New Rare Earth Elements Discovery in Apui Region
BBX Identifies Significant REEs From Surface Soil Sampling

BBX Minerals Limited (ASX: BBX) ("BBX" or the "Company") is pleased to announce the acquisition of three new tenements, totalling 14864 hectares, in the Apui region of Brazil. Initial reconnaissance soil sampling has revealed significant Total Rare Earth Oxides (TREO[1]) values, demonstrating the potential for significant Rare Earth Elements in the area (Table 1).

The Apui REE Project encompasses these three new leases as well as two additional acquired leases (not yet tested).

Highlights

- **Significant REE results from reconnaissance soil sampling**
- **Three new tenements cover an area of 14,864 hectares**
- **52 out of 53 samples collected returned TERO - CeO2 above 200 ppm**
- **Broad-spaced auger drilling programme initiated**

Significant soil results:

- **569 ppm TREO** average in 32 samples, with a maximum of **1,000 ppm TREO – Target 1**
- **576 ppm TREO** average in 11 samples, with a maximum of **920 ppm TREO – Target 2**
- **503 ppm TREO** average in 10 samples, with a maximum of **710 ppm TREO – Target 3**

The obtained values demonstrate compatibility with the near-surface TREO content found in the lateritic cap of other analogous ionic REE (iREE) deposits in Brazil (Appendix) and the Makuutu deposit in Uganda currently 65% owned by Ionic Rare Earths (IXR). Such deposits are amenable to well-known, low-cost mining and metallurgical processes.

Andre J Douchane, CEO commented: "We are extremely pleased with a second significant Rare Earth Element discovery adjacent to our Ema discoveries. This discovery not only expands our exploration area, but also leverages the existing logistics and resources surrounding the Ema discoveries. Both our projects can efficiently share management, sample preparation facilities, equipment, and camp costs enhancing operational effectiveness. We are also looking forward to the auger results with anticipation that the iREE will increase with depth as is typical with this style of mineralization."

The soil sampling was strategically conducted on an 800m x 800m grid pattern (appendix 1,2), targeting areas with the specific ternary radiometric signature, distinct from that of the surrounding rocks, and nearly identical to that observed at Makuutu which was developed in an analogous geological, climatic, and geomorphological setting. The samples were collected at a depth of one metre within properties where landowner access was obtained. The total tested area was 92.39 square kilometres.

Out of the total 53 samples collected, only one sample yielded a TREO minus CeO2 value below 200 ppm, with all other samples materially higher, with an average value of 555 ppm (Table 2). It is important to note that the soil sampling results primarily highlight regions with anomalous concentrations of REEs in soils and may not necessarily provide an accurate representation of the potential REE levels within the underlying lateritic profile. Enrichment of REEs often occurs within this profile, particularly in relation to

[1] TREO = La2O3 + CeO2 +Pr6O11 + Nd2O3 + Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Lu 2O3 + Y2O3

the higher-value heavy rare earth oxides (HREOs), as observed at Ema, located 30 kilometres to the south (see media releases of May 21 and July 30, 2023).

The multi-element assays of the soil samples obtained from the Apui REE project were conducted at independent laboratory SGS in greater Belo Horizonte, Brazil.

To further investigate the REE distribution within the weathered zone, a programme of broad-spaced auger drilling has been initiated. This drilling campaign aims to obtain a more detailed understanding of the REE profile and potential enrichment within the weathered zone as well as the areal extent of mineralisation.

Table 1: Apuí soil results

Total Samples	Target	TREO ppm	TREO – CeO2 ppm	HREO ppm	CREO ppm	MREO ppm
53	01-02-03	555	340	119	164	127

The geochemical signature of the near-surface samples (Table 2), formed on top of a regolith primarily composed of sediments, exhibits notable differences from that observed at Ema, developed over a predominantly rhyolite protolith. Like the ionic adsorbed clay deposits found in China, these rhyolite-associated deposits typically exhibit a higher proportion of Praseodymium (Pr) and Neodymium (Nd).

Table 2: REE distribution in the soils, with 22.9 % of MREO

Classification	Element	Element	REE ppm	Factor	Oxide	REO ppm	REO/TREO %
LREE	Lanthanum	La	90.3	1.1728	La2O3	105.8	19.1
	Cerium	Ce	178.1	1.2284	CeO2	218.8	39.4
	Praseodymium	Pr	21.0	1.2082	Pr6O11	25.3	4.6
	Neodymium	Nd	76.3	1.1664	Nd2O3	89.0	16.0
HREE	Samarium	Sm	12.8	1.1596	Sm2O3	14.9	2.7
	Europium	Eu	2.4	1.1579	Eu2O3	2.8	0.5
	Gadolium	Gd	11.6	1.1526	Gd2O3	13.4	2.4
	Terbium	Tb	1.6	1.1762	Tb4O7	1.9	0.3
	Dysprosium	Dy	9.7	1.1477	Dy2O3	11.1	2.0
	Holmium	Ho	1.9	1.1455	Ho2O3	2.2	0.4
	Erbium	Er	5.2	1.1435	Er2O3	5.9	1.1
	Thulium	Tm	0.8	1.1421	Tm2O3	0.9	0.2
	Ytterbium	Yb	5.5	1.1387	Yb2O3	6.2	1.1
	Lutetium	Lu	0.8	1.1371	Lu2O3	0.9	0.2
	Ytrium	Y	43.9	1.2699	Y2O3	55.8	10.1
	Totals		462			555	100

The Company will continue to advance its two distinct ionic adsorbed clay REE projects, Ema/Ema East and Apui. An identical exploration strategy will be applied to both prospects, which is being implemented according to the availability of equipment and workforce, based initially on auger drilling to the base of weathering. This campaign has been initiated with a single crew, with additional rigs to be employed in mid-August.

Given the significant REE results at Ema and the Apui REE projects, BBX considers that its existing tenements and surrounding areas within the Apui region provide potential for further low-cost exploration opportunities to add to the Company's existing PGM resource at Tres Estados.

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 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.

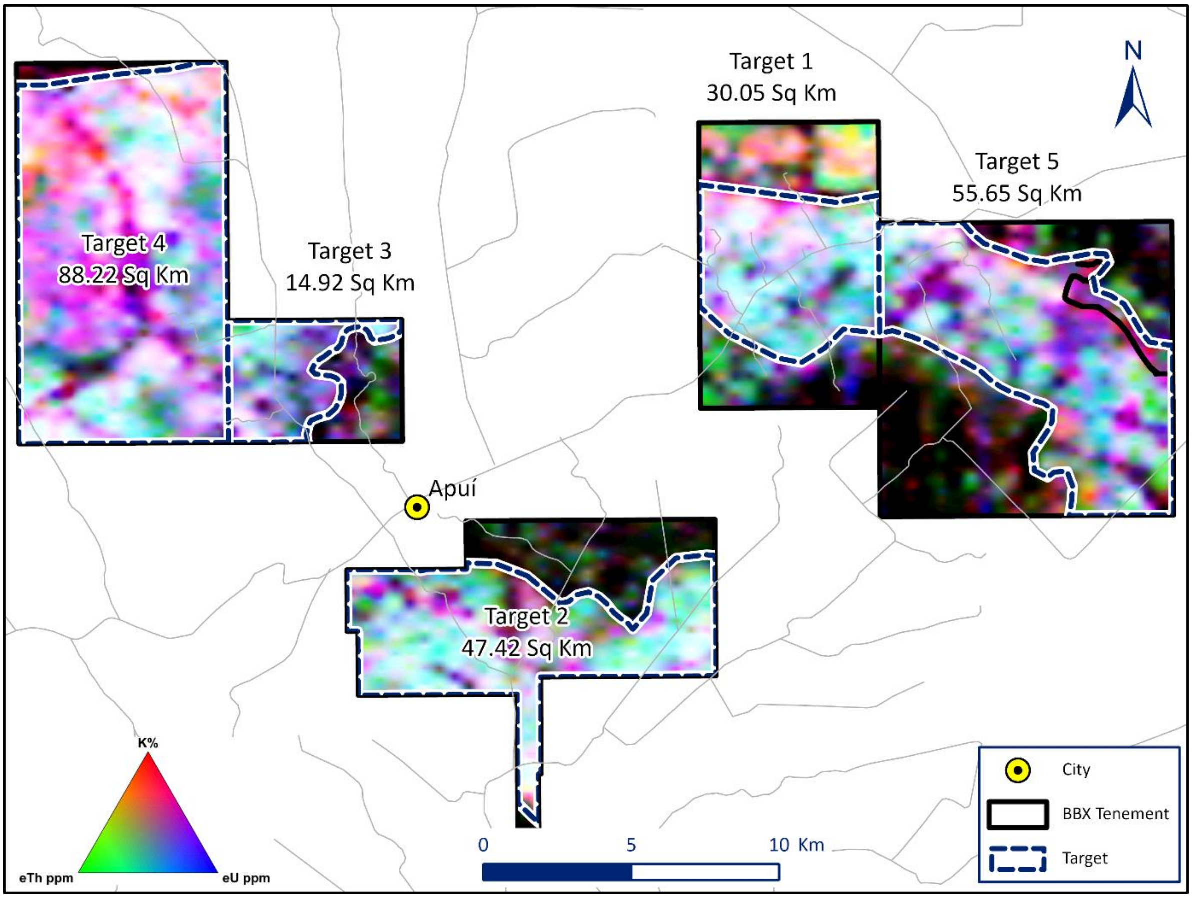
Competent Person Statement

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

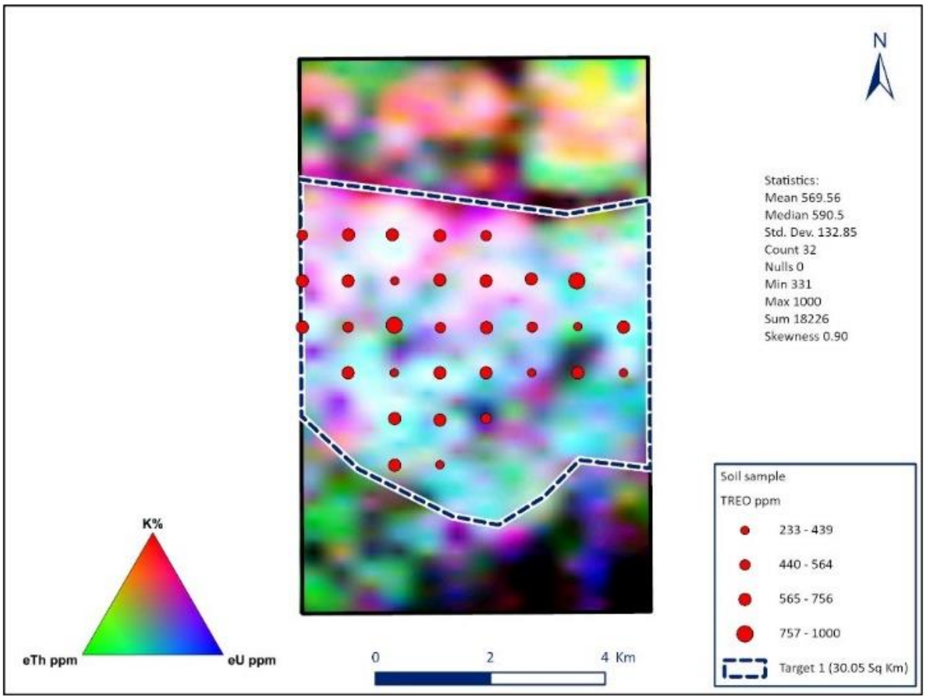
<u>Appendices</u>

Appendix 1 - BBX's Apui project showing ternary radiometric image

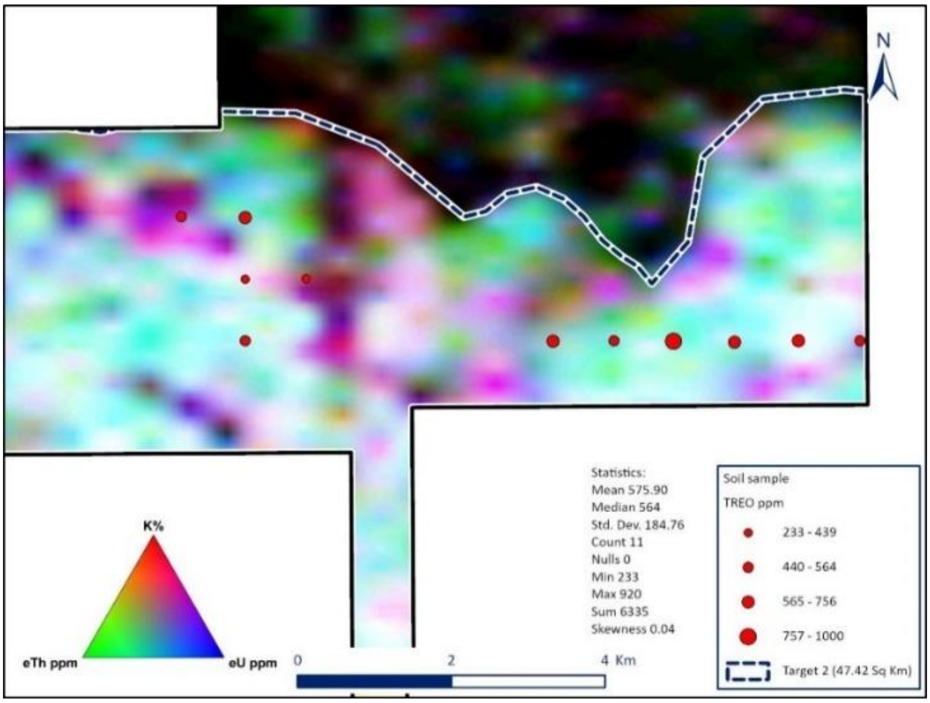


Appendix 2: Targets 1, 2 and 3

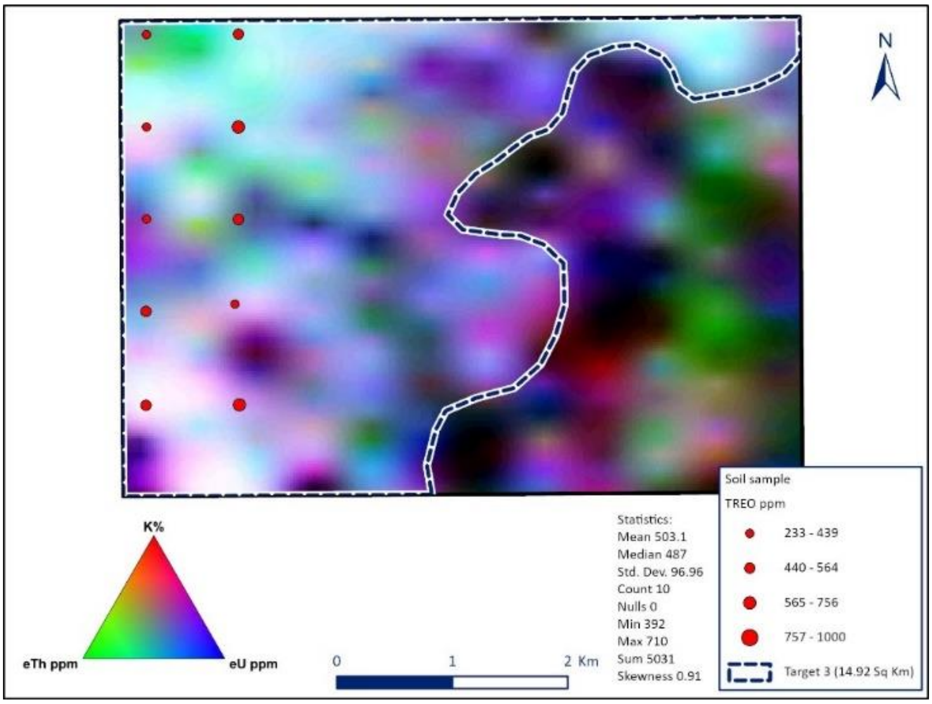
Target 1- ANM 880.027/2023 – TREO in soil on ternary radiometric image



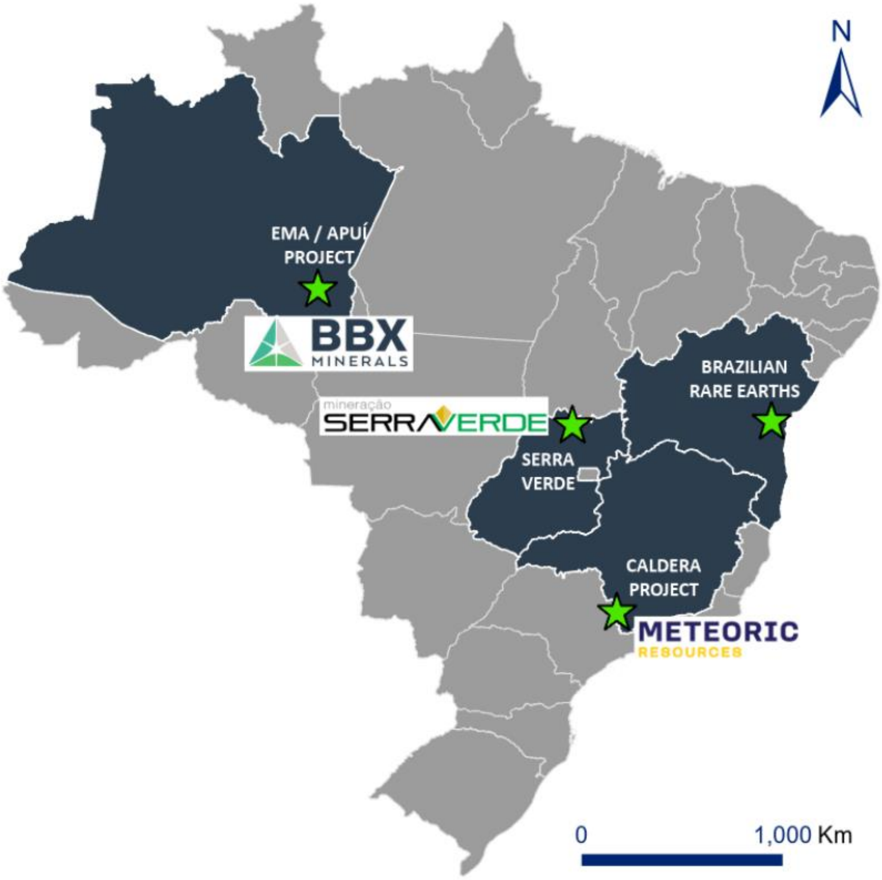
Target 2-ANM 880.026/2023- TREO in soil on ternary radiometric image



Target 3-ANM 880.025/2023 - TREO in soil on ternary radiometric image



Appendix 3: iREE Projects in Brazil



Appendix 1: REE oxide assay results in Apuí soils

SAMPLEID	La2O3 ppm	CeO2 Ppm	Pr6O11 ppm	Nd2O3 pm	Sm2O3 ppm	Eu2O3 ppm	Gd2O3 ppm	Tb4O7 ppm	Dy2O3 ppm	Ho2O3 ppm	Er2O3 ppm	Tm2O3 ppm	Yb2O3 ppm	Lu2O3 ppm	Y2O3 ppm	TREO ppm
APR-SL-0001	118.2	242.9	27.8	100.1	18.2	6.7	16.5	2.3	12.6	2.4	6.6	0.9	6.3	0.9	59.1	621
APR-SL-0002	68.3	139.9	16	59	11.7	4.7	11.5	1.4	8.4	1.6	4.7	0.7	5.4	0.8	41.3	375
APR-SL-0003	116.5	232.8	25	90	16.8	7.3	16.2	2.3	13.6	2.5	7.2	1.1	8	1.2	67.4	608
APR-SL-0004	116.9	245.1	28.3	100.5	18.7	7.4	17.6	2.4	13.6	2.6	7.4	1.1	7.2	1.1	69.2	639
APR-SL-0005	57.2	161	32.3	110.7	8.6	4.7	11.7	1.4	9.5	2.7	4.7	0.7	5.1	0.8	40.6	452
APR-SL-0007	110.4	225.8	25.1	90.2	17.4	7.3	17.2	2.4	14.3	2.7	7.2	1.1	7.7	1.2	70.2	600
APR-SL-0008	71.9	148.8	16.7	60.3	11.4	6.2	11.5	1.6	9.6	2	6.1	0.9	6.3	0.9	59.2	413
APR-SL-0009	122.8	249.5	27.1	95.1	17.3	8.1	17.2	2.3	13.8	2.8	8	1.2	7.6	1.2	76.1	650
APR-SL-0010	105.3	216.7	23.7	87	15.9	7.2	15.8	2.2	12.9	2.5	7.1	1	7.3	1.1	69.2	575
APR-SL-0011	73.8	149	16.5	58.3	10.7	5.4	10.8	1.5	8.8	1.9	5.3	0.9	5.5	0.9	50.2	399
APR-SL-0012	75.5	237.8	38.3	123.5	11.1	4.8	14.8	1.4	8.6	1.7	4.8	0.7	5.1	0.8	46.9	576
APR-SL-0013	80.7	157	17.1	59.8	10.4	4.6	10.2	1.4	7.8	1.4	4.5	0.7	4.8	0.7	40.4	401
APR-SL-0014	114	240.3	27.5	98	17.7	7.1	16.7	2.3	12.9	2.4	7	1	6.9	1	63.6	618
APR-SL-0015	95.8	196.7	21.7	77.2	15	6	14.1	1.9	11.3	2.1	5.9	0.9	6.4	1	56.7	513
APR-SL-0016	108.6	355.4	82.6	282	18	7.6	27.3	2.8	20.3	6.1	7.5	1.2	8.5	1.3	70.8	1000
APR-SL-0017	100.4	199.5	21.7	76.9	13.8	5.7	11.5	1.8	10.1	1.8	5.6	0.8	5.7	0.9	54.8	511
APR-SL-0018	126.4	256.9	28.2	100.7	19.2	7.2	16.4	2.4	13.7	2.6	7.1	0.9	6.6	1	67.2	657
APR-SL-0019	105.3	206.4	22.2	77.4	13.6	6	12.1	1.8	10.4	2	5.9	0.9	6.3	1	57.8	529
APR-SL-0020	76.6	147.8	15.9	54.7	10	4.7	8.5	1.3	8.1	1.6	4.6	0.8	5.1	0.8	45	386
APR-SL-0022	117.5	236.1	25.1	90.2	16.1	6.3	14.9	2.2	13	2.4	6.2	0.9	6.5	1	54.6	593
APR-SL-0023	118.8	238.4	25.6	90.7	15.4	7	13.9	2.1	12.3	2.4	6.9	1	6.8	1	67	609
APR-SL-0024	129.9	251.5	26.4	92.1	16.4	5.7	13.5	2	11.2	2	5.7	0.8	5.7	0.9	53.8	618
APR-SL-0025	57.5	121.6	12.7	45.6	8.6	5.2	8.1	1.3	8	1.7	5.1	0.8	5.9	0.9	47.8	331
APR-SL-0026	118.5	229.6	24.3	86.8	15.1	6.1	13.1	2	11.3	2.2	6.1	0.8	5.9	0.9	60.8	584

SAMPLEID	La2O3 ppm	CeO2 Ppm	Pr6O11 ppm	Nd2O3 pm	Sm2O3 ppm	Eu2O3 ppm	Gd2O3 ppm	Tb4O7 ppm	Dy2O3 ppm	Ho2O3 ppm	Er2O3 ppm	Tm2O3 ppm	Yb2O3 ppm	Lu2O3 ppm	Y2O3 ppm	TREO ppm
APR-SL-0027	125.4	249.6	26.7	94.2	17.2	7.5	13.9	2.1	12.3	2.5	7.4	1.1	7.4	1.1	70.4	639
APR-SL-0028	120.7	238.2	25.9	91.7	17	5.8	14.1	1.9	11.4	2	5.7	0.8	5.6	0.8	59.1	601
APR-SL-0029	180	355.1	38.7	137.6	24.8	6.7	19.7	2.8	15.2	2.5	6.6	0.9	5.8	0.9	67.3	865
APR-SL-0031	101.6	200.4	21.7	77.9	14.3	6.1	11.7	1.8	10.5	1.9	6	0.9	5.8	0.9	58.9	520
APR-SL-0032	114.8	233.8	25.2	89.2	16.9	7.3	14.1	2.1	12.9	2.5	7.2	1	7.1	1	70.6	606
APR-SL-0033	114.7	233.8	24	85.4	16.6	7.1	14.1	2.1	12.5	2.4	7	1	6.9	1	68	597
APR-SL-0034	122.7	239.8	26.5	92.4	14.6	5.2	9.5	1.4	8.8	1.8	5.1	0.8	5.7	0.9	52.5	588
APR-SL-0035	109.1	218.3	23.3	83	14.1	6.2	11.3	1.6	10.2	2	6.2	0.9	6.4	1	58	552
APR-SL-0049	111.8	220.4	24.1	87	16.2	6	13.9	2.1	11.8	2.1	5.9	0.9	6.3	0.9	54.2	564
APR-SL-0054	125.8	251.3	26.6	92	16	5.7	13.3	1.9	10.6	1.9	5.7	0.8	6.1	1	48.8	608
APR-SL-0055	99.8	196.8	22.5	81.5	15.9	6.1	13.2	1.9	10.8	1.9	6	0.9	6.3	1	50.4	515
APR-SL-0056	176.6	376.1	41.2	148.8	28.8	7.6	26.9	4.2	21.5	3	7.5	1.1	7.5	1.2	68.1	920
APR-SL-0057	155.6	308	32.5	110	19.1	6	15.5	2.3	12.2	2.1	5.9	0.9	6.1	0.9	53.2	730
APR-SL-0058	157.5	315.2	31.6	108.5	18.4	6.9	15.6	2.2	12.8	2.4	6.8	1	7.6	1.1	68.2	756
APR-SL-0059	109.7	221.7	23.5	81.2	14.6	6.5	12.4	1.8	11.2	2.2	6.4	1	7.5	1.1	58.5	559
APR-SL-0065	82.7	162.4	17	58.3	10.2	4.2	8	1.2	6.9	1.4	4.2	0.7	4.6	0.7	37.3	400
APR-SL-0066	51.5	95.7	10	30.8	4.4	2.7	3.7	0.6	3.7	0.8	2.7	0.5	3.3	0.5	21.8	233
APR-SL-0070	100.7	194.3	19.4	61.4	9.9	4.7	8.2	1.2	7.6	1.5	4.7	0.8	5.4	0.8	41.4	462
APR-SL-0071	124.3	241	25.2	85.5	14.6	5.7	11.9	1.7	10	1.9	5.6	0.9	6	1	52.5	588
APR-SL-0073	93.7	198.4	20.7	74.9	14.1	6.5	12.5	1.9	11.1	2.3	6.4	0.9	6.5	1	64.8	516
APR-SL-0074	119	240.2	26.7	91.4	15	5.9	12.5	1.8	10.4	1.9	5.8	0.9	6.9	1.1	53.9	593
APR-SL-0075	94.2	187.1	20.7	74.8	13.3	5.2	11.1	1.6	8.8	1.7	5.1	0.8	5.9	0.9	48	479
APR-SL-0076	77.8	160.2	18.1	66.7	12.8	4.9	10.6	1.5	9.1	1.6	4.9	0.7	5.2	0.8	46.8	422
APR-SL-0077	79.9	162.5	17.7	63	11.8	5.2	10.1	1.5	8.7	1.8	5.1	0.7	4.8	0.7	49.4	423
APR-SL-0078	95.5	194.6	21.4	77.3	14.5	5.6	11.9	1.8	9.9	1.8	5.5	0.8	5.9	0.9	47.7	495
APR-SL-0079	75.9	154.7	16.6	58.6	11.4	4.7	9.5	1.4	8.1	1.6	4.6	0.6	4.7	0.7	38.9	392

SAMPLEID	La2O3 ppm	CeO2 Ppm	Pr6O11 ppm	Nd2O3 pm	Sm2O3 ppm	Eu2O3 ppm	Gd2O3 ppm	Tb4O7 ppm	Dy2O3 ppm	Ho2O3 ppm	Er2O3 ppm	Tm2O3 ppm	Yb2O3 ppm	Lu2O3 ppm	Y2O3 ppm	TREO ppm
APR-SL-0080	109.5	267.3	44.5	155.5	17.6	6.5	17.3	2.2	14.5	3.4	6.4	0.9	7.1	1	56.2	710
APR-SL-0081	83.3	165.6	18.1	66.5	11.9	5.6	11.2	1.6	9.8	1.9	5.5	0.8	5.9	0.9	50.9	439
APR-SL-0082	109.4	225.9	24.6	87	15.2	6.2	12.2	1.8	10.5	2	6.1	0.9	6.6	1	52.3	562

Appendix 2: Sample Location (Apuí soils)

SAMPLEID	X	Y	Z	SAMPLEID	X	Y	Z	SAMPLEID	X	Y	Z
APR-SL-0001	192925.04	9209745.38	147.36	APR-SL-0024	192114.23	9212956.25	93.22	APR-SL-0073	175557.35	9206800.83	99.64
APR-SL-0002	193714.95	9209756.56	150.53	APR-SL-0025	192921.63	9212954.25	97.61	APR-SL-0074	176365.61	9206804.56	108.67
APR-SL-0003	192926.85	9210564.19	139.44	APR-SL-0026	193716.5	9212976.29	125.53	APR-SL-0075	175559.58	9207610.68	112.56
APR-SL-0004	193711.13	9210539.58	122.36	APR-SL-0027	194514.04	9212958.6	114.3	APR-SL-0076	176327.67	9207674.47	108.55
APR-SL-0005	194516.25	9210558.36	112.1	APR-SL-0028	195302.18	9212994.07	141.54	APR-SL-0077	175561.64	9208412.56	99.61
APR-SL-0007	192114.28	9211354.4	131.76	APR-SL-0029	196103.81	9212956.46	144.32	APR-SL-0078	176359.47	9208409.01	133.52
APR-SL-0008	192915.21	9211357.9	114.06	APR-SL-0031	191314.17	9213756.29	122.35	APR-SL-0079	175561.75	9209209.11	111.13
APR-SL-0009	193713.74	9211355.4	119.93	APR-SL-0032	192116.8	9213759.35	124.49	APR-SL-0080	176359.9	9209208.44	129.58
APR-SL-0010	194515.9	9211355.23	116.41	APR-SL-0033	192883.84	9213760.32	132.37	APR-SL-0081	175561.96	9210008.1	135.37
APR-SL-0011	195316.4	9211354.38	105.97	APR-SL-0034	193715.3	9213748.26	118.68	APR-SL-0082	176358.76	9210013.17	127.87
APR-SL-0012	196113.12	9211356.37	113.53	APR-SL-0035	194515.06	9213748.73	128.49				
APR-SL-0013	196913.49	9211355.93	116.38	APR-SL-0049	183739.69	9198952.95	175.65				
APR-SL-0014	191315.54	9212156.53	7.4	APR-SL-0054	187748.29	9198941.2	177.63				
APR-SL-0015	192114.09	9212154.83	77.69	APR-SL-0055	188538.86	9198948.99	172.04				
APR-SL-0016	192914.43	9212184.55	148.55	APR-SL-0056	189314.36	9198943.06	146.43				
APR-SL-0017	193720.37	9212146.9	95.8	APR-SL-0057	190111.78	9198930.84	149.11				
APR-SL-0018	194524.65	9212145.08	106.15	APR-SL-0058	190941.37	9198953	159.48				
APR-SL-0019	195318.36	9212154.8	115.49	APR-SL-0059	191742.36	9198953.17	143.71				
APR-SL-0020	196115.42	9212157.9	126.43	APR-SL-0065	183742.3	9199749.8	114.09				
APR-SL-0022	196914.61	9212154.68	169.42	APR-SL-0070	182907.16	9200561.97	112.41				
APR-SL-0023	191315.91	9212955.86	94.61	APR-SL-0071	183738.13	9200551.59	134.38				

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 soil sampling

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 soil sampling completed during May 2023. • The data presented is based on the sampling and logging of soil samples at 1m depth by company staff. • 2Kg sample was collected from an auger hole at 1 metre depth into a plastic bag. • Samples were homogenized and subsequently riffle split with 50% sent to SGS for preparation and 50% stored. • 1 certified blank sample, 2 certified reference material (standard) samples and 1 field duplicate sample were inserted into the sample sequence.
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	• No drilling was conducted.

Item	JORC code explanation	Comments
	tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	
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.	• No drilling conducted.
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.	• Soil samples were described. • Logging is qualitative in nature.
Sub- Sampling Techniques and Sampling Procedures	• 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 representativity of samples.	• Soil samples collected were dry • Riffle split with 50% sent to SGS laboratory in Vespasiano -MG • Sample preparation for the soil samples 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 and the pulps were returned to BBX for storage.

Item	JORC code explanation	Comments
	• 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.	
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	• 1 blank sample, 2 certified reference material (standard) samples and 1 field duplicate sample were inserted by BBX into the sample sequence. • Standard laboratory QA/QC procedures were followed, including inclusion of standard, duplicate and blank samples. • The assay results of the standards fall within acceptable tolerance limits and no material bias is evident. • The assay technique used for REE was Lithium Metaborate Fusion ICP-MS (SGS code ICP95A and IMS95A). This is a recognised industry standard analysis technique for REE suite and associated elements. Elements analysed at ppm levels: Ba, Ce, Cr, Cs, Dy, Er, Eu, Ga Gd, Hf, Ho, La, Lu, Nb, Nd, Pr Rb, Sm, Sn, Sr, Ta, Tb, Th, Tm U, V, W, Y, Yb, Zr, Zn, Co Cu, Ni 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 standard for REE

Item	JORC code explanation	Comments
		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. • The blanks used contain some REE, with critical elements Ce, Nd, Dy and Y present in small quantities. • 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 practice. There is no evidence of bias from these results.
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.	• 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 were supplied digitally, directly from the BBX´s laboratory facility in Catalão and from SGS to BBX´s Exploration Manager in Rio de Janeiro. • 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.

Item	JORC code explanation	Comments
		• 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).

Element ppm	Conversion Factor	Oxide Form
Ce	1.2284	CeO2
Dy	1.1477	Dy2O3
Er	1.1435	Er2O3
Eu	1.1579	Eu2O3
Gd	1.1526	Gd2O3
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:

Item	JORC code explanation	Comments
		TREO (Total Rare Earth Oxide) = La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Y_2O_3 + Lu_2O_3 LREO (Light Rare Earth Oxide) = La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 HREO (Heavy Rare Earth Oxide) = Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Y_2O_3 + Lu_2O_3 CREO (Critical Rare Earth Oxide) = Nd_2O_3 + Eu_2O_3 + Tb_4O_7 + Dy_2O_3 + Y_2O_3 (From U.S. Department of Energy, Critical Material Strategy, December 2011) MREO (Magnetic Rare Earth Oxide) = Nd_2O_3 + Pr_6O_{11} + Tb_4O_7 + Dy_2O_3 NdPr = Nd_2O_3 + Pr_6O_{11} In elemental from the classifications are: 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.

Item	JORC code explanation	Comments
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.	• Soil samples were 800m apart, over the targets. • The data spacing and distribution is sufficient to establish the level of REE elements present in the targets and its continuity. • No sample composition was applied.
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 location and depth of the sampling is appropriate for the deposit type. • Relevant REE values are compatible with the Makuutu, Uganda exploration model.
Sample security	• The measures taken to ensure sample security.	• The soil samples in sealed plastic bags, were sent directly to SGS by bus and then airfreight. 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 Apuí 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 at Apuí is contained within the tropical lateritic weathering profile developed on top of sediments as per the Makuutu iREE deposit in Uganda . • The REE mineralisation is concentrated in the weathered profile where it has dissolved from the primary mineral, such as monazite and xenotime, then adsorbed on to the neo-forming fine particles of aluminosilicate clays (e.g. kaolinite, illite, smectite). • This adsorbed iREE 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
	  ◦ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar
		• Soil locations and diagrams are presented in this announcement.
		• Details are tabulated in the announcement.

Criteria	JORC code explanation	Commentary
	• 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 not calculated.
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. • 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').	• Significant values of REE were reported for the soil samples.

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.	• Maps and tables of the soil sample location and target location are inserted.
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 in soils 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 future drilling areas, provided this information is not commercially sensitive.	• Auger drill the Apuí targets to test for enriched REE zones in the regolith developed on top of the sediments, in progress. • Refine the main targets amenable to auger drill testing for enriched REE zones, using detail topography and radiometry as the main tool.