**ASX ANNOUNCEMENT**
**21 June 2023**

# Successful bioleaching pilot plant test yields significant results

BBX Minerals Limited (ASX: BBX) ("BBX" or the "Company") is pleased to announce the results of a pilot plant test utilising a composite sample from Ema drill holes EMD-013 to EMD-027 (Appendix 4), conducted by EcoBiome Metals, LLC (**EcoBiome**). This was the first pilot plant test following the execution of a Product Supply and IP Agreement between BBX and Ecobiome.

**Highlights**

- Pilot plant achieved an **operational availability rate of 100%.**
- Bioleach test results utilising the composite from drill holes EMD-013 to EMD-027, show a **significant increase in gold, palladium and rhodium following the bioleaching process**, compared with previously reported assays from the respective drill holes.
- Fire assays conducted for gold, platinum and palladium at ALS returned a total of **3.36 g/t of combined Pd and Au** (3.32 g/t Pd and 0.04 g/t Au).
- Assays conducted for platinum, palladium, iridium, rhodium, and gold by ICP-MS by a laboratory in Arizona returned a total of **0.72 g/t 5E PGMs** (0.42 g/t Pd, 0.16 g/t Au, and 0.14 g/t Rh).
- Ongoing pilot plant testing with Três Estados drill holes.

The pilot plant test was conducted at EcoBiome's USDA-certified facility in The Woodlands, Texas, USA, using a 50kg sample taken from a homogenised composite sample (Appendix 3) from drill holes EMD-013 to EMD-027 (15 drill holes) from the Ema project in Brazil.

This test was overseen by BBX's Technical manager, Edmar Medeiros, who assisted in the process control planning, development of operations and procedures, and sampling methodology. The pilot plant operated uninterruptedly for the duration of the test. No technical issues, failures, or process instability were reported.

The 50 kg sample was reacted with the EcoBiome proprietary technology and EcoBiome Metals Cultured Platinum Group Metals (PGM) microbes. The material was then collected from the tanks and dried.

Samples were subsequently assayed for gold, platinum, palladium, iridium, and rhodium by ICP-MS by an ISO/IEC 17025:2017 accredited independent analytical test laboratory located in Arizona, USA. Additionally, samples were assayed for gold, platinum, and palladium at ALS in Kamloops, BC, Canada. Untreated samples were also assayed.

The results are reported below:

| | Au g/t | Pd g/t | Pt g/t | Ir g/t | Rh g/t |
|---|---|---|---|---|---|
| Ni fusion | 0.01 | - | 0.01 | 0.02 | 0.01 |
| Ecobiome treated 72h – ICP-MS assay (Arizona) | 0.16 | 0.42 | - | - | 0.14 |
| Ecobiome treated 72h – fire assay (ALS) | 0.04 | 3.32 | - | N/A | N/A |

This untreated composite reported 0.05 g/t 5E PGM (0.01 g/t Au, 0.01 g/t Pt, 0.02 Ir and 0.01 g/t Rh) using BBX's proprietary nickel fusion assay method.

The pilot plant adhered to a clearly defined control philosophy, resulting in consistently stable operating conditions throughout its operation. The plant achieved an operational availability rate of 100%, indicating uninterrupted functionality during the operational period.

In addition to the samples collected at the end of the 72 hours bioleaching period, samples were also collected every 24 hours and sent to the independent laboratory in Phoenix, AZ, USA for ICP-MS assays. Sample preparation consisted of completely drying the pulp to a dry solid. The results over the 72 hours bioleaching process are illustrated in Figure 1.

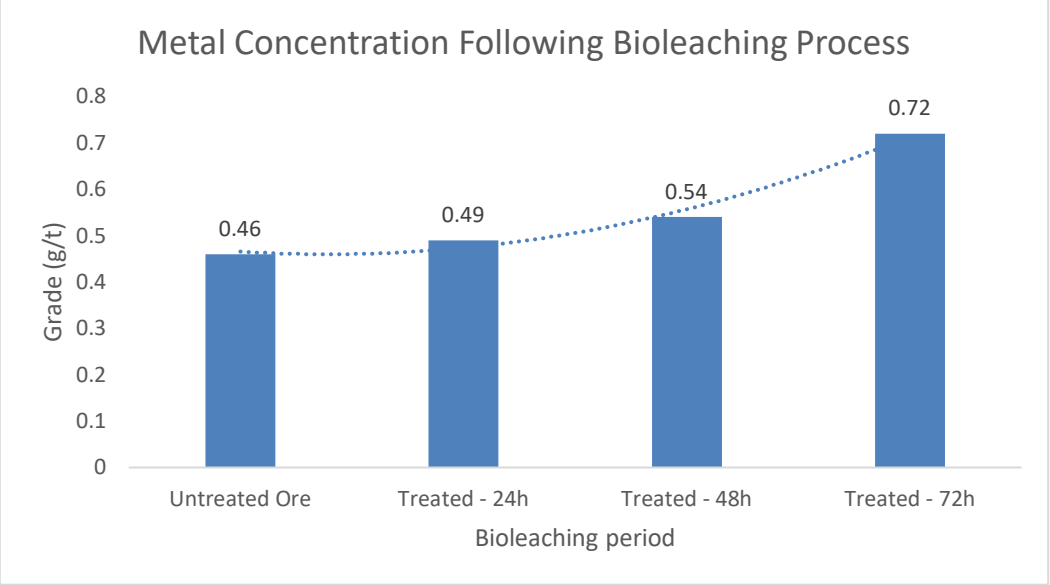



Figure 1: Figure 1: Metal concentration following bioleaching process

The results demonstrate an increase in recovered grade over time. During the 72 hours, the total grade increased by 56%, from 0.46 g/t to 0.72 g/t, as illustrated in Figure 1. Importantly, the results increased consistently every 24 hours.

The results indicate that there could be a potential increase in grade following a longer bioleaching period beyond the 72 hours adopted for this test. Therefore, the subsequent pilot plan tests will be conducted for an extended period. Although it is unclear why the ALS fire assay for the same 72 hour sample returned a significantly higher result for Pd (3.32g/t), this result suggests that the ICP result may not fully reflect the contained metal in the sample. It should also be noted that this Ema bulk sample comprised material from both the more prospective gabbro (54%) and the less prospective felsic volcanics (46%). This initial test was designed principally to fully commission the pilot plant rather than generate values reflecting likely absolute operational results.

A similar test has been conducted, using a sample from drill hole TED 020* from the Três Estados project. The sample underwent bioleaching for 192 hours. Samples were collected every 24 hours and sent to the same independent laboratories that were used for the Ema composite test.

Based on the results of this second test using TED 020*, the process strategy will be reviewed to promote continuous improvements and enhance recoveries.

These results are intended for pilot plant test work purposes only and may not be indicative of the overall Ema mineralisation.

Figure 2: pilot plant in operation

Andre J Douchane, CEO commented: "*The initial testing of the revised pilot plant involved using a portion of Ema drill holes to address any potential issues before conducting tests on a Três Estados resource hole. Additionally, due to the challenges of utilising standards and blanks for continuous analysis during a pilot plant test, it was decided to have two different certified assay labs analyse splits of each collected sample.*

*Lone Pine in Arizona was assigned to use an ICP method, which offers quick turnaround time, while ALS was assigned to perform standard fire assays along with three additional assay methods: ME-MS61, PGM-MS25NS, and ME_XRF26, in order to obtain a comprehensive suite of elements. If the samples are promptly sent to both labs, the ICP determinations will be available by the following week, while the fire assays will take at least an additional week or longer.*

*The initial ICP results hold significant importance, as they indicated a notable increase in recovery towards the end of the first pilot plant test. This finding led us to double the duration of the next test, which utilised TED-020 and was concluded last week after running for 192 hours, compared to the 96-hour duration (of which 24 hours was initial conditioning followed by 72 hours of bioleaching) of the first test. We anticipate receiving the initial ICP results by the end of this week and the fire assay results by late next week or early the following week.*

*Pilot plant testing is an iterative learning process that requires time and optimization of variables such as grind size, reagent addition, pH, temperature, agitation rates, and oxygen addition. The ultimate goal is to have a fully operational pilot plant, along with equipment for bioassaying the resource drill holes, within a timeframe of 30 to 45 days. We have gained a tremendous amount of knowledge from the first pilot plant test, and we expect to gain even more insights from the second test*.

*In terms of the REE projects, we are in the process of drilling at the Ema project and sending samples to the lab. Results will be provided in due course. Additionally, a sample has been sent to CETEM for metallurgical testing*".

This announcement has been authorised for release by the Board of Directors.

For more information:

**André Douchane**
Chief Executive Officer
adouchane@bbxminerals.com

**About BBX Minerals Ltd**

BBX Minerals Limited is a unique mineral exploration and mineral processing technology company listed on the Australian Securities Exchange.

Its major exploration focus is Brazil, mainly in the southern Amazon, a region BBX believes is vastly underexplored with high potential for the discovery of world class gold-PGM, base metal and Ionic Adsorbed Clay (IAC) Rare Earth Element deposits. BBX's key assets are the Três Estados and Ema gold-PGM projects and the REE projects at Ema, Ema East and Apui. The company has 419.1km² of exploration tenements within the Colider Group and adjacent sediments, a prospective geological environment for gold, PGM, base metal and iREE deposits.

BBX is also developing an environmentally friendly and sustainable beneficiation process to extract precious metals using a unique bio leach process. This leading-edge process, that extracts precious metals naturally, is being developed initially for the primary purpose of economically extracting Platinum Group metals from the Três Estados mineral deposit. It is expected that such technology will be transferable and relevant to many other PGM projects. BBX believes that this processing technology is critical in the environmentally timely PGM space and supports a societal need to move towards a carbon neutral economy.

**Competent Person Statement**

The information in this report that relates to exploration results is based on information compiled by Mr. Antonio de Castro, BSc (Hons), MAusIMM, CREA, who acts as BBX´s Senior Consulting Geologist through the consultancy firm, ADC Geologia Ltda. Mr. de Castro has sufficient experience which is relevant to the type of deposit under consideration and to the reporting of exploration results and analytical and metallurgical test work to qualify as a competent person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Castro consents to the report being issued in the form and context in which it appears.

CREA/RJ:02526-6D
AusIMM:230624

**Appendices**

## Appendix 1: TED020 location

| Hole ID | East | North | RL (m) | Azimuth | DIP | Depth (m) | Tenement | Method |
|---|---|---|---|---|---|---|---|---|
| TED020 | 224819.00 | 9198355.00 | 183.00 | 0 | -90 | 91.80 | 880.080/2008 | DD |

*TED020 is a twin hole of TED015, drilled for metallurgical test work purposes.

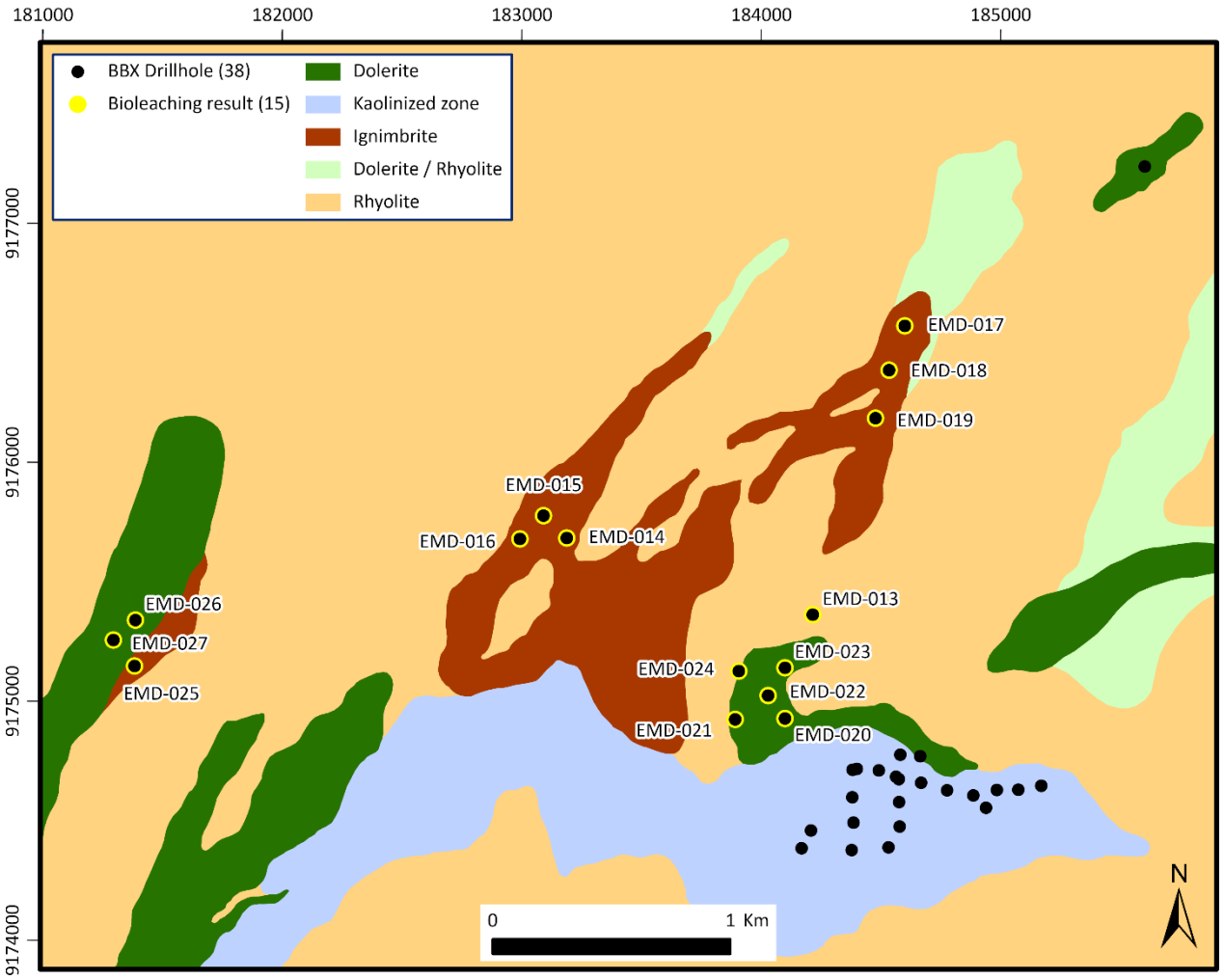
## Appendix 2: EMA drillhole locations

| Hole ID | East | North | RL (m) | Azimuth | DIP | Depth (m) | Tenement | Method |
|---|---|---|---|---|---|---|---|---|
| EMD-013 | 184231.00 | 9175383.00 | 198.00 | 0 | -90 | 51.01 | 880.107/2008 | DD |
| EMD-014 | 183202.00 | 9175698.00 | 236.00 | 0 | -90 | 51.06 | 880.107/2008 | DD |
| EMD-015 | 183104.00 | 9175790.00 | 192.00 | 0 | -90 | 52.11 | 880.107/2008 | DD |
| EMD-016 | 183006.00 | 9175692.00 | 148.00 | 0 | -90 | 51.68 | 880.107/2008 | DD |
| EMD-017 | 184607.00 | 9176595.00 | 154.00 | 0 | -90 | 51.45 | 880.107/2008 | DD |
| EMD-018 | 184543.00 | 9176409.00 | 141.00 | 0 | -90 | 51.08 | 880.107/2008 | DD |
| EMD-019 | 184487.00 | 9176207.00 | 145.00 | 0 | -90 | 51.09 | 880.107/2008 | DD |
| EMD-020 | 184118.00 | 9174948.00 | 210.00 | 0 | -90 | 70.20 | 880.107/2008 | DD |
| EMD-021 | 183910.00 | 9174943.00 | 152.00 | 0 | -90 | 51.44 | 880.107/2008 | DD |
| EMD-022 | 180046.00 | 9175044.00 | 183.00 | 0 | -90 | 70.38 | 880.107/2008 | DD |
| EMD-023 | 184116.00 | 9175161.00 | 161.00 | 0 | -90 | 81.44 | 880.107/2008 | DD |
| EMD-024 | 183924.00 | 9175146.00 | 217.00 | 0 | -90 | 55.26 | 880.107/2008 | DD |
| EMD-025 | 181395.00 | 9175129.00 | 156.00 | 0 | -90 | 51.68 | 880.107/2008 | DD |
| EMD-026 | 181403.00 | 9175343.00 | 182.00 | 0 | -90 | 76.00 | 880.107/2008 | DD |
| EMD-027 | 181311.00 | 9175258.00 | 181.00 | 0 | -90 | 71.00 | 880.107/2008 | DD |

## Appendix 3: Sample composition data

| Drill Hole ID | Series of Intervals | No of intervals | Mass (g) | Contribution to mass (%) |
|---|---|---|---|---|
| EMD 013 | EMD 818 to EMD 846 | 29 | 3,240 | 5.43 |
| EMD 014 | EMD 847 to EMD 874 | 28 | 3,150 | 5.28 |
| EMD 015 | EMD 875 to EMD 902 | 28 | 2,980 | 4.99 |
| EMD 016 | EMD 903 to EMD 931 | 29 | 3,150 | 5.28 |
| EMD 017 | EMD 932 to EMD 961 | 30 | 3,390 | 5.68 |
| EMD 018 | EMD 962 to EMD 992 | 31 | 3,390 | 5.68 |
| EMD 019 | EMD 993 to EMD 1021 | 29 | 3,280 | 5.49 |
| EMD 020 | EMD 1022 to EMD 1063 | 42 | 5,480 | 9.18 |
| EMD 021 | EMD 1064 to EMD 1093 | 30 | 3,650 | 6.11 |
| EMD 022 | EMD 1094 to EMD 1134 | 41 | 4,460 | 7.47 |
| EMD 023 | EMD 1135 to EMD 11480 | 46 | 4,960 | 8.31 |
| EMD 024 | EMD 1181 to EMD 1213 | 33 | 3,450 | 5.78 |
| EMD 025 | EMD 1214 to EMD 1245 | 32 | 3,310 | 5.54 |
| EMD 026 | EMD 1246 to EMD 1288 | 43 | 5,985 | 10.03 |
| EMD 027 | EMD 1289 to EMD 1329 | 41 | 5,825 | 9.76 |

## Appendix 4: Ema drill collar location



**Appendix 5**
**The following Table and Sections are provided to ensure compliance with JORC Code (2012 Edition).**
**JORC (2012) Table 1 – Section 1: Sampling Techniques and Data for Metallurgical (Bioleach), RC and DD drilling**

| Item | JORC code explanation | Comments |
|---|---|---|
| **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.<br>• Include reference to measures taken to ensure sample representativity and the appropriate calibration of any measurement tools or systems used.<br>• Aspects of the determination of mineralisation that are Material to the Public Report.<br>• 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. | • Assay results are for a composite sample after bioleaching, from 15 DD holes (EMD013 to EMD027) using 110 grams of each interval, from the coarse rejects that formed the 50kg sample sent to Ecobiome, from the diamond drilling completed during 2021.<br>• Diamond core was cut and sampled at intervals, generally of 1m to 2m, with half core retained in BBX´s core storage facility and the other half sent to SGS for preparation. Sample representativity was ensured by close supervision of the drilling and sampling process by a BBX geologist or field technician. Core recoveries were logged and recorded in the database. To date overall recoveries for the diamond holes were >98% and there were no core loss issue or significant sample recovery problems.<br>• Diamond core was half split and sampled typically at 2m intervals, although sampling was adjusted to geological contacts, and hence sample length ranged from 1m - 3m. Samples were placed in plastic sample bags and immediately sealed with cable ties. Half core was retained on site in Apui for future reference.<br>• The diamond drill samples were submitted to the SGS laboratory in Vespasiano, greater Belo Horizonte for crushing and pulverisation and subsequently freighted to the BBX´s laboratory in Catalão, Goiás.<br>• The 50kg composite was pulverized in Catalão to 100% minus 150 mesh, then homogenized to generate the composite airfreighted to Ecobiome. |

| Item | JORC code explanation | Comments |
|---|---|---|
| **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). | • The diamond drilling was conducted using an EDG S11 mobile rig supplied by Energold Ltd. Drilling diameter was all in NTW which is equivalent to NQ. Core was not oriented, and it was not directionally surveyed. |
| **Drill Sample Recovery** | • Method of recording and assessing core and chip sample recoveries and results assessed.<br>• Measures taken to maximise sample recovery and ensure representative nature of the samples.<br>• 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. | • Diamond recovery was logged by the on-site geologist by carefully comparing the length of core recovered with the length of the drilling run, as part of the routine core logging process<br>• Drilling was conducted slowly in the soil profile to maximize recovery and ensure sample representativity. The upper section of the hole was cased.<br>• No relationship was perceived between sample recovery and assay results. |
| **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.<br>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.<br>• The total length and percentage of the relevant intersections logged. | • Detail geological logging of the DD drilling has been conducted by an experienced geologist to a high level of detail recording various qualitative parameters such as rock type, mineralogy, colour, texture and oxidation.<br>• The DD core was geologically logged using predefined lithological, mineralogical, and physical characteristics (colour, weathering, fracture density and type, etc). Logging was predominantly qualitative in nature.<br>• 100% of the recovered intervals were geologically logged.<br>• All diamond core has been photographed, prior to cutting, wet and dry.<br>• Logging is qualitative in nature. |

| Item | JORC code explanation | Comments |
|---|---|---|
| **Sub- Sampling Techniques and Sampling Procedures** | • If core, whether cut or sawn and whether quarter, half or all core taken.<br>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.<br>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.<br>• Quality control procedures adopted for all sub-sampling stages to maximise representativity of samples.<br>• 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.<br>• Whether sample sizes are appropriate to the grain size of the material being sampled. | • Diamond core was half core sampled, at all times sampling the same side of the core, with the exception of the ¼ core submitted for whole rock analysis.<br>• Sample preparation for the DD drilling was conducted at SGS Vespasiano (greater Belo Horizonte) comprising oven drying, crushing of entire sample to 75% < 3mm followed by rotary splitting and pulverisation of 250 to 300 grams at 95% minus 150#<br>• The <3mm rejects and the 250-300 grams pulverised sample were returned to BBX for storage. |
| **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.<br>• 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.<br>• 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 assayed for gold, platinum, palladium, iridium, and rhodium by ICP-MS by an ISO/IEC 17025:2017 accredited independent analytical test laboratory located in Arizona, USA. Additionally, samples were assayed for gold, platinum, and palladium at ALS in Kamloops, BC, Canada. Untreated samples were also assayed.<br>• The analytical laboratory used for the Au, Pt, Pd, Ir and Rh analyses was the BBX´s analytical laboratory in Catalão,Goiás, Brazil.<br>• The proprietary assay methodology is a nickel smelt at 1500C using 25g of sample, producing a nickel bead which is subsequently digested in HCl, and the residue dissolved in 4 acids. The solution is fire assayed with Pb and Ag collectors, producing a silver bead after cupellation which is then digested in aqua regia, and the solution read by AA. |

| Item | JORC code explanation | Comments |
|---|---|---|
| | | • Based on previous experience, it is believed that this method may represent a partial extraction.<br>• Assay results obtained in some DD holes in the Ema Project differ significantly from the results of bulk metallurgical tests previously released. These latter tests were conducted on 5kg samples using a complex alkaline flux and a copper collector, strongly favouring the recovery of gold, in contrast to the nickel collection and subsequent fire assay method on 25g samples reported in this announcement. BBX conducted extensive research in an endeavour to develop a reliable assay method based on the metallurgical test methodology but was unable to perfect a method which produced consistent, reliable and repeatable results. The nickel collection analytical technique presented in this announcement, following extensive testing and fine-tuning has proved to yield consistent and reliable results. For the complex style of mineralisation encountered at Ema this method strongly favours the unlocking and recovery of platinum, iridium and rhodium in preference to gold and palladium.<br>• 2 certified blank samples, 6 certified reference material (standard) samples and 2 duplicate samples were inserted by BBX into the sample sequence, in each run of 100 samples.<br>• Duplicate samples were allocated separate sample numbers and submitted with the same analytical batch as the primary sample. Variability between duplicate results is considered acceptable and no sampling bias is evident.<br>• Laboratory inserted standards, blanks and duplicates were analysed as per industry standard practise. There is no evidence of bias from these results. |

| Item | JORC code explanation | Comments |
|---|---|---|
| **Verification of Sampling and Assaying** | • The verification of significant intersections by either independent or alternative company personnel.<br>• The use of twinned holes.<br>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.<br>• Discuss any adjustment to assay data. | • Apart from the routine QA/QC procedures by the company and the laboratory, there was no other independent or alternative verification of sampling and assaying procedures.<br>• Analytical results were supplied digitally, directly from the Lab to Edmar in the BBX´s laboratory facility Catalão.<br>• No twinned holes were used.<br>• Geological data was logged into paper and transferred to Excel spreadsheets at end of the day and then transfer into the drill hole database. Microsoft Access is used for database storage and management and incorporates numerous data validation and data validation and integrity checks. All assay data is imported directly into the Microsoft Access database.<br>• No adjustments were made to the data. |
| **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.<br>• Specification of the grid system used.<br>• Quality and adequacy of topographic control. | • The UTM WGS84 zone 21S grid datum is used for current reporting. The drill holes collar coordinates for the holes reported are currently controlled by hand-held GPS. |
| **Data Spacing and Distribution** | • Data spacing for reporting of Exploration Results.<br>• 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.<br>• Whether sample compositing has been applied. | • Drilling in this target is typically with holes 200m apart, over the mapped unit in targets a few kilometres apart.<br>• This announcement refers to assays of samples from bioleach pilot plant test work. |

| Item | JORC code explanation | Comments |
|---|---|---|
| **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.<br>• 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 location and orientation of the RC and DD drilling in the Ema project is appropriate given the strike and morphology of the mapped felsic and gabbro units.<br>• No relevant mineralisation was intercepted for PGMs using the proprietary nickel assay technique as announced on 22nd May 2023. |
| **Sample security** | • The measures taken to ensure sample security. | • The DD pulps and the coarse rejects as received from SGS, in sealed plastic bags, were kept in a locked room until shipped to BBX´s laboratory facility in Catalão. The Company has no reason to believe that sample security poses a material risk to the integrity of the assay data. |
| **Audit or Reviews** | • The results of any audits or reviews of sampling techniques and data. | • The sampling techniques and data have been reviewed by the Competent Person and are found to be of industry standard. |

**JORC (2012) Table 1 - Section 2: Reporting of Exploration and Metallurgical (Bioleach) Results**

| 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.<br>• 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. | • The Ema lease is 100% owned by BBX with no issues in respect to native title interests, historical sites, wilderness or national park and environmental settings.<br>• The company is not aware of any impediment to obtain a licence to operate in the area. |
| **Exploration done by Other Parties** | • Acknowledgment and appraisal of exploration by other parties. | • No exploration by other parties has been conducted in the region. |
| **Geology** | • Deposit type, geological setting and style of mineralisation. | • The geological setting of the area reported in this announcement is that of hydrothermally altered mafic intrusives within Proterozoic volcanic and volcanoclastic rocks. The precise nature of this unusual style of igneous rock-hosted precious metal mineralisation is currently unknown. |
| **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:<br>  • easting and northing of the drill hole collar<br>  • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar<br>  • dip and azimuth of the hole<br>  • down hole length and interception depth | • Drillhole locations and diagrams are presented in this announcement.<br>• All drill-holes are vertical. The cores were not oriented and did not have a down-hole survey.<br>• Details are tabulated in the announcement. |

| Criteria | JORC code explanation | Commentary |
|---|---|---|
| | • hole length.<br>• 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. | |
| **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.<br>• 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.<br>• The assumptions used for any reporting of metal equivalent values should be clearly stated. | • Aggregate intercepts were not calculated for the PGMs assays.<br>• No metal equivalent values have been reported. |
| **Relationship between mineralization widths and intercepted lengths** | • These relationships are particularly important in the reporting of Exploration Results.<br>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.<br>• 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'). | • No relevant mineralisation was intercepted for PGMs as announced in 22nd May 2023.<br>• These results are intended for pilot plant test work purposes only and may not be indicative of the overall Ema mineralisation. |

| Criteria | JORC code explanation | Commentary |
|---|---|---|
| **Diagrams** | • Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. | • Drillhole locations and diagrams are presented in this announcement. |
| **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. | • Not applicable |
| **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. | • No other significant exploration data has been acquired by the Company. |
| **Further Work** | • The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).<br>• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. | • Submit individual samples from holes EMD020 to 025 for bioleaching assay tests for precious metals to support a MRE in the central target. |