

DISCLAIMER AND OTHER MATTERS

SAFE HARBOR: Some statements contained in this presentation are forward-looking statements or forward-looking information (collectively, "forward-looking statements") within the meaning of the Private Securities Litigation Reform Act of 1995 and applicable Canadian securities laws. Investors are cautioned that forwardlooking statements are inherently uncertain and involve risks and uncertainties that could cause actual results to differ materially. Such statements include comments regarding: average cash operating costs per ounce over the life of mine and timing for achieving such costs; capital savings identified in the Prestea Underground studies; reductions in mine operating expenses in the second half of 2015; the Company being fully financed for development at a reduced cost of capital; the rise in total costs, and improved efficiencies that reduce unit and per ounce costs; Wassa grade forecasts and cash operating costs over the remainder 2015; reductions in accounts payable over the next 24 months; the improvement in the Company's cost profile once the underground mines are in production; the benefits of the stream and loan transaction; Golden Star transforming into a non-refractory miner with a declining cash cost profile; the timing for the development of and first production and commercial production from the underground mines; plans for deeper drilling at Prestea Underground to increase daily tonnage and expand the mineral resource; and the timing of a feasibility study at Prestea. Factors that could cause actual results to differ materially include timing of and unexpected events at the Bogoso oxide and sulfide processing plants and/or at the Wassa processing plant; variations in ore grade, tonnes mined, crushed or milled; variations in relative amounts of refractory, non-refractory and transition ores; delay or failure to receive board or government approvals and permits; construction delays; the availability and cost of electrical power; timing and availability of external financing on acceptable terms; technical, permitting, mining or processing issues, including difficulties in establishing the infrastructure for Wassa Underground, inconsistent power supplies, plant and/or equipment failures and an inability to obtain supplies and materials on reasonable terms (including pricing) or at all; changes in U.S. and Canadian securities markets; and fluctuations in gold price and input costs and general economic conditions. There can be no assurance that future developments affecting the Company will be those anticipated by management. Please refer to the discussion of these and other factors in our Annual Information Form for the year ended December 31, 2014 filed on SEDAR at www.sedar.com. The forecasts contained in this presentation constitute management's current estimates, as of the date of this presentation, with respect to the matters covered thereby. We expect that these estimates will change as new information is received and that actual results will vary from these estimates, possibly by material amounts. While we may elect to update these estimates at any time, we do not undertake to update any estimate at any particular time or in response to any particular event. Investors and others should not assume that any forecasts in this presentation represent management's estimate as of any date other than the date of this presentation.

NON-GAAP FINANCIAL MEASURES: In this presentation, we use the terms "cash operating cost per ounce" or "CoC per ounce" and "all-in sustaining cost per ounce" or "AISC per ounce". These terms should be considered as Non-GAAP Financial Measures as defined in applicable Canadian and United States securities laws and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with GAAP. "Cash operating cost per ounce" for a period is equal to the cost of sales excluding depreciation and amortization for the period less royalties and production taxes, minus the cash component of metals inventory net realizable value adjustments and severance charges divided by the number of ounces of gold sold during the period. "All-in sustaining costs per ounce" commences with cash operating costs and then adds sustaining capital expenditures, corporate general and administrative costs, mine site exploratory drilling and greenfield evaluation costs and environmental rehabilitation costs, divided by the number of ounces of gold sold during the period. This measure seeks to represent the total costs of producing gold from operations. These measures are not representative of all cash expenditures as they do not include income tax payments or interest costs. These measures are not necessarily indicative of operating profit or cash flow from operations as would be determined under International Financial Reporting Standards. Changes in numerous factors including, but not limited to, mining rates, milling rates, gold grade, gold recovery, and the 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 the same or similar to the measures of other gold mining companies, but may not be comparable to similarly titled measures in every instance. In order to indicate to stakeholders the Company's earnings excluding the non-cash (gain)/loss on the fair value of debentures, non-cash impairm

INFORMATION: The information contained in this presentation has been obtained by Golden Star from its own records and from other sources deemed reliable, however no representation or warranty is made as to its accuracy or completeness. The technical information relating to Golden Star's material properties disclosed herein is based upon technical reports prepared and filed pursuant to National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101") and other publicly available information regarding the Company, including the following: (i) "NI 43-101 Technical Report on a Feasibility Study of the Wassa Open Pit Mine and Underground Project in Ghana" effective December 31, 2014; (ii) "NI 43-101 Technical Report on Resources and Reserves, Golden Star Resources Ltd., Bogoso Prestea Gold Mine, Ghana" effective December 31, 2013, and (iii) "NI 43-101 Technical Report on Preliminary Economic Assessment of Shrinkage Mining of the West Reef Resource, Prestea Underground Mine, Ghana" effective December 18, 2014. Additional information is included in Golden Star's Annual Information Form for the year ended December 31, 2014 which is filed on SEDAR. Mineral Reserves were prepared under the supervision of Dr. Martin Raffield, Senior Vice President Technical Services for the Company. Dr. Raffield is a "Qualified Person" as defined by NI 43-101. The Qualified Person reviewing and validating the estimation of the Mineral Resources is S. Mitchel Wasel, Golden Star Resources Vice President of Exploration.

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

INVESTING IN PROFITABLE GROWTH

- Established producing gold miner with extensive experience in Ghana
- Existing infrastructure provides significant operational leverage
- Brownfield low-risk development projects are transforming group production profile
- Successfully financed for development at reduced cost of capital
- On track to deliver ounces at cash operating cost of \$750 per ounce over LOM by 2016

MANAGEMENT PARTICIPANTS



Sam Coetzer
President and
Chief Executive Officer



André van Niekerk Executive Vice President and Chief Financial Officer



Angela Parr Vice President, Investor Relations and Corporate Affairs

Q2 2015 OPERATIONAL PERFORMANCE

MINING

Wassa mining returns to MAIN PIT, HIGHER GRADE mined and processed

Bogoso
GRADE LOWER
than expected

POWER
RESTRICTIONS at
Bogoso hampers
processing for second
quarter in a row

DEVELOPMENT

FIRST BLAST marks start of WASSA UNDERGOUND portal construction

PRESTEA SOUTH permits received, mining started

Both non-refractory
PLANTS UPGRADED to
treat new ore sources

OPTIMISATION

MINING EFFICIENCIES achieved in Wassa's Main Pit

Tailings retreatment suspended in favour of HIGHER MARGIN Prestea South ounces

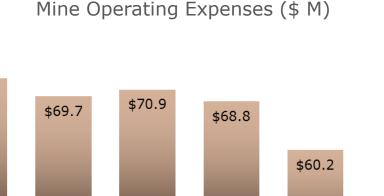
Prestea Underground studies identify potential CAPITAL EFFICIENCY

Q2 2015 vs. Q1 2015 FINANCIAL PERFORMANCE

- Revenue declined 14% to \$65.8M
 - —Lower production from Bogoso
 - —Lower realized gold price
- Mine operating expenses and cost of sales before severances reduced at both operating mines
 - —Severance accrual at Bogoso of \$13.0M
- Adjusted loss increased from \$9.0M in Q1 2015 to \$16.0M in Q2 2015
- Carrying value of Bogoso refractory assets written off, resulting in \$34.4M impairment

^{1.} See note on slide 2 regarding Non-GAAP Financial Measures

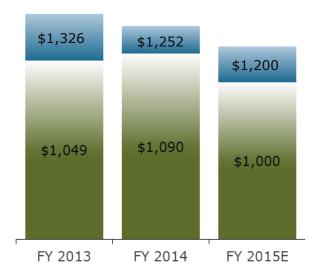
COSTS AND EXPENSES TRACKING DOWNWARDS



Q4 2014

Q3 2014





Mine operating expenses continue to reduce, further reduction in H2 2015

Q2 2015

- Lower than expected grade combined with reduced processing capacity at Bogoso refractory operations impacted unit costs
- Wassa costs on track to meet FY 2015 guidance

Q1 2015

— FY 2015 Group cash operating costs per ounce revised to \$955-1,050

\$72.9

Q2 2014

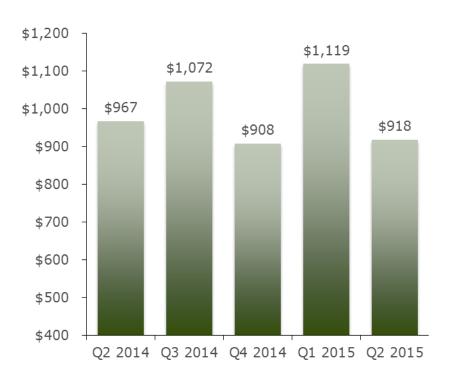
WASSA Q2 2015 OPERATIONAL PERFORMANCE IMPROVED

Q2 2015 Q1 2015

Ore mined	kt	754	560	Move back to Main pit from Starter pit
Waste mined	kt	2,688	2,362	YTD stripping in line with 4:1 ratio expected for full year
Ore processed	kt	609	631	Crusher downtime in June reduced availability
Grade processed	g/t	1.36	1.20	Grade improved as expected in Main pit
Recovery	%	94.1	92.6	Recoveries improved with grade
Gold sales	OZ	24,829	23,194	

WASSA FINANCIAL PERFORMANCE NORMALISED

Cash operating cost per oz¹



- Efficiencies improved as mining transitioned back to Wassa Main pit
- Full year cash operating costper ounce expectations remain\$860 990
- Wassa evaluating further cost saving initiatives for 2016
- Thicker installation at plant complete, processing capacity enhanced

See note on slide 2 regarding Non-GAAP Financial Measures

BOGOSO Q2 2015 OPERATIONAL PERFORMANCE DISAPPOINTING

Q2 2015 Q1 2015

		_			
Ore mined refractory		428	742	Mining in Chujah pit only	
Waste mined		664	1,439	Minimal stripping as mine life ends	
Refractory ore processed		514	572	Continued erratic power supply impacted plant availability	
Refractory grade	g/t	2.06	2.59	Grade below expectations	
Gold recovery – refractory	%	68.1	70.6	Recoveries reduced in line with grade	
Gold sold refractory	OZ	25,702	34,589	Refractory mining to be suspended earlier	
Non-refractory ore processed	kt	380	422	Seasonal impact on hydraulic mining	
Non-refractory grade	g/t	0.87	0.92	Grade in line with mine plan	
Gold recovery - non- refractory	%	43.7	41.9	Improved metallurgy in benches mined	
Gold sold non-refractory		4,601	5,462	Tailings to be replaced with higher grade Prestea South ore	
Total gold sold	OZ	30,303	40,051		

BOGOSO TRANSITIONING OUT OF MINING

- Lower than forecast grade combined with power issues drive unit costs higher, cash operating costs per ounce of \$1,273
- Declining gold price makes continued mining uneconomic
- Severance costs have been accrued for in June financial results
- Water treatment liability expected to reduce with newly negotiated cost structure
- Bogoso to function purely as a processing facility for Prestea South ore
 - —Tailings reprocessing to be suspended in favour of \$3M capital savings achieved by reusing facility

RESPONDING TO CHANGING MARKET DYNAMICS

- 1. Advancing transition into lower cost mining
 - —Fast tracking Prestea Underground development
 - —Rapid move to start mining in higher grade Prestea South
 - Decision taken to suspend refractory mining earlier than initially planned
- 2. Balance sheet stabilization and derisking
 - —Reduce high cost debt with repayment of \$38M Ecobank I loan
 - —Reduced cost of capital with funding from Royal Gold
- 3. Planning for longer term market pressure
 - —Optimising Wassa Main pit for \$1,000 gold price
 - —Targeting further 20% unit cost reductions in Wassa Open Pit mining

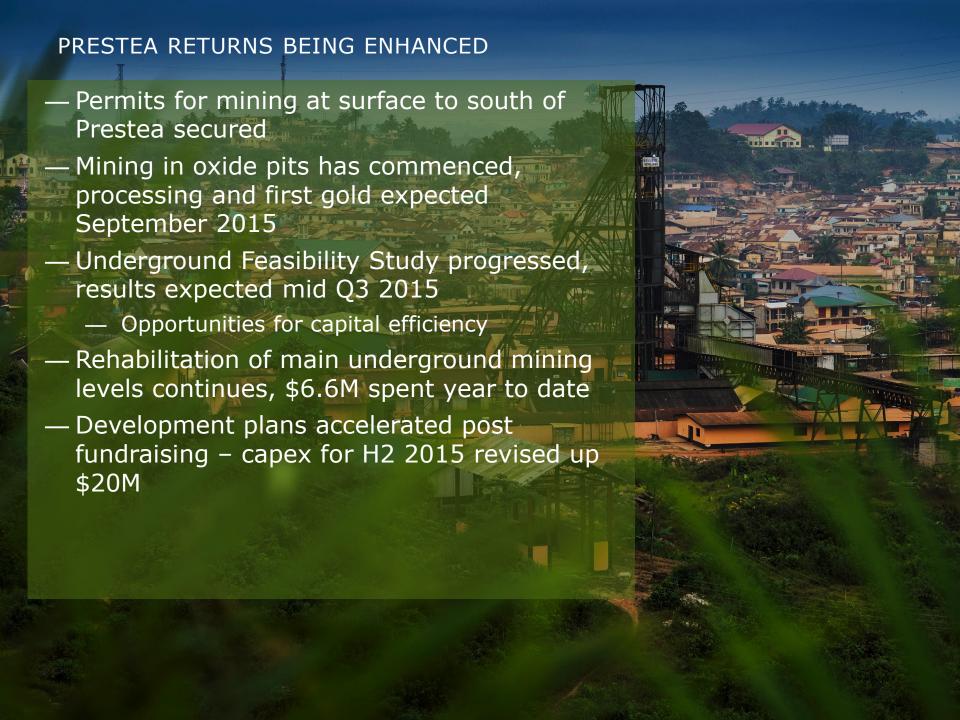
TRANSFORMATIONAL GOLD STREAM AND LOAN AGREEMENT CLOSED

- Long term financing partnership entered into with Royal Gold
- Aggregate proceeds from Royal Gold and subsidiary of \$150M
- Gold stream of \$130M:
 - —Upfront payment of \$40M received, further \$90M in payments to be received by end Q3 2016
 - -207,500 oz delivered at 20% of spot price
 - —3% of production at 30% of spot in perpetuity thereafter
- Four year \$20M secured term loan note, interest rate linked to gold price received

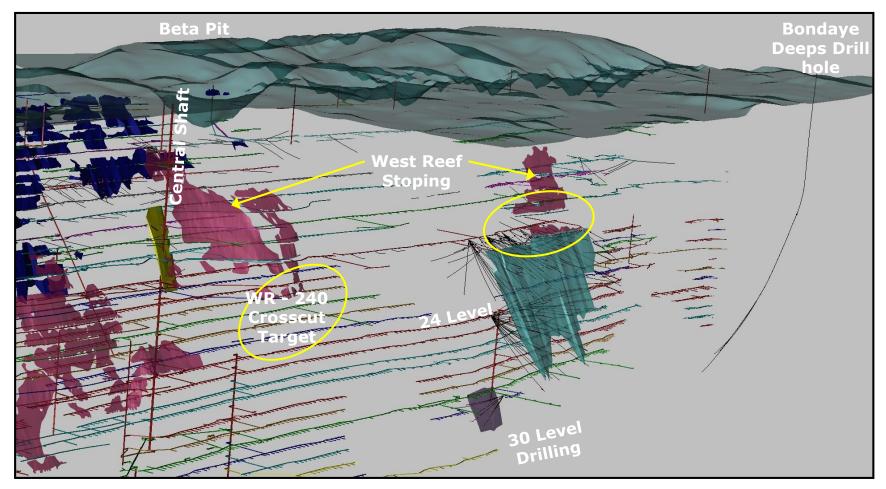


FUNDING ALLOWS FOR FURTHER EXPLORATION AT WASSA BSDD328 BSDD033 Nov'14 EOM Pit \$1,200 Pit Design 8.6m @ 3.2g/t 7.6m @ 14.7g/t 1,000 mN BSDD335. 6.3m @ 8.5g/t 250 BSDD348 16.9m @ 4.7<mark>q/t</mark> BSDD331 BSDD290BD1 22.1m @ 29.8a/t 17.3m @ 39.4m @ 9.0g/t 750 mN 3.9g/t BSDD347 ° 54.1m @ 4.2g/t BSDD347 BSDD330 7.5m @ 15.7g/t 13.9m @ 15.6q/t BSDD342 BSDD333 10.7m @ 30.1g/t 9.7m @ 6.5g/t BSDD344 78.9m @ 5.3g/t

- Anomalies indicate mineralized trend continues 6 km south of last step out fence deeper drilling will be conducted to the south
- Multiple high grade folds at surface that remain untested at depth down plunge

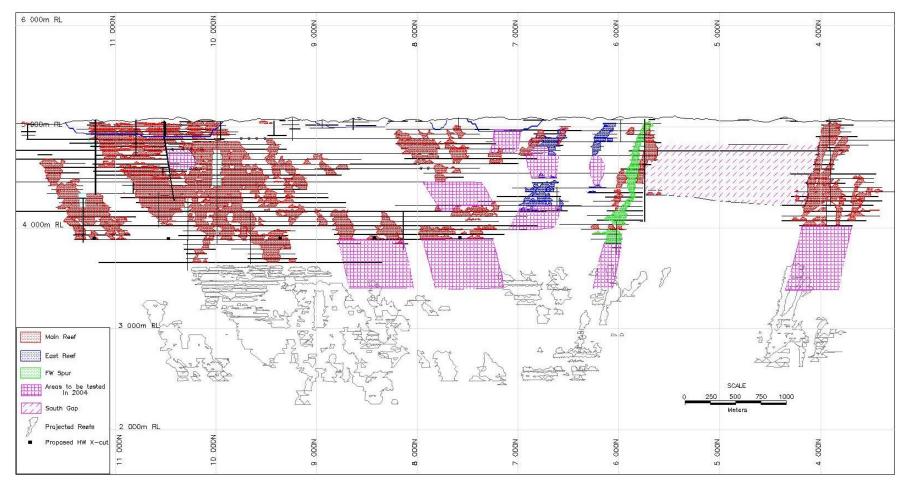


PRESTEA RESOURCE DEVELOPMENT PROMISING



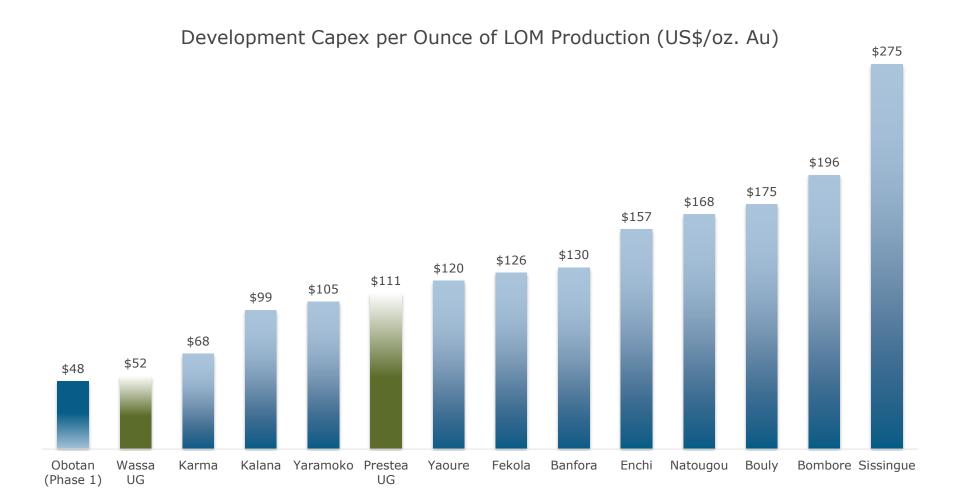
- Exploration strategy aimed at increasing daily tonnage
- Drilling expected to expand Mineral Resource conversion and up/down plunge extension of the West Reef orebody
- Significant Main Reef upside at depth below the current workings in West Reef

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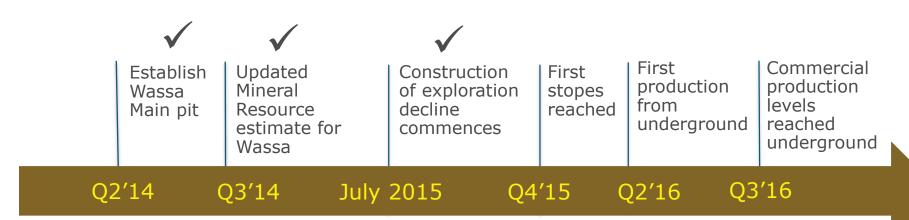


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EXISTING INFRASTRUCTURE ALLOWS FOR LOW CAPITAL INTENSITY



TIMELINE TO DELIVERY



WASSA

PRESTEA*

Q2′14	Q3′14	July	2015	Q3	′15 Q _ʻ	4′15 Q _ʻ	4′16
PEA on undergroun mining at Wassa complete	Revi	ised PEA Prestea erground	Mining of surface pits commences	Feasibility study completed	First production from Prestea South	Optimal processing methodology for Prestea Underground identified	First production from underground stopes
\checkmark		\checkmark	\checkmark				

^{*} Development of projects dependent on positive study results





MANAGEMENT AND BOARD



Sam Coetzer, President and CEO Appointed CEO in 2013 after joining in 2011 as COO. Sam is a mining engineer and member of the World Gold Council. He has 27 years of international experience with Kinross, Xstrata, Xstrata Coal and Placer Dome.



André van Niekerk, EVP and CFO André joined in 2006 and spent 5 years in Ghana as head of finance and business operations, whereafter he was appointed Group Controller. He was appointed CFO in 2014. Prior to joining Golden Star, André spent 6 years with KPMG



Daniel Owiredu, EVP and COO Daniel was appointed COO in 2013, after joining Golden Star in 2006 as VP, Ghana Operations. He has 20 years of experience in West African mining. Most recently, he was Deputy COO for AngloGold where he managed construction and operation of the Bibiani, Siguiri and Obuasi mines.



Craig Nelson, Director
Craig is a geologist with 30 years of mining experience. He was Founder, CEO of Avanti Mining. Formerly, Craig was EVP Exploration of Gold Fields; Founder, CEO and Chairman of the Metallica Resources and held numerous strategic positions at Lac Minerals.



Rob Doyle, Director Rob has 30 years of mining experience. Recently, he was Founder and CEO of Medoro Resources. Prior to this, he served as CFO of Pacific Stratus Energy, Coalcorp Mining and Bolivar Gold Corp. Currently, Rob serves as a Director of Mandalay Resources and Detour Gold







Tim Baker, Chairman Appointed Chairman in January 2013. Tim recently served as the COO of Kinross. He is a geologist with over 30 years of global project development and operational experience in Chile, Tanzania, US, Venezuela, Kenya and Liberia.

Tony Jensen, Director Tony has 25 years of m

Tony has 25 years of mining experience and is CEO of Royal Gold. Prior to joining Royal Gold, he was the Mine GM of Cortez and spent 18 years with Placer Dome. Tony has extensive experience in the US and Chile where he held several senior management positions.

Anu Dhir, Director

Anu is the MD of Miniqs, a private group that develops resource projects. She is a Director of Atlatsa Resources, Frontier Rare Earths and Energulf Resources. Prior to founding Miniqs, Anu was VP Corporate Development and Company Secretary at Katanga.

Bill Yeates, Director

Bill is one of the founding partners of Hein & Assoc where he served on the ExCo and was their National Director of Auditing and Accounting. Bill has 40 years of auditing experience with public companies in extractive industries.