MICA TESTWORK PROGRESS REPORT

- **Testwork continued successfully with Nagrom in Perth to develop potentially commercial mica concentrates for sale as a by-product for the Borborema Gold Project.**
- **Work is ongoing but work to date:**
  - **Have produced concentrates suitable for commercial application in the plastics filler industry;**
  - **Show that simplifying the process by removing the de-sliming stage has resulted in a 25% increase in the mass yield for the concentrates.**
  - **Have produced high quality concentrates with a lesser number of magnetic separation stages, potentially reducing capital and operating costs.**
- **Covid 19 restrictions have delayed the completion of testwork for plasticity and other physical parameters. Upon receipt of those results the Company will be able to provide concentrate details to potential offtake counterparties.**

Big River Gold Ltd (ASX:BRV) (the **Company** or **Big River**) wishes to advise that a significant stage of the analysis being undertaken to assess the commercial viability of mica production at the Company's 100% owned Borborema Gold project, has been completed by **Nagrom** in Perth, WA with positive results.

The program currently being undertaken by Nagrom follows on from the testwork completed successfully by Dorfner Analysenzentrum und Anlagenplanung Gmbh (**ANZAPLAN** in Germany (refer ASX announcement of 18 February, 2020). The aim of Nagrom's work is to produce a commercially viable bulk concentrate in the first instance of which details of the chemical and physical properties can be made available to potential distributers or other offtake counterparties.

Potential scale of mica by-product production

The Borborema ore body contains very significant quantities of auriferous mica that will be processed through its planned 2Mtpa CIP process plant[1]. Initial work showed that after processing through the milling, cyanide leach and elution circuits, a substantial amount of mica could be readily separated by magnetic separation. This product retained attractive commercial chemical and physical properties including flake size and importantly, being free of deleterious crystalline silica (quartz). Refer to the attached data sheet in Appendix 1 for more details.

Magnetic separation represents a technically simple, low cost and chemical free process that could be readily included or retro-fitted to the currently designed gold plant to process the dry tails.

Appendices 1 and 2 (attached) provide details of the sample selection, their locations and the subsequent preparation and metallurgical testwork.

[1] *ASX Announcement 9 July 2020. DFS Review significantly upgrades Borborema project.*

Potential applications for this type of product are in the large volume plastic filler market, (in particular dark coloured polymers). Other uses could be for coatings and in the paint market where it would serve as a key additive with anti-corrosive properties. The 2018 pricing for a wet ground fine mica concentrate of this type from the USA was US$300 – US$500/tonne[2].

Figure 1. Picture showing the gold plant leach residue (left), non magnetic reject (centre) and mica rich magnetic concentrate (right)

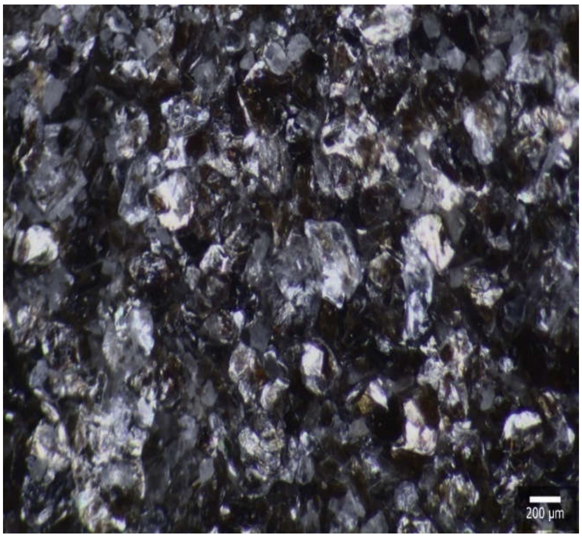


Figure 2. Magnetic mica under optical microscope – size on lower right

Progress to date

All of the work in Nagroms scope was completed in August. Additional testwork investigating the physical and plasticity characteristics is being completed by Microanalysis Ltd in Perth after some delays in receiving the samples due to Covid19 restrictions. A Technical data Sheet (TDS) will be made available for the market at that time.

The samples assessed by Nagrom are the same metallurgical composites that were used for the Definitive Feasibility Study (DFS) and the ANZAPLAN work. Details of the composites including source, locations and chemical analyses are provided in Appendix 1.

Below is a progress report on the results achieved by Nagrom which were very encouraging.

1. Removal of the desliming stage increases product mass yield by 25%

- The only additional sample preparation undertaken by Nagrom resulted in a comparison of the benefits of removing the slimes, or ultra fine particles, from the composite to produce the concentrate (as was done by ANZAPLAN). Nagrom repeated the testwork to investigate whether or not to incorporate a desliming stage before magnetic separation with results summarised in Table 1.

[2] *Statistica Industrial Minerals Market Information: https://www.statista.com/*

Table 1. Production of concentrate with and without desliming stage.									
Master Composite with Desliming									
Product	Yield	Fe_2O_3		K_2O		Al_2O_3		SiO_2	
	(%)	(%)	Dist	(%)	Dist.	(%)	Dist	(%)	Dist
Final Con.	13.5	21.2	40.6	7.0	29.9	18.2	17.3	37.0	7.7
Master Composite without Desliming									
Final Con.	16.8	20.6	47.2	6.8	36.0	18.8	21.0	38.0	10.0

- A final grade mica concentrate was achieved that is equivalent or slightly better than that produced by ANZAPLAN and by removing the desliming stage provides a 25% increase in mass yield to 16.8%.

2. Processing path simplified with fewer magnetic separation stages.

- Nagrom commenced testwork using the same process stages and initial flowsheet as was used by ANZAPLAN but found that final product grade could be achieved after 3 stages cleaning with magnetic separators compared with 6 which were used by ANZAPLAN
- The Nagrom magnetic separation circuit is much less complex and the reduction in the number of stages will result in operational efficiencies.
- Table 2 summarises the results of cleaning the cyclone underflow composites so that the amount of potassium (as K_2O) that reports to the non-magnetic fraction is minimised. Potassium is the key indicator for phlogopite which is the desired mica mineral in the magnetic fraction that will be produced for possible sale. The results show that the composites for Cleaner 4 and 5 non-magnetic and Cleaner 5 magnetic fractions have similar concentrations. This demonstrates that further improvement in mica recovery to the potentially saleable concentrate did not occur after the third magnetic separation stage as a result of Nagrom using magnetic separation equipment that is better able to process very fine particles.

Table 2. Cleaning of cyclone underflow composites (Non mag fraction)					
Non-magnetic fraction	Mass (kg)	Fe_2O_3 (%)	K_2O (%)	Al_2O_3 (%)	SiO_2 (%)*
Original sep fraction	6.588	2.094	1.333	12.424	76.452
After Cleaner 1	1.014	7.988	4.122	17.564	58.050
After Cleaner 2	0.491	12.269	5.908	20.101	47.739
After Cleaner 3	0.456	15.650	6.802	20.540	41.511
After Cleaner 4	0.298	17.120	6.888	20.283	39.899
After Cleaner 5	0.265	17.913	7.089	20.143	39.212
Cleaner 5 mag fraction	1.302	21.402	7.043	19.057	36.169

*Non crystalline silica

3. Concentrate can be produced using conventional fine grind.

- Nagrom have demonstrated that the use of conventional fine grinding equipment is able to produce a product that has a similar article size to that sold into the plastic and polymer markets (refer Table 2).
- the anticipated production of a commercially attractive mica concentrate at Borborema is expected to employ conventional and relatively simple technology. This will primarily incorporate magnetic separation which will be chemical free and require only power consumption at an estimated site cost of $0.08/kWhr[3].

Investors should note that at this stage the commercial acceptance and establishment of sales contracts for this concentrate product has yet to be determined and is will be the subject of ongoing market investigation.

Commercialisation and market for mica.

Further testwork is being planned to investigate:

1. technical acceptance in the above markets in line with the testwork results. TDS's will be produced and provided to 10-20 potential customers for commercial assessment;
2. Feedback from potential customers as to what changes to the product specifications might be required to meet alternative applications end uses, and
3. the separation of coarse flaked phlogopite (high magnesium biotite) from the bulk concentrate for use in the specialist electronics and automotive industries. The presence of coarse flake phlogopite has been noted and separation of even small quantities of this material will be significant due to its very high value.

The mica market is specialised and relatively small requiring careful management to establish offtake without disrupting the market. However, Borborema does offer the market good quality product derived from ethical mining practices not always present in this sector[4]. In conjunction with supplying samples to prospective customers, Big River will carry out a market study aimed at identifying markets for the product within Brazil and internationally.

Table 3. Uses, scale and potential significance of mica products

Product (Various classes)	Global Market Annual Capacity	Indicative price range. US$/tonne[1]	Uses
Coarse phlogopite-rich	300 – 500,000 tonnes	US$200 - US$1000	Electronics, high-end cosmetics, metallic (auto) paints, rubber & plastic compounds, brake linings
Bulk mica (muscovite-biotite)	~3 million tonnes	US$300-US$500	Excellent electrical and electronic performance, fillers and extenders in a variety of rubber compounds and adhesives, insulation, automotive plastic compounds, paints, lubricants, electrical capacitors, gypsum wallboard, oil drilling muds, some soaps and cosmetics, insulation, glitter, faux jewellery etc

[3] *Definitive Feasibility Study, December 2019 (ASX Announcements and 23 December 2019 and 8 July 2020)*
[4] *Global Mica Mining, and the impact on childrens rights. Terre des Hommes, SOMO. March 2018*

Table 3 summarises the main uses and approximate sizes of the world market of both bulk mica and phlogopite products.

Economic implications

With the Borborema Project already considered to be a robust and standalone gold project, Big River believes that the testwork results warrant follow up to unlock the potential of mica sales as a by-product. If this proves viable, the Company anticipates it will have a significant positive impact on the economics of the already very attractive Borborema Gold Project and gold production costs.

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 km^2 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.

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 or have been updated in the attached JORC Table 1.

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.

Borborema Exploration results

The information in this announcement that relates to exploration results for the Borborema Gold Project was first reported in accordance with ASX Listing Rule 5.7 on 28 January 2015. Big River confirms that it is not aware of any new information or data that materially affects the information included in the announcements of 28 January 2015 and 24 July 2017.

The information in this announcement relating to exploration results arising from the metallurgical testwork is based on and fairly represents information and supporting information compiled by Mr Andrew Richards and Mr Chris Larder. Mr Richards is the Executive Chairman of the Company and a Member of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr Larder is a Process Engineer of 35 years experience and a Member of the Australasian Institute of Mining and Metallurgy and is an independent consultant to the Company.

Mr Richards and Mr Larder have both consented to the form and context in which the exploration results and supporting information are presented in this announcement.

APPENDIX 1. DETAILS OF METALLURGICAL SAMPLING & TESTWORK

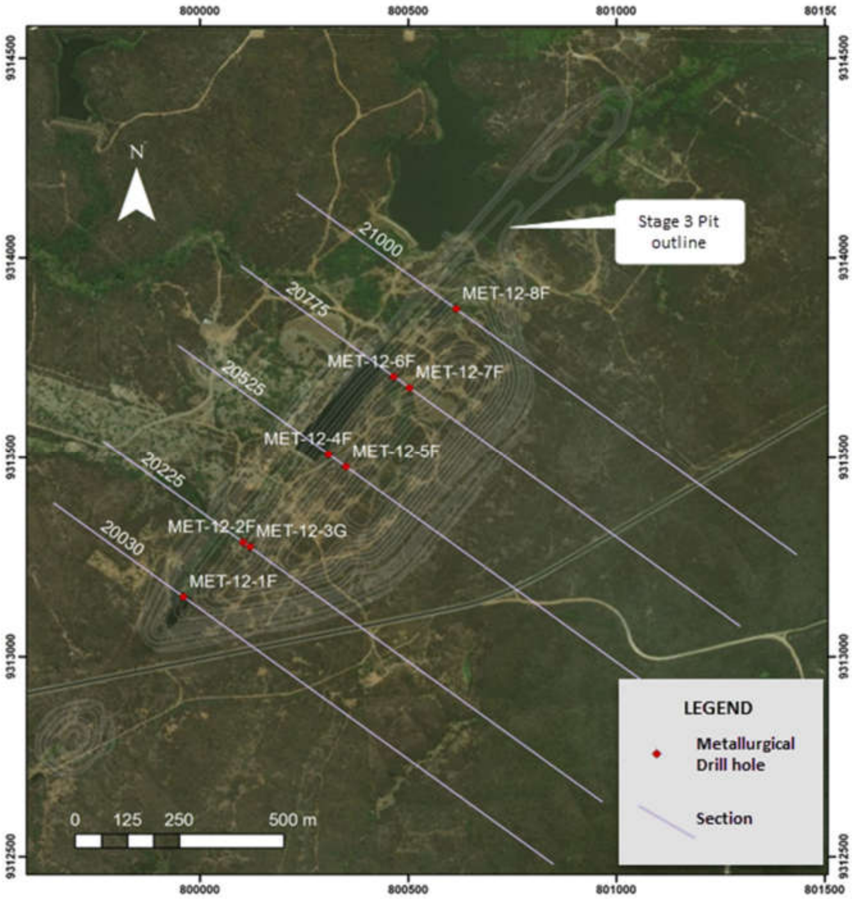


Figure 1. Location of metallurgical drillholes drilled in along the Borborema orezone within the original Stage 3 planned open pit.

Table 1. Metallurgical Composite samples collected from Borborema ore zone							
Metallurgical Drill hole ID	Easting (mE)	Northing (mN)	RL (m)	Total depth (m)	Azimuth	Dip	Collected Weight (Kg)
MET-12-1F	800002	9313195	485	107.7	15	65	623.0
MET-12-2F	800145	9313331	487	107.9	90	76	934.6
MET-12-3G	800162	9313321	489	191.6	90	60	1,207.2
MET-12-4F	800350	9313553	475	122.5	90	70	408.0
MET-12-5F	800393	9313521	485	220.0	90	70	647.1
MET-12-6F	800507	9313747	473	131.5	90	70	847.3
MET-12-7F	800545	9313719	476	198.9	90	65	907.7
MET-12-8F	800657	9313917	469	103.3	90	77	545.4
Total weight collected							6,120.3
Mass retained for analysis							348.7
Calculated weight sent to Australia for testwork.							5,771.6

Test work was completed on master composite and variability samples prepared by ALS Laboratories from eight drillholes that intersected the ore beneath the existing open pit and are considered representative of the ore. The sample selection was made to get a grade of 1.2 g/t Au which is the average grade for the mine life.

The sample was crushed and milled to 106µm before undergoing gold leaching and detoxification using the INCO sulphur dioxide process. The sample was then simply filtered, dried and despatched to ANZAPLAN.

The aim was to provide routine detoxified gold tailings as would be expected from standard daily operations for ANZAPLAN to assess.

ANZAPLAN TESTWORK

With no further sample preparation (ie no further grinding or use of reagents) ANZAPLAN used conventional high gradient, magnetic separation (HGMS) over six stages to produce a final bulk concentrate.

The chemical and physical characteristics of the final concentrate are summarised in Figure 2.

DRAFT TECHNICAL DATA SHEET — ANZAPLAN dorfner group

Mica concentrate

Product description: Beside the main phases phlogopite and muscovite, traces of albite and clinochlore are identified. The concentrate is free of crystalline silica.

Chemical analysis

	[wt%]
SiO_2	38.6
Al_2O_3	20.2
Fe_2O_3	17.4
TiO_2	2.1
K_2O	7.6
Na_2O	0.7
CaO	0.8
MgO	9.0

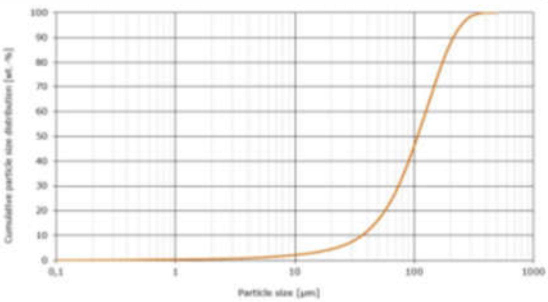
Loss on Ignition $_{1025°C}$ 2.7

Physical properties

Tap density	[t/m³]	1.2	**ISO brightness**	[%]	10.1
Bulk density	[t/m³]	0.8	**yellowness**	[%]	37.5
oil absorption	[g/100g]	30	**d50**	[µm]	107.4

Particle size distribution

Fraction [mm]	PSD [wt.-%]
250.0	95.0
200.0	87.1
175.0	80.2
125.0	59.4
90.0	39.7
40.0	11.5
20.0	4.4
5.0	1.1
2.0	0.5



Please notice that this product is a natural product, processed from a bulk sample in lab scale. Accordingly, all data and values shall be regarded merely as approximate values, which may include product-related tolerances. It is the customer's responsibility to check the suitability of the product with regard to the intended use; to request information regarding tolerances resulting from production and deposit conditions as well as options and experiences regarding the use of the product.

Figure 2. Bulk Concentrate Data sheet.

NAGROM TESTWORK

The same composite sample prepared as described above and used by ANZAPLAN was subjected to XRF analysis and XRD analysis before a program of high intensity magnetic separation work was undertaken at Nagrom. This work showed that a Mica product, or similar quality to that produced earlier by ANZAPLAN could be prepared using a circuit that was much less complex. The net effect was to reduce the number of magnetic separators from six to three to prodcue the same quality concentrate.

Further work was carried out to evaluate the requirement to deslime the Mica feed before magnetic separation. This showed that removing the desliming stage had no impact upon the final product quality but resulted in a significant increase in mass yield (~25%).

The final Mica product has been submitted to Microanalysis for detailed and specialised evaluation of the Mica product. This work is currently underway.

Results of the Nagrom testwork program are provided in the body of the anouncement and the tables below.

Table2. Magnetic separation test parameters

Parameter	
Feed % Solids	20%
Matrix (mm)	2
Grind Size (P80 mm)	As Received
Ro Gauss	8000
Cl 1 Gauss	8000
Cl 2 Gauss	8000
Cl 3 Gauss	8000
Cl 4 Gauss	8000
Cl 5 Gauss	8000
Demag Coil	Yes
Dispersant	N/A
Pulse Rate (ppm)	300

Table 3. Cleaning of cyclone underflow composites (Non mag fraction)

Non-magnetic fraction	Mass (kg)	Fe_2O_3 (%)	K_2O (%)	Al_2O_3 (%)	SiO_2 (%)*
Original sep fraction	6.588	2.094	1.333	12.424	76.452
After Cleaner 1	1.014	7.988	4.122	17.564	58.050
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After Cleaner 5	0.265	17.913	7.089	20.143	39.212
Cleaner 5 mag fraction	1.302	21.402	7.043	19.057	36.169

*Non crystalline silica

APPENDIX 2: Borborema Project JORC Code, 2012 Edition Table

Section 1. Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• The default sample length was 1 metre for all diamond drill holes; core diameter was PQ. All samples were assayed by fire assay (50g charge) for Au. A 1.5cm slice of the core was collected for sampling; the core was cut by diamond core saw and the remainder stored in the core tray. • Within the visually mineralised zones, one metre in every 10m was not sampled and the entire uncut core sample retained for subsequent UCS geotechnical testing. In calculating composited grades this interval was excluded from the calculation.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Drilling was carried out by Horizonte Mineiro Serviços Geológicos Ltda and Geotecreserves do Brasil - Serviços de Perfurações e Sondagens Ltda at PQ size (85mm diameter) at inclinations of -60 to -77 degrees from surface. • Downhole surveys were conducted using a REFLEX ACT (Ezi-Shot) instrument. Core orientation was carried out on all holes. No triple tube was used in the diamond drilling.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Sample recovery averaged 95%; core loss was restricted to weathered zones in the hangingwall of the mineralisation. Diamond drill core sample recovery was calculated as a percentage by measuring the length of the run as compared to the length of the core recovered. • Gold mineralisation was not related to zones of low recovery, sample bias due to poor sample recovery is therefore not believed to be an issue.

Criteria	JORC Code explanation	Commentary
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All diamond drill core was geologically and geotechnically logged by qualified and experienced geologists, high resolution photographs were taken, S.G tests conducted, structural measurements taken, RQD values calculated and fracture frequency counts and sample recoveries calculated
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Diamond drill core was marked and a 15mm slice from the left-hand side of the core sawn off by core saw. The samples were numbered, sealed and weighed before dispatch. • Sample preparation was undertaken by ALS laboratories' facility in Belo Horizonte using industry standard methods (Crush – Split – Pulverise) and is considered appropriate for the style of mineralisation intersected in the drill holes. The sample preparation method used is presented in the following section. • Standard, blank and duplicates (riffle split after coarse crushing) were inserted into the sample stream at the rate of 1:20, 1:20 and 1:40 samples respectively.

Criteria	JORC Code explanation	Commentary

Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*
	• *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.*
	• *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*
		• Samples were prepared and analysed by ALS laboratories in Belo Horizonte, as follows:
		  • Sample Preparation: Samples are jaw crushed to 70% passing 10 mesh (2 mm), a 250 g riffle split sample is then pulverized to 95% passing 200 mesh (75 µm) in a mild-steel ring-and-puck mill.
		  • Samples were assayed for gold and silver by fire assay, using a 50g charge and an AA finish. This technique is considered the most appropriate for gold mineralisation.
		  • The coarse and pulp sample rejects from the preparation and analytical laboratories will be returned to site at Borborema and stored at an on-site facility, allowing for re-assaying in the future if required.
		• For purposes of determining accuracy and precision of the assay data, analytical quality control (QA/QC) was completed for all sample batches sent to SGS-Geosol.. The following is the frequency of QA/QC samples submitted:
		  • - Standard : 1 every 20 samples in a random position
		  • - Blank : 1 every 20 samples, 1st sample per 25 samples
		  • - Duplicate : 1 every 40 samples in a random position
		  • Duplicates were generated by riffle splitting coarse crushed sample.
		• Analysis of QA/QC results indicates that acceptable levels of accuracy and precision were obtained. No external check laboratory assays have been done nor check analyses/ resubmission of the original samples to ALS laboratories.

Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Significant intercepts were generated by Big River Gold personnel and verified by Rob Smakman, the qualified person under this release. • No holes have been twinned. • The primary analytical data was imported directly from the laboratory assay reports into the Big River Gold geological database and the veracity of the data validated by the site geologist.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Diamond drill hole collars were surveyed by a Big River Gold surveyor using a DGPS with 10cm accuracy. • The grid system used was in a UTM projection based on SAD 69 datum. For internal purposes a local grid is used, oriented at 37 degrees to the UTM grid. • Topography is regularly updated by Big River Gold in house surveyor. 10cm accuracy is standard for the Borborema project site

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• The eight metallurgical drill-holes were distributed along the central portion of the deposit to obtain a representative bulk sample of the mineralisation from surface to -200m, on cross-sections previously drilled for mineral resource and ore reserve definition. Sampling was conducted on 1m intervals within the anticipated mineralised zones or in visually mineralised areas. • No Mineral Resource or Ore Reserve calculations are included in this announcement. • Sample compositing was not carried out. Weighted averaging of the significant intercepts was completed, excluding any unsampled intervals (whole core retained for UCS testing), but reporting the entire intersection length.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• The drill holes were designed to pass from the hangingwall to the footwall of the mineralised zone, thereby generating a large volume of sample for metallurgical testwork purposes. The hole orientation is therefore parallel to the dip direction at a steeper angle (60 - 77 deg.) than the average dip (35 deg.). True widths therefore vary from approximately 42% to 67% of down-hole widths.
Sample security	• *The measures taken to ensure sample security.*	• No sample security issues were raised or noted by the company during the transportation of the sample from the project site to the analytical laboratory. All samples were sealed with double cable ties in strong high density plastic bags, two sample ID tags were placed in different location inside the sample bags, all sample bags were clearly marked on the outside with permanent marker pen. All sample bags were checked off the dispatch list before being placed into a heavy duty and highly durable sack for transportation to the analytical laboratory. Upon receipt at the laboratory, samples were checked in and the list of received samples immediately sent back to the site geologist as a security check that all samples were received and all were fully intact and not opened.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No external audits of the diamond drilling sampling techniques were commissioned by the company. The results of the QA/QC analysis indicate that the sample methodology and sample control employed by the company ensured little to no sample bias occurred and assay results can be deemed accurate and precise

Section 2. Reporting of Exploration Results

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• Results are from mining licence 805049/1977 owned by Big River Gold´s 100% subsidiary, Cascar Mineração Ltda. There is a 1% government royalty owed on gross sales to the federal government; the land on which the project is located is owned by Cascar. There are no native title interests, historical sites or national parks in the region of the deposit. • The tenement is in good standing and there are no material impediments to operating in the area.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Garimpeiros first discovered gold mineralisation in the area in the 1920's and remained active in the region until the early-1980´s. The first relatively modern exploration work was completed by Mineração Xapetuba Ltda. (Xapetuba) between 1984 and 1990, during which time 209 reverse circulation and 13 diamond holes were drilled. • Xapetuba operated a 150,000 tpa open pit heap-leach operation on oxide material until 1991, recovering approximately 100,000oz of gold. • From 1991 to 1994 Metais do Seridó Ltda. (Metasa) attempted rudimentary gravity separation of the heap leach rejects; no production reports have been located. • In 1995, Mineração Santa Elina Indústria e Comercio S/A (Santa Elina) drilled a total of 15 diamond holes for 1,185m, mainly on the northern extension of the Xapetuba open pit. The project was subsequently acquired by MGP Mineração e Agropecuaria Ltda (MGP) who began treating the heap leach rejects via gravimetric separation in 1998. This operation was closed in 2000 due to low gold prices. • In 2007, Mineração Caraiba Ltda (Caraiba) took an option over the property and completed 75 diamond holes totalling 10,528 m. Caraiba also performed preliminary metallurgical testwork, regional mapping and completed a non-JORC compliant resource estimate. Caraiba declined to exercise the purchase option and returned the property to MGP.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Borborema mineralisation is located in a major regional shear zone (the Morro Pelado shear) cutting amphibolite facies meta-sediments of the Seridó Group within the Borborema Province of NW Brazil. The mineralised sequence has been subjected to a complex, multi-phase deformational

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		history, with dismembered and boudinaged quartz and quartz-carbonate veins and veinlets commonly associated with the gold mineralisation. Recrystallised sulphides, dominated by pyrrhotite with lesser pyrite, chalcopyrite, spahlerite and galena are common within the mineralised zones. It is believed that the gold mineralisation was emplaced by hydrothermal fulid activity at close to peak metamorphism adjacent to D2 shear zones, preferentially in the more psammitic units.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  • *easting and northing of the drill hole collar*
	  • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  • *dip and azimuth of the hole*
	  • *down hole length and interception depth*
	  • *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		• See attached Appendix 1, Table 1 & Figure 1.
		• In addition to gold the samples were analysed for Ag by fire assay and by ICP-AES/ICP-MS for 51 elements to assist in optimising the metallurgical process route. With the exception of minor by-product silver, these elements are not economic and will not be recovered in the future treatment process.

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Significant intercepts were calculated using a 0.5g/t lower cut-off, no upper cut, and up to 4m down-hole of consecutive internal dilution. • Intercepts were weight averaged. • No metal equivalent values considered.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• The holes were designed to maximise the volume of core for metallurgical testing purposes therefore resulting in the majority of cases in a substantial overstatement of the true width. • Results are reported as downhole widths: the approximate conversion factor to true width for each hole is provided.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being*	• See attached Figure 1, Appendix 1..

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	reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Results from all holes in the current program are reported.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Metallurgical test work was completed on master composite and variability samples prepared by ALS Laboratories from eight drillholes that intersected the ore beneath the existing open pit and are considered representative of the ore. The sample selection was made to get a grade of 1.2 g/t Au which is the average grade for the mine life. • As part of the metallurgical testing of gold variability and reagent consumption, the sample was crushed and milled to 106µm before undergoing gold leaching and detoxification using the INCO sulphur dioxide process. • The sample was then simply filtered and dried and part of the resulting tailings were despatched to ANZAPLAN for assessment of the potential to separate commerial grade mica from the tailings. • The aim was to provide only basic detoxified gold tailings as would be expected from routine daily operations for ANZAPLAN to assess. • No further sample preparation (ie no further grinding or use of reagents) was undertaken before ANZAPLAN used conventional high gradient, magnetic separation (HGMS) over six stages to produce a final bulk concentrate as reported. • Splits and remaining bulk samples at ANZAPLANS facilities were transferred to the Nagrom laboratories in Perth with the aim of producing a bulk concentrate that would be commercially acceptable to potential purchasers. • No further sample was preparation was undertaken in the first batch. A second batch had the slimes (ultrafine size fraction) removed to compare the results when high grade magnetic separation techniques (HGNS) were applied. • Results for bulk concentrates produced from both batches were reported. • To complete this phase of testwork, a portion of the concentrates were provided to Microanatysis laboratories in Perth to undertake physical plasticity tests. This work is in progress and results will be reported

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		and included in the concentrate Technical Data Sheets (TDS) that will be provided to potential offatke counterpaties.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• No additional exploration work is currently planned