ASX ANNOUNCEMENT
7 December 2023

BBX extends rare earth mineralisation at Ema to 7km x 6 km, widespread grades >1000ppm TREO

Highlights

- **Ionic rare earth mineralisation now defined over 7km x 6km, remains open in all directions**
- **Widespread grades >1,000 ppm TREO**
- **Majority of mineralised holes end in high grade TREO containing exceptional NdPr contents >30%**
- **Recoveries up to 61% via simple ammonia sulphate leach**
- **Only 43% or 82 km^2 out of 189km^2 drilled to date**
- **Ema Mineral Resource to be released Q1 2024**

Significant results included:

- 6 metres @ **1003ppm TREO** from 6m (TR-043), including 3m @ **1191ppm** TREO ending in **1135ppm** TREO
- 7 metres @ **1015ppm TREO** from 6m (TR-050), including 3m @ **1266ppm** TREO ending in **988ppm** TREO
- 6 metres @ **812ppm TREO** from 6m (TR-051), including 2m @ **1122ppm** TREO ending in **1182ppm** TREO
- 16 metres **@ 771ppm TREO** from 1m, including 3m **@ 1282 ppm** (TR-059) ending in **888ppm** TREO
- 16 metres @ **739ppm TREO** from 9m (TR-66) including 4m @ **1120ppm** TREO ending in **1352ppm** TREO
- 16 metres **@ 849ppm TREO** from 2m (TR-71) including 2m @ **1104ppm** TREO ending in **1083ppm** TREO

BBX Minerals Limited (**ASX: BBX**) ("**BBX**" or the "**Company**") is pleased to announce the assay results from the first 39 auger holes drilled on 800 metre centres for rare earth elements (REEs) at Ema in the Apuí region of Brazil.

These initial results from the regional reconnaissance programme show the presence of exceptional iREE grades of >3m in excess of 1,200ppm TREO (eg. TR-059 (table 1)), with accompanying elevated values of NdPr oxides, demonstrating the presence of high-grade zones within this major and widespread ionic rare earth deposit, which remains open in all directions (Figure 2).

TREO grades > 1,000 ppm are widespread (appendix 1), containing >100 ppm NdPr and 10ppm TbDy oxides (appendix1). All holes which intersected the enriched iREE horizon end in high TREO values, indicating significant upside potential for high grade material at depth.

The Ema-Ema East iREE project comprises 189 km^2 of felsic volcanic over which 142 auger holes totalling 2,048 metres have been completed to date. A further 53 auger holes totalling 701 metres have been completed at Ema East, testing a total of 82 km^2 or 43% of the regolith developed over the felsic volcanics (figure 1).

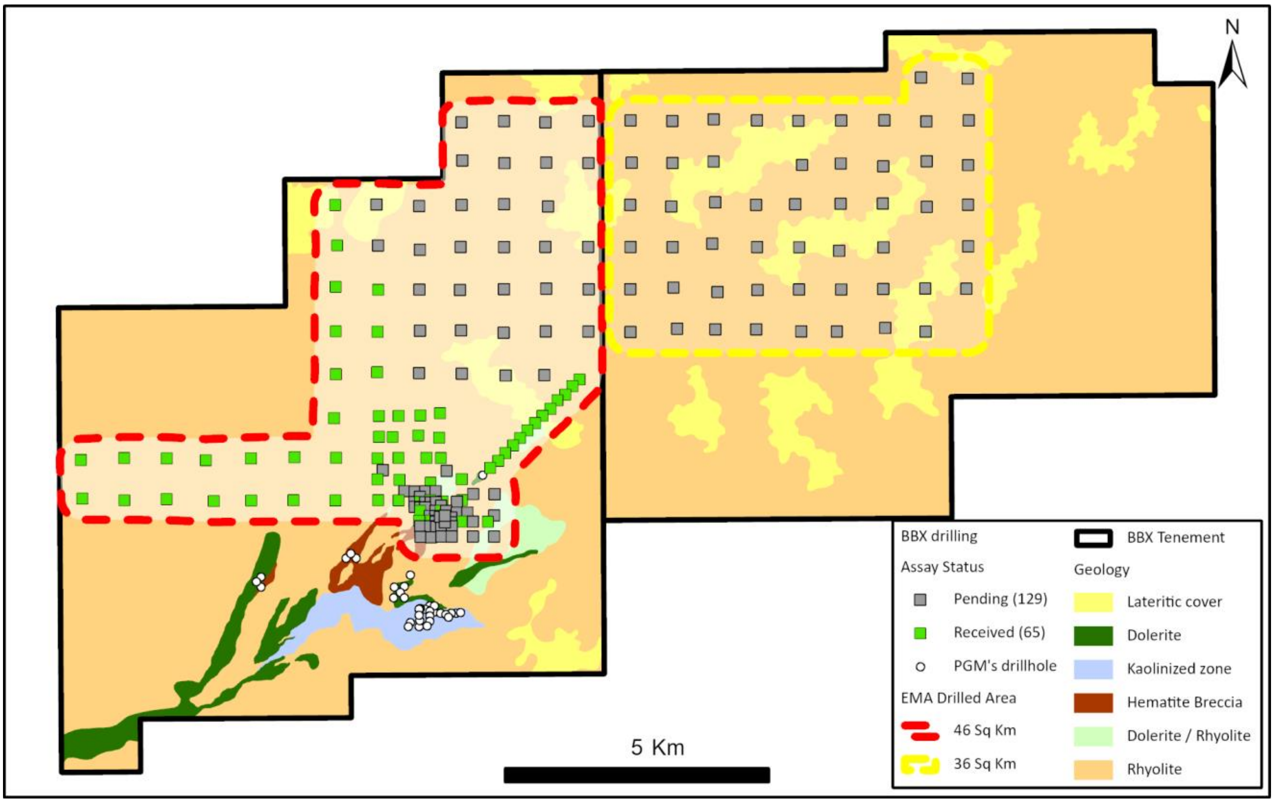

Figure 1 - Ema-Ema East REE project – auger holes on 800m centers and infill drilling status over 82 sq km

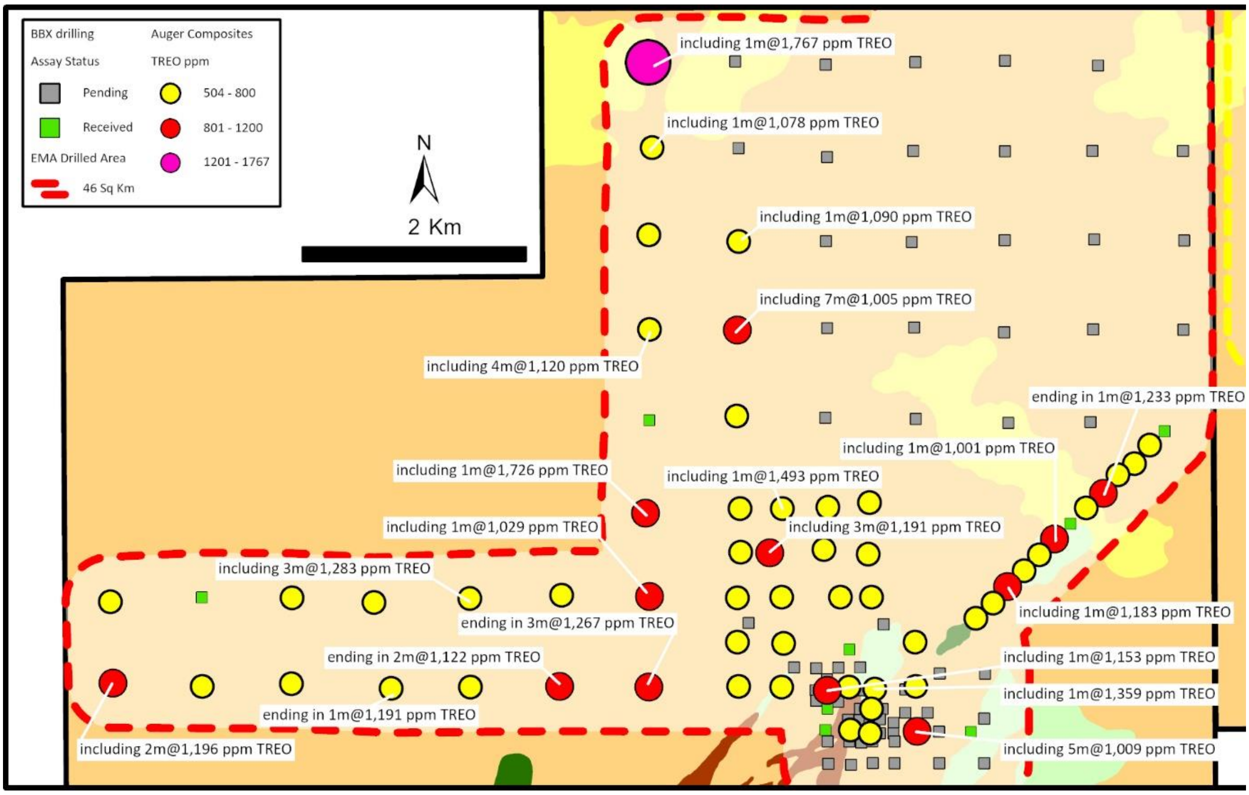

Figure 2 - EMA TREO composite grade distribution

All significant intersections, (>500ppm TREO) are also consistent with the higher (>100ppm NdPr) oxides.

Recoveries as high as 61% via a standard and simple ammonia sulphate leach were achieved at SGS laboratories (table 2.)[1] without any significant optimization work.

The concentration of the high-grade zones at the base of the regolith profile is considerable with potential to increase the overall average mineralised grade with their inclusion.

BBX has received and announced the full assay results for 65 holes of the total of 195 holes drilled totalling 2,749 metres drilled at Ema and Ema East to date.

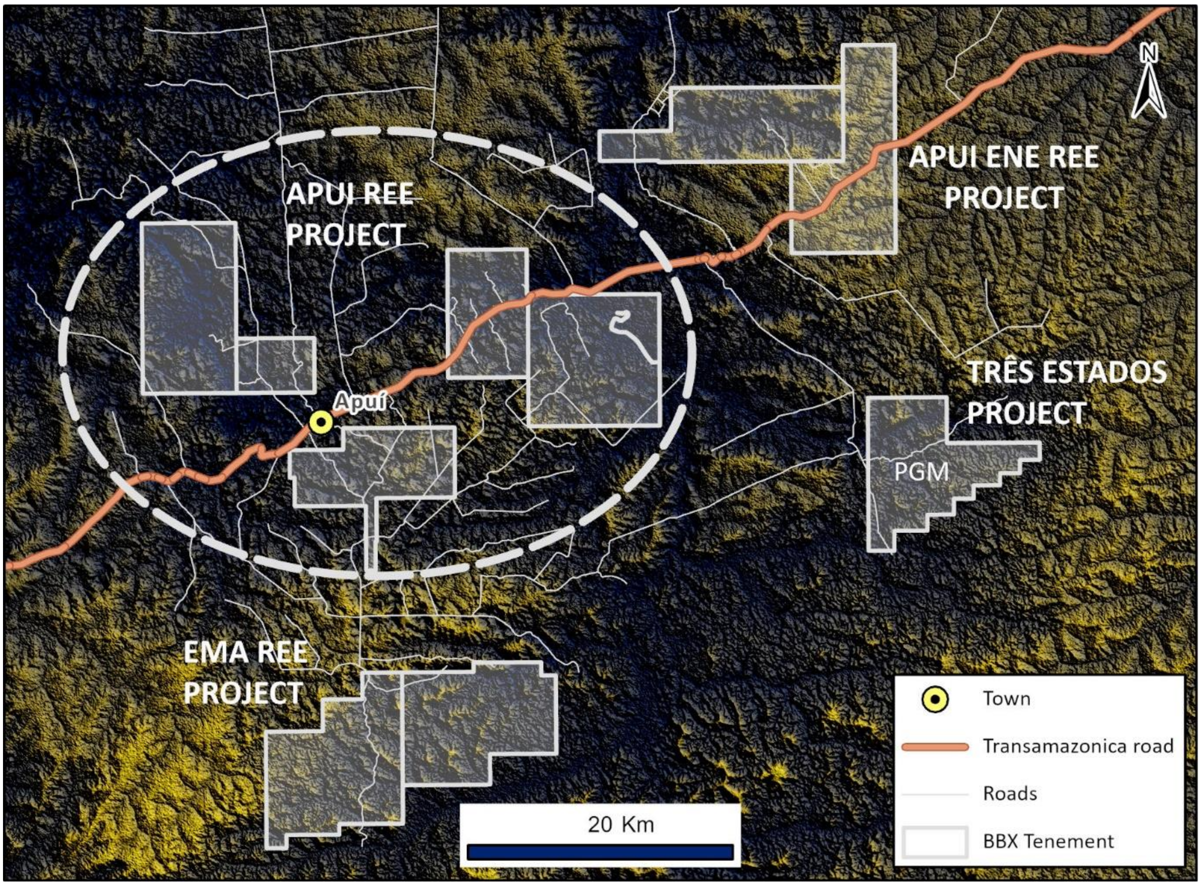

Figure 3 - BBX´s REE projects

Ema REE project

The EMA iREE project (Ema and Ema East leases) is unique amongst Brazilian REE projects in that it shares almost identical characteristics with the iREE deposits developed over felsic volcanic rocks in southwest China, the world's largest known ionic clay region.

In hole EMA-TR-059 a 6m zone recorded exceptional NdPr +DyTb contents averaging 34% (Table 1.) within an overall TREO intercept averaging 1,074ppm.

Table 1 - Auger hole TR-059 assay results (10-17m)

HOLE ID	FROM	TO	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm
EMA-TR-059	10	11	686	16	25	160	12
EMA-TR-059	11	12	829	18	34	263	16
EMA-TR-059	12	13	877	17	30	250	16
EMA-TR-059	13	14	1212	20	35	399	27
EMA-TR-059	14	15	1421	24	36	472	38
EMA-TR-059	15	16	1215	22	37	427	27
EMA-TR-059	16	17	888	21	33	276	20

Table 2 - Auger hole TR-016 REO recoveries down-hole

Interval (m)	Head grade TREO ppm	Recovered TREO[1] ppm	REC %	Recovered NdPr ppm	REC %	Recovered DyTb ppm	REC %
11-12	632	231	37	92	**56**	3	30
12-13	640	217	34	91	**56**	2	22
13-14	760	327	**43**	141	**61**	5	**38**
14-15	1233	580	**47**	247	**61**	10	**43**

Auger hole intersections

Table 3 - Ema significant intersections (>500ppm TREO)

Auger hole	From (m)	Interval (metres)	TREO ppm	% HREO[2]	% MREO[3]	NdPr ppm	DyTb ppm
EMA-TR-034	14	6	770	19	27	191	15
EMA-TR-035	2	14	586	16	17	91	10
EMA-TR-036	8	4	734	17	22	149	13
EMA-TR-037	6	5	659	15	15	84	10
EMA-TR-038	14	5	711	28	26	163	19
EMA-TR-039	7	3	527	17	20	95	10
EMA-TR-040	8	3	558	13	11	55	7
EMA-TR-040	13	2	543	17	24	119	9
EMA-TR-041	8	17	635	18	24	143	12
EMA-TR-042	6	8	543	17	21	101	10
EMA-TR-043	6	6	1003	20	25	242	20
EMA-TR-044	5	1	546	16	15	75	10
EMA-TR-044	7	7	652	19	20	117	13
EMA-TR-045	3	3	558	12	17	85	8
EMA-TR-046	5	1	508	21	23	104	12
EMA-TR-046	8	2	585	19	23	123	12
EMA-TR-047	3	8	603	15	6	21	10
EMA-TR-047	15	3	529	19	20	92	11
EMA-TR-048	9	6	774	14	16	96	11
EMA-TR-049	7	6	558	20	22	111	11
EMA-TR-050	6	7	1015	19	29	284	18
EMA-TR-051	6	6	812	23	28	215	19
EMA-TR-052	11	3	707	18	23	154	13
EMA-TR-053	5	1	551	14	16	81	8
EMA-TR-053	9	19	671	17	25	153	12
EMA-TR-054	5	1	731	17	18	120	13

[1] TREO (Total Rare Earth Oxide) = La2O3 + CeO2 + Pr6O11 + Nd2O3 + Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Y2O3 + Lu2O3
[2] HREO (Heavy Rare Earth Oxide) = Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Y2O3 + Lu2O3
[3] MREO (Magnetic Rare Earth Oxide) = Tb4O7 + Dy2O3 + Nd2O3 + Pr6O11

Auger hole	From (m)	Interval (metres)	TREO ppm	% HREO[2]	% MREO[3]	NdPr ppm	DyTb ppm
EMA-TR-054	7	1	595	26	22	112	16
EMA-TR-055	5	2	570	16	24	128	10
EMA-TR-055	12	4	745	20	28	192	15
EMA-TR-056	6	9	853	22	32	254	19
EMA-TR-057	8	19	825	22	29	222	18
EMA-TR-057	28	1	508	29	22	99	15
EMA-TR-058	2	1	533	15	14	66	10
EMA-TR-058	11	9	588	21	28	149	12
EMA-TR-059	1	16	771	17	26	199	16
EMA-TR-060	7	1	504	20	10	38	11
EMA-TR-060	9	1	534	17	11	50	9
EMA-TR-061	9	1	525	18	12	51	10
EMA-TR-061	12	10	603	18	21	115	11
EMA-TR-063	4	12	686	14	12	72	10
EMA-TR-064	6	4	974	19	22	211	18
EMA-TR-066	9	16	739	20	24	177	16
EMA-TR-067	8	10	592	19	23	122	12
EMA-TR-068	13	6	786	14	12	78	11
EMA-TR-069	11	1	1767	18	28	457	38
EMA-TR-069	17	1	522	28	22	101	15
EMA-TR-070	12	3	722	19	31	207	13
EMA-TR-071	2	16	849	18	28	231	16
EMA-TR-072	4	12	697	19	24	146	13

Exploration strategy and future work at Ema/Ema East

Processing of assay results received and commence additional metallurgical tests on all relevant intersections via ammonium sulphate leaching to support the initial mineral resource estimate, planned for completion during Q1 2024.

Additionally, follow up of the highest-grade zones identified during drilling to date with respect to the planning of infill drilling during the 2024 drilling season.

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

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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 718km² 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.

References

[1] BBX Minerals Limited (ASX:BBX) ASX Announcement "Drilling at Ema continues to deliver positive REE results" on 19.10.23

Appendices

Appendix 1 – Total REE oxide distribution down-hole

HoleID	From	To	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm	Int
EMA-TR-034	0	1	169	30	11	14	5	
EMA-TR-034	1	2	195	27	8	11	5	
EMA-TR-034	2	3	172	30	9	9	6	
EMA-TR-034	3	4	129	39	9	7	5	
EMA-TR-034	4	5	132	44	11	9	6	
EMA-TR-034	5	6	130	46	10	6	7	
EMA-TR-034	6	7	170	36	12	15	7	
EMA-TR-034	7	8	189	35	13	18	8	
EMA-TR-034	8	9	197	34	11	15	7	
EMA-TR-034	9	10	251	17	8	15	5	
EMA-TR-034	10	11	382	11	7	22	4	
EMA-TR-034	11	12	360	13	11	33	5	
EMA-TR-034	12	13	455	15	17	72	7	
EMA-TR-034	13	14	483	13	19	85	7	
EMA-TR-034	14	15	**668**	15	22	**137**	11	**770**
EMA-TR-034	15	16	**692**	16	25	**161**	11	
EMA-TR-034	16	17	**817**	17	27	**204**	14	
EMA-TR-034	17	18	**788**	20	28	**203**	17	
EMA-TR-034	18	19	**873**	21	30	**239**	19	
EMA-TR-034	19	20	**779**	21	28	**199**	16	
EMA-TR-035	0	1	266	25	11	21	7	
EMA-TR-035	1	2	459	15	9	35	7	
EMA-TR-035	2	3	**537**	17	15	70	10	**586**
EMA-TR-035	3	4	**465**	18	16	65	9	
EMA-TR-035	4	5	**754**	10	7	45	8	
EMA-TR-035	5	6	**488**	17	11	46	9	
EMA-TR-035	6	7	**711**	13	22	**144**	11	
EMA-TR-035	7	8	**596**	15	16	83	10	
EMA-TR-035	8	9	**540**	16	15	73	9	
EMA-TR-035	9	10	**527**	16	17	77	9	
EMA-TR-035	10	11	**427**	17	16	62	7	
EMA-TR-035	11	12	**654**	13	11	64	9	
EMA-TR-035	12	13	**568**	17	18	93	10	
EMA-TR-035	13	14	**574**	18	19	99	11	

HoleID	From	To	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm	Int
EMA-TR-035	14	15	**721**	18	25	**166**	14	
EMA-TR-035	15	16	**631**	15	29	**177**	10	
EMA-TR-036	0	1	219	39	21	37	9	
EMA-TR-036	1	2	362	23	23	75	8	
EMA-TR-036	2	3	313	26	22	60	8	
EMA-TR-036	3	4	388	20	25	87	9	
EMA-TR-036	4	5	348	22	24	75	8	
EMA-TR-036	5	6	419	21	24	90	10	
EMA-TR-036	6	7	438	22	22	85	10	
EMA-TR-036	7	8	494	17	10	42	9	
EMA-TR-036	8	9	**527**	14	12	55	8	**734**
EMA-TR-036	9	10	**850**	13	20	**155**	11	
EMA-TR-036	10	11	**794**	17	24	**175**	14	
EMA-TR-036	11	12	**763**	23	30	**211**	17	
EMA-TR-037	0	1	59	51	15	6	3	
EMA-TR-037	1	2	99	52	15	10	5	
EMA-TR-037	2	3	137	47	16	16	6	
EMA-TR-037	3	4	133	50	14	12	7	
EMA-TR-037	4	5	158	42	15	17	7	
EMA-TR-037	5	6	226	28	18	33	7	
EMA-TR-037	6	7	**806**	8	8	58	7	**659**
EMA-TR-037	7	8	**709**	12	11	67	9	
EMA-TR-037	8	9	**472**	20	18	74	10	
EMA-TR-037	9	10	**646**	15	16	95	11	
EMA-TR-037	10	11	**662**	20	21	**123**	13	
EMA-TR-038	0	1	230	17	10	19	4	
EMA-TR-038	1	2	285	12	5	12	3	
EMA-TR-038	2	3	255	12	5	11	3	
EMA-TR-038	3	4	298	11	4	10	3	
EMA-TR-038	4	5	374	11	4	11	4	
EMA-TR-038	5	6	355	11	5	13	4	
EMA-TR-038	6	7	427	11	4	14	5	
EMA-TR-038	7	8	409	11	4	11	5	
EMA-TR-038	8	9	287	16	7	15	5	
EMA-TR-038	9	10	406	11	5	18	5	
EMA-TR-038	10	11	308	15	9	24	5	

HoleID	From	To	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm	Int
EMA-TR-038	11	12	273	23	14	32	7	
EMA-TR-038	12	13	292	24	17	41	7	
EMA-TR-038	13	14	444	25	19	73	11	
EMA-TR-038	14	15	**527**	24	20	95	13	
EMA-TR-038	15	16	**716**	23	23	**151**	16	
EMA-TR-038	16	17	**752**	26	27	**182**	18	**711**
EMA-TR-038	17	18	**761**	31	29	**194**	23	
EMA-TR-038	18	19	**797**	33	27	**190**	25	
EMA-TR-039	0	1	91	42	18	12	4	
EMA-TR-039	1	2	90	39	16	11	3	
EMA-TR-039	2	3	72	46	15	8	3	
EMA-TR-039	3	4	91	42	18	12	4	
EMA-TR-039	4	5	204	28	21	36	6	
EMA-TR-039	5	6	296	21	21	55	6	
EMA-TR-039	6	7	445	16	22	88	8	
EMA-TR-039	7	8	**523**	14	18	88	8	
EMA-TR-039	8	9	**498**	16	17	77	9	**527**
EMA-TR-039	9	10	**559**	21	23	**118**	12	
EMA-TR-040	0	1	125	57	14	9	7	
EMA-TR-040	1	2	134	51	10	6	8	
EMA-TR-040	2	3	137	53	9	5	8	
EMA-TR-040	3	4	125	54	9	4	8	
EMA-TR-040	4	5	148	47	10	7	8	
EMA-TR-040	5	6	180	35	7	6	7	
EMA-TR-040	6	7	249	27	8	12	7	
EMA-TR-040	7	8	355	16	5	13	6	
EMA-TR-040	8	9	**556**	11	6	26	7	
EMA-TR-040	9	10	**531**	13	12	59	7	**558**
EMA-TR-040	10	11	**585**	13	15	78	7	
EMA-TR-040	11	12	470	16	20	88	7	
EMA-TR-040	12	13	33	9	18	5	0	
EMA-TR-040	13	14	**537**	16	23	**117**	9	**543**
EMA-TR-040	14	15	**548**	17	24	**120**	9	
EMA-TR-041	0	1	210	33	15	24	7	
EMA-TR-041	1	2	304	24	8	17	8	
EMA-TR-041	2	3	19	5	0	0	0	

HoleID	From	To	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm	Int
EMA-TR-041	3	4	56	20	4	0	2	
EMA-TR-041	4	5	196	20	7	9	4	
EMA-TR-041	5	6	350	18	7	19	7	
EMA-TR-041	6	7	481	16	8	29	8	
EMA-TR-041	7	8	487	16	7	27	9	
EMA-TR-041	8	9	**522**	15	9	41	9	**635**
EMA-TR-041	9	10	**542**	15	13	60	8	
EMA-TR-041	10	11	**550**	15	17	86	10	
EMA-TR-041	11	12	**644**	14	19	**113**	8	
EMA-TR-041	12	13	**639**	15	20	**117**	9	
EMA-TR-041	13	14	**760**	15	23	**162**	12	
EMA-TR-041	14	15	**625**	18	25	**144**	11	
EMA-TR-041	15	16	**633**	18	26	**156**	11	
EMA-TR-041	16	17	**620**	18	26	**151**	11	
EMA-TR-041	17	18	**695**	17	27	**179**	12	
EMA-TR-041	18	19	**676**	18	28	**179**	12	
EMA-TR-041	19	20	**654**	17	29	**179**	11	
EMA-TR-041	20	21	**681**	19	30	**188**	13	
EMA-TR-041	21	22	**605**	20	29	**161**	11	
EMA-TR-041	22	23	**650**	22	30	**179**	13	
EMA-TR-041	23	24	**644**	21	28	**165**	13	
EMA-TR-041	24	25	**649**	23	29	**171**	15	
EMA-TR-042	0	1	147	42	13	13	7	
EMA-TR-042	1	2	297	26	12	27	9	
EMA-TR-042	2	3	413	18	12	41	8	
EMA-TR-042	3	4	494	15	13	55	8	
EMA-TR-042	4	5	427	17	18	71	8	
EMA-TR-042	5	6	405	18	17	62	7	
EMA-TR-042	6	7	**523**	16	18	87	9	**543**
EMA-TR-042	7	8	**572**	15	18	93	9	
EMA-TR-042	8	9	**486**	16	19	85	8	
EMA-TR-042	9	10	**535**	15	19	95	8	
EMA-TR-042	10	11	**560**	14	20	**101**	8	
EMA-TR-042	11	12	**483**	17	22	**97**	8	
EMA-TR-042	12	13	**632**	18	23	**132**	12	
EMA-TR-042	13	14	**553**	18	22	**111**	11	

HoleID	From	To	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm	Int
EMA-TR-043	0	1	126	67	15	10	9	
EMA-TR-043	1	2	148	59	16	14	9	
EMA-TR-043	2	3	179	50	16	19	9	
EMA-TR-043	3	4	209	40	16	24	9	
EMA-TR-043	4	5	340	28	14	38	10	
EMA-TR-043	5	6	482	19	12	50	9	
EMA-TR-043	6	7	**660**	15	11	64	11	**1003**
EMA-TR-043	7	8	**825**	14	15	**113**	11	
EMA-TR-043	8	9	**957**	18	26	**229**	16	
EMA-TR-043	9	10	**1096**	20	30	**307**	21	
EMA-TR-043	10	11	**1342**	23	33	**412**	31	
EMA-TR-043	11	12	**1135**	25	31	**324**	27	
EMA-TR-044	0	1	137	55	18	16	8	
EMA-TR-044	1	2	159	39	20	25	7	
EMA-TR-044	2	3	140	51	19	18	8	
EMA-TR-044	3	4	138	53	17	16	8	
EMA-TR-044	4	5	200	37	20	32	8	
EMA-TR-044	5	6	**546**	16	15	75	10	**546**
EMA-TR-044	6	7	390	22	17	59	9	
EMA-TR-044	7	8	**502**	20	18	79	12	**652**
EMA-TR-044	8	9	**654**	14	12	73	9	
EMA-TR-044	9	10	**642**	14	14	84	9	
EMA-TR-044	10	11	**689**	17	20	**125**	11	
EMA-TR-044	11	12	**738**	21	24	**165**	15	
EMA-TR-044	12	13	**709**	21	22	**144**	15	
EMA-TR-044	13	14	**627**	24	25	**143**	16	
EMA-TR-045	0	1	186	17	13	20	4	
EMA-TR-045	1	2	438	9	12	47	5	
EMA-TR-045	2	3	464	9	12	51	5	
EMA-TR-045	3	4	**550**	10	14	69	7	**558**
EMA-TR-045	4	5	**588**	12	17	94	8	
EMA-TR-045	5	6	**536**	12	18	90	7	
EMA-TR-046	0	1	230	33	13	21	8	
EMA-TR-046	1	2	371	21	11	33	9	
EMA-TR-046	2	3	482	18	13	56	9	
EMA-TR-046	3	4	478	17	15	61	9	

HoleID	From	To	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm	Int
EMA-TR-046	4	5	450	20	19	76	10	
EMA-TR-046	5	6	**508**	21	23	**104**	12	**508**
EMA-TR-046	6	7	388	25	20	66	11	
EMA-TR-046	7	8	406	25	21	73	11	
EMA-TR-046	8	9	**588**	18	20	**107**	11	**585**
EMA-TR-046	9	10	**581**	20	26	**138**	12	
EMA-TR-047	0	1	194	43	9	7	10	
EMA-TR-047	1	2	317	26	5	8	10	
EMA-TR-047	2	3	394	21	5	10	10	
EMA-TR-047	3	4	**554**	15	5	18	10	**603**
EMA-TR-047	4	5	**712**	12	3	13	10	
EMA-TR-047	5	6	**797**	11	3	17	10	
EMA-TR-047	6	7	**633**	14	5	22	10	
EMA-TR-047	7	8	**529**	15	5	15	9	
EMA-TR-047	8	9	**580**	13	4	17	9	
EMA-TR-047	9	10	**504**	17	8	31	10	
EMA-TR-047	10	11	**513**	18	8	30	11	
EMA-TR-047	11	12	434	20	12	42	9	
EMA-TR-047	12	13	496	17	12	49	10	
EMA-TR-047	13	14	474	19	14	57	10	
EMA-TR-047	14	15	471	20	18	73	10	
EMA-TR-047	15	16	**526**	19	19	87	11	**529**
EMA-TR-047	16	17	**536**	18	20	95	10	
EMA-TR-047	17	18	**523**	18	20	92	10	
EMA-TR-048	0	1	131	61	13	8	9	
EMA-TR-048	1	2	131	56	13	9	8	
EMA-TR-048	2	3	156	52	14	12	9	
EMA-TR-048	3	4	181	45	16	18	10	
EMA-TR-048	4	5	142	53	14	12	9	
EMA-TR-048	5	6	237	44	15	23	12	
EMA-TR-048	6	7	226	43	18	30	11	
EMA-TR-048	7	8	231	34	20	37	9	
EMA-TR-048	8	9	333	26	13	33	10	
EMA-TR-048	9	10	**1493**	6	5	67	12	**774**
EMA-TR-048	10	11	**628**	16	16	87	12	
EMA-TR-048	11	12	**621**	17	19	**105**	11	

HoleID	From	To	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm	Int
EMA-TR-048	12	13	**736**	12	14	93	10	
EMA-TR-048	13	14	**551**	17	21	**105**	10	
EMA-TR-048	14	15	**613**	16	20	**115**	10	
EMA-TR-049	0	1	144	58	15	13	9	
EMA-TR-049	1	2	166	52	14	15	9	
EMA-TR-049	2	3	178	48	12	13	9	
EMA-TR-049	3	4	261	34	12	21	10	
EMA-TR-049	4	5	249	33	10	17	8	
EMA-TR-049	5	6	334	27	10	22	10	
EMA-TR-049	6	7	383	21	9	28	9	
EMA-TR-049	7	8	**512**	19	16	72	10	
EMA-TR-049	8	9	**554**	19	20	**101**	11	
EMA-TR-049	9	10	**540**	19	22	**110**	10	
EMA-TR-049	10	11	**550**	19	23	**118**	11	**558**
EMA-TR-049	11	12	**581**	19	24	**129**	11	
EMA-TR-049	12	13	**606**	20	24	**135**	12	
EMA-TR-050	0	1	305	27	7	12	9	
EMA-TR-050	1	2	392	22	6	15	9	
EMA-TR-050	2	3	362	25	8	19	10	
EMA-TR-050	3	4	391	23	7	17	9	
EMA-TR-050	4	5	298	31	11	24	10	
EMA-TR-050	5	6	383	25	17	53	10	
EMA-TR-050	6	7	**527**	20	25	**123**	10	
EMA-TR-050	7	8	**828**	15	22	**174**	13	
EMA-TR-050	8	9	**1056**	15	27	**270**	16	
EMA-TR-050	9	10	**1256**	16	31	**371**	19	**1,015**
EMA-TR-050	10	11	**1488**	18	33	**472**	26	
EMA-TR-050	11	12	**988**	21	31	**290**	21	
EMA-TR-050	12	13	**961**	22	32	**288**	20	
EMA-TR-051	0	1	129	47	19	17	7	
EMA-TR-051	1	2	138	44	16	16	6	
EMA-TR-051	2	3	144	40	16	17	6	
EMA-TR-051	3	4	205	33	18	30	7	
EMA-TR-051	4	5	188	40	16	24	8	
EMA-TR-051	5	6	274	28	18	42	8	
EMA-TR-051	6	7	**520**	17	21	**100**	9	**812**

HoleID	From	To	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm	Int
EMA-TR-051	7	8	**579**	19	24	**131**	10	
EMA-TR-051	8	9	**754**	21	28	**196**	15	
EMA-TR-051	9	10	**772**	22	29	**206**	16	
EMA-TR-051	10	11	**1062**	27	32	**308**	27	
EMA-TR-051	11	12	**1182**	31	32	**346**	34	
EMA-TR-052	0	1	177	47	13	14	9	
EMA-TR-052	1	2	254	35	10	16	9	
EMA-TR-052	2	3	144	62	11	6	10	
EMA-TR-052	3	4	148	59	10	5	10	
EMA-TR-052	4	5	158	53	11	8	9	
EMA-TR-052	5	6	199	41	8	8	9	
EMA-TR-052	6	7	64	34	6	1	3	
EMA-TR-052	7	8	215	35	9	12	8	
EMA-TR-052	8	9	356	19	9	26	6	
EMA-TR-052	9	10	360	26	13	35	10	
EMA-TR-052	10	11	415	24	16	55	11	
EMA-TR-052	11	12	**558**	18	20	**103**	10	**707**
EMA-TR-052	12	13	**589**	16	22	**121**	10	
EMA-TR-052	13	14	**972**	20	26	**236**	18	
EMA-TR-053	0	1	195	38	13	17	8	
EMA-TR-053	1	2	159	42	11	10	8	
EMA-TR-053	2	3	186	46	13	15	10	
EMA-TR-053	3	4	421	18	4	7	8	
EMA-TR-053	4	5	487	16	8	30	8	
EMA-TR-053	5	6	**551**	14	16	81	8	**551**
EMA-TR-053	6	7	466	17	15	61	9	
EMA-TR-053	7	8	347	23	18	53	8	
EMA-TR-053	8	9	473	18	14	57	9	
EMA-TR-053	9	10	**1191**	9	10	**105**	11	**671**
EMA-TR-053	10	11	**516**	17	19	89	10	
EMA-TR-053	11	12	**582**	15	18	95	9	
EMA-TR-053	12	13	**536**	16	24	**119**	9	
EMA-TR-053	13	14	**569**	16	24	**129**	9	
EMA-TR-053	14	15	**568**	15	24	**129**	8	
EMA-TR-053	15	16	**639**	15	26	**155**	9	
EMA-TR-053	16	17	**606**	15	25	**144**	8	

HoleID	From	To	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm	Int
EMA-TR-053	17	18	**656**	14	23	**144**	9	
EMA-TR-053	18	19	**686**	15	26	**171**	9	
EMA-TR-053	19	20	**652**	13	27	**169**	8	
EMA-TR-053	20	21	**767**	15	25	**183**	11	
EMA-TR-053	21	22	**174**	14	29	47	3	
EMA-TR-053	22	23	**606**	15	29	**166**	8	
EMA-TR-053	23	24	**704**	17	31	**207**	12	
EMA-TR-053	24	25	**674**	18	28	**178**	11	
EMA-TR-053	25	26	**268**	22	29	71	6	
EMA-TR-053	26	27	**966**	27	29	**252**	26	
EMA-TR-053	27	28	**1381**	29	28	**352**	40	
EMA-TR-054	0	1	166	52	17	20	9	
EMA-TR-054	1	2	162	52	17	19	9	
EMA-TR-054	2	3	145	54	18	17	8	
EMA-TR-054	3	4	107	50	17	12	6	
EMA-TR-054	4	5	277	26	21	50	8	
EMA-TR-054	5	6	**731**	17	18	**120**	13	**731**
EMA-TR-054	6	7	116	19	17	17	2	
EMA-TR-054	7	8	**595**	26	22	**112**	16	**595**
EMA-TR-054	8	9	478	28	22	89	15	
EMA-TR-054	9	10	420	21	18	65	11	
EMA-TR-055	0	1	203	33	20	33	7	
EMA-TR-055	1	2	287	26	20	48	8	
EMA-TR-055	2	3	253	29	18	38	8	
EMA-TR-055	3	4	265	28	20	45	7	
EMA-TR-055	4	5	329	27	23	67	10	
EMA-TR-055	5	6	**516**	17	23	**111**	9	**570**
EMA-TR-055	6	7	**623**	15	25	**144**	10	
EMA-TR-055	7	8	480	17	23	**100**	8	
EMA-TR-055	8	9	353	19	16	50	7	
EMA-TR-055	9	10	373	20	14	45	8	
EMA-TR-055	10	11	424	17	13	47	7	
EMA-TR-055	11	12	431	17	14	53	8	
EMA-TR-055	12	13	**651**	15	18	**108**	10	
EMA-TR-055	13	14	**803**	18	26	**195**	14	**745**
EMA-TR-055	14	15	**721**	23	33	**224**	16	

HoleID	From	To	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm	Int
EMA-TR-055	15	16	**804**	24	32	**241**	18	
EMA-TR-056	0	1	188	37	14	18	8	
EMA-TR-056	1	2	448	22	13	46	10	
EMA-TR-056	2	3	385	18	15	47	8	
EMA-TR-056	3	4	418	18	18	69	9	
EMA-TR-056	4	5	407	21	19	69	9	
EMA-TR-056	5	6	473	23	19	76	12	
EMA-TR-056	6	7	**538**	17	26	**132**	8	
EMA-TR-056	7	8	**606**	17	29	**166**	10	
EMA-TR-056	8	9	**611**	17	30	**175**	10	
EMA-TR-056	9	10	**767**	15	32	**232**	10	
EMA-TR-056	10	11	**839**	18	34	**270**	14	**853**
EMA-TR-056	11	12	**981**	22	35	**326**	20	
EMA-TR-056	12	13	**1325**	27	34	**421**	33	
EMA-TR-056	13	14	**1067**	29	32	**307**	31	
EMA-TR-056	14	15	**940**	32	30	**254**	29	
EMA-TR-057	0	1	194	41	9	9	9	
EMA-TR-057	1	2	271	34	8	11	10	
EMA-TR-057	2	3	266	29	11	19	9	
EMA-TR-057	3	4	283	24	12	27	7	
EMA-TR-057	4	5	359	20	15	45	7	
EMA-TR-057	5	6	426	16	19	72	7	
EMA-TR-057	6	7	470	17	20	84	8	
EMA-TR-057	7	8	493	19	22	98	9	
EMA-TR-057	8	9	**554**	17	25	**129**	9	
EMA-TR-057	9	10	**637**	15	28	**167**	9	
EMA-TR-057	10	11	**705**	15	30	**199**	10	
EMA-TR-057	11	12	**711**	15	31	**208**	10	
EMA-TR-057	12	13	**854**	15	31	**257**	12	
EMA-TR-057	13	14	**961**	17	31	**284**	15	
EMA-TR-057	14	15	**1029**	18	31	**307**	18	**825**
EMA-TR-057	15	16	**962**	17	32	**296**	15	
EMA-TR-057	16	17	**994**	18	31	**297**	16	
EMA-TR-057	17	18	**955**	19	31	**276**	17	
EMA-TR-057	18	19	**904**	20	31	**265**	18	
EMA-TR-057	19	20	**915**	22	30	**258**	19	

HoleID	From	To	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm	Int
EMA-TR-057	20	21	**897**	24	30	**244**	21	
EMA-TR-057	21	22	**912**	25	29	**237**	23	
EMA-TR-057	22	23	**881**	29	27	**212**	24	
EMA-TR-057	23	24	**807**	31	25	**179**	24	
EMA-TR-057	24	25	**763**	33	24	**158**	25	
EMA-TR-057	25	26	**642**	33	23	**127**	22	
EMA-TR-057	26	27	**592**	34	22	**111**	20	
EMA-TR-057	27	28	486	31	22	93	15	
EMA-TR-057	28	29	**508**	29	22	99	15	**508**
EMA-TR-058	0	1	314	24	11	27	9	
EMA-TR-058	1	2	439	18	12	44	9	
EMA-TR-058	2	3	**533**	15	14	66	10	**533**
EMA-TR-058	3	4	422	18	15	56	9	
EMA-TR-058	4	5	493	17	13	54	10	
EMA-TR-058	5	6	313	23	9	19	8	
EMA-TR-058	6	7	461	19	12	46	10	
EMA-TR-058	7	8	295	24	11	24	8	
EMA-TR-058	8	9	311	21	13	33	7	
EMA-TR-058	9	10	347	20	15	44	7	
EMA-TR-058	10	11	414	20	20	72	8	
EMA-TR-058	11	12	**502**	20	23	**103**	10	
EMA-TR-058	12	13	**545**	19	25	**127**	10	
EMA-TR-058	13	14	**615**	17	28	**160**	11	
EMA-TR-058	14	15	**593**	18	27	**153**	10	
EMA-TR-058	15	16	**638**	20	30	**178**	11	**588**
EMA-TR-058	16	17	**649**	21	31	**185**	13	
EMA-TR-058	17	18	**631**	22	29	**171**	13	
EMA-TR-058	18	19	**577**	25	27	**142**	13	
EMA-TR-058	19	20	**538**	26	24	**116**	14	
EMA-TR-059	0	1	292	21	14	35	7	
EMA-TR-059	1	2	**541**	16	17	82	10	
EMA-TR-059	2	3	**635**	14	20	**115**	11	
EMA-TR-059	3	4	**698**	12	18	**114**	11	
EMA-TR-059	4	5	**581**	13	20	**105**	9	**771**
EMA-TR-059	5	6	**621**	14	19	**110**	10	
EMA-TR-059	6	7	**576**	13	20	**107**	9	

HoleID	From	To	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm	Int
EMA-TR-059	7	8	**565**	14	20	**106**	9	
EMA-TR-059	8	9	**426**	16	19	**72**	8	
EMA-TR-059	9	10	**563**	16	22	**112**	10	
EMA-TR-059	10	11	**686**	16	25	**160**	12	
EMA-TR-059	11	12	**829**	18	34	**263**	16	
EMA-TR-059	12	13	**877**	17	30	**250**	16	
EMA-TR-059	13	14	**1212**	20	35	**399**	27	
EMA-TR-059	14	15	**1421**	24	36	**472**	38	
EMA-TR-059	15	16	**1215**	22	37	**427**	27	
EMA-TR-059	16	17	**888**	21	33	**276**	20	
EMA-TR-060	0	1	202	39	12	15	9	
EMA-TR-060	1	2	284	25	8	16	8	
EMA-TR-060	2	3	283	25	9	17	8	
EMA-TR-060	3	4	280	30	9	17	9	
EMA-TR-060	4	5	253	25	8	12	7	
EMA-TR-060	5	6	364	20	12	35	8	
EMA-TR-060	6	7	365	21	7	18	8	
EMA-TR-060	7	8	**504**	20	10	38	11	**504**
EMA-TR-060	8	9	464	19	10	36	10	
EMA-TR-060	9	10	**534**	17	11	50	9	**534**
EMA-TR-060	10	11	472	19	14	57	9	
EMA-TR-061	0	1	145	41	12	12	7	
EMA-TR-061	1	2	168	39	12	13	7	
EMA-TR-061	2	3	196	43	14	18	9	
EMA-TR-061	3	4	320	39	17	40	13	
EMA-TR-061	4	5	304	36	15	35	12	
EMA-TR-061	5	6	321	37	14	33	11	
EMA-TR-061	6	7	255	35	11	19	9	
EMA-TR-061	7	8	259	31	10	18	9	
EMA-TR-061	8	9	293	28	9	17	9	
EMA-TR-061	9	10	**525**	18	12	51	10	**525**
EMA-TR-061	10	11	412	20	15	55	8	
EMA-TR-061	11	12	483	22	18	75	9	
EMA-TR-061	12	13	**518**	17	14	66	9	
EMA-TR-061	13	14	**569**	20	14	66	11	**603**
EMA-TR-061	14	15	**646**	16	14	80	11	

HoleID	From	To	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm	Int
EMA-TR-061	15	16	**493**	19	19	86	9	
EMA-TR-061	16	17	**588**	19	23	**126**	11	
EMA-TR-061	17	18	**609**	19	23	**130**	11	
EMA-TR-061	18	19	**601**	20	23	**130**	12	
EMA-TR-061	19	20	**599**	16	24	**134**	10	
EMA-TR-061	20	21	**724**	15	23	**157**	10	
EMA-TR-061	21	22	**682**	16	27	**172**	11	
EMA-TR-062	0	1	126	51	17	15	7	
EMA-TR-062	1	2	130	47	18	17	6	
EMA-TR-062	2	3	134	43	19	19	6	
EMA-TR-062	3	4	140	39	19	20	6	
EMA-TR-062	4	5	184	31	21	33	6	
EMA-TR-062	5	6	291	23	23	60	7	
EMA-TR-062	6	7	370	20	24	82	9	
EMA-TR-062	7	8	418	19	25	96	9	
EMA-TR-062	8	9	416	20	25	95	9	
EMA-TR-062	9	10	341	25	26	81	9	
EMA-TR-062	10	11	366	25	27	89	11	
EMA-TR-062	11	12	330	22	25	73	8	
EMA-TR-062	12	13	302	22	20	53	7	
EMA-TR-063	0	1	283	33	11	20	10	
EMA-TR-063	1	2	379	20	12	38	8	
EMA-TR-063	2	3	388	19	8	22	8	
EMA-TR-063	3	4	449	15	6	19	7	
EMA-TR-063	4	5	**839**	9	8	57	8	
EMA-TR-063	5	6	**773**	11	12	86	10	
EMA-TR-063	6	7	**617**	14	13	70	9	
EMA-TR-063	7	8	**591**	16	12	57	10	
EMA-TR-063	8	9	**713**	12	7	43	9	
EMA-TR-063	9	10	**713**	12	13	82	10	
EMA-TR-063	10	11	**763**	11	11	72	9	**686**
EMA-TR-063	11	12	**499**	16	13	57	8	
EMA-TR-063	12	13	**433**	17	15	55	8	
EMA-TR-063	13	14	**806**	11	11	80	9	
EMA-TR-063	14	15	**787**	15	14	**100**	12	
EMA-TR-063	15	16	**697**	14	15	96	10	

HoleID	From	To	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm	Int
EMA-TR-064	0	1	110	46	18	14	6	
EMA-TR-064	1	2	143	40	16	17	6	
EMA-TR-064	2	3	204	31	20	34	7	
EMA-TR-064	3	4	229	30	22	42	8	
EMA-TR-064	4	5	310	23	24	66	8	
EMA-TR-064	5	6	442	13	15	58	7	
EMA-TR-064	6	7	**547**	12	12	57	7	**974**
EMA-TR-064	7	8	**968**	13	19	**168**	12	
EMA-TR-064	8	9	**1726**	24	28	**449**	35	
EMA-TR-064	9	10	**654**	27	28	**167**	16	
EMA-TR-065	0	1	111	52	11	6	6	
EMA-TR-065	1	2	221	31	6	8	6	
EMA-TR-065	2	3	253	27	7	12	6	
EMA-TR-065	3	4	217	31	6	7	6	
EMA-TR-065	4	5	180	35	7	8	5	
EMA-TR-065	5	6	202	33	11	17	6	
EMA-TR-065	6	7	203	36	12	18	7	
EMA-TR-065	7	8	199	34	9	11	6	
EMA-TR-065	8	9	220	30	9	14	6	
EMA-TR-065	9	10	332	20	9	23	6	
EMA-TR-065	10	11	388	18	9	30	6	
EMA-TR-065	11	12	321	26	13	33	8	
EMA-TR-065	12	13	390	24	15	50	8	
EMA-TR-066	0	1	237	25	9	15	6	
EMA-TR-066	1	2	403	15	6	17	6	
EMA-TR-066	2	3	463	13	9	35	6	
EMA-TR-066	3	4	405	15	7	22	6	
EMA-TR-066	4	5	283	21	9	19	6	
EMA-TR-066	5	6	362	19	12	35	7	
EMA-TR-066	6	7	292	23	8	16	7	
EMA-TR-066	7	8	355	21	9	24	8	
EMA-TR-066	8	9	413	18	10	34	8	
EMA-TR-066	9	10	**710**	11	7	43	9	**739**
EMA-TR-066	10	11	**547**	17	14	68	11	
EMA-TR-066	11	12	**520**	16	12	51	10	
EMA-TR-066	12	13	**435**	20	17	64	9	

HoleID	From	To	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm	Int
EMA-TR-066	13	14	**480**	18	18	77	9	
EMA-TR-066	14	15	**535**	16	21	**102**	9	
EMA-TR-066	15	16	**557**	17	23	**120**	10	
EMA-TR-066	16	17	**581**	17	26	**143**	10	
EMA-TR-066	17	18	**621**	17	26	**152**	10	
EMA-TR-066	18	19	**640**	18	28	**167**	12	
EMA-TR-066	19	20	**811**	18	30	**231**	14	
EMA-TR-066	20	21	**895**	20	31	**259**	16	
EMA-TR-066	21	22	**1005**	22	32	**297**	20	
EMA-TR-066	22	23	**1019**	25	33	**315**	24	
EMA-TR-066	23	24	**1102**	27	33	**331**	28	
EMA-TR-066	24	25	**1352**	31	33	**410**	40	
EMA-TR-067	0	1	233	29	9	14	8	
EMA-TR-067	1	2	333	25	8	19	10	
EMA-TR-067	2	3	335	23	7	14	9	
EMA-TR-067	3	4	372	19	8	24	8	
EMA-TR-067	4	5	299	23	9	18	8	
EMA-TR-067	5	6	416	16	8	25	7	
EMA-TR-067	6	7	397	18	18	62	8	
EMA-TR-067	7	8	467	15	13	51	8	
EMA-TR-067	8	9	**641**	13	12	67	10	
EMA-TR-067	9	10	**527**	17	20	93	9	
EMA-TR-067	10	11	**488**	18	22	97	9	
EMA-TR-067	11	12	**521**	16	21	**101**	9	
EMA-TR-067	12	13	**643**	18	22	**131**	13	**592**
EMA-TR-067	13	14	**581**	18	23	**123**	11	
EMA-TR-067	14	15	**653**	18	24	**142**	12	
EMA-TR-067	15	16	**641**	21	27	**159**	14	
EMA-TR-067	16	17	**630**	23	27	**158**	14	
EMA-TR-067	17	18	**595**	24	27	**144**	14	
EMA-TR-068	0	1	125	61	11	6	8	
EMA-TR-068	1	2	129	59	10	4	9	
EMA-TR-068	2	3	109	63	10	3	8	
EMA-TR-068	3	4	123	63	10	3	9	
EMA-TR-068	4	5	129	61	9	3	9	
EMA-TR-068	5	6	138	61	10	5	9	

HoleID	From	To	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm	Int
EMA-TR-068	6	7	142	49	8	5	7	
EMA-TR-068	7	8	204	33	10	14	7	
EMA-TR-068	8	9	281	25	12	25	8	
EMA-TR-068	9	10	479	19	16	66	10	
EMA-TR-068	10	11	447	23	12	42	11	
EMA-TR-068	11	12	470	20	14	56	10	
EMA-TR-068	12	13	413	20	15	52	9	
EMA-TR-068	13	14	**696**	12	8	48	9	**786**
EMA-TR-068	14	15	**1078**	8	6	59	9	
EMA-TR-068	15	16	**630**	17	13	67	11	
EMA-TR-068	16	17	**772**	16	12	78	13	
EMA-TR-068	17	18	**885**	12	12	90	11	
EMA-TR-068	18	19	**653**	18	21	**126**	12	
EMA-TR-069	0	1	366	31	18	56	12	
EMA-TR-069	1	2	445	26	18	69	11	
EMA-TR-069	2	3	458	31	19	74	15	
EMA-TR-069	3	4	485	35	18	71	17	
EMA-TR-069	4	5	428	43	16	50	18	
EMA-TR-069	5	6	435	42	17	53	19	
EMA-TR-069	6	7	418	43	17	51	19	
EMA-TR-069	7	8	475	40	17	64	19	
EMA-TR-069	8	9	382	48	16	41	19	
EMA-TR-069	9	10	297	55	14	26	17	
EMA-TR-069	10	11	272	54	14	23	15	
EMA-TR-069	11	12	**1767**	18	28	**457**	38	**1767**
EMA-TR-069	12	13	442	35	19	67	17	
EMA-TR-069	13	14	368	42	17	47	16	
EMA-TR-069	14	15	398	39	18	57	16	
EMA-TR-069	15	16	412	36	19	62	15	
EMA-TR-069	16	17	448	31	21	80	15	
EMA-TR-069	17	18	**522**	28	22	**101**	15	**522**
EMA-TR-070	0	1	127	48	9	5	7	
EMA-TR-070	1	2	195	31	6	4	7	
EMA-TR-070	2	3	218	33	6	6	8	
EMA-TR-070	3	4	285	15	4	5	5	
EMA-TR-070	4	5	378	27	5	8	12	

HoleID	From	To	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm	Int
EMA-TR-070	5	6	282	20	9	18	7	
EMA-TR-070	6	7	357	17	12	35	7	
EMA-TR-070	7	8	437	14	12	44	7	
EMA-TR-070	8	9	401	16	17	62	7	
EMA-TR-070	9	10	405	18	18	65	8	
EMA-TR-070	10	11	432	15	15	56	7	
EMA-TR-070	11	12	398	20	26	96	8	
EMA-TR-070	12	13	**600**	19	30	**167**	11	**722**
EMA-TR-070	13	14	**762**	18	30	**215**	13	
EMA-TR-070	14	15	**804**	20	31	**238**	15	
EMA-TR-071	0	1	219	33	17	29	8	
EMA-TR-071	1	2	424	15	9	32	7	
EMA-TR-071	2	3	**650**	9	6	35	7	**849**
EMA-TR-071	3	4	**669**	8	12	76	6	
EMA-TR-071	4	5	**516**	14	14	66	8	
EMA-TR-071	5	6	**465**	15	20	84	7	
EMA-TR-071	6	7	**767**	13	25	**184**	10	
EMA-TR-071	7	8	**770**	13	29	**210**	10	
EMA-TR-071	8	9	**824**	13	28	**223**	10	
EMA-TR-071	9	10	**897**	16	33	**284**	14	
EMA-TR-071	10	11	**992**	17	34	**319**	17	
EMA-TR-071	11	12	**1022**	20	34	**328**	20	
EMA-TR-071	12	13	**946**	20	35	**311**	19	
EMA-TR-071	13	14	**917**	21	34	**293**	19	
EMA-TR-071	14	15	**941**	24	34	**298**	22	
EMA-TR-071	15	16	**997**	25	33	**302**	24	
EMA-TR-071	16	17	**1126**	28	34	**347**	31	
EMA-TR-071	17	18	**1083**	29	33	**328**	29	
EMA-TR-072	0	1	240	28	12	21	7	
EMA-TR-072	1	2	254	22	9	16	6	
EMA-TR-072	2	3	381	19	14	43	8	
EMA-TR-072	3	4	491	15	13	56	8	
EMA-TR-072	4	5	**707**	12	11	71	9	**697**
EMA-TR-072	5	6	**665**	12	13	79	8	
EMA-TR-072	6	7	**1090**	9	11	**108**	10	
EMA-TR-072	7	8	**611**	19	27	**150**	12	

HoleID	From	To	TREO ppm	% HREO	% MREO	NdPr ppm	DyTb ppm	Int
EMA-TR-072	8	9	**620**	21	31	**177**	13	
EMA-TR-072	9	10	**685**	20	31	**196**	14	
EMA-TR-072	10	11	**783**	22	30	**217**	17	
EMA-TR-072	11	12	**713**	22	29	**193**	16	
EMA-TR-072	12	13	**744**	23	28	**191**	17	
EMA-TR-072	13	14	**608**	25	25	**139**	16	
EMA-TR-072	14	15	**560**	22	24	**120**	13	
EMA-TR-072	15	16	**578**	18	20	**107**	11	
EMA-TR-072	16	17	447	19	22	88	9	

Appendix 2: Auger drill-hole locations

Hole ID	East	North	RL (m)	Depth	Azimuth	Dip	Tenement
EMA-TR-034	184006.67	9176792.86	167.56	20	0	-90	880.107/2008
EMA-TR-035	183620.17	9176796.78	178.02	16	0	-90	880.107/2008
EMA-TR-036	183607.11	9177193.29	147.49	12	0	-90	880.107/2008
EMA-TR-037	184023.92	9177183.59	123.95	11	0	-90	880.107/2008
EMA-TR-038	184808.78	9177597.21	132.36	19	0	-90	880.107/2008
EMA-TR-039	184533.88	9177599.09	131.95	10	0	-90	880.107/2008
EMA-TR-040	184005.86	9177600.77	157.54	15	0	-90	880.107/2008
EMA-TR-041	183607.07	9177590.99	154.72	25	0	-90	880.107/2008
EMA-TR-042	183635.14	9177999.94	135.17	14	0	-90	880.107/2008
EMA-TR-043	183895.04	9177995.09	130.80	12	0	-90	880.107/2008
EMA-TR-044	184381.32	9178024.03	115.64	14	0	-90	880.107/2008
EMA-TR-045	184778.67	9177982.87	158.95	6	0	-90	880.107/2008
EMA-TR-046	184791.58	9178448.17	197.98	10	0	-90	880.107/2008
EMA-TR-047	184420.74	9178404.82	162.52	18	0	-90	880.107/2008
EMA-TR-048	184007.03	9178395.07	139.82	15	0	-90	880.107/2008
EMA-TR-049	183633.04	9178392.21	120.41	13	0	-90	880.107/2008
EMA-TR-050	182810.34	9176793.74	188.75	13	0	-90	880.107/2008
EMA-TR-051	182012.74	9176795.96	173.85	12	0	-90	880.107/2008
EMA-TR-052	181212.42	9176790.19	168.77	15	0	-90	880.107/2008
EMA-TR-053	180501.71	9176782.67	227.73	28	0	-90	880.107/2008
EMA-TR-054	179606.96	9176819.86	189.00	10	0	-90	880.107/2008
EMA-TR-055	178804.65	9176795.55	187.65	16	0	-90	880.107/2008
EMA-TR-056	178007.81	9176827.6	202.47	15	0	-90	880.107/2008
EMA-TR-057	182820.55	9177602.93	191.65	29	0	-90	880.107/2008
EMA-TR-058	182031.61	9177613.09	172.46	20	0	-90	880.107/2008
EMA-TR-059	181208.97	9177588.47	218.34	17	0	-90	880.107/2008
EMA-TR-060	180348.83	9177553.73	156.02	11	0	-90	880.107/2008
EMA-TR-061	179610.19	9177590.63	228.40	22	0	-90	880.107/2008
EMA-TR-062	178802.25	9177595.84	191.87	13	0	-90	880.107/2008
EMA-TR-063	177981.99	9177558.89	223.14	16	0	-90	880.107/2008
EMA-TR-064	182782.43	9178352.38	155.49	10	0	-90	880.107/2008
EMA-TR-065	182817.04	9179184.10	143.26	13	0	-90	880.107/2008
EMA-TR-066	182815.52	9179999.98	184.75	25	0	-90	880.107/2008
EMA-TR-067	182812.93	9180843.52	191.56	18	0	-90	880.107/2008
EMA-TR-068	182841.57	9181627.16	190.83	19	0	-90	880.107/2008
EMA-TR-069	182809.24	9182390.25	219.83	18	0	-90	880.107/2008
EMA-TR-070	183600.61	9179221.60	145.99	15	0	-90	880.107/2008
EMA-TR-071	183606.58	9179990.70	174.28	18	0	-90	880.107/2008
EMA-TR-072	183620.89	9180785.86	189.79	17	0	-90	880.107/2008

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 auger hole 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 auger drilling conducted by BBX´s exploration team. • The data presented is based on the assay of soils and saprolite by auger drilling at 1m sample intervals. • Sampling was supervised by a BBX geologist or field assistants. • Every 1-metre sample was collected in a raffia bag in the field and transported to the exploration shed to be dried in the sun, prior to homogenisation. • Samples were homogenised and subsequently riffle split with about 2 kg sent to SGS for analysis and a similar amount stored. • 1 certified blank sample, 1 certified reference material (standard) samples and 1 field duplicate sample were inserted into the sample sequence for each 25 samples.
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	• Auger drilling was completed by a hand held-mechanical auger with a 3" auger bit. The drilling is an open hole, meaning there is a significant chance of contamination from surface and other parts of the auger hole. Holes are vertical and not oriented.

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 recoveries are recorded. • The operator observes the volume of each metre and notes any discrepancy. • No relationship is believed to exist between recovery and grade.
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged.	• All holes were logged by BBX geologists or field technicians, detailing the colour, weathering, alteration, texture and any geological observations. Care is taken to identify transported cover from in-situ saprolite/clay zones and the moisture content. Logging was done to a level that would support a Mineral Resource Estimate. • Qualitative logging with systematic photography of the stored box. • The entire auger hole is logged.
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.	• Auger sampling procedure is completed in the exploration shed in Apui. • The entire one metre sample is bagged on site, in a raffia bag which is transported to the exploration shed, where it is naturally dried prior to homogenisation, then quartered to about 1kg to go to SGS and another 1kg to store on site. • Sample preparation for the auger 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#

<table>
<tr><th>Item</th><th>JORC code explanation</th><th>Comments</th></tr>
<tr><td></td><td>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.</td><td>The <3mm rejects and the 250-300 grams pulverised sample were returned to BBX for storage.</td></tr>
<tr><td>Quality of Assay Data and Laboratory Tests</td><td>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</td><td>1 blank sample, 1 certified reference material (standard) sample and 1 field duplicate sample were inserted by BBX into each 25-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:
<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.</td></tr>
</table>

Item	JORC code explanation	Comments
		• Analytical standard 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. • 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 for REE were supplied digitally, directly from the SGS laboratory in Vespasiano to the BBX´s Exploration Manager in Rio de Janeiro. • No twinned holes were used. • Geological data was logged onto paper and transferred to Excel spreadsheets at end of the day and then transferred into the drill hole database. Microsoft Access is used for database storage and management and incorporates numerous data validation and data

Item	JORC code explanation	Comments
		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).

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

Item	JORC code explanation	Comments
		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) = 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} DyTb = Dy_2O_3 + Tb_4O_7 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

Item	JORC code explanation	Comments
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.	• Auger holes were over 200m to 800m apart, designed for testing iREE mineralization over the mapped felsic volcanics. • The data spacing and distribution is sufficient to establish the level of REE elements present in the target area and its continuity along the regolith profile appropriate for a Mineral Resource. • 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 exploration model for ionic REEs. • No relationship between mineralisation and drilling orientation is known at this stage.
Sample security	• The measures taken to ensure sample security.	• The auger 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 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 at EMA is contained within the tropical lateritic weathering profile developed on top of felsic rocks, rhyolites as per the Chinese deposits. • 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	• Auger locations and diagrams are presented in this announcement. • Details are tabulated in the announcement.

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.	• Weighted averages were calculated for all intercepts. • 500ppm TREO cut-off grade was applied to define the relevant intersections. • No metal equivalent values 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.	• Significant values of REE were reported for the auger samples. • Mineralisation orientation is not known at this stage, although assumed to be flat. • The downhole depths are reported, true widths are not known at this stage.

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.	• Maps and tables of the soil auger holes 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 with grades higher than 800ppm TREO in auger holes was reported with confirmation of IAC (Ionic Adsorbed Clay) type mineralisation obtained in the EMD-017 and TR-016 samples in this same geological setting.
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.	• Specific Densities collection for the ore zones, after the rainy season. • Additional metallurgical test work with ammonium sulphate leach.