



Management's Discussion and Analysis

For the Three and Six Months Ended June 30, 2017

TABLE OF CONTENTS

OVERVIEW OF GOLDEN STAR	5
SUMMARY OF OPERATING AND FINANCIAL RESULTS	5
OUTLOOK FOR 2017	9
CORPORATE DEVELOPMENTS	9
DEVELOPMENT PROJECTS UPDATE	11
WASSA OPERATIONS	13
PRESTEA OPERATIONS	16
SUMMARIZED QUARTERLY FINANCIAL RESULTS	18
USE OF PROCEEDS FROM FINANCING	18
LIQUIDITY AND FINANCIAL CONDITION	18
LIQUIDITY OUTLOOK	19
TABLE OF CONTRACTUAL OBLIGATIONS	19
RELATED PARTY TRANSACTIONS	20
OFF-BALANCE SHEET ARRANGEMENTS	20
NON-GAAP FINANCIAL MEASURES	20
OUTSTANDING SHARE DATA	24
CRITICAL ACCOUNTING JUDGEMENTS, ESTIMATES AND ASSUMPTIONS	24
CHANGES IN ACCOUNTING POLICIES	24
FINANCIAL INSTRUMENTS	25
DISCLOSURES ABOUT RISKS	25
CONTROLS AND PROCEDURES	25
ADDITIONAL INFORMATION	26

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

The following discussion and analysis 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 Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") should be read in conjunction with the Company's condensed interim consolidated financial statements and related notes for the three and six months ended June 30, 2017, which are prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). This MD&A includes information available to, and is dated, August 1, 2017. Unless noted otherwise, all currency amounts are stated in U.S. dollars and all 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 thereof. Forward-looking information and statements in this MD&A include, but are not limited to, information or statements with respect to: production, cash operating costs and all-in sustaining costs estimates for 2017; capital expenditures, including sustaining capital and development capital, for 2017; the contribution of Wassa Main Pit to Wassa production going forward; higher grade ore from Wassa Underground partially replacing Wassa Main Pit feed to the plant; the timing for the results of drilling at the B Shoot zone of Wassa Underground; the timing for extension drilling of the West Reef of Prestea Underground; the mineral profile of the West Reef of Prestea Underground; production from Wassa Underground operations increasing in 2018 once the mining operations begin access to the larger, transverse stopes; the respective timing for the commencement of stoping and commercial production at Prestea Underground; the impact on ore grades as Prestea Underground proceeds to the stoping phase and as 24 Level waste development reduces; total construction capital expenditures prior to commercial production at Prestea Underground; pre-commercial production revenue at Prestea Underground; the normalization of costs as the open pit and underground operations at Wassa are optimized; the Company's debt repayment and servicing obligations for 2017 and beyond; rehabilitation obligations of the Company and provisions therefor; the sufficiency of cash available to support the Company's 2017 operations and mandatory expenditures; compensation of the reduction in ounces from Prestea Underground by the extension to the mine lives of the Prestea Open Pits; mining the first stopes of the B Shoot at Wassa Underground via longitudinal stoping and the width of these stopes; plans to use transverse stoping to mine Wassa Underground and the timing thereof, as well as the impact on production from Wassa Underground in the second half of 2017; availability of cash to support the Company's 2017 operations and mandatory expenditures; gold production increases at Wassa Underground from the third quarter of 2017 onwards; the B Shoot being a higher grade area of the Wassa Underground ore body; production at Prestea Underground during the development phase of the project; exploration spending during 2017; the sufficiency of the Company's existing cash balance; and working capital, debt repayments and requirements for additional capital.

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, 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; 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, 2016. 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 Dr. Martin Raffield, Senior Vice-President, Technical Services for Golden Star who is a “qualified person” as defined by National Instrument 43-101 - Standards of Disclosure for Mineral Projects (“NI 43-101”) and by S. Mitchel Wasel, BSc Geology who is a Qualified Person pursuant to NI 43-101. Mr. Wasel is Vice President Exploration for Golden Star and an active member of the Australasian Institute of Mining and Metallurgy. 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 compliance 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, 2016 and the following current technical reports for those properties available at www.sedar.com: (i) Wassa - “NI 43-101 Technical Report on feasibility study of the Wassa open pit mine and underground project in Ghana” effective date December 31, 2014; (ii) Bogoso - “NI 43-101 Technical Report on Resources and Reserves Golden Star Resources Ltd., Bogoso Prestea Gold Mine, Ghana” effective date December 31, 2013; and (iii) Prestea Underground - “NI 43-101 Technical Report on a Feasibility Study of the Prestea Underground Gold Project in Ghana” effective date November 3, 2015.

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 or indicated mineral resources will ever be upgraded into mineral reserves.

OVERVIEW OF GOLDEN STAR

Golden Star is an established gold producer that holds a 90% interest in the Wassa and Prestea gold mines in Ghana. The Company has two open pit producing mines (Wassa Main Pit and the Prestea Open Pits), one producing underground mine ("Wassa Underground") and one underground development project ("Prestea Underground"). Wassa Underground achieved commercial production on January 1, 2017 and Prestea Underground is expected to achieve commercial production in the fourth quarter of 2017. 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, Ghana and with the SEC in the United States.

SUMMARY OF OPERATING AND FINANCIAL RESULTS

		Three Months Ended June 30,		Six Months Ended June 30,	
OPERATING SUMMARY		2017	2016	2017	2016
Wassa Main Pit gold sold	oz	18,697	21,092	38,747	51,978
Wassa Underground gold sold	oz	13,288	993	24,769	993
Prestea open pits gold sold	oz	31,294	20,912	57,907	42,694
Prestea Underground gold sold	oz	325	—	325	—
Total gold sold	oz	63,604	42,997	121,748	95,665
Total gold produced	oz	64,176	42,461	121,970	95,677
Average realized gold price ¹	\$/oz	1,222	1,225	1,201	1,189
Cash operating cost per ounce - Consolidated ²	\$/oz	785	959	791	826
Cash operating cost per ounce - Wassa ²	\$/oz	980	975	961	815
Cash operating cost per ounce - Prestea ²	\$/oz	585	943	605	841
Cost of sales per ounce - Consolidated ²	\$/oz	1,012	1,121	1,020	992
Cost of sales per ounce - Wassa ²	\$/oz	1,235	1,189	1,226	1,022
Cost of sales per ounce - Prestea ²	\$/oz	785	1,053	795	956
All-in sustaining cost per ounce - Consolidated ²	\$/oz	960	1,185	968	1,016

¹ Average realized gold price per ounce excludes pre-commercial production ounces sold at Prestea Underground in 2017 and at Wassa Underground in 2016.

² 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 before depreciation and amortization.

		Three Months Ended June 30,		Six Months Ended June 30,	
FINANCIAL SUMMARY		2017	2016	2017	2016
Gold revenues	\$'000	77,335	51,457	145,880	112,524
Cost of sales excluding depreciation and amortization	\$'000	55,173	42,956	106,579	84,014
Depreciation and amortization	\$'000	8,893	4,136	17,332	9,932
Mine operating margin	\$'000	13,269	4,365	21,969	18,578
General and administrative expense	\$'000	1,953	8,645	9,945	15,867
(Gain)/loss on fair value of financial instruments, net	\$'000	(4,907)	18,071	(7,405)	20,278
Net income/(loss) attributable to Golden Star shareholders	\$'000	13,883	(22,034)	14,053	(19,983)
Adjusted net income attributable to Golden Star shareholders ¹	\$'000	7,703	1,433	11,114	9,971
Income/(loss) per share attributable to Golden Star shareholders - basic	\$/share	0.04	(0.08)	0.04	(0.08)
Income/(loss) per share attributable to Golden Star shareholders - diluted	\$/share	0.02	(0.08)	0.03	(0.08)
Adjusted income per share attributable to Golden Star shareholders - basic ¹	\$/share	0.02	0.01	0.03	0.04
Cash provided by operations	\$'000	11,082	6,123	20,520	7,051
Cash provided by operations before working capital changes ²	\$'000	14,198	19,293	31,923	30,060
Cash provided by operations per share - basic	\$/share	0.03	0.02	0.06	0.03
Cash provided by operations before working capital changes per share - basic ²	\$/share	0.04	0.07	0.09	0.12
Capital expenditures	\$'000	18,307	23,007	35,010	38,921

¹ See "Non-GAAP Financial Measures" section for a reconciliation of adjusted net income attributable to Golden Star shareholders and adjusted income per share attributable to Golden Star shareholders to net income attributable to Golden Star shareholders and income per share attributable to Golden Star shareholders.

² 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 operations before working capitals per share - basic.

- **Gold revenues totaled \$77.3 million in the second quarter of 2017, compared to \$51.5 million in the same period in 2016.** The 50% increase in gold revenues was due to higher gold production at both Prestea and Wassa operations. Gold revenues from Prestea increased by 49% during the second quarter of 2017 as its gold sales attributable to the Prestea open pits increased by 50% compared to the same period in 2016. Gold revenues from Wassa increased by 52% during the second quarter of 2017 as a result of increase in gold sales attributable to the Wassa Underground. The consolidated average realized gold price was \$1,222 per ounce in the second quarter of 2017, compared to \$1,225 per ounce for the same period in 2016. For the six months ended June 30, 2017, gold revenue totaled \$145.9 million, a 30% increase compared to \$112.5 million in the same period in 2016 due to higher production at both Prestea and Wassa operations.
- **Gold sales of 63,604 ounces in the second quarter of 2017 were 48% higher than the 42,997 ounces sold in the same period in 2016.** Prestea gold sales of 31,619 ounces in the second quarter of 2017 were 51% higher than the same period in 2016 due to higher ore grade processed and higher recovery. The higher ore grade processed at Prestea in the second quarter of 2017 was a result of mining the higher grade Mampon deposit. Gold sales from Wassa of 31,985 ounces in the second quarter of 2017 was 45% higher than the same period in 2016. For the second quarter of 2017, 13,288 ounces (or 42%) of gold sold were attributed to the higher grade Wassa Underground and 18,697 ounces (or 58%) of gold sold were attributed to the Wassa Main Pit. The production from the Wassa Underground Mine is intended to replace part of the prior year's Main Pit feed in the plant with higher grade underground ore. Wassa Main Pit is expected to continue to reduce its contribution going forward as the Wassa Underground Mine continues to ramp up. For the six months ended June 30, 2017, gold sales of 121,748 ounces were 27% higher than the 95,665 ounces sold in the same period in 2016 due to higher production in both operations.
- **Cost of sales excluding depreciation and amortization in the second quarter of 2017 totaled \$55.2 million compared to \$43.0 million in the same period in 2016.** The 28% increase in cost of sales excluding depreciation and amortization for the second quarter of 2017 was due mainly to higher mining costs at Wassa as it continues to transition into a new business model from solely operating an open pit operation, to a combination of open pit and underground mining operations. Wassa Underground was placed into commercial production on January 1, 2017, and as a result mining costs were higher in 2017 when compared to the same period of 2016. Underground mining costs were previously capitalized in 2016. In addition, there was a \$5.7 million increase in inventory charges in the second quarter of 2017 compared to the same period in 2016 due to a

drawdown of stockpiles at Wassa. The increase in cost of sales excluding depreciation and amortization at Wassa were slightly offset by the decrease in cost of sales excluding depreciation and amortization at Prestea as Prestea had a build up of inventories during the second quarter of 2017. For the six months ended June 30, 2017, cost of sales excluding depreciation and amortization totaled \$106.6 million, 27% higher compared to \$84.0 million in the same period in 2016 due mainly to an increase in inventory charge as a result of drawdown of stockpiles at Wassa and an increase in mining costs at Wassa as a result of the additional underground mining costs in 2017 that were capitalized in 2016.

- **Consolidated cost of sales per ounce was \$1,012 in the second quarter of 2017, 10% lower than \$1,121 in the same period in 2016. Consolidated cash operating cost per ounce was \$785 in the second quarter of 2017, 18% lower than \$959 in the same period in 2016.** Prestea achieved a 38% improvement in cash operating cost per ounce in the second quarter of 2017 compared to the same period in 2016 as a result of higher gold production from mining the higher grade Mampon deposit. The lower costs per ounce at Prestea were offset by the higher costs per ounce at Wassa due to the higher mining costs. Wassa's higher mining costs were largely due to underground mining costs in 2017 which were capitalized in 2016 as well as a higher strip ratio and stockpile drawdown at the open pit operation. For the six months ended June 30, 2017, consolidated cost of sales per ounce was \$1,020, 3% higher than \$992 in the same period in 2016 due mainly to higher mining costs at Wassa resulting from the additional underground mining costs in 2017 which were capitalized in 2016, offset by an improvement in costs per ounce at Prestea as a result of higher production.
- **Depreciation and amortization expense totaled \$8.9 million in the second quarter of 2017 compared to \$4.1 million in the same period in 2016.** For the six months ended June 30, 2017, depreciation and amortization expense totaled \$17.3 million compared to \$9.9 million in the same period in 2016. The increase in depreciation and amortization expense for the three and six months ended June 30, 2017 were due primarily to the commencement of depreciation on Wassa Underground assets in 2017 as a result of achieving commercial production, higher production at Prestea and lower mineral reserve and resource estimates for Prestea Open Pits compared to 2016.
- **General and administrative costs totaled \$2.0 million in the second quarter of 2017, compared to \$8.6 million in the same period in 2016.** For the six months ended June 30, 2017, general and administrative costs totaled \$9.9 million compared to \$15.9 million in the same period in 2016. The decrease in general and administrative costs for both the three and six months ended June 30, 2017 were due to a decline in non-cash share based compensation compared to the same periods in prior year.
- **The Company recorded a gain of \$4.9 million on fair value of financial instruments in the second quarter of 2017 compared to a loss of \$18.1 million in the same period in 2016.** The gain in the second quarter of 2017 was comprised of a \$4.0 million non-cash revaluation gain on the embedded derivative liability of the 7% Convertible Debentures, a \$1.0 million non-cash revaluation gain on the warrants offset by a \$0.1 million non-cash revaluation loss on the 5% Convertible Debentures. The \$18.1 million fair value loss recognized in the second quarter of 2016 was comprised of a \$15.7 million non-cash revaluation loss on the 5% Convertible Debentures, a \$0.9 million non-cash revaluation loss on warrants, a \$1.5 million non-cash revaluation loss on forward and collar contracts and a \$0.5 million realized loss on settled forward and collar contracts, offset by a \$0.5 million gain on repurchase of the 5% Convertible Debentures. The valuation techniques used for these financial instruments are disclosed in the "Financial Instruments" section of this MD&A. For the six months ended June 30, 2017, the Company recorded \$7.4 million of fair value gain on financial instruments compared to \$20.3 million fair value loss for the same period in 2016.
- **Net income attributable to Golden Star shareholders for the second quarter of 2017 totaled \$13.9 million or \$0.04 income per share, compared to a net loss of \$22.0 million or \$0.08 loss per share in the same period in 2016.** For the six months ended June 30, 2017, net income attributable to Golden Star shareholders totaled \$14.1 million or \$0.04 income per share, compared to a net loss of \$20.0 million or \$0.08 loss per share for the same period in 2016. The net income attributable to Golden Star shareholders in the three and six months ended June 30, 2017 compared to a net loss attributable to Golden Star shareholders for the same periods in 2016 was due primarily to a higher mine operating margin at Prestea in the three and six months ended June 30, 2017 and a fair value gain on financial instruments in the three and six months ended June 30, 2017 compared to a fair value loss on financial instruments in the same periods in 2016. These were partially offset by a mine operating loss at Wassa in the three and six months ended June 30, 2017 compared to a mine operating margin at Wassa in the same periods in 2016.
- **Adjusted net income attributable to Golden Star shareholders (see "Non-GAAP Financial Measures" section) was \$7.7 million in the second quarter of 2017, compared to \$1.4 million for the same period in 2016.** For the six months ended June 30, 2017, adjusted net income attributable to Golden Star shareholders totaled \$11.1 million compared to \$10.0 million in the same period in 2016. The higher adjusted net income attributable to Golden Star shareholders for the three and six months ended June 30, 2017 was mainly due to higher mine operating margin at Prestea in 2017, partially offset by a mine operating loss at Wassa in 2017 compared to a mine operating margin at Wassa in 2016. The higher mine operating margin at Prestea in the three and six months ended June 30, 2017 was due to higher production as a result of mining at the higher grade Mampon deposit.

- **Cash provided by operations before working capital was \$14.2 million for the second quarter of 2017, compared to \$19.3 million in the same period in 2016.** The decrease in cash provided by operations before working capital was due to a \$20.0 million advance payment under the streaming agreement from RGLD Gold AG ("RGLD") during the second quarter of 2016 compared to \$nil in the same period in 2017, and the mine operating loss at Wassa in the second quarter of 2017 compared to a mine operating margin in the same period in 2016. The decrease was partially offset by a higher mine operating margin at Prestea in the second quarter of 2017 compared to the same period in 2016. For the six months ended June 30, 2017, cash provided operations before working capital changes was \$31.9 million compared to \$30.1 million in the same period in 2016.
- **Capital expenditures for the second quarter of 2017 totaled \$18.3 million compared to \$23.0 million in the same period in 2016.** Capital expenditures at Prestea during the second quarter of 2017 included \$12.5 million on expenditures relating to the development of the Prestea Underground Mine, \$0.6 million relating to Mampon development expenditures, \$0.7 million relating to development of the Prestea Open Pit Mines and \$0.5 million related to exploration drilling. The major capital expenditures in the second quarter of 2017 at Wassa included \$1.9 million of expenditures relating to Wassa Underground Mine, \$0.6 million for the improvement of the tailings storage facility and \$0.6 million of equipment purchases. For the six months ended June 30, 2017, capital expenditures totaled \$35.0 million compared to \$38.9 million in the same period in 2016.

OUTLOOK FOR 2017

Production and cost guidance

Production, and cost guidance for 2017 is now as follows:

	Gold production	Cash operating costs	All-in sustaining costs
	thousands of ounces	\$ per ounce	\$ per ounce
Wassa Main Pit	65 - 70		
Wassa Underground	70 - 80		
Wassa Consolidated	135 - 150	880 - 935	
Prestea Open Pit Mines	95 - 100		
Prestea Underground ¹	25 - 30		
Prestea Consolidated	120 - 130	680 - 725	
Consolidated	255 - 280	780 - 860	970 - 1,070

¹ Costs incurred at Prestea Underground will be capitalized until commercial production is achieved. As a result, pre-commercial production costs are reflected in the Company's development capital expenditure guidance set out in the table below and are not included in the Company's cash operating cost per ounce guidance set out in the table above.

At the end of the second quarter of 2017, Golden Star confirms its consolidated 2017 guidance for gold production of 255,000-280,000 ounces. As a result of stronger than expected performance during the first half of 2017 at the Prestea Open Pits and Wassa Underground and the weaker than anticipated performance at Wassa Main Pit and the delay at Prestea Underground, the individual asset production and cost guidances were updated accordingly.

Capital expenditures guidance

Capital expenditures guidance for 2017 is revised as follows:

	Sustaining	Development	Total
	\$ millions	\$ millions	\$ millions
Wassa Main Pit	2.6	2.3	4.9
Wassa Underground	9.2	7.7	16.9
Prestea Open Pit Mines	4.3	0.6	4.9
Prestea Underground	0.2	35.9	36.1
Exploration	—	6.5	6.5
Consolidated	16.3	53.0	69.3

The achievement of commercial production at Prestea Underground is now expected to be achieved in the fourth quarter of 2017, instead of the third quarter of 2017. As a result, Prestea Underground's capital expenditure is expected to increase from \$31.2 million to \$36.1 million for the full year 2017. To date, \$22.8 million has been incurred on the development of Prestea Underground and the Company expects to spend \$13.3 million in the second half of 2017.

During the first half of the year the Company's underground mining rate at Wassa Underground was stronger than expected and Golden Star expects to improve the development rate further in the second half of the year. As a result, Wassa Underground's capital expenditure is now expected to be \$16.9 million, an increase of \$4.5 million compared to previous estimates, due to the additional capitalized mining costs associated with the development.

CORPORATE DEVELOPMENTS

Gold prices

Spot gold prices were down slightly from \$1,249 per ounce at the end of the first quarter of 2017 to \$1,242 per ounce on June 30, 2017. The Company realized an average gold price of \$1,222 per ounce for gold sales during the second quarter of 2017, compared to an average realized gold price of \$1,225 per ounce for the same period in 2016. The spot gold price on August 1, 2017 was \$1,271 per ounce.

Revenue from spot sales during the second quarter of 2017 resulted in an average realized price of \$1,258 per ounce whereas revenue recognized from the gold purchase and sale agreement (the "Streaming Agreement") with RGLD resulted in an average realized price of \$830 per ounce.

	Three Months Ended June 30, 2017		
	\$'000	Ounces	Realized price per ounce
Revenue - Stream arrangement			
Cash proceeds	\$ 1,338		
Deferred revenue recognized	3,096		
	\$ 4,434	5,339	\$ 830
Revenue - Spot sales	72,901	57,940	1,258
Total revenue	\$ 77,335	63,279	\$ 1,222

Repayment of 5% Convertible Debentures

On May 26, 2017, the Company repaid the remaining \$13.6 million principal amount of its 5% Convertible Debentures plus accrued interest of \$0.3 million that were due June 1, 2017. All of the 5% Convertible Debentures are now settled and no longer outstanding.

2017 Performance and restricted share units plan

On May 4, 2017, the Company adopted a 2017 performance and restricted share unit plan (the "2017 PRSU Plan"). Pursuant to the 2017 PRSU Plan, performance share units ("2017 PSUs") and restricted share units ("2017 RSUs" and, together with the 2017 PSUs, the "Share Units") may be issued to any employee or officer of the Corporation or its designated affiliates. Share Units may be redeemed for: (i) common shares issued from treasury; (ii) common shares purchased in the secondary market; (iii) a cash payment; or (iv) a combination of (i), (ii) and (iii).

Each Share Unit represents one notional common share that is redeemed for common shares or common shares plus 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. The Share Units vest at the end of a three year performance period based on the Company's total shareholder return relative to a performance peer group of gold companies as listed in the 2017 PRSU Plan. The award is determined by multiplying the number of Share Units by the performance adjustment factor, which range 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. As the Company is required to settle these awards in common shares or common shares plus cash subject to the consent of the Company, they are accounted for as equity awards with corresponding compensation expense recognized. For the six months ended June 30, 2017, the Company recognized an expense of \$0.1 million.

Mining at Mampon

Mining at the Mampon deposit that was commenced in March 2017 continued during the second quarter of 2017. Mampon is a high grade, open pit, oxide deposit, with mineral reserves of 301,000 tonnes at 4.64 grams per tonne ("g/t") for 45,000 ounces of gold. Mampon is 65 km to the north of the carbon-in-leach processing plant at Bogoso/Prestea. Trucking of the higher grade ore from Mampon began in early April 2017 and it is being blended with ore from the Prestea Open Pits.

Exploration Update

During the second quarter of 2017, drilling was conducted at both the Wassa and Prestea mines, in line with the 2017 exploration strategy.

At Wassa, four surface rigs were employed during the quarter, with two of these focused on assessing the potential extension of the B Shoot zone to the North and South of the current ore body. Five holes (1,845 metres) were drilled in total in this area and the results are expected to be announced later in the third quarter of 2017. The first hole of a 200 metre step out program along the B and F Shoot trends to the South was also initiated during the quarter. This had reached a depth of 913 metres at June 30, 2017, and drilling was completed at 1,192 metres by mid-July, 2017, with logging and sampling having commenced. The directional drilling of a daughter hole, which was wedged from the initial hole at 587 metres, has been commenced and similarly to the first hole, the planned total depth for this hole is between 1,000 and 1,200 metres. As at July 30, 2017 the second hole reached a total depth of 675 metres. A fourth rig conducted in-fill drilling during the second quarter of 2017 in the planned Cut 3 pit design of the Wassa Main Pit.

At Prestea, one underground drill rig focused on in-fill drilling the first five planned stopes of the West Reef ore body. Twenty holes have been drilled (3,205 metres) and the first 14 results from this program were released on July 6, 2017, including 1.1m grading 75.7 g/t of gold ("Au") from 147.0 metres and 2.0 metres grading 26.9 g/t Au from 148.2 metres. These results confirm

the previously modelled high grade nature, strong continuity of gold mineralization and thickness of the West Reef ore body (averaging 1.5 metres). Golden Star expects to begin the extension drilling of the West Reef during the third quarter of 2017.

Board of Directors

Following the annual general meeting on May 4, 2017, the Company welcomed the Honourable Mona Quartey to the Board of Directors. Ms. Quartey has 26 years of experience in risk management, treasury and corporate finance. Based in Accra, Ghana, she is the Managing Partner of BVM Advisory Services, which acts as a consultant to both public and private sector bodies. From July 2014 to January 2017, she served as Deputy Finance Minister in charge of Economic Strategy for the Ghana Ministry of Finance and prior to that she held a variety of senior roles in Ghana and in the United States of America. Tony Jensen and Bill Yeates retired from the Board of Directors at the conclusion of the annual general meeting.

DEVELOPMENT PROJECTS UPDATE

Prestea

The Prestea mine consists of an underground mine that has been in existence for over 100 years along with adjacent surface deposits. The Prestea mine is located 16 km south of the Bogoso mine and processing plants in the town of Prestea. The underground mine is in the final stages of refurbishment and development continues for the mechanized shrinkage (Alimak) stoping. A number of high grade surface deposits exist to the south of the underground mine, which the Company is currently processing through the non-refractory processing plant.

Prestea Underground Development

By the end of the second quarter of 2017, the refurbishment of Prestea Underground was in its final stages and development of the second stope of the West Reef had commenced. All five Alimak raise climbers were on site and the winder upgrades were complete, enabling an increase in hoisting capacity to achieve the targeted production rate in 2017.

By July 30, 2017 the first raise development was completed. The raise had been screened and bolted and longhole drilling had commenced for hanging wall cable bolt installation. The second raise had advanced 132 metres and the third and fourth Alimak nests are under construction. The first stope is expected to be blasted during the third quarter of 2017.

During the second quarter of 2017 the original installed pumping system at Prestea Underground began to come under pressure due to the increased mining activity. As a result, the Company took the decision to suspend hoisting in order to safeguard the shaft infrastructure. The suspension impacted the rate of waste development as the operations team prioritised the stope raise development. Development material was stockpiled underground allowing raise development to continue throughout the period. By the start of the third quarter of 2017, the situation was rectified and hoisting resumed.

As of July 30, 2017, 18,890 tonnes of development ore and 18,264 tonnes of waste from Prestea Underground have been hoisted and delivered to the processing plant's run-of-mine pad. The average grade of the ore hoisted is estimated at 5.3 g/t. This ore has been diluted from the average stope grade of 13.9 g/t because the raise width extends outside of the average width of the orebody. Further dilution of the hoisted ore grade comes from waste development on 24 Level, which has not been batched through the tramming and hoisting system. It is expected that ore grades will rise towards the Mineral Reserve grade at the project proceeds to the stoping phase and the 24 Level waste development reduces.

Currently this ore is being blended and processed with ore from the Prestea Open Pits and the Mampon deposit. The ore from Prestea Underground has performed as anticipated in terms of metallurgical recovery and its non-refractory nature. The grades recorded from samples taken from the two raises, in-fill drilling and muck samples have also continued to confirm the expected grade profile of the West Reef.

Golden Star previously expected to produce 45,000-50,000 ounces of gold from Prestea Underground in 2017. Due to the delays experienced, the Company now expects to produce 25,000-30,000 ounces of gold from Prestea Underground in 2017. The reduction in ounces from Prestea Underground is anticipated to be compensated for by the extension to the mine lives of the Prestea Open Pits, so the 2017 guidance range for total ounces produced from the two Prestea operations has been increased by 10,000 ounces. It is anticipated that the first stoping ore will be blasted at Prestea Underground during the third quarter of 2017 and commercial production will be achieved during the fourth quarter of 2017.

The capital expenditures for Prestea Underground Mine incurred to the end of the second quarter of 2017 are shown in the table below:

(in millions of U.S. dollars)	Second Quarter 2017	Year-to- date	Project-to- date
Capital spending	\$ 11.2	\$ 20.6	\$ 60.0
Capitalized borrowing costs	1.3	2.2	5.9
Capital expenditures	<u>\$ 12.5</u>	<u>\$ 22.8</u>	<u>\$ 65.9</u>

Total construction capital expenditures prior to commercial production, net of pre-commercial production revenue, is expected to be \$69 million for the underground mine. This includes \$14 million of project capital and capitalized borrowing costs, which will continue to be capitalized until commercial production, which is expected to occur in the fourth quarter of 2017. The Company expects to incur total capital expenditures, net of pre-commercial production revenue, of approximately \$26 million in 2017 prior to achieving commercial production in the fourth quarter of 2017. This change from previous projection of \$18 million is a result of reallocating costs from operating costs to capital costs in the third quarter of 2017.

WASSA OPERATIONS

Through a 90% owned subsidiary, Golden Star (Wassa) Limited, the Company owns and operates the Wassa Main Pit (an open pit mine) and Wassa Underground (an underground mine). The Wassa operations are located in the southwestern region of Ghana, approximately 35 kilometers northeast of the town of Tarkwa. 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. Ore from both the Wassa Main Pit and Wassa Underground is processed at the Wassa processing plant.

		Three Months Ended June 30,		Six Months Ended June 30,	
		2017	2016	2017	2016
WASSA FINANCIAL RESULTS					
Revenue	\$'000	\$ 38,942	\$ 25,649	\$ 76,192	\$ 61,598
Mine operating expenses	\$'000	28,408	23,291	56,633	47,326
Severance charges	\$'000	—	—	954	113
Royalties	\$'000	2,024	1,361	3,937	3,225
Operating costs from/(to) metals inventory	\$'000	2,948	(2,733)	4,430	(4,968)
Inventory net realizable value adjustment	\$'000	1,299	—	1,804	—
Cost of sales excluding depreciation and amortization	\$'000	34,679	21,919	67,758	45,696
Depreciation and amortization	\$'000	4,827	3,149	10,131	7,428
Mine operating (loss)/margin	\$'000	\$ (564)	\$ 581	\$ (1,697)	\$ 8,474
Capital expenditures	\$'000	3,611	13,413	6,644	21,951
WASSA OPERATING RESULTS					
Ore mined - Main Pit	t	322,705	627,497	684,929	1,237,016
Ore mined - Underground	t	143,702	23,492	297,564	23,492
Ore mined - Total	t	466,407	650,989	982,493	1,260,508
Waste mined - Main Pit	t	1,647,798	2,612,501	3,556,623	4,954,161
Waste mined - Underground	t	28,826	16,984	82,943	108,530
Waste mined - Total	t	1,676,624	2,629,485	3,639,566	5,062,691
Ore processed - Main Pit	t	490,159	556,776	991,527	1,106,170
Ore processed - Underground	t	145,016	16,984	300,399	108,530
Ore processed - Total	t	635,175	573,760	1,291,926	1,214,700
Grade processed - Main Pit	g/t	1.23	1.16	1.25	1.28
Grade processed - Underground	g/t	3.02	1.93	2.73	1.33
Recovery	%	94.6	94.0	93.8	94.0
Gold produced - Main Pit	oz	18,873	20,550	38,740	51,822
Gold produced - Underground	oz	13,288	993	24,769	993
Gold produced - Total	oz	32,161	21,543	63,509	52,815
Gold sold - Main Pit	oz	18,697	21,092	38,747	51,978
Gold sold - Underground	oz	13,288	993	24,769	993
Gold sold - Total	oz	31,985	22,085	63,516	52,971
Cost of sales per ounce ¹	\$/oz	1,235	1,189	1,226	1,022
Cash operating cost per ounce ¹	\$/oz	980	975	961	815

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

For the three months ended June 30, 2017 compared to three months ended June 30, 2016

Production

Wassa Underground

Wassa Underground contributed 145,016 tonnes at a grade of 3.02 g/t for 13,288 ounces (or 41% of Wassa's total production in the second quarter of 2017). In the second quarter of 2017, mining operations accessed the higher grade B Shoot zone. The higher grade ore from Wassa Underground is intended to partially replace Wassa Main Pit feed to the plant. Production from the underground operations is anticipated to increase in 2018 once the mining operations begin access to the larger, transverse stopes.

Wassa Main Pit

Production from Wassa Main Pit was 490,159 tonnes at a grade of 1.23 g/t for 18,873 ounces (or 59% of Wassa's total production) in the second quarter of 2017, a decrease of 8% compared to the same period in 2016. The production from Wassa Underground reduced the amount of ore needed from the Main Pit to feed the plant. Wassa Main Pit is expected to reduce its contribution going forward as the Wassa Underground operations ramp up.

Gold revenues

Gold revenues for the second quarter of 2017 were \$38.9 million, up 52% from \$25.6 million in the same period in 2016 due mainly to a 52% increase in gold ounces sold. Gold sold totaled 31,985 ounces in the second quarter of 2017, compared to 22,085 ounces in the same period in 2016. The achievement of commercial production of Wassa Underground on January 1, 2017 contributed to the increase in gold revenue.

For the second quarter of 2017, 42% of gold revenues at Wassa were attributable to Wassa Underground. Wassa gold revenues in the second quarter of 2016 were exclusively from the Wassa Main Pit. The realized gold price averaged \$1,218 per ounce in the second quarter of 2017, compared to \$1,216 per ounce for the same period in 2016.

Cost of sales excluding depreciation and amortization

Cost of sales excluding depreciation and amortization was \$34.7 million for the second quarter of 2017, compared to \$21.9 million incurred during the same period in 2016. The higher cost of sales in the second quarter of 2017 was a result of an increase in mining costs due primarily to the addition of the underground mining costs that were capitalized in the same period in 2016 as well as a higher strip ratio at the open pit operations. Additionally, there was a \$5.7 million increase in inventory charges in the second quarter of 2017 compared to the same period in 2016 due to a drawdown of stockpiles at Wassa during the second quarter of 2017. Finally, a \$1.3 million net realizable value adjustment recorded in the second quarter of 2017 compared to \$nil in the second quarter of 2016 contributed to the increase in cost of sales.

Depreciation and amortization

Depreciation and amortization increased to \$4.8 million for the second quarter of 2017, compared to \$3.1 million for the same period in 2016 due to commencement of depreciation and amortization on Wassa Underground assets as commercial production was achieved on January 1, 2017.

Costs per ounce

Cost of sales per ounce for the second quarter of 2017 totaled \$1,235, up 4% from \$1,189 in the same period in 2016 mainly due to higher depreciation and amortization expenses. Cash operating cost per ounce for the second quarter of 2017 totaled \$980, up 1% from \$975 for the same period in 2016. The higher costs per ounce in the second quarter of 2017 as compared to the same period in 2016 were primarily a result of higher mining costs. Wassa's higher mining costs were largely due to transitioning into a new business model from solely operating an open pit operation to a combination of open pit and underground operations. The higher costs per ounce from the underground operation began to normalize in the second quarter of 2017 as compared to the first quarter of 2017 as the mining costs per tonne for the underground operations continue to optimize.

Capital expenditures

Capital expenditures for the second quarter of 2017 totaled \$3.6 million compared with \$13.4 million during the same period in 2016. Sustaining capital expenditures were \$0.8 million for the second quarter of 2017 compared to \$2.0 million for the same period in 2016. Development capital expenditures were \$2.8 million for the second quarter of 2017 compared to \$11.4 million in the same period in 2016. Development capital expenditures in the second quarter of 2017 included \$1.9 million relating to the development of the Wassa Underground Mine and \$0.6 million for the improvement of the tailings storage facility.

For the six months ended June 30, 2017 compared to six months ended June 30, 2016

Production

Wassa Underground

In its first half-year of commercial production, Wassa Underground contributed 300,399 tonnes at a grade of 2.73 g/t for 24,769 ounces (or 39% of Wassa's total production in the first half of 2017). For most of the first quarter of 2017, underground mining operation accessed the lower grade F shoot. Beginning in late March and continued into the second quarter, mining operation transitioned into the higher grade B Shoot zone. The higher grade ore from Wassa Underground is intended to partially replace Wassa Main Pit feed to the plant. Production from the underground operations is anticipated to increase in 2018 once the mining operations begin access to the larger, transverse stopes.

Wassa Main Pit

Production from Wassa Main Pit was 991,527 tonnes at a grade of 1.25 g/t for 38,740 ounces (or 61% of Wassa's total production) in the first half of 2017, a decrease of 25% compared to the same period in 2016. This was due to the increased production from Wassa Underground, which reduced the amount of ore needed from the Main Pit to feed the plant. Wassa Main Pit is expected to reduce its contribution going forwards as the underground operations ramp up.

Gold revenues

Gold revenues for the first half of 2017 were \$76.2 million, up 24% from \$61.6 million in the same period in 2016 due mainly to a 22% increase in gold ounces sold. Gold sold totaled 63,516 ounces in the first half of 2017, compared to 52,971 ounces in the same period in 2016. The achievement of commercial production of Wassa Underground at January 1, 2017 contributed to the gold revenues, however gold revenues attributable to the Wassa Main Pit declined due to the scheduled reduction of ore tonnes supplied from the Wassa Main Pit as described above.

For the first half of 2017, 39% of gold revenues at Wassa were attributable to Wassa Underground. Wassa gold revenues in the first half of 2016 were exclusively from the Wassa Main Pit. The realized gold price averaged \$1,200 per ounce in the first half of 2017, compared to \$1,185 per ounce for the same period in 2016.

Cost of sales excluding depreciation and amortization

Cost of sales excluding depreciation and amortization was \$67.8 million for the first half of 2017, compared to \$45.7 million incurred during the same period in 2016. The higher cost of sales in the first half of 2017 was a result of an increase in mining costs due primarily to the addition of the underground mining costs that were capitalized in 2016 as well as a higher strip ratio at the open pit operation. Additionally, there was a \$9.4 million increase in inventory charges in the first half of 2017 compared to the same period in 2016 due to a drawdown of stockpiles at Wassa during the first half of 2017, and a \$1.8 million net realizable value adjustment recorded on inventory.

Depreciation and amortization

Depreciation and amortization expense increased to \$10.1 million for the first half of 2017, compared to \$7.4 million for the same period in 2016 due to commencement of depreciation and amortization on Wassa Underground assets as commercial production was achieved on January 1, 2017.

Costs per ounce

Cost of sales per ounce for the first half of 2017 totaled \$1,226, up 20% from \$1,022 in the same period in 2016 mainly due to higher depreciation and amortization expenses. Cash operating cost per ounce for the first half of 2017 totaled \$961, up 18% from the same period in 2016. The higher costs per ounce in the first half of 2017 as compared to the same period in 2016 were primarily a result of higher mining costs. Wassa's higher mining costs were largely due to transitioning into a new business model from solely operating an open pit operation to a combination of open pit and underground operations. Higher costs are expected to normalize again as the open pit and underground operations are optimized.

Capital expenditures

Capital expenditures for the first half of 2017 were \$6.6 million compared with \$22.0 million during the same period in 2016. Development capital expenditures were \$5.8 million for the first half of 2017 compared to \$19.1 million in the same period in 2016. Development capital expenditures in the first half of 2017 included \$3.6 million of expenditures relating to the development of Wassa Underground and \$1.6 million for the improvement of the tailings storage facility.

PRESTEA OPERATIONS

Through a 90% owned subsidiary, Golden Star (Bogoso/Prestea) Limited, the Company owns and operates the Bogoso gold mining and processing operations, the Prestea mining operations located near the town of Prestea, Ghana. Prestea has a CIL processing facility, which is suitable for treating non-refractory gold ore (the “non-refractory plant”) with capacity of up to 1.5 million tonnes per annum.

The Prestea mining operations consist of an underground mine, neighbouring open pit, oxide deposits and associated support facilities. Prestea currently processes ores from the Prestea Open Pits through the non-refractory plant. Ore feed from the open pit operations commenced in the third quarter of 2015. The Prestea Underground Mine is currently being refurbished and commercial production is expected to be achieved in the fourth quarter of 2017.

		Three Months Ended June 30,		Six Months Ended June 30,		
		2017	2016	2017	2016	
PRESTEA FINANCIAL RESULTS						
Revenue	\$'000	\$ 38,393	\$ 25,808	\$ 69,688	\$ 50,926	
Mine operating expenses	\$'000	20,860	18,654	37,688	36,066	
Severance charges	\$'000	—	—	—	(184)	
Royalties	\$'000	2,194	1,320	3,804	2,616	
Operating costs (to)/from metals inventory	\$'000	(2,560)	1,063	(2,671)	(180)	
Cost of sales excluding depreciation and amortization	\$'000	20,494	21,037	38,821	38,318	
Depreciation and amortization	\$'000	4,066	987	7,201	2,504	
Mine operating margin	\$'000	\$ 13,833	\$ 3,784	\$ 23,666	\$ 10,104	
Capital expenditures	\$'000	14,696	9,594	28,366	16,970	

PRESTEA OPERATING RESULTS

Ore mined	t	351,860	306,157	692,399	689,334
Waste mined	t	955,691	1,067,206	1,538,753	2,212,531
Ore processed	t	370,928	377,636	759,459	739,938
Grade processed	g/t	3.15	1.95	2.72	2.07
Recovery	%	88.4	85.9	88.6	85.1
Gold produced	oz	32,014	20,918	58,460	42,862
Gold sold - Open pits	oz	31,294	20,912	57,907	42,694
Gold sold - Underground	oz	325	—	325	—
Gold sold - total	oz	31,619	20,912	58,232	42,694
Cost of sales per ounce ¹	\$/oz	785	1,053	795	956
Cash operating cost per ounce ¹	\$/oz	585	943	605	841

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

For the three months ended June 30, 2017 compared to three months ended June 30, 2016

Production

Prestea gold production was 32,014 ounces for the second quarter of 2017, a 53% increase from the 20,918 ounces produced during the same period in 2016 due to higher ore grade processed and higher recovery. The higher ore grade processed in the second quarter of 2017 was a result of mining the higher grade Mampon deposit.

Gold revenues

Gold revenues for the second quarter of 2017 were \$38.4 million, up 49% from \$25.8 million in the second quarter of 2016 as a result of a 51% increase in gold sales. Gold revenue from incidental gold sales attributable to the Prestea Underground Mine is accounted for as a reduction to the capital expenditures for the development of the Prestea Underground Mine as the Prestea

Underground Mine had not achieved commercial production. The realized gold price averaged \$1,227 per ounce in the second quarter of 2017, compared with \$1,234 per ounce in the same period in 2016. Gold sold totaled 31,619 ounces in the second quarter of 2017, compared to 20,912 ounces in the same period of 2016.

Cost of sales excluding depreciation and amortization

Cost of sales excluding depreciation and amortization was \$20.5 million for the second quarter of 2017, down from \$21.0 million for the same period in 2016, due to a build up of inventories offset by increase in mine operating expenses and increase in royalty costs. Mine operating expenses totaled \$20.9 million in the second quarter of 2016, 12% higher than the \$18.7 million incurred during the same period in 2016, mainly as a result of higher haulage costs for the materials mined at the Mampon deposit.

Depreciation and amortization

Depreciation and amortization expense increased to \$4.1 million for the second quarter of 2017, compared to \$1.0 million for the same period in 2016. The higher depreciation and amortization for the second quarter of 2017 was due to higher production and lower reserve base for Prestea Open Pits compared to the same period in 2016.

Costs per ounce

Cost of sales per ounce for the second quarter of 2017 totaled \$785, down 25% from \$1,053 for the same period in 2016. Cash operating cost per ounce was \$585 for the second quarter of 2017, down 38% from \$943 for the same period in 2016. The lower cost of sales per ounce and cash operating cost per ounce were due to higher production as a result of mining at the higher grade Mampon deposit in the second quarter of 2017 compared to the same period in 2016.

Capital expenditures

Capital expenditures for the second quarter of 2017 were \$14.7 million compared to \$9.6 million incurred during the same period in 2016. The increase relates primarily to an increase in development capital expenditures, which totaled \$13.5 million in the second quarter of 2017 compared to \$8.4 million in the same period in 2016. Development capital expenditures in the second quarter of 2017 included \$12.5 million related to the development of the Prestea Underground Mine and \$0.5 million related to exploration drilling.

For the six months ended June 30, 2017 compared to six months ended June 30, 2016

Production

Prestea gold production was 58,460 ounces for the first half of 2017, a 36% increase from the 42,862 ounces produced during the same period in 2016 due to higher throughput, higher ore grade processed and higher recovery. The higher ore grade processed in 2017 was a result of mining the higher grade Mampon deposit.

Gold revenues

Gold revenues for the first half of 2017 were \$69.7 million, up 37% from \$50.9 million in the same period in 2016 as a result of a 36% increase in gold sales attributable to the Prestea Open Pits and a 1% increase in average realized gold price. The realized gold price averaged \$1,203 per ounce in the first half of 2017, compared to \$1,193 per ounce in the same period in 2016. Gold sold totaled 58,232 ounces in the first half of 2017, compared to 42,694 ounces in the same period in 2016.

Cost of sales excluding depreciation and amortization

Cost of sales excluding depreciation and amortization was \$38.8 million for the first half of 2017, compared to \$38.3 million for the same period in 2016. Cost of sales excluding depreciation and amortization in the first half of 2017 was comparable to the same period in 2016. The increase in mine operating expenses and the increase in royalty costs were offset by a higher build up of inventories. Mine operating expenses increased compared to the same period in 2016 due to higher haulage costs for the material mined at the Mampon deposit and higher processing costs as a result of an increase in throughput.

Depreciation and amortization

Depreciation and amortization expense increased to \$7.2 million for the first half of 2017, compared to \$2.5 million for the same period in 2016. The higher depreciation and amortization in the first half of 2017 was due to higher production and lower reserve base for Prestea Open Pits compared to 2016.

Costs per ounce

Cost of sales per ounce for the first half of 2017 totaled \$795, down 17% from \$956 for the same period in 2016. Cash operating cost per ounce was \$605 for the first half of 2017, down 28% from \$841 for the same period in 2016. The lower cost of sales per ounce and cash operating cost per ounce were due to an increase in gold production in the first half of 2017 as a result of mining at the higher grade Mampon deposit compared to the same period in 2016.

Capital expenditures

Capital expenditures for the first half of 2017 were \$28.4 million compared to \$17.0 million incurred during the same period in 2016. The increase relates primarily to an increase in development capital expenditures, which totaled \$24.3 million in the first half of 2017 compared to \$14.6 million for the same period in 2016. Development capital expenditures in the first half of 2017 included \$22.8 million related to the development of the Prestea Underground Mine and \$0.9 million related to exploration drilling.

SUMMARIZED QUARTERLY FINANCIAL RESULTS

(Stated in thousands of U.S dollars except per share data)	Three Months Ended,							
	Q2 2017	Q1 2017	Q4 2016	Q3 2016	Q2 2016	Q1 2016	Q4 2015	Q3 2015
Revenues	\$ 77,335	\$ 68,545	\$ 53,255	\$ 55,511	\$ 51,457	\$ 61,067	\$ 56,420	\$ 56,452
Cost of sales excluding depreciation and amortization	55,173	51,406	43,994	44,608	42,956	41,058	39,354	55,199
Net income/(loss)	13,681	(250)	2,551	(23,792)	(22,836)	2,314	14,217	(8,526)
Net income/(loss) attributable to shareholders of Golden Star	13,883	170	3,446	(23,110)	(22,034)	2,051	13,781	(6,832)
Adjusted net income/(loss) attributable to Golden Star shareholders ¹	7,703	3,411	64	1,148	1,433	8,538	7,003	(11,205)
Income/(loss) per share attributable to Golden Star shareholders - basic	0.04	0.00	0.01	(0.07)	(0.08)	0.01	0.05	(0.03)
Income/(loss) per share attributable to Golden Star shareholders - diluted	0.02	0.00	0.01	(0.07)	(0.08)	0.01	0.05	(0.03)
Adjusted income/(loss) per share attributable to Golden Star shareholders - basic ¹	0.02	0.01	0.00	0.01	0.01	0.03	0.03	(0.04)

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 to net income/(loss) attributable to Golden Star shareholders and income/(loss) per share attributable to Golden Star shareholders.

USE OF PROCEEDS FROM FINANCING

On February 7, 2017, the Company completed a bought deal public offering which resulted in the issuance of 31,363,950 common shares, including 4,090,950 common shares issued upon full exercise of the over allotment option, at a price CAD\$1.10 per share for net proceeds of \$24.5 million.

The following table compares how the Company intended to use the net proceeds against the actual use of these funds:

Purpose	Intended use ¹	Actual use
Repayment of the Company's 5% Convertible Debentures	\$3.8 million - \$7.5 million	\$13.9 million
Capital expenditures	\$6.0 million - \$9.8 million	\$ 2.6 million
Exploration projects	\$2.3 million - \$4.5 million	\$ 2.6 million
Working capital and general corporate purposes	\$12.4 million - \$2.7 million	\$ 5.4 million

¹ The intended use of proceeds was disclosed in the final prospectus filed on January 31, 2017 in Canadian dollars. These amounts were translated from Canadian dollars into US dollars using an exchange rate of 1.3265, which is the exchange rate used in the final prospectus.

LIQUIDITY AND FINANCIAL CONDITION

The Company held \$25.9 million in cash and cash equivalents as of June 30, 2017, up from \$21.8 million at December 31, 2016. During the six months ended June 30, 2017, operations provided \$20.5 million, investing activities used \$35.9 million and financing activities provided \$19.6 million of cash.

Before working capital changes, operations provided \$31.9 million of operating cash flow during the six months ended June 30, 2017, compared to \$30.1 million in the same period in 2016. Cash provided by operations before working capital changes included a \$10.0 million advance payment received from RGLD under the streaming agreement during the first quarter of 2017.

Working capital used \$11.4 million during the first half of 2017, compared to \$23.0 million in the same period in 2016. The working capital changes in the first half of 2017 included a \$8.8 million decrease in accounts payable and accrued liabilities, a \$2.3 million increase in inventory, a \$1.2 million increase in prepaid and other, offset by a \$0.9 million decrease in accounts receivable.

Investing activities used \$35.9 million during the first half of 2017, which included \$22.8 million on the development of the Prestea Underground Mine, \$3.0 million on the development of the Mampon property, \$3.6 million on the development of the Wassa Underground Mine, \$1.6 million on exploration drilling, \$1.6 million on the expansion of the tailings storage facility at Wassa and \$1.4 million on the Prestea Open Pit mines.

Financing activities provided \$19.6 million cash in the first half of 2017 compared to \$10.4 million in the same period in 2016. Financing activities for the first half of 2017 included net proceeds of \$24.5 million from the bought deal public offering in February 2017, \$10.0 million proceeds from the Ecobank Loan III (as defined below), \$13.6 million repayment of the 5% Convertible Debentures and \$1.4 million principal repayments of debt.

LIQUIDITY OUTLOOK

As of June 30, 2017, the Company had \$25.9 million in cash and a working capital deficit of \$45.0 million compared to \$21.8 million in cash and a working capital deficit of \$60.5 million at December 31, 2016. In addition to cash operating costs, the Company pays a 5% royalty to the Government of Ghana, reclamation expenditures and corporate general and administration expenditures.

The Company expects to incur \$34 million on capital expenditures during the second half of 2017, of which approximately \$23 million is development capital expenditure and approximately \$11 million is sustaining capital expenditure.

The Company's debt repayment and servicing obligation for the remainder of 2017 are expected to total approximately \$4.7 million. The excess cash flow provision of the Royal Gold loan came into effect at the end of the second quarter of 2017. The Company was not required to make any excess cash flow payment during the second quarter of 2017. The excess cash flow provision requires the Company to make mandatory repayments of 25% of excess cash flow in 2017 as defined in the Royal Gold loan agreement.

In March 2017, the Company through its subsidiary Golden Star (Wassa) Limited signed a commitment letter with Ecobank Ghana Limited regarding a \$25 million secured facility ("Ecobank Loan III"). The Company has twelve months from the date of the commitment letter to make drawdowns on the facility. At August 1, 2017, the Company has drawn \$10 million from the facility. The Company has remaining \$15 million available for drawdowns under the facility.

Based on the Company's cash balance together with the operating cash flow that the Company anticipates generating and the remaining amount available from the Ecobank Loan III, the Company believes that it will have sufficient cash available to support its 2017 operations and mandatory expenditures. However, operating cash flow may decline in certain circumstances, most of which are beyond the Company's control, such as decreases in gold prices or increases in the cost of raw materials and inputs used by the Company to produce gold.

TABLE OF CONTRACTUAL OBLIGATIONS

(Stated in thousands of U.S dollars)	Payment due by period				
	Less than 1 Year	1 to 3 years	4 to 5 years	More than 5 Years	Total
Accounts payable and accrued liabilities	\$ 86,242	\$ —	\$ —	\$ —	\$ 86,242
Debt ^{1,3}	723	49,970	57,054	—	107,747
Interest on long term debt	3,980	12,989	7,940	—	24,909
Purchase obligations	15,157	—	—	—	15,157
Rehabilitation provisions ²	4,828	20,807	24,281	33,473	83,389
Total	\$ 110,930	\$ 83,766	\$ 89,275	\$ 33,473	\$ 317,444

¹ Includes the outstanding repayment amounts from the 7% Convertible Debentures maturing on August 15, 2021, the loan from Royal Gold, the finance leases, the equipment financing loans and the vendor agreement.

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

³ The excess cash flow provision of the Royal Gold loan came into effect at the end of the second quarter of 2017. The excess cash flow provision as defined in the Royal Gold loan agreement requires the Company to make mandatory repayments of 25% of excess cash flow for the remainder of 2017 and mandatory repayments of 50% excess cash flow beginning 2018 until maturity. As excess cash flow is dependent upon factors beyond the Company's control such as gold price, no excess cash flow repayments have been considered. The table of contractual obligations shows the total principal amount settled at maturity. Interest payments on the Royal Gold loan are based on the average daily London Bullion Market Association ("LBMA") gold price multiplied by 62.5%

divided by 10,000 to a maximum interest rate of 11.5% per annum. The estimated interest payments are calculated based on \$1,200 per ounce LBMA gold price.

RELATED PARTY TRANSACTIONS

There were no material related party transactions in the three and six months ended June 30, 2017 and 2016 other than compensation of key management personnel which is presented in the table below. Key management personnel are defined as members of the Board of Directors and certain senior officers. Compensation of key management personnel are made on terms equivalent to those prevailing in an arm's length transaction.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
Salaries, wages, and other benefits	\$ 581	\$ 618	\$ 1,367	\$ 1,189
Bonuses	328	285	656	531
Share-based compensation	(830)	4,039	616	7,030
	<u>\$ 79</u>	<u>\$ 4,942</u>	<u>\$ 2,639</u>	<u>\$ 8,750</u>

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 attributable to Golden Star shareholders", "adjusted income per share attributable to Golden Star shareholders", "cash provided by operations before working capital changes", and "cash provided by operations before working capital changes per share - basic".

"Cost of sales excluding depreciation and amortization" as found in the statements of operations includes all mine-site operating costs, including the costs of mining, ore processing, maintenance, work-in-process inventory changes, mine-site overhead as well as production taxes, royalties, 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.

"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 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 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, 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 metals net realizable value adjustment, royalties, sustaining capital expenditures, corporate general and administrative costs (excluding non-cash share-based compensation expenses), and accretion of rehabilitation provision. "All-in sustaining costs per ounce" is that amount divided by the number of ounces of gold sold (excluding pre-commercial production ounces sold) during the period. This measure seeks to represent the total costs of producing gold from current operations, and therefore it does not include capital expenditures attributable to projects or mine expansions, exploration and evaluation costs attributable to growth projects, income tax payments, interest costs or dividend payments. Consequently, this measure is not representative of all of the Company's cash expenditures. In addition, the calculation of all-in sustaining costs does not include depreciation expense as it does not reflect the impact of expenditures incurred in prior periods. Therefore, it is not indicative of the Company's overall profitability. Non-cash share-based compensation expenses are now 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. Non-cash share-based compensation expenses were

previously included in the calculation of all-in sustaining costs. The Company has presented comparative figures to conform with the computation of all-in sustaining costs as currently calculated by the Company.

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 also 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.

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 costs per ounce:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
(Stated in thousands of U.S dollars except cost per ounce data)				
Cost of sales excluding depreciation and amortization	\$ 55,173	\$ 42,956	\$ 106,579	\$ 84,014
Depreciation and amortization	8,893	4,136	17,332	9,932
Cost of sales	<u>\$ 64,066</u>	<u>\$ 47,092</u>	<u>\$ 123,911</u>	<u>\$ 93,946</u>
Cost of sales excluding depreciation and amortization	\$ 55,173	\$ 42,956	\$ 106,579	\$ 84,014
Severance charges	—	—	(954)	71
Royalties	(4,218)	(2,681)	(7,741)	(5,841)
Metals inventory net realizable value adjustment	(1,299)	—	(1,804)	—
Cash operating costs	<u>49,656</u>	<u>40,275</u>	<u>96,080</u>	<u>78,244</u>
Royalties	4,218	2,681	7,741	5,841
Metals inventory net realizable value adjustment	1,299	—	1,804	—
Accretion of rehabilitation provision	311	342	622	684
General and administrative costs, excluding share-based compensation	3,226	3,249	6,503	6,127
Sustaining capital expenditures	2,045	3,248	4,819	5,263
All-in sustaining costs	<u>\$ 60,755</u>	<u>\$ 49,795</u>	<u>\$ 117,569</u>	<u>\$ 96,159</u>
Ounces sold ¹	63,279	42,004	121,423	94,672
Cost per ounce measures (\$/oz):				
Cost of sales per ounce	1,012	1,121	1,020	992
Cash operating cost per ounce	785	959	791	826
All-in sustaining cost per ounce	960	1,185	968	1,016

¹ Ounces sold used in the calculation of cost of sales per ounce, cash operating cost per ounce and all-in sustaining cost per ounce excludes pre-commercial production ounces sold during the period.

The tables below reconcile cost of sales excluding depreciation and amortization to cash operating costs per ounce for each of the operating mines:

	Three Months Ended June 30, 2017		
	Wassa	Prestea	Combined
(Stated in thousands of U.S dollars except cost per ounce data)			
Cost of sales excluding depreciation and amortization	\$ 34,679	\$ 20,494	\$ 55,173
Depreciation and amortization	4,827	4,066	8,893
Cost of sales	<u>\$ 39,506</u>	<u>\$ 24,560</u>	<u>\$ 64,066</u>
Cost of sales excluding depreciation and amortization	\$ 34,679	\$ 20,494	\$ 55,173
Royalties	(2,024)	(2,194)	(4,218)
Metals inventory net realizable value adjustment	(1,299)	—	(1,299)
Cash operating costs	<u>\$ 31,356</u>	<u>\$ 18,300</u>	<u>\$ 49,656</u>
Ounces sold ¹	31,985	31,294	63,279
Cost of sales per ounce	\$ 1,235	\$ 785	\$ 1,012
Cash operating cost per ounce	\$ 980	\$ 585	\$ 785

	Six Months Ended June 30, 2017		
	Wassa	Prestea	Combined
(Stated in thousands of U.S dollars except cost per ounce data)			
Cost of sales excluding depreciation and amortization	\$ 67,758	\$ 38,821	\$ 106,579
Depreciation and amortization	10,131	7,201	17,332
Cost of sales	<u>\$ 77,889</u>	<u>\$ 46,022</u>	<u>\$ 123,911</u>
Cost of sales excluding depreciation and amortization	\$ 67,758	\$ 38,821	\$ 106,579
Severance charges	(954)	—	(954)
Royalties	(3,937)	(3,804)	(7,741)
Metals inventory net realizable value adjustment	(1,804)	—	(1,804)
Cash operating costs	<u>\$ 61,063</u>	<u>\$ 35,017</u>	<u>\$ 96,080</u>
Ounces sold ¹	63,516	57,907	121,423
Cost of sales per ounce	\$ 1,226	\$ 795	\$ 1,020
Cash operating cost per ounce	\$ 961	\$ 605	\$ 791

¹ Ounces sold used in the calculation of cost of sales per ounce, cash operating cost per ounce and all-in sustaining cost per ounce excludes pre-commercial production ounces sold during the period.

	Three Months Ended June 30, 2016		
	Wassa	Prestea	Combined
(Stated in thousands of U.S dollars except cost per ounce data)			
Cost of sales excluding depreciation and amortization	\$ 21,919	\$ 21,037	\$ 42,956
Depreciation and amortization	3,149	987	4,136
Cost of sales	<u>\$ 25,068</u>	<u>\$ 22,024</u>	<u>\$ 47,092</u>
Cost of sales excluding depreciation and amortization	\$ 21,919	\$ 21,037	\$ 42,956
Royalties	(1,361)	(1,320)	(2,681)
Cash operating costs	<u>\$ 20,558</u>	<u>\$ 19,717</u>	<u>\$ 40,275</u>
Ounces sold ¹	21,092	20,912	42,004
Cost of sales per ounce	\$ 1,189	\$ 1,053	\$ 1,121
Cash operating cost per ounce	\$ 975	\$ 943	\$ 959

	Six Months Ended June 30, 2016		
	Wassa	Prestea	Combined
(Stated in thousands of U.S dollars except cost per ounce data)			
Cost of sales excluding depreciation and amortization	\$ 45,696	\$ 38,318	\$ 84,014
Depreciation and amortization	7,428	2,504	9,932
Cost of sales	<u>\$ 53,124</u>	<u>\$ 40,822</u>	<u>\$ 93,946</u>
Cost of sales excluding depreciation and amortization	\$ 45,696	\$ 38,318	\$ 84,014
Severance charges	(113)	184	71
Royalties	(3,225)	(2,616)	(5,841)
Cash operating costs	<u>\$ 42,358</u>	<u>\$ 35,886</u>	<u>\$ 78,244</u>
Ounces sold ¹	51,978	42,694	94,672
Cost of sales per ounce	\$ 1,022	\$ 956	\$ 992
Cash operating cost per ounce	\$ 815	\$ 841	\$ 826

¹ Ounces sold used in the calculation of cost of sales per ounce, cash operating cost per ounce and all-in sustaining cost per ounce excludes pre-commercial production ounces sold during the period.

"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 as 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 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 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, 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 June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
Net income/(loss) attributable to Golden Star shareholders	\$ 13,883	\$ (22,034)	\$ 14,053	\$ (19,983)
Add back:				
Non-cash share-based compensation expenses	(1,273)	5,396	3,442	9,740
(Gain)/loss on fair value of financial instruments	(4,907)	18,071	(7,405)	20,278
Loss on conversion of 7% Convertible Debentures	—	—	165	—
Severance charges	—	—	954	(71)
	7,703	1,433	11,209	9,964
Adjustments attributable to non-controlling interest	—	—	(95)	7
Adjusted net income attributable to Golden Star shareholders	\$ 7,703	\$ 1,433	\$ 11,114	\$ 9,971
Adjusted income per share attributable to Golden Star shareholders - basic	\$ 0.02	\$ 0.01	\$ 0.03	\$ 0.04
Weighted average shares outstanding - basic (millions)	376.2	273.1	367.7	259.9

In order to indicate to stakeholders the Company's earnings excluding the non-cash (gain)/loss on fair value of financial instruments, non-cash share-based compensation expenses, loss on conversion of 7% Convertible Debentures and severance charges, the Company calculates "adjusted net income attributable to Golden Star shareholders" and "adjusted income per share attributable to Golden Star shareholders" to supplement the condensed interim consolidated financial statements. The adjusted income per share attributable to Golden Star shareholders is calculated using the weighted average number of shares outstanding using the basic method of earnings per share.

Adjusted net income attributable to Golden Star shareholders and adjusted income per share attributable to Golden Star shareholders should be considered as 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.

OUTSTANDING SHARE DATA

As of August 1, 2017, there were 376,189,702 common shares of the Company issued and outstanding, 16,756,712 stock options outstanding, 6,046,645 deferred share units outstanding, 1,694,491 share units of 2017 PSUs outstanding, 5,000,000 warrants outstanding and 7% Convertible Debentures which are convertible into an aggregate of 57,220,000 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, 2016.

CHANGES IN ACCOUNTING POLICIES

The changes in accounting policies and standards, interpretations and amendments not yet effective are disclosed in Note 3 of the condensed interim consolidated financial statements for the three and six months ended June 30, 2017.

FINANCIAL INSTRUMENTS

(Stated in thousands of U.S dollars)	Fair value at June 30, 2017	Basis of measurement	Associated risks
Cash and cash equivalents	\$ 25,899	Loans and receivables	Interest/Credit/Foreign exchange
Accounts receivable	6,429	Loans and receivables	Foreign exchange/Credit
Trade and other payables	78,069	Amortized cost	Foreign exchange/Interest
Warrants	2,174	Fair value through profit and loss	Market price
Equipment financing facility	288	Amortized cost	Interest
Finance leases	1,429	Amortized cost	Interest
Ecobank Loan III	9,509	Amortized cost	Interest
7% Convertible Debentures	41,557	Amortized cost	Interest
Royal Gold loan, net of fees	18,655	Amortized cost	Interest
Vendor agreement	22,704	Amortized cost	Interest/Foreign exchange
Long term derivative liability	5,891	Fair value through profit and loss	Market price

Loans and receivables - Cash and cash equivalents and accounts receivables mature in the short term and approximate their fair values.

Amortized costs - Trade and other payables, the 7% Convertible Debentures, the Ecobank Loan III, the Royal Gold loan, the vendor agreement, the equipment financing facility and the finance leases approximate their carrying values as the interest rates are comparable to current market rates. Carrying value of the vendor agreement has been discounted to reflect its fair value.

Fair value through profit or loss:

Warrants - The fair value of the warrants is estimated using a Black-Scholes model. For the three and six months ended June 30, 2017, revaluation gain of \$1.0 million and \$0.6 million were recorded respectively.

Long term derivative liability - The fair value of the embedded derivative liability relating to the 7% Convertible Debentures is estimated using a convertible note valuation model. For the three months ended June 30, 2017, a revaluation gain of \$4.0 million was recorded. For the six months ended June 30, 2017, a revaluation gain of \$7.2 million and a gain on conversion of \$2.1 million were recorded.

DISCLOSURES ABOUT RISKS

The Company's exposure to significant risks include, but are not limited 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. For a complete discussion of the risks, refer to the Company's Annual Information Form for the year ended December 31, 2016 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 June 30, 2017, 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.

ADDITIONAL INFORMATION

Additional information regarding the Company, including the Company's Annual Information Form for the year ended December 31, 2016, is available under the Company's profile on SEDAR at www.sedar.com.