

QUARTERLY ACTIVITIES REPORT SEPTEMBER 2021

- The Engineering Cost Estimate study draft report, accommodating possible future expansion, was received and updated with additional engineering data and costs.
- Mining optimisations for 3-6Mtpa scenarios were commenced. Implications considered for improving the economics of the project, staging and infrastructure relocation.
- Dynamic Water Balance (DWB) study was completed for the Borborema site to refine project water demand requirements and consider revised water management strategies.
- DWB modelling has significantly de-risked the water supply issues by showing significantly lower than anticipated need for water to be pumped to site from external sources with a near net zero demand for the 2Mtpa base case and smaller demand at expanded throughput.
- Maintenance and upgrades of the sewage water facilities continued resulting in improved water flows indicating that sufficient water will be available for 3Mtpa throughput. Work is ongoing to de-risk expansion scenarios beyond 3Mtpa.
- Studies confirmed the importance of the Fine Dyke for water storage and recycling. More geotechnical work and detailed engineering is underway, suitable borrow material for construction of the Fine Dyke wall is being sourced and stripping and preparation of the storage basin will commence shortly.
- The 69kv power line design completed. Negotiations with landowners will commence in order to acquire access for proposed powerline route.

Big River Gold Limited (ASX:BRV) ("Big River" or "the Company") is pleased to present its Quarterly Activities Report for the period ending 30 September 2021. During the Quarter, the Company advanced several aspects of the infrastructure design and costings of the Borborema Gold Project (**BGP** or **Project**) design as well as assessing the best options for future expansion and funding the construction of the Project.

Some significant developments to the design and future options continued to be explored during the quarter.

Activities are still being undertaken on behalf of Big River by various engineering groups in both Brazil and Australia although the impact of COVID-19 has limited travel to the BGP site.

PROJECT DESIGN PROGRESS

Engineering design and cost estimate update

The review of the Borborema 2Mtpa DFS and an Engineering Cost Estimate update (**ECE**) was delayed with a draft report received from GR Engineering Services (**GRES**) reviewed and updated with additional data and costs during the quarter. The ECE incorporated additional findings and developments arising out of ongoing engineering studies particularly water supply. Some items in the 2019 DFS study were considered

to have been understated and cost estimates for those areas will increase as a result including EPCM and Owners Costs.

The core process plant components of the estimate remain relatively unchanged while some equipment has been upscaled along and layout changes have been incorporated to reduce risk, increase resilience, and to capitalise on opportunities presented by economies of scale. More of these are presenting as ongoing mine planning detail comes available and gold pricing and recovery assumptions are updated.

There has also been a significant increase in mining and exploration activity in Brazil over the last 12-18 months. This has seen an increase in costs and prices as well as demand on service providers and suppliers. The process of updating budget pricing and quotations to 2021 conditions has been slower than anticipated and pricing is being carefully interrogated where increases are apparent.

The update is focussing on the initial 2 million tonnes per annum (Mtpa) Stage 1 of the Borborema Project. However, selection of equipment and layout has been revised to accommodate a possible mine expansion in Year 3 or 4 of Stage 1 which recognises the significant scale of the Borborema resource and the economies which would result from increased plant throughput.

Studies were also undertaken to investigate the potential of expanding the operation in several increments from 3Mtpa to 6Mtpa. This work includes consideration of the eventual relocation of the adjacent highway and regional powerline and de-risking, especially relating to securing sufficient process water supplies to underpin process throughput.

Engineering and water balance studies suggest we may be able to support an initial 3Mtpa operation to commence with and we are considering that. More detail is provided below in the section on Process Water.

Restrictions on travel to Brazil for Australian based staff and contractors has created some project management challenges. However, there are plans and processes in place to ensure that the project teams in both Australia and Brazil are coordinated and working well together. The company recognises that this has meant longer and some unusual working hours for a number of key people.



Figure 1. View to the south west over the Borborema pit showing the exposed ore zone and infrastructure.

Process water

Advances are being made in the ECE preliminary engineering to better define the waste water usage, recovery and treatment. This will be required to ensure production rates of 2Mtpa but also to support any expansion.

Discussions are also underway with authorities in the region to both expand currently agreed supplies and secure additional water sources. This is being undertaken as a risk management measure but also to underpin any future strategies for the operation including possible expansion.

A Dynamic Water Balance study for Borborema was completed by SRK International (**SRK**) which suggested that a peak shortfall of approximately 35m³/hour of process water is required to be sourced from offsite to support a 2Mtpa plant. The study also identified extended periods of the year when no additional water is required from offsite to support a 2Mtpa operation.

Since assuming management and refurbishment of the assigned sewage pump station BRV has been progressively repairing and refurbishing the sewage boxes and system reaching flow rates in September and October of 50.2m³/hr and 48.3m³/hr respectively. BRV will continue to improve the existing infrastructure and plans to add additional pumps and surge tanks as we work toward achieving the 70m³/hr flow for which we have agreed with the local water authority, CAERN.

In seeking increased water flow and security the Company is negotiating with CAERN to assume a more responsibility for parts of that system while working to increase the water allocation assigned to Borborema. We are also investigating identified bore fields to the north and south which may hold the potential to provide significant water flows with gravity feed to site.

At present the water flow does not meet requirements due to poor pump performance and availability, blockages in the channels and trash screens and other issues at the sewage station.

As we work toward this higher flow rate and confirm the reliability of supply the Company believes that, as things stand, we may have sufficient water supplies to support a 3 Mtpa operation and is working to confirm that.

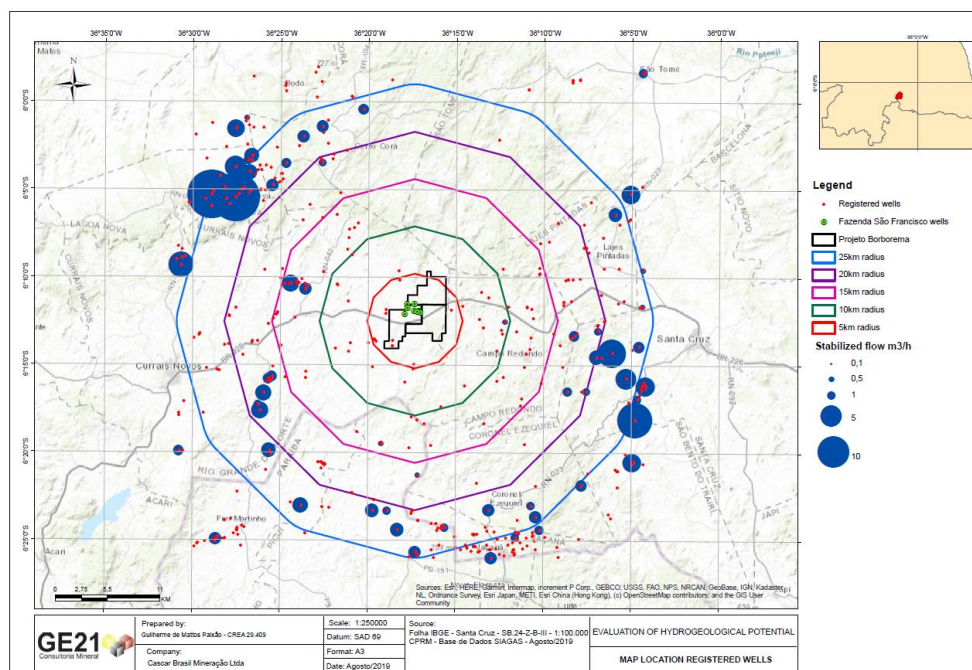


Figure 2. Government water bores in the region around Borborema with significant historically recorded water flows (the larger the blue circle the higher the recorded flows).

Fines Dyke - Geotechnical

The Dynamic Water Balance modelling has confirmed that the fines dyke is the key site water storage reservoir and a critical part of the site water management infrastructure. Thus, the company will be looking to prioritise the detailed engineering and construction of this facility.

Geotechnical drilling for the Fines Dyke catchment was undertaken with the wall design to commence upon receiving results. However, the drilling did not provide the results with sufficient confidence and additional drilling needs to be undertaken. That will be done in conjunction with geotechnical drilling required for the proposed plant site earthworks.

Areas of potential borrow material for use in the dam construction were also investigated and the available material was found to be unsuitable. Other sources of borrow material are being identified and options evaluated including;

- modified embankment engineering solutions
- Processing of on-site material to improve its suitability.
- Trucking suitable, commercially available, material to site from elsewhere

This work is ongoing.

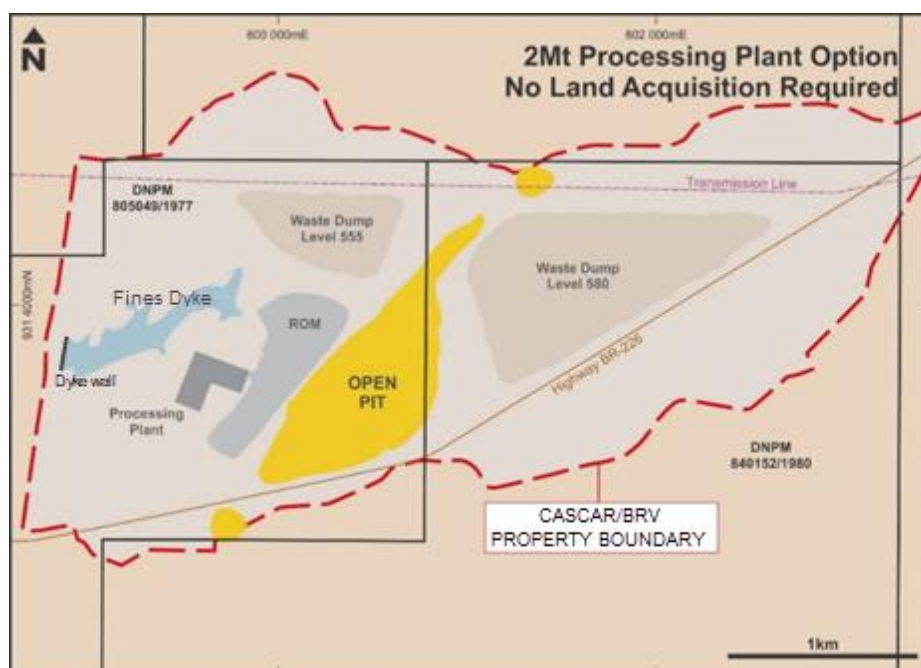


Figure 4. Schematic of Borborema site layout showing location of the Fines Dyke and wall.

EXPLORATION

Exploration has been delayed to Covid 19 restrictions on movement and subsequent high demand for drill rigs as Brazil's mining boom gathers pace. Notwithstanding the short supply of exploration drilling rigs, a rig has been secured and will be on site in late November. Its first drill targets will be to confirm the widths and grades of the Borborema resource at depth below the existing resource.

A 5,000m phase 1 diamond drilling program is planned to extend the existing resource down dip and along strike where the current pit optimisations are limited by drilling. This covers a zone of 1,200m strike with an initial step out of 100m down dip.



Figure 5. The Longyear 44 rig to be utilised in the upcoming drilling program at Borborema

CORPORATE

Financial Position

At the end of September 2021, the Group had cash reserves of \$17.9M. The aggregate amount of payments to related parties and their associates included in the September 2021 quarter cash flows from operating activities was \$107k, comprising of Chairman and directors' fees, salaries and superannuation.

During the quarter the company made payments totalling \$880k of capitalised exploration and evaluation expenditure consisting of costs in Brazil (staff, consultants and other) of \$290k, and consultants in Australia (GR Engineering, Rhodes Engineering, Macromet, and other) of \$590k relating to the Borborema ECE.

Exploration expenditure expensed for the period in Australia and Brazil totalled \$152k.

For and on behalf of the Board.



Andrew Richards
Executive Chairman
Big River Gold Ltd

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 the 2.43M ounce Borborema Gold Project in Brazil; a country the Company believes is underexplored and offers high potential for the discovery of world class mineral deposits.

Borborema Gold Project

Borborema is a project with a resource of 2.43Moz gold, located in the Seridó area of the Borborema province in north-eastern Brazil. It is 100% owned by Big River and consists of three mining leases covering a total area of 29 km² including freehold title over the main prospect area.

The Project benefits from a favourable taxation regime, existing on-site facilities and excellent infrastructure such as buildings, grid power, water and sealed roads. It is close to major cities and regional centres and the services they can provide.

Definitive Feasibility Study (DFS)

A DFS for development and construction of Stage 1 of the Borborema Project was completed in December 2019 as detailed in the ASX Announcement of 23 December, 2019. The DFS was updated to improve capex estimates and de-risk the operation (refer ASX announcement of 8 July, 2020). It confirmed the project's strong economics and optimised a profitable open pit with a mine life of more than 10 years producing approximately 729,000 ounces gold at a C1 cash cost of US\$534/oz and AISC of US\$713/oz.

Assuming a gold price of US\$1,550 per ounce, the pre-tax NPV (8%) returned US\$342M with an IRR of 64.7%. The project returns an average EBITDA of US\$72M pa.

All material assumptions underpinning the production targets and forecast financial information continue to apply and have not changed materially.

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. All material assumptions and technical parameters underpinning the Ore Reserve estimate continue to apply and have not materially changed.

That portion of the Ore Reserve that was included in the Stage 1 Mining Schedule for the December 2019 Definitive Feasibility Study (DFS) was reviewed by Porfirio Cabaleiro Rodriguez, BSc. (MEng), MAIG of GE21 as part of the DFS. The Ore Reserve was first reported in accordance with ASX Listing Rule 5.9 on 24 July 2017 and updated on 6 March 2018 and is based on information compiled by Mr. Linton Kirk, Competent Person who is a Fellow and Chartered Professional of The Australasian Institute of Mining and Metallurgy. Mr. Kirk is employed by Kirk Mining Consultants Pty Ltd and is an independent consultant to the company.