

## High-Grade Discoveries Enhance Scale of Pelé Project

### New discovery of high-grade REE-Nb-Sc-Ta-U mineralisation

- High-grade diamond drill results at Pelé Target 1 returned assays of up to 13.5% TREO:
  - NdPr: 23,217 ppm | DyTb: 938 ppm | Nb<sub>2</sub>O<sub>5</sub>: 5,011 ppm | Sc<sub>2</sub>O<sub>3</sub>: 381 ppm | Ta<sub>2</sub>O<sub>5</sub>: 248 ppm | U<sub>3</sub>O<sub>8</sub>: 1,100 ppm
- High-grade REE-Nb-Sc-Ta-U from shallow depths (~20 m) extending to vertical depths of ~70 m
- Drillhole TG1DD0004 returned 29.8 m of a cumulative downhole mineralisation, including 15.3 m at 9.1% TREO from 25.6 m depth, with grades of:
  - NdPr: 15,617 ppm | DyTb: 692 ppm | Nb<sub>2</sub>O<sub>5</sub>: 1,861 ppm | Sc<sub>2</sub>O<sub>3</sub>: 231 ppm | Ta<sub>2</sub>O<sub>5</sub>: 94 ppm | U<sub>3</sub>O<sub>8</sub>: 754 ppm
- Auger drilling continues to discover extensive, near-surface horizons of high-grade monazite sands, with grades of up to 7.9% TREO and assays of up to 11,681 ppm NdPr and 580 ppm DyTb

### Pelé Target 1 discoveries extend high-grade mineralised trendline to 10 km

- Pelé is confirmed as a major district-scale rare earth exploration project located ~60 km southwest of BRE's Monte Alto project in Bahia, Brazil, and covers an exploration area over 60 times larger than Monte Alto
- Recent exploration has focussed primarily on Pelé Target 1 – one of five large exploration target areas within the larger Pelé Project area – delivering new discoveries of high-grade rare earth outcrops with grades of up to **17.7% TREO** and high-grade monazite sands with grades of up to **8.5% TREO**
- New outcrop discoveries of high-grade REE-Nb-Sc-Ta-U mineralisation significantly extend the mineralised strike at Pelé Target 1 to over 10 km
- Brazilian Rare Earths now controls three major confirmed projects - Monte Alto, Sulista and Pelé – each demonstrating significant diamond drill intersections of high-grade REE-Nb-Sc-Ta-U mineralisation

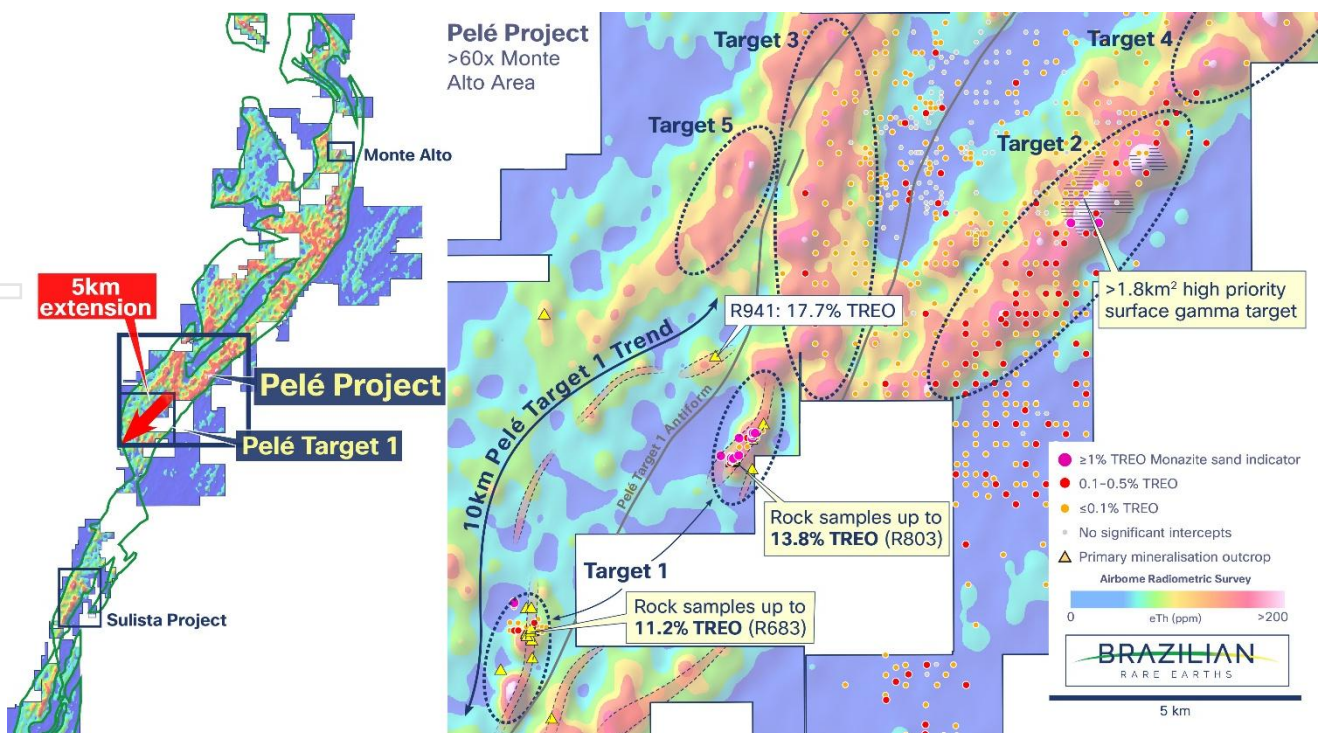


Figure 1: Pelé project location and relative size <sup>1</sup>

Note<sup>1</sup> Refer to End Notes for details of previously reported exploration results

**Brazilian Rare Earths Limited (ASX: BRE) (OTCQX: BRELY / OTCQX: BRETF)** is pleased to report the results of exploration drilling at the Pelé Target 1 Project, located in Bahia, Brazil.

The Pelé Project is hosted within the Volta do Rio Plutonic Suite, a large-scale magmatic system that extends over 180 km in Bahia, Brazil. Brazilian Rare Earths has confirmed the exploration potential of the province with multiple discoveries of ultra-high-grade mineralisation, including rare earth elements (REE), niobium (Nb), scandium (Sc), tantalum (Ta), and uranium (U).

Pelé Target 1 has the largest expanse of weathered REE-Nb-Sc-U outcrops discovered since exploration commenced at the Rocha da Rocha rare earth province. New geological mapping, 75 line-km of ground gamma stations and 162 new outcrop samples highlights that REE-Nb-Sc-Ta-U mineralisation repeats along eastern and western limbs of a regional structural fold that now extends over 10 km at the project.

### Successful diamond drilling at Pelé Target 1

The new drilling results are from 10 diamond core holes totalling 901 metres and 100 auger drill holes totalling 1,095 metres. Assays are pending for a further 19 auger holes totalling 243 metres.

High-grade, hard rock REE-Nb-Sc-Ta-U mineralisation was intersected from shallow depths with assay grades of up to 13.5% TREO. High grades of neodymium and praseodymium were recorded, with grades up to 23,217 ppm NdPr, as well as high grades of dysprosium and terbium of up to 938 ppm DyTb.

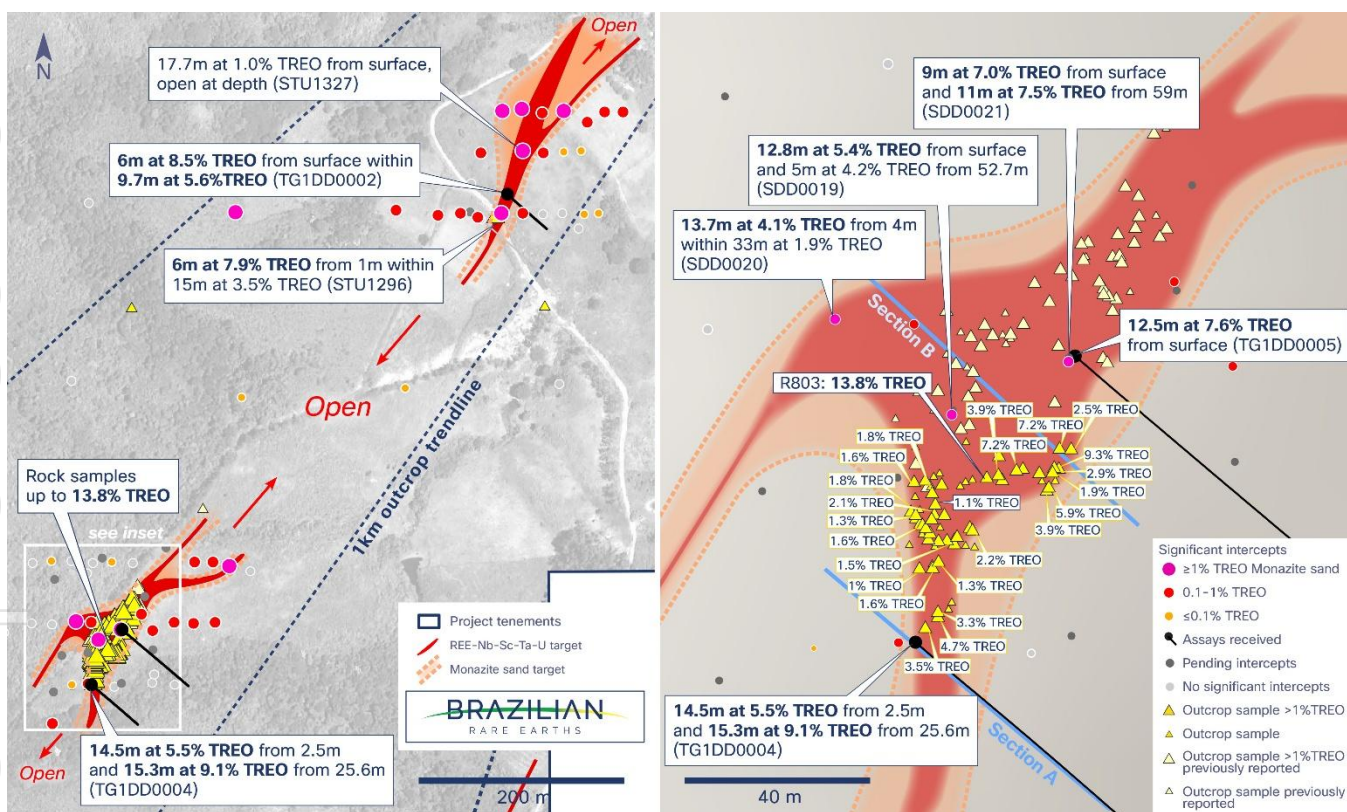


Figure 2: Pelé Target 1 significant intercepts in auger and diamond drill holes. Results from recent outcrop samples shown right (yellow)

Significant intercepts from the diamond drilling include:

- **15.3m at 9.1% TREO** from 25.6m, with NdPr: 15,617 ppm | DyTb: 692 ppm | Nb<sub>2</sub>O<sub>5</sub>: 1,861 ppm | Sc<sub>2</sub>O<sub>3</sub>: 231 ppm | Ta<sub>2</sub>O<sub>5</sub>: 94 ppm | U<sub>3</sub>O<sub>8</sub>: 754 ppm | (TG1DD0004)
- **32.1m at 3.9% TREO** from 37.9m, with NdPr: 6,662 ppm | DyTb: 307 ppm | Nb<sub>2</sub>O<sub>5</sub>: 717 ppm | Sc<sub>2</sub>O<sub>3</sub>: 100 ppm | Ta<sub>2</sub>O<sub>5</sub>: 39 ppm | U<sub>3</sub>O<sub>8</sub>: 323 ppm | (SDD0021), including:
  - **2.1m at 7.4% TREO** from 37.9m, with NdPr: 12,462 ppm | DyTb: 532 ppm | Nb<sub>2</sub>O<sub>5</sub>: 1,149 ppm | Sc<sub>2</sub>O<sub>3</sub>: 155 ppm | Ta<sub>2</sub>O<sub>5</sub>: 73 ppm | U<sub>3</sub>O<sub>8</sub>: 632 ppm | (SDD0021)
  - **2.7m at 6.9% TREO** from 46.4m, with NdPr: 11,433 ppm | DyTb: 540 ppm | Nb<sub>2</sub>O<sub>5</sub>: 1,149 ppm | Sc<sub>2</sub>O<sub>3</sub>: 172 ppm | Ta<sub>2</sub>O<sub>5</sub>: 69 ppm | U<sub>3</sub>O<sub>8</sub>: 618 ppm | (SDD0021)
  - **11m at 7.5% TREO** from 59m, with NdPr: 12,841 ppm | DyTb: 570 ppm | Nb<sub>2</sub>O<sub>5</sub>: 1,349 ppm | Sc<sub>2</sub>O<sub>3</sub>: 156 ppm | Ta<sub>2</sub>O<sub>5</sub>: 73 ppm | U<sub>3</sub>O<sub>8</sub>: 619 ppm | (SDD0021)

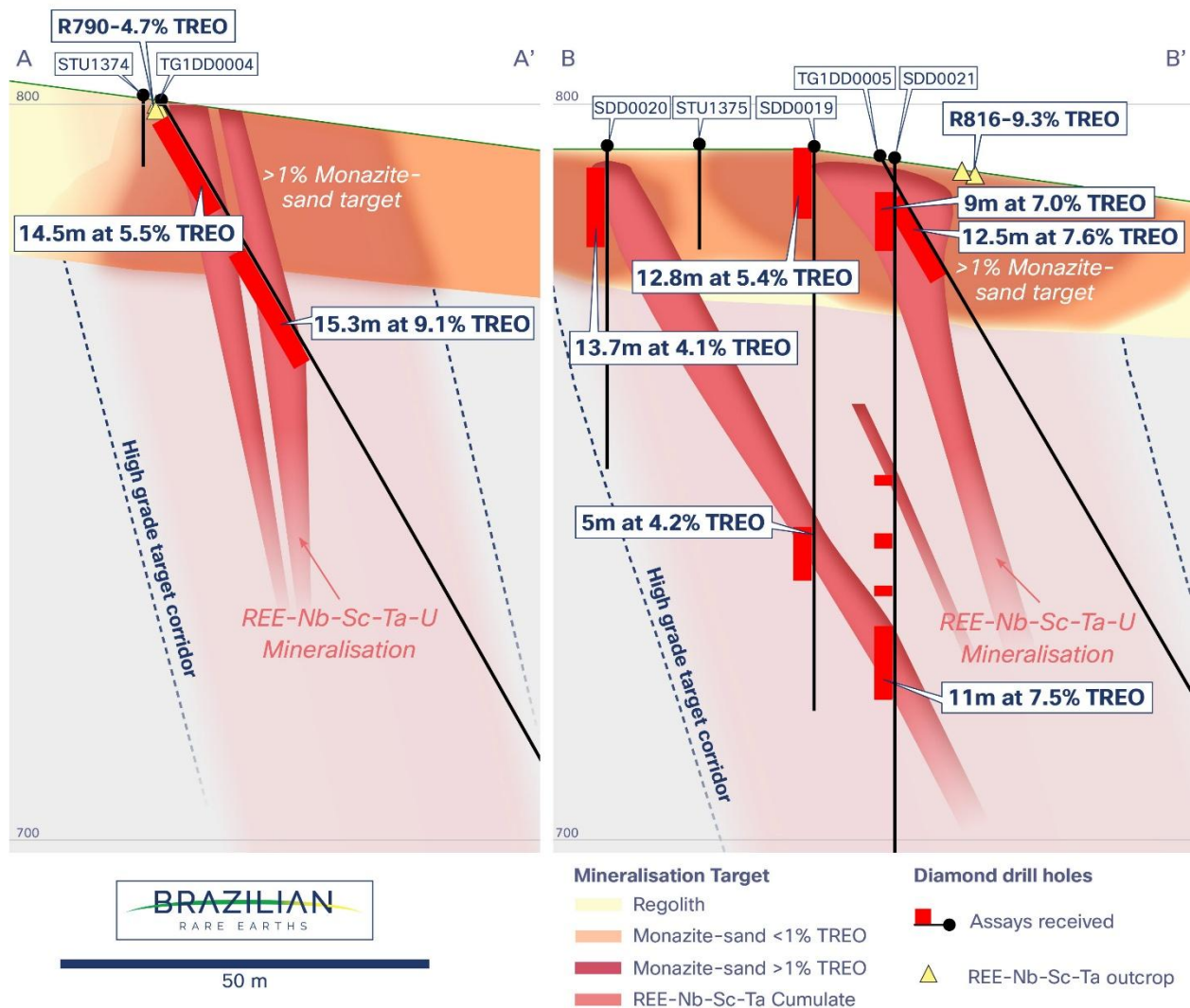


Figure 3: Pelé diamond drilling cross section

## New discovery of REE-Nb-Sc-Ta-U outcrops at Pelé Target 1

Successful ground-based exploration discovered another outcropping zone of weathered high-grade REE-Nb-Sc-Ta-U mineralisation to the south-west of the original Pelé Target 1 discovery. The extensive rare earth outcrops occur at widths of over ~20m, along a highly prospective ~1 km trendline strike. These outcropping discoveries indicate the Pelé Target 1 REE-Nb-Sc-Ta-U mineralisation system extends along a 10 km trend to the southwest.

Eighty mineralised outcrop samples across this trend returned grades of up to 11.2% TREO with 18,363 ppm NdPr, 810 ppm DyTb, 892 ppm Nb<sub>2</sub>O<sub>5</sub>, 153 ppm Sc<sub>2</sub>O<sub>3</sub>, 45 ppm Ta<sub>2</sub>O<sub>5</sub> and 468 ppm U<sub>3</sub>O<sub>8</sub> (R683).

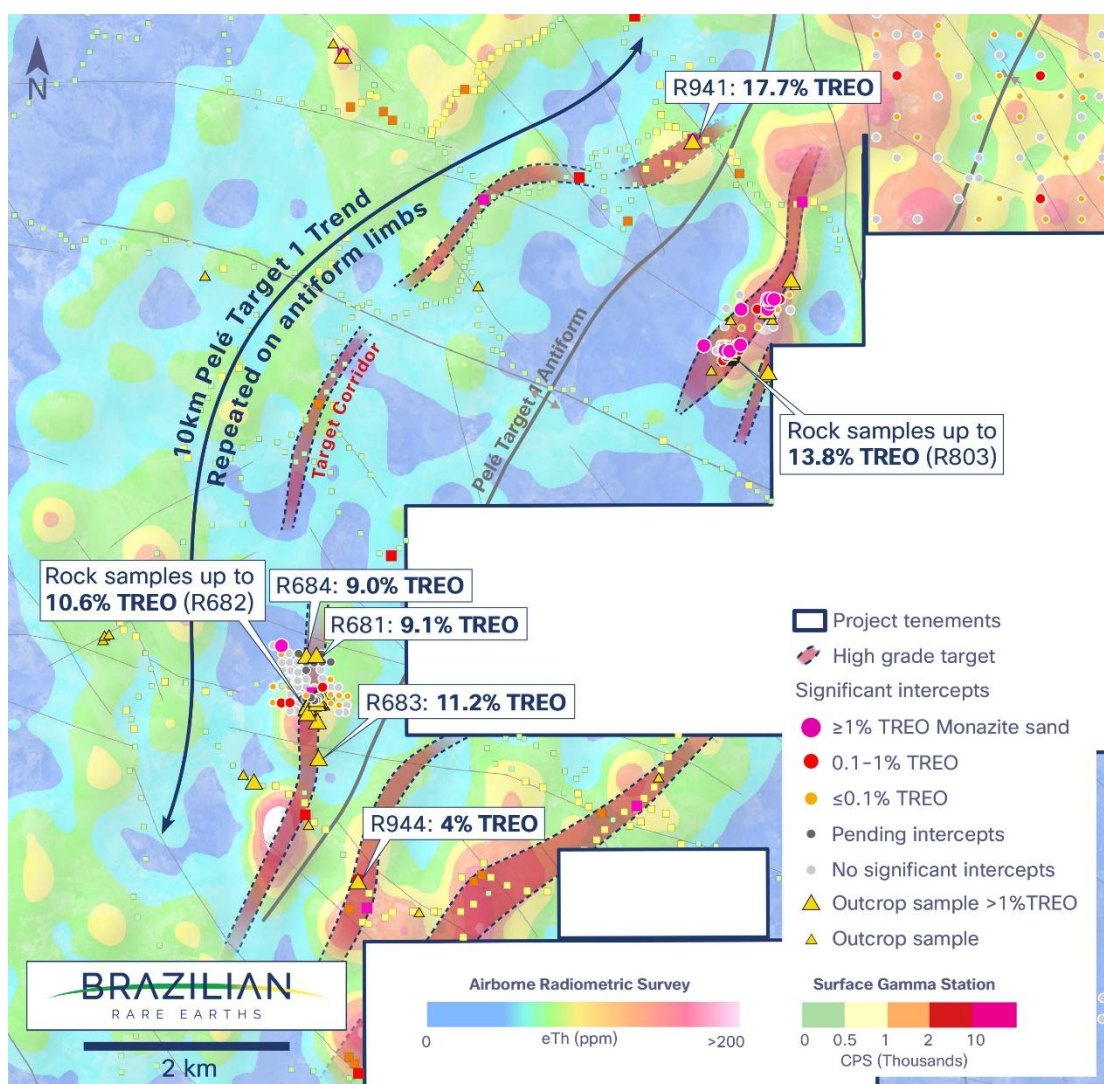


Figure 4: Pelé Target 1 exploration corridors and high-grade rare-earth discoveries<sup>2</sup>

The eastern corridor hosts the previously reported Pelé Target 1 outcrop discovery announced on 11 June 2024, and numerous intense gamma anomalies that are associated with REE-Nb-Sc-Ta-U mineralisation and monazite sand deposits.

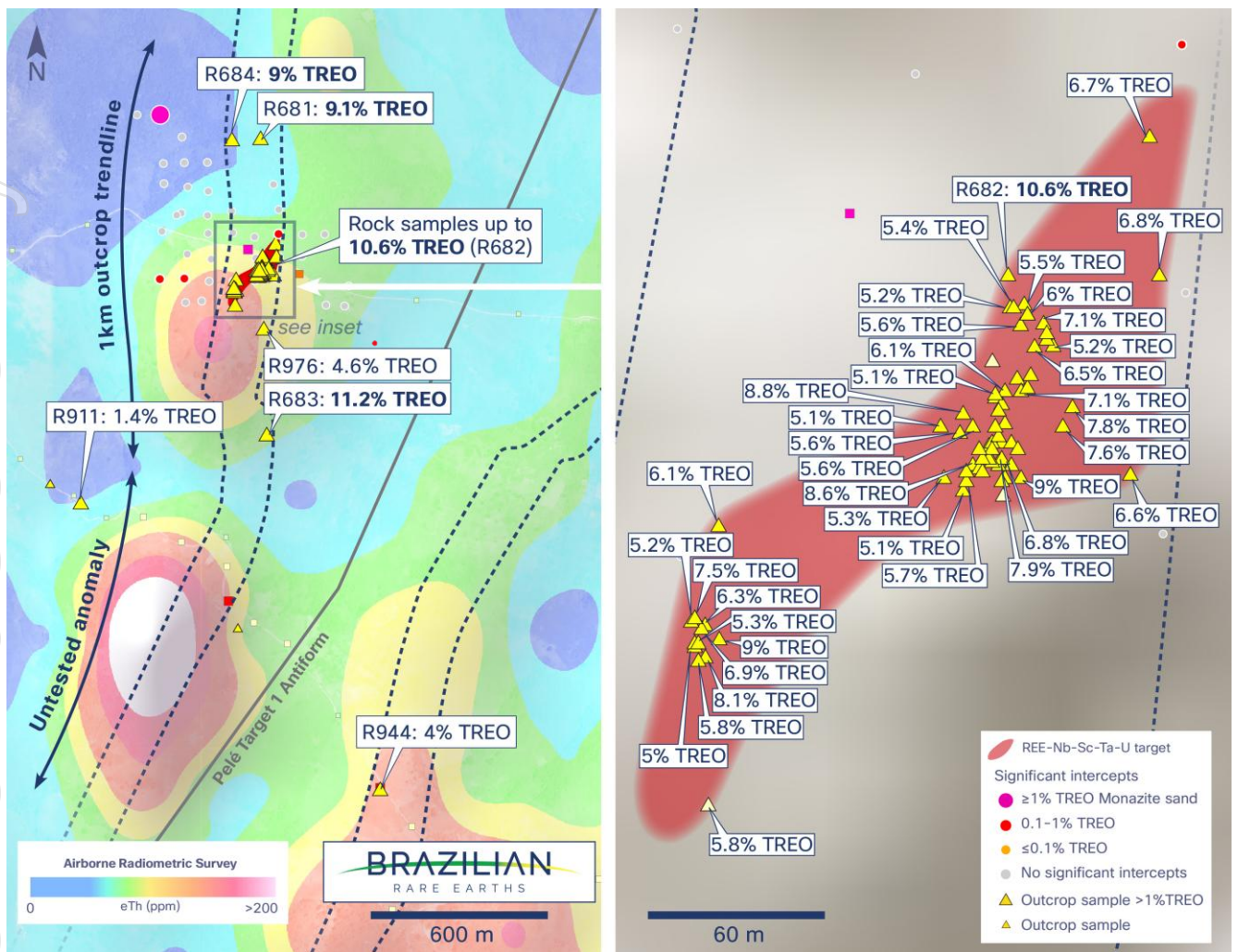


Figure 5: Pelé Target 1 southwest extension zone

High-grade assays from grab samples of weathered REE-Nb-Sc-U outcrops at the central zone at Pelé Target 1 southwest extension include:

- R682: **10.6% TREO** with NdPr: 23,679 ppm | DyTb: 1,204 ppm | Nb<sub>2</sub>O<sub>5</sub>: 1,133 ppm | Sc<sub>2</sub>O<sub>3</sub>: 381 ppm | Ta<sub>2</sub>O<sub>5</sub>: 53 ppm | U<sub>3</sub>O<sub>8</sub>: 488 ppm
- R701: **10.5% TREO** with NdPr: 20,816 ppm | DyTb: 950 ppm | Nb<sub>2</sub>O<sub>5</sub>: 883 ppm | Sc<sub>2</sub>O<sub>3</sub>: 278 ppm | Ta<sub>2</sub>O<sub>5</sub>: 41 ppm | U<sub>3</sub>O<sub>8</sub>: 422 ppm
- R758: **10% TREO** with NdPr: 15,079 ppm | DyTb: 831 ppm | Nb<sub>2</sub>O<sub>5</sub>: 679 ppm | Sc<sub>2</sub>O<sub>3</sub>: 204 ppm | Ta<sub>2</sub>O<sub>5</sub>: 34 ppm | U<sub>3</sub>O<sub>8</sub>: 281 ppm
- R760: **9.9% TREO** with NdPr: 20,436 ppm | DyTb: 1,072 ppm | Nb<sub>2</sub>O<sub>5</sub>: 714 ppm | Sc<sub>2</sub>O<sub>3</sub>: 216 ppm | Ta<sub>2</sub>O<sub>5</sub>: 33 ppm | U<sub>3</sub>O<sub>8</sub>: 331 ppm
- R765: **9.6% TREO** with NdPr: 22,044 ppm | DyTb: 1,249 ppm | Nb<sub>2</sub>O<sub>5</sub>: 694 ppm | Sc<sub>2</sub>O<sub>3</sub>: 296 ppm | Ta<sub>2</sub>O<sub>5</sub>: 31 ppm | U<sub>3</sub>O<sub>8</sub>: 307 ppm
- R681: **9.1% TREO** with NdPr: 20,090 ppm | DyTb: 1,041 ppm | Nb<sub>2</sub>O<sub>5</sub>: 767 ppm | Sc<sub>2</sub>O<sub>3</sub>: 210 ppm | Ta<sub>2</sub>O<sub>5</sub>: 38 ppm | U<sub>3</sub>O<sub>8</sub>: 353 ppm

## High-grade monazite sand mineralisation

The drilling program continued to delineate extensive horizons of high-grade monazite sand mineralisation from surface, including high grades of heavy rare earths dysprosium and terbium. Significant monazite sand mineralisation intercepts from Pelé 1 exploration drilling include:

- **12.5m at 7.6% TREO** from surface, with NdPr: 12,290 ppm | DyTb: 499 ppm | (TG1DD0005)
- **9m at 7.0% TREO** from surface, with NdPr: 11,773 ppm | DyTb: 511 ppm within:
  - **12.5m at 5.1% TREO** from surface, NdPr: 8,549 ppm | DyTb: 371 ppm | (SDD0021)
- **14.5m at 5.5% TREO** from 2.5m, with NdPr: 8,181 ppm | DyTb: 374 ppm | (TG1DD0004)
- **12.75m at 5.4% TREO** from surface, with NdPr: 8,173 ppm | DyTb: 362 ppm | (SDD0019)
- **13.7m at 4.1% TREO** from 4m, with NdPr: 5,205 ppm | DyTb: 298 ppm | (SDD0020)
- **6m at 7.9% TREO** from 1m, with NdPr: 11,681 ppm | DyTb: 580 ppm within:
  - **15m at 3.5% TREO** from surface, with NdPr: 4,883 ppm | DyTb: 241 ppm | (STU1296)

The high-grade monazite-sand zones extend from surface down to ~20m depth, and the higher grade (+1% TREO) zones can reach a cumulative thickness of up to ~18m.

The shallow, high-grade rare earth intercepts consist of large grains of monazite contained within a weathered free-dig saprolite. This is analogous to a 'mineral sands' style deposit, with valuable free-dig mineral sands available near surface for potential extraction and gravity separation.

### Next Steps: Pelé Project

- **High-resolution geophysical drone-survey:** Completion of a comprehensive drone-based magnetic and radiometric surveys across the entire Pelé Project to define and prioritise drill targets
- **Diamond and auger drilling:** Diamond drilling of priority drill targets plus extensive auger drilling for high-grade monazite sand mineralisation

This announcement has been authorized for release by the CEO and Managing Director.

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## End Notes

The information contained in this announcement relating to BRE's historical exploration results is extracted from, or was set out in, the following ASX announcements (Original ASX Announcements) which are available to view at BRE's website at [www.brazilianrareearths.com](http://www.brazilianrareearths.com):

- A. Previously reported exploration results for the re-assays of the Rio Tinto holes can be viewed in the in the ASX Announcement dated 25 March 2024 "[BRE Announces New Rare Earth Discovery – the Pelé Project](#)" and the ASX Announcement dated 6 June 2024 "[Ultra-High Rare Earth Grades at the Sulista Project](#)".
- B. Previously reported exploration results for the Pelé Project can be viewed in the ASX Announcement dated 25 March 2024 "[BRE Announces New Rare Earth Discovery – the Pelé Project](#)" and the ASX Announcement dated 11 June 2024 "[Exploration Drilling Underway at Pelé Project](#)".

BRE confirms that it is not aware of any new information or data that materially affects the information included in the Original ASX Announcements.

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## Forward-Looking Statements and Information

This Announcement may contain "forward-looking statements" and "forward-looking information", including statements and forecasts which include (without limitation) expectations regarding industry growth and other trend projections, forward-looking statements about the BRE's Projects, future strategies, results and outlook of BRE and the opportunities available to BRE. Often, but not always, forward-looking information can be identified by the use of words such as "plans", "expects", "is expected", "is expecting", "budget", "outlook", "scheduled", "target", "estimates", "forecasts", "intends", "anticipates", or "believes", or variations (including negative variations) of such words and phrases, or state that certain actions, events or results "may", "could", "would", "might", or "will" be taken, occur or be achieved. Such information is based on assumptions and judgments of BRE regarding future events and results. Readers are cautioned that forward-looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, targets, performance or achievements of BRE to be materially different from any future results, targets, performance or achievements expressed or implied by the forward-looking information.

Forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, the Directors and management of the Company. Key risk factors associated with an investment in the Company are detailed in Section 3 of the Prospectus dated 13 November 2023. These and other factors could cause actual results to differ materially from those expressed in any forward-looking statements.

Forward-looking information and statements are (further to the above) based on the reasonable assumptions, estimates, analysis and opinions of BRE made on the perception of trends, current conditions and expected developments, as well as other factors that BRE believes to be relevant and reasonable in the circumstances at the date such statements are made, but which may prove to be incorrect. Although BRE believes that the assumptions and expectations reflected in such forward-looking statements and information (including as described in this Announcement) are reasonable, readers are cautioned that this is not exhaustive of all factors which may impact on the forward-looking information.

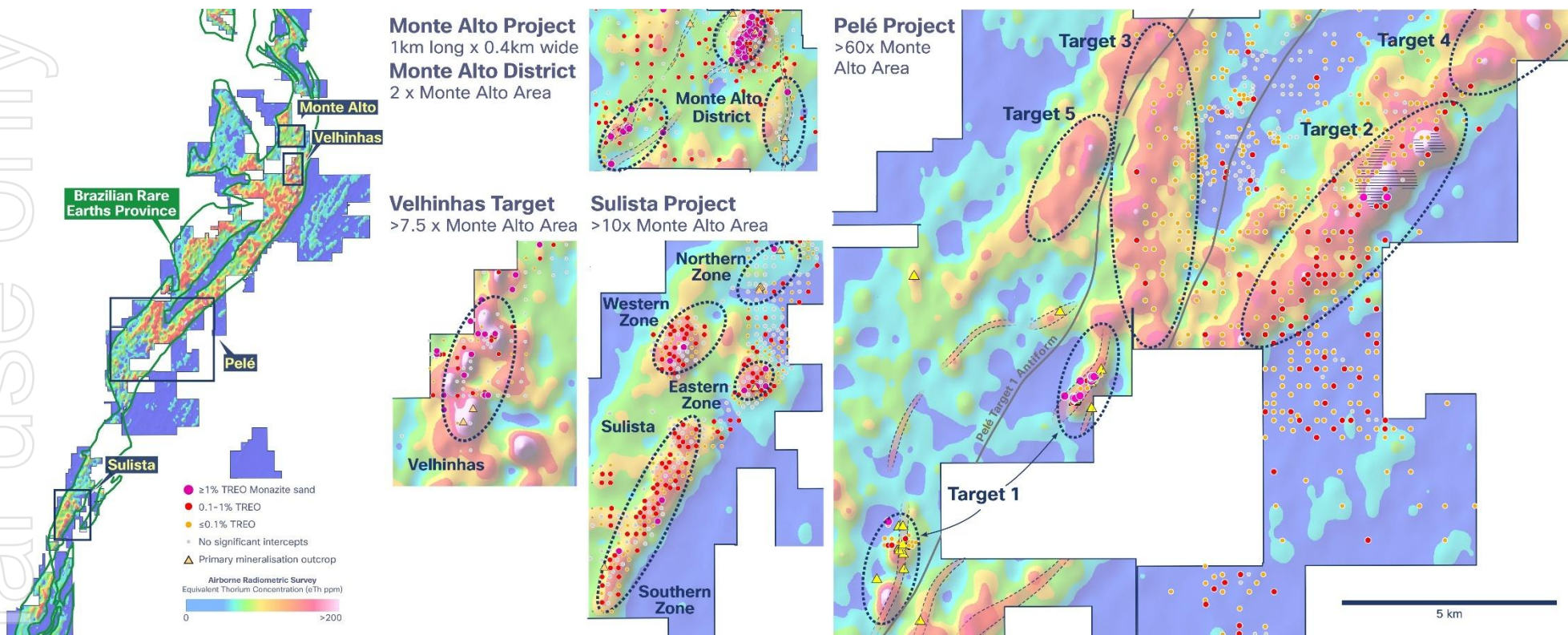
The Company cannot and does not give assurances that the results, performance or achievements expressed or implied in the forward-looking information or statements detailed in this Announcement will actually occur and prospective investors are cautioned not to place undue reliance on these forward-looking information or statements.

Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

## Competent Persons Statement

The information in this announcement that relates to Exploration Results is based on, and fairly represents, information compiled or reviewed by Mr Adam Karst P.G, a Competent Person who is a registered member of the Society of Mining, Metallurgy and Exploration which is a Recognised Overseas Professional Organisation. Mr Karst is an employee of Karst Geo Solutions, LLC. Mr Karst has sufficient experience that is relevant to the style of mineralisation and types of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Karst consents to the inclusion in this report of the results of the matters based on his information in the form and context in which it appears

APPENDIX A: Relative scale of key BRE exploration projects<sup>1</sup>



<sup>1</sup> Refer Prospectus dated 13 November 2023 (released on ASX Announcements Platform on 19 December 2023) and ASX Announcements dated 1 February 2024, 25 March 2024, 6 June 2024, 11 June 2024, 26 August 2024 and 23 October 2024 for details of previously announced exploration results (Original ASX Announcements). BRE is not aware of any new information or data that materially affects the information included in the Original ASX Announcements.



## APPENDIX B Pelé Core Drilling Significant Intercepts

Hole ID	North	East	Elevation	Depth	Dip	Azimuth	From (m)	To (m)	Interval (m)	True Thickness (~m)	TREO (%)	NdPr (ppm)	DyTb <sub>11</sub> (ppm)	Nb <sub>2</sub> O <sub>5</sub> (ppm)	Sc <sub>2</sub> O <sub>3</sub> (ppm)	Ta <sub>2</sub> O <sub>5</sub> (ppm)	U <sub>3</sub> O <sub>8</sub> (ppm)
SDD0017	405917	8484715	662.9	26.8	-90	0	0.0	26.8	26.8	26.8	0.3	210	12	83	10	4	19
SDD0018	405909	8484721	662.9	33.7	-90	0	No significant Interval – not submitted for assay										
SDD0019 including and	405546	8484302	808.4	77.7	-90	0	0.0	77.7	77.7	39	1.3	2,090	109	573	51	25	105
							0.0	12.8	12.8	12.8	5.4	8,173	362	2,533	154	116	441
							52.7	57.7	5.0	2.5	4.2	7,426	410	1,079	148	52	328
SDD0020 including including	405524	8484320	810.3	46.0	-90	0	0.0	33.0	33.0	33.0	1.9	2,426	148	1,126	80	55	151
							4.0	17.7	13.7	13.7	4.1	5,205	298	2,380	150	115	329
							5.0	6.0	1.0	1.0	3.2	1,657	97	5,011	150	248	648
SDD0021 including including and including and and and	405568	8484312	800.5	105.5	-90	0	0.0	104.6	104.6	52	1.9	3,220	153	490	65	26	161
							0.0	12.5	12.5	12.5	5.1	8,549	371	1,939	142	106	483
							0.0	9.0	9.0	9.0	7.0	11,773	511	2,672	196	147	660
							37.9	70.0	32.1	16.5	3.9	6,662	307	717	100	39	323
							37.9	40.0	2.1	1.1	7.4	12,462	532	1,149	155	73	632
							46.4	49.1	2.7	1.4	6.9	11,433	540	1,149	172	69	618
							53.5	55.0	1.5	0.8	4.5	7,757	352	901	124	46	326
59.0	70.0	11.0	5.5	7.5	12,841	570	1,349	156	73	619							
TG1DD0001	405919	8484713	663.2	120.8	-59	132	No significant Interval – not submitted for assay										
TG1DD0002	405945	8484738	655.5	100.2	-61	131	0.0	9.7	9.7	8.3	5.6	8,462	435	2,057	193	108	570
							0.0	6.0	6.0	5.2	8.5	13,415	694	3,207	301	168	865
TG1DD0003	405909	8484749	650.7	100.4	-60	131	No significant Interval – not submitted for assay										
TG1DD0004 including and and and	405539	8484258	817.9	120.3	-60	131	0.0	24.1	24.1	20.0	3.7	5,684	229	1,639	103	84	288
							2.5	17.0	14.5	12.0	5.5	8,181	374	2,550	162	132	456
							23.3	24.1	0.9	0.7	9.3	18,733	6	48	2	0	2
							25.6	40.9	15.3	5.2	9.1	15,617	692	1,861	231	94	754
							56.0	59.0	3.0	1.0	0.6	1,112	48	135	33	7	29
TG1DD0005 including	405569	8484312	800.6	169.7	-60	131	0.0	12.5	12.5	7.6	7.6	12,290	499	2,305	214	121	555
							5.0	6.1	1.1	0.6	13.5	23,217	938	3,688	381	206	1,100

## APPENDIX C Pelé Rock Samples

Results for grab samples collected at the Monte Alto project. Point locations do not represent a continuous sample along any length of the mineralized system. Refer to Table 1 for more information.

Sample	North	East	TREO (%)	Nd <sub>2</sub> O <sub>3</sub> (ppm)	Pr <sub>6</sub> O <sub>11</sub> (ppm)	Dy <sub>2</sub> O <sub>3</sub> (ppm)	Tb <sub>4</sub> O <sub>7</sub> (ppm)	Nb <sub>2</sub> O <sub>5</sub> (ppm)	Sc <sub>2</sub> O <sub>3</sub> (ppm)	Ta <sub>2</sub> O <sub>3</sub> (ppm)	U <sub>3</sub> O <sub>8</sub> (ppm)
R668	401,534	8,480,917	5.6	11,609	3,425	627	127	790	200	41	214
R669	401,542	8,480,922	7.2	11,166	4,070	586	120	699	204	31	239
R670	401,565	8,480,923	7.8	12,881	4,447	834	161	851	232	43	336
R671	401,531	8,480,921	8.8	14,979	5,157	1,015	199	837	209	41	348
R672	401,524	8,480,917	5.6	9,793	3,436	540	111	715	191	35	182
R673	401,530	8,480,915	5.1	8,411	3,083	438	90	763	139	38	199
R674	401,525	8,480,901	5.3	7,957	2,923	354	74	645	158	33	241
R675	401,536	8,480,910	5.3	7,618	2,808	354	74	588	307	30	274
R676	401,549	8,480,719	4.6	8,442	2,471	435	88	701	180	34	190
R677	401,541	8,480,927	5.1	7,475	2,942	351	74	712	207	35	206
R678	401,544	8,480,928	6.1	8,552	3,207	463	94	853	189	42	301
R679	401,540	8,480,910	6.4	9,853	3,580	592	118	724	147	35	259
R680	401,592	8,480,964	6.8	10,039	3,801	534	109	791	179	38	359
R681	401,538	8,481,364	9.1	14,966	5,124	865	176	767	210	38	353
R682	401,545	8,480,964	10.6	17,431	6,249	1,002	202	1,133	381	53	488
R683	401,559	8,480,360	11.2	13,586	4,777	676	133	892	153	45	468
R684	401,441	8,481,360	9.0	17,361	5,830	1,148	223	877	192	45	458
R685	401,562	8,480,917	7.6	11,401	4,050	639	128	722	289	34	351
R686	401,552	8,480,933	7.1	9,542	3,489	514	105	837	251	37	357
R687	401,589	8,481,007	6.7	9,923	3,652	564	113	726	166	36	319
R688	401,537	8,480,907	7.9	11,905	4,184	712	135	1,026	277	52	486
R689	401,539	8,480,907	8.3	12,534	4,329	778	149	1,021	330	52	414
R690	401,537	8,480,903	4.9	7,054	2,644	366	77	674	202	34	253
R691	401,532	8,480,903	4.3	7,025	2,290	332	69	543	208	30	287
R692	401,532	8,480,900	5.1	7,865	2,763	444	90	695	172	35	247
R693	401,531	8,480,897	5.7	7,964	2,857	404	83	717	260	36	291
R694	401,536	8,480,904	5.7	8,707	3,065	418	88	838	205	43	287
R695	401,534	8,480,905	4.6	7,044	2,523	400	81	508	187	26	330
R696	401,540	8,480,906	5.7	10,079	3,505	693	137	611	153	34	254
R697	401,543	8,480,907	7.9	10,165	3,788	503	104	860	301	43	410
R698	401,542	8,480,905	6.8	10,219	3,768	564	113	798	195	40	382
R699	401,542	8,480,906	4.4	5,338	1,961	293	59	483	125	24	259
R700	401,548	8,480,910	9.0	16,257	5,550	1,039	206	930	186	47	477
R701	401,541	8,480,917	10.5	15,300	5,517	795	155	883	278	41	422
R702	401,544	8,480,918	8.3	12,213	4,520	531	111	910	206	45	467
R703	401,543	8,480,924	4.6	6,395	2,287	316	64	645	215	31	228
R704	401,541	8,480,926	6.3	10,462	3,477	614	121	749	226	33	187
R705	401,551	8,480,929	7.1	9,255	3,138	500	100	901	261	44	266
R706	401,549	8,480,928	7.5	9,624	3,592	540	109	746	287	33	322
R708	401,551	8,480,952	4.4	6,381	2,052	313	65	725	326	32	196
R709	401,551	8,480,952	6.0	8,924	3,128	453	94	818	325	35	258
R710	401,551	8,480,952	8.0	11,325	3,684	605	115	740	265	33	265
R711	401,547	8,480,954	5.4	8,198	2,692	423	81	528	233	24	160
R712	401,546	8,480,954	5.2	7,355	2,466	362	73	656	210	30	185
R713	401,549	8,480,949	5.6	7,455	2,590	364	71	583	257	24	154
R714	401,553	8,480,942	6.5	10,154	3,590	446	89	749	301	36	252
R715	401,548	8,480,932	7.4	10,614	3,724	494	97	876	353	43	250
R716	401,448	8,480,857	7.5	11,028	3,725	601	114	779	253	36	295
R717	401,447	8,480,856	5.2	7,749	2,599	400	78	627	225	31	208
R718	401,449	8,480,850	5.0	6,861	2,374	321	63	633	248	28	160
R719	401,449	8,480,844	5.8	8,480	2,820	403	80	760	344	37	249
R720	401,448	8,480,850	5.3	7,811	2,537	404	80	903	296	43	135

Sample	North	East	TREO (%)	Nd <sub>2</sub> O <sub>3</sub> (ppm)	Pr <sub>6</sub> O <sub>11</sub> (ppm)	Dy <sub>2</sub> O <sub>3</sub> (ppm)	Tb <sub>4</sub> O <sub>7</sub> (ppm)	Nb <sub>2</sub> O <sub>5</sub> (ppm)	Sc <sub>2</sub> O <sub>3</sub> (ppm)	Ta <sub>2</sub> O <sub>5</sub> (ppm)	U <sub>3</sub> O <sub>8</sub> (ppm)
R721	401,455	8,480,851	9.0	13,195	4,404	747	143	961	391	44	236
R722	401,448	8,480,849	2.6	3,720	1,236	209	40	463	170	20	111
R723	401,451	8,480,845	8.1	11,456	3,754	532	105	798	316	39	230
R724	401,450	8,480,854	6.9	10,192	3,376	563	108	775	298	38	242
R725	401,451	8,480,855	6.3	8,900	2,965	507	97	636	293	31	170
R727	405,542	8,484,289	0.4	249	86	22	4	1,681	31	79	149
R728	405,543	8,484,291	0.4	287	98	23	4	1,673	43	75	143
R729	405,544	8,484,291	0.4	164	56	16	3	1,840	38	88	140
R730	405,544	8,484,289	1.8	2,640	996	108	22	2,302	274	123	344
R731	405,543	8,484,286	1.1	1,288	449	83	16	1,730	46	90	184
R732	405,545	8,484,284	7.5	2,122	844	108	22	998	201	47	208
R733	405,542	8,484,283	1.8	2,730	1,033	114	22	1,442	171	72	233
R734	405,544	8,484,281	1.0	799	288	44	8	2,350	130	116	176
R735	405,541	8,484,281	2.5	2,948	1,069	144	28	1,667	193	84	230
R736	405,541	8,484,282	1.6	2,177	863	93	19	1,500	201	74	264
R737	405,542	8,484,280	1.6	2,512	934	113	22	1,018	167	48	141
R738	405,542	8,484,279	1.5	2,139	821	116	23	1,088	156	52	160
R739	405,544	8,484,279	1.5	2,094	811	128	24	1,396	176	67	172
R740	405,543	8,484,277	0.9	1,177	430	61	12	649	124	31	104
R741	405,544	8,484,275	1.3	1,246	479	68	13	1,141	158	54	148
R742	405,542	8,484,274	0.6	837	301	55	10	951	164	46	150
R743	405,542	8,484,274	1.6	1,540	585	97	18	1,144	176	53	168
R744	405,540	8,484,273	1.0	1,243	465	70	14	1,030	105	49	135
R745	405,538	8,484,278	0.5	648	237	39	7	1,833	65	91	179
R746	405,540	8,484,280	0.6	365	131	24	5	1,462	72	70	118
R747	405,943	8,484,125	1.1	1,336	535	49	11	236	105	8	220
R748	405,944	8,484,123	1.3	1,884	709	82	18	313	86	11	251
R749	405,950	8,484,118	0.3	345	117	80	13	291	96	11	614
R750	405,949	8,484,123	0.1	122	39	12	2	182	81	6	58
R751	405,950	8,484,104	0.2	227	82	15	3	188	8	11	84
R752	401,583	8,480,902	6.6	8,840	3,277	377	77	816	275	38	287
R753	401,455	8,480,886	6.1	8,525	3,252	389	77	597	224	30	216
R754	401,542	8,480,914	7.6	10,095	3,661	492	96	858	244	42	302
R755	401,550	8,480,955	5.5	8,010	2,768	435	82	610	271	28	170
R756	401,557	8,480,946	5.1	7,540	2,628	370	71	613	239	29	158
R757	401,556	8,480,949	7.1	10,488	3,691	485	95	816	284	41	236
R758	401,557	8,480,944	10.0	11,226	3,853	704	127	679	204	34	281
R759	401,559	8,480,942	5.2	7,668	2,727	360	70	611	286	30	207
R760	401,546	8,480,912	9.9	15,329	5,107	904	169	714	216	33	331
R761	401,540	8,480,912	9.1	14,577	4,711	1,063	188	785	267	38	346
R762	401,543	8,480,912	8.2	14,925	4,980	885	163	828	287	41	341
R763	401,540	8,480,910	8.7	13,271	4,394	818	150	774	310	36	290
R764	401,539	8,480,911	8.6	17,774	5,845	1,084	199	691	213	32	272
R765	401,546	8,480,905	9.6	16,590	5,454	1,054	195	694	296	31	307
R766	401,543	8,480,900	7.9	11,043	3,951	508	98	757	257	35	333
R767	401,544	8,480,901	8.3	13,936	4,805	656	126	653	294	29	264
R768	401,549	8,480,901	9.0	5,774	1,913	289	55	515	121	22	313
R775	405,541	8,484,290	3.7	2,860	1,036	177	32	1,995	212	94	319
R776	405,542	8,484,288	1.8	2,047	782	127	23	2,374	143	115	303
R777	405,539	8,484,290	1.6	1,770	700	101	19	3,379	157	166	505
R778	405,539	8,484,287	0.9	134	47	12	2	1,285	36	56	94
R779	405,539	8,484,284	1.1	1,157	402	83	15	2,194	58	100	231
R780	405,540	8,484,282	1.1	630	228	44	8	1,597	88	70	183
R781	405,539	8,484,283	1.3	471	165	33	6	2,177	68	108	198
R782	405,538	8,484,284	1.8	1,945	747	110	20	2,215	100	110	286
R783	405,540	8,484,284	0.4	171	57	15	3	2,165	67	112	170
R784	405,543	8,484,284	2.1	2,957	1,214	100	20	2,284	348	118	404
R785	405,549	8,484,278	0.1	140	51	8	2	1,025	54	46	62
R786	405,550	8,484,277	0.1	110	42	5	1	297	15	16	37

For personal use only

Sample	North	East	TREO (%)	Nd <sub>2</sub> O <sub>3</sub> (ppm)	Pr <sub>6</sub> O <sub>11</sub> (ppm)	Dy <sub>2</sub> O <sub>3</sub> (ppm)	Tb <sub>4</sub> O <sub>7</sub> (ppm)	Nb <sub>2</sub> O <sub>5</sub> (ppm)	Sc <sub>2</sub> O <sub>3</sub> (ppm)	Ta <sub>2</sub> O <sub>5</sub> (ppm)	U <sub>3</sub> O <sub>8</sub> (ppm)
R787	405,546	8,484,267	0.6	603	219	32	7	2,280	70	121	161
R788	405,545	8,484,266	0.8	851	298	56	10	1,630	40	79	180
R789	405,543	8,484,265	3.3	3,337	1,194	212	39	2,012	169	103	356
R790	405,543	8,484,264	4.7	5,684	2,166	314	59	2,390	159	126	477
R791	405,541	8,484,262	3.5	4,086	1,439	240	44	2,076	54	98	315
R792	405,547	8,484,279	1.6	1,812	701	96	18	1,032	210	51	157
R793	405,545	8,484,279	1.1	1,168	431	64	12	700	119	35	97
R794	405,547	8,484,279	0.7	691	253	42	8	671	100	35	88
R795	405,550	8,484,281	2.2	3,023	1,143	147	28	1,465	167	74	225
R796	405,547	8,484,278	1.7	1,637	637	86	17	985	145	49	191
R797	405,549	8,484,281	1.5	2,179	876	100	19	1,338	108	64	219
R798	405,548	8,484,289	0.2	211	78	16	3	959	66	44	113
R799	405,549	8,484,290	0.4	506	188	31	6	1,076	96	50	144
R800	405,550	8,484,290	0.2	230	83	13	2	531	38	26	132
R801	405,555	8,484,295	1.6	2,187	845	141	26	2,426	260	115	383
R802	405,549	8,484,297	0.3	224	80	13	2	2,035	88	101	138
R803	405,553	8,484,291	13.8	2,202	845	119	23	1,419	505	67	624
R804	405,555	8,484,291	3.9	5,347	1,949	266	50	2,717	286	141	512
R805	405,556	8,484,290	5.4	5,466	2,096	166	34	3,643	251	183	689
R806	405,558	8,484,292	7.2	8,625	3,447	305	61	4,126	360	208	976
R807	405,559	8,484,292	5.9	7,635	2,978	265	53	4,196	505	189	1,004
R808	405,563	8,484,291	5.9	7,279	2,917	249	50	4,393	427	234	914
R809	405,565	8,484,292	2.9	3,809	1,370	209	39	2,205	220	111	313
R810	405,564	8,484,289	1.6	1,724	679	83	16	1,776	133	87	211
R811	405,564	8,484,288	3.9	5,061	1,849	243	46	2,660	312	131	390
R812	405,563	8,484,290	0.6	466	170	26	5	1,260	37	59	137
R813	405,565	8,484,292	2.5	2,799	1,081	142	27	2,341	121	117	247
R814	405,566	8,484,290	0.7	430	151	30	6	1,431	120	67	170
R815	405,566	8,484,292	1.9	1,782	691	94	18	1,308	188	58	198
R816	405,569	8,484,296	9.3	11,569	4,520	403	82	5,253	624	253	992
R817	405,566	8,484,296	7.2	8,806	3,457	302	61	4,681	448	247	856
R818	405,389	8,484,137	0.4	475	179	29	5	206	27	12	34
R819	405,579	8,484,628	0.4	491	173	20	4	226	27	14	36
R820	405,929	8,484,070	0.0	58	18	3	1	15	8	1	2
R821	406,209	8,484,971	0.0	45	13	5	1	24	6	1	3
R907	405,983	8,484,630	0.0	41	10	8	1	34	7	2	1
R908	402,541	8,478,851	0.0	78	20	11	2	26	6	1	3
R909	404,876	8,480,167	0.1	185	54	17	3	49	9	1	5
R910	400,825	8,480,191	0.1	131	35	19	3	71	14	3	2
R911	400,929	8,480,129	1.4	2,629	748	240	45	3,037	146	144	21
R912	401,461	8,479,702	0.0	57	16	8	1	31	4	1	2
R913	399,515	8,481,560	0.1	137	42	19	3	62	4	3	10
R914	399,472	8,481,548	0.1	135	42	15	3	51	3	3	20
R915	399,458	8,481,506	0.1	158	48	19	3	63	4	3	25
R916	400,453	8,485,059	0.1	95	28	15	2	57	5	2	6
R927	403,115	8,484,957	0.0	37	10	6	1	20	4	1	2
R928	401,703	8,487,325	0.1	125	37	24	4	56	7	2	6
R929	398,248	8,486,116	0.0	21	6	2	0	7	8	2	0
R941	405,207	8,486,377	17.7	25,780	9,175	1,367	231	5,102	117	330	724
R944	401,944	8,479,158	4.0	5,150	1,925	245	52	675	54	52	250
R945	401,798	8,487,213	1.7	2,103	842	82	17	491	33	29	512

## APPENDIX D Pelé Auger Information and Significant Intercepts

Auger drillhole assays at the Pelé project with significant intercepts +200ppm TREO-CeO<sub>2</sub>. All holes are drilled vertically.

Hole ID	East	North	Elev. (m)	Depth (m)	Label	From (m)	To (m)	Interval (m)	TREO (ppm)	NdPr (ppm)	DyTb (ppm)	NdPr: TREO (%)	HREO: TREO (%)
STU1276	405,900	8,484,719	663.2	15.7		0.0	14.0	14.0	1,238	161.0	6.0	12.1	4.6
STU1279	405,980	8,484,719	645.8	11.2	Assays received - No significant mineralization								
STU1286	405,999	8,484,720	645.8	12.5	Assays received - No significant mineralization								
STU1289	405,878	8,484,717	668.2	17.0		0.0	17.0	17.0	1,094	185.0	8.0	16.4	6.4
STU1294	406,021	8,484,718	639.3	17.6		9.0	17.6	8.6	653	96.0	7.0	14.9	8.5
STU1296	405,940	8,484,719	652.2	15.0		0.0	15.0	15.0	34,732	4883.0	241.0	9.7	4.2
					Including	1.0	7.00	6.0	78,619	11,681	580.0	14.9	6.9
STU1298	406,035	8,484,719	639.3	16.2		7.0	12.0	5.0	498	111.0	6.0	22.3	9.6
STU1304	405,961	8,484,719	652.2	14.4		0.0	6.0	6.0	1,701	56.0	2.0	4.1	1.6
STU1309	406,001	8,484,779	634.1	12.6		7.0	12.6	5.6	855	143.0	11.0	18.2	10.3
STU1313	405,920	8,484,778	642.1	11.6		0.0	11.0	11.0	2,807	82.0	4.0	4.5	1.8
STU1320	405,980	8,484,817	621.6	14.0		0.0	14.0	14.0	4,510	225.0	9.0	5.4	1.9
					including	0.5	2.0	1.5	11,555	134.0	9.0	1.3	0.6
STU1323	406,018	8,484,780	626.3	22.0		11.0	22.0	11.0	976	131.0	10.0	14.5	8.5
STU1327	405,961	8,484,780	638.4	17.7		0.0	17.7	17.7	10,390	503.0	20.0	5.4	1.9
STU1335	405,941	8,484,819	634.4	13.7		0.0	13.7	13.7	7,003	818.0	40.0	10.4	3.9
					including	11.0	13.7	2.7	10,959	2098.0	107.0	18.6	7.0
STU1337	405,981	8,484,778	628.6	21.0		0.0	21.0	21.0	3,318	238.0	11.0	6.6	2.4
STU1345	405,960	8,484,821	632.3	17.5		0.0	17.5	17.5	6,153	780.0	32.0	13.1	4.1
					including	0.0	3.0	3.0	10,064	170.0	10.0	1.9	0.9
STU1350	406,001	8,484,819	628.6	21.0		0.0	21.0	21.0	3,173	628.0	35.0	14.9	6.7
					including	20.0	21.0	1.0	12,622	4230.0	179.0	33.5	10.4
STU1355	406,024	8,484,808	621.6	21.0		0.0	21.0	21.0	1,736	291.0	21.0	14.8	8.2
STU1361	406,041	8,484,818	612.8	19.0		2.0	19.0	17.0	1,916	356.0	25.0	15.3	8.2
STU1367	406,059	8,484,818	612.8	18.0		3.0	17.0	14.0	1,984	320.0	25.0	15.4	7.6
STU1369	405,501	8,484,220	825.6	15.6		7.0	15.6	8.6	3,065	652.0	38.0	20.6	9.1
STU1373	405,520	8,484,258	816.5	7.0		3.0	7.0	4.0	951	82.0	3.0	9.1	3.2
STU1374	405,536	8,484,259	801.1	10.0		0.5	10.0	9.5	1,466	130.0	4.0	9.0	2.6
STU1375	405,539	8,484,319	800.3	13.0		0.5	13.0	12.5	2,087	230.0	8.0	11.9	4.0
STU1381	405,500	8,484,318	806.4	8.3	Assays received - No significant mineralization								
STU1384	405,480	8,484,319	811.3	8.4	Assays received - No significant mineralization								
STU1385	405,561	8,484,257	801.1	11.8	Assays received - No significant mineralization								
STU1386	405,980	8,484,817	632.3	17.0		0.0	17.0	17.0	3,927	322.0	17.0	9.7	3.8

Hole ID	East	North	Elev. (m)	Depth (m)	Label	From (m)	To (m)	Interval (m)	TREO (ppm)	NdPr (ppm)	DyTb (ppm)	NdPr: TREO (%)	HREO: TREO (%)
STU1391	405,598	8,484,261	805.6	6.5	Assays received - No significant mineralization								
STU1392	405,453	8,484,310	820.8	6.0	Assays received - No significant mineralization								
STU1396	405,600	8,484,269	791.8	5.9	Assays received - No significant mineralization								
STU1401	405,588	8,484,327	785.7	10.0		0.0	10.0	10.0	1,350	105.0	5.0	7.9	3.4
STU1403	405,694	8,484,370	749.6	4.7	Assays received - No significant mineralization								
STU1404	405,620	8,484,259	781.4	0.5	Assays received - No significant mineralization								
STU1410	405,599	8,484,311	788.7	10.5		0.0	4.0	4.0	1,118	124.0	6.0	11.0	4.9
STU1413	405,674	8,484,374	762.4	13.3		7.0	13.3	6.3	3,333	191.0	10.0	10.8	4.9
					including	12.0	13.0	1.0	12,360	231.0	11.0	1.9	0.7
STU1414	405,620	8,484,319	776.3	10.0		0.5	9.0	8.5	1,522	234.0	12.0	14.8	6.9
STU1420	405,658	8,484,378	758.5	14.7		0.0	14.5	14.5	1,909	227.0	8.0	11.8	4.2
STU1423	405,639	8,484,318	776.3	9.0		0.5	9.0	8.5	1,325	223.0	13.0	16.7	7.4
STU1424	405,660	8,484,319	764.9	11.2		4.0	11.2	7.2	1,218	206.0	11.0	17.3	7.6
STU1425	405,640	8,484,378	769.4	8.0		0.0	8.0	8.0	3,378	494.0	19.0	13.8	4.7
STU1430	405,579	8,484,378	784.6	9.9	Assays received - No significant mineralization								
STU1437	405,559	8,484,378	784.6	7.0		1.0	5.0	4.0	689	113.0	7.0	16.5	7.9
STU1438	405,316	8,484,367	807.1	11.0		0.0	11.0	11.0	15,758	2814.0	125.0	16.1	6.3
					including	7.0	8.0	1.0	41,775	7942.0	253.0	19.0	5.5
STU1443	405,540	8,484,378	797.6	7.4	Assays received - No significant mineralization								
STU1444	405,534	8,484,368	795.6	5.9	Assays received - No significant mineralization								
STU1448	405,481	8,484,378	797.6	4.0	Assays received - No significant mineralization								
STU1453	405,519	8,484,380	794.2	4.7	Assays received - No significant mineralization								
STU1455	405,500	8,484,379	794.2	3.9		0.0	3.9	3.9	799	161.0	8.0	19.8	9.2
STU1507	405,665	8,484,862	694.8	4.7	Assays received - No significant mineralization								
STU1514	405,439	8,484,318	815.0	2.6	Assays received - No significant mineralization								
STU1522	401,209	8,481,207	780.9	0.7	Assays received - No significant mineralization								
STU1523	401,202	8,481,045	821.1	4.0	Assays received - No significant mineralization								
STU1527	401,197	8,480,882	758.5	5.0		0.0	5.0	5.0	1,156	254.0	19.0	21.9	12.4
STU1528	401,359	8,481,038	763.5	7.2	Assays received - No significant mineralization								
STU1530	405,680	8,484,720	690.9	15.0		0.0	15.0	15.0	2,894	579.0	48.0	19.8	12.4
					including	14.0	15.0	1.0	13,748	3002.0	256.0	21.8	12.8
STU1531	401,207	8,481,275	772.5	0.8	Assays received - No significant mineralization								
STU1535	401,196	8,481,357	729.0	11.0		2.0	11.0	9.0	702	145.0	10.0	20.5	11.3
STU1541	405,536	8,484,730	709.0	9.0	Assays received - No significant mineralization								
STU1542	401,442	8,481,040	830.9	11.4	Assays received - No significant mineralization								
STU1544	401,112	8,480,886	761.9	16.6		0.0	16.6	16.6	975	201.0	16.0	20.7	12.0
STU1547	401,198	8,481,439	729.0	16.7		0.0	16.7	16.7	1,900	360.0	15.0	19.3	7.7

Hole ID	East	North	Elev. (m)	Depth (m)	Label	From (m)	To (m)	Interval (m)	TREO (ppm)	NdPr (ppm)	DyTb (ppm)	NdPr: TREO (%)	HREO: TREO (%)
STU1547	401,198	8,481,439	729.0	16.7	including	16.0	16.7	0.7	10,547	1965.0	50.0	18.6	4.0
STU1556	405,519	8,484,556	741.6	10.0	Assays received - No significant mineralization								
STU1557	401,516	8,481,026	817.7	2.9	Assays received - No significant mineralization								
STU1562	401,118	8,481,440	742.7	2.3	Assays received - No significant mineralization								
STU1565	401,280	8,480,884	776.0	18.0		9.0	18.0	9.0	1,845	305.0	17.0	17.4	9.1
STU1568	401,268	8,481,107	813.8	2.9	Assays received - No significant mineralization								
STU1570	401,599	8,481,035	802.3	7.8		1.0	7.8	6.8	1,063	108.0	4.0	10.5	4.0
STU1571	405,686	8,484,539	738.6	6.5		1.0	4.0	3.0	420	69.0	1.0	16.6	4.0
STU1573	401,277	8,481,035	824.9	15.0		12.0	15.0	3.0	608	88.0	2.0	14.8	4.1
STU1576	401,678	8,481,034	786.7	10.3	Assays received - No significant mineralization								
STU1577	401,288	8,480,968	806.7	1.2	Assays received - No significant mineralization								
STU1578	405,846	8,484,548	703.5	8.3		0.0	8.3	8.3	759	85.0	2.0	11.1	2.8
STU1585	401,362	8,480,876	802.4	26.8	Assays received - No significant mineralization								
STU1587	405,996	8,484,553	691.1	5.3	Assays received - No significant mineralization								
STU1592	401,116	8,481,041	810.7	15.0		0.0	15.0	15.0	949	216.0	18.0	22.5	13.3
STU1593	401,754	8,481,035	758.2	14.5	Assays received - No significant mineralization								
STU1602	401,600	8,480,958	806.2	7.7	Assays received - No significant mineralization								
STU1603	401,677	8,480,961	793.8	16.2		7.0	16.2	9.2	614	67.0	3.0	10.9	5.7
STU1605	401,337	8,480,809	773.9	18.7	Assays received - No significant mineralization								
STU1609	406,015	8,484,705	639.3	12.5	Assays received - No significant mineralization								
STU1612	401,282	8,480,804	747.5	13.8	Assays received - No significant mineralization								
STU1615	401,675	8,481,111	762.1	5.0		1.0	5.0	4.0	783	126.0	7.0	15.9	7.3
STU1626	401,598	8,481,119	775.9	2.2	Assays received - No significant mineralization								
STU1627	406,161	8,484,714	593.1	8.4	Assays received - No significant mineralization								
STU1628	401,369	8,480,951	816.9	5.0	Assays received - No significant mineralization								
STU1630	401,759	8,480,953	780.0	5.0		1.0	5.0	4.0	1,000	153.0	7.0	14.1	6.2
STU1634	401,843	8,480,949	763.0	7.5		3.0	6.0	3.0	792	160.0	8.0	20.1	8.6
STU1636	406,151	8,484,861	592.4	8.7		0.0	8.7	8.7	555	108.0	11.0	19.7	15.7
STU1637	401,443	8,480,876	810.1	20.0	Assays received - No significant mineralization								
STU1639	401,252	8,481,100	786.9	3.1	Assays received - No significant mineralization								
STU1640	401,835	8,480,860	781.0	4.2	Assays received - No significant mineralization								
STU1646	401,517	8,480,878	804.3	10.7	Assays received - No significant mineralization								
STU1654	401,593	8,480,883	793.1	7.3	Assays received - No significant mineralization								
STU1657	401,759	8,480,861	791.6	21.4		0.0	20.0	20.0	694	73.0	4.0	11.2	6.5
STU1661	401,520	8,480,954	819.5	12.6	Assays received - No significant mineralization								
STU1662	401,678	8,480,878	793.8	19.2		3.0	19.2	16.2	709	96.0	5.0	12.5	5.8
STU1667	401,438	8,481,113	797.4	19.7	Assays received - No significant mineralization								

Hole ID	East	North	Elev. (m)	Depth (m)	Label	From (m)	To (m)	Interval (m)	TREO (ppm)	NdPr (ppm)	DyTb (ppm)	NdPr: TREO (%)	HREO: TREO (%)
STU1668	405,837	8,484,722	672.1	15.0		0.0	9.0	9.0	1,351	196.0	8.0	16.2	6.1
STU1673	401,440	8,480,954	824.1	16.1		3.0	11.0	8.0	824	176.0	11.0	21.5	10.0
STU1676	401,357	8,481,099	818.3	9.0	Assays Pending								
STU1677	401,821	8,480,792	789.9	7.7	Assays Pending								
STU1681	401,758	8,480,795	783.8	11.3	Assays Pending								
STU1682	401,290	8,481,195	774.1	1.7	Assays Pending								
STU1683	401,189	8,481,126	817.3	5.4	Assays Pending								
STU1684	401,278	8,481,278	751.3	2.4	Assays Pending								
STU1687	401,270	8,481,365	725.9	3.6	Assays Pending								
STU1692	401,359	8,481,181	780.8	3.5	Assays Pending								
STU1694	401,356	8,481,279	774.3	8.4	Assays Pending								
STU1699	401,580	8,481,204	734.3	9.9	Assays Pending								
STU1702	401,438	8,481,279	735.5	18.0	Assays Pending								
STU1706	401,364	8,481,363	709.5	15.1	Assays Pending								
STU1709	401,594	8,481,282	709.5	11.6	Assays Pending								
STU1711	401,438	8,481,201	761.3	19.8	Assays Pending								
STU1712	435,757	8,510,640	673.7	12.0	Assays Pending								
STU1714	401,585	8,481,357	675.5	2.4	Assays Pending								
STU1722	401,678	8,481,281	684.0	15.5	Assays Pending								
STU1726	401,515	8,481,274	719.1	17.0	Assays Pending								
STU1729	401,397	8,480,919	815.3	16.0	Assays Pending								
STU1740	401,437	8,480,918	818.4	17.0	Assays Pending								
STU1741	401,518	8,480,919	813.4	18.5	Assays Pending								
STU1746	401,476	8,480,919	817.6	17.0	Assays Pending								



## APPENDIX E: JORC Table

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
<p>Sampling techniques</p>	<ul style="list-style-type: none"> <li>• <i>Nature and quality of sampling (e.g. 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.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>In cases where 'industry standard' work has been done this would be relatively simple (eg. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g 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.</i></li> </ul>	<p>The reported drill results are obtained from diamond core and auger drilling. Diamond drill holes were drilled with 3m run lengths in fresh rock and 1.5m run length in saprolite. Drill core was collected directly from a core barrel and placed in pre-labelled core trays. Run interval depths were measured and recorded. Drill core was transported to the BRE's exploration facility where it was measured for recovery, geologically logged, photographed, and marked up for sampling.</p> <p>Selected sample intervals considered lithological boundaries (i.e. sample was to, and not across, major contacts). Diamond core was HQ or NQ size. The diamond core sample intervals were a minimum of 0.5m and a maximum of 3m.</p> <p>Diamond drill core was cut using a core saw into two quarter core samples with one summited for assay and the other retained for archive. The remaining half core remained in the core tray for further testing. Cuts were made along a line drawn to ensure samples were not influenced by the distribution of mineralisation within the drill core (i.e. the cut line bisected mineralised zones). The split for assay was placed in pre-numbered sample bags for shipment to the laboratory for ICPMS analysis.</p> <p>Auger samples were recovered directly from the auger bucket and placed onto a polypropene tarp, photographed, and geologically logged in the field. The samples were transported to the BRE's exploration facility where they were sieved through a 10 mm by 10 mm screen. The oversized material was mechanically pulverized prior to being re-combined with the undersized material on a plastic tarp. The sample was homogenised by working the material back and forth on tarp and was then split into two portions: one for assay and another for archive. The split for assay was placed in pre-numbered sample bags for shipment to the laboratory for ICPMS analysis. The other portion was bagged and stored onsite in a secure warehouse as archive material. The collected sample interval lengths are 1 m with some variation depending on sample recovery and geological unit boundaries</p> <p>All drilling provided a continuous sample of mineralised zone. All mineralisation that is material to this report has been directly determined through quantitative laboratory analytical techniques that are detailed in the sections below.</p> <p>Grab samples were collected from REE-Nb-Sc-Ta-U outcrop, subcrop and float using a rock hammer to obtain representative saprolite, saprock and rock fragments with an average weight of 1.3kg.</p>

Criteria	JORC Code explanation	Commentary
		Rock fragments were placed in pre-numbered sample bags in the field and then transported to the Company's exploration facility for shipment to the laboratory for ICPMS analysis.
Drilling techniques	<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>	<p>Core drilling was conducted by BRE using a Royal Eijkkamp CompactRotoSonic XL170 MAX DUO rig to drill vertical holes with an operational depth limit of 200m and an average depth of 58m; and using an I-800 DKVIII-12 rig to drill angled holes with an operational depth limit of 500m and an average depth of 122m.</p> <p>Drill core was recovered from surface to the target depth. All diamond drill holes utilized a 3.05m long single wall barrel and were collared with HQ and were transitioned to NQ once non-weathered and unoxidized bedrock was encountered. Water is used as a drilling fluid as necessary and to aid in extruding material from the core barrel.</p> <p>Oriented core was collected on selected angled drill holes using the REFLEX ACT III tool by a qualified geologist at the drill rig. The orientation data is currently being evaluated.</p> <p>Auger drilling was conducted by BRE using a 0.05m diameter x 0.4m long clay soil auger bucket with 0.5m to 1m long rods rotated by a gasoline engine with hand-holds. The auger bucket was advanced by adding rods until either groundwater was reached (which degrades sample quality) or refusal due to rock or hard saprolite. Auger drilling has a maximum operational limit of 30 m deep. The average auger hole depth is 11m. All auger holes are drilled vertically.</p>
Drill sample recovery	<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>	<p>The diamond core was transported from the drill site to the logging facility in covered boxes with the utmost care. Once at the logging facility, broken core was re-aligned to its original position as closely as possible. The recovered drill core was measured, and the length was divided by the interval drilled and expressed as a percentage. This recovery data was recorded in the database.</p> <p>Recoveries for all core drilling are consistently good. There does not appear to be a relationship between sample recovery and grade or sample bias due to preferential loss or gain of fine or coarse material with these drilling and sampling methods.</p> <p>Samples collected from auger drilling were checked by the technician at the rig to ensure they represented of the interval drilled. When fall-back was noted, fallen material was removed before sample collection. If poor recovery is encountered drill speed was decreased. If poor recovery at the beginning of a hole was persistent, the hole was redrilled at a nearby location.</p>
Logging	<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>	<p>Data was collected in sufficient detail to support Mineral Resource estimation studies.</p> <p>All drill core was logged at the Company's exploration facility by the logging geologist. Core was photographed wet in core boxes immediately before sampling. Core photos show sample numbers, drill run lengths for material in the core box.</p>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<p>Each auger drillhole interval was logged in the field by the onsite technician. Each auger sample was arranged on a plastic sheet to align with the likely in-situ position and was then photographed in its natural condition prior to transport to the exploration facility. Photos show auger hole number and drill run lengths.</p> <p>Logging included qualitative determinations of primary and secondary lithology units, weathering profile unit (mottled zone, lateritic zone, saprock, saprolite, etc.) as well as colour and textural characteristics of the rock.</p> <p>GPS coordinates as well as geological logging data for all drillholes were captured in a Microsoft Excel spreadsheet and uploaded to the project database in MXDeposit. Data was collected in sufficient detail to support Mineral Resource estimation.</p> <p>All drill holes reported in this news release were logged entirely.</p>
<p><i>Sub-sampling techniques and sample preparation</i></p>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<p>Core from diamond drilling was split to obtain quarter core sub-samples for assaying. Reported diamond core sample intervals were typically 1m in length with a minimum of 0.5m and a maximum of 3m. Interval lengths considered lithological boundaries (i.e. sample was to, and not across, major contacts). To avoid selection bias, the right of core was consistently sampled and the bottom half retained in the core tray for archiving.</p> <p>Each auger sample was sieved through a 10mm by 5mm screen. The oversized material mechanically pulverized prior to being re-combined with the undersized material on a plastic tarp. The sample material was homogenized by working it back and forth on the tarp, and then split using the cone and quarter method to produce sub-samples for assaying and archiving. Auger samples were processed with natural moisture content. Otherwise, samples too wet for effective screening were air dried naturally prior to processing. To minimize cross contamination sampling tools, such as the plastic tarp, screen, and cutting tools were cleaned using compressed air between samples.</p> <p>Field duplicates were completed at frequency 1:20 samples to evaluate the sample collection procedures to ensure representativeness and show good reproducibility. Duplicate analyses of coarse crush and pulp material were provided by SGS.</p> <p>Core and auger sub-samples submitted for assaying had an average weight of approximately 1 kg. Submitted samples have appropriate mass to represent the material collected which includes mega-enclaves of cumulate REE-Nb-Sc-Ta-U mineralisation, microparticle to sand sized monazite grains, and ionic clay REE mineralisation.</p>

Criteria	JORC Code explanation	Commentary																																																
<p>Quality of assay data and laboratory tests</p>	<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 (i.e. lack of bias) and precision have been established.</li> </ul>	<p>Drill core and auger samples collected by the Company were assayed by SGS Geosol in Vespasiano, Minas Gerais, Brazil, which is considered the Primary laboratory.</p> <p>Samples were initially dried at 105 degrees Celsius for 24 hours. Samples were crushed to 75% passing the 3mm fraction and the weight was recorded. The sample was reduced on a rotary splitter and then 250g to 300g of the sample was pulverized to 95% passing 75 µm. Residues were stored for check analysis or further exploration purposes.</p> <p>The assay technique used for REE was Lithium Borate Fusion ICP-MS (SGS Geosol code IMS95A). This is a total analysis of the REE. Elements analysed at ppm levels were as follows:</p> <table border="1" data-bbox="1227 587 1995 715"> <tr> <td>Ce</td><td>Co</td><td>Cs</td><td>Cu</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>Mo</td><td>Nb</td><td>Nd</td></tr> <tr> <td>Ni</td><td>Pr</td><td>Rb</td><td>Sm</td><td>Sn</td><td>Ta</td><td>Tb</td><td>Th</td></tr> <tr> <td>Tl</td><td>Tm</td><td>U</td><td>W</td><td>Y</td><td>Yb</td><td></td><td></td></tr> </table> <p>Overlimit samples were analysed at percentage levels using SGS Geosol analysis code IMS95RS</p> <p>The assay technique used for major oxides and components was Lithium Borate Fusion ICP-OES (SGS Geosol code ICP95A). This is a total analysis for the elements analysed % and ppm (Ba, V, Sr, Zn, Zr) levels as listed below:</p> <table border="1" data-bbox="1364 922 1854 1050"> <tr> <td>Al<sub>2</sub>O<sub>3</sub></td><td>Ba</td><td>CaO</td><td>Cr<sub>2</sub>O<sub>3</sub></td></tr> <tr> <td>Fe<sub>2</sub>O<sub>3</sub></td><td>K<sub>2</sub>O</td><td>MgO</td><td>MnO</td></tr> <tr> <td>Na<sub>2</sub>O</td><td>P<sub>2</sub>O<sub>5</sub></td><td>SiO<sub>2</sub></td><td>Sr</td></tr> <tr> <td>TiO<sub>2</sub></td><td>V</td><td>Zn</td><td>Zr</td></tr> </table> <p>Analysis for Scandium (Sc) was made by 4-Acid ICP-AES Analysis (SGS Geosol code ICM40-FR).</p> <p>Accuracy was monitored through submission of certified reference materials (CRMs) supplied by OREAS North America Inc. CRM materials (25a, 106, 147, 460 and 465) cover a range of REE grades encountered on the project. CRM 465 has an equivalent grade of approximately 10% TREO and supports reliable analysis of high grade REEE-Nb-Sc mineralisation detailed in this report. CRM were inserted within batches of core, sonic and auger drill samples, and grab samples, at a frequency of 1:20 samples.</p> <p>CRMs were submitted as “blind” control samples not identifiable by the laboratory and were alternated to span the range of expected grades within a group of 100 samples.</p>	Ce	Co	Cs	Cu	Dy	Er	Eu	Ga	Gd	Hf	Ho	La	Lu	Mo	Nb	Nd	Ni	Pr	Rb	Sm	Sn	Ta	Tb	Th	Tl	Tm	U	W	Y	Yb			Al <sub>2</sub> O <sub>3</sub>	Ba	CaO	Cr <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	K <sub>2</sub> O	MgO	MnO	Na <sub>2</sub> O	P <sub>2</sub> O <sub>5</sub>	SiO <sub>2</sub>	Sr	TiO <sub>2</sub>	V	Zn	Zr
Ce	Co	Cs	Cu	Dy	Er	Eu	Ga																																											
Gd	Hf	Ho	La	Lu	Mo	Nb	Nd																																											
Ni	Pr	Rb	Sm	Sn	Ta	Tb	Th																																											
Tl	Tm	U	W	Y	Yb																																													
Al <sub>2</sub> O <sub>3</sub>	Ba	CaO	Cr <sub>2</sub> O <sub>3</sub>																																															
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Na <sub>2</sub> O	P <sub>2</sub> O <sub>5</sub>	SiO <sub>2</sub>	Sr																																															
TiO <sub>2</sub>	V	Zn	Zr																																															

Criteria	JORC Code explanation	Commentary
		<p>Contamination was monitored by insertion of blank samples of coarse quartz fragments. Blanks were inserted within batches of sonic and auger drill samples, and grab samples, at a frequency of 1:40 samples. Blanks pass through the entire sample preparation stream to test for cross contamination at each stage. No laboratory contamination or bias were noticed.</p> <p>Precision and sampling variance was monitored by the collection 'Field duplicate' samples, predominantly from mineralised intervals, at the rate of 1:20 samples. Half core was split into two ¼ core samples to make field duplicate pairs that are analysed sequentially.</p> <p>The adopted QA/QC protocols are acceptable for this stage of exploration. Examination of the QA/QC sample data indicates satisfactory performance of field sampling protocols and assay laboratory procedures. Levels of precision and accuracy are sufficient to allow disclosure of analysis results and their use for Mineral Resource estimation.</p>
<p>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<p>No independent verification of significant intersections was undertaken.</p> <p>Nineteen closely spaced twin holes were drilled using a sonic drill rig to verify the auger drilling and sampling methods. There does not appear to be a systematic bias associated with auger drill method. Mean assay values obtained by augering are not likely to be higher or lower than values obtained by sonic drilling.</p> <p>All assay results are checked by the company's Principal Geologist. Logging for drillholes was directly uploaded to the project database housed in the MXDeposit system. Assay data and certificates in digital format from the laboratory are directly uploaded to the project database.</p> <p>Rare earth oxide is the industry-accepted form for reporting rare earth elements. The following calculations are used for compiling REO into their reporting and evaluation groups:</p> <p>Note that Y<sub>2</sub>O<sub>3</sub> is included in the TREO, HREO and MREO calculations.</p> <p>TREO (Total Rare Earth Oxide) = La<sub>2</sub>O<sub>3</sub> + CeO<sub>2</sub> + Pr<sub>6</sub>O<sub>11</sub> + Nd<sub>2</sub>O<sub>3</sub> + Sm<sub>2</sub>O<sub>3</sub> + Eu<sub>2</sub>O<sub>3</sub> + Gd<sub>2</sub>O<sub>3</sub> + Tb<sub>4</sub>O<sub>7</sub> + Dy<sub>2</sub>O<sub>3</sub> + Ho<sub>2</sub>O<sub>3</sub> + Er<sub>2</sub>O<sub>3</sub> + Tm<sub>2</sub>O<sub>3</sub> + Yb<sub>2</sub>O<sub>3</sub> + Y<sub>2</sub>O<sub>3</sub> + Lu<sub>2</sub>O<sub>3</sub>.</p> <p>HREO (Heavy Rare Earth Oxide) = Sm<sub>2</sub>O<sub>3</sub> + Eu<sub>2</sub>O<sub>3</sub> + Gd<sub>2</sub>O<sub>3</sub> + Tb<sub>4</sub>O<sub>7</sub> + Dy<sub>2</sub>O<sub>3</sub> + Ho<sub>2</sub>O<sub>3</sub> + Er<sub>2</sub>O<sub>3</sub> + Tm<sub>2</sub>O<sub>3</sub> + Yb<sub>2</sub>O<sub>3</sub>, + Y<sub>2</sub>O<sub>3</sub> + Lu<sub>2</sub>O<sub>3</sub>.</p> <p>MREO (Magnet Rare Earth Oxide) = Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub>Pr<sub>6</sub>O<sub>11</sub> + Tb<sub>4</sub>O<sub>7</sub> + Dy<sub>2</sub>O<sub>3</sub> + Gd<sub>2</sub>O<sub>3</sub> + Ho<sub>2</sub>O<sub>3</sub> + Sm<sub>2</sub>O<sub>3</sub> + Y<sub>2</sub>O<sub>3</sub>.</p> <p>LREO (Light Rare Earth Oxide) = La<sub>2</sub>O<sub>3</sub> + CeO<sub>2</sub> + Pr<sub>6</sub>O<sub>11</sub> + Nd<sub>2</sub>O<sub>3</sub>.</p>

Criteria	JORC Code explanation	Commentary																																																
		<p>NdPr = Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub>.</p> <p>NdPr% of TREO = Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub>/TREO x 100.</p> <p>HREO% of TREO = HREO/TREO x 100.</p> <p>Conversion of elemental analysis (REE) to stoichiometric oxide (REO) was undertaken by spreadsheet using defined conversion factors.</p> <table border="1" data-bbox="1391 587 1832 1093"> <thead> <tr> <th>Element</th> <th>Factor</th> <th>Oxide</th> </tr> </thead> <tbody> <tr><td>La</td><td>1.1728</td><td>La<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Ce</td><td>1.2284</td><td>Ce<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Pr</td><td>1.2082</td><td>Pr<sub>6</sub>O<sub>11</sub></td></tr> <tr><td>Nd</td><td>1.1664</td><td>Nd<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Sm</td><td>1.1596</td><td>Sm<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Eu</td><td>1.1579</td><td>Eu<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Gd</td><td>1.1526</td><td>Gd<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Tb</td><td>1.1762</td><td>Tb<sub>4</sub>O<sub>7</sub></td></tr> <tr><td>Dy</td><td>1.1477</td><td>Dy<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Ho</td><td>1.1455</td><td>Ho<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Er</td><td>1.1435</td><td>Er<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Tm</td><td>1.1421</td><td>Tm<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Yb</td><td>1.1387</td><td>Yb<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Lu</td><td>1.1372</td><td>Lu<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Y</td><td>1.2699</td><td>Y<sub>2</sub>O<sub>3</sub></td></tr> </tbody> </table> <p>The process of converting elemental analysis of rare earth elements (REE) to stoichiometric oxide (REO) was carried out using predefined conversion factors on a spreadsheet. (Source : <a href="https://www.jcu.edu.au/advanced-analytical-centre/services-and-resources/resources-and-extras/element-to-stoichiometric-oxide-conversion-factors">https://www.jcu.edu.au/advanced-analytical-centre/services-and-resources/resources-and-extras/element-to-stoichiometric-oxide-conversion-factors</a>)</p>	Element	Factor	Oxide	La	1.1728	La <sub>2</sub> O <sub>3</sub>	Ce	1.2284	Ce <sub>2</sub> O <sub>3</sub>	Pr	1.2082	Pr <sub>6</sub> O <sub>11</sub>	Nd	1.1664	Nd <sub>2</sub> O <sub>3</sub>	Sm	1.1596	Sm <sub>2</sub> O <sub>3</sub>	Eu	1.1579	Eu <sub>2</sub> O <sub>3</sub>	Gd	1.1526	Gd <sub>2</sub> O <sub>3</sub>	Tb	1.1762	Tb <sub>4</sub> O <sub>7</sub>	Dy	1.1477	Dy <sub>2</sub> O <sub>3</sub>	Ho	1.1455	Ho <sub>2</sub> O <sub>3</sub>	Er	1.1435	Er <sub>2</sub> O <sub>3</sub>	Tm	1.1421	Tm <sub>2</sub> O <sub>3</sub>	Yb	1.1387	Yb <sub>2</sub> O <sub>3</sub>	Lu	1.1372	Lu <sub>2</sub> O <sub>3</sub>	Y	1.2699	Y <sub>2</sub> O <sub>3</sub>
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<p>Location of data points</p>	<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>	<p>Diamond drill collars are located by a surveyor using RTK-GPS with centimetre scale accuracy.</p> <p>Drill hole surveying was performed on each diamond hole using a REFLEX EZ-Trac multi-shot instrument. Readings were taken every 10 to 25 meters and recorded depth, azimuth, and inclination. Projected drill hole traces show little deviation from planned orientations.</p>																																																

Criteria	JORC Code explanation	Commentary
		<p>Auger drill hole collars and grab sample locations were recorded using a handheld GPS with an accuracy of less than 5 meters. Downhole surveys were not conducted, as auger holes are vertical and shallow (less than 30 meters deep). As a result, any drill hole deviation is considered immaterial to the reliability of drill trace projections.</p> <p>The accuracy of projected exploration data locations is sufficient for this stage of exploration and to support mineral resource estimation studies.</p> <p>The grid datum used is SIRGAS 2000 UTM 24S. Topographic control is provided by a DEM obtained from SRTM data at a lateral resolution of 30m<sup>2</sup>.</p>
<p><i>Data spacing and distribution</i></p>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<p>At Target 1, in selected areas that host hard rock REE, Nb, Sc, Ta, and U mineralisation, drill spacing is currently intermittent. Additional drilling is underway to extend mineralised zones and to establish geological and grade continuity at a resolution sufficient to support mineral resource estimation and exploration targeting.</p> <p>Across all target areas, laterally extensive REE-enriched horizons occur within the regolith. At Target 1, two zones in the northeast and southeast prospects each cover approximately 0.5 square kilometres and have been tested by auger drilling with spacings ranging from 80 to 200 metres in both the north to south and east to west directions.</p> <p>In the northeast prospect, REEs are primarily hosted in the regolith by sand sized monazite grains concentrated within a northeast trending high grade corridor. This zone has been tested by auger and sonic drilling on a denser grid, with spacings of 20 metres from east to west and 60 metres from north to south. At Pelé Target 1 Northeast, the drill density is sufficient to establish continuity in geology and grade in line with the criteria for Inferred Resource classification.</p> <p>Composite sample grades are calculated using length weighted averages of assay results..</p>
<p><i>Orientation of data in relation to geological structure</i></p>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>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.</i></li> </ul>	<p>The distribution of REEs within the regolith horizons is primarily controlled by vertical variations in the weathering profile. Vertical drill holes intersect these horizons perpendicularly, providing representative samples that reflect the true thickness of the horizontal mineralisation. In regolith, the use of auger and vertical diamond (SDD series) drill hole orientations does not result in geometrically biased interval thicknesses.</p> <p>At the Pelé Target 1, mineralisation within fresh rock is controlled by steeply dipping mega-enclaves of chevkinite-rich REE-Nb-Sc-Ta-U cumulate mineralization. The orientation of these bodies is interpreted with low confidence. Based on surface mapping, initial angled core holes were drilled towards the southeast at -60° inclinations in an effort to intersect the mineralised bodies as close to perpendicular as possible. Drill results suggest that the orientation of mineralisation is variable, with some zones dipping towards the southeast. Both vertical and angled diamond drill holes tend</p>

Criteria	JORC Code explanation	Commentary
		<p>to intersect the mineralisation at highly oblique angles with true thickness typically 30-50% of down hole length.</p> <p>Grab samples are collected from individual point locations on outcrop, subcrop, boulders, and float. They do not represent continuous sampling along the mineralised system.</p>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<p>After collection in the field, the auger and grab samples were placed in sealed plastic bags that were then placed into larger polyweave bags labelled with the sample IDs inside and transported to the Company's secure warehouse. Drill core samples were transported in their core boxes.</p> <p>A local courier transported the samples submitted for analysis to the laboratory. A copy of all waybills related to the sample forwarding was secured from the expeditor.</p> <p>An electronic copy of each submission was forwarded to the laboratory to inform them of the incoming sample shipment.</p> <p>Once the samples arrived at the laboratory, the Company was notified by the laboratory manager and any non-compliance is reported.</p> <p>The laboratory did not report any issues related to the samples received.</p>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<p>The Company engaged the services of Telemark Geosciences to review the sampling and analysis techniques used at the Project, and to establish a "Standard Operating Procedures" manual to guide exploration.</p> <p>CSA Global Associate Principal Consultant, Peter Siegfried has toured the Company's exploration sites and facilities and conducted reviews of sampling techniques and data. The Company has addressed recommendations and feedback provided by CSA Global.</p>

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<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>	<p>As at 31 December 2024, the Rocha da Rocha Project comprised 267 granted exploration permits registered with Brazil's National Mining Agency and covering an area of approximately 426,835 hectares. All exploration permits are located in Bahia, Brazil and are held by the BRE's Brazilian subsidiaries directly or are to be acquired through legally binding agreements with third parties.</p> <p>All mining permits in Brazil are subject to state and landowner royalties, pursuant to article 20, § 1, of the Constitution and article 11, "b", of the Mining Code. In Brazil, the Financial Compensation for the Exploration of Mineral Resources (Compensação Financeira por Exploração Mineral - CFEM)</p>



Criteria	JORC Code explanation	Commentary
		<p>is a royalty to be paid to the Federal Government at rates that can vary from 1% up to 3.5%, depending on the substance. It is worth noting that CFEM rates for mining rare earth elements are 2%. CFEM shall be paid (i) on the first sale of the mineral product; or (ii) when there is mineralogical mischaracterization or in the industrialization of the substance, which is which is considered "consume" of the product by the holder of the mining tenement; or (iii) when the products are exported, whichever occurs first. The basis for calculating the CFEM will vary depending on the event that causes the payment of the royalty. The landowners royalties could be subject of a transaction, however, if there's no agreement to access the land or the contract does not specify the royalties, article 11, §1, of the Mining Code sets forth that the royalties will correspond to half of the amounts paid as CFEM.</p> <p>The exploration permits in the BRE Tenements section of Table 3 (but excluding exploration permit 871.929/2022 and 871.931/2022, and also excluding the application for exploration permit 871.928/2022) are subject to an additional 2.5% royalty agreement in favour of Brazil Royalty Corp. Participações e Investimentos Ltda (BRRCP).</p> <p>Outside of the ESEC, a further 35 tenements contain approximately 165 km that falls within a State Nature Reserve (APA Caminhos Ecológicos da Boa Esperança), in which mining activities are allowed if authorized by the local environmental agency.</p> <p>In the Brazilian legal framework, mining activities within sustainable use areas are not explicitly prohibited at federal, state, or municipal levels, despite that, the zone's management authority may prohibit mining, if it deems necessary, in the zone's management plan. Activities in these areas must reconcile economic development with environmental preservation. Mining operations impacting these areas require licensing approval from the respective zone's management authority. This authorization is contingent upon conducting thorough Environmental Impact Assessment (EIA) studies. These prescribed areas do not limit mining elsewhere on the Property.</p> <p>The tenements are secure and in good standing with no known impediments to obtaining a licence to operate in the area.</p>
<p>Exploration done by other parties</p>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<p>On the BRE Property, no previous exploration programs conducted by other parties for REEs. Between 2007 and 2011 other parties conducted bauxite exploration that is detailed in the company's prospectus and included exploratory drilling amounting to 56,919 m in 4,257 drill holes.</p> <p>On the Sulista Property, between 2013 and 2019 the project Vendors conducted exploration on the Licences that included drilling of approximately 5,000m of across 499 auger holes and approximately 1,000m of core holes.</p> <p>As of the effective date of this report, BRE is appraising the exploration data collected by other parties.</p>

Criteria	JORC Code explanation	Commentary
Geology	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<p>The Company's tenements contain REE deposits interpreted as analogies to Ion Adsorption ionic Clay ("IAC") deposits, and regolith hosted deposits of monazite mineral grains, and primary in-situ REE-Nb-Sc mineralisation.</p> <p>The Project is hosted by the Jequié Complex, a terrain of the north-eastern São Francisco Craton, that includes the Volta do Rio Plutonic Suite of high-K ferroan ("A-type") granitoids, subordinate mafic to intermediate rocks; and thorium rich monazitic leucogranites with associated REE.</p> <p>Bedrock REE-Nb-Sc-Ta-U mineralisation is characterized by shallow to steeply dipping mega-enclaves of chevkinite and apatite-britholite cumulate mineralisation. At Pelé Target 1 cumulate horizons are interpreted to occupy the limbs a regional anticline. The company has initiated mapping of the limited bedrock exposures at property and proposes to undertake high resolution drone magnetic and radiometric surveys, and further infill drilling to develop a model of the local geological setting.</p> <p>The regolith surrounding the REE-Nb-Sc-Ta-U mineralization is enriched in residual monazite sand and REE bearing Th-Nb-Fe-Ti-Oxides arising from weathered chevkinite rick cumulate mineralization. More broadly, the regolith IAC mineralisation is characterised by a REE enriched lateritic zone at surface underlain by a depleted mottled zone grading into a zone of REE-accumulation in the saprolite part of the profile.</p>
Drill hole Information	<ul style="list-style-type: none"> <li>• <i>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:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>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.</i></li> </ul>	<p>The details related to all the diamond core holes, auger holes, and grab samples presented in this Report are detailed in Appendix B, C and D.</p>
Data aggregation methods	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<p>Downhole length weighted averaging is used to aggregate assay data from multiple samples within a reported intercept. No grade truncations or cut-off grades were applied.</p>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <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>	No metal equivalents values are used.
Relationship between mineralisation widths and intercept lengths	<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>	<p>The geometry of mineralisation is interpreted to be flat-lying in the weathered profile. Auger and SDD series drilling is conducted vertically, resulting in intersections that are perpendicular to the mineralisation. Therefore, downhole lengths from vertical auger and SDD holes approximate true thicknesses. In contrast, angled core holes intersect the mineralisation obliquely and may report intercepts up to 30% longer than true vertical thickness.</p> <p>Diamond drill hole intercepts in the fresh rock are reported in down hole lengths and true thickness. The distribution of mineralisation in fresh rock at Target 1 is controlled by shallow to steeply dipping mega-enclaves of chevkinite rich cumulate mineralisation with variable dip. The angled drill holes have a -60 degree inclination will tend to intersect mineralisation at an oblique angle. For these holes true thickness will typically be 50-30% of down hole thickness. Significant results in Appendix B are reported using both down hole and true thickness values.</p>
Diagrams	<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>	Diagrams, tables, and any graphic visualization are presented in the body of the report.
Balanced reporting	<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 avoiding misleading reporting of Exploration Results.</li> </ul>	The report presents all drilling results that are material to the project and are consistent with the JORC guidelines. Where data may have been excluded, it is considered not material.
Other substantive exploration data	<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>	<p>Detailed walking radiometer surveys have been completed on the target areas using a RS-230 Portable Gamma Spectrometer. In survey mode, the total Count of gamma particles Per Second ("CPS") is recorded in real time.</p> <p>In survey mode, the total count of radioactive elements is recorded in real time. Readings are taken at waist height (approximately 1 m from the surface), the sensor can capture values in a radius of up to 1 m<sup>2</sup>.</p> <p>High CPS occur in the presence of gamma releasing minerals. Throughout the Rocha da Rocha Critical Mineral Province, BRE has observed a positive correlation between CPS and thorium and</p>

Criteria	JORC Code explanation	Commentary
		REE bearing monazite. BRE has determined that gamma spectrometry is an effective method for determining the presence of REE mineralisation that is material to this report
Further work	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<p>To further develop Pelé Project and establish hard-rock REE-Nb-Sc-Ta-U and monazite sand Mineral Resources, the Company will complete additional step-out auger and diamond core drilling to establish geological and grade continuity, with high resolution magnetic and radiometric drone survey. The company will undertake quantitative analysis of regolith and bedrock mineralogy.</p> <p>Upcoming works aim to whether or not the project may become economically feasible including metallurgical recovery, process flowsheet and optimisation. Further resource definition through additional drilling and sampling, geological mapping, and regional exploration through additional land acquisition are also planned. No forecast is made of such matters.</p>