

**ASX RELEASE**

3 July 2024

**ASX CODE**

PNN

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**PROJECTS****Argentina**

Salta Lithium Project

**Brazil**

Lítio Niobium-REE-Lithium Project

**Australia**

West Arunta Nb-REE Project

Eyre Peninsula Kaolin-Halloysite-  
REE ProjectMusgrave Nickel-Copper-Cobalt-  
PGE Project

## Option to Acquire Strategic Niobium Project in Brazil

- The Lítio Project comprises three granted exploration permits, immediately adjacent and interpreted on strike from Summit Minerals' (ASX:SUM) Equador Niobium Project
- Summit's Equador Project has returned very high grade niobium and tantalum sampling results of up to;
  - 53.07% Nb<sub>2</sub>O<sub>5</sub> (niobium pentoxide); 47.17% Ta<sub>2</sub>O<sub>5</sub> (tantalum pentoxide); and 24,760 ppm (2.47%) partial rare earth oxides (PREO)
  - This includes 34.45% Nb<sub>2</sub>O<sub>5</sub> and 47.17% Ta<sub>2</sub>O<sub>5</sub> adjacent to Power's Lítio project
  - The two project areas are assessed as having similar geology
- Outcropping pegmatites located at Lítio which will provide an initial exploration and drilling target for Power.
- Expedited exploration strategy underway designed to define initial priority drill targets – drilling planned calendar 2024;
  - First samples collected with results expected in the coming weeks - expanded sampling program ongoing.
  - Additional testing ongoing for Tourmaline
- The acquisition reinforces Power's strategy as a South American-focused explorer and developer - focus on expediting exploration in Brazil and development of the Salta Lithium Project
- Power working on realising value for its non-core Australian project portfolio

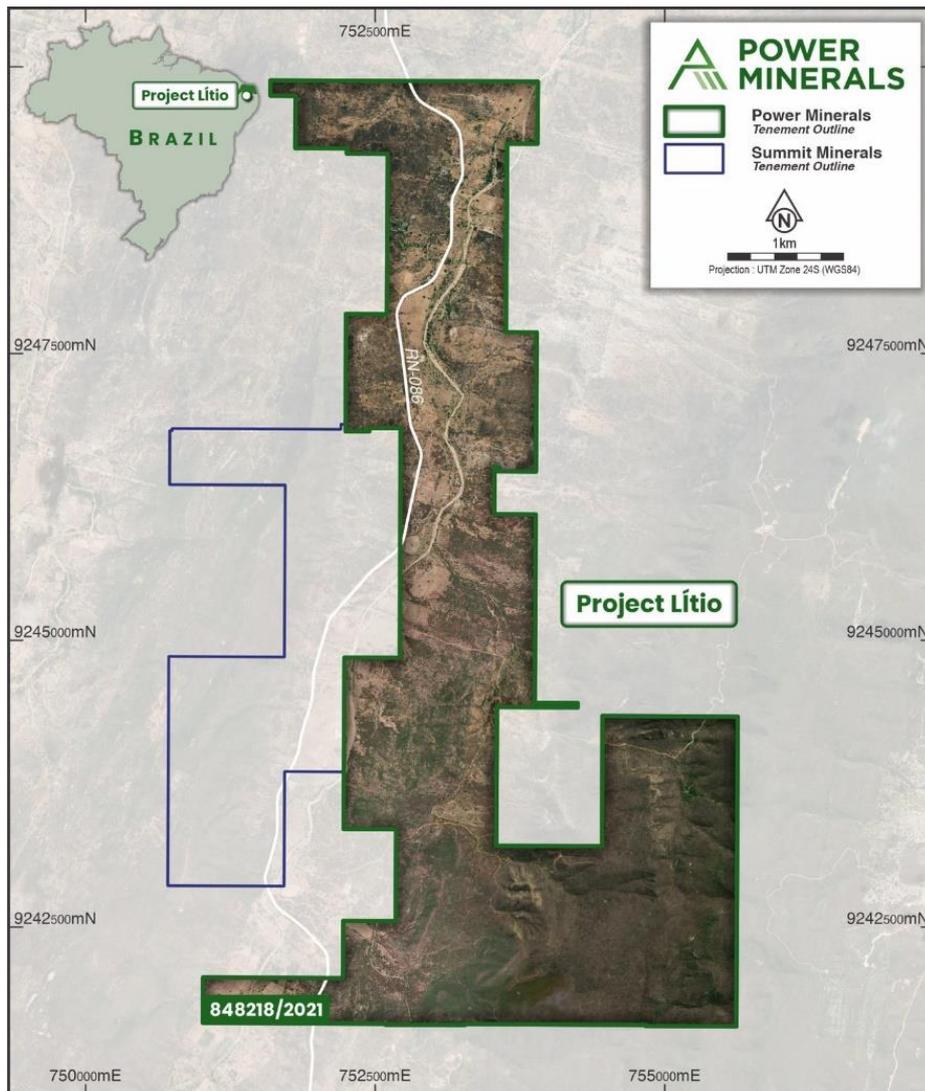
Power Minerals Limited (ASX: **PNN**, **Power** or **the Company**) is pleased to announce the option to acquire the Lítio Project in Paraiba state, Brazil. The project is considered highly prospective for niobium, rare earth (REE) and lithium.

Power has entered into a binding Heads of Agreement to acquire the Lítio Project, which comprises three permits covering a total area of 27km<sup>2</sup>.

The acquisition consolidates and reinforces Power’s position as a South American-focused explorer and developer. It plans to expedite field work programs at Lítio to unlock the Project’s value in parallel with its core focus to advance development of its Salta Lithium Project in Argentina.

The Lítio Project is located immediately adjacent to, and contiguous to Summit Minerals’ (ASX: SUM) Equador Niobium Project (Figure 1), which recently returned sampling laboratory results of up to; **53.07% Nb<sub>2</sub>O<sub>5</sub>, 47.17% Ta<sub>2</sub>O<sub>5</sub> and 24,760 ppm (2.47%) partial rare earth oxides (PREO)** (SUM: ASX Announcement, 24 June 2024). The geology of Summit’s Equador Project is interpreted to continue into the Lítio Project, and Power has conducted a reconnaissance site visit to the Lítio Project confirming that it shares similar geology.

In addition, the site visit identified outcropping pegmatites at Lítio, which it plans to test for lithium mineralisation.



**Figure 1:** Lítio Project location map, in Paraiba state, north-eastern Brazil

**“This is an exciting acquisition for Power as we expand our footprint and presence in South America. Through this acquisition Power will build on the knowledge, expertise and local networks we have developed over the past eight years during our development of the Salta Lithium Project in Argentina.**

**“Brazil is growing in stature as a sought-after location for minerals exploration and discovery and we are delighted to have secured this project, in an emerging exploration district where ASX-listed Summit Minerals has delivered positive results from its initial field-work.**

**“Along with indications of niobium, tantalum and rare earth results at Summit’s adjacent landholding, we have identified outcropping pegmatites at surface at Lítio, which we plan to test as an initial priority. Initial samples have been collected from site and we will use results from their analysis to commence defining exploration targets at the Project.”**

**Power Minerals Managing Director Mena Habib**

## **Project background**

The Lítio Project is located in the Borborema Pegmatitic Province in northeast Brazil, in the central east and south of Rio Grande do Norte and northeast of Paraíba.

The Borborema Province is the result of a collage of tectonic blocks formed during the amalgamation of Gondwana in the Neoproterozoic. This province has a domain of pegmatites formed at the end of the Brasiliano cycle (500-450 Ma) covering an extension of 75km by 150km between the states of Rio Grande do Norte and Paraíba, with mineralised bodies in tantalum-niobium, beryllium, tin and lithium.

The Project is well located to existing infrastructure, with direct access to energy and water. It also has road access direct to the Project from a major local highway (20km away).

## **Site visit**

Power’s geologist visited the Lítio Project area and collected two samples – one from pegmatite and one from mica and quartz rocks. Onsite testing showed potential for tantalum and niobium which is believed to be present as columbite-tantalite. The observed mineralisation is fine grained and located interstitial to the large quartz, feldspar and mica crystals. At this stage no estimate of the abundance is made as exposure is limited and the preliminary nature of the examination.

These samples have now been sent for laboratory analysis for further testing to validate and the encouraging field results. Results are expected before the end of July.

A large portion of the project area is noted as being an alluvial deposit, which may have a positive impact for potential future mine development.

Power’s initial focus at the Lítio Project will be the license adjacent to Summit Minerals’ Equador Project, with similar geology assessed as being present across the two areas.



**Figures 2-4:** Images taken during a site visit to Lítio

Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.

### **Lítio Project Acquisition Terms**

Power has entered a binding Heads of Agreement with Ita Iron Mineracao to acquire the Lítio Project, which comprises a total area of 27km<sup>2</sup> over three contiguous permits in Paraiba state, Brazil. Power has paid a \$30,000 upfront payment for an exclusive option over the Project, and will now undertake a 60-day period of due diligence.

Key acquisition terms are outlined below;

- **Term:** 60-day due diligence period
- **Exclusivity/Option Fee:** \$30,000 upfront payment
- **Upon successful due diligence:** \$300,000 cash payment and \$270,000 in PNN shares (at a 20-day VWAP, escrowed for six months) will be paid to vendors as consideration for the full acquisition of the three licences that make up the Lítio Project.

### **Next steps**

Power will use results of its initial sampling to help define initial exploration targets. Further sampling is ongoing to identify further drilling targets across a wider area of the Project. Power's initial field work programs will be designed to define targets for a maiden drilling program (subject to results).

**Authorised for release by the Board of Power Minerals Limited.**

**-ENDS-**

### **For further information please contact:**

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Additional information is available at [www.powerminerals.com.au](http://www.powerminerals.com.au)

### **About Power Minerals Limited**

Power Minerals Limited is an ASX-listed exploration and development company. We are committed to the development of our lithium assets in Argentina into significant lithium producing operations, the exploration of the Lítio Niobium Project in Brazil and delivering value from our non-core Australian assets.

### **Competent Persons Statement**

The information in this document that relates to the Lítio niobium, REE and lithium project in Brazil has been prepared with information compiled by Steven Cooper, FAusIMM. Mr Steven Cooper is the Australian Exploration Manager and is a full-time employee of the Company. Mr Steven Cooper has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Steven Cooper consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

# JORC Code, 2012 Edition – Table 1 Santa Ines Project, Salta Province, Argentina

## Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Representative grab rock samples have been collected for geochemistry during the course of reconnaissance field examination. Sampling has not been designed to estimate mineralized grades as this is the first stage of exploration activity on the property.</li> <li>On site pXRF data has been used as a guide only and only used to indicate elevated tantalum and niobium values exist. Due to the small analytical window and lack of preparation homogenisation the exact reported pXRF values are uncertain cannot be relied upon.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</li> </ul>	<ul style="list-style-type: none"> <li>No drilling undertaken.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling undertaken.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Drill core and chip sampling was not performed. Descriptions of rock samples and photographic images are qualitative.</li> <li>Samples are described and photographed with the outcrop from which it was taken. The outcrop location and sample number are</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	recorded.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>No sub sampling has been conducted. The rock samples for geochemistry were focused on determining the presence or absence of Nb-Ta and REE mineralization.</li> <li>The sample size was considered appropriate for grain size of the material.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>Collected samples have been submitted to the commercial laboratory Alex Stewart for detailed geochemical analyses.</li> <li>Results will be reported once received and confirmed from the laboratory.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling was undertaken.</li> <li>Data entry for this early stage exploration program has been through the use of data capture directly into GIS software on a handheld device.</li> <li>No data has been adjusted.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Coordinates provided are in WGS84 datum, UTM Zone 24S.</li> <li>Sample locations were measured using handheld Garmin 62sc GPS.</li> <li>GPS topographic control used is +/-5m.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sampling was not designed to constrain resources.</li> <li>• Current activity is only reconnaissance level exploration.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Two grab rock samples for geochemistry were focused on mineralized structures to determine the presence or absence of Nb-Ta and REE mineralization.</li> <li>• At this discovery stage geometrics is not critical as it is point sampling only.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples were delivered or transported to the Alex Stewart commercial laboratory after selection and packaging by the PNN geologist engaged to carry out the field program.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• None undertaken at this early stage.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The three contiguous permits are 846.218/2021, 846.244/2021 and 848.219/2021 in the Municipality of Borborema, Paraiba State, Brazil. The three permits are held 100% by Ita Iron Mineracao Ltd.</li> <li>• PNN has entered into a binding Heads of Agreement to acquire the three permits, subject to 60-day period due diligence.</li> <li>• The permits are granted and believed to be in good standing with the relevant government authorities. This will be confirmed during the due diligence period.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>• There are no known records of previous exploration within the permit areas but due diligence is being undertaken by PNN to confirm.</li> </ul>

Criteria	JORC Code explanation	Commentary
Geology	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Possible tantalum-niobium, beryllium, tin and lithium bearing pegmatites formed at the end of the Brasiliano cycle (500-450 Ma) are targets within the Borborema Pegmatite Province (BPP) of northeast Brazil.</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <li>• <i>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:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No drilling undertaken.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>• <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li>• <i>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.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No weighted averaging or aggregation methods applied.</li> <li>• The samples for geochemistry are to determine the presence or absence of Nb-Ta and REE mineralization.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>• Current activity is only reconnaissance level exploration.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Geological map with significant sample results will be provided when available.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Laboratory geochemical results of the PNN sampling is not yet available.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>On site pXRF data has been used as a guide only and only used to indicate elevated tantalum and niobium values exist. Due to the small analytical window and lack of preparation homogenisation the exact reported pXRF values are uncertain cannot be relied upon.</li> <li>Descriptions of rock samples and photographic images are only qualitative.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Further field work to complete mapping of the property and to conduct additional geochemical sampling is planned in the near future. Power's initial field work programs will be designed to define targets for a maiden drilling program (subject to results)</li> </ul>