# **ASX ANNOUNCEMENT**



#### **ASX RELEASE**

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# Power intersects further high-grade niobium and REE in auger drilling at Santa Anna Project, Brazil

# **Highlights**

- High-grade niobium up to 14,711ppm (or 1.47%) Nb<sub>2</sub>O<sub>5</sub> and REE up to 13,700ppm (or 1.37%) TREO intersected in 2<sup>nd</sup> phase shallow drilling at the Santa Anna Project, Brazil
- Results are from the first 3-holes of a 1,000m auger drill program following up broad zones of niobium and high-grade REE intersected in the maiden drill program
- Highlight niobium results from the auger drilling program include;
  - 4m at 10,023ppm Nb<sub>2</sub>O<sub>5</sub> from 5m to EOH, and
  - $_{\odot}$  2m at 13,375ppm (or 1.34%) Nb<sub>2</sub>O<sub>5</sub> from 6m in drillhole MN-TM-03
  - $\circ~$  12m at 2,342ppm  $Nb_2O_5$  from surface to EOH, including
  - $_{\odot}~$  1m at 14,711ppm (or 1.47%) Nb<sub>2</sub>O<sub>5</sub> from 12m to EOH in drillhole MN-TM-02
  - o 5m at 1,774ppm Nb<sub>2</sub>O<sub>5</sub> from surface and
  - o 1m at 2,961ppm Nb2O5 from 7m in drillhole MN-TM-01
- Highlight REE results from the auger drilling include;
  - o 13m at 7,882ppm TREO from surface to EOH, including
  - 3m at 12,295ppm (or 1.23%) TREO from 10m to EOH in drillhole MN-TM-01
  - o 9m at 5.523ppm TREO from surface to EOH, including
  - 2m at 8,561ppm TREO from 56m containing 29.7% MREO in drillhole MN-TM-03
- Drilling is designed to extend the Santa Anna Project's mineralised footprint to the east and south-east of initial drilling, targeting shallow niobium and REE in yet to be tested areas of the Santa Anna Alkaline Complex
- Power's drilling to date continues to build confidence towards achieving its near-term goal of confirming a significant Mineral Resource Estimate at the Santa Anna Project
- Testing is underway to confirm the presence of ionic clay REE in the shallow, weathered zone

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Power Minerals Limited (ASX: **PNN**, **Power** or the **Company**) is pleased to report further high-grade niobium and rare earth element (REE) intersections from its ongoing drilling programs at the Santa Anna niobium-REE-gallium carbonatite project ("**Santa Anna**" or "**the Project**") in Goiás State, in the central region of Brazil.

The results come from the first three holes of Power's auger drilling program, which is targeting yet to be tested areas at the Santa Anna Alkaline Complex. The drilling has returned niobium grading as high as **14,975ppm** (or **1.50%**) Nb<sub>2</sub>O<sub>5</sub> and REE grading as high as **13,700ppm** (or **1.37%**) TREO.

Some of the highest concentrations have been recorded from the end of hole (EOH) samples.

The auger drilling program is following up Power's recently completed maiden 29-hole, 2,272m program at the Santa Anna Project. It is designed to extend the Project's mineralised footprint to the east and south-east of the maiden drilling which intersected multiple wide zones of niobium mineralisation and multiple zones of high-grade rare earth elements (REE) mineralisation.

These further high-grade results continue to validate and strengthen the Company's exploration model at the Santa Anna Project, and provides strong confidence in the Project's potential for a significant Mineral Resource Estimate.

# Highlight niobium results from the auger drilling program include;

- 4m at 10,023ppm Nb<sub>2</sub>O<sub>5</sub> from 5m to EOH, including
- 6m at 7,415ppm Nb<sub>2</sub>O<sub>5</sub> from 3m and including
- 2m at 13,375ppm (or 1.34%) Nb<sub>2</sub>O<sub>5</sub> from 6m in drillhole MN-TM-03
- 12m at 2,342ppm Nb<sub>2</sub>O<sub>5</sub> from surface to EOH, including
- 1m at 14,711ppm (or 1.47%)  $Nb_2O_5$  from 12m to EOH in drillhole MN-TM-02
- 5m at 1,774ppm Nb<sub>2</sub>O<sub>5</sub> from surface and
- 1m at 2,961ppm Nb<sub>2</sub>O<sub>5</sub> from 7m in drillhole MN-TM-01

#### Highlight REE results from the auger drilling include;

- 13m at 7,882ppm TREO from surface to EOH, including
- 3m at 12,295ppm (or 1.23%) TREO from 10m to EOH in drillhole MN-TM-01
- 12m at 3,032ppm TREO from surface to EOH in drillhole MN-TM-02
- 9m at 5,523ppm TREO from surface to EOH, including
- 4m at 7,687ppm TREO from 5m to EOH in drillhole MN-TM-03

The second phase, auger drilling program is planned to consist of 1,000m of auger drilling for approximately 60 holes. Further results will be released as they are received. Testing will also be undertaken to confirm the presence of ionic clay REE in the shallow, weathered zone. This leach test will use industry-standard AMSUL wash conditions to determine the individual REE recoveries in the clay-rich portion of the intrusion.

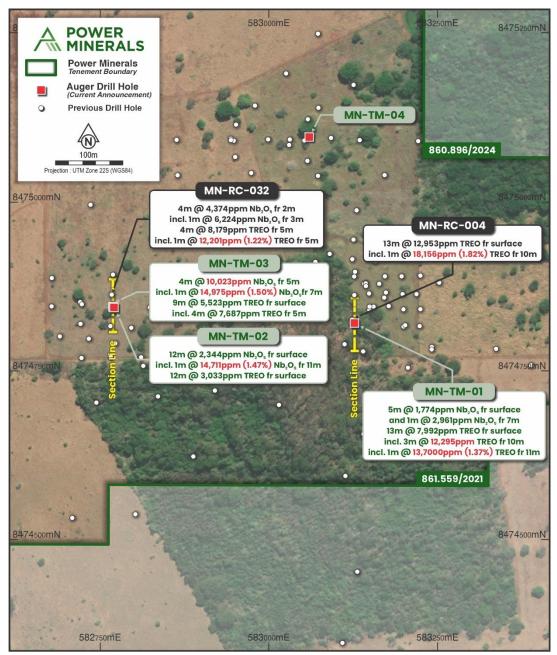


## **Drill results commentary**

Some of the high concentrations reported to date (in this announcement) were intersected at the end of hole. Niobium was still present at EOH in drillhole MN-TM-02, with the hole abandoned while still in 14,711ppm Nb<sub>2</sub>O<sub>5</sub>, and drillhole MN-TM-03 recorded 5,606ppm Nb<sub>2</sub>O<sub>5</sub> at EOH.

This also applies to REE, with drillhole MN-TM-01 ceased while still within 10,164ppm TREO, and drillhole MN-TM-03 abandoned while within 7,211ppm TREO.

All three completed drillholes to date were stopped when penetration effectively ceased. These high-grade intersections will be followed up by aircore/RC drilling to test for the continuity of mineralisation at deeper depths in subsequent phases of drilling. The results of the fourth auger hole are not yet available and will be released once received and checked.



**Figure 1:** Auger drillhole locations from the current shallow, auger drilling program at Santa Anna Project. The location of the current auger holes is over a kilometre inside the alkaline complex boundary

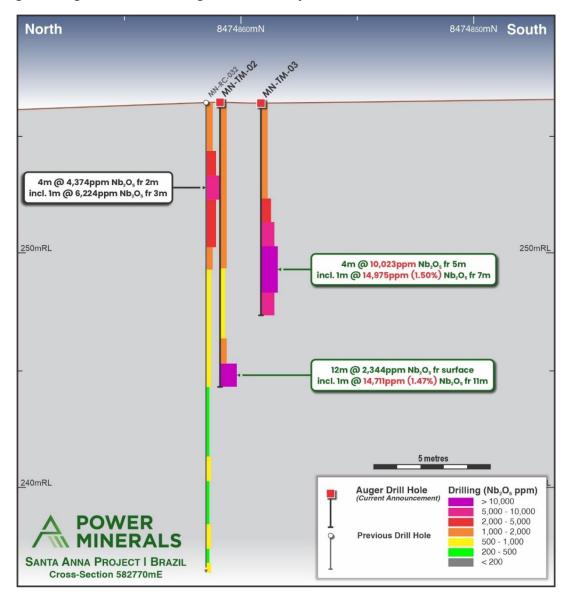


## **Background to Auger Drilling Program**

The auger program is testing a large area around known mineralised drillholes via a grid-based drill plan. It is envisaged that the drilling will return regular spaced sampling data, which will assist in further developing the Project's mineralisation model – and providing data for the delineation of an Exploration Target and Mineral Resource Estimate (subject to results).

Drilling is expected to be completed in September 2025 and further results will be released as they become available. The Company then plans to conduct deeper reverse circulation (RC), drilling into the fresh rock beneath the weathered zone at the current target areas following the conclusion of the current auger drilling program.

Power's drilling programs at Santa Anna are designed to confirm an Exploration Target at the Project, followed by a maiden MRE. The Company's drilling to date continues to build confidence towards achieving these significant near-term goals for the Project.



**Figure 2:** Niobium sections from drillholes MN-TM-02 and MN-TM-03 in current auger drilling program at Santa Anna Project.

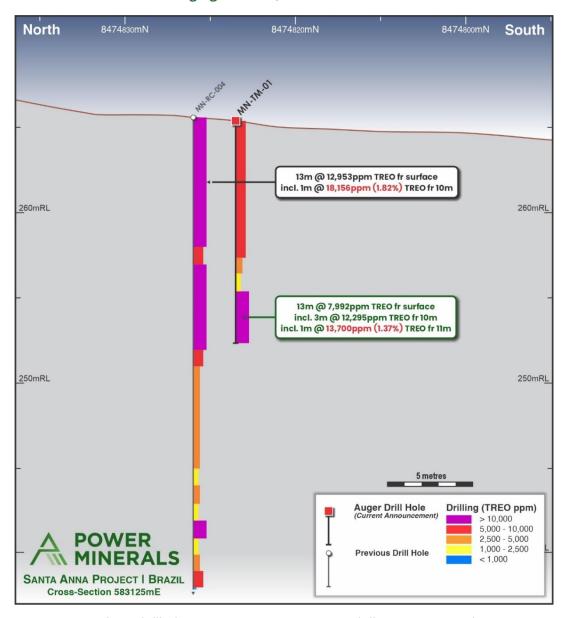


"The first results from our second phase drilling program at the Santa Anna Project provide further strong validation of our confidence in Santa Anna to deliver a significant Mineral Resources Estimate.

The current program is designed to target niobium and REE mineralisation in the shallow, weathered zone in an area adjacent to our maiden reverse circulation drilling program. The drilling has proven to be successful with high-grade niobium and REE mineralisation reported. Deeper, aircore and/or deeper RC drilling is now planned to test for the continuity of the mineralisation defined in the current program at depth.

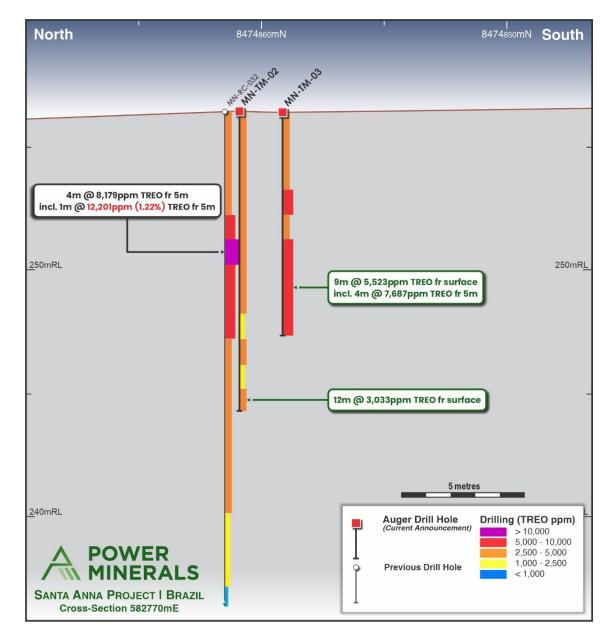
These results to date represent an exciting outcome from our targeted exploration of the project, and we look forward to reporting the remaining results from the current program as they become available and continuing to build on Santa Anna's exploration model."

**Power Minerals Limited Managing Director, Mena Habib** 



**Figure 3:** TREO section from drillhole MN-TM-01 in current auger drilling program at the Santa Anna Project, looking east.





**Figure 4.** TREO sections from drillholes MN-TM-02 and MN-TM-03 in current auger drilling program at Santa Anna Project.

#### Santa Anna Project background

The Santa Anna Alkaline Complex was discovered in 2021 as a magnetic and radiometric anomaly from a regional aerial survey. The two tenements that comprise the Santa Anna Project area (total area of 17.05km²) cover the entire geophysical anomaly area.

Power sees the discovery of this new alkaline complex within the one tenement package, as being a unique, highly exciting and sought-after exploration opportunity.

Alkaline complexes, such as Santa Anna, generally have a core zone near their centre. The surrounding zones are typically unsymmetrical and may host extensive local mineralisation.

Power's auger drilling and its recently completed maiden RC drill program at the Santa Anna Project have reinforced this model, that the centre of the complex contains a core zone of high-grade niobium and

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REE mineralisation. The Company is now undertaking further drilling to test the extensive areas around the core for additional mineralisation.

Power's drilling to date has indicated that significant niobium and REE mineralisation appears to be present to the east and south-east of the initial drilling, and these areas will be a focus for the current auger drilling program. There are no drillholes in the southern portion of the complex, and the minor number of drillholes on the eastern side are shallow and located on the margin.

The Santa Anna Project vendors, EDEM, previously completed 38 auger drillholes at the Project totalling 510.6 metres (with the deepest hole reaching a depth of 20 metres), targeting phosphate mineralisation.

Power's second phase, auger, drilling is targeting niobium and REE mineralisation. This program is utilising a smaller auger drill rig, which is facilitating site access to a priority target area which has significant vegetation cover. The auger rig will provide regular grid-based shallow data promptly, which will help inform Power's Exploration Target and MRE planning.

Ther Company's recently completed RC drilling confirmed that significant mineralisation continued into the fresh rock at depth, often to end-of-hole (EOH), and it plans to also test the depth potential at the current target areas with deeper RC drilling on completion of the auger drilling program.

The Santa Anna Project is a high-grade niobium carbonatite hosted asset, which is also prospective for rare earth elements (REEs), gallium and phosphate. Power signed a binding letter of intent (LoI) for an exclusive option to acquire the Santa Anna Project in April 2025<sup>1</sup> and recently announced its intention to proceed with the acquisition following the successful completion of its due diligence process<sup>2</sup>.

Further details of the Santa Anna Project and the LoI for the option to acquire the Project – including a summary of transaction terms - are provided in PNN's ASX announcement dated 16 April 2025.

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

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#### ABOUT POWER MINERALS LIMITED

Power Minerals Limited is an ASX-listed exploration and development company. We are focused on transforming our lithium resources in Argentina, exploring our promising niobium, rare earths and other critical mineral assets in Brazil, and maximizing value from our Australian assets.

<sup>&</sup>lt;sup>1</sup> ASX announcement 16 April 2025 Strategic investment & LOI to acquire high-grade Nb Project.

<sup>&</sup>lt;sup>2</sup>ASX announcement 11 August 2025 PNN to proceed with acquisition Santa Anna Nb-REE Project.



#### **Competent Persons Statement**

The information in this announcement that relates to exploration results in respect of the Santa Anna Project in Brazil is based on and fairly represents, information and supporting documentation prepared by Steven Cooper, FAusIMM (No 108265). Mr Cooper is the Exploration Manager and is a full-time employee of the Company. Mr Cooper has sufficient experience that 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 Cooper consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

# **Compliance Statement**

The Company confirms that it is not aware of any new information as at the date of this announcement that materially affects the information included in the previous market announcement. 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.



Figure 5. Santa Anna Project location map in Goiás State, central Brazil.



Drillhole	Depth_From	Depth_To	SAMPLE	Nb <sub>2</sub> O <sub>5</sub>	TREO	MREO
MN-TM-01	0	1	PMB-2494	1,744	7,141	1,433
MN-TM-01	1	2	PMB-2495	1,807	7,245	1,451
MN-TM-01	2	3	PMB-2496	1,687	9,421	1,839
MN-TM-01	3	4	PMB-2497	1,858	9,779	1,813
MN-TM-01	4	5	PMB-2498	1,427	5,911	1,352
MN-TM-01	5	6	PMB-2500	1,171	5,951	1,445
MN-TM-01	6	7	PMB-2501	1,251	5,406	1,197
MN-TM-01	7	8	PMB-2502	2,961	9,638	1,845
MN-TM-01	8	9	PMB-2503	652	2,857	635
MN-TM-01	9	10	PMB-2504	596	2,234	494
MN-TM-01	10	11	PMB-2506	1,305	13,021	2,413
MN-TM-01	11	12	PMB-2507	1,658	13,700	2,477
MN-TM-01	12	13	PMB-2508	1,415	10,164	1,773
MN-TM-02	0	1	PMB-2509	1,086	2,896	668
MN-TM-02	1	2	PMB-2510	1,120	3,017	693
MN-TM-02	2	3	PMB-2512	1,186	3,082	715
MN-TM-02	3	4	PMB-2513	1,324	3,420	785
MN-TM-02	4	5	PMB-2514	1,565	3,865	901
MN-TM-02	5	6	PMB-2515	1,844	3,336	795
MN-TM-02	6	7	PMB-2516	1,108	2,839	706
MN-TM-02	7	8	PMB-2518	923	2,762	707
MN-TM-02	8	9	PMB-2519	942	1,612	394
MN-TM-02	9	10	PMB-2520	734	3,142	804
MN-TM-02	10	11	PMB-2521	1,582	2,059	521
MN-TM-02	11	12	PMB-2522	14,711	4,362	1,149
MN-TM-03	0	1	PMB-2524	1,051	2,831	657
MN-TM-03	1	2	PMB-2525	1,125	2,959	681
MN-TM-03	2	3	PMB-2526	1,183	3,443	782
MN-TM-03	3	4	PMB-2527	1,983	5,118	1,288
MN-TM-03	4	5	PMB-2528	2,415	4,606	1,154
MN-TM-03	5	6	PMB-2530	7,736	6,314	1,681
MN-TM-03	6	7	PMB-2531	11,776	8,409	2,479
MN-TM-03	7	8	PMB-2532	14,974	8,713	2,609
MN-TM-03	8	9	PMB-2533	5,606	7,311	2,210

**Table 1**. Individual sample results for the three July 2025 auger hole by Power Minerals. Depths are in metres and concentrations are in ppm.



# JORC Code, 2012 Edition – Table 1 report template

# **Section 1. Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
Criteria  Sampling techniques	<ul> <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 downhole 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 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay').</li> </ul>	<ul> <li>The exploration results for niobium, gallium, and rare earth elements (REE) shared in this ASX release regarding the Santa Anna Project have been meticulously prepared using drillhole data gathered by Power Minerals Ltd during the July 2025 period within the project area.</li> <li>In July 2025, Power Minerals completed the initial four auger drillholes as part of the second stage drilling program. The auger holes, all of which were drilled vertically, reached a total depth of 49 metres. The operation utilized a powered bucket auger rig, owned and operated by EDEM, and samples were collected at one-metre intervals.</li> <li>The initial phase of the Power Minerals drilling program was successfully concluded in June 2015, encompassing 29 drill holes that totalled 2,272 metres. This operation was executed using industry-standard reverse circulation drilling techniques, conducted by the contractor Servitec Foraco Sondagem S.A. Please note that the survey of the drill hole collars and the analysis of drill samples are still in progress and have not yet been completed.</li> <li>Geochemical analyses were completed on the initial three auger holes (MN-TM-001 to 003) by the commercial laboratory SGS Geosol. The analysis involved lithium metaborate fusion followed by either ICP-OES or ICP-MS to identify major oxides and 41 trace elements. Due to the large number of drill samples, the results are received in batches from the laboratory.</li> </ul>
Drilling techniques	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.  • 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,	vertically at an angle of -90°. The deepest drillhole, MN-TM-004, reached a depth of 15 metres. The powered auger was operated with the assistance of four personnel.
	whether core is oriented and if so, by what method, etc).	<ul> <li>All four drillholes were abandoned when penetration effectively ceased. As the power auger is manually supported, there is a limit to the hardness that can be penetrated.</li> <li>No downhole survey data was collected due to their short length.</li> </ul>



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Drill	sample
recov	very

- Method of recording and assessing core and chip sample recoveries and results assessed.
- Measures taken to maximise sample recovery and ensure representative nature of the samples.
- 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.
- The entire sample return from each flight was captured directly onto a tarp. Once a one metre interval had been reached, the material on the tarp was rifle spit to obtain representative samples for analysis. All samples were collected at one-metre intervals.
- Sample weights were recorded to ensure consistent recovery.
- With the material remaining in the auger bucket before being transferred onto the tarp located adjacent to the hole, and subsequently the riffle splitter, there is not expected to be any significant loss or gain of any fraction.

#### Logging

- and geotechnically logged to a level of detail to support studies and metallurgical studies.
- Core (or costean, channel, etc) photography.
- The total length and percentage of the relevant intersections logged.
- Whether core and chip samples have been geologically Drill samples were not geotechnically logged as the material recovered (small chips) was not suitable, and also the mineralisation is not structurally controlled.
  - appropriate Mineral Resource estimation, mining All auger holes were fully geologically logged with the necessary detail to support mining and metallurgical research as well as precise mineral resource estimation.
- Whether logging is qualitative or quantitative in nature. Representative material has been retained to support further studies as required.
  - Drillhole logging was qualitative in nature.
  - All drillhole samples from all drill types were photographed.

# Sub-sampling techniques and sample preparation

- If core, whether cut or sawn and whether quarter, half or all core taken.
- If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.
- For all sample types, the nature, quality and appropriateness of the sample preparation technique.
- Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.
- The auger samples were riffle split on site, and reduced to an average weight of 4.8kg for additional sub-sampling and analyses. All auger hole material was dry.

- 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.
- Whether sample sizes are appropriate to the grain size of the material being sampled.
- Samples were mostly all drilled dry due to the shallow depth. Between the collection of the samples, the auger flights were systematically cleared.
- The sample size is considered appropriate for the grain size of the sample material.



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# Quality of assay data and laboratory tests

- The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.
- For geophysical tools, handheld XRF instruments, etc, the used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.
- Nature of quality control procedures adopted (eg. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (lack of bias) and precision have been established.

- Geochemical analysis for three Power Minerals auger holes (MN-TM-001 to 003) was completed as batch GY2504112 by SGS Geosol Laboratory, Vespasiano, MG, Brazil. This laboratory is certified ISO 9001:2015 and ISO 14001:2015.
- Using method ICP95A, which determines 11 major oxides and 5 elements by lithium metaborate fusion followed by ICP-OES, together with method IMS95A for 36 elements by lithium metaborate fusion followed by ICP-MS. Method PHY01E was used to determine LOI by calcination of the sample at 1000°C. If Nb by method IMS95A was >0.1%, then method ICP95A was used by SGS. Due to spectral interferences likely caused by the extremely high concentrations of REE cerium (Ce), the reported concentration of gallium (Ga) are not yet available for many samples.
- The lithium borate fusion method ensures a complete breakdown of samples, even those
  containing the most resilient acid-resistant minerals. This technique is deemed suitable for
  analysing Nb in the Goiás Niobium Carbonatite Project samples.
- The table below lists the elements measured by the SGS methods along with their corresponding detection limits:



17.1) 10	CP95A						
Determinação por Fusão com Metaborato de Lítio - ICP OES							
Al2O3	0,01 - 75 (%)	Ba	10 - 100000 (ppm)	CaO	0,01 - 60 (%)	Cr2O3	0,01 - 10 (%)
Fe2O3	0,01 - 75 (%)	K20	0,01 - 25 (%)	MgO	0,01 - 30 (%)	MnO	0,01 - 10 (%)
Na2O	0,01 - 30 (%)	P205	0,01 - 25 (%)	SiO2	0,01 - 90 (%)	Sr	10 - 100000 (ppm
TiO2	0,01 - 25 (%)	٧	5 - 10000 (ppm)	Zn	5 - 10000 (ppm)	Zr	10 - 100000 (ppm)

# 17.2) IMS95A

Det	Determinação por Fusão com Metaborato de Lítio - ICP MS						
Ce	0,1 - 10000 (ppm)	Co	0,5 - 10000 (ppm)	Cs	0,05 - 1000 (ppm)	Cu	5 - 10000 (ppm)
Dy	0,05 - 1000 (ppm)	Er	0,05 - 1000 (ppm)	Eu	0,05 - 1000 (ppm)	Ga	0,1 - 10000 (ppm)
Gd	0,05 - 1000 (ppm)	Hf	0,05 - 500 (ppm)	Но	0,05 - 1000 (ppm)	La	0,1 - 10000 (ppm)
Lu	0,05 - 1000 (ppm)	Mo	2 - 10000 (ppm)	Nb	0,05 - 1000 (ppm)	Nd	0,1 - 10000 (ppm)
Ni	5 - 10000 (ppm)	Pr	0,05 - 1000 (ppm)	Rb	0,2 - 10000 (ppm)	Sm	0,1 - 1000 (ppm)
Sn	0,3 - 1000 (ppm)	Ta	0,05 - 10000 (ppm)	Tb	0,05 - 1000 (ppm)	Th	0,1 - 10000 (ppm)
TI	0,5 - 1000 (ppm)	Tm	0,05 - 1000 (ppm)	U	0,05 - 10000 (ppm)	W	0,1 - 10000 (ppm)
Υ	0,05 - 10000 (ppm)	Yb	0,1 - 1000 (ppm)			1,000	

# 17.3) PHY01E

# LOI (Loss on ignition) - Perda ao fogo por calcinação da amostra a 1000ºC

- Determinação de Perda ao Fogo (LOI) por Gravimetria 1000°C
   Perda ao fogo por calcinação a 1000°C.



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- In batch GY2504112, the CRM standards, blanks, and blind duplicates accounted for 15% of all samples submitted to the laboratory. All reported values fall within the acceptable range. The quality control sampling is currently undergoing a comprehensive examination and evaluation as PNN continues to receive new results. Additionally, SGS has provided its own internal standard and duplicate analysis.
- The laboratory data has been successfully imported into the secure Power Minerals relational database. This automated process has successfully validated several critical aspects of the data set, and Power continues to commit to an ongoing program of data validation.
- The only adjustments applied to the assay data pertain to Ga, Nb, and REE, which have been converted to stoichiometric oxides using standard conversion factors (refer to the Advanced Analytical Centre, James Cook University). Specifically, Nb2O5 is calculated as [Nb] x 1.4305, and Ga2O3 as [Ga] x 1.3442.
- Power Minerals uses the following definitions:
  - TREO (Total Rare Earth Oxides) =  $[La_2O_3] + [CeO_2] + [Pr_6O_{11}] + [Nd_2O_3] + [Sm_2O_3] + [Eu_2O_3]$  $+ [Gd_2O_3] + [Tb_4O_7] + [Dy_2O_3] + [Ho_2O_3] + [Er_2O_3] + [Tm_2O_3] + [Yb_2O_3] + [Lu_2O_3] + [Y_2O_3]$
  - HREO (Heavy Rare Earth Oxides) =  $[Sm_2O_3] + [Eu_2O_3] + [Gd_2O_3] + [Tb_4O_7] + [Dv_2O_3] + [Ho_2O_3]$  $+ [Er_2O_3] + [Tm_2O_3] + [Yb_2O_3] + [Lu_2O_3] + [Y_2O_3]$
  - CREO (Critical Rare Earth Oxides) =  $[Nd_2O_3] + [Eu_2O_3] + [Tb_4O_7] + [Dy_2O_3] + [Y_2O_3]$
  - MREO (Magnet Rare Earth Oxides) =  $[Nd_2O_3] + [Pr_6O_{11}] + [Tb_4O_7] + [Dy_2O_3]$

## points (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource • Map and collar coordinates are in WGS84 UTM Zone 22 South. estimation.

- Specification of the grid system used.
- Quality and adequacy of topographic control.
- Location of data Accuracy and quality of surveys used to locate drillholes Drillhole collars were georeferenced with a GPS with an accuracy estimated to be within 2 metres. A detailed DGPS survey will be completed at a later stage.

  - Topographic control was gathered using a photogrammetric drone in collaboration with a Sentinel-2 satellite Copernicus digital terrain model, specifically in areas of denser vegetation. Both methods were georeferenced with DGPS (RTK) unitising the coordinates of the previously registered drillhole collars.



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distribution •	Data spacing for reporting of Exploration Results.  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.  Whether sample compositing has been applied.	•	The limited outcrop prompted the initial use of detailed magnetic and radiometric aerial survey imagery by EDEM to establish the intrusion boundary. A ground magnetic survey was later conducted with a line spacing of 200 metres and a reading interval of 20 metres to refine this boundary further.  The interpretation of magnetic data was supported by a soil geochemical survey and mapping of occasional rock float. Soil sampling was completed on three north-south and three east-west traverses, all 400 metres apart and with 100 metres sample intervals.  The previous EDEM 38 auger drillholes are concentrated near the centre of the intrusion, featuring an orthogonal spacing of around 25 metres. These drillholes achieved an average depth of 13.4 metres, with the deepest extending to 20 metres. Additionally, there are 121 aircore drillholes, predominantly spaced at 50 x 100 metres in the area northwest of the intrusion centre, which were later expanded to a regional 400 x 400 metres. Their average depth is 25.1 metres, with a maximum depth of 33 metres. Furthermore, 16 RC drillholes are clustered around the carbonatite core, maintaining an irregular spacing of approximately 50 metres and achieving an average depth of 50.5 metres and a maximum depth of 51 metres.  The diamond core drilling by EDEM features a more irregular spacing of 400 metres, although some holes are positioned closer to the centre. The average depth for the 17 inclined core drillholes is 59.9 metres, with the deepest one reaching 72.6 metres.  On the northern side, a small number of aircore drillholes were completed by EDEM outside of the mapped intrusion to confirm lithology beneath the thin cover.  The quality, spacing, and distribution of the data are adequate for determining grade continuity in specific localized areas of the project. However, substantial sections of the carbonatite contain insufficient data, necessitating further drilling to enable accurate grade estimation.
data in relation to geological	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.  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.		No orientation bias has been detected at this stage. It is expected that there will be a vertical variation related to the deep lateritic weathering combined with the concentric nature of the carbonatite mineralogy and geochemistry.  The location of the Project is probably structurally controlled, but the internal target mineralogy is not.
Sample security •	The measures taken to ensure sample security.	•	Samples were given individual sample numbers for tracking.  The sample chain of custody was overseen by the PNN geologist in charge of the program.  The PNN company geologist was responsible for collecting the samples and transporting them to either the company dispatch centre or commercial laboratory.
Audits or reviews •	The results of any audits or reviews of sampling techniques and data.	•	No external audits or review of the sampling techniques and data related to niobium, gallium or REE mineralisation have been completed.



# **Section 2. Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	861.559/2021, which cover the entire alkaline complex. The current holders are subsidiaries of Empresa de Desenvolvimento e Mineração (EDEM).
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>the small town of Mundo Novo, in the Brazilian state of Goiás. It is on the south side of state highway GO-156 and 335km northwest of the Brazilian capital of Brasilia.</li> <li>The Project was identified in 2021 by EDEM after investigating a significant radiometric anomaly found during regional aerial geophysical surveys. These surveys were a part of the Southeast Mato Grosso Aerogeophysical Project (2011) and the West Aerogeophysical Project of the Mara Rosa Magmatic Arc (2005), both of which utilized a line spacing of 500 metres and a flight height of 100 metres.</li> <li>EDEM completed a drilling exploration program aimed to produce multi-nutrient phosphate from the altered carbonatite. 192 drillholes for a total of 5,377.45 metres have been completed using four different drilling techniques: reverse circulation (RC: 8.3% of drillholes), diamond core (DD: 8.9%), mechanical auger (TH: 19.8%), and aircore (AC: 63.0%). EDEM has provided analytical results for 4,075 drillhole samples, with the majority (51%) from the aircore drilling.</li> <li>There is no known artisan or modern exploration over the site prior to EDEM.</li> </ul>



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#### Geology

- Deposit type, geological setting and style of The Project is situated in the northern part of the Goiás Alkaline Province
- mineralisation.

- The Project is situated in the northern part of the Goiás Alkaline Province (GAP), a region notable for its late cretaceous alkaline magmatism along the northern boundary of the Paraná Basin. This magmatic activity is linked to the NE-SW Trans-Brazilian Lineament and has been shaped by the influence of the Trindade mantle plume. Alkaline intrusions in this area have penetrated through orthogneiss and granites of the Goiás Magmatic Arc, as well as the overlying basalts and sedimentary formations of the Paraná Basin.
- The Project is situated at the intersection of the Goiás Magmatic Arc and the Araguaia Belt, with its edges distinctly outlined by the Trans-Brazilian Lineament. Similar to other occurrences of alkaline rocks in the GAP, the carbonatite intrusion took place within a dilatant zone that developed along a northwest lineament, highlighting the tectonic influences on its magmatic development.
- The internal detail of the carbonatite intrusion is poorly understood due to lack of in situ outcrop, intense laterization, and limited drilling completed. Zones of fenitized (phlogopite) mafic and felsics, various alkaline rocks, different carbonatites including magnetite-rich and Ca-Mg-rich are poorly mapped.

#### Drillhole Information

- of the exploration results including a tabulation of the following information for all Material drillholes:
- easting and northing of the drillhole collar
- elevation or RL (Reduced Level elevation above sea level in metres) of the drillhole collar
- dip and azimuth of the hole
- downhole length and interception depth
- hole length.
- 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.

- A summary of all information material to the understanding The previous EDEM material drillhole information, including maps has been included within the 16 April and 22 April 2025 Power Minerals ASX announcements.
  - The PNN June 2025 RC drilling and sampling information is provided in the Power Minerals ASX announcement dated 4 August 2025.
  - The PNN July 20025 auger drilling were all vertical (dip -90°), easting and northing datum is WGS84 zone 22 South, and both RL and depth are in metres:

Drillhole	Easting	Northing	RL	Depth
MN-TM-01	583126	8474821	274.0	13
MN-TM-02	582768	8474845	259.6	12
MN-TM-03	582770	8474844	259.6	9
MN-TM-04	583060	8475096	251.9	15





Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg. cutting of high grades) and cutoff grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> <li>No upper-cut has been applied.</li> <li>Unless otherwise stated, all reported intercept grades over more than one sample interval are weighted average by length.</li> <li>No metal equivalents values are used in this release. Combined totals of rare earth oxides are used as defined in the Verification of sampling and assaying section above.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</li> <li>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').</li> <li>The precise orientation/geometry of the mineralisation is unknown but is interpreted to be vertically stratified due to the overprinting effects of lateritic weathering within the boundaries of the intrusion.</li> <li>The deep weathering profile often extends to depths of over 30 metres and as much as 50 metres below the surface.</li> <li>The four auger drillholes were all vertical and thus are considered to be orthogonal to the generally flat-lying regolith-controlled mineralisation. All reported intersections are downhole lengths.</li> </ul>
Diagrams	<ul> <li>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 drillhole collar locations and appropriate sectional views.</li> <li>The appropriate exploration maps and diagrams have been included within the main body of this release.</li> </ul>
Balanced reporting	<ul> <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> <li>All significant drillhole results have been reported, including low-grade intersections.</li> <li>practiced to avoid misleading reporting of Exploration         Results.</li> </ul>



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# Other substantive exploration data

• 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.

- · Soil sampling was conducted by EDEM along three north-south and three east-west traverses, with a space of 400 metres between each traverse and sample intervals of 100 metres, all centered over the intrusion.
- EDEM has successfully completed around 400 metres of trenching test pits to collect bulk samples specifically for phosphate testing. It's important to note that this activity holds little significance for the niobium exploration efforts.
- A significant number of bulk density measurements have been conducted by EDEM throughout the project area, utilizing the diamond core method in conjunction with the caliper approach (where volume is measured and calculated before weighing the sample). In total, 155 measurements were collected from 11 distinct drillholes, spanning depths from 0.14 to 71.3 meters. The averaged bulk density across all measurements stands at 2.18t/m³, and confirms the anticipated trend of increasing bulk density with increasing depth.
- A minor undergraduate thesis was completed by Letícia Gonçalves de Oliveira and Taís Costa Cardoso, on the Project area at the Federal University of Goiás in 2022. Ground magnetics and soil and rock sampling were undertaken in conjunction with EDEM. Petrology and mineralogy (XRD) studies were completed by the university.

#### Further work

- lateral extensions or depth extensions or large- scale stepout drilling).
- Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.
- The nature and scale of planned further work (eg tests for Further drilling is planned to confirm, infill, and extend known mineralization, and to test deeper as well as new areas.