

QUARTERLY ACTIVITIES REPORT MARCH 2021

- **Plant Design Option Study completed, resulting in several changes to layout and equipment choices to ensure best configuration for future expansion**
- **Option Study indicates potential saving on capital expenditure with estimate to be refined to a higher level of accuracy through further work.**
- **Updated Borborema financial model to be made available to potential financiers mid-2021**
- **Exploration to resume at Borborema subject to easing of COVID-19 restrictions.**
- **Appointment of Mr Beau Nicholls as Technical Director overseeing exploration on a part-time basis**

Big River Gold Limited (ASX:BRV) (“**Big River**”, “**the Company**”) is pleased to present its Quarterly Activities Report for the period ending 31 March 2021. During the Quarter, the Company continued to focus on reviewing 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.

Following the receipt of funds from the \$20 million placement announced on 7 December, 2020, the Company commenced with a program designed to de-risk and advance the BGP, investigate plant design options that would better facilitate future expansion and recommence exploration in and around the BGP.

The placement saw the addition of several North American and European gold-focussed institutions to the Big River register. This included Dundee Goodman Merchant Partners (**Dundee**) which subsequently increased its interest in the Company to 19.4% shareholding by purchasing more shares in an off-market transaction with the Copulos Group.

Big River is now well funded to allow the acceleration of key civil works while also conducting a more in-depth review to ensure the BGP incorporates the most efficient capital spend and the Company extracts maximum value from the Project.

Due to the impact of COVID-19, travel to the BGP site is limited but still possible with appropriate precautions and activities are still being undertaken on behalf of Big River by various engineering groups.

Plant Design Option Study

During the Quarter a plant design option study (**Option Study**) was completed for the Borborema Gold Project by Wave International (**Wave**); the results of which were announced to the ASX on 30 March, 2021.

The Option Study aimed to optimise proposed process plant designs and compare the resulting capital costs with those presented in (i) the Definitive Feasibility Study (**DFS**) completed by Wave in December 2019 (**DFS 2019**) and (ii) an update completed by Wave and CPC Project Design (**CPC**) in July 2020 (**Updated DFS 2020**).

The study was undertaken to ensure that the 2Mtpa Stage 1 Process plant proposed in the *Updated DFS 2020* study¹ was the most efficient use of capital and that the design and equipment choice would not result in additional costs being incurred or prevent a seamless transition in the event of future plant and project expansion. The ultimate size of any future expansion will be subject to ongoing studies and availability of process water.

The main points derived from the Option Study include:

- Equipment and engineering options have been identified and the layout redesigned, with potential bottlenecks removed. The Stage 1 circuit can be expanded on the same pad footprint as was previously planned with no change in earthworks cost (refer Figures 1 and 2).
- An oversize single stage C130 crusher replaced the 3 Stage crushing circuit.
- A review of recent developments of SAG mill usage in Brazil suggested improvements in equipment support which mitigated concerns about operational security. Consequently, a larger than previously planned 4500kW SAG mill was reinserted into the design along with a small ball mill (2250W). This would meet the requirements of a 2Mtpa throughput with some flexibility and in any future expansion an additional small ball mill would be sufficient to significantly increase throughput through the comminution circuit.
- Key equipment in the original designs contained 20%-30% design margin oversize. The CIL tankage in particular was judged to be oversized and consequently “right”-sized to allow space for an additional six tanks to double capacity in any expansion. This was considered operationally more efficient and also reduced capital expenditure.
- The process circuit layout was arranged to provide space for any future expansion for the above as well as the downstream elution circuit, gold room, filter shed and possible mica recovery circuit, if that is determined to be viable in the future.
- The current power line agreement and design for the 2Mtpa project has sufficient capacity to support a plant throughput up to 4Mtpa.
- Big River has accepted the recommendations but notes that some additional changes may still occur with the layout as determined by ongoing detailed engineering.

¹ ASX Announcement 8 July 2020, a copy is available at <https://www.bigrivergold.com.au/asx-announcements/>



Figure 1. Redesigned Stage 1 circuit incorporating provision for possible future expansion.



Figure 2. Redesigned Stage 1 circuit showing plant and equipment of possible future expansion, illustrated in grey.

The SAG mill (1) and 2250kW ball mill (2) are shown while additional plant and equipment that might be installed to double the expansion from 2Mtpa is shown in grey in the space left vacant. This includes another 2250kW ball mill (3), a doubling of the CIL tank capacity (4), an increase in gold room capacity (5) and additional filtration cells (6). Space for a mica recovery circuit is shown at (7) – a decision that is subject to further assessment. Some modifications may occur to this layout as detailed engineering continues such as the location of the electrical sub-station (8) and orientation of the SAG/ball mills to improve maintenance access.

Capital Estimates

For the purposes of comparison, the same economic assumptions and inputs used in the December 2019 DFS² were used for the Updated July 2020 DFS³ and the Option Study. Table 1 summarises those comparisons which suggest a significant saving and operational benefits while Figure 3 reconciles the main areas of capex variation.

The Updated 2020 DFS had a total capital expenditure requirement of US\$98.5M including contingency of US\$11.5M (using 2019 economic parameters) compared to the Option Study total capex of US\$94.6M including contingency of US\$15.0M.

Note that while the level of accuracy of the DFS study costings was within -10% to +15%, the Option Study was a study utilising estimates and factoring in some areas that decreased the accuracy to around $\pm 30\%$.

The Company plans to increase the level of accuracy of the Option Study cost estimates to a DFS standard in key areas over the coming weeks with revised equipment specifications provided to secure quotes from prospective suppliers. In addition, the other costings used in previous DFS reports will be updated.

The more accurate and updated costs will be incorporated into the project financial model which contains the other project costs (mining and administration) and latest economic parameters such as the recently announced tax exemptions, ISSQN rates and FX currency changes.

The updated project financial model will be made available to potential financiers around mid-2021.

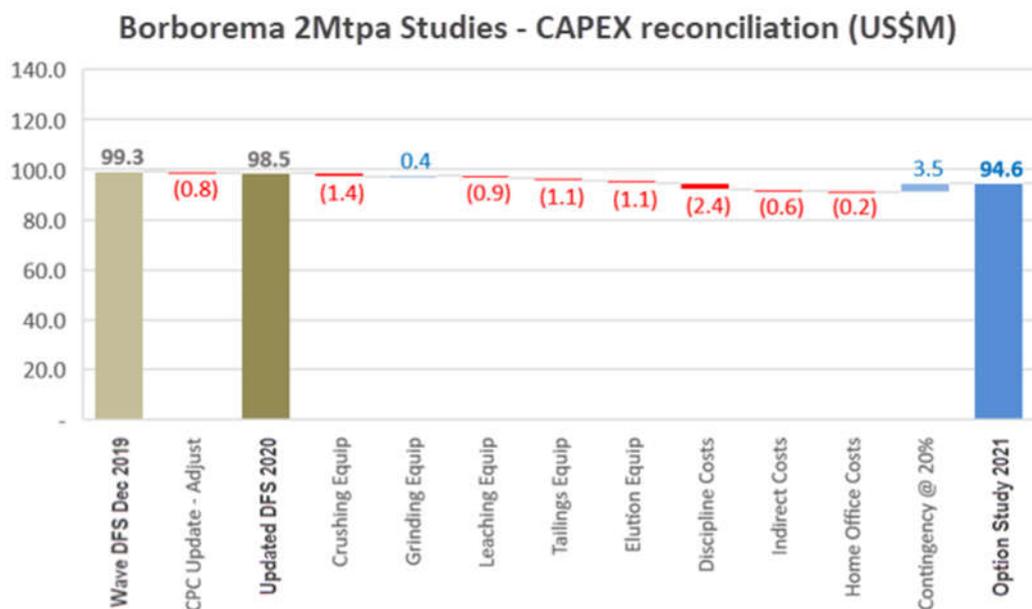


Figure 3. Reconciliation of movements in key areas of CAPEX estimates between studies

² ASX Announcement 23 December 2019, a copy is available at <https://www.bigrivergold.com.au/asx-announcements/>

³ ASX Announcement 8 July 2020, a copy is available at <https://www.bigrivergold.com.au/asx-announcements/>

TABLE 1: CAPEX ESTIMATES BY STUDY (US\$000)	Dec 2019 DFS	2020 DFS Update	2021 OPTION STUDY 2 MTPA
	Accuracy of Estimate -10% to +15%	-10% to +15%	±30%
DIRECT FIELD COSTS	64,986	64,804	58,239
Earthworks	7,287	4,677	4,677
Civil and Concrete	3,612	3,653	3,354
Structural Steelwork	8,407	8,247	8,092
Mechanical / Platework	29,973	31,863	27,037
Piping and Valves	5,959	5,959	5,751
Electrical, Controls and Instrumentation	9,748	10,405	9,328
INDIRECT / OTHER FIELD COSTS	13,348	12,525	11,949
Construction Indirects + ISSQN	5,859	6,090	4,942
Transport / Delivery to Site	2,957	2,407	2,654
Vendor Support	884	611	794
Mobile Equipment	646	645	645
Mobilisation and Demobilisation	1,184	954	1,184
Spares	951	945	863
First Fills	867	873	867
OWNERS COSTS	9,636	9,636	9,452
EPCM Labour and Expenses	4,965	4,965	4,965
Owners' Team Labour and Expenses	3,171	3,171	3,171
External Consultants and Peer Review	150	150	150
Insurances	1,350	1,350	1,166
TOTAL CAPEX (EXCLUDING CONTINGENCY)	87,970	86,965	79,640
CONTINGENCY	11,361	11,541	15,000
TOTAL CAPEX	99,331	98,506	94,640

The estimates in Table 1 are extracted directly from the Option Study and rounded to the nearest \$000. These numbers are estimates only and were calculated by Wave based on vendor quotations provided previously or factors derived from these quotations where equipment size has been significantly changed. They are not budgeted costs for the project and each estimate is subject to the accuracy range specified in the table.

Additional Project Progress

In parallel with the ongoing update of the Option Study and work to secure project finance, the Company is progressing infrastructure developments on and around site including the finalisation of powerline and water pipeline design. Applications have also been submitted to access certain parts of the property and allow site disturbance.

Design and geotechnical work has also commenced as the first step in upgrading dam water storage on site by September.

Exploration Re-activated

Subject to COVID-19 restrictions and the implementation of appropriate safety precautions, exploration is expected to recommence on tenements to the south west of the BGP as well as within the broader BGP concessions in the June 2021 Quarter.

Given current restrictions on movement in the region, the initial focus of drilling will be around the current reserve and designed pits. Planning has commenced to test previously undrilled high-grade zones adjacent to the reserve and pit designs (Targets A and B in Figure 4) as well as to attempt to upgrade part of the 560,000oz inferred resource immediately below the reserve, bringing it to indicated status (Target B in Figure 5).

As coronavirus restrictions ease, the exploration focus will move to the tenements along strike from the current resource, with the goal being to identify additional satellite deposits.

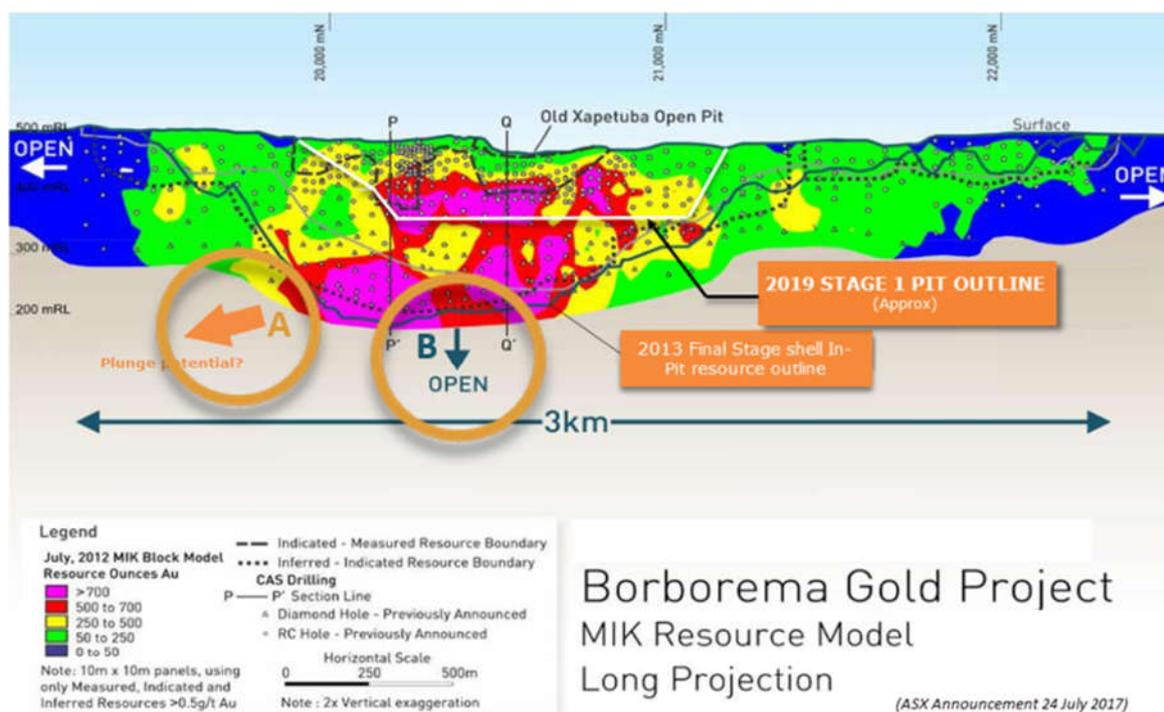


Figure 4. Long section of the Borborema resource showing near-mine high grade exploration targets.

CORPORATE

Appointment of Technical Director

With Big River's plans to increase its exploration effort in Brazil, the Company has appointed Mr Beau Nicholls, previously a Non-Executive Director of the Company, to the position of Technical Director on a part-time basis.

Mr Nicholls is a highly qualified geologist with 25 years' experience operating in South America, Eastern Europe, Australia and Africa and spent nine years living and working in Brazil.

As well as helping to rejuvenate the Company's exploration efforts, Beau will have an important role in assisting the setup of the mine geology team for Borborema.

Financial Position

At the end of March 2021, the Group had cash reserves of \$20.2M. The aggregate amount of payments to related parties and their associates included in the March 2021 quarter cash flows from operating activities was \$68,000k, comprising of Chairman and directors' fees, salaries and superannuation.

During the quarter \$151k of exploration expenditure was capitalised which related to the Borborema gold project and included costs incurred in Brazil (staff, consultants and other) of \$115k, and consultant costs incurred in Australia (Nagrom, Rhodes Engineering and other consultants) of \$36k.

Exploration expenditure expensed for the period in Australia and Brazil totalled \$224k.

Capital consolidation

During the quarter an 8 for 1 share consolidation was completed of the Company's share capital resulting in reduction of fully paid ordinary shares from approximately 1.7 billion to approximately 219 million.

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.



Figure 5. View to the south west over the Borborema pit showing the exposed ore zone and infrastructure.

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.