

GOLDEN STAR

CREATING A LEADING
AFRICAN GOLD PRODUCER

Q4 & FY 2019 Results | February 2020

DISCLAIMER

SAFE HARBOUR: Some statements contained in this presentation are forward-looking statements or forward-looking information (collectively, "forward-looking statements") within the meaning of the United States Private Securities Litigation Reform Act of 1995 and applicable Canadian securities laws. Investors are cautioned that forward-looking statements are inherently uncertain and involve risks and uncertainties that could cause actual results to differ materially. Such statements include comments regarding: 2020 consolidated gold production of 195-210koz, AISC of \$1,080-1,180/oz, Cash costs of \$790-850/oz, Capex of \$55-60m in 2020 and an exploration spend of \$6.2m and the allocation between Wassa and Prestea; Wassa mining rates being expected to continue to exceed 4,000tpd in 2020; Prestea underground production rates being expected to increase; the focus of the Company's 2020 exploration program; the ongoing investment at Wassa to increase drill density to identify optimal stope sequencing; planned improvement initiatives at Prestea; the implementation of a higher level of operating and cost discipline and the implementation of new systems and controls to benefit mine planning, cost optimisation and productivity rates; the investment in an optimised Alimak process and a new mining methodology on a new production level at Prestea to unlock higher mining rates and reduce dilution; and positioning Prestea for improved cost performance. Factors that could cause actual results to differ materially include timing of and unexpected events at the Prestea and/or the Wassa processing plants; variations in ore grade, tonnes mined, crushed or milled; 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 or at all; technical, permitting, mining or processing issues, including difficulties in establishing the infrastructure for Wassa Underground or Prestea 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; heavy rainfall and flooding of underground mines; 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, 2018 filed and available 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 therein. 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.

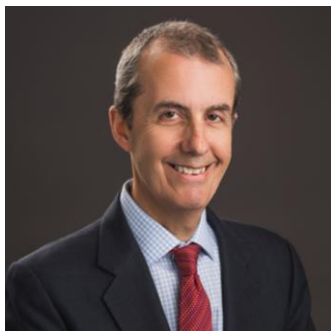
In this presentation, we use the terms "cash operating cost per ounce", "All-In Sustaining Cost per ounce" and "AISC per ounce". These terms should be considered as Non-GAAP Financial Measures as defined in applicable Canadian and United States securities laws and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with International Financial Reporting Standards ("IFRS"). "Cash operating cost per ounce" for a period is equal to the 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 divided by the number of ounces of gold sold (excluding pre-commercial

production ounces) 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 (excluding pre-commercial production ounces) 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. 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 totaled measures in every instance. Please see our "Management's Discussion and Analysis of Financial Condition and Results of Operations for the year ended December 31, 2019" for a reconciliation of these Non-GAAP measures to the nearest IFRS measure.

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 scientific and technical information contained in this presentation is based upon information contained in Golden Star's Annual Information Form for the year ended December 31, 2018 and the following current technical reports for those properties available at www.sedar.com: (i) Wassa - "NI 43-101 Technical Report on Resources and Reserves, Golden Star Resources, Wassa Gold Mine, Ghana" effective date December 31, 2018; and (ii) Prestea Underground - "NI 43-101 Technical Report on Resources and Reserves, Golden Star Resources, Bogoso/Prestea Gold Mine, Ghana" effective date December 31, 2017.

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

PARTICIPATING MANAGEMENT



Andrew Wray

Chief Executive Officer

- Appointed President and Chief Executive Officer in May 2019, member of the Board of Directors since October 2018
- Previously CEO of La Mancha Group
- Served as CFO at Acacia Mining
- Worked at JP Morgan Cazenove in the Corporate Finance team with over 15 years advising mining companies



Graham Crew

Chief Operating Officer

- Appointed Chief Operating Officer in July 2019, previously on the Board of Directors from October 2018 to July 2019
- Strong track record of transforming operations, with 25 years of operational, technical and corporate experience including the roles of General Manager at Barminco and General Manager at Acacia Mining



André van Niekerk

Chief Financial Officer

- As announced October 2019, André has decided that he will not be making the move to London. Paul Thomson will take over the CFO position after the release of the 2019 results
- Joined Golden Star in 2006 - 5 years in Ghana as Head of Finance and Business Operations
- Appointed CFO in April 2014, previously Financial Controller



Peter Spora

Head of Growth & Discovery

- Joined November 2019
- Most recently served as the Head of Discovery at La Mancha
- Previously Head of Discovery at Acacia Mining
- Peter is a geologist with 25 years of experience in discovery and business development roles

2019 KEY ACHIEVEMENTS

Management changes

- New executive leadership team now in place
- Transition of head office from Toronto to London due to be completed in H1 2020
- Operations are now more accessible, improving the executive team's ability to support the operations with a greater on the ground presence

Wassa

- Underground mining rates exceeded 4,000 tonnes per day through H2 2019
- Continued to maintain low per tonne unit costs
- Infill drilling program helped to improve the understanding of the orebody in 2019

Prestea

- Independent review and improvement project commenced in 2019
- Following a review of the operation, the value of Prestea is being impaired by \$56.8m
- Alimak mining areas being optimised to improve the stope cycle time and reduce dilution
- Mining to be introduced on 17 Level with new long hole open stoping mining methodology

Sustainability

- Implementation of our Safety and Health Strategy saw increased alignment to our values and enhanced achievement of our principle that *All Incidents Are Reported*
- Achieved the lowest per capita malaria case rate in the history of the business
- Wassa mine signed a milestone Memorandum of Understanding with its local communities

Two operating gold mines in Ghana - Wassa & Prestea



2019 PERFORMANCE VS GUIDANCE

		Revised Guidance Range	2019 Results	Delivery
Group Production	koz	190-205	203.8	✓
Group Cash Operating Costs	\$/oz	800-850	832	✓
Group AISC	\$/oz	1100-1200	1,159	✓
Wassa Production	koz	150-160	156.2	✓
Wassa Cash Operating Costs	\$/oz	600-650	633	✓
Wassa AISC	\$/oz	880-940	922	✓
Prestea Production	koz	40-45	47.6	✓
Prestea Cash Operating Costs	\$/oz	1450-1650	1,484	✓
Prestea AISC	\$/oz	1900-2150	1,937	✓
Group Capex	\$m	61.7	73.4	✗

2019 performance commentary

- Production delivered at the upper end of revised guidance range
- Wassa production in line with midpoint of its guidance range
- Prestea production 6% above the upper end of guidance range
- Cash operating cost and AISC performance within range at both operations
- Capital spend 19% higher than guidance, a positive outcome:
 - Underground development accelerated
 - Additional \$5m of budget allocated to Wassa definition drilling and extension drilling programs

2020 GUIDANCE

WASSA GUIDANCE



155-165koz
Production Guidance



\$620-660/oz
Cash cost
\$930-990/oz
AISC¹



\$42-46m
Capex Guidance

WASSA OUTLOOK

- Midpoint of guidance is 3% ahead of 2019 production
- Mining rates expected to continue to exceed 4,000tpd

Projects

- Paste fill plant completion due late Q3 2020
- Upgraded pumping capacity
- Electrical upgrade

Growth

- Continuing to further our understanding of the Wassa underground and the wider licence area

PRESTEA GUIDANCE



40-45koz
Production Guidance



\$1,400-1,550/oz
Cash cost
\$1,650-1,850/oz
AISC¹



\$9-10.5m
Capex Guidance

PRESTEA OUTLOOK

- Independent review complete
- Significant operational change underway
- Underground production rates expected to increase
- Contribution from open pit expected to reduce

Optimisation initiatives

- Reduced Alimak stope heights
- Narrower Alimak platform being trialled
- New mining area – 17 Level
- New mining methodology – Long Hole Open Stopping

GROUP GUIDANCE



195-210koz
Production Guidance



\$790-850/oz
Cash cost
\$1,080-1,180/oz
AISC Guidance¹



\$55-60m
Capex Guidance

EXPLORATION GUIDANCE



\$6.2m
Exploration budget
\$3.5m capitalised & \$2.7m expensed

EXPLORATION OUTLOOK

- Wassa - Surface drilling of southern extensions of orebody now complete
- Wassa orebody remains open to the south but the focus now shifts to infill drilling programmes from underground drill positions
- 2020 greenfield and brownfield exploration programs will focus on near mine targets in-and-around Wassa and Prestea, and regional exploration targets within 60km of the Wassa operation



**WASSA
FLAGSHIP ASSET**

WASSA – Recent production performance and outlook

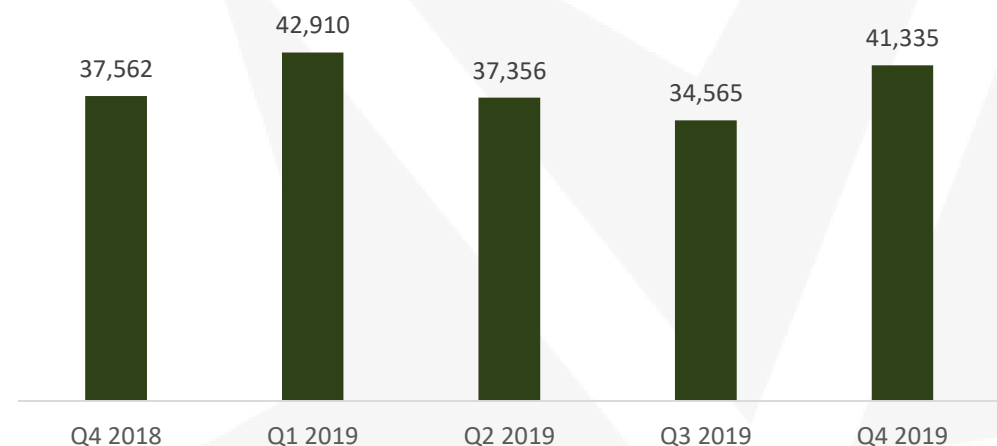
Q4 2019 - operating detail

- 41koz produced in Q4 2019 representing a 10% increase from Q4 2018 and a 17% increase on Q3 2019
- The underground mined grade increased 33% QoQ
- Mining progressed in the 595 & 620 levels, moving out of the areas of lower than expected grade that impacted Q3 2019
- Mining rates remained above 4,000tpd during Q4
- Plant throughput continued to slightly exceed the mining volumes due to the processing of lower grade stockpiles
- The blended plant feed grade increased 28% QoQ

FY 2019 - operating detail

- Wassa delivered 156koz of production in 2019, a 4% increase on FY 2018
- Increased production attributable to increase in tonnes mined and processed from the Wassa Underground

Production



Operating data

		Q4 2019	Q3 2019	Q4 2018	FY 2019	FY 2018
Ore Mined UG	kt	375,958	406,922	309,504	1,421,742	1,075,218
Grade Mined UG	g/t	3.8	2.8	3.8	3.6	4.2
Ore Processed	kt	389,415	427,380	401,715	1,548,486	1,600,884
Recovery	%	95.4	95.4	95.4	95.6	95.7
Gold Produced	oz	41,335	34,565	37,562	156,166	149,697

WASSA – Recent cost performance and outlook

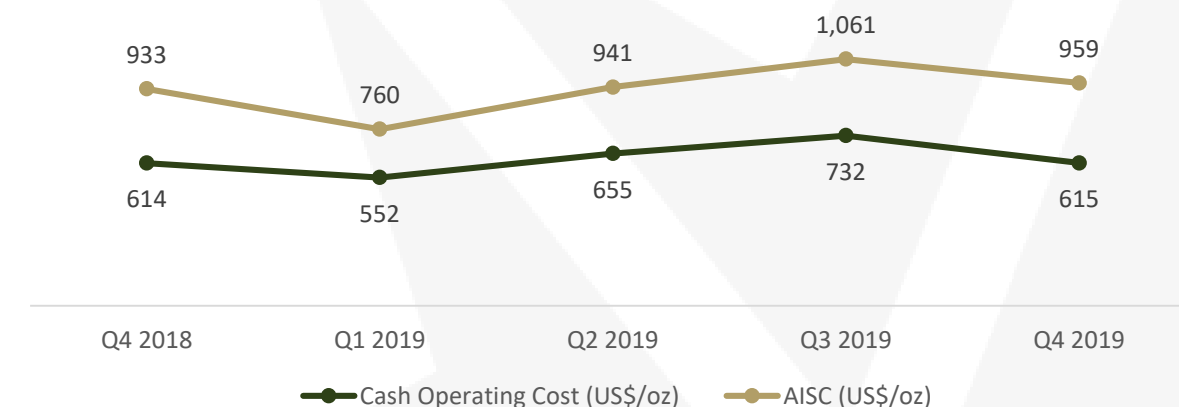
Q4 2019 costs

- Cost of sales per ounce decreased 4% to \$799 for Q4 2019 from \$836 in the same period in 2018
- Cash operating cost per ounce remained consistent at \$615 compared to \$614 in Q4 2018
- All-in Sustaining Cost per ounce increased 3% to \$959 from \$933 for the same period on 2018 mainly due to an increase in sustaining capital expenditure
- Capital expenditures for Q4 2019 totaled \$21.7m compared to \$13.9m in Q4 2018 due to investment in the paste fill plant, increase in spending on mobile equipment, electrical upgrades and the pump station project.

FY 2019 costs

- Cost of sales per ounce decreased 9% to \$813 for FY 2019 from \$898 in 2018
- Cash operating cost per ounce remained in line with 2018 at \$633
- AISC per ounce of \$922 increased 4% from 2018

Cash operating costs and AISC



Unit costs

		Q4 2019	Q3 2019	Q4 2018	FY 2019	FY 2018
UG Mining Cost	\$/t ore	34	32	34	35	34
Processing Cost	\$/t ore	26	19	20	24	20
G&A Cost	\$/t ore	11	9	10	10	10
Cash Operating Costs	\$/oz	615	732	614	633	629
AISC	\$/oz	959	1,061	933	922	886

WASSA – Opportunity to capitalise on latent plant capacity and geological upside

Improving geological understanding

- Ongoing investment to increase drill density to determine optimal stope sequencing
- Target 12 months of definition drilling ahead of 2021 mining

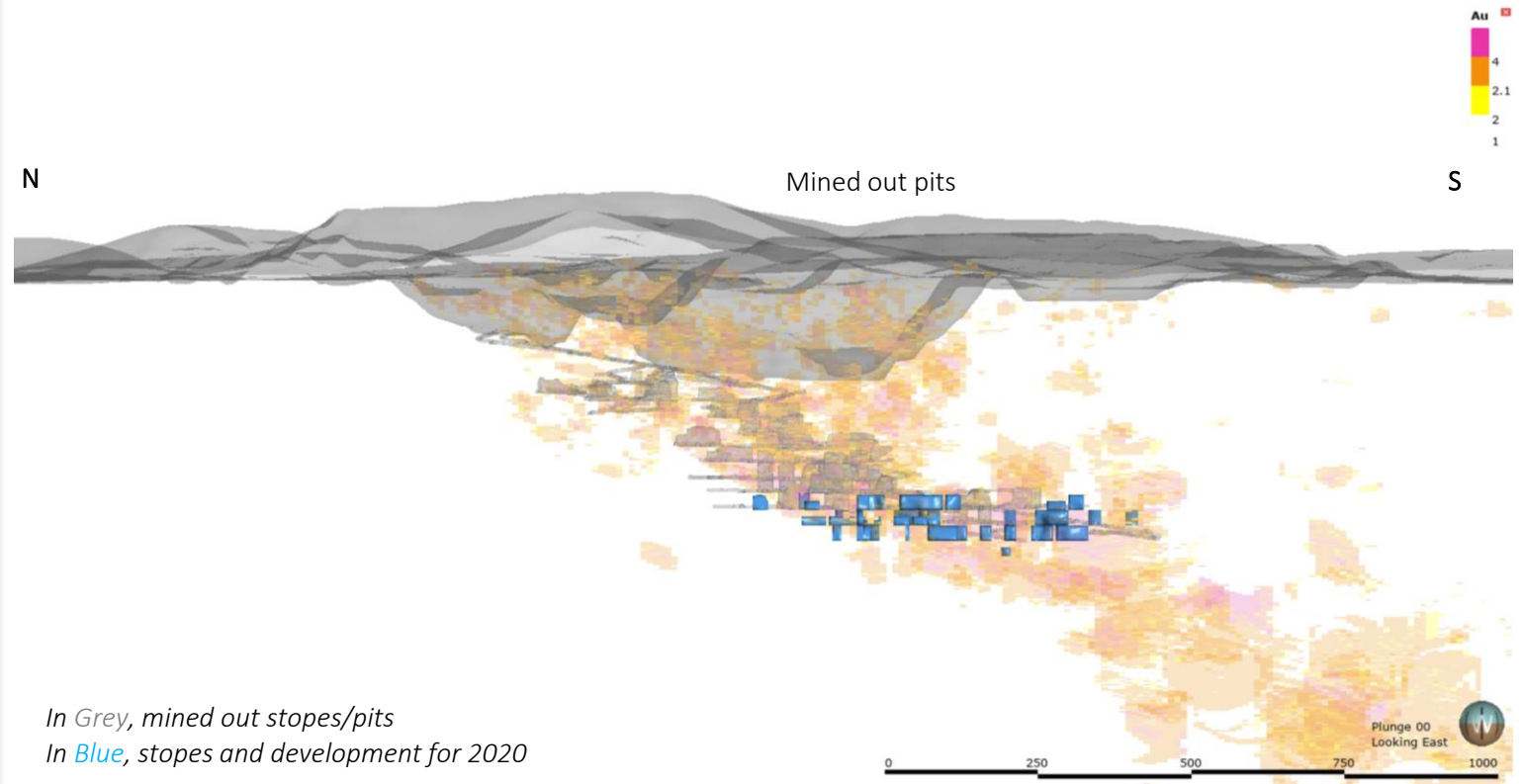
Increasing stope availability & mining flexibility

- Ongoing investment in development to increase stope availability
- Paste plant construction started in H2 2019
 - Commissioning expected in H2 2020
 - Capital cost: \$23m (\$13.5m in 2020)
 - Operating cost: \$5-7 per tonne

Higher mining rates unlock increased gold production

- Long term target to increase mining rate to 5,000tpd (from current rates around 4,000tpd). Strengthening of mining fleet required: purchase of loaders, jumbo and 60t trucks
- Plant capacity 7,800tpd - c.50% utilisation

Wassa long section plotting 2020 mining areas





**PRESTEA
OPERATIONAL CHANGE UNDERWAY**

Prestea – Recent production performance and outlook

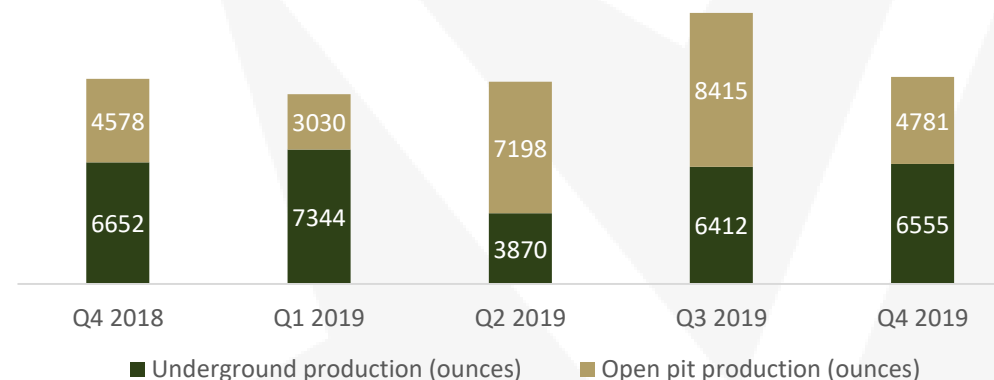
Q4 2019 - operating detail

- 11.3koz produced in Q4 2019, in line with Q4 2018
- The underground grade increased 37% QoQ to 6.9g/t with stope S12 showing improved mining execution and lower dilution
- Initiative to separate development waste from ore removed 9kt of waste from being processed in Q4
- Underground mining volumes were lower than anticipated due to blasted ore being locked up in stope S13, some of this ore is expected to be released in Q1 2020 when mining the adjacent stope S14

FY 2019 – operating detail

- FY 2019 production decreased primarily due to a 38% decrease in open pit production and a 35% decrease in underground production
- Open pit grade increased 30%
- Underground production decreased 35% YoY as a result of a 45% decrease in head grade due to a combination of higher dilution and ore loss

Production



Operating data

		Q4 2019	Q3 2019	Q4 2018	FY 2019	FY 2018
Ore Mined (Open Pit and UG)	kt	146,845	220,569	61,929	646,254	502,266
Ore Processed	kt	151,830	221,414	209,182	719,449	1,301,976
Grade Processed	g/t	6.9 UG 1.5 OP	5.0 UG 1.6 OP	8.6 UG 1.0 OP	5.58 UG 1.56 OP	10.12 UG 1.20 OP
Recovery	%	86.0	86.9	84.9	85.7	86.8
Gold Produced	oz	11,336	14,827	11,284	47,603	75,087

PRESTEA – Recent cost performance

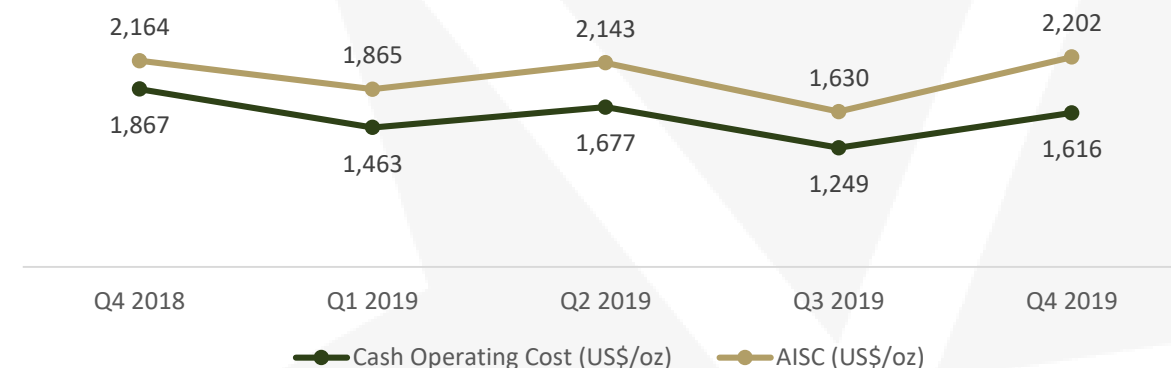
Q4 2019 costs

- Costs of sales per ounce decreased 31% to \$2,101 for Q4 2019 from \$3,054 in the same period of 2018 due primarily to a decrease in mine operating expense related to less throughput from open pits
- Cash operating costs decreased 13% from \$1,867 from the same period in 2018 and 26% from the previous quarter
- All-In Sustaining cost increased 2% to \$2,202 from \$2,164 in the same period in 2018 due to a lower availability of underground ore

FY 2019 – costs

- Costs of sales per ounce increased 10% to \$1,848 for FY 2019 from \$1,681 in the same period of 2018
- Cash operating costs per ounce increased 15% to \$1,484 from the same period in 2018
- All-In Sustaining cost increased 24% to \$1,937 from \$1,558 in the same period in 2018

Cash operating costs and AISC



Unit costs

		Q4 2019	Q3 2019	Q4 2018	FY 2019	FY 2018
UG Mining Cost	\$/t ore	210	164	281	195	240
Processing Cost	\$/t ore	44	28	34	33	24
G&A Cost	\$/t ore	21	13	18	17	11
Cash Operating Costs	\$/oz	1,616	1,249	1,867	1,484	1,292
AISC	\$/oz	2,202	1,630	2,164	1,937	1,558

PRESTEA - Alimak mine plan optimised to reduce dilution

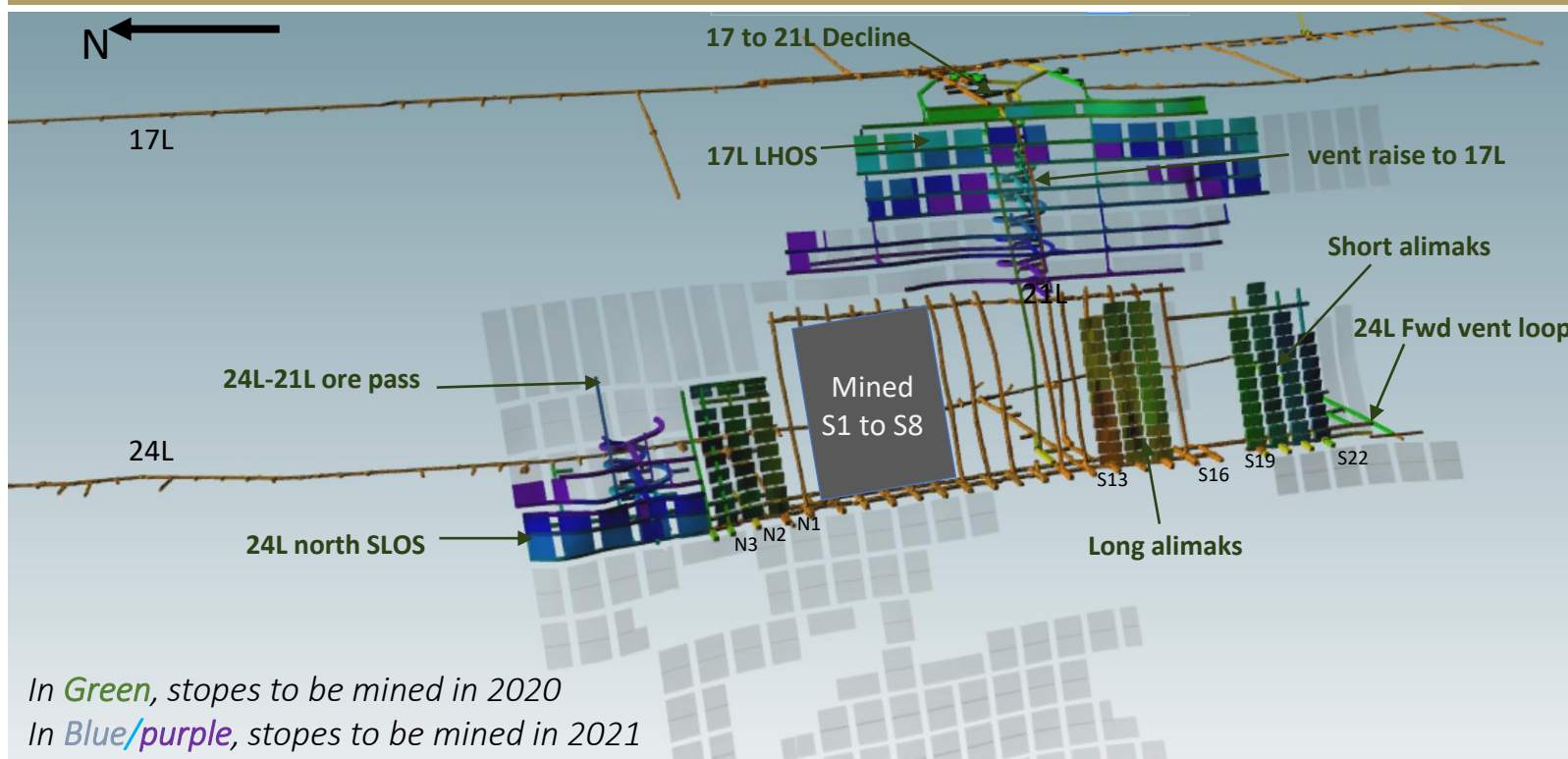
CSA independent review - Observations

Insufficient geological & geotechnical data	Poor definition of reef position
Raise height contributes to poor geotechnical conditions	Low equipment availability

Initial recommendations

Develop geotechnical block model	H2 2019 definition drilling complete
Consider alternative mining methods	Purchase critical equipment

Prestea Underground - Planned mining areas to Q4 2021



Improvement initiatives – 2020 plan

Level 24 – Operating changes

- Reduce Alimak stope height
- Use of a narrower Alimak platform

Level 17 – Introducing a new level

- New operating level
- Establish longhole stope mining methodology

Potential benefits of change

- Reduce the mining execution risk
- Reduce dilution
- Faster stope cycle time
- Increased flexibility
- Improved ore volumes

The background image shows a large industrial casting machine at the top, pouring bright orange molten metal into a series of molds arranged in a line. The scene is dimly lit, with the primary light source being the intense heat of the molten metal. On the right side, there are several overlapping, semi-transparent geometric shapes in shades of blue and grey, creating a modern, abstract design element. The text "FINANCIAL RESULTS" is overlaid in the bottom left corner in a white, bold, sans-serif font.

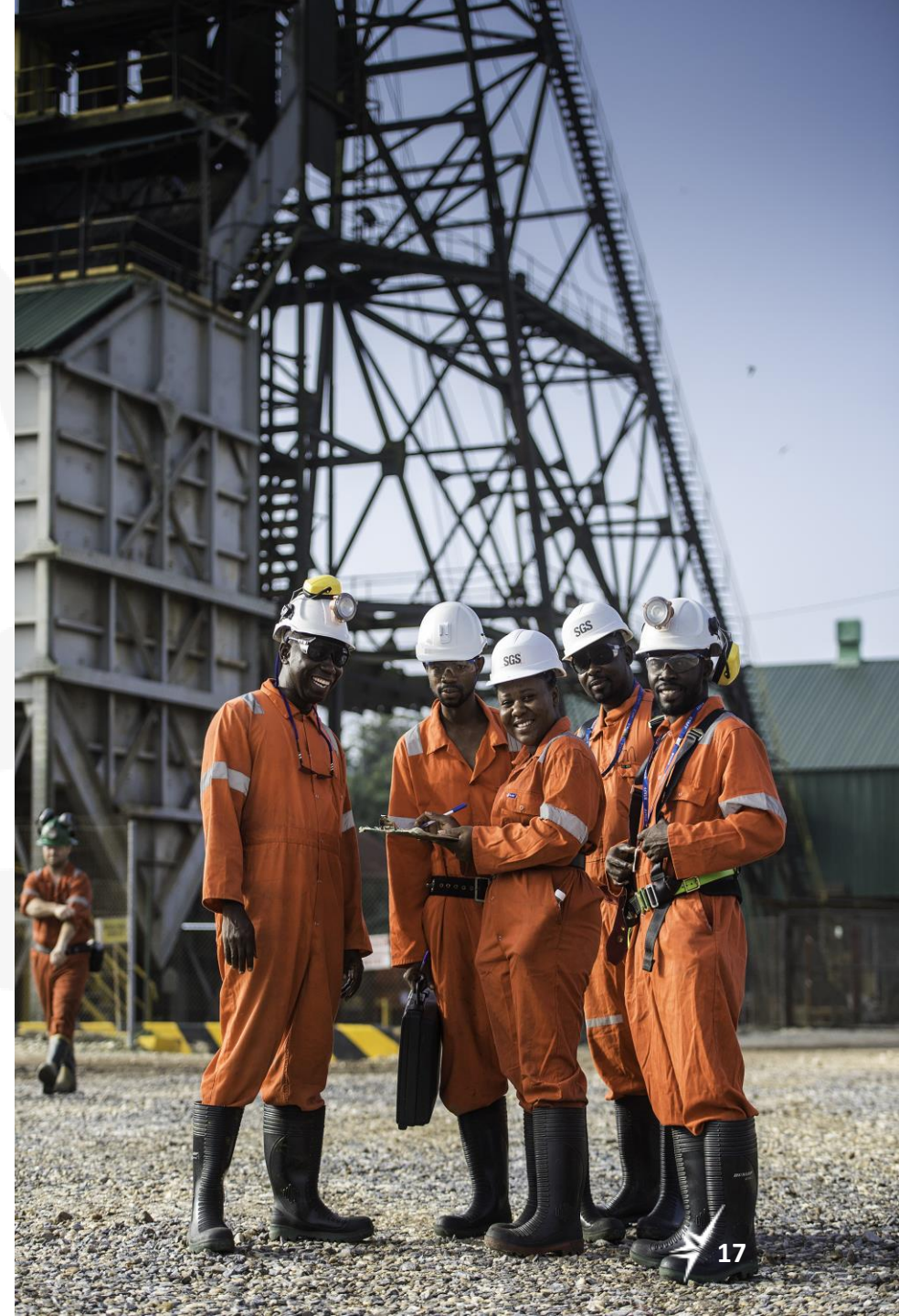
FINANCIAL RESULTS

Q4 & FY 2019 CONSOLIDATED FINANCIAL

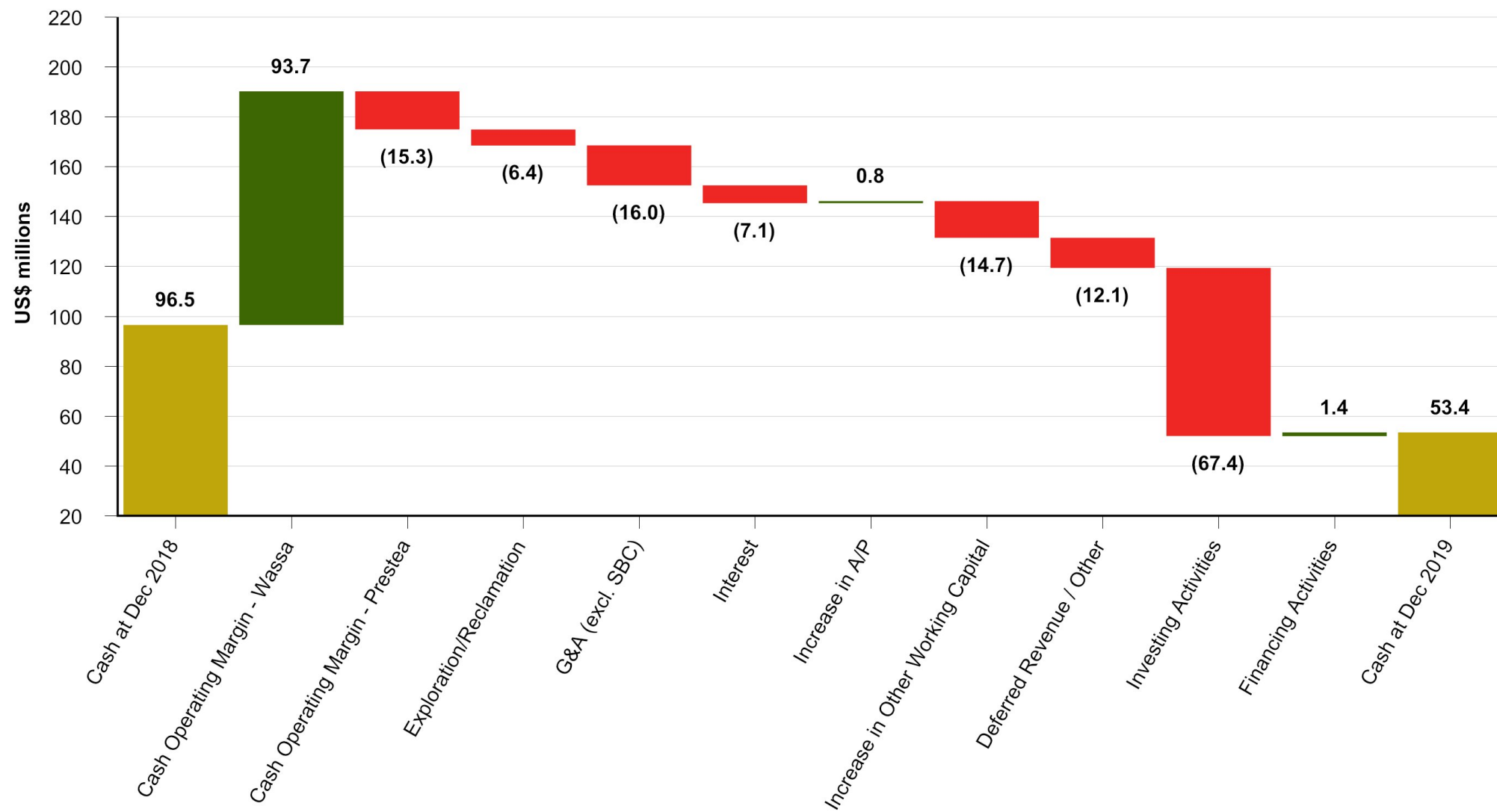
(US\$'000s)	Q4 2019	Q4 2018	% Change	FY 2019	FY 2018	% Change
Gold Revenues	66,061	57,339	15%	264,737	273,017	(3)%
- Wassa	53,551	44,109	21%	203,820	183,078	11%
- Prestea	12,510	13,230	(5)%	60,917	89,939	(32)%
Cost of sales excluding depreciation & amortization	49,232	57,565	(14)%	186,340	223,729	(17)%
Depreciation & amortization	8,464	7,824	8%	29,054	33,939	(14)%
Mine operating margin	8,365	(8,050)	100%+	49,343	15,349	100%+
- Wassa	20,066	13,018	54%	76,563	48,750	57%
- Prestea	(11,701)	(21,068)	44%	(27,220)	(33,401)	23%
Income/(loss) before tax	(59,644)	(10,369)	475%	(50,535)	(11,721)	331%
- Wassa	16,566	11,179	48%	67,467	43,387	56%
- Prestea	(69,493)	(20,559)	238%	(87,962)	(34,342)	156%
- Corporate & other	(6,717)	(989)	579%	(30,040)	(20,766)	45%
Income tax expense	9,715	1,525	100%+	27,439	12,350	100%+
Net Loss attributable to Golden Star Shareholders	(62,434)	(9,318)	(100)%+	(67,434)	(18,123)	(100)%+
Basic Loss per share (EPS)	(0.57)	(0.09)	100%+	(0.62)	(0.21)	70%
Adjusted net income/(loss) attributable to Golden Star Shareholders	5,975	(5,211)	100%+	17,910	(1,916)	100%+
Adjusted income/(loss) per share (AEPS)	0.05	(0.05)	100%+	0.16	(0.02)	100%+

PRESTEA IMPAIRMENT

- Following the conclusion of the independent review of the underground Management observed changes in:
 - Cash flow reflecting adjustments to key mine planning assumptions
 - Cost and working capital assumptions
- The value of Prestea was determined by a discounted cash flow analysis of the indicative life of mine model
- Life of mine model developed solely for impairment testing purposes and is management's best estimate of the recoverable value of Prestea's assets at December 31, 2019
- Impairment test concluded Prestea value lower than its previous carrying value, resulting in an impairment charge of \$56.8m
- Prestea asset value is now balanced by liabilities and working capital for a net carrying value of zero



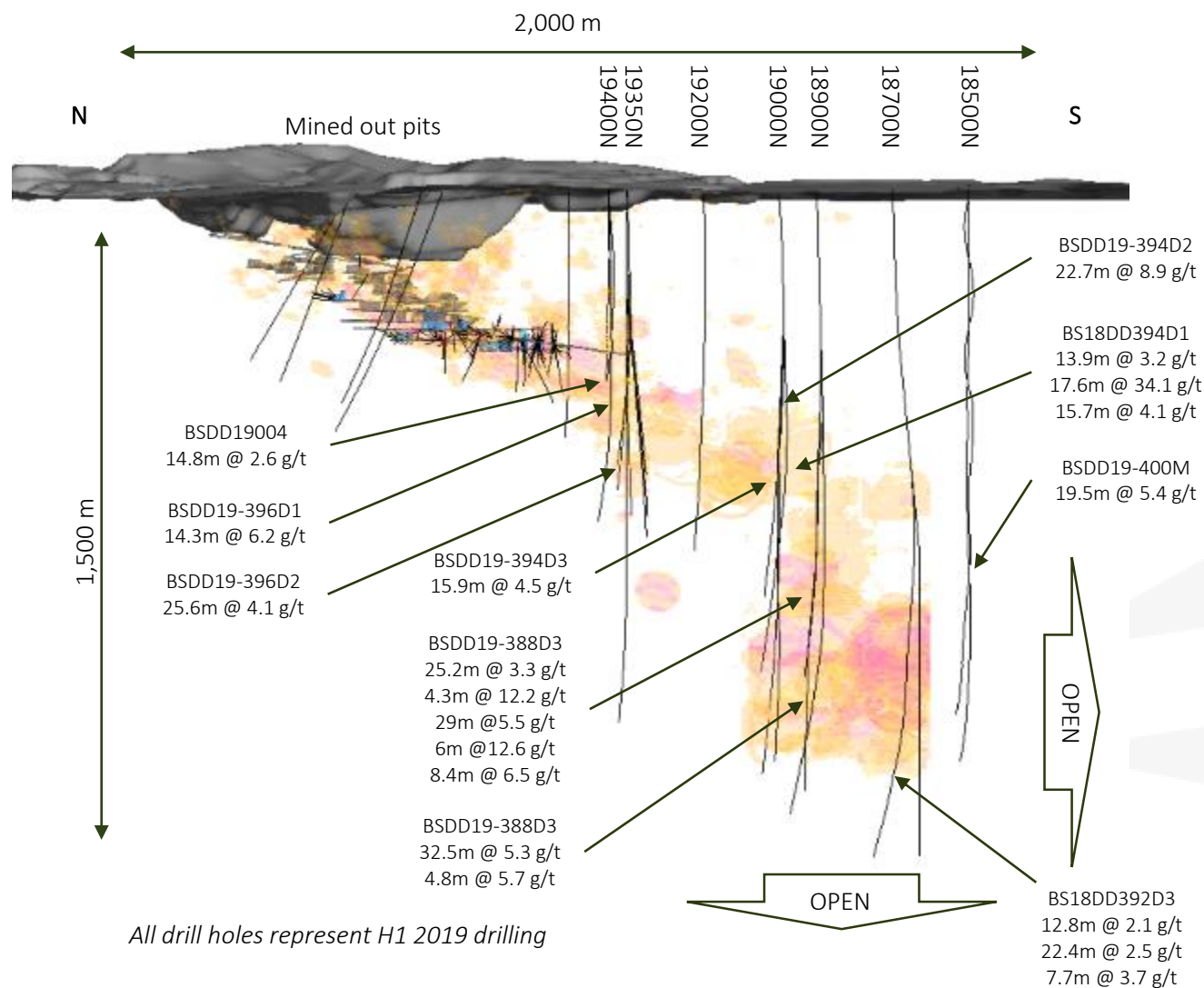
NET CASH FLOW BRIDGE – 2019 net cash movement





EXPLORATION

EXPLORATION - Extending mineralisation at Wassa Deeps



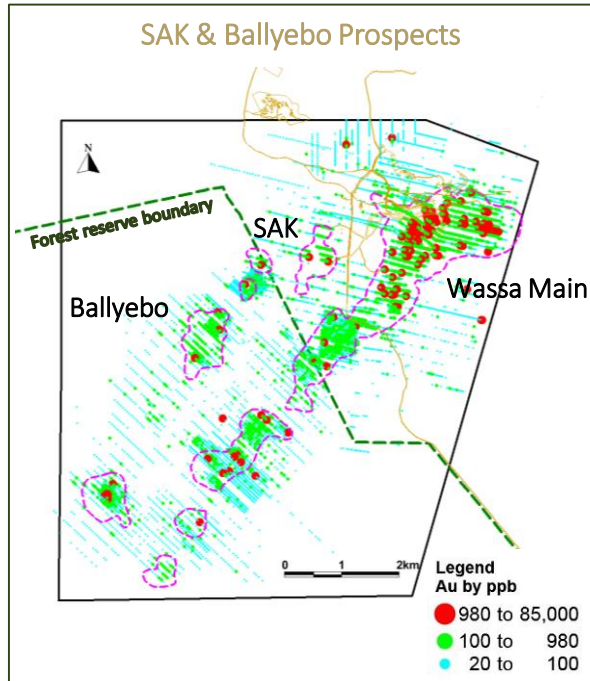
2019 Group exploration results

- Exploration activity focussed largely on Wassa
- 62,350 metres of infill and step-out drilling completed
- Assay results were announced November 13, 2019, this demonstrated that high-grade mineralisation extends more than 1km south of the underground infrastructure
- Deposit remains open to the south and at depth
- Improved understanding of the orebody due to infill drilling
- Confirmed continuity of the grade and thickness

2020 Exploration outlook

- Following the 2019 drilling programme an update of the Resource and Reserve model is expected Q1 2020
- The 2020 greenfield and brownfield exploration programmes will focus on near mine targets around Wassa and Prestea, as well as on regional exploration targets
- At Wassa, drilling will focus on targets in the footwall to the main mining area (B-Shoot) – Targeting mineralisation between the mined out Wassa South East pit and the “deeps”
- No exploration spend planned at Father Brown in 2020. Resource estimation work and desktop mine design work is ongoing

WASSA BROWNFIELD – Prospective targets along an existing haul road

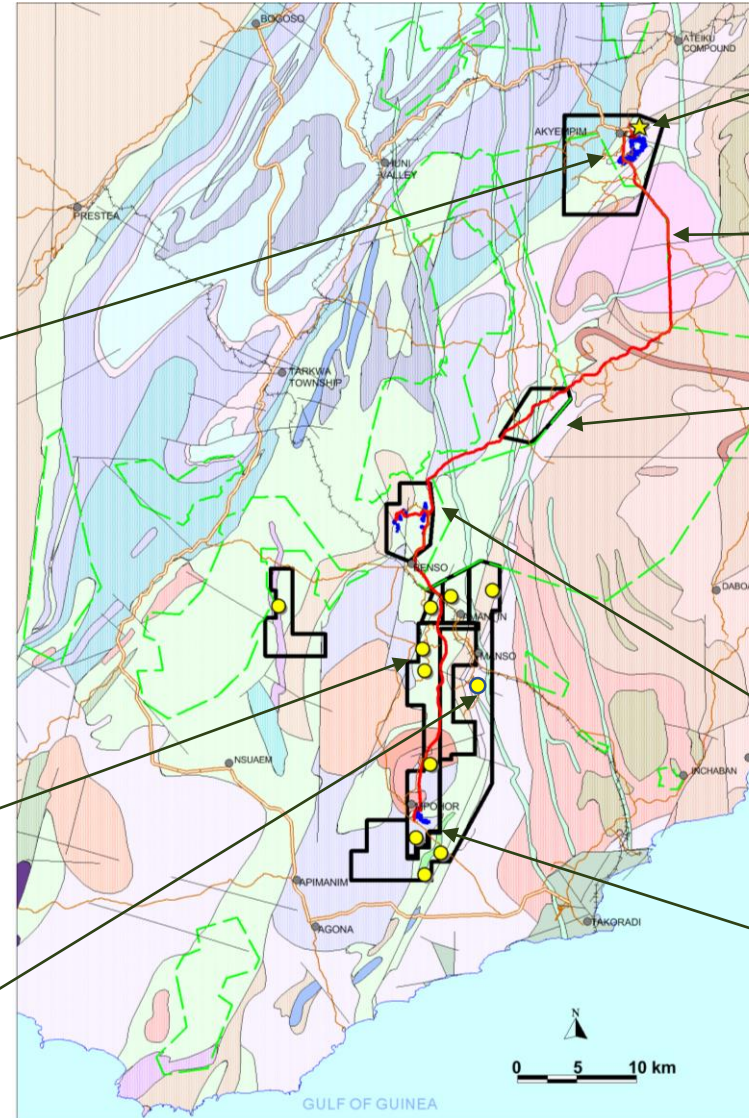


Abada & Apotunso Prospects

Veining similar to Prestea
Historical intercepts including 8 m at 5.48 g/t

Manso North (Angu)

3-5km long gold anomaly (>100ppb)
Historical testing – Auger drilling



Wassa Plant

Capacity: 7,800 tpd
Current utilisation: ~4,000 tpd

Existing GSR Haul Road

85 km long from Wassa to Father Brown



Chichiwelli

Indicated Resources: 52 koz
(850 kt at 1.9 g/t)

Benso

Indicated Resources: 112 koz (1,200 kt at 2.9 g/t)
Under pit intercept 15.5 m at 6.2 g/t

Father Brown

Indicated Resources:
238 koz (982 kt at 7.5 g/t)



WRAP-UP

A new focus
&
discipline

- **Sustainability** | Proven focus on responsible mining to be continued and enhanced. Golden Star has been recognised by industry awards in Ghana and internationally
- **Structural changes** | The new management team is implementing a higher level of operating and cost discipline. Implementation of new systems and controls will benefit mine planning, cost optimisation and productivity rates.

Opportunities

WASSA

- **Mining rates are not constrained by plant capacity** | Growth opportunity with a low capital intensity. The underground mine is currently generating a little in excess of 4kt/day with plant capacity of c.8kt/day.
- **Exploration** | Potential for depth extension towards the south and in the footwall to the main mining areas. Drilling targeting resource and reserve growth is ongoing

PRESTEA

- **Transformation** | Investment in an optimised Alimak process and a new mining methodology on a new production level will unlock higher mining rates and reduce dilution. Positioning Prestea for improved cost performance.

BUSINESS DEVELOPMENT

- **Growth & diversification** | The company has capacity to operate additional assets. Our focus is on diversifying the portfolio with cash generative African gold mines
- **Guidance** | Production guidance of 195-210koz at and AISC of \$1,080-1,180/oz implies some modest improvement on 2019 guidance.
- **Underlying change** | Guidance belies the underlying operational change that will be delivered in 2020. Productivity will improve at both operations

2020
Outlook



THANK YOU – Q&A

CONTACT US

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Appendix



GOLDEN STAR - Overview



Two producing gold mines



Creating shared value
Focused on sustainability
98% Ghanaian workforce



Strong cash balance
\$53m¹
Net debt \$53m



Management & strategy change



Exploring
The full potential of the Wassa complex



Turnaround
Optimising Prestea



195-210koz
2020 Production Guidance



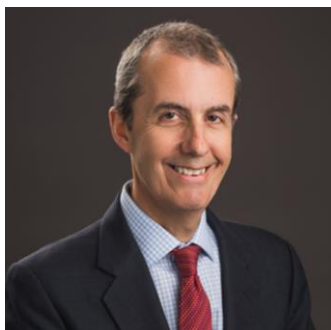
\$1,080-1,180/oz
2020 AISC Guidance²



Reserves & Resources
P&P 1.8 Moz
M&I 5.9 Moz
Inferred 7.2 Moz



MANAGEMENT – Refocusing the head office in London



Andrew Wray

Chief Executive Officer

- Appointed President and Chief Executive Officer in May 2019, member of the Board of Directors since October 2018
- Previously CEO of La Mancha Group
- Served as CFO at Acacia Mining
- Worked at JP Morgan Cazenove in the Corporate Finance team with over 15 years advising mining companies



Peter Spora

Head of Growth & Discovery

- Joined November 2019
- Most recently served as the Head of Discovery at La Mancha
- Previously Head of Discovery at Acacia Mining
- Peter is a geologist with 25 years of experience in discovery and business development roles



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Chief Financial Officer

- As announced October 2019, André has decided that he will not be making the move to London. Paul Thomson will take over the CFO position after the release of the 2019 results
- Joined Golden Star in 2006 - 5 years in Ghana as Head of Finance and Business Operations
- Appointed CFO in April 2014, previously Financial Controller



Nathalie Lion Haddad

Head of People

- Joined in September 2019
- Over 20 years experience in HR, previously working for Sherritt International, LG Electronics and BHP in organizational effectiveness roles, as Director of Human Resources and as an in-country HR lead



Graham Crew

Chief Operating Officer

- Appointed Chief Operating Officer in July 2019, previously on the Board of Directors from October 2018 to July 2019
- Strong track record of transforming operations, with 25 years of operational, technical and corporate experience including the roles of General Manager at Barmenco and General Manager at Acacia Mining



Philipa Varris

Head of Sustainability

- Joined the executive team in January 2020 having run the environment, sustainability and health & safety functions since 2011
- Previously held environment, health, safety and community management roles in the mining sector for over 20 years, throughout Ghana, Australia and Papua New Guinea

PORTFOLIO SNAPSHOT – Two gold mines 40km apart in Southern Ghana

Wassa Quick Facts (100% BASIS)

Ownership	90% GSR (Wassa) 10% Ghana government
Transition to underground mining	2017
M&I Mineral Resources	3.4 Moz contained ounces Grade – 2.4g/t (4.3g/t underground)
Inferred Mineral Resources	6.4 Moz Grade – 3.8g/t
P&P Mineral Reserves	1.5 Moz Grade – 2.5g/t (3.95g/t underground)
Processing Plant	CIL (capacity 7,800 tpd) Current utilisation 51%
Gold Recovery	95.7%
Mining Type	Underground (Longhole) Ramp capacity 5ktpd
Production	2017A 137 koz 2018A 150 koz 2019A 156 koz 2020E 155-165 koz
Cash Cost AISC US\$/oz ⁽¹⁾	2017A - \$880 AISC not reported 2018A - \$629 AISC not reported 2019A - \$633 \$922 2020E - \$620-660 \$930-990

Prestea Quick Facts (100% BASIS)

Ownership	90% GSR (Prestea/Bogoso) 10% Ghana government
Transition to underground mining	H2 2018
M&I Mineral Resources	2.6 Moz contained ounces Grade – 3.5g/t (16.8g/t underground)
Inferred Mineral Resources	701 koz Grade – 7.2g/t
P&P Mineral Reserves	317 koz Grade – 11.6g/t (11.9g/t underground)
Processing Plant	CIL (capacity 4,000 tpd)
Gold Recovery	87.4%
Mining Type	Underground (Alimak) Shaft capacity 1.5ktpd
Production	2017A 130 koz 2018A 75 koz 2019A 48 koz 2020E 40-45 koz
Cash Cost AISC US\$/oz ⁽¹⁾	2017A \$632 AISC not reported 2018A \$1,292 AISC not reported 2019A \$1,484 \$1,937 2020E \$1,400-1,550 \$1,650-1,850

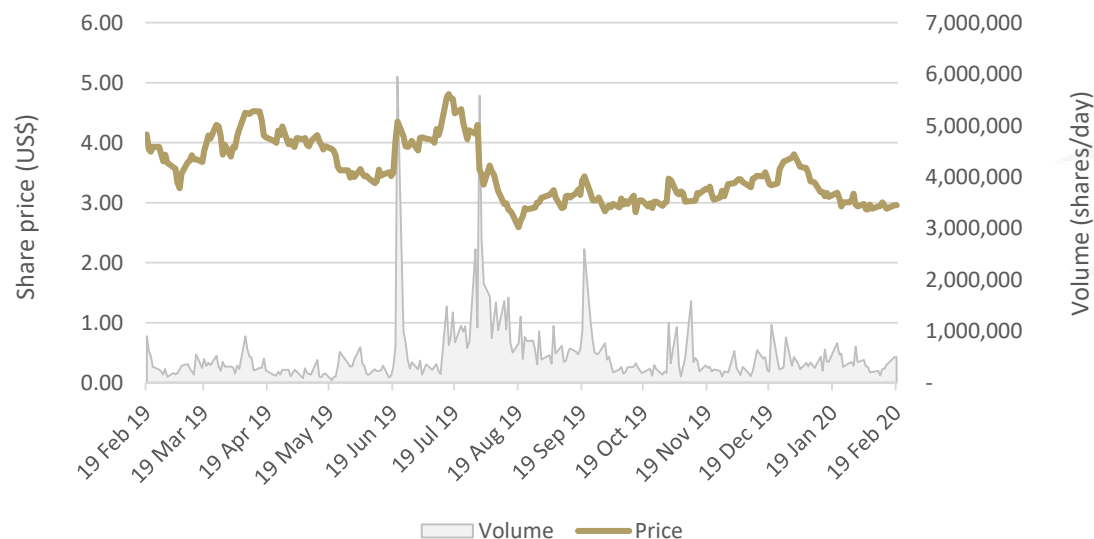


CORPORATE SUMMARY – (NYSE:GSS | TSX:GSC | GSE:GSR)

Market Information

	US\$	C\$
Share price ¹	\$2.96	\$3.89
Shares in Issue ²	109m	
Options ²	3.6m	
Market Capitalisation ¹	\$323m	\$429m

NYSE share price performance



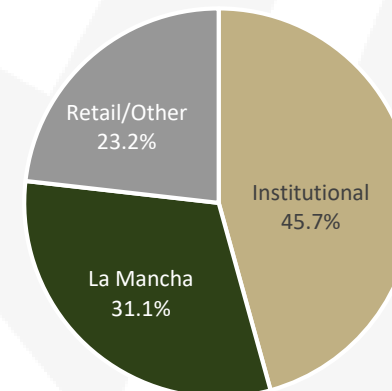
Key Shareholders³

La Mancha Holdings	31.1%
Condire	8.8%
Franklin Templeton	5.0%
Invesco Advisers, Inc.	4.8%
Van Eck Associates Corp	3.6%
Lyxor Funds Solutions S.A.	2.5%
Renaissance Technology LLC	2%
ASA Gold and Precious Metals Ltd	1.8%
Merk Investments LLC	1.7%
Konwave AG	1.7%
Tocqueville Asset Management	1.6%

Analyst Coverage

- Beacon Securities | Michael Curran
- CIBC Capital Markets | Bryce Adams
- HC Wainwright & Co | Heiko Ihle
- National Bank | Don DeMarco
- Numis Securities | Justin Chan
- Scotiabank | Ovais Habib

Ownership Breakdown³



- Strong support from the 31% strategic shareholder, La Mancha. A proven and successful investor in the gold sector
- Recently requested (and was granted) ability to increase their holding to 35%

OUTLOOK – Creating a leading African gold producer

Long term vision & Principles

- **Strategy** | Refocus the company under the new management team to pursue the growth and optimisation of the existing portfolio of assets and look to business development for further growth.
- **Vision** | The creation of a sustainable mid-tier gold miner operating across Africa.
- **Core principles** | To safely and sustainably generate returns for all stakeholders from a portfolio of African gold mines. New management is focused on creating a Golden Star culture and behaviours that can be rolled out across an enlarged portfolio of assets.

Organic growth & Optimisation

- **Wassa** | A long life gold mine with very significant growth potential. The underground mine is currently generating c.4kt/day with plant capacity of c.8kt/day. Production increases expected to come with a low level of capital intensity.
- **Wassa exploration & growth** | Potential for reserve growth through depth extension toward the south and in the footwall to the main mining areas. Targeted drilling started in 2019 and continues through 2020.
- **Prestea optimisation** | The focus is currently on near-term operational improvements, while also working through internal studies for the longer-term mine plans. These plans will introduce the longhole mining methodology to a new level in the mine during 2020 and will optimize the Alimak stope heights to reduce dilution and improve cycle time.

External growth

- **Approach** | Disciplined approach to growth opportunities, targeting new assets that deliver immediate cash flow or near-term cash flow.
- **Diversification** | The Company will remain focussed on gold but will look to add new assets across Africa to improve the geographical diversification of the portfolio.

WASSA GUIDANCE



155-165koz

Production Guidance



\$620-660/oz

Cash cost

\$930-990/oz

AISC¹



\$42-46m

Capex Guidance

PRESTEA GUIDANCE



40-45koz

Production Guidance



\$1,400-1,550/oz

Cash cost

\$1,650-1,850/oz

AISC¹



\$9-10.5m

Capex Guidance

GROUP GUIDANCE - 2020



195-210koz

Production Guidance



\$790-850/oz

Cash cost

\$1,080-1,180/oz

AISC Guidance¹



\$55-60m

Capex Guidance

CORPORATE RESPONSIBILITY & HEALTH AND SAFETY



LEADING PRACTICE

- **Featured** in UN Global Compact Canada Sustainable Development Goals Leading Practice Guide for SDG 1,3 & 8¹
- Over 250 workforce safety champions
- Oil palm plantation supports **over 700 families**

LEADERSHIP & PERFORMANCE

- 95% of leaders completed leadership training
- 10 safety standards developed by workforce
- TRIFR of 1.3 in line with peer group
- Near miss reporting 3 times better than in 2017
- Systems enhancement ongoing
- **No** reportable environmental incidents
- **100% conformance** to statutory monitoring and regulatory guidelines

MALARIA

- Least cases in 7 years
- Order of magnitude better than background
- Case rates less than 0.25 per capita

LOCAL CONTENT

- Employees **53%** host community and **98%** Ghanaian
- Contractors **54%** host community

PARTNERSHIP

- Community MOU **established** for Wassa operations
- World Environment Day **celebrations**

WORLD GOLD COUNCIL

- Golden Star is a member of the World Gold Council (“WGC”)
- The WGC recently disclosed its Responsible Gold Mining Principles (“RGMPs”) – to which Golden Star aligns its approach to business:
 1. Ethical conduct
 2. Understanding our impacts
 3. Supply chain
 4. Safety & Health
 5. Human rights & conflict
 6. Labour rights
 7. Working with communities
 8. Environmental stewardship
 9. Biodiversity, land use & mine closure
 10. Water, energy and climate change