
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 April 2018

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: April 12, 2018

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>
<u>99.1</u>	<u>Press Release dated April 12, 2018 - Golden Star Doubles Inferred Mineral Resources at Wassa Underground Gold Mine</u>

Golden Star Doubles Inferred Mineral Resources at Wassa Underground Gold Mine

Updated Wassa Underground Inferred Mineral Resource estimate totals 5.2 million ounces of gold

TORONTO, April 12, 2018 /CNW/ - Golden Star Resources Ltd. (NYSE American: GSS; TSX: GSC; GSE: GSR) ("Golden Star" or the "Company") announces that it has more than doubled its Inferred Mineral Resources estimate for its Wassa Underground Gold Mine ("Wassa Underground") in Ghana.

HIGHLIGHTS

- 3.1 million ounce (147%) increase in Inferred Mineral Resource estimate at Wassa Underground to 5.2 million ounces of gold (44.9 million tonnes at 3.6 grams per tonne ("g/t") of gold ("Au")), compared to December 31, 2017 estimate
- 9% increase in grade of Wassa Underground's Inferred Mineral Resources from 3.3 g/t Au to 3.6 g/t Au
- Updated Inferred Mineral Resource estimate includes results of 9 drill holes reported previously from Wassa Underground, one deepened hole and 2 new mother holes drilled subsequently
- Assay results from two new mother holes confirm that high grade gold mineralization extends approximately 75 metres ("m") up dip and approximately 150 m down dip of previously intersected high grade zones
- Significant intercepts from the 2 new mother holes were as follows:
 - 58.5 m grading 4.8 g/t Au from 1,007.0m in hole BS18DD388M
 - 18.3 m grading 4.3 g/t Au from 696.0m in hole BS18DD389M
- Preliminary Economic Assessment ("PEA") on the Inferred Mineral Resources of Wassa Underground expected to commence late in the second quarter of 2018

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

"By more than doubling the Inferred Mineral Resources at Wassa Underground, we have begun to demonstrate the compelling potential of this asset in the longer term. We had believed for some time that Wassa was a larger deposit than previous estimates suggested and as the deposit remains open to the south, we believe that further upside exists still. Wassa Underground has ramped up well and this operational success forms a solid foundation for the next stage of the mine's growth. We have under-utilized capacity within Wassa's processing plant and the southern portion of the deposit represents the potential to 'fill the mill' and increase production. I am looking forward to commencing the PEA and to exploring further the viability of this strategy."

Updated Wassa Underground Inferred Mineral Resource Estimate

The table below displays Wassa's updated Inferred Mineral Resource estimate and the December 31, 2017 estimate as a comparison.

Wassa Underground Inferred Mineral Resource Estimate	Tonnes ('000)	Grade (g/t Au)	Ounces ('000)
December 31, 2017 estimate	19,838	3.31	2,110
Updated estimate as of April 6, 2018	44,909	3.57	5,153

Wassa Complex's Indicated Mineral Resource Estimate

The table below displays Wassa's Indicated Mineral Resource estimate, which has not been updated since December 31, 2017.

Wassa Complex Indicated Mineral Resource Estimate	Tonnes ('000)	Grade (g/t Au)	Ounces ('000)
Wassa Open Pit	26,652	1.32	1,134
Wassa Underground	13,003	4.10	1,713
Wassa Other	4,251	3.49	476
Total December 31, 2017 estimate	43,906	2.35	3,323

Notes to Mineral Resource Estimate

1. The Mineral Resources were estimated in compliance with the requirements of National Instrument ("NI") 43-101.
2. The Mineral Resources for "Wassa Other" include Father Brown, Benso and Chichiwilli.
3. The Wassa Underground Mineral Resource has been estimated below the \$1,450 per ounce of gold pit shell using an economic gold grade cut-off of 1.62 g/t Au. The Inferred Mineral Resource has been constrained further by the high grade mineralized wireframe.
4. Mineral Resources were estimated using optimized pit shells at a gold price of \$1,450 per ounce. Other than gold price, the same optimized pit shell parameters and modifying factors used to determine the mineral reserves were used to determine the mineral resources.

5. The identified Mineral Resources in the block model are classified according to the CIM definitions for the Measured, Indicated and Inferred categories and are constrained by a block cut-off grade calculated using a gold price of \$1,450 per ounce and below the 2017 year-end topographic surface. The Mineral Resources are reported in situ without modifying factors applied.
6. The stated Mineral Resources were prepared under the supervision of S. Mitchel Wasel, Vice President of Exploration for the Company. Mr. Wasel is a Qualified Person as defined in NI 43-101.
7. Numbers may not add due to rounding.
8. Mineral Resources are not mineral reserves and do not necessarily demonstrate economic viability.

Wassa Underground's Inferred Mineral Resources have increased by 147% to 5.2 million ounces, in the B Shoot South and F Shoot South areas. The grade of the Inferred Mineral Resources has increased by 9% to 3.6 g/t Au.

Today's updated Inferred Mineral Resource estimate includes 9 holes that have been released previously ¹, one deepened historical hole and two new mother holes, the results of which are reported today.

Golden Star is drilling the Wassa South extensions currently and the Company expects that Wassa Underground's Inferred Mineral Resources will continue to grow with further step out drilling.

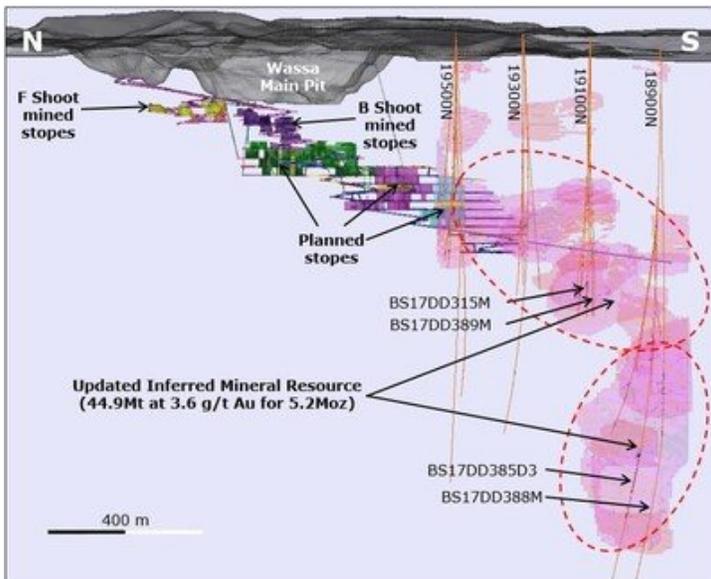
Notes

1. Eight holes were released on February 14, 2018 in the press release entitled, 'Golden Star reports further high grade drilling results from Wassa Underground' (holes BS17DD385D1-4, BS17DD386M, BS17DD387M, BSDD308M and BSDD347). One hole was released on September 19, 2017 in the press release entitled, 'Golden Star extends high grade B Shoot zone through step out drilling at Wassa Underground Gold Mine' (hole BS17DD385M).

Results from New Mother Holes

The two new mother holes (BS18DD388M and BS18DD389M) were planned to test the up and down dip extensions of the previously intersected, high grade mineralization that was reported in hole BSDD315M (70.5 m grading 5.9 g/t Au from 742.4 m) ^{1,2}, which was drilled in 2014, and in hole BS17DD385D3 (94.0 m grading 4.4 g/t Au from 1,305.7 m) ^{1,3}, which was drilled in 2017.

The two new holes have confirmed that gold mineralization extends approximately 150 m down dip of the zones intersected in the 2017 hole (BS17DD385D3) and approximately 75 m up dip of the 2014 hole (BSDD315M).



Hole BS18DD388M

The first of the two mother holes, BS18DD388M, reported a significant intercept of 58.5 m grading 4.8 g/t Au from 1,007.0 m ¹. This was approximately 150 m down dip of the two upper zones intersected in the 2017 hole (BS17DD385D3) of 15.0 m at 3.6 g/t Au from 942.0 m ^{1,3} and 8.1m at 3.6 g/t Au ^{1,3}, which confirms that the gold mineralization extends 150 m further down dip.

The wider zone intercepted in the 2017 hole (BS17DD385D3) of 94.0 m at 4.4 g/t Au from 1,305.7 m ^{1,3} has been intersected approximately 250 m down dip in hole BS18DD388M. However the results suggest the zone has narrowed, with the hole intersecting two zones of 5.3 m grading 3.0 g/t Au from 1,516.1 m ¹ and 4.4 m grading 4.6 g/t Au from 1,539.8 m ¹.

Further directional drilling is currently being conducted from the BS18DD388M mother hole, with the objective of assessing if gold mineralization extends down dip and to further delineate the geometry of this wider zone of gold mineralization.

Hole BS18DD389M

The second of the two mother holes, BS18DD389M, was drilled to test the up dip extension of the 2014 hole (BSDD315M). This new hole intersected two mineralized zones approximately 75 m up dip from the wide zone in the 2014 hole (BSDD315M) of 70.5 m at 5.9 g/t Au ^{1,2}. The

upper zone of this new hole intersected 18.3 m grading 4.3 g/t Au from 696.0 m¹ and the lower zone intersected 12.6 m grading 3.7 g/t Au from 747.8 m¹. This new hole has confirmed significant additional volume in this area of the deposit by extending the mineralization 75 m up dip. Further drilling is currently being done to test the limits of these zones both up and down dip.

The full set of drilling results released today is listed in Appendix A, including the significant intercepts set out below.

Significant intercepts from two new mother holes (from surface)

HOLE ID	Azimuth (°)	Dip (°)	From (m)	To (m)	Drilled Width (m)	~True Width (m)	Grade Au (g/t)
B Shoot South and F Shoot South							
BS18DD388M	88.9	-77.5	1007.0	1076.3	69.3	58.5	4.8
BS18DD389M	95.4	-62	696.0	721.0	25.0	18.3	4.3
BS18DD389M	94.3	-61.8	747.8	765.0	17.2	12.6	3.7

Further drill sections showing the location of the drill holes are available at: <http://www.gsr.com/operations/wassa/wassa-main>

Three diamond drill rigs are currently drilling between the 18900 and 19300N drill fences. Golden Star is planning to drill another step out fence 200 m to the south, on section 18700N, and this drilling is expected to commence late in the second quarter of 2018, with results anticipated to be released during the third quarter of 2018.

Notes

- All widths quoted in this press release are estimated true widths. The full set of intercepts, including the drilled widths, are included in Appendix A.
- See press release entitled, 'Golden Star has continued exploration drilling success at Wassa', dated July 30, 2014.
- 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.

Preliminary Economic Assessment

Golden Star is planning to undertake a PEA on the Inferred Mineral Resources of the Wassa Underground deposit. The objective of the PEA is to demonstrate the viability of the Inferred Mineral Resources, potentially including a new access shaft and new ventilation infrastructure. As Golden Star has significant under-utilized capacity in the Wassa processing plant, this additional material could be processed without the need to build any additional processing capacity. If the results of the PEA are positive, it will demonstrate the potential to increase production from the Wassa complex and to fast track cash flow.

Golden Star expects to commence work on the PEA late in the second quarter of 2018 and the Company anticipates it will be completed in the third quarter of 2018.

Background on compilation of updated Inferred Mineral Resource estimate

The Inferred Mineral Resource estimate was created by Golden Star with the assistance of the Cardiff, Wales and Toronto, Canada offices of SRK Consulting ("SRK"). SRK Cardiff created the Leapfrog wire frames with guidance from site geologists and using previous structural interpretations. Leapfrog Geo 3.1 software was used for the modeling of the isoclinal fold closures, which are believed to be the major controls of the high grade gold mineralization found at Wassa.

SRK Toronto assisted with the resource block model gold grade estimations. The folded nature of the Wassa model has led to a resource modeling technique that accounts for the changing attitude of the mineralized zones by assigning a dip direction and dip to each of the blocks. The block dip and direction information controls the search ellipses that are used to look for drill data for estimation of block grade. This technique is commonly used in folded ore bodies and is considered appropriate for estimating gold grades at deposits such as Wassa.

Golden Star has extensive experience with these modeling techniques as they are utilized in the stope design process at Wassa Underground. These modeling techniques are well suited to the geology seen at Wassa and their accuracy is strengthened through experience gained through operational reconciliation.

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

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.

APPENDIX A

Assay results received from the drilling of Wassa Underground targets in the first quarter of 2018

HOLE ID	Azimuth (°)	Dip (°)	From (m)	To (m)	Drilled Width (m)	~ True Width (m)	Grade Au (g/t)
BSDD315	97.8	-74.5	No significant intersections				
BS18DD388M	88.9	-77.5	1007.0	1076.3	69.3	58.5	4.8

BS18DD388M	87.8	-78.5	1097.0	1104.0	7.0	5.8	4.8
BS18DD388M	84.3	-78.5	1118.0	1123.0	5.0	4.2	3.1
BS18DD388M	82.8	-78.7	1183.0	1191.0	8.0	6.7	3.1
BS18DD388M	42.6	-73.3	1516.1	1522.1	6.0	5.3	3.0
BS18DD388M	42.4	-73.1	1539.8	1544.8	5.0	4.4	4.6
BS18DD389M	91.3	-67.2	260.2	264.2	4.0	2.7	3.7
BS18DD389M	92.7	-65.3	384.5	390.5	6.0	4.1	11.1
BS18DD389M	92.4	-64.7	433.0	436.0	3.0	2.1	6.7
BS18DD389M	93.9	-63.8	481.0	485.5	4.5	3.2	9.6
BS18DD389M	95.4	-63.4	503.0	510.0	7.0	5.0	2.6
BS18DD389M	95.4	-62	696.0	721.0	25.0	18.3	4.3
BS18DD389M	94.3	-61.8	747.8	765.0	17.2	12.6	3.7
BS18DD389M	93.5	-61.8	771.3	776.3	5.0	3.7	3.5
BS18DD389M	92.8	-61.3	808.5	814.5	6.0	4.4	10.3

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. Forward looking statements and information include but are not limited to, statements and information regarding: the timing of commencement of work on the PEA; the ability to achieve Wassa Underground's next stage of growth; the growth of Wassa Underground's Inferred Mineral Resources through further step-out drilling; the ability to utilize greater capacity at Wassa's processing plant and increase production; the drilling at 18700N and 19300N to commence in the second quarter of 2018; the timing of results from the drilling at 18700N and 19300N; the timing for completion of the PEA; the potential results of the PEA; and production guidance and cash operating cost guidance for 2018. 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, assumptions and uncertainties that could cause actual facts to differ materially. 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 Management's Discussion and Analysis of financial conditions and results of operations for the year ended December 31, 2017. Additional and/or updated factors will be included in our annual information form for the year ended December 31, 2017 which will be filed 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. While we may elect to update these estimates at any time, we do not undertake any estimate at any particular time or in response to any particular event.

Technical Information

The Mineral Resource estimates have been compiled by the Company's technical personnel in accordance with definitions and guidelines set out in the Definition Standards for Mineral Resources and Mineral Reserves adopted by the Canadian Institute of Mining, Metallurgy, and Petroleum and as required by Canada's National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101").

The Mineral Resource technical contents of this press release have been reviewed and approved by S. Mitchel Wasel, BSc Geology, a "Qualified Person" pursuant to NI 43-101. Mr. Wasel is Vice President Exploration for Golden Star and an active member of the Australasian Institute of Mining and Metallurgy. The 2018 and 2017 estimates of Mineral Resources were prepared under the supervision of Mr. Wasel.

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) Bogoso/Prestea - "NI 43-101 Technical Report on Resources and Reserves, Golden Star Resources, Bogoso/Prestea Gold Mine, Ghana" dated March 28, 2018.

The results for Wassa Underground stated herein are based on the analysis of saw-split HQ/NQ diamond half core or a three kilogram single stage riffle split of a nominal 25 to 30 kg Reverse Circulation chip sample which has been sampled over nominal one meter intervals (adjusted where necessary for mineralized structures). Sample preparation and analyses have been carried out at SGS or Intertek Laboratories in Tarkwa, which are independent from Golden Star, using a 1,000 gram slurry of sample and tap water which is prepared and subjected to an accelerated cyanide leach (LEACHWELL). The sample is then rolled for twelve hours before being allowed to settle. An aliquot of solution is then taken, gold extracted into Di-iso Butyl Keytone (DiBK), and determined by flame Atomic Absorption Spectrophotometry (AAS). Detection Limit is 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.

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 NI 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.

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