

NEWS RELEASE

Golden Star Updates Mineral Resource Statement at Father Brown: 93% Increase in Inferred Mineral Resources

Toronto, ON - February 19, 2019 - Golden Star Resources Ltd. (NYSE American: GSS; TSX: GSC; GSE: GSR) ("Golden Star" or the "Company") announces an updated Mineral Resource estimate at Father Brown consisting of the Father Brown Zone and Adoikrom Zone. Inferred Mineral Resources have increased from 246,000 ounces at year end 2017, to 474,743 ounces, representing a 93% increase.

HIGHLIGHTS

- Father Brown is located 85 kilometres from the Wassa plant along an existing haul road
- Father Brown pits were mined by the Company from 2011 to 2015 producing approximately 300,000 ounces (2.2 million tonnes at 4.4 grams per tonne ("g/t") of gold ("Au") in total)
- Updated Mineral Resource of 237,897 Indicated ounces and 474,743 Inferred ounces at Father Brown and Adoikrom Zones at an average grade of 6.7 g/t
- Updated Indicated and Inferred Mineral Resource estimate includes results of 18 holes totaling 8,873 metres of drilling

Father Brown Mineral Resource Summary – December 31, 2018

Deposit Area	Resource Category	Tonnes	Grade (g/t Au)	Ounces ('000)
Father Brown	Indicated	654,578	8.67	182,552
	Inferred	997,157	5.44	174,446
Adoikrom	Indicated	326,887	5.27	55,345
	Inferred	1,315,865	7.10	300,297
TOTAL	Indicated	981,465	6.72	237,897
	Inferred	2,313,022	6.72	474,743

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 Father Brown includes the Father Brown Zone and Adoikrom Zone.
3. The Father Brown Mineral Resource has been estimated at a gold price of \$1,450 per ounce using an economic gold grade cut-off of 3.2 g/t Au.
4. 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 2018 year-end topographic surface. The Mineral Resources are reported in situ without modifying factors applied.
5. 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.

6. Numbers may not add due to rounding.
7. Mineral Resources are not Mineral Reserves and do not necessarily demonstrate economic viability.

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

"I am encouraged by the results we are seeing at Father Brown, and given the proximity of the deposit to the existing Wassa plant and infrastructure, Father Brown has the potential to demonstrate significant organic growth for Golden Star.

With this latest information, we will be looking at the economic viability of the two mineralized structures whilst we continue to test the inferred potential at depth and will undertake a conceptual mine planning exercise which will guide our next phase of drilling expected to convert material into the Indicated Mineral Resource category. We expect to make a decision on accelerating the drilling in Q2 2019, and will notify the market accordingly."

In 2019, a drilling budget of \$1.5 million will be allocated to inferred expansion drilling of 9,000 metres. Further drilling will be assessed to expand the Inferred Mineral Resources and drill off the Inferred Mineral Resources to seek to upgrade them to the Indicated Mineral Resource category.

Significant Intersections

The initial drill planning at Father Brown was to systematically drill below the historic open pits and try and extend the existing Inferred Mineral Resource of 1.5 Mt grading 5.1 g/t. Drilling results were sporadic until the orientation of the high-grade plunge at Adoikrom was identified. Holes FUG18DD002, 003, 004 and FUGDD19016A all intersected wider higher-grade zones that now define the moderate 65 degree plunge of the Adoikrom gold mineralization.

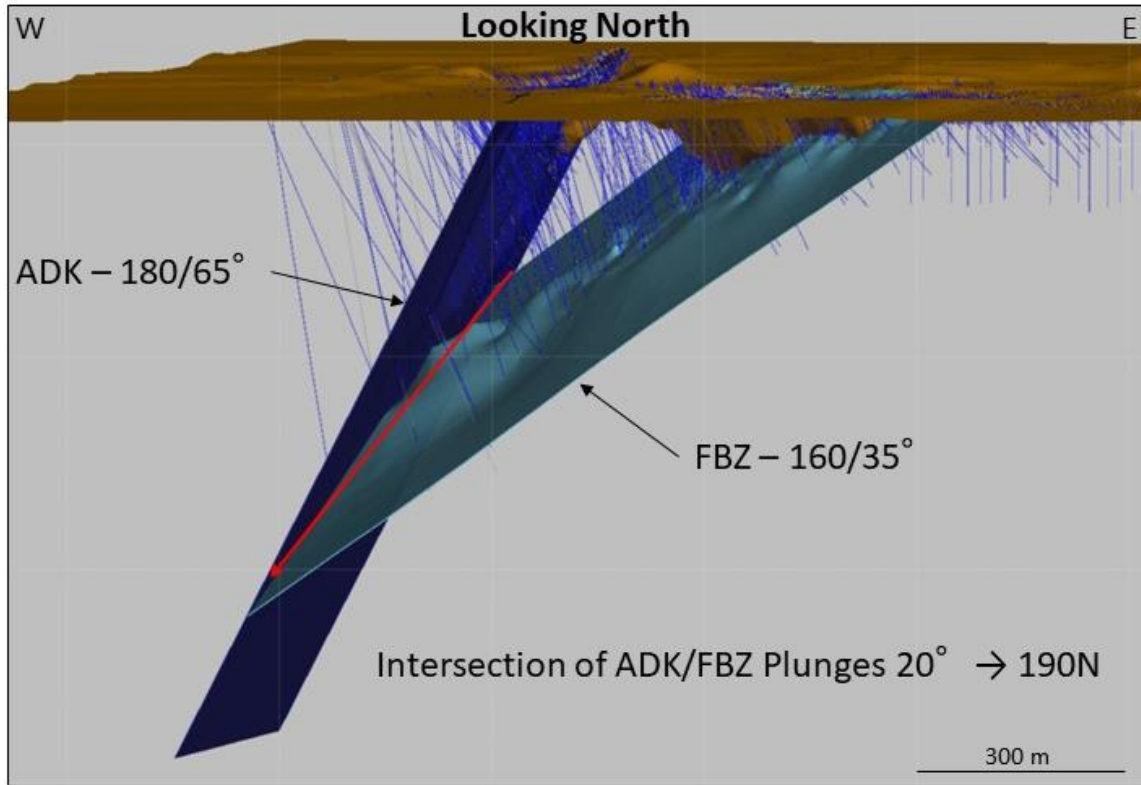
The drilling targeting the Father Brown structure at depth has not identified continuous gold mineralization at depth, directly below the pits. However detailed mapping and variography has determined that the gold mineralization associated with this structure may be plunging shallowly to the North. The Company's geologists are now drill testing the down plunge extensions of Father Brown and this will be the focus of the programs in the coming weeks.

Hole ID	Azm	Dip	From (m)	To (m)	Interval (m)	~ True Width	Au g/t	Zone
FUG18DD002	90.7	-67.3	155.0	157.4	2.4	1.8	5.2	ADK HW
FUG18DD002	92.5	-67	306.0	315.0	9.0	6.9	4.1	ADK
FUG18DD003	92.3	-55.4	264.2	268.2	4.0	3.5	2.9	ADK
FUG18DD003	94.8	-54.9	296.6	297.6	1.0	0.9	8.6	ADK FW
FUG18DD004	90.5	-85.3	443.0	453.0	10.0	5.3	4.5	ADK
FUGDD18009	99.6	-66.3	529.4	531.5	2.1	1.6	6.0	ADK
FUGDD18011	86.3	-67.2	321.0	324.7	3.7	2.8	6.1	ADK
FUGDD18014	87.6	-57.9	454.3	457.3	3.0	2.6	4.5	ADK
FUGDD19016A	89.3	-77.6	360.5	367.5	7.0	4.4	7.4	ADK

Notes

1. 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.

Adoikrom – Father Brown Mineralized structures



Background on compilation of updated Inferred Mineral Resource estimate

The Inferred Mineral Resource estimate was created by Golden Star geologists utilizing Leapfrog Edge, geological modeling software. The wire frames were created using the vein modeling application in Leapfrog and grades were estimated into a block model using Ordinary Kriging.

The deeper drilling has helped identify the plunge of both of these mineralized structures and it is these horizons which host the higher grades and are now the focus of the current follow up drill programs.

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

Robert Vallis Appointed as Senior Vice President, Corporate Development

Golden Star also announces that Robert Vallis had been appointed as Senior Vice President, Corporate Development. Mr. Vallis is a seasoned Corporate Development professional with over twenty years of experience in the mining sector. Most recently, Robert held the position of Vice

President, Business Development at Yamana Gold Inc., and prior to that was employed by Barrick Gold Corporation.

The Company wishes to thank Bruce Higson-Smith for his years of service at Golden Star, and wishes him well in his future endeavours.

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 underground mines in Ghana, West Africa. Listed on the NYSE American, the Toronto Stock Exchange and the Ghana 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 2019 is 220,000-240,000 ounces at a cash operating cost per ounce¹ of \$620-\$680. 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

HOLE ID	Azimuth (°)	Dip (°)	From (m)	To (m)	Drilled Width (m)	~ True Width (m)	Grade Au (g/t)	Zone
FUG18DD001A	96	-66.5	147.0	149.0	2.0	1.5	3.0	ADK HW
FUG18DD001A	104.5	-65.8	417.7	432.5	14.8	11.5	1.7	ADK
FUG18DD002	90.7	-67.3	155.0	157.4	2.4	1.8	5.2	ADK HW
FUG18DD002	92.5	-67	306.0	315.0	9.0	6.9	4.1	ADK
FUG18DD002	95.1	-66.7	392.8	394.5	1.7	1.7	3.0	FBZ
FUG18DD003	92.3	-55.4	264.2	268.2	4.0	3.5	2.9	ADK
FUG18DD003	94.8	-54.9	296.6	297.6	1.0	0.9	8.6	ADK FW
FUG18DD003	94.8	-54.9	314.9	317.9	3.0	3.0	1.8	FBZ HW
FUG18DD004	90.5	-85.3	443.0	453.0	10.0	5.3	4.5	ADK
FUG18DD005	104.1	-79.3	481.0	489.0	8.0	7.2	1.3	FBZ
FUG18DD006	98.2	-64.6	348.0	350.0	2.0	1.6	2.1	ADK
FUG18DD006	100.7	-63.9	499.0	501.0	2.0	2.0	0.3	FBZ

FUGDD18007	91.7	-69.4	235.0	237.0	2.0	1.5	2.6	ADK HW
FUGDD18007	92.6	-69.3	241.0	243.0	2.0	1.5	3.0	ADK HW
FUGDD18007	92.6	-69.3	246.0	248.0	2.0	1.5	1.4	ADK HW
FUGDD18007	92.1	-69.2	256.0	257.5	1.5	1.1	2.4	ADK HW
FUGDD18007	94	-69	397.4	399.4	2.0	1.5	1.7	ADK
FUGDD18007	94.3	-68.9	408.6	411.0	2.4	2.3	1.6	FBZ
FUGDD18007	94.7	-68.7	488.0	490.0	2.0	1.9	0.9	FBZ FW
FUGDD18008	93.7	-66.2	344.0	346.0	2.0	1.5	3.2	ADK
FUGDD18009	94.8	-67.2	388.0	390.0	2.0	1.5	4.5	ADK HW
FUGDD18009	99.6	-66.3	529.4	531.5	2.1	1.6	6.0	ADK
FUGDD18009	99.6	-66	557.0	563.0	6.0	5.8	1.2	FBZ
FUGDD18010	88.6	-60.2	290.4	293.5	3.1	2.6	2.2	ADK HW
FUGDD18010	90.6	-57.8	352.4	354.4	2.0	1.7	2.1	ADK
FUGDD18010	90.8	-57.1	372.2	374.3	2.1	1.8	3.5	ADK FW
FUGDD18010	92.1	-56.6	404.8	405.3	0.5	0.5	8.8	FBZ
FUGDD18011	86.3	-67.2	321.0	324.7	3.7	2.8	6.1	ADK
FUGDD18012	91.1	-80.3	534.7	536.2	1.5	1.3	1.4	FBZ
FUGDD18012	93	-803	577.0	579.0	2.0	1.1	0.8	ADK
FUGDD18012	94.8	-80.1	609.0	611.0	2.0	1.2	2.0	ADK FW
FUGDD18014	85.6	-58.4	235.2	236.7	1.5	1.3	1.8	ADK HW
FUGDD18014	87.6	-57.9	454.3	457.3	3.0	2.6	4.5	ADK
FUGDD18015	87.1	-52.1	293.0	296.0	3.0	2.7	1.4	ADK
FUGDD18015	89.9	-47.6	484.6	487.4	2.8	2.8	1.1	FBZ
FUGDD19016A	86.7	-77.9	168.0	169.0	1.0	0.6	5.9	ADK HW
FUGDD19016A	89.3	-77.6	360.5	367.5	7.0	4.4	7.4	ADK
FUGDD19017	94	-74.8	394.0	397.8	3.8	2.6	1.8	ADK
FUGDD19017	96.3	-74.6	567.0	569.0	2.0	1.9	2.1	FBZ FW

FUG18RC001	92.4	-66.6	184.0	187.0	3.0	2.9	1.7	FBZ
FUG18RC002	89.6	-65.9	3.0	10.0	7.0	6.8	1.7	FBZ Surf
FUG18RC002	89.6	-65.9	27.0	28.0	1.0	1.0	4.3	FBZ HW

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. Forward-looking information and statements in this press release include, but are not limited to, information or statements with respect to: the ability of Father Brown to provide significant organic growth for the Company; the allocation of \$1.5 million to the drilling budget at Father Brown, and the Company's ability to convert Inferred Mineral Resources to Indicated Mineral Resources at Father Brown. 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. 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 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.

The results for Father Brown 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 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.

Source: Golden Star Resources Ltd.