GOLDEN STAR

Q1 2014 FINANCIAL RESULTS

May 2014

Legal and Other Matters

SAFE HARBOR: Some statements contained in this presentation are forward-looking statements within the meaning of the 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: our production expectations for 2014 and 2015 including our production guidance; the impact of cost cutting initiatives; grade, recovery rates and timelines for production from our tailings reclaim facility and the impact of such production on the Company's performance; the timing for the completion of push backs trends on cash and all-in sustaining costs; predictions regarding cash costs per ounce; haulage costs; improved access to ore in 2014; duration of mining at Father Brown pit; strip ratios after push backs; average planned head grades for refractory ore; sustaining capital budgeted for 2014; ability to generate cash; timing for moving equipment from Bogoso to Wassa; the life of mine at Bogoso; pumping capacity at the Bogoso tailings facility; timing of Mineral Resource estimates at Wassa; timing of drilling and recovery of assays; timing for completion of a feasibility study at Wassa underground; timing of Wassa Preliminary Economic Assessment, timing of Wassa underground to commercial production; plans to pursue a low cost production strategy focused on non-refractory ore sources; updated mineral reserve and mineral resource estimates at Wassa; capital expenditures; and our 2014 and 2015 outlook and objectives for the remainder of 2014 and 2015 and our medium term objectives. 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; the availability and cost of electrical power; timing and availability of external financing on acceptable terms; technical, permitting, mining or processing issues; 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 Report for 2013. 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" and "all-in sustaining cost per ounce". These measures should be considered as Non-GAAP Financial Measures as defined in applicable securities laws and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with GAAP. We use cash operating cost per ounce as a key operating indicator. We monitor these measures monthly, comparing each month's values to prior period's values to detect trends that may indicate increases or decreases in operating efficiencies. This measure is also compared against budget to alert management to trends that may cause actual results to deviate from planned operational results. We provide this measure to our investors to allow them to also monitor operational efficiencies of our mines. We calculate these measures for both individual operating units and on a consolidated basis. There are material limitations associated with the use of such non-GAAP financial measures. These measures 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, 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.

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 ("NI 43-101") and other publicly available information regarding the Company, including the following: (i) "NI 43-101 Technical Report on Mineral Resources and Mineral Reserves Golden Star Resources Ltd, Wassa Gold Mine, Ghana Effective Date December 31, 2012", prepared by SRK Consulting (UK) Limited; (ii) "NI 43-101 Preliminary Economic Assessment, Mechanized Mining of the West Reef Resource, Prestea Underground Mine, Prestea, Ghana", dated May 3, 2013 and prepared under the supervision of Martin P. Raffield and S. Mitchel Wasel; and (iii) Golden Star's Annual Report for 2013. Additional information is included in Golden Star's Annual Information From for the year ended December 31, 2013 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 Canada's National Instrument 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.

Management Participants

Sam Coetzer
President and Chief Executive Officer

André van Niekerk
Executive Vice President and Chief Financial Officer

Daniel Owiredu
Executive Vice President Operations

Martin Raffield
Senior Vice President, Technical Services

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Q1 2014 Operational Overview

- Gold produced and sold during the first quarter of 65,812 ounces, (Q4 2013: 75,430 ounces) in line with expectations
- Production guidance for full year of 295,000 – 320,000 ounces maintained
- Drilling at Wassa continues to yield significant results, PEA of underground mining at Wassa on track for Q3 2014
- Mining in Wassa Main pit established, better than expected productivity with lower cost per tonne
- At Bogoso strip ratio continues to decline as betterment stripping substantially complete
- Higher grades and improved recovery at Bogoso expected for the remainder of the year
- Refractory processing plant achieves record throughput, supports increased supply of ore going forward

Q1 2014 Financial Overview

- Revenues for the first quarter of 2014 decreased to $85.0 M (Q4 2013: $96.0 M) with fewer ounces sold
- Cost of sales excluding depreciation and amortization decreased to $84.3 M (Q4 2013: $88.5 M)
- Mine operating expenses decreased to $82.9 M (Q4 2013: $84.8 M)
- Consolidated cash operating costs per ounce of $1,206 (Q4 2013: $1,091 per ounce)
- Cash cost guidance for the year of $950 – 1,000 per ounce maintained
- Adjusted net loss attributable to shareholders for the quarter of $12.2 M (Q4 2013 adjusted net loss of $6.5 M) before non-cash impairments
- Consolidated cash balance at quarter end of $57.8 M
- $10 M undrawn on Ecobank loan facility

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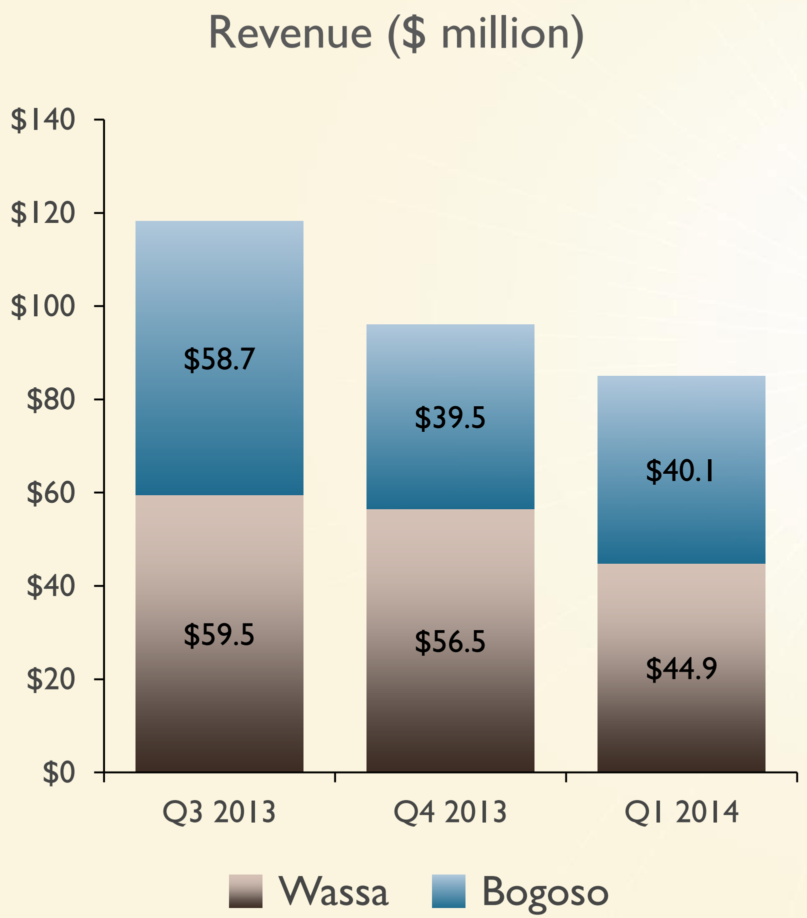
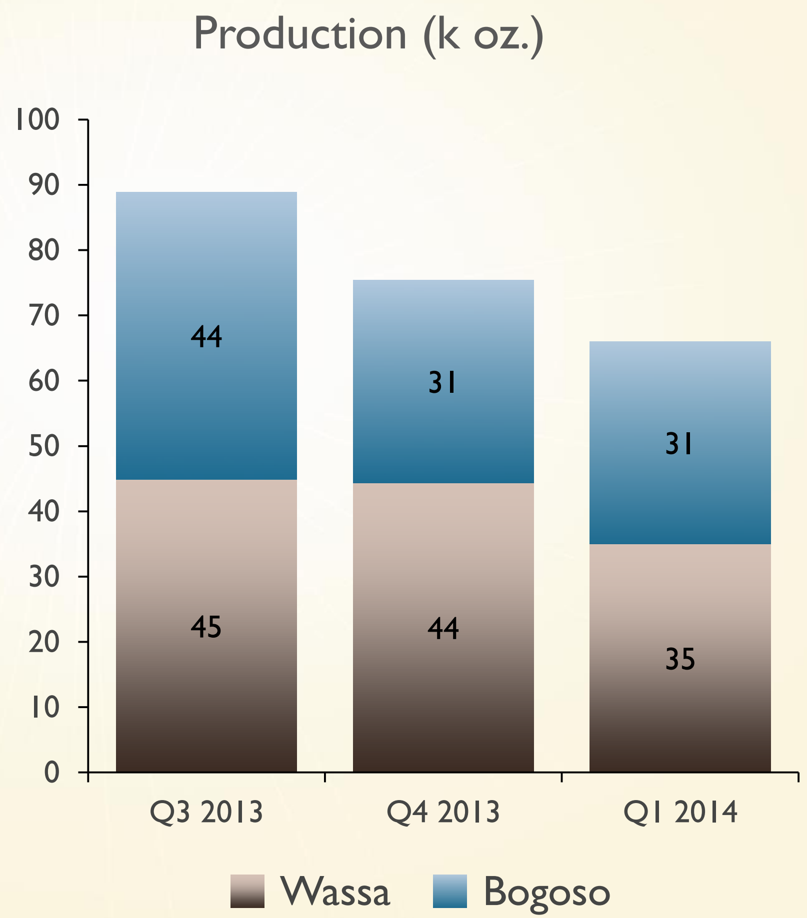
Production Performance



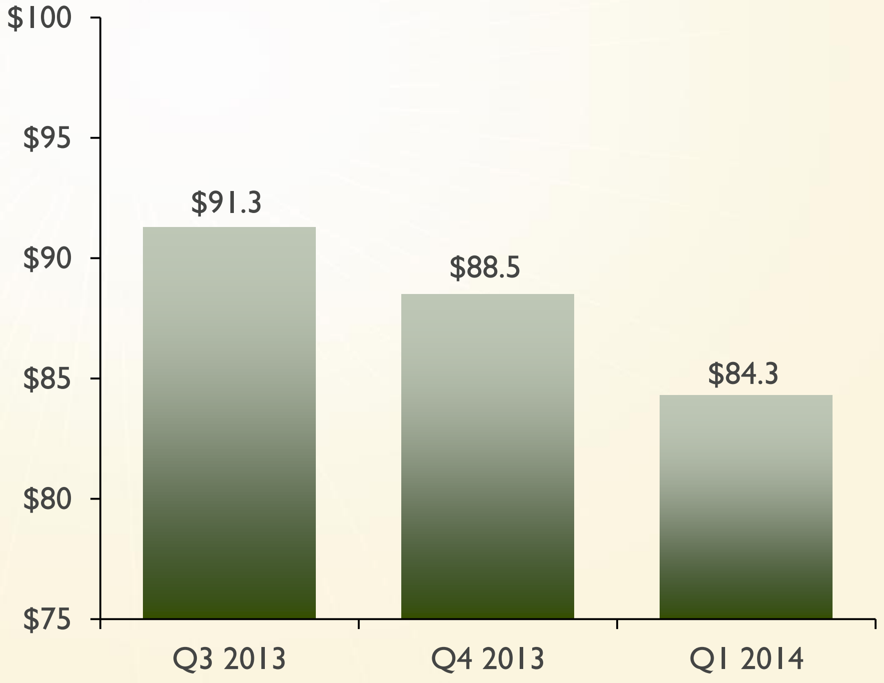


- Average realized gold price of $1,292 per ounce (Q4 2013: $1,273)

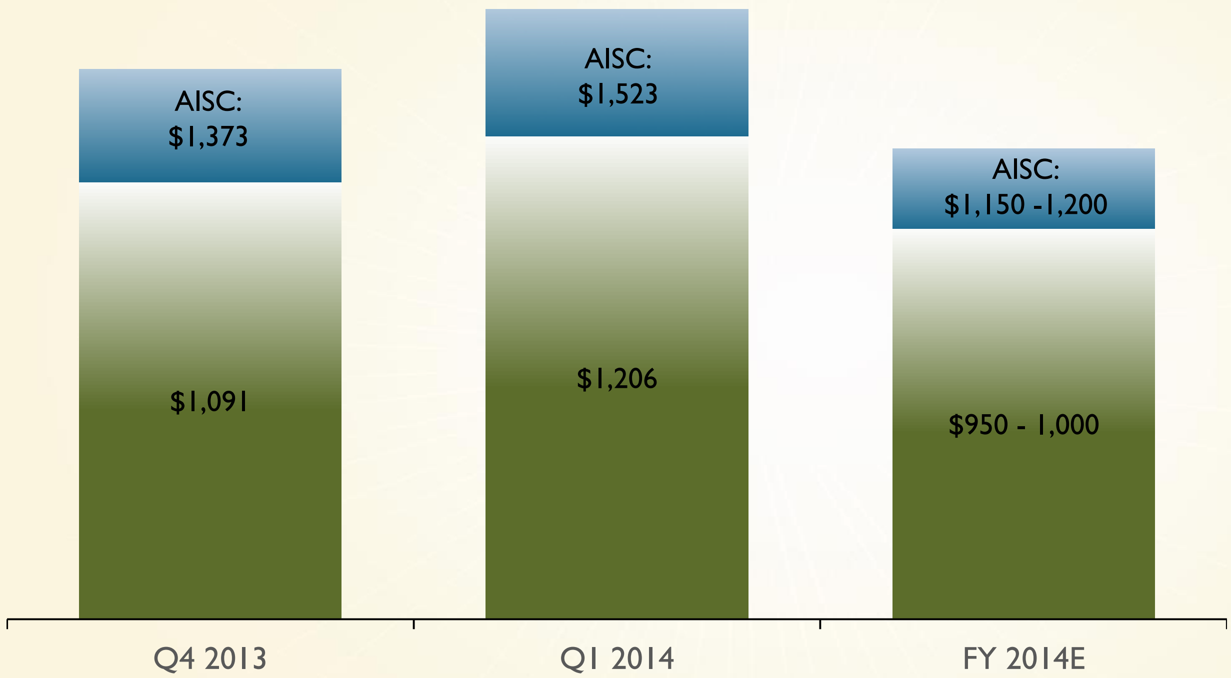
Cost of Sales

- Sequential reductions in cost of sales
  - Lower mining contractor expenses and haulage costs
  - An increase in metal inventory and lower royalty expense

Cost of Sales Excluding Depreciation and Amortization ($ million)



Cash Operating Costs per Ounce[1]



- Cash operating costs per ounce higher in Q1 2014
  - Transition into new Main pit at Wassa
  - Reduction of feed from Father Brown
  - Lower grade and recoveries Bogoso

(1) See note on slide 2 regarding non-GAAP financial measures

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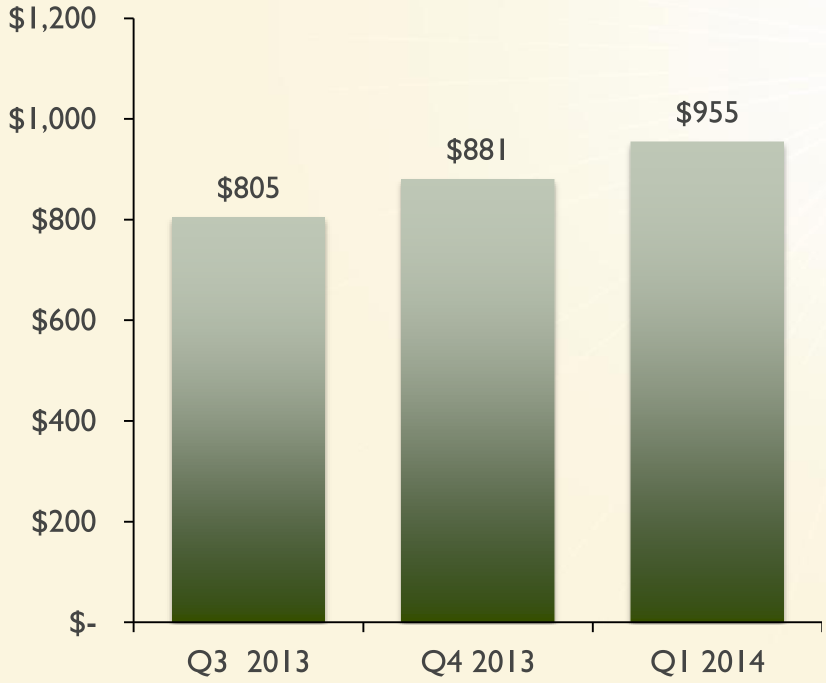
Wassa Cash Costs

Cash operating cost per oz[1]

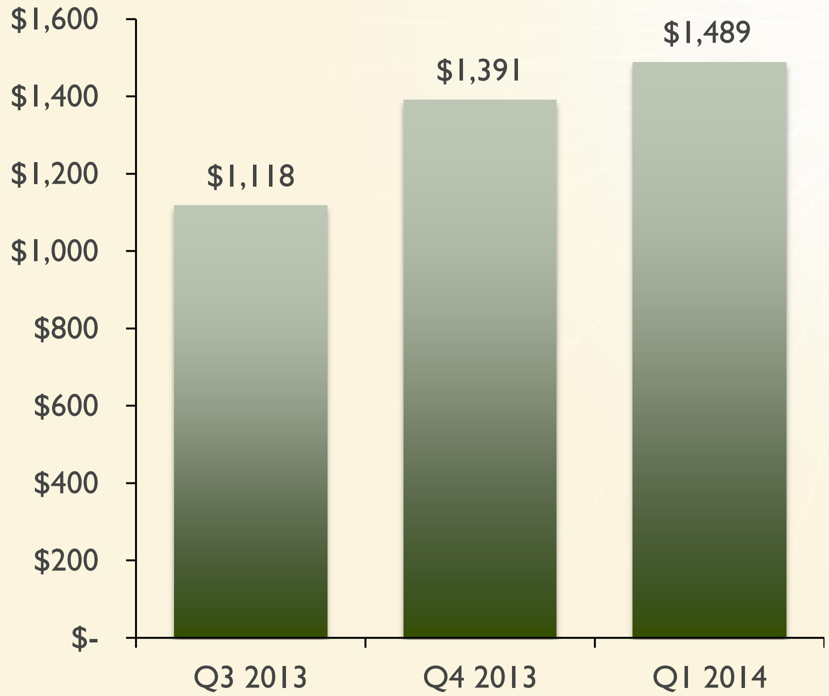


- Increased costs per ounce as per plan
- Mine operating expenses reduced to $34.1 M (Q4 2013: $39.2 M) as mining productivity increases with new mobile fleet from Bogoso
- Operational efficiencies achieved at end of first quarter
- Full year cash operating costs expected to be $900 – $950/oz

(1) See note on slide 2 regarding non-GAAP financial measures

Bogoso Cash Costs

Cash operating cost per oz[1]



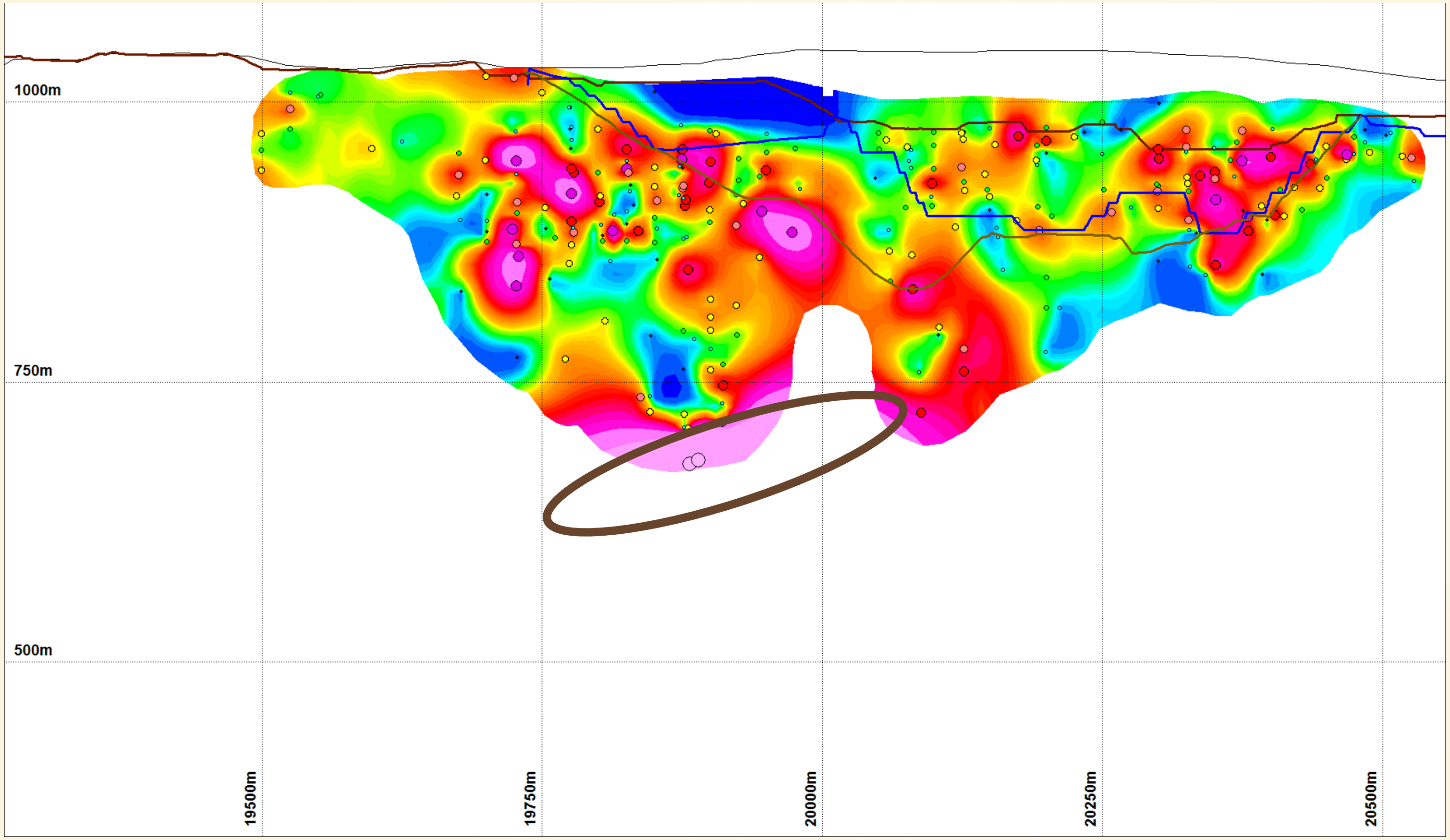
- Mine operating expenses increased to $48.9 M (Q4 2013: $45.6 M), push backs now substantially complete
- Costs per ounce expected to decrease going forward
    - Labour rationalization
    - Equipment retired

(1) See note on slide 2 regarding non-GAAP financial measures

Balance Sheet

- Cash on hand at period end of $57.8 M
- Ecobank loan facility of $10.0 M remaining
- Equipment financing of $23.1 M available
- Further capital expenditure for 2014 of $38.0 M budgeted
- Operations expected to generate positive cash flow over remainder of year
- Working capital expected to improve as accounts payable reduce over remainder of year

Wassa Growth – Dec 2011

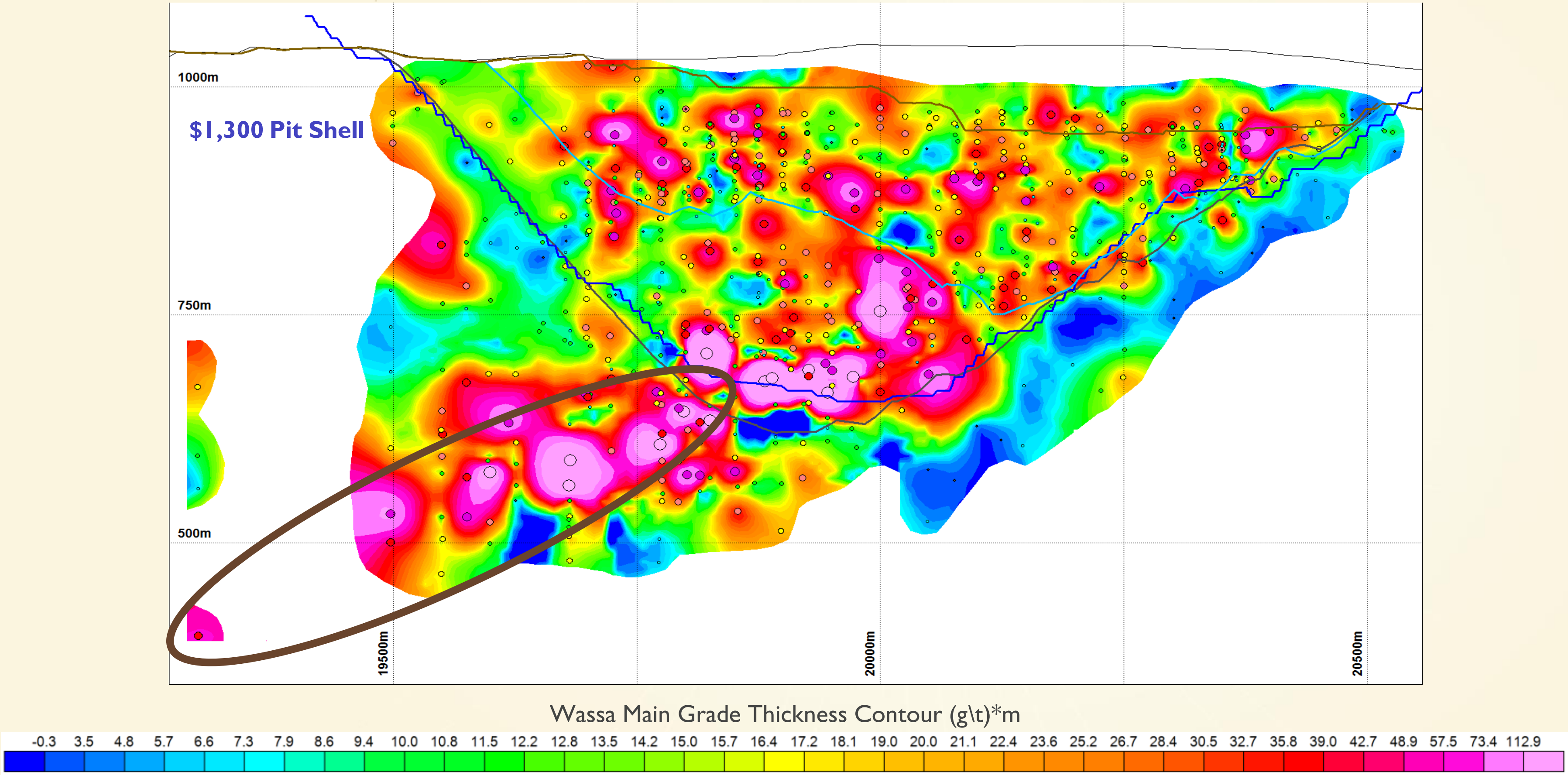


Wassa Main Grade Thickness Contour (g\t)*m

-0.3	3.5	4.8	5.7	6.6	7.3	7.9	8.6	9.4	10.0	10.8	11.5	12.2	12.8	13.5	14.2	15.0	15.7	16.4	17.2	18.1	19.0	20.0	21.1	22.4	23.6	25.2	26.7	28.4	30.5	32.7	35.8	39.0	42.7	48.9	57.5	73.4	112.9

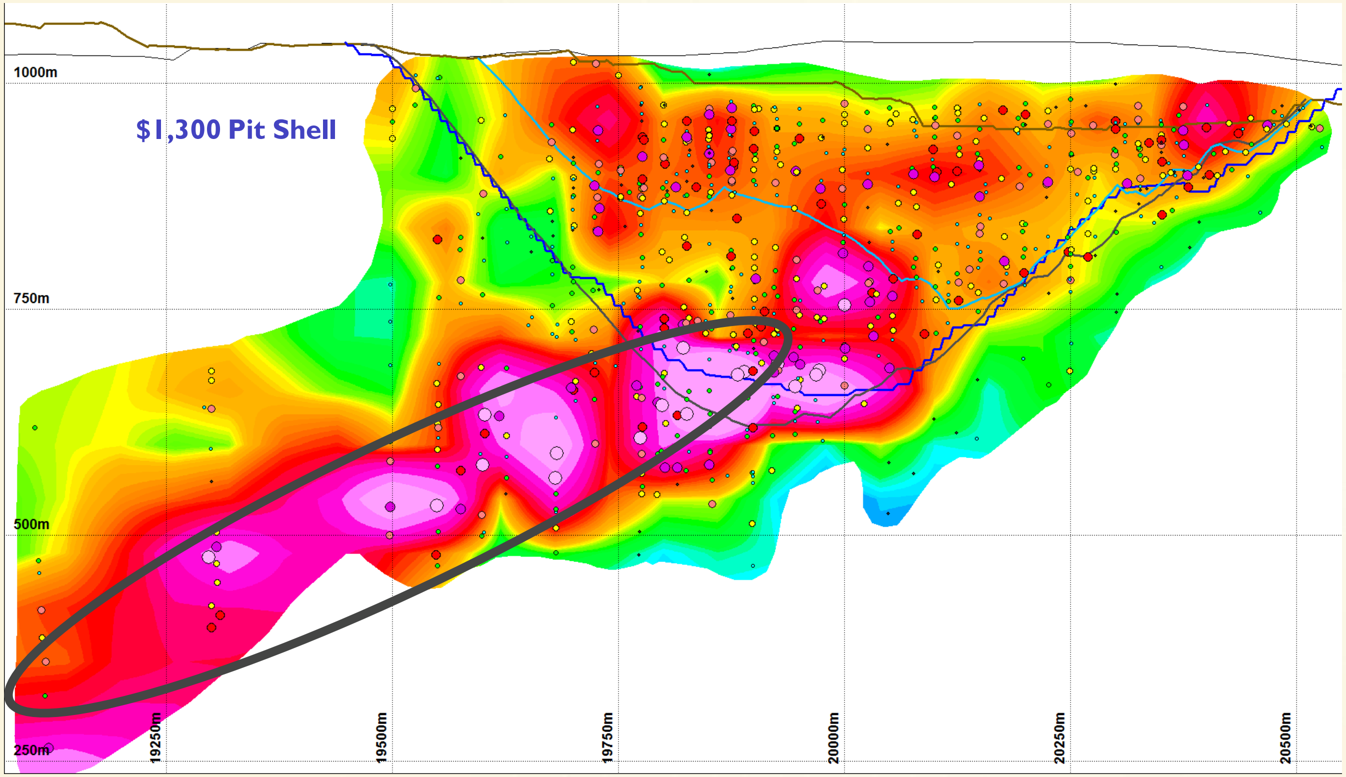
- Two year LOM in 2011

Wassa Growth – Dec 2013

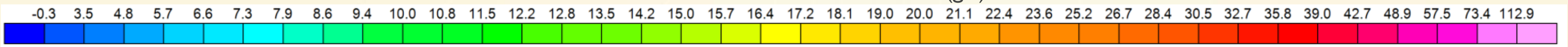


- Mineral Reserve and Resource update for year end 2013
- Wassa Mineral Reserve increased 34% to 2.0 Moz; 22% higher average grade of 1.75 g/t Au
- Wassa Measured and Indicated Mineral Resources increased 29% to 3.3 Moz; 25% higher average grade of 2.0 g/t Au

Wassa Growth – March 2014



Wassa Main Grade Thickness Contour (g\t)*m



- New drilling campaign commenced November 2013 - infill and step out
- Significant grades and widths intercepted on step out holes, confirming ore body is open down plunge
- In-fill drilling shows wide zones of significant grades between existing high grade drill intercepts

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Wassa – Way Forward

- Current drill program completed and assays to be received mid 2014
- PEA of underground mine at Wassa to be published Q3 2014
- Revised Mineral Resource estimate Q3 2014
- Feasibility Study (based on revised Resource estimates) to commence Q3 2014
- 18 months to commercial production thereafter
- Financing options being considered, internal financing possible

Investment Case

- Management team continue to demonstrate their capabilities and will deliver on guidance
- The Company is adequately funded for current operations
- Golden Star is focusing its operations on low cost non-refractory ounces
- Development of Wassa Underground is central to this strategy
- Costs are reducing through active management and will reduce further as a result of strategy
- Established infrastructure with three operating plants and all permitting requirements fulfilled
- Significant optionality exists to increase production from other ore sources if the gold price rises

APPENDICES

GOLDEN STAR

Strong Sponsorship, Good Liquidity

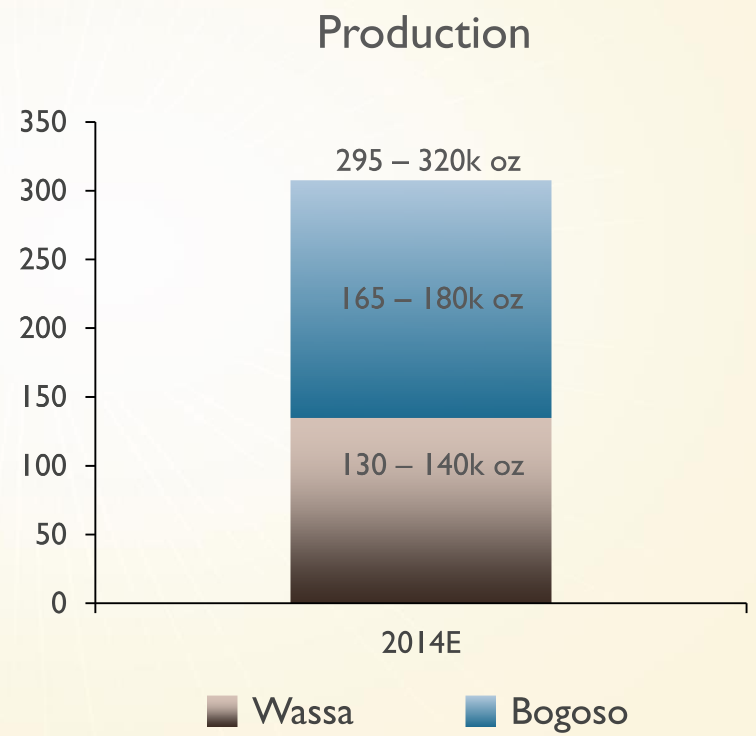
Share Price (Last close) (US$) (as of May 05, 2014)	**62 cents**
Shares Outstanding	259.4 M
Market Capitalization (US$)	160.8 M
Cash and Equivalents (US$) (March 31 2014)	57.8 M
Total Debt (US$) (March 31,2014)[1]	112.8 M
Enterprise Value (US$)	215.8 M
Daily Average Volume	TSX: 140K NYSE MKT: 2.6M

Major Shareholders[2]	
Heartland Advisors Inc.	12.11%
Sentry Select Capital Corp.	11.53%
Van Eck Associates Corp.	8.0%
Directors and Executive Officers[3]	2.8%
DE Shaw & Co	1.8%
Acadian Asset Management	1.2%

(1) Includes US$47.3M of 5% Convertible Debentures at fair value
(2) As accessed on April 23, 2014 from Bloomberg
(3) As a group, beneficially owned, or controlled or directed, directly or indirectly as at December 31, 2013

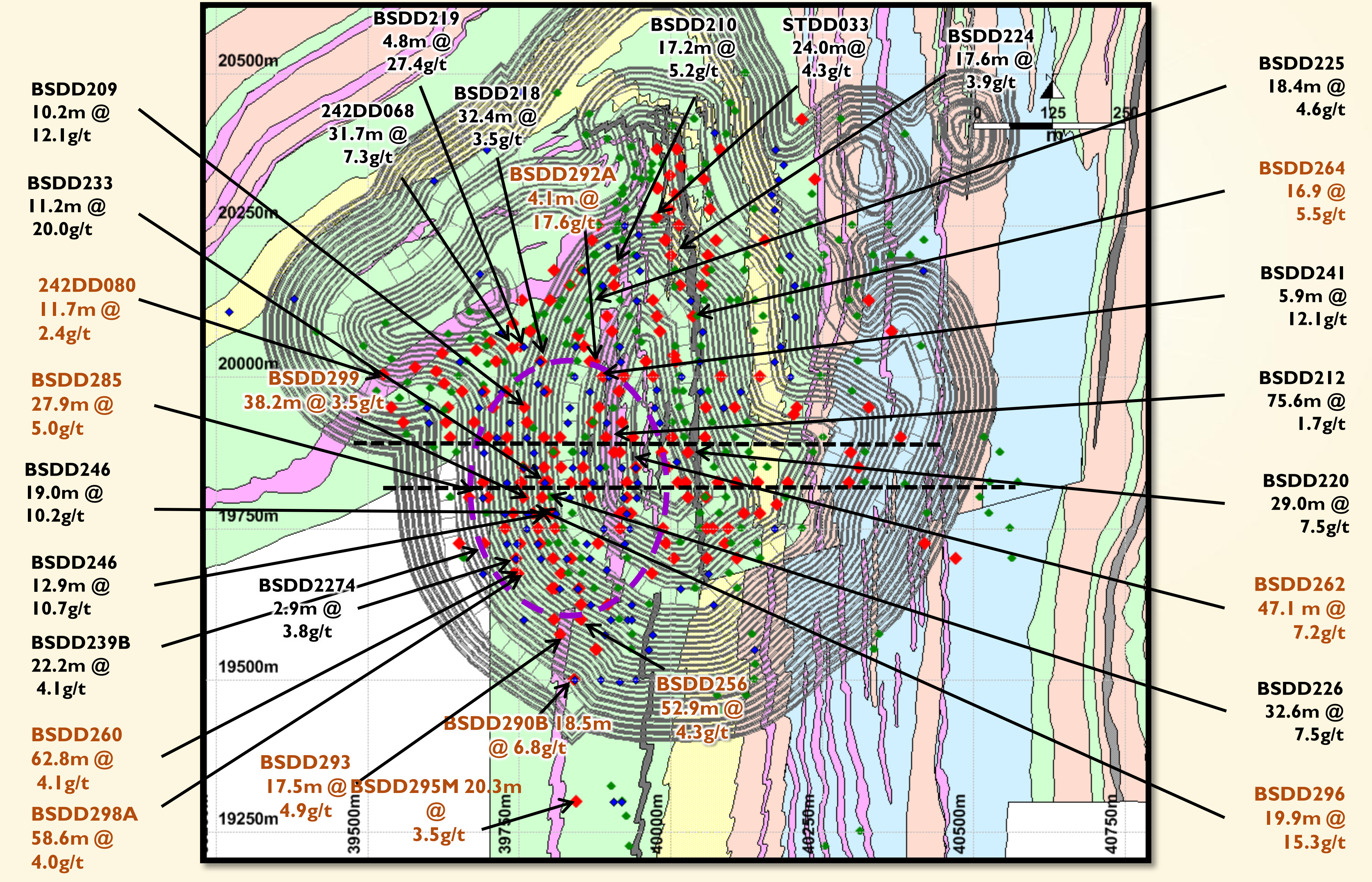
2014 Guidance

Combined Operations in 2014		
Production (oz)		295,000 – 320,000
Cash operating cost ($/oz.)[1]		950 – 1,000
Capital expenditure (millions)	Sustaining:	$21
	Development:	$29[(2)]
	Total:	$50



(1) Power and fuel prices used in the guidance are US$0.18 per kilowatt hour and US$1.30 per liter, respectively.
(2) The development capital expenditure forecast for Bogoso for 2014 is inclusive of approximately US$12 million of development expenditures incurred at the Prestea Underground Mine.

Wassa Main Drill Hole Plan View



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Wassa Main Drill Hole Plan View