

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 6-K

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

For the month of May 2020

Commission File Number 001-12284

GOLDEN STAR RESOURCES LTD.

(Translation of registrant's name into English)

**333 Bay Street
Suite 2400
Toronto, Ontario
M5H 2T6
Canada**

(Address of principal executive office)

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

Form 20-F Form 40-F

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

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

INCORPORATION BY REFERENCE

Exhibits 99.1 and 99.2 included in this report on Form 6-K are each hereby incorporated by reference in the Registration Statements on Form S-8 of the Registrant, as each may be amended from time to time (File Nos. 333-105820, 333-105821, 333-118958, 333-169047, 333-175542, 333-211926 and 333-218064), and Form F-10 of the Registrant, as may be amended from time to time (File No. 333-234005), to the extent not superseded by documents or reports subsequently filed by us under the Securities Act of 1933 or the Securities Exchange Act of 1934, in each case as amended.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

GOLDEN STAR RESOURCES LTD.

Date: May 6, 2020

(signed) Paul Thomson

Paul Thomson
Executive Vice President and Chief Financial Officer

EXHIBIT INDEX

Exhibit	Description of Furnished Exhibit
99.1	<u>Management's Discussion and Analysis for the three months ended March 31, 2020</u>
99.2	<u>Condensed Interim Consolidated Financial Statements for the three months ended March 31, 2020</u>
99.3	<u>Form 52-109F2 - Certification of Interim Filing - CEO</u>
99.4	<u>Form 52-109F2 - Certification of Interim Filing - CFO</u>

GOLDEN STAR

The logo for Golden Star, featuring a stylized eight-pointed star with a white center and gold points, positioned between the letters 'S' and 'T' of the word 'STAR'.

Management's Discussion and Analysis
For the Three Months Ended March 31, 2020

TABLE OF CONTENTS

OVERVIEW OF GOLDEN STAR	6
SUMMARY OF OPERATING AND FINANCIAL RESULTS	6
OUTLOOK FOR 2020	9
CORPORATE DEVELOPMENTS	10
WASSA OPERATIONS	14
PRESTEA OPERATIONS	16
SUMMARIZED QUARTERLY FINANCIAL RESULTS	18
LIQUIDITY AND FINANCIAL CONDITION	18
GOING CONCERN AND LIQUIDITY OUTLOOK	19
TABLE OF CONTRACTUAL OBLIGATIONS	20
RELATED PARTY TRANSACTIONS	20
OFF-BALANCE SHEET ARRANGEMENTS	20
NON-GAAP FINANCIAL MEASURES	20
OUTSTANDING SHARE DATA	25
CRITICAL ACCOUNTING JUDGEMENTS, ESTIMATES AND ASSUMPTIONS	25
CHANGES IN ACCOUNTING POLICIES	25
FINANCIAL INSTRUMENTS	26
DISCLOSURES ABOUT RISKS	27
CONTROLS AND PROCEDURES	27
RISK FACTORS AND ADDITIONAL INFORMATION	28

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") provides information that management believes is relevant to an assessment and understanding of the consolidated financial condition and results of operations of Golden Star Resources Ltd. and its subsidiaries ("Golden Star" or the "Company" or "we" or "our"). This MD&A should be read in conjunction with the Company's condensed interim consolidated financial statements and related notes for the three months ended March 31, 2020 (the "Financial Statements"), which are prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board ("IFRS"). This MD&A includes information available to, and is dated, May 6, 2020. Unless noted otherwise, all currency amounts are stated in U.S. dollars and all financial information presented in this MD&A is prepared in accordance with IFRS.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING INFORMATION

This MD&A contains "forward-looking information" within the meaning of applicable Canadian securities laws and "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995 concerning the business, operations and financial performance and condition of Golden Star. 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 or grammatical variation thereof. Forward-looking information and statements in this MD&A include, but are not limited to, information or statements with respect to: gold production, cash operating costs, and all-in sustaining costs estimates and guidance for 2020 on a consolidated and per mine basis; the expected allocation of the Company's sources of production; sustaining and development capital expenditure estimates and guidance for 2020 on a consolidated and per mine basis; the Company's achievement of 2020 consolidated guidance; the ability to expand the Company and its production profile through the exploration and development of its existing mines, and through strategic value accretive acquisitions; the expected range of consolidated gold production for 2020; expected grade and mining rates for 2020; the intended expansion of production and reduction of costs; estimated costs and timing of the development of new mineral deposits and sources of funding for such development; the sources of gold production at Wassa Underground and Prestea Underground during 2020; the timing for completion of mining from the Prestea Open Pits during 2020 and the conversion of Prestea to underground-only mining operations; the anticipated delivery of ore pursuant to delivery obligations under the Stream Agreement; the ability to continue to refine doré at the South African refinery and ship gold across borders; the mining rate and grade from Wassa Underground; the processing of low grade stockpiles at Wassa for the remainder of the year; implementation of the brownfield and greenfield exploration programs at Wassa and Prestea and the timing thereof; 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 timing for rehabilitation work and the expected discounted rehabilitation costs; the ability of the Company to repay the 7% Convertible Debentures when due or to restructure them or make alternate arrangements; the securing of adequate supply chains for key consumables and medical supplies; the scheduling of drilling and mining equipment at Prestea and the resulting delay on Level 17 stoping activities; 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 ability of the Company to obtain waivers of credit facility covenants if needed; 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 ("COVID-19") on the Company's operations and the ability to mitigate such impact; 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 expand the mineral reserves of the Company through further drilling; 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; the outcome of the Complaint and related litigation; identification of acquisition and growth opportunities; relationships with local stakeholder communities; and the potential incurrence of further debt in the future.

Forward-looking information and statements are made based upon certain assumptions and other important factors that, if untrue, could cause the actual results, performance or achievements of Golden Star to be materially different from future results, performance or achievements expressed or implied by such statements. 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, including the price of gold, anticipated costs and ability to achieve goals. Certain important factors that could cause actual results, performances or achievements to differ materially from those set forth in the forward-looking information and statements include, among others, gold price volatility, discrepancies between actual and estimated production, mineral reserves and resources and metallurgical recoveries, mining operational and development risks, litigation risks, liquidity risks, suppliers suspending or denying delivery of products or services, regulatory restrictions (including environmental regulatory restrictions and liability), actions by

governmental authorities (including changes in taxation), currency fluctuations, the speculative nature of gold exploration, ore type, the global economic climate, dilution, share price volatility, the availability of capital on reasonable terms or at all, local and community impacts and issues, results of pending or future feasibility studies, competition, loss of key employees, additional funding requirements and defective title to mineral claims or property. Although Golden Star has attempted to identify important factors that could cause actual results, performance or achievements to differ materially from those described in forward-looking information and statements, there may be other factors that cause actual results, performance or achievements not to be as anticipated, estimated or intended.

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: 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; risks related to indebtedness and the service of such indebtedness, as well as those factors discussed in the section entitled "Risk Factors" in Golden Star's Annual Information Form for the year ended December 31, 2019 (filed on March 27, 2020). Although Golden Star has attempted to identify important factors that could cause actual results, performances and achievements to differ materially from those contained in forward-looking information and statements, there may be other factors that cause results, performance and achievements not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate, as actual results, performance, and achievements and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking information and statements. Forward-looking information and statements are made as of the date hereof and accordingly are subject to change after such date. Except as otherwise indicated by Golden Star, these statements do not reflect the potential impact of any non-recurring or other special items or of any dispositions, monetizations, mergers, acquisitions, other business combinations or other transactions that may be announced or that may occur after the date hereof. Forward-looking information and statements are provided for the purpose of providing information about management's current expectations and plans and allowing investors and others to get a better understanding of the Company's operating environment. Golden Star does not undertake to update any forward-looking information and statements that are included in this MD&A, except as required by applicable securities laws.

CAUTIONARY NOTE REGARDING RESERVES AND RESOURCES

Scientific and technical information contained in this MD&A was reviewed and approved by S. Mitchel Wasel, BSc Geology, and Matt Varvari who are Qualified Persons pursuant to National Instrument 43-101 ("NI 43-101"). Mr. Wasel is Vice President Exploration for Golden Star and an active member of the Australasian Institute of Mining and Metallurgy. Mr. Varvari is Vice President, Technical Services for Golden Star. All mineral reserves and mineral resources have been calculated in accordance with the standards of the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") and in accordance with the requirements of 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. Information on data verification performed on, and other scientific and technical information relating to, the mineral properties mentioned in this MD&A that are considered to be material mineral properties of the Company are contained in Golden Star's Annual Information Form for the year ended December 31, 2019 and 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 date December 31, 2018; and (ii) Prestea Underground - "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 U.S. Investors

This MD&A has been prepared in accordance with the requirements of the securities laws in effect in Canada, which differ materially from the requirements of United States securities laws applicable to U.S. companies. Information concerning our mineral properties has been prepared in accordance with the requirements of Canadian securities laws, which differ in material respects from the requirements of the United States Securities and Exchange Commission (the "SEC") set forth in Industry Guide 7. Under the SEC's Industry Guide 7, mineralization may not be classified as a "reserve" unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time of the reserve determination, and the SEC does not recognize the reporting of mineral deposits which do not meet the SEC Industry Guide 7 definition of "Reserve". In accordance with NI 43-101, the terms "mineral reserve", "proven mineral reserve", "probable mineral reserve", "mineral resource", "measured mineral resource", "indicated mineral resource" and "inferred mineral resource" are defined in accordance with CIM standards. While the terms "mineral resource", "measured mineral resource", "indicated mineral resource" and "inferred mineral resource" are recognized and required by NI 43-101, the SEC does not recognize them. You are cautioned that, except for that portion of mineral resources classified as mineral reserves, mineral resources do not have demonstrated economic viability. Inferred mineral resources have a high degree of uncertainty as to their existence and as to whether they can be economically or legally mined. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. Therefore, you are cautioned not to assume that all or any part of an inferred mineral resource exists, that it can be economically or legally mined, or that it will ever be upgraded to a higher category. Likewise, you are cautioned not to assume that all or any part of measured mineral resources or indicated mineral resources will ever be upgraded into mineral reserves.

OVERVIEW OF GOLDEN STAR

Golden Star is an established, African-focused gold producer that holds a 90% interest in two producing gold mines in Ghana.

The Wassa Complex ("Wassa") became an underground-only operation in January 2017. The Prestea Complex ("Prestea") comprises the Prestea Open Pits and the Prestea Underground Mine ("Prestea Underground") and is planned to become an underground-only operation. The Wassa Underground Mine ("Wassa Underground") achieved commercial production on January 1, 2017, and Prestea Underground achieved commercial production on February 1, 2018.

Golden Star's objective is to grow into a best-in-class, mid-tier gold producer. We aim to expand the Company and its production profile through the exploration and development of our existing mines, particularly Wassa, and through strategic value accretive acquisitions.

Since winning the Prospectors & Developers Association of Canada's 2018 Environmental and Social Responsibility Award, Golden Star has remained committed to leaving a positive and sustainable legacy in its areas of operation

The Company is a reporting issuer or the equivalent in all provinces of Canada, in Ghana and in the United States, and files disclosure documents with securities regulatory authorities in Canada and Ghana, and with the SEC in the United States.

SUMMARY OF OPERATING AND FINANCIAL RESULTS

CONSOLIDATED OPERATING SUMMARY		Three Months Ended March 31,	
		2020	2019
Total open pit tonnes mined	t	289,583	78,944
Total underground tonnes mined	t	608,072	422,862
Total tonnes mined	t	897,655	501,806
Total ore tonnes mined	t	529,928	410,132
Total tonnes processed	t	571,026	501,122
Grade processed	g/t	2.72	3.31
Recovery	%	92.8	93.4
Total gold produced	oz	49,966	53,284
Total gold sold	oz	45,601	53,496
Average realized gold price	\$/oz	1,477	1,257
Cost of sales per ounce - Consolidated ¹	\$/oz	1,091	947
Cash operating cost per ounce - Consolidated ¹	\$/oz	860	731
All-in sustaining cost per ounce - Consolidated ¹	\$/oz	1,201	976

¹ See "Non-GAAP Financial Measures" section for a reconciliation of cost of sales per ounce, cash operating cost per ounce and all-in sustaining cost per ounce to cost of sales excluding depreciation and amortization.

- **Total gold produced totaled 49,966 ounces in the first quarter of 2020, 3,318 ounces (6%) lower than the 53,284 ounces in Q1 2019.** Wassa produced 40,331 ounces which was 6% lower than the corresponding period in 2019 as underground mining activities were marked by the mining of lower grade areas. Lower grade material from underground mining was in part offset by higher ore tonnes mined and the processing of lower grade stockpile material. Prestea produced 9,635 ounces which was 7% lower than the first quarter of 2019 ("Q1 2019"). During the quarter, ore tonnes and grade were negatively impacted by short term constraints and dilution. The grade of material processed from Prestea was adversely impacted by lower grade open pit tonnes mined during the first quarter of 2020 ("Q1 2020"). On a consolidated basis, the ore grade processed was 18% lower than the corresponding period in 2019 which was in part offset by increased tonnes processed which was 14% higher.
- **Total gold sold amounted to 45,601 ounces for the first quarter of 2020 and was 7,895 ounces (15%) lower than in Q1 2019.** Apart from the lower production base, the last shipment related to gold production in Q1 2020 of 4,319 ounces was adversely affected by a change in the shipment schedule following logistical challenges related to COVID-19, which required the shipment to be transported by way of a shared private charter. The impact only resulted in a timing delay and the shipment was sold in the first week of April 2020. Apart from this sole scheduling change, none of the shipments post Q1 2020 have been affected by COVID-19 related challenges and management continue to monitor the situation carefully.

- **All-in sustaining cost per ounce (“AISC”) of \$1,201 per ounce reflects an increase of 23% compared to the Q1 2019 reported AISC of \$976 per ounce and 4% increase on the full year reported AISC of \$1,159 for the full year period 2019.** Cash operating costs per ounce of \$860 reflect an 18% increase over Q1 2019 of \$731 per ounce which was due to (i) the lower production base, (ii) the increased mine operating cost base as a result of higher mining and processing volumes, and (iii) inflationary pressure that adversely impacted labor and overhead cost. Furthermore, non-recurring corporate general and administrative expenses incurred as part of the relocation of the corporate office team from Toronto to London, United Kingdom and the impact of the deferred shipment at the end of Q1 2020 as reflected in the lower sales base had a further adverse impact on AISC. AISC calculated on the basis of gold ounces produced amounted to \$1,165 per ounce for Q1 2020 compared to \$975 per ounce in Q1 2019 and \$1,163 per ounce for the full year period of 2019, respectively.

CONSOLIDATED FINANCIAL SUMMARY		Three Months Ended March 31,	
		2020	2019
Gold revenues	\$'000	67,371	67,257
Cost of sales excluding depreciation and amortization	\$'000	42,896	43,804
Depreciation and amortization	\$'000	6,869	6,862
Mine operating margin	\$'000	17,606	16,591
Corporate general and administrative expense, excluding share-based compensation ¹	\$'000	5,675	3,159
(Gain)/loss on fair value of financial instruments, net	\$'000	(4,062)	3,873
Finance expense, net	\$'000	3,363	3,547
Income tax expense	\$'000	8,235	7,202
Net income/(loss) attributable to Golden Star shareholders	\$'000	829	(1,924)
Adjusted net income/(loss) attributable to Golden Star shareholders ²	\$'000	(1,221)	2,022
Net income/(loss) per share attributable to Golden Star shareholders - basic	\$/share	0.01	(0.02)
Net income/(loss) per share attributable to Golden Star shareholders - diluted	\$/share	(0.01)	(0.02)
Adjusted (loss)/income per share attributable to Golden Star shareholders - basic ²	\$/share	(0.01)	0.02
Cash provided by/(used in) operations	\$'000	3,549	(590)
Cash provided by operations before working capital changes ³	\$'000	13,352	14,908
Cash provided by/(used in) operations per share - basic	\$/share	0.03	(0.01)
Cash provided by operations before working capital changes per share - basic ³	\$/share	0.12	0.14
Sustaining capital	\$'000	6,129	5,368
Development capital	\$'000	6,347	7,774
Total capital expenditures	\$'000	12,476	13,142

¹ The prior year number has been restated to exclude share-based compensation within corporate general and administrative expenses.

² See “Non-GAAP Financial Measures” section for a reconciliation of adjusted net income/(loss) attributable to Golden Star shareholders and adjusted income/(loss) per share attributable to Golden Star shareholders-basic to net income/(loss) attributable to Golden Star shareholders.

³ See “Non-GAAP Financial Measures” section for an explanation of the calculation of cash provided by operations before working capital changes and cash provided by/(used in) operations before working capital changes per share - basic.

- **Gold revenue totaled \$67.4 million in the first quarter of 2020, \$0.1 million higher than \$67.3 million in the same period in 2019.** The \$0.1 million increase comprises an 18% increase in the average realized gold price to \$1,477 per ounce offset by a 15% decrease in gold sold to 45,601 ounces. Average realized gold price per ounce for spot sales was \$1,555 (Q1 2019 - \$1,304) whereas average realized gold price per ounce pursuant to the Company’s stream arrangement with RGLD Gold AG, a wholly-owned subsidiary of Royal Gold Inc., on Wassa and Prestea (the “Stream Agreement”), was \$806 (Q1 2019 - \$874). The gold sold was impacted by the lower production base and the impact of the deferred shipment following the change in the shipment scheduling as a result of COVID-19.

	Three Months Ended March 31, 2020			Three Months Ended March 31, 2019		
	\$'000	Ounces	Realized price per ounce	\$'000	Ounces	Realized price per ounce
Revenue - Spot sales	63,564	40,877	1,555	62,204	47,717	1,304
Cash proceeds	1,470			1,506		
Deferred revenue recognized	2,337			3,547		
Revenue - Stream arrangement	3,807	4,724	806	5,053	5,779	874
Total	67,371	45,601	1,477	67,257	53,496	1,257

- **Cost of sales excluding depreciation and amortization in the first quarter of 2020 totaled \$42.9 million compared to \$43.8 million in the same period in Q1 2019.** Mine operating expenses of \$42.5 million were \$2.5 million higher compared to Q1 2019 primarily due to (i) increased mining and processing volumes which translated into higher variable costs incurred and (ii) inflationary pressures that impacted adversely on labour costs and overhead cost. This was offset by the increase in inventory of \$3.3 million (Q1 2019 - increase of \$0.8 million) primarily due to the unsold gold on hand at the end of Q1 2020.
- **Depreciation and amortization expense totaled \$6.9 million in the first quarter of 2020 compared to \$6.9 million in Q1 2019.** The depreciation and amortization expense is in line with Q1 2019 as capital additions in 2019 offset the impairment charge on Prestea in 2019 combined with the higher reserve base from the recently updated mineral reserves and resources estimates.
- **Corporate general and administrative expense totaled \$5.7 million in the first quarter of 2020, compared to \$3.2 million in the same period in 2019.** The increase in corporate general and administrative expense for the first quarter of 2020 reflects non-recurring costs incurred as part of the relocation of the corporate office from Toronto to London, United Kingdom. Non-recurring costs amounting to \$0.9 million included (i) duplicated staff costs and office-related expenditure, (ii) consulting fees specific to the transition and specific relocation, and (iii) recruitment expenses incurred associated with new London-based employees. Severance costs, totaling \$0.4 million related to the finalization of the Toronto restructuring and has been classified as part of Other expenses. The relocation of the corporate office from Toronto to London was completed in April 2020.
- **Finance expense totaled \$3.4 million in the first quarter of 2020, compared to \$3.5 million in the same period in 2019.** The interest expense on the Company's principal borrowings reduced by \$0.6 million to \$1.9 million in the first quarter of 2020 following the debt restructuring in Q4 2019. The senior secured credit facility with Macquarie (the "Macquarie Credit Facility") amounted to \$60 million of proceeds to the Company, which were used to repay loans with Ecobank and the vendor financing agreements with the Volta River Authority. The Macquarie Credit Facility has a lower interest rate in comparison to the financing facilities that were repaid. Fees associated with the Macquarie Credit Facility of \$0.2 million were amortized during the first quarter of 2020. Interest on the financing component of deferred revenue reduced by \$0.4 million to \$0.8 million following the increase in the Company's resource and reserve estimates during 2019, which primarily related to Wassa. These were partly offset by a reduction in interest income by \$0.4 million due to the reduced cash holdings and the decrease in foreign exchange gain of \$0.2 million.
- **The Company recorded a gain of \$4.1 million on the fair value of financial instruments in the first quarter of 2020 compared to a \$3.9 million loss in the same period in 2019.** The (gain)/loss on fair value of financial instruments charge includes a \$3.7 million non-cash revaluation gain (Q1 2019 - \$3.9 million loss) on the embedded derivative liability of the 7% convertible debentures maturing on August 15, 2021 (the "7% Convertible Debentures") due to the reduction in the fair value of its conversion feature following a fall in the Company's share price. It also includes a \$0.4 million non-cash revaluation gain (Q1 2019 - \$nil) on the non-hedge gold collar contracts which were entered into during Q3 2019 and added to during Q1 2020.
- **Income tax expense was \$8.2 million in the first quarter of 2020 compared to \$7.2 million for the same period in 2019.** The income tax expense of \$8.2 million in the first quarter of 2020 has been accrued based on the estimated taxable income of Wassa and the increase has been driven by the increase in taxable profits. The income tax expense comprises current taxes amounting to \$5.8 million (Q1 2019 - \$0.9 million) and deferred taxes of \$2.4 million (Q1 2019 - \$6.3 million) and the increase in current taxes reflects the utilization of tax losses in Q1 2019 as Wassa became taxable during the course of 2019.
- **Net income attributable to Golden Star shareholders for the first quarter of 2020 totaled \$0.8 million or \$0.01 income per share (basic), compared to a net loss of \$1.9 million or \$0.02 loss per share (basic) in the same period in 2019.** The impact of the higher gold price environment during Q1 2020 was offset by (i) lower ounces sold due to the combination

of the lower production base, (ii) the deferral of the last shipment of Q1 2020, and (iii) the increased operating costs base. This offset reflects in the \$1.0 million higher mine operating margin. The resulting difference is primarily due to the non-cash gain on the fair value of financial instruments of \$4.1 million for the first quarter of 2020 compared to a non-cash loss of \$3.9 million - this was in part offset by higher corporate general and administrative expenses of \$2.5 million and other expenses of \$3.0 million driven by a non-cash change in rehabilitation estimates of the previous refractory operations of Prestea.

- **Adjusted net loss attributable to Golden Star shareholders (see “Non-GAAP Financial Measures” section) was \$1.2 million in the first quarter of 2020, compared to the adjusted net income attributable to Golden Star shareholders of \$2.0 million for the same period in 2019.** Adjusted net loss attributable to Golden Star shareholders reflects adjustments for non-recurring and abnormal items which are mostly non-cash in nature. The decrease during the first quarter of 2020 compared to the same period in 2019 was primarily due to higher corporate administrative expenses.
- **Cash provided by operations before working capital changes (see “Non-GAAP Financial Measures” section) was \$13.4 million for the first quarter of 2020, compared to \$14.9 million used in the same period in 2019.** The decrease in cash provided by operations before working capital changes was primarily due to the lower production volume combined with the deferral of the last shipment of Q1 2020 which was in part offset by the higher obtained realized gold price. Furthermore, increased mine operating costs and corporate general and administrative expenditure adversely impacted on operating cash flows. Cash from operating activities reflect the impact of working capital movements and Q1 2020 had an inflow of \$3.3 million in comparison to the outflow in Q1 2019 of \$0.6 million despite the impact of unsold finished gold ounces on hand.
- **Capital expenditures for the first quarter of 2020 totaled \$12.5 million compared to \$13.1 million in the same period in 2019.** Capital expenditures at Wassa during the first quarter of 2020 comprised 77% of total capital expenditures and totaled \$9.6 million in relation to critical development projects which support the long-term development of the operation. Capital expenditure included \$4.6 million on the paste-fill plant, \$4.0 million on Wassa Underground capitalized development and \$0.4 million on mobile equipment. Capital expenditures at Prestea during the first quarter of 2020 comprised 21% of total capital expenditures and totaled \$2.6 million in relation to critical capital spent in respect of the long hole conversion. Capital expenditure included \$2.2 million of sustaining capital related to Prestea Underground, and \$0.3 million on other equipment and capital expenditure. \$0.3 million was incurred in relation to the new London corporate office.

OUTLOOK FOR 2020

The full year 2020 production guidance provided for in our Management's Discussion and Analysis for the year ended December 31, 2019 of 195,000 to 210,000 ounces and AISC guidance of \$1,080 to \$1,180 per ounce remains unchanged. Management's priority remains the delivery of a range of operational initiatives aimed at improving the consistency of the operations and visibility of the longer-term potential of the operations. The Company continues to monitor the implications of COVID-19 on its operations and the industry in which it operates. The manner and extent that the pandemic, and measures taken as a result of the pandemic, will affect the Company and its operations cannot be predicted with certainty.

	Gold production	Cash operating costs ¹	All-in sustaining costs ¹
	'000	\$ per ounce	\$ per ounce
Wassa	155 - 165	620 - 660	930 - 990
Prestea	40 - 45	1,400 - 1,550	1,650 - 1,850
Consolidated	195 - 210	790 - 850	1,080 - 1,180

Capital expenditure guidance

	Sustaining	Development ²	Total
	\$ millions	\$ millions	\$ millions
Wassa	23.0 - 25.0	19.0 - 21.0	42.0 - 46.0
Prestea	6.5 - 7.5	2.5 - 3.0	9.0 - 10.5
Exploration	—	3.5	3.5
Consolidated	29.5 - 32.5	25.0 - 27.5	54.5 - 60.0

¹ See "Non-GAAP Financial Measures" section below for the definition of all-in sustaining costs, or AISC.

² Development 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.

CORPORATE DEVELOPMENTS

COVID-19 pandemic

General

In December 2019, a novel strain of coronavirus known as COVID-19 surfaced in China and has since spread around the world with resulting economic, business and social disruption. COVID-19 was declared a worldwide pandemic by the World Health Organization ("WHO") on March 11, 2020. The speed and extent of the spread of COVID-19, and the duration and intensity of resulting economic, business and social disruption and related financial impact, are uncertain. Further, the extent and manner to which COVID-19, and measures taken by governments, the Company or others to attempt to reduce the spread of COVID-19, may affect the Company and its operations cannot be predicted at this time.

Gold as an asset class has proven resilient (albeit with price volatility) primarily due to its safe-haven characteristics. The price of gold ranged from \$1,472 to \$1,682 per ounce during the first quarter of 2020. Subsequent to Q1 2020, the price of gold has further increased to near historical highs ranging between \$1,577 and \$1,742 per ounce.

In respect of the Company's operations, Golden Star has been proactive in its response to the potential threats posed by COVID-19 and has implemented a range of policies, procedures and practices to protect the health and well-being of its employees and host communities whilst continuing to operate in the ordinary course of business.

Update on COVID-19 in Ghana

As at May 4, 2020, the Ghana Health Services had reported 2,719 known cases of COVID-19 in the country, 294 recoveries and 18 deaths. The majority (86%) were identified from the Greater Accra Region. Twenty-one cases had been confirmed positive in the Western Region, the region where Golden Star's mines are located, but no cases had been recorded amongst the Golden Star mine workforce. Ghana reports having the second highest testing rate of all African nations with over 129,000 tests conducted as at May 2, 2020. Testing and contact tracing is strictly controlled by the Government of Ghana and the Ghana Health Service has established rapid response teams in all municipalities and districts. The country has maintained border closures since late March 2020 and undertook a three-week partial lock down of the Greater Metropolises of Accra and Kumasi whilst enhanced testing and contact tracing regimes were implemented.

Gold sales

The Government of Ghana initiated a number of control measures in response to the threat posed by COVID-19, which included imposing border restrictions. This reduced the number of commercial flights permitted to and from Ghana. As a consequence, the Company and its refining counterparty implemented alternative arrangements for the transportation of gold doré from Ghana to the refining facilities in South Africa. The timing of the weekly shipment schedule was amended which resulted in the shipment of the final production pour in the quarter being deferred into the first week of April 2020. The refinery has obtained consent from the Government of South Africa to continue operations during the national three-week shutdown in South Africa, which was subsequently extended. These arrangements are continually under review and alternative options have been assessed should the situation in South Africa change. The Company also temporarily amended its revenue recognition policy following a change in the timing of ownership transfer. Prior to the outbreak of COVID-19, the Company could sell gold doré on the condition that the shipment has left site which, as of March 20, 2020, has been temporarily changed to the shipment being in transit on the final leg of the commercial/charter flight which practically equates to the shipment arriving at the refiner. It is our view that this will not have a material impact on revenue.

Supply chain management

Further to the details on the critical consumable supply chains and constraints with regards to access to specialists and consultants that were reported in the Company's previous press release on March 16, 2020, the Company provides the following update:

- supply chains for the key consumables, including cyanide, lime, grinding media, fuel and lubricants, remain intact;
- alternative suppliers have been identified for essential supply chains that are based in Accra and Kumasi, Ghana; and
- additional medical and pharmaceutical supplies and facilities that are considered as essential have been secured for delivery in the near future.

As COVID-19 evolves, the Company continues to monitor and manage the supply chain risk closely and remains in regular contact with key suppliers and stakeholders. Notwithstanding the different obstacles currently facing the Company's business, to date,

COVID-19 has not spread widely in areas where we have operations and both Wassa and Prestea continue to function with no material impact from COVID-19. Furthermore, detailed business continuity planning has been conducted based on a range of scenarios and potential outcomes which could materialize as the situation evolves. If COVID-19 spreads to the areas in which we operate, it may have a significant adverse impact on our workforce, operations and production levels, and our ability to continue operating in the ordinary course of business at one or both of our mines.

GSR COVID-19 Management controls

Some of the principal proactive measures taken by Golden Star in response to COVID-19 include:

- Management planning and preparedness
 - Epidemic and Pandemic Management Plans were developed and implemented prior to WHO's declaration of a Public Health Emergency of International Concern ("PHEIC")
 - Daily situation is being continually monitored and assessed with the support of International SOS ("ISOS")
- Education and sensitization
 - Widespread education to the Company's workforce and host communities
 - Open communication with Government of Ghana and union leadership
- Access, screening and travel restrictions
 - Site access control and thermal screening protocols have been effective in preventing access to the mine sites by people from known outbreak areas
 - Proactively stopped international travel for employees ahead of travel restrictions imposed by the Government of Ghana
 - Proactively required returning Ghanaian citizens and residents to undertake mandatory self-quarantine prior to this being implemented as a Government initiative
- Hygiene and sanitation
 - Enhanced facilities for hand washing and sanitation that were originally implemented for the 2014 and 2018 Ebola outbreaks have been maintained
 - Compulsory hand sanitizing stations at entry points to the Company offices and sites, on Company buses and clinics
 - Support to the local communities through the provision of water tanks for hand washing
 - Practicing social distancing through the cessation of all non-essential meetings, gatherings and trainings of Company employees and as well as the provision of additional mealtime eating areas and rosters to allow for greater social distancing during meals and breaks
- Medical preparedness
 - Site isolation holding facilities established for management of suspected cases
 - Implementation of guidelines for self-quarantine and isolation

Notwithstanding the proactive measures taken by management, the potential effect of COVID-19 on the Company's liquidity and ability to continue as a going concern is considered in the Going Concern and Liquidity Outlook section on page 19.

Safety

In March 2020, a fatal incident occurred at Prestea when an employee became trapped as a consequence of the derailment of an ore cart. The Company continues to provide support to the family, friends and fellow colleagues of the individual following this incident. Certain corrective actions aimed at preventing similar incidents from occurring in the future have been implemented with the additional oversight of such implementations to be provided by the Inspectorate Division of the Minerals Commission of Ghana.

Diversity and Inclusion

In March 2020 the Company released its Policy on Inclusion and Diversity (the "Policy") to mark International Women's Day and the 25th anniversary of the adoption of the Beijing Declaration and Platform for Action (1995), considered as the most progressive blueprint ever for advancing women's rights. The Policy was developed through engagement with Company employees and the specialist human resources and community affairs teams. The Policy is intended to ensure the Company's work force reflects the diversity of its host communities, including the enhanced engagement of women. The Policy has been ratified by the Company's board of directors (the "Board") and endorsed by management.

Updated Mineral Reserve and Resource Estimates

As announced on March 27, 2020, the Company's measured and indicated mineral resources as of December 31, 2019 increased by 5% to contain 4.5 million ounces ("Moz") of gold and the total inferred mineral resources as of December 31, 2019 increased by 13% to 8.0Moz of gold. This growth is primarily attributed to Wassa Underground which delivered a 0.3Moz increase in the measured and indicated resources to total 2.03Moz and a 1.15Moz increase in the inferred resources which now totals 7.1Moz.

The proven mineral reserves at Wassa increased by 87% to 228,000 ounces due to increased definition and infill drilling, meaning that there are more than 12 months of mineral reserves available in the highest confidence mineral reserve category supporting production in 2020 and 2021.

Class Action Complaint

On April 1, 2020, the Company received notification of a federal securities class action complaint (the "Complaint") that has been filed against it on behalf of persons or entities that purchased or otherwise acquired the Company's common stock on the NYSE American exchange from February 20, 2019 through July 30, 2019 inclusive. Also named as defendants are the Company's Chief Executive Officer and Director Andrew Wray, the Company's former President and Chief Executive Officer Samuel Coetzer, the Company's former President Daniel Owiredu and the Company's former Executive Vice President and Chief Financial Officer André van Niekerk. The Complaint alleges that the defendants violated Section 10(b) of the Securities Exchange Act of 1934 and Rule 10b -5, and Section 20(a) of the Securities Exchange Act of 1934 by making false and misleading statements to artificially inflate the Company's stock price. The Complaint seeks unspecified damages, interest, costs and fees for attorneys and experts.

The Company has retained legal counsel in connection with this Complaint. The Company believes that the allegations made against it and its current and former officers in respect of the Complaint are meritless and will vigorously defend them, although no assurance can be given with respect to the ultimate outcome.

As the Complaint is in early stages, the Company cannot make a reasonable estimate of the financial effect and as such this is a non-adjusting event with no financial impact on the Financial Statements.

Gold Hedging Program

In February 2020, the Company reported that it has extended the discretionary gold price protection program (the "Hedging Program") previously announced in August 2019. Whilst the Hedging Program was initially established to provide gold price protection for the projected production from Prestea over a 12 month period commencing in August 2019, the Company has extended the Hedging Program to cover the projected production from Prestea through to the end of the calendar year 2020.

The Company entered into zero cost collars for an additional 12,600 ounces with a floor price of \$1,500 per ounce and a ceiling price of \$1,992 per ounce. The additional hedging positions will mature at a rate of 4,200 ounces per month from October 2020 to December 2020. The Company has recognized an unrealized gain of \$0.4 million on revaluation on the non-hedge accounted collar contracts.

Exploration Update

In response to COVID-19, the Company proactively scaled back field exploration activities in March 2020 with all contractors finishing up their contracts in April 2020. As a consequence, exploration expenditure in Q1 2020 has been limited to \$1.0 million of which \$0.7 million was expensed and \$0.3 million was capitalized.

Wassa

During the first quarter of 2020, exploration activities focused on testing the up-plunge extension of a footwall zone to the main mining area (B-Shoot). Two drill holes were drilled from the Wassa Underground mine which intersected surface projections of the mineralized structures with alteration and anomalous gold values, but not of high enough value to be economically viable. These drill results are currently undergoing review and the exploration team will be assessing whether further drilling is warranted later in the year.

Exploration activities for the remainder of the year will concentrate on compilation of the existing data sets to delineate further targets to be tested in 2021 and beyond.

HBB (Father Brown included)

Field work in the first quarter of 2020, prior to suspension of field activities in March 2020, involved vetting of prospects slated for follow up this year. Five of the targets were visited to conduct reconnaissance prospecting and mapping, as well as to assess the extent of illegal mining activity and general access. These targets were ranked as the top 5 prospects to test further this year, with soil sampling and air core drilling. The field exploration programs will resume once it is safe for the staff to re-enter the working environment.

Changes to Executive Team and Relocation of Corporate Office

Philipa Varris, who had previously served as the Company's Vice President, Corporate Responsibility in Ghana, was appointed Executive Vice President, Head of Sustainability of Golden Star effective January 1, 2020.

Paul Thomson joined Golden Star on January 27, 2020 and was appointed Executive Vice President and Chief Financial Officer following the transition of the prior Chief Financial Officer's responsibilities from André van Niekerk, who left the Company on March 31, 2020.

The Company completed the relocation of its corporate office to London, United Kingdom on April 30, 2020.

Appointment to Board of Directors

On February 3, 2020, the Company announced that Karim Nasr had been appointed to the Board, replacing Naguib Sawiris as a nominee of La Mancha Holding S.à r.l., who stepped down from the Board due to other commitments.

WASSA OPERATIONS

Golden Star (Wassa) Limited, a 90% owned subsidiary of the Company owns and operates Wassa. Wassa is located in the southwestern region of Ghana, approximately 35 kilometers northeast of the town of Tarkwa. As of February 1, 2018, Wassa became an underground-only operation. Wassa has a non-refractory processing plant (the “Wassa processing plant”) consisting of a carbon-in-leach (“CIL”) system with a capacity of 2.7 million tonnes per annum.

		Three Months Ended	
		March 31,	
		2020	2019
WASSA FINANCIAL RESULTS			
Revenue	\$'000	54,087	53,992
Mine operating expenses	\$'000	25,366	23,433
Severance charges	\$'000	45	225
Royalties	\$'000	2,888	2,799
Operating costs (to)/from metals inventory	\$'000	(2,282)	323
Cost of sales excluding depreciation and amortization	\$'000	26,017	26,780
Depreciation and amortization	\$'000	5,110	4,372
Mine operating margin	\$'000	22,960	22,840
Sustaining capital	\$'000	3,571	3,504
Development capital	\$'000	6,026	7,562
Capital expenditures	\$'000	9,597	11,066
WASSA OPERATING RESULTS			
Ore mined - Underground	t	393,472	326,747
Waste mined - Underground	t	170,475	56,229
Material mined - Underground	t	563,947	382,976
Ore processed - Main Pit/Stockpiles	t	19,352	40,043
Ore processed - Underground	t	419,373	326,747
Ore processed - Total	t	438,725	366,790
Grade processed - Main Pit/Stockpiles	g/t	0.64	0.64
Grade processed - Underground	g/t	2.93	4.31
Recovery	%	95.0	95.6
Gold produced - Main Pit/Stockpiles	oz	453	806
Gold produced - Underground	oz	39,878	42,104
Gold produced - Total	oz	40,331	42,910
Gold sold - Total	oz	36,525	42,999
Cost of sales per ounce ¹	\$/oz	852	724
Cash operating cost per ounce ¹	\$/oz	632	552
All-in sustaining cost per ounce ¹	\$/oz	941	760

¹ See “Non-GAAP Financial Measures” section for a reconciliation of cost of sales per ounce, cash operating cost per ounce and all-in sustaining cost per ounce to cost of sales excluding depreciation and amortization.

For the three months ended March 31, 2020 compared to the three months ended March 31, 2019

Production

Gold production from Wassa amounted to 40,331 ounces for the first quarter of 2020, a 6% decrease from the 42,910 ounces produced during the same period in 2019 - this was primarily due to a decrease in average feed grade to 2.83 g/t compared to 3.60 g/t in Q1 2019 despite throughput increasing from 366,790 tonnes in Q1 2019 to 438,725 tonnes in Q1 2020. Recovery from the Wassa processing plant was 95.0% for the first quarter of 2020, a slight decrease from the 95.6% achieved for the same period in 2019 as a result of lower processed ore grade.

Wassa Underground

Wassa Underground produced 39,878 ounces of gold (or approximately 99% of Wassa's total production) in the first quarter of 2020, compared to 42,104 ounces in the same period in 2019 (or approximately 98% of Wassa's total production). This 5% decrease in production was mainly due to a lower feed grade of 2.93 g/t compared to 4.31 g/t in Q1 2019 partly offset by an increase in ore tonnes processed to 419,373 tonnes compared to 326,747 tonnes in the same period in 2019. Wassa Underground mining activities during the quarter focused around lower grade areas in Panel 2 as site continued to drive the development of the underground operation as marked by the increase in tonnes mined in order to create better scale and flexibility.

Wassa Underground mining rates increased to an average of 4,320 tonnes per day ("tpd") in the first quarter of 2020, which is 19% higher than the mining rate of 3,630 tpd achieved in the same period in 2019.

Wassa Main Pit/Stockpiles

Low grade stockpile from the Wassa main pit of 19,352 tonnes with an average grade of 0.64 g/t was blended with the Wassa Underground ore during the first quarter of 2020 and yielded 453 ounces of gold, compared to 806 ounces in the same period in 2019. The Wassa management team has identified the opportunity to process low grade stockpiles in the current gold price environment which will continue for the remainder of the year unless the gold environment changes.

Gold revenue

Gold revenue for the first quarter of 2020 was \$54.1 million, \$0.1 million higher than the \$54.0 million achieved in the same period in 2019. Gold sold decreased by 15% to 36,525 ounces for the first quarter of 2020, compared to 42,999 ounces in the same period in 2019. In addition to 6% lower gold production compared with Q1 2019, 3,791 ounces of gold poured (representing 10% of Q1 2019 gold sales) were held as inventory as at March 31, 2020 and only shipped during the first week of April 2020 following the change in shipment schedule as a consequence of COVID-19. The average realized gold price, including unwinding of the deferred revenue from the Stream Agreement, was \$1,481 per ounce for the first quarter of 2020 compared to \$1,256 per ounce in the same period in 2019.

Cost of sales excluding depreciation and amortization

Cost of sales excluding depreciation and amortization was \$26.0 million for the first quarter of 2020, compared to \$26.8 million for the same period in 2019. Mine operating expenses increased by \$1.9 million to \$25.4 million due to an increase in the total material mined and processed which translated into a higher variable cost component in combination with inflationary cost pressures that adversely impacted on labor and cost overheads. Improved productivity resulted in a reduction in unit costs for mining and processing costs by 23% and 8%, respectively. Cost of sales excluding depreciation and amortization for the first quarter of 2020 also includes a credit for unsold gold at March 31, 2020 and increase in stockpile inventory of \$2.3 million, compared to a charge of \$0.3 million in Q1 2019.

Depreciation and amortization

Depreciation and amortization expense increased to \$5.1 million for the first quarter of 2020, compared to \$4.4 million for the same period in 2019 mainly due to an increase units-of-production based depreciation following the recent reserve update in combination with the higher capital cost base following 2019 additions.

Costs per ounce

Cost of sales per ounce increased 18% to \$852, cash operating cost per ounce increased 15% to \$632 and AISC per ounce increased 24% to \$941 for the first quarter of 2020 compared to the same period in 2019 predominantly due to a decrease in gold sold as a result of the lower average feed grade and deferral of last shipment of Q1 2020 translating into a lower comparable sales base. The increased corporate general and administrative costs allocated to sites on a sold ounce basis has negatively impacted on Wassa's AISC.

Capital expenditures

Capital expenditures for the first quarter of 2020 totaled \$9.6 million compared with \$11.1 million incurred during the same period in 2019 as the Wassa management team continued to focus efforts on critical development spend in order to support the long-term development of the underground operation. Key capital spending included: (i) \$4.6 million on the paste fill plant project which is earmarked for commissioning during Q4 2020, (ii) \$4.0 million on capitalized underground development activities, (iii) \$0.4 on mobile equipment, and (iv) \$0.2 million on the electrical upgrade project.

PRESTEA OPERATIONS

Golden Star (Bogoso/Prestea) Limited, a 90% owned subsidiary of the Company owns and operates Prestea located near the town of Prestea, Ghana. Prestea consists of Prestea Underground (an underground operation), the Prestea Open Pits (neighboring open pits formed from oxide deposits) and associated support facilities. Prestea has a CIL processing facility with capacity of up to 1.5 million tonnes per annum, located 14 kilometers away at Bogoso, which is suitable for treating non-refractory gold ore (the “non-refractory plant”). Ore from both Prestea Underground and the Prestea Open Pits is processed in the non-refractory plant. Prestea Underground achieved commercial production on February 1, 2018.

		Three Months Ended March 31,	
		2020	2019
PRESTEA FINANCIAL RESULTS			
Revenue	\$'000	13,284	13,265
Mine operating expenses	\$'000	17,124	16,463
Severance charges	\$'000	5	69
Royalties	\$'000	723	675
Operating costs to metals inventory	\$'000	(991)	(1,103)
Inventory net realizable value adjustment and write-off	\$'000	18	920
Cost of sales excluding depreciation and amortization	\$'000	16,879	17,024
Depreciation and amortization	\$'000	1,759	2,490
Mine operating loss	\$'000	(5,354)	(6,249)
Sustaining capital	\$'000	2,244	1,864
Development capital	\$'000	321	212
Capital expenditures	\$'000	2,565	2,076
PRESTEA OPERATING RESULTS			
Ore mined - Open pits	t	104,260	44,707
Ore mined - Underground	t	32,196	38,678
Ore mined - Total	t	136,456	83,385
Waste mined - Open pits	t	185,323	34,237
Waste mined - Underground	t	11,929	1,208
Waste mined - Total	t	197,252	35,445
Total material mined - Open pits	t	289,583	78,944
Total material mined - Underground	t	44,125	39,886
Total material mined - Total	t	333,708	118,830
Ore processed - Open pits	t	100,105	95,654
Ore processed - Underground	t	32,196	38,678
Ore processed - Total	t	132,301	134,332
Grade processed - Open pits	g/t	1.52	1.32
Grade processed - Underground	g/t	6.09	6.25
Recovery	%	86.0	87.4
Gold produced - Open pits	oz	3,984	3,030
Gold produced - Underground	oz	5,651	7,344
Gold produced - Total	oz	9,635	10,374
Gold sold - Total	oz	9,076	10,497
Cost of sales per ounce ¹	\$/oz	2,054	1,859
Cash operating cost per ounce ¹	\$/oz	1,778	1,463
All-in sustaining cost per ounce ¹	\$/oz	2,248	1,865

¹See “Non-GAAP Financial Measures” section for a reconciliation of cost of sales per ounce, cash operating cost per ounce and all-in sustaining cost per ounce to cost of sales excluding depreciation and amortization.

For the three months ended March 31, 2020 compared to the three months ended March 31, 2019

Production

Gold production from Prestea amounted to 9,635 ounces in the first quarter of 2020, compared with 10,374 ounces produced during the same period in 2019. Although plant throughput of 132,301 tonnes is comparable to Q1 2019, the proportion of ore processed from Prestea Open pits in Q1 2020 (76%), which is significantly lower in grade than ore from Prestea Underground, was 7% higher compared with Q1 2019. Lower grade adversely impacted on recoveries as reflected in the lower recovery rate of 86.0%.

Prestea Open Pits

The Prestea Open pits produced 3,984 ounces in the first quarter of 2020, compared to 3,030 ounces in the same period in 2019. Open pit mining continued throughout Q1 2020 and is expected to end during Q2 2020 once the remaining oxide resources are mined out. Open pit mining comprises a number of small satellite deposits on the Bogoso/Prestea land package which are regularly explored for shorter term opportunities to supplement underground mining activities. Production from open pit increased as a result of a 15% higher feed grade and a 5% increase in ore tonnes processed to supplement the ore tonnes from Prestea Underground.

Prestea Underground

Prestea Underground produced 5,651 ounces in the first quarter of 2020 compared to 7,344 ounces in the same period in 2019 due to a 17% decrease in ore tonnes processed to 32,196 tonnes and a 3% lower feed grade to 6.09 g/t. Mining during the quarter focused on stoping activities in Level 24 and development activities in Level 17. Short term constraints and dilution adversely impacted on stoping activities which resulted in lower tonnes and grade mined.

Gold revenue

Gold revenue for the first quarter of 2020 was \$13.3 million, in line with the same period in 2019 with the 14% decrease in gold sold to 9,076 ounces offset by the 16% increase in average realized gold price to \$1,464 per ounce. As at March 31, 2020, there were 528 ounces on hand as a consequence of the deferral of the last shipment in the quarter due to the change in the shipment scheduling as a consequence of COVID-19-transport complications.

Cost of sales excluding depreciation and amortization

Cost of sales excluding depreciation and amortization was \$16.9 million for the first quarter of 2020, compared to \$17.0 million for the same period in 2019. Mine operating expenses of \$17.1 million increased by \$0.6 million compared to Q1 2019 primarily due to additional open pit mining and related processing costs. This increase was offset by a \$0.9 million inventory net realizable adjustment charge in Q1 2019.

Depreciation and amortization

Depreciation and amortization expense decreased to \$1.8 million for the first quarter of 2020, compared to \$2.5 million for the same period in 2019 as a result of prior year impairment charge of \$56.8 million in Q4 2019 resulting in a lower cost base rolling into Q1 2020.

Costs per ounce

Cost of sales per ounce increased 10% to \$2,054, cash operating cost per ounce increased 22% to \$1,778 and all-in sustaining cost per ounce increased 21% to \$2,248 for the first quarter of 2020 compared with the same period in 2019 mainly due to lower gold sales as a result of lower underground production and the shipment deferral of the last shipment in Q1 2020 which amounted to 528 ounces. Furthermore, increased sustaining capital costs and corporate general and administrative costs allocated to sites on a sold ounce basis have negatively impacted on Prestea AISC.

Capital expenditures

Capital expenditures for the first quarter of 2020 totaled \$2.6 million compared to \$2.1 million incurred during the same period in 2019. Key capital spending during Q1 2020 included lateral and decline development of Prestea Underground (\$1.2 million) and drilling and mining equipment (\$0.7 million) relating to long hole conversion on Level 17.

COVID-19 has had an adverse impact on the scheduling of certain drilling and mining equipment which may cause a delay of approximately 1 to 2 months on Level 17 stoping activities.

SUMMARIZED QUARTERLY FINANCIAL RESULTS

(Stated in thousands of U.S dollars except per share data)	Three Months Ended,							
	Q1 2020	Q4 2019	Q3 2019	Q2 2019	Q1 2019	Q4 2018	Q3 2018	Q2 2018
Revenues	67,371	66,061	69,504	61,915	67,257	57,339	67,738	77,121
Cost of sales excluding depreciation and amortization	42,896	49,232	46,798	46,506	43,804	57,565	48,873	57,717
Net income/(loss)	12	(69,359)	4,926	(10,882)	(2,659)	(11,894)	(4,222)	(7,560)
Net income/(loss) attributable to shareholders of Golden Star	829	(62,434)	5,960	(9,036)	(1,924)	(9,318)	(3,178)	(6,642)
Adjusted net income/(loss) attributable to Golden Star shareholders ¹ (as restated)	(1,221)	(3,631)	1,581	(5,013)	2,022	(4,654)	(2,834)	(4,015)
EBITDA ¹	18,479	(54,617)	21,060	4,747	14,952	1,267	12,674	10,849
Adjusted EBITDA ¹	17,152	16,151	16,353	5,103	18,504	(3,462)	12,198	11,735
Net income/(loss) per share attributable to Golden Star shareholders - basic	0.01	(0.57)	0.05	(0.08)	(0.02)	(0.09)	(0.04)	(0.09)
Net income/(loss) per share attributable to Golden Star shareholders - diluted	(0.01)	(0.57)	0.02	(0.08)	(0.02)	(0.09)	(0.04)	(0.09)
Adjusted income/(loss) per share attributable to Golden Star shareholders - basic ¹ (as restated)	(0.01)	(0.03)	0.01	(0.05)	0.02	(0.04)	(0.04)	(0.05)

¹ See “Non-GAAP Financial Measures” section for a reconciliation of adjusted net income/(loss) attributable to Golden Star shareholders and adjusted income/(loss) per share attributable to Golden Star shareholders (basic) to net loss attributable to Golden Star shareholders and reconciliation of net income/(loss) to EBITDA and Adjusted EBITDA.

LIQUIDITY AND FINANCIAL CONDITION

		December 31,	
		March 31, 2020	2019
Cash and cash equivalents	\$'000	41,906	53,367
Debt	\$'000	107,341	106,769
Net debt	\$'000	65,435	53,402
		Three Months Ended March 31,	
		2020	2019
Net cash provided by operating activities before working capital changes ¹	\$'000	13,351	14,908
Changes in working capital	\$'000	(9,802)	(15,498)
Net cash provided by/(used in) operating activities	\$'000	3,549	(590)
Net cash used in investing activities	\$'000	(15,109)	(11,288)
Free cash flow ¹	\$'000	(11,560)	(11,878)
Net cash provided by/(used in) financing activities	\$'000	99	(2,761)
(Decrease)/increase in cash and cash equivalents	\$'000	(11,461)	(14,639)
Cash and cash equivalents, beginning of period	\$'000	53,367	96,507
Cash and cash equivalents, end of period ²	\$'000	41,906	81,868

Notes:

¹ See “Non-GAAP Financial Measures” section for description of Net cash provided by operating activities before working capital changes and Free cash flow.

² Pro forma cash and cash equivalents were calculated to include 89% of the shipment ounces unsold as at March 31, 2020 using the London Metal Exchange AM fix on March 31, 2020 which amounted to \$1,604/oz.

The Company held \$41.9 million in cash and cash equivalents as at March 31, 2020 compared to \$53.4 million in cash and cash equivalents as at December 31, 2019. During the three months ended March 31, 2020, operations provided \$3.5 million, investing activities used \$15.1 million and financing activities provided \$0.1 million of cash. Pro-forma² cash and cash equivalents including unsold gold ounces as at March 31, 2020 amounted to \$48.1 million.

Net debt has increased to \$65.4 million from \$53.4 million following the decrease in cash and cash equivalents. Pro-forma² net debt when adjusted for the unsold ounces amount to \$59.2 million.

Before working capital changes, operations provided \$13.4 million of operating cash flow during the three months ended March 31, 2020, compared to \$14.9 million in the same period in 2019. Cash provided by operations before working capital changes decreased as a consequence of lower cash generated from Wassa due to lower average feed grade and Prestea due to additional open pit activities and higher corporate general and administrative expenses.

Working capital used \$9.8 million during the three months ended March 31, 2020, compared to \$15.5 million in the same period in 2019. The working capital changes included a \$1.0 million decrease in accounts payable and accrued liabilities, a \$5.2 million increase in inventory relating to finished gold on hand and inventory supplies, a \$1.0 million decrease in accounts receivable, a \$2.3 million increase in prepaids and other and \$2.3 million income tax payment.

Investing activities used \$15.1 million during the three months ended March 31, 2020, which included \$4.6 million on the Wassa paste-fill project, \$4.0 million capitalized development of Wassa Underground, \$2.4 million on the development of Prestea Underground and \$1.5 million on equipment purchases and other. In addition, accounts payable and deposits on capital items decreased by \$2.6 million which rolled over from Q4 2019.

Financing activities provided \$0.1 million during the three months ended March 31, 2020, compared to \$2.8 million used in the same period in 2019. Financing activities comprised of \$0.5 million proceeds from exercise of stock options offset by \$0.4 million repayment of finance leases.

GOING CONCERN AND LIQUIDITY OUTLOOK

As at March 31, 2020 the Company had cash and cash equivalents of \$41.9 million (pro-forma of \$48.1 million), net current liabilities excluding deferred revenue of \$15.4 million and net cash provided by operations before working capital changes for the three months then ended of \$13.4 million. As at March 31, 2020, the Company was compliant with its debt covenants.

With proactive management, gold production and gold shipments have continued without any material disruptions despite the impact of COVID-19. However, the Company is unable to provide any assurances that its planned operations, production and capital expenditure for the foreseeable future will not be delayed, postponed or cancelled as a result of COVID-19 or otherwise. The pandemic could continue to affect financial markets, including the price of gold and the trading price of the Company's shares, could adversely affect the Company's ability to raise capital, and could cause continued interest rate volatility and movements that could make obtaining financing or refinancing debt obligations more challenging or more expensive or unavailable on commercially reasonable terms or at all. Furthermore, the Company may also experience regional risks which include, but are not limited to, possible shut-down of the gold refining facility in South Africa where the Company delivers its gold production, an inability to ship gold across borders, delays in the supply chain of critical reagents, consumables and parts, and the impact on the delivery of critical capital projects. Any of these events or circumstances could have a material adverse effect on the Company's business, financial condition and results of operations.

In the current economic environment with the potential impact of COVID-19, as well as the Company's current cash flow forecasts, there may be challenges in the Company's ability to generate sufficient free cash flow and/or raise additional financing in the foreseeable future that can be used to meet its ongoing obligations as they fall due.

As a result, the Company's management ("Management") has considered a range of downside scenarios taking into account the above-mentioned risks. In the event the Company breaches any of its credit facility covenants as a result of inability to meet the current financial forecast or due to the impact of COVID-19 including due to any temporary shutdown of mining operations, it would require either waivers from its lenders or a liquidation of certain assets to repay borrowings. However, in this downside scenario Management would seek temporary waivers to the covenants from its lenders due to the nature of such breach being the result of COVID-19 imposed restrictions.

Management has concluded that it is appropriate to prepare the Financial Statements on a going concern basis. However, as the waiver of covenants in the event of a breach of the credit facilities and/or securing additional financing to ensure sufficient liquidity for the foreseeable future, are not wholly within Management's control, we do note the risk it represents as a material uncertainty which casts a substantial doubt upon the Company's continued ability to operate as a going concern, such that the Company may be unable to realize its assets and discharge its liabilities in the normal course of business.

The Financial Statements do not reflect the adjustments to the carrying values of assets and liabilities and the reported expenses and balance sheet classifications that would be necessary if the Company were unable to realize the assets to settle its liabilities as a going concern in the normal course of operations. Such adjustments could be material.

TABLE OF CONTRACTUAL OBLIGATIONS

As at March 31, 2020, the Company is committed to the following:

(Stated in thousands of U.S dollars)	Payment due by period				Total
	Less than 1 Year	1 to 3 years	4 to 5 years	More than 5 Years	
Accounts payable and accrued liabilities	84,864	—	—	—	84,864
Debt ¹	20,793	92,131	5,764	157	118,845
Interest on long-term debt	6,658	4,466	56	2	11,182
Current income tax liabilities	4,383	—	—	—	4,383
Purchase obligations	18,955	—	—	—	18,955
Rehabilitation provisions ²	6,582	19,304	26,305	21,477	73,668
Total	142,235	115,901	32,125	21,636	311,897

¹ Includes the outstanding repayment amounts from the 7% Convertible Debentures, finance leases and the Macquarie Credit Facility.

² Rehabilitation provisions indicates the expected undiscounted cash flows for each period.

RELATED PARTY TRANSACTIONS

There were no material related party transactions for the three months ended March 31, 2020 and 2019 other than compensation of key management personnel which is presented in Note 17 of the Financial Statements. Key management personnel are defined as members of the Board and certain senior officers. Compensation of key management personnel are made on terms equivalent to those prevailing in an arm's length transaction.

OFF-BALANCE SHEET ARRANGEMENTS

The Company has no material off-balance sheet arrangements.

NON-GAAP FINANCIAL MEASURES

In this MD&A, we use the terms “cash operating cost”, “cash operating cost per ounce”, “all-in sustaining costs”, “all-in sustaining costs per ounce”, “adjusted net income/(loss) attributable to Golden Star shareholders”, “adjusted income/(loss) per share attributable to Golden Star shareholders - basic”, “cash provided by operations before working capital changes”, “cash provided by operations before working capital changes per share - basic”, free cash flow, EBITDA and Adjusted EBITDA.

“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), and accretion of rehabilitation provision. For mine site all-in sustaining costs, corporate general and administrative costs (excluding share-based compensation expenses and severance) 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 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, changes to the rehabilitation provision, 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. The table below reconciles these non-GAAP measures to the most directly comparable IFRS measures and, where applicable, previous periods have been recalculated to conform to the current definition.

Free cash flow is equal to net cash flow provided from/(used by) operating activities less net cash flow provided from/(used by) investing activities. Certain investors use free cash flow to assess the Company's ability to generate and manage liquid resources. Free cash flow is intended to provide additional information and does not have any standardized meaning under IFRS and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS. This measure is not necessarily indicative of operating profit or cash flow from operations as determined under IFRS. This is a non-GAAP financial measure and other companies may calculate these measures differently.

The Company calculates EBITDA as net income or loss for the period excluding finance expense, income tax expense and depreciation and amortization. EBITDA does not have a standardized meaning prescribed by IFRS and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS. EBITDA excludes the impact of cash costs of financing activities and taxes and the effects of changes in working capital balances and therefore is not necessarily indicative of operating profit or cash flow from operations as determined under IFRS. Other companies may calculate EBITDA differently. Adjusted EBITDA is a non-IFRS financial measure calculated by excluding one-off costs or credits relating to non-routine transactions from EBITDA. It excludes other credits and charges, that individually or aggregate, if of a similar type, are of a nature or size that requires explanation in order to provide additional insight into the underlying business performance. Examples of items excluded from Adjusted EBITDA are impairment charges, gain or loss on fair value of financial instruments and other expense/income as presented in the consolidated statements of operations. Other companies may calculate Adjusted EBITDA differently.

The table below reconciles consolidated cost of sales excluding depreciation and amortization to cost of sales per ounce, cash operating cost per ounce and all-in sustaining cost per ounce:

	Three Months Ended March 31,	
	2020	2019
(Stated in thousands of U.S dollars except cost per ounce data)		
Cost of sales excluding depreciation and amortization	42,896	43,804
Depreciation and amortization	6,869	6,862
Cost of sales	<u>49,765</u>	<u>50,666</u>
Cost of sales excluding depreciation and amortization	42,896	43,804
Severance charges	(50)	(294)
Royalties	(3,611)	(3,474)
Inventory net realizable value adjustment and write-off	(18)	(920)
Cash operating costs	<u>39,217</u>	<u>39,116</u>
Royalties	3,611	3,474
Inventory net realizable value adjustment and write-off	18	920
Accretion of rehabilitation provision	135	199
Corporate general and administrative costs	5,675	3,159
Sustaining capital expenditures	5,815	5,368
Corporate capital expenditures	314	—
All-in sustaining costs	<u>54,785</u>	<u>52,236</u>
Ounces sold	45,601	53,496
Cost of sales per ounce	\$ 1,091	\$ 947
Cash operating cost per ounce	\$ 860	\$ 731
All-in sustaining cost per ounce	\$ 1,201	\$ 976

The table below reconciles cost of sales excluding depreciation and amortization to cash operating cost per ounce for each of the operating mines:

	For the Three Months Ended March 31, 2020		
(Stated in thousands of U.S dollars except cost per ounce data)	Wassa	Prestea	Combined
Cost of sales excluding depreciation and amortization	26,017	16,879	42,896
Depreciation and amortization	5,110	1,759	6,869
Cost of sales	31,127	18,638	49,765
Cost of sales excluding depreciation and amortization	26,017	16,879	42,896
Severance charges	(45)	(5)	(50)
Royalties	(2,888)	(723)	(3,611)
Inventory net realizable value adjustment and write-off	—	(18)	(18)
Cash operating costs	23,084	16,133	39,217
Royalties	2,888	723	3,611
Inventory net realizable value adjustment and write-off	—	18	18
Accretion of rehabilitation provision	39	96	135
Corporate general and administrative costs	4,546	1,129	5,675
Sustaining capital expenditures	3,571	2,244	5,815
Corporate capital expenditures	251	63	314
All-in sustaining costs	34,379	20,406	54,785
Ounces sold	36,525	9,076	45,601
Cost of sales per ounce	\$ 852	\$ 2,054	\$ 1,091
Cash operating cost per ounce	\$ 632	\$ 1,778	\$ 860
All-in sustaining cost per ounce	\$ 941	\$ 2,248	\$ 1,201

“Cash provided by operations before working capital changes” is calculated by subtracting the “changes in working capital” from “net cash provided by operating activities” as found in the statements of cash flows. “Cash provided by operations before working capital changes per share - basic” is “Cash provided by operations before working capital changes” divided by the basic weighted average number of shares outstanding for the period.

We use cash operating cost per ounce and cash provided by operations before working capital changes as key operating metrics. We monitor these measures monthly, comparing each month's values to the values in prior periods to detect trends that may indicate increases or decreases in operating efficiencies. These measures are also compared against budget to alert management of trends that may cause actual results to deviate from planned operational results. We provide these measures to investors to allow them to also monitor operational efficiencies of the mines owned by the Company.

Cash operating cost per ounce and cash provided by operations before working capital changes should be considered non-GAAP financial measures as defined in Canadian securities laws and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS. There are material limitations associated with the use of such non-GAAP measures. Since these measures 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.

Adjusted net income attributable to Golden Star shareholders

The table below shows the reconciliation of net income/(loss) attributable to Golden Star shareholders to adjusted net income attributable to Golden Star shareholders and adjusted income per share attributable to Golden Star shareholders:

(Stated in thousands of U.S dollars except per share data)	Three Months Ended March 31,	
	2020	2019 (As restated)
Net income/(loss) attributable to Golden Star shareholders	829	(1,924)
Add back/(deduct):		
(Gain)/loss on fair value of financial instruments	(4,062)	3,873
Severance charges	457	294
Loss/(gain) on change in asset retirement obligations	2,129	(275)
Tax effect of change in estimates of rehabilitation asset	(396)	62
	(1,043)	2,030
Adjustments attributable to non-controlling interest	(178)	(8)
Adjusted net (loss)/income attributable to Golden Star shareholders	(1,221)	2,022
Adjusted (loss)/income per share attributable to Golden Star shareholders - basic	(0.01)	0.02
Weighted average shares outstanding - basic (millions)	109.6	108.8

The Company uses “Adjusted net income/(loss) attributable to Golden Star shareholders” for its own internal purposes. Management’s internal budgets and forecasts and public guidance do not reflect the items which have been excluded from the determination of adjusted net income attributable to Golden Star shareholders. Consequently, the presentation of adjusted net income attributable to Golden Star shareholders enables shareholders to better understand the underlying operating performance of our core mining business through the eyes of management. Management periodically evaluates the components of adjusted net earnings based on an internal assessment of performance measures that are useful for evaluating the operating performance of our business and a review of non-GAAP measures used by mining industry analysts and other mining companies.

“Adjusted net income/(loss) attributable to Golden Star shareholders - basic” is calculated by adjusting net loss attributable to Golden Star shareholders for gain/loss on fair value of financial instruments, severance charges, gain or loss on change in asset retirement obligations, income tax effect of change in estimates of rehabilitation asset, non-cash cumulative adjustment to revenue and finance costs related to the Stream Agreement and impairment charges. 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 income/(loss) per share attributable to Golden Star shareholders” for the period is “Adjusted net income/(loss) attributable to Golden Star shareholders” divided by the weighted average number of shares outstanding using the basic method of earnings per share.

Effective January 1, 2020, share-based compensation expense and income tax expense are included in the determination of Adjusted net income/(loss) attributable to Golden Star shareholders and the tax effect of change in estimates of rehabilitation assets is excluded from the determination of Adjusted net income/(loss) attributable to Golden Star shareholders following Management's most recent evaluation. The Adjusted net income/(loss) attributable to Golden Star shareholders for the three months ended March 31, 2019 was restated from a net income of \$9.3 million to \$2.0 million to reflect this change. As a result, Adjusted net income/(loss) attributable to Golden Star shareholders - basic for the three months ended March 31, 2019 was also restated from an income of \$0.09 per share to \$0.02 per share.

Adjusted net income/(loss) attributable to Golden Star shareholders and adjusted income/(loss) per share attributable to Golden Star shareholders should be considered non-GAAP financial measures as defined in the Canadian securities laws and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with GAAP. There are material limitations associated with the use of such non-GAAP measures. Since these measures do not incorporate all non-cash expense and income items, changes in working capital and 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, our share price, risk-free interest rates, gold prices, 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. The Company believes 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.

EBITDA and Adjusted EBITDA

The table below shows the reconciliation of Net income/(loss) to EBITDA and Adjusted EBITDA which are being presented for the first time:

(Stated in thousands of U.S dollars)	Q1 2020	Q4 2019	Q3 2019	Q2 2019	Q1 2019	Q4 2018	Q3 2018	Q2 2018
Net income/(loss)	12	(69,359)	4,926	(10,882)	(2,659)	(11,894)	(4,222)	(7,560)
Add back/(deduct):								
Finance expense, net	3,363	(3,437)	3,911	3,602	3,547	3,812	4,086	5,391
Income tax expense	8,235	9,715	5,244	5,278	7,202	1,525	4,151	3,783
Depreciation and amortization	6,869	8,464	6,979	6,749	6,862	7,824	8,659	9,235
EBITDA	18,479	(54,617)	21,060	4,747	14,952	1,267	12,674	10,849
Add back/(deduct):								
Impairment charges	—	56,762	—	—	—	—	—	—
(Gain)/loss on fair value of financial instruments	(4,062)	2,986	(4,793)	(424)	3,873	(3,274)	629	1,301
Other expense/(income)	2,735	11,020	86	780	(321)	(1,455)	(1,105)	(415)
Adjusted EBITDA	17,152	16,151	16,353	5,103	18,504	(3,462)	12,198	11,735

OUTSTANDING SHARE DATA

As of April 30, 2020, there were 109,888,956 common shares of the Company issued and outstanding, 2,606,105 stock options outstanding, 1,377,327 deferred share units outstanding, 486,708 share units of 2017 PRSUs outstanding, 1,409,236 share units of UK PSUs outstanding and 7% Convertible Debentures which are convertible into an aggregate of 11,444,000 common shares.

CRITICAL ACCOUNTING JUDGMENTS, ESTIMATES AND ASSUMPTIONS

The critical accounting judgments, estimates and assumptions are disclosed in Note 4 of the audited consolidated financial statements for the year ended December 31, 2019.

CHANGES IN ACCOUNTING POLICIES

The Company has adopted the following new and revised accounting standard effective January 1, 2020. These changes were made in accordance with the applicable transitional provisions.

Definition of a Business (Amendments to IFRS 3)

The amendments in Definition of a Business (Amendments to IFRS 3) are changes to Appendix A Defined terms, the application guidance, and the illustrative examples of IFRS 3 only. It:

- clarifies that to be considered a business, an acquired set of activities and assets must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs;
- narrow the definitions of a business and of outputs by focusing on goods and services provided to customers and by removing the reference to an ability to reduce costs;
- add guidance and illustrative examples to help entities assess whether a substantive process has been acquired;
- remove the assessment of whether market participants are capable of replacing any missing inputs or processes and continuing to produce outputs; and
- add an optional concentration test that permits a simplified assessment of whether an acquired set of activities and assets is not a business.

There was no accounting impact to the Financial Statements on adoption of this standard.

Revenue recognition

Revenue from the sale of metal is recognized when the Company transfers control over to a customer. The Company's spot sales of gold are transported to a gold refiner who locates a buyer and arranges sale of the gold. Effective March 20, 2020 and until recommencement of commercial flights between Ghana and South Africa, the sale generally completes on the day of arrival of gold at the refinery in South Africa as a consequence of the change in shipment logistics due to COVID-19. Previously, the sale of gold completed on the same day the gold was shipped from the mine site. The sales price is generally set with reference to the London A.M. or P.M. fix on the day of arrival of gold at the refinery.

UK Performance Share Unit Plan

In February 2020, the Company adopted a new UK Performance Share Unit Plan ("UK PSU Plan") subject to shareholder approval. Under the UK PSU Plan, performance share units ("UK PSUs") may be issued to UK resident employees of the Company or its designated affiliates. UK PSUs may be redeemed for: (i) common shares issued from treasury; (ii) common shares purchased in the secondary market at the election of the participant and subject to consent of the Company; (iii) a cash payment at the election of the participant and subject to consent of the Company; or (iv) a combination of (i), (ii) and (iii).

Each UK PSU represents one notional common share that is redeemed for common shares or common shares and/or cash subject to the consent of the Company based on the value of a common share at the end of the three year performance period, to the extent performance and vesting criteria have been met. UK PSUs vest at the end of a three-year performance period. The award is determined by multiplying the number of UK PSUs by the performance adjustment factor, which ranges from 0% to 200%.

The performance adjustment factor is determined by comparing the Company's share price performance to the share price performance of a peer group of companies determined by the Compensation Committee of the Board. The Company plans to settle these awards in common shares of the Company and so they are accounted for as equity awards with corresponding compensation expense recognized.

FINANCIAL INSTRUMENTS

(Stated in thousands of U.S dollars)	Fair value at March 31, 2020	Basis of measurement	Associated risks
Cash and cash equivalents	41,906	Amortized cost	Interest/Credit/Foreign exchange
Accounts receivable	5,475	Amortized cost	Foreign exchange/Credit
Non-hedge derivative asset	199	Fair value through profit and loss	Market price
Trade and other payables	75,049	Amortized cost	Foreign exchange/Interest
Finance leases	2,010	Amortized cost	Interest
7% Convertible Debentures	47,648	Amortized cost	Interest
Macquarie Credit Facility	57,683	Amortized cost	Interest
Long-term derivative liability	1,957	Fair value through profit and loss	Market price

Amortized cost - Cash and cash equivalents, accounts receivable, trade and other payables, the 7% Convertible Debentures, the Macquarie Credit Facility and the finance leases approximate their carrying values as the interest rates are comparable to current market rates.

Fair value through profit or loss - The fair value of the long-term derivative liability relating to the 7% Convertible Debentures is estimated using a convertible note valuation model. For the three months ended March 31, 2020, a total gain of \$3.7 million was recorded to the statement of operations. The non-hedge derivative asset relating to collar contracts is estimated using pricing models that utilize a variety of observable inputs that are a combination of quoted prices, applicable yield curves and credit spreads. For the three months ended March 31, 2020, the Company recognized an unrealized gain of \$0.4 million.

DISCLOSURES ABOUT RISKS

The Company's is exposed to significant risks including, but without limitation to the following risks: change in interest rates on our debt, change in foreign currency exchange rates, commodity price fluctuations, liquidity risk and credit risk. In recognition of the Company's outstanding accounts payable, the Company cannot guarantee that vendors or suppliers will not suspend or deny delivery of products or services to the Company.

Possible adverse effects of the COVID-19 pandemic on future operating results

Refer to the "Going Concern and Liquidity Outlook" section of this MD&A for a discussion of the possibility of operational disruptions as a result of COVID-19.

For a complete discussion of the risks, refer to the Company's Annual Information Form for the year ended December 31, 2019 available on the SEDAR website at www.sedar.com.

CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

The Company's management, with the participation of its President and Chief Executive Officer and Executive Vice President and Chief Financial Officer, has evaluated the effectiveness of the Company's disclosure controls and procedures. Based upon the results of that evaluation, the Company's President and Chief Executive Officer and Executive Vice President and Chief Financial Officer have concluded that, as of March 31, 2020, the Company's disclosure controls and procedures were effective to provide reasonable assurance that the information required to be disclosed by the Company in reports it files is recorded, processed, summarized and reported, within the appropriate time periods and is accumulated and communicated to management, including the President and Chief Executive Officer and Executive Vice President and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Management's Report on Internal Control Over Financial Reporting

The Company's management, with the participation of its President and Chief Executive Officer and Executive Vice President and Chief Financial Officer, are responsible for establishing and maintaining adequate internal control over financial reporting. Under the supervision of the President and Chief Executive Officer and Executive Vice President and Chief Financial Officer, the Company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. The Company's internal control over financial reporting includes policies and procedures that:

- pertain to the maintenance of records that accurately and fairly reflect, in reasonable detail, the transactions and dispositions of assets of the Company;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with IFRS and that the Company's receipts and expenditures are made only in accordance with authorizations of management and the Company's directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the Company's consolidated financial statements.

The Company's management, including the President and Chief Executive Officer and Executive Vice President and Chief Financial Officer, believes that any disclosure controls and procedures or internal control over financial reporting, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, they cannot provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been prevented or detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by unauthorized override of the control. The design of any control system also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Accordingly, because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Changes in Internal Control Over Financial Reporting

There has been no change in the Company's design of internal controls and procedures over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting during the period covered by this MD&A.

RISK FACTORS AND ADDITIONAL INFORMATION

The risk factors for the three months ended March 31, 2020 are substantially the same as those disclosed and discussed under the headings "Risk Factors - General Risks", "Risk Factors - Governmental and Regulatory Risks" and "Risk Factors - Market Risks" in the Company's Annual Information Form for the year ended December 31, 2019 available on the Company's profile on SEDAR at www.sedar.com.



Condensed Interim Consolidated Financial Statements
For the Three Months Ended March 31, 2020 and March 31, 2019

TABLE OF CONTENTS

FINANCIAL STATEMENTS

CONDENSED INTERIM CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME/(LOSS)	3
CONDENSED INTERIM CONSOLIDATED BALANCE SHEETS	4
CONDENSED INTERIM CONSOLIDATED STATEMENTS OF CASH FLOWS	5
CONDENSED INTERIM CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY	6

NOTES TO THE FINANCIAL STATEMENTS

1. NATURE OF OPERATIONS	7
2. BASIS OF PRESENTATION AND GOING CONCERN	7
3. CHANGES IN ACCOUNTING POLICIES	8
4. SEGMENTED INFORMATION	10
5. REVENUE	11
6. COST OF SALES EXCLUDING DEPRECIATION AND AMORTIZATION	11
7. FINANCE EXPENSE, NET	11
8. INCOME TAXES	12
9. INCOME/(LOSS) PER COMMON SHARE	12
10. INVENTORIES	13
11. MINING INTERESTS	13
12. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES	14
13. REHABILITATION PROVISIONS	14
14. DEFERRED REVENUE	14
15. DEBT	15
16. SHARE-BASED COMPENSATION	16
17. RELATED PARTY TRANSACTIONS	19
18. FINANCIAL INSTRUMENTS	19
19. SUPPLEMENTAL CASH FLOW INFORMATION	21
20. COMMITMENTS AND CONTINGENCIES	21
21. SUBSEQUENT EVENTS	22
22. PRIOR PERIOD COMPARATIVES	22

GOLDEN STAR RESOURCES LTD.
CONDENSED INTERIM CONSOLIDATED STATEMENTS OF OPERATIONS
AND COMPREHENSIVE INCOME/(LOSS)
(Stated in thousands of U.S. dollars except shares and per share data)
(Unaudited)

	Notes	Three Months Ended March 31,	
		2020	2019
Revenue	5	67,371	67,257
Cost of sales excluding depreciation and amortization	6	42,896	43,804
Depreciation and amortization		6,869	6,862
Mine operating margin		17,606	16,591
Other expenses/(income)			
Exploration expense		744	844
Corporate general and administrative expense		5,675	3,159
Share-based compensation expense	16	904	946
Other expense/(income)		2,735	(321)
(Gain)/loss on fair value of financial instruments, net	18	(4,062)	3,873
Income before finance and tax		11,610	8,090
Finance expense, net	7	3,363	3,547
Income before tax		8,247	4,543
Income tax expense	8	8,235	7,202
Net income/(loss) and comprehensive income/(loss)		12	(2,659)
Net loss and comprehensive loss attributable to non-controlling interest		(817)	(735)
Net income/(loss) and comprehensive income/(loss) attributable to Golden Star shareholders		829	(1,924)
Net income/(loss) per share attributable to Golden Star shareholders			
Basic	9	\$ 0.01	\$ (0.02)
Diluted	9	\$ (0.01)	\$ (0.02)
Weighted average shares outstanding - basic (millions)		109.6	108.8
Weighted average shares outstanding - diluted (millions)		121.0	108.8

The accompanying notes are an integral part of the condensed interim consolidated financial statements.

GOLDEN STAR RESOURCES LTD.
CONDENSED INTERIM CONSOLIDATED BALANCE SHEETS
(Stated in thousands of U.S. dollars)
(Unaudited)

	Notes	As of March 31, 2020	As of December 31, 2019
ASSETS			
CURRENT ASSETS			
Cash and cash equivalents		41,906	53,367
Accounts receivable		5,475	6,503
Inventories	10	44,063	38,860
Prepays and other		9,688	7,107
Total Current Assets		101,132	105,837
RESTRICTED CASH		2,082	2,082
MINING INTERESTS	11	272,266	264,689
Total Assets		375,480	372,608
LIABILITIES			
CURRENT LIABILITIES			
Accounts payable and accrued liabilities	12	84,864	88,579
Current portion of rehabilitation provisions	13	6,552	5,826
Current portion of deferred revenue	14	12,265	11,191
Current portion of long term debt	15	20,715	15,987
Current income tax liabilities		4,383	811
Total Current Liabilities		128,779	122,394
REHABILITATION PROVISIONS	13	65,896	62,609
DEFERRED REVENUE	14	100,154	102,784
LONG TERM DEBT	15	86,626	90,782
DERIVATIVE LIABILITY	18	1,957	5,608
DEFERRED TAX LIABILITY		22,954	20,554
Total Liabilities		406,366	404,731
SHAREHOLDERS' EQUITY			
SHARE CAPITAL			
First preferred shares, without par value, unlimited shares authorized. No shares issued and outstanding		—	—
Common shares, without par value, unlimited shares authorized		911,087	910,205
CONTRIBUTED SURPLUS		39,307	38,964
DEFICIT		(897,950)	(898,779)
Shareholders' equity attributable to Golden Star shareholders		52,444	50,390
NON-CONTROLLING INTEREST		(83,330)	(82,513)
Total Equity		(30,886)	(32,123)
Total Liabilities and Shareholders' Equity		375,480	372,608

The accompanying notes are an integral part of the condensed interim consolidated financial statements.

See Note 2 Basis of Presentation and Going Concern

Signed on behalf of the Board,

"Timothy C. Baker"
Timothy C. Baker, Director

"Robert E. Doyle"
Robert E. Doyle, Director

GOLDEN STAR RESOURCES LTD.
CONDENSED INTERIM CONSOLIDATED STATEMENTS OF CASH FLOWS
(Stated in thousands of U.S. dollars)
(Unaudited)

	Notes	Three Months Ended March 31,	
		2020	2019
OPERATING ACTIVITIES:			
Net income/(loss)		12	(2,659)
Reconciliation of net loss to net cash provided by/(used in) operating activities:			
Depreciation and amortization	11	7,415	6,995
Share-based compensation expense	16	904	946
Income tax expense	8	8,235	7,202
(Gain)/loss on fair value of financial instruments, net	18	(4,062)	3,873
Recognition of deferred revenue	14	(2,337)	(3,547)
Reclamation expenditures	13	(806)	(689)
Other non-cash items	19	3,990	2,787
Changes in working capital	19	(9,802)	(15,498)
Net cash provided by/(used in) operating activities		3,549	(590)
INVESTING ACTIVITIES:			
Additions to mining interests	11	(12,476)	(13,142)
Change in accounts payable and deposits on mine equipment and material		(2,633)	1,854
Net cash used in investing activities		(15,109)	(11,288)
FINANCING ACTIVITIES:			
Principal payments on debt		(410)	(2,779)
Exercise of options		509	18
Net cash provided by/(used in) financing activities		99	(2,761)
Decrease in cash and cash equivalents		(11,461)	(14,639)
Cash and cash equivalents, beginning of period		53,367	96,507
Cash and cash equivalents, end of period		41,906	81,868

See Note 19 for supplemental cash flow information.

The accompanying notes are an integral part of the condensed interim consolidated financial statements.

GOLDEN STAR RESOURCES LTD.
CONDENSED INTERIM CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
(Stated in thousands of U.S. dollars except share data)
(Unaudited)

	Number of Common Shares	Share Capital	Contributed Surplus	Deficit	Non-Controlling Interest	Total Shareholders' Equity
Balance at January 1, 2019	108,819,009	908,035	37,258	(831,345)	(71,973)	41,975
Shares issued under options	5,350	30	(12)	—	—	18
Options granted net of forfeitures	—	—	585	—	—	585
Deferred share units granted	—	—	208	—	—	208
Performance and restricted share units granted	—	—	187	—	—	187
Net loss	—	—	—	(1,924)	(735)	(2,659)
Balance at March 31, 2019	108,824,359	908,065	38,226	(833,269)	(72,708)	40,314
Balance at December 31, 2019	109,385,063	910,205	38,964	(898,779)	(82,513)	(32,123)
Shares issued under DSUs	27,066	—	—	—	—	—
Shares issued under options	325,553	821	(312)	—	—	509
Options granted net of forfeitures	—	—	297	—	—	297
Deferred share units granted	—	—	230	—	—	230
Performance and restricted share units granted	—	—	243	—	—	243
PRSU settlement, net of tax	50,399	61	(115)	—	—	(54)
Net profit/(loss)	—	—	—	829	(817)	12
Balance at March 31, 2020	109,788,081	911,087	39,307	(897,950)	(83,330)	(30,886)

The accompanying notes are an integral part of the condensed interim consolidated financial statements.

GOLDEN STAR RESOURCES LTD.

NOTES TO THE CONDENSED INTERIM CONSOLIDATED FINANCIAL STATEMENTS FOR THE THREE MONTHS ENDED MARCH 31, 2020 AND 2019

(All currency amounts in tables are in thousands of U.S. dollars unless noted otherwise)
(Unaudited)

1. NATURE OF OPERATIONS

Golden Star Resources Ltd. ("Golden Star" or "the Company" or "we" or "our") is an international gold mining and exploration company incorporated under the *Canada Business Corporations Act* and headquartered in London, United Kingdom. The Company's shares are listed on the Toronto Stock Exchange under the symbol GSC, the NYSE American exchange (formerly NYSE MKT) under the symbol GSS and the Ghana Stock Exchange under the symbol GSR. The Company's registered office is located at 333 Bay Street, Suite 2400, Toronto, Ontario, M5H 2T6 Canada, and has corporate offices in London, United Kingdom and Accra, Ghana.

Through our 90% owned subsidiary, Golden Star (Wassa) Limited, we own and operate the Wassa open-pit gold mine, the Wassa underground mine and a carbon-in-leach processing plant (collectively, "Wassa"), located northeast of the town of Tarkwa, Ghana. Through our 90% owned subsidiary Golden Star (Bogoso/Prestea) Limited, we own and operate the Bogoso gold mining and processing operations, the Prestea open-pit mining operations and the Prestea underground mine (collectively "Prestea") located near the town of Prestea, Ghana. The Company also holds and manages interests in several gold exploration projects in Ghana.

2. BASIS OF PRESENTATION AND GOING CONCERN

Statement of compliance

These unaudited condensed interim consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board ("IASB") including International Accounting Standards ("IAS") 34 Interim Financial Reporting. These condensed interim consolidated financial statements should be read in conjunction with the Company's annual consolidated financial statements for the year ended December 31, 2019, which have been prepared in accordance with IFRS as issued by the IASB. The accounting policies and methods of application adopted are consistent with those disclosed in Note 3 of the Company's consolidated financial statements for the year ended December 31, 2019, except for the changes in accounting policies described in Note 3 below.

These condensed interim consolidated financial statements were approved by the Company's Board of Directors on May 6, 2020.

Basis of presentation

These condensed interim consolidated financial statements include the accounts of the Company and its subsidiaries, whether owned directly or indirectly. The financial statements of the subsidiaries are prepared for the same period as the Company using consistent accounting policies for all periods presented, except for the changes in accounting policies described in Note 3 below.

All inter-company balances and transactions have been eliminated. Subsidiaries are entities controlled by the Company. Non-controlling interests in the net assets of consolidated subsidiaries are a separate component of the Company's equity.

The condensed interim consolidated financial statements have been prepared on a historical cost basis, except for derivative financial instruments which are measured at fair value through profit or loss.

Going concern

As at March 31, 2020 the Company had cash and cash equivalents of \$41.9 million, net current liabilities excluding deferred revenue of \$15.4 million and net cash provided by operations before working capital changes for the three months then ended of \$13.4 million. As at March 31, 2020, the Company was compliant with its debt covenants.

With proactive management, gold production and gold shipments have continued without any material disruptions despite the impact of the COVID-19 pandemic. However, the Company is unable to provide any assurances that its planned operations, production and capital expenditure for the foreseeable future will not be delayed, postponed or cancelled as a result of the COVID-19 pandemic or otherwise. The pandemic could continue to affect financial markets, including the price of gold and the trading price of the Company's shares, could adversely affect the Company's ability to raise capital, and could cause continued interest rate volatility and movements that could make obtaining financing or refinancing debt obligations more challenging or more expensive or unavailable on commercially reasonable terms or at all. Furthermore, the Company may also experience regional risks which include, but are not limited to, a possible shut-down of the gold refining facility in South Africa where the Company delivers its gold production, an inability to ship gold across borders, delays in the supply chain of critical reagents, consumables and parts,

and the impact on the delivery of critical capital projects. Any of these events or circumstances could have a material adverse effect on the Company's business, financial condition and results of operations.

In the current economic environment with the potential impact of COVID-19, as well as the Company's current cash flow forecasts, there may be challenges in the Company's ability to generate sufficient free cash flow and/or raise additional financing in the foreseeable future that can be used to meet its ongoing obligations as they fall due.

As a result, the Company's management ("Management") has considered a range of downside scenarios taking into account the above-mentioned risks. In the event the Company breaches any of its credit facility covenants as a result of inability to meet the current financial forecast or due to the impact of the COVID-19 pandemic including due to any temporary shutdown of mining operations, it would require either waivers from its lenders or a liquidation of certain assets to repay borrowings. However, in this downside scenario Management would seek temporary waivers to the covenants from its lenders due to the nature of such breach being the result of COVID-19 imposed restrictions.

Management has concluded that it is appropriate to prepare the condensed interim consolidated financial statements on a going concern basis. However, as the waiver of credit facility covenants in the event of a breach and/or securing additional financing to ensure sufficient liquidity for the foreseeable future, are not wholly within Management's control, we do note the risk it represents as a material uncertainty which casts a substantial doubt upon the Company's continued ability to operate as a going concern, such that the Company may be unable to realize its assets and discharge its liabilities in the normal course of business.

These condensed interim consolidated financial statements do not reflect the adjustments to the carrying values of assets and liabilities and the reported expenses and balance sheet classifications that would be necessary if the Company were unable to realize the assets to settle its liabilities as a going concern in the normal course of operations. Such adjustments could be material.

3. CHANGES IN ACCOUNTING POLICIES

New Accounting Standards Effective 2020

The Company has adopted the following new and revised accounting standard effective January 1, 2020. These changes were made in accordance with the applicable transitional provisions.

Definition of a Business (Amendments to IFRS 3)

The amendments in Definition of a Business (Amendments to IFRS 3) are changes to Appendix A Defined terms, the application guidance, and the illustrative examples of IFRS 3 only. It:

- clarifies that to be considered a business, an acquired set of activities and assets must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs;
- narrow the definitions of a business and of outputs by focusing on goods and services provided to customers and by removing the reference to an ability to reduce costs;
- add guidance and illustrative examples to help entities assess whether a substantive process has been acquired;
- remove the assessment of whether market participants are capable of replacing any missing inputs or processes and continuing to produce outputs; and
- add an optional concentration test that permits a simplified assessment of whether an acquired set of activities and assets is not a business.

There was no accounting impact to the condensed interim consolidated financial statements on adoption of this standard.

Revenue recognition

Revenue from the sale of metal is recognized when the Company transfers control over to a customer. The Company's spot sales of gold are transported to a gold refiner who locates a buyer and arranges sale of the gold. Effective March 20, 2020 and until recommencement of commercial flights between Ghana and South Africa, the sale generally completes on the day of arrival of gold at the refinery in South Africa as a consequence of the change in shipment logistics due to the COVID-19 pandemic. Previously, the sale of gold completed on the same day the gold was shipped from the mine site. The sales price is generally set with reference to the London A.M. or P.M. fix on the day of arrival of gold at the refinery.

UK Performance Share Unit Plan

In February 2020, the Company adopted a new UK Performance Share Unit Plan ("UK PSU Plan") subject to shareholder approval. Under the UK PSU Plan, performance share units ("UK PSUs") may be issued to UK resident employees of the Company or its designated affiliates. UK PSUs may be redeemed for: (i) common shares issued from treasury; (ii) common shares purchased in the secondary market at the election of the participant and subject to consent of the Company; (iii) a cash payment at the election of the participant and subject to consent of the Company; or (iv) a combination of (i), (ii) and (iii).

Each UK PSU represents one notional common share that is redeemed for common shares or common shares and/or cash subject to the consent of the Company based on the value of a common share at the end of the three year performance period, to the extent performance and vesting criteria have been met. UK PSUs vest at the end of a three-year performance period. The award is determined by multiplying the number of UK PSUs by the performance adjustment factor, which ranges from 0% to 200%.

The performance adjustment factor is determined by comparing the Company's share price performance to the share price performance of a peer group of companies determined by the Compensation Committee of the Board of Directors. The Company plans to settle these awards in common shares of the Company and so they are accounted for as equity awards with corresponding compensation expense recognized.

4. SEGMENTED INFORMATION

Segmented revenue and results

The Company has reportable segments as identified by the individual mining operations. Segments are operations reviewed by the executive management. Each segment is identified based on quantitative and qualitative factors.

Three Months Ended March 31,	Wassa	Prestea	Other	Corporate	Total
2020					
Revenue	54,087	13,284	—	—	67,371
Mine operating expenses	25,366	17,124	—	—	42,490
Severance charges	45	5	—	—	50
Operating costs to metal inventory	(2,282)	(991)	—	—	(3,273)
Inventory net realizable value adjustment and write-off	—	18	—	—	18
Royalties	2,888	723	—	—	3,611
Cost of sales excluding depreciation and amortization	26,017	16,879	—	—	42,896
Depreciation and amortization	5,110	1,759	—	—	6,869
Mine operating margin/(loss)	22,960	(5,354)	—	—	17,606
Income tax expense	8,235	—	—	—	8,235
Net income/(loss) attributable to non-controlling interest	1,529	(2,346)	—	—	(817)
Net income/(loss) attributable to Golden Star	12,207	(5,380)	(1,065)	(4,933)	829
Capital expenditures	9,597	2,565	—	314	12,476
2019					
Revenue	53,992	13,265	—	—	67,257
Mine operating expenses	23,433	16,463	—	—	39,896
Severance charges	225	69	—	—	294
Operating costs from/(to) metal inventory	323	(1,103)	—	—	(780)
Inventory net realizable value adjustment and write-off	—	920	—	—	920
Royalties	2,799	675	—	—	3,474
Cost of sales excluding depreciation and amortization	26,780	17,024	—	—	43,804
Depreciation and amortization	4,372	2,490	—	—	6,862
Mine operating margin/(loss)	22,840	(6,249)	—	—	16,591
Income tax expense	7,202	—	—	—	7,202
Net income/(loss) attributable to non-controlling interest	1,438	(2,173)	—	—	(735)
Net income/(loss) attributable to Golden Star	12,410	(4,520)	(1,493)	(8,321)	(1,924)
Capital expenditures	11,066	2,076	—	—	13,142

Segmented Assets

The following table presents the segmented assets:

	Wassa	Prestea	Other	Corporate	Total
March 31, 2020					
Total assets	242,865	98,494	3,577	30,544	375,480
December 31, 2019					
Total assets	232,182	94,453	2,951	43,022	372,608

5. REVENUE

Revenue includes the following components:

	Three Months Ended March 31,	
	2020	2019
Revenue - Spot sales	63,564	62,204
Cash payment proceeds	1,470	1,506
Deferred revenue recognized	2,337	3,547
Revenue - Streaming Agreement	3,807	5,053
Total revenue	67,371	67,257

Information about major customers

In the three months ended March 31, 2020, approximately 90% (three months ended March 31, 2019 - 90%) of our gold production is sold through a gold refinery located in South Africa. Except for the sales to RGLD Gold AG ("RGLD"), a wholly owned subsidiary of Royal Gold, Inc. as part of the Streaming Agreement, the refinery arranges for the sale of gold typically on the day the gold dore arrives at the refinery and typically the Company receives payment for the refined gold sold two working days after the gold dore arrives at the refinery (see Note 3 *Revenue Recognition* for a description of the change to the sale of gold dore effective as of March 20, 2020). Previously, the sale of gold completed on the same day the gold was shipped from the mine site.

The global gold market is competitive with numerous banks and gold refineries willing to buy refined gold and gold dore on short notice. Therefore, we believe that the loss of one of our current customers would not materially delay or disrupt revenue.

6. COST OF SALES EXCLUDING DEPRECIATION AND AMORTIZATION

Cost of sales excluding depreciation and amortization include the following components:

	Three Months Ended March 31,	
	2020	2019
Mine operating expenses	42,490	39,896
Severance charges	50	294
Operating costs to metal inventory	(3,273)	(780)
Inventory net realizable value adjustment and write-off	18	920
Royalties	3,611	3,474
	42,896	43,804

7. FINANCE EXPENSE, NET

Finance expense and income include the following components:

	Three Months Ended	
	March 31, 2020	March 31, 2019
Interest expense on principal debt	1,905	2,482
Interest on financing component of deferred revenue (Note 14)	781	1,153
Accretion of 7% Convertible Debentures discount (Note 15)	646	560
Amortization of deferred financing fees	189	—
Accretion of rehabilitation provision (Note 13)	135	199
Interest income	(155)	(534)
Net foreign exchange gain	(138)	(313)
	3,363	3,547

8. INCOME TAXES

Income tax expense is recognized based on Management's estimate of the weighted average annual income tax rate expected for the full financial year. The provision for income taxes includes the following components:

	Three Months Ended March 31,	
	2020	2019
Current expense:		
Canada	—	—
Foreign	5,835	926
Deferred tax expense:		
Canada	—	—
Foreign	2,400	6,276
	<u>8,235</u>	<u>7,202</u>

The Ghana Revenue Authority (“GRA”) has issued a tax assessment to the Company’s subsidiary (Golden Star (Wassa) Limited) related to 2014-2016. The assessment claimed a reduction in the tax losses attributable by \$29 million. The Company believes that the majority of the matters noted in the assessment are incorrect and has filed an appeal in an attempt to resolve these matters. Overall, it is the Company’s current assessment that the relevant assessments and claims by the GRA are without merit. No amounts have been recorded for any potential liability and the Company intends to defend any follow up in relation to this matter should it arise. The amount of loss, if any, cannot be determined at the current time.

9. INCOME/(LOSS) PER COMMON SHARE

The following table provides a reconciliation between basic and diluted loss per common share:

	Three Months Ended March 31,	
	2020	2019
Net income/(loss) attributable to Golden Star shareholders	829	(1,924)
Adjustments:		
Interest expense on 7% Convertible Debentures	899	—
Accretion of 7% Convertible Debentures discount (Note 7)	646	—
(Gain)/loss on fair value of 7% Convertible Debentures embedded derivative (Note 18)	(3,651)	—
Diluted loss	<u>(1,277)</u>	<u>(1,924)</u>
Weighted average number of basic shares (millions)	109.6	108.8
Dilutive securities:		
7% Convertible Debentures	11.4	—
Weighted average number of diluted shares (millions)	<u>121.0</u>	<u>108.8</u>
Income/(loss) per share attributable to Golden Star shareholders:		
Basic	\$ 0.01	\$ (0.02)
Diluted	\$ (0.01)	\$ (0.02)

10. INVENTORIES

Inventories include the following components:

	As of March 31, 2020	As of December 31, 2019
Stockpiled ore	6,919	7,578
In-process ore	3,563	2,721
Finished goods	3,814	394
Materials and supplies	29,767	28,167
	<u>44,063</u>	<u>38,860</u>

The cost of inventories expensed for the three months ended March 31, 2020 and 2019 was \$39.3 million and \$43.8 million, respectively.

Net realizable value adjustment of \$0.0 million was recorded for stockpiled ore in the three months ended March 31, 2020 (three months ended March 31, 2019 - \$0.9 million).

11. MINING INTERESTS

The following table shows the breakdown of the cost, accumulated depreciation and net book value of plant and equipment, mining properties and construction in progress:

	Plant and equipment	Mining properties	Construction in progress	Total
Cost				
Balance at December 31, 2019	492,594	1,006,685	18,261	1,517,540
Additions	314	—	12,162	12,476
Change in rehabilitation provision estimate	—	2,554	—	2,554
Disposals and other	(50)	—	—	(50)
Balance at March 31, 2020	<u>492,858</u>	<u>1,009,239</u>	<u>30,423</u>	<u>1,532,520</u>
Accumulated depreciation				
Balance at December 31, 2019	450,263	802,588	—	1,252,851
Depreciation and amortization	3,060	4,355	—	7,415
Disposals and other	(12)	—	—	(12)
Balance at March 31, 2020	<u>453,311</u>	<u>806,943</u>	<u>—</u>	<u>1,260,254</u>
Carrying amount				
Balance at December 31, 2019	42,331	204,097	18,261	264,689
Balance at March 31, 2020	<u>39,547</u>	<u>202,296</u>	<u>30,423</u>	<u>272,266</u>

As at March 31, 2020, the right-of-use assets had net carrying amounts of \$3.8 million (December 31, 2019 - \$3.3 million). The total minimum lease payments are disclosed in Note 15 - Debt.

12. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

Accounts payable and accrued liabilities include the following components:

	As of March 31, 2020	As of December 31, 2019
Trade and other payables	42,242	44,494
Accrued liabilities	32,807	36,304
Payroll related liabilities	9,815	7,781
	<u>84,864</u>	<u>88,579</u>

See Note 22 for a reclassification of accrued liabilities as of December 31, 2019.

13. REHABILITATION PROVISIONS

At March 31, 2020, the total undiscounted amount of future cash needs for rehabilitation was estimated to be \$73.7 million. A discount rate assumption of 0.4%, an inflation rate assumption of 1.8% and a risk premium of 5% were used to value the rehabilitation provisions as at March 31, 2020. This compares to a discount rate assumption of 2%, an inflation rate assumption of 2% and a risk premium of 5% used as at December, 31 2019. The changes in the carrying amount of the rehabilitation provisions are as follows:

	For the Three Months Ended March 31, 2020	For the Year Ended December 31, 2019
Beginning balance	68,435	66,225
Accretion of rehabilitation provisions (Note 7)	135	730
Changes in estimates	4,684	4,651
Cost of reclamation work performed	(806)	(3,171)
Balance at the end of the period	<u>72,448</u>	<u>68,435</u>
Current portion	6,552	5,826
Long term portion	65,896	62,609
	<u>72,448</u>	<u>68,435</u>

14. DEFERRED REVENUE

The Company through its subsidiary Caystar Finance Co. completed a \$145 million gold purchase and sale agreement (“Streaming Agreement”) with RGLD. Golden Star will deliver 10.5% of gold production from Wassa and Prestea at a cash purchase price of 20% of spot gold until 240,000 ounces have been delivered. Thereafter, 5.5% of gold production will be delivered from Wassa and Prestea at a cash purchase price of 30% of spot gold price. As at March 31, 2020 the Company had delivered a total of 104,905 ounces of gold to RGLD since the inception of the Streaming Agreement.

During the three months ended March 31, 2020, the Company sold 4,724 ounces of gold to RGLD. Revenue recognized on the ounces sold to RGLD during the three months ended March 31, 2020 consisted of \$1.5 million of cash payment proceeds and \$2.3 million of deferred revenue recognized in the period (see Note 5).

	Three Months Ended March 31, 2020	Year Ended December 31, 2019
Beginning balance	113,975	119,948
Deferred revenue recognized (Note 5)	(2,337)	(13,334)
Variable consideration adjustment	—	3,073
Interest on financing component of deferred revenue (Note 7)	781	4,288
Balance at the end of the period	112,419	113,975
Current portion	12,265	11,191
Long term portion	100,154	102,784
Total	112,419	113,975

15. DEBT

The following table summarizes the components of the Company's current and long term debt:

	As of March 31, 2020	As of December 31, 2019
Current debt:		
Lease liabilities	715	987
Macquarie Credit Facility	20,000	15,000
	<u>20,715</u>	<u>15,987</u>
Long term debt:		
Lease liabilities	1,295	1,394
7% Convertible Debentures	47,648	47,002
Macquarie Credit Facility	37,683	42,386
	<u>86,626</u>	<u>90,782</u>

Macquarie Credit Facility

The Macquarie Credit Facility includes covenant clauses requiring the Company to maintain certain key financial ratios. The Company must maintain a Debt Service Coverage Ratio of greater than 1.20:1, tested quarterly on a rolling four-quarter basis as at the end of each of the fiscal quarters beginning with the fiscal quarter ending June 30, 2020; maintain a ratio of Net Debt to EBITDA of less than 3.00:1, tested quarterly on a rolling four-quarter basis as at the end of each of the fiscal quarters; demonstrate, on the basis of the consolidated financial statements and annual consolidated corporate budget, that from December 31, 2020 and for each fiscal quarter thereafter, the Convertible Debentures can be repaid in full in cash by the maturity in August 2021 while maintaining (after giving effect to such repayment in cash) a positive cash position (excluding restricted cash) of \$25 million; and ensure that at all times the sum of aggregate indebtedness does not exceed \$116.5 million. The Company is in compliance with all financial covenants of the Macquarie Credit Facility as at March 31, 2020.

7% Convertible Debentures

As at March 31, 2020, \$51.5 million principal amount of 7% Convertible Debentures remains outstanding.

The changes in the carrying amount of the 7% Convertible Debentures are as follows:

	Three Months Ended March 31, 2020	Year Ended December 31, 2019
Beginning balance	47,002	44,612
Accretion of 7% Convertible Debentures discount (Note 7)	646	2,390
Balance at the end of the period	<u>47,648</u>	<u>47,002</u>

Schedule of payments on outstanding debt as of March 31, 2020:

	Nine months ending December 31, 2020	Year ending December 31, 2021	Year ending December 31, 2022	Year ending December 31, 2023	Year ending December 31, 2024	Maturity
Lease liabilities						
Principal	715	319	314	314	314	2025
Interest	72	75	60	42	24	
7% Convertible Debentures						
Principal	—	51,498	—	—	—	2021
Interest	1,802	3,605	—	—	—	
Macquarie Credit Facility						
Principal	15,000	20,000	20,000	5,000	—	2023
Interest	2,334	2,110	983	70	—	
Total principal	<u>15,715</u>	<u>71,817</u>	<u>20,314</u>	<u>5,314</u>	<u>314</u>	
Total interest	<u>4,208</u>	<u>5,790</u>	<u>1,043</u>	<u>112</u>	<u>24</u>	
	<u>19,923</u>	<u>77,607</u>	<u>21,357</u>	<u>5,426</u>	<u>338</u>	

16. SHARE-BASED COMPENSATION

Share-based compensation expenses recognized in the condensed interim consolidated statements of operations and comprehensive income/(loss) are as follows:

	Three Months Ended March 31,	
	2020	2019
Share options	297	585
Deferred share units	230	208
Share appreciation rights	21	(34)
Performance share units	356	187
	<u>904</u>	<u>946</u>

Share options

The fair value of option grants is estimated at the grant dates using the Black-Scholes option-pricing model. Fair values of options granted during the three months ended March 31, 2020 and 2019 were based on the weighted average assumptions noted in the following table:

	Three Months Ended March 31,	
	2020	2019
Expected volatility	56.69%	50.53%
Risk-free interest rate	1.41%	1.80%
Expected lives	1.1 years	5.8 years

The weighted average fair value per option granted during the three months ended March 31, 2020 was \$0.96 CAD (three months ended March 31, 2019 - \$2.50 CAD). As at March 31, 2020, there was \$0.5 million of share-based compensation expense (March 31, 2019 - \$1.1 million) relating to the Company's share options to be recorded in future periods. For the three months ended March 31, 2020, the Company recognized an expense of \$0.3 million (three months ended March 31, 2019 - \$0.6 million).

A summary of option activity under the Company's Stock Option Plan during the three months ended March 31, 2020 is as follows:

	Options ('000)	Weighted- Average Exercise price (\$CAD)	Weighted- Average Remaining Contractual Term (Years)
Outstanding as of December 31, 2019	3,776	5.39	4.7
Granted	57	3.99	9.9
Exercised	(326)	2.15	4.8
Forfeited	(175)	6.63	5.8
Expired	(66)	17.13	—
Outstanding as of March 31, 2020	3,266	5.38	4.0
Exercisable as of December 31, 2019	3,320	5.41	4.1
Exercisable as of March 31, 2020	3,013	5.40	3.6

As of February 22, 2020, the Company no longer grants share options under the existing Stock Option Plan.

Deferred share units ("DSUs")

For the three months ended March 31, 2020, the DSUs that were granted vested immediately and a compensation expense of \$0.2 million was recognized for these grants (three months ended March 31, 2019 - \$0.2 million). As of March 31, 2020, there was no unrecognized compensation expense related to DSUs granted under the Company's DSU Plan.

The DSU activity during the three months ended March 31, 2020 and 2019 can be summarized as follows:

	Three Months Ended March 31,	
	2020	2019
Number of DSUs, beginning of period ('000)	1,274	1,086
Granted	76	63
Exercised	(27)	—
Number of DSUs, end of period ('000)	1,323	1,149

Share appreciation rights ("SARs")

As of March 31, 2020, there was approximately \$0.3 million of total unrecognized compensation cost related to unvested SARs (March 31, 2019 - \$0.4 million). For the three months ended March 31, 2020, the Company recognized \$0.02 million expense related to these cash settled awards (three months ended March 31, 2019 - \$0.03 million recovery).

The SARs activity during the three months ended March 31, 2020 and 2019 can be summarized as follows:

	Three Months Ended March 31,	
	2020	2019
Number of SARs, beginning of period ('000)	593	674
Granted	240	270
Exercised	—	(114)
Forfeited	(5)	(93)
Expired	—	(3)
Number of SARs, end of period ('000)	828	734

2017 Performance and restricted share units ("PRsUs")

PRsUs are accounted for as equity awards with a corresponding compensation expense recognized. For the three months ended March 31, 2020, the Company recognized \$0.1 million expense (three months ended March 31, 2019 - \$0.2 million).

The PRsU activity during the three months ended March 31, 2020 and 2019 can be summarized as follows:

	Three Months Ended March 31,	
	2020	2019
Number of PRsUs, beginning of period ('000)	634	791
Granted	—	432
Settled	(65)	—
Forfeited	(62)	—
Number of PRsUs, end of period ('000)	507	1,223

UK performance share units

In February 2020, subject to shareholder approval, the Company adopted a new UK PSU Plan and issued 1,409,326 share units to employees and officers of the Company. 4,714,484 share units were available for grant as at March 31, 2020, subject to shareholder approval of the UK PSU Plan. For the three months ended March 31, 2020, the Company recognized \$0.3 million expense (three months ended March 31, 2019 - \$nil).

The UK PSU activity during the three months ended March 31, 2020 and 2019 can be summarized as follows:

	Three Months Ended March 31,	
	2020	2019
Number of PSUs, beginning of period ('000)	—	—
Granted	1,409	—
Settled	—	—
Forfeited	—	—
Number of PSUs, end of period ('000)	1,409	—

17. RELATED PARTY TRANSACTIONS

There were no material related party transactions for the years ended March 31, 2020 and 2019 other than the items disclosed below.

Key management personnel

Key management personnel are defined as members of the Board of Directors and certain senior officers. Compensation of key management personnel are as follows, with such compensation made on terms equivalent to those prevailing in an arm's length transaction:

	Three Months Ended March 31,	
	2020	2019
Salaries, wages, and other benefits	1,778	701
Bonuses	267	328
Share-based compensation	520	732
	<u>2,565</u>	<u>1,761</u>

18. FINANCIAL INSTRUMENTS

The following tables illustrate the classification of the Company's recurring fair value measurements for financial instruments within the fair value hierarchy and their carrying values and fair values as at March 31, 2020 and December 31, 2019:

	Level	March 31, 2020		December 31, 2019	
		Carrying value	Fair value	Carrying value	Fair value
Financial Liabilities/(Assets)					
Fair value through profit or loss					
7% Convertible Debentures embedded derivative	3	1,957	1,957	5,608	5,608
Non-hedge derivative contracts	2	(199)	(199)	211	211

There were no non-recurring fair value measurements of financial instruments as at March 31, 2020.

The three levels of the fair value hierarchy are:

- Level 1 - Unadjusted quoted prices in active markets for identical assets or liabilities;
- Level 2 - Inputs other than quoted prices that are observable for the asset or liability either directly or indirectly; and
- Level 3 - Inputs that are not based on observable market data.

The Company's policy is to recognize transfers into and transfers out of the fair value hierarchy levels as of the date of the event or change in circumstances that caused the transfer. During the three months ended March 31, 2020, there were no transfers between the levels of the fair value hierarchy.

(Gain)/loss on fair value of financial instruments in the Statements of Operations and Comprehensive Income/(Loss) consists of the following:

	Three Months Ended March 31,	
	2020	2019
(Gain)/loss on fair value of 7% Convertible Debentures embedded derivative	(3,651)	3,873
Unrealized gain on non-hedge derivative contracts	(411)	—
	<u>(4,062)</u>	<u>3,873</u>

The valuation technique that is used to measure fair value is as follows:

7% Convertible Debentures embedded derivative

The debt component of the 7% Convertible Debentures is recorded at amortized cost using the effective interest rate method and the conversion feature is classified as an embedded derivative measured at fair value through profit or loss.

The embedded derivative was valued at March 31, 2020 and December 31, 2019 using a convertible note valuation model. The significant inputs used in the convertible note valuation are as follows:

	March 31, 2020	December 31, 2019
Embedded derivative		
Risk premium	18.0%	5.3%
Borrowing costs	7.5%	7.5%
Expected volatility	45.0%	45.0%
Remaining life (years)	1.35	1.6

The following table presents the changes in the 7% Convertible Debentures embedded derivative for the three months ended March 31, 2020:

	Fair value
Balance at December 31, 2019	5,608
Gain on fair value of 7% Convertible Debentures embedded derivative	(3,651)
Balance at March 31, 2020	<u>1,957</u>

If the risk premium increases by 10%, the fair value of the 7% Convertible Debentures embedded derivative would decrease and the related gain in the Statement of Operations would decrease by \$0.04 million at March 31, 2020.

If the borrowing costs increases by 10%, the fair value of the 7% Convertible Debentures embedded derivative would decrease and the related gain in the Statement of Operations would decrease by \$0.3 million at March 31, 2020.

If the expected volatility increases by 10%, the fair value of the 7% Convertible Debentures embedded derivative would increase and the related gain in the Statement of Operations would increase by \$0.6 million at March 31, 2020.

Non-hedge derivative contracts

During the year ended December 31, 2019, the Company entered into costless collars consisting of puts and calls, on 50,000 ounces of gold with a floor price of \$1,400 per ounce and a ceiling price of \$1,750 per ounce with maturity dates ranging from October 2019 to September 2020.

In February 2020, the Company entered into costless collars consisting of puts and calls on an additional 12,600 ounces with a floor price of \$1,500 per ounce and a ceiling price of \$1,992 per ounce. The additional positions will mature at a rate of 4,200 ounces per month from October 2020 to December 2020.

The non-hedge accounted collar contracts are considered fair value through profit or loss financial instruments with fair value determined using pricing models that utilize a variety of observable inputs that are a combination of quoted prices, applicable yield curves and credit spreads. The non-hedge derivative contracts are included with prepaids and other on the balance sheet while the prior year liability was reflected as part of accounts payable and accrued liabilities.

During the three months ended March 31, 2020, the Company recognized an unrealized gain of \$0.4 million on the non-hedge accounted collar contracts.

19. SUPPLEMENTAL CASH FLOW INFORMATION

During the three months ended March 31, 2020 and 2019, the Company paid interest and income taxes of \$2.8 million and \$2.3 million, respectively (three months ended March 31, 2019 - \$2.8 million and - \$nil, respectively).

Changes in working capital for the three months ended March 31, 2020 and 2019 are as follows:

	Three Months Ended March 31,	
	2020	2019
Decrease/(increase) in accounts receivable	1,028	(2,044)
Increase in inventories	(5,221)	(3,493)
(Increase)/decrease in prepaids and other	(2,336)	51
Decrease in accounts payable and accrued liabilities	(1,010)	(10,012)
Decrease in current income tax liabilities	(2,263)	—
Total changes in working capital	(9,802)	(15,498)

Other non-cash items include the following components:

	Three Months Ended March 31,	
	2020	2019
Loss on disposal of assets	39	—
Inventory net realizable value adjustment and write-off	18	920
Loss/(gain) on fair value of marketable securities	17	(3)
Accretion of vendor agreement	—	183
Accretion of rehabilitation provisions (Note 7)	135	199
Amortization of financing fees (Note 7)	189	42
Accretion of 7% Convertible Debentures discount (Note 7)	646	560
Interest on financing component of deferred revenue (Note 7)	781	1,153
Interest on lease obligation	36	8
Loss/(gain) on change in rehabilitation provisions	2,129	(275)
	3,990	2,787

Non-cash changes of liabilities arising from financing activities

During the three months ended March 31, 2020 and 2019, the non-cash change related to the changes in liabilities arising from financing activities is as follows:

	Three Months Ended March 31,	
	2020	2019
Accretion of debt	875	785

20. COMMITMENTS AND CONTINGENCIES

The Company has capital and operating commitments of \$7.0 million and \$12.0 million respectively, all of which are expected to be incurred within the next year.

Due to the nature of the Company's operations, various legal matters from time to time arise in the ordinary course of business. The Company accrues for such items when a liability is both probable and the amount can be reasonably estimated. In the opinion of Management, these matters will not have a material effect on the condensed interim consolidated financial statements of the Company.

The GRA issued a demand notice against Golden Star (Bogoso/Prestea) Limited, a subsidiary of the Company, for an amount relating to customs-related findings. Management is of the opinion that the Company complied with all requirements, and that there will be no amount payable. Therefore, no provision has been raised and the Company is attempting to resolve these matters by means of discussions with the GRA.

21. SUBSEQUENT EVENTS

On April 1, 2020, the Company received notification of a federal securities class action complaint (the “Complaint”) that has been filed against it on behalf of persons or entities that purchased or otherwise acquired the Company’s common stock on the NYSE American exchange from February 20, 2019 through July 30, 2019 inclusive. Also named as defendants are the Company’s Chief Executive Officer and Director Andrew Wray, the Company’s former President and Chief Executive Officer Samuel Coetzer, the Company’s former President Daniel Owiredu and the Company’s former Executive Vice President and Chief Financial Officer Andre van Niekerk. The Complaint alleges that the defendants violated Section 10(b) of the Securities Exchange Act of 1934 and Rule 10b -5, and Section 20(a) of the Securities Exchange Act of 1934 by making false and misleading statements to artificially inflate the Company’s stock price. The Complaint seeks unspecified damages, interest, costs and fees for attorneys and experts.

The Company has retained legal counsel in connection with the Complaint. The Company believes that the allegations made against it and its current and former officers in respect of the Complaint are meritless and will vigorously defend them, although no assurance can be given with respect to the ultimate outcome.

As the Complaint is in early stages, the Company cannot make a reasonable estimate of the financial effect and as such this is a non-adjusting event with no financial impact on the consolidated interim financial statements for the three months ended March 31, 2020.

22. PRIOR PERIOD COMPARATIVES

Certain balances in the consolidated balance sheet as at December 31, 2019 have been reclassified to reflect the appropriate classification of the income tax liability due its materiality in the current reporting period. The effect of this reclassification is to decrease prepaids and other by \$1.5 million, decrease accounts payable and accrued liabilities by \$2.3 million and increase current income tax liabilities by \$0.8 million as at December 31, 2019. The reclassification has no impact to the consolidated statement of operations and comprehensive income/(loss), consolidated statement of cash flows and consolidated statement of changes in equity for the year ended December 31, 2019.

Effective January 1, 2020, share-based compensation is excluded within corporate general and administrative expenses and as a result, the corporate general and administrative expenses for the three months ended March 31, 2020 has been reduced by \$0.9 million with share-based compensation of \$0.9 million presented as a separate line in the consolidated statement of operations and comprehensive income/(loss).

FORM 52 - 109F2
CERTIFICATION OF INTERIM FILINGS
FULL CERTIFICATE

I, Andrew Wray, Chief Executive Officer of Golden Star Resources Ltd., certify the following:

1. **Review:** I have reviewed the interim financial report and interim MD&A (together, the “interim filings”) of Golden Star Resources Ltd. (the “issuer”) for the interim period ended March 31, 2020.
2. **No misrepresentations:** Based on my knowledge, having exercised reasonable diligence, the interim filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, with respect to the period covered by the interim filings.
3. **Fair presentation:** Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the interim filings.
4. **Responsibility:** The issuer’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 *Certification of Disclosure in Issuers’ Annual and Interim Filings*, for the issuer.
 5. **Design:** Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer’s other certifying officer and I have, as at the end of the period covered by the interim filings
 - A. designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that
 - I. material information relating to the issuer is made known to us by others, particularly during the period in which the interim filings are being prepared; and
 - II. information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and
 - B. designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer’s GAAP.
- 5.1 **Control framework:** The control framework the issuer’s other certifying officer and I used to design the issuer’s ICFR is the Internal Control – Integrated Framework (COSO Framework) published by The Committee of Sponsoring Organizations of the Treadway Commission (2013).
- 5.2 **ICFR - material weakness relating to design:** N/A
- 5.3 **Limitation on scope of design:** N/A
6. **Reporting changes in ICFR:** The issuer has disclosed in its interim MD&A any change in the issuer’s ICFR that occurred during the period beginning on January 1, 2020 and ended on March 31, 2020 that has materially affected, or is reasonably likely to materially affect, the issuer’s ICFR.

Date: May 6, 2020

(signed) Andrew Wray

Andrew Wray
 Chief Executive Officer

FORM 52 - 109F2
CERTIFICATION OF INTERIM FILINGS
FULL CERTIFICATE

I, Paul Thomson, Executive Vice President and Chief Financial Officer of Golden Star Resources Ltd., certify the following:

1. **Review:** I have reviewed the interim financial report and interim MD&A (together, the “interim filings”) of Golden Star Resources Ltd. (the “issuer”) for the interim period ended March 31, 2020.
2. **No misrepresentations:** Based on my knowledge, having exercised reasonable diligence, the interim filings do not contain any untrue statement of a material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it was made, with respect to the period covered by the interim filings.
3. **Fair presentation:** Based on my knowledge, having exercised reasonable diligence, the interim financial report together with the other financial information included in the interim filings fairly present in all material respects the financial condition, financial performance and cash flows of the issuer, as of the date of and for the periods presented in the interim filings.
4. **Responsibility:** The issuer’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR), as those terms are defined in National Instrument 52-109 *Certification of Disclosure in Issuers’ Annual and Interim Filings*, for the issuer.
5. **Design:** Subject to the limitations, if any, described in paragraphs 5.2 and 5.3, the issuer’s other certifying officer and I have, as at the end of the period covered by the interim filings
 - A. designed DC&P, or caused it to be designed under our supervision, to provide reasonable assurance that
 - I. material information relating to the issuer is made known to us by others, particularly during the period in which the interim filings are being prepared; and
 - II. information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and
 - B. designed ICFR, or caused it to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with the issuer’s GAAP.
- 5.1 **Control framework:** The control framework the issuer’s other certifying officer and I used to design the issuer’s ICFR is the Internal Control – Integrated Framework (COSO Framework) published by The Committee of Sponsoring Organizations of the Treadway Commission (2013).
- 5.2 **ICFR - material weakness relating to design:** N/A
- 5.3 **Limitation on scope of design:** N/A
6. **Reporting changes in ICFR:** The issuer has disclosed in its interim MD&A any change in the issuer’s ICFR that occurred during the period beginning on January 1, 2020 and ended on March 31, 2020 that has materially affected, or is reasonably likely to materially affect, the issuer’s ICFR.

Date: May 6, 2020

(signed) Paul Thomson

Paul Thomson
 Executive Vice President and Chief Financial Officer