

QUARTERLY ACTIVITIES REPORT DECEMBER 2019

HIGHLIGHTS

- The Definitive Feasibility Study (DFS) for the Borborema Gold Project was completed on-time and demonstrates the economic viability and robustness of the Project. An after tax NPV_{8%} of US\$203M was estimated with an IRR of 41.8%.
 - Excellent results saw improvements in capital and operating costs over previous studies. The upfront capital required for plant and infrastructure totalled US\$99.3m of which US\$11.4m was contingency and 729,000 ounce gold are to be produced over a +10 year mine life (308,000oz in the first 4.5 years) at an AISC of US\$839/oz.
 - The DFS was undertaken on a conservative basis and estimated assuming a gold price of US\$1,400 per ounce rather than the current US\$1,557 per ounce.
 - The DFS is a key milestone and the Company immediately advanced project finance discussions with the assistance of Araujo Fontes, their financial advisor in Brazil.
 - Agreement signed between BRV and the State of Rio Grande do Norte which will provide tax concessions and government department co-operation and support for the Borborema Gold Project.
 - Mica identified as a potentially significant commercial opportunity for the Borborema project.
 - The DFS and plant can be updated subsequently at low cost if required after results from the mica enhancement testwork and marketing analysis are received.
 - Mr Stephen Copulos retired as Chairman and Mr Andrew Richards was appointed Executive Chairman.
 - The Board was further strengthened with the appointments of Mr John Cathcart and Mr Beau Nicholls as Non-Executive Directors
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Big River Gold Limited (ASX:BRV) (“Big River” or the “Company”) provides below, details of its activities during the 2019 December Quarter. In that period the Company’s focus was on completion of the Definitive Feasibility Study (DFS) for the Borborema Gold Project and advancing project finance discussions, with the assistance of Araujo Fontes, their financial advisor in Brazil.

OPERATIONAL UPDATE

Borborema Gold Project & DFS

The Definitive Feasibility Study (DFS) considered the development of a 2.0 Mtpa operation over 10+ years at the Borborema Project located in north-eastern Brazil which is 100% owned by Big River through its wholly owned subsidiary Cascar Mineração Ltda (**Cascar**). This was completed by managing engineers, Wave International Ltd (**Wave**) in December 2019. (ASX Announcement – 23 December 2019).

The results of the DFS were extremely good and confirmed the viability and economic robustness of Borborema and was completed within the accuracy of 10-15% required by international best practice. It

comprises a conservative, detailed study of a standalone gold project and estimates a **post-tax NPV of US\$203M** (discounted at 8% pa) and an **IRR of 41.8%**.

The estimated project **capital cost is US\$87.97M plus contingency of US\$11.36M (11.4%) totalling US\$99.3M** which compares favourably to the review announced in February 2018 of US\$93.4M excluding contingency.

Average C1 operating costs over the 10 year operating mine life are estimated to be **US\$642** per ounce compared with previously estimated US\$737/oz¹ and an All-In Sustaining Cost (**AISC**) of **US\$839** per ounce (US\$908).

The estimated production costs compare favourably with peer companies and provide a strong margin for profitability given current and projected gold prices (Figures 1 and 2).

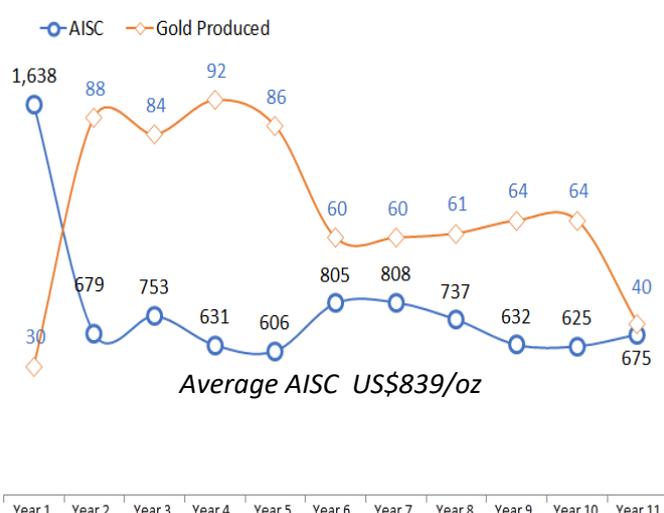


Figure 1. All-In Sustaining Cost (AISC) and Gold produced by year (in US\$/oz and koz Au).

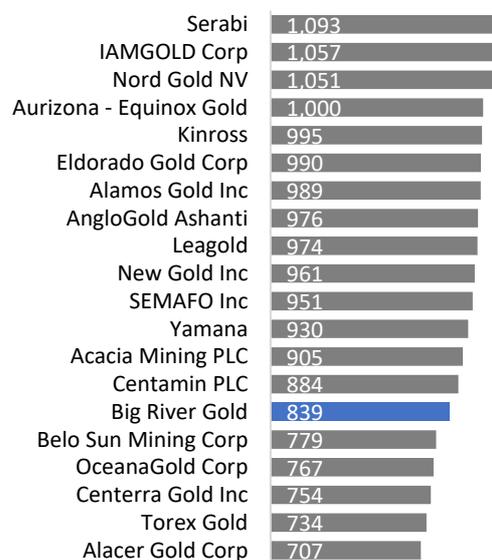


Figure 2. Comparison of AISC, 2018-2019 (US\$/oz).

The DFS details an initial Stage 1 Life of Mine (**LOM**) of 10.2 years, producing an average 71,250 ounce of gold per annum from a single open pit. Ore will be processed through a single stage crushing circuit and SAG and Ball (SAB) milling circuit followed by conventional cyanide leaching. Metallurgical recoveries are high ramping up to 92.5% with a 36 hour residence time and low reagent consumption. Gold recovered in production Years 1 and 2 is expected to be 83,888 oz and 83,954 oz respectively, delivering revenues of US\$235M (A\$346M) in the first two years. Production in Years 3 and 4 will increase to 96,938 oz.

Stage 1 plans to mine only 0.78Moz gold (0.73Moz recovered) out of a total Mineral Reserve of 1.61 Moz gold². The balance of 0.83Moz remains an opportunity to mine in whole or part in Stages 2 and 3, and will form the basis for ongoing optimisation studies.

With the completion of the DFS and LOM cashflow model the Company is now in the position of advancing discussions with several financial institutions that have expressed interest in providing project finance and were awaiting the finalised cashflow model. That will commence immediately with the assistance of Araujo Fontes, BRV's financial advisors in Brazil.

¹ Refer ASX announcement 8 February 2018.

² Refer ASX announcement 23 December 2019

Key Results

Table 1 below summarises the key operating and financial results of the DFS which was undertaken at a gold price of US\$1400 per ounce.

Table 1. Summary Borborema DFS key results - Life of Mine (LOM)	
Key Parameters	
Mineral Resources (reported above 0.5g/t Au cut off, 2013) ³	68.6Mt @ 1.10 g/t Au (2.43Moz)
Stage 1 Ore Reserve Scheduled to be mined in DFS ⁴	20.0Mt @ 1.22 g/t (784,480 oz)
Gold produced	729,374 ounces
Capital Costs	
Processing plant Capital Costs	US\$ 58.61M
Non Processing infrastructure and Owners costs	US\$29.36M
Contingency	US\$ 11.36M
Total Capital Summary	US\$ 99.33M
NPV (8%, Pre-Tax)	US\$ 218M
NPV (8%, Post-Tax)	US\$ 203M
IRR (Pre-Tax)	43.6%
IRR (Post-Tax)	41.8%
Payback from commencement of production	2.4 yrs
Life of Mine C1 Cash Costs	US\$642/oz
Life of Mine AISC costs	US\$839/oz
Production Summary	
LOM	
Mine Life (from commissioning date)	10.2 years
Strip ratio (waste (t): Ore(t))	4.2
Mill throughput (total)	20.0 Mt
Grade	1.22 g/t Au
Recovery	92.5%
Gold produced – over Life of Mine	729,374 oz
Project Economics, US\$M	
LOM	
Study Gold price	\$1,400/oz
Gross Revenue LOM	\$ 1,021M
Operating costs LOM	\$ 494M
Capital:	
Capital – Project Plant (inc contingency)	\$ 99.3M
Capital – sustaining and mine closure costs	\$ 21.0M
Working capital – Mine establishment pre-production	\$ 6.6M
Working capital – Other	\$12.7M
EBITDA	\$527.3M
NPAT	\$328.3M

³ Resources estimated 2013, refer ASX Announcement 24 July, 2017 (inclusive of Reserves).

⁴ Pit optimisation and Reserves estimated using gold price of US\$1250/oz; DFS cashflow analysis used US\$1400/oz. Only Measured and Indicated Resources were scheduled in mining – no Inferred Category Resources have been considered.

Table 2 and Figure 1 illustrate the performance in the first 4.5 years as higher grade material is preferentially processed through the plant. In the current plan, subject to review lower head grades will be processed in later years from stockpiled mined ore and the relatively lower revenues will be offset by reduced mining costs as mining is phased out.

In the early years of production the opportunity to upgrade the plant throughput and expand the minelife will be investigated.

Table 2. Production results over first 4.5 years (US\$1,400/oz)	
Average annual gold produced	84,500 oz/year
Grade	1.46 g/t Au
C1 Cash Costs (average)	US\$622/oz
AISC (average)	US\$759/Oz
Total EBITDA	US\$ 276m

Gold Price and effect on DFS

The DFS was undertaken at a gold price of US\$1400 per ounce while at the time of this quarterly report the gold price was approximately US\$1570 per ounce. If sustained this has a significant impact on the cashflow and economics of the project, as shown in Table 3 with post tax IRR's over 50%

Table 3. Effect of varying gold price					
	US\$1300	US\$1350	US\$1400	US\$1500	US\$1600
NPV (8%, post-tax), US\$	162M	183M	203M	244M	\$285M
IRR (post-tax)	36.0%	38.9%	41.8%	47.3%	52.5%
Payback (from start production)	2.8 yrs	2.6 yrs	2.4 yrs	2.1 yrs	1.8 yrs
Ave EBITDA (Full years), US\$	46.7M	50.3M	53.83M	61.0M	\$68.1M

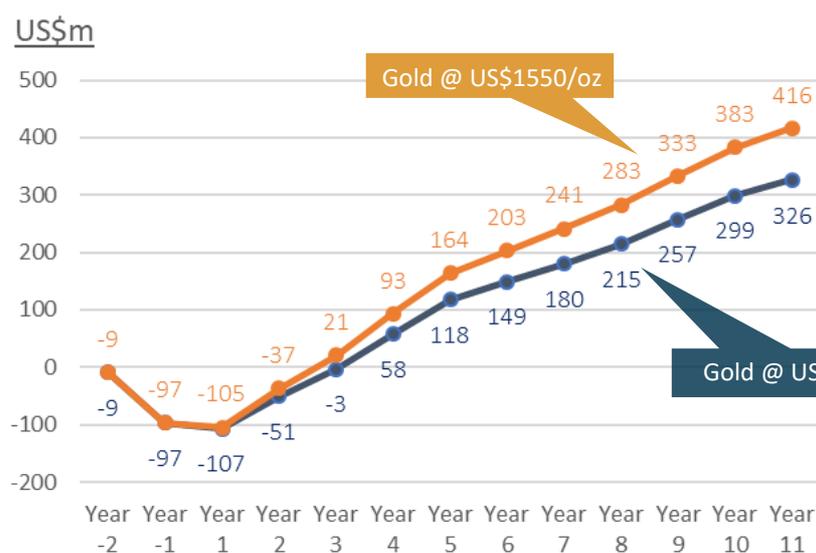


Figure 3. Cumulative Cash Flow - Unleveraged (US\$m)

Next Steps & Implementation

The implementation schedule for the Project indicates a construction period of 23 months subject to the conclusion of financing arrangements. Big River believes this to be conservative and the lag time between completion of the DFS and securing finance is an opportunity to investigate critical tasks that impact the execution schedule. These tasks can be undertaken for relatively low cost which the Company is in a position to fund and have the potential to reduce the execution schedule and costs.

In moving forward Big River plans to:

- Appoint a Project Manager to Currais Novos, to oversee implementation, value engineering, completion of remaining contracts and construction of the project.
- Complete design and contracts for supply of waste water and power - already well advanced
- Appoint General Manager for Borborema operations
- Secure debt financing.
- Issue contracts for procurement and fabrication of plant.

Commercial opportunities in terms of mica by-products will continue to be investigated with metallurgical testwork and market assessment through ANZAPLAN in Germany to assess the potential for saleable quality product. If proven viable, potentially significant revenues could be added for relatively little cost. It would require some amendments to the process design but provision has been made for that in the design.



Figure 1. View to the south over Borborema Project site showing gold mineralisation exposed in the pit and proximity of infrastructure. Transmission line to the left of the pit links with main power grid crossing the Borborema leases.

DEVELOPMENTS IN BRAZIL

The Company formally signed an agreement, or *Protocol*, through its wholly owned subsidiary Cascar Brazil Mineração Ltda (**Cascar**) with the Brazilian State of Rio Grande do Norte (**RN**) (ASX Announcement - 6 November 2019). The intention of the Protocol is to provide incentives and

assistance, including tax concessions, for the development of the Company's Borborema Gold Project, in that state.

The Borborema Project will be the largest project in RN with construction planned to commence in 2020.



Rio Grande do Norte is actively pursuing projects that could be developed within the state and putting in place meaningful mechanisms to encourage new investment that will prioritise the use of local firms and labour.

The Protocol is non-binding but ensures that new projects have access to the full co-operation and assistance of State departments for power, roads, water (CAERN) and environment (IDEMA), as well as the deferment or reduction in taxes and tariffs (ICMS) for a variety of equipment including major capital items and supplies such as electricity and fuel used in production.

Reduced tax rates are in addition to the Company's eligibility for the Federal Sudene tax concessions for projects in that part of regional Brazil that will see company tax rates below 16%.

FUNDING

The staged development plan aims to minimise initial capital, operating expenditures and funding requirements whilst generating revenue. It also provides an avenue for a rapid payback period of only 2.4 years following commencement of commissioning.

The Project's financial, economic and marketing metrics are robust with good operating margins, and the reported Mineral Resource and Ore Reserve has the potential to deliver a production opportunity over at least 10 years. In addition, the Project's location in Brazil is within a mature, low sovereign risk mining jurisdiction.

Funding in the order of US\$105M is required to commence production and achieve the outcomes indicated in the DFS. This includes capital works, contingency, mine pre-production costs and other working capital requirements. The Company's Board and Management have a successful track record of obtaining finance for the exploration, evaluation and development of mineral resource projects.

It is anticipated that the finance will be sourced from a combination of equity and debt instruments from debt providers in Australia and overseas, existing shareholders and new equity investment. The Company's aim is to avoid dilution to existing shareholders, to the greatest extent possible and has engaged Araujo Fontes as our financial advisors to source debt and equity options in Brazil.

The Board believes there is a reasonable basis to assume that funding to develop the project will be available as and when required. However, investors should note there is no certainty that the Company will be able to raise the amount of funding required to develop the project when needed. It is also possible that such funding may only be available on terms that may be dilutive or otherwise affect the value of the Company's shares, or that the Company may pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the project (which may reduce the Company's proportionate ownership of the project).

Going forward, the Company will continue to assess all possible commercial mechanisms to determine the optimum financing solution for the Project.

CORPORATE UPDATE

With the completion of the Borborema Gold Project DFS, the board reviewed its composition and skill base and completed succession planning with the following changes:

- Mr Andrew Richards, an Executive Director of the Company, has assumed the role of Executive Chairman and replaced Mr Stephen Copulos who retired as non-executive Chairman, effective 1 January 2020.
- The Board has added to its skill base with the appointment of two additional Non-Executive Directors (NEDs), namely Mr John Cathcart and Mr Beau Nicholls. Both John and Beau bring extensive experience in the international resources sector, corporate management and finance as well as Brazilian operational experience to the Board

The new appointees join Mr John Evans, who is currently a NED on the Board who brings a deep understanding of financial and corporate management and corporate governance to the role.

CASH POSITION AND FORECAST

The Company is in a strong financial position with \$4.3 million in cash as at the end of the quarter. This will be sufficient to fund corporate costs through to 2021 and also facilitate accelerating pre-production activities for Borborema and identifying plant suitable for use in the design.

Excluding costs attributable to the DFS and other project costs during the quarter of \$1.24M, the Company has significantly reduced its cash burn in Australia and Brazil to a total \$394k during the 2019 December quarter.

Expenditure in the March 2020 Quarter is expected to be similar or slightly increased as an Owners team is established and several avenues are pursued that will improve the design and implementation of the Borborema Project.

On behalf of Big River Gold Limited



Andrew Richards
Executive Chairman

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About Big River Gold

Big River Gold Ltd (ASX:BRV), is a mineral exploration and development company listed on the Australian Securities Exchange. Its major focus is Brazil; a country the Company believes is underexplored and offers high potential for the discovery of world class mineral deposits. The Company's key asset is the Borborema Gold Project.

Competent Person Statements

Borborema mineral resource estimate

The information in this announcement that relates to the mineral resource estimate for the Borborema Project was first reported in accordance with ASX Listing Rule 5.8 on 24 July 2017. Big River confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 24 July 2017 and that all material assumptions and technical parameters underpinning the Mineral Resource estimate continue to apply and have not materially changed.

Borborema ore reserve estimate

The information in this announcement that relates to the Ore Reserve estimate for the Borborema Gold Project was first reported in accordance with ASX Listing Rule 5.9 on 6 March 2018, 29 March 2018 and 11 April 2018. It was updated as part of the Stage 1 mine scheduling in accordance with ASX Listing Rule 5.9 on 23 December 2019. Big River confirms that it is not aware of any new information or data that materially affects the information included in these previous announcements and that all material assumptions and technical parameters underpinning the Ore Reserve estimate continue to apply and have not materially changed.