

ASX Release  
2 October 2024

## RareX gains access to bull's-eye magnetic anomaly in the NT Aileron Province prospective for Rare Earths and Niobium - Amended

Further to the announcement of 1 October 2024, RareX Limited (ASX: REE – **RareX**, or the **Company**) provides further information regarding the acquisition of the Piper Project. Please refer to Appendix 1.

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ASX Release  
1 October 2024

## RareX gains access to bull's-eye magnetic anomaly in the NT Aileron Province prospective for Rare Earths and Niobium

Engage with this announcement at the RareX [investor hub](#).

### Highlights

- The Piper Project contains an untested 2.5km wide bullseye magnetic anomaly forming a large carbonatite target under sedimentary cover in the same Aileron tectonic province extending from the West Arunta of WA into the NT
- Aileron Province is proven to host mineralised alkaline magmatism related to a mantle hotspots, with multiple niobium (Nb), phosphate (P) and rare earth element (REE) carbonatite occurrences, such as the WA1 Resources Luni Nb discovery 380 km to the west of Piper and the Nolans Bore REE deposit 170 km to the southeast
- Low-risk, low-cost, high-reward deal terms:
  - Earn-in over a five year period by drilling at least 3x 300m deep drill holes for a total of at least 1,000m for 80% of the project's interest.
  - RareX will solely fund project development up to decision-to-mine.
  - The vendor can elect to be diluted from 20% to 5% of ownership following the decision-to-mine if JV spending is not matched after that point.
  - At 5% interest the vendor will either need to contribute to JV spending or relinquish its interest in the tenure in return for a 1.0% net smelter royalty (NSR).
  - During the Earn-in & Development period, RareX is responsible for all aspects of tenure ownership and management, as well as permitting and landholder approvals to conduct the earn-in work.

RareX Limited (ASX: REE – **RareX**, or the **Company**) is pleased to announce it has formed an agreement with True Fella Pty Ltd (**True Fella**) for the Piper Project located in the Aileron Province, Northern Territory. The Piper Project is a carbonatite pipe target, which has similarities to RareX's Cummins Range carbonatite in WA, and has been identified as a high priority drill target by the Resource Potentials geophysical team, who helped WA1 Resources discover the Luni carbonatite.

The Piper Project will join a select group of RareX portfolio projects, including the Mt Mansbridge heavy rare earths project. Cummins Range is the flagship engineering project and Khaleesi is the current flagship exploration project within the RareX project portfolio. RareX is also active at pursuing advanced projects in other parts of the world whilst ensuring a pipeline of exploration projects in Australia.

Managing Director, James Durrant, commented: *"We are very pleased to establish a deal with True Fella Pty Ltd to explore the Piper Project. We believe this project has high potential to be a niobium-rare earths carbonatite pipe. The deal is structured to make sure the exploration dollars go into the ground and RareX is looking forward to testing True Fella's geophysical carbonatite target model. We see this project as complementary to our existing niobium and REE exploration portfolio and a robust medium-term proposition."*

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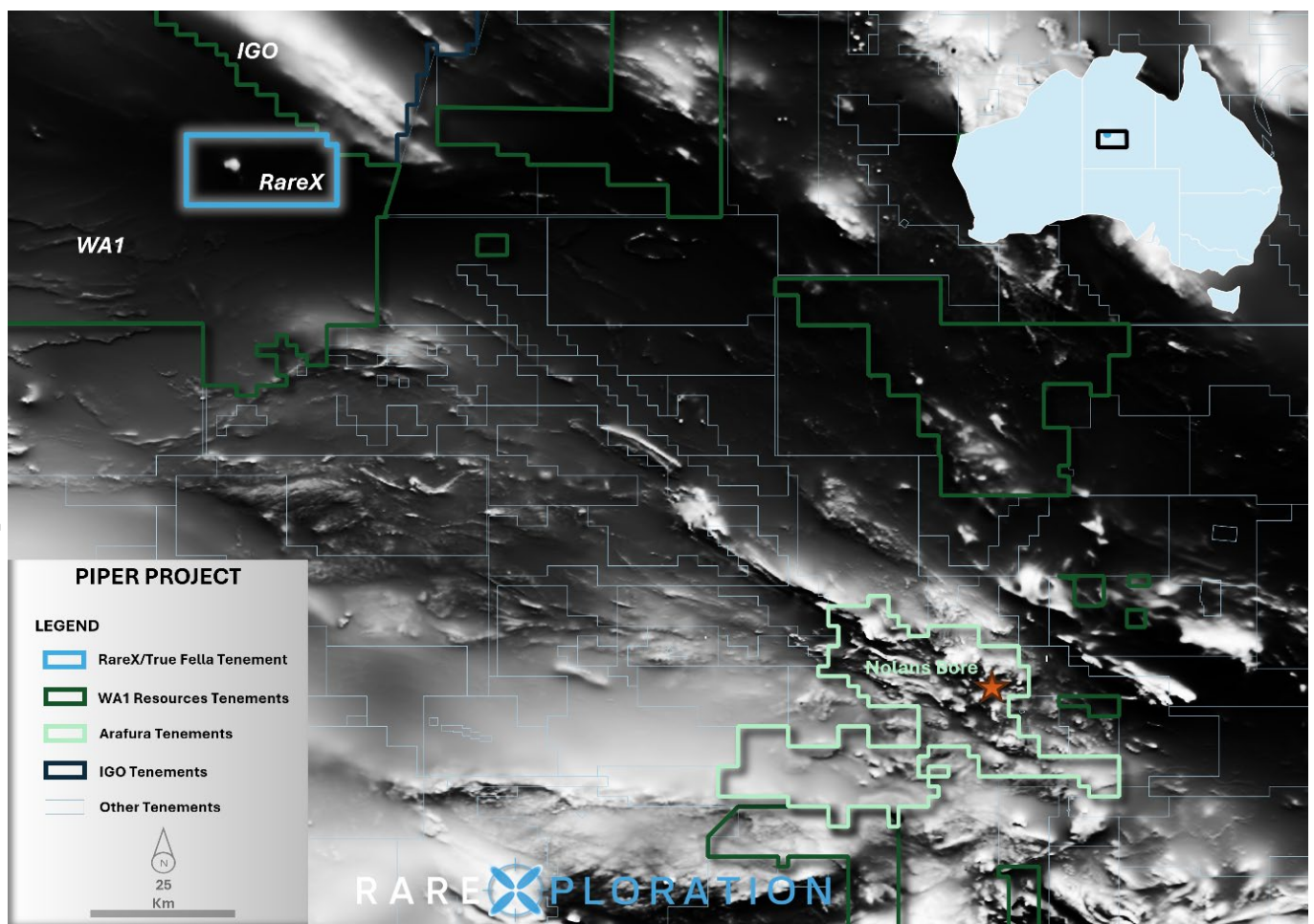
The Piper Project is located 320km north west of Alice Springs and 170km along strike to the north west from Nolans Bore REE deposit (resource 56Mt at 2.6% TREO<sup>1</sup>, see Figure 1). The Piper Project is comprised of 2 tenements (see Table 1), with the smaller of the two granted and the larger tenement pending a heritage land access agreement.

Both tenements were pegged in 2023 and, in recent months, all the surrounding ground has been applied for by WA1 Resources, supporting the Nb-REE-P prospectivity of the region (Figures 1 and 2).

**Table 1.** Piper Project tenement details.

Tenement	Status	Grant date	Area (km <sup>2</sup> )	Heritage Land Access Agreement
EL33675	Granted	29/04/2024	48	No
EL33674	Pending		284	No

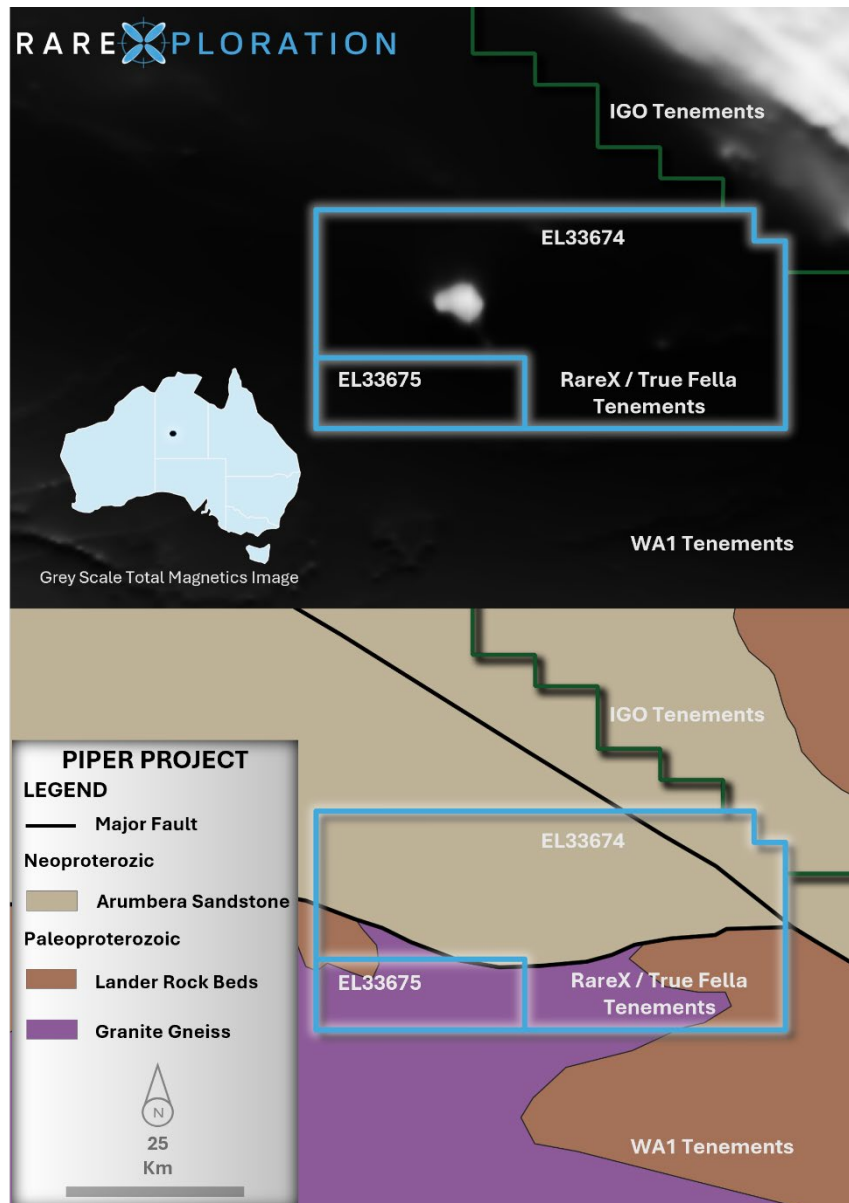
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**Figure 1.** Piper Project tenement outline (blue) and other regional tenements on grey scale Total Magnetic Intensity Image. The Piper Project tenements are now completely surrounded by recent WA1 Resources tenement applications.

<sup>1</sup> ARU ASX Announcement 7 June 2017: *Completion of Detailed Resource Assessment*

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**Figure 2.** Image at top shows Piper Project tenements on Total Magnetic Intensity image, and bottom image shows Piper Project tenements on interpreted bedrock geology. Note the magnetic carbonatite target in the top image.

The Piper Project is located in the central Aileron Province of the NT and is composed of Palaeoproterozoic granite-gneiss and Lander Rock Beds greenstone-gneiss domains, with the northern half of the tenement covered by younger Neoproterozoic Arumbera Sandstone from the Georgina Basin, which forms a layer that sits over the magnetic carbonatite target which is hosted in the Palaeoproterozoic gneiss.

The carbonatite target is comprised of a strong bull's-eye magnetic anomaly 2.5km in diameter (Figure 2 upper image). The geophysical anomaly sits under the Arumbera Sandstone which is interpreted to be 100m to 200m thick based on geophysical survey data and two historical air-core drill holes to a max depth of 93m over the magnetic anomaly, where none of the holes reached magnetic basement rocks (see Table 2).

The magnetic anomaly response of the carbonatite target indicates that the source body is in the upper 100m to 200m, and the target mineralisation is Nb-REE-P similar to the Cummins Range and Mt Weld carbonatite hosted deposits. The Aileron province has numerous alkaline intrusion complexes along its length, including mineralised bodies such as niobium enriched carbonatites in the western portion of the province forming the Western Arunta, such as WA1 Resources and Encounter Resources projects, and the Nolans Bore rare earths deposit located 170km along strike to the south east of the Piper project (see Figure 1).

RareX will negotiate a land access agreement with the Central Land Council on tenement EL33674 in coming months and will aim for a drilling program in 2025.

**Table 2.** Drill collars on Piper Project

Hole ID	Northing	Easting	Total depth (m)	Source	Company	Year
AHAC0002	7592500	191960	93	CR2002-0143	Newmont	2002
AHAC0003	7593500	192035	90	CR2002-0143	Newmont	2002

*(coordinates are in AGD66 datum and AMG Zone 53 projection)*

### Key Terms

Under the agreement, RareX will earn-in to the Piper Project over a five-year period by drilling at least 3x 300m deep reverse circulation or diamond holes for a total of at least 1,000m to gain an 80% interest.

During the earn-in period, RareX is responsible for all aspects of tenure ownership and management, as well as permitting and landholder approvals to conduct the earn-in work.

Following the initial drilling earn in milestone, RareX will solely fund the project development up to the decision point to mine the Project.

Following the decision-to-mine, the project vendor, True Fella Pty Ltd (an unrelated party), can elect to match joint venture spending in line with its interest to retain 20% of the Project or be diluted down to a 5% ownership stake.

At 5% interest, True Fella Pty Ltd will either need to contribute to joint venture spending or relinquish its interest in the tenure in exchange for a 1.0% NSR type royalty.

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

### Competent Person's Statement

The information in this report that related to Exploration Results has been compiled and reviewed by Mr Guy Moulang. Mr Guy Moulang is a full-time employee of RareX Limited and is a Member of the Australian Institute of Geoscientists and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Guy Moulang consents to the disclosure of the information in this report in the form and context in which it appears.

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### About RareX Limited – ASX: REE

RareX is a critical minerals company specialising in rare earths and niobium in hard rock carbonatites.

The **exploration** focus of the business is on the new Khaleesi Project in the East Yilgarn which is a district-scale, elevated-niobium, alkaline intrusive complex - a breeding ground for mineralised carbonatites. Data from Tier-1 exploration programs with elevated niobium values suggests a highly fertile system.

The Company's **engineering** and commercial focus is on offtake and approvals at the mid-study-level, Cummins Range Project (+\$330M NPV<sub>8</sub> post-tax\*) - a carbonatite hosted rare earths and phosphate project, containing magnet grade rare earths and battery grade phosphates and technically Australia's largest undeveloped rare earths project.

RareX have been curating a portfolio of carbonatite related prospects within which the newly acquired Khaleesi Project represents the exploration flagship. RareX will continue to develop and optimise its portfolio.

RareX maintains material investments in Kincora Copper (ASX:KCC), Cosmos Exploration (ASX:C1X) and Canada Rare Earth Corporation (LL.V).

**For further information on the Company and its projects visit [www.rarex.com.au](http://www.rarex.com.au)**

\* The forecast financial information was released on 22 August 2023. The Company confirms that the material assumptions underpinning the production target and forecast financial information continue to apply and have not materially changed



## Appendix 1: JORC Tables

### Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Composite samples are taken on all RAB/Aircore drill spoil. Samples are taken as 3 metre composite intervals. Drill spoil is collected in a bucket beneath the cyclone and at the end of each drill rod, The sample is speared using a plastic tube to gain a representative sample. This sample is placed into a calico bag (approx. 2kg) and sent to the laboratory for analysis.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Two Aircore holes were drilled as per Table 1 in the body of the announcement.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>There are no descriptions of assessing chip sample recoveries or results.</li> <li>No measures were described in the historic reports regarding maximising sample recovery</li> <li>There are no details in the historic reports regarding the relationship between sample recovery/grade and sample bias</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <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 style="list-style-type: none"> <li>All Aircore samples have been geologically logged to a level of detail to support a mineral resource estimation.</li> <li>Logging is qualitative</li> </ul>
<b>Sub-sampling techniques</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	<ul style="list-style-type: none"> <li>Composite samples are taken on all RAB/Aircore drill spoil. Samples are taken as 3 metre composite intervals. Drill spoil is collected in a</li> </ul>

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Criteria	JORC Code explanation	Commentary
<b>and sample preparation</b>	<ul style="list-style-type: none"> <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>	bucket beneath the cyclone and at the end of each drill rod, The sample is speared using a plastic tube to gain a representative sample. This sample is placed into a calico bag (approx. 2kg) and sent to the laboratory for analysis.
<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, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>Samples from holes AHAC0002 and AHAC0003 were assayed at Amdel laboratory. Specific assay method details are unknown.</li> <li>Magnetic images used in the Figures within the announcement are from Northern Territory Strike Platform and/or GSA Portal.</li> <li>Magnetic survey was flown in 2019 with 200m flight spacing at north south orientation. Tie Line spacing of 2000m with east west orientation. Average terrain clearance of 60m.</li> </ul>
<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>No drilling results have been reported.</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>The surveying techniques for dill hole collars have not been described in the annual report.</li> <li>Grid system shown in Table 1.</li> <li>Topographic control is unknown</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>Drill hole spacing is considered appropriate for first pass exploration drilling.</li> <li>Composite samples are taken on all RAB/Aircore drill spoil.</li> <li>Magnetic survey was flown in 2019 with 200m flight spacing at north south orientation. Tie Line spacing of 2000m with east west orientation. Average terrain clearance of 60m. This spacing is considered appropriate to support exploration magnetics assessment.</li> </ul>



Criteria	JORC Code explanation	Commentary
<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>Drill holes were vertical, and this is considered appropriate</li> <li>No mineralisation was intersected.</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>No sampling by RareX has been completed</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 audits or reviews have been commissioned by RareX. It is unknown whether historic explorers conducted audits or reviews.</li> </ul>

## Section 2: Reporting of Exploration Results

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>EL33675 granted with no heritage agreement.</li> <li>EL33674 is not granted and is on Aboriginal land. Access is currently being negotiated.</li> <li>There are no known impediments on these tenements.</li> <li>Both tenements are the subject of an earn-in agreement with True Fella Pty Ltd whereby the Company must drill at least 3 x 300m deep reverse circulation or diamond holes for a total of at least 1,000m for an 80% interest. RareX will sole fund until a decision to mine after which True Fella Pty Ltd can contribute or be diluted. Once True Fella Pty Ltd has been diluted to a 5% interest, they must contribute or relinquish all interest in exchange for a 1% NSR royalty.</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>Newmont Australia completed two regional exploration aircore drill holes over the magnetic anomaly in 1999-2002 (CR20020143). Details are shown in Table 1. The drillholes did not pass through the Arumbera Sandstone and there were no significant results in the assays.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Piper Project is located in the central Aileron Province of the NT and is composed of Palaeoproterozoic granite-gneiss and the Lander Rock Beds greenstone-gneiss domains, with the northern half of the tenement covered by younger Neoproterozoic Arumbera Sandstone from the Georgina Basin, which sits over the magnetic carbonatite target hosted in Palaeoproterozoic gneiss. The carbonatite target is comprised of a strong bulls eye magnetic anomaly 2.5km in diameter</li> </ul>

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Criteria	JORC Code explanation	Commentary
		(Figure 2 upper image). The geophysical anomaly sits under the Arumbera Sandstone which is interpreted to be 100m to 200m thick. Historically, two air core drill holes to a max depth of 93m have been drilled on the anomaly and neither reached magnetic basement rocks (Table 2).
<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 drill hole 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>Drill hole details are in Table 1.</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 (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> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>There are no aggregation methods.</li> <li>There are no metal equivalents</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 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. 'downhole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>No mineralisation reported.</li> </ul>
<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 drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>Relevant diagrams are presented in the body of this report.</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</li> </ul>	<ul style="list-style-type: none"> <li>Reported exploration results are considered balanced.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>practiced to avoid misleading reporting of Exploration Results.</i>	
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The project is at early exploration phase. As more information becomes available, RareX will report these results.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>Ground assessment can begin on tenement EL33675.</li> <li>Negotiating access to tenement EL33674.</li> </ul>

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