# **ASX Announcement**

21 May 2024



# Targeted Drilling Campaign Commences on Verde Valor Rare Earth Project in Brazil

Pioneer will commence a targeted exploratory drill campaign on major radiometric anomalies at their Verde Valor project in the Rare Earth-rich state of Bahia, Brazil.

# **Highlights**

- Verde Valor tenements are within a radiometric anomaly, potentially indicating REE-rich mineralised zones.
- The initial 300-meter exploratory auger drilling campaign will focus on strategically selected locations.
- The campaign will consist of thirty drill holes, each planned to reach depths
  of up to 20 meters, based on detected thorium anomalies using geophysical
  imaging and previous fieldwork, which identified thick packages of soil rich
  in clay minerals.
- Drilling is designed to delineate geological profiles and Rare Earth Element (REE) concentrations within the exploration area.
- FCR ESTUDOS GEOLÓGICOS has been appointed as the drilling contractor to conduct the drilling operations.

Pioneer Lithium Limited (ASX Code: PLN) ('Pioneer Lithium' or 'the Company') is pleased to announce that it has commenced a concise 300m exploratory auger drilling campaign at its Verde Valor Rare Earth tenements in Bahia state in Brazil (see ASX announcement dated 4 April 2024) to test for the prospective for Rare Earths at depths of up to 20m. The Company considers the cost of the drilling campaign to be immaterial and will be funded using existing working capital. As such, this will not otherwise affect the proposed use of funds in the Prospectus (see ASX announcement dated 26 September 2023).

The project site is located near Morro do Chapéu and Tapiramutá City in Bahia, Brazil, and is close to abundant local infrastructure, with well-maintained state highways and access to power and water.





# **Project Geology**

The geological survey conducted in the Verde Valor project area in the Tapiramutá region of Bahia, coordinated by Dr Braga, identified several geological units, ranging from the oldest to the most recent:

Paleoproterozoic Alkaline Granites (Tapiramutá Complex): These are predominantly represented by an extensive regional occurrence of a Paleoproterozoic granitic intrusion. Various facies of this granite were observed during the reconnaissance campaign. Outcrops typically appear as rock slabs in drainage areas or nearby, along road cuts at the base of extensive profiles. The dominant facies are leucogranites (including syenogranite and alkaligranite), with varying degrees of weathering from low to high.

Specifically, the **Syenogranite facies**, which outcrop as rock slabs often near drainages, have a phaneritic texture and are massive with a pinkish hue. Its mineralogy is primarily characterised by K-feldspar, quartz, and predominantly plagioclase. These outcrops are well-preserved.

The **alkali-granite facies** in the project areas are marked by a high degree of weathering. Outcrops occur in large road cuts, often at the base of profiles, featuring fine, uniform granulation and aphanitic textures. These rocks are predominantly white, with few mafic minerals, and composed mainly of quartz, K-feldspar, and plagioclase (albite). Due to extensive alteration, kaolinised portions are common, and the original rock characteristics are completely lost.

Residual Soil from Granitic Rock Weathering: This soil is formed through the chemical and physical weathering of Paleoproterozoic alkaline granites in the area. It retains the chemical properties of the original granitic material, making it a primary target for mineral exploration. Rich in clay minerals and potentially containing concentrations of rare earth elements and other valuable minerals, this residual soil is key for assessing the economic potential of mineral deposits in the region. Figure 1 shows the distribution of this Residual Soil in the project area.

**Detrital-Lateritic/Ferruginous Coverings:** These younger formations, prevalent across the area due to planation surfaces forming plateaus and steep valleys, consist of unconsolidated sediments and gravelly layers resembling the surrounding soil. Key features include oxidised layers and ferruginous cover with a distinct red hue, indicating extensive weathering. The geological map in Figure 3 from the Geological Survey of Brazil (CPRM) shows the distribution of these coverings and includes exposures of residual soil from the weathering of alkaline granites, confirmed during the geological survey.

# Commenting on the Verde Valor tenements, Pioneer Lithium Executive Chairman Robert Martin said:

"The commencement of a small, short, sharp auger drilling campaign will provide an economical way to test our newly staked rare earth tenements in Brazil. These tenements are in a radiometric anomaly that may coincide with REE-rich mineralised zones. Our in-country team has identified 30 of these targets to test, and if successful, this may lead to a larger, more broad campaign. We look forward to updating the market on our progress soon."





Figure 1 - Outcrop of saprolitic soil rich in clay minerals from the Verde Valor tenements.



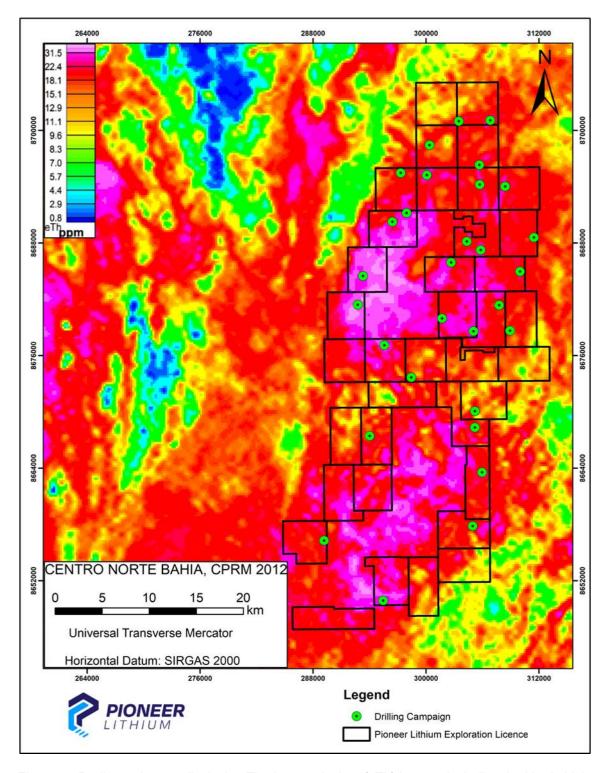


Figure 2 - Radiometric map displaying Thorium equivalent (eTh) in ppm, including the Verde Valor tenements (CBPM, 2012 and 2006) and the planned auger drill hole locations for the upcoming drilling campaign.



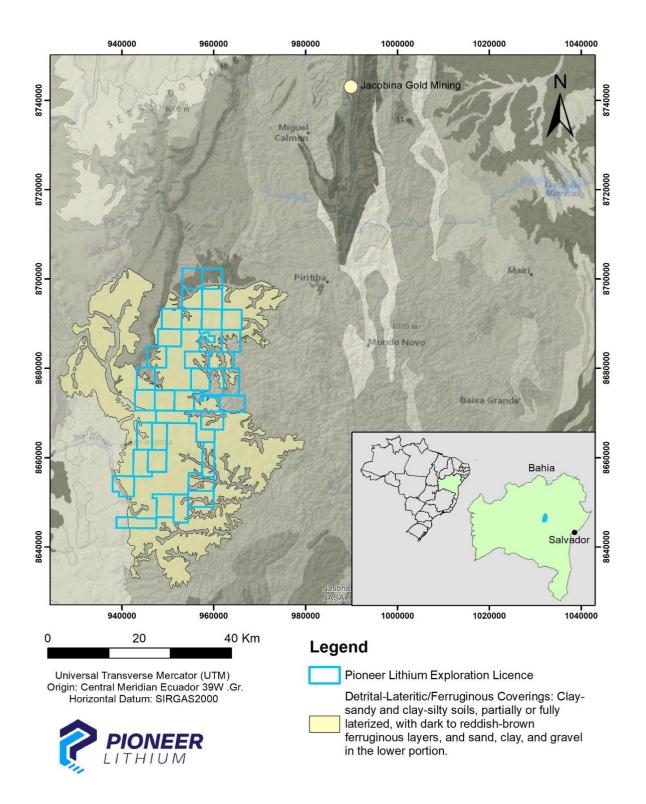


Figure 3 – Adapted Geological Map of the Verde Valor Tenements, based on CPRM data (1:1,000,000 scale).



This announcement has been authorised for release by the Board of Pioneer Lithium.

For more information on Pioneer Lithium, refer to the Company's website at: www.pioneerlithium.com.au.

### **ENDS**

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# **Competent Person Statement**

The exploration results contained in this release are based on, and fairly represent, technical information and supporting documentation compiled and evaluated by Dr. José Marques Braga Júnior PhD., a consulting geologist who is a member of the Australian Institute of Geoscientists (AIG) (MAusIMM: 336416). 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 this information in the form and context in which it appears.

## **Forward-looking statements**

This announcement may contain certain forward-looking statements and projections. Such forward-looking statements/projections are estimates for discussion purposes only and should not be relied upon. Forward-looking statements/projections are inherently uncertain and may differ materially from results ultimately achieved. Pioneer Lithium Limited does not make any representations and provides no warranties concerning the accuracy of the projections and disclaims any obligation to update or revise any forward-looking statements/projects based on new information, future events or otherwise except to the extent required by applicable laws. While the information contained in this report has been prepared in good faith, neither Pioneer Lithium Limited nor any of its directors, officers, agents, employees or advisors give any representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this announcement.