

13 August 2020

DRILLING RAPIDLY ADVANCING AT MAKUUTU RARE EARTHS PROJECT

- **3,700 metre drilling program to further quantify full potential of the 26-kilometre-long Makuutu mineralisation corridor and will materially increase the size of the already substantial Mineral Resource Estimate**
- **967 metres comprising 62 drill holes completed to date with two rigs operating**
- **First batch of drill core submitted for analysis with assays expected within 4 weeks**
- **Scoping study progressing well in parallel to the drilling**

Ionic Rare Earths Limited (“IonicRE” or “the Company”) (ASX: IXR) is pleased to provide an update on progress of the Phase 2, 3,700 metre drill program at the Makuutu Rare Earths Project (“Makuutu”) in Uganda.

As announced to the ASX on 28th July 2020, a second drill rig arrived on site and doubled productivity with three (3) to four (4) holes completed each day on average. This will reduce the time taken to complete the 3,700 metre Phase 2 drill program from an estimated 23 weeks to 13 weeks and is planned to conclude in October.

To date, 62 drill holes totaling 967 metres have been completed as part of the Phase 2 drill program. The first 11 holes were designed to confirm confidence of the internal geological continuity of the mineralisation by infilling on a 100 metre x 100 metre hole spacing. Subsequent drilling is focused on increasing the size of the existing Mineral Resource Estimate by drilling out the Makuutu Central Zone on a 400 metre x 400 metre grid over an area of approximately 16 square kilometres, which is more than three (3) times the existing Mineral Resource Estimate (MRE) area.

Drill core from the first 16 drill holes have now been received in Australia for assaying. The assay results will be used to refine the infill hole spacing and pattern in order to increase the Indicated Mineral Resource.

This drill program is the largest undertaken on the project to date, and will materially expand on the previous 990 metres of core drilling which delivered a Mineral Resource Estimate announced to the ASX on 23rd June 2020 and set out in Table 1, of:

78.6 Million tonnes @ 840 ppm TREO, at a cut-off grade of 300 ppm TREO-Ce₂O₃

The strong potential to expand this resource was indicated by the positive drill results from the Makuutu Eastern Zone, some six (6) kilometres from the Makuutu Central Zone, announced to the ASX on 28th May 2020.

Most of the untested 26-kilometre-long Makuutu mineralisation corridor will be tested by the current drill program, which will potentially realise the significant resource potential at Makuutu as evidenced by the Exploration Target* of **270 – 530 million tonnes grading 0.04 – 0.1%** (400 – 1,000 ppm) TREO¹ as announced to the ASX on 4th September 2019.

*This Exploration Target is conceptual in nature but is based on reasonable grounds and assumptions. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

Ionic Rare Earths Chief Executive Officer Mr. Tim Harrison commented:

“The progress of the drilling campaign to date has been outstanding, with the two drill rigs now working smoothly in unison to rapidly complete the program. Once the initial core analysis is complete, we will firm up the remaining infill drill program with a focus on significantly increasing the indicated resource component of the Makuutu Central Zone.”

Furthermore, the resource extension drill program is now advancing well into the Makuutu Eastern Zone where our previous drilling in late 2019 demonstrated exciting potential for a step change in overall resource tonnage.”

Drilling Program

The planned diamond core drilling program, which follows on from the drilling program undertaken by the Company in Q1 2020, is illustrated in Figure 1, Figure 2 and Figure 3:

- 1) In-fill drilling within the area of the current Mineral Resource (on tenement RL 1693) to assess short range REE grade variability for application to resource grade estimation confidence, (11 drill holes completed).
- 2) Resource extensional drilling to expand the current Mineral Resource area further to the east (on tenement RL 1693), (37 drill holes completed).
- 3) Exploration drilling on adjacent tenement EL 1766, or Makuutu Eastern Zone (MEZ) (underway).
- 4) Exploration drilling on the western side of the current Mineral Resource area further to the west (on tenement RL 1693).
- 5) Exploration drilling on adjacent tenement RL 00007, or Makuutu Western Zone (MWZ).
- 6) In-fill drilling within the area of the current Mineral Resource (on tenement RL 1693) to enhance resource grade estimation confidence.

¹ TREO = Total Rare Earth Oxide

Drill hole core samples from the first 16 drill holes have now been received in Perth. It is expected that the first batch of assays will be received within four (4) weeks.

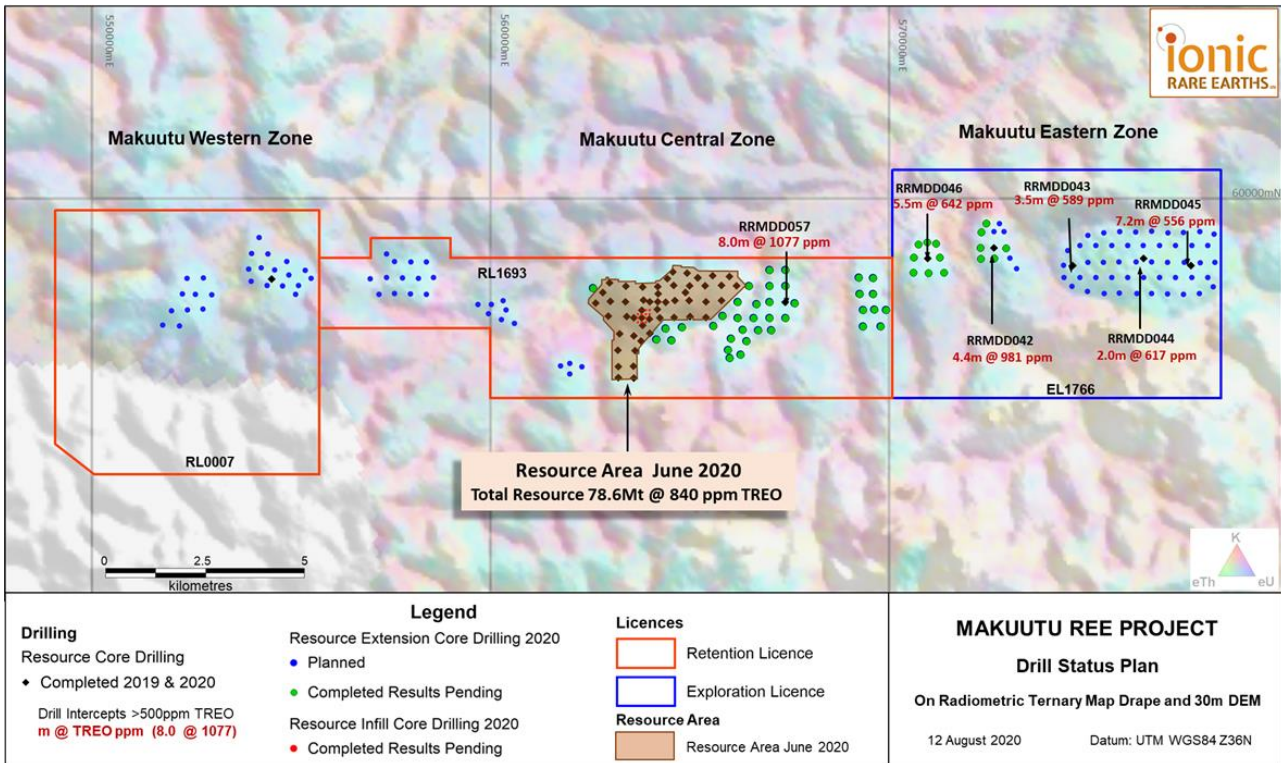


Figure 1: Current drill program showing both completed (red & green) and planned (blue) drill holes stretching over 26 kilometres across the three tenements at the Makuutu Rare Earths Project.

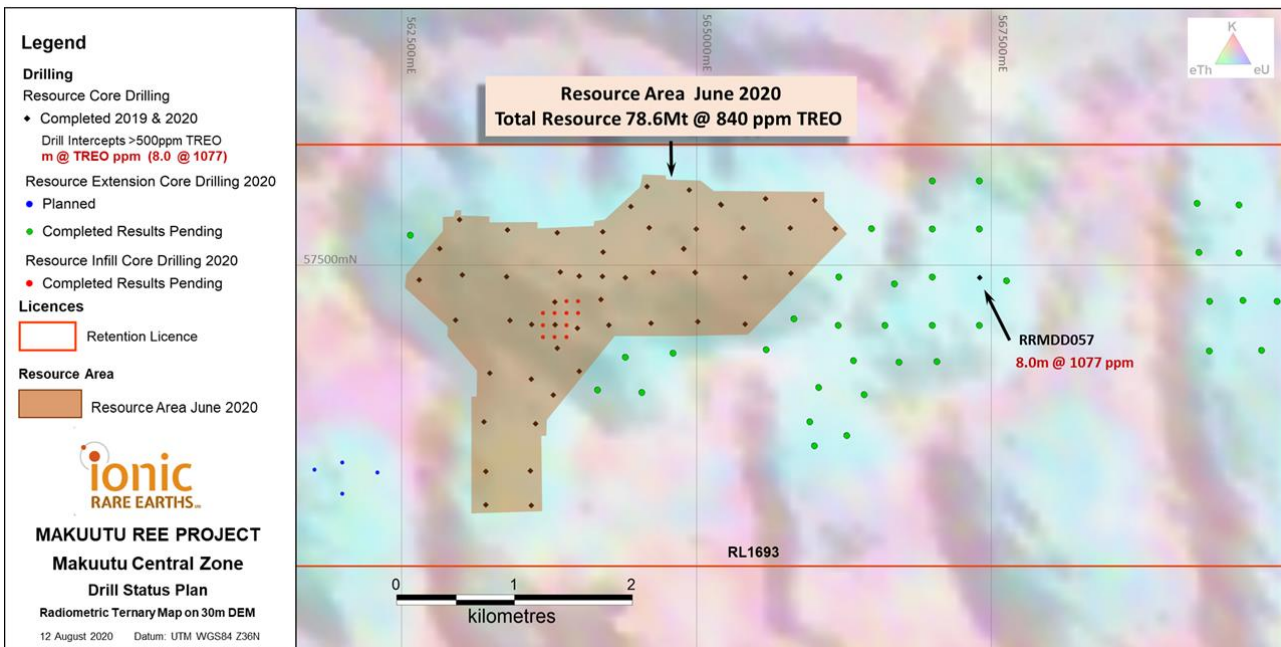


Figure 2: Current drill program showing both completed (red & green) and planned (blue) drill holes adjacent to the existing June 2020 Mineral Resource Estimate.

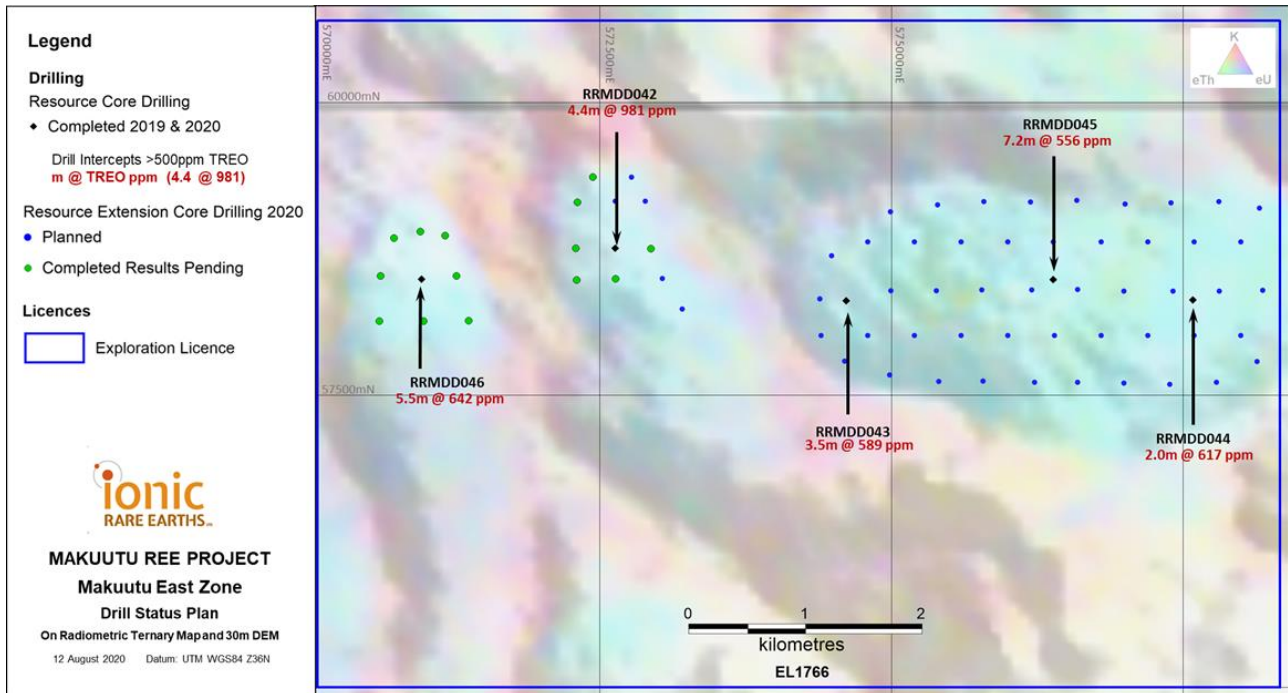


Figure 3: Current drill program showing both completed (green) and planned (blue) drill holes in the Makuutu Eastern Zone, EL 1766.

Scoping Study Progress

Various activities to support the completion of the Scoping Study are now underway. Mining studies have been initiated to explore optimal mining rate scenarios. Mining rates from two and a half (2.5) million tonnes per annum up to 10 million tonnes per annum have been explored.

Process plant reviews have been conducted to assess practical process module capacity and are focusing upon nominal module capacity of two and a half (2.5) million tonnes per annum. This will enable the potential to scale throughput and mixed rare earth carbonate (MREC) production accordingly.

The Scoping Study remains on track for a completion by 1 November 2020.

Table 1: Makuutu Resource above 300ppm TREO-Ce₂O₃ Cut-off Grade.

Resource Classification	Tonnes (millions)	TREO (ppm)	TREO-Ce ₂ O ₃ (ppm)	LREO (ppm)	HREO (ppm)	CREO (ppm)
Indicated Resource	9.5	750	520	550	200	280
Inferred Resource	69.1	860	620	640	210	320
Total Resource	78.6	840	610	630	210	310

Rounding has been applied to 0.1Mt and 10ppm which may influence grade average calculations.

Table 2: Makuutu Rare Earths Project Reconnaissance RRMDD Diamond Core Hole Details (Datum UTM WGS84 Zone 36N)

Drill Hole ID	UTM East (m.)	UTM North (m.)	Elevation (m.a.s.l.)	Drill Type	Hole Length EOH (m.)	Azimuth	Inclination
RRMDD042 ²	572,636	58,752	1,106	DD	11.20	0	-90
RRMDD043 ¹	574,615	58,301	1,125	DD	12.50	0	-90
RRMDD044 ¹	576,391	58,482	1,145	DD	15.00	0	-90
RRMDD045 ¹	577,588	58,310	1,147	DD	18.50	0	-90
RRMDD046 ¹	570,974	58,487	1,103	DD	12.00	0	-90
RRMDD057 ³	567,405	57,393	997	HQ DD	16.50	0	-90

Authorised for release by Brett Dickson, Company Secretary.

***** ENDS *****

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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 23 June 2020 and is available to view on 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.

² Announced to ASX 23rd December 2019. Elevation is not considered accurate. Recorded with handheld GPS

³ Reported to ASX on 28th May 2020.