



# Investor Presentation

December 2023

**Brazil – Rare Earths**

**An Extensive Portfolio of Critical Mineral  
Projects**



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# Corporate Snapshot

**Shares on issue**

**2,869,078,585**

**Share Price**

**\$0.005**

**Market Capitalisation**

**\$14.35m**

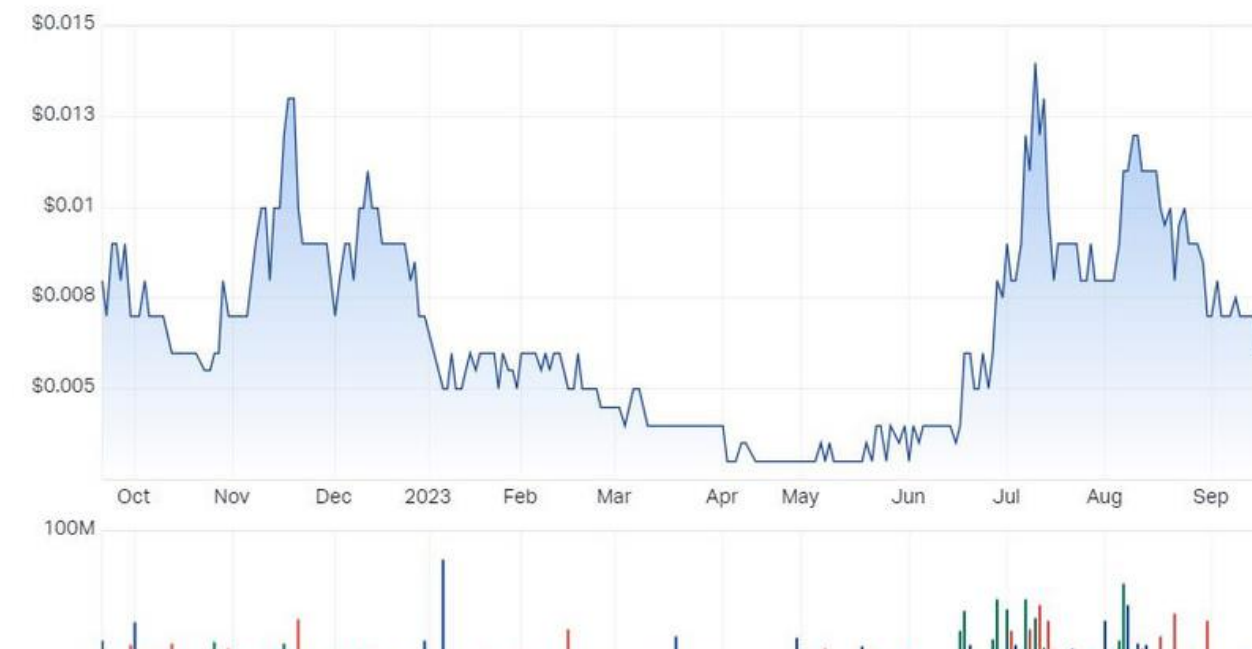
**Options on Issue**

**964,525,493**

**Cash on Hand**

**\$1,150,000**

GMN ASX Chart



# Opportunity

## Brazil – REE

- Brazil has the third largest hard rock REE reserves
- Brazil has several substantial IAC deposits under exploration
- GMN has contiguous ground with a large IAC type inferred REE resource
- GMN is also in close proximity to a second IAC type REE resource

GMN has secured ground next to a known resource

GMN actively assessing additional IAC – REE resource opportunities

# Neodymium, Praseodymium, Dysprosium, and Terbium, the Magnet Rare Earths, are estimated to represent 98% of the market by value in 2030.

Major Category	Magnet Rare Earths	Rare Earth Element	Chemical Symbol	Atomic Number	Crustal Abundance ppm	USD/kg RE Oxide 2022	Projected Price USD/kg 2030
LIGHT RARE EARTHS		Scandium	Sc	21		802.96	913
		Lanthanum	La	57	39.0	1.25	1.59
		Cerium	Ce	58	66.5	1.30	1.61
		Praseodymium	Pr	59	9.5	9.90	59.5
		Neodymium	Nd	60	41.5	49.14	45.5
		Samarium	Sm	62	7.1	2.75	1.52
		Europium	Eu	63	2.0	27.50	28
HEAVY RARE EARTHS		Gadolinium	Gd	64	6.2	53.36	27.2
		Terbium	Tb	65	1.2	1855	700
		Dysprosium	Dy	66	5.2	593.32	440
		Holmium	Ho	67	1.3	106.67	250
		Erbium	Er	68	3.5	39	2.32
		Thulium	Tm	69	0.5		
		Ytterbium	Yb	70	3.2	16.1	14.5
		Lutetium	Lu	71	0.8	881.48	637
	Yttrium	Y	39	33.0	12.1		
						Asian Metal REE Pricing	Estimate made 2021



Electrification requires high strength REE magnets.



GMN is targeting low mining cost Ionic Absorbed Clay (IAC). IAC deposits are simple to mine and rehabilitate, have low capital costs, have simple metallurgy, no residual pits and tailings can be replaced directly into mined out areas.



These strategic applications provide a pathway to GMN to be a major participant in the rapidly increasing clay-hosted rare earths global supply chain.

REE Pricing data: <https://www.asianmetal.com/RareEarthsPrice/RareEarths.html>

# Directors and Management



David Evans is the founder, executive director and a major shareholder of Mars Mines Limited with business experience spanning over 28 years in the mining industry, financial services sector and more recently as an entrepreneur and Company founder/Director. B.Sci



Aharon Zaetz is a lawyer and experienced director. He brings many years of legal expertise in corporate law, mergers and acquisitions, and business negotiations to his role including experience negotiating with tenement holders and landowners. As a seasoned lawyer, Aharon has assisted clients at all stages of their business journeys, from start-ups to established corporations. He is an experienced ASX investor and GMN shareholder. DipLaw



Syed Hizam holds a Bachelor's Degree in Finance and Economics from San Jose State University. He has extensive global experience working in various roles and is currently a Non-Executive Director in a finance company in Saudi Arabia. Prior to this, he worked in various leadership positions in the Industrial Product Sector, Education, Textile, Semiconductor and Satellite Industry in Malaysia, Australia and the United States. B.Econ



Peter Temby is a senior professional field oriented Geologist with 50 years' experience in mining and exploration on a broad range of metals and industrial minerals in Australia, Brazil, Africa and Asia. Peter has worked for a series of major companies, including 13 years for CRA Exploration (Rio Tinto) Peter has explored for LCT pegmatites for over 10 years' focusing mainly on tantalum prior to the last 5 years.

# Brazil is fast becoming a significant player in the IAC – REE space

**Gold Mountain Limited** is a major holder of IAC – REE tenements in Brazil, within the São Francisco craton.

**Gold Mountain Limited** holds:

57 tenement applications for REE

Total area ~130 km<sup>2</sup>

REE, Lithium, Copper and Nickel are all critical metals for the move from Fossil Fuels to Renewables and electrification of global energy systems

# Brazil – REE

**Gold Mountain holds 57 tenements at the application stage in the Jequié Block of the Sao Francisco craton.**

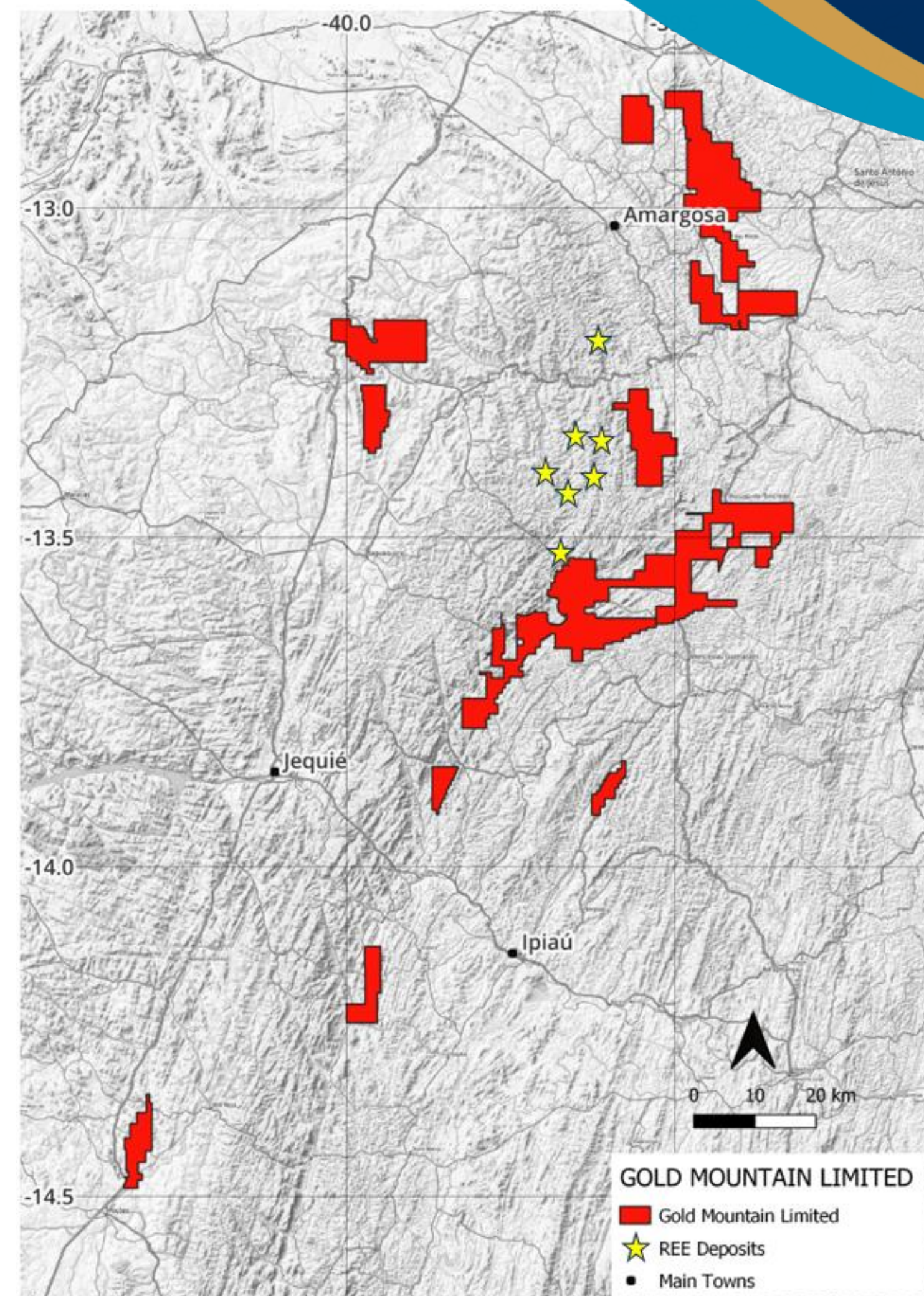
**REE province in Eastern Bahia, Brazil.**

**Project held in the Jequié Belt :**

- Down Under Project

**Tenements selected to cover**

- Good REE source geology regionally
- Tenements cover high thorium anomalies
- Presence of partly preserved lateritic profiles
- Major shear zones within main Jequié tenement block
- Adjacent to known REE exploration tenements with Ionic Clay type deposits with known simple metallurgical characteristics
- High Magnet Rare Earths content





# Brazil – REE



Iron cap and  
mottled zone

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Saprolite zone

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Saprock grading into  
fresh bedrock

Photo not from GMN REE tenements  
provided for understanding of a  
well exposed weathered profile

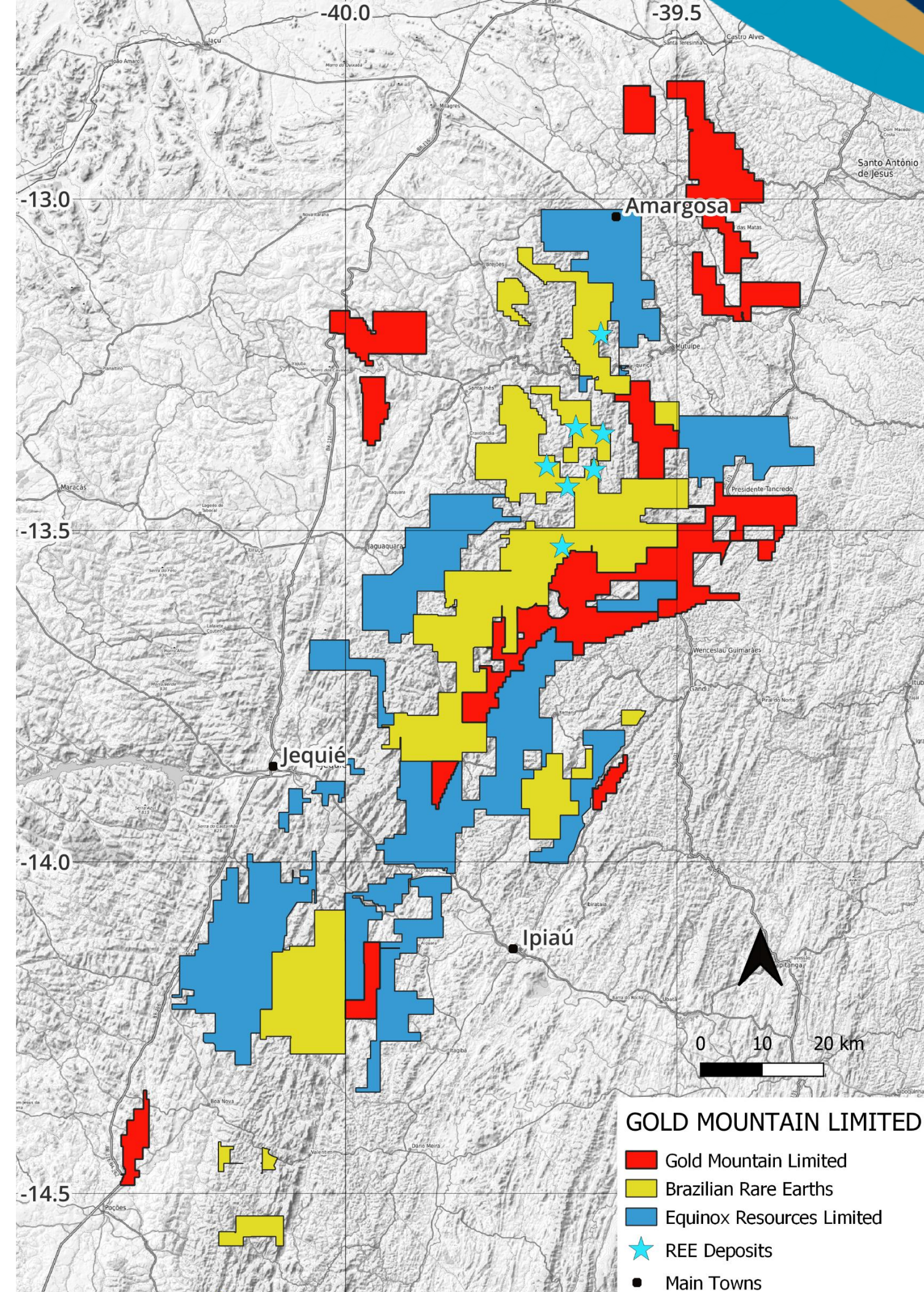
**Well developed weathering profile, essential for IAC REE deposit development**

# Brazil – REE

## Tenements in a well explored REE area

### Tenements selected to cover

- No known exploration for REE or other minerals has been carried out on the GMN licence applications.
- Rio Tinto carried out extensive bauxite exploration over a period commencing in 2007. BRE acquired the bauxite project in which 1% of samples were analyzed for REE.
- BRE commenced detailed REE work in 2021 leading to their updated resource statement using drilling data collected up to 23 May 2023.
- Equinox Resources Limited carried out detailed desktop reviews as well as on ground reviews in their tenements in 2023, several of which adjoin tenements held by GMN.

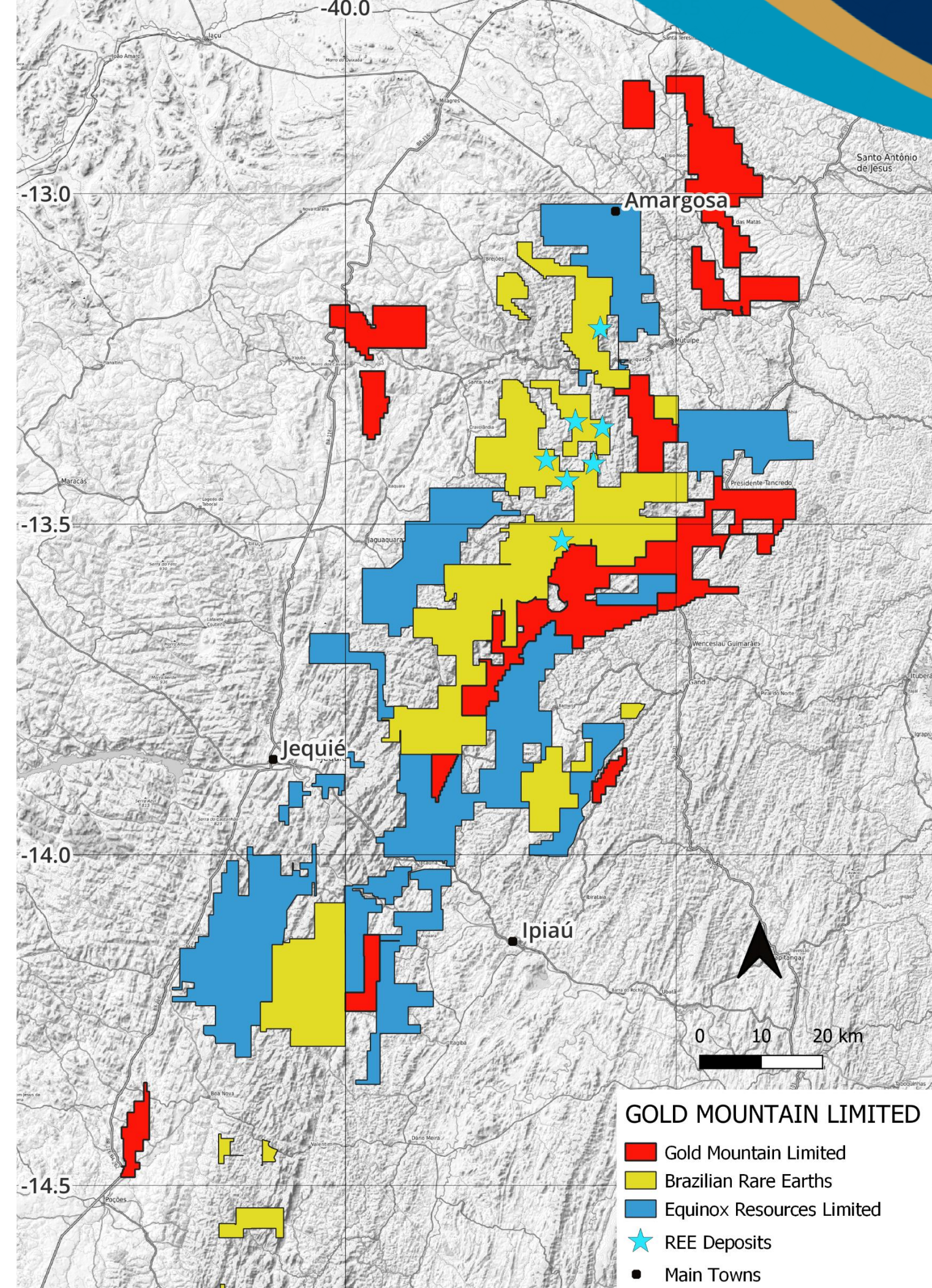


# Brazil – REE – BRE

**Gold Mountain holds 57 tenements applications in partially contiguous ground with BRE in Bahia state.**

## Tenements selected to cover

- Brazilian Rare Earths tenements contain a JORC compliant 510 Mt Inferred resource @1,513 ppm Total Rare Earth Oxide (TREO) with over 20% magnet Rare Earth Oxides (MREO), the majority of which occurs as Ionic Clay deposits (BRE Prospectus 13 November 2023).
- ASX listed Equinox Resources (ASX:EQN) have also announced significant applications in the region EQN ASX Release 28 November 2023.
- Ionic Clay REE deposits are present in the region, hosted by weathered felsic intrusives, shear zones and minor mafic-ultramafic intrusives in BRE tenements.
- Major structures, many of which are strike slip or transpressive faults, may host ultramafic rocks, host to very high grade REE mineralisation found in several localities in the BRE tenements. Similar mapped major structures and shear zones occur within the Down Under project.

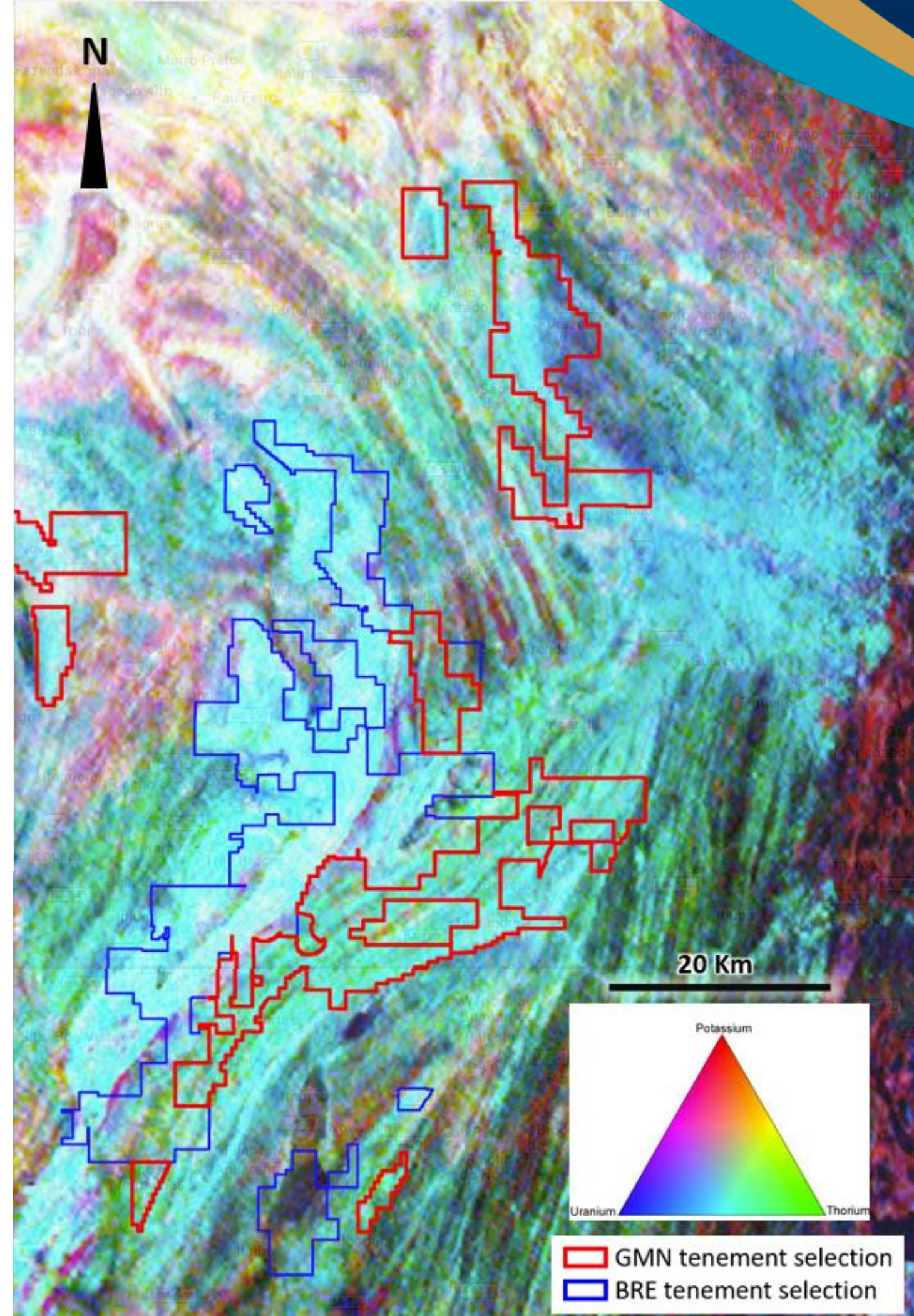


# Brazil – REE

## Thorium anomalies and major structures

### Tenements selected to cover

- GMN tenements lie within the 20-40 km wide radiometric thorium-uranium anomaly which defines a REE productive zone.
- GMN tenements cover favorable shear zones, thorium-uranium anomalies and potential host lithologies within the regional thorium anomalies.



# Brazil – REE

## Primary sources of mineralization

- Weathering of these types of mineralization can give rise to high grade IAC REE deposits
- Metallurgy of the primary unweathered mineralization will be different to IAC deposits and may not form part of the resource unless readily recoverable



**Metasomatic  
Silicification**

Locally with  
REE ~ 2,0%  
High grade > 10%



**Shear Zone (mylonite?)**

Locally with  
REEO ~ 7,0 %  
Supergenic > 14,0%  
Sc<sub>2</sub>O<sub>3</sub> ~ 100 ppm  
P<sub>2</sub>O<sub>5</sub> ~ 2,8 %  
TiO<sub>2</sub> ~ 3,0 %  
ZrO<sub>2</sub> ~ 425,5 ppm  
Nb<sub>2</sub>O<sub>5</sub> ~ 2663,6 ppm

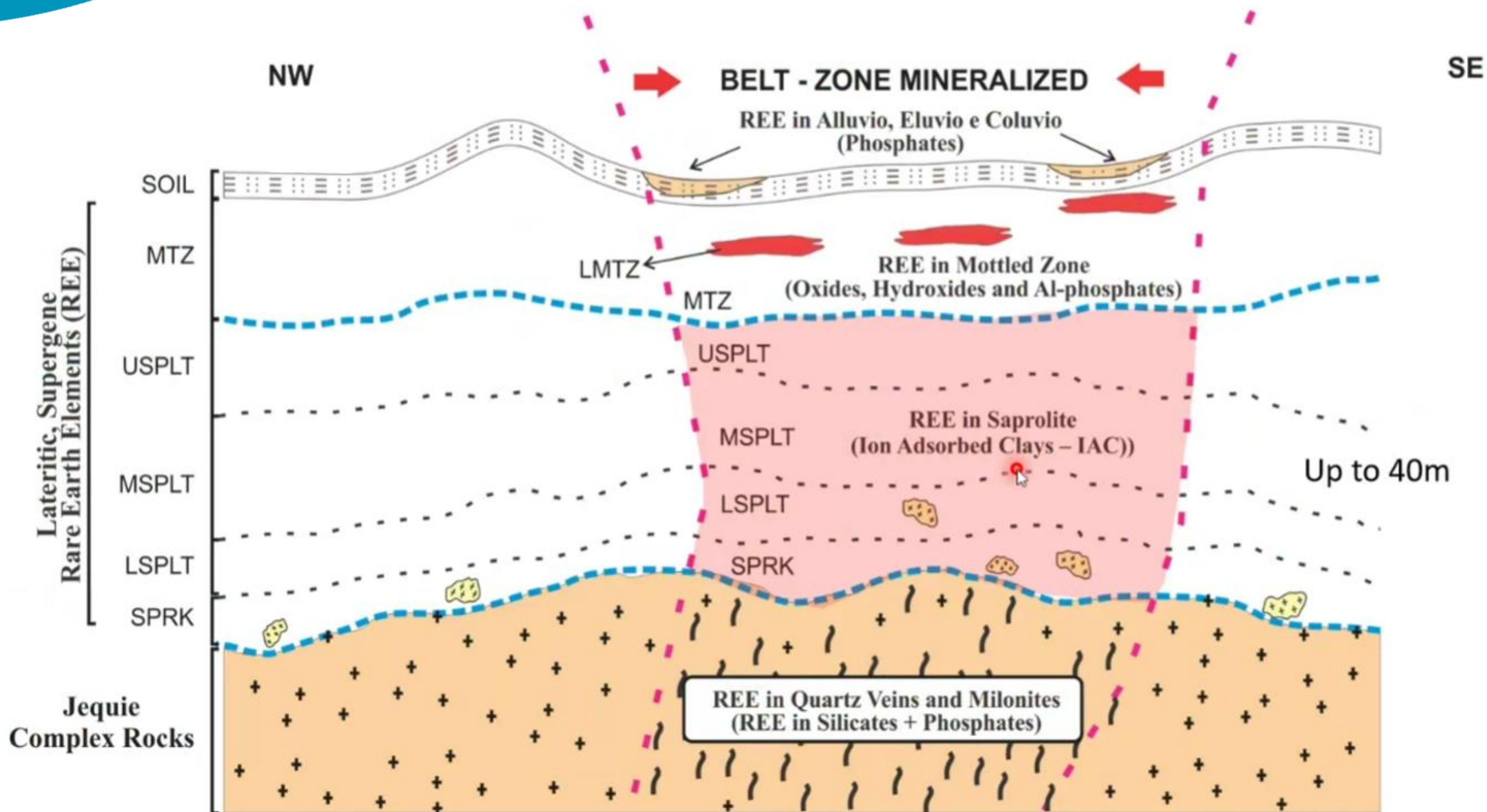


**Ultramafic Rock  
Piroxenite**

Locally with  
REEO ~ 10-11 %

*Photos and analytical data from presentation by Gerson Romano dos Santos Junior; PhD student - Geometallurgy REE-IAC, Master - REE-IAC Geochemistry November 2023.*

# Brazil – REE



**Geology of a weathering profile**

Section from presentation by Gerson Romano dos Santos Junior; PhD student - Geometallurgy REE-IAC, Master - REE-IAC Geochemistry November 2023.

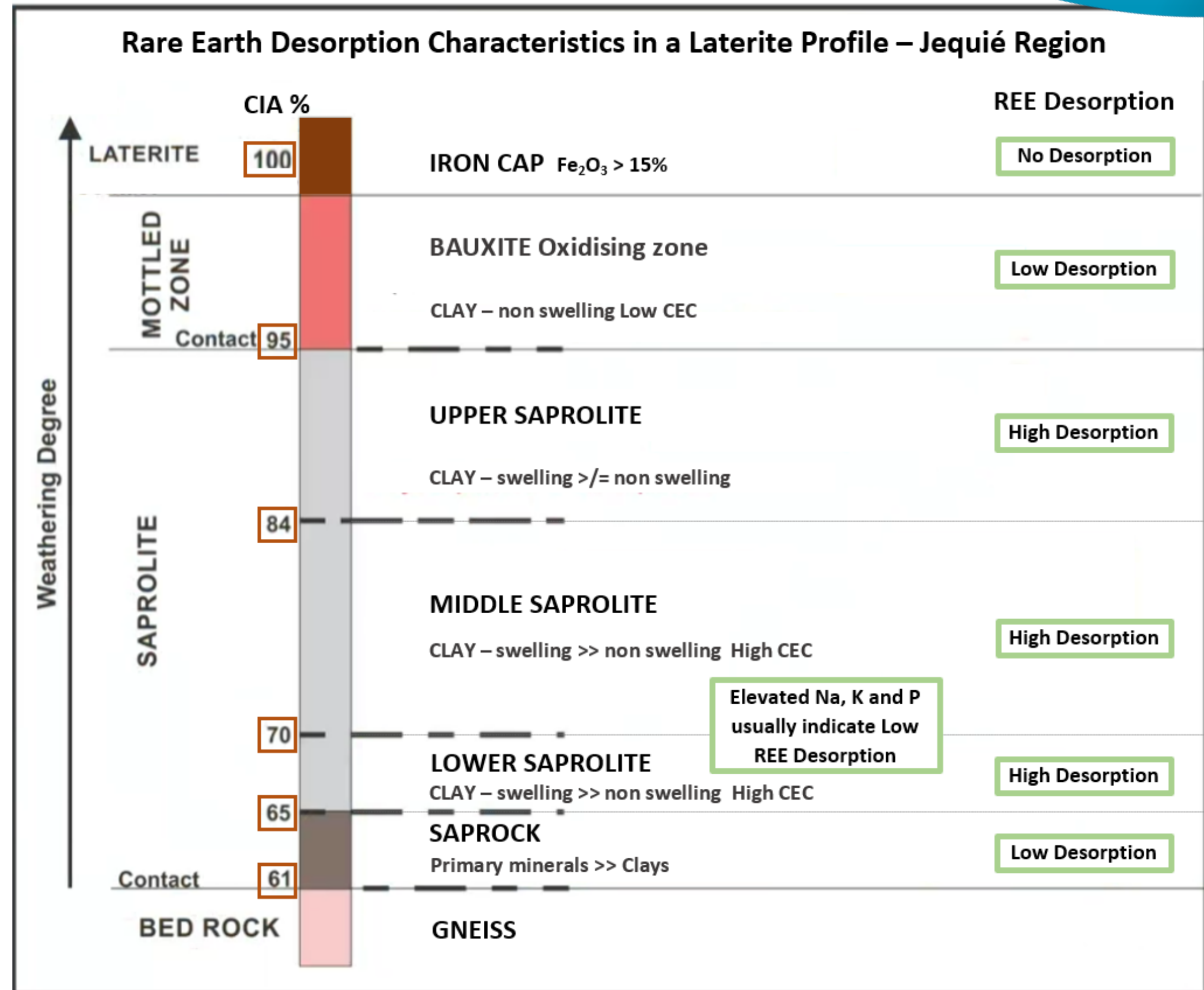
# Brazil – REE

## Metallurgy in the region is understood

### Metallurgy

- Extensive metallurgy conducted on one project in the region
- BRE has similar mineralogy but less extensive metallurgy
- Extracted readily with Ammonium sulphate with pH adjusted.
- Deleterious U and Th not extracted from the REE ore
- Clay mineralogy important for metallurgical characteristics
- High P is usually indicating primary monazite is present, considered to be economically recoverable in part of the BRE resource

Table redrawn from presentation by Gerson Romano dos Santos Junior; PhD student - Geometallurgy REE-IAC, Master - REE-IAC Geochemistry November 2023.



# References

Where a Competent Person has previously issued the written consent to the inclusion of their findings in a report, a company re-issuing that information to the Public whether in the form of a presentation or a subsequent announcement must, state the report name, date and reference the location of the original source Public Report for public access. The information is extracted from the following announcements

- GMN ASX Announcement 1 December 2023 GMN secures over 100,000 Ha in premier Rare Earth Rich Region in Brazil

They are available to view on [www.goldmountainltd.com.au](http://www.goldmountainltd.com.au). The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

## **Additional references**

- Brazilian Rare Earths Prospectus, dated 13 November 2023
- Brasil Mineral 28/11/2023, Australian Equinox Resources arrives in Bahia with another ionic clay project
- EQN ASX Release 28 November 2023, Equinox charts a course for Rare Earth Dominance in Brazil, Accelerating Growth with Strategic Placement
- Unpublished presentation by *Gerson Romano dos Santos Junior*





# Thank You



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