

19 June 2023

Lyons REE Drill Program Completed

- RC drilling programme (9,635m) in 94 drillholes at Lyons Project in the Gascoyne finalised
- Drilling of new outcropping ironstone targets generated by airborne geophysical magnetics and radiometrics imagery
- Infill drilling following up on the outstanding results from Lyons 12 & 13 to assist with initial Mineral Resource Estimation (MRE)
- Two deep EIS Co-Funded Exploration Holes to test the rims of two large Ferrocarnatite targets
- Drilling targeting Fenitisation containing enriched zones of REE and Niobium (Nb_2O_5) along the outer rim of the regionally significant sized targets of carbonatite complexes

Mr Brian Thomas, Lanthanein Technical Director commented *“The finalisation of drilling on new outcropping ironstone trends is a very exciting time for Lanthanein. The drilling of these new discoveries is the result of the geological team’s growing understanding of the rare earth mineralisation controls within the Gifford Creek Carbonatite complex. Assays from this program could provide a breakthrough discovery that could potentially transform the Company. We look forward to moving to a mineral resource estimate on the high grade outcropping ironstones at Lyons 12 & 13 which are approximately 2km from Hastings Technology Metals (ASX:HAS) Frasers and Simons Find pits and updating the market with results as drilling progresses.”*

Lanthanein Resources Ltd (ASX: FNT) (**Lanthanein** or the **Company**) is pleased to announce that drilling (Figure 1) has finished at the Lyons Rare Earths Project in Western Australia (**Lyons Project**). The drill program targeted high-grade rare earth mineralisation previously discovered at the outcropping ironstones and additional interpreted carbonatite intrusives and ironstones undercover at Lyons (Figure 1).

The Company looks forward to updating the market with assays as they become available.

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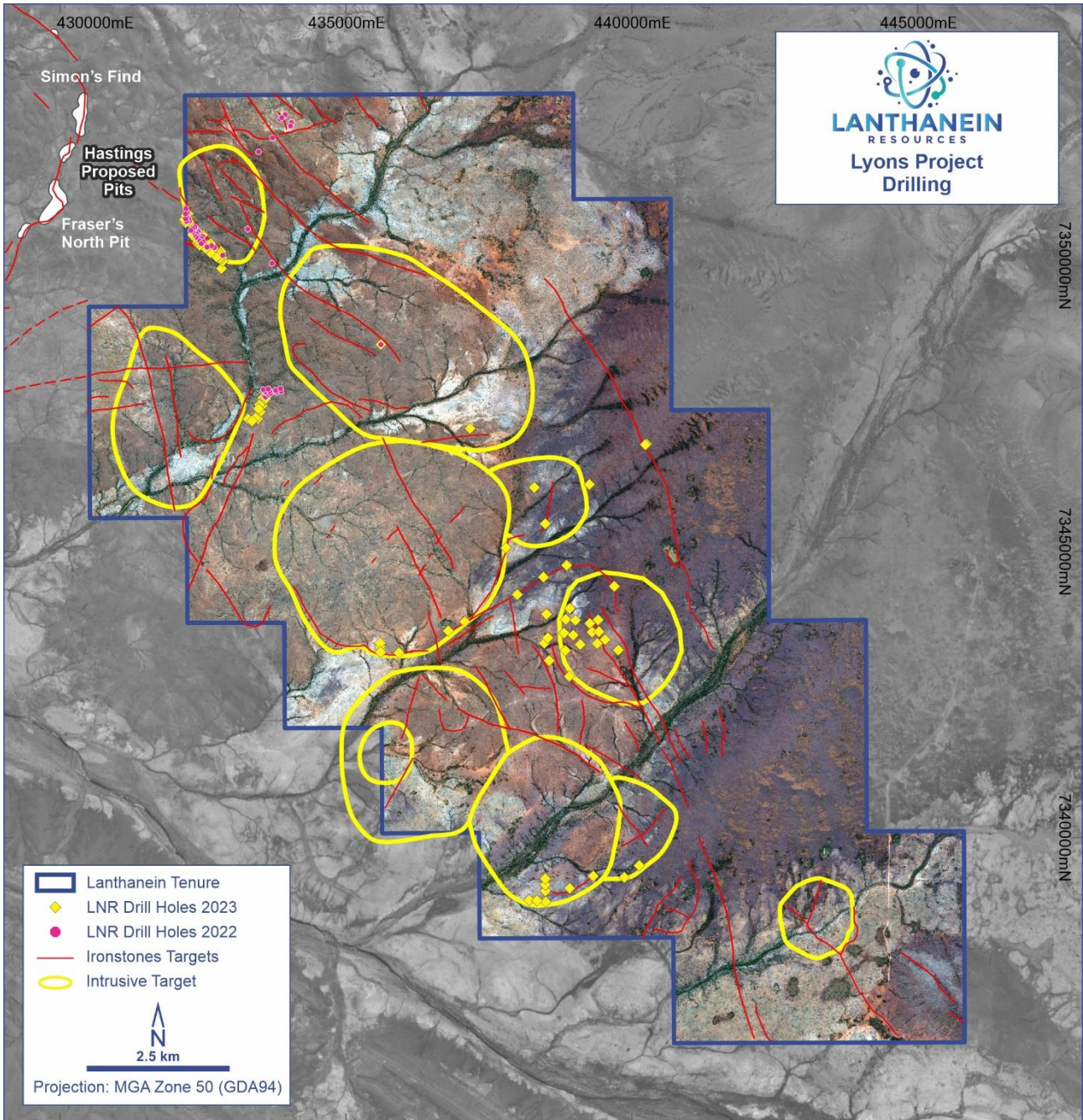


Figure 1. Interpreted intrusives with Ironstones highlighted in red and drill hole locations from the recent campaign in yellow

Two drill holes to 450m depth were drilled to test the outer magnetic rim of two of the larger carbonatite intrusive targets including LI-03 at 3km diameter and LI-01 at 4km diameter (Figure 1). Fenitic alteration (including magnetite and Th) are found to be associated with the outer rim of these intrusive bodies (Figure 2).

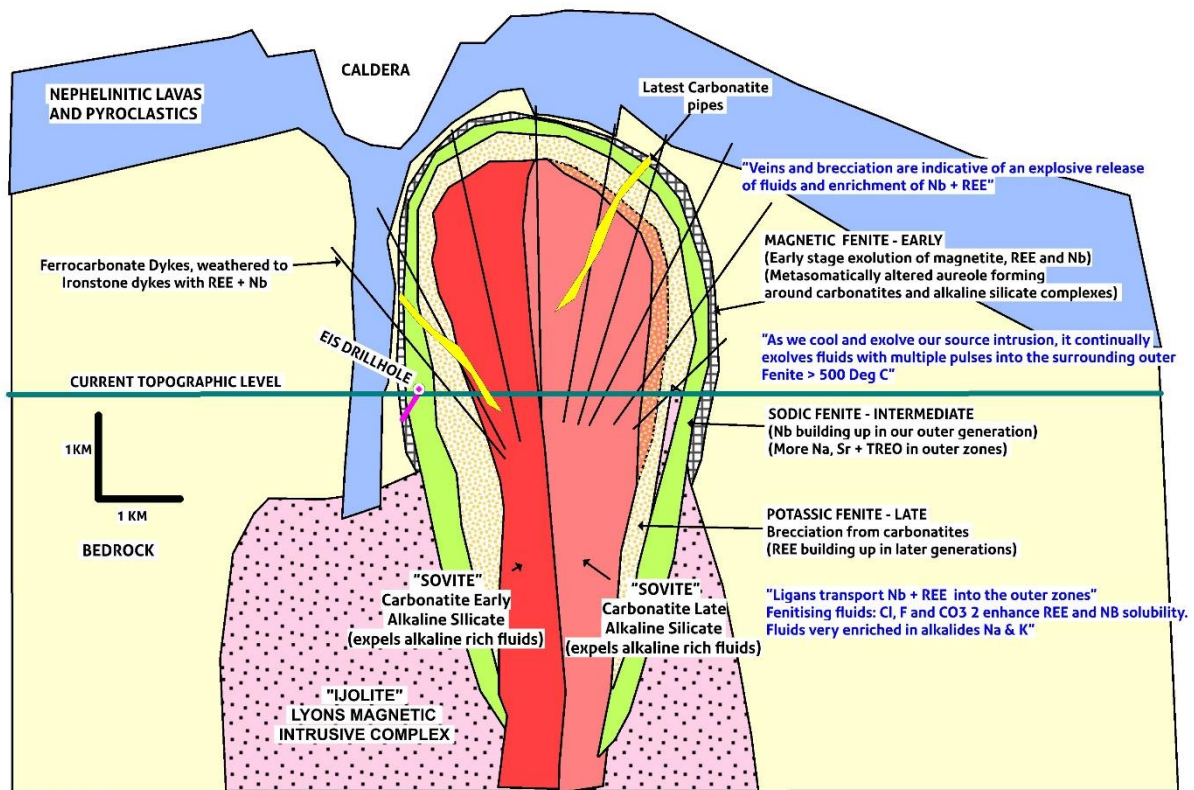


Figure 2. Cross-Section Model of Carbonatite Hosted REE and Niobium Targets at Lyons

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

For additional information please visit our website at www.lanthanein.com

LANTHANEIN RESOURCES LTD

The Company confirms that it is not aware of any new information or data that materially affects the information in the original reports, and that the format and context in which the Competent Person’s findings are presented have not been materially modified from the original reports.

Competent Person’s Statement

The information in this document that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr. Thomas Langley who is a member of the Australian Institute of Geoscientists (MAIG) and a member of the Australasian Institute of Mining and Metallurgy (MAUSIMM). Mr. Thomas Langley is a consultant of Lanthanein Resources Limited, and is a shareholder, however Mr. Thomas Langley believes this shareholding does not create a conflict of interest, and Mr. Langley has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Mr. Langley consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.

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Competent Person's Statement

The information in this report that relates to Geophysical Exploration Results is based on information compiled by Peter Swiridiuk - Member of the Aust. Inst. of Geoscientists. Peter Swiridiuk is a Technical Consultant and Non-Executive Director for Lanthanein Resources. Peter Swiridiuk has sufficient experience which is relevant to the type of mineralisation and type of deposit under consideration to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code of Reporting Exploration Results, Mineral Resources and Ore Resources. Peter Swiridiuk consents to the inclusion in the report of the matters based on the information in the form and context in which it appears. Additionally, Mr Swiridiuk confirms that the entity is not aware of any new information or data that materially affects the information contained in the ASX releases referred to in this report.

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