

26 October 2021

## EXPLORATION LICENCE 00257 APPROVED AT MAKUUTU

- The Ugandan DGSM has approved IonicRE's application for new Exploration Licence 00257 to northwest of Makuutu Project
- Licence increases Makuutu Rare Earths Project area to approximately 300 square kilometres
- Earlier drill programs have indicated presence of rare earth bearing clays to northwest of current Makuutu Mineral Resource Estimate

Ionic Rare Earths Limited ("IonicRE" or "the Company") (ASX: IXR) is very pleased to announce that the Ugandan Directorate of Geological Survey and Mines (DGSM) has provided advice to the Company's 51% owned Ugandan subsidiary Rwenzori Rare Metals Limited (RRM) that the application for Exploration Licence 00257, located adjacent and to the northwest of the Makuutu Mineral Resource Estimate (MRE), has been granted for the Makuutu Rare Earths Project ("Makuutu") in Uganda (Figure 1).

Drilling earlier this year, as part of the Phase 3 Rotary Air Blast (RAB) drill program (ASX 20 July 2021), reported assay results showing thick clay intervals more than 2 kilometres north and west of the basin margin. The rare earth element (REE) mineralised intercepts reported in this area may present an opportunity for further REE mineralisation to exist to the northwest, and outside of the current basin margin trend. Given the significance of those results, the Company applied for the new 56 square kilometre EL.

EL00257, has been granted for three (3) years and will provide the Company with additional new greenfield exploration potential at Makuutu. The addition of EL00257 now increases the total tenement area of Makuutu to approximately 300 square kilometres.

The Company will provide updates to the market as progress continues with the advancement of the Project.

Authorised for release by the Board.

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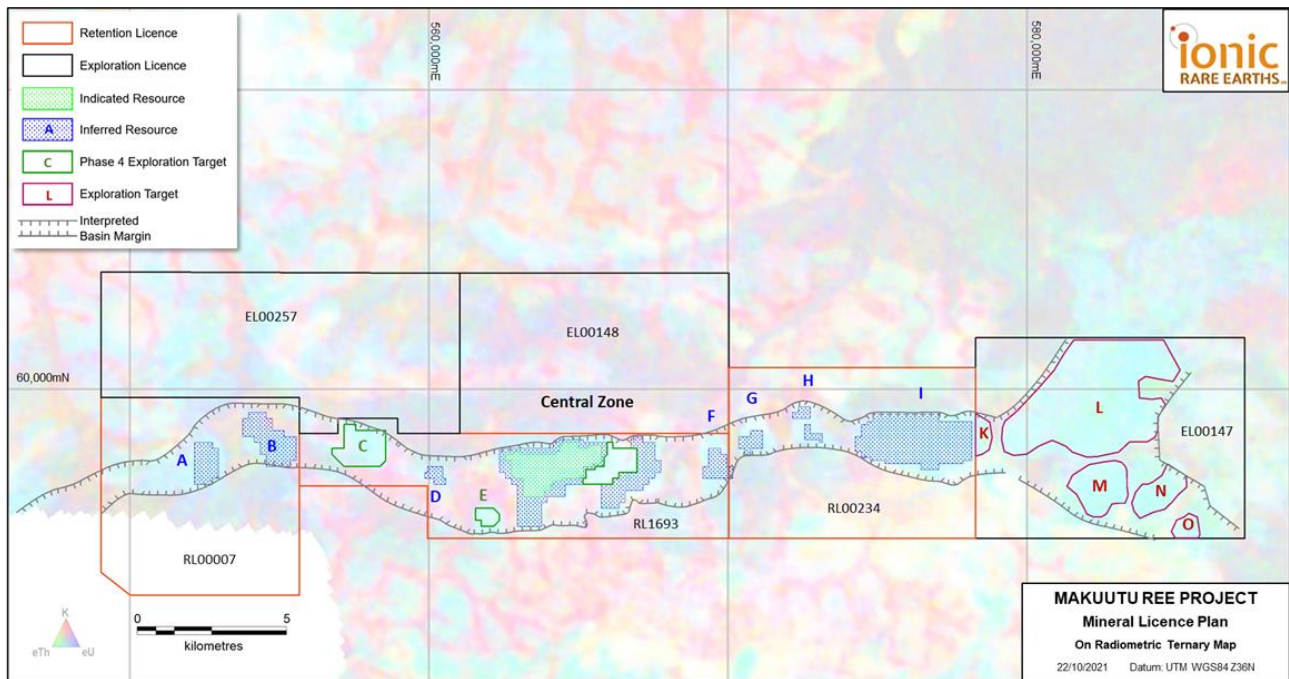


Figure 1: Makuutu Rare Earths Project approved tenements, showing the recently approved EL00257 (northwest, black outline), along with current resource areas and exploration targets across the 37-kilometre-long mineralisation trend.

### About Makuutu Rare Earths Project

The Makuutu Rare Earths Project is an ionic adsorption clay (“IAC”) hosted Rare Earth Element (“REE”) deposit located 120 km east of Kampala in Uganda and is well serviced by existing high quality infrastructure including roads, rail, power infrastructure and cell communications. The installed infrastructure is illustrated in Figure 2.

The Company will move to 60% ownership of Makuutu on the completion of the Feasibility Study and has a pre-emptive right over the remaining 40% stake in the Project.

The deposit stretches 37 km in length and has demonstrated potential for a long life, low-cost capital source of critical and heavy rare earths. These IAC deposits are prevalent in southern China which have been the source of the world’s lowest cost critical and heavy REE production, however these deposits are gradually being exhausted and Makuutu represents one of only a handful of such deposits outside of southern China.

The Makuutu deposit is shallow, with less than 3 m of cover over a 9 m average thickness clay and saprolite zone which results in low-cost bulk mining methods with low strip ratio. A maximum thickness of 19.5 m has been identified at Makuutu. Processing is via simple acidified salt desorption heap leaching, breaking the chemical ionic bond which washes the rare earths (in a chemical form) from the ore into a pregnant leach solution (“PLS”). The PLS is concentrated up using membrane technology, from which the rare earths are precipitated as a mixed rare earth carbonate product; a product which attracts both a higher payability and achieves a high basket price due to the dominant high value critical and heavy rare earths which make up over 70% of the product basket.

The Project has the potential of generating a high margin product with an operation life exceeding 27 years. The Project is also prospective for a low-cost Scandium co-product.



Figure 2: Makuutu Rare Earths Project Location with major existing infrastructure.

### Existing Infrastructure

One of the Makuutu Rare Earths Project's competitive advantages is its proximity to existing infrastructure. The Makuutu site is approximately 10km from Highway 109 which is a sealed bitumen road connecting to Kampala, to Kenya and on to the Port of Mombasa. All weather access roads connecting the site to the adjacent sealed bitumen highway are already existing. A rail line lies within 10 kilometres north of the Makuutu site near the town of Iganga. There are four hydroelectric power plants located within 65 km of the project area, with total installed generating capacity of approximately 810 MW, providing an abundant supply of cheap power to the Project.

Water will be sourced at the project by harvesting water from the Makuutu site, given the Project location in a positive rainfall environment, and a net positive process water balance will require membrane processes to be used to process site discharge water for reagent recovery. Excess water management will be a key focus of the Project to ensure environmental standards are met and reagent consumption is minimised.

A workforce of semi-skilled and artisanal workers is available in nearby towns and population centres. The closest major population centre is Iganga, which has a population of 50,000. The town of Mayuge is approximately 10 km from the Project site and the intent is to source local operations staff from the immediate districts and train staff accordingly. The operation is to be staffed by a residential workforce. No fly in – fly out is envisaged, and the number of expatriate staff is intended to be low, and to be phased out over time. Industrial facilities are available in the city of Jinja, approximately 40 km from the Project area. Additional industrial facilities are available on the outskirts of Kampala.

## Competent Person Statements

*Information in this report that relates to previously reported Exploration Targets and Exploration Results has been cross-referenced in this report to the date that it was originally reported to ASX. Ionic Rare Earths Limited confirms that it is not aware of any new information or data that materially affects information included in the relevant market announcements.*

*The information in this report that relates to Mineral Resources for the Makuutu Rare Earths deposit was first released to the ASX on 3 March 2021 and is available to view on [www.asx.com.au](http://www.asx.com.au). Ionic Rare Earths Limited confirms that it is not aware of any new information or data that materially affects information included in the relevant market announcement, and that all material assumptions and technical parameters underpinning the estimates in the announcement continue to apply and have not materially changed.*

*The information in this report that relates to Scoping Study results and production targets was first released to the ASX on 29 April 2021 and is available to view on [www.asx.com.au](http://www.asx.com.au). Ionic Rare Earths Limited confirms that it is not aware of any new information or data that materially affects information included in the relevant market announcement, and that all material assumptions and technical parameters underpinning the estimates in the announcement continue to apply and have not materially changed.*

## Forward Looking Statements

*This announcement has been prepared by Ionic Rare Earths Limited and may include forward-looking statements. Forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of Ionic Rare Earths Limited. Actual values, results or events may be materially different to those expressed or implied in this document. Given these uncertainties, recipients are cautioned not to place reliance on forward looking statements. Any forward-looking statements in this document speak only at the date of issue of this document. Subject to any continuing obligations under applicable law and the ASX Listing Rules, Ionic Rare Earths Limited does not undertake any obligation to update or revise any information or any of the forward-looking statements in this document or any changes in events, conditions or circumstances on which any such forward looking statement is based.*