ASX ANNOUNCEMENT
06 June 2023

Ema iREE discovery greatly expanded
Identification of 14 new high potential targets

BBX Minerals Limited (ASX: BBX) ("BBX" or the "Company") is pleased to announce the definition of 14 high priority targets situated within the Ema and Ema East leases to be explored for ionic rare earths (iREE), in addition to the remainder of the 18,873 Ha of volcanic rocks on areas of partly preserved regolith. The definition of these targets follows the results announced on 22 May 2023, which revealed enriched horizons for rare earth mineralisation of Ionic Adsorbed Clay (IAC) type REE.

Highlights

- **Identification of iREEs in Brazil, developed on top of rhyolite, similar to deposits in the Guangxi region in southwest China.**
- **The felsic volcanics, rhyolites and ignimbrites are the main rocks in the 18,873 Ha covered by the Ema and Ema East leases. These are amenable to exploration for iREE.**
- **A total of 19.4 km^2 of preserved regolith has been identified through geophysics and satellite imaging, comprising 14 targets. These identified areas have the potential to host preserved enriched ionic rare earth horizons.**
- **The elevated radiometric Th/K signature observed indicates leaching of K from the regolith, a widely utilised exploration indicator for targeting preserved regolith.**
- **Field validation is currently underway through auger drilling to further confirm and validate the identified targets.**

The exploration targets for iREE within the Ema and Ema East project have been defined utilising the ternary radiometric image (Figure 1) and the Th/U factor (Figure 2). The Th/U factor is extensively employed in defining preserved regolith profiles that have developed on granites and felsic rocks. The total area identified for these targets is approximately 19.4 km^2. Further investigations of these targets will be conducted through reconnaissance auger drilling.

The initial cross-section, with holes spaced 200 meters apart, will focus on investigating the connectivity between the high-grade intersection in hole EMRC011 and the preserved zone beneath plateau 5 (Figure 2).

The drill holes conducted for PGM´s exploration that have been previously announced containing significant REE values in the weathered profile of the felsic volcanics (Figure 3) are situated in regions where a distinct radiometric signature for preserved regolith is not evident. Consequently, these areas represent additional zones that require investigation, thereby expanding the potential area for high-grade ionic rare earths to encompass the bulk of the 18,873 Ha of the Ema and Ema East leases. The absence of this radiometric signature is likely attributed to the erosion of the lateritic cover, whilst preserving the mineralised zone itself.

Ongoing exploration activities will encompass deeper auger drilling and a comprehensive topographic survey, conducted via drone to precisely delineate the regions of gently undulating topography without the preserved plateau but with the potential for significant thicknesses of the preserved enriched horizon.

Figure 1: iREE Targets over ternary image with plateau targets

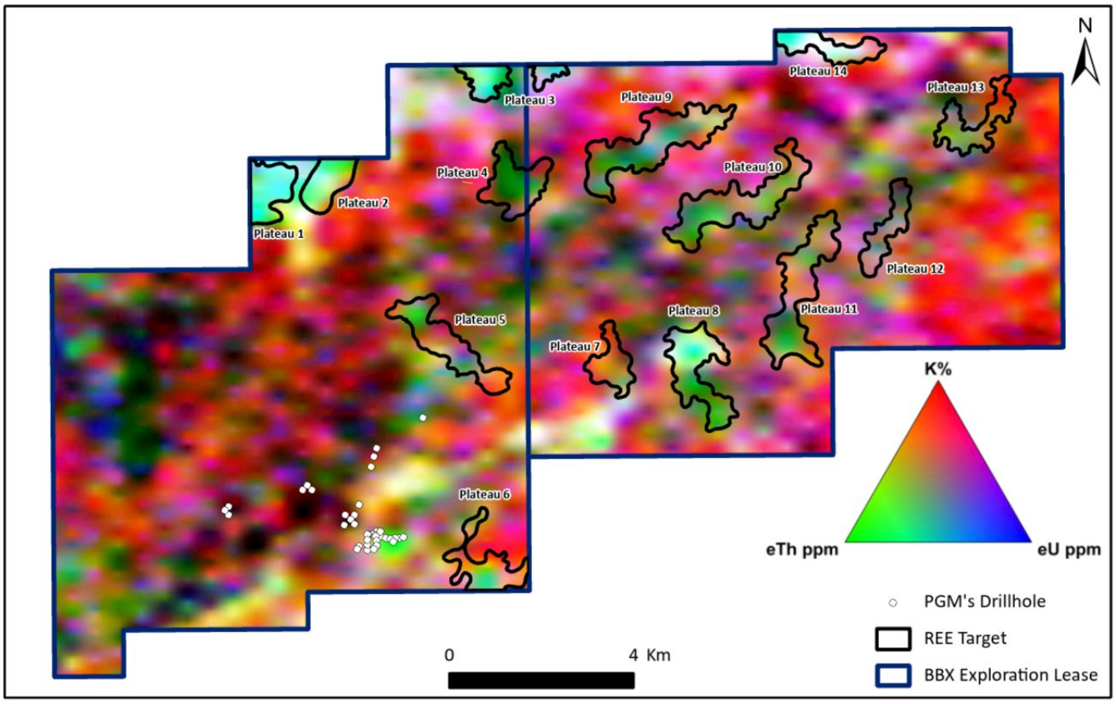


Figure 2: iREE plateau targets defined by Th/U ratio, and auger holes planned

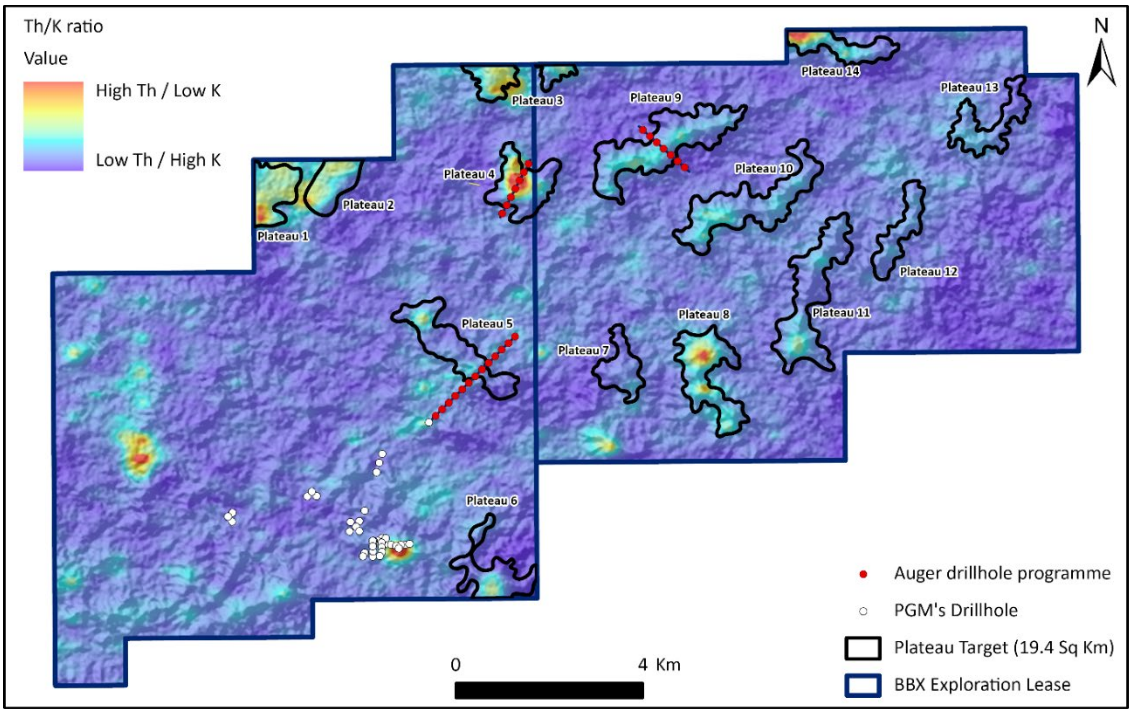
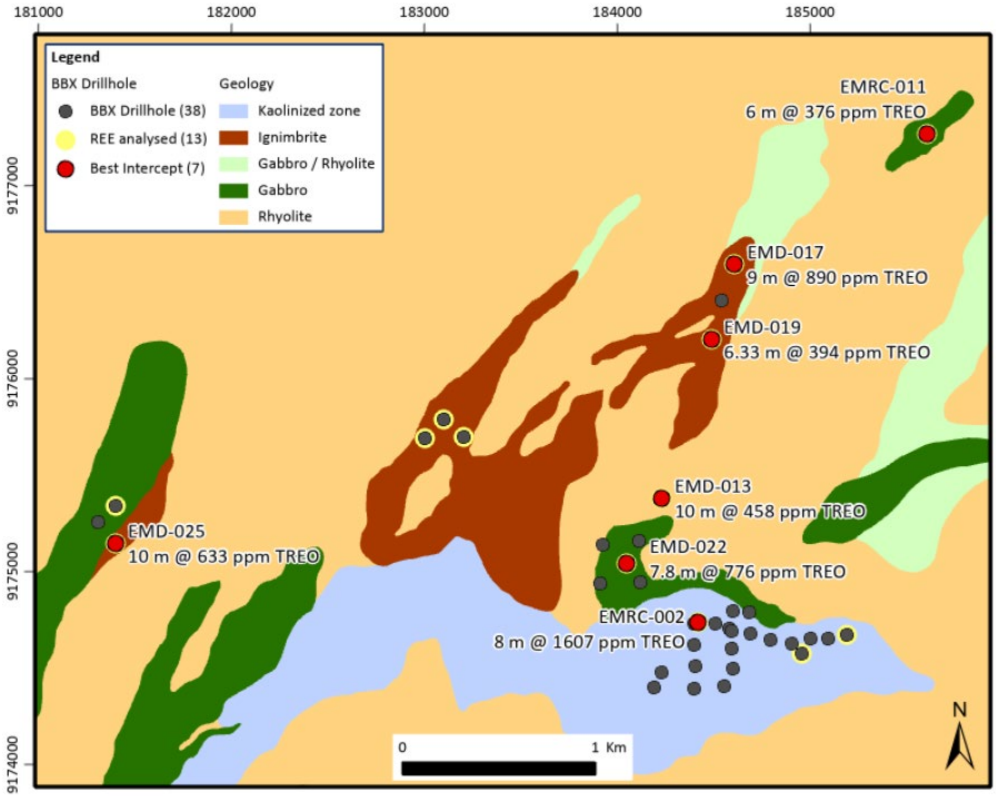


Figure 3: Drill hole location and significant intersections



At Ema the zones exhibiting enrichment of TREO commence at depths of up to 11 metres. In contrast, in similar Chinese mineralisation within the Indosinian felsic volcanic rocks of Guangxi, southwest China (Figure 4), the enrichment begins at a shallower depth of 1 metre, with the highest values occurring around 3 meters. This distinction could be due to variations in the weathering regime, characterised as sub-tropical in southwest China compared to tropical conditions in the Amazon.

In the intersections disclosed on 22 May 2023 the near-surface REE enriched zone in EMRE002 and the zone beginning from 2 metres in EMD025, as listed below, are primarily influenced by the erosion of the upper weakly-mineralised horizon. These zones therefore differ significantly from the regolith profile typically observed in China. Consequently, this finding will have a substantial impact on the exploration strategy employed at Ema and Ema East, requiring deeper drilling.

- EMRC002: 8.0 m at 1,607 ppm TREO from surface
- EMRC011: 6.0 m at 376 ppm TREO from 6.0 metres
- EMD013: 10.0 m at 458 ppm TREO from 11.0 metres
- EMD017: 9.0 m at 890 ppm TREO from 10.0 metres
- EMD019: 6.3 m at 394 ppm TREO from 4 metres
- EMD022: 7.8 m at 776 ppm TREO from 4 metres
- EMD025: 10.0 metres at 633 TREO ppm from 2 metres

In the typical regolith profile derived from rhyolite in Guangxi, southwest China (Figure 4) the REE content increases from 376 ppm in the rhyolite to 1,737 ppm in the regolith. This represents an almost five-fold enrichment resulting from weathering processes. Within the regolith, the REEs exist predominantly in an ion-exchangeable form referred to as ionic Rare Earth Elements (iREEs), which account for 52% to 87% of the total REEs (TREEs) present. The occurrence of iREEs is closely associated with clay minerals, displaying an affinity order of halloysite > kaolinite > illite.

The continuous eluviation-illuviation process, involving the movement of source minerals (such as titanite, allanite, and apatite) to sink minerals (including kaolinite, halloysite, and illite), results in the formation of an iREE-enriched zone in the middle and lower sections of the rhyolitic regolith. It is worth noting that the comparison of mineralized and barren units within the studied Indosinian felsic formations suggests that iREE mineralization hosted in felsic volcanic regolith is influenced by both endogenic and exogenic ore-forming factors. Factors such as high initial concentrations of REEs in unaltered felsic volcanic rocks, favourable climate conditions, and a relatively stable tectonic setting contribute to the formation and preservation of iREE mineralization.

Ionic adsorption-type REE deposits associated with felsic volcanic rocks account for 37.87% of the total deposits of this type in southwest China. Furthermore, these ores exhibit good quality, with a high percentage of iREEs (>65%).

Conceptually considering the data, the average TREO content for the significant intersections is 731 ppm, as shown in *Table 1*. In contrast, the average TREO in Ema drillholes within fresh felsic rocks amounts to 230 ppm. Consequently, the average difference of 501 ppm (i.e., 731 minus 230) can be attributed to exogenous sources that have potentially adsorbed in the clay, implying a potential to host 68% of REE in an ion-exchangeable form.

In the intersection of EMRC002, utilising the same logic as above (i.e., 1607 minus 230), the iREE component accounts for 85.6% of the TREO, in line with the Chinese examples.

Figure 4: Corresponding relationships of clay minerals, total REE concentration, ion exchangeable REE concentration and PH value along the studied profile in the Indosinian felsic volcanic rocks from Guangxi.

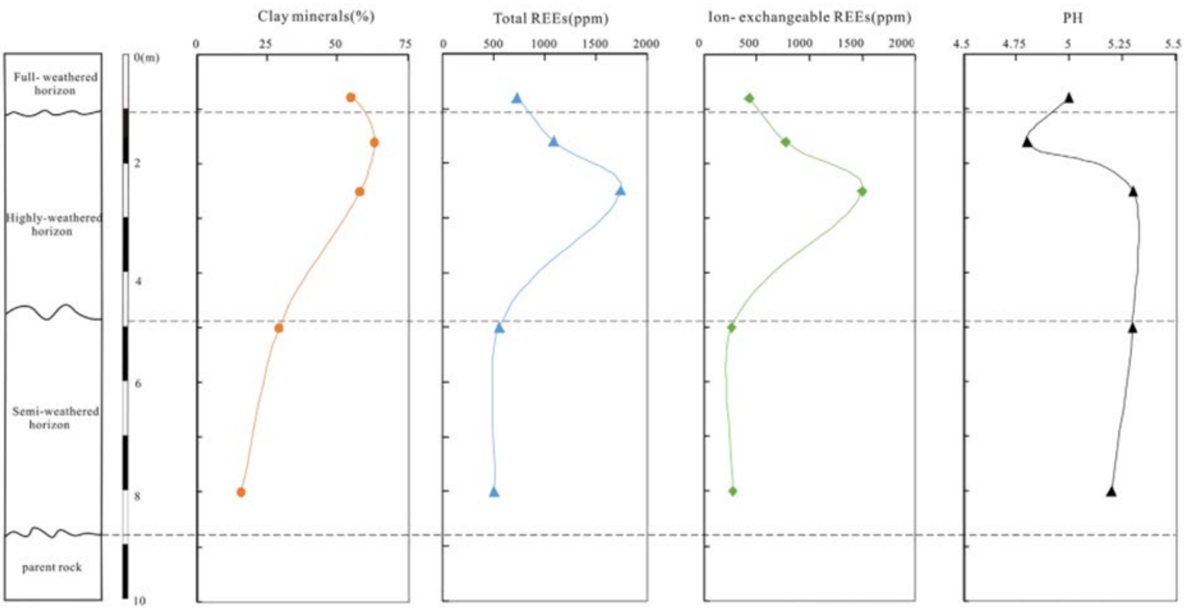


Table 1: REE element distribution from the relevant Ema intersections

Classification	Element	Element	REE ppm	Factor	Oxide	REO ppm	REO/TREO %
LREE	Lanthanum	La	154.4	1.1728	La2O3	181.1	24.8
	Cerium	Ce	176.9	1.2284	CeO2	217.3	29.7
	Praseodymium	Pr	38.9	1.2082	Pr6O11	47.0	6.4
	Neodymium	Nd	130.7	1.1664	Nd2O3	152.5	20.8
HREE	Samarim	Sm	18.7	1.1596	Sm2O3	21.7	3.0
	Europium	Eu	3.6	1.1579	Eu2O3	4.2	0.6
	Gadolium	Gd	13.9	1.1526	Gd2O3	16.1	2.2
	Terbium	Tb	1.8	1.1762	Tb4O7	2.1	0.3
	Dysprosium	Dy	10.1	1.1477	Dy2O3	11.6	1.6
	Holmium	Ho	2.0	1.1455	Ho2O3	2.2	0.3
	Erbium	Er	5.2	1.1435	Er2O3	6.0	0.8
	Thulium	Tm	0.8	1.1421	Tm2O3	0.9	0.1
	Ytterbium	Yb	5.0	1.1387	Yb2O3	5.7	0.8
	Lutetium	Lu	0.7	1.1371	Lu2O3	0.8	0.1
	Ytrium	Y	48.9	1.2699	Y2O3	62.1	8.5
	Totals		612			731	100

Of the ionic rare earth projects in Brazil (Appendix 1), Ema and Ema East are unique in that they share identical characteristics to the iREE deposits found in felsic volcanic rocks in southwest China.

On the other hand, the three new leases applied for by BBX near Apui (Appendix 2) exhibit similarities to the Makuutu (Uganda) style, developed over sediments and displaying the same radiometric signature.

The Company will continue to progress its two distinct projects involving iREEs, Ema/Ema East and Apui. These near-surface deposits are characterised by relatively fast drilling and development processes, low capital expenditure and operating costs, straightforward metallurgical processes, and the production of high-value REE off-take products.

Andre J Douchane, CEO, commented, "*The discovery of rare earth elements in this region of Brazil appears to have taken on a life of its own. It's an incredibly exciting development and seems to be much larger than our initial expectations. The timing is perfect as our geological team can now fully focus on this new discovery. Furthermore, the work at Ema can progress while we await the government's publication of our three new Apui tenements. We are continuing to make progress with the bioleach work at Ecobiome in Texas. Edmar Medeiros (BBX's Technical Manager), Chris Kaye (Independent CP), and I visited Ecobiome's lab a week ago to conclude the first pilot plant test, which went extremely well. The assay samples were promptly sent out for analysis after the test was completed. In the past, we have received the results of these tests the following week. However, due to the test ending during a major holiday in the US, the results will be delayed by one week. We expect to receive the analysis results this week.*"

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

For more information:

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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 iREE 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.

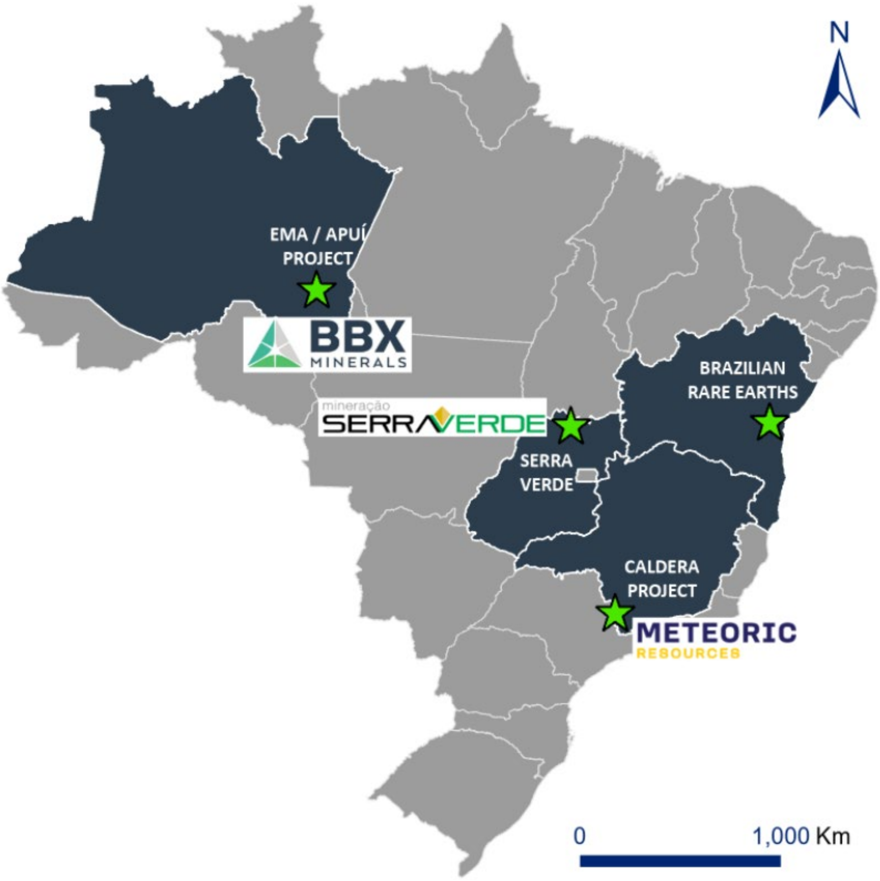
BBX is also developing an environmentally friendly and sustainable beneficiation process to extract precious metals using a unique bio leach process. This leading-edge process, that extracts precious metals naturally, is being developed initially for the primary purpose of economically extracting Platinum 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

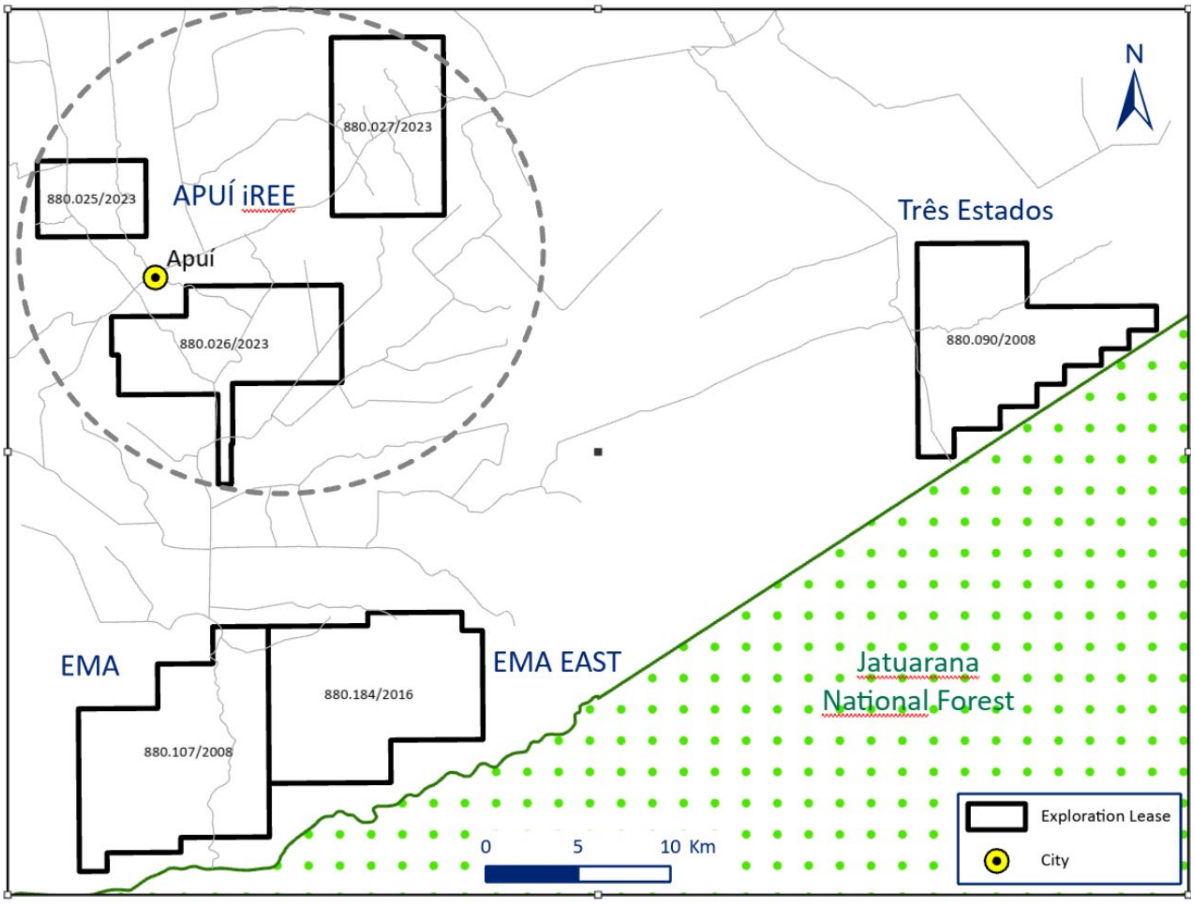
The information in this report that relates to exploration results is based on information compiled by Mr. Antonio de Castro, BSc (Hons), MAusIMM, CREA, who acts as BBX´s Senior Consulting Geologist through the consultancy firm, ADC Geologia Ltda. Mr. de Castro has sufficient experience which is relevant 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

Appendix 1: iREE Projects in Brazil



Appendix 2: BBX's Projects



Appendix 3

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 the DD and RC 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. • Include reference to measures taken to ensure sample representativity 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.	• Exploration results are based on the diamond drilling completed during 2021 and RC drilling completed in 2017. • 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. • Diamond drill sample: 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. • 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. • 2 certified blank samples, 6 certified reference material (standard) samples and 2 duplicate samples were inserted into the sample sequence, in each run of 100 samples. • The data presented is based on the sampling and logging of reverse circulation and diamond drilling by company staff.

Item	JORC code explanation	Comments

		• The RC drilling and sampling procedures followed industry best practice, utilising an on-site riffle splitter to ensure representativity.
		• Sample lengths are 1m with 2m composite samples along the entire hole.
		• The entire 1m sample was collected in a raffia bag and split down to 1kg. Almost all the samples were dry.
		  • The 2m composite was generated by mixing the 1kg sample from each 1m interval forming a 2kg sample which was subsequently riffle split with 50% sent to SGS for preparation and 50% stored.
		  • 2 certified blank samples, 6 certified reference material (standard) samples and 2 duplicate samples were inserted into the sample sequence, in each run of 100 samples.
		• Pulverized pulps of the RC and DD stored at Catalão were shipped back to SGS in Vespasiano for total rock analysis and subsequent REE analysis on selected samples.
		• The Certified reference material (standard) were replaced by Certified reference material (standard) for REE.

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. • The RC drilling was conducted using a Reverse Circulation (RC) percussion drill. Penetration rates were quite rapid down to the fresh rock, slowing thereafter. Average daily production was approximately 25m.

Item	JORC code explanation	Comments
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.	• 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 • Drilling was conducted slowly in the soil profile to maximize recovery and ensure sample representativity. The upper section of the hole was cased. • No relationship was perceived between sample recovery and assay results. • Sample recovery for the RC drilling was generally above 90% with almost all sample collected dry in fresh rock.
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.	• 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. • 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. • 100% of the recovered intervals were geologically logged. • All diamond core has been photographed, prior to cutting, wet and dry. • Geological logging for the RC drilling has been completed by an experienced geologist to a high level of detail. • Logging is qualitative in nature.
Sub- Sampling Techniques and	• If core, whether cut or sawn and whether quarter, half or all core taken.	• 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.

Item	JORC code explanation	Comments
Sampling Procedures	• 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 representativity 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.	• Sample preparation 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# • The <3mm rejects and the 250-300 grams pulverised sample were returned to BBX for storage. • The RC samples were collected on a standard 1m interval. • Raffia big bags were used to collect the entire sample from each 1m interval. • A 1kg sample was split off for subsequent composition of 2m intervals, 1kg from each metre. • The 2kg, 2m composite sample was split in two, with 1kg sent to the lab and 1kg stored on site. • Almost all the samples were dry.
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	• 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. • Standard laboratory QA/QC procedures were followed, including inclusion of standard, duplicate and blank samples. • The assay results of the pulp standards show most of the results fall within acceptable tolerance limits and no material bias is evident. • The pulps for the RC and DD stored at Catalão were returned to SGS Vespasiano to assay for REE. • The assay technique used for REE was Lithium Metaborate Fusion ICP-MS (SGS code ICP95A and IMS95A). This is a recognised industry

Item	JORC code explanation	Comments
		standard analysis technique for REE suite and associated elements. Elements analysed at ppm levels: <table><tr><td>Ba</td><td>Ce</td><td>Cr</td><td>Cs</td><td>Dy</td><td>Er</td><td>Eu</td><td>Ga</td></tr><tr><td>Gd</td><td>Hf</td><td>Ho</td><td>La</td><td>Lu</td><td>Nb</td><td>Nd</td><td>Pr</td></tr><tr><td>Rb</td><td>Sm</td><td>Sn</td><td>Sr</td><td>Ta</td><td>Tb</td><td>Th</td><td>Tm</td></tr><tr><td>U</td><td>V</td><td>W</td><td>Y</td><td>Yb</td><td>Zr</td><td>Zn</td><td>Co</td></tr><tr><td>Cu</td><td>Ni</td></tr></table>The sample preparation and assay techniques used are industry standard and provide total analysis. • The SGS laboratory used for the RRE assays is ISO 9001 and 14001 and 17025 accredited. • Analytical Standards for REE ITAK-705 was used as CRM material in the batches sent to SGS. The assay results for the standards were consistent with the certified levels of accuracy and precision and no bias is evident. • Blanks The blanks used contain some REE, with critical elements Ce, Nd, Dy and Y present in small quantities. • Duplicates 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. Laboratory inserted standards, blanks and duplicates were analysed as per industry standard practise. There is no evidence of bias from these results.

<table>
<tr><th>Item</th><th>JORC code explanation</th><th>Comments</th></tr>
<tr>
<td>Verification of Sampling and Assaying</td>
<td>

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.

</td>
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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.
Analytical results for REE were supplied digitally, directly from SGS laboratory facility in Vespasiano to the BBX´s Exploration Manager in Rio de Janeiro.
No twinned holes were used.
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.
No adjustments were made to the data.
All REE assay data received from the laboratory in element form is unadjusted for data entry.
Conversion of elements analysis (REE) to stoichiometric oxide (REO) was undertaken by spreadsheet using defined conversion factors. (Source:https://www.jcu.edu.au/advanced-analytical-centre/resources/element-to-stoichiometric-oxide-conversion-factors).

<table>
<tr><td>Element ppm</td><td>Conversion Factor</td><td>Oxide Form</td></tr>
<tr><td>Ce</td><td>1.2284</td><td>CeO2</td></tr>
<tr><td>Dy</td><td>1.1477</td><td>Dy2O3</td></tr>
<tr><td>Er</td><td>1.1435</td><td>Er2O3</td></tr>
<tr><td>Eu</td><td>1.1579</td><td>Eu2O3</td></tr>
<tr><td>Gd</td><td>1.1526</td><td>Gd2O3</td></tr>
</table>
</td>
</tr>
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Item	JORC code explanation	Comments

Ho	1.1455	Ho2O3
La	1.1728	La2O3
Lu	1.1371	Lu2O3
Nd	1.1664	Nd2O3
Pr	1.2082	Pr6O11
Sm	1.1596	Sm2O3
Tb	1.1762	Tb4O7
Tm	1.1421	Tm2O3
Y	1.2699	Y2O3
Yb	1.1387	Yb2O3

Rare earth oxide is the industry accepted form for reporting rare earths. The following calculations are used for compiling REO into their reporting and evaluation groups:

TREO (Total Rare Earth Oxide) = La2O3 + CeO2 + Pr6O11 + Nd2O3 + Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Y2O3 + Lu2O3

LREO (Light Rare Earth Oxide) = La2O3 + CeO2 + Pr6O11 + Nd2O3

HREO (Heavy Rare Earth Oxide) = Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Y2O3 + Lu2O3

CREO (Critical Rare Earth Oxide) = Nd2O3 + Eu2O3 + Tb4O7 + Dy2O3 + Y2O3

(From U.S. Department of Energy, Critical Material Strategy, December 2011)

MREO (Magnetic Rare Earth Oxide) = Nd2O3 + Pr6O11 + Tb4O7 + Dy2O3

NdPr = Nd2O3 + Pr6O11

In elemental from the classifications are:

Item	JORC code explanation	Comments
		TREE: La+Ce+Pr+Nd+Sm+Eu+Gd+Tb+Dy+Ho+Er+Tm+Tb+Lu+Y HREE: Sm+Eu+Gd+Tb+Dy+Ho+Er+Tm+Tb+Lu+Y CREE: Nd+Eu+Tb+Dy+Y LREE: La+Ce+Pr+Nd
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.	• 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. • 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.	• Drilling in this target is typically with holes 200m apart, over the mapped unit in targets a few kilometres apart. • This announcement refers to assays of RC and diamond holes for Rare Earth Elements. • The DD samples are from intervals of 1.00m up to 4.00m, but nominal length of 2.00m; no compositing was applied. • All RC samples are 2m composites from original 1m samples. • This announcement refers to RC and DD hole assays and no representation of extensions, extrapolations or otherwise continuity of grade are made. •
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	• 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.

Item	JORC code explanation	Comments
	have introduced a sampling bias, this should be assessed and reported if material.	• Relevant REE mineralisation intersected is interpreted to be in a flat-lying weathered profile including cover soil, clay transition to saprolite and saprock. • Below the saprock are fresh rhyolites, ignimbrites and mafic rocks. • All drill holes are vertical which is appropriate for horizontal mineralised zones in the regolith profile.
Sample security	• The measures taken to ensure sample security.	• The RC and DD pulps as received from SGS, in sealed plastic bags, were kept in a locked room until shipped to BBX´s laboratory facility in Catalão, where they were stored in locked cupboards. The samples were then re-submitted to SGS in sealed bags for REE analysis. 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 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. • 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 and Ema East leases are 100% owned by BBX with no issues in respect to native title interests, historical sites, wilderness or national park and environmental settings. • 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 REE mineralisation is contained within the tropical lateritic weathering profile developed on top of rhyolites, ignimbrites and mafic rocks potentially derived from the underlying rocks as described for the Chinese iREE deposits. • The REE mineralisation is concentrated in the weathered profile where it has dissolved from the primary mineral form, such as monazite and xenotime, then adsorbed on to the neo-forming fine particles of aluminosilicates clays (e.g. kaolinite, illite, smectite). • This adsorbed REE is the target for extraction and production of REO.
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	• Drillhole locations and diagrams were presented in the announcement of 22 May 2023. • All drill-holes are vertical. The cores were not oriented and did not have a down-hole survey. • Details were tabulated in the announcement of 22 May 2023.

Criteria	JORC code explanation	Commentary
	- 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.	
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.	• Aggregate intercepts were calculated for the REO (Rare Earth Oxides) based on a cut of grade above 200ppm TREO (Total Rare Earth Oxides) minus Ce2O, with maximum 2 meters for internal dilution. • Significant intervals were tabulated downhole for reporting. All individual samples were included in length-weighted averaging over the entire tabulated range. • 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. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	• Relevant mineralisation of REE was intercepted as reported with thicknesses approximating true width due to the flat geometry.

Criteria	JORC code explanation	Commentary
	• 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').	
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.	• Relevant REE mineralisation is reported pending confirmation of IAC (Ionic Adsorbed Clay) type mineralisation.
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). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and	• Auger drill in the defined targets is in progress. • Submit the weathered portions of the remaining drill holes from Ema for REE assays, in progress.

Criteria	JORC code explanation	Commentary
	future drilling areas, provided this information is not commercially sensitive.	• Submit the significant REE intersections to ammonium sulphate assays at SGS to determine the percentage of ionic rare earths present, in progress. • Follow up the holes which reported significant REE elements with auger drilling, in progress. • Define by mapping and detailed topography (with a drone) zones with preserved regolith profile amenable to auger drill testing for enriched REE zones.