
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 6-K

**REPORT OF FOREIGN PRIVATE ISSUER
PURSUANT TO RULE 13a-16 OR 15d-16
UNDER THE SECURITIES EXCHANGE ACT OF 1934**

For the month of September 2017

Commission File Number 001-12284

GOLDEN STAR RESOURCES LTD.

(Translation of registrant's name into English)

150 King Street West
Suite 1200
Toronto, Ontario
M5H 1J9, Canada

(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934. Yes No

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): _____

SIGNATURES

Pursuant to the requirements 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.

Date: September 21, 2017

GOLDEN STAR RESOURCES LTD.

By: /s/ André van Niekerk
André van Niekerk
Executive Vice President and
Chief Financial Officer

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description of Exhibit</u>
99.1	Press Release dated September 21, 2017 - Golden Star Reports Initial High Grade Extension Drilling Results from Prestea Underground Gold Mine and Project Update

Golden Star Reports Initial High Grade Extension Drilling Results from Prestea Underground Gold Mine and Project Update

Results Include 0.5 Metres Grading 132.4 Grams Per Tonne of Gold from 174.7m

TORONTO, Sept. 21, 2017 /CNW/ - Golden Star Resources Ltd. (NYSE American: GSS; TSX: GSC; GSE: GSR) ("Golden Star" or the "Company") is pleased to report the first four results from the 2017 extension drilling program at its Prestea Underground Gold Mine ("Prestea Underground") in Ghana. The Company also announces seven results from the 2017 in-fill drilling program.

HIGHLIGHTS:

- Assay results for four diamond drill ("DD") holes in the 2017 extension drilling program received, confirming the West Reef ore body extends to the north of the existing Mineral Reserves at Prestea Underground
- This represents the potential to add additional ounces to the short term mine plan and increase Prestea Underground's production rate
- Significant intercepts included:
 - 0.5 metres ("m") grading 132.4 grams per tonne ("g/t") of gold ("Au") from 174.7m in hole WR17-24-274S25
 - 0.5m grading 67.20 g/t Au from 182.3m in hole WR17-24-274S19
 - 1.5m grading 13.7 g/t Au from 159.3m in hole WR17-24-274S22
- Assay results for 7 DD holes from the 2017 Prestea Underground in-fill drilling program also received
- Significant intercepts included:
 - 0.5m grading 87.6 g/t Au from 141.1m in hole WR17-24-274S16
 - 1.5m grading 64.5 g/t Au from 144.2m in hole WR17-24-274S17
 - 1.1m grading 23.7 g/t Au from 152.7m in hole WR17-24-274S18
- These in-fill drilling results confirm the previously modelled high grade nature, simple geometry, strong continuity of gold mineralization and thickness of the West Reef ore body (averaging 1.1 metres)
- Drill production is expected to increase during the remainder of 2017 through the mobilization of a second underground DD rig
- Exploration program is anticipated to ramp up further in 2018 to enable Golden Star to fully assess Prestea Underground's longer term potential

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

"We believe that Prestea Underground is one of the highest grade gold development projects in West Africa¹. These initial results from our extension drilling program indicate that the West Reef extends to the north of the existing Mineral Reserves, representing the potential to increase the annual production rate in the near term. The in-fill drilling results have also further increased our confidence in the grade, thickness and continuity of the currently defined West Reef Mineral Reserve. I look forward to releasing further extension drilling results during the fourth quarter of 2017 and gaining a stronger understanding of Prestea Underground's longer term potential as the drilling program increases momentum in early 2018."

Notes

1. Based on publicly available information of public companies.

Extension Drilling Program Results

Five holes have been completed to date in the extension drilling program, targeting the area to the north of the existing planned stopes, with the results of the first four holes announced today. These results confirm the extension of gold mineralization into this area and represent the opportunity to add new stopes, which have the potential to be mined during the next 18 months. The drilling was conducted from within Prestea Underground's workings and comprised a total of 1,007m.

Golden Star intends to construct a new drill chamber to the north of the current West Reef 24 Level access. This is to enable the exploration team to access the larger, longer term exploration target, which is the projected down plunge extension of the high grade West Reef ore body (Mineral Reserves of 1.09 million tonnes at 13.93 g/t Au for 490,000 ounces)¹. The Company expects the drill chamber to be completed during the fourth quarter of 2017, allowing for a further increase in drill production from late 2017/early 2018 onwards.

If this drilling is successful, it represents the potential to increase the mine's Mineral Reserves and Mineral Resources and consequently, its planned annual production rate of 90,000 ounces and the mine life from 5.5 years².

A diagram showing the location of the drill holes is available at: <http://www.gsr.com/operations/prestea>

Notes

1. Numbers are derived from the Company's Mineral Reserves and Mineral Resources estimate as of December 31, 2016
2. Numbers are derived from 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 Golden Star's profile on SEDAR at www.sedar.com

In-Fill Drilling Program Results

During the third quarter of 2017 Golden Star also completed an in-fill stope definition drilling program to further delineate the West Reef ore body. This work focused on assessing flexures in the dip of the ore body ahead of raise development and ultimately stope development.

The results of 23 holes have been received to date, with 14 holes announced in July 2017 and a further seven holes announced today. The latest seven holes comprised 947m of drilling and all the results received to date confirm the previously modelled high grade nature, simple geometry and thickness of the ore body and the strong continuity of gold mineralization. The full set of results is listed in Appendix A.

The results of the remaining two holes are not available as one was abandoned due to technical issues and the other had poor recovery of core within the ore zone.

Expected Drilling Results

The results of the pending extension hole and additional new holes are anticipated to be released during the fourth quarter of 2017. Further results are also expected from the Wassa Underground Gold Mine step out drilling program during the fourth quarter of 2017.

Project Update

The first and second raise developments, which will enable the mining of Prestea Underground, are now complete. The third raise has advanced approximately 26 metres and the fourth nest is under construction.

The rate of footwall waste development slowed during the second quarter of 2017 but the operations team was able to accelerate development during the third quarter and are now working to plan. This has allowed for a successful breakthrough between the north and south side of the footwall drive, enabling through ventilation. It will also allow for ore and waste to be excavated separately, creating a greater degree of flexibility within the mine.

Golden Star expects to blast the first stoping ore at Prestea Underground before the end of the third quarter of 2017 and remains on track to commence commercial production during the fourth quarter of 2017.

APPENDIX A

11 DD results reported today

Hole ID	Azimuth (°)	Dip (°)	From (m)	To (m)	Drilled Width (m)	~ True Width (m)	Grade g/t
Extension drilling results							
WR17-24-274S19	325	38	182.3	183.2	0.9	0.5	67.2
WR17-24-274S20	324	25	192.4	193.7	1.3	0.8	11.6
WR17-24-274S22	308	23	159.3	161.2	1.9	1.5	13.7
WR17-24-274S25	304	8.7	174.1	174.7	0.6	0.5	132.4
In-fill drilling results							
WR17-24-274S08A	301	47	152.8	154.4	1.6	1.3	17.0
WR17-24-274S11	292	39	143.0	143.9	0.9	0.8	5.2
WR17-24-274S13	278	34	138.5	139.0	0.5	0.5	12.5
WR17-24-274S15	274	27	138.1	139.2	1.1	1.1	12.9
WR17-24-274S16	273	42	141.1	141.6	0.5	0.5	87.6
WR17-24-274S17	256	20	144.2	145.7	1.6	1.5	64.5
WR17-24-274S18	251	47	152.7	153.9	1.2	1.1	23.7

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 Q4 2017. Gold production in 2017 is expected to be 255,000-280,000 ounces with cash operating costs of \$780-860 per ounce.

Cautionary note regarding forward-looking information

Some statements contained in this news release are forward-looking statements or forward looking information (collectively "forward looking

statements") within the meaning of the Private Securities Litigation Reform Act of 1995 and applicable Canadian securities laws. Such statements include: the ability of the Company to increase Prestea Underground's Mineral Reserves and Mineral Resources and consequently, its annual production rate and the mine life; the ability of drill production to increase and the timing thereof; the timing of the release of the pending extension drilling results; the timing of the release of further drilling results from the Wassa Underground Gold Mine; the ability of Golden Star to increase its exploration program in 2018; the construction of a new drill chamber at the West Reef and the timing for completion thereof; the timing of the blasting of the first stoping ore from Prestea Underground; the timing of commercial production at Prestea Underground; and the production guidance for 2017. Investors are cautioned that forward-looking statements are inherently uncertain and involve risks and uncertainties. Factors that could cause actual results to differ materially include timing of and unexpected events during exploration; variations in ore grade; variations in relative amounts of refractory, non-refractory and transition ores; technical or permitting issues; fluctuations in gold price and costs; availability of capital and/or external financing on acceptable terms; changes in U.S. and Canadian securities markets; 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 risks and other factors in the Company's Annual Information Form for the year ended December 31, 2016 and other filings of the Company with the United States Securities and Exchange Commission and the applicable Canadian securities regulatory authorities. 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. 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.

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. Mr. Wasel is Vice President of Exploration for Golden Star and an active member and Registered Chartered Professional of the Australasian Institute of Mining and Metallurgy.

The results for Prestea Underground stated herein are based on the analysis of saw-split HQ/NQ diamond half core. Sample preparation and analysis have been carried out at SGS or Intertek Laboratories in Tarkwa, which are independent from Golden Star, using a 500 to 1000 gram pulverized sample. The sample is brush screened through a 75 micron nylon screen. The plus and minus sized fractions are then analyzed by fire assay. The plus fraction is fired to extinction and the minus fraction is fired twice. The results of these analyses are then weight averaged to determine overall gold content. Detection limit to 0.01 ppm.

All analytical work is subject to a systematic and rigorous Quality Assurance-Quality Control (QA-QC). At least 5% of samples are certified standards and the accuracy of the analysis is confirmed to be acceptable from comparison of the recommended and actual "standards" results. The remaining half core is stored on site for future inspection and detailed logging, to provide valuable information on mineralogy, structure, alteration patterns and the controls on gold mineralization.

Additional information on earlier drilling results and Mineral Reserve and Mineral Resource estimates at Prestea are available in the Company's National Instrument 43-101 compliant Technical Report titled "NI 43-101 Technical Report on a Feasibility Study of the Prestea Underground Gold Project in Ghana" with an effective date of November 3, 2015.

SOURCE Golden Star Resources Ltd.

View original content: <http://www.newswire.ca/en/releases/archive/September2017/21/c6064.html>

%CIK: 0000903571

For further information: please visit www.gsr.com or contact: Katharine Sutton, Vice President, Investor Relations and Corporate Affairs, +1 416 583 3800, investor@gsr.com

CO: Golden Star Resources Ltd.

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