

**ASX RELEASE 26 JUNE 2025** 

# NFM finalises HREE, Niobium and Uranium drill targets at Harts Range

- NFM's geology teams recent field trip locked-in high-priority targets at the Cusp, Bobs, Paddington and Westminster Prospects to test-drill for Heavy Rare Earth Elements (HREE), Niobium and Uranium at the Harts Range Project, NT
- Concurrently, NFM is reviewing quotes from prospective drilling contractors and progressing regulatory approvals to fast-track a 2,000m - 3,000m Reverse Circulation (RC) drilling campaign
- Encouragingly, reflecting government support for the upcoming campaign, NFM received a \$59k
   grant from the NT Geological Survey's Geophysics and Drilling Collaborations program
- Ongoing exploratory work comprised confirming the "Old Trafford Prospect" (320m west from the Westminster Prospect) and investigating a prominent magnetic feature circa 150-200m in diameter identified during the recent geophysical survey and subsequent interprertation<sup>1</sup>
- An application (for 15.79 km²) has been lodged for tenement (EL34147), south of the existing granted tenure (EL32513), to bolster the exploration footprint at the Harts Range Project

New Frontier Minerals Limited (ASX: NFM) ("New Frontier" or "the Company") (ASX: NFM) is pleased to announce the geology team has finalised high priority targets for drill-testing at its Harts Range Project, located 140km north-east of Alice Springs in the Northern Territory. In addition, NFM aims to shortly select a drilling contractor and secure regulatory approvals to enable an inaugural RC drilling campaign to target Heavy Rare Earths Elements (HREE), Niobium and Uranium mineralisation.

#### **Chairman Gerrard Hall commented:**

"Our geology team had a highly productive field trip to the Harts Range Project, with key HREE, Niobium and Uranium targets identified for drill-testing across the Cusp, Bobs, Paddington, Westminster and the newly identified Old Trafford Prospect. A drilling contractor will be appointed shortly, paving the way for the inaugural drilling campaign to commence once regulatory approvals are in place. This is a critical inflection point in the Harts Range Project's development which has the potential to create significant value for shareholders."





#### **High Priority Drill-Test Targets**

During the month of June 2025, NFM's geology team spent several days at the Harts Range Project finalising high-priority targets for drill-testing which now include Cusp, Bobs, Paddington, Westminster and the newly identified Old Trafford and Bank Prospect. The team has commenced regulatory approvals to fast-track a 2,000m - 3,000m RC drilling campaign.

#### **Ongoing Exploration Progress**

In addition, the NFM geological team advanced field activities at the Harts Range Project. The primary aim of the field campaign was to expedite exploration over untested areas within the tenure and identify additional radiometric targets and potential extensions to known Uranium, Niobium, and HREE mineralisation.

Field inspection further west of Westminster has identified the Old Trafford Prospect which comprises a plagioclase and quartz rich pegmatite outcrop with minor muscovite intruded into surrounding amphibolite. A quartz cap is present adjacent to the pegmatite unit which is seen to outcrop ~2m wide and ~50m in length and trending E-W. Samarskite is noted to be present as fragments dispersed consistently within the sample area in small clasts (1mm-1cm). Geiger counter readings of up to 6  $\mu$ Sv were recorded with HSR066 sampled from surface to 20cm deep. (Figure 1).

Further inspection at the Westminster Prospect has identified samarskite mineralisation present amongst a highly micaceous section of the outcrop. The discontinuous pegmatite outcrop has a quartz cap and displayed plagioclase and mica rich alteration intruding through amphibolite. Geiger counter readings of up to 8  $\mu$ Sv were recorded and the sample was collected ~5cm below surface (HSR064, Figure 2). The outcrop is trending E-W, shearing trends at NE-SW.

North of Cusp, the Bank Prospect has noted copper mineralisation (malachite) in foliated gneiss with a sugary quartz texture and biotite, pyroxene/amphiboles in foliated bands (HRS055). The outcropping unit is seen to trend N-S and noted to outcrop adjacent to a creek-bed. Fresh rock is white in colour and more clearly exhibits visual malachite mineralisation with an estimated grade is 0.5-3% Cu (Figure 3).

Note to Figure 1, 2 and 3: The nature of the mineral occurrence of samarskite is seen as occasional scattered orthorhombic crystals. The minerals observed are found in small quantities in the host pegmatite rock. The estimated samarskite mineralisation abundance ranges from 0–2% in HRS066, 0–1% in HRS064. The copper mineralisation in HRS055 is estimated to range from 0.5-3% Cu. The anticipated timing for release of assays results related to the visual estimates is 2-3 weeks.

A key area of interest is the southern tenement area where recent geophysical surveys<sup>1</sup> identified a local magnetic anomaly at the Kings Cross Prospect (Figure 4). Preliminary review of the magnetic data by Southern Geoscience Consultants reveals that this feature is not an individual anomaly, rather a combination of a series of smaller features to the west and one relatively larger and prominent feature to the east which appears to be ~150-200m diameter and 150m-200m depth.



Figure 1: Sample HRS066 (505626E, 7447478N)



Figure 3: Sample HRS055 (507782E, 7448068N)



Figure 2: Sample HRS064 (505851E, 7447578N)

#### **Cautionary Statement**

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

(Source: NFM Team)

#### **Geophysical Target**

A key area of interest is the southern tenement area where recent geophysical surveys identified a local magnetic anomaly at the Kings Cross Prospect seen in Figure 4 below.

Field inspection has located the geophysical anomaly to be immediately south and associated with a prominent EW-trending fault that has been identified from the 1:10,000 geophysical interpretation undertaken by Southern Geoscience Consultants<sup>1</sup>. In total, 12 samples (HSR033 – HSR044) were collected along the EW structure and adjacent to the creek-bed, which appears to be associated with the EW structure.

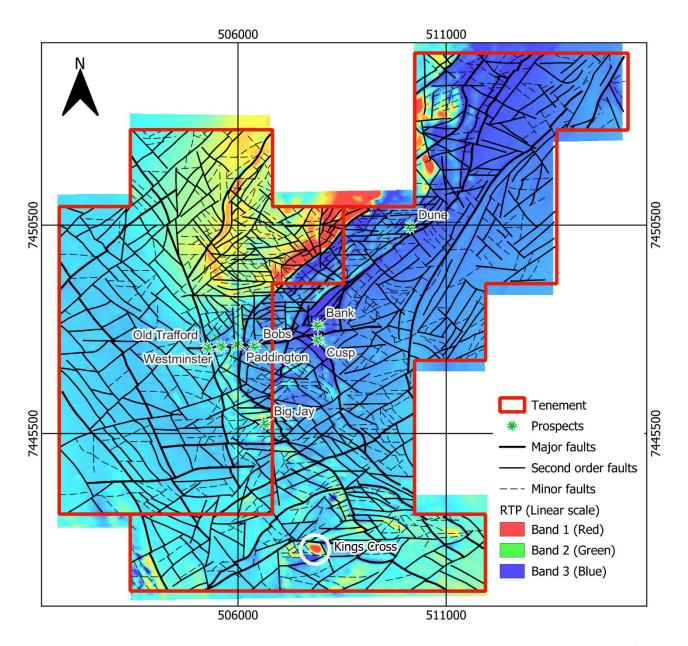


Figure 4: Magnetic feature identified at the Kings Cross Prospect (Source: Southern Geoscience Consultants1)



#### **Northern Territory Government Grant**

New Frontier Minerals has been awarded a \$59,000 grant (inclusive of GST) through the Northern Territory Geological Survey's Geophysics and Drilling Collaborations program, part of the Resourcing the Territory initiative. This includes a \$10,000 Territory Supplier Incentive. The grant will support up to 1,360 meters of Reverse Circulation (RC) drilling at the Harts Range Project, reducing the financial commitment for the Company's maiden drilling campaign targeting HREE, Niobium, and Uranium. The Company is in the process of finalising land access and environmental licensing to ensure compliance with grant conditions, with a contract submission deadline of August 1, 2025.

#### **Expansion of Operational Footprint**

New Frontier Minerals has applied for new tenure (EL34147), south of granted Harts Range tenement (EL32513). This application for (15.79 Km<sup>2</sup>) bolsters the exploration footprint and reflects the Company's commitment to expanding its exploration footprint and developing high-potential critical mineral resources in the region. Map of the new tenement application can be found in Appendix C.

#### **Strategic Context and Funding**

The resumption of field activities aligns with New Frontier's commitment to utilise the \$1.59 million raised and the \$59,000 government grant to accelerate exploration at Harts Range. The macro environment remains favourable, with U.S. government policies supporting the diversification of HREE supply chains away from China and the acceleration of nuclear power technologies. These developments enhance the strategic importance of HREE and Uranium, positioning New Frontier to capitalise on growing demand for critical minerals.

#### **Next Steps**

Over the coming weeks, NFM geological team will:

- Continue field investigations, focusing on identifying priority targets for drilling
- Analyse assay results from the Old Trafford, Westminster and Bank Prospects to prioritise drilling targets
- Prepare for the maiden RC drilling campaign in Q3 FY25 subject to government approvals

New Frontier remains committed to delivering value to shareholders through disciplined exploration and development of its key assets.

#### **ENDS**

This announcement was approved for release by the Board of New Frontier Minerals Limited.



#### **REFERENCES**

1) ASX Announcement (31 March 2025) Geophysical interpretation identifies 46 HREE-Nb-U priority targets at Harts Range, NT

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#### **About New Frontier Minerals**

New Frontier Minerals Limited is an Australian-based focussed explorer, with a strategy to develop multi-commodity assets that demonstrate future potential as an economic mining operation. Through the application of disciplined and structured exploration, New Frontier has identified assets deemed core and is actively progressing these interests up the value curve. Current focus will be on advancing exploration activity at the Harts Range Niobium, Uranium and Heavy Rare Earths Project which is circa 140km north-east from Alice Springs in the Northern Territory.

Other interests include the NWQ Copper Project, situated in the copper-belt district circa 150km north of Mt Isa in Queensland and the Broken Hill Project in western New South Wales.

New Frontier Minerals is listed on the LSE and ASX under the ticker "NFM".

#### **Competent Persons Statement**

The scientific and technical information in this announcement, which relates to exploration results and the geology of the deposits described, is based on information compiled and approved for release by Mark Biggs. Mark Biggs is a Member of The Australasian Institute of Mining and Metallurgy (AusIMM Member # 107188) and meets the requirements of a Competent Person as defined by the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012 Edition). Mark Biggs has 35 years of experience relevant to Rare Earth Elements (REE), industrial mineral copper mineralisation types, as well as expertise in the quality and potential mining methods of the deposits under consideration. Additionally, he has 25 years of experience in the estimation, assessment, and evaluation of exploration results and mineral resource estimates, which are the activities for which he accepts responsibility. He also successfully completed an AusIMM Online Course Certificate in 2012 JORC Code Reporting. Mark Biggs is a consultant with ROM Resources and was engaged by New Frontier Minerals Limited to prepare the documentation for several prospects, specifically those within the Harts Range Prospects upon which the Report is based.

Furthermore, the full nature of the relationship between himself and New Frontier Minerals Limited has been disclosed, including any potential conflicts of interest. Mark Biggs is a director of ROM Resources, a company that is a shareholder of New Frontier Minerals Limited, and ROM Resources provides occasional geological consultancy services to New Frontier Minerals Limited.

The Report or excerpts referenced in this statement have been reviewed, ensuring that they are based on and accurately reflect, in both form and context, the supporting documentation relating to exploration results and any mineral resource estimates. The release of the Report and this statement has been consented to by the Directors of New Frontier Minerals Limited.





#### **Forward Looking Statements**

Certain information in this document refers to the intentions of New Frontier Minerals Ltd, but these are not intended to be forecasts, forward-looking statements, or statements about future matters for the purposes of the Corporations Act or any other applicable law. The occurrence of events in the future is subject to risks, uncertainties and other factors that may cause New Frontier Minerals Ltd's actual results, performance, or achievements to differ from those referred to in this announcement. Accordingly, New Frontier Minerals Ltd, its directors, officers, employees, and agents, do not give any assurance or guarantee that the occurrence of the events referred to in this announcement will occur as contemplated. The interpretations and conclusions reached in this announcement are based on current geological theory and the best evidence available to the authors at the time of writing. It is the nature of all scientific conclusions that they are founded on an assessment of probabilities and, however high these probabilities might be, they make no claim for complete certainty. Any economic decisions that might be taken based on interpretations or conclusions contained in this announcement will therefore carry an element of risk. The announcement may contain forwardlooking statements that involve several risks and uncertainties. These risks include but are not limited to, economic conditions, stock market fluctuations, commodity demand and price movements, access to infrastructure, timing of approvals, regulatory risks, operational risks, reliance on key personnel, Ore Reserve and Mineral Resource estimates, native title, foreign currency fluctuations, exploration risks, mining development, construction, and commissioning risk. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward-looking statements if these beliefs, opinions, and estimates should change or to reflect other future developments.

#### **ASX Listing Rule 5.23.2**

New Frontier Minerals Ltd confirms that it is not aware of any new information or data that materially affects the information included in this market announcement and that all material assumptions and technical parameters underpinning the estimates in this market announcement continue to apply and have not materially changed.

## **APPENDIX A: NEW SAMPLE DETAILS**

Thirty Four (34) new rock chip samples were collected at mapping sites and are listed in Figure A1-1 below and their locations shown on the plan as Figure A1-2 following:

#### FIGURE A1-1: SAMPLE DESCRIPTIONS

Sample No	Location	East (GDA94z53)	North (GDA94z53)	Rad-Eye Radiation µSv	Samarskite Estimate Range%	Sample Type	Description	Date Collected
HSR033	King's Cross	508013	7442849	0	N/A	Rock	Muscovite-rich amphibolite unit. Garnet minerals are present throughout (50mm - 2cm). Foliation appears to generally be trending EW, along with what appears to be a significant trending EW fault. Although there are outcrops along this structural EW trending structure with intermittent shearing along varying orientations. A sample taken along a hill adjacent to creek-bed, which appears to have formed above major EW structure. ~45/020.	6/14/2025
HSR034	King's Cross	508041	7442875	0	N/A	Rock	Muscovite-rich amphibolite unit. Garnet minerals are present throughout (50 mm - 2cm). Foliation appears to generally be trending EW, along with what appears to be a significant trending EW fault. Adjacent to creed-bed. ~30/085.	6/14/2025
HSR035	King's Cross	508041	7442875	0	N/A	Rock	Strongly chlorite altered quartz unit with trace muscovite. Oxidised and inconsistent with surrounding amphibolite. Sample taken adjacent to sheared amphibolite sample HRS034.	6/14/2025
HSR036	King's Cross	508014	7442890	0	N/A	Rock	Muscovite-rich amphibolite unit. Foliation appears to generally be trending EW, along with what appears to be a significant trending EW fault. Ferruginous brown appearance. ~65/075.	6/14/2025

HSR037	King's Cross	507995	7442859	0	N/A	Rock	Muscovite-rich amphibolite unit. Garnet minerals are present throughout (50mm - 2cm). Foliation appears to generally be trending EW, along with what appears to be a significant trending EW fault. Adjacent to creed-bed. Similar quartz unit as described in HRS035 present.	6/14/2025
HSR038	King's Cross	507981	7442857	0	N/A	Rock	Muscovite-rich amphibolite unit. Garnet minerals are present throughout (50 mm - 2cm). Foliation appears to generally be trending EW, along with what appears to be a significant trending EW fault. Adjacent to creed-bed. ~70/075.	6/14/2025
HSR039	King's Cross	507961	7442833	0	N/A	Rock	Muscovite-rich amphibolite unit. Garnet minerals are present throughout (50 mm - 2cm). Foliation appears to generally be trending EW, along with what appears to be a significant trending EW fault. Adjacent to creed-bed. Similar quartz unit as described in HRS035 present. ~70/040	6/14/2025
HSR040	King's Cross	507908	7442840	0	N/A	Rock	Muscovite-rich amphibolite unit contact with bulky quartz intrusion. Foliation appears to generally be trending EW, along with what appears to be a significant trending EW fault. Adjacent to creed-bed. ~70/040.	6/14/2025
HSR041	King's Cross	507865	7442905	0	N/A	Rock	Muscovite-rich amphibolite unit. Garnet minerals are present throughout (50 mm - 2cm). Minor rounded quartz porphyroblasts. Foliation appears to generally be trending EW, along with what appears to be a significant trending EW fault. Adjacent to calc-silicate unit. ~50/065.	6/14/2025
HSR042	King's Cross	507841	7442890	0	N/A	Rock	Grey/brown ferruginous calc-silicate unit. Soft and weathered.	6/14/2025
HSR043	King's Cross	507865	7442695	0	N/A	Rock	Magnetite + quartz unit. Dense and heavy. Strongly magnetic. Quartz is partially iron altered. No visible indication of minerals or metals consistent with the presence of base metals.	6/14/2025
HSR044	King's Cross	507884	7442739	0	N/A	Rock	Magnetite. Dense and heavy. Strongly magnetic. No visible indication of minerals or metals consistent with presence of base metals.	6/14/2025

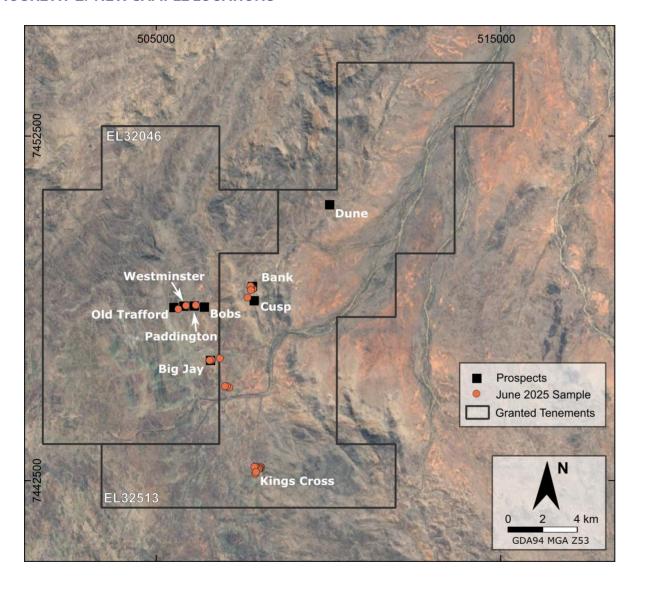
HSR045	HR13 Target	507109	7445199	0.95	N/A	Rock	HR13 Target. Large pegmatite outcrops which intrude through amphibolite unit. Plagioclase rich, minor chlorite alteration. Opaque black mineral appears to correlate with elevated radioactivity. Potentially uraninite. Outcrop is ~3m in width and 15m in length. ~0.95 µSv. ~ trending towards 085.	6/15/2025
HSR046	HR13 Target	507041	7445232	0.65	N/A	Rock	HR13 Target. Large pegmatite outcrops which intrude through amphibolite unit. Plagioclase and mica rich, minor chlorite alteration. Opaque black mineral appears to correlate with elevated µSv. Potentially uraninite. Outcrop is ~2m in width and 60m in length. ~0.65msv. ~ trending towards 090.	6/15/2025
HSR047	HR13 Target	506982	7445238	0.70	N/A	Rock	HR13 Target. Large pegmatite outcrops which intrude through amphibolite unit. Plagioclase and mica rich, minor chlorite alteration. Opaque black mineral appears to correlate with elevated µSv. Potentially uraninite. Outcrop is ~2m in width and 60m in length. ~0.70msv. ~ trending towards 090.	6/15/2025
HSR048	HR17 Target / Big Jay	506563	7445992	0	N/A	Rock	HR17 Target. Sheared an amphibolite unit. Large quartz clasts. The unit is in between two large protruding pegmatite outcrops that are ~40m apart. Trending ~50/090.	6/15/2025
HSR049	HR17 Target / Big Jay	506599	7445989	0	N/A	Rock	HR17 Target. Sheared an amphibolite unit. Minor quartz clasts. The unit is in between two large protruding pegmatite outcrops that are ~40m apart. Trending ~40/090.	6/15/2025
HSR050	HR17 Target / Big Jay	506589	7446005	0	N/A	Rock	Amphibolite contacts with pegmatite unit.  Pegmatite is mica-rich with large clasts (3cm by 3cm), qtz + feldspar rich. Amphibolite is sheared with foliation trending ~ 40/090.	6/15/2025
HSR051	HR17 Target / Big Jay	506537	7445989	0	N/A	Rock	Mica-rich pegmatite outcrop adjacent to milky quartz intrusion. Trending EW.	6/16/2025
HSR052	HR17 Target / Big Jay	506838	7446045	0	N/A	Rock	Muscovite-rich, coarse grained feldspar pegmatite adjacent to brittle schist unit. Muscovite up to 5cm by 5cm. Trending EW.	6/16/2025

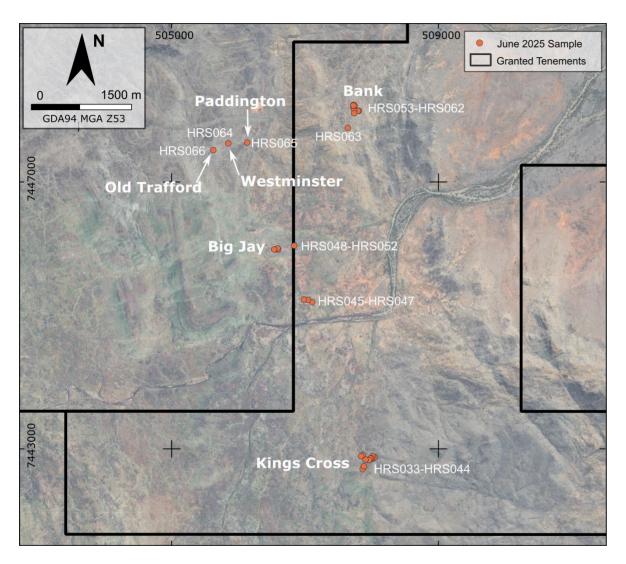
HSR053	Bank	507729	7448156	0	N/A	Rock	Copper prospect, Bank. Soft/brittle foliated gneiss. Malachite disseminated throughout rock. Sugar quartz texture. Biotite and pyroxene/amphiboles in foliated bands. Adjacent to creek bed. Weathered to brown color. Fresh rock is white in color and more clearly exhibits green malachite mineralisation. Trending ~180. Estimated grade is 0.5-3% Cu.	6/16/2025
HSR054	Bank	507725	7448123	0	N/A	Rock	Soft/brittle foliated gneiss. Malachite disseminated throughout rock. Sugar quartz texture. Biotite and pyroxene/amphiboles in foliated bands. Adjacent to creek bed. Weathered to brown colour. Fresh rock is white in colour and more clearly exhibits green malachite mineralisation. Trending along southern trending structure ~180. Estimated grade is 0.5-3% Cu.	6/16/2025
HSR055	Bank	507782	7448068	0	N/A	Rock	Soft/brittle foliated gneiss. Malachite disseminated throughout rock. Sugar quartz texture. Biotite and pyroxene/amphiboles in foliated bands. Adjacent to creek bed. Weathered to brown colour. Fresh rock is white in colour and more clearly exhibits green malachite mineralisation. Trending along southern trending structure ~180. Estimated grade is 0.5-3% Cu.	6/16/2025
HSR056	Bank	507806	7448066	0	N/A	Rock	Soft/brittle foliated gneiss. Malachite disseminated throughout rock. Sugar quartz texture. Biotite and pyroxene/amphiboles in foliated bands. Adjacent to creek bed. Weathered to brown colour. Fresh rock is white in colour and more clearly exhibits green malachite mineralisation. Trending ~180. Estimated grade is 0.5-1.5% Cu.	6/16/2025
HSR057	Bank	507795	7448067	0	N/A	Rock	Amphibolite. Strongly chlorite/sericite altered. Potentially altered by another form of alteration that gives green appearance. Not malachite. It has a soft and very brittle, powdery texture. ~180.	6/16/2025
HSR058	Bank	507732	7488084	0	N/A	Rock	Foliated gneiss. Harder and solid, unlike earlier sampled mineralized gneiss outcrops. Malachite disseminated throughout rock. Sugar quartz texture. Biotite and pyroxene/amphiboles in foliated bands. Adjacent to creek bed. Weathered to brown colour. Fresh rock is white in colour and more clearly	6/16/2025

							exhibits green malachite mineralisation. Trending ~180. Estimated grade is 0.5-3% Cu.	
HSR059	Bank	507739	7448079	0	N/A	Rock	Foliated gneiss. Harder and solid. Malachite disseminated throughout rock. Sugar quartz texture. Biotite and pyroxene/amphiboles in foliated bands. Adjacent to creek bed. Weathered to brown colour. Fresh rock is white in colour and more clearly exhibits green malachite mineralisation. Trending ~180. Estimated grade is 0.5-3% Cu.	6/16/2025
HSR060	Bank	507742	7448142	0	N/A	Rock	Foliated gneiss. Harder and solid. Malachite disseminated throughout rock. Sugar quartz texture. Biotite and pyroxene/amphiboles in foliated bands. Adjacent to creek bed. Weathered to brown colour. Fresh rock is white in colour and more clearly exhibits green malachite mineralisation. Trending ~180. Estimated grade is 0.5-3% Cu.	6/16/2025
HSR061	Bank	507725	7448146	0	N/A	Rock	Foliated gneiss. Harder and solid. Malachite disseminated throughout rock. Sugar quartz texture. Biotite and pyroxene/amphiboles in foliated bands. Adjacent to creek bed. Weathered to brown colour. Fresh rock is white in colour and more clearly exhibits green malachite mineralisation. Trending ~180. Estimated grade is 0.5-3% Cu.	6/16/2025
HSR062	Bank	507737	7448030	0	N/A	Rock	Foliated gneiss. Harder and solid. Malachite disseminated throughout rock. Sugar quartz texture. Biotite and pyroxene/amphiboles in foliated bands. Adjacent to creek bed. Weathered to brown colour. Fresh rock is white in colour and more clearly exhibits green malachite mineralisation. Trending ~180. Estimated grade is 0.5-3% Cu.	6/16/2025
HSR063	Unnamed outcrop	507641	7447810	0	N/A	Rock	Powdery/sandy chlorite altered white rock. Appears to be extremely weathered sandstone amongst mica-rich pegmatite outcrops.	6/16/2025

HSR064	Westminster	505851	7447578	8.0	N/A	Rock	Discontinuous section of Paddington outcrop located 250m west from HRS031. Matching mineral composition, pegmatite unit displaying plagioclase and mica rich alteration intruding through amphibolite. Quartz cap present. Samarskite mineralisation is present amongst highly micaceous section of the outcrop. Geiger counter readings of up to 8 μSv. This section of the pegmatite is and has been offset into three sections by localised shearing. The outcrop is trending E-W, shearing trends at NE-SW. Samples collected ~5cm below surface.	6/17/2025
HSR065	Paddington	506134	7447591	0.6	N/A	Rock	Highly micaceous zone at the knoll of Paddington outcrop. Evident historical sampling had taken place at this precise location. No REE mineralistion detected. ~0.6msv.	6/17/2025
HSR066	Old Trafford	505626	7447478	6.0	N/A	Rock	Plagioclase and qtz rich outcrop, minor muscovite intruded into amphibolite unit. Quartz cap present adjacent to pegmatite unit, both trending ~090. Samarskite present in fragments dispersed consistently within sample area in small clasts (1mm-1cm). Geiger counter readings of up to 6 μSv. Samarskite sampled from surface to 20cm deep. Outcrop is ~2m wide and ~50m in length. Additional inspection of the outcrop is necessary. The outcrop has been named Old Trafford.	6/17/2025

#### FIGURE A1-2: NEW SAMPLE LOCATIONS





Notes: Coordinates in MGA94Z53S

Source: NFM Team

# **APPENDIX B: JORC CODE, 2012 EDITION – TABLE 1**

The following JORC Code (2012 Edition) Table 1 is primarily supplied to provide background for geological mapping, and rock chip sampling programs, conducted by New Frontier Minerals Limited geology contractors during early April 2025.

Previous ASX releases have been made about mapping and rock chip sampling atthe Harts Range Nb-U-REE Mineral Project.

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	Surface samples were collected from approximately a 3m radius around the recorded coordinate location. The rock chip fragments that were collected to make up the sample included fragments that approximately ranged from 2-5cm and 0.2 - 3kg in weight. A total of thirty-four additional (34) rock chip samples were collected in calico bags and were progressed for laboratory analysis (sample numbers range from HRS033 to 066). Samples were collected from rock outcrops, soils, and occasionally mullock heaps in the vicinity of west to east trending pegmatite dykes. A small percentage of the surface samples contained the U-bearing mineral samarskite.
Drilling techniques	<ul> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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> <li>Not Applicable – no exploration drilling results as none were drilled.</li> </ul>

Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	Not Applicable – no exploration drilling results as none were drilled.
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Descriptions of the rock chip and soil samples are given in a table contained in Appendix A (Figures A1-1 through to A1-3) of this CCZ's ASX Announcement dated the 26<sup>th</sup> of June 2025.</li> <li>Where appropriate strike and dip measurements were taken at several sites, additional to the thirty-four (34) rock chip sample sites. Measuring bedding is difficult because of the high metamorphically - disturbed rock types.</li> </ul>
Subsampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality, and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Of the sample collected about 0.3-2kg of rock chip were presented for analyses.</li> <li>Assays will be presented to independent laboratory Interteck Pty Ltd at Canning Vale Perth WA. The samples were sorted and dried. Primary preparation was then by crushing the whole sample. The whole sample was pulverised in a vibrating disc pulveriser.</li> <li>All samples were initially crushed to 4 mm then pulverised to 75 microns, with at least 85% passing through 75 microns. Standard sample preparation and analyses procedures were performed on all samples and are considered appropriate techniques.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> </ul>	Analytical Methods are described in detail as follows:  Au, Pt, Pd  The samples have been analysed by firing a 40g (approx.) portion of the sample. This is the classical fire assay process and will give total separation of Gold, Platinum, and Palladium in the sample. These have been determined by Inductively

 Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. Coupled Plasma (ICP) Mass Spectrometry. The sample(s) have been digested with a mixture of acids including Hydrofluoric, Nitric, Hydrochloric and Perchloric Acids. This digest approaches a total digest for many elements however some refractory oxides are not completely attacked.

- The mineral Cassiterite is not efficiently attacked with this digest.
- If Barium occurs as the Sulphate mineral, then at high levels (more than 4000 ppm) it may re-precipitate after the digest giving seriously low results. Using this digest, some sulphur losses may occur if the samples contain high levels of sulphide.

Cu, Zn, Co, Ni, Mn, P, Sc, V, Al, Ca, Na, K, S

have been determined by Inductively Coupled Plasma (ICP) Optical Emission Spectrometry.

As, Ag, Ba, Be, Bi, Cd, Ga, Li, Mo, Pb, Sb, Sn, Sr, W, Y, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Th, U, Se, In, Te, Cs, Re, TI

have been determined by Inductively Coupled Plasma (ICP)
 Mass Spectrometry. The samples have been fused with
 Sodium Peroxide and subsequently the melt has been
 dissolved in dilute Hydrochloric acid for analysis. Because of
 the high furnace temperatures, volatile elements are lost. This
 procedure is particularly efficient for determination of Major
 element composition (Including Silica) in the samples or for the
 determination of refractory mineral species.

B, Cr, Si, Fe, Mg, Ti

• have been determined by Inductively Coupled Plasma (ICP) Optical Emission Spectrometry.

Ge, Ta, Hf, Zr, Nb, Rb

 have been determined by Inductively Coupled Plasma (ICP) Mass Spectrometry.

Verification of sampling and assaying	<ul> <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> <li>The assay results are expected to be in line with previous rock chip and drilling results obtained since October 2024 at Harts Range.</li> <li>Independent Laboratory assaying by Intertek has confirmed, within acceptable limits, the occurrences of high-grade Nb, U, and REE from the initial in field XRF readings. Laboratory standards and duplicates were used in accordance with standard procedures for geochemical assaying as noted below.</li> <li>It has met the recommended insertion rates for the company QAQC controls (standards, blanks) with an overall insertion rate of 20%. However, no field duplicates were included in the three (3) batches and is recommended that 3% be included in future sampling programs. Summary of QAQC insertion rates.</li> <li>Both the company standards and blanks were verified for elements Nb, U and Dy and returned results within 2 standard deviations (SD). Field duplicates are not present in the batch therefore were not reviewed.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The spatial location for the rock chips and soils collected during the 2006 and 2007 fieldwork were collected by handheld GPS (-/+ 5m accuracy) [MGA94 Zone53]: The table of reported rock chip locations and descriptions are given in throughout the ASX release, in Appendix a, and in Figure A1-1 (at the end of the section).</li> </ul>
Data spacing and distribution	<ul> <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>	The Harts Range licenses lie north-west of the Entia Dome and are underlain by the Harts Range Group (Harts Range Metaigneous Complex), which predominantly consists of feldsparbiotite-amphibole-garnet gneisses. The Harts Range region at has undergone repeated and substantial crustal reworking between Proterozoic and Palaeozoic times and is now thought to represent an ancient and strongly altered/metamorphosed version of a continental collision zone.

		<ul> <li>Most of the observed mineralisation is related to a swarm of west to east and southeast-trending pegmatite dykes, with an anomalous occurrence of the U-bearing mineral samarskite (refer to Figure A2-1).</li> </ul>
		<ul> <li>At the Cusp Prospect, niobium-HREE-Tantalum identified in pegmatites running approximately east-west, up to 10 metres thick and over 70 metres long.</li> </ul>
		<ul> <li>At Bob's Prospect niobium-HREE-Tantalum mineralisation in pegmatites trend east-west and is several metres thick and over 30 metres long, with similar geological setting to the Cusp Prospect.</li> </ul>
		<ul> <li>200m west of Bobs (Bobs West), outcropping pegmatite along the same orientation, hosted exclusively within felsic gneiss of the Irindina Gneiss. The pegmatite is semi-continuous for ~300m with a similar geological setting and has notably large green muscovite flakes present.</li> </ul>
		<ul> <li>The Niobium Anomaly Prospect is another variant with high Niobium results but low in rare earths and uranium. Elevated radiometrics located with the scintillometer recorded 1,300 cps within a small historic pit at the top of a knoll. Anomalies appear to correlate with intrusions of porphyritic "granitoid" and granitic gneiss, which are geologically consistent with the pegmatites mapped at Bob's and the Cusp Prospects.</li> </ul>
		<ul> <li>The Thorium Anomaly Prospect was previously located via airborne radiometric images. The radiometric anomalies are low order (10 to 20x background) compared to the spot anomalies at Bob's and Cusp (50-200x background). Anomalies appear to correlate with intrusions of porphyritic "granitoid" and granitic gneiss, which presumably are geologically features like the pegmatites at Bob's and the Cusp Prospects.</li> </ul>
Orientation of data in relation to geological structure	<ul> <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</li> </ul>	<ul> <li>In general, the strata of the area surrounding the pegmatite dykes in the Harts Range Meta-Igneous Complex dip steeply (&gt;45 degrees) to the north and strike between east to southeast.</li> </ul>

	introduced a sampling bias, this should be assessed and reported if material.	Rock chip samples were taken at areas of interest from observed mineralisation along and across strike of the line of lode of the mineralised pegmatite dyke (very generally east west tends, secondary structures, surrounding spoil heaps, and across the four (4) anomalous areas originally identified in the planning stage.
		<ul> <li>However, no modern systematic exploration has been conducted, nor any of the mineralised prospects have ever been drilled.</li> </ul>
Sample security	The measures taken to ensure sample security.	The rock chip samples taken during the historical fieldwork were securely locked within the vehicle on site until delivered to Alice Springs by the field personnel for despatch to the laboratory (InterTech in WA) by courier.
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	The sampling techniques and the data generated from the laboratory assay results have been peer reviewed by consultant geologists independent of Castillo Copper Limited (Audax Resources and ROM Resources) familiar with the overall Harts Range Project and deemed to be acceptable.
		<ul> <li>No other external audits sampling techniques and data have yet been planned or undertaken.</li> </ul>

# **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. in the area.</li> </ul>	<ul> <li>The Harts Range Project lies in the south-east of the Northern Territory, roughly 120 kilometres north-east of Alice Springs. Two granted tenements (EL 32046 and 32513) comprising a total 110 km² tenement package is located near essential infrastructure and accessible via the Plenty Highway.</li> <li>A check on the tenures status was completed in the NTGS system 'Strike' on the 10 of October 2024, to validate the currentness of the exploration areas. All are current.</li> <li>The region is serviced by excellent roads (Stuart Highway), train (the famous Ghan rail) and bus links connect the area.</li> <li>Domestic and some international flights are available from Alice Springs (1 hour drive south of Harts Range) while all international flights are available direct from Darwin.</li> <li>As a major regional centre, the town of Alice Springs provides public and private schools. There are churches, supermarkets, speciality shops, hotels, motels, cafés &amp; restaurants, medical centres.</li> <li>There is a professional police and emergency services presence throughout the area. Local professional and trade services support the community and the mining industry. Mobile phone and internet access are good.</li> </ul>			
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Historical "Strike"-based mineral exploration reports have been reviewed for historical tenures that cover or partially cover the Project Area in this announcement. Federal and State Government reports supplement the historical mineral exploration reporting (QDEX open file exploration records).</li> </ul>			

		<ul> <li>Most explorers were searching for either Cu-Au-U, gemstones, or industrial minerals in the 1990's, and proving satellite deposit style extensions to the several small subeconomic uranium or copper deposits.</li> <li>The project is flanked by Independence Group (IGO) to the north, south and west. IGO is exploring for a raft of critical battery minerals.</li> </ul>
Geology	Deposit type, geological setting, and style of mineralisation.	<ul> <li>Regional Geology</li> <li>The Harts Range Niobium, Uranium-Heavy Rare Earth Project lies north-west of the Entia Dome (Figure A2-1) and is underlain by the Harts Range Group (Harts Range Meta-igneous Complex), which predominantly consists of feldspar-biotite-amphibole-garnet gneisses.</li> <li>The Harts Range region has undergone repeated and substantial crustal re-working between Proterozoic and Palaeozoic times. As a result, it is now believed to represent an ancient and strongly altered/metamorphosed version of a continental collision zone.</li> <li>Magnetotellurics data interpreted by a team consisting of Adelaide University and NTGS geologists (Selway et al, 2006) suggests the Entia Dome system is a deep-crustal feature that can be shown extending to the mantle.</li> <li>The below maps (Figures A2-2 and A2-3) show a traverse through the Arunta from north to south and skirted around the dome to the east and highlighting a major subduction zone to the north of the dome. The latter diagram shows the distribution of regional stratigraphic units.</li> </ul>

FIGURES A2-1: REGIONAL STRUCTURE PLAN

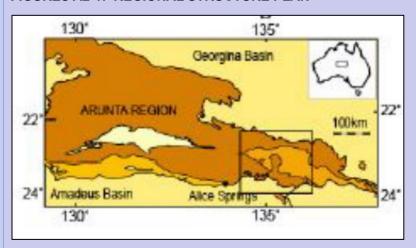
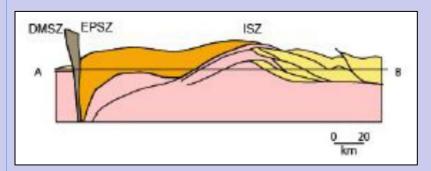


FIGURE A2-2: WEST TO EAST REGIONAL CRUSTAL CROSS-SECTION



# Cainocolc Undir. Amadeus Basin Undir. Compina Bisin Undir. Strangeway Bruna Greiss Bruna Greiss Shavanos Greiss Member Amadeus Basin Stavanos Greiss Member Solvanos Greiss Member Solvanos Greiss Member

#### **Local Geology**

- The main rock types mapped and sampled at various REE Prospects include:
  - Biotite Schist/Granofels: brown-blackish biotite-rich rock; thin (5-10cm) poorly exposed zone on N side of ~6m thick unit/zone of similar rock (e.g. HR398, HR399 sites) (on N side of HR399).
  - Pegmatite, apatite-bearing: scree frags near W end of E-W pegmatite, near intersection with north-south calcite vein; very coarse-grained feldspar-quartz with common coarse apatite pale semi-translucent slightly greenish (rare honey-brown) blocky/tabular/hexagonal, some intergrown with feldspar/quartz.
  - Garnet-Cummingtonite rock: coarse-grained rock; with abundant interstitial pale greenish malachite-magnesite material; small patch of sub-crop amongst scree.

Drillhole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: o easting and northing of the drill hole collar         <ul> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole o down hole length and interception depth o 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> <li>Gneiss: weathered, moderately banded, fine-to-medium grained quartz-feldspar-hornblende-garnet; some coarser quartz-garnet rock; some brown haematite on fractures; sample below HR444.</li> <li>Ultramafics: slightly weathered medium grained, greenish/brownish amphibole/olivine-dominated metaultramafic.</li> <li>Amphibolite: grey fine-grained hornblende -quartz rock; (approx. adjacent rough channel samples: HR461 (1m) above HR462 (3m) above HR463 (3m) above HR464 (1m)).</li> <li>Samarskite (or similar), being a dense brittle blackish lustrous radioactive mineral; cluster of 10+ fragments, most over 1cm (or broken weathered larger piece - ca. 5-10 cm) in chalky white feldspar, beside weathered coarse mica beneath soil cover along southern side of quartz vein in a pegmatite core.</li> <li>Not Applicable – no exploration drilling results presented.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off 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> </ul>	<ul> <li>Independent Laboratory Assay results for the 28 rock chip samples from various Harts Range Prospects were averaged if more than one reading or determination was given. There was no cutting of high-grade REE results as they are directly relatable to high grade mineralisation styles readily visible in the relevant samples.</li> <li>There were no cut-off grades factored into any reporting of the laboratory assay results.</li> </ul>

	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
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 drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	The Junel 2025 rock chip and soil samples were taken at areas of interest from observed mineralisation along the line of lode of the mineralised pegmatite dyke, secondary structures, and surrounding spoil heaps. Thirty-four (34) rock chip samples collected from rock faces and/or outcrops.
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 drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>Appropriate diagrams are presented in the body and the Appendices of the current ASX Release. Where scales are absent from the diagram, grids have been included and clearly labelled to act as a scale for distance.</li> <li>Maps and Plans presented in the current ASX Release are in MGA94 Zone 53, Eastings (mN), and Northing (mN), unless clearly labelled otherwise.</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 avoiding misleading reporting of Exploration Results.</li> </ul>	<ul> <li>Rock chip samples were taken at areas of interest from observed mineralisation along the line of lode of the mineralised pegmatite dyke, secondary structures, surrounding spoil heaps, to check the validity of the defined seven (5) anomalous map areas.</li> </ul>
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.	<ul> <li>The area is covered by regional airborne government and private radiometric, gravity, magnetic, and hyperspectral surveys. Unfortunately, other than the 2006 radiometric ground survey, no other ground surveys have been undertaken.</li> <li>Substantial historical and current ground geochemical (stream sediment, soil, and rock chip samples have been undertaken and two episodes of shallow drilling, mostly for industrial minerals (gemstones and vermiculite) by the various owners of the leases, since 2006.</li> </ul>

Further work		The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale stepout drilling).
	_	Diggrams alongly highlighting the aroun of possible

 Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. A future exploration strategy should encompass the following steps in subsequent field programs:

- Close-spaced radiometric geophysical surveys.
- Detailed mapping and rock chip sampling across prospects.
- Regional soil sampling campaigns.
- Mineral characterisation studies and petrological analysis.
- Target generation and prioritisation; and
- Exploratory RC drill-testing.

# **APPENDIX C: Application of new tenure (EL34147)**

Application of new tenure (EL34147) for a total of 15.79 Km<sup>2</sup>.

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	SF532701G	SF532701H	SF532701J	SF532701K EL3	SF532702F 2513	EL3 SF532702G	3125 SF532702H	SF532702J	SF5327
	SF532701M	SF532701N	SF5327010	SF532701P	SF532702L	SF532702M	SF532702N	SF5327020	SF53Z
	SF532701R	SF532701S	SF532701T	SF532701U	SF532702Q EL:	SF532702R 33228	SF532702S	SF532702T	SF532
-23°10'S	SF532701W	SF532701X	SF532701Y	SF532701Z	SF532702V	   SF532702W   EL34147	SF532702X	SF532702Y	   SF532
-23°	SF532773B EL327	SF532773C	SF532773D	SF532773E	SF532774A	SF532774B	SF532774C	SF532774D	SF53Z
	SF532773G	SF532773H	SF532773J	EL32506 — — — — — — — — — — — — — — — — — — —	SF532774F	SF532774G	SF532774H	SF532774J	
	SF532773M	SF532773N	SF5327730	SF532773P	SF532774L	EL33142 SF532774M	SF532774N	EL29389 SF532774O	SF53Zi
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