

ASX Release
13 November 2023

Magnetics and Gravity Surveys Identify Potential New Ultramafic Pipes at Cummins Range

New targets present similar geophysical response to the existing Mineral Resource area, offering an exciting target for Resource growth

Highlights

- Detailed magnetics and ground gravity surveys completed over the Cummins Range Project
- **Two large ultramafic bodies identified** to the north of the current Cummins Range Rare Earths and Phosphate Mineral Resource area, including a **pipe-like structure 6km north of existing deposit**
- The new targets present similar geophysical responses to the known Cummins Range deposit and represent **high-priority targets for follow-up exploration**
- Numerous other anomalies also identified
- Planning now underway for follow-up exploration programs for commencement in early 2024

RareX Limited (ASX: REE – **RareX or the Company**) is pleased to advise that recently completed magnetics and gravity surveys at its 100%-owned Cummins Range Rare Earths and Phosphate Project (the **Project, Cummins Range**), located in the Kimberley region of Western Australia, have delivered a number of new targets including two ultramafic bodies to the north of the existing Mineral Resource area.

The aerial magnetics and ground gravity surveys were completed over 100%-owned tenements E80/5092 and E80/5372 at Cummins Range in September. Both surveys identified numerous targets, including a likely second ultramafic pipe in the northern portion of E80/5092.

Over the Kimberley wet season, the RareXploration team will integrate the new data and prioritize rare earths exploration targets to follow-up in 2024. RareXploration is the division of RareX focused on target generation and investment curation. The adjacent anomalies to the Cummins Range deposit are the obvious priority for this team in the short term before moving focus to the other tenements in the RareXploration portfolio.

RareX Chief Executive Officer, James Durrant, said: *"This is a hugely exciting outcome that provides high-priority targets for follow-up exploration in 2024. Carbonatites often occur in swarms, with any new discoveries adjacent to the Cummins Range deposit providing strong potential to rapidly expand our existing critical metals inventory. The imminent arrival of the wet season in northern Australia now provides the RareXploration team with an opportunity to review all the newly acquired data and plan key targets for drilling in 2024."*

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Magnetic and Gravity Surveys

The magnetic survey was flown by MagSpec Airborne Surveys at 50m spacing. The ground gravity survey was completed by Atlas Geophysics at a 400m spacing with 200m infill in areas of interest. Supervision and ongoing interpretation of the surveys was conducted by Resource Potentials.

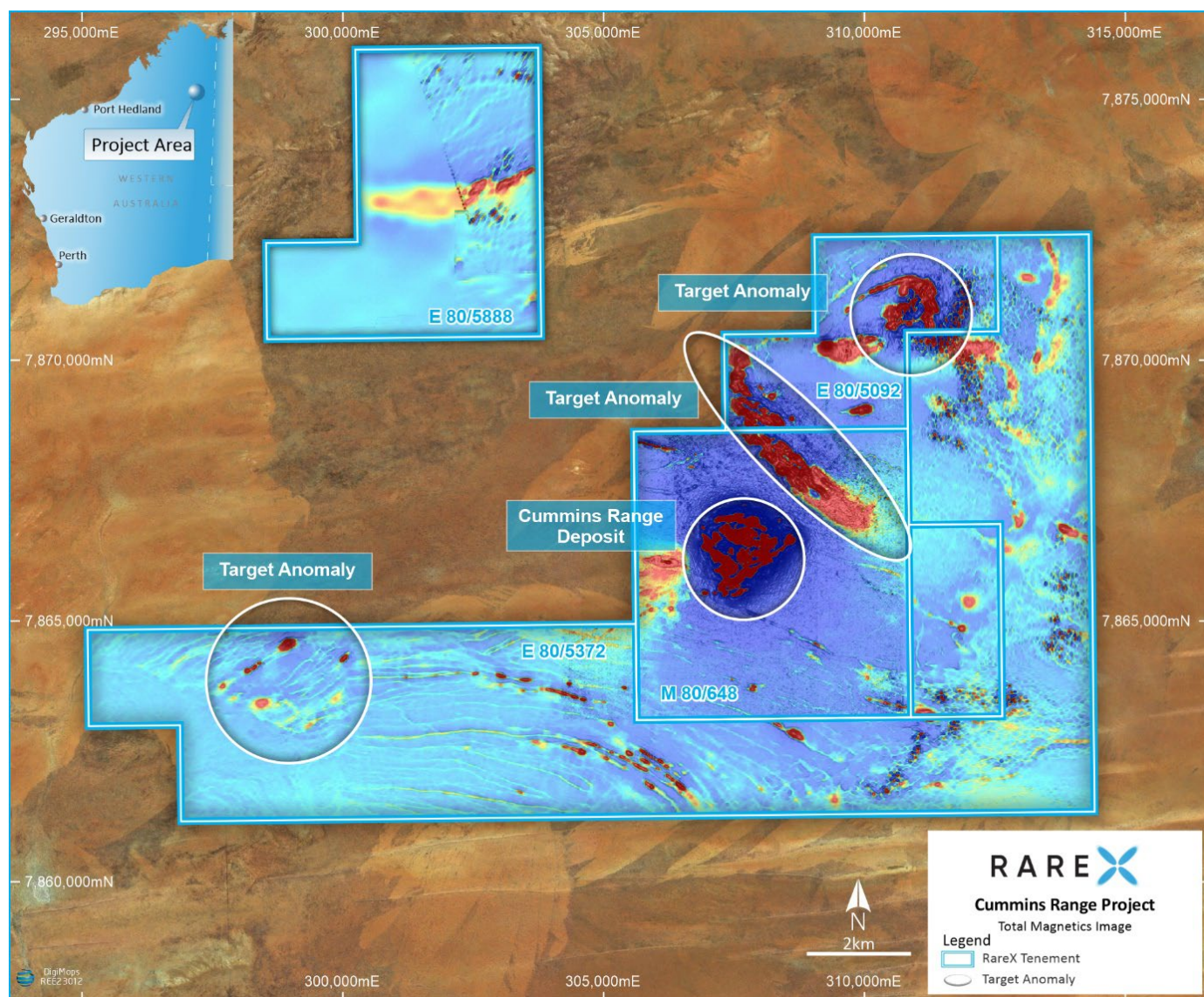


Figure 1. Total magnetics image on RareX tenements

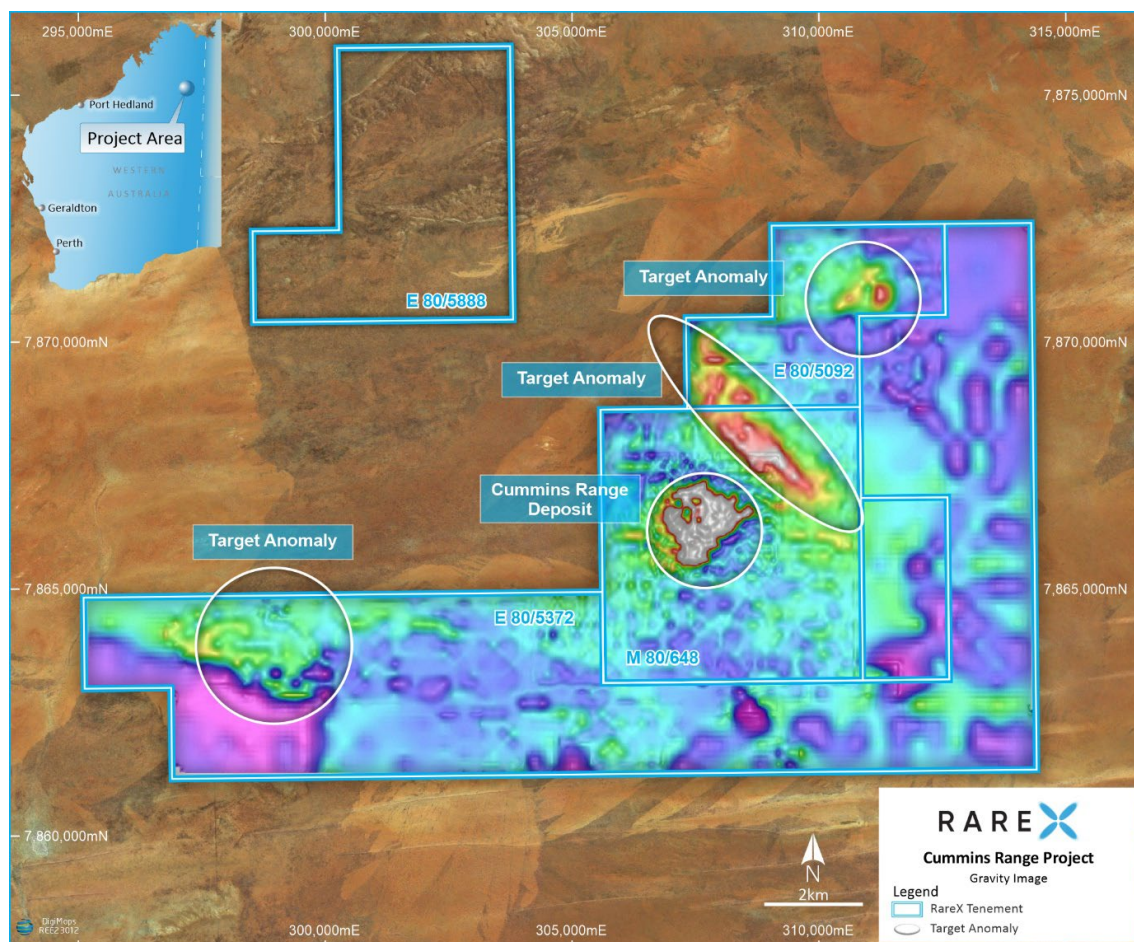


Figure 2. Ground Gravity image on RareX tenements

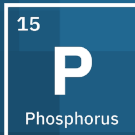
The Cummins Range carbonatite is hosted in an ultramafic pipe and produces a strong magnetic and gravity anomaly in contrasting country rocks of paleoproterozoic granitic rocks and neoproterozoic sediments. The carbonatites have intruded into the ultramafic pipe and have likely used the same deep tapping structures to move through the earth's crust.

Results from the surveys indicate two large well-defined ultramafic bodies to the north of the existing Cummins Range deposit. The body immediately to the north of Cummins Range measures 4km long and up to 1km wide. Geophysics has defined internal structures and irregularities in the body, which may have been caused by intruding carbonatites similar to those within the Cummins Range pipe.

A second pipe-like circular ultramafic body measuring 1km in diameter has been defined 6km to the north of the Cummins Range deposit. The magnetic and gravity responses over this intrusion also show irregular responses similar to those seen at the Cummins Range pipe.

Numerous other anomalies have also been identified.

Over the wet season, the RareXploration team will compile and assess historical geochemical surveys and drilling results, which will be used to prioritize target areas for 2024 exploration programs.



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

Competent Person's Statement

The information in this report that related to Exploration Results is based on, and fairly reflects, information reviewed and compiled 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.

About RareX Limited – ASX: REE

RareX Limited (ASX: REE), a Perth based project development and exploration Company, was founded on the fundamental belief of the electronics revolution and the electric vehicle mega-trend. Our focus is rare earths and associated battery and electronic metals.

Cummins Range, in the East Kimberley region of Western Australia, is our flagship project which aims to produce a sustainable, ethical, transparent and secure low carbon rare earth and phosphate supply chain solution for its products which satisfy the two global mega-trends of population growth and electrification.

RareX maintains exploration upside programs in the immediate vicinity of the Cummins Range Project and also more broadly to identify targets and progress projects complementary to the founding beliefs and expertise of the core team.

Rare earths and in particular, NdPr, are core enablers of decarbonisation and electrification of our society. NdPr supports high strength magnets which enables low carbon technologies, especially in the electric mobility sector, robotics solutions and renewable energy, particularly the wind energy sector.

Phosphate is the feedstock for the emerging dominant battery technology; lithium-ferro-phosphate (LFP). The global LFP battery market is projected to grow from \$10 billion in 2021 to \$50 billion by 2028 as more EVs adopt the safer and longer life technology and grid stabilization batteries expand to balance intermittent renewable generation.

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



Appendix 1: JORC Table

JORC Code, 2012 Edition – Table 1		
Cummins Range Section 1 Sampling Techniques and Data		
Criteria	JORC Code Explanation	
Sampling techniques	<i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	The aerial magnetics was completed with a Geometrics G-823A tail sensor, mounted in a stinger housing. The survey was flown on at 50m line spacing The ground gravity was completed with a Scintrex CG5 relative gravity meter. The survey was done on a 400m x 400m grid with 200m x 200m infill in particular areas.
Drilling Techniques	<i>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).</i>	Not applicable as no drilling reported
Drill Sample Recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> <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>	Not applicable as no drilling reported
Logging	<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> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> <i>The total length and percentage of the relevant intersections logged.</i>	Not applicable as no drilling reported
Sub-sampling techniques	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	The aerial magnetics was completed with a Geometrics G-823A tail sensor, mounted in a stinger housing.

and sample preparation	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	The ground gravity was completed with a Scintrex CG5 relative gravity meter.
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total 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. 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.</i>	Not applicable as no drilling reported
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. The verification of significant intersections by either independent or alternative company personnel. Discuss any adjustment to assay data.</i>	Not applicable as no drilling reported
Location of data points	<i>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. Specification of the grid system used. Quality and adequacy of topographic control.</i>	Aerial Magnetic survey was flown on a 50m spacing Ground Gravity survey was completed on a 400m x 400m grid with 200m x 200m in areas of interest
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.</i>	Data spacing for both of the surveys is good density to establish a high degree of confidence between data points.
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	The orientation of the survey has not created any bias.
Sample security	<i>The measures taken to ensure sample security</i>	Not applicable as no drilling reported



Cummins Range Section 2 Reporting of Exploration Results

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	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. 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.	The Cummins Range REO deposit is located on tenement E80/5092 and is 100% owned by Cummins Range Pty Ltd which is a wholly owned subsidiary of RareX Ltd. Cummins Range Pty Ltd has purchased the tenement from Element 25 with a potential capped royalty payment of \$1m should a positive PFS be completed within 36 months of purchase finalisation.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	CRA Exploration defined REO mineralisation at Cummins Range in 1978 using predominantly aircore drilling. Navigator Resources progressed this discovery with additional drilling after purchasing the tenement in 2006. Navigator announced a resource estimate in 2008. Kimberly Rare Earths drilled additional holes and upgraded the resource estimate in 2012.
Geology	Deposit type, geological setting and style of mineralisation.	The Cummins Range REO deposit occurs within the Cummins Range carbonatite complex which is a 2.0 km diameter near-vertical diatreme pipe that has been deeply weathered but essentially outcropping with only thin aeolian sand cover in places. The diatreme pipe consists of various mafic to ultramafic rocks with later carbonatite intrusions. The primary ultramafic and carbonatite rocks host low to high grade rare earth elements with back ground levels of 1000-2000ppm TREO and high grade zones up to 17% TREO. The current resource sits primarily within the oxidised/weathered zone which reaches to 120m below the surface. Metallurgical studies by previous explorers and by RareX show the rare earth elements are hosted by Monazite which is a common and favourable host for rare earth elements.
Drill hole information	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: - easting and northing of the drill hole collar - elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar - dip and azimuth of the hole - down hole length and interception depth - hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	Not applicable as no drilling reported

Data aggregation methods	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	Not applicable as no drilling reported
Relationship between mineralisation widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i>	Not applicable as no drilling reported
Diagrams	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	An image of both Aerial Magnetics and Ground Gravity are with in the announcement.
Balanced reporting	<i>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.</i>	Reporting is considered balanced
Other substantive exploration data	<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>	This announcement describes the geophysical surveys completed around the Cummins Range deposit which has a resource of 519Mt at 0.32% TREO and 4.6% Nb ₂ O ₅ . An auger drilling program was completed in 2011 over tenement E80/5092 on a 500m x 100m grid. Rare earths were elevated on or proximal to all the above mentioned anomalies in this announcement. The auger drilling program was followed up by broad spaced aircore drilling over parts of the geophysics anomalies in this announcement. The aircore holes confirmed the geophysics anomalies were ultramafics with locally strongly elevated rare earths. No carbonatites were intersected.
Further work	<i>The nature and scale of planned further work (eg tests for lateral extensions or large scale step out drilling. Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Integrating geophysical results with historic exploration data. Design geochemical surveys over geophysics anomalies Follow up drilling on geochemical anomalies