

18 August 2022

Heritage Survey Complete Ahead of Maiden Drill Program

- Heritage surveys completed with no impediments for maiden drill program
- Site works to begin shortly for access and drill site preparations
- RC drilling expected to start early September, rig secured
- Targeting the exceptional high-grade rare earth results from rock chips at outcropping ironstones over >2.5km strike, analogous to Hastings Technology Metals rare earth deposits and Dreadnought Resources Yin discovery adjacent to Lanthanein's Lyons Projects, 2.5km and 32km away respectively

Mr Brian Thomas, Lanthanein Technical Director commented "It was great to have Traditional Owners on country with our geology team recently at our exciting rare earth Lyons project. The heritage survey was completed safely and following no heritage issues being identified at the outcropping ironstones, site works are planned to commence shortly, with drilling anticipated to start in early September."



*Figure 1. Heritage Survey team at the Lyons Project
Left to right; Greg Carlo, Tom Langley, Zach Merrit, Peter Salmon and Tom O'Riley*

Lanthanein Resources Ltd (ASX: FNT) (Lanthanein or the Company) is pleased to announce that heritage avoidance surveys have been completed ahead of the maiden drill program at the Lyons Rare Earths Project in Western Australia (**Lyons Project**). Lanthanein Resources acknowledges the traditional custodians of the land on which the company operates and pay respect to their Elders past, present and emerging. The heritage surveys are critical to ensure sites of significance for traditional owners are protected and not disturbed.

The proposed drill program will target high-grade rare earth mineralisation discovered at outcropping ironstones and additional interpreted carbonatite intrusives and ironstones undercover (Figure 2). The drill program will investigate high priority targets located within the Gifford Creek Carbonatite Complex, host to Hastings Technology Metals’ (ASX:HAS) world-class Yangibana Mineral Resource¹ of 27.42Mt @ 0.97% TREO with 0.33% Nd₂O₃+Pr₆O₁₁, and Dreadnought Resources multiple discoveries².

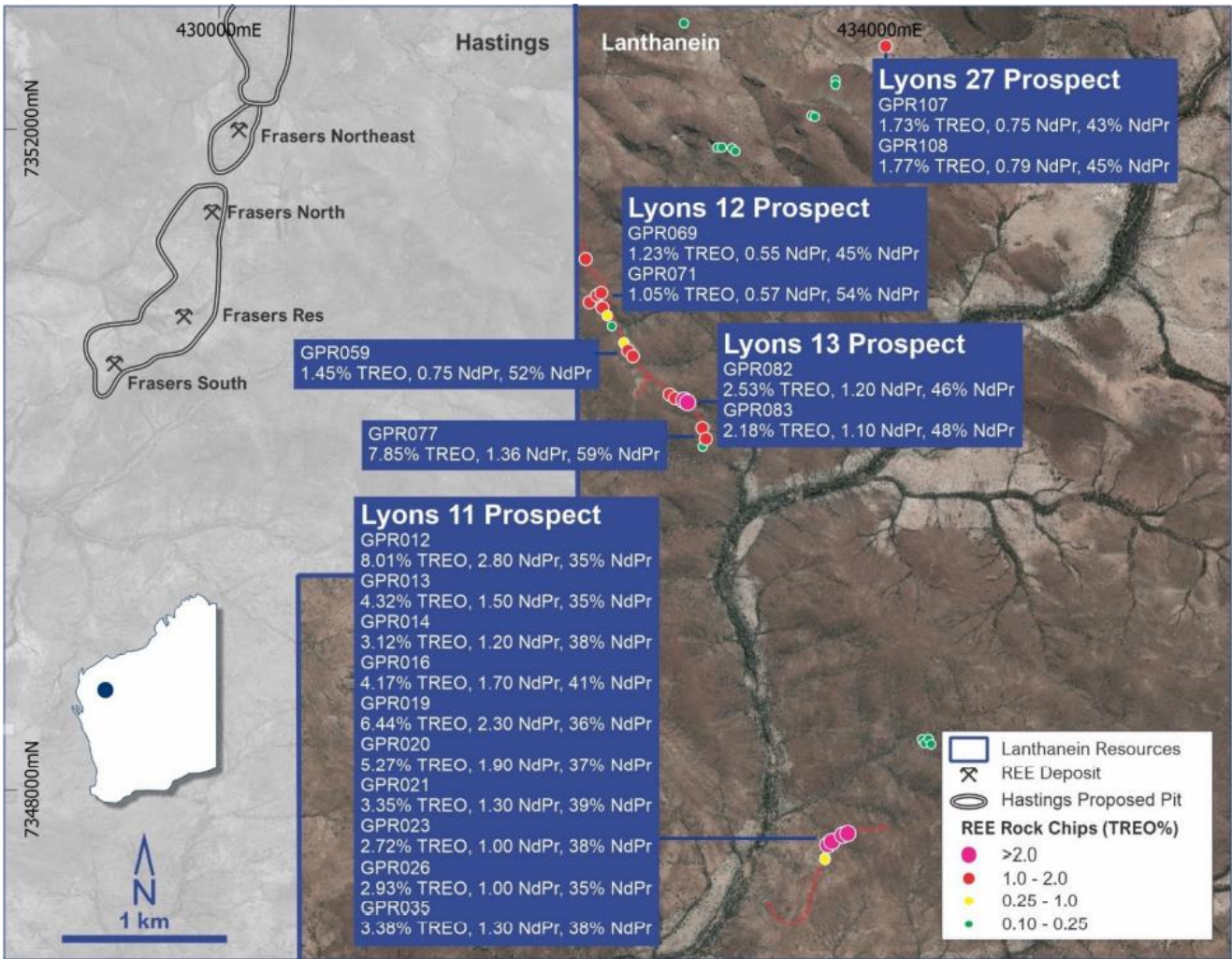


Figure 2. High grade REE bearing ironstones discovered to date will be the initial focus of the maiden drill program.

Additional Program of Works (PoW) has been lodged with the Department of Mines, Industry Regulation and Safety (DMIRS) to allow for extensions to the initial drilling campaign. Drilling will be critical to understanding the resource potential of the mineralised ironstones, to determine width, grade, and continuity at depth and along strike of interpreted ironstone trends.

Further rock chip sampling, ground based geophysics and drilling programs are planned to investigate additional targets not yet followed up, including thorium and magnetic anomalies throughout the Lyons Project and the high priority structural target along the major Bald Hill lineament which transects both the Edmund and Lyons Project Areas (Figure 3). The Bald Hill lineament is the major control on rare earth mineralisation at Hastings Technology Metals Yangibana mine and represents a very high priority target for Lanthanein. Potential remains for further discoveries of ironstones and carbonatites within the company’s tenure where no historical REE exploration has occurred.

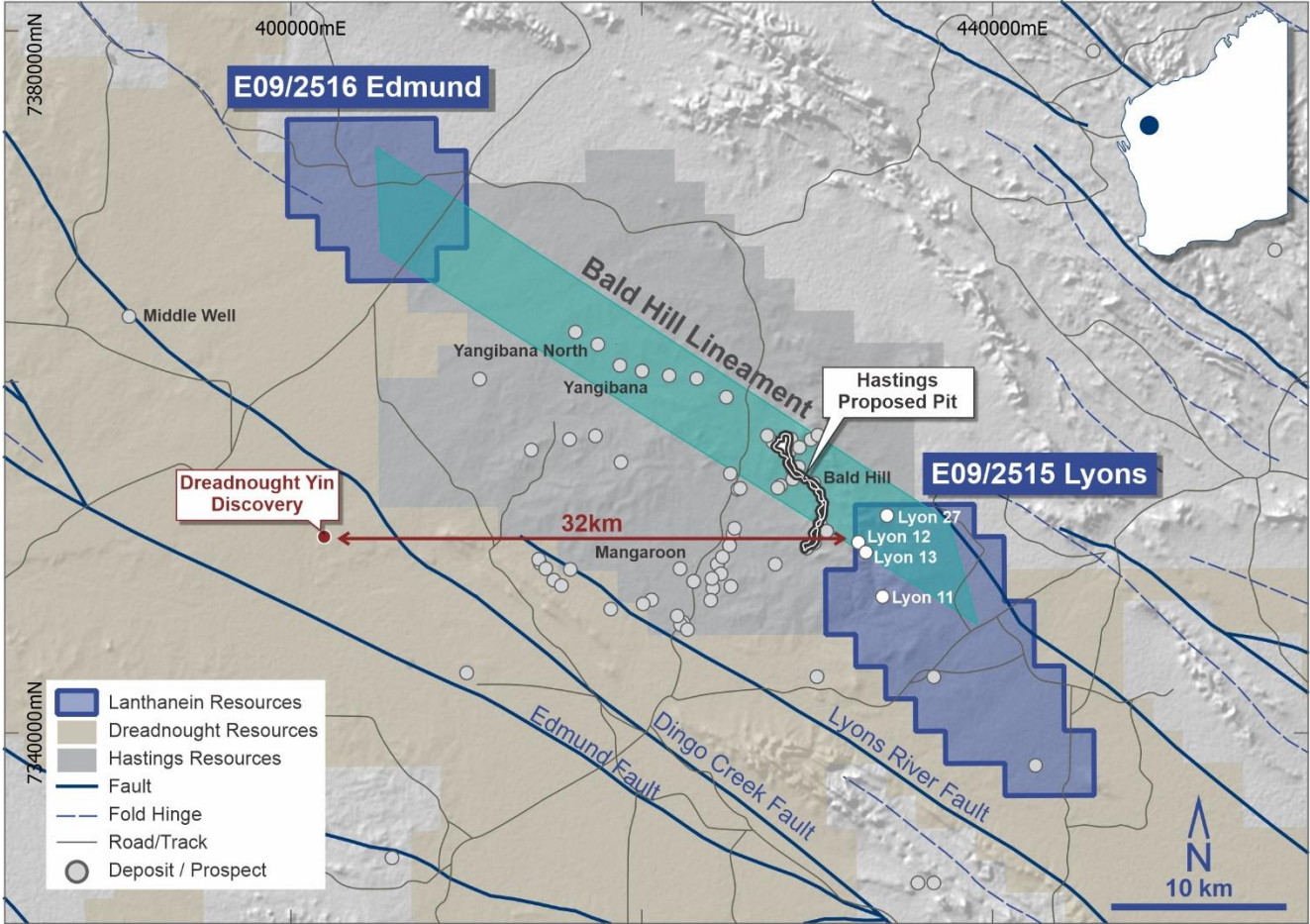


Figure 3. Lanthanein Resources Lyons and Edmund Projects located within close proximity of Dreadnought Resources Yin discovery and Hastings Technology Metals Yangibana REE mine.

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 information referred to in this announcement relates to the following sources:

¹ ASX.HAS: 5 May 2021 “Yangibana Project updated Measured and Indicated Resource tonnes up by 54%” [b07ebf9d-03c.pdf \(investi.com.au\)](https://www.investi.com.au/b07ebf9d-03c.pdf). The HAS Resource estimate comprises 4.9Mt @1.01% TREO in the Measured category, 16.24Mt @0.95% TREO Indicated and 6.27Mt @0.99% TREO Inferred.
² ASX.DRE: 28 July 2022 “Assays Confirm Yin as a High Grade Rare Earth Discovery” [5a699d6e-eab.pdf \(investi.com.au\)](https://www.investi.com.au/5a699d6e-eab.pdf)

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.

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 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.