Mineral Resources increase 150% with first Indicated Resource at the Soberbo Mining Licence

Meteoric Resources NL (ASX: MEI) (**Meteoric** or the **Company**) is pleased to announce an updated Mineral Resources Estimate for its Caldeira Project. A 150% increase in the Resource estimate at the Soberbo Mining Licence (ML) has increased Meteoric's Global Mineral Resources to 545 million tonnes (Mt) at 2,561 parts per million (ppm) Total Rare Earth Oxides (TREO)[1]. Magnetic Rare Earth Oxides (MREO)[2] comprise 24.1% of this Resource estimate.

Highlights

- First **Indicated Resources** for the Caldeira Project **86Mt @ 2,730 ppm TREO** (1,000ppm cut-off) defined at the **Soberbo ML.**
- Soberbo ML total Indicated and Inferred Resources are **229Mt @ 2,601ppm TREO** (1,000ppm cut-off) with **645ppm (24.8%) MREO**, including 158Mt @ 3,058ppm TREO (2,000 ppm cut-off).
- Updated **Global Resource Estimate** for Caldeira REE Project **increases 33% to 545Mt @ 2,561 ppm TREO** (1,000ppm cut off) with 24.1% MREO.

Meteoric's updated Resource Estimate for the Caldeira Rare Earth Element (REE) Project in Minas Gerais Brazil follows completion of an additional 5,893m of infill Diamond and Aircore drilling on the Soberbo ML. At 1,000 ppm TREO cut-off the Global Mineral Resource stands at 545Mt @ 2,561 ppm TREO and contains MREO grades of 616ppm comprising 24.1% of TREO basket (Table 1).

Table 1: *Caldeira REE Project Global Mineral Resource Estimate – by license at 1,000ppm TREO cut-off.*

Licence	JORC Category	Material Type	Tonnes Mt	TREO ppm	Pr_6O_{11} ppm	Nd_2O_3 ppm	Tb_4O_7 ppm	Dy_2O_3 ppm	MREO ppm	MREO/TREO %
Soberbo	Indicated	Clay	86	2,730	165	476	5	23	669	24.5%
TOTAL	**INDICATED**		**86**	**2,730**	**165**	**476**	**5**	**23**	**669**	**24.5%**
Soberbo	Inferred	Clay	89	2,713	167	478	5	24	675	24.9%
Soberbo	Inferred	Transition	54	2,207	138	395	4	20	558	25.3%
Capão do Mel[3]	Inferred	Clay	68	2,692	148	399	4	22	572	21.3%
Cupim Vermelho Norte[3]	Inferred	Clay	104	2,485	152	472	5	26	655	26.4%
Dona Maria 1 & 2[3]	Inferred	Clay	94	2,320	135	404	5	25	569	24.5%
Figueira[3]	Inferred	Clay	50	2,811	135	377	5	26	542	19.3%
TOTAL	**INFERRED**		**459**	**2,529**	**147**	**429**	**5**	**24**	**606**	**24.1%**
Total	**INDICATED + INFERRED**		**545**	**2,561**	**150**	**437**	**5**	**24**	**616**	**24.1%**

[1] TREO = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$

[2] MREO = $Pr_6O_{11} + Nd_2O_3 + Tb_4O_7 + Dy_2O_3$

[3] Refer ASX release 1 May 2023

For personal use only

For personal use only

Executive Chairman, Dr Andrew Tunks said:

"Congratulations to the Brazil Exploration team on an outstanding result. Using Meteoric's in-house drilling capacity we have quickly and efficiently tested the true depth extent of the clay hosted mineralisation at Soberbo with spectacular growth in the total resource and our first Indicated Resource which will feed directly into our Scoping Study. The staggering size of the project has again been illustrated and when combined with best in class grades and recoveries speaks to the potential of the Caldeira Project to become a significant long life supplier of rare earths crucial to global electrification."

Chief Executive Officer, Nick Holthouse added:

"Very pleased to see the Soberbo resource update come to market marking another significant step forward in the Caldeira Project development.

Stepping away from the conventional contract model for infill resource drilling programs, purchasing our own multipurpose rig, employing an experienced drilling manager and drilling team was an unconventional move but has paid off handsomely. The low cost per metre and exceptional drilling rates that this team are achieving coupled with the diligent work of the geology team has enabled us to complete this update in record time.

Looking forward there is much to come over the following weeks with soon to be finalised Capão do Mel resource update, the much-anticipated Scoping Study and Southern licenses permitting process updates."

Figure 1 below shows the extent of Meteoric's targeted resource infill drilling programs in core areas of the Caldeira Project which will form the basis for an initial Scoping Study and future development.

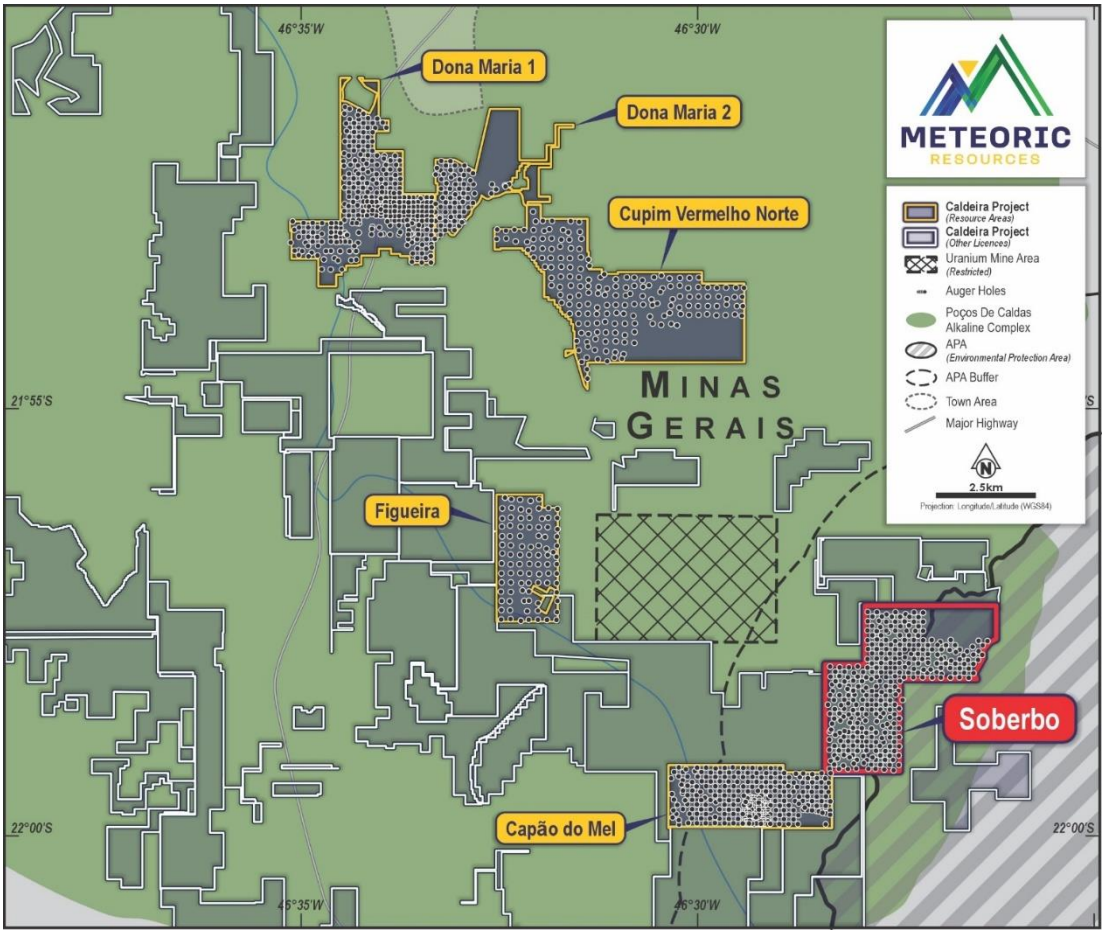

Figure 1: *Soberbo ML location map with historical drill hole collar locations of all Resource Areas.*

For personal use only

Project Information provided under ASX Listing Rule 5.8.1

Updated Resource Estimate – Soberbo ML

The updated Indicated and Inferred Resource estimate for the Soberbo ML is 229Mt @ 2,601 ppm (1,000ppm cut-off), with 645 ppm MREO (24.8%). The updated resource was completed by BNA Consulting in April 2024 after infill Diamond and Aircore drilling of 337 holes for 5,893m (Figure 2 & Table 3). This represents an increase of 150% above the previous Inferred Resources reported in 2023 and reflects the true depth of the clay horizon which was not adequately tested by historic powered Auger.

Table 2: *Soberbo Mineral Resource Estimate at 1,000ppm TREO cut-off.*

Licence	JORC	Material	Tonnes	TREO	Pr_6O_{11}	Nd_2O_3	Tb_4O_7	Dy_2O_3	MREO	MREO/TREO
	Category	Type	Mt	ppm	ppm	ppm	ppm	ppm	ppm	%
Soberbo	Indicated	Clay	86	2,730	165	476	5	23	669	24.5%
TOTAL	**INDICATED**		**86**	**2,730**	**165**	**476**	**5**	**23**	**669**	**24.5%**
Soberbo	Inferred	Clay	89	2,713	167	478	5	24	675	24.9%
Soberbo	Inferred	Transition	54	2,207	138	395	4	20	558	25.3%
TOTAL	**INFERRED**		**143**	**2.523**	**156**	**447**	**5**	**23**	**631**	**25.0%**
Total	**INDICATED + INFERRED**		**229**	**2,601**	**160**	**458**	**5**	**23**	**645**	**24.8%**

Drilling Techniques and Hole Spacing

A total of 660 drill holes were used to estimate the resource, comprising: Diamond, Aircore and powered Auger drilling (Table 3).

Table 3: *Soberbo Updated Mineral Resource - drill hole statistics.*

Hole Type	Number Holes	Number Samples	Total drilled (m)	Maximum depth (m)	Average depth (m)
Diamond	14	284	374.8	48.1	26.8
Aircore	323	2,849	5,518.0	77.4	17.1
Auger	323	3,035	2,986.7	20.0	9.3
Totals	**660**	**6,168**	**8,879.4**	**77.4**	**13.5**

Spacing for Auger holes varies across the prospect from a maximum of: 200m by 200m, infill drilled to 100m by 100m, with tighter spacing of 50m by 50m in areas. Aircore drilling was done at nominal 100m x 100m. Diamond holes had no regular spacing but were designed to check specific geologic characteristics (i.e. grade, density). Given the substantial geographic extent and generally shallow, flat lying geometry of the mineralisation, the spacing and orientation are considered sufficient to establish geologic and grade continuity.

<u>Diamond</u>

Diamond drilling employed a conventional wireline diamond drill rig (Mach 1200). All holes were drilled vertical using PQ diameter core to the transition zone (85mm diameter), reducing to HQ diameter core below this (63.5mm diameter). The diamond drill holes were drilled to fresh rock with the depth of clay varying between 2.5m to 24m. The maximum depth drilled was 48.1m.

<u>Aircore</u>

Drilling was completed using a HANJIN 8D Multipurpose Track Mounted Drill Rig, configured to drill 3-inch Aircore holes. The rig is supported by an Atlas Copco XRHS800 compressor which supplies sufficient air to keep the sample dry to the end of the hole. A deepest depth of 77.4m was reached. All holes were drilled vertical.

Most drill sites required minimal to no site preparation. On particularly steep sites, the area was levelled with a

For personal use only

backhoe loader. The hole generally stopped at 'blade refusal' when the rotating bit was unable to cut the ground any deeper. This generally occurred in the transition zones (below clay zone and above fresh rock). On occasions a face sampling hammer was used to penetrate through the remaining transition zone and into fresh rock.

Powered Auger

Powered auger drilling employed a motorised post hole digger with a 4inch diameter. All holes were drilled vertical. The maximum depth achievable was 20m, providing the hole did not encounter fragments of rocks/boulders within the weathered profile, and/or excessive water. All Auger drilling was completed by previous explorers and has been reported under the JORC code in ASX:MEI 15/12/2022. The auger assay data was used to estimate the maiden resource statement for the Caldiera Project ASX:MEI 30/04/2023.

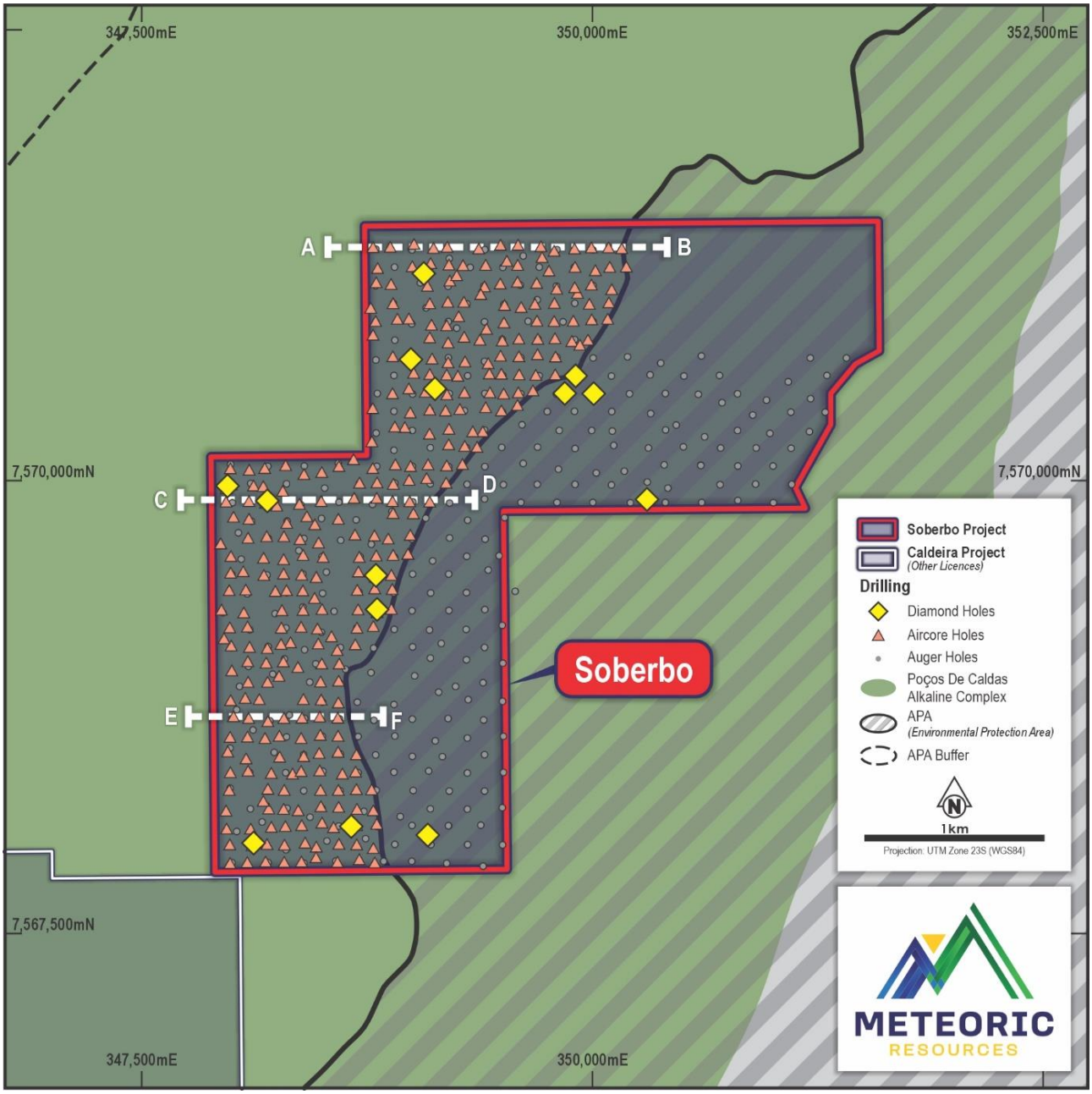

***Figure 2**: Soberbo ML Updated Resource drill hole location plan by drill type with location of type Cross-Sections shown.*

For personal use only

Geology and Geological Interpretation

The Cretaceous (80 Ma) Alkaline Complex of Poços de Caldas in Brazil represents an important geological terrain which hosts deposits of REE, bauxite, white clay for ceramics, uranium, zirconium and leucite. The Poços de Caldas Intrusive Complex covers an area of approximately 800km^2. The main rock types found are intrusive and volcanic alkaline rocks of the nepheline syenite system, comprising phonolites and foidolites (syenites). Primary mineralisation includes Uranium, Zirconium and REE that are confined to the intrusives emplaced during the magmatic event. Post intrusion intense weathering of the region has resulted in an extensive clay regolith developed above the syenites.

The dominant REE mineral in the source rock (syenite) beneath the clay zone is Bastnaesite, a major source of REE worldwide. Bastnaesite is a REE carbonate-fluoride mineral (REE)CO_3F and has very low levels of Uranium and Thorium in its structure. Due to the chemistry of the underling intrusives and the intense weathering of the region, a thick profile comprising soil, clay and saprolite (regolith) has formed (Figures 3-5), and these are the hosts to the ionic clay REE mineralisation.

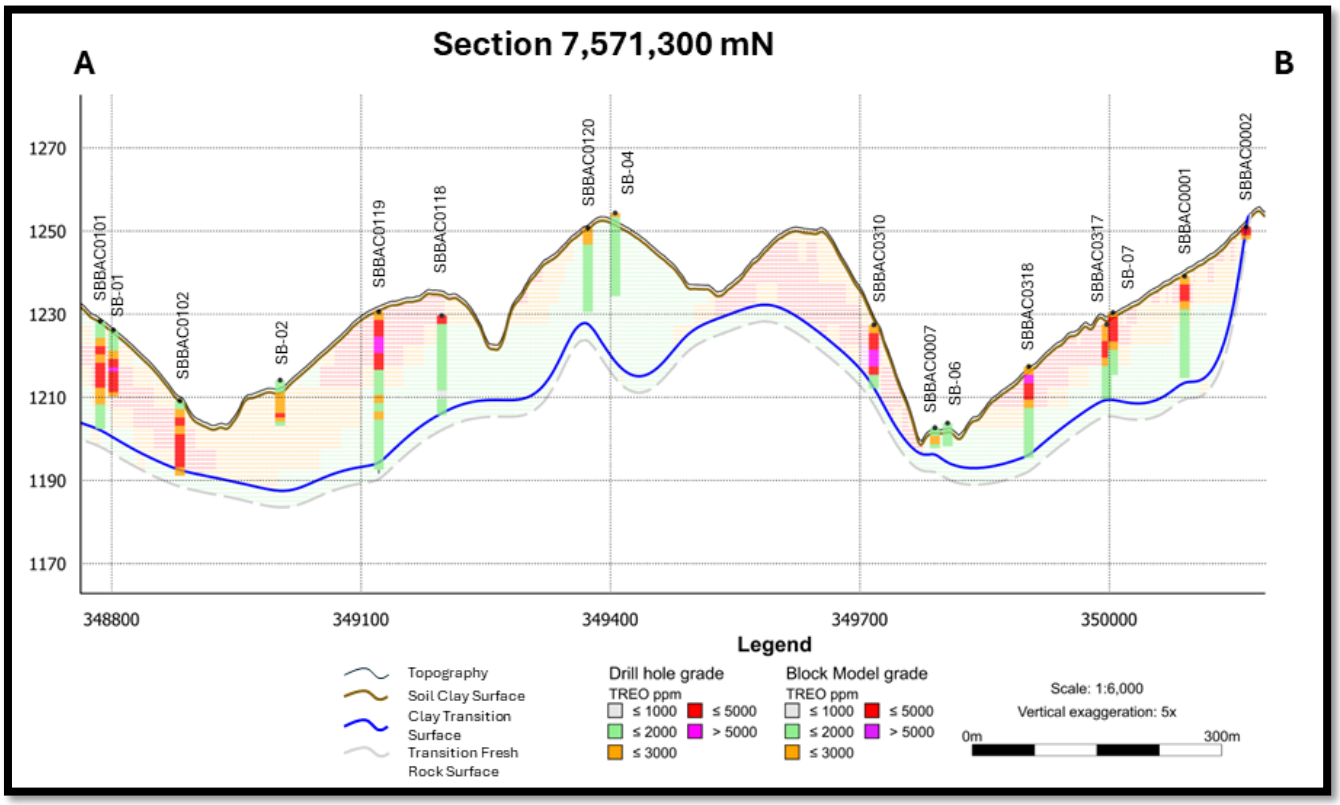

Figure 3: *Section A – B showing: block grades, drill hole type and grade, and geologic boundaries (soil, clay, transition) - Vertical Exaggeration x 5.*

For personal use only

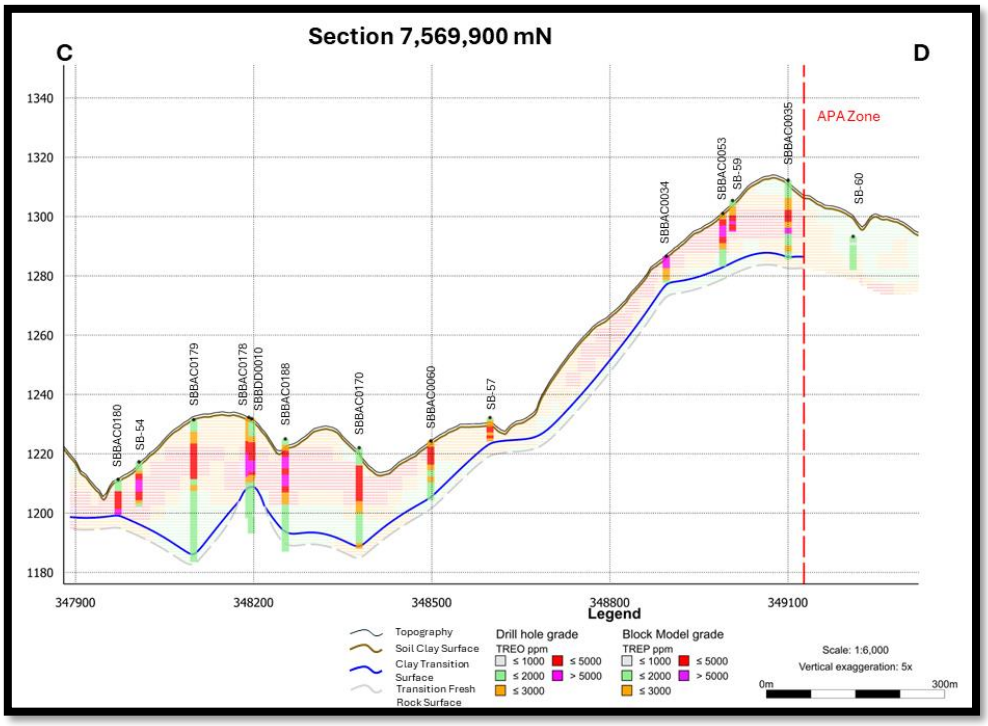

Figure 4: *Section C – D showing: block grades, drill hole type and grade, and geologic boundaries (soil, clay, transition) - Vertical Exaggeration x 5.*

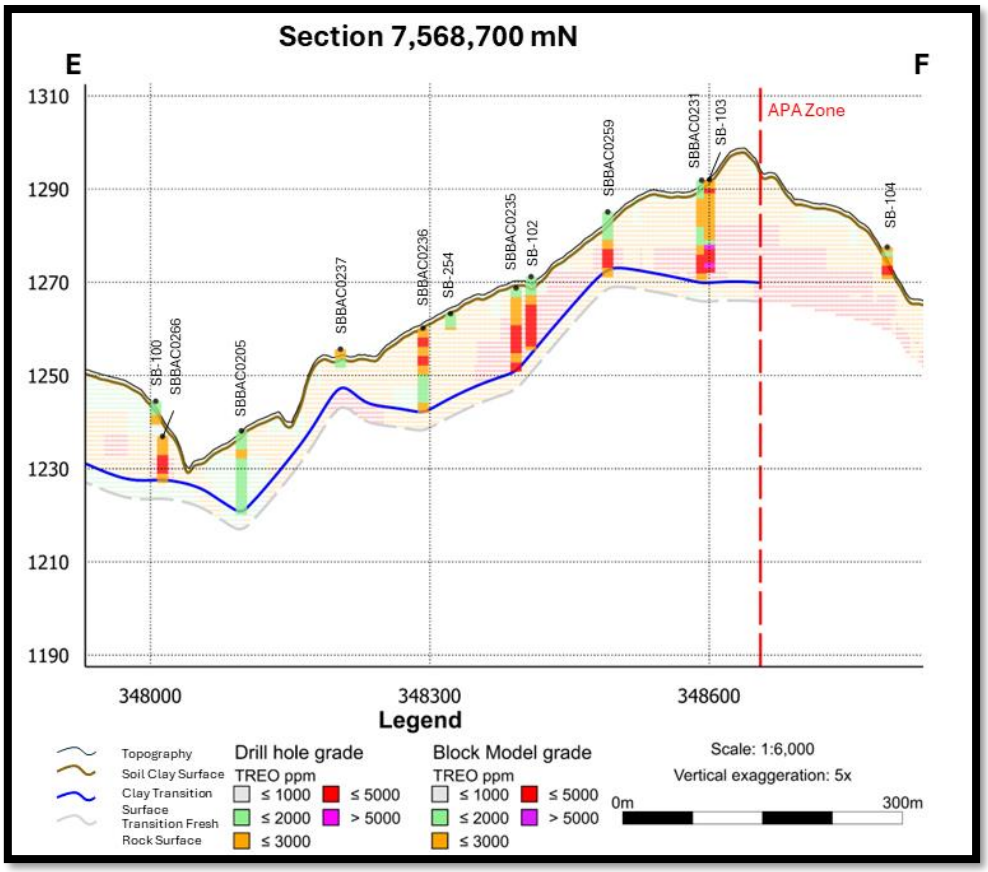

Figure 5: *Section E – F showing: block grades, drill hole type and grade, and geologic boundaries (soil, clay, transition) - Vertical Exaggeration x 5.*

For personal use only

Sampling and Sub-sampling Techniques

Auger material

Each drill site was cleaned, removing leaves and roots from the surface. Tarps were placed on either side of the hole and samples of soil and saprolite where collected every 1m, homogenised, and then quartered with one quadrant collected in a plastic bag. Samples are weighed and if the samples are wet, they are dried for several days on rubber mats. After drying the samples are screened (5mm). Homogenization occurs by agitation in bags, followed by screening to <3mm. Fragments of rock or hardened clay that were retained in the sieves were fragmented with a 10kg manual disintegrator and a 1kg hammer, until 100% of the sample passed through the screening. The sample was homogenized again by agitation in bags. Finally, the sample was Split in a Jones 12 channel splitter, where 500g was sent to the lab (SGS_geosol laboratory in Vespasiano – Minas Gerais).

Diamond cores

Sample lengths for diamond drilling were determined by geological boundaries with a maximum sample length of 1 metre applied. In the saprolite zone the core was halved using a metal spatula and placed in plastic bags, and for fresh rock the core was halved using a brick saw then placed into plastic bags. Field duplicates consisted of quarter core, with two (2) quarters sent to the lab.

Aircore material

Two (2) metre composite samples were collected from the cyclone of the rig in plastic buckets which were weighed. The sample (> 6kg) was passed through a single tier riffle splitter generating a 50/50 split, with one half bagged and submitted to the laboratory, and the other half bagged and stored as a duplicate at the core facility in Pocos de Caldas. If a sample was <6kg the entire sample was bagged and submitted for assay. Given the grainsize of the mineralisation is extremely fine (clays) and shows little variability, the practice of submitting 50% of original sample for analysis was deemed appropriate.

Meteoric QAQC protocols demand a duplicate sample every 20 samples, and a blank and standard sample every 30 samples.

Sample Analysis Method

Auger

Each batch analysed at SGS Geosol Laboratory comprised approximately 43 samples. The sample preparation method employed was PRP102_E: the samples were dried at 100°C, crushed to 75% less than 3 mm, homogenised and passed through a Jones riffle splitter (250g to 300g). This aliquot was then pulverised in a steel mill to the point at which over 95% had a size of 150 microns.

Analysis followed by IMS95A to determine the Rare Earth Elements assays. With this method, samples were fused with lithium metaborate and read using the ICP-MS method, the limits or which are shown below.

***Table 4**: ICP-MS method results of limits via IMS95A*

Determination by fusion with Lithium Metaborate – ICP MS (IMS95A)							
Ce	0,1 – 10000	**Co**	0,5 – 10000	**Cs**	0,05 – 1000	**Cu**	5 – 10000
Dy	0,05 – 1000	**Er**	0,05 – 1000	**Eu**	0,05 – 1000	**Ga**	0,1 – 10000
Gd	0,05 – 1000	**Hf**	0,05 – 500	**Ho**	0,05 – 1000	**La**	0,1 – 10000
Lu	0,05 – 1000	**Mo**	2 – 10000	**Nb**	0,05 – 1000	**Nd**	0,1 – 10000
Ni	5 – 10000	**Pr**	0,05 – 1000	**Rb**	0,2 – 10000	**Sm**	0,1 – 1000
Sn	0,3 – 1000	**Ta**	0,05 – 10000	**Tb**	0,05 – 1000	**Th**	0,1 – 10000
Tl	0,5 – 1000	**Tm**	0,05 – 1000	**U**	0,05 – 10000	**W**	0,1 – 10000
Y	0,05 – 10000	**Yb**	0,1 - 1000				

For personal use only

Diamond and Aircore samples

Samples are analysed by ALS Laboratories in Vespasiano (MG). Upon arriving at ALS samples received the following additional preparation:

- dried at 60°C
- the fresh rock was crushed to sub 2mm
- the saprolite was disaggregated with hammers
- Riffle split 800g sub-sample
- 800 g pulverized to 90% passing 75um, monitored by sieving.
- Aliquot selection from pulp packet

The aliquot obtained from the physical preparation process at Vespasiano was sent to ALS Lima for analysis by **ME-MS81** – which consisted of analysis of Rare Earth Elements and Trace Elements by ICP-MS for 32 elements by fusion with lithium borate as shown below (with detection limits):

***Table 5**: ICP-MS method results for Rare Earth Elements and Trace Elements*

Code	Analytes & Ranges (ppm)							
ME-MS81	Ba	0.5 – 10000	Gd	0.05 - 1000	Rb	0.2 - 10000	Ti	0.01 - 10%
	Ce	0.1 – 10000	Hf	0.5 - 10000	Sc	0.5 - 500	Tm	0.01 - 1000
	Cr	5 – 10000	Ho	0.01 - 10000	Sm	0.03 - 1000	U	0.05 - 1000
	Cs	0.01 – 10000	La	0.1 - 10000	Sn	0.5 - 10000	V	5 - 10000
	Dy	0.05 – 1000	Lu	0.01 - 10000	Sr	0.1 - 10000	W	0.5 - 10000
	Er	0.03 – 1000	Nb	0.05 - 2500	Ta	0.1 - 2500	Y	0.1 - 10000
	Eu	0.02 – 1000	Nd	0.1 - 10000	Tb	0.01 - 1000	Yb	0.03 - 1000
	Ga	0.1 – 10000	Pr	0.02 - 10000	Th	0.05 - 1000	Zr	1 - 10000

Estimation Methodology

The resource estimations are based on the block model interpolated by the Ordinary Kriging (**OK**) method, using Micromine software. Ordinary Kriging was selected as the method for grade interpolation as the sampling data has a log-normal distribution represented by a single generation.

A discretised Block Model was created in the sub-blocking process using wireframes of several surfaces: topography, base of Soil, base of Clay, and base of Transition. Mineralisation begins from near surface (0.3m – 2.0m soil coverage). Where there was no information from Diamond or Aircore drill holes (which drill to transition/fresh rock), and mineralisation was present at the end of Auger drill holes (in areas of known deep weathering), the mineralisation was assumed to extend 2m below the hole.

Initially, the model was filled with blocks measuring 25 (X) by 25 (Y) by 5 (Z) meters, which were divided into subunits of smaller size, with a factor for size subdivision of 10 by 10 by 5 in contact with the surrounding three-dimensional wireframes. The grade estimation was performed in four consecutive passes (rounds) using different criteria for: search radius, number of composite samples allowed, and number of holes the samples must come from. The radii and the orientation of the search ellipses were determined using standard variograms (see JORC Table 1 for additional discussion).

Parameters applied to each sector of a search ellipse were: the maximum number of points in the sector and the minimum total number of points in the interpolation that varies depending on the size of the ellipse, from 3 to 1. Thus, the maximum total number of samples involved in the interpolation was 12 samples.

The block model was validated in several ways: by running an Inverse Distance Weighted interpolation and comparing the results, and by comparing the means and standard deviations of the block grades to the composite data set.

For personal use only

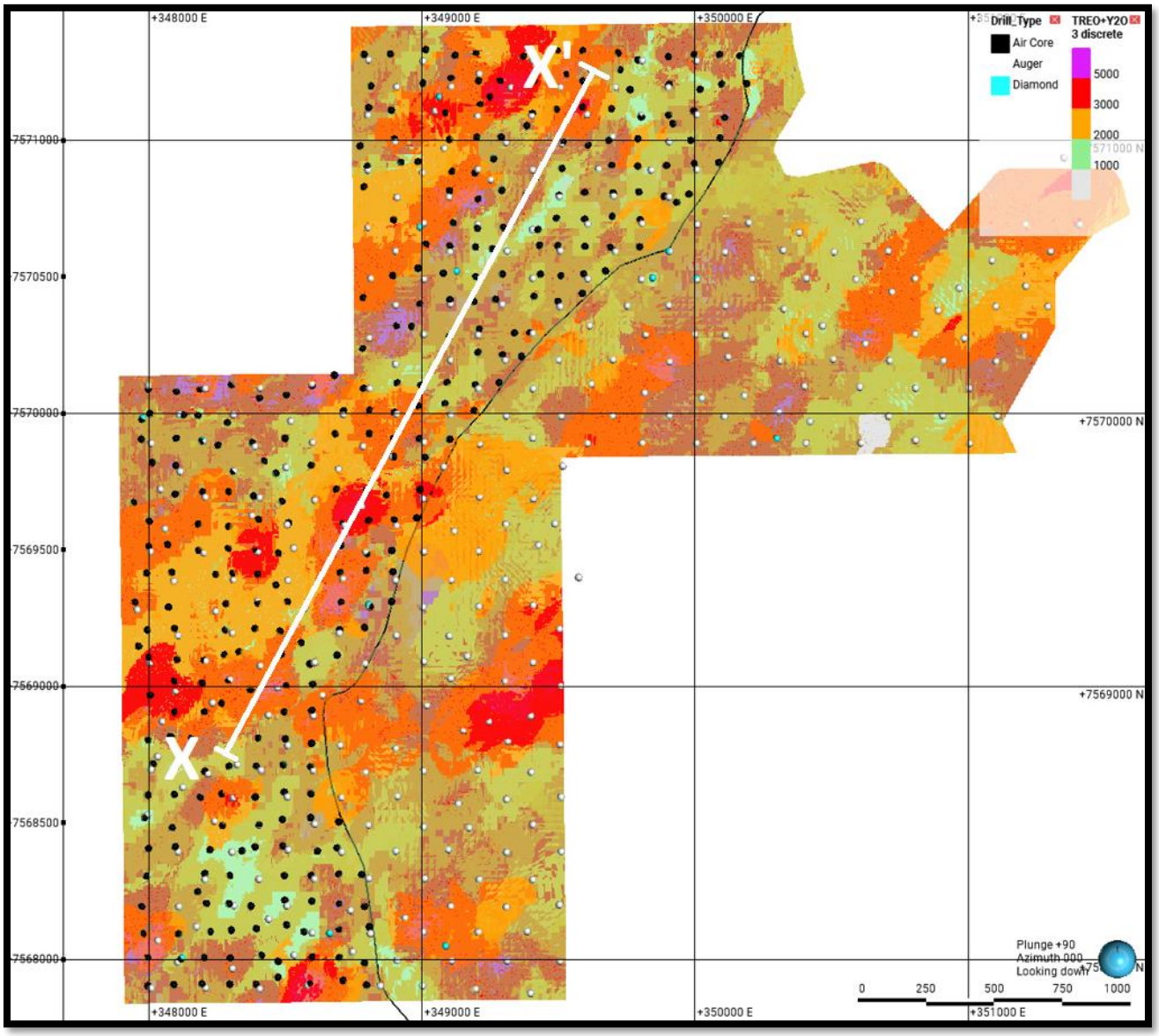

***Figure 6**: Plan View of Soberbo Resource showing distribution of high grades. Oblique Section line shown as x-x'.*

For personal use only

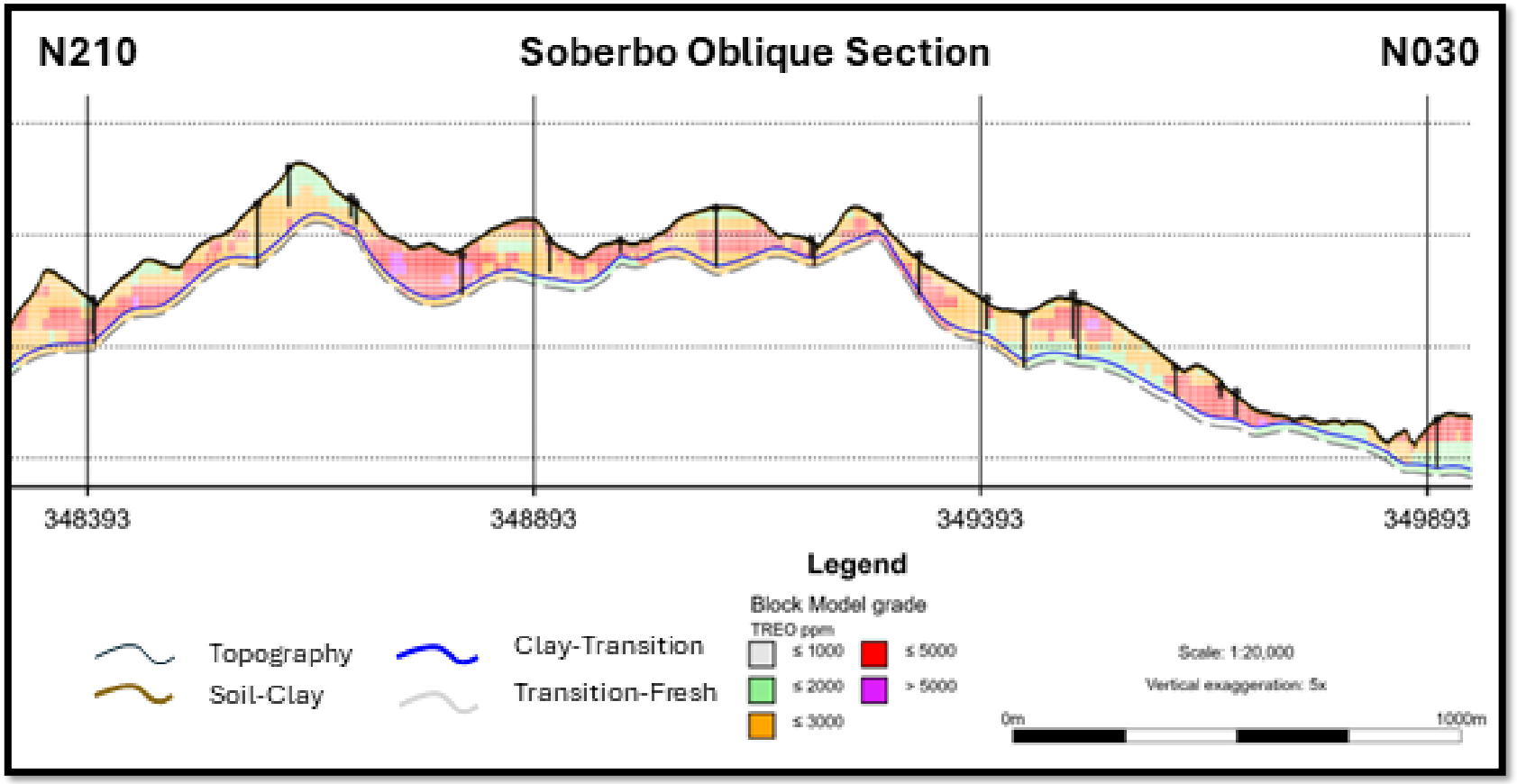

Figure 7: *Oblique Section X-X' (orientation N030) through Soberbo showing distribution of high-grade zones in the block model.*

Cut-off grades, including basis for the selected Cut-off Grade

The selection of the TREO cut-off grade (1,000ppm) used for reporting was based on the experience of the Competent Person (Table 6 & Figure 8). Given a combination of Indicated and Inferred Resources (Figure 9) and in the absence of any development studies, this cut-off grade was selected based on a peer review of publicly available information from more advanced projects with comparable mineralisation styles (i.e., clay-hosted rare earth mineralisation) and comparable conceptual processing methods. Material above this cut-off generates a head feed grade of over 2,601 ppm, and in the opinion of the Competent Person, meets the conditions for reporting of a Mineral Resource with reasonable prospects of eventual economic extraction.

***Table 6**: Soberbo Mineral Resource Estimate – by cut-off grade.*

cut-off ppm TREO	JORC Category	Material Type	Tonnes Mt	TREO ppm	Pr_6O_{11} ppm	Nd_2O_3 ppm	Tb_4O_7 ppm	Dy_2O_3 ppm	MREO ppm	MREO/TREO %
1000	Indicated	Clay	56	2,743	167	478	5	23	673	24.5
	Inferred	Clay	61	2,704	167	476	5	24	673	24.9
	Inferred	Transition	28	2,205	137	395	4	20	557	25.3
	Total Indicated + Inferred		**144**	**2,602**	**160**	**458**	**5**	**23**	**646**	**24.8**
2000	Indicated	Clay	61	3,172	203	581	6	27	816	25.7
	Inferred	Clay	68	3,064	199	567	6	28	801	26.1
	Inferred	Transition	29	2,806	190	543	5	26	764	27.2
	Total Indicated + Inferred		**158**	**3,058**	**199**	**568**	**6**	**27**	**800**	**26.2**
3000	Indicated	Clay	29	3,923	270	775	7	34	1,086	27.7
	Inferred	Clay	29	3,830	269	763	7	35	1,074	28.1
	Inferred	Transition	7	3,899	286	816	8	37	1,146	29.4
	Total Indicated + Inferred		**65**	**3,879**	**271**	**774**	**7**	**35**	**1,087**	**28.0**
4000	Indicated	Clay	10	4,864	358	1,028	9	42	1,437	29.5
	Inferred	Clay	9	4,719	350	989	9	44	1,392	29.5
	Inferred	Transition	2	5,157	408	1,153	10	48	1,618	31.4
	Total Indicated + Inferred		**21**	**4,829**	**359**	**1,023**	**9**	**43**	**1,435**	**29.7**

For personal use only

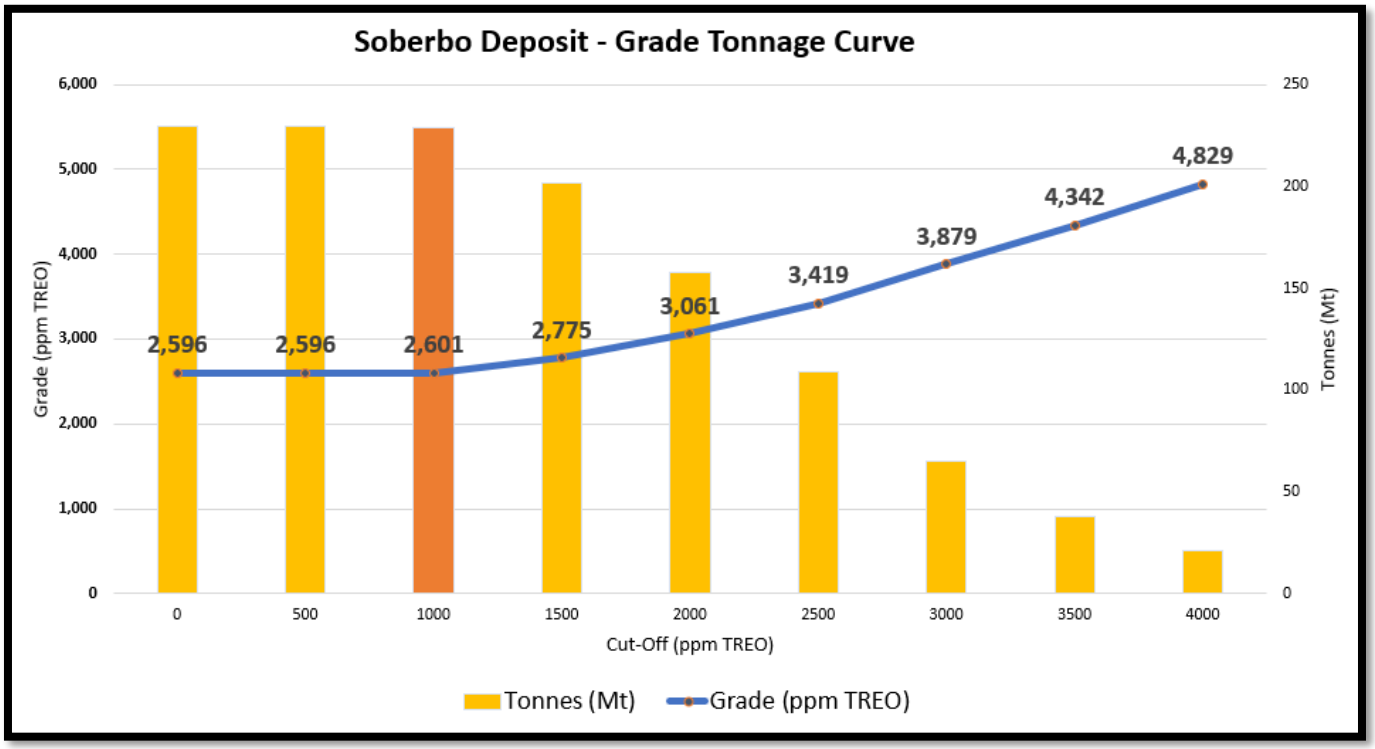

Figure 8: *Soberbo Updated Resource Estimate - Grade Tonnage Curve.*

Criteria used for Classification

Mineral Resources for Soberbo ML have been classified as Indicated and Inferred.

The Competent Persons are satisfied that the classification is appropriate based on the current: level of confidence in the data, drill hole spacing, geological continuity, variography, bulk density, and licensing data available for the project.

For personal use only

For personal use only

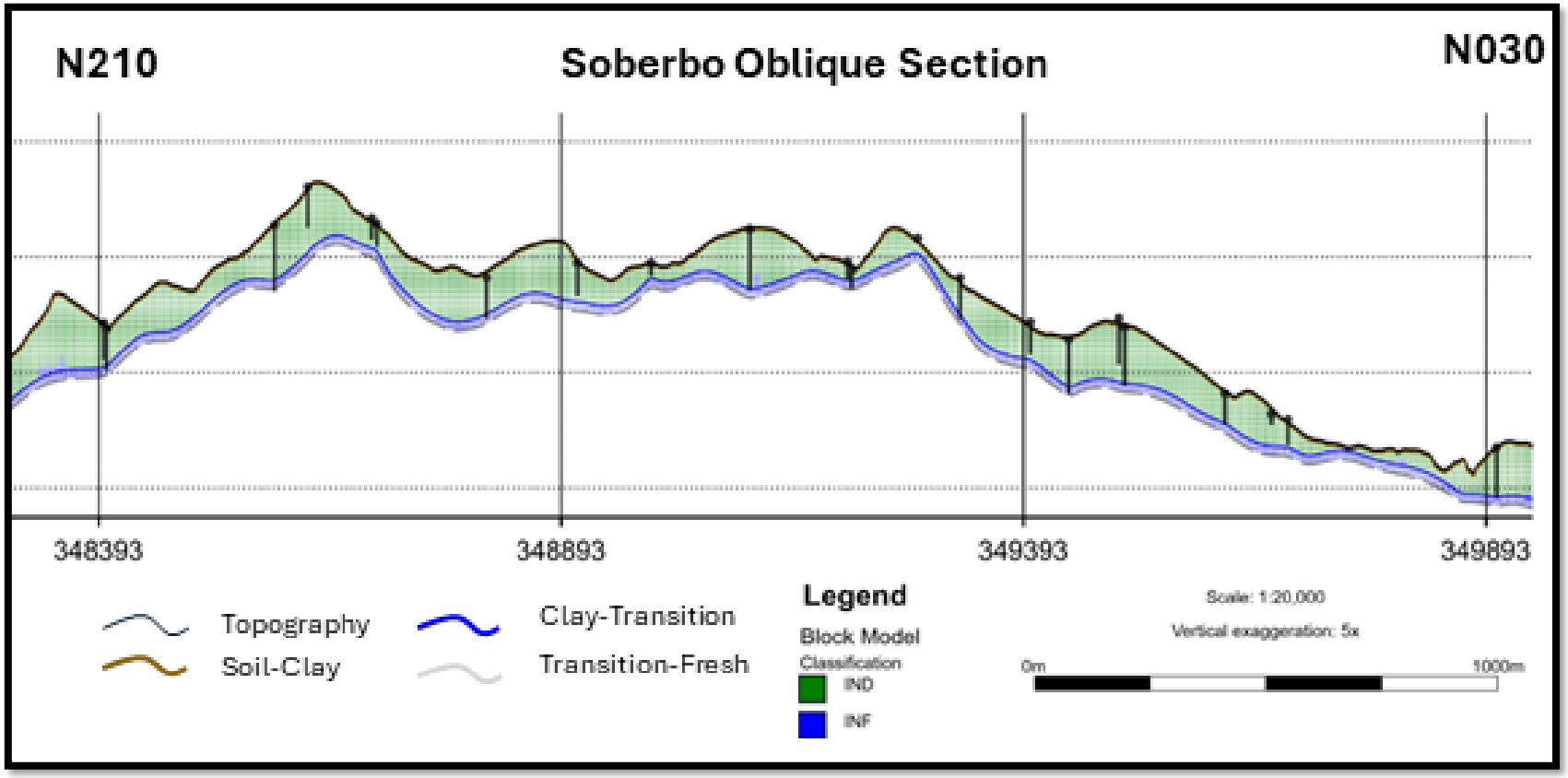

Figure 9: *Oblique Section X-X' (oriented N030) through Soberbo ML (outside the APA) showing distribution of Indicated v Inferred Resources.*

For personal use only

Environmental factors

There are two Environmental areas within the municipality of Caldas which encroach upon the current resources at Soberbo and Capão do Mel deposits, being:

(i) Environmental Protection Area ("APA") Ecological Sanctuary of Serra da Pedra Branca (established by Municipal Law of Caldas/MG nº 1.973/2006) and

(ii) a three (3) kilometre strip surrounding the APA ("Buffer Zone").

Part of the Soberbo resource is within the APA whilst the remaining (larger) part of Soberbo resource and the entire Capão do Mel resource are within the Buffer Zone.

Article 51 of Law of Caldas/MG nº 1.973/2006 stipulates that mining activity is currently not permitted within the APA (other than for existing activity with operating licenses). Importantly, for Meteoric's current program no infill drilling has been performed inside the APA, nor are there current plans to conduct any exploration activities inside the APA. Additionally, the 'Base Case' development scenario contemplated in MEI's current Scoping Study and Preliminary Environmental Permit (LP) application do not propose any activity inside the APA area.

Mining activity within the Buffer Zone is permitted and may be undertaken upon completion of an Environmental Impact Assessment, a proposal of measures necessary to mitigate any possible impact on ecosystems, and seeking authorization from the municipality of Caldas and the APA Management Council.

Meteoric has conducted extensive research and consultation from mid-2023 with the object of seeking and obtaining permission to conduct activities in the Buffer Zone and is confident of obtaining favourable consideration from the relevant authorities. That confidence is based upon: Environmental Impact Statement (EIS) and relevant flora and fauna and ethnographic studies completed over the area, ongoing dialogue and consultation with multiple stakeholders including favourable feedback from a Social Diagnosis and Stakeholder Survey of the Caldeira REE Project conducted by EcoDue Ambiental in December 2023, and specifically by reason of the terms of a written Protocol of Intent entered into between the Government of Minas Gerais and Meteoric Brazil [See ASX Announcement "Cooperation Agreement Signed with Government of Minas Gerais and Invest Minas" - 11 August 2023].

As such we consider there are reasonable prospects for eventual economic extraction to justify the Mineral Classifications of Indicated (within the Buffer Zone) and Inferred (within the APA).

Mining and metallurgical methods / material modifying factors

No specific mining or metallurgical methods or parameters were incorporated into the modelling process.

Proposed Further Work

Updated resource estimations for Capão do Mel and Figueira are expected in June and July respectively. Measured and Indicated Resources from these Licenses will be used as Base Case scenario in a Scoping Study to be released Q2 2024.

For personal use only

Competent Person Statements

Dr Marcelo J De Carvalho

The information in this announcement that relates to exploration results is based on information reviewed, collated and fairly represented by Dr Carvalho a Competent Person and aa Member of the Australasian Institute of Mining and Metallurgy and a consultant to Meteoric Resources NL. Dr.Carvalho has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which has been undertaken, 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. Dr. Carvalho consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

Dr. Beck Nader

The information in this report that relates to Mineral Resources is based on information compiled by Dr. Beck Nader, a Competent Person who is a Fellow of Australian Institute of Geoscientists #4472. Dr. Beck Nader is a consultant for BNA Mining Solutions. He has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify him as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr. Beck Nader consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Dr. Volodymyr Myadzel

The information in this report that relates to Mineral Resources is based on information compiled by Dr. Volodymyr Myadzel, a Competent Person who is a Member of Australian Institute of Geoscientists #3974. Dr. Volodymyr Myadzel is a consultant for BNA Mining Solutions. He has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr. Volodymyr Myadzel consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this release that relates to Mineral Resource Estimates at the Capão do Mel, Cupim Vermelho Norte, Dona Maria 1 & 2 and Figueira prospects was prepared by BNA Mining Solutions and released on the ASX platform on 1 May 2023. The Company confirms that it is not aware of any new information or data that materially affects the Mineral Resources in this publication. The Company confirms that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. The Company confirms that the form and context in which the BNA Mining Solutions findings are presented have not been materially modified.

This release has been approved by the Board of Meteoric Resources NL.

For further information, please contact:

Mr Nick Holthouse
Chief Executive Officer
Meteoric Resources NL
E nholthouse@meteoric.com.au
T +61 428 964 276

Tim Fogarty
Media Liaison
The Civic Partnership
E tim.fogarty@civicpartners.com.au
T + 61 3 9620 9300

For personal use only

Appendix 1: JORC Table 1

Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)

Criteria	Commentary

Sampling techniques	• The resource was sampled using: a powered auger drill machine (open hole), a diamond drill machine and an Aircore drill machine.
	• **Auger drill holes**
	  ○ Each drill site was cleaned, removing leaves and roots from the surface. Tarps were placed on either side of the hole and samples of soil and saprolite where collected every 1m of advance, logged, photographed with subsequent bagging of the sample in plastic bags.
	• **Diamond drill holes**
	  ○ The intact drill cores are collected in plastic core trays with depth markers recording the depth at the end of each drill run (blocks).
	  ○ Samples were collected at 1m intervals. In the saprolite zone the core is halved with a metal spatula and bagged in plastic bags, the fresh rock was halved by a powered saw and bagged.
	• **Aircore drill holes**
	  ○ Two (2) metre composite samples are collected from the cyclone of the rig in plastic buckets. The material from the plastic buckets is passed through a single tier, riffle splitter which generates a 50/50 split. One half is bagged and numbered for submission to the laboratory, and the other half bagged and given the same number, then stored as a duplicate at the core facility in Pocos de Caldas.

Drilling techniques	• **Powered Auger**
	  ○ Powered auger drilling employed a motorised post hole digger with a 4 inch diameter. All holes were drilled vertical. The maximum depth achievable was 20m, providing the hole did not encounter fragments of rocks/boulders within the weathered profile and/or excessive water. Final depths were recorded according to the length of rods in the hole.
	• **Diamond Core**
	  ○ Diamond drilling employed a conventional wireline diamond drill rig (Mach 1200). All holes were drilled vertical using PQ diameter core through soils and clays (85mm core diameter), reducing to HQ through transition material and fresh rock (63.5mm core diameter). The maximum depth drilled was 48.1m. The final depth was recorded using the length of the rods in the hole.
	• **Aircore**
	  ○ Drilling was completed using a HANJIN 8D Multipurpose Track Mounted Drill Rig, configured to drill 3-inch Aircore holes. The rig is supported by an Atlas Copco XRHS800 compressor which supplies sufficient air to keep the sample dry down to the current deepest depth of 73m. All holes are drilled vertical.
	  ○ Most drill sites require minimal to no site preparation. On particularly steep sites, the area is levelled with a backhoe loader.
	  ○ Drilling is stopped at 'blade refusal' when the rotating bit is unable to cut the ground any further. This generally occurs in the transition zones (below clay zone and above fresh rock). On occasions a face sampling hammer is used once 'blade refusal' is reached to penetrate through the remaining transition zone and into the fresh rock.

Drill sample recovery	• **Auger sample recovery**
	  ○ Estimated visually based on the amount of sample recovered per 1m interval drilled. Recoveries were generally in a range from 75% - 100%. If estimates dropped below 75% recovery in a 1m interval, the field crew aborted the drill hole and redrilled the hole.
	• **Diamond drill hole recovery**
	  ○ Calculated after each run, comparing length of core recovery vs. drill depth. Overall core recoveries are 92.5%, achieving 95% in the saprolite target horizon, 89% in the transition zone and 92.5% in fresh rock.
	• **Aircore recovery**
	  ○ Every 2m composite sample is collected in plastic buckets and weighed. Each sample averages approximately 12kg. This is considered acceptable given the hole diameter and specific density of the material.

Logging	• **Auger drilling**, ○ Material is described in a drilling bulletin every 1m and photographed. The description is made according to the tactile-visual characteristics, such as material (soil, colluvium, saprolite, rock fragments); material color; predominant particle size; presence of moisture; indicator minerals; extra observations.

For personal use only

Criteria	Commentary
	• **Diamond drilling** ○ Geology description is made in a core facility, focused on the soil (humic) horizon, saprolite, transition zone and fresh rock boundaries. The geology depth is honored and described with downhole depth (not metre by metre). Parameters logged include: grainsize, texture and colour, which can help to identify the parent rock before weathering. ○ All drill holes are photographed and stored at Core facility in Pocos de Caldas. • **Aircore drilling** ○ The material is logged at the drill rig by a geologist. Logging focused on soil (humic) horizon, saprolite/clay zones and transition boundaries. Other parameters recorded includes: grainsize, texture and colour, which can help to identify the parent rock before weathering. ○ Logging is done on 2m intervals due to the nature of the drilling with 2m composite samples collected in a bucket and presented for sampling and logging. ○ The chip trays of all drilled holes have a digital photographic record and are retained at a Core facility in Pocos de Caldas.
Sub-sampling techniques and sample preparation	• **Auger material** ○ Samples are weighed and if the samples are wet, they are dried for several days on rubber mats. After drying the samples are screened (5mm). Homogenization occurs by agitation in bags, followed by screening to <3mm. Fragments of rock or hardened clay that are retained in the sieves are fragmented with a 10kg manual disintegrator and a 1kg hammer, until 100% of the sample passes through the screening. The sample is homogenized again by agitation in bags. Finally, the sample is Split in a Jones 12 channel splitter, where 500g is sent to the lab (SGS_geosol laboratory in Vespasiano – Minas Gerais). ○ Remaining samples are placed in 20-liter plastic buckets, clearly labelled by Hole ID and depth, and stored in shed facility in Pocos de Caldas. • **Diamond cores** ○ In the saprolite zone the core is halved with a metal spatula and bagged in plastic bags ○ The fresh rock was halved by a powered saw and bagged into a plastic bag with a unique sequential number of samples and sent to ALS laboratory in Vespasiano – Minas Gerais. ○ Field duplicates consist of quarter core, with both quarters sent to the lab. • **Aircore material** ○ Samples are weighed at the Rig. When the sample > 6kg it passes through a single tier Riffle splitter generating a 50/50 split, one for ALS Laboratory and a duplicate which is retained in core facility. Samples are bagged in plastic bags with unique tag for the interval. ○ Given the grainsize if the mineralisation is extremely fine (clays) and shows little variability, the practice of submitting 50% of original sample for analysis is deemed appropriate. ○ Field Duplicates are routinely submitted and results analysed by examining the correlation between original and duplicate samples. More than 90% of duplicates show <20% variance.
Quality of assay data and laboratory tests	• **Auger samples** were analysed at SGS Geosol laboratory in batches of 43 samples, 37 of which belong to exploration intervals and 6 are QA/QC samples (duplicate, blank and standards). ○ The sample preparation method employed was PRP102_E: the samples are dried at 100°C, crushed to 75% less than 3 mm, homogenized and passed through a Jones riffle splitter (250g to 300g). This aliquot was then pulverized in a steel mill to the point at which over 95% had a size of 150 microns.

Determination by fusion with Lithium Metaborate – ICP MS (IMS95A)							
Ce	0,1 – 10000	Co	0,5 – 10000	Cs	0,05 – 1000	Cu	5 – 10000
Dy	0,05 – 1000	Er	0,05 – 1000	Eu	0,05 – 1000	Ga	0,1 – 10000
Gd	0,05 – 1000	Hf	0,05 – 500	Ho	0,05 – 1000	La	0,1 – 10000
Lu	0,05 – 1000	Mo	2 – 10000	Nb	0,05 – 1000	Nd	0,1 – 10000
Ni	5 – 10000	Pr	0,05 – 1000	Rb	0,2 – 10000	Sm	0,1 – 1000
Sn	0,3 – 1000	Ta	0,05 – 10000	Tb	0,05 – 1000	Th	0,1 – 10000
Tl	0,5 – 1000	Tm	0,05 – 1000	U	0,05 – 10000	W	0,1 – 10000
Y	0,05 – 10000	Yb	0,1 - 1000				

○ Analysis followed by IMS95A to determine the Rare Earth Elements. With this method, samples are melted with lithium metaborate and read using the ICP-MS method, the limits or which are shown below.

• **Diamond and Aircore** samples are analysed by ALS Laboratories (accredited) in Batches up to 72 samples. Upon arriving at ALS Vespasiano samples receive additional preparation (drying, crushing, splitting, and pulverising):
○ dried at 60°C

For personal use only

Criteria	Commentary

- the fresh rock is crushed to sub 2mm
- the saprolite is disaggregated with hammers
- Riffle split 800g sub-sample
- 800 g pulverized to 90% passing 75um, monitored by sieving.
- Aliquot selection from pulp packet

The aliquot obtained from the physical preparation process at Vespasiano is sent to ALS Lima or analysis by ME-MS81 – which consists of analysis of Rare Earths and Trace Elements by ICP-MS for 32 elements by fusion with lithium borate as seen below (with detection limits):

Code	Analytes & Ranges (ppm)							
ME-MS81	Ba	0.5 - 10000	Gd	0.05 - 1000	Rb	0.2 - 10000	Ti	0.01 - 10%
	Ce	0.1 - 10000	Hf	0.5 - 10000	Sc	0.5 - 500	Tm	0.01 - 1000
	Cr	5 - 10000	Ho	0.01 - 10000	Sm	0.03 - 1000	U	0.05 - 1000
	Cs	0.01 - 10000	La	0.1 - 10000	Sn	0.5 - 10000	V	5 - 10000
	Dy	0.05 - 1000	Lu	0.01 - 10000	Sr	0.1 - 10000	W	0.5 - 10000
	Er	0.03 - 1000	Nb	0.05 - 2500	Ta	0.1 - 2500	Y	0.1 - 10000
	Eu	0.02 - 1000	Nd	0.1 - 10000	Tb	0.01 - 1000	Yb	0.03 - 1000
	Ga	0.1 - 10000	Pr	0.02 - 10000	Th	0.05 - 1000	Zr	1 - 10000

- MEI QAQC protocols demand duplicate sample every 20 samples, and a blank and standard sample in each 30 samples. In addition, ALS inserted their own internal reference check samples as well as conducting repeat analysis. Results show: 94.94% of Standards are within tolerance limits, 99.96% of Blanks are within tolerance limits, and only 4.92% of Duplicate samples showed >30% variation for the Original result.

Verification of sampling and assaying

- Given the nature of the ionic clay mineralisation visual checks are not appropriate for verification of mineralised intercepts.
- MEI completed several rounds of Twin Hole drilling:-
  - DD drill holes twinning historic Auger holes
    - A total of 32 DD holes were drilled to twin historic Auger holes and confirm the reported widths and grades across the 6 resource areas (February 2023 - January 2024). Results confirmed the width and general nature of high-grade TREO mineralization, showing a slight (14%) Positive Bias in Auger results compared to DD results. The apparent Bias is not considered significant.
  - AC holes twinning existing DD holes
    - A total of 17 AC holes were drilled at Soberbo, Capão do Mel and Figueira deposits to twin existing DD drill holes and assess AC as a sampling method (March 2023 – March 2024). Results confirmed the width and general nature of high-grade TREO mineralization, showing a slight (20%) Negative Bias in AC results compared to DD results. The apparent Bias is not considered significant.
- For historic Auger holes, collar co-ordinates are recorded, and holes were logged and photographed at the drill site prior to information being transferred into Excel Spreadsheets back at the office. Drilling data is kept in Excel Spreadsheets in a well organised structure of file folders on a local network and in the 'Cloud'. The original paper logging sheets were not retained.
- For all drilling conducted by MEI (DD and AC), data is recorded into MX Deposit tables (collar, survey, geology, sample) using tablets/laptops at the Aircore Rig or in the Core Shed. Files are forwarded via email by Geologists to Database manager for uploading into the Database. The data is stored in MX Deposit database (Sequent). Data validation is turned ON during the import of data avoiding errors.
- Raw assays are received as Elemental data (ppm) from ALS laboratories. The Elemental data is converted to Element Oxide data using the following conversion factors:

For personal use only

Criteria	Commentary

Element Oxide	Oxide Factor
CeO2	1.2284
Dy2O3	1.1477
Er2O3	1.1435
Eu2O3	1.1579
Gd2O3	1.1526
Ho2O3	1.1455
La2O3	1.1728
Lu2O3	1.1371
Nd2O3	1.1664
Pr6O11	1.2082
Sc2O3	1.5338
Sm2O3	1.1596
Tb4O7	1.1762
ThO2	1.1379
Tm2O3	1.1421
U3O8	1.1793
Y2O3	1.2699
Yb2O3	1.1387

Location of data points

- **Auger drill collars**
  - All holes were picked up by Nortear Topografia e Projectos Ltda., planialtimetric topographic surveyors. The GPS South Galaxy G1 RTK GNSS was used, capable of carrying out data surveys and kinematic locations in real time (RTK-Real Time Kinematic), consisting of two GNSS receivers, a BASE and a ROVER. The horizontal accuracy, in RTK, is 8mm + 1ppm, and vertical 15mm + 1ppm.
  - The coordinates were provided in the following formats: Sirgas 2000 datum, and UTM WGS 84 datum - georeferenced to spindle 23S.
- **Diamond and Aircore collars**
  - The survey was made by MEI personal using a GPS CHCNAV i73 RTK GNSS capable of carrying out data surveys and kinematic locations in real time (RTK-Real Time Kinematic), consisting of two GNSS receivers, a BASE and a ROVER. The horizontal accuracy, in RTK, is 8mm +/- 1mm, and vertical 15mm +/- 1mm.
- **Topography imaging survey**
  - A detailed imaging and topographic survey was done by GeoSense Engenharia e Geotecnologia Ltda. The survey was done using a DJI Matrice 300 RTK drone with vertical accuracy with 0.1metre and horizontal accuracy of 0.3metre using visual system. Using the GPS system the vertical accuracy is 0.5metre and horizontal accuracy is 1.5metre. Using the RTK system the vertical accuracy is 0.1metre and horizontal accuracy is 0.1metre.
  - A on board LiDAR Alpha Air 450 sensor was used which has a range of 450 metres, accuracy of 15mm, acquisition tax of 240,000 points per second (first pass), 480,000 points per second (second pass) and 720,000 points per second (third pass), equipped with a Sony A5100 camera with 26 Mega Pixels and an integrated GNSS receptor (L1L2).
  - For the base points it was used a GPS CHCNAV i73 RTK GNSS capable of carrying out data surveys and kinematic locations in real time (RTK-Real Time Kinematic), consisting of two GNSS receivers, a BASE and a ROVER. The horizontal accuracy, in RTK, is 8mm +/- 1mm, and vertical 15mm +/- 1mm.

Data spacing and distribution

- Hole spacing for Auger holes varies across the prospect scale from a maximum of: 200m by 200m, infill drilled to 100m by 100m, with tighter spacing of 50m by 50m in the closest space areas. Aircore drilling was done at 100m x 100m. Diamond holes had no regular spacing but were designed to target specific geologic characteristics (i.e. grade, density).
- Given the substantial geographic extent and generally shallow, flat lying geometry of the mineralisation, the spacing and orientation are considered sufficient to establish geologic and grade continuity.
- Sample compositing:

For personal use only

Criteria	Commentary
	○ Auger samples were collected at 1.0m composites. ○ Diamond samples were collected at 1.00m composites, respecting the geological contacts. ○ Aircore samples were collected at 2.00m composites.
Orientation of data in relation to geological structure	• The mineralisation is flat lying and occurs within the saprolite/clay zone of a deeply developed regolith (reflecting topography and weathering). Vertical sampling from all sampling methods is considered most appropriate.
Sample security	• **Auger samples:** ○ Samples were removed from the field by Company staff and transported back to a facility in Poços de Caldas. From here the samples are packed in plastic bags and transported to SGS-Geosol in Belo by a commercial Transport Company. ○ The remaining sample is stored in 20 litre plastic buckets, labelled with the name of the target, hole name and sampled intervals. Samples are securely locked up in the storage shed. • **Diamond samples:** ○ Samples are removed from the field by MEI staff and transported back to a Core shad to be logged and sampled. All samples for submission to the lab are packed in plastic bags (in batches) and sent to the lab where it is processed as reported above. The transport of samples from Poços de Caldas to ALS laboratory in Vespasiano was undertaken by a commercial Transport Company. • **Aircore samples:** ○ Samples are split and bagged in the field and transported back to a Core shed. All samples for submission to the lab are packed in plastic bags (in batches) and despatched to ALS laboratory in Vespasiano using a commercial Transport Company.
Audits or reviews	• MEI conducted a review of assay results as part of its Due Diligence prior to acquiring the project. Approximately 5% of all stored coarse rejects from auger drilling were resampled and submitted to two (2) labs: SGS Geosol and ALS Laboratories. Results verified the existing assay results, returning values +/- 10% of the original grades, well within margins of error for the grade of mineralisation reported. (see ASX:MEI 13/03/23 for a more detailed discussion) • A site visit was carried out by Volodymyr Myadzel from BNA Mining Solutions on 19-20 February 2024 to: inspect drilling and sampling procedures, verify survey methods, inspect the storage shed, verification of geological records, review of QAQC procedures and review of geologic model.

Section 2 Reporting of Exploration Results (Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
Mineral tenement and land tenure status	• Listed in Appendix 3. • Given the rich history of mining and current mining activity in the Poços de Caldas there appears to be no impediments to obtaining a License to operate in the area.
Exploration done by other parties	• The Caldeira Project has had significant exploration in the form of surface geochem across 30 granted mining concessions, plus: geologic mapping, topographic surveys, and powered auger (1,396 holes for 12,963 samples). • MEI performed Due Diligence on historic exploration and are satisfied the data is accurate and correct (refer ASX Release 13 March 2023 for a discussion).
Geology	• The Alkaline Complex of Poços de Caldas represents in Brazil one of the most important geological terrains which hosts deposits of bauxite, clay, uranium, zirconium, rare earths and leucite. The different types of mineralization are products of a history of post-magmatic alteration and weathering, in the last stages of its evolution (Schorscher & Shea, 1992; Ulbrich et al., 2005). • The dominant REE mineral in the source rock (syenite) beneath the clay zone is Bastnaesite, a major source of REE worldwide. Bastnaesite is a REE carbonate-fluoride mineral (REE)CO3F and has very low levels of U and Th in its structure. Due to the chemistry of the underling intrusives

For personal use only

Criteria	Commentary
	and the intense weathering of the region, a thick profile comprising soil, clay and saprolite (regolith) has formed (Figures 3-5), and these are the hosts to the ionic clay REE mineralization.
Drill hole Information	• Information for all Auger holes was reported in a previous ASX Release on 01 May 2023 "Caldeira REE Project Maiden Mineral Resource". Drill hole information for all Aircore & Diamond Core holes is presented in Appendix 2.
Data aggregation methods	• Mineralised Intercepts are reported with a minimum of 4m width, lower cut-off 1,000ppm TREO, with a maximum of 2m internal dilution. • High-Grade Intercepts reported as "including" are reported with a minimum of 2m width, lower cut-off 3,000 ppm TREO, with a maximum of 1m internal dilution. • Extreme High-Grade Intercepts reported as "with" are reported with a minimum of 2m width, lower cut-off 10,000 ppm TREO, with a maximum of 1m internal dilution. • No Metal Equivalents are used.
Mineralisation widths and intercept lengths	• All holes are vertical and mineralisation is developed in a flat lying clay and transition zone within the regolith. As such, reported widths are considered to equal true widths.
Diagrams	• Reported in the body of the text.
Balanced reporting	• Significant Intercepts for all Auger drill holes were reported in a previous ASX Release on 01 May 2023 "Caldeira REE Project Maiden Mineral Resource". • Significant Intercepts for Aircore drill holes SBBAC0001-SBBAC0277 were reported in a previous ASX Release on 14 December 2023 "High-Grade REEs Extend Beneath Soberbo Resource, Caldeira Project".
Other substantive exploration data	• Metallurgical work was carried out on samples split from a 200kg composite sample, which in turn was composed of a selection of 184 samples from 41 holes (100 x100m grid) across the Capo do Mel Target. Head grade of the composite sample was 4,917ppm TREO. Results showed excellent recoveries by desorption of Rare Earth Elements (REE) using ammonium sulphate solution [(NH4)2SO4)] in weakly acidic conditions [pH 4]. Average recovery of the low temperature magnet REE Pr + Nd was 58%. desorption was achieved using a standard ammonium sulphate solution at pH 4 and confirms the Caldeira Project is an Ionic (Adsorption) Clay REE deposit (for further discussion refer ASX Release 20 December 2023). • A maiden Inferred resource was published to the ASX on May 1st 2023.
Further work	• Proposed work is discussed in the body of the text.

Section 3 Estimation & Reporting of Mineral Resources (Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
Database integrity	• All data was imported into Micromine Software. The database was validated using specific processes to verify the existence of the errors listed below: ○ The drill hole's name is present in the collar file but is missing from the analytical database; ○ The drill hole's name is present in the analytical database, but is absent in the collar file; ○ The drill hole's name appears repeated in the analytical database and in the collar file; ○ The drill hole's name does not appear in the collar file and in the analytical database; ○ One or more coordinate notes are absent from the collar file; ○ FROM or TO are not present in the analytical database; ○ FROM > TO in the analytical database; ○ Sampling intervals are not continuous in the analytical database (there are gaps between the logs); ○ Sampling intervals overlap in the analytical database; ○ The first sample does not correspond to 0 m in the analytical database; ○ The hole total depth is shallower than the depth of the last sample. • Random checks of the original data as received from SGS-Geosol and ALS laboratories was compared with the provided database and no errors were found.
Site visits	• A site visit was carried out by Volodymyr Myadzel from BNA Mining Solutions on 19-20 February 2024 to: inspect drilling and sampling procedures, verify survey methods, inspect the storage shed, verification of geological records, review of QAQC procedures and review of geologic

For personal use only

Criteria	Commentary
	model.
Geological interpretation	• The resource estimation is based on historical Auger data an additional 3,133m of infill Diamond and Aircore drilling. Confidence in the geological interpretation of the rare earth mineralization in clay and saprolite is very high as drilling activities used a regular and relatively close-spaced drill spacing. • Where there is no information from Diamond or Aircore drill holes (which drill to transition/fresh rock), and mineralisation was present at the end of Auger drill holes (in areas of known deep weathering), the mineralisation was assumed to extend 2m below the hole. This is prevalent in the APA area. • Factors affecting rare earth mineralisation in saprolite rocks include the degree of weathering of primary rocks and variations in mineralization. These were detailed in Diamond, Aircore, and Auger drilling from surface and into the fresh rock.
Dimensions	• The Mineral Resource is spread across 2,600m x 3,800m in NE-SW direction. • The top of the rare earth element mineralization is the topographic surface.
Estimation and modelling techniques	• The results are based on a block model interpolated by Ordinary Kriging (OK) method, using Micromine software. Ordinary Kriging was selected as the method for grade interpolation as the sample data has a log-normal distribution represented by a single generation. • All analyzed elements were interpolated to the empty block model using Ordinary Kriging (OK) and IDW3 (Inverse Distance Weighting with inverse power 3) methods. The IDW3 method was used for control and comparison. • The grade estimation was performed in four consecutive passes (rounds) using different sizes of search radius, criteria of number of composite samples, and number of holes.

Search Ellipse parameters by Pass.

Pass	Search Ellipse (size factor)	Min. No. Composites	Max. No. Composites	Min. No. Drill Holes
01	0.667	4	3	2
02	1	2	3	2
03	2	2	3	1
04	100	1	3	1

- Column 'Min No. Composites' is the minimum number of composites required for each of the estimation passes. Column 'Max No. Composites' is the maximum number of samples allowed for each of the four sectors of the ellipsoid used for the elements' estimation process.
- The Block Model created in the process of discretization of the wireframes using the sub-blocking process. Initially, the model was filled with blocks measuring 25 (X) by 25 (Y) by 5 (Z) meters, which were divided into subunits of smaller size, with a factor for size subdivision of 10 by 10 by 5 in contact with the surrounding three-dimensional wireframes.
- The radii and the orientation of search ellipse were determined using standard variograms. The limitations presented by each sector of a search ellipse were: the maximum number of points in the sector and the minimum total number of points in the interpolation that varies depending on the size of the ellipse, from 3 to 1. Thus, the maximum total number of samples involved in the interpolation was 12 samples.

Radii of Search Ellipsoid by element.

Element	Soberbo		
	X	Y	Z
La (ppm)	130	90	15
Ce (ppm)	130	90	15
Pr (ppm)	130	90	15
Nd (ppm)	130	90	15
Sm (ppm)	130	90	15
Eu (ppm)	130	90	15

For personal use only

Criteria	Commentary

Gd (ppm)	130	90	15
Tb (ppm)	130	90	15
Dy (ppm)	130	90	15
Ho (ppm)	130	90	15
Er (ppm)	130	90	15
Tm (ppm)	130	90	15
Yb (ppm)	130	90	15
Lu (ppm)	130	90	15
Y (ppm)	130	90	15
Th (ppm)	125	85	10
U (ppm)	125	85	10

Orientation of Azimuth of the search ellipsoid for every element (Dip = 0, Plunge = 0 for all elements in all Deposits).

Element (ppm)	Soberbo
La	42
Ce	42
Pr	42
Nd	42
Sm	42
Eu	42
Gd	42
Tb	42
Dy	42
Ho	42
Er	42
Tm	42
Yb	42
Lu	42
Y	42
Th	144
U	144

- The block model was validated in several ways: by running and Inverse Distance Weighted interpolation and comparing the results, and by comparing the means and standard deviations of the block grades to the composite data set.

Moisture

- All estimations are reported as a dry tonnage.

For personal use only

Criteria	Commentary
Cut-off parameters	• Cut-off grades for TREO were used to prepare the reported resource estimates. The selection of the cut-off was based on the experience of the Competent Person, plus a peer review of publicly available information from more advanced projects with comparable mineralisation styles (i.e clay and transition zone hosted rare earth mineralisation) and comparable conceptual processing methods. • The chosen cut-off grade of 1,000 ppm TREO is consistent with this.
Mining factors or assumptions	• No specific mining method is assumed other than potentially the use of open pit mining methods.
Metallurgical factors or assumptions	• Auger historic metallurgy data has been completed and reported to ASX:MEI 20/12/2023. • Head grade of the composite sample for testwork collected from 44 holes, over 140 samples (200 kg) was 4,917ppm TREO including 25.5% Magnet REE. • Initial metallurgical testwork showed excellent recoveries by desorption of Rare Earth Elements (REE) by using ammonium sulphate solution [(NH4)2SO4)] in weakly acidic conditions [pH 4] • Average recovery of the low temperature magnet REE Pr + Nd was 58% • Average recovery of high temperature magnet REE, Tb +Dy was 43%. • The results show that excellent REE desorption was achieved using a standard ammonium sulphate solution at pH 4 and crucially confirms that the high-grade Caldeira Project is an Ionic (Adsorption) Clay REE deposit
Environmental factors or assumptions	There are two Environmental areas within the municipality of Caldas which encroach upon the current resources at Soberbo and Capao do Mel deposits, being:- (i) Environmental Protection Area ("APA") Ecological Sanctuary of Serra da Pedra Branca (established by Municipal Law of Caldas/MG nº 1.973/2006) and (ii) a three (3) kilometre strip surrounding the APA ("Buffer Zone"). Part of the Soberbo resource is within the APA whilst the remaining (larger) part of Soberbo resource and the entire Capão do Mel resource are within the Buffer Zone. Article 51 of Law of Caldas/MG nº 1.973/2006 stipulates that mining activity is currently not permitted within the APA (other than for existing activity with operating licenses). Importantly, for Meteoric's current program no infill drilling has been performed inside the APA, nor are there current plans to conduct any exploration activities inside the APA. Additionally, the 'Base Case' development scenario contemplated in MEI's current Scoping Study and Preliminary Environmental Permit (LP) application do not propose any activity inside the APA area. Mining activity within the Buffer Zone is permitted and may be undertaken upon completion of an Environmental Impact Assessment, a proposal of measures necessary to mitigate any possible impact on ecosystems, and seeking authorization from the municipality of Caldas and the APA Management Council. Meteoric has conducted extensive research and consultation from mid-2023 with the object of seeking and obtaining permission to conduct activities in the Buffer Zone and is confident of obtaining favourable consideration from the relevant authorities. That confidence is based upon: Environmental Impact Statement (EIS) and relevant flora and fauna and ethnographic studies completed over the area, ongoing dialogue and consultation with multiple stakeholders including favourable feedback from a Social Diagnosis and Stakeholder Survey of the Caldeira REE Project conducted by EcoDue Ambiental in December 2023, and specifically by reason of the terms of a written Protocol of Intent entered into between the Government of Minas Gerais and Meteoric Brazil [See ASX Announcement "Cooperation Agreement Signed with Government of Minas Gerais and Invest Minas" - 11 August 2023]. As such we consider there are reasonable prospects for eventual economic extraction to justify the Mineral Classifications of Indicated (within the Buffer Zone) and Inferred (within the APA).
Bulk density	• Diamond drill samples were selected to get the specific gravity, these samples were not cut in the middle as a normal sample. The sample was sent to ALS lab and was submitted to an industrial specific gravity method (OA-GRA09a, bulk density paraphing coating).
Classification	• The Mineral Resources for the project have been classified as Indicated and Inferred. • The Competent Person is satisfied that the classification is appropriate based on: current drill hole spacing, geological continuity, variography, and bulk density data available for the project.

Criteria	Commentary
Audits or reviews	• As yet there have been no third-party audits or reviews of the mineral resource estimates.
Discussion of relative accuracy/ confidence	• The block model with interpolated grades was subject to visual and statistical verification. Histograms and probability graphs of the interpolated grades were built. Then, the interpolated grades of the block model were compared with the same histograms and probability graphs of the composite samples. The histograms and graphs of the interpolated grades and composite samples were similar, and the block model histograms were smoother than the composite histograms. The comparisons confirmed the validity and consistency of the built block model. • The mineral resource is a global resource estimate and locally resource estimates may vary in a negative or positive manner.

For personal use only

For personal use only

Appendix 2: Soberbo ML - Drill Hole Coordinates

Hole ID	Drill Type	East	North	Elevation	Depth	Dip	Azimuth
SBBAC0001	Air Core	350,090	7,571,312	1,239	24.5	90	360
SBBAC0002	Air Core	350,164	7,571,308	1,251	3.0	90	360
SBBAC0003	Air Core	350,098	7,571,204	1,240	17.0	90	360
SBBAC0004	Air Core	350,189	7,571,206	1,259	3.0	90	360
SBBAC0005	Air Core	349,995	7,571,105	1,244	13.0	90	360
SBBAC0006	Air Core	349,905	7,571,204	1,223	5.5	90	360
SBBAC0007	Air Core	349,790	7,571,294	1,203	5.0	90	360
SBBAC0008	Air Core	349,919	7,571,060	1,235	24.5	90	360
SBBAC0009	Air Core	349,903	7,571,092	1,234	20.0	90	360
SBBAC0010	Air Core	350,093	7,571,007	1,254	14.3	90	360
SBBAC0011	Air Core	349,984	7,570,999	1,242	8.0	90	360
SBBAC0012	Air Core	350,086	7,570,917	1,259	14.3	90	360
SBBAC0013	Air Core	349,997	7,570,914	1,248	17.0	90	360
SBBAC0014	Air Core	349,977	7,570,802	1,267	31.0	90	360
SBBAC0015	Air Core	349,896	7,570,906	1,249	17.0	90	360
SBBAC0016	Air Core	349,887	7,570,794	1,254	14.5	90	360
SBBAC0017	Air Core	349,933	7,570,772	1,262	28.0	90	360
SBBAC0018	Air Core	348,893	7,569,420	1,298	26.0	90	360
SBBAC0019	Air Core	348,887	7,569,310	1,296	21.0	90	360
SBBAC0020	Air Core	348,797	7,569,424	1,291	18.0	90	360
SBBAC0021	Air Core	348,888	7,569,497	1,306	20.0	90	360
SBBAC0022	Air Core	348,788	7,569,215	1,308	23.0	90	360
SBBAC0023	Air Core	348,697	7,569,206	1,314	10.0	90	360
SBBAC0024	Air Core	348,688	7,569,114	1,325	10.5	90	360
SBBAC0025	Air Core	348,980	7,569,616	1,300	18.0	90	360
SBBAC0026	Air Core	348,871	7,569,699	1,273	25.0	90	360
SBBAC0027	Air Core	348,795	7,569,716	1,268	12.0	90	360
SBBAC0028	Air Core	348,804	7,569,606	1,291	35.0	90	360
SBBAC0029	Air Core	348,686	7,569,721	1,273	0.1	90	360
SBBAC0030	Air Core	348,710	7,569,597	1,275	15.0	90	360
SBBAC0031	Air Core	348,992	7,569,720	1,297	5.5	90	360
SBBAC0032	Air Core	349,011	7,569,839	1,305	18.8	90	360
SBBAC0033	Air Core	348,898	7,569,841	1,291	1.0	90	360
SBBAC0034	Air Core	348,895	7,569,907	1,286	9.0	90	360
SBBAC0035	Air Core	349,100	7,569,905	1,312	26.8	90	360
SBBAC0036	Air Core	349,191	7,570,009	1,306	5.0	90	360
SBBAC0037	Air Core	349,195	7,570,105	1,294	8.0	90	360
SBBAC0038	Air Core	349,282	7,570,112	1,307	5.0	90	360
SBBAC0039	Air Core	349,362	7,570,208	1,304	12.2	90	360
SBBAC0040	Air Core	349,395	7,570,294	1,294	32.5	90	360
SBBAC0041	Air Core	349,294	7,570,212	1,308	2.0	90	360
SBBAC0042	Air Core	349,205	7,570,222	1,303	12.5	90	360
SBBAC0043	Air Core	349,084	7,570,034	1,294	14.2	90	360
SBBAC0044	Air Core	349,092	7,570,111	1,281	12.1	90	360
SBBAC0045	Air Core	348,995	7,570,101	1,274	11.0	90	360
SBBAC0046	Air Core	348,987	7,570,025	1,292	21.0	90	360
SBBAC0047	Air Core	348,899	7,570,003	1,276	9.2	90	360
SBBAC0048	Air Core	348,808	7,570,010	1,261	8.0	90	360
SBBAC0049	Air Core	348,785	7,570,090	1,249	26.8	90	360
SBBAC0050	Air Core	348,712	7,570,008	1,246	4.0	90	360
SBBAC0051	Air Core	348,682	7,569,925	1,238	14.8	90	360
SBBAC0052	Air Core	348,807	7,569,925	1,268	13.0	90	360
SBBAC0053	Air Core	348,990	7,569,906	1,301	17.9	90	360
SBBAC0054	Air Core	348,909	7,570,111	1,265	10.4	90	360
SBBAC0055	Air Core	348,588	7,569,082	1,328	26.0	90	360
SBBAC0056	Air Core	348,704	7,569,307	1,288	15.0	90	360
SBBAC0057	Air Core	348,700	7,569,415	1,277	22.0	90	360
SBBAC0058	Air Core	348,705	7,569,517	1,281	5.2	90	360
SBBAC0059	Air Core	348,595	7,569,809	1,244	9.8	90	360
SBBAC0060	Air Core	348,498	7,569,908	1,224	20.0	90	360

For personal use only

Hole ID	Drill Type	East	North	Elevation	Depth	Dip	Azimuth
SBBAC0061	Air Core	349,796	7,570,608	1,277	32.0	90	360
SBBAC0062	Air Core	349,671	7,570,521	1,289	21.5	90	360
SBBAC0063	Air Core	349,587	7,570,439	1,293	23.6	90	360
SBBAC0064	Air Core	349,592	7,570,509	1,293	30.0	90	360
SBBAC0065	Air Core	349,596	7,570,610	1,278	27.4	90	360
SBBAC0066	Air Core	349,497	7,570,612	1,269	25.4	90	360
SBBAC0067	Air Core	349,492	7,570,712	1,249	11.2	90	360
SBBAC0068	Air Core	349,502	7,570,797	1,232	16.5	90	360
SBBAC0069	Air Core	349,595	7,570,807	1,241	13.5	90	360
SBBAC0070	Air Core	349,595	7,570,710	1,258	19.0	90	360
SBBAC0071	Air Core	349,688	7,570,606	1,274	20.5	90	360
SBBAC0072	Air Core	349,697	7,570,719	1,255	18.0	90	360
SBBAC0073	Air Core	349,798	7,570,707	1,259	28.2	90	360
SBBAC0074	Air Core	349,794	7,570,809	1,245	24.0	90	360
SBBAC0075	Air Core	349,699	7,570,806	1,247	28.0	90	360
SBBAC0076	Air Core	349,694	7,570,906	1,230	11.2	90	360
SBBAC0077	Air Core	349,790	7,570,904	1,233	21.2	90	360
SBBAC0078	Air Core	349,498	7,570,409	1,282	16.0	90	360
SBBAC0079	Air Core	349,510	7,570,503	1,282	18.8	90	360
SBBAC0080	Air Core	349,424	7,570,671	1,249	5.2	90	360
SBBAC0081	Air Core	349,431	7,570,614	1,260	18.1	90	360
SBBAC0082	Air Core	349,434	7,570,508	1,264	24.0	90	360
SBBAC0083	Air Core	349,293	7,570,509	1,264	26.4	90	360
SBBAC0084	Air Core	349,267	7,570,417	1,274	24.0	90	360
SBBAC0085	Air Core	349,207	7,570,307	1,287	10.0	90	360
SBBAC0086	Air Core	349,189	7,570,408	1,294	32.0	90	360
SBBAC0087	Air Core	349,195	7,570,498	1,284	21.6	90	360
SBBAC0088	Air Core	349,100	7,570,611	1,291	19.0	90	360
SBBAC0089	Air Core	349,077	7,570,512	1,307	22.5	90	360
SBBAC0090	Air Core	349,012	7,570,618	1,302	2.0	90	360
SBBAC0091	Air Core	349,113	7,570,696	1,275	8.3	90	360
SBBAC0092	Air Core	349,201	7,570,676	1,268	22.5	90	360
SBBAC0093	Air Core	349,296	7,570,680	1,252	11.4	90	360
SBBAC0094	Air Core	349,194	7,570,608	1,276	10.0	90	360
SBBAC0095	Air Core	349,256	7,570,602	1,263	13.0	90	360
SBBAC0096	Air Core	348,895	7,570,709	1,295	3.6	90	360
SBBAC0097	Air Core	349,100	7,570,814	1,283	12.2	90	360
SBBAC0098	Air Core	348,787	7,570,828	1,255	3.6	90	360
SBBAC0099	Air Core	348,800	7,570,904	1,254	44.0	90	360
SBBAC0100	Air Core	348,773	7,570,978	1,255	71.0	90	360
SBBAC0101	Air Core	348,786	7,571,313	1,228	26.0	90	360
SBBAC0102	Air Core	348,882	7,571,315	1,209	18.0	90	360
SBBAC0103	Air Core	348,811	7,571,198	1,223	27.0	90	360
SBBAC0104	Air Core	348,804	7,571,118	1,226	24.0	90	360
SBBAC0105	Air Core	348,887	7,571,108	1,229	21.5	90	360
SBBAC0106	Air Core	348,897	7,571,003	1,244	70.0	90	360
SBBAC0107	Air Core	348,921	7,570,917	1,251	24.0	90	360
SBBAC0108	Air Core	348,985	7,570,919	1,257	29.0	90	360
SBBAC0109	Air Core	349,111	7,570,884	1,276	14.2	90	360
SBBAC0110	Air Core	349,101	7,571,002	1,255	2.0	90	360
SBBAC0111	Air Core	349,087	7,571,100	1,240	77.4	90	360
SBBAC0112	Air Core	349,004	7,571,207	1,218	19.5	90	360
SBBAC0113	Air Core	349,014	7,571,331	1,214	33.4	90	360
SBBAC0114	Air Core	349,106	7,571,225	1,229	28.0	90	360
SBBAC0115	Air Core	349,212	7,571,128	1,255	43.0	90	360
SBBAC0116	Air Core	349,207	7,571,216	1,250	38.2	90	360
SBBAC0117	Air Core	349,284	7,571,214	1,249	22.0	90	360
SBBAC0118	Air Core	349,197	7,571,315	1,229	24.0	90	360
SBBAC0119	Air Core	349,121	7,571,309	1,230	40.0	90	360
SBBAC0120	Air Core	349,373	7,571,306	1,251	20.2	90	360
SBBAC0121	Air Core	349,410	7,571,215	1,271	26.0	90	360
SBBAC0122	Air Core	349,403	7,571,096	1,292	11.4	90	360
SBBAC0123	Air Core	349,290	7,571,011	1,298	12.1	90	360

For personal use only

Hole ID	Drill Type	East	North	Elevation	Depth	Dip	Azimuth
SBBAC0124	Air Core	349,194	7,570,880	1,287	22.4	90	360
SBBAC0125	Air Core	349,589	7,571,216	1,262	8.0	90	360
SBBAC0126	Air Core	349,589	7,571,326	1,240	16.0	90	360
SBBAC0127	Air Core	349,493	7,571,327	1,231	15.0	90	360
SBBAC0128	Air Core	349,761	7,571,184	1,224	1.0	90	360
SBBAC0129	Air Core	349,724	7,571,258	1,225	3.4	90	360
SBBAC0130	Air Core	349,717	7,571,318	1,227	15.3	90	360
SBBAC0131	Air Core	349,606	7,570,983	1,233	6.4	90	360
SBBAC0132	Air Core	349,511	7,570,896	1,234	20.4	90	360
SBBAC0133	Air Core	349,415	7,570,862	1,244	12.0	90	360
SBBAC0134	Air Core	349,379	7,570,802	1,245	12.0	90	360
SBBAC0135	Air Core	349,203	7,570,786	1,270	13.5	90	360
SBBAC0136	Air Core	349,201	7,571,010	1,293	21.0	90	360
SBBAC0137	Air Core	349,383	7,571,053	1,294	14.5	90	360
SBBAC0138	Air Core	349,490	7,571,113	1,271	23.0	90	360
SBBAC0139	Air Core	349,586	7,571,121	1,255	24.0	90	360
SBBAC0140	Air Core	349,528	7,571,238	1,251	4.5	90	360
SBBAC0141	Air Core	349,261	7,570,932	1,295	31.0	90	360
SBBAC0142	Air Core	349,250	7,571,158	1,257	40.8	90	360
SBBAC0143	Air Core	349,693	7,571,115	1,234	15.0	90	360
SBBAC0144	Air Core	349,683	7,570,999	1,228	9.0	90	360
SBBAC0145	Air Core	349,515	7,570,994	1,250	10.0	90	360
SBBAC0146	Air Core	349,291	7,570,817	1,264	11.0	90	360
SBBAC0147	Air Core	348,980	7,569,616	1,300	3.0	90	360
SBBAC0148	Air Core	349,101	7,570,415	1,310	34.8	90	360
SBBAC0149	Air Core	348,985	7,570,530	1,315	15.5	90	360
SBBAC0150	Air Core	348,894	7,570,504	1,302	13.0	90	360
SBBAC0151	Air Core	348,785	7,570,422	1,285	16.0	90	360
SBBAC0152	Air Core	348,992	7,570,399	1,281	6.4	90	360
SBBAC0153	Air Core	348,962	7,570,318	1,278	17.0	90	360
SBBAC0154	Air Core	349,100	7,570,281	1,287	20.5	90	360
SBBAC0155	Air Core	348,908	7,570,320	1,264	8.6	90	360
SBBAC0156	Air Core	348,781	7,570,238	1,252	3.2	90	360
SBBAC0157	Air Core	348,678	7,570,139	1,243	15.6	90	360
SBBAC0158	Air Core	348,597	7,570,101	1,237	9.2	90	360
SBBAC0159	Air Core	348,502	7,570,068	1,230	14.0	90	360
SBBAC0160	Air Core	348,404	7,570,057	1,226	15.3	90	360
SBBAC0161	Air Core	348,302	7,570,106	1,228	21.4	90	360
SBBAC0162	Air Core	348,186	7,570,090	1,222	12.0	90	360
SBBAC0163	Air Core	348,100	7,570,081	1,217	7.0	90	360
SBBAC0164	Air Core	347,996	7,570,088	1,209	9.5	90	360
SBBAC0165	Air Core	347,974	7,569,977	1,207	8.2	90	360
SBBAC0166	Air Core	348,002	7,569,998	1,207	3.2	90	360
SBBAC0167	Air Core	348,125	7,569,992	1,214	31.0	90	360
SBBAC0168	Air Core	348,178	7,569,990	1,210	5.0	90	360
SBBAC0169	Air Core	348,286	7,569,964	1,214	6.0	90	360
SBBAC0170	Air Core	348,378	7,569,891	1,222	34.0	90	360
SBBAC0171	Air Core	348,420	7,569,823	1,227	20.0	90	360
SBBAC0172	Air Core	348,464	7,569,779	1,227	10.0	90	360
SBBAC0173	Air Core	348,485	7,569,677	1,244	11.5	90	360
SBBAC0174	Air Core	348,510	7,569,598	1,251	9.0	90	360
SBBAC0175	Air Core	348,472	7,569,487	1,273	4.0	90	360
SBBAC0175B	Air Core	348,472	7,569,487	1,273	14.2	90	360
SBBAC0176	Air Core	348,399	7,569,610	1,277	8.1	90	360
SBBAC0177	Air Core	348,381	7,569,697	1,267	14.0	90	360
SBBAC0178	Air Core	348,192	7,569,898	1,232	34.0	90	360
SBBAC0179	Air Core	348,099	7,569,907	1,231	48.0	90	360
SBBAC0180	Air Core	347,972	7,569,904	1,211	12.0	90	360
SBBAC0181	Air Core	348,013	7,569,820	1,218	22.0	90	360
SBBAC0182	Air Core	348,095	7,569,705	1,226	26.2	90	360
SBBAC0183	Air Core	348,197	7,569,712	1,237	17.0	90	360
SBBAC0184	Air Core	348,293	7,569,712	1,250	60.5	90	360
SBBAC0185	Air Core	348,180	7,569,594	1,247	40.0	90	360

For personal use only

Hole ID	Drill Type	East	North	Elevation	Depth	Dip	Azimuth
SBBAC0186	Air Core	348,181	7,569,498	1,240	25.0	90	360
SBBAC0187	Air Core	347,942	7,569,672	1,229	34.0	90	360
SBBAC0188	Air Core	348,253	7,569,882	1,224	38.0	90	360
SBBAC0189	Air Core	348,099	7,569,809	1,235	26.1	90	360
SBBAC0190	Air Core	348,309	7,569,786	1,254	48.2	90	360
SBBAC0191	Air Core	348,290	7,569,506	1,265	8.0	90	360
SBBAC0192	Air Core	348,292	7,569,585	1,275	3.0	90	360
SBBAC0193	Air Core	348,398	7,569,412	1,287	20.0	90	360
SBBAC0194	Air Core	348,463	7,569,370	1,295	10.0	90	360
SBBAC0195	Air Core	348,504	7,569,309	1,304	9.0	90	360
SBBAC0196	Air Core	348,503	7,569,007	1,306	1.5	90	360
SBBAC0197	Air Core	348,371	7,568,989	1,310	22.0	90	360
SBBAC0198	Air Core	348,290	7,569,018	1,300	5.0	90	360
SBBAC0199	Air Core	348,195	7,569,012	1,291	12.5	90	360
SBBAC0200	Air Core	348,203	7,568,906	1,291	7.0	90	360
SBBAC0201	Air Core	348,266	7,568,939	1,299	25.0	90	360
SBBAC0202	Air Core	348,095	7,568,905	1,261	12.0	90	360
SBBAC0203	Air Core	348,079	7,568,818	1,252	15.0	90	360
SBBAC0204	Air Core	347,997	7,568,805	1,236	8.0	90	360
SBBAC0205	Air Core	348,098	7,568,706	1,238	18.0	90	360
SBBAC0206	Air Core	348,156	7,568,810	1,263	18.0	90	360
SBBAC0207	Air Core	348,093	7,569,020	1,277	8.0	90	360
SBBAC0208	Air Core	348,003	7,568,969	1,264	11.5	90	360
SBBAC0209	Air Core	348,102	7,569,100	1,290	6.0	90	360
SBBAC0210	Air Core	348,000	7,569,107	1,279	13.0	90	360
SBBAC0211	Air Core	347,961	7,569,147	1,277	1.5	90	360
SBBAC0212	Air Core	347,993	7,569,207	1,291	22.5	90	360
SBBAC0213	Air Core	348,091	7,569,212	1,297	1.5	90	360
SBBAC0214	Air Core	348,070	7,569,290	1,286	9.0	90	360
SBBAC0215	Air Core	347,947	7,569,306	1,276	22.0	90	360
SBBAC0216	Air Core	347,990	7,569,414	1,252	5.0	90	360
SBBAC0217	Air Core	348,081	7,569,417	1,243	19.5	90	360
SBBAC0218	Air Core	348,067	7,569,518	1,235	9.2	90	360
SBBAC0219	Air Core	347,997	7,569,511	1,243	15.8	90	360
SBBAC0220	Air Core	347,999	7,569,603	1,232	21.5	90	360
SBBAC0221	Air Core	347,942	7,569,672	1,229	15.2	90	360
SBBAC0222	Air Core	348,201	7,569,093	1,284	10.0	90	360
SBBAC0223	Air Core	348,330	7,569,125	1,301	5.0	90	360
SBBAC0224	Air Core	348,388	7,569,211	1,304	22.5	90	360
SBBAC0225	Air Core	348,399	7,569,304	1,301	8.3	90	360
SBBAC0226	Air Core	348,276	7,569,115	1,284	7.0	90	360
SBBAC0227	Air Core	348,279	7,569,206	1,275	14.8	90	360
SBBAC0228	Air Core	348,281	7,569,302	1,273	7.0	90	360
SBBAC0229	Air Core	348,595	7,568,913	1,303	12.0	90	360
SBBAC0230	Air Core	348,595	7,568,791	1,309	37.0	90	360
SBBAC0231	Air Core	348,592	7,568,707	1,291	21.5	90	360
SBBAC0232	Air Core	348,593	7,568,607	1,287	22.0	90	360
SBBAC0233	Air Core	348,494	7,568,612	1,284	22.0	90	360
SBBAC0234	Air Core	348,388	7,568,594	1,291	35.4	90	360
SBBAC0235	Air Core	348,393	7,568,707	1,269	18.0	90	360
SBBAC0236	Air Core	348,293	7,568,707	1,260	18.2	90	360
SBBAC0237	Air Core	348,204	7,568,688	1,255	4.0	90	360
SBBAC0238	Air Core	348,188	7,568,594	1,240	8.0	90	360
SBBAC0239	Air Core	348,270	7,568,491	1,243	13.0	90	360
SBBAC0240	Air Core	348,340	7,568,397	1,247	7.0	90	360
SBBAC0241	Air Core	348,495	7,568,307	1,260	16.5	90	360
SBBAC0242	Air Core	348,497	7,568,217	1,253	18.0	90	360
SBBAC0243	Air Core	348,597	7,568,213	1,262	22.0	90	360
SBBAC0244	Air Core	348,697	7,568,203	1,276	11.0	90	360
SBBAC0245	Air Core	348,594	7,568,307	1,263	24.0	90	360
SBBAC0246	Air Core	348,694	7,568,312	1,277	10.0	90	360
SBBAC0247	Air Core	348,616	7,568,398	1,269	7.0	90	360
SBBAC0248	Air Core	348,689	7,568,409	1,275	10.0	90	360

For personal use only

Hole ID	Drill Type	East	North	Elevation	Depth	Dip	Azimuth
SBBAC0249	Air Core	348,388	7,568,412	1,259	10.0	90	360
SBBAC0250	Air Core	348,402	7,568,494	1,262	11.0	90	360
SBBAC0251	Air Core	348,489	7,568,513	1,273	17.6	90	360
SBBAC0252	Air Core	348,490	7,568,416	1,262	6.4	90	360
SBBAC0253	Air Core	348,267	7,568,607	1,256	10.6	90	360
SBBAC0254	Air Core	348,401	7,568,810	1,273	5.1	90	360
SBBAC0255	Air Core	348,496	7,568,907	1,290	4.4	90	360
SBBAC0256	Air Core	348,598	7,569,008	1,314	29.0	90	360
SBBAC0257	Air Core	348,499	7,568,807	1,294	27.0	90	360
SBBAC0258	Air Core	348,592	7,568,519	1,279	9.4	90	360
SBBAC0259	Air Core	348,491	7,568,713	1,284	14.0	90	360
SBBAC0260	Air Core	348,789	7,568,195	1,288	24.2	90	360
SBBAC0261	Air Core	348,806	7,568,120	1,288	21.6	90	360
SBBAC0262	Air Core	348,695	7,568,112	1,274	14.4	90	360
SBBAC0263	Air Core	348,567	7,568,102	1,256	16.0	90	360
SBBAC0264	Air Core	348,504	7,568,127	1,251	16.4	90	360
SBBAC0265	Air Core	348,091	7,568,603	1,237	6.4	90	360
SBBAC0266	Air Core	348,013	7,568,716	1,237	10.0	90	360
SBBAC0267	Air Core	347,982	7,568,519	1,251	17.0	90	360
SBBAC0268	Air Core	348,694	7,568,504	1,290	12.0	90	360
SBBAC0269	Air Core	348,084	7,568,482	1,251	13.6	90	360
SBBAC0270	Air Core	348,095	7,568,413	1,256	21.6	90	360
SBBAC0271	Air Core	347,997	7,568,406	1,268	21.6	90	360
SBBAC0272	Air Core	347,989	7,568,307	1,261	5.0	90	360
SBBAC0273	Air Core	347,995	7,567,902	1,316	7.2	90	360
SBBAC0274	Air Core	347,993	7,568,006	1,294	10.0	90	360
SBBAC0275	Air Core	347,976	7,568,094	1,282	7.0	90	360
SBBAC0276	Air Core	347,972	7,568,193	1,272	21.2	90	360
SBBAC0277	Air Core	348,089	7,567,907	1,316	19.0	90	360
SBBAC0278	Air Core	348,117	7,568,001	1,304	22.0	90	360
SBBAC0279	Air Core	348,108	7,568,093	1,291	17.4	90	360
SBBAC0280	Air Core	348,209	7,568,204	1,283	25.0	90	360
SBBAC0281	Air Core	348,799	7,569,486	1,298	10.0	90	360
SBBAC0282	Air Core	348,809	7,569,292	1,303	14.5	90	360
SBBAC0283	Air Core	348,788	7,567,986	1,284	14.0	90	360
SBBAC0284	Air Core	348,796	7,567,906	1,297	30.4	90	360
SBBAC0285	Air Core	348,711	7,567,923	1,292	27.8	90	360
SBBAC0286	Air Core	348,696	7,568,006	1,276	25.0	90	360
SBBAC0287	Air Core	348,598	7,568,009	1,271	25.0	90	360
SBBAC0288	Air Core	348,590	7,567,909	1,263	22.0	90	360
SBBAC0289	Air Core	348,778	7,568,310	1,291	28.0	90	360
SBBAC0290	Air Core	347,994	7,568,602	1,256	15.2	90	360
SBBAC0291	Air Core	348,292	7,568,203	1,267	16.0	90	360
SBBAC0292	Air Core	348,204	7,568,314	1,258	12.4	90	360
SBBAC0293	Air Core	348,178	7,568,247	1,273	23.0	90	360
SBBAC0294	Air Core	348,223	7,568,401	1,242	8.8	90	360
SBBAC0295	Air Core	348,294	7,568,307	1,245	6.0	90	360
SBBAC0296	Air Core	348,372	7,568,195	1,247	7.0	90	360
SBBAC0297	Air Core	348,392	7,568,113	1,248	9.0	90	360
SBBAC0298	Air Core	348,410	7,568,015	1,254	6.8	90	360
SBBAC0299	Air Core	348,472	7,567,993	1,247	11.5	90	360
SBBAC0300	Air Core	348,471	7,567,935	1,252	20.0	90	360
SBBAC0301	Air Core	348,390	7,567,910	1,259	14.0	90	360
SBBAC0302	Air Core	348,295	7,567,909	1,271	20.0	90	360
SBBAC0303	Air Core	348,296	7,568,005	1,265	16.0	90	360
SBBAC0304	Air Core	348,223	7,568,102	1,271	10.0	90	360
SBBAC0305	Air Core	348,300	7,568,107	1,257	14.0	90	360
SBBAC0306	Air Core	348,200	7,568,007	1,278	14.0	90	360
SBBAC0307	Air Core	348,192	7,567,911	1,284	12.0	90	360
SBBAC0308	Air Core	348,555	7,569,159	1,318	18.0	90	360
SBBAC0309	Air Core	348,483	7,569,118	1,336	23.0	90	360
SBBAC0310	Air Core	348,479	7,569,202	1,328	17.0	90	360
SBBAC0311	Air Core	348,391	7,569,499	1,282	23.0	90	360

Hole ID	Drill Type	East	North	Elevation	Depth	Dip	Azimuth
SBBAC0312	Air Core	348,307	7,569,414	1,274	23.0	90	360
SBBAC0313	Air Core	348,245	7,569,409	1,250	23.0	90	360
SBBAC0314	Air Core	349,338	7,570,293	1,291	18.0	90	360
SBBAC0315	Air Core	349,410	7,570,426	1,271	14.0	90	360
SBBAC0316	Air Core	348,897	7,569,609	1,291	14.0	90	360
SBBAC0317	Air Core	349,997	7,571,312	1,227	18.0	90	360
SBBAC0318	Air Core	349,903	7,571,306	1,217	22.0	90	360
SBBAC0319	Air Core	350,018	7,571,185	1,233	22.0	90	360
SBBAC0320	Air Core	349,803	7,571,084	1,220	13.5	90	360
SBBAC0321	Air Core	349,791	7,571,004	1,228	9.0	90	360
SBBAC0322	Air Core	350,108	7,571,081	1,254	15.0	90	360
SBBDD0001	Diamond	348,798	7,569,486	1,298	18.2	90	360
SBBDD0002	Diamond	349,085	7,568,049	1,284	31.5	90	360
SBBDD0003	Diamond	348,991	7,570,681	1,295	19.8	90	360
SBBDD0004	Diamond	350,299	7,569,907	1,215	31.1	90	360
SBBDD0005	Diamond	348,119	7,568,005	1,304	23.4	90	360
SBBDD0006	Diamond	349,844	7,570,495	1,292	10.3	90	360
SBBDD0007	Diamond	347,976	7,569,982	1,207	11.1	90	360
SBBDD0008	Diamond	349,904	7,570,592	1,275	29.3	90	360
SBBDD0009	Diamond	350,004	7,570,493	1,259	29.6	90	360
SBBDD0010	Diamond	348,196	7,569,900	1,232	38.7	90	360
SBBDD0011	Diamond	348,804	7,569,298	1,303	28.9	90	360
SBBDD0012	Diamond	349,062	7,571,158	1,233	48.1	90	360
SBBDD0013	Diamond	349,124	7,570,520	1,293	39.0	90	360
SBBDD0014	Diamond	348,660	7,568,096	1,269	16.1	90	360

For personal use only

For personal use only

Appendix 3 Caldeira REE Project - Licence details

License	Status	License Holder	Area (Ha)
808027/1975	MINING CONCESSION	COMPANHIA GERAL DE MINAS	600.76
809358/1975	MINING CONCESSION	COMPANHIA GERAL DE MINAS	617.23
809359/1975	MINING CONCESSION	COMPANHIA GERAL DE MINAS	317.36
815645/1971	MINING CONCESSION	COMPANHIA GERAL DE MINAS	366.02
815682/1971	MINING CONCESSION	COMPANHIA GERAL DE MINAS	575.26
817223/1971	MINING CONCESSION	MINERAÇÃO DANIEL TOGNI LOUREIRO LTDA	772.72
803459/1975	MINING CONCESSION	MINERAÇÃO PERDIZES LTDA	24.02
808556/1974	MINING CONCESSION	MINERAÇÃO PERDIZES LTDA	204.09
811232/1974	MINING CONCESSION	MINERAÇÃO PERDIZES LTDA	524.40
814251/1971	MINING CONCESSION	MINERAÇÃO PERDIZES LTDA	124.35
815006/1971	MINING CONCESSION	MINERAÇÃO PERDIZES LTDA	717.52
816211/1971	MINING CONCESSION	MINERAÇÃO PERDIZES LTDA	796.55
835022/1993	MINING CONCESSION	MINERAÇÃO PERDIZES LTDA	73.50
835025/1993	MINING CONCESSION	MINERAÇÃO PERDIZES LTDA	100.47
814860/1971	MINING CONCESSION	MINERAÇÃO ZELÂNDIA LTDA	341.73
815681/1971	MINING CONCESSION	MINERAÇÃO ZELÂNDIA LTDA	766.54
820352/1972	MINING CONCESSION	MINERAÇÃO ZELÂNDIA LTDA	26.40
820353/1972	MINING CONCESSION	MINERAÇÃO ZELÂNDIA LTDA	529.70
820354/1972	MINING CONCESSION	MINERAÇÃO ZELÂNDIA LTDA	216.49
2757/1967	MINING CONCESSION	RAJ MINERIOS LTDA	20.10
5649/1963	MINING CONCESSION	RAJ MINERIOS LTDA	12.41
803457/1975	MINING CONCESSION	RAJ MINERIOS LTDA	60.64
825972/1972	MINING CONCESSION	RAJ MINERIOS LTDA	377.42
833914/2007	MINING CONCESSION	RAJ MINERIOS LTDA	6.99
002.349/1967	MINING CONCESSION	VARGINHA MINERACAO E LOTEAMENTOS LTDA	74.01
830443/2018	EXPLORATION LICENSE	FERTIMAX FERTILIZANTES ORGANICOS LTDA	79.24
830444/2018	EXPLORATION LICENSE	FERTIMAX FERTILIZANTES ORGANICOS LTDA	248.34
830824/2006	EXPLORATION LICENSE	RAJ MINERIOS LTDA	13.24
832350/2006	EXPLORATION LICENSE	RAJ MINERIOS LTDA	27.14
832351/2006	EXPLORATION LICENSE	RAJ MINERIOS LTDA	16.77
832671/2005	EXPLORATION LICENSE	RAJ MINERIOS LTDA	16.91
832714/2016	EXPLORATION LICENSE	RAJ MINERIOS LTDA	13.61
832800/2002	EXPLORATION LICENSE	RAJ MINERIOS LTDA	6.94
831686/2012	EXPLORATION LICENSE	VARGINHA MINERACAO E LOTEAMENTOS LTDA	6.50
832193/2012	EXPLORATION LICENSE	VARGINHA MINERACAO E LOTEAMENTOS LTDA	12.46
807899/1975	MINING APPLICATION	COMPANHIA GERAL DE MINAS	948.92
815274/1971	MINING APPLICATION	COMPANHIA GERAL DE MINAS	739.73
833486/1996	MINING APPLICATION	MINAS RIO MINERADORA LTDA	79.38
833655/1996	MINING APPLICATION	MINAS RIO MINERADORA LTDA	249.11
833656/1996	MINING APPLICATION	MINAS RIO MINERADORA LTDA	82.77
833657/1996	MINING APPLICATION	MINAS RIO MINERADORA LTDA	68.25
834743/1995	MINING APPLICATION	MINAS RIO MINERADORA LTDA	283.19
830513/1979	MINING APPLICATION	MINERAÇÃO MONTE CARMELO LTDA	457.77
804222/1975	MINING APPLICATION	MINERAÇÃO PERDIZES LTDA	403.65
813025/1973	MINING APPLICATION	MINERAÇÃO PERDIZES LTDA	943.74
830000/1980	MINING APPLICATION	MINERAÇÃO PERDIZES LTDA	203.85
831092/1983	MINING APPLICATION	MINERAÇÃO PERDIZES LTDA	171.39
830391/1979	MINING APPLICATION	MINERAÇÃO PERDIZES LTDA.	7.30
830633/1980	MINING APPLICATION	MINERAÇÃO ZELÂNDIA LTDA	35.25
831880/1991	MINING APPLICATION	MINERAÇÃO ZELÂNDIA LTDA	84.75
815237/1971	MINING APPLICATION	RAJ MINERIOS LTDA	131.98
830722/2002	MINING APPLICATION	RAJ MINERIOS LTDA	5.60
831250/2008	MINING APPLICATION	RAJ MINERIOS LTDA	2.48
831598/1988	MINING APPLICATION	RAJ MINERIOS LTDA	930.90
832889/2005	MINING APPLICATION	RAJ MINERIOS LTDA	27.82
837368/1993	MINING APPLICATION	RAJ MINERIOS LTDA	340.04
830551/1979	MINING APPLICATION	TOGNI S/A MATERIAIS REFRATÃ⍰RIOS	528.88
830416/2001	MINING APPLICATION	VARGINHA MINERACAO E LOTEAMENTOS LTDA	166.22
831269/1992	MINING APPLICATION	VARGINHA MINERACAO E LOTEAMENTOS LTDA	442.16
832146/2002	MINING APPLICATION	VARGINHA MINERACAO E LOTEAMENTOS LTDA	18.95

License	Status	License Holder	Area (Ha)
832252/2001	MINING APPLICATION	VARGINHA MINERACAO E LOTEAMENTOS LTDA	51.96
832572/2003	MINING APPLICATION	VARGINHA MINERACAO E LOTEAMENTOS LTDA	204.49
833551/1993	MINING APPLICATION	VARGINHA MINERACAO E LOTEAMENTOS LTDA	98.87
833553/1993	MINING APPLICATION	VARGINHA MINERACAO E LOTEAMENTOS LTDA	98.13
830.697/2003	MINING APPLICATION	VARGINHA MINERACAO E LOTEAMENTOS LTDA	5.38
830.461/2018	EXPLORATION APPLICATION	FERTIMAX FERTILIZANTES ORGANICOS LTDA	50.88
832799/2002	EXPLORATION APPLICATION	RAJ MINERIOS LTDA	38.35
830955/2006	EXPLORATION APPLICATION	VARGINHA MINERACAO E LOTEAMENTOS LTDA	1993.50
833176/2008	EXPLORATION APPLICATION	VARGINHA MINERACAO E LOTEAMENTOS LTDA	634.00

For personal use only