ASX: VMM MARKET ANNOUNCEMENT

MAIDEN DRILLING PROGRAM COMMENCES AT COLOSSUS IONIC CLAY PROJECT

ASX Release: 14 September 2023

Highlights

- **HIDROEX has commenced maiden drilling program at the Colossus Rare Earth Project.**

- **Three auger rigs have arrived on site with the campaign simultaneously targeting all four priority prospects of the Phase I drilling campaign, which adjoin the Caldeira Resource (409Mt @2,626ppm TREO)[1]** – Caminho Das Pedras, Fazenda, Ceten, and Carijo prospects.

- **The maiden exploration program will allow Viridis to gain a better understanding of the extent of mineralisation within the Colossus Project through targeted drilling of:**
  - The depth extensions of the historic 3-metre auger holes
  - The saprolite profiles which surface grab samples have returned grades up to 2,753ppm and proven Ionic recoveries through Ammonia Sulfate (pH4, room temperature, 30 minutes leach)[3]
  - The intermediate "REE Accumulation Zone" which typically hosts the highest REE grades, caused by the weathering process leaching and re-mobilising REE-ions down toward the intermediate zone

- **Historic auger drilling has been limited to 3 metres deep onto the saprolite/clay profile's leached layer, generally presenting the lowest grades of REE mineralisation[7,8].** On Fazenda and Ceten prospects, **historic holes intersected high-grade Rare Earths from the surface and ended in mineralisation[2]. This presents high-priority drill targets** for Viridis to confirm the full depth and extent of REE mineralisation:
  - **3m @ 2,003ppm TREO** from surface (22% MREO) ending in mineralisation (TN-AG-222)
  - **3m @ 1,997 ppm TREO** from surface (22% MREO) ending in mineralisation (TN-AG-223)
  - **3m @ 1,936 ppm TREO** from surface (19% MREO) ending in mineralisation (TN-AG-145)

- **Phase II will consist of auger drill holes to target new areas of the Alkaline Complex,** focusing on the western and southeast licenses. **Historic drilling on the Sien Prospect (situated ~950m east from Meteoric Resources' (ASX:MEI) Soberbo Deposit – 92Mt @2,948ppm TREO)** was also limited to 3-metre auger drills, **which intersected high grades and warranted further deeper drilling[2]:**
  - **3m @ 1,785ppm TREO** from surface (34% MREO) ending in mineralisation (F4)
  - **3m @ 1,780ppm TREO** from surface (31% MREO) ending in mineralisation (F2)

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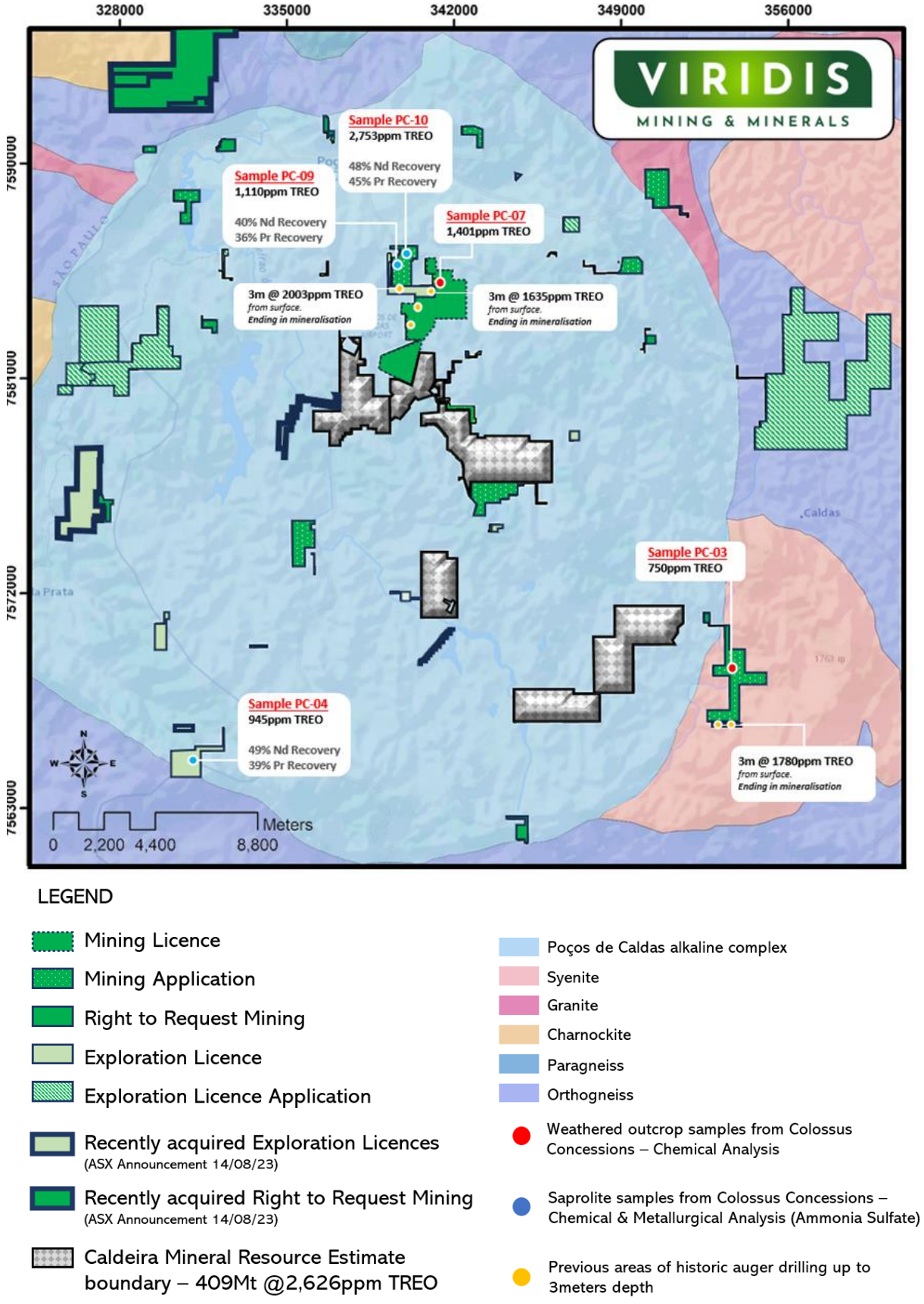
Map of Exploration Data on Colossus Project



LEGEND

- Mining Licence
- Mining Application
- Right to Request Mining
- Exploration Licence
- Exploration Licence Application
- Recently acquired Exploration Licences (ASX Announcement 14/08/23)
- Recently acquired Right to Request Mining (ASX Announcement 14/08/23)
- Caldeira Mineral Resource Estimate boundary – 409Mt @2,626ppm TREO
- Poços de Caldas alkaline complex
- Syenite
- Granite
- Charnockite
- Paragneiss
- Orthogneiss
- Weathered outcrop samples from Colossus Concessions – Chemical Analysis
- Saprolite samples from Colossus Concessions – Chemical & Metallurgical Analysis (Ammonia Sulfate)
- Previous areas of historic auger drilling up to 3meters depth

Figure 1: Map of all sample locations on Colossus concessions with highlights of areas previously drilled by 3-metre Auger holes that have all ended in mineralisation[1,2].

Executive Chairman Agha Shahzad Pervez commented:

"I am very pleased with the diligent work carried out by the Viridis team, resulting in the mobilisation of rigs and commencement of drilling within 6 weeks of signing a potential Tier-One Rare Earth Acquisition.

This program is critical to understanding the extent of mineralisation of the Colossus Project, as we can now drill up to a depth of 20 metres into the 'REE Accumulation Zone' to see the real potential grades and optimised recoveries of Ionic Rare Earth Mineralisation.

The recent success in our due diligence sampling and review of exceptional historic drill holes has provided Viridis with numerous high-priority targets. We will now execute our multi-phased drill plan with a goal to establish Colossus as a globally significant deposit."

Viridis Mining and Minerals Limited ("Viridis" or "Company") is pleased to report that it has commenced its maiden exploration program on the Colossus project with HIDROEX as the contractor.

Viridis has commenced its Phase I maiden drilling program under the direct supervision and guidance of our experienced in-country Executives, Dr Klaus Petersen and Dr Jose Marques Braga Junior. The work of Dr Petersen over the last year in Rare Earths within the Poços de Caldas Alkaline Complex, along with Dr Marques' experience with speciality metals and leading the CBMM exploration team, will play a critical role in executing a successful exploration program. The first holes will be drilled into Carijo Prospect, a large saprolite body that hosted surface grab sample PC-10 (2,753ppm TREO, 48% Nd Recovery, 45% Nd Recovery – Ammonia Sulfate, pH4, room temperature)[3].

Maiden Drilling on Colossus Project Commenced

Phase I

The primary focus of Phase I will be Auger Drilling on the Mining Licenses and adjoining concessions of the Caldeira project, which can be fast-tracked to production for Rare Earths upon completion of exploration and research studies.

The Mining Licenses consist of Caminho das Pedras and Fazenda Prospects, which have confirmed surface high-grade rare earth mineralisation. These concessions comprise the northern extension of the Dona Maria 1 & 2 Resource (94Mt at 2,320ppm TREO[1]), which forms part of the Caldeira Ionic Clay Project. Auger drilling completed by JOGMEC intersected 11.3m @2,502ppm less than 5 metres from the Caminho das Pedras Mining License boundary held by Viridis *(see Figure 2)* [4].

The adjoining Ceten prospect has had 15 historic hand-held shallow auger holes, drilled to a depth of 3 metres from the surface, all of which ended in mineralisation. These holes were drilled into the leached oxidised layer, which generally presents the lowest grades, however, all 15 holes still returned exceptional results with an average grade of 1,450ppm TREO[2].

The Carijo prospect has had 2 randomised surface grab samples which returned high grades of up to 2,700ppm TREO and confirmation of ionic mineralisation through single step leaching using a weak acid (Ammonium Sulfate, pH4, room temperature, 30 minutes leach)[3].

As part of its maiden exploration program, Viridis also intends to subsequently complete a systematic and larger-scale metallurgy program to increase the scale and confidence of ionic mineralisation and exhibit the truly optimised recoveries of the Colossus Ionic Rare Earth Project.

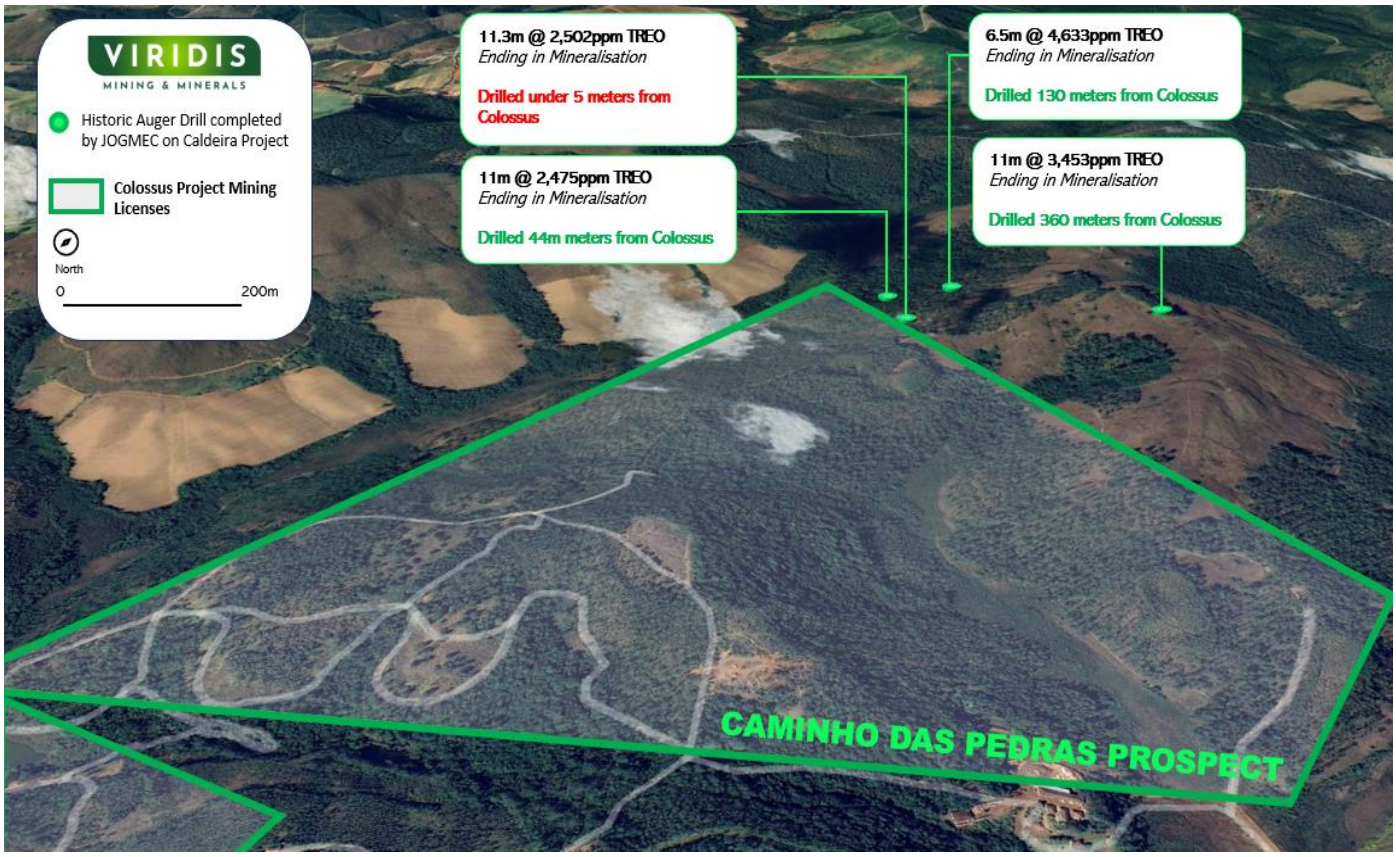


Figure 2: *Satellite image of Caminho Das Pedras Prospect, contiguous with the Dona Maria 2 resource body near JOGMEC historic auger holes.*

Phase II

The primary focus of Phase II will consist of drilling into the Cupim South Prospect which is the southern extension of the Cupim Vermelho Norte Resource (104Mt @2,485ppm TREO[1]) body. JOGMEC drilled numerous auger holes within 100 metres of the Cupim South Prospect.

Hole CVN-187 was drilled 5 metres away from the Cupim South Prospect and intersected a remarkable 15m @3,127ppm TREO, ending in mineralisation. Hole CVN-186 was drilled by JOGMEC 14 meters away from the Prospect, intersecting 20m @1,727ppm TREO, ending in mineralisation, with 3,005ppm TREO being intersected at end of hole[4].

Furthermore, as part of Phase II exploration, Viridis will also test the Sien Prospect (Southeast Concessions), which consists of 2 concessions covering an area of ~2.9km^2. The Sien Prospect is ~950m east of the Soberbo Deposit (92Mt @2,948ppm TREO[1]) which is MEI's highest grade JORC compliant resource body. Similarly, historic drilling at the Sien Prospect which is located east of Soberbo has shown the highest average grade of Rare Earths within shallow historic auger drilling of the Colossus Project.

A total of 4 historic 3-metre auger holes have been drilled into the Sien prospect. These four holes ended in mineralisation and were likely drilled into the "leached layer" of the saprolite/soil body, averaging 1,679 ppm TREO. More importantly, these four holes showed the highest and most consistent levels of magnet rare earths ("MREO"), with an average MREO content of 32%.

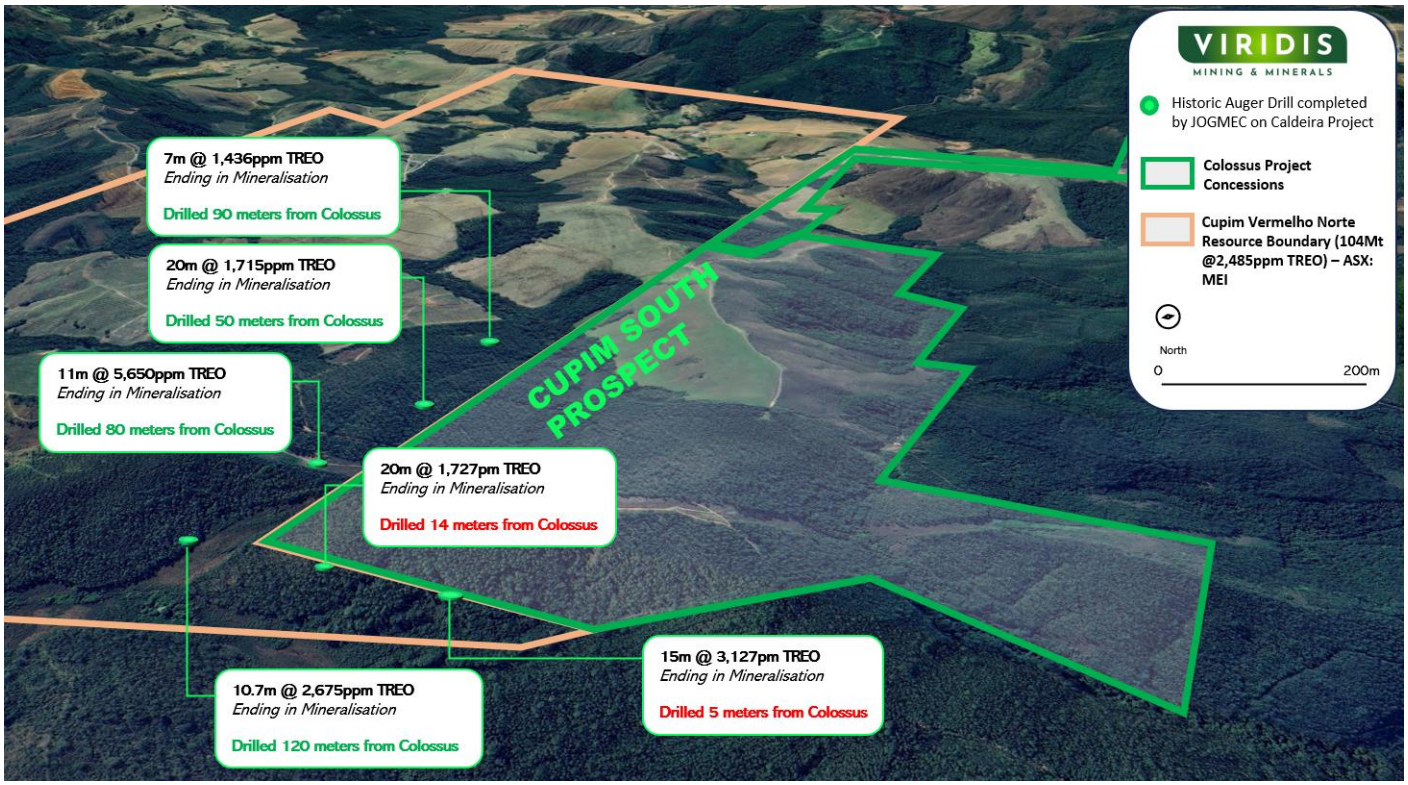


Figure 3: *Satellite image of Cupim South Prospect, an extension of the Cupim Vermelho Norte resource body near JOGMEC historic auger holes.*

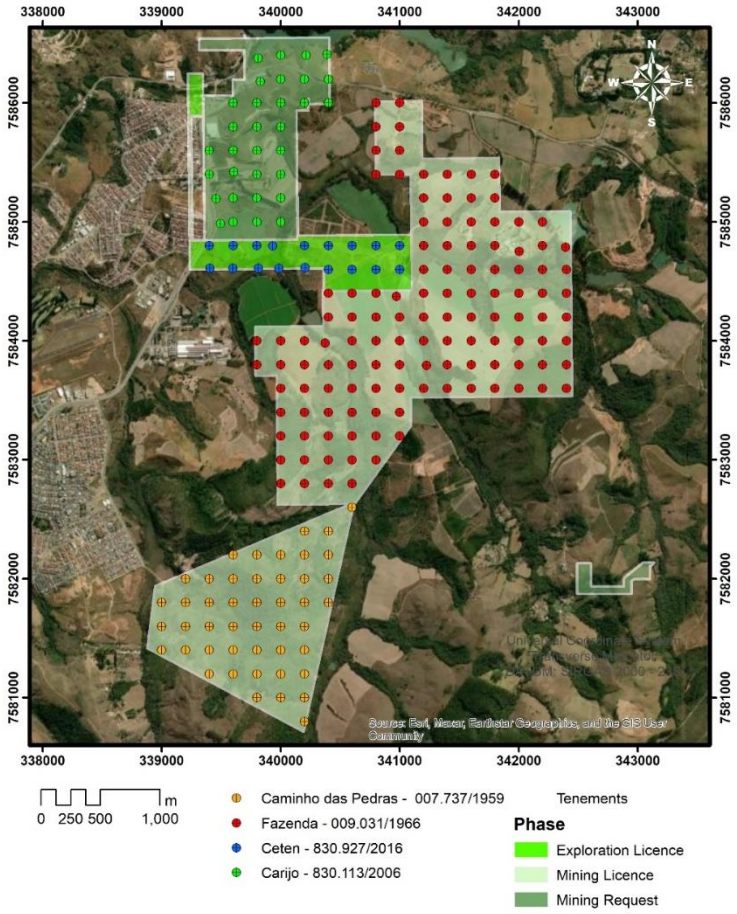


Figure 4: *Location of anticipated drill holes for Phase I exploration across Colossus concessions, with a key focus on Mining Licenses which can be fast-tracked towards production.*

Geology of Ionic Clays

In the Poços de Caldas Complex, we find the optimal conditions for an Ionic Adsorption Clay ("IAC") type rare earth elements ("REE") deposit. Its alkaline rocks, rich in feldspars, weather mainly into kaolinite. Simultaneously, these rocks contain bastnaesite, a rare earth fluocarbonate. Upon weathering, bastnaesite releases REEs, which ionically bond with the existing clay minerals, further upgrading the region's mineral profile[5].

The upper layer in this region consists of clayey soil and bauxite. Through lateralisation, some of the upper layer's rare earths are mobilised to the intermediate horizon, where kaolinite is the main clay mineral, retaining the REEs in ionic form adsorbed onto its structure[5,7,8].

Within IAC deposits, the top layer presents the lowest levels of REE mineralisation, as illustrated in the deposition model of both Malaysian and South China Ionic Clay Projects (see Figure 5 and Figure 6).

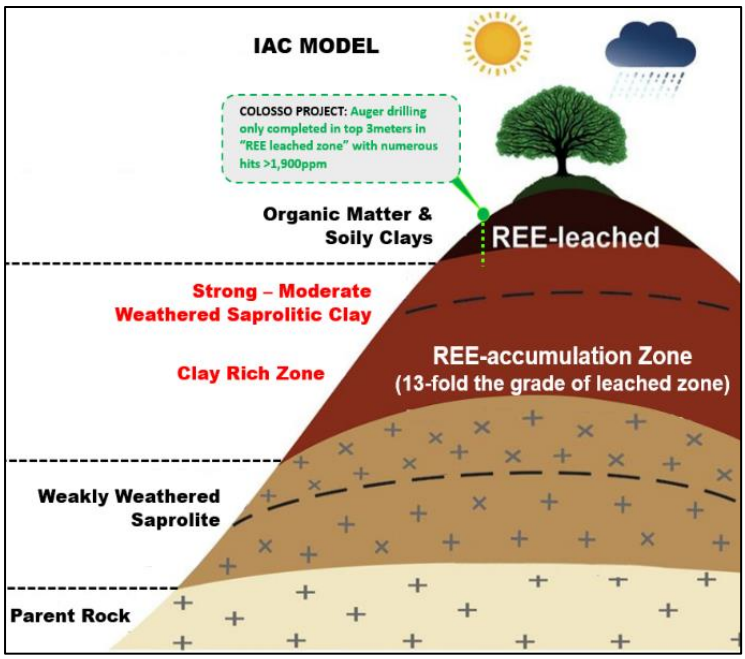


Figure 5: *Deposition Model of Malaysian Ionic Clay Project superposition of Colossus Project Auger Drill depths*[6].

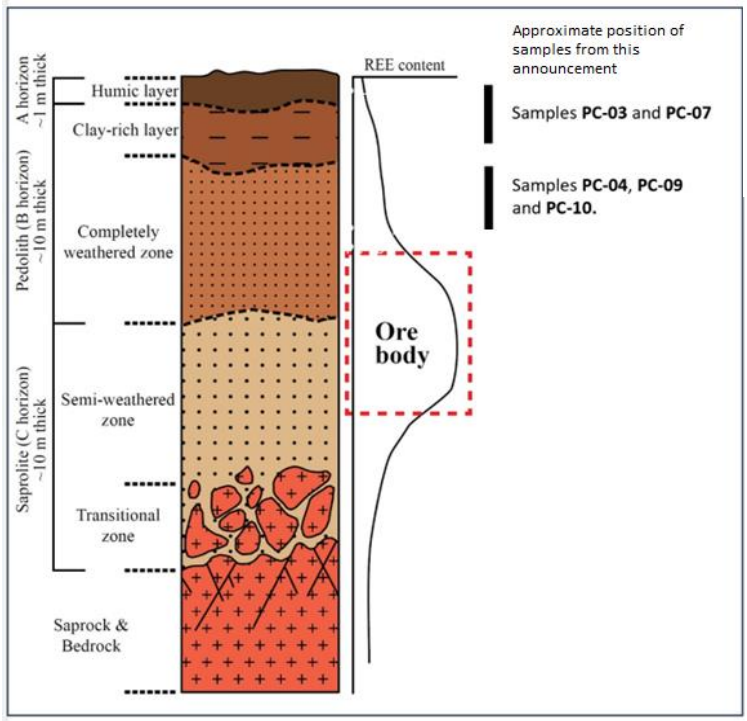


Figure 6: *General IAC Deposition Model (Li & Zhou, 2020) with an estimated placement of the Colossus Project samples based on their visual and chemical characteristics*

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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
- 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 Mining and Minerals Brazil Ltda), compiled and evaluated the technical information in this release and is a member of the Australian Institute of Geoscientists (AIG) (MAusIMM, 2023, 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 the inclusion in the report of the matters based on information in the form and context in which it appears.

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 01 May 2023 'Caldeira REE Project Maiden Mineral Resource'*
2. *VMM ASX announcement dated 01 August 2023 'Acquisition Potential Tier One Ionic Clay Rare Earth Project'*
3. *VMM ASX announcement dated 29 August 2023 'Initial Metallurgical Work Confirm Colossus True IAC Project'*
4. *VMM ASX announcement dated 04 September 2023 'Drill Contract Awarded For Maiden Exploration at Colossus'*

5. *Polygenetic processes in the genesis of clay deposit of Poços de Caldas alkaline massif in southeastern Brazil, C. Montes, A. Melfi, A. Carvalho, A. Viera-Coelho, Journal of Applied Clay Science, 2016*
6. *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*
7. *Adsorption of rare earth elements in regolith-hosted clay deposits, A. Borst, M. Smith et al., 2020*
8. *Review on the Development and Utilization of Ionic Rare Earth Ore, X. Luo, Y. Zhang, H. Zhou et al., 2022*