

## ASX RELEASE

16 April 2025

## ASX CODE

PNN

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# Power executes option to acquire high-grade niobium carbonatite project in Goiás State, Brazil

## Highlights

- Power has signed a binding letter of intent for an option to acquire the Santa Anna Niobium Project in Goiás State, central region of Brazil
- Santa Anna is a high-grade, drill-ready niobium carbonatite-hosted asset with drilling results up to 3.36% Nb<sub>2</sub>O<sub>5</sub> - it is also prospective for REE and phosphate
- Notable niobium drilling results include:
  - 14m at 0.71% Nb<sub>2</sub>O<sub>5</sub> from 6M, incl. 5m at 1.18% Nb<sub>2</sub>O<sub>5</sub> from 14m, (MN-AC-0014)
  - 9m at 1.08% Nb<sub>2</sub>O<sub>5</sub> from 2m, incl. 4m at 1.62% Nb<sub>2</sub>O<sub>5</sub> from 3m (MN-RC-0004)
  - 4m at 0.98% Nb<sub>2</sub>O<sub>5</sub> from 18m, incl. 1m at 3.36% Nb<sub>2</sub>O<sub>5</sub> from 19m (MN-RC-0002)
- The newly discovered Santa Anna project is located in Goiás State at the Catalão Complex
- If the option is exercised, the project will complement Power's existing portfolio of strategic critical minerals assets and strengthen its position as a South American-focused clean energy metals explorer and developer
- Drilling to define an Exploration Target to commence immediately, with further drilling designed to delineate a JORC Mineral Resource Estimate (subject to results and the exercise of the option)
- US\$300,000 strategic investment to fund the option fee and initial exploration at Santa Anna Project

Power Minerals Limited (ASX: **PNN**, **Power** or the **Company**) is pleased to announce it has entered a binding letter of intent (LoI) for an exclusive option to acquire the Santa Anna Project in Goiás State (**Option**), central region of Brazil (See Figure 1).

The Santa Anna Project is a high-grade drill-ready niobium carbonatite-hosted asset, and the acquisition, if completed, will significantly enhance Power's position as a South American-focused clean energy metals explorer and developer.

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**Figure 1.** Santa Anna Project location map in Goiás State, central Brazil.

The newly discovered Santa Anna project is located in Goiás State at the Catalão Complex.

Santa Anna has a comprehensive drilling database of **192 drillholes for 5,377 metres** in total, 196 surface geochemical samples, plus extensive trenching data.

The Santa Anna Project was discovered in 2021. Drilling to date has reached shallow depths only, and all drilling has previously targeted phosphate only. Surface soil sampling has focused on the centre core of the intrusion, and large parts of the intrusion are yet to be drill tested or subject to any other fieldwork, highlighting the strong exploration upside potential.

Exploration permits are already in place, and, during the option period Power plans to immediately commence targeted drilling to confirm an Exploration Target as defined in the 2012 JORC Code. Subject to the results of the initial drilling campaign, the exercise of the option and completion of the acquisition, Power intends to conduct further drilling designed to delineate a maiden JORC-compliant Mineral Resource Estimate (**MRE**). The initial drilling campaign which will be conducted during the option period will consist of at least 1,000 metres of RC drilling. In the event Power does not complete the minimum required drilling during the next six months it will be required to pay A\$200,000 to the vendors.

The acquisition of the Santa Anna Project has the potential to be highly value accretive for Power. Subject to exercise of the option and completion of the acquisition, Power will hold an Alkaline Complex (**AC**), spanning approximately 2.5km from west to east. Carbonatite niobium projects are highly sought after worldwide, and Power considers this to be a rare opportunity to acquire such a large carbonatite field.

**“We are excited about the opportunity to have an option to acquire the Santa Anna Project. Power will hold a top-tier, drill-ready asset within a pro-mining jurisdiction that encourages growth if the option is exercised and the acquisition is completed. Moreover, adding this project will strengthen our existing portfolio of critical minerals assets in Brazil and South America.**

**The Santa Anna Niobium Project has undergone significant recent exploration, with sampling and drilling efforts returning high-grade niobium assay results. Most drilling has been conducted at relatively shallow depths, usually around 30 metres or less.**

**Our intention is to commence drilling during the option period. This will help define an Exploration Target. Depending on the results, we may seek to exercise the option and conduct further drilling to establish a maiden JORC Mineral Resource. Our goal is to fully realise the potential value of the project.”**

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

### **Santa Anna Project Summary**

The Santa Anna Alkaline Complex (**SAAC**) (ANM tenement 861.559/2021) covers 17.2km<sup>2</sup> with a circular intrusion at the centre of the Project area. The Project is 40km north of Nova Crixás and 335km northwest of the Brazilian capital, Brasilia, offering ready access to contractors and workforce. The tenement area sits on flat, cleared farmland and established local relationships are in place. It is easily accessible by Highway GO-156 and sealed roads and is also proximal to established power infrastructure.

Geologically, it is situated in the northern extent of the Goiás Alkaline Province (**GAP**), an area in central Brazil characterised by Late Cretaceous alkaline magmatism along the northern margin of the Paraná Basin. The Project area hosts a weathered cap of outcropping carbonatite (particularly in the upper 40m - clay saprolite), enriched with niobium and phosphate, and prospective for rare earth elements (**REE**) mineralisation.

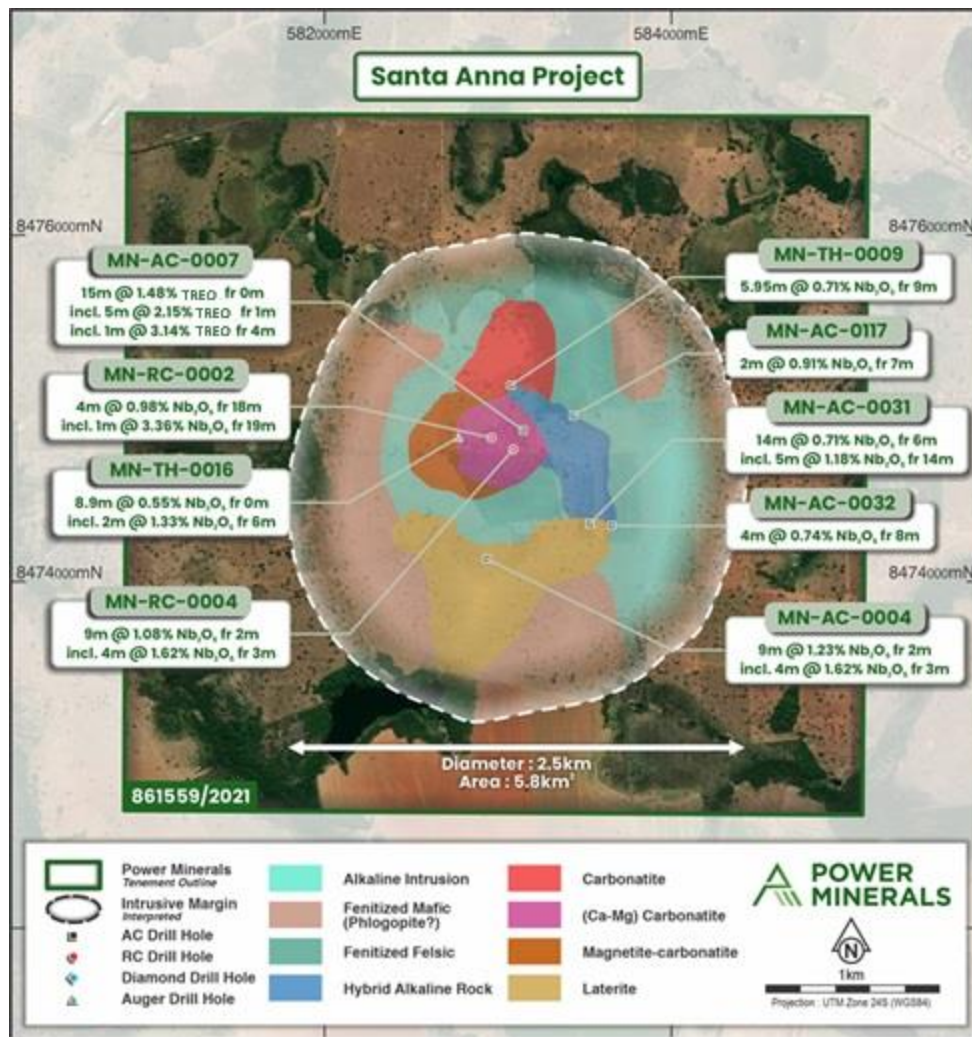
The Santa Anna Project has been subject to significant recent exploration. A detailed database containing exploration drilling data and surface geochemistry sampling is available and will be thoroughly analysed by Power during its due diligence process.

A total of 192 drillholes have been completed so far, with impressive niobium (Nb<sub>2</sub>O<sub>5</sub>) grades reaching up to 3.36% (see Figure 2). The geological features observed in all holes were consistent, showing up to 30 metres of soil and saprolite, alongside carbonatite zones that include a mix of magnetite, apatite, dolomite, ferro-dolomite, ankerite, and siderite.

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Significant results returned from drilling included:

- 10m at 1.02% Nb<sub>2</sub>O<sub>5</sub> from 2m, incl. 4m at 1.62% Nb<sub>2</sub>O<sub>5</sub> from 3m (MN-RC-0004)
- 4m at 0.98% Nb<sub>2</sub>O<sub>5</sub> from 18m, incl. 1m at **3.36%** Nb<sub>2</sub>O<sub>5</sub> from 19m (MN-RC-0002)
- 8.9m at 0.55% Nb<sub>2</sub>O<sub>5</sub> from surface, incl. 2m at 1.33% Nb<sub>2</sub>O<sub>5</sub> from 6m (MN-TH-0016)
- 14m at 0.71% Nb<sub>2</sub>O<sub>5</sub> from 6m, incl. 5m at 1.18% Nb<sub>2</sub>O<sub>5</sub> from 14m (MN-AC-0031)
- 5.95m at 0.71% Nb<sub>2</sub>O<sub>5</sub> from 9m (MN-TH-0009)
- **9m at 0.6% Nb<sub>2</sub>O<sub>5</sub> from 12m (MN-RC-0008)**



**Figure 2.** Santa Anna Project plan showing previous significant drillhole locations and significant niobium drilling results. Refer to Tables 1 to 3 for details of all drillhole locations and drilling results.

## Transaction Summary

Under the Lol, Power will pay a non-refundable Option fee of A\$50,000 plus issue 555,556 fully-paid ordinary shares in the capital of PNN (**Shares**) to the project vendors, NEOFERTIL MINERAÇÃO LTDA and E2 MINERAIS E FERTILIZANTES LTDA (together, the **Vendors**) for a six-month option over the Santa Anna Project (ANM tenement 861.559/2021).

Power will undertake technical, financial and legal due diligence during the Option period, which will include a minimum of 1,000 metres of reverse circulation (**RC**) drilling. In the event Power does not complete the minimum required drilling it will be required to pay A\$200,000 to the Vendors.

Subject to successful outcomes of the due diligence process, Power will enter into a Definitive Acquisition Agreement ("**Acquisition Agreement**") with the Vendors and complete the acquisition via:

- payment of A\$500,000; and
- subject to shareholder approval, the issue of A\$1,000,000 worth of Shares, at a deemed price of the higher of either \$0.09 per Share or the 20-day Volume Weighted Average Price (**VWAP**) of Shares prior to the date of their issue.

In addition, the Vendors may receive the following milestone payments, subject to the achievement of the following project milestones and in the case of Share consideration subject to shareholder approval:

- Payment of A\$1,500,000 and the issue of A\$1,000,000 worth of Shares on the earlier to occur of:
  - PNN confirming a 2012JORC MRE of 20Mt at an average grade equal to or exceeding 0.75% Nb at the Santa Anna Project; and
  - the date that is 24 months after execution of the Acquisition Agreement;
- Payment of A\$750,000 and the issue of A\$1,000,000 worth of Shares on the earlier to occur of:
  - securing a grant of Mining Concession by the ANM at the Santa Anna Project; and
  - the date that is 36 months after execution of the Acquisition Agreement;
- Payment of A\$750,000 and A\$1,000,000 worth of Shares on the earlier to occur of:
  - the completion of a Bankable Feasibility Study (BFS) for the Santa Anna Project; or
  - the date that is 60 months after the execution of the Acquisition Agreement;
- Payment of A\$1,000,000 upon PNN confirming a JORC MRE of 30Mt at an average grade of 0.75% Nb or above at the Santa Anna Project; and
- Payment of A\$1,000,000 upon PNN confirming a JORC MRE of 35Mt at an average grade 0.75% Nb or above at the Santa Anna Project.

The milestone Shares to be issued will be at a deemed price equal to the higher of either \$0.09 per Share or the 20-day VWAP of Shares prior to the date of issuance.

The Vendors will also be entitled to a 2% net smelter royalty on the commodities produced.

All shares issued to the Vendors will be subject to voluntary escrow for a period of 12 months from the date of issue. If shareholder approval for the issue of shares under the Acquisition Agreement is not obtained, the parties shall negotiate in good faith an alternative method of payment. If no agreement is reached, PNN must transfer the project back to the Vendors for nil cash consideration.

The Vendors will retain the rights to mine and process phosphate and potash (active trial mining licence is in place) and will have the right to process the waste produced by PNN for agricultural use or other purposes.

### **Facilitation Fees**

Subject to shareholder approval, RTB Geologia e Mineração Ltd will be paid a facilitation fee of 15% to the value of the cash and securities consideration for each completed milestone. The fees will be paid through the issue of Power's shares (subject to shareholder approval) at a price based on the volume-weighted average price (VWAP) of the last 15 days prior to each issuance of shares.

### **Strategic Investment**

The Company advises that it has secured a strategic investment in the amount of US\$300,000 (A\$473,500) from Shanghai headquartered institutional investment fund, Golden Worldwide Holdings Limited (**Golden Worldwide**).

Golden Worldwide has a focus of investing in the South American critical minerals sector, including investments in the niobium and lithium space.

Golden Worldwide will make an equity capital investment of US\$ 300,000 (A\$473,500) in Power, by subscribing for the issue of 7,284,615 Shares (**New Shares**) at an issue price of \$0.065 per New Share (**Strategic Investment**).

The Strategic Investment price represents a 5.2% discount to the Company's 15-day VWAP through the close of trading on 11 April 2025. The Strategic Investment will be completed in one tranche using the Company's existing placement capacity pursuant to ASX Listing 7.1A. The New Shares will be issued on or about Thursday 24 April 2025.

Funds raised from the Strategic Investment will be used to progress exploration activities at the Santa Anna Project, and for working capital and corporate and administrative costs.

### **Update on Nióbio Project, Brazil**

Power has completed the first stage diamond drilling program at the Nióbio Project in Brazil (ASX announcement 18 February 2025). The Company now advises that the first drill samples have arrived in the ALS Geochemical commercial laboratory in Australia. The selected half-core samples will now undergo analyses for niobium and other elements of interest, and results are expected within a month. Full details will be released when available.

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

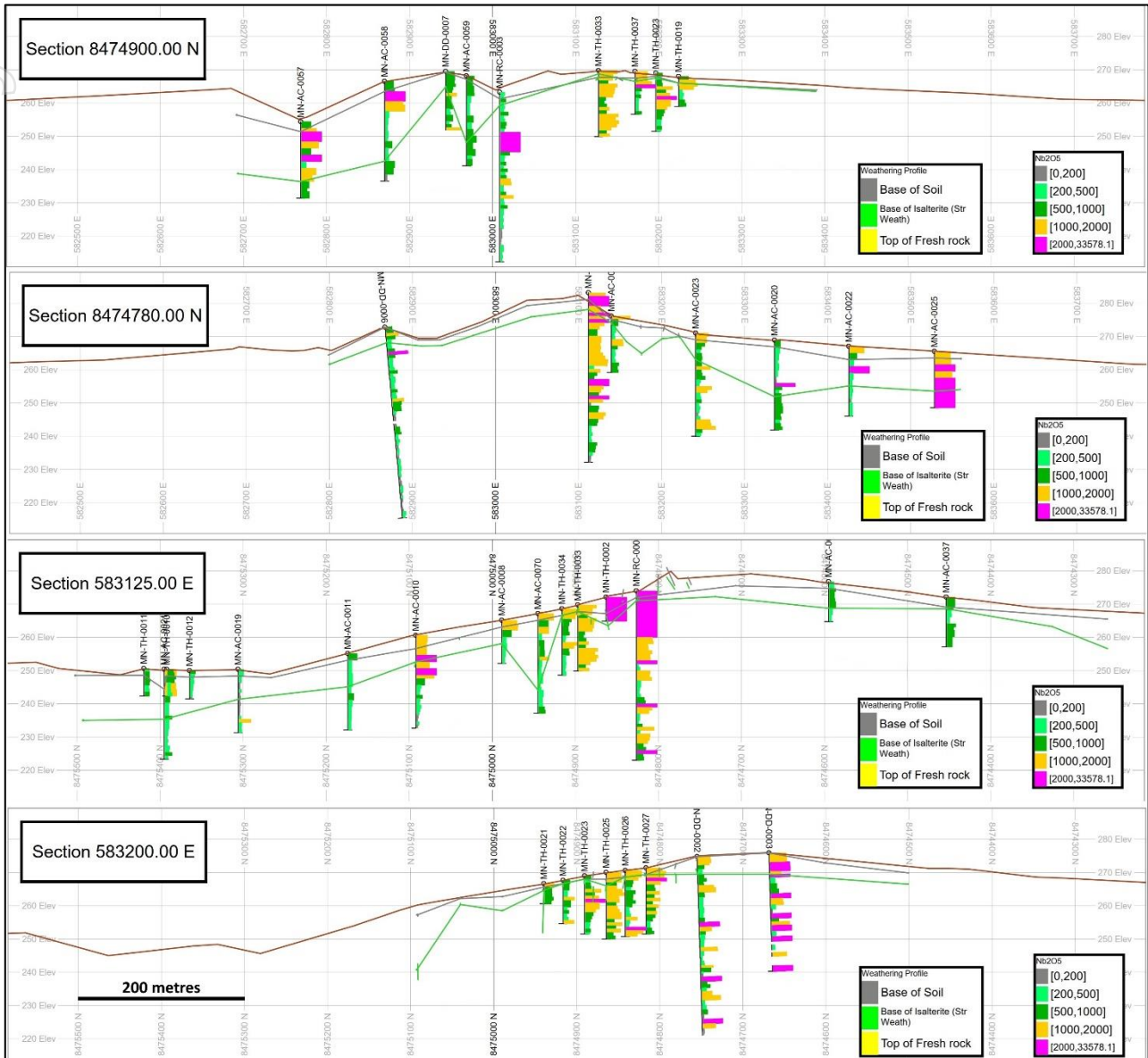
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**Figure 4.** Cross-sections looking north (top two) and looking east (lower two) with Nb<sub>2</sub>O<sub>5</sub> drillhole sample assays shown. The vertical scale is exaggerated 4 times the horizontal scale. Cross-section locations are shown in Figure 3 and are all entirely within the Santa Anna Alkaline Complex.

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**Table 1.** All Santa Anna diamond core (DD) drillhole collars. Final depth is in metres.

Drillhole	Easting	Northing	RL	Depth	Azimuth	Dip	Type
MN-DD-0001	583388.2	8474758.6	269.80	68	250	-70	DD
MN-DD-0002	583205.9	8474755.0	274.70	57.15	250	-70	DD
MN-DD-0003	583204.1	8474668.5	275.80	37.85	250	-70	DD
MN-DD-0004	582709.1	8474532.6	266.70	60.15	75	-70	DD
MN-DD-0005	582690.5	8474801.4	266.80	60.15	90	-65	DD
MN-DD-0006	582867.4	8474775.5	272.70	61.1	90	-70	DD
MN-DD-0007	582943.9	8474896.4	269.50	58.1	180	-70	DD
MN-DD-0008	583163.2	8474879.3	271.70	60.35	270	-70	DD
MN-DD-0009	582736.0	8474996.3	264.90	60.1	90	-70	DD
MN-DD-0010	582736.3	8475191.7	262.20	72.6	90	-60	DD
MN-DD-0011	582722.8	8475596.8	255.90	64.9	180	-70	DD
MN-DD-0012	582319.9	8474757.7	261.30	67.3	90	-70	DD
MN-DD-0013	583110.0	8475546.5	252.60	42.15	180	-70	DD
MN-DD-0014	582318.4	8473979.8	260.80	57.4	90	-70	DD
MN-DD-0015	582194.9	8474348.8	259.60	60.15	90	-70	DD
MN-DD-0016	583594.2	8475639.5	248.70	60	180	-70	DD
MN-DD-0017	583723.3	8475242.8	255.50	71.3	180	-70	DD

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**Table 2.** All Santa Anna aircore (AC), reverse circulation (RC) and auger drillhole collars. All drillholes are vertical and final depth is in metres.

Drillhole	Easting	Northing	RL	Depth	Type
MN-AC-0001	583032.9	8474327.0	266.70	25	AC
MN-AC-0002	583094.9	8474143.3	266.40	25	AC
MN-AC-0003	583041.1	8474139.9	265.90	22	AC
MN-AC-0004	582935.6	8474136.2	265.80	29	AC
MN-AC-0005	583038.1	8474231.9	265.50	30	AC
MN-AC-0006	583139.7	8474779.2	276.10	17	AC
MN-AC-0007	583143.5	8474879.9	270.50	15	AC
MN-AC-0008	583130.0	8474988.0	265.10	13	AC
MN-AC-0009	583033.7	8474988.2	264.80	26	AC
MN-AC-0010	583134.6	8475091.9	260.60	28	AC
MN-AC-0011	583125.4	8475173.6	255.10	23	AC
MN-AC-0012	582943.7	8474992.0	264.30	25	AC
MN-AC-0013	582831.9	8474993.3	265.70	25	AC
MN-AC-0014	582733.6	8474797.9	265.80	20	AC
MN-AC-0015	582796.4	8474814.0	267.00	4	AC
MN-AC-0016	582943.8	8475091.8	261.80	26	AC
MN-AC-0017	583030.0	8475084.7	263.60	26	AC
MN-AC-0018	583025.6	8475190.6	257.90	26	AC
MN-AC-0019	583122.7	8475305.5	250.30	19	AC
MN-AC-0020	583336.4	8474782.9	268.80	27	AC
MN-AC-0021	583122.6	8475394.9	250.30	27	AC
MN-AC-0022	583425.7	8474780.5	267.00	21	AC
MN-AC-0023	583241.3	8474785.8	270.90	31	AC
MN-AC-0024	583252.2	8474880.9	267.80	24	AC
MN-AC-0025	583528.8	8474786.6	265.40	17	AC
MN-AC-0026	583431.0	8474647.7	267.90	21	AC
MN-AC-0027	583432.2	8474552.0	268.20	29	AC
MN-AC-0028	583427.2	8474450.7	268.00	20	AC
MN-AC-0029	583430.6	8474342.7	267.30	28	AC
MN-AC-0030	583429.1	8474248.2	266.50	17	AC
MN-AC-0031	583528.9	8474340.1	265.90	24	AC
MN-AC-0032	583652.4	8474329.8	257.00	19	AC
MN-AC-0033	583815.7	8474711.6	261.80	27	AC
MN-AC-0034	583828.2	8474489.6	265.00	29	AC
MN-AC-0035	583421.7	8474167.0	249.50	26	AC
MN-AC-0036	583108.9	8474347.8	269.00	26	AC
MN-AC-0037	583131.0	8474453.0	272.10	15	AC
MN-AC-0038	583113.5	8474594.7	276.70	12	AC
MN-AC-0039	583835.0	8474241.3	264.90	24	AC
MN-AC-0040	583848.5	8474024.1	264.10	32	AC
MN-AC-0041	583854.3	8473837.9	262.90	12	AC
MN-AC-0042	583422.6	8473952.7	260.00	19	AC
MN-AC-0043	582802.5	8474538.0	254.50	24	AC
MN-AC-0044	582608.9	8474528.4	258.50	29	AC
MN-AC-0045	582723.1	8475694.4	253.10	28	AC
MN-AC-0046	582823.1	8475593.1	254.70	30	AC

Drillhole	Easting	Northing	RL	Depth	Type
MN-AC-0089	583840.7	8474243.7	263.70	22	AC
MN-AC-0090	582724.7	8476190.7	243.40	18	AC
MN-AC-0091	582725.4	8475993.2	249.10	18	AC
MN-AC-0092	582727.9	8475788.3	252.00	18	AC
MN-AC-0093	582924.4	8475794.4	251.50	18	AC
MN-AC-0094	582928.0	8475984.3	248.70	18	AC
MN-AC-0095	583035.5	8476194.7	243.50	18	AC
MN-AC-0096	582525.8	8476190.2	246.80	18	AC
MN-AC-0097	582524.6	8476391.9	246.20	18	AC
MN-AC-0098	582522.7	8476593.4	245.20	18	AC
MN-AC-0099	582325.5	8476643.1	243.20	18	AC
MN-AC-0100	582322.9	8476392.2	245.90	18	AC
MN-AC-0101	582322.0	8476196.0	246.60	18	AC
MN-AC-0102	582381.1	8475590.0	247.20	26	AC
MN-AC-0103	582324.1	8474989.0	258.70	22	AC
MN-AC-0104	583072.7	8475039.0	263.20	26	AC
MN-AC-0105	583171.3	8475040.0	262.90	15	AC
MN-AC-0106	583923.9	8475194.9	256.30	32	AC
MN-AC-0107	583923.0	8475590.4	249.10	30	AC
MN-AC-0108	584324.3	8475187.8	253.30	30	AC
MN-AC-0109	583921.8	8474805.7	260.90	30	AC
MN-AC-0110	583923.0	8474391.0	267.00	30	AC
MN-AC-0111	583921.5	8473992.3	262.00	20	AC
MN-AC-0112	583915.4	8473592.4	257.80	27	AC
MN-AC-0113	584324.3	8473993.5	259.40	30	AC
MN-AC-0114	584323.4	8474396.0	259.40	29	AC
MN-AC-0115	584325.6	8474790.7	257.80	30	AC
MN-AC-0116	583623.0	8474991.4	260.70	28	AC
MN-AC-0117	583431.3	8474964.1	263.30	30	AC
MN-AC-0118	582523.4	8475359.3	257.00	29	AC
MN-AC-0119	582524.8	8475188.2	259.10	29	AC
MN-AC-0120	582525.8	8474992.8	261.20	28	AC
MN-AC-0121	582524.0	8474793.1	263.00	24	AC
MN-RC-0001	582904.6	8474792.7	269.40	51	RC
MN-RC-0002	582961.3	8474836.7	270.10	51	RC
MN-RC-0003	583008.8	8474906.7	263.20	51	RC
MN-RC-0004	583123.5	8474826.1	273.90	51	RC
MN-RC-0005	583054.3	8474836.3	281.00	51	RC
MN-RC-0006	583086.0	8474768.9	281.40	50	RC
MN-RC-0007	583068.9	8474911.7	267.50	50	RC
MN-RC-0008	583325.1	8474681.8	263.80	51	RC
MN-RC-0009	583140.2	8474656.9	278.20	51	RC
MN-RC-0010	583112.0	8474789.8	283.10	51	RC
MN-RC-0011	582915.7	8474754.2	269.10	45	RC
MN-RC-0012	582920.2	8474721.2	271.30	51	RC
MN-RC-0013	582888.3	8474623.6	270.20	51	RC

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Drillhole	Easting	Northing	RL	Depth	Type
MN-AC-0047	582925.8	8475492.6	256.10	30	AC
MN-AC-0048	582722.4	8475495.6	256.20	32	AC
MN-AC-0049	582818.4	8475403.4	258.00	32	AC
MN-AC-0050	582926.6	8475294.4	258.50	32	AC
MN-AC-0051	582824.9	8475190.6	260.90	33	AC
MN-AC-0052	582772.8	8474791.0	267.00	32	AC
MN-AC-0053	582720.9	8474852.2	265.10	31	AC
MN-AC-0054	582823.6	8474844.2	267.00	19	AC
MN-AC-0055	582917.0	8474851.3	269.50	26.1	AC
MN-AC-0056	582678.7	8474887.6	264.30	29	AC
MN-AC-0057	582769.3	8474892.8	254.30	23	AC
MN-AC-0058	582870.0	8474898.5	266.40	30	AC
MN-AC-0059	582968.9	8474901.5	268.10	27	AC
MN-AC-0060	583075.9	8475445.4	253.30	30	AC
MN-AC-0061	583169.0	8475449.8	244.60	28	AC
MN-AC-0062	583166.7	8475338.2	247.80	30	AC
MN-AC-0063	583073.3	8475342.0	253.50	30	AC
MN-AC-0064	583017.9	8475395.3	255.90	30	AC
MN-AC-0065	583020.6	8475292.5	256.30	30	AC
MN-AC-0066	583168.4	8475282.8	244.90	25	AC
MN-AC-0067	582825.8	8474947.0	264.80	29	AC
MN-AC-0068	582917.8	8474944.8	265.70	28	AC
MN-AC-0069	583029.6	8474946.9	266.50	29	AC
MN-AC-0070	583125.2	8474944.7	267.10	30	AC
MN-AC-0071	583220.8	8474941.2	266.10	26	AC
MN-AC-0072	583177.6	8474846.2	271.30	28	AC
MN-AC-0073	582904.6	8475693.2	252.70	30	AC
MN-AC-0074	583001.8	8475576.4	254.30	30	AC
MN-AC-0075	582718.5	8475400.9	258.40	30	AC
MN-AC-0076	582925.2	8475400.1	257.50	30	AC
MN-AC-0077	583072.9	8475249.2	253.80	25	AC
MN-AC-0078	582777.3	8475051.2	262.90	30	AC
MN-AC-0079	582865.0	8475039.8	263.20	29	AC
MN-AC-0080	582863.4	8475092.2	262.10	31	AC
MN-AC-0081	582973.9	8475043.2	263.20	30	AC
MN-AC-0082	582979.3	8475142.8	260.60	30	AC
MN-AC-0083	583073.5	8475139.6	259.00	29	AC
MN-AC-0084	583173.8	8475138.4	257.20	30	AC
MN-AC-0085	583221.2	8475090.4	260.00	30	AC
MN-AC-0086	582825.0	8475191.5	260.90	22	AC
MN-AC-0087	582823.8	8475593.8	254.70	22	AC
MN-AC-0088	582824.6	8474844.2	267.00	18	AC

Drillhole	Easting	Northing	RL	Depth	Type
MN-RC-0014	583015.0	8474700.1	280.40	51	RC
MN-RC-0015	582814.3	8474757.7	265.60	51	RC
MN-RC-0016	582835.9	8474712.4	264.60	51	RC
MN-TH-0001	583143.5	8474880.7	270.50	14	Auger
MN-TH-0002	583126.5	8474862.6	272.10	7.3	Auger
MN-TH-0003	583173.3	8474866.4	270.50	14.6	Auger
MN-TH-0004	582951.4	8475114.8	261.30	14.1	Auger
MN-TH-0005	582948.1	8475091.0	262.00	14.7	Auger
MN-TH-0006	582950.2	8475067.0	262.50	14	Auger
MN-TH-0007	582998.9	8475092.9	261.70	14.7	Auger
MN-TH-0008	583031.0	8475092.7	261.50	9.5	Auger
MN-TH-0009	583059.8	8475096.3	261.20	15	Auger
MN-TH-0010	583121.3	8475391.8	250.30	7.95	Auger
MN-TH-0011	583124.1	8475419.1	250.50	8.25	Auger
MN-TH-0012	583124.7	8475364.2	249.90	8.5	Auger
MN-TH-0013	583218.6	8474864.0	279.90	17	Auger
MN-TH-0014	583250.9	8474881.1	267.90	9.4	Auger
MN-TH-0015	582678.5	8474845.8	264.60	17	Auger
MN-TH-0016	582769.8	8474843.8	266.00	8.9	Auger
MN-TH-0017	583223.2	8474816.7	270.60	13	Auger
MN-TH-0018	583224.4	8474841.6	269.60	8.3	Auger
MN-TH-0019	583224.2	8474891.4	268.00	9.1	Auger
MN-TH-0020	583223.1	8474917.2	267.00	12.2	Auger
MN-TH-0021	583196.7	8474939.4	266.50	6	Auger
MN-TH-0022	583197.1	8474916.2	267.60	13	Auger
MN-TH-0023	583196.6	8474890.3	268.90	17.5	Auger
MN-TH-0024	583141.1	8474879.5	270.70	19.9	Auger
MN-TH-0025	583198.0	8474864.1	269.90	20	Auger
MN-TH-0026	583199.3	8474841.4	270.60	19.9	Auger
MN-TH-0027	583199.4	8474816.1	271.30	19.9	Auger
MN-TH-0028	583149.1	8474845.4	272.30	3.5	Auger
MN-TH-0029	583148.7	8474840.9	272.40	5.6	Auger
MN-TH-0030	583155.1	8474845.3	272.20	12.7	Auger
MN-TH-0031	583148.4	8474864.8	271.30	19.9	Auger
MN-TH-0032	583126.2	8474890.0	270.20	7.05	Auger
MN-TH-0033	583127.5	8474896.9	269.70	19.9	Auger
MN-TH-0034	583123.5	8474915.7	268.50	20	Auger
MN-TH-0035	583144.9	8474941.2	267.10	19.8	Auger
MN-TH-0036	583157.5	8474912.5	268.50	19.7	Auger
MN-TH-0037	583171.9	8474890.3	269.40	12.9	Auger
MN-TH-0038	582943.7	8475094.1	261.90	16.3	Auger

**Table 3.** All Santa Anna drillhole assay intercepts with over 0.4% Nb<sub>2</sub>O<sub>5</sub>, together with TREO, both in percentage. Downhole interval in meters.

Drillhole	From	To	Sample	Nb <sub>2</sub> O <sub>5</sub>	TREO
MN-AC-0007	9	10	MN-0307	0.40	1.37
MN-AC-0007	11	12	MN-0310	0.40	1.16
MN-AC-0014	12	13	MN-0421	0.43	0.71
MN-AC-0014	17	18	MN-0427	0.64	0.09
MN-AC-0016	23	24	MN-0457	0.46	0.21
MN-AC-0025	10	12	MN-0654	0.56	1.87
MN-AC-0025	14	17	MN-0657	0.90	1.37
MN-AC-0026	6	8	MN-0661	0.68	0.37
MN-AC-0028	4	6	MN-0702	0.46	0.86
MN-AC-0031	11	12	MN-0753	0.90	1.97
MN-AC-0031	12	14	MN-0754	0.52	2.84
MN-AC-0031	14	16	MN-0755	0.93	2.73
MN-AC-0031	16	18	MN-0756	<b>1.47</b>	2.75
MN-AC-0031	18	19	MN-0757	<b>1.12</b>	1.92
MN-AC-0031	19	20	MN-0758	0.54	0.85
MN-AC-0031	23	24	MN-0763	0.45	0.82
MN-AC-0032	6	8	MN-0767	0.41	0.69
MN-AC-0032	8	10	MN-0768	0.53	1.11
MN-AC-0032	10	12	MN-0769	0.95	1.2
MN-AC-0032	18	19	MN-0776	0.63	0.25
MN-AC-0053	9	11	MN-1903	0.56	0.19
MN-AC-0053	17	19	MN-1909	0.53	0.93
MN-AC-0053	19	21	MN-1910	0.41	1.11
MN-AC-0072	20	22	MN-2302	0.40	1.06
MN-AC-0072	25	26	MN-2305	0.47	0.6
MN-AC-0072	26	28	MN-2306	0.45	0.28
MN-AC-0104	20	21	MN-3140	0.45	0.09
MN-AC-0104	21	22	MN-3141	0.68	0.06
MN-AC-0116	6	7	MN-3497	0.42	0.5
MN-AC-0117	5	6	MN-3527	0.43	0.97
MN-AC-0117	7	8	MN-3529	<b>1.42</b>	1.74
MN-AC-0117	8	9	MN-3530	0.40	0.77
MN-DD-0003	3	4.5	MN-1115	0.53	1.58
MN-DD-0003	13	14.5	MN-1124	0.41	0.79
MN-DD-0009	31	33	MN-1420	0.41	0.05
MN-DD-0010	47.7	49.8	MN-1472	0.67	0.21
MN-RC-0002	1	2	MN-3973	0.95	0.34
MN-RC-0002	19	20	MN-3994	<b>3.36</b>	0.2
MN-RC-0003	16	17	MN-4048	0.76	0.11
MN-RC-0003	17	18	MN-4049	0.58	0.21
MN-RC-0004	2	3	MN-4089	0.69	1.25
MN-RC-0004	3	4	MN-4090	<b>1.02</b>	1.66
MN-RC-0004	4	5	MN-4092	<b>1.36</b>	1.6
MN-RC-0004	5	6	MN-4093	<b>2.03</b>	1.17
MN-RC-0004	6	7	MN-4094	<b>2.05</b>	1.19
MN-RC-0004	7	8	MN-4095	0.59	0.83
MN-RC-0004	8	9	MN-4096	0.84	1.02
MN-RC-0004	9	10	MN-4097	0.56	1.56
MN-RC-0004	10	11	MN-4098	0.56	1.82
MN-RC-0004	11	12	MN-4100	0.50	1.35
MN-RC-0004	48	49	MN-4141	0.53	0.22
MN-RC-0006	1	2	MN-4203	0.49	1.18
MN-RC-0008	1	2	MN-4314	0.46	0.86
MN-RC-0008	12	13	MN-4326	0.69	0.14
MN-RC-0008	13	14	MN-4328	0.42	0.22
MN-RC-0008	14	15	MN-4329	0.54	0.11
MN-RC-0008	15	16	MN-4330	0.65	0.13
MN-RC-0008	16	17	MN-4331	<b>1.06</b>	0.11
MN-RC-0008	17	18	MN-4332	0.76	0.12
MN-RC-0008	19	20	MN-4334	0.45	0.15
MN-RC-0008	20	21	MN-4335	0.55	0.11
MN-RC-0008	21	22	MN-4336	0.62	0.23
MN-RC-0008	22	23	MN-4337	0.48	0.12
MN-RC-0009	11	12	MN-4382	0.65	2.90
MN-RC-0009	37	38	MN-4410	0.56	0.52
MN-RC-0013	44	45	MN-4640	0.41	0.08
MN-TH-0002	2	3	MN-2330	0.47	1.04
MN-TH-0002	3	4	MN-2331	0.52	0.92
MN-TH-0002	4	5	MN-2332	0.73	0.91
MN-TH-0002	5	6	MN-2333	0.44	0.75
MN-TH-0007	12	13	MN-2401	0.44	0.68
MN-TH-0007	13	14	MN-2402	0.64	0.56
MN-TH-0007	14	14.65	MN-2403	0.92	0.38
MN-TH-0009	8	9	MN-2413	0.39	1.27
MN-TH-0009	9	10	MN-2414	0.62	2.17
MN-TH-0009	10	11	MN-2415	0.62	2.90
MN-TH-0009	11	12	MN-2417	0.79	3.55
MN-TH-0009	12	13	MN-2418	0.79	2.15
MN-TH-0009	13	14	MN-2419	0.75	1.32
MN-TH-0009	14	14.95	MN-2420	0.67	0.81
MN-TH-0016	5	6	MN-2484	0.87	0.57
MN-TH-0016	6	7	MN-2485	<b>1.23</b>	0.69
MN-TH-0016	7	8	MN-2486	<b>1.44</b>	0.71
MN-TH-0016	8	8.9	MN-2487	0.62	0.64
MN-TH-0017	11	12	MN-2963	0.40	0.19
MN-TH-0020	2	3	MN-2940	0.62	1.23
MN-TH-0020	3	4	MN-2942	0.43	1.09
MN-TH-0030	8	9	MN-3815	0.61	0.09
MN-TH-0030	9	10	MN-3816	0.55	0.20
MN-TH-0037	4	5	MN-3704	0.50	1.18

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## 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
<b>Sampling techniques</b>	<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 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'). 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>The niobium exploration results presented in this Santa Anna Project ASX release have been prepared using exploration data collected by Empresa de Desenvolvimento e Mineração (EDEM) during the period 2002-2023 over the project area. EDEM's exploration was aimed to produce multi-nutrient phosphate from the altered superficially carbonatite.</li> <li>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>Diamond core sampling was conducted with careful consideration of lithological boundaries, ensuring that samples are taken directly at major contacts rather than across them. The core size used was either HQ or NQ, with sample intervals ranging from a minimum of 0.55 metres to a maximum of 3 metres. After cutting along a designated line, half of the core was analysed.</li> <li>Geochemical analyses were completed by commercial laboratory SGS Geosol using lithium metaborate fusion followed by ICP-OES or ICP-MS to determine major oxides and 41 trace elements.</li> <li>All drilling provided a continuous sample of mineralized zone. The mineralisation relevant to this report has been assessed through quantitative laboratory analysis techniques which are described in greater detail in the following sections.</li> </ul>
<b>Drilling techniques</b>	<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>EDEM has employed several drilling techniques throughout the Santa Anna Project permit.</li> <li>A total of seventeen diamond core drillholes were completed, comprising 14 HQ/NQ holes (including 3 that are exclusively HQ), totaling 1018.75 metres. Most of these drillholes were inclined at -70 degrees, with one set at -65 degrees (MN-DD-0005) and another at -60 degrees (MN-DD-0010). The deepest cored drillhole reached 72.6 metres (MN-DD-0010).</li> <li>Sixteen (16) standard reverse circulation (RC) drillholes for 822 metres. All were vertical, deepest 51 metres,</li> </ul>

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Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>• A total of 121 aircore drillholes for 3040.1 metres. All are vertical and deepest drillhole (MN-AC-0051) reached 33 metres.</li> <li>• Thirty-eight (38) auger holes, totalling 510.6 metres. All are vertical and the deepest is 20 metres (Drillhole MN-TH-0025). Powered (52kW) SD-400 auger with twenty (20) cm wide auger bit used.</li> <li>• No downhole surveys are reported, but this is to be confirmed. Most drillholes (91.1%) are vertical.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• For diamond core drillholes, the actual length of core recovered was compared to the total recorded drill length for that run. Any variation was recorded as a recovery percentage.</li> <li>• For aircore, RC, and auger drillholes the individual samples were weighed. After allowing for drillhole diameter/volume and an assumed density, the covered weights were compared to the calculated weights, and a recovery percentage was calculated. This Recovery (R) was monitored on-site during the drilling as under the EDEM drilling contract when the entire sample recovery for the drillhole was R&lt;70% then the hole was to be twined by the drilling contractor.</li> <li>• The powered helical auger was advanced 0.2 to 0.3 metres at a time, after which side contamination was removed before the next advance could proceed. These were entirely combined to form a one metre-sample interval.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Core samples were not geotechnically logged as the mineralisation is not structurally controlled.</li> <li>• All drillholes were geologically logged throughout their full length with the necessary detail to facilitate accurate mineral resource estimation, as well as mining and metallurgical studies.</li> <li>• Representative material has been retained to support further studies as required.</li> <li>• Drillhole logging was qualitative in nature.</li> <li>• All drillhole samples from all drill types were photographed.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Diamond core was cut and the half core submitted for analysis. If material was soft (clay-rich), care was taken to use a knife and spoon for halving the core, ensuring minimal loss of material.</li> <li>• The aircore and RC samples were rotary split and then reduced to a representative 3kg for additional sub-sampling and analyses. All drillhole material was dry.</li> <li>• The powered auger generated substantial one-metre samples weighing less than 150kg. These samples were then laid out on canvas, thoroughly mixed for homogenization, and subjected to quartering to achieve the required sample size.</li> </ul>

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Criteria	JORC Code explanation	Commentary																
	<ul style="list-style-type: none"> <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>Samples were almost all drilled dry due to the shallow depth and the Aircore/RC drilling air pressure holding back any possible water. Between samples the hose and cyclone were systematically cleared.</li> <li>EDEM company representatives were required to monitor for any excessive dust escaping from the top of the cyclone or the hoses. If any loss was observed, they documented it and took corrective action.</li> <li>Sample size is considered appropriate for the grain size of the sample material.</li> </ul>																
<b>Quality of assay data and laboratory tests</b>	<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, handheld XRF instruments, etc, the 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 (lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>EDEM selected SGS Geosol as its primary commercial laboratory This decision came after conducting a series of round robin analyses to validate two in-house standards: the higher-grade (Alto) and the lower-grade (Baixo). The validation process involved four laboratories and included ten duplicate samples of each standard. The sole parameter analyzed in both standard samples was P<sub>2</sub>O<sub>5</sub>.</li> <li>Geochemical analysis for EDEM was completed by SGS Geosol Laboratory</li> <li>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 &gt;0.1%, then method ICP95A was used by SGS.</li> <li>The lithium borate fusion method ensures 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.</li> <li>The table below lists the elements measured by the SGS methods along with their corresponding detection limits: <b>17.1) ICP95A'</b></li> </ul> <table border="1"> <caption>Determinação por Fusão com Metaborato de Lítio - ICP OES</caption> <tbody> <tr> <td>Al<sub>2</sub>O<sub>3</sub> 0,01 - 75 (%)</td> <td>Ba 10 - 100000 (ppm)</td> <td>CaO 0,01 - 60 (%)</td> <td>Cr<sub>2</sub>O<sub>3</sub> 0,01 - 10 (%)</td> </tr> <tr> <td>Fe<sub>2</sub>O<sub>3</sub> 0,01 - 75 (%)</td> <td>K<sub>2</sub>O 0,01 - 25 (%)</td> <td>MgO 0,01 - 30 (%)</td> <td>MnO 0,01 - 10 (%)</td> </tr> <tr> <td>Na<sub>2</sub>O 0,01 - 30 (%)</td> <td>P<sub>2</sub>O<sub>5</sub> 0,01 - 25 (%)</td> <td>SiO<sub>2</sub> 0,01 - 90 (%)</td> <td>Sr 10 - 100000 (ppm)</td> </tr> <tr> <td>TiO<sub>2</sub> 0,01 - 25 (%)</td> <td>V 5 - 10000 (ppm)</td> <td>Zn 5 - 10000 (ppm)</td> <td>Zr 10 - 100000 (ppm)</td> </tr> </tbody> </table>	Al <sub>2</sub> O <sub>3</sub> 0,01 - 75 (%)	Ba 10 - 100000 (ppm)	CaO 0,01 - 60 (%)	Cr <sub>2</sub> O <sub>3</sub> 0,01 - 10 (%)	Fe <sub>2</sub> O <sub>3</sub> 0,01 - 75 (%)	K <sub>2</sub> O 0,01 - 25 (%)	MgO 0,01 - 30 (%)	MnO 0,01 - 10 (%)	Na <sub>2</sub> O 0,01 - 30 (%)	P <sub>2</sub> O <sub>5</sub> 0,01 - 25 (%)	SiO <sub>2</sub> 0,01 - 90 (%)	Sr 10 - 100000 (ppm)	TiO <sub>2</sub> 0,01 - 25 (%)	V 5 - 10000 (ppm)	Zn 5 - 10000 (ppm)	Zr 10 - 100000 (ppm)
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		<p>17.2) IMS95A</p> <table border="1"> <thead> <tr> <th colspan="8">Determinação por Fusão com Metaborato de Lítio - ICP MS</th> </tr> </thead> <tbody> <tr> <td>Ce</td> <td>0,1 - 10000 (ppm)</td> <td>Co</td> <td>0,5 - 10000 (ppm)</td> <td>Cs</td> <td>0,05 - 1000 (ppm)</td> <td>Cu</td> <td>5 - 10000 (ppm)</td> </tr> <tr> <td>Dy</td> <td>0,05 - 1000 (ppm)</td> <td>Er</td> <td>0,05 - 1000 (ppm)</td> <td>Eu</td> <td>0,05 - 1000 (ppm)</td> <td>Ga</td> <td>0,1 - 10000 (ppm)</td> </tr> <tr> <td>Gd</td> <td>0,05 - 1000 (ppm)</td> <td>Hf</td> <td>0,05 - 500 (ppm)</td> <td>Ho</td> <td>0,05 - 1000 (ppm)</td> <td>La</td> <td>0,1 - 10000 (ppm)</td> </tr> <tr> <td>Lu</td> <td>0,05 - 1000 (ppm)</td> <td>Mo</td> <td>2 - 10000 (ppm)</td> <td>Nb</td> <td>0,05 - 1000 (ppm)</td> <td>Nd</td> <td>0,1 - 10000 (ppm)</td> </tr> <tr> <td>Ni</td> <td>5 - 10000 (ppm)</td> <td>Pr</td> <td>0,05 - 1000 (ppm)</td> <td>Rb</td> <td>0,2 - 10000 (ppm)</td> <td>Sm</td> <td>0,1 - 1000 (ppm)</td> </tr> <tr> <td>Sn</td> <td>0,3 - 1000 (ppm)</td> <td>Ta</td> <td>0,05 - 10000 (ppm)</td> <td>Tb</td> <td>0,05 - 1000 (ppm)</td> <td>Th</td> <td>0,1 - 10000 (ppm)</td> </tr> <tr> <td>Ti</td> <td>0,5 - 1000 (ppm)</td> <td>Tm</td> <td>0,05 - 1000 (ppm)</td> <td>U</td> <td>0,05 - 10000 (ppm)</td> <td>W</td> <td>0,1 - 10000 (ppm)</td> </tr> <tr> <td>Y</td> <td>0,05 - 10000 (ppm)</td> <td>Yb</td> <td>0,1 - 1000 (ppm)</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>17.3) PHY01E</p> <table border="1"> <thead> <tr> <th colspan="2">LOI (Loss on ignition) - Perda ao fogo por calcinação da amostra a 1000°C</th> </tr> </thead> <tbody> <tr> <td>LOI</td> <td>-45 - 100 (%)</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>Determinação de Perda ao Fogo (LOI) por Gravimetria - 1000°C</li> <li>Perda ao fogo por calcinação a 1000°C.</li> </ul> <ul style="list-style-type: none"> <li>EDEM included three types of control samples in their analyses: Blank (BLK), field duplicates (DUP), and Standard (PAD). The auger samples utilized only duplicates. Two in-house Standards were employed, known as Alto (with a higher P<sub>2</sub>O<sub>5</sub> grade) and Baixo (with a lower grade), although neither was certified for Nb since it was not the target element during that period.</li> <li>The combined Standards, Blanks, and blind duplicates totalled 5.4% of the drillholes samples submitted. The reported values were all within acceptable range. The quality control sampling is still undergoing thorough examination and evaluation as PNN continues the due diligence.</li> </ul>	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)	Ho	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)	Y	0,05 - 10000 (ppm)	Yb	0,1 - 1000 (ppm)					LOI (Loss on ignition) - Perda ao fogo por calcinação da amostra a 1000°C		LOI	-45 - 100 (%)
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<b>Verification of sampling and assaying</b>	<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>Power Minerals is currently in the process of verifying the digital data against the laboratory certificates provided by EDEM. So far, no independent verification has been completed.</li> <li>Twin drillholes could be required under the EDEM drilling contract when the entire sample recovery for the first drillhole was less than 70%. The use of twin drillholes to verify and validate sampling and assaying results is to be confirmed.</li> <li>EDEM kept a comprehensive in-house database that captured all digital results. Details from field samples were documented in spreadsheets and uploaded on a daily basis. Laboratory results were received both as digital data and as pdf certificates.</li> </ul>																																																																												

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		<ul style="list-style-type: none"> <li>The EDEM data has successfully been imported into the secure Power Minerals relational database. This automated process has verified several key aspects of the data set, and we are committed to ongoing validation of the information.</li> <li>The only adjustments utilised with the assay data is for Nb and REE to be converted to stoichiometric oxides using standard conversion factors (see Advanced Analytical Centre, James Cook University). This includes <math>Nb_2O_5 = Nb \times 1.4305</math></li> <li>Power Minerals uses the following definitions:                         <ul style="list-style-type: none"> <li>TREO (Total Rare Earth Oxides) = <math>[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]</math></li> <li>HREO (Heavy Rare Earth Oxides) = <math>[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]</math></li> <li>CREO (Critical Rare Earth Oxides) = <math>[Nd_2O_3] + [Eu_2O_3] + [Tb_4O_7] + [Dy_2O_3] + [Y_2O_3]</math></li> <li>MREO (Magnet Rare Earth Oxides) = <math>[Nd_2O_3] + [Pr_6O_{11}] + [Tb_4O_7] + [Dy_2O_3]</math></li> </ul> </li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drillholes (collar and downhole 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>Drillhole collars were georeferenced with DGPS (RTK). Accuracy is estimated to be within 0.1 metres.</li> <li>Map and collar coordinates are in SIRGAS 2000 UTM Zone 22 South.</li> <li>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) utilising the coordinates of the registered drillhole collars.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>The limited outcrop prompted the initial use of detailed magnetic and radiometric aerial survey imagery to establish the intrusion boundary. Later on, a ground magnetic survey was conducted with a line spacing of 200 metres and a reading interval of 20 metres to refine this boundary further.</li> <li>Magnetic interpretation 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.</li> <li>The 38 auger drillholes are concentrated near the centre of the intrusion, featuring an orthogonal spacing of around 25 metres. These drillholes reached an average depth of 13.4 metres, with the deepest measuring 20 metres. In addition, there are 121 aircore drillholes, primarily 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 roughly 50 metres and achieving an</li> </ul>

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Criteria	JORC Code explanation	Commentary
		<p>average depth of 50.5 metres and a maximum depth of 51 metres. The diamond core drilling 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.</p> <ul style="list-style-type: none"> <li>On the northern side, a small number of aircore drillholes were completed outside of the mapped intrusion to confirm lithology beneath the thin cover.</li> <li>The data quality, spacing, and distribution is sufficient to establish grade continuity only over localised areas of the project area. There are large volumes within the carbonatite with insufficient data for any estimation of grade and that require further drilling.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No orientation bias has been detected at this stage. It is expected there will be a vertical variation related to the deep lateritic weathering combined with the concentric nature of the carbonatite mineralogy and geochemistry.</li> <li>The location of the Project is probably structurally controlled, but the internal target mineralogy is not.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were given individual sample numbers for tracking.</li> <li>The sample chain of custody is overseen by the EDEM geologist in charge of the program.</li> <li>EDEM company geologist was responsible for collecting the samples and transporting them to the company dispatch centre or commercial laboratory.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No external audits or review of the sampling techniques and data related to niobium mineralisation have been completed.</li> </ul>

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## Section 2. Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>The Santa Anna Project is wholly contained with permit ANM 861.559/2021. The current holder is Empresa de Desenvolvimento e Mineração (EDEM)</li> <li>Power Minerals Ltd has a binding option to acquire ANM 861.559/2021 from EDEM subject to completion of due diligence and certain exploration milestones. No impediments are known or expected by the company to prevent the transfer occurring.</li> <li>The permit covers 1,705 hectares, is granted and in good standing with the relevant government authorities and there are no known impediments to operating in the project area. The site is 6km east-southeast from 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 Brazil capital of Brasilia.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The Project was identified in 2021 by EDEM after investigating a significant radiometric anomaly found during 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>There is no known artisan or modern exploration over the site prior to EDEM.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of The Project is situated in the northern part of the Goiás Alkaline Province</li> <li>mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The internal detail of the carbonatite intrusion is poorly understood due lack of <i>in situ</i> 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.</li> </ul>

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Criteria	JORC Code explanation	Commentary
<b>Drillhole Information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:               <ul style="list-style-type: none"> <li>easting and northing of the drillhole collar</li> <li>elevation or RL (Reduced Level - elevation above sea level in metres) of the drillhole collar</li> <li>dip and azimuth of the hole</li> <li>downhole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The material drillhole information including maps have been included within the main body of this release.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>No upper-cut has been applied.</li> <li>Unless otherwise stated, all reported intercepts grades over more than one sample 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 <i>Verification of sampling and assaying</i> section above.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <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 surface.</li> <li>The majority of drillholes (n=175) are vertical and thus, are considered to be orthogonal to the generally flat lying regolith-controlled mineralisation. There are 15 diamond core drillholes which are steeply inclined at -70°, and one at -65° and one at -60°. All reported intersections for these drillholes are provided as downhole lengths.</li> <li>All reported intersections are downhole lengths.</li> </ul>

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Criteria	JORC Code explanation	Commentary
<b>Diagrams</b>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>The appropriate exploration maps and diagrams have been included within the main body of this release.</li> </ul>
<b>Balanced reporting</b>	<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>All significant drillhole results have been reported, including low grade intersections.</li> </ul>
<b>Other substantive exploration data</b>	<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>Soil sampling was completed on three north-south and three east-west traverses, all 400 metres apart and with 100 metre sample intervals, centred over the intrusion.</li> <li>EDEM has successfully completed around 400 metres of trenching to collect bulk samples specifically for phosphate testing. It's important to note that this activity holds little significance for the niobium exploration efforts.</li> <li>A significant number of bulk density measurements have been conducted 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/m<sup>3</sup>, confirming the anticipated trend of increasing bulk density with increasing depth.</li> <li>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 was undertaken in conjunction EDEM. Petrology and mineralogy (XRD) studies were completed by the university.</li> </ul>
<b>Further work</b>	<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>Preparations for further drilling are underway to confirm, infill and extend known mineralisation.</li> <li>Diagrams showing areas of possible future drilling areas are provided in the main body of this release.</li> </ul>

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