Strategic Expansion of Colossus REE Project

ASX Release: 24 January 2024

Highlights

- **Viridis Mining and Minerals Limited ("Viridis" or "the Company") has signed two binding agreements to secure significant additional mining rights that are contiguous to its currently held Licenses, within and adjacent to the Poços De Caldas Alkaline Complex, Minas Gerais, Brazil.**
- **The new Licenses cover an additional 10,085 Hectares (101 km^2), taking Viridis' total landholding in this highly prospective region to 22,863 Hectares (228.63 km^2).**
- **Licenses 5460/1954, 804675/1975 and 802917/1978, located proximal to Viridis' Northeastern tenements will be known as the Tamoyo Prospect, and will strengthen the dominant position that Viridis holds in the Northern part of the Alkaline Complex. This new prospect comprises 3 Mining Licences.**
- **Surface grab samples collected previously at the Tamoyo Prospect within the superficial leached layer have returned highly encouraging assays, with Sample No. 26 and Sample No. 30 returning a remarkable 3,848ppm and 2,019ppm TREO, respectively.**
- **The Bandeira Prospect, also included within this expansion, is located on the Eastern edge of the Alkaline complex, which represents a district-scale opportunity consisting of 4 Exploration Licenses and 2 Exploration License Requests, and is adjacent to existing large landholdings held by Viridis. Previous Auger drilling by the vendors within the 'leached layer' at Bandeira has returned 3.6m @1,924ppm TREO.**
- **Viridis continues to work closely with its vendors, leveraging their local reputation and strategic partnerships to explore further opportunities to acquire additional exploration and mining licences prospective for IAC Rare Earths in the Poços de Caldas Alkaline Complex.**

Chief Executive Officer, Rafael Moreno commented:

"I'm thrilled we have secured these additional mining rights, with the Tamoyo Prospect already showing exciting results from grab samples, and Bandeira representing an extremely large and low cost opportunity for Viridis to explore in an adjacent alkaline complex.

As Viridis kicks off work on its maiden resource estimate and gears up for the next phase of project advancement, I'm extremely excited about the potential opportunity these new tenements present the Company and how they support the overall development strategy for the Colossus IAC rare earth project.

The deal terms are highly favourable and provide Viridis with great optionality for these tenements. The Company remains on-track to becoming the second major IAC project within the complex and continues working diligently through its exploration strategy to generate value for shareholders."

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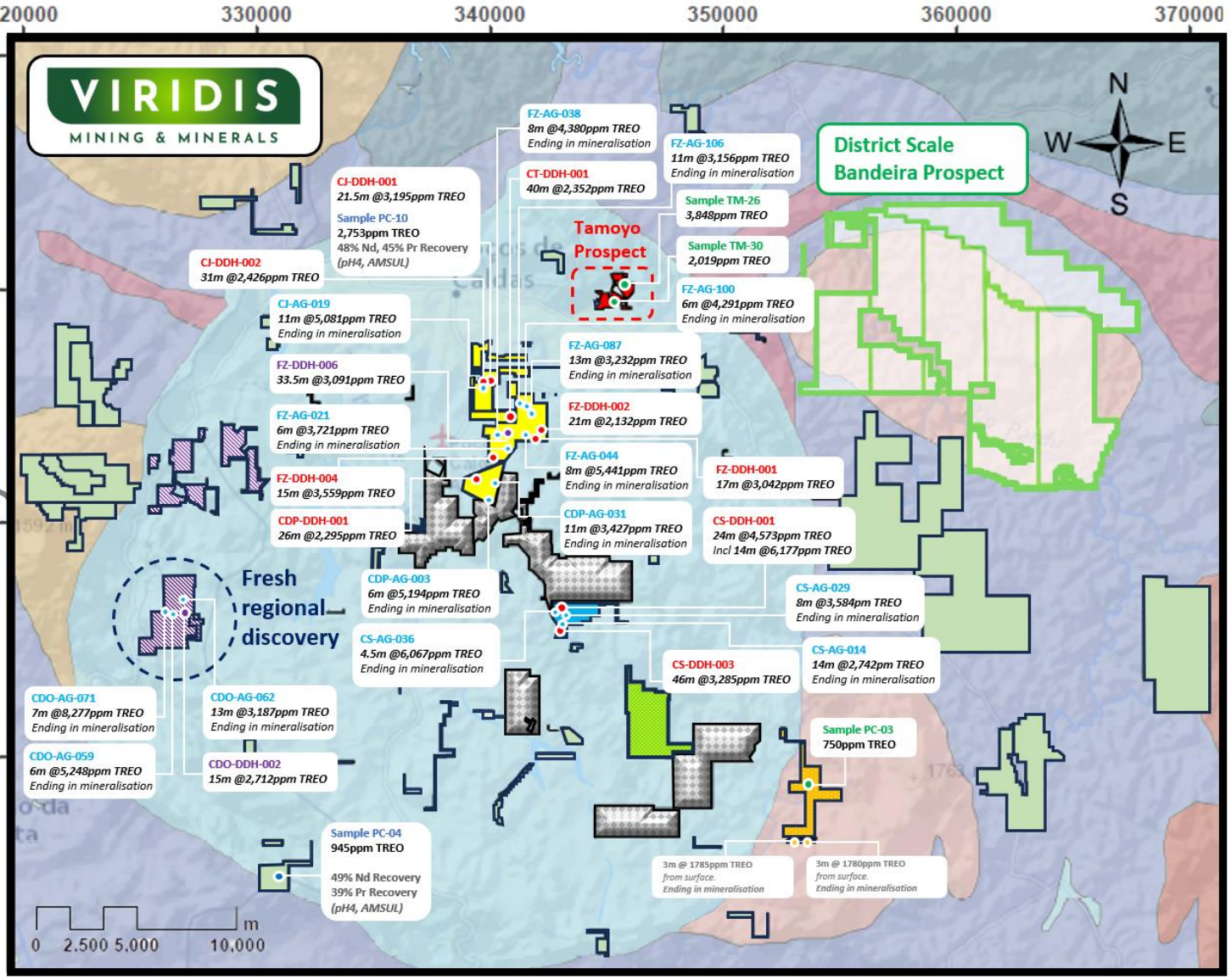

Figure 1: *Map of the Colossus existing and new Tamoyo and Bandeira tenements within and adjacent to the Poços De Caldas Alkaline Complex, Minas Gerais, Brazil[1].*

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Strategic Expansion of the Colossus Rare Earth Project

Viridis Mining and Minerals Limited is pleased to report it has secured a major expansion to its Colossus IAC Rare Earth Project, with the addition of new Licenses covering 10,085 Hectares (~101 km^2). This takes the total landholding of Colossus to 228.62 km^2, representing a 44% increase in land position in and around the Poços De Caldas Complex, Minas Gerais, Brazil.

New Licenses 5460/1954, 804675/1975 and 802917/1978, known as the Tamoyo Prospect, represent a key strategic acquisition considering its proximity to the existing tenements held by Viridis in the Northern part of the Alkaline complex, strengthening the Company's already dominant position. Furthermore, these licenses are all granted mining licenses, allowing Viridis to advance them swiftly towards production upon a successful exploration program which will immediately add rare earth mining rights to the existing bauxite mining leases.

The Bandeira Prospect forms the second part of the expansion and is close to existing Viridis' landholdings (832349/2023 and 832920/2013), previously acquired by Viridis. The Bandeira Prospect represents an exciting district-scale opportunity within its an Alkali-Syenite Complex, which adjoins the Poços de Caldas Alkaline Complex on its Eastern border. This new prospect comprises 4 Exploration Licenses and 2 Exploration License Requests.

The majority of Bandeira tenements are located on the Capituva Complex. It is an Alkali-Syenite Complex, approximately 610 million years old. It contains alkali-Feldspars, which break down easily under weathering to form clay minerals. Randomised hand-held auger drilling has been conducted by the previous vendors within the leached layer of the saprolite profile and returned highly encouraging grades of REE mineralisation, which is favourable for discovering significantly higher grades of mineralisation regionally and at depth within the Bandeira Prospect.

- **BA-06: 7.0m @ 1,627ppm TREO [33% MREO] from 1.0m.**
- **BA-02: 3.6 m @ 1,924ppm TREO [29% MREO] from 1.4m.**
- **BA-03: 3.9 m @ 1,752ppm TREO [33% MREO] from 0.3m.**

This stratification phenomenon which forms the leached layer occurs due to the intense weathering process, as described in numerous articles (A. Borst, M. Smith et al., 2020, M. Li, M. Zhou, 2020, A. Yaraghi, K. Ariffin, N. Baharun, 2020)[3,4,5]. In this process, Rare Earth elements present in primary minerals are released from their crystalline structure into an ion form, these REE ions are remobilised from the upper layers to the lower layers due to the weathering process, where they accumulate and ionically bond preferentially in the intermediate layer (accumulation zone).

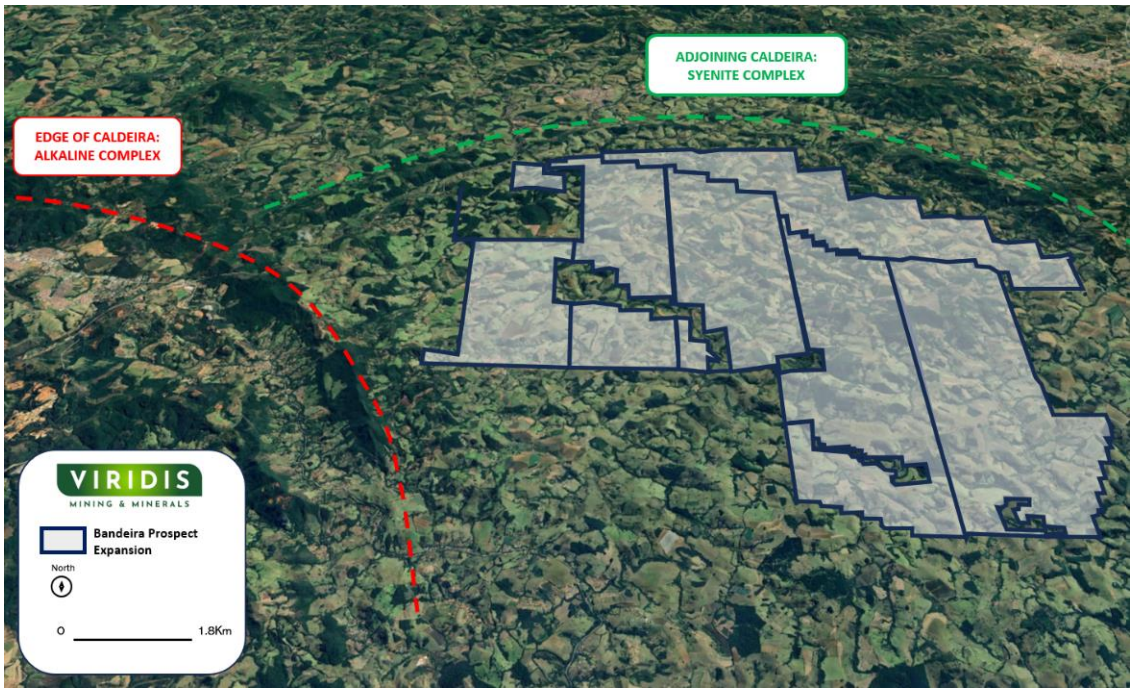

Figure 2: *Map showing the relationship of the Bandeira Prospect to the Poços de Caldas Alkaline Complex.*

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Binding Option Agreement Terms

Viridis has entered into two binding agreements with two separate vendors (**Vendor 1** and **Vendor 2** and together the **Vendors**) under which the Vendors will grant Viridis the option to acquire 100% of the Mining Rights in the REE Minerals within the Licences and all geological information pertaining to the Licences. Viridis may acquire any or all of these Mining Rights (**Acquisition**). The number of Licences acquired will determine the value of the acquisition payments as detailed below. Completion of the Acquisition of the Mining Rights is subject to Viridis having completed technical due diligence on the Licences.

The consideration to be paid to the Vendors is set out as follows:

Vendor 1: Minas Rio Mineradora Ltda

Performance Right

On settlement of the Acquisition, the Company will issue to Vendor 1 a total of up to US$1,500,000 via the issue of a performance right (**Vendor 1 Performance Right**) (subject to the Company obtaining shareholder approval for the Vendor 1 Performance Right). The Vendor 1 Performance Right will convert into fully paid ordinary shares in the Company (**Shares**) as follows:

I. if the Company delineates between 100 million and 200 million tonnes of inferred rare earth resources within the Mining Rights the subject of the Bandeira Prospect Licences, based on the JORC 2012 standard or its equivalent, with an average grade of no less than 1,500ppm total rare earth oxide ("REO") and an average recovery rate of not less than 40% by the method of ammonium sulphate leaching, the Vendor 1 Performance Right shall convert into that number of Shares which is equal to US$750,000 divided by the higher of $1.50 and the 30-day volume weighted average price (**VWAP**) of Shares ending on and including the date the milestone is achieved (based on the USD:AUD exchange rate on the date the milestone is achieved); and

II. if the Company delineates greater than 200 million tonnes of inferred rare earth resources within the Mining Rights the subject of the Bandeira Prospect Licences, based on the JORC 2012 standard or its equivalent, with an average grade of no less than 1,500ppm total REO and an average recovery rate of not less than 40% by the method of ammonium sulphate leaching, the Vendor 1 Performance Right shall convert into that number of Shares which is equal to US$1,500,000 divided by the higher of $1.50 and the 30-day VWAP of Shares ending on and including the date the milestone is achieved (based on the USD:AUD exchange rate on the date the milestone is achieved).

III. the Vendor 1 Performance Right will expire five years from the date of issue of the Vendor 1 Performance Right and will be otherwise issued on terms standard for a performance right of this nature.

Vendor 2: Frigorifico Tamoyo Sociedade Ltda

A. Cash Payments

As consideration for the Acquisition, the Company proposes to make the following cash payments to Vendor 2:

I. Exclusivity Payment: Upon execution of the binding exclusive option agreement, the Company will pay Vendor 2 a non-refundable cash payment of USD$ 100,000; and

II. Acquisition Payments: the Company will pay Vendor 2 USD$1,000 per hectare for the Tamoyo Prospect Licences. The Company can elect which Licences it wishes to acquire.

B. Performance Right

On settlement of the Acquisition, the Company proposes to issue to Vendor 2 a total of up to US$1,500,000 via the issue of a performance right (**Vendor 2 Performance Right**) (subject to the Company obtaining shareholder approval for the Vendor 2 Performance Right). The Vendor 2 Performance Right will convert into Shares as follows:

I. for every 1 million tonnes of inferred rare earth resources delineated within the areas of the Mining Rights, the subject of the Tamoyo Prospect Licences, based on the JORC 2012 standard or its equivalent, with an average grade of no less than 1,500ppm of total REO and an average recovery rate of not less than 40% using the ammonium sulphate leaching method, the Vendor 2 Performance Right shall convert into that number of Shares equal to US$10,000 divided by the higher of $1.50 and the 30-day VWAP of Shares ending on and including the date the milestone is achieved (based on the USD:AUD exchange rate on the date the milestone is achieved). The value of the Shares issued upon conversion of the Vendor 2 Performance Right will not exceed US$1,500,000.

II. the Vendor 2 Performance Right will expire five years from the date of issue of the Vendor 2 Performance Right and will be otherwise issued on terms standard for a performance right of this nature.

Schedule of Mining Rights

ANM Process No.	Holder	ANM phase	Surface (Ha)
832502/2023	Minas Rio Ltda	Exploration Licence	1981.12
831210/2023	Minas Rio Ltda	Exploration Licence	1927.8
831209/2023	Minas Rio Ltda	Exploration Licence	1884.97
831207/2023	Minas Rio Ltda	Exploration Licence	1611.39
831206/2023	Minas Rio Ltda	Exploration Request	1594.94
831205/2023	Minas Rio Ltda	Exploration Request	954.11
802917/1978	Frigorifico Tamoyo Sociedade Ltda	Mining Licence	44.93
804675/1975	Frigorifico Tamoyo Sociedade Ltda	Mining Licence	80.22
5460/1954	Frigorifico Tamoyo Sociedade Ltda	Mining Licence	5.48

Future Work

The Company will swiftly integrate and scale the second phase of its exploration programs to include due diligence on these new areas as part of its overall development strategy. Viridis will leverage its existing exploration logistics and implement the appropriate planning to kick-off preliminary geological survey as part of its due diligence procedure on the Tamoyo and Bandeira Prospects.

This will allow the Company to gain sufficient exploration data and understanding of the geology to exercise the most prospective licenses within the exclusive option period.

Contacts

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About Viridis Mining and Minerals

Viridis Mining and Minerals Limited is a resource exploration and development company with assets in Brazil, Canada and Australia. The Company's Projects comprise:

- The Colossus Project, which the Company considers to be prospective for Rare Earth Elements;
- The South Kitikmeot Project, which the Company considers to be prospective for gold;
- The Boddington West Project, which the Company considers to be prospective for gold;
- The Bindoon Project, which the Company considers to be prospective for nickel, copper and platinum group elements; and

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- The Poochera and Smoky Projects, which the Company considers to be prospective for kaolin-halloysite; and
- The Ytterby and Star Lake Projects, which the Company considers prospective for Rare Earth Elements.

Competent Person Statement

Dr. José Marques Braga Júnior, the in-country Executive Director of Viridis' Brazilian subsidiary (Viridis Mineração Ltda), compiled and evaluated the technical information in this release and is a member of the Australian Institute of Geoscientists (AIG) (MAusIMM, 2024, 336416), accepted to report in accordance with ASX listing rules. Dr Braga has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australian Code for Reporting of Regulation, Exploration Results, Mineral Resources, and Ore Reserves. Dr Braga consents to including matters in this announcement based on information in the form and context in which it appears.

The Company confirms that it is unaware of any new information or data that materially affects the information included in the market announcements referred to in this release and that all material assumptions and technical information referenced in the market announcement continue to apply and have not materially changed.
All announcements referred to throughout can be found on the Company's website – viridismining.com.au.

Forward-Looking Statements

This announcement contains 'forward-looking information' based on the Company's expectations, estimates and projections as of the date the statements were made. This forward-looking information includes, among other things, statements concerning the Company's business strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions and that the Company's results or performance may differ materially. Forward-looking information is subject to known and unknown risks, uncertainties, and other factors that may cause the Company's actual results, level of activity, performance or achievements to materially differ from those expressed or implied by such forward-looking information.

References

1. *Meteoric Resources NL (ASX: MEI) announcement dated 1 May 2023 'Caldeira REE Project Maiden Mineral Resource'*
2. *Viridis Mining and Minerals Ltd (ASX:VMM) announcement dated 1 August 2023, 'Acquisition Potential Tier One Ionic Clay Rare Earth Project*
3. *Comparison of characteristics and geochemical behaviors of REEs in two weathered granitic profiles generated from metamictized bedrocks in Western Peninsular Malaysia, A. Yaraghi, K. Ariffin, N. Baharun, Journal of Asian Earth Sciences, 2020*
4. *Adsorption of rare earth elements in regolith-hosted clay deposits, A. Borst, M. Smith et al., 2020*
5. *The role of clay minerals in the formation of the regolith-hosted heavy rare earth element deposits, M. Li, M. Zhou, Journal of American Mineralogist, 2020*

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APPENDIX A: DRILL AND SAMPLE LOCATIONS

Auger drill coordinates and chemical summary from Bandeira Prospect:

DH_ID	Easting	Northing	From	To	TREO	MREO	MREO %
BA-01	355100	7589450	1.40	3.00	802.0	147.7	18%
BA-02	355100	7586900	1.40	5.00	1924.1	568.5	29%
BA-03	357152	7588851	0.30	4.20	1752.9	585.8	33%
BA-04	358000	7588700	1.40	4.40	1707.4	450.0	26%
BA-05	359200	7591000	0.40	5.20	785.3	198.5	25%
BA-06	360600	7590200	1.00	8.00	1627.3	536.6	33%
BA-07	359700	7588100	0.70	5.40	1328.4	423.9	32%
BA-08	361119	7588185	0.50	4.60	299.0	80.1	27%
BA-09	362700	7587900	1.50	8.00	1379.4	439.0	32%
BA-10	364500	7588880	0.90	5.50	1431.5	445.5	31%
BA-11	364560	7583600	0.80	3.00	590.2	140.3	24%
BA-12	362288	7582510	0.70	7.00	1097.1	331.4	30%
BA-13	357829	7593043	1.50	5.00	839.7	226.0	27%

Grab samples coordinates and chemical summary from Tamoyo Prospect:

DH_ID	Easting	Northing	From	TREO	MREO	MREO %
TM-01	345613	7589891	Surface	472.2	62.7	13%
TM-02	345591	7589880	Surface	1225.2	61.8	5%
TM-06	345739	7590472	Surface	518.6	45.5	9%
TM-08	345913	7589804	Surface	717.7	75.6	11%
TM-09	345958	7589761	Surface	851.4	67.8	8%
TM-10	345549	7590643	Surface	421.1	31.9	8%
TM-12	345532	7590578	Surface	607.2	102.5	17%
TM-14	345513	7590535	Surface	534.2	95.3	18%
TM-15	345515	7590533	Surface	1150.6	168.2	15%
TM-16	345511	7590572	Surface	722.1	148.9	21%
TM-17	345507	7590574	Surface	721.5	127.0	18%
TM-18	345505	7590578	Surface	1356.3	87.0	6%
TM-20	345500	7590583	Surface	1330.1	226.4	17%
TM-21	345503	7590551	Surface	782.3	136.0	17%
TM-22	345498	7590543	Surface	753.8	99.8	13%
TM-23	345507	7590550	Surface	1378.1	184.5	13%
TM-24	345454	7590569	Surface	1784.5	359.8	20%
TM-25	345477	7590609	Surface	669.5	146.9	22%
TM-26	345521	7590697	Surface	3848.2	634.4	16%
TM-27	345444	7590484	Surface	1733.3	181.0	10%
TM-28	345446	7590485	Surface	997.4	96.2	10%
TM-29	345447	7590483	Surface	721.6	78.7	11%
TM-30	345448	7590484	Surface	2018.9	245.3	12%

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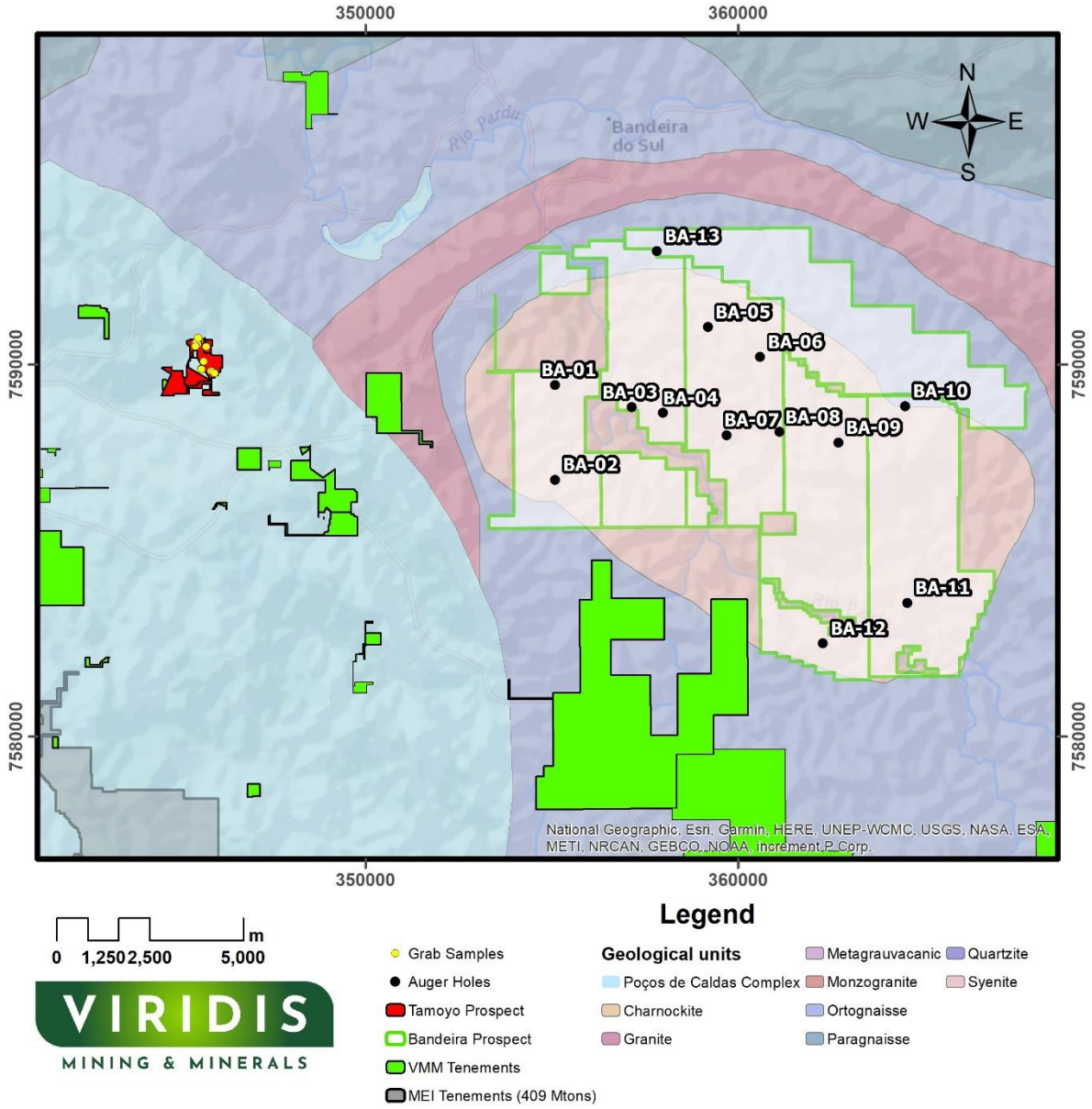
APPENDIX B: AUGER AND GRAB SAMPLES MAP LOCATION



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Appendix C: JORC Code, 2012 Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample retrospectivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	*Auger* *Auger drilling of vertical holes to Bauxite industry standard, holes were drilled to saprolite depth where a 1m sample was taken, totaling 37 clay/saprolite samples via Auger drilling.* • *Maximum drill depth was 8.0 meters. The average drill depth was 5.25 meters, discarding the initial soil containing leaves, roots, and high organic matter.* • *Samples were properly bagged, labeled, and sent to the physical preparation laboratory, being the same laboratory used for the chemical analysis - SGS-Geosol Laboratory (Vespaziano-MG, Brazil) for analytical testing via 47 element using ICP-MS and ICP-OES.* *Grab samples* • *23 Soil samples were collected from outcrops, mining pit, road cuttings, and the ground floor.* • *Method of Collection: A mattock was used to collect the samples. The sampling tools was cleaned between each sample to prevent contamination.* • *Sample Preparation: The surface layer was carefully removed to exclude roots, leaves, and organic material that could compromise the sample's integrity. This ensures that the samples represent the underlying soil and are not influenced by recent surface contamination or organic matter.* • *Sample Weight: The samples' weight varied from 600g to 1950g.* • *Packaging & Labeling: Once collected, the samples were placed into plastic bags, sealed to prevent contamination, and labelled with the prefix 'pc' followed by a unique identification number for traceability.*
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).*	• *A freelance service provider performed the auger service, using a 4-inch manual shell auger, common to the Bauxite industry, to drill all holes vertically to an average depth of 5.25m and a maximum of 8.0m. Initial soil containing high organic matter was discarded, and precautions were taken to prevent material falling into the holes. Samples were collected every meter or when soil characteristics changed. The service provider filled out a form to describe the soil characteristics of the material. Each 1-meter fraction was then combined to represent an overall 3-meter range. Finally, samples were bagged, labeled, and sent to a physical preparation laboratory.*
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• *Auger Sample recovery was not quantified during the execution of the holes.* • *Qualitatively, sample recovery was generally good with no water intersected during drilling. All samples collected were dry and competent, the depth of drill penetration documented, and the downhole interval recorded for each sample.*
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	• *All drilled meters were logged.* • *The service provider performed geological logging concurrently with the auger drilling.*

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Criteria	JORC Code explanation	Commentary
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• *Every 1m drilled was detailed in a drilling bulletin, describing the sample based on visual characteristics like material type (soil, colluvium, saprolite, rock fragments), color, predominant particle size, moisture presence, indicator minerals, and additional observations.*
Sub-sampling techniques and sample ***preparation***	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• *All samples were prepared by SGS-GEOSOL lab, where samples were pulverized, and riffle split to industry standards.* • *The samples were physically prepared at the SGS-GEOSOL laboratory following industry best practices. The contracted preparation services were:* • *DRY105: Sample drying at 105°C.* • *PREPQC: Quality Control - Physical Preparation.* • *PULV250: Pulverization of 250g of sample in steel mill to 95% <150#.* *All samples generated have identification that are registered in internal control spreadsheets. This identification is linked to the name of the hole and interval to which the sample belongs.*
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• *1 Kg – 2 Kg samples were submitted to SGS-GEOSOL Laboratory* • *The samples were analyzed using the following methods:* • *ICP95A: Determination by Lithium Metaborate Fusion - ICP OES* • *IMS95A: Determination by Lithium Metaborate Fusion - ICP MS* • *PHY01E: Determination of Loss on Ignition (LOI) by Gravimetry - 1000°C.* • *Forty-seven determinations were made for the following elements:* *Al_2O_3 Ba CaO Cr_2O_3 Fe_2O_3 K_2O* *MgO MnO Na_2O P_2O_5 SiO_2 Sr* *TiO2 Zn Zr V LOI 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* • *Only the internal control of the SGS-Geosol laboratory was adopted as a reference, which included the insertion of 9 control samples, among them 3 duplicates, 3 standards, and 3 blanks.* • *All the results of the control samples inserted by Geosol were within the expected range.* • *Reported assays are to acceptable levels of accuracy and precision. These are the precision limits for the analysis of the REE:* *Ce 0.1 - 10000 ppm Dy 0.05 - 1000 ppm* *Gd 0.05 - 1000 ppm Ho 0.05 - 1000 ppm* *Nd 0.1 - 10000 ppm Pr 0.05 - 1000 ppm* *Th 0.1 - 10000 ppm Tm 0.05 - 1000 ppm* *Yb 0.1 - 1000 ppm Y 0.05 - 10000 ppm* *Er 0.05 - 1000 ppm Eu 0.05 - 1000 ppm* *La 0.1 - 10000 ppm Lu 0.05 - 1000 ppm* *Sm 0.1 - 1000 ppm Tb 0.05 - 1000 ppm* *U 0.05 - 10000 ppm*

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• *Sampling data was recorded in field books, checked upon digitizing and transferred to database.* • *No adjustments have been made to the reported laboratory assays.* • *There are no twin holes drilled.*
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• *Drillhole locations were surveyed prior to drilling by qualified surveyors employed by the Vendors using a hand GPS.* • *The coordinates (Lat and Long) were provided in UTM SIRGAS 2000 datum using a handheld GPS with a maximum error of 3m.*
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• *Due to the nature of these geological features and the purpose of the sampling, a systematic grid-based approach was not adopted*
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• *The mineralization is flat lying and occurs within the saprolite/clay zone of a deeply developed regolith (reflecting topography and weathering). Vertical sampling from the powered auger holes is appropriate.* • *As such, no sampling bias is believed to be introduced.* • *Insufficient work had been done prior to this program to adequately define the orientation of mineralization at several prospects.*
Sample security	• *The measures taken to ensure sample security.*	• *Transport of samples to SGS-GEOSOL Labs was undertaken by a competent independent contractor.* • *They were not held against samples for reanalysis or checking.*
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• *There were no audits. VMM will not verify these results because it does not have duplicate samples remaining. An auger campaign will be started immediately after the acquisition for the purpose of due diligence and to determine the first inferred resource.*

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Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section).

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership, including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• *All samples were acquired from tenements negotiated by Viridis Mining and Minerals Ltd, following an agreement with the Vendors:* *ANM Process — Area (ha) — Phase* *832502/2023 — 1981.12 — Exploration Licence* *831210/2023 — 1927.8 — Exploration Licence* *831209/2023 — 1884.97 — Exploration Licence* *831207/2023 — 1611.39 — Exploration Licence* *831206/2023 — 1594.94 — Exploration Request* *802917/1978 — 44.93 — Mining licence* *804675/1975 — 80.22 — Mining licence* *5460/1954 — 5.48 — Mining licence*

Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• *Historical exploration in the area comprises notable endeavours by various entities:*
		  • *The Colossus project is geologically intertwined with the Caldeira Project, sharing the same geological context.*
		  • *Frigorifico Tamoyo and Minas Rio Mineradora previously undertook regional grab and auger drilling samples.*
		  • *This historical data provides essential context and complements current exploration efforts in understanding the region's geological potential.*

Geology	• *Deposit type, geological setting and style of mineralisation.*	• *The geology of the region where the deposit is located can be summarised as follows:*
		  • *Deposit Nature: The deposit under study is recognised as an Ionic Adsorption Clay Rare Earth Element (REE) deposit. Its spatial positioning is within and adjacent to the renowned Poços De Caldas Alkaline massif complex.*
		  • *Poços de Caldas Complex: This geological entity stands as one of the most extensive alkaline massif intrusions globally, enveloping an area of roughly 800 km². It stretches across the Brazilian states of São Paulo and Minas Gerais. From a macro perspective, it portrays a near-circular structure with an approximate diametre of 30 km. This formation has a semblance of a collapsed caldera. Delving deeper, the dominant rocks within the alkaline complex encompass phonolite, nepheline syenites, sodalite syenites, and many volcanic rocks. This diverse geological setting has played a crucial role in dictating mineral occurrences and potential mining prospects.*
		  • *REE Mineralisation: The specific REE mineralisation highlighted in this disclosure leans towards the Ionic Clay type. Evidence pointing to this is mainly derived from its occurrence within the saprolite/clay zone of the weathering profile of the Alkaline granite basement. The enriched MREO (Medium Rare Earth Oxides) composition also attests to this classification.*
		  • *Relevant Additional Information: The Ionic Adsorption Clay Rare Earth Element deposits, particularly in regions like Poços de Caldas, have recently gained significant attention due to the global demand surge for rare earth elements. These elements, especially the heavy rare earths, have vital applications in modern technologies such as renewable energy systems, electronics, and defence apparatus. The ability of these deposits to offer relatively environmentally friendly mining prospects compared to traditional hard rock REE mines further enhances their appeal.*
		  • *Given the strategic importance of REEs in modern industries, a thorough understanding and exploration of such geologies becomes paramount. The unique geological setting of the Poços de Caldas complex presents both opportunities and challenges, making further detailed study and research*

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		essential for sustainable exploitation. • *The "Capituva Syenite" is a plutonic geological complex, approximately 610 million years old, and is part of an alkaline granitic magmatic association. It comprises four distinct geological pulses, each with unique composition and grain characteristics, including porphyritic, laminated, and inequigranular syenites, with predominant minerals such as biotite, hornblende, pyroxene, and alkali feldspar. Additionally, it features a satellite body of medium to coarse leuco-alkali feldspar syenite.*
Drill hole Information	• *A summary of all information material to the understanding of the exploration results, including a tabulation of the following information for all Material drill holes:* ○ *Easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *Dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• *Auger Drilling:* *Total number of holes: 13* *Number of samples: 37* *Auger hole average length: 5.25 m* • *Grab samples:* *Total number of grab samples: 23*
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• *Data collected for this project includes surface geochemical analyses, geological mapping, and auger drilling results. Data were compiled without selective exclusion. All analytical methods and aggregation were done according to industry best practices, as detailed in previous discussions.*
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	• *Given the nature of the deposit, which is a supergene deposit with a much larger areal extent than its thickness, the vertical drilling orientation is suitable for accurately representing the mineralised zones.* • *All drill holes are vertical and are appropriate for the deposit type, ensuring unbiased sampling of the mineralisation.* • *Due to the geometry of the mineralisation and the vertical orientation of the drill holes, the down hole lengths can be considered close representations of the true widths of the mineralised zones. However, for absolute precision, further studies would be required.* • *In cases where there might be a discrepancy between downhole lengths and true widths, it should be noted that "down hole length, true width not known".*
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	*The data presented in this report offers a better understanding of the information. Various diagrams and supplementary information included in the document, enhancing the clarity and accessibility of the geological findings and exploration results.*

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Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• *The data presented in this report strives to provide a transparent and holistic view of the exploration activities and findings. All the information, ranging from sampling techniques, geological context, prior exploration work, and assay results, has been reported comprehensively. Cross-references to previous announcements have been provided where relevant to ensure continuity and clarity. Including diagrams, such as geological maps and tables, supports a more in-depth understanding of the data. It's noteworthy to mention that while positive results have been highlighted, the nature of the samples, particularly their origin from either saprolitic clays or bauxite, has been distinctly reported to ensure a balanced view. In essence, this report is a faithful representation of the exploration activities and findings without any undue bias or omission.*
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• *There is no additional substantive exploration data to report currently.*
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• *Future works include carrying on the auger, diamond, and RC drilling campaign in 2024, geological mapping, geochemical and metallurgical tests, and mineralogical characterisation.*

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