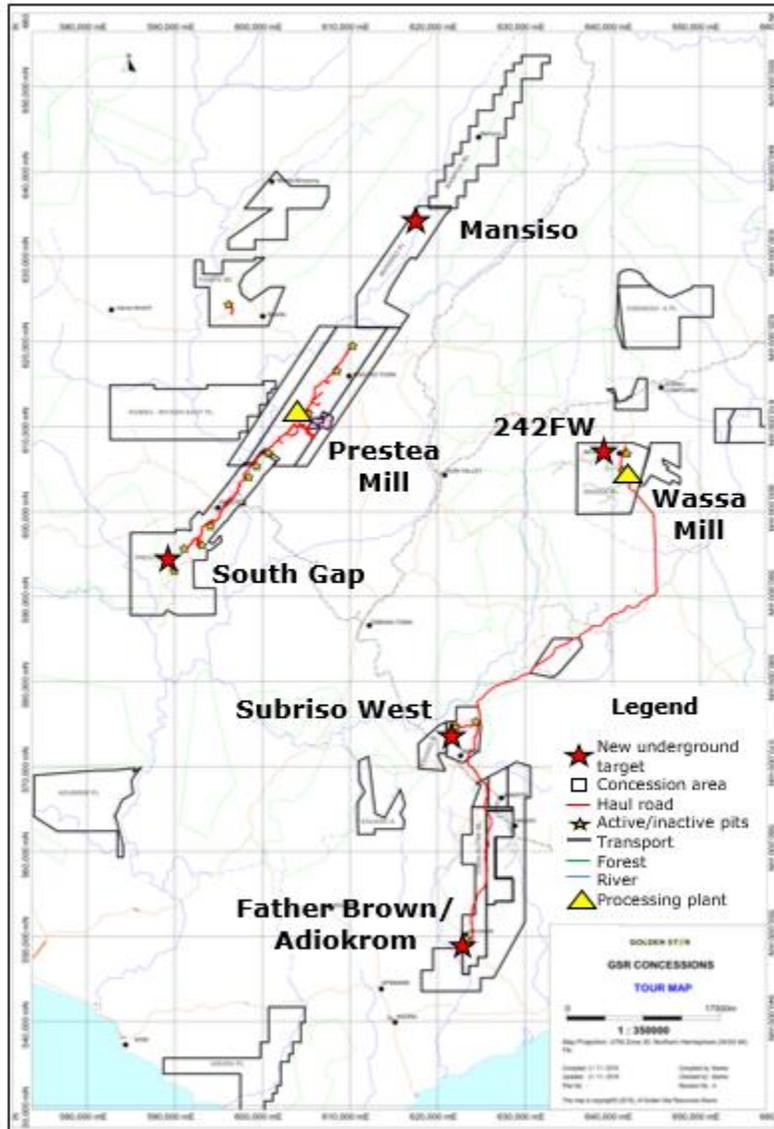
Similarly, the objective of the Main Reef drilling is to test the ore body for potential Mineral Resource addition. Golden Star has not tested the Main Reef thoroughly between 17 and 24 Levels, due to the lack of underground infrastructure historically. If the drilling is successful it presents the opportunity to include material from the Main Reef into the mine plan in the medium term.

The total cost of phase one at Prestea Underground is expected to be approximately \$2.8 million.

Five New Underground Targets

The other element of Golden Star's exploration strategy in 2018 is to investigate five potential new underground targets. The Company's transition into an underground-focused gold miner has led the exploration team to review its 956¹ square kilometre concession area in a different way: previously known exploration targets were re-evaluated for underground mining potential, as well as surface mining. As a result of this change in approach, five targets have been generated, all of which are within trucking distance of either the Wassa or Prestea plants.

Map of the five underground targets on Golden Star's concession areas



To view further diagrams of the five targets, please visit:

<http://www.gsr.com/operations/exploration>

The targets are detailed below in order of priority to Golden Star’s exploration strategy:

1. Father Brown/Adiokrom

The Father Brown and Adiokrom deposits are located approximately 85 kilometres, south of the Wassa processing plant, with an existing haul road in place. Father Brown and Adiokrom were last mined by Golden Star in 2014, however, high grade Mineral Resources remain within the two deposits, which may have the potential to be mined via underground techniques.

Golden Star is in the process of reviewing the drill database to assess the deposits’ underground mining potential and it is expected that the Inferred Mineral Resources

could be increased substantially through additional drilling. This drilling is not included in the 2018 budget however the Company plans to build a conceptual block model, which will eventually form the basis of a mining plan, and drilling may be scheduled as a result of that work.

2. 242 FW

The 242 trend occurs in the western limb of the Wassa deposit scale fold. As announced on February 14, 2018², the 242 FW target was discovered in 2017 and it is the first time that Golden Star has investigated the potential of the footwall horizon.

The objective of the 2018 drilling is to define the extents of the 242 FW target. The 2018 exploration budget includes 5,250m of drilling and this is estimated to cost approximately \$660,000.

3. South Gap

The South Gap is a two kilometre portion of the Ashanti Gold Belt, located on the extreme southern end of the nine kilometre strike of the historical Prestea Underground workings, between the Bondaye and Tuapim shafts.

Seven holes were drilled in this target in 2017 to test the continuity of the area. The results for these holes are expected to be released later in the first quarter of 2018. Initial metallurgical test work indicates gold recoveries in excess of 85%, which confirms that the material is non-refractory.

An additional 2,500m of drilling is planned for the South Gap in 2018, with the objective of further testing the extents of economic gold mineralization.

4. Mansiso

Mansiso is located approximately 30 kilometres to the north-east of the Bogoso processing plant and 12 kilometers south of the previously-mined Mampon deposit.

Golden Star plans to drill 3,800m at Mansiso in 2018 and conduct initial metallurgical test work. The objective of this drilling is to define Inferred Mineral Resources in order to assess the viability of underground mining. Mansiso is a high grade quartz vein target, which was drilled by the previous concession holders but has not been explored extensively by Golden Star.

5. Subriso West

Subriso West is located approximately 50 kilometres along the existing Hwini-Butre Benso (HBB) haul road, south of the Wassa processing plant. As with Father Brown and Adiokrom, Golden Star's exploration team plans to construct a conceptual block model, based on the current drilling information, to determine if the target could support an underground mining operation. If the results are positive, a detailed drilling program is expected to be conducted.

Notes

1. Golden Star chose to relinquish two exploration licences in 2017 as a result of the high cost of maintaining them. The Company is in the process of relinquishing one further exploration licence so the total 956 square kilometres quoted above excludes these three licence areas.

2. See press release entitled 'Golden Star reports further high grade drilling results from Wassa Underground Gold Mine', dated February 14, 2018

All monetary amounts refer to United States dollars unless otherwise indicated.

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 in Ghana, West Africa. Listed on the NYSE American, the Toronto Stock Exchange and the Ghanaian Stock Exchange, Golden Star is focused on delivering strong margins and free cash flow from its two high grade, low cost underground mines. Gold production guidance for 2018 is 230,000-255,000 ounces at a cash operating cost per ounce of \$650-730. As the winner of the PDAC 2018 Environmental and Social Responsibility Award, Golden Star is committed to leaving a positive and sustainable legacy in its areas of operation.

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 number of metres of drilling planned and the cost of such drilling; the ability of Golden Star to gain a stronger understanding of the Wassa Underground ore body through exploration; the ability of Golden Star to extend the mine lives of its operations and increase near-term production through exploration; the ability of Golden Star to delineate new targets to provide high margin ore to its two processing plants; the ability of Golden Star to demonstrate that the West Reef ore body extends beyond the current Mineral Reserve at Prestea Underground; the potential to mine Father Brown/Adiokrom via underground mining techniques; the viability of mining Mansiso via underground mining techniques; the ability of Subriso West to support an underground mining operation; the timing for obtaining and releasing drilling results; and the Company's 2018 production and cash operating cost per ounce guidance.

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 S. Mitchel Wasel, BSc Geology, a "Qualified Person" pursuant to National Instrument 43-101 ("NI 43-101"). Mr. Wasel is Vice President Exploration for Golden Star and an active member and Chartered Professional of the Australasian Institute of Mining and Metallurgy.

Additional scientific and technical information relating to the mineral properties referenced in this news release are contained in the following current technical reports for those properties available at www.sedar.com: (i) Wassa - "NI 43-101 Technical Report on feasibility study of the Wassa open pit mine and underground project in Ghana" effective date December 31, 2014; (ii) Prestea Underground - "NI 43-101 Technical Report on a Feasibility Study of the Prestea Underground Gold Project in Ghana" effective date November 3, 2015; and (iii) Bogoso - "NI 43-101 Technical Report on Resources and Reserves Golden Star Resources Ltd., Bogoso Prestea Gold Mine, Ghana" effective date December 31, 2013.

Source: Golden Star Resources Ltd.