

NEWS RELEASE

Golden Star Resources Reports Results for the Three and Nine Months Ended September 30, 2021

Toronto, ON – November 1, 2021 - Golden Star Resources Ltd. (NYSE American: GSS; TSX: GSC; GSE: GSR) (“Golden Star” or the “Company”) reports its financial and operational results for the three and nine months ended September 30, 2021. All references herein to “\$” are to United States dollars.

Q3 2021 HIGHLIGHTS:

- Q3 2021 production totaled 38.7 thousand ounces (“koz”) from Wassa, at an All-In Sustaining Cost (“AISC”) of \$1,299 per ounce (“/oz”). For the nine months to September 30, 2021, production totaled 116.8koz at an AISC of \$1,193/oz. The Company is on track to deliver on the upper end of the revised production guidance of 145-155koz for 2021.
- The Wassa underground grade averaged 3.2 grams per tonne (“g/t”) in Q3 2021, 5% higher than the reserve grade and Q2 2021 performance.
- Paste fill test work continued during the quarter with the completion of the filling of a second test stope. Test results for the 28 day curing period show improved strength compared to the first test stope and these meet the design criteria. Full restart of the filling operations is subject to strength results after the 56 days curing period, which is due in Q4 2021.
- Q3 2021 saw continued investment in infill drilling and development at Wassa and expansion of the tailings storage facility. During the quarter, capital expenditure at Wassa totaled \$13.3m.
- The repayment of the \$51.5m convertible debenture was completed in August 2021. This deleveraging event further strengthened the balance sheet and delivers a lower cost of capital. Concurrent with the repayment and settlement of the convertible debenture, the company drew down the remaining \$29.2m of available liquidity on the Macquarie Revolving Credit Facility (“RCF”).
- As a result of the repayment of the convertible debentures, the cash position reduced by \$22.3m in Q3 2021 to \$50.5m at September 30, 2021, with net debt of \$32.0m in line with the prior quarter.
- In-mine exploration drilling during the quarter delivered positive results, indicating further extension of B-Shoot mineralization up-dip of the current and planned reserve mining areas.

Table 1 – Q3 2021 Performance Summary (Continuing Operations unless otherwise stated)

		Q3 2021	Q3 2020	% change	9 Months 2021	9 Months 2020	% change
Production – Wassa	Koz	38.7	41.6	(7)%	116.8	126.7	(8)%
Production – Prestea (discontinued operation)	Koz	-	6.8	(100)%	-	22.3	(100)%
Total gold produced	Koz	38.7	48.4	(20)%	116.8	149.0	(22)%
Gold sold – Wassa	Koz	38.4	40.9	(6)%	115.0	124.0	(7)%
Gold sold - Prestea (discontinued operation)	Koz	-	6.7	(100)%	-	22.0	(100)%
Total gold sold	Koz	38.4	47.7	(19)%	115.0	145.9	(21)%
Average realized gold price (incl. Deferred Revenue)	\$/oz	1,676	1,813	(8)%	1,684	1,643	3%
Cash operating cost per ounce - Wassa ¹	\$/oz	868	664	31%	779	643	21%
Cash operating cost per ounce - Prestea ¹	\$/oz	-	2,141	(100)%	-	2,033	(100)%
Cash operating cost per ounce - Consolidated¹	\$/oz	868	872	-%	779	852	(9)%
All-in sustaining cost per ounce - Wassa ¹	\$/oz	1,299	1,023	27%	1,193	979	22%
All-in sustaining cost per ounce - Prestea ¹	\$/oz	-	2,491	(100)%	-	2,477	(100)%
All-in sustaining cost per ounce - Consolidated¹	\$/oz	1,299	1,230	6%	1,193	1,205	(1)%
Gold revenues	\$m	64.3	74.2	(13)%	193.7	203.7	5%
Adj. EBITDA¹	\$m	21.2	37.5	(44)%	74.4	95.2	(22)%
Adj. income/share attributable to shareholders - basic ¹	\$/share	-	0.17	(100)%	0.09	0.29	(69)%
Cash provided by operations before working capital	\$m	18.1	30.5	(41)%	64.6	82.6	(22)%
Changes in working capital and taxes paid	\$m	(0.9)	(4.4)	80%	(24.2)	(18.0)	(34)%
Net cash used in investing activities	\$m	(16.3)	(11.7)	(39)%	(39.5)	(33.7)	(17)%
Net cash provided by financing activities	\$m	(23.2)	(1.0)	(2220)%	(11.3)	(6.5)	(74)%
Free cash flow¹	\$m	1.0	14.4	(93)%	1.0	30.9	(97)%
Cash	\$m	50.5	48.3	5%	50.5	48.3	5%
Net Debt	\$m	31.9	48.7	(34)%	31.9	48.7	(34)%

Notes: 1. See “Non-GAAP Financial Measures”.

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

“The cash settlement of the \$51.5m convertible debentures in August 2021 was a key milestone for the Company as it represented the final step in a two-year process to restructure the balance sheet which was aimed at removing short dated facilities and reducing the cost of capital. We now have a clean balance sheet with the \$90m Macquarie Revolving Credit Facility as our only debt product and a cash position of \$50.5m for a conservative overall level of net debt.

Following revision of our 2021 guidance in June, the Wassa operating team responded well to the planned reduction in the availability of underground ore both through accessing new stoping areas, thanks to further improvement in development rates, as well as through the increased processing of low-grade stockpiles. While the latter acts to increase the AISC, it utilizes latent processing plant capacity to generate cash.

Our key operational focus remains the completion of the commissioning of the paste fill plant by the end of the year. Recent paste strength test work has yielded improved results and the second test stope was completed during October. Test results after 28 days curing show improved strength compared to the first test stope and meet the design criteria. While the full restart of the filling operations is subject to strength results after 56 days' curing, we continue to expect to be in a position to deliver production from secondary stopes as planned in 2022.

I am very pleased to welcome Ben Pullinger to the senior team as Executive Vice President Discovery from November 1, 2021. He will lead our continued investment in exploration, a key discipline in the delivery of our growth strategy. Last week, we were pleased to report positive progress being made on the drilling programs as part of the exploration and infill drilling initiatives. The team has moved quickly to follow up on the recent up-dip and down-dip drilling success with further drilling to test the continuity of a new up-dip zone. Drilling in Q3 2021 was aimed at further testing of this target with the ambition of delineating a resource in the 2021 year-end resource update.”

Q3 2021 RESULTS WEBCAST AND CONFERENCE CALL

The Company will conduct a Q3 2021 results conference call and webcast on Tuesday November 2, 2021 at 10.00 am ET.

Toll Free (North America): **+1 888 390 0546**

Toronto Local and International: **+1 416 764 8688**

Toll Free (UK): **0800 652 2435**

Conference ID: **53013185**

Webcast: https://produceredition.webcasts.com/starthere.jsp?ei=1503699&tp_key=cfac6ce624

Following the conference call, a recording will be available on the Company's website at: www.gsr.com.

KEY EVENTS – Q3 2021

Wassa Operational Performance and Infrastructure Investment

- The mining rate averaged 3,690tpd in Q3 2021, representing a 26% decrease on the 4,957tpd achieved in Q3 2020 and 7% lower than the mining rate of 3,963tpd achieved in Q2 2021 due to the planned reduction in available stopes caused by the resequencing of the mine plan. This is in line with guidance for the period.
- Underground mined grade averaged 3.2g/t, 5% above the underground reserve grade of 3.1g/t and 5% higher than the grade achieved in Q2 2021.
- Processing of low-grade stockpiles continued during Q3 2021, given the continued strength of the gold price. This initiative, which utilizes latent capacity in the process plant without compromising gold recovery rates, contributes additional cash flow, albeit at a slightly higher AISC than achieved by the underground mine. This initiative contributed 4.5koz of production during Q3 2021, while adding around \$50/oz to the overall AISC.
- Investment in infrastructure continued throughout Q3 2021 to provide additional mining flexibility with the objective of increasing mining rates. Capital expenditure at Wassa totaled \$13.3m during Q3 2021.
- The operational improvements and recruitment of jumbo operators implemented during Q2 2021 delivered an increase in development rates in June. Over Q3 2021 lateral development totaled 2,295 metres, equating to 25 metres per day, which exceeds the H1 2021 development rate by 4%.

Paste Fill Commissioning Update

- The Paste fill plant commissioning process started in Q1 2021, after the completion of the plant construction in Q4 2020. As previously announced the commissioning was delayed by quality assurance test results in April 2021 showing lower than expected fill strengths in the test stope.
- As a result, filling operations were suspended and the test work program was extended. The Company is working in collaboration with consultants Minefill Services (Australia) and the University of Mines and Technology (Ghana). Test results received in Q3 2021 from the Wassa site laboratory and Minefill Services were consistent and showed strengths meeting the design criteria, consistent with the feasibility study results and higher than those achieved in the trial samples from the test stope.
- Filling of a second test stope commenced in September 2021 and was completed during October 2021. The stope was filled with paste that had a 10% cement blend for maximum fill strength. Test results after 28 days' curing show improved strength compared to the first test stope, which meet the design criteria. The full restart of the filling operations is subject to satisfactory strength results for the 56 days' curing period, which is due later in Q4 2021 and will enable production from secondary stopes as planned in 2022.
- Off-site mix design optimization and test work continues in Q4 2021, with alternative binder products showing excellent strength results in laboratory tests and demonstrating the potential to optimize the mix design for future stopes.

COVID-19 PANDEMIC

- Ghana experienced a slight increase in COVID-19 cases in Q3 2021. A total of 7,323 positive cases had been confirmed in the Western Region, where the Wassa mine is located, of which 183 were active cases as at September 27, 2021, eight times that of the previous quarter. During Q3 2021, Wassa experienced 39 suspected COVID-19 cases with 30 confirmed cases.
- Supply chains for the shipment of dore to the refinery and 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.

Safety and Health

- The all-injury frequency rate (“AIFR”) of the continuing operations as at September 30, 2021 was 3.12 and the total recordable injury frequency rate (“TRIFR”) was 0.78, based on a 12-month rolling average per million hours worked. This compares to the continuing operations AIFR of 3.55 and TRIFR of 0.71 as at September 30, 2020. These numbers reflect the two incidents reported in the second quarter of 2021 (“Q2 2021”). Both injured persons have recovered and have returned to full work duties. The operations team continues to focus on leading indicator programs to improve health, safety and environmental performance.

Cash Repayment of Convertible Debentures

- On August 15, 2021, the principal balance of \$51.5 million and outstanding interest on the 7% Convertible Debentures were fully repaid and settled in cash. Concurrent with the cash repayment of the 7% Convertible Debentures, the Company met the conditions precedent for draw-down of the Macquarie Revolving Credit Facility (“RCF”). With these conditions met, the Company drew down on the remaining \$29.2 million of available liquidity and as of the September 30, 2021, the \$90 million Macquarie RCF is fully drawn.

At The Market Equity Program

- On October 28, 2020, the Company entered into an At The Market (“ATM”) program with BMO Capital Markets Corp. (“BMO”) relating to Golden Star common shares. In accordance with the terms of the Sales Agreement, the Company may distribute shares of common stock having a maximum aggregate sales price of up to \$50 million from time to time through BMO as agent for the distribution of shares or as principal. The proceeds from the Sales Agreement will be used for discretionary growth capital at Wassa, exploration, general corporate purposes and working capital.
- A total of 4,220,213 shares of common stock had been sold under the Sales Agreement up to June 30, 2021, generating net proceeds of \$13.8m. There were no sales under the Sales Agreement during Q3 2021.
- The Company does not anticipate any further sale of the Company's common stock from the Sales Agreement, which expires in November 2021.

Sale of Bogoso-Prestea

Deferred Consideration

- On September 30, 2020, the Company completed the sale of its 90% interest in Prestea to Future Global Resources Limited (“FGR”) pursuant to a share purchase agreement for the sale by Golden Star's wholly owned subsidiary, Caystar Holdings (“Caystar”), and the purchase by FGR of all the issued and outstanding share capital of Bogoso Holdings (“Bogoso”), the holder of 90% of the shares of Golden Star (Bogoso/Prestea) Limited (the “SPA”), for a consideration price (the “Total Consideration Price”) comprising a deferred consideration of \$34.3 million (the “Deferred Consideration”), which, prior to the amendments to the SPA as described below, was payable by FGR to Golden Star in the following tranches:
 - \$5 million in cash to be paid on the earlier of: (i) the date at which FGR puts in place a new reclamation bond with the Environmental Protection Agency of Ghana (“EPA”) in relation to Prestea, and (ii) March 30, 2021;
 - \$10 million in cash and the net working capital adjusted balancing payment (as described in the SPA) which amounts to approximately \$4.3 million to be paid on July 31, 2021; and
 - \$15 million in cash to be paid on July 31, 2023.

SPA Amendments

- On March 28, 2021, the Company and Caystar entered into an amendment agreement to the SPA with FGR and Blue International Holdings (“BIH”), the parent company of FGR, to reprofile the staged payments that

form the Deferred Consideration (the “Staged Payments”) such that both the \$5 million originally due on March 30, 2021 and the \$10 million originally due on July 31, 2021 became payable on May 31, 2021.

- On May 31, 2021, the Company, Caystar, FGR and BIH entered into a second amendment agreement to the SPA to further reprofile the Staged Payments to allow time for FGR to complete ongoing financing transactions and the environmental bonding process for Prestea. Pursuant to this second amendment to the SPA, the Deferred Consideration was due as follows:
 - the \$15 million payment that was due on May 31, 2021 became payable by no later than July 16, 2021; and
 - an amount of approximately \$4.6 million (comprised of the working capital balancing payment of approximately \$4.3 million and fees of approximately \$0.3 million for services provided by Caystar to FGR pursuant to a transition agreement dated September 30, 2020) became payable by no later than July 31, 2021.
- As of July 31, 2021, no Deferred Consideration had been received by Golden Star from FGR. Following discussions between the parties to the SPA, on September 30, 2021 the Company, Caystar Holdings, FGR and BIH agreed to reconfigure the terms for the sale and purchase of Prestea by, inter alia, substituting a net smelter return (“NSR”) royalty for the Deferred Consideration as per the following commercial terms:
 - from October 1, 2020, NSR royalty payments in respect of gold produced from the Prestea underground mine will be paid at a rate of 1% of the net smelter returns once production exceeds 100,000 ounces of gold, and up to a total of 300,000 ounces of gold;
 - once production from the Prestea underground mine exceeds 300,000 ounces of gold, the royalty rate will increase to 2%, until cumulative royalty payments total \$35 million, at which point the obligation to make royalty payments will automatically terminate; and
 - these payments apply to production from the areas containing the underground resources and reserves declared at the Prestea underground mine at the time it was acquired by FGR.
- This reconfiguration of the terms for the sale and purchase of Prestea follows the mining and drilling activities undertaken over the past 11 months and is aimed at better aligning any payments due to the Company with the anticipated performance of the asset. The Company, Caystar, FGR and BIH also agreed to mutually release each other from all existing and future claims relating to the sale and purchase of Prestea.
- The SPA contemplated that, in addition to the Deferred Consideration, a contingent payment of up to \$40 million (the “Contingent Payment”) may become payable by FGR to Golden Star conditional upon the occurrence of milestones in respect of the development of the Bogoso Sulphide Project (as defined in the SPA). Concurrent with the restructuring of the Deferred Consideration into an NSR royalty, the Contingent Payment was also restructured. To support the viability of the B/P Refractory Mineral Resources (as defined in the SPA), Golden Star has agreed to adjust the payments associated with that project, which have become payable in three tranches (previously, two), as follows:
 - 33.3% at the time when 5% of the B/P Refractory Mineral Resources have been extracted;
 - 33.3% at the time of the first anniversary of the declaration that 5% of the B/P Refractory Mineral Resources have been extracted; and
 - the remaining unpaid amount of the Contingent Payment will fall due once a cumulative 500,000 ounces of gold have been produced from the Bogoso Sulphide Project.

Derecognition loss and loss allowance on the deferred consideration for the sale of Prestea

- The Deferred Consideration was fully derecognized on September 30, 2021 as a result of the most recent restructuring of the Total Consideration Price. This follows the loss allowance on the Deferred Consideration of \$19.6 million that was recognized for the six months ended June 30, 2021. A total of \$13.3m and \$32.9m of derecognition loss and expected credit loss is included in Other expense, net for the three months and nine months ended September 30, 2021 respectively.
- Management concluded it most appropriate to value the NSR royalty at \$nil due to the current limited visibility in the Prestea Underground mine plan.

Golden Star Oil Palm Plantations Pursues Sustainable Palm Oil Certification

- In September 2021, Golden Star Oil Palm Plantations Limited ("GSOPP"), the Company's flagship sustainability and social enterprise initiative, underwent the first phase of the process towards certification under the Roundtable for Sustainable Palm Oil ("RSPO"), the internationally recognized standard for sustainable palm oil.
- Working in partnership with Solidaridad West Africa and the United Nations Industrial Development Organization ("UNIDO"), systems formalization and training of staff and farmers in oil palm best management practices, sustainable group management, business planning, environmental protection, safe working relationships and continuous improvement, has set GSOPP on track to attain full certification to the Independent Smallholder Standard by year end.
- GSOPP develops and operates oil palm plantations in communities proximate to the Company's gold mining operations located in the Western Region of Ghana for the benefit of members of the host communities. The program commits to ensuring that there is zero deforestation during the creation of a high value agribusiness on former subsistence farms and land that has previously been used for mining activities. Since its inception in 2006, GSOPP has developed plantations on over 1,500 hectares of land, which support over 700 families at levels of oil palm yields that are three times the size of those achieved on average by the small holders in Ghana. The activities of GSOPP also align with the Company's wider sustainability goals of establishing high value post-mining land uses, self-funding re-vegetation and creation of biomass to act as a carbon sink to offset operational emissions.

Energy Management and Climate Change

- Following a business-wide energy review conducted at Wassa in June 2021, the Company has advanced its energy management planning and is now developing, through a multi-disciplinary process, an Energy and Carbon Management Plan for the operations. Energy opportunities identified in the audit process are now under evaluation and will inform Management on the marginal abatement cost curve for the business and in turn potential energy efficiency improvement, emission reduction and cost savings to be realized. These and other initiatives form part of the wider climate change management strategy of the Company.

RECENT EVENTS – Post Q3 2021 period end

Proposed Acquisition of Golden Star by Chifeng Jilong Gold

- On October 31, 2021, Golden Star and Chifeng Jilong Gold Mining Co., Ltd. (“Chifeng”) entered into a definitive agreement pursuant to which Chifeng has agreed to acquire all of the issued and outstanding Golden Star common shares by way of a statutory plan of arrangement under the *Canada Business Corporations Act* (the “Transaction”). Pursuant to the Transaction, holders of Golden Star common shares (“Golden Star Shareholders”) will receive total consideration, payable in cash, of \$3.91 per Golden Star Share (the “Consideration”), which equates to approximately US\$470 million on a fully-diluted, in-the-money basis.
- The Board of Directors of Golden Star has unanimously approved the Transaction and is unanimously recommending that Golden Star Shareholders vote in favour of the Transaction. The Consideration represents a 24.1% premium over the closing price of the Golden Star Shares on the NYSE American as at October 29, 2021, a 37.2% premium based on the volume-weighted average price of the Golden Star Common Shares on the NYSE American over the 20 trading days ending October 29, 2021 and a 51.5% premium based on the volume-weighted average price of the Golden Star Common Shares on the NYSE American over the 60 trading days ending October 29, 2021.
- The Transaction, which is not subject to a financing condition, is expected to close by the end of January 2022 subject to among others, (i) the approval of 66⅔ per cent of the votes cast by Golden Star Shareholders at a special meeting of shareholders expected to be held prior to the end of the year, (ii) the approval of 66⅔ per cent of the votes cast by shareholders of Chifeng at a meeting of the shareholders of Chifeng, if applicable, to be held prior to the end of the year, to the extent a Chifeng shareholder vote is required, (iii) certain regulatory, court and stock exchange approvals, including obtaining an interim and final order approving the Transaction from the Ontario Superior Court of Justice (Commercial List) and approval by relevant authorities in Ghana and the People’s Republic of China, and (iv) other closing conditions that are customary in a transaction of this nature.

FULL YEAR 2021 PRODUCTION, COST AND CAPITAL EXPENDITURE GUIDANCE

As previously highlighted in the paste fill plant commissioning update in June 2021 and the Q2 2021 financial and operating results press release, the delay to the completion of commissioning of the paste plant and lower than planned development rates resulted in a resequencing of the mine plan for H2 2021 due to the deferral of the secondary stopes into 2022.

As a result, in June 2021, the production guidance for 2021 was reduced to 145koz to 155koz and the AISC guidance range was increased to \$1,150/oz to \$1,250/oz, driven predominantly by lower production volumes and anticipated cost inflation. At the end of Q3 2021, Wassa remains on track to deliver on the upper end of the updated production and cost guidance range. There has been further cost inflationary pressure as a result of the recently concluded salary negotiations, in combination with continued high energy prices. The AISC is also impacted by the cost associated with the processing of low-grade stockpiles which is expected to result in Wassa delivering AISC in the upper half of the updated guidance range.

The capital expenditure guidance range has remained unchanged throughout 2021 at \$45m to \$50m. The investment in sustaining capital is now expected to come in at the higher end of the \$32-35m guidance range and expansion capital is anticipated to fall to the bottom end of the \$13-15m guidance range.

The exploration spend for 2021 is expected to fall below the updated guidance of \$14m as a result of some of the regional exploration programs being deferred while focus is placed on in-mine and near-mine opportunities which have delivered positive results year to date.

Table 2: Full Year 2021 Production and Cost Guidance

	Unit	Q3 2021	9 Months 2021	Updated 2021 Guidance
Production and cost guidance				
Gold Production	(koz)	38.7	116.8	145-155
Cash Operating cost ¹	(\$/oz)	868	779	750-800
AISC¹	(\$/oz)	1,299	1,193	1,150-1,250
Capital expenditure guidance				
Sustaining Capital ²	(\$m)	8.8	23.8	32-35
Expansion Capital ²	(\$m)	2.3	6.1	13-15
Total Capital Expenditure	(\$m)	11.1	29.9	45-50
Capitalized exploration	(\$m)	2.2	5.5	8
Expensed exploration	(\$m)	1.0	3.2	6
Total Exploration	(\$m)	3.2	8.7	14
Total Capital and exploration expenditure	(\$m)	14.3	38.6	59-64

Notes:

1. See "Non-GAAP Financial Measures". 2. Expansion capital are those costs incurred at new operations and costs related to major projects at existing operations where these projects will materially increase production. All other costs relating to existing operations are considered sustaining capital.

SUMMARY OF CONSOLIDATED OPERATIONAL RESULTS – Q3 2021

Wassa Operational Overview

Gold production from Wassa was 38.7koz in Q3 2021, 7% lower than the 41.6koz produced during Q3 2020. This decrease was due to the deferral of secondary stopes following the paste fill commissioning delays, in combination with slower than planned development rates resulting in lower underground mining rates. The lower mined volumes were in part offset by higher processing volumes as a result of the processing of low-grade stockpiles.

Recovery

The recovery was 95.4% for Q3 2021, which has remained consistent with the year-to-date performance. This represents robust operational performance despite increase in the volume of low-grade stockpiles processed in the period.

Wassa Underground

Production – Wassa Underground produced 34.2koz of gold (approximately 88% of Wassa's total production) in the third quarter of 2021. This compared to 39.7koz produced in Q3 2020, which was a strong comparative period as a result of higher mining rates.

Mining rate - Wassa Underground mining rates averaged 3,690tpd in Q3 2021, 26% lower than the mining rate of 4,957tpd achieved in Q3 2020 and 7% lower than the mining rate of 3,963tpd achieved in Q2 2021. The reduction in the mining rate resulted from an enforced change in the mine plan due to stoping constraints caused by lower than planned development rates and the delay to mining from secondary stopes as a result of the delayed commissioning of the paste fill process.

Grade - The underground grade averaged 3.24g/t during the quarter, 5% higher than achieved in Q2 2021 and 5% higher than the reserve grade.

Wassa Main Pit/Stockpiles

Low-grade stockpiles from the Wassa main pit of 233.5kt with an average grade of 0.62 g/t were blended with the Wassa Underground ore during Q3 2021, which yielded 4.5koz of gold, compared to 1.9koz in Q3 2020. There has been no material impact on recoveries and the Company will continue to opportunistically process low-grade stockpiles in 2021 utilizing the plant's latent capacity should the current gold price environment continue.

Unit costs

The unit cost performance remained robust during Q3 2021. The mining unit cost of \$42.7/t of ore mined was 6% higher than in Q2 2021 as a result of the lower mining rate. Higher plant throughput as a result of the increased volume of low-grade stockpile material treated benefited processing costs, which totaled \$17.0/t of ore processed, some 5% higher than the \$16.1/t achieved in Q2 2021.

Costs per ounce

Cost of sales per ounce increased 30% to \$1,169/oz for Q3 2021 compared to Q3 2020 due to lower production volumes, increased mine operating expenses, higher operating costs to metal inventory and increased depreciation costs. These were in part offset by a decrease in royalties in line with lower gold revenue.

Cash operating cost per ounce increased 31% to \$868 for Q3 2021 compared to Q3 2020 mainly due to:

- Lower production volumes as reflected in sold ounces
- Increased mining costs driven by increased grade control drilling volumes
- Increased processing costs associated with higher plant throughput and increased maintenance
- Increased fuel costs driven by higher oil prices
- The inventory charge associated with low-grade stockpiles of \$50/oz
- Higher labor costs driven by year-on-year inflationary increases

AISC increased 27% to \$1,299/oz in Q3 2021 compared to Q3 2020 due to a combination of:

- Lower production and sales volumes
- Increased cash operating costs (as outlined above)
- Higher sustaining capital expenditure
- The above factors were in part offset by a decrease in royalties and corporate general and administrative expenses

Capital expenditures

Capital expenditures at Wassa for Q3 2021 totaled \$13.3m, 53% higher than the \$8.7m expenditure in Q3 2020. The Wassa management team continued to focus its efforts on critical development spend in order to support the medium-term growth of the underground operation including:

- Sustaining capital amounted to \$8.7m in Q3 2021 and included:
 - Capitalized underground development activities of \$4.1m (Q3 2020: \$3.3m)
 - Expansion of the tailing storage facility ("TSF") of \$1.7m (Q3 2020: \$ nil)
 - Implementation of a new enterprise resource planning ("ERP") system of \$0.8 million (Q3 2020: \$0.2 million)
 - New staff accommodation facilities of \$0.4 million (Q3 2020: \$nil).
- Expansion capital amounted to \$2.3m in Q3 2021 and included:
 - Development costs for increased future production of \$1.3m (Q3 2020: \$0.7m)
 - Directional diamond drilling ("DDD") program on 570 Level of \$0.9m (Q3 2020: \$ nil)
 - \$1.2m was incurred on the commissioning of the paste fill plant project in Q3 2020.
- Capitalized exploration drilling of \$2.2m in Q3 2021 (Q3 2020: \$0.1m) mainly related to the Wassa up-dip and down-dip extensions.

Wassa underground infill drilling

For Q3 2021, the Wassa Underground drilling program completed 20,743 metres of diamond core drilling. As at the end of September, Wassa Underground was utilizing six underground diamond drills, plus one surface diamond drill. Underground drilling itself totaled 19,351 metres, and the surface drill produced 1,392 metres.

Resource infill drilling

The Q3 resource infill drilling program focused on the conversion of indicated resources to measured resources, with a total of 15,343 metres drilled in Q3. This program is anticipated to exceed 46,000 metres by the year end.

Definition drilling of B-Shoot Upper Mine

During Q3, definition drilling of the B-Shoot Upper Mine commenced. The drilling program is expected to increase confidence in the indicated resources in the upper mine area. As at the end of September, a total of 2,911m has been completed. This program is capitalized and is targeting approximately 11,000m of definition drilling by the year end.

Infill drilling of the Southern Extensions (PEA mining areas)

During Q3 2021, the Southern Extension program focused on the conversion of inferred resources to indicated resources in Panel 4. Drilling totaled 2,489 metres for the quarter. This program is capitalized and is expected to total approximately 19,000 metres during 2021.

EXPLORATION

During the third quarter of 2021 (“Q3 2021”), \$3.2m was invested in exploration within the Wassa, Hwini Butre and Benso license areas, of which \$2.2m of Wassa in-mine exploration was capitalized and the balance of \$1.0m was expensed. For the nine months ended September 30, 2021, total exploration costs amounted to \$8.7 million of which \$5.5m was capitalized and \$3.2m was expensed.

Wassa – In-mine exploration

The in-mine exploration for Q3 2021 concentrated on up-dip and down-dip drilling, with nine holes being completed totaling 6,288 meters. In addition to the in mine drilling, one rig tested the near mine targets at South Akyempim (“SAK”), Mid East (“ME”) and Dead Man Hill (“DMH”) with two holes completed during the quarter, totaling 1,063 meters.

Wassa Up-Dip and Down-Dip Resource Extension Drilling

The Wassa up-dip and down-dip drilling for Q3 2021 involved three rigs drilling nine holes totaling 6,288 meters to bring the 2021 year-to-date total drill meters to 17,463 meters for this program. The drilling has been successful in expanding the known mineralization both up-dip and down-dip of the existing and planned reserve infrastructure.

Some of the earlier down-dip intersections have now been followed up with drilling from underground platforms as part of the ongoing infill drilling program. It is expected that this will be drilled to a sufficient resolution to be included in the 2021 year end mineral resource update.

The up-dip drilling continues to focus on following up on the intersection drilled in BSDD20-003, on section 19200N which extended the mineralization 125 meters up-dip cutting 20.9 meters at a grade of 6.9g/t. Several holes have been drilled 50 meters north and south of this intersection and both have confirmed strike extensions of this zone, with the following highlights:

- BSDD21-10 drilled 50 meters to the south on section 19150N, which intersected an estimated true width of 19.0 meters at a grade of 4.6 g/t.
- BSDD21-013 drilled 50 meters to the North on section 19250N, which intersected numerous significant zones, including 4.1 meters at a grade of 7.9 g/t, 12.1 meters at a grade of 4.8 g/t, 3.0 meters at a grade of 8.5 g/t and 4.3 meters at a grade of 11.0 g/t.

The 2021 up-dip drilling is drawing to a close, with the results expected to be included in the year end mineral resource update. Should this drilling and subsequent drilling in this area delineate significant mineralization, it will open a new mining area above and to the east of the current mining infrastructure.

Wassa - Near-Mine Surface Exploration Drilling

The Wassa near-mine exploration focused on wide spaced drilling to test down-dip extensions of mineralization beneath several of the historical open pits on the Wassa mining lease, outside of the main Wassa trend. Nine holes have been completed year to-date, totaling 3,457 meters.

Most of the holes intersected down-dip extensions of mineralization where projected. The SAK drilling returned a significant intersection that will require further follow-up. SAKDD21-004, drilled on the most southerly of the tested sections, intersected 8.3 meters at a grade of 4.2 g/t.

HBB Regional Exploration

The air core ("AC") drilling at the Hwini Butre and Benso concessions ("HBB") for 2021 was concluded in the third quarter with 175 holes totaling 6,716 meters being completed. These holes tested gold in soil anomalism on six targets with all but one target returning results that will require further follow up. To assist with the planning of the follow-up drilling on these targets, as well as the five kilometer gold in soil anomaly at Angu, a ground geophysics crew was mobilized in Q3 2021. The geophysics surveys will consist of induced polarization ("IP") and tight ground magnetics. At the end of the quarter, the crews were approximately 50% completed.

In addition to the work being conducted on the regional HBB targets, one diamond drill rig has continued testing the extent of mineralization beneath the previously mined Benso Pits, Subriso East ("SE"), Subriso West ("SW") and G-zones. These drill programs are ongoing and will continue into the fourth quarter of 2021. At the end of Q3 2021, five holes have been completed, which total 1,850 meters.

Results for two of the holes drilled beneath the SE pit have been received with other holes having results pending and are summarized below:

Table 3: Q3 2021 Exploration Drilling Results – Subriso East Pit

Hole ID	From (metres)	To (metres)	Drilled Width (metres)	Estimated True Width (metres)	Grade Au (g/t)	Easting (m)	Northing (m)	Elevation (m)	Drilling target
SEZDD21-001	153.7	155.7	2.0	1.9	1.55	176839.23	59049.72	1061.97	Beneath SE Pit
SEZDD21-001	162.7	164.7	2.0	1.9	1.88	176839.23	59049.72	1061.97	Beneath SE Pit
SEZDD21-001	168.7	175.4	6.7	6.3	1.15	176839.23	59049.72	1061.97	Beneath SE Pit
SEZDD21-002	147.0	150.0	3.0	2.9	2.34	176860.94	58999.96	1062.95	Beneath SE Pit
SEZDD21-002	152.0	154.0	2.0	2.0	1.09	176860.94	58999.96	1062.95	Beneath SE Pit
SEZDD21-002	159.0	173.0	14.0	13.7	1.81	176860.94	58999.96	1062.95	Beneath SE Pit

A full dataset for the 2021 drilling results is available on the exploration section of the Company website via the following link https://s1.q4cdn.com/789791377/files/doc_downloads/exploration/Wassa-2021-Intersection-data-V2.pdf

FINANCIAL PERFORMANCE SUMMARY

Please refer to the Company's condensed interim consolidated financial statements and related notes for the three and nine months ended September 30, 2021 and related Management's Discussion and Analysis for the detailed discussion on the financial results for the three and nine months ended September 30, 2021.

Table 4 – Financial Performance Summary (continuing operations) - Three and nine months ended September 30, 2021

		Q3 2021	Q3 2020	% change	9 Months 2021	9 Months 2020	% change
Realized gold price - spot sales	\$/oz	1,753	1,961	(11)%	1,719	1,674	3%
Realized gold price - Streaming agreement ²	\$/oz	937	723	30%	1,214	1,229	(1)%
Realized gold price – Consolidated	\$/oz	1,676	1,813	(8)%	1,684	1,643	2%
Gold revenues	\$m	64.3	74.2	(13)%	193.7	203.7	(5)%
Cost of sales	\$m	36.7	31.1	18%	100.0	90.7	10%
Depreciation and amortization	\$m	8.1	5.7	42%	22.5	17.1	32%
Mine operating profit	\$m	19.5	37.4	(48)%	71.2	95.9	(26)%
Corporate general and administrative expense	\$m	4.3	4.7	(9)%	13.5	14.2	(5)%
Exploration expense	\$m	1.0	0.4	150%	3.2	1.6	100%
Share based compensation expense	\$m	1.1	0.5	120%	2.5	2.1	19%
Other expenses, net	\$m	14.4	2.6	454%	35.1	2.6	1,231%
(Gain)/loss on fair value of derivative financial instruments, net	\$m	(0.7)	3.7	(119)%	(7.2)	1.4	(614)%
Income before finance and tax	\$m	(0.7)	25.5	(103)%	24.1	74.0	(67)%
EBITDA	\$m	7.4	31.2	(76)%	46.6	91.1	(49)%
Adj. EBITDA	\$m	21.2	37.5	(43)%	74.4	95.2	(22)%
Finance Expense, net	\$m	2.9	3.7	(22)%	7.6	10.6	(28)%
Tax expense	\$m	7.4	13.8	(46)%	27.1	36.0	(25)%
Net (loss)/income from continuing operations	\$m	(11.0)	8.0	(238)%	(10.6)	27.4	(139)%
Net (loss)/income per share attributable to shareholders	\$/share	(0.11)	0.13	(185)%	(0.14)	0.28	(150)%
Adj. income per share attributable to shareholders - basic¹	\$/share	-	0.17	(100)%	0.09	0.29	(69)%
Cash provided by operations before working capital	\$m	18.1	30.5	(41)%	64.6	82.6	(22)%
Changes in working capital and taxes paid	\$m	(0.9)	(4.4)	80%	(24.2)	(18.0)	(34)%
Net cash used in investing activities	\$m	(16.3)	(11.7)	(39)%	(39.5)	(33.7)	(17)%
Net cash provided by financing activities	\$m	(23.2)	(1.0)	(2220)%	(11.3)	(6.5)	(74)%
Free cash flow	\$m	1.0	14.4	(93)%	1.0	30.9	(97)%

Notes:

1. See "Non-GAAP Financial Measures" 2. Includes cash proceeds and deferred revenue

Discussion on Q2 2021 Financials

- **Realized gold price** - Including the unwinding of the deferred revenue from the streaming agreement with RGLD Gold AG (the "RGLD Streaming Agreement"), the realized gold price averaged \$1,676/oz. The realized gold price for spot sales of \$1,753/oz in Q3 2021 was 11% below the record quarterly gold price of \$1,961/oz in Q3 2020.
- **Revenue** totaled \$64.3m in Q3 2021, 13% lower than \$74.2m in Q3 2020 due to a 6% decrease in gold sales and an 8% decrease in the average realized gold price, including the impact of the RGLD Streaming Agreement.
- Depreciation increased to \$8.1m for Q3 2021 compared to \$5.7m for Q3 2020 mainly due to the higher capital cost base following the completion of the infrastructure projects at the end of FY 2020. Depreciation is expected to continue at this elevated level and increase in line with the production rate.
- **Corporate general and administrative expense** amounted to \$4.3m in Q3 2021 compared to \$4.7m in the same period in 2020. A reduction in staff costs and travel costs in 2021 is partly offset by higher insurance costs.

- **Other expenses** amounted to \$14.4m for Q3 2021, \$11.8m higher than the other expense of \$2.6m incurred in the same period in 2020. The increase was predominantly driven by a non-cash derecognition loss and expected credit loss allowance of \$13.3m in Q3 2021 as a result of the restructuring of the Deferred Consideration receivable from FGR in respect of the sale of Prestea. Other items totaling \$1.1m include non-recurring insurance, corporate development and restructuring costs during Q3 2021.
- **Gain on fair value of derivative financial liabilities** totaled \$0.7m during Q3 2021 as a result of the hedge contracts. During Q3 2021 a number of the original hedge contracts matured with no realized gains or losses associated with the contracts, however, the Company recognized an unrealized gain of \$0.7m during the quarter. At the end of Q3 2021, these zero cost collars consist of puts and calls on 137,500 ounces maturing at a quarterly rate of 12,500 ounces. All hedges have a floor of \$1,600/oz and an average ceiling of \$2,171/oz in 2021 and \$2,179/oz in 2022 and a flat ceiling of \$2,115/oz in 2023 and 2024.
- **EBITDA** (see “Non-GAAP Financial Measures”) from continuing operations amounted to \$7.4m for Q3 2021 (Q3 2020 \$31.2m).
- **Adjusted EBITDA** totaled \$21.2m, representing a decrease of 44% compared to Q3 2020. The decrease in Adjusted EBITDA was primarily due to (i) lower revenues which arose from lower gold production and the decrease in average realized price, (ii) increased mine operating costs, (iii) increased inventory charge mainly from the drawdown of low-grade stockpile and in process ore inventory, (iv) increased exploration expenses, (v) increased share-based compensation, and (vi) partly offset by lower corporate general and administrative expenses and royalties. The adjustments applied include:
 - The gain on fair value of financial instruments of \$0.7m
 - Other expenses of \$14.4m. This is mainly comprised of a \$13.3m non-cash loss allowance recognized on the Deferred Consideration
- **Adjusted net income attributable to Golden Star shareholders** (see “Non-GAAP Financial Measures” section) was \$0.2m or \$0.00 basic income per share in Q3 2021 compared to \$18.6m or \$0.17 basic income per share for Q3 2020. The decrease in adjusted net income was due to the lower mine operating profit as a result of lower average realized price and production volumes, higher mine operating costs and increased inventory charge, increased exploration costs and increased share-based compensation. This was in part offset by lower income tax expense as a consequence of lower mine operating profit and lower corporate general and administrative expenses. Adjusted net income attributable to Golden Star shareholders reflects adjustments for non-recurring and abnormal items which are mostly non-cash in nature, including:
 - The gain on fair value of financial instruments of \$0.7m
 - Derecognition loss on deferred consideration on the sale of Prestea \$13.3m
- **Working capital and taxes paid** - The working capital balance decreased during Q3 2021 resulting in a cash inflow of \$4.2m. In addition \$5.0m of income tax liabilities, relating to Q2 2021, were paid during Q3 2021. For a net inflow for working capital and taxes paid of \$0.9m.
- **Investing activities** - Net cash used in investing activities totaled \$16.3m, which includes the following cash flows:
 - Capital expenditures of \$13.3m
 - Change in accounts payable and deposits on mine equipment and material \$3.0m, which relates to a reduction in accruals for capital investments during the quarter
- **Net cash outflow from financing activities** totaled \$23.2m, primarily as a result of the \$51.5m repayment of the convertible debentures and the \$29.2m draw down of the Macquarie RCF.
- **Free cash flow** - During Q3 2021, continuing operations generated \$1.0m of free cash flow, despite the significant capital investment of \$13.3m.

Financial position

The Company held \$50.5m of cash and cash equivalents and debt of \$90m drawn on the Macquarie RCF for an accounting value of \$82.4m, for net debt of \$31.9m as at September 30, 2021. The net debt position increased by \$1m during Q3 2021 as a result of the \$22.2m reduction in the cash position and \$21.3m reduction in the gross debt, following the repayment of the 7% Convertible Debentures in August and the \$29.2m draw down of the Macquarie RCF to take the total drawn amount on the RCF to \$90m. The table below summarizes the financial position of the Company:

Table 5 – Financial Position - Three months ended September 30, 2021

		Q3 2021	Q3 2020	% change
Summary of debt facilities				
Macquarie Credit Facility	\$m	82.4	48.0	72%
7% Convertible Debentures	\$m	-	49.0	(100)%
Gross Debt Position	\$m	82.4	97.0	(15)
Cash Position	\$m	50.5	48.3	5%
Net Debt	\$m	31.9	48.7	(34)%

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 underground mine 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 the Wassa mine. As the winner of the Prospectors & Developers Association of Canada 2018 Environmental and Social Responsibility Award, Golden Star remains 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 related to the Transaction, including statements with respect to the anticipated Golden Star Shareholder meeting date, the timing for and receipt of all required regulatory, court, stock exchange and shareholder approvals and approvals to complete the Transaction, the anticipated timing for completion of the Transaction, the closing of the Transaction, statements and information regarding: present and future business strategies and the environment in which Golden Star will operate in the future, including the price of gold, anticipated costs and ability to achieve goals; gold production, cash operating costs, production and cost guidance; capital and exploration expenditure guidance; the ability to expand the Company and its production profile through the exploration and development of its existing mine; expected grade and mining rates for 2021; the sources of gold production at Wassa Underground for the remainder of 2021; estimated costs and timing of the development of new mineral deposits and sources of funding for such development; the use of proceeds from the Sales Agreement; receipt of payment and timing of the Contingent Consideration, the Deferred Consideration and NSR royalty payments under the NSR agreement in respect of Bogoso; the processing of low grade stockpiles at Wassa; Wassa production contribution from stockpiles and the processing grade thereof for the remainder of 2021; expectations regarding the sustainability of current gold prices; implementation of exploration programs at Wassa and the timing thereof; the acceleration of the growth and development of the resource base at Wassa; the investment in drilling and development in 2021 resulting in increased mining rates; Wassa down-dip intersections being drilled to a resolution sufficient to be included in the 2021 mineral resource update; the nature, scope and timing of in-mine exploration activities at Wassa; the timing for the evaluation of the first phase drilling results at Wassa near mine; the follow up drilling in and around

HBB and the completion of related geophysics surveys; the ability to identify opportunities to further expand Golden Star's business; the ability to materially increase production at Wassa through development capital investments; the use of the non-hedge gold collar contracts; 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 potential delays in the supply chain; the Company having sufficient cash available to support its operations and mandatory expenditures for the next 12 months; the continued commissioning process for the new paste plant; the introduction of second stopes planned for mining; the Company increasing exploration activities; planned exploration at Wassa and the timing and budget thereof; the ability to continue as a going concern; the effectiveness of internal controls; the potential impact of a disruption in Wassa's operations; the ability to generate strong margins and sufficient free cash flow, raise additional financing or establish refinancing options for the Company's current debt;; the timing, duration and overall impact of the COVID-19 pandemic on the Company's operations and the ability to mitigate such impact; the availability of mineral reserves based on the accuracy of the Company's updated mineral reserve and resource models; planned drilling activities; the ability to convert mineral resources to mineral reserves through the planned infill drilling program; the potential to increase the Company's mineral resources outside of its existing mineral resources footprint; the anticipated impact of increased exploration on current mineral resources and mineral reserves; identification of acquisition and growth opportunities; relationships with local stakeholder communities; and the potential incurrence of further debt in the future. 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.

In respect of the forward-looking statements and information concerning the anticipated completion of the proposed Transaction and the anticipated timing for completion of the proposed Transaction, Golden Star has provided them in reliance on certain assumptions and believes that they are reasonable at this time, including the assumptions as to the time required to prepare and mail shareholder meeting materials, including the required management information circular; the ability of the parties to receive, in a timely manner, the necessary regulatory, shareholder, court, stock exchange and relevant authority approvals; and the ability of the parties to satisfy, in a timely manner, the other conditions to the closing of the Transaction. These dates may change for a number of reasons, including unforeseen delays in preparing meeting materials, inability to secure necessary approvals in the time assumed or the need for additional time to satisfy the other conditions to the completion of the Transaction. Accordingly, you should not place undue reliance on the forward-looking statements and information contained in this news release concerning these times.

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. . Such risks, uncertainties and factors include, without limitation: risks associated with the Transaction and acquisitions generally; the definitive agreement in connection with the Transaction may be terminated in certain circumstances; there can be no certainty that all conditions precedent to the Transaction will be satisfied; Golden Star will incur costs even if the Transaction is not completed and may have to pay a termination fee or expense reimbursement if the Arrangement Agreement is terminated in certain circumstances; all necessary approvals may not be obtained; and uncertainty regarding the ability of the parties to complete and mail the management information circular to be prepared in connection with the Golden Star shareholder meeting and the ability to hold the Golden Star shareholder meeting within the time frame indicated. Additional risks, uncertainties and factors include, without limitation 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 three months ended September 30, 2021, and in our annual information form for the year ended December 31, 2020 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.

Technical Information

The technical contents of this press release have been reviewed and approved by S. Mitchel Wasel, BSc Geology, a Qualified Person pursuant to National Instrument 43-101. Mr. Wasel is Vice President of Exploration for Golden Star and an active member and Registered Chartered Professional of the Australasian Institute of Mining and Metallurgy.

The results for Wassa drilling 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 metre 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.

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 nine months ended September 30, 2020, which are available at www.sedar.com.