

## EMA INFILL DRILLING CONFIRMS CONTINUOUS RARE EARTH MINERALISATION

Auger drilling delivers thick magnet REE intercepts across 49 holes, supporting upcoming MRE update and ISR development pathway

### Highlights

- 49 holes from the 2025 infill program continues to demonstrate **highly consistent grades and thicknesses, reinforcing the predictable and scalable nature** of the Ema REE system
- Drilling continues to confirm **lateral continuity essential for in-situ recovery (ISR) wellfield design**
- Mineralisation now extends across an ~82 km<sup>2</sup> footprint, strengthening **long-term production potential**
- **NdPr enrichment at the base of the saprolite** continues to match the optimal zone for ISR
- Results will be incorporated into the **H1 2026 MRE update**, an important milestone for the project bankable feasibility study (BFS)

### Significant results (average grade >800ppm) include:

- **8.5m@1,513ppm TREO** from 10m (EMA-TR-451), ending in **875ppm TREO**
- **10m@1,253ppm TREO** from 8m (EMA-TR-465), ending in **528ppm TREO**
- **10m@1,049ppm TREO** from 9m (EMA-TR-492), ending in **2,999ppm TREO**
- **4m@1,005 ppm TREO** from 10m (EMA-TR-477), ending in **1,595ppm TREO**
- **9m@968ppm TREO** from 9m (EMA-TR-456), ending in **854ppm TREO**

Brazilian Critical Minerals Limited (**ASX: BCM**) (“**BCM**” or the “**Company**”) is pleased to announce assay results from the second batch of 2025 infill auger drilling at the Ema rare earth element (REE) Project in Brazil’s Apuí region, targeting an increase in the Indicated Mineral Resource Estimate (figure 1).

To view the video of MD, Andrew Reid, discussing this announcement, click on the link below

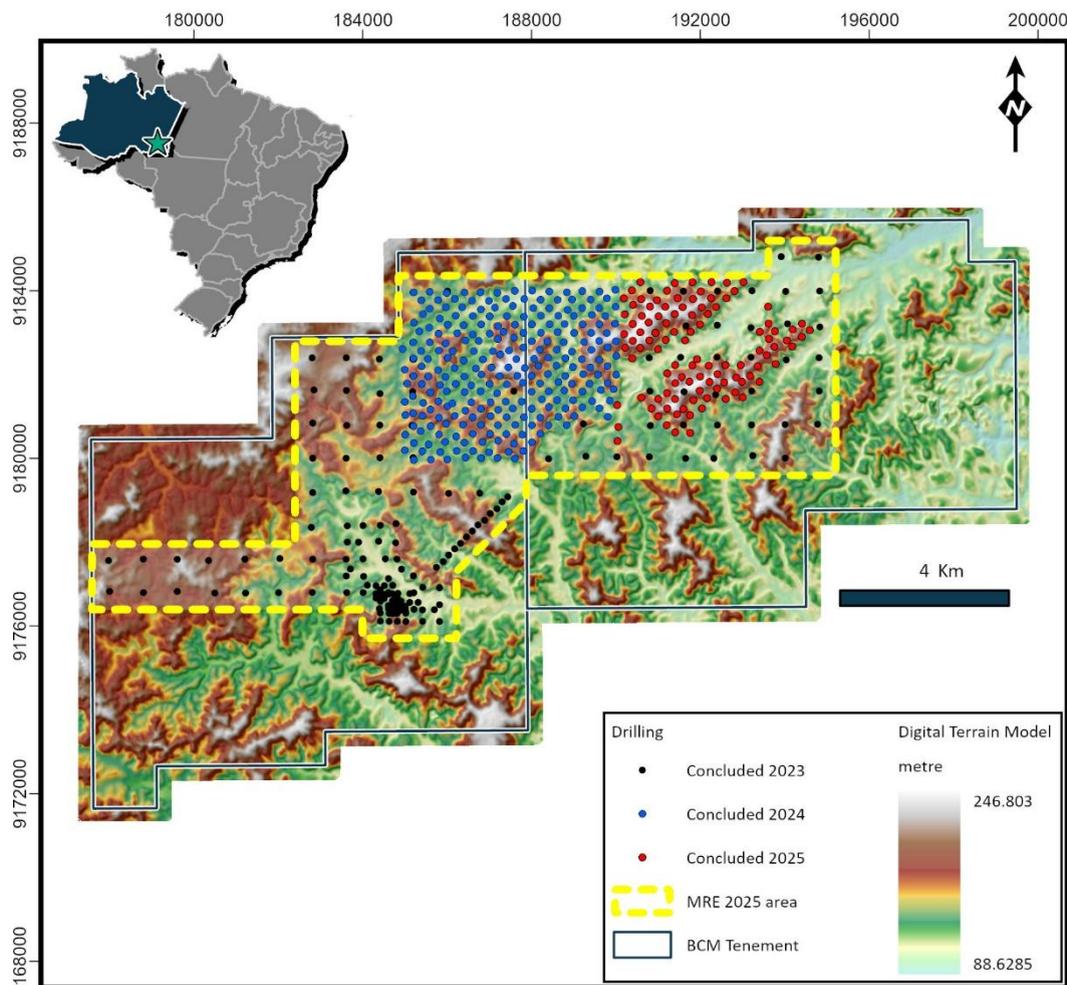
<https://braziliancriticalminerals.com/link/PGKnRP>

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**Andrew Reid, Managing Director, commented:**

*“These results from the second batch of auger drilling further reinforce the key attributes we look for in a scalable ionic adsorption clay rare earth system: lateral continuity, repeatable grade–thickness and a consistent vertical enrichment profile. Across the 49 new holes, mineralisation typically strengthens toward the lower saprolite near the fresh rock interface, supporting our interpretation of a predictable, laterally extensive mineralised horizon, now widespread over more than 80km<sup>2</sup>.*

*With ISR amenability already demonstrated through testwork, this ongoing infill program is progressively de-risking the next stages of development by tightening geological confidence for future resource upgrades and by supporting the technical basis for planned ISR field deployment.”*



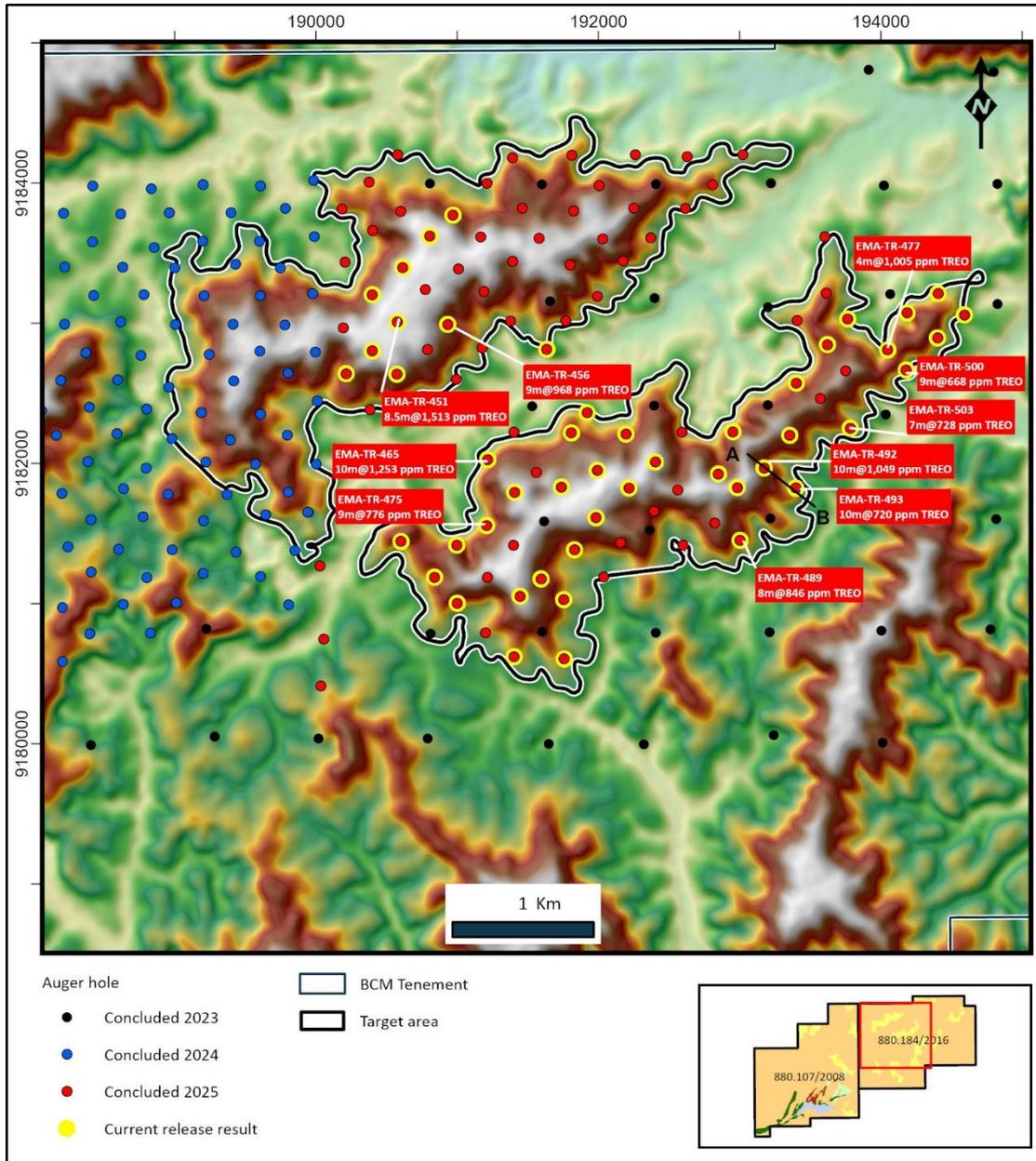
**Figure 1.** Location of 2025 MRE outline (Indicated + Inferred) with red dots representing completed drilling during 2025.

A total of 49 holes of the expanded 101-hole drilling program have now returned assay results. Results generally returned thick mineralised intercepts with the highest grades of NdPr located at the bottom of the auger holes within the semi-weathered zone, directly above the fresh rock interface.

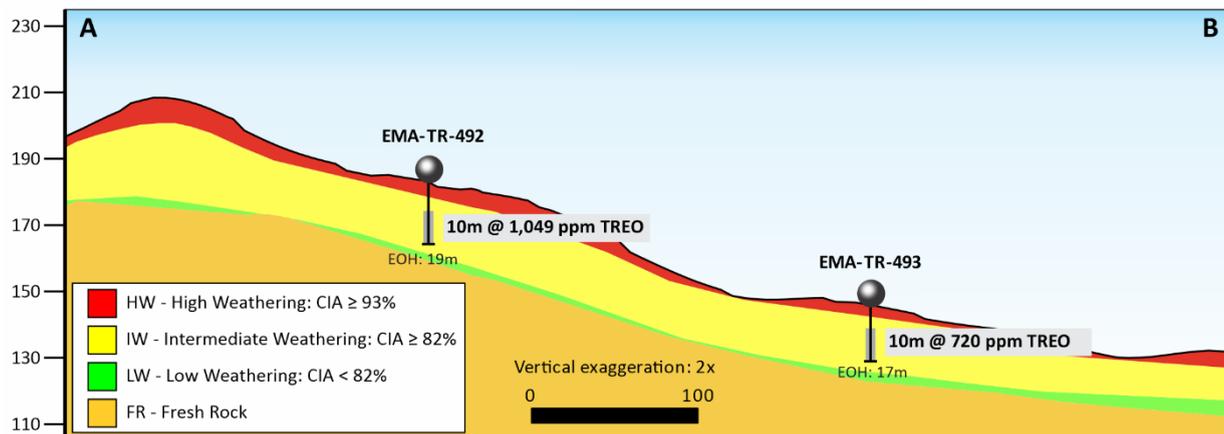
Drilling was designed on 300m centres within the 20-year mine plan area (Figure 2). Results indicate a strong increase in magnetic rare earths (MREO) grade towards the base of the weathered profile near the saprock interface over intervals of generally 5-10m, considered ideal for in-situ leaching.

The significant increase in the proportion of valuable heavy rare earth elements (HREEs) to over 31% of MREO composition at the end of the holes underscores the economic potential of the lower saprolite zone. This enhancement suggests that deeper drilling in these areas could further enhance the viability of a low-cost in-situ leach operation, supporting the ongoing BFS workstreams, with completion targeted for Q2 2026.

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**Figure 2** – Location map of the auger infill holes with assay results received to date (yellow), with cross section A-B.



**Figure 3 - Cross section A-B from EMA-TR-492 & EMA-TR-493**

### Emma REE project

The EMA ionic REE project is unique amongst Brazilian REE projects in that it shares almost identical characteristics with the ionic REE deposits developed over volcanic rocks in southwest China and Myanmar, the world's largest known ionic clay region, producing significant quantities of the world's rare earth production in 2024.

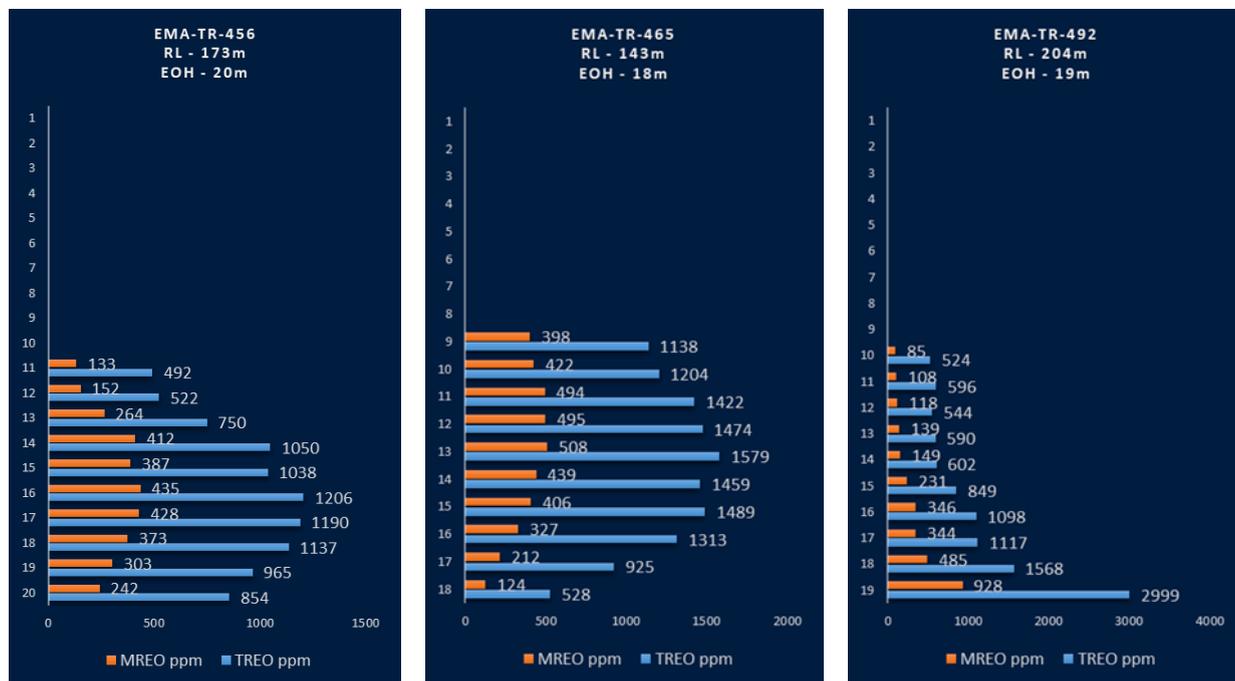
Exploration drilling is conducted with hand-held auger drills, which offer the advantage of low-cost, rapid deployment and mobility. One key constraint of auger drilling is the depth limitation, with the deepest holes, generally containing the highest-grade results, drilled to ~20m. In addition, most of the exploration to date has been conducted initially on widely spaced (800m) centres, with infill drilling on 300m centres in the central resource area.

Infill drilling at 300-meter centres provides a more detailed assessment of the mineralisation grade and thickness, leading to an increase in the confidence level of the Mineral Resource Estimate. This transition to closer spacing has led to the identification of some exceptional intercepts, suggesting the presence of high-grade pods within the mineralised zones. These findings will be crucial for the next phase of exploration as the team works to define these high-grade areas for potential in-situ recovery (ISR).

Despite the variability in collar elevations of the drilled holes, the typical enrichment of Neodymium (Nd) and Praseodymium (Pr) is consistently encountered at a similar depth within the lower saprolite zone, located just above the fresh rock. The enriched zone generally measures around 10 meters in thickness indicating a continuous mineralised horizon. This widespread occurrence strongly suggests the presence of continuous high-grade zones across the project area.

The high-value heavy magnetic REE's Tb and Dy consistently comprise about 10% of the NdPr levels, making a strong contribution to the basket value in the MREC<sup>2</sup>. The increased values at the bottom of the holes highlight the economic potential of the lower saprolite zones and the zone to be targeted for in-situ extraction.

Strip logs of holes EMA-TR-456, 465 and 492 (Figure 4) demonstrate the lower enrichment zone with the presence of high NdPr grades towards the base of the regolith profile drilling in the low weathering zone.



**Figure 4** – Drill-hole profiles showing typical ionic REE enrichment zone with high NdPr grades close to the fresh rock interface.

### Ongoing Work Program at Ema, H1 2026

1. Finalise assaying and collation of results of the MRE infill drilling program
  - All remaining assays are anticipated over the next few weeks
2. Processing and Metallurgical Testing
  - Complete magnesium sulphate leaching assays to underpin and support both the MRE update and the ongoing BFS
3. Mineral Resource Estimate update
  - An updated MRE to underpin the BFS
4. Completion of BFS
  - The BFS, utilising the updated MRE, metallurgical test results and groundwater modelling data is currently nearing completion and due for release during Q2 2026.

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

For more information:

**Andrew Reid**

*Managing Director*

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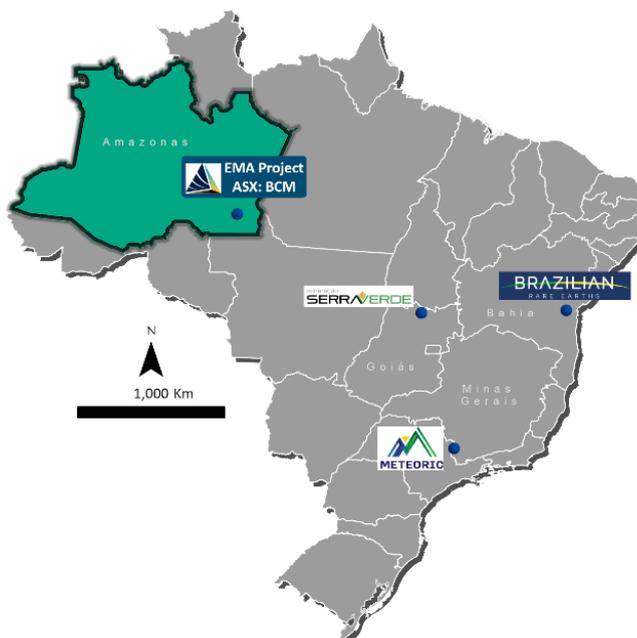
### About Brazilian Critical Minerals Ltd

Brazilian Critical Minerals Limited (BCM) is a mineral exploration company listed on the Australian Securities Exchange.

Its major exploration focus is Brazil, in the Apuí region, where BCM has discovered a world class Ionic Adsorbed Clay (IAC) Rare Earth Elements deposit. The Ema IAC project is contained within the 781 km<sup>2</sup> of exploration tenements within the Collider Group.

BCM has defined an inferred MRE of 943Mt of REE's with metallurgical recoveries averaging 68% MREO some of the highest for these types of deposits anywhere in the world.

The Company is currently converting this MRE from Inferred into the Indicated category with an extensive drill program which will inform the Feasibility Study and economic analysis due for completion in H1 2026.



JORC Category	cut-off ppm TREO	Tonnes Mt	TREO ppm	NdPr ppm	DyTb ppm	MREO ppm	MREO:TREO %
Indicated	500	248	759	176	16	192	25
Inferred	500	695	701	165	16	181	26
<b>Total</b>	<b>500</b>	<b>943</b>	<b>716</b>	<b>168</b>	<b>16</b>	<b>184</b>	<b>26</b>

The information in this announcement relates to previously reported exploration results and mineral resource estimates for the Ema Project released by the Company to ASX on 22 May 2023, 17 July 2023, 19 July 2023, 31 July 2023, 13 Sep 2023, 19 Oct 2023, 06 Dec 2023, 06 Feb 2024, 22 Feb 2024, 13 Mar 2024,

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02 Apr 2024, 08 Oct 2024 19 Nov 2024, 21 Jan 2025, 17 Feb 2025, 26 Feb 2025, 10 Mar 2025, 13 March 2025, 28 April 2025, 27 May 2025, 28 May, 13 June 2025, 01 Jul 2025, 18 Aug 2025, 01 Sep 2025, 22 Sep 2025, 23 Oct 2025, 1 Dec 2025, 17 Dec 2025 and 12 Jan 2026. The Company confirms that is not aware of any new information or data that materially affects the information included in the above-mentioned releases and CONTINUES TO APPLY and have not materially changed in accordance with listing Rule 5.23.2.

### Competent Person Statement

The information in this announcement that relates to exploration results is based on information compiled by Mr. Antonio de Castro, BSc (Hons), Member of AusIMM, CREA, who acts as BCM'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.

### Appendices

#### Appendix 1 – Auger hole intersections at a 500ppm TREO cut-off grade (batch 2\_2025)

Auger hole	From (m)	Interval (m)	TREO (ppm)	% MREO <sup>1</sup>	% HREO <sup>2</sup>	NdPr (ppm)	DyTb (ppm)
EMA-TR-411	19	1.5	746	6	9	35	7
EMA-TR-415	3	1	1,128	33	14	360	15
EMA-TR-431	7	8	983	25	20	235	18
EMA-TR-433	13	6	711	26	22	175	15
EMA-TR-440	9	10	900	30	21	250	19
EMA-TR-446	14	1	552	13	18	64	10
EMA-TR-446	18	1	539	18	29	79	17
EMA-TR-446	20	4	623	19	30	101	17
EMA-TR-447	11	8	660	28	22	167	16
EMA-TR-449	2	1	515	20	17	95	9
EMA-TR-449	10	1	814	19	14	147	12

<sup>1</sup> MREO (Magnetic Rare Earth Oxide) = Tb4O7 + Dy2O3 + Nd2O3 + Pr6O11

<sup>2</sup> HREO (Heavy Rare Earth Oxide) = Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Y2O3 + Lu2O3

Auger hole	From (m)	Interval (m)	TREO (ppm)	% MREO <sup>1</sup>	% HREO <sup>2</sup>	NdPr (ppm)	DyTb (ppm)
EMA-TR-450	14	1	717	12	15	75	12
EMA-TR-450	17	7	677	20	22	127	15
EMA-TR-451	10	8.5	1,513	14	12	142	15
EMA-TR-454	8	1	565	12	12	62	7
EMA-TR-454	12	3	742	26	26	172	20
EMA-TR-455	5	1	567	13	16	64	10
EMA-TR-455	8	1	571	27	22	142	13
EMA-TR-456	11	9	968	34	21	313	20
EMA-TR-458	16	8	642	26	26	150	17
EMA-TR-461	10	1	505	16	21	70	11
EMA-TR-461	12	2	525	18	20	84	11
EMA-TR-462	15	7	577	27	18	147	10
EMA-TR-462	23	1	798	32	19	244	13
EMA-TR-463	16	2	560	10	18	44	11
EMA-TR-464	8	5	628	28	18	168	11
EMA-TR-465	8	10	1,253	30	32	345	38
EMA-TR-466	11	2	574	20	20	107	12
EMA-TR-467	8	7.5	605	23	20	128	12
EMA-TR-469	13	8	719	22	18	131	11
EMA-TR-470	8	9	930	22	19	194	17
EMA-TR-472	6	1	524	3	6	15	3
EMA-TR-472	8	1	704	9	12	54	8
EMA-TR-473	17	2	1,285	19	11	230	13
EMA-TR-474	9	1	651	9	12	52	8
EMA-TR-474	11	3	866	3	11	18	10

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Auger hole	From (m)	Interval (m)	TREO (ppm)	% MREO <sup>1</sup>	% HREO <sup>2</sup>	NdPr (ppm)	DyTb (ppm)
EMA-TR-474	15	2	1,118	4	8	27	11
EMA-TR-475	2	9	776	23	18	183	16
EMA-TR-479	6	1	688	2	12	7	9
EMA-TR-481	15	1	735	5	10	32	8
EMA-TR-483	12	7	720	22	20	146	14
EMA-TR-484	3	1	540	6	24	20	15
EMA-TR-484	6	6	748	23	18	168	13
EMA-TR-485	6	7	795	22	17	170	14
EMA-TR-486	7	1	612	10	17	47	12
EMA-TR-486	10	4	931	31	21	270	19
EMA-TR-487	5	2	578	4	14	12	9
EMA-TR-489	7	8	846	31	19	248	15
EMA-TR-491	8	1	578	3	13	8	8
EMA-TR-492	9	10	1,049	26	24	266	27
EMA-TR-493	7	10	720	29	24	191	16
EMA-TR-496	8	1	676	4	12	20	9
EMA-TR-497	7	1	502	12	25	45	14
EMA-TR-497	12	5	590	27	24	146	14
EMA-TR-498	9	1	534	24	23	115	12
EMA-TR-498	12	7	625	26	19	151	12
EMA-TR-499	15	1	523	8	21	30	13
EMA-TR-499	18	4	568	13	19	65	11
EMA-TR-500	11	9	668	31	22	197	13
EMA-TR-501	6	2	620	27	20	158	13
EMA-TR-503	7	7	728	30	23	205	16

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Auger hole	From (m)	Interval (m)	TREO (ppm)	% MREO <sup>1</sup>	% HREO <sup>2</sup>	NdPr (ppm)	DyTb (ppm)
EMA-TR-504	4	3	967	27	21	244	19
EMA-TR-505	12	3	670	30	21	194	14
EMA-TR-506	5	2	609	7	16	32	11
EMA-TR-506	9	1	682	12	15	74	10

**Appendix 2 – Total REE oxide distribution down-hole (batch 1\_2025)**

HoleID	From	To	TREO ppm	MREO %	HREO %	NdPr ppm	DyTb ppm	Average TREO
EMA-TR-411	11	12	293	14	22	35	7	
EMA-TR-411	12	13	254	13	23	28	6	
EMA-TR-411	13	14	248	14	21	29	6	
EMA-TR-411	14	15	310	15	20	40	7	
EMA-TR-411	15	16	353	16	17	50	6	
EMA-TR-411	16	17	410	18	16	66	6	
EMA-TR-411	17	18	459	16	16	67	8	
EMA-TR-411	18	19	321	10	21	26	7	
EMA-TR-411	19	20	788	5	8	36	6	746
EMA-TR-411	20	20.5	662	6	10	35	7	
EMA-TR-415	0.5	1	404	22	20	81	8	
EMA-TR-415	1	2	181	20	30	32	5	
EMA-TR-415	2	3	197	23	26	40	5	
EMA-TR-415	3	4	1,128	33	14	360	15	1,128
EMA-TR-415	4	5	362	23	20	77	7	
EMA-TR-415	5	6	385	23	21	82	7	
EMA-TR-431	5	6	363	15	28	43	10	
EMA-TR-431	6	7	468	14	20	55	10	
EMA-TR-431	7	8	744	12	14	82	11	983

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HoleID	From	To	TREO ppm	MREO %	HREO %	NdPr ppm	DyTb ppm	Average TREO
EMA-TR-431	8	9	632	20	16	115	10	
EMA-TR-431	9	10	965	22	15	201	13	
EMA-TR-431	10	11	929	25	17	215	14	
EMA-TR-431	11	12	889	28	18	232	14	
EMA-TR-431	12	13	1,279	32	21	382	25	
EMA-TR-431	13	14	1,121	29	26	298	26	
EMA-TR-431	14	15	1,306	30	29	359	35	
EMA-TR-433	9	10	397	9	25	25	11	
EMA-TR-433	10	11	409	10	23	30	11	
EMA-TR-433	11	12	493	13	20	55	11	
EMA-TR-433	12	13	471	16	22	66	11	
EMA-TR-433	13	14	590	20	19	109	11	
EMA-TR-433	14	15	615	24	20	137	12	711
EMA-TR-433	15	16	714	26	19	173	13	
EMA-TR-433	16	17	801	29	21	218	16	
EMA-TR-433	17	18	862	30	26	234	21	
EMA-TR-433	18	19	684	29	24	180	16	
EMA-TR-440	9	10	943	22	15	193	15	900
EMA-TR-440	10	11	908	28	20	238	19	
EMA-TR-440	11	12	1,005	30	22	281	22	
EMA-TR-440	12	13	909	32	23	267	21	
EMA-TR-440	13	14	941	32	22	280	20	
EMA-TR-440	14	15	836	32	23	245	19	
EMA-TR-440	15	16	895	32	22	267	19	
EMA-TR-440	16	17	806	31	22	229	18	

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HoleID	From	To	TREO ppm	MREO %	HREO %	NdPr ppm	DyTb ppm	Average TREO
EMA-TR-440	17	18	832	30	22	233	18	
EMA-TR-440	18	19	927	31	23	262	22	
EMA-TR-446	14	15	552	13	18	64	10	552
EMA-TR-446	15	16	465	21	26	84	12	
EMA-TR-446	16	17	455	18	25	67	12	
EMA-TR-446	17	18	333	15	30	40	11	
EMA-TR-446	18	19	539	18	29	79	17	623
EMA-TR-446	19	20	495	19	30	79	15	
EMA-TR-446	20	21	580	17	41	79	19	
EMA-TR-446	21	22	646	18	30	97	18	
EMA-TR-446	22	23	610	20	24	104	15	
EMA-TR-446	23	24	657	21	25	125	17	
EMA-TR-447	9	10	411	21	23	74	11	
EMA-TR-447	10	11	495	23	23	100	12	
EMA-TR-447	11	12	539	24	21	115	12	660
EMA-TR-447	12	13	645	26	20	156	13	
EMA-TR-447	13	14	676	28	23	170	17	
EMA-TR-447	14	15	652	28	22	165	15	
EMA-TR-447	15	16	678	27	21	168	16	
EMA-TR-447	16	17	711	29	22	191	17	
EMA-TR-447	17	18	697	30	23	191	17	
EMA-TR-447	18	19	682	29	24	181	17	
EMA-TR-449	1	2	462	17	19	69	9	
EMA-TR-449	2	3	515	20	17	95	9	
EMA-TR-449	3	4	442	22	19	87	8	

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HoleID	From	To	TREO ppm	MREO %	HREO %	NdPr ppm	DyTb ppm	Average TREO
EMA-TR-449	4	5	478	23	20	100	10	
EMA-TR-449	5	6	291	6	25	8	9	
EMA-TR-449	6	7	364	4	17	7	7	
EMA-TR-449	7	8	261	6	22	9	7	
EMA-TR-449	8	9	276	7	23	13	7	
EMA-TR-449	9	10	487	12	17	51	9	
EMA-TR-449	10	11	814	20	14	147	12	814
EMA-TR-450	14	15	717	12	15	75	12	677
EMA-TR-450	15	16	493	17	19	74	10	
EMA-TR-450	16	17	390	19	22	63	9	
EMA-TR-450	17	18	667	16	17	93	12	
EMA-TR-450	18	19	775	14	14	94	12	
EMA-TR-450	19	20	596	18	19	94	13	
EMA-TR-450	20	21	500	19	25	80	14	
EMA-TR-450	21	22	575	21	27	105	17	677
EMA-TR-450	22	23	700	26	24	164	16	
EMA-TR-450	23	24	928	30	26	257	24	
EMA-TR-451	9	10	220	10	43	10	11	
EMA-TR-451	10	11	2,419	2	4	28	13	
EMA-TR-451	11	12	2,726	3	4	58	13	
EMA-TR-451	12	13	737	11	12	70	10	
EMA-TR-451	13	14	709	16	14	100	11	1,513
EMA-TR-451	14	15	2,431	8	5	184	13	
EMA-TR-451	15	16	1,491	19	13	263	23	
EMA-TR-451	16	17	1,149	24	15	256	18	

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HoleID	From	To	TREO ppm	MREO %	HREO %	NdPr ppm	DyTb ppm	Average TREO
EMA-TR-451	17	18	762	22	20	155	15	
EMA-TR-451	18	18.5	875	24	22	190	19	
EMA-TR-454	5	6	361	6	16	16	6	
EMA-TR-454	6	7	469	7	12	27	6	
EMA-TR-454	7	8	468	14	14	56	7	
EMA-TR-454	8	9	565	12	12	62	7	
EMA-TR-454	9	10	472	15	17	62	9	
EMA-TR-454	10	11	442	12	16	45	8	
EMA-TR-454	11	12	488	20	20	89	10	
EMA-TR-454	12	13	734	22	20	149	15	
EMA-TR-454	13	14	689	27	28	169	20	742
EMA-TR-454	14	15	804	27	29	197	24	
EMA-TR-455	0.5	1	251	14	25	28	6	
EMA-TR-455	1	2	303	14	23	35	7	
EMA-TR-455	2	3	328	11	22	28	7	
EMA-TR-455	3	4	359	10	22	27	8	
EMA-TR-455	4	5	417	12	19	42	9	
EMA-TR-455	5	6	567	13	16	64	10	
EMA-TR-455	6	7	458	17	20	67	10	
EMA-TR-455	7	8	481	17	19	74	9	
EMA-TR-455	8	9	571	27	22	142	13	571
EMA-TR-456	10	11	492	27	17	124	8	
EMA-TR-456	11	12	522	29	16	143	9	
EMA-TR-456	12	13	750	35	16	253	11	
EMA-TR-456	13	14	1,050	39	15	398	14	968

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HoleID	From	To	TREO ppm	MREO %	HREO %	NdPr ppm	DyTb ppm	Average TREO
EMA-TR-456	14	15	1,038	37	16	372	15	
EMA-TR-456	15	16	1,206	36	21	410	24	
EMA-TR-456	16	17	1,190	36	22	404	24	
EMA-TR-456	17	18	1,137	33	23	348	25	
EMA-TR-456	18	19	965	31	28	277	26	
EMA-TR-456	19	20	854	28	34	213	30	
EMA-TR-458	14	15	485	16	19	67	9	
EMA-TR-458	15	16	406	22	23	79	10	
EMA-TR-458	16	17	659	18	18	109	12	642
EMA-TR-458	17	18	536	23	22	113	12	
EMA-TR-458	18	19	664	25	21	153	15	
EMA-TR-458	19	20	776	32	26	227	21	
EMA-TR-458	20	21	714	28	28	182	20	
EMA-TR-458	21	22	569	27	31	138	18	
EMA-TR-458	22	23	619	27	33	148	21	
EMA-TR-458	23	24	602	25	33	129	20	
EMA-TR-461	4	5	141	16	54	14	8	
EMA-TR-461	5	6	161	10	46	9	8	
EMA-TR-461	6	7	251	12	35	21	10	
EMA-TR-461	7	8	326	17	32	43	11	
EMA-TR-461	8	9	391	16	26	49	11	
EMA-TR-461	9	10	328	15	29	37	10	
EMA-TR-461	10	11	505	16	21	70	11	
EMA-TR-461	11	12	469	18	22	73	10	
EMA-TR-461	12	13	539	18	20	85	11	

For personal use only

HoleID	From	To	TREO ppm	MREO %	HREO %	NdPr ppm	DyTb ppm	Average TREO	
EMA-TR-461	13	14	511	18	20	83	11		
EMA-TR-462	14	15	471	25	18	108	9		
EMA-TR-462	15	16	510	25	18	117	9	798	
EMA-TR-462	16	17	550	25	18	128	10		
EMA-TR-462	17	18	550	26	19	133	10		
EMA-TR-462	18	19	535	26	19	127	10		
EMA-TR-462	19	20	522	25	19	123	10		
EMA-TR-462	20	21	582	28	19	152	11		
EMA-TR-462	21	22	788	33	17	249	13		
EMA-TR-462	23	24	798	32	19	244	13		
EMA-TR-463	9	10	162	13	54	12	9		560
EMA-TR-463	10	11	158	11	50	8	9		
EMA-TR-463	11	12	184	8	49	6	10		
EMA-TR-463	12	13	208	8	34	9	8		
EMA-TR-463	13	14	235	7	33	8	9		
EMA-TR-463	14	15	486	15	20	65	10		
EMA-TR-463	15	16	393	13	26	39	11		
EMA-TR-463	16	17	512	12	19	48	11		
EMA-TR-463	17	18	609	9	17	41	12		
EMA-TR-463	18	19	359	15	30	41	12		
EMA-TR-464	3	4	323	19	25	51	9		
EMA-TR-464	4	5	394	18	23	62	10		
EMA-TR-464	5	6	366	20	23	63	8		
EMA-TR-464	6	7	410	20	21	74	9		
EMA-TR-464	7	8	476	23	20	102	9		

For personal use only

HoleID	From	To	TREO ppm	MREO %	HREO %	NdPr ppm	DyTb ppm	Average TREO
EMA-TR-464	8	9	514	26	19	123	9	628
EMA-TR-464	9	10	556	27	19	142	10	
EMA-TR-464	10	11	612	30	17	173	10	
EMA-TR-464	11	12	748	31	18	217	13	
EMA-TR-464	12	13	708	28	19	184	12	
EMA-TR-465	8	9	1,138	35	18	380	18	1,253
EMA-TR-465	9	10	1,204	35	20	400	22	
EMA-TR-465	10	11	1,422	35	23	464	31	
EMA-TR-465	11	12	1,474	34	27	457	38	
EMA-TR-465	12	13	1,579	32	32	461	47	
EMA-TR-465	13	14	1,459	30	36	389	50	
EMA-TR-465	14	15	1,489	27	42	345	61	
EMA-TR-465	15	16	1,313	25	47	267	60	
EMA-TR-465	16	17	925	23	43	173	39	
EMA-TR-465	17	18	528	23	27	110	14	
EMA-TR-466	3	4	321	11	19	28	6	574
EMA-TR-466	4	5	328	9	19	24	6	
EMA-TR-466	5	6	298	11	21	28	6	
EMA-TR-466	6	7	268	16	26	37	7	
EMA-TR-466	7	8	244	16	29	33	7	
EMA-TR-466	8	9	350	17	23	50	9	
EMA-TR-466	9	10	404	12	18	40	8	
EMA-TR-466	10	11	346	17	24	51	8	
EMA-TR-466	11	12	630	24	20	137	13	
EMA-TR-466	12	13	519	17	19	77	10	

For personal use only

HoleID	From	To	TREO ppm	MREO %	HREO %	NdPr ppm	DyTb ppm	Average TREO
EMA-TR-467	6	7	490	13	19	53	10	605
EMA-TR-467	7	8	489	16	18	70	9	
EMA-TR-467	8	9	535	20	18	99	10	
EMA-TR-467	9	10	534	19	17	93	10	
EMA-TR-467	10	11	599	16	15	83	9	
EMA-TR-467	11	12	573	17	18	90	10	
EMA-TR-467	12	13	524	23	20	109	10	
EMA-TR-467	13	14	625	27	24	154	15	
EMA-TR-467	14	15	769	31	25	220	19	
EMA-TR-467	15	15.5	763	33	24	230	19	
EMA-TR-469	11	12	413	20	24	73	10	719
EMA-TR-469	12	13	455	22	25	88	11	
EMA-TR-469	13	14	1,441	7	7	91	10	
EMA-TR-469	14	15	541	21	20	103	10	
EMA-TR-469	15	16	568	23	20	119	11	
EMA-TR-469	16	17	517	24	21	115	10	
EMA-TR-469	17	18	735	20	16	138	11	
EMA-TR-469	18	19	673	25	18	154	12	
EMA-TR-469	19	20	651	27	19	163	12	
EMA-TR-469	20	21	629	28	19	163	11	
EMA-TR-470	7	8	253	11	38	19	10	930
EMA-TR-470	8	9	666	6	14	31	10	
EMA-TR-470	9	10	1,121	7	10	64	12	
EMA-TR-470	10	11	971	15	15	127	14	
EMA-TR-470	11	12	943	21	16	185	15	

For personal use only

HoleID	From	To	TREO ppm	MREO %	HREO %	NdPr ppm	DyTb ppm	Average TREO
EMA-TR-470	12	13	874	28	20	231	16	
EMA-TR-470	13	14	833	28	22	216	17	
EMA-TR-470	14	15	1,110	33	24	345	24	
EMA-TR-470	15	16	811	30	27	223	20	
EMA-TR-470	16	17	1,044	33	27	323	24	
EMA-TR-472	0.5	1	166	7	18	9	3	
EMA-TR-472	1	2	283	4	10	8	2	
EMA-TR-472	2	3	448	2	6	7	2	
EMA-TR-472	3	4	462	5	6	22	3	
EMA-TR-472	4	5	459	3	8	13	4	
EMA-TR-472	5	6	467	4	8	16	4	
EMA-TR-472	6	7	524	3	6	15	3	524
EMA-TR-472	7	8	349	7	11	20	4	
EMA-TR-472	8	9	704	9	12	54	8	704
EMA-TR-473	9	10	228	18	36	32	8	
EMA-TR-473	10	11	339	10	33	21	12	
EMA-TR-473	11	12	451	6	19	19	9	
EMA-TR-473	12	13	342	13	27	35	9	
EMA-TR-473	13	14	345	18	27	52	9	
EMA-TR-473	14	15	287	20	29	48	8	
EMA-TR-473	15	16	399	19	28	65	11	
EMA-TR-473	16	17	296	18	29	45	9	
EMA-TR-473	17	18	965	19	13	171	12	1,285
EMA-TR-473	18	19	1,605	19	9	290	14	
EMA-TR-474	9	10	651	9	12	52	8	1,118

For personal use only

HoleID	From	To	TREO ppm	MREO %	HREO %	NdPr ppm	DyTb ppm	Average TREO	
EMA-TR-474	10	11	344	9	21	23	8		
EMA-TR-474	11	12	1,048	2	8	13	9		
EMA-TR-474	12	13	701	4	14	13	12		
EMA-TR-474	13	14	848	5	11	28	10		
EMA-TR-474	14	15	330	13	24	36	8		
EMA-TR-474	15	16	1,233	2	8	17	12		
EMA-TR-474	16	17	1,002	5	9	37	10		
EMA-TR-474	17	18	389	15	25	50	10		
EMA-TR-474	18	19	401	14	21	47	9		
EMA-TR-475	1	2	482	9	14	34	8	776	
EMA-TR-475	2	3	594	11	14	58	9		
EMA-TR-475	3	4	555	15	16	71	10		
EMA-TR-475	4	5	539	17	17	83	9		
EMA-TR-475	5	6	618	18	16	101	11		
EMA-TR-475	6	7	676	23	17	144	12		
EMA-TR-475	7	8	763	28	17	203	13		
EMA-TR-475	8	9	886	30	19	252	17		
EMA-TR-475	9	10	1,133	34	23	358	27		
EMA-TR-475	10	11	1,223	33	24	376	32		
EMA-TR-477	9	10	473	21	21	88	10		1,005
EMA-TR-477	10	11	519	24	22	116	11		
EMA-TR-477	11	12	885	20	15	160	13		
EMA-TR-477	12	13	1,022	32	22	309	21		
EMA-TR-477	13	14	1,595	37	25	548	38		
EMA-TR-479	5	6	122	10	61	3	8		

For personal use only

HoleID	From	To	TREO ppm	MREO %	HREO %	NdPr ppm	DyTb ppm	Average TREO
EMA-TR-479	6	7	688	2	12	7	9	688
EMA-TR-479	7	8	372	4	23	6	10	
EMA-TR-479	8	9	374	7	24	15	10	
EMA-TR-479	9	10	255	15	38	27	10	
EMA-TR-479	10	11	397	7	24	19	10	
EMA-TR-479	11	12	427	13	24	46	11	
EMA-TR-479	12	13	250	16	34	32	9	
EMA-TR-479	13	14	267	19	32	41	9	
EMA-TR-479	14	15	361	17	27	51	10	
EMA-TR-481	6	7	214	7	27	9	6	
EMA-TR-481	7	8	250	9	27	14	8	
EMA-TR-481	8	9	158	12	39	13	7	
EMA-TR-481	9	10	135	13	41	12	6	
EMA-TR-481	10	11	157	15	34	18	6	
EMA-TR-481	11	12	181	15	36	21	7	
EMA-TR-481	12	13	249	12	29	23	8	
EMA-TR-481	13	14	226	16	31	29	8	
EMA-TR-481	14	15	304	11	24	25	8	
EMA-TR-481	15	16	735	5	10	32	8	
EMA-TR-483	9	10	374	11	23	34	9	720
EMA-TR-483	10	11	344	15	24	42	9	
EMA-TR-483	11	12	499	12	17	52	8	
EMA-TR-483	12	13	627	9	12	48	8	
EMA-TR-483	13	14	680	13	13	83	8	
EMA-TR-483	14	15	639	21	18	126	11	

For personal use only

HoleID	From	To	TREO ppm	MREO %	HREO %	NdPr ppm	DyTb ppm	Average TREO
EMA-TR-483	15	16	615	25	22	141	13	
EMA-TR-483	16	17	751	29	23	200	16	
EMA-TR-483	17	18	826	28	26	215	20	
EMA-TR-483	18	19	901	25	24	207	20	
EMA-TR-484	2	3	436	6	24	13	11	
EMA-TR-484	3	4	540	6	24	20	15	
EMA-TR-484	4	5	412	6	20	17	9	
EMA-TR-484	5	6	367	13	23	39	9	
EMA-TR-484	6	7	507	18	20	83	10	748
EMA-TR-484	7	8	552	16	16	80	9	
EMA-TR-484	8	9	648	17	15	102	9	
EMA-TR-484	9	10	858	22	15	177	12	
EMA-TR-484	10	11	863	31	18	249	15	
EMA-TR-484	11	12	1,058	32	21	315	21	
EMA-TR-485	3	4	418	6	22	14	10	
EMA-TR-485	4	5	429	6	20	16	9	
EMA-TR-485	5	6	399	8	23	21	10	
EMA-TR-485	6	7	537	15	20	67	11	795
EMA-TR-485	7	8	651	19	18	109	12	
EMA-TR-485	8	9	910	18	13	155	13	
EMA-TR-485	9	10	799	22	17	165	14	
EMA-TR-485	10	11	712	24	17	160	12	
EMA-TR-485	11	12	812	25	17	188	15	
EMA-TR-485	12	13	1,146	32	19	346	21	
EMA-TR-486	4	5	341	10	25	24	10	

For personal use only

HoleID	From	To	TREO ppm	MREO %	HREO %	NdPr ppm	DyTb ppm	Average TREO
EMA-TR-486	5	6	307	13	32	29	12	
EMA-TR-486	6	7	406	18	27	59	13	
EMA-TR-486	7	8	612	10	17	47	12	612
EMA-TR-486	8	9	356	13	22	36	9	
EMA-TR-486	9	10	443	20	22	79	11	
EMA-TR-486	10	11	696	26	20	168	14	931
EMA-TR-486	11	12	864	30	19	240	16	
EMA-TR-486	12	13	1,048	33	22	325	21	
EMA-TR-486	13	14	1,115	33	23	348	24	
EMA-TR-487	1	2	219	7	37	6	9	
EMA-TR-487	2	3	245	7	31	10	8	
EMA-TR-487	3	4	239	7	32	8	8	
EMA-TR-487	4	5	307	6	29	7	10	
EMA-TR-487	5	6	653	3	12	9	9	578
EMA-TR-487	6	7	504	5	17	15	9	
EMA-TR-487	7	8	372	5	20	10	8	
EMA-TR-487	8	9	486	6	17	19	9	
EMA-TR-487	9	10	311	11	32	23	11	
EMA-TR-487	10	11	275	9	21	20	6	
EMA-TR-489	5	6	456	13	21	51	10	
EMA-TR-489	6	7	424	20	20	76	8	
EMA-TR-489	7	8	647	25	17	152	11	846
EMA-TR-489	8	9	747	28	18	197	12	
EMA-TR-489	9	10	726	29	19	198	13	
EMA-TR-489	10	11	890	32	18	268	14	

For personal use only

HoleID	From	To	TREO ppm	MREO %	HREO %	NdPr ppm	DyTb ppm	Average TREO	
EMA-TR-489	11	12	885	32	18	265	15		
EMA-TR-489	12	13	578	32	19	177	10		
EMA-TR-489	13	14	932	33	21	290	17		
EMA-TR-489	14	15	1,360	34	22	441	27		
EMA-TR-491	7	8	296	6	27	8	9	578	
EMA-TR-491	8	9	578	3	13	8	8		
EMA-TR-491	9	10	433	4	16	8	8		
EMA-TR-491	10	11	217	6	31	6	8		
EMA-TR-491	11	12	252	8	25	14	7		
EMA-TR-491	12	13	231	8	31	10	8		
EMA-TR-491	13	14	278	8	28	13	9		
EMA-TR-491	14	15	238	14	36	24	10		
EMA-TR-491	15	16	243	15	33	28	9		
EMA-TR-491	16	17	237	18	32	34	9		
EMA-TR-492	9	10	524	16	21	74	11		1,049
EMA-TR-492	10	11	596	18	20	97	12		
EMA-TR-492	11	12	544	22	21	107	11		
EMA-TR-492	12	13	590	24	20	128	11		
EMA-TR-492	13	14	602	25	18	138	10		
EMA-TR-492	14	15	849	27	18	217	14		
EMA-TR-492	15	16	1,098	32	20	326	20		
EMA-TR-492	16	17	1,117	31	27	316	28		
EMA-TR-492	17	18	1,568	31	31	439	47		
EMA-TR-492	18	19	2,999	31	39	820	109		
EMA-TR-493	7	8	552	23	23	113	13	720	

For personal use only

HoleID	From	To	TREO ppm	MREO %	HREO %	NdPr ppm	DyTb ppm	Average TREO
EMA-TR-493	8	9	667	28	19	173	12	
EMA-TR-493	9	10	711	29	21	192	14	
EMA-TR-493	10	11	884	32	22	263	18	
EMA-TR-493	11	12	835	31	24	238	19	
EMA-TR-493	12	13	735	30	24	204	17	
EMA-TR-493	13	14	712	30	25	195	17	
EMA-TR-493	14	15	754	29	27	201	19	
EMA-TR-493	15	16	676	28	27	172	17	
EMA-TR-493	16	17	678	27	29	164	19	
EMA-TR-495	9	10	384	19	27	61	10	
EMA-TR-495	10	11	447	10	19	35	9	
EMA-TR-495	11	12	419	16	21	57	10	
EMA-TR-495	12	13	388	17	24	57	10	
EMA-TR-495	13	14	516	22	21	102	11	545
EMA-TR-495	14	15	554	21	19	107	10	
EMA-TR-495	15	16	594	23	19	123	11	
EMA-TR-495	16	17	550	21	20	103	11	
EMA-TR-495	17	18	518	23	20	109	10	
EMA-TR-495	18	18.5	532	24	23	115	12	
EMA-TR-496	7	8	169	12	52	11	9	
EMA-TR-496	8	9	676	4	12	20	9	676
EMA-TR-496	9	10	191	9	41	10	8	
EMA-TR-496	10	11	256	12	36	20	10	
EMA-TR-496	11	12	215	12	34	18	8	
EMA-TR-496	12	13	286	16	27	39	8	

For personal use only

HoleID	From	To	TREO ppm	MREO %	HREO %	NdPr ppm	DyTb ppm	Average TREO
EMA-TR-496	13	14	284	7	25	14	8	
EMA-TR-496	14	15	274	8	31	12	9	
EMA-TR-496	15	16	371	18	28	55	11	
EMA-TR-496	16	17	345	18	26	52	9	
EMA-TR-497	7	8	502	12	25	45	14	
EMA-TR-497	8	9	437	19	22	73	10	
EMA-TR-497	9	10	445	21	22	82	10	
EMA-TR-497	10	11	451	21	22	85	10	
EMA-TR-497	11	12	456	22	24	88	11	
EMA-TR-497	12	13	500	26	21	118	11	
EMA-TR-497	13	14	639	29	21	171	13	
EMA-TR-497	14	15	590	27	24	145	14	
EMA-TR-497	15	16	554	26	26	132	14	590
EMA-TR-497	16	17	665	28	30	164	19	
EMA-TR-498	9	10	534	24	23	115	12	534
EMA-TR-498	10	11	488	21	21	92	10	
EMA-TR-498	11	12	493	23	22	101	11	
EMA-TR-498	12	13	556	24	19	122	11	
EMA-TR-498	13	14	631	25	19	147	12	
EMA-TR-498	14	15	599	27	19	150	11	
EMA-TR-498	15	16	604	27	20	150	11	625
EMA-TR-498	16	17	623	27	19	156	12	
EMA-TR-498	17	18	741	27	18	185	13	
EMA-TR-498	18	19	619	26	20	148	12	
EMA-TR-500	10	11	450	25	23	102	10	

For personal use only

HoleID	From	To	TREO ppm	MREO %	HREO %	NdPr ppm	DyTb ppm	Average TREO
EMA-TR-500	11	12	578	27	21	146	12	668
EMA-TR-500	12	13	598	28	20	157	11	
EMA-TR-500	13	14	644	29	20	174	12	
EMA-TR-500	14	15	651	30	23	180	14	
EMA-TR-500	15	16	717	31	20	211	14	
EMA-TR-500	16	17	644	30	21	182	13	
EMA-TR-500	17	18	601	31	24	172	14	
EMA-TR-500	18	19	809	36	22	276	17	
EMA-TR-500	19	20	771	37	23	272	16	
EMA-TR-501	0.5	1	288	10	31	20	10	
EMA-TR-501	1	2	366	10	26	26	11	
EMA-TR-501	2	3	444	11	23	37	12	
EMA-TR-501	3	4	402	10	23	31	11	
EMA-TR-501	4	5	396	14	24	44	11	
EMA-TR-501	5	6	461	16	21	62	11	
EMA-TR-501	6	7	511	25	20	119	11	
EMA-TR-501	7	8	728	29	20	197	15	619
EMA-TR-503	4	5	416	17	21	62	9	
EMA-TR-503	5	6	403	18	21	63	9	
EMA-TR-503	6	7	499	23	19	105	9	
EMA-TR-503	7	8	691	27	19	173	13	728
EMA-TR-503	8	9	696	30	21	194	14	
EMA-TR-503	9	10	658	30	21	187	13	
EMA-TR-503	10	11	636	30	21	178	13	
EMA-TR-503	11	12	620	31	24	181	14	

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HoleID	From	To	TREO ppm	MREO %	HREO %	NdPr ppm	DyTb ppm	Average TREO
EMA-TR-503	12	13	881	33	26	273	21	
EMA-TR-503	13	14	913	30	26	250	22	
EMA-TR-504	0.5	1	189	19	46	25	9	
EMA-TR-504	1	2	221	19	40	31	10	
EMA-TR-504	2	3	274	19	29	43	9	
EMA-TR-504	3	4	379	20	23	64	9	
EMA-TR-504	4	5	1,028	22	17	211	16	967
EMA-TR-504	5	6	1,009	30	22	280	21	
EMA-TR-504	6	7	863	30	25	242	21	
EMA-TR-505	5	6	255	7	33	10	9	
EMA-TR-505	6	7	267	7	32	11	9	
EMA-TR-505	7	8	255	10	36	16	10	
EMA-TR-505	8	9	256	11	33	19	9	
EMA-TR-505	9	10	351	17	27	50	10	
EMA-TR-505	10	11	400	20	23	69	9	
EMA-TR-505	11	12	430	22	22	85	10	
EMA-TR-505	12	13	503	26	20	120	10	
EMA-TR-505	13	14	596	30	21	167	11	
EMA-TR-505	14	15	911	34	23	295	19	670

Many drillholes did not intersect the complete weathering profile, with some holes stopping in the pedolith or top of saprolite domains due to the depth limitations of the auger drilling, particularly below the water table, and difficulties in penetrating semi-weathered rocks.

#### Appendix 4: Auger drill-hole locations

Hole ID	East	North	RL (m)	Depth (m)	Azimuth	Dip	Tenement
EMA-TR-411	190,806.31	9,183,621.45	224.97	20.50	0	-90	880.184/2016

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Hole ID	East	North	RL (m)	Depth (m)	Azimuth	Dip	Tenement
EMA-TR-415	190,969.66	9,183,771.02	187.20	6.00	0	-90	880.184/2016
EMA-TR-431	193,621.60	9,182,845.94	190.52	15.00	0	-90	880.184/2016
EMA-TR-433	191,634.23	9,182,813.50	139.41	19.00	0	-90	880.184/2016
EMA-TR-440	190,214.96	9,182,638.88	180.20	19.00	0	-90	880.184/2016
EMA-TR-446	190,614.57	9,183,396.55	224.64	24.00	0	-90	880.184/2016
EMA-TR-447	190,398.79	9,183,202.38	194.00	19.00	0	-90	880.184/2016
EMA-TR-449	190,573.91	9,182,636.45	199.53	11.00	0	-90	880.184/2016
EMA-TR-450	190,398.86	9,182,802.71	226.04	24.00	0	-90	880.184/2016
EMA-TR-451	190,576.31	9,183,008.29	232.10	18.50	0	-90	880.184/2016
EMA-TR-454	190,602.00	9,181,444.00	185.00	15.00	0	-90	880.184/2016
EMA-TR-455	190,998.00	9,181,416.00	186.00	9.00	0	-90	880.184/2016
EMA-TR-456	190,933.95	9,182,990.45	173.05	20.00	0	-90	880.184/2016
EMA-TR-457	191,201.00	9,180,791.00	171.00	15.00	0	-90	880.184/2016
EMA-TR-458	190,840.00	9,181,186.31	172.00	24.00	0	-90	880.184/2016
EMA-TR-461	191,403.00	9,180,620.00	177.00	14.00	0	-90	880.184/2016
EMA-TR-462	191,001.00	9,181,001.00	222.00	24.00	0	-90	880.184/2016
EMA-TR-463	191,446.00	9,181,051.00	249.00	19.00	0	-90	880.184/2016
EMA-TR-464	191,595.00	9,181,175.00	142.00	13.00	0	-90	880.184/2016
EMA-TR-465	191,216.00	9,182,026.00	143.00	18.00	0	-90	880.184/2016
EMA-TR-466	191,757.00	9,180,606.00	153.00	13.00	0	-90	880.184/2016
EMA-TR-467	191,755.00	9,181,028.00	174.00	15.50	0	-90	880.184/2016
EMA-TR-469	191,832.00	9,181,384.00	192.00	21.00	0	-90	880.184/2016
EMA-TR-470	191,407.00	9,181,793.00	232.00	17.00	0	-90	880.184/2016
EMA-TR-472	191,738.00	9,181,830.00	227.00	9.00	0	-90	880.184/2016
EMA-TR-473	192,217.00	9,181,823.00	270.00	19.00	0	-90	880.184/2016

Hole ID	East	North	RL (m)	Depth (m)	Azimuth	Dip	Tenement
EMA-TR-474	192,404.00	9,182,010.00	214.00	19.00	0	-90	880.184/2016
EMA-TR-475	191,209.00	9,181,556.00	171.00	11.00	0	-90	880.184/2016
EMA-TR-477	194,047.00	9,182,810.00	160.00	14.00	0	-90	880.184/2016
EMA-TR-479	191,983.00	9,181,613.00	240.00	15.00	0	-90	880.184/2016
EMA-TR-481	191,993.00	9,181,950.00	231.00	16.00	0	-90	880.184/2016
EMA-TR-483	192,849.00	9,181,923.00	211.00	19.00	0	-90	880.184/2016
EMA-TR-484	192,196.00	9,182,209.00	175.00	12.00	0	-90	880.184/2016
EMA-TR-485	191,808.00	9,182,218.00	180.00	13.00	0	-90	880.184/2016
EMA-TR-486	191,921.00	9,182,362.00	116.00	14.00	0	-90	880.184/2016
EMA-TR-487	194,406.00	9,183,212.00	164.00	11.00	0	-90	880.184/2016
EMA-TR-489	193,002.00	9,181,451.00	183.00	15.00	0	-90	880.184/2016
EMA-TR-491	192,984.00	9,181,826.00	206.00	17.00	0	-90	880.184/2016
EMA-TR-492	193,174.00	9,181,966.00	204.00	19.00	0	-90	880.184/2016
EMA-TR-493	193,398.00	9,181,825.00	164.00	17.00	0	-90	880.184/2016
EMA-TR-495	194,186.00	9,183,074.00	142.00	18.50	0	-90	880.184/2016
EMA-TR-496	193,354.00	9,182,200.00	230.00	17.00	0	-90	880.184/2016
EMA-TR-497	192,952.00	9,182,224.00	197.00	17.00	0	-90	880.184/2016
EMA-TR-498	194,402.00	9,182,895.00	179.00	19.00	0	-90	880.184/2016
EMA-TR-500	194,178.00	9,182,666.00	175.00	20.00	0	-90	880.184/2016
EMA-TR-501	193,401.00	9,182,572.00	153.00	8.00	0	-90	880.184/2016
EMA-TR-503	193,784.00	9,182,250.00	166.00	14.00	0	-90	880.184/2016
EMA-TR-504	193,764.00	9,183,030.00	121.00	7.00	0	-90	880.184/2016
EMA-TR-505	194,592.00	9,183,058.00	160.00	15.00	0	-90	880.184/2016

## Appendix 5

The following Table and Sections are provided to ensure compliance with JORC Code (2012 Edition).

### JORC (2012) Table 1 – Section 1: Sampling Techniques and Data for auger hole drilling

Item	JORC code explanation	Comments
<b>Sampling Techniques</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representativity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration results are based on auger drilling conducted by BCM’s exploration team.</li> <li>The data presented is based on the assay of soils and saprolite by auger drilling at 1m sample intervals.</li> <li>Sampling was supervised by a BCM geologist and two mining technicians.</li> <li>Every 1-metre sample was collected in a big plastic bag in the field and transported to the exploration shed to be dried in the muffle. prior to homogenisation.</li> <li>Samples were homogenised and subsequently riffle split with about 1 kg sent to SGS for analysis and a similar amount stored.</li> <li>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.</li> </ul>
<b>Drilling Techniques</b>	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>
<b>Drill Sample Recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No recoveries are recorded.</li> <li>The operator observes the volume of each metre and notes any discrepancy.</li> <li>No relationship is believed to exist between recovery and grade.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All holes were logged by BCM geologist. 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.</li> </ul>

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Item	JORC code explanation	Comments																																																				
	<ul style="list-style-type: none"> <li>Whether logging is qualitative or quantitative in nature. Core (or costean. channel. etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Qualitative logging with systematic photography of the stored box.</li> <li>The entire auger hole is logged.</li> </ul>																																																				
<b>Sub-Sampling Techniques and Sampling Procedures</b>	<ul style="list-style-type: none"> <li>If core. whether cut or sawn and whether quarter. half or all core taken.</li> <li>If non-core. whether riffled. tube sampled. rotary split. etc and whether sampled wet or dry.</li> <li>For all sample types. the nature. quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representativity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Auger sampling procedure is completed in the exploration shed in Apui.</li> <li>The entire one metre sample is bagged on site. in a big plastic bag which is transported to the exploration shed. where it is dried at 70-90C prior to homogenisation. then quartered to about 1kg to go to SGS and another 1kg to store on site.</li> <li>Sample preparation for the auger samples was conducted at SGS Vespasiano (greater Belo Horizonte) comprising oven drying at 105C. crushing of entire sample to 75% &lt; 3mm followed by rotary splitting and pulverisation of 250 to 300 grams at 95% minus 150#</li> <li>The &lt;3mm rejects and the 250-300 grams pulverised sample were returned to BCM for storage.</li> <li>Only the last 10 metres of each hole were sent to assay. the samples above will be sent if required.</li> </ul>																																																				
<b>Quality of Assay Data and Laboratory Tests</b>	<ul style="list-style-type: none"> <li>The nature. quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>1 blank sample. 1 certified reference material (standard) sample and 1 field duplicate sample were inserted by BBX into each 25-sample sequence.</li> <li>Standard laboratory QA/QC procedures were followed. including inclusion of standard. duplicate and blank samples.</li> <li>The assay results of the standards fall within acceptable tolerance limits and no material bias is evident.</li> <li>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:</li> </ul> <table border="1" data-bbox="949 1547 1485 1753"> <tbody> <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><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table> <p>The sample preparation and assay techniques used are industry standard and provide total analysis.</p> <p>The ICP95A reports the major elements oxides used to calculate the Chemical Index of Alteration (CIA) at % levels included:</p> <table border="1" data-bbox="949 1910 1485 2024"> <tbody> <tr><td>Al2O3</td><td>CaO</td><td>Cr2O3</td><td>F2O3</td></tr> <tr><td>K2O</td><td>MgO</td><td>MnO</td><td>Na2O</td></tr> <tr><td>P2O5</td><td>SiO2</td><td>TiO2</td><td></td></tr> </tbody> </table>	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							Al2O3	CaO	Cr2O3	F2O3	K2O	MgO	MnO	Na2O	P2O5	SiO2	TiO2	
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Item	JORC code explanation	Comments																
		<ul style="list-style-type: none"> <li>The SGS laboratory used for the RRE assays is ISO 9001 and 14001 and 17025 accredited.</li> <li>Analytical standard for REE ITAK-713 and 714 were used as CRM material in the batches sent to SGS.</li> <li>The assay results for the standards were consistent with the certified levels of accuracy and precision and no bias is evident.</li> <li>The blanks used contain some REE. with critical elements Ce. Nd. Dy and Y present in small quantities.</li> <li>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.</li> <li>Laboratory inserted standards. blanks and duplicates were analysed as per industry standard practice. There is no evidence of bias from these results.</li> </ul>																
<b>Verification of Sampling and Assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data. data entry procedures. data verification. data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>Analytical results for REE were supplied digitally. directly from the SGS laboratory in Vespasiano to the BCMs Exploration Manager in Rio de Janeiro.</li> <li>No twinned holes were used.</li> <li>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 integrity checks. All assay data is imported directly into the Microsoft Access database.</li> <li>No adjustments were made to the data.</li> <li>All REE assay data received from the laboratory in element form is unadjusted for data entry.</li> <li>Conversion of elements analysis (REE) to stoichiometric oxide (REO) was undertaken by spreadsheet using defined conversion factors. (Source:<a href="https://www.jcu.edu.au/advanced-analytical-centre/resources/element-to-stoichiometric-oxide-conversion-factors">https://www.jcu.edu.au/advanced-analytical-centre/resources/element-to-stoichiometric-oxide-conversion-factors</a>).</li> </ul> <table border="1" data-bbox="954 1787 1522 2024"> <thead> <tr> <th>Element ppm</th> <th>Conversion Factor</th> </tr> </thead> <tbody> <tr> <td>Ce</td> <td>1.2284</td> </tr> <tr> <td>Dy</td> <td>1.1477</td> </tr> <tr> <td>Er</td> <td>1.1435</td> </tr> <tr> <td>Eu</td> <td>1.1579</td> </tr> <tr> <td>Gd</td> <td>1.1526</td> </tr> <tr> <td>Ho</td> <td>1.1455</td> </tr> <tr> <td>La</td> <td>1.1728</td> </tr> </tbody> </table>	Element ppm	Conversion Factor	Ce	1.2284	Dy	1.1477	Er	1.1435	Eu	1.1579	Gd	1.1526	Ho	1.1455	La	1.1728
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Item	JORC code explanation	Comments																								
		<table border="1"> <tr><td>Lu</td><td>1.1371</td><td>Lu2O3</td></tr> <tr><td>Nd</td><td>1.1664</td><td>Nd2O3</td></tr> <tr><td>Pr</td><td>1.2082</td><td>Pr6O11</td></tr> <tr><td>Sm</td><td>1.1596</td><td>Sm2O3</td></tr> <tr><td>Tb</td><td>1.1762</td><td>Tb4O7</td></tr> <tr><td>Tm</td><td>1.1421</td><td>Tm2O3</td></tr> <tr><td>Y</td><td>1.2699</td><td>Y2O3</td></tr> <tr><td>Yb</td><td>1.1387</td><td>Yb2O3</td></tr> </table> <p>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:</p> <p>TREO (Total Rare Earth Oxide) = La2O3 + CeO2 + Pr6O11 + Nd2O3 + Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Y2O3 + Lu2O3</p> <p>LREO (Light Rare Earth Oxide) = La2O3 + CeO2 + Pr6O11 + Nd2O3</p> <p>HREO (Heavy Rare Earth Oxide) = Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Y2O3 + Lu2O3</p> <p>CREO (Critical Rare Earth Oxide) = Nd2O3 + Eu2O3 + Tb4O7 + Dy2O3 + Y2O3</p> <p>(From U.S. Department of Energy. Critical Material Strategy. December 2011)</p> <p>MREO (Magnetic Rare Earth Oxide) = Nd2O3 + Pr6O11 + Tb4O7 + Dy2O3</p> <p>NdPr = Nd2O3 + Pr6O11</p> <p>DyTb = Dy2O3 + Tb4O7</p> <p>In elemental form the classifications are:</p> <p>TREE: La+Ce+Pr+Nd+Sm+Eu+Gd+Tb+Dy+Ho+Er+Tm+Lu+Y</p> <p>HREE: Sm+Eu+Gd+Tb+Dy+Ho+Er+Tm+Lu+Y</p> <p>CREE: Nd+Eu+Tb+Dy+Y</p> <p>LREE: La+Ce+Pr+Nd</p>	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
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	<b>Location of Data Points</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>																								
	<b>Data Spacing and Distribution</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Auger holes were in lines 400m apart with holes with 300m centers, designed for testing iREE mineralization over the mapped felsic volcanics.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> <li>No sample composition was applied.</li> </ul>																								

Item	JORC code explanation	Comments
<b>Orientation of Data in relation to Geological Structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The location and depth of the sampling is appropriate for the deposit type.</li> <li>Relevant REE values are compatible with the exploration model for ionic REEs.</li> <li>No relationship between mineralisation and drilling orientation is known at this stage.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>
<b>Audit or Reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>The sampling techniques and data have been reviewed by the Competent Person and are found to be of industry standard.</li> </ul>

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

Criteria	JORC code explanation	Commentary
<b>Mineral Tenement and Land Tenure Status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The EMA and EMA EAST leases are 100% owned by BCM with no issues in respect to native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The company is not aware of any impediment to obtain a licence to operate in the area.</li> </ul>
<b>Exploration done by Other Parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>No exploration by other parties has been conducted in the region.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>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).</li> <li>This adsorbed iREE is the target for extraction and production of REO.</li> </ul>
<b>Drill Hole Information</b>	<ul style="list-style-type: none"> <li>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:             <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Auger locations and diagrams are presented in this announcement.</li> <li>Details are tabulated in the announcement.</li> </ul>

Criteria	JORC code explanation	Commentary
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Weighted averages were calculated for all intercepts.</li> <li>500ppm TREO cut-off grade was applied to define the relevant intersections.</li> <li>No metal equivalent values reported.</li> </ul>
<b>Relationship between mineralization widths and intercepted lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known. its nature should be reported.</li> <li>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').</li> </ul>	<ul style="list-style-type: none"> <li>Significant values of REE were reported for the auger samples.</li> <li>Mineralisation orientation is not known at this stage although assumed to be flat.</li> <li>The downhole depths are reported, true widths are not known at this stage.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Maps and tables of the auger holes location and target location are inserted.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Relevant REE mineralisation with grades higher than 500ppm TREO in auger holes were reported with confirmation of IAC (Ionic Adsorbed Clay) type mineralisation obtained in almost all the auger holes from phase 1. in this same geological setting.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No other significant exploration data has been acquired by the Company.</li> </ul>

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<b>Further Work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Process the infill drilling data to upgrade the inferred resources to indicated in the area drilled.</li> <li>Progressing with DFS.</li> </ul>