

NEWS RELEASE

Golden Star Reports on Second Quarter 2020 and Half Year 2020 Results

Toronto, ON – July 28, 2020 - Golden Star Resources Ltd. (NYSE American: GSS; TSX: GSC; GSE: GSR) (“Golden Star” or the “Company”) reports its financial and operational results for the second quarter ended June 30, 2020. All references herein to “\$” are to United States dollars.

Q2 2020 AND H1 2020 HIGHLIGHTS:

- Q2 2020 production totaled 50.6 thousand ounces (“koz”), versus 48.4koz in Q2 2019.
- Q2 2020 production at the Wassa Gold Mine (“Wassa”) totaled 44.8koz. The underground grade increased to 3.5 grams per tonne (“g/t”) (18% higher than Q1 2020) and the underground mining rate averaged 4,420 tonnes per day (“tpd”).
- Production of 5.9koz at the Bogoso-Prestea Gold Mine (“Prestea”) was impacted by personnel shortages resulting from the COVID-19 pandemic as well as dilution issues and ore loss. The development of the new mining areas on 17 Level was prioritized.
- Gold sales totaled 52.7koz in Q2 2020 and 98.3koz in H1 2020 (2.3koz lower than production in H1 2020).
- All-in sustaining cost (“AISC”) averaged \$1,186 per ounce (“/oz”) during Q2 2020 and \$1,193/oz for H1 2020.
- Q2 2020 cash flow from operations (before working capital changes) totaled \$27.1m, more than double the \$13.4m achieved in Q1 2020.
- Cash totaled \$45.1m as at June 30, 2020, a \$3.1m increase during the quarter. Debt reduced by \$4.7m during the quarter to \$102.6m. Net debt reduced by \$7.8m to \$57.5m as at June 30, 2020.
- As we go into the second half of 2020 the top end of the production guidance range has been tightened to 195-205koz, together with the bottom end of the AISC guidance range being tightened to \$1,100-1,180/oz.
- On July 27, 2020 the Company announced the signing of a binding agreement for the sale of the Bogoso-Prestea Mine to Future Global Resources (“FGR”) for an aggregate purchase price of \$55m (on a cash free, debt free and working capital free basis) with an additional contingent consideration of up to a further \$40m conditional upon the occurrence of certain milestones (as described in the binding sale agreement).

Table 1 – Q2 2020 and H1 2020 Performance Summary

		Q2 2020	Q2 2019	% change	H1 2020	H1 2019	% change
Production - Wassa	koz	44.8	37.4	20%	85.1	80.3	6%
Production - Prestea	koz	5.9	11.1	(47)%	15.5	21.4	(28)%
Total gold produced	koz	50.6	48.4	5%	100.6	101.7	(1)%
Total gold sold	koz	52.7	48.7	8%	98.3	102.2	(4)%
Average realized gold price	\$/oz	1,626	1,270	28%	1,557	1,263	23%
Cash operating cost per ounce - Wassa ¹	\$/oz	633	655	(3)%	632	600	5%
Cash operating cost per ounce - Prestea ¹	\$/oz	2,292	1,677	37%	1,986	1,573	26%
Cash operating cost per ounce - Consolidated¹	\$/oz	827	886	(7)%	842	805	5%
All-in sustaining cost per ounce - Wassa ¹	\$/oz	960	941	2%	952	844	13%
All-in sustaining cost per ounce - Prestea ¹	\$/oz	2,890	2,140	35%	2,508	2,006	25%
All-in sustaining cost per ounce - Consolidated¹	\$/oz	1,186	1,212	(2)%	1,193	1,089	10%
Gold revenues	\$m	85.6	61.9	38%	153.0	129.2	18%
Adj. EBITDA	\$m	33.7	8.8	283%	50.9	27.3	86%
Adj. income/(loss)/share attributable to shareholders - basic ¹	\$/share	0.09	(0.05)	280%	0.08	(0.03)	367%
Cash provided by operations before working capital changes	\$m	27.1	0.6	4486%	40.5	15.5	161%
Changes in working capital	\$m	(6.9)	1.6	(534)%	(16.7)	(13.9)	(20)%
Cash outflow from investing activities	\$m	(11.5)	(15.6)	16%	(26.6)	(26.9)	1%
Free cash flow	\$m	8.7	(13.5)	164%	(2.9)	(25.3)	89%
Cash	\$m	45.1	66.2	(32)%	45.1	66.2	(32)%
Net Debt	\$m	57.5	31.0	85%	57.5	31.0	85%

Andrew Wray, Chief Executive Officer of Golden Star, commented:

“The overall performance of the business during the second quarter remained in line with our expectations, despite the challenges faced from the ongoing COVID-19 pandemic. This was principally due to the strong performance delivered by Wassa where we saw an 18% improvement in underground grades compared to the previous quarter and mining rates were maintained well in excess of 4,000tpd. Costs remained well managed and cash generation was strong over the quarter, with incremental cash flow from the lower grade stockpiles processed albeit they added around \$15/oz to the reported AISC at the site.

The COVID-19 challenges I mentioned were felt more directly at Prestea, and impacted on production and costs during the quarter. As we announced on July 27, 2020, we have reached agreement to dispose of our Prestea operation for a total consideration of up to \$95m and anticipate that the transaction will close by September 30, 2020. This will enable us to focus our attention and resources fully on delivering the significant growth potential of Wassa while allowing the high quality incoming team at Prestea to invest in building the scale and performance of that asset.

This operational performance led to a group cash position of \$45.1m at the end of the quarter, an increase of \$3.1m over the period. It is important to note that this was following a scheduled \$5.0m principal repayment in June 2020 of the \$60 million senior secured credit facility with Macquarie Bank Limited (the "Macquarie Credit Facility"), as well as a further \$8.1m reduction in our accounts payable balance during the quarter.

Looking ahead to the second half of 2020, I expect a similar level of consolidated production as we have delivered in the first half of the year which is within the guidance range that we communicated for the full year. This implies that Wassa will be at or above the top of our original guided range while we now expect Prestea to produce in the order of 30koz to 35koz for the year given the impact of COVID-19 on production, as well as the increased lead times for some of the new fleet for 17 Level and other challenges. We have therefore slightly tightened the group production guidance range to 195koz to 205koz and consolidated all-in sustaining cost range to \$1,100/oz to \$1,180/oz. The updated guidance remains within the original ranges, albeit with a shift in composition. We will provide a further guidance update upon the closing of the sale of Prestea.

Finally, I would like to take a moment to recognize the ongoing commitment and dedication of all our employees through what has been a uniquely challenging period. Despite the personal concerns that the epidemic brings for all of us, they have remained highly professional and committed throughout and enabled us as a business to meet targets set prior to any of the obstacles we have faced. Likewise, we have enjoyed strong support from the authorities at all levels in Ghana who have continued to work closely with us. The health and well-being of our employees and all our stakeholders remain of paramount importance. The threat of the COVID-19 virus has not diminished, and we will not reduce our response to it as we work to deliver our plans for the remainder of the year.”

Second Quarter 2020 Conference Call Details

The Company will conduct a conference call and webcast on Wednesday, July 29, 2020 at 10.00 am ET.

Toll Free (North America): **+1 833 231 8263**

Toronto Local and International: **+1 647 689 4108**

Toll Free (UK): **0800 051 7107**

Conference ID: **8896318**

Webcast: <https://event.on24.com/wcc/r/2395077/06A11EA369890C8434787A397DCC42D0> and on the home page of the Company’s website: www.gsr.com.

A recording and webcast replay of the call will be available on the Company’s website: www.gsr.com following the call.

KEY EVENTS – Q2 2020

COVID-19 pandemic

- **Prestea COVID-19 impact** - As guided in the May 21, 2020 press release, there have been a number of suspected COVID-19 cases at Prestea with extensive contact tracing undertaken. As at July 22, 2020, there were 120 suspected cases of COVID-19 from which 18 have been confirmed and 97 were negative. All of the members of our workforce that had been required to quarantine have been released and returned to work as at July 22, 2020. Given the number of individuals who have had to isolate as part of the contact tracing protocols (93 at the peak in Q2 2020 for a period of 2-3 weeks) there has been a clear impact on the Prestea operation. This had an adverse impact on the underground operation as there were personnel shortages. Throughout this period priority was given to the development of the new long hole open stoping ("LHOS") areas on 17 Level rather than the 24 Level production areas. This was intended to protect the planned Q4 2020 improvement in performance at the operation, which relies on the optimization of the existing alimak mining areas and the delivery of the first production stopes from new LHOS operation on 17 Level.
- **Wassa COVID-19 impact** - As at July 22, 2020 there were 50 suspected cases of COVID-19; 27 have been confirmed, 17 test results are pending and the remainder proved to be negative. At that time there were 27 members of our workforce in isolation with the majority in quarantine awaiting test results to confirm their status. Given the relatively low number of cases the operating impact to date has been limited. New screening protocols implemented through June and into early July are helping to reduce the ongoing COVID-19 impact.
- **Safety** - Golden Star continues to take a leadership position and proactively manage COVID-19 risks for our workforce. With the implementation of enhanced screening protocols and ongoing collaboration with the Ghana Health Services, we are now able to quickly identify and isolate potential suspect cases in the workforce for ongoing assessment. New screening tools and the acquisition of in-house Polymerase Chain Reaction ("PCR") testing machines allow for more rapid diagnosis and management response, thus permitting prompt return to work as appropriate. To reduce risk to vulnerable people, the Company has implemented a parallel major program of workforce medical surveillance for potentially at-risk personnel, with individual management plans developed to reduce risk to those individuals. As a major employer and therefore catalyst for rural economic stimulus in the host communities, we share the dual responsibility of knowing that our continued operations are critical to the health and well-being of our workforce and the thousands of people that they support both directly and indirectly. More information on our COVID-19 management controls can be found at www.gsr.com/responsibility/COVID-19.
- **Cash Conservation** - To mitigate the risk of an escalation of the pandemic impacting on our balance sheet, non-essential spending (exploration and spend on non-critical spares) was deferred during Q1 2020. These measures remained in place throughout Q2 2020. Exploration activities are expected to resume in August 2020 and the 2020 budget remains unchanged, so any deferred exploration spend should be caught up in H2 2020. All operational and sustaining capital expenditure that is required to meet budgeted production levels has continued throughout the COVID-19 pandemic. As announced on May 6, 2020, the Company's executive committee (the "Executive Committee") and the board of directors (the "Board") elected to implement a 25% deferral on their salaries and fees, respectively, as part of the Company's pandemic management response plan with the intention to preserve cash and assist in ensuring sufficient liquidity in the organization. In addition, any bonus payments due to the members of the current Executive Committee relating to 2019 were deferred. The deferral of salaries and bonus payments remained in effect throughout Q2 2020 and will remain under review until such time as the pandemic management response plan can be de-escalated.

- Supply chain - Supply chains for the key consumables, including cyanide, lime, grinding media, fuel and lubricants, have remained intact throughout the pandemic. All supply chains are being continually monitored and alternative suppliers have been identified for essential supply chains.
- Gold sales – Due to the cessation of commercial flights resulting from the pandemic, alternative logistics were implemented for transporting doré to refining facilities in South Africa. The alternative arrangements have been in place since the end of Q1 2020 and exports have been able to continue throughout Q2 2020. The gold inventory build that resulted from the delay to the final shipment of Q1 2020 is not expected to be fully unwound until commercial flights to Ghana resume.

Wassa mining rates and grades

- Mining rates averaged 4,420tpd through Q2 2020, 2% higher than achieved in Q1 2020 and matching the record mining rates achieved in Q3 2019. The underground mining rate has now exceeded 4,000tpd for four consecutive quarters. The continued strength of the mining rate came in conjunction with an increase in the underground grade (3.5g/t, 18% higher than achieved in Q1 2020) and delivered a record 42.4koz of gold production from the underground. The mining rate is expected to continue to exceed 4,000tpd through H2 2020. Late in Q1 2020 we took the decision to selectively process some low-grade stockpiles, given the strength of the gold price environment. This initiative utilizes latent capacity in our process plant to contribute additional cash flow, albeit at a slightly higher AISC than achieved by the underground mine. This initiative contributed 2.4koz of production during the quarter and added approximately \$15/oz to the reported AISC at site.

Prestea optimization

- The current alimak mining areas on 24 Level are being optimized to improve the number of working faces, reduce stope cycle time, and reduce dilution. The improvement in the alimak performance is expected to be realized later in 2020 once the first fully optimized stopes come into production. Development has commenced on 17 Level for the introduction of LHOS and ore drives are now starting to be developed. The changes being made during 2020 are aimed at improving the flexibility of the operation and are planned to result in an improved mining rate in excess of 500tpd on a consistent basis. While the new alimak stopes and LHOS mining areas are being developed the Company is reliant on a limited number of stopes where dilution and ore losses remain an issue. The disruption caused by the COVID-19 pandemic has meant that progress towards optimized alimak stopes slowed during the quarter and the low ore availability and grades therefore impacted on production volumes during Q2 2020.

Sustainability

- Safety - The all injury frequency rate (AIFR) during Q2 2020 was 6.61 and the total recordable injury frequency rate (TRIFR) was 1.30, both an improvement on Q1 2020 and on the 2019 full year. There were no fatal incidents in Q2 2020 and the Company progressed the implementation of its Safety Strategy with a focus in the period on critical risk controls.
- Golden Star is set to release its 2019 Corporate Responsibility Report ("CR Report") in August 2020. In the CR Report, Golden Star makes public its commitment to the World Gold Council ("WGC") Responsible Gold Mining Principles ("RGMPs") and the commencement of its inaugural assurance process against the RGMPs. The CR Report will be co-released with new disclosures for the Company including the Investor Mining and Tailings Safety Initiative disclosure (also known as Church of England disclosure), WGC Conflict Free Gold Standard and the Mining Local Procurement Reporting Mechanism. Performance data tables aligned to the UN Global Compact, Global Reporting Initiative and SASB standards will also be released and will be complemented by an ESG investor scorecard presentation.
- Following the release of the Golden Star Policy on Inclusion and Diversity, the Company advertised summer internship positions with Women in Mining (WIM) UK and the Golden Star Ladies Club. An excellent

response was received and Golden Star looks forward to welcoming the new interns who will complete projects in our corporate development and sustainability teams in H2 2020.

RECENT EVENTS - Post Q2 2020 period end

Sale of Bogoso-Prestea Gold Mine

- The Company entered into the binding agreement for the sale of the Bogoso-Prestea Mine (the “B/P Sale Agreement”) with FGR for the purchase by FGR of Golden Star’s 90% interest in Prestea for an aggregate purchase price of up to \$95m.
- FGR will acquire Prestea for \$55 million on a cash free, debt free and working capital free basis, which will be paid as follows:
 - consideration of \$30 million comprising of \$5 million of cash and the assumption by FGR of approximately \$25 million of negative working capital is payable on closing of the Prestea Sale;
 - \$10m of cash is payable on July 31, 2021; and
 - \$15m of cash is payable on July 31, 2023.
- FGR will assume Prestea’s assets and liabilities.
- Blue International Holdings Limited (the major shareholder of FGR) will act as guarantor for the closing consideration and deferred payments.
- There is a further contingent consideration of \$20m to \$40m (determined based on the prevailing gold price) which is conditional upon the advancement by FGR of the Bogoso Sulfide Project (as described in the B/P Sale Agreement). This contingent payment will be triggered by FGR's formal decision to proceed with the Bogoso Sulfide Project or the extraction of an aggregate of 5% of the current sulfide mineral resource estimate at Bogoso.
- Following the satisfaction of the closing conditions including obtaining the required ministerial approval, and restructuring the existing Royal Gold streaming agreement (the “RG Stream”) and the Macquarie Credit Facility, the Prestea Sale is expected to complete by no later than September 30, 2020.
- Based on ongoing discussions between Golden Star, RGLD Gold AG (an affiliate of Royal Gold, Inc.) and FGR, it is expected that the RG Stream will be restructured to separate Prestea from the current arrangement under the RG Stream and that following the completion of the Prestea Sale, Wassa will retain the remaining Tier One streaming obligation, which relates to the delivery of gold at a rate of 10.5% of production for a 20% delivery payment. There are currently c.128koz Tier One ounces remaining to deliver. Following the delivery of the remaining Tier One obligation, the streaming obligation at Wassa would transition into the Tier Two structure, which delivers 5.5% of gold production for a 30% delivery payment. This and any other amendments remain subject to the completion of terms, negotiation of definitive agreements and receipt of Board of Directors' approvals.
- Additional information on the terms of the B/P Sale Agreement can be found in the Golden Star press release dated July 27, 2020.

2020 PRODUCTION, COST AND CAPITAL EXPENDITURE GUIDANCE

Our operating performance at a consolidated level in the first half of the year is in line with our expectations and with our previously communicated guidance range, although the underlying composition has shifted during the period.

At Prestea, we are tracking below the annualized production run rate required to deliver the mine level guidance for 2020. This is largely due to dilution, low ore availability and the impact of the COVID-19 pandemic which resulted in a personnel shortage, a delay to the delivery of new mining equipment and a delay in the transition to mining from optimized alimak stopes. During this disruption, the focus has been on advancing the development of the LHOS mining areas on 17 Level. We continue to expect improved performance during H2 2020, particularly when production of the first LHOS stoping ore starts during Q4 2020.

In view of this, the Prestea production guidance is being reduced to 30-35koz (from 40-45koz). At Wassa, the annualized production rate in H1 2020 is in excess of the upper end of its 155-165koz guidance range. H2 2020 performance at Wassa is expected to be similar to that of H1 2020, on the basis that there has been no significant increase in the impact of COVID-19 on the operation; as such we are increasing the annual guidance to 165-170koz. As a result, we tighten the consolidated production guidance range to 195-205koz, within the originally guided range.

The cash operating cost guidance for Prestea increases to \$1,800-\$2,000/oz (from \$1,400-\$1,550/oz) and the AISC guidance for Prestea increases to \$2,200-\$2,600/oz (from \$1,650-\$1,850/oz). As a result, the consolidated cash operating cost guidance is tightened slightly to \$810-850/oz (from \$790-850/oz).

The group AISC performance in H1 2020 slightly exceeded the top end of the original consolidated guidance range. This is a result of the following trends:

- Higher than budgeted Prestea AISC resulting from lower than planned gold production;
- The increase in the gold price during Q2 2020 resulted in higher royalty payments to the Government of Ghana. This equates to a \$10/oz increase in the AISC in Q2 2020 over budgeted levels; and
- The processing of low-grade stockpiles at Wassa generated cash during H1 2020 although at a higher AISC than was factored into 2020 guidance which was based on underground production only. This had the effect of increasing the Wassa AISC by \$15/oz and consolidated AISC by \$10/oz.

The combined effect of the above factors leads us to slightly tighten the consolidated AISC guidance to \$1,100-1,180/oz (from \$1,080-1,180/oz). Our priority remains the delivery of a range of operational initiatives aimed at improving the consistency of the operations and visibility of their longer-term potential.

The Company will provide a further update on the guidance detailed in Table 2 following the completion of the Prestea Sale.

Table 2 - Q2 2020 and H1 2020 Performance Versus Guidance

		Q2 2020	Q1 2020	H1 2020	Updated Guidance	Original Guidance
Production and cost highlights						
Production - Wassa	koz	44.8	40.3	85.1	165-170	155-165
Production - Prestea	koz	5.9	9.6	15.5	30-35	40-45
Total gold produced	koz	50.6	50.0	100.6	195-205	195-210
Cash operating cost per ounce - Wassa ¹	\$/oz	633	632	632	620-660	620-660
Cash operating cost per ounce - Prestea ¹	\$/oz	2,292	1,778	1,986	1,800-2,000	1,400-1,550
Cash operating cost per ounce - Consolidated¹	\$/oz	827	860	842	810-850	790-850
All-In Sustaining cost per ounce - Wassa ¹	\$/oz	960	941	952	930-990	930-990
All-In Sustaining cost per ounce - Prestea ¹	\$/oz	2,890	2,248	2,508	2,200-2,600	1,650-1,850
All-In Sustaining cost per ounce - Consolidated¹	\$/oz	1,186	1,201	1,193	1,100-1,180	1,080-1,180
Capital Expenditure						
Sustaining Capital – Wassa	\$m	6.5	3.6	10.1	23-25	23-25
Sustaining Capital – Prestea	\$m	1.9	2.3	4.2	6.5-7.5	6.5-7.5
Sustaining Capital – Corporate	\$m	0.1	0.3	0.4	-	-
Sustaining Capital – Consolidated	\$m	8.5	6.2	14.7	29.5-32.5	29.5-32.5
Development Capital – Wassa ²	\$m	5.2	5.8	11.0	19-21	19-21
Development Capital – Prestea ²	\$m	0.3	0.4	0.7	2.5-3	2.5-3
Development Capital – Capitalized Exploration ²	\$m	0.1	0.2	0.3	3.5	3.5
Development Capital - Consolidated²	\$m	5.6	6.4	12.0	25-27.5	25-27.5
Total Capital – Wassa ³	\$m	11.7	9.4	21.1	42-46	42-46
Total Capital - Prestea ³	\$m	2.2	2.7	4.9	9-10.5	9-10.5
Total Capital - Capitalized Exploration ³	\$m	0.1	0.2	0.3	3.5	3.5
Total Capital - Corporate ³	\$m	0.1	0.3	0.4	-	-
Total Capital - Consolidated³	\$m	14.1	12.6	26.7	55-60	55-60

Notes:

1. See "Non-GAAP Financial Measures"
2. Development capital are those costs incurred at new operations and costs related to major projects at existing operations where these projects are expected to materially increase production. All other costs relating to existing operations are considered sustaining capital.
3. Excludes all non-cash capital additions, including right-to-use assets under financial leases

SUMMARY OF CONSOLIDATED OPERATIONAL AND FINANCIAL RESULTS – Q2 2020

Group production from the two operations was 50.6koz in Q2 2020, 5% higher than the 48.4koz in Q2 2019. Wassa produced 44.8koz and Prestea produced 5.9koz. On a consolidated basis, the ore grade processed was 5% higher than the corresponding period in 2019 while total tonnes processed were 3% higher due primarily to Wassa's increased mining performance, in part offset by the lower contribution from low grade Prestea open pit activities.

Total gold sold amounted to 52.7koz for Q2 2020, 2.1koz higher than production in Q2 2020 and 3.9koz (8%) higher than gold sales in Q2 2019. The difference between production and sales in Q2 2020 was due to the partial catch up of gold ounces produced in Q1 2020 and only subsequently sold in Q2 2020 due to logistical challenges resulting from COVID-19 travel restrictions.

The Q2 2020 cash operating costs per ounce of \$827/oz reflect a 7% decrease relative to Q2 2019 cash operating costs of \$886/oz, due to:

- Higher production base from Wassa
- Lower open pit mining activities at Prestea which had a positive impact on open pit mining and processing costs
- Lower energy related costs due to a decline in the oil price and the government power tariff rebate program in Ghana during Q2 2020

The factors above were partially offset by the following cost pressures:

- Increased processing costs at Wassa due to the processing of low-grade stockpile material
- Inflationary pressure on labour costs and increased headcount at Wassa
- Increased gold transportation costs due to the use of private charter flights while commercial flights are unavailable through the COVID-19 pandemic

The Q2 2020 AISC of \$1,186/oz reflects a decrease of 2% compared to the Q2 2019 AISC of \$1,212/oz and a 1% reduction on the AISC reported for Q1 2020 of \$1,201/oz. The decrease in AISC during the quarter was driven by the improved cash operating costs which was in part offset by:

- Higher royalties resulting from higher realized gold prices
- Increased sustaining capital expenditure, predominantly at Wassa

Wassa Operational Overview

Gold production from Wassa was 44.8koz in Q2 2020, a 20% increase from the 37.4koz produced during the same period in 2019. The increase is predominantly attributable to ore throughput increasing to 523,777 tonnes in Q2 2020 (5,756tpd), 44% higher than the 364,901 tonnes achieved in Q2 2019 (4,010tpd), due to increased underground productivity and the processing of low-grade stockpile material. The low-grade stockpile material had an adverse impact on overall feed grade which decreased from 3.09g/t in Q2 2019 to 2.80g/t in Q2 2020.

Recovery

The recovery was 95.1% for Q2 2020, which was slightly down compared to the 95.9% recovery achieved for the same period in 2019, despite the 9% reduction in the processed ore grade.

Wassa Underground

The Wassa underground mining operations (“Wassa Underground”) produced 42.4koz of gold (or approximately 95% of Wassa's total production) in the second quarter of 2020, compared to 36.2koz in the same period in 2019 (or approximately 97% of Wassa's total production). The 17% increase in production was primarily due to an increase in ore tonnes processed to 401,445 tonnes compared to 312,115 tonnes in Q2 2019 driven by higher underground mining productivity. The Wassa Underground mining rates have now exceeded 4,000tpd for four consecutive quarters, averaging 4,420tpd in Q2 2020, 29% higher than the 3,470tpd achieved in the same period in 2019. Underground grade improved to 3.46g/t, from 2.93g/t in Q1 2020. This is slightly below 3.51g/t in Q2 2019.

Wassa Main Pit/Stockpiles

Low-grade stockpiles from the historical Wassa main pit mining operations were blended with the Wassa Underground ore during the second quarter of 2020. 122,332 tonnes with an average grade of 0.64g/t yielded 2.4koz of gold, compared to 1.2koz in the same period in 2019. Given the current gold price environment, the Wassa management team has identified the cash generation opportunity to process low-grade stockpiles without materially impacting the recovery. The processing of these stockpiles will continue into H1 2021 should the current gold price environment sustain.

Costs per ounce

Cost of sales per ounce increased 3% to \$857/oz due to a combination of higher mine operating expenses, royalties, the charge for finished gold and depreciation which were in part offset by higher ounces sold. Cash operating cost per ounce decreased 3% to \$633/oz mainly due to increased sales volume on the back of increased underground mining productivity, offset by additional processing costs and increased mine site general and administrative costs.

The AISC increased 2% to \$960/oz in Q2 2020 compared to Q2 2019. This increase is due to higher corporate general and administrative costs allocated to Wassa on a sold ounce basis as a result of lower production at Prestea, higher sustaining capital expenditure and increased royalties as a result of the higher realized gold price.

Wassa related projects update

In order to equip the mine for its future as a long life, low cost operation a number of projects are being progressed in 2020. These projects included the following initiatives:

- Electrical upgrade - This significant infrastructure project is intended to support the mine plan for the next five years. The civils related work for the installation of the electrical substation has now been completed. The project remains on track for completion in conjunction with the completion of the paste fill project. Work to upgrade the underground electrical infrastructure is progressing alongside the substation project.
- Paste fill plant project - This project continued to progress in Q2 2020 and is currently at 84% completion. Long lead items continue to arrive on site, in line with the planned delivery schedule. Construction of the project is expected to be completed in Q3 2020 with commissioning in Q4 2020, although there remains some risk to this timeline as a result of the challenges related to the COVID-19 pandemic. Once complete,

this project will provide additional flexibility in the mine plan and assist with our intention to increase mining rates in order to further improve the scale and margins at the operation.

Capital expenditures

Capital expenditures for Q2 2020 totaled \$11.8m compared to \$13.6m during the same period in 2019. The Wassa management team continued to focus efforts on critical development spend in order to support the long term development of the underground operation including:

- \$3.7m on the paste fill plant project which is earmarked for commissioning during Q4 2020
- \$4.7m on capitalized underground development activities
- \$2.4m on mobile equipment
- \$0.7m on the mobile equipment capital spares

Prestea Operational Overview

Gold production from Prestea was 5.9koz in Q2 2020, compared with 11.1koz produced during the same period in 2019. Plant throughput of 71,985 tonnes in Q2 2020 is 66% below the Q2 2019 throughput of 211,873 mainly due to the cessation of open pit operations in May 2020. The availability of higher grade ore from the Prestea underground mining operations (“Prestea Underground”) remained constrained during the quarter. The dilution and ore losses that have impacted on recent performance remained an issue during Q2 2020. The COVID-19 pandemic also had an effect as the contact tracing and isolation protocols resulted in a personnel shortage during the quarter, slowing progression towards the optimized alimak stopes.

Prestea Open Pits

The Prestea open pits produced 1.1koz in Q2 2020, compared to 7.2koz in the same period in 2019. Open pit mining activities ended in May 2020, as a result ore tonnes processed decreased by 78% to 37,714 tonnes at an average feed grade of 1.35g/t, compared to 1.55g/t in Q2 2019. Going forward, the closure of the open pits will result in a reduction of the overall headcount at the operation as the locum contractors are stood down. This is expected to result in a reduction of the absolute operating cost at Prestea.

Prestea Underground

Prestea Underground produced 4.7koz in Q2 2020 compared to 3.9koz in the same period in 2019 due to a 15% increase in grade to 4.72g/t, partly offset by an 8% decrease in ore tonnes mined to 34,271 tonnes. Q2 2020 performance was marked by short term operational challenges including:

- The adverse operational impact on stoping activities on 24 Level of operators and associated contacts being isolated due to testing positive for COVID-19.
- Some stopes demonstrated lower than planned grades, largely due to the presence of pinch out zones. The drilling and face mapping programs are continuing to increase grade control density and better define pinch out zones within the orebody.
- Continued dilution on 24 Level resulting in lower than expected mining grades. It is expected that underground mining rates will improve during H2 2020 as 17 Level development is advanced which will provide for greater mining flexibility and ore availability, in combination with higher grades from 24 Level as mining progresses into the optimized alimak stopes on 24 Level.

During Q2 2020, mining continued in the southern stopes on 24 Level, namely S15 and S16, in conjunction with the development of S20-21 and N1 and N2 (the first northern stopes). The 17 Level decline development is progressing with ore drives now in development. Infrastructure such as ventilation, electrical upgrades and the maintenance workshop are nearing completion and the comprehensive operational readiness plan for the new mining method

has progressed further. Some of the new mining equipment for 17 Level has already arrived at site, while other equipment has experienced delays due to factory closures in Europe as a result of the COVID-19 pandemic. It is anticipated that this equipment will be operational during Q3 2020.

Costs per ounce

Cost of sales per ounce increased 8% to \$2,155/oz, cash operating cost per ounce increased 37% to \$2,292/oz and the AISC per ounce increased 35% to \$2,890/oz for Q2 2020 compared with the same period in 2019. The elevated cost performance is attributable to the lower gold sales as a consequence of lower underground production and the cessation of open pit mining. The increase in the cash operating cost was partially offset in the AISC by reduced sustaining capital costs and corporate general and administrative costs which are allocated to sites on a sold ounce basis.

Capital expenditures

Capital expenditures for Q2 2020 totaled \$2.3m compared to \$3.4m during the same period in 2019. Spending during Q2 2020 focused on lateral and decline development at Prestea Underground (\$0.9m) and drilling and mining equipment (\$0.8m) relating to the introduction of LHOS on 17 Level.

Prestea Optimization Project

Following the completion of CSA Global's independent review in 2019 and phase 2 design, the implementation of a revised mining plan continues to progress at Prestea Underground. Extraction of material from the 17 Level to the 21 Level has been redesigned for LHOS and development has commenced with the new design using conventional equipment. Orders have been placed to mechanize the LHOS zones which include a development jumbo, long hole drill, an additional loader (scoop) and a small truck to haul material back to 17 Level. The jumbo was expected to be delivered during H1 2020 but due to COVID-19 related delays the jumbo is now in transit and is due to be commissioned in Q3 2020, following which there should be a significant improvement in development productivity. Despite these delays the first stope from the LHOS mining area is still expected to come to production during Q4 2020, as guided in the Company's Q1 2020 financial results.

The alimak production is currently focused on 24 Level. The stopes have been redesigned to reduce the overall hanging wall span as recommended by CSA Global, and investment in ventilation infrastructure now allows for production from both the southern and northern stopes. The optimization initiatives aim to reduce dilution and improve the stope cycle time. This is achieved by reducing the height of the stopes where possible to improve travel times and stope turnover rates. Where the height cannot be reduced, due to lack of access, the strike length of the stopes has been reduced to improve stability. A slightly narrower alimak platform started to be trialed in S16 towards the end of Q2 2020. The fully optimized stopes with a reduced height and utilizing the narrower platform are expected to come to production during Q3 2020, beyond which point it is hoped that the improved mining flexibility, lower dilution and the introduction of production from 17 Level should start to transition the operation towards cash flow breakeven by the year end.

EXPLORATION

In response to COVID-19, the Company proactively scaled back field exploration activities from March 2020 and reduced contract staff by the end of April 2020. As a consequence, exploration expenditure in Q2 2020 has been limited to \$0.5m of which \$0.4m was expensed and \$0.1m was capitalized.

Wassa - HBB

During the second quarter of 2020, exploration activities focused on the delineation and refinement of exploration targets across the Company's tenement package with the compilation and continued review of historic surface geochemical and drilling information, as well as, the updating of geological and geophysical interpretations, and the design of future field-based follow-up programs.

Field-based exploration activities are expected to restart in early August 2020, with programs focused on infill soil and auger geochemical sampling and reconnaissance Aircore drilling on targets within the HBB Project area, and diamond core drilling of underground targets at Wassa.

In 2020, the greenfield and brownfield exploration programs are expected to focus on near mine targets in and around Wassa, as well as on regional exploration targets within the Wassa-HBB Corridor. A total of \$6.2m (\$3.5m budget for capitalized exploration and \$2.7m for expensed exploration) has been allocated for exploration programs across Golden Star's project portfolio.

FINANCIAL PERFORMANCE SUMMARY

Please see the Financial Statements and Management Discussion and Analysis for a detailed discussion on the Company's Q2 2020 and H1 2020 financial results. The summary below focuses on Q2 2020 performance.

Consolidated Financial Performance

Gold revenue was \$85.6m in Q2 2020, 38% higher than the \$61.9m achieved in the same period in 2019. Relative to Q2 2019, Q2 2020 benefited from an 8% increase in gold sold to 52.7koz and the average realized gold price was \$1,626/oz (28% higher than \$1,270/oz in Q2 2019). The average realized gold price for spot sales was \$1,720/oz (30% higher than \$1,319/oz in Q2 2019). The average realized gold price per ounce for the RG Stream was \$836/oz (Q2 2019 - \$875/oz), the reduction in the realized gold price under the RG Stream is due to the decrease of deferred revenue triggered by the increase in the mineral reserve estimate earlier in 2020.

Cost of sales (excluding depreciation and amortization) totaled \$45.8m in Q2 2020 compared to \$46.5m in Q2 2019. Mine operating expenses of \$41.2m were \$1.6m lower compared to Q2 2019 primarily due to:

- Lower energy costs as a result of the power tariff rebate program as part of the Government of Ghana's COVID-19 relief program and lower fuel prices due to a decline in global oil markets combined to result in a \$2m saving in Q2 2020, relative to Q2 2019
- Lower open pit mining and processing costs as a consequence of the cessation of satellite open pit activities at Prestea
- A credit in other operating expenses relating to updates to accrual estimates of approximately \$3m

The above factors were partially offset by:

- Increased mining and processing volumes at Wassa and higher gold transport costs as a result of the use of private charter flights while commercial flight schedules in Ghana have been disrupted by the COVID-19 pandemic
- Increased labor costs due to increased headcount at Wassa and inflationary pressures
- The charge for movement in inventory of \$2.4m is \$2.0m higher than Q2 2019 and relates primarily to the release of finished gold ounces during the quarter. The inventory write-down of \$0.8m for Q2 2020 results from lower production and increased costs at Prestea which has adversely impacted on inventory valuations by \$0.6m. At Wassa there was a \$0.2m write down of non-gold inventories during the quarter
- Royalties of \$4.5m for Q2 2020 increased by \$1.3m compared to Q2 2019, in line with higher gold prices

Corporate general and administrative expense totaled \$5.0m in the Q2 2020, compared to \$4.7m in the same period in 2019. The relocation of Golden Star's corporate office from Canada to the UK was completed during the quarter and the increase in corporate general and administrative expense for Q2 2020 is primarily due to duplicated labor costs, higher insurance and consulting fees incurred.

Hedging - The Company originally established the hedging program to provide gold price protection for the forecast production from Prestea over a 12 month period commencing in August 2019. In February 2020 the hedging program was extended to cover the production from Prestea through to the end of 2020. The Company entered into zero cost collars on an additional 12.6koz ounces with a floor price of \$1,500/oz and a ceiling price of \$1,992/oz. These positions mature at a rate of 4.2koz per month from October to December 2020.

During Q2 2020 the majority of the hedging contracts matured with the gold price falling within the collar range. However, the June 2020 contracts matured with the gold price exceeding the ceiling price at a realized loss of \$0.1m.

As of the end of Q2 2020, the Company has gold price protection in place for 25.1koz at an average floor price of \$1,450/oz and an average ceiling price of \$1,871/oz.

Net income attributable to Golden Star shareholders for Q2 2020 totaled \$7.8m or \$0.07 income per share (basic), compared to a net loss of \$9.0m or \$0.08 loss per share (basic) in the same period in 2019. The significant swing in Q2 2020 reflects the impact of the higher realized gold price, supported by the higher gold sales and reduced operating costs which drove an overall improvement in operating margin, in part offset by the higher tax expense. This was further supported by other income of \$1.4m in Q2 2020 mainly relating to changes in estimated accrued liabilities.

Table 3 - Adjusted EBITDA and Earnings Per Share

		Q2 2020	Q2 2019	H1 2020	H1 2019
EBITDA	\$m	33.4	4.7	51.8	19.7
Adjustments					
Loss/(gain) on fair value of financial instruments	\$m	1.8	(0.4)	(2.3)	3.4
Other (income)/expense	\$m	(1.4)	4.5	1.3	4.2
Impairment charges	\$m	-	-	-	-
Total Adjustments	\$m	0.4	4.1	(1.0)	7.6
Adjusted EBITDA	\$m	33.8	8.8	50.8	27.3
Adjusted net income/(loss)	\$m	9.5	(4.9)	8.4	(2.9)
Less portion attributable to non-controlling interests	\$m	-	(0.1)	(0.2)	(0.1)
Adjusted net income/(loss) attributable to shareholders	\$m	9.5	(5.0)	8.2	(3.0)
Weighted average number of shares	m	109.9	108.9	109.7	108.8
Adjusted net income/(loss) attributable to shareholders per share	\$/share	0.09	(0.05)	0.08	(0.03)

Adjusted net income attributable to Golden Star shareholders (see “Non-GAAP Financial Measures” section) was \$9.5m in Q2 2020, compared to the adjusted net loss attributable to Golden Star shareholders of \$5.0m for the same period in 2019. Adjusted net income attributable to Golden Star shareholders reflects adjustments for non-recurring and abnormal items which are mostly non-cash in nature. The increase during Q2 2020 and H1 2020 compared to the same periods in 2019 was primarily due to higher mine operating margin partly offset by increased income tax.

Net Cash Flow and Financial position

Table 4 summarizes the uses of cash in Q2 2020 and the resulting impact on the financial position of the Company.

Table 4 - Cash Flow and Net Debt Position

		Q2 2020	Q2 2019	H1 2020	H1 2019
Net cash from (used in), as per cash flow statement					
Operating activities (inc. working capital)	\$m	20.2	2.2	23.8	1.6
Investing activities	\$m	(11.5)	(15.6)	(26.6)	(26.9)
Financing activities	\$m	(5.6)	(2.3)	(5.5)	(5.0)
Increase/(Decrease) in cash	\$m	3.1	(15.7)	(8.3)	(30.4)
Cash position at start of period	\$m	41.9	81.9	53.4	96.5
Cash position at period end	\$m	45.1	66.2	45.1	66.2
Summary of debt facilities					
Macquarie credit facility	\$m	52.8	-	52.8	-
Convertible debentures	\$m	48.3	45.8	48.3	45.8
Finance leases	\$m	1.5	1.4	1.5	1.4
Ecobank facilities	\$m	-	32.9	-	32.9
Vendor agreements	\$m	-	17.1	-	17.1
Gross Debt Position	\$m	102.6	97.2	102.6	97.2
Net Debt Position	\$m	57.5	31.0	57.5	31.0

As at June 30, 2020, the Company held \$45.1m of cash and cash equivalents and \$102.6m of debt, for net debt of \$57.5m. The net debt position improved by \$7.8m during Q2 2020 as a result of the \$3.1m increase in the cash position and the reduction of the debt position following the first \$5.0m quarterly principal repayment of the Macquarie Credit Facility made at the end of June 2020.

Investing activities - Capital expenditure in Q2 2020 was \$14.2m, compared to \$17.0m in the same period in 2019. In Q2 2020 83% of total capital expenditure was at Wassa with \$11.8m being invested in the following projects which support the long term development of the operation:

- \$3.7m on the paste-fill plant
- \$4.7m on Wassa Underground capitalized development
- \$2.4m on mobile equipment

Capital expenditures at Prestea during Q2 2020 totaled \$2.3m, \$1.9m of which was invested in sustaining capital related to Prestea Underground and \$0.3m was invested in other equipment and capital expenditure.

Notes

1. See "Non-GAAP Financial Measures".
2. 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 underground 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 underground mines. Gold production guidance for 2020 is 195,000-205,000 ounces at a cash operating cost per ounce (please refer to the Non-GAAP Financial Measures disclaimer) of US\$810-US\$850. Since winning the PDAC 2018 Environmental and Social Responsibility Award, Golden Star has remained committed to leaving a positive and sustainable legacy in its areas of operation.

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: gold production, cash operating costs, AISC and capital expenditure estimates and guidance for 2020 on a consolidated and per mine basis; the Company’s achievement of 2020 consolidated guidance; the sources of gold production at Wassa Underground and Prestea Underground during 2020; the expected range of consolidated gold production for 2020; the expected allocation of the Company’s capital expenditures; the ability to accelerate the growth of Wassa; the ability to expand the Company and its production profile through the exploration and development of its existing mines; the intended expansion of production and reduction of costs; the ability of the Company to optimize its Prestea mining operations and the timing thereof; the anticipated significant improvement in development productivity as a result of the optimization of the Prestea operations; the ability to improve cash generation; expected grade and mining rates for 2020;

the introduction of LHOS at Prestea and the timing thereof; the expected improved performance at Prestea as a result of the start of production at the first LHOS stoping ore and the timing thereof; estimated costs and timing of the development of new mineral deposits and sources of funding for such development; the timing for completion of mining from the Prestea open pits during 2020; the ability to continue to ship gold across borders and to refine doré at the South African refinery; the mining rate and grade from Wassa Underground; the processing of low grade stockpiles at Wassa for the remainder of the year; installation of the electrical substation and upgrade of the underground electrical infrastructure, and the timing thereof; completion of the paste fill plant project and timing thereof, and expected resulting flexibility in the Wassa mine plan and increased mining rates; the ability to improve the scale of operations and margin at Wassa; implementation of the brownfield and greenfield exploration programs at Wassa and Prestea and the timing thereof; the anticipated exploration activities for the remainder of 2020; the anticipated effectiveness of the Hedging Program over the next 12 months; the intended reduction of costs for the next twelve months; the delivery of a range of operational initiatives that improve the consistency of the operations and visibility of the longer-term potential of the operations; the securing of adequate supply chains for key consumables and medical supplies; the effectiveness of corrective actions on preventing fatalities at Prestea; the Company having sufficient cash available to support its operations and mandatory expenditures for the next twelve months; the Company continuing as a going concern including the ability of the Company to realize its assets and discharge its liabilities in the normal course of business; the potential impact of the COVID-19 pandemic on the Company’s operations and the ability to mitigate such impact; and the availability of mineral reserves in 2020 and 2021 based on the accuracy of the Company’s updated mineral reserve and resource models; the ability to satisfy the conditions to close the Prestea Sale, including the approval of the relevant Minister in Ghana, the restructuring of the RG Stream and Macquarie Credit Facility; the completion of the Prestea Sale and the timing thereof; FGR’s ability to deliver the Bogoso Sulfide Project; the receipt by Golden Star of the deferred payments and the timing thereof; and the receipt by Golden Star of the contingent payment and the potential amount thereof. 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. 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. 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: gold price volatility; discrepancies between actual and estimated production; mineral reserves and resources and metallurgical recoveries; mining operational and development risks; liquidity risks; suppliers suspending or denying delivery of products or services; regulatory restrictions (including environmental regulatory restrictions and liability); actions by governmental authorities; the speculative nature of gold exploration; ore type; the global economic climate; share price volatility; the availability of capital on reasonable terms or at all; 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; actual results of current exploration activities; environmental risks; future prices of gold; possible variations in mineral reserves and mineral resources, grade or recovery rates; mine development and operating risks; an inability to obtain power for operations on favourable terms or at all; mining plant or equipment breakdowns or failures; an inability to obtain products or services for operations or mine development from vendors and suppliers on reasonable terms, including pricing, or at all; public health pandemics such as COVID-19, including risks associated with reliance on suppliers, the cost, scheduling and timing of gold shipments, uncertainties relating to its ultimate spread, severity and duration, and related adverse effects on the global economy and financial markets; 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; litigation risks; 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 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, 2019, the three months ended June 30, 2020 and in our annual information form for the year ended December 31, 2019 as 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.

Non-GAAP Financial Measures

In this Press Release, we use the terms "cash operating cost", "cash operating cost per ounce", "all-in sustaining costs", "all-in sustaining costs per ounce", "adjusted net (loss)/income attributable to Golden Star shareholders", "adjusted (loss)/income per share attributable to Golden Star shareholders", "cash provided by operations before working capital changes", and "cash provided by operations before working capital changes per share - basic".

"Cost of sales excluding depreciation and amortization" as found in the statements of operations includes all mine-site operating costs, including the costs of mining, ore processing, maintenance, work-in-process inventory changes, mine-site overhead as well as production taxes, royalties, severance charges and by-product credits, but excludes exploration costs, property holding costs, corporate office general and administrative expenses, foreign currency gains and losses, gains and losses on asset sales, interest expense, gains and losses on derivatives, gains and losses on investments and income tax expense/benefit.

"Cost of sales per ounce" is equal to cost of sales excluding depreciation and amortization for the period plus depreciation and amortization for the period divided by the number of ounces of gold sold (excluding pre-commercial production ounces sold) during the period.

"Cash operating cost" 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, materials and supplies write-off and severance charges, and "cash operating cost per ounce" is that amount divided by the number of ounces of gold sold (excluding pre-commercial production ounces sold) during the period. We use cash operating cost per ounce as a key operating metric. We monitor this measure monthly, comparing each month's values to prior periods' 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 or non-operating cash costs, they are not necessarily indicative of operating profit or cash flow from operations as determined under IFRS. Changes in numerous factors

including, but not limited to, 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. We believe 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.

"All-in sustaining costs" commences with cash operating costs and then adds the cash component of metals inventory net realizable value adjustments, royalties, sustaining capital expenditures, corporate general and administrative costs (excluding share-based compensation expenses and severance charges), and accretion of rehabilitation provision. For mine site all-in sustaining costs, corporate general and administrative costs (excluding share-based compensation expenses and severance charges) are allocated based on gold sold by each operation. "All-in sustaining costs per ounce" is that amount divided by the number of ounces of gold sold (excluding pre-commercial production ounces sold) during the period. 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. Share-based compensation expenses are also excluded from the calculation of all-in sustaining costs as the Company believes that such expenses may not be representative of the actual payout on equity and liability based awards.

The Company believes that "all-in sustaining costs" will better meet the needs of analysts, investors and other stakeholders of the Company in understanding the costs associated with producing gold, understanding the economics of gold mining, assessing the operating performance and the Company's ability to generate free cash flow from current operations and to generate free cash flow on an overall Company basis. Due to the capital intensive nature of the industry and the long useful lives over which these items are depreciated, there can be a disconnect between net earnings calculated in accordance with IFRS and the amount of free cash flow that is being generated by a mine. 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. Non-GAAP measures are intended to provide additional information only and do not have standardized definitions under IFRS and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS. These measures are not necessarily indicative of operating profit or cash flow from operations as determined under IFRS.

"Adjusted net (loss)/income attributable to Golden Star shareholders" is calculated by adjusting net (loss)/income attributable to Golden Star shareholders for (gain)/loss on fair value of financial instruments, share-based compensation expenses, severance charges, loss/(gain) on change in asset retirement obligations, deferred income tax expense, non-cash cumulative adjustment to revenue and finance costs related to the Streaming Agreement, and impairment. The Company has excluded the non-cash cumulative adjustment to revenue from adjusted net income/(loss) as the amount is non-recurring, the amount is non-cash in nature and management does not include the amount when reviewing and assessing the performance of the operations. "Adjusted (loss)/income per share attributable to Golden Star shareholders" for the period is "Adjusted net (loss)/income attributable to Golden Star shareholders" divided by the weighted average number of shares outstanding using the basic method of earnings per share.

For additional information regarding the Non-GAAP financial 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 year ended December 31, 2019 and the three months ended March 31, 2020, which are available at www.sedar.com.

Technical Information

The mineral reserve and 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"). All mineral resources are reported inclusive of mineral reserves. Mineral resources which are not mineral reserves do not have demonstrated economic viability. Mineral reserve estimates reflect the Company's reasonable expectation that all necessary permits and approvals will be obtained and maintained. Mining dilution and mining recovery vary by deposit and have been applied in estimating the mineral reserves.

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 2019 and 2018 estimates of mineral resources were prepared under the supervision of Mr. Wasel. The mineral reserve technical contents of this press release, have been reviewed and approved by and were prepared under the supervision of Matt Varvari, Vice President, Technical Services for the Company. Mr. Varvari is a “Qualified Person” as defined by NI 43-101.

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 Resources and Reserves, Golden Star Resources, Wassa Gold Mine, Ghana" effective December 31, 2018; (ii) Bogoso/Prestea - "NI 43-101 Technical Report on Resources and Reserves, Golden Star Resources, Bogoso/Prestea Gold Mine, Ghana" effective date December 31, 2017.

Cautionary Note to US Investors Concerning Estimates of Measured and Indicated Mineral Resources

This press release uses the terms “measured mineral resources” and “indicated mineral resources”. The Company advises US investors that while these terms are recognized and required by NI 43-101, the US Securities and Exchange Commission (“SEC”) does not recognize them. Also, disclosure of contained ounces is permitted under Canadian regulations; however the SEC generally requires mineral resource information to be reported as in-place tonnage and grade. US Investors are cautioned not to assume that any part or all of the mineral deposits in these categories will ever be converted into mineral reserves.

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.