

# Major Strategic Expansion of the Colossus REE Project

ASX Release: 10 November 2023

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## Highlights

- ▶ Viridis Mining and Minerals Ltd (“Viridis” or “the Company”) has signed a binding agreement to secure an exclusive option over a further 5,388 Hectares (53.88km<sup>2</sup>) of Licenses within Poços de Caldas. This represents a 60% increase in Viridis’ landholdings in Poços de Caldas, Minas Gerais, Brazil (“New Areas”).
- ▶ The New Areas consist of Rare Earth + Yttrium rights across 15 Exploration Licenses and 12 Exploration License Applications which increases the Colossus Project to a total landholding of 144.57km<sup>2</sup>.
- ▶ License 832.452/2023 is located ~700m west of the Soberbo Deposit (92Mt @2,948ppm TREO) [ASX:MEI]<sup>2</sup> and adjoins License 832.471/2023, which is also included within this expansion. Together, these licenses, will be known as the Centro Sul Prospect (4km<sup>2</sup>). The Centro Sul Prospect will play a pivotal role in expanding the footprint of Viridis’ southern licenses, following the recent interception of 87m of saprolitic clay at Cupim South<sup>1</sup>.
- ▶ Geophysical surveys acquired from National Mining Agency has shown a significant level of weathering present on the southern half of the Centro Sul Prospect, which has further been confirmed on a recent site visit. This gives significant potential for the Centro Sul Prospect to host deep bodies of clay and supergene mineralisation which can potentially host high-grade Ionic REE mineralisation.
- ▶ First batch of assays from maiden Phase I & II exploration plans remains on schedule<sup>1</sup>.

### Executive Chairman Agha Shahzad Pervez commented:

*“This strategic expansion consolidates Viridis’ footprint within the complex, and presents the company with a large amount of additional prospects to systematically explore for Ionic Adsorption Clay (“IAC”) rare earth elements (“REE”) mineralisation into the future.*

*A key focus of this expansion is the Centro Sul Prospect, which is located proximal to Cupim South where diamond drilling recently intercepted 87m of highly weathered saprolitic clay. Saprolitic clay within Poços de Caldas is the main controlling geology to host high-grade IAC REE mineralisation.*

*The deal terms are highly favourable and provide Viridis with great optionality for these concessions. 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.”*



## Major Strategic Expansion

Viridis Mining and Minerals Limited (“Viridis” or “Company”) is pleased to report it has secured a major expansion to its Colossus IAC Rare Earth Project. This takes the total landholding of Colossus to 144km<sup>2</sup>.

The vendors of these licenses; Irmaos Martins Servicos E Comercio Eirel and Rafael Da Cruz Oliveira (the “Vendors”) have agreed to terms which grant Viridis a 6-month option to acquire the licenses for an upfront cost of USD \$25,000 (“Exclusivity Fee”).

A key focus of the acquisition is on adjoining licenses 832.452/2023 and 832.471/2023 which form the Centro Sul Prospect. The Centro Sul Prospect is ~700m west of the Sorberbo Deposit (92Mt @2,948ppm TREO), the highest-grade Ionic REE deposit defined in the alkaline complex to date<sup>2</sup>.

Furthermore, the Centro Sul Prospect is ~2.5km Southeast of Viridis’ Cupim South Prospect which has shown an anomalously deep clay body exemplified by the recent 87m saprolitic clay intercept in CS-DDH-001<sup>1</sup>. This strategically expands Viridis’ footprint into the southern half of the alkaline complex along with its highly prospective Northern Concession Prospects (Fazenda, Ceten, Caminho Das Pedras, Carijo).

## Binding Option Agreement Terms

The key terms of the binding option agreement to acquire the New Areas (“Binding Option Agreement”) are as follows.

(a) **Cash consideration:**

The Company will pay the Vendors the following cash payment:

- Exclusivity Payment: Upon execution of the Binding Option Agreement, the Company will pay the Vendors a non-refundable cash payment of USD \$25,000 (“Exclusivity Fee”).

(b) **Acquisition Payments**

Within 5 business days of the six-month anniversary of the granting of the research permit for Licence (as applicable), the Company will pay the Vendors:

- USD \$1,200/Ha for each license in Centro Sul Prospect (should the Company elect to exercise the option at the end of its 6-month exclusivity period, or at an earlier date); and
- USD \$1,000/Ha for each of the remaining licenses (should the Company elect to exercise the option at the end of its 6-month exclusivity period, or at an earlier date).

(c) **Performance Shares:** Upon settlement of the acquisition (and subject to ASX approval to their terms), the Company has agreed to issue the Vendors 2,500,000 performance shares (“Performance Shares”) that will vest and become convertible into fully paid ordinary shares in the Company (on a one-for-one basis). The Company intends to issue the Performance Shares under its existing placement capacity pursuant to Listing Rule 7.1. The Performances Shares will vest upon the satisfaction of the following milestones:

- 500,000 Class A Performance Shares, upon the delineation of an Inferred Mineral Resource Estimate (JORC 2012) of not less than 100Mt at or above a Total Rare Earths Oxide (“TREO”) grade of 1,500ppm in saprolite / clay and an average minimum recovery of 40% by using the ammonium sulfate leaching method within the New Areas, expiring on the date that is 5 years from the date of issue.
- 500,000 Class B Performance Shares, upon the delineation of an Inferred Mineral Resource Estimate (JORC 2012) of not less than 200Mt at or above a TREO grade of 1,500ppm in saprolite / clay and an average minimum recovery of 40% by using the ammonium sulfate leaching method within the New Areas, expiring on the date that is 5 years from the date of issue.
- 500,000 Class C Performance Shares, upon the delineation of an Inferred Mineral Resource Estimate (JORC 2012) of not less than 300Mt at or above a TREO grade of 1,500ppm in saprolite / clay and an average minimum recovery of 40% by using the ammonium sulfate leaching method within the New Areas, expiring on the date that is 5 years from the date of issue.

- 500,000 Class D Performance Shares, upon the delineation of an Inferred Mineral Resource Estimate (JORC 2012) of not less than 400Mt at or above a TREO grade of 1,500ppm in saprolite / clay and an average minimum recovery of 40% by using the ammonium sulfate leaching method within the New Areas, expiring on the date that is 5 years from the date of issue.
- 500,000 Class E Performance Shares, upon the delineation of an Inferred Mineral Resource Estimate (JORC 2012) of not less than 500Mt at or above a TREO grade of 1,500ppm in saprolite / clay and an average minimum recovery of 40% by using the ammonium sulfate leaching method within the New Areas, expiring on the date that is 5 years from the date of issue.

The Binding Option Agreement also contains terms and conditions, including representations and warranties, considered standard for an agreement of this nature.

## Future Work

The Company will swiftly integrate and scale its exploration programs to include due diligence on the New Areas, as part of its strategic expansion efforts. Viridis remains well funded and intends to leverage its existing exploration logistics to immediately commence preliminary geological reconnaissance as part of its due diligence procedure on the Centro Sul Prospect.

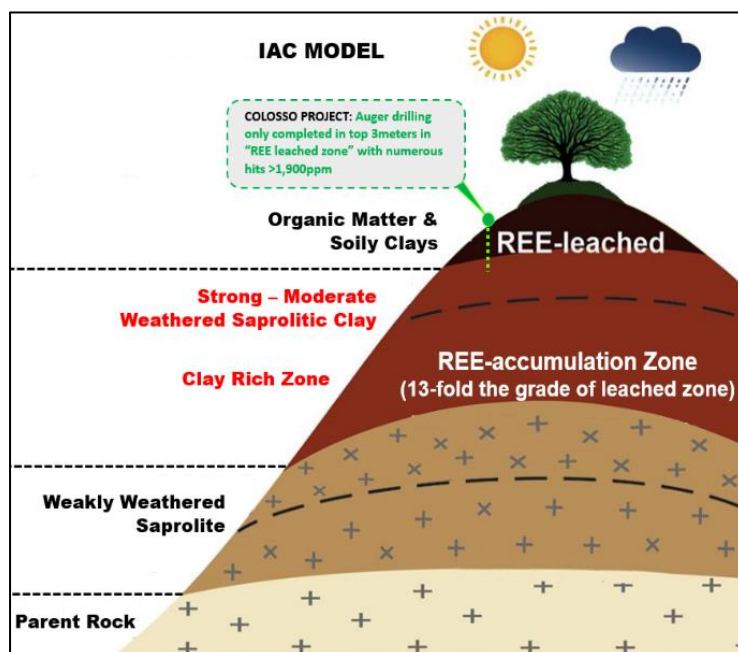
This will allow the Company to gain sufficient exploration data and understanding of the geology, in order to exercise the most prospective licenses within the exclusive option period.

## Geology of Ionic Clays

In the Poços de Caldas Complex, we find the optimal conditions for an IAC type 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<sup>4</sup>.

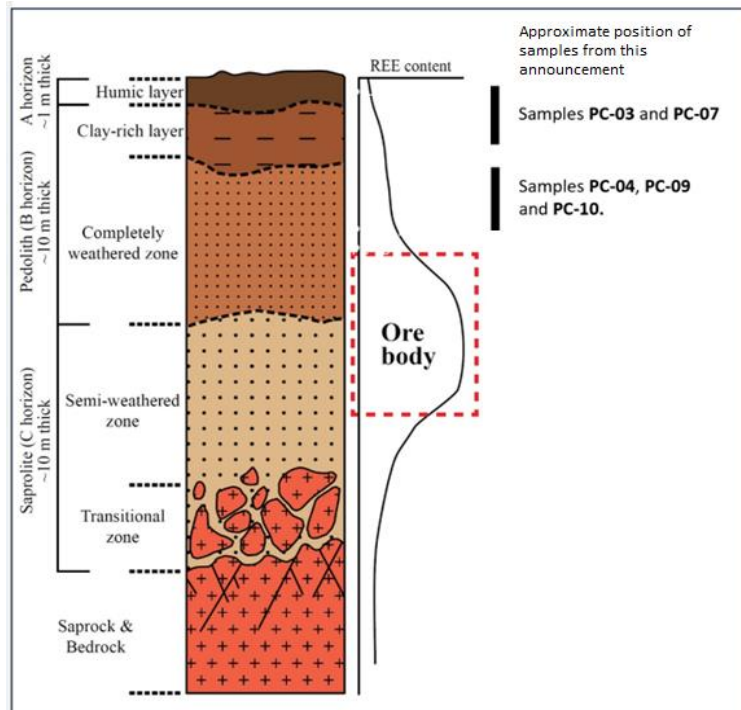
The upper layer in this region consists of clayey soil and bauxite. Through lateralisation, some of the upper layer's rare earths are mobilised to the intermediate horizon, where kaolinite is the main clay mineral, retaining the REEs in ionic form adsorbed onto its structure<sup>4,6,7</sup>.

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 2 and Figure 3).



**Figure 2:** Deposition Model of Malaysian Ionic Clay Project superposition of Colossus Project Auger Drill depths<sup>5</sup>.





**Figure 3:** General IAC Deposition Model (Li & Zhou, 2020) with an estimated placement of the Colossus Project samples based on their visual and chemical characteristics<sup>7</sup>.

## Contacts

For more information, please visit our website, [www.viridismining.com.au](http://www.viridismining.com.au) or contact:

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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.

The Company confirms that it is not aware 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](http://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.

### Cautionary Note

The information in this announcement with respect to diamond and auger holes is based solely on a visual inspection of the drill core samples from the hole. The assay and analysis of the core samples are pending. With respect to the disclosure of visual intersections of clay, the Company cautions that visual intersections of clay should never be considered a proxy or substitute for laboratory analysis. Laboratory assay results are required to confirm the full thickness and grade of visual intersections of clay reported in the preliminary geological logging. The Company will update the market when laboratory analytical results become available.

### References

1. VMM ASX announcement dated 20 October 2023 'Thick Intercepts of Saprolitic Clay up to 87m at Colossus'
2. Meteoric Resources NL (ASX: MEI) announcement dated 1 May 2023 'Caldeira REE Project Maiden Mineral Resource'
3. VMM ASX announcement dated 29 August 2023 'Initial Metallurgical Work Confirm Colossus True IAC Project'
4. 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
5. 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
6. Adsorption of rare earth elements in regolith-hosted clay deposits, A. Borst, M. Smith et al., 2020
7. 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

## Appendix A: Schedule of Mining Rights

ANM Process No	Surface (Ha)	ANM Phase	Holder	Substance
832.349/2023	1,735.23	RESEARCH REQUEST	IRMÃOS MARTINS SERVIÇOS E COMÉRCIO EIRELI	RARE EARTH
832.360/2023	12.21	RESEARCH PERMIT	RAFAEL DA CRUZ OLIVEIRA	RARE EARTH
832.369/2023	88.13	RESEARCH PERMIT	IRMÃOS MARTINS SERVIÇOS E COMÉRCIO EIRELI	RARE EARTH
832.380/2023	38.06	RESEARCH PERMIT	RAFAEL DA CRUZ OLIVEIRA	RARE EARTH
832.375/2023	1,489.16	RESEARCH REQUEST	IRMÃOS MARTINS SERVIÇOS E COMÉRCIO EIRELI	RARE EARTH
832.379/2023	3.66	RESEARCH PERMIT	RAFAEL DA CRUZ OLIVEIRA	RARE EARTH
832.359/2023	16.07	RESEARCH PERMIT	RAFAEL DA CRUZ OLIVEIRA	RARE EARTH
832.364/2023	7.7	RESEARCH PERMIT	RAFAEL DA CRUZ OLIVEIRA	RARE EARTH
832.378/2023	70.9	RESEARCH REQUEST	RAFAEL DA CRUZ OLIVEIRA	RARE EARTH
832.428/2023	30.18	RESEARCH PERMIT	RAFAEL DA CRUZ OLIVEIRA	RARE EARTH
832.409/2023	900.82	RESEARCH REQUEST	IRMÃOS MARTINS SERVIÇOS E COMÉRCIO EIRELI	RARE EARTH
832.427/2023	10.79	RESEARCH PERMIT	RAFAEL DA CRUZ OLIVEIRA	RARE EARTH
832.429/2023	20.32	RESEARCH PERMIT	RAFAEL DA CRUZ OLIVEIRA	RARE EARTH
832.662/2023	4.28	RESEARCH REQUEST	IRMÃOS MARTINS SERVIÇOS E COMÉRCIO EIRELI	RARE EARTH
832.661/2023	4.39	RESEARCH REQUEST	IRMÃOS MARTINS SERVIÇOS E COMÉRCIO EIRELI	RARE EARTH
832.648/2023	23.11	RESEARCH REQUEST	RAFAEL DA CRUZ OLIVEIRA	RARE EARTH
832.649/2023	11.72	RESEARCH REQUEST	IRMÃOS MARTINS SERVIÇOS E COMÉRCIO EIRELI	RARE EARTH

ANM Process No	Surface (Ha)	ANM Phase	Holder	Substance
832.650/2023	6.27	RESEARCH PERMIT	IRMÃOS MARTINS SERVIÇOS E COMÉRCIO EIRELI	RARE EARTH
832.663/2023	18.59	RESEARCH REQUEST	IRMÃOS MARTINS SERVIÇOS E COMÉRCIO EIRELI	RARE EARTH
820.499/2023	60.53	RESEARCH PERMIT	IRMÃOS MARTINS SERVIÇOS E COMÉRCIO EIRELI	RARE EARTH
820.504/2023	19.19	RESEARCH PERMIT	RAFAEL DA CRUZ OLIVEIRA	RARE EARTH
820.503/2023	385.43	RESEARCH PERMIT	IRMÃOS MARTINS SERVIÇOS E COMÉRCIO EIRELI	RARE EARTH
832.759/2023	4.34	RESEARCH REQUEST	IRMÃOS MARTINS SERVIÇOS E COMÉRCIO EIRELI	RARE EARTH
830.058/2023	18.51	RESEARCH PERMIT	PEDRO HENRIQUE TAVARES LUZ	BAUXITE
830.060/2023	9.04	RESEARCH PERMIT	PEDRO HENRIQUE TAVARES LUZ	BAUXITE
832.452/2023	72.26	RESEARCH REQUEST	IRMÃOS MARTINS SERVIÇOS E COMÉRCIO EIRELI	RARE EARTH
832.471/2023	327.51	RESEARCH REQUEST	IRMÃOS MARTINS SERVIÇOS E COMÉRCIO EIRELI	RARE EARTH
<b>TOTAL AREA</b>	<b>5,388.4</b>			