

10th August 2022

72 Additional Drillholes Submitted for REE Assay

Highlights

- A further 1,035 samples from 72 existing drillholes submitted for re-assay
- The 72 drillholes cover a strike of 6km within the Lake Labyrinth Shear Zone
- Samples will be re-assayed for the full suite of rare earth elements (REEs1)
- High grade REE results from the initial six drill holes submitted for full REE suite assay
- Total Rare Earth Oxides (TREO) up to <u>15,486ppm (1.55%)</u>
- High value Magnet Rare Earth Oxides (MREO) up to 7,436ppm 48% of TREO
- Significant REE intersections to date include:
 - 48m @ 1,948ppm TREO from 20m (LLAC012) including 16m @ 4,830ppm TREO from 24m including 4m @ 15,486ppm (1.55%) TREO from 28m
 - 49m @ 720ppm TREO from 20m (LLAC015) including 12m @ 1,277ppm TREO from 28m
 - 40m @ 769ppm TREO from 20m (LLAC011) including 4m @ 1,000ppm TREO from 40m

Indiana Resources Limited (**ASX: IDA**) ('Indiana' or the 'Company') is pleased to announce that 1,035 sample pulps from a further 72 aircore (AC) drillholes were submitted for the full suite of REE assay following the confirmation of REE mineralisation within Indiana's 100% owned 5,713 km² Central Gawler Project in South Australia.

An initial batch of sample pulps from 6 holes drilled in 2021 were submitted for the full suite of light and heavy REEs (Total REE) and returned significant values up to <u>15,486ppm (1.55%) TREO</u>. The analysis of these 72 drill holes will better characterise the extent and tenor of REE mineralisation and assist with refining target areas for follow-up drill testing.

The additional assay results are expected within the next 4-6 weeks depending on turnaround time at the laboratory.

Company Comment - Technical Director Felicity Repacholi-Muir said:

"The ability to move quickly to re-assay existing samples for the full suite of REE is of tremendous value for the Company as we seek to confirm the extent of rare earth potential of our project area encouraged by the high-grades and the high proportion of magnet REEs in these initial samples. We have started planning for follow up drilling and the assays from this larger, more extensive drill data set will assist us in refining our program."

¹The group of metals referred to as rare earth elements (REE) comprises the 15 elements of the lanthanide series. Metals in the lanthanide series are: lanthanum (La), cerium (Ce), praseodymium (Pr), neodymium (Nd), promethium (Pm), samarium (Sm), europium (Eu), gadolinium (Gd), terbium (Tb), dysprosium (Dy), holmium (Ho), erbium (Er), thulium (Tm), ytterbium (Yb) and lutetium (Lu). In addition, yttrium (Y) and scandium (Sc) are often grouped with the lanthanides and referred to as REE.



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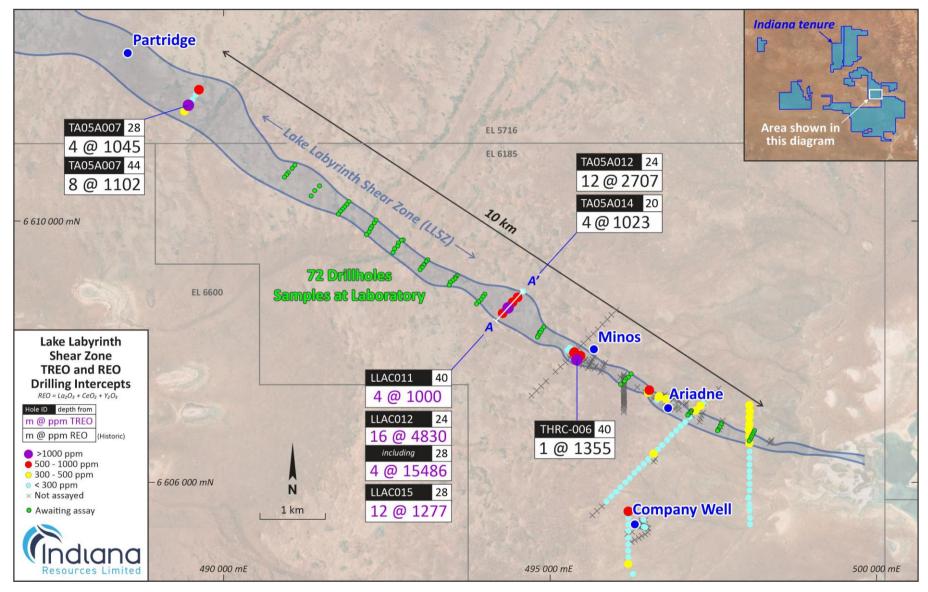


Figure 1: Location of additional 72 holes within the LLSZ Shear Zone – with TREO & REO (Historic REO = $CeO_2 + La_2O_3 + Y_2O_3$ only)





Next Steps

Work is now in progress to collect additional data to define the distribution of the different rare earths in the weathering profile and to identify any underlying potential bedrock lithological or structural controls on the distribution of the mineralisation. Importantly, the broader historic rare earth results along the Lake Labyrinth Shear Zone (LLSZ) suggest that a 10km corridor is prospective. Additional targets are also present at the Hicks Well Prospect and about 4km west of the Company Well Prospect which may potentially be part of a structure parallel to the northwest trending LLSZ (Figure 2).

Previous magnetic and electromagnetic imagery over the Project will be interpreted to map out deeper regolith profiles, settings favourable for REE accumulation.

Technical Discussion

Indiana outlined various anomalous REE accumulations within the Project following a review of the previous exploration drilling results (refer ASX Release dated 14 June 2022). The historical REE analyses were restricted to a partial analysis of the REE suite, comprising Cerium (Ce), Lanthanum (La) and Yttrium (Y) – often the most abundant of the REE suite and the lowest value.

Of particular interest was the concentration of REE accumulations in the northern portion of the project (refer Figures 1 & 2). Indiana carried out gold reconnaissance drilling along the LLSZ during 2021. This program comprised 79 AC holes and coincides with some of the defined REE accumulations. A selection of 4m composite pulp samples from a fence of the holes were reassayed for the full suite of REEs using a near complete digestion (Lithium Borate Fusion method).

The assay results for the samples from the six (6) drill holes were reported in August 2022 (refer ASX Release dated 2 August 2022). These holes are located adjacent to historical drill holes with significant but incomplete suite of REE results. The assays confirmed the presence of significant TREO values (Figure 3 – Section 11900).

Notable intersections (above a 300ppm TREO grade) included:

- 48m @ 1,948ppm TREO from 20m (LLAC012)
 - o including 16m @ 4,830ppm TREO from 24m
 - o including 4m @ 15,486ppm (1.55%) TREO from 28m
- 49m @ 720ppm TREO from 20m (LLAC015)
 - o including 12m @ 1,277ppm TREO from 28m
- 40m @ 769ppm TREO from 20m (LLAC011)
 - o including 4m @ 1,000ppm TREO from 40m

TREO (Total Rare Earth Oxide) = $CeO_2 + Dy_2O_3 + Er_2O_3 + Eu_2O_3 + Gd_2O_3 + Ho_2O_3 + La_2O_3 + Lu_2O_3 + Nd_2O_3 + Pr_6O_{11} + Sm_2O_3 + Tb_4O_7 + Tm_2O_3 + Y_2O_3 + Yb_2O_3$

 $\textbf{HREO} \text{ (Heavy Rare Earth Oxide)} = Dy_2O_3 + Er_2O_3 + Eu_2O_3 + Gd_2O_3 + Ho_2O_3 + Lu_2O_3 + Sm_2O_3 + Tb_4O_7 + Tm_2O_3 + Y_2O_3 + Yb_2O_3 + Tb_4O_7 + Tm_2O_3 + Tb_4O_7 + Tm_2O_7 + Tm_2O_$

CREO (Critical Rare Earth Oxide) = $Dy_2O_3 + Eu_2O_3 + Nd_2O_3 + Tb_4O_7 + Y_2O_3$

MREO (Magnet Rare Earth Oxide) = $Dy_2O_3 + Gd_2O_3 + Ho_2O_3 + Nd_2O_3 + Pr_6O_{11} + Sm_2O_3 + Tb_4O_7$





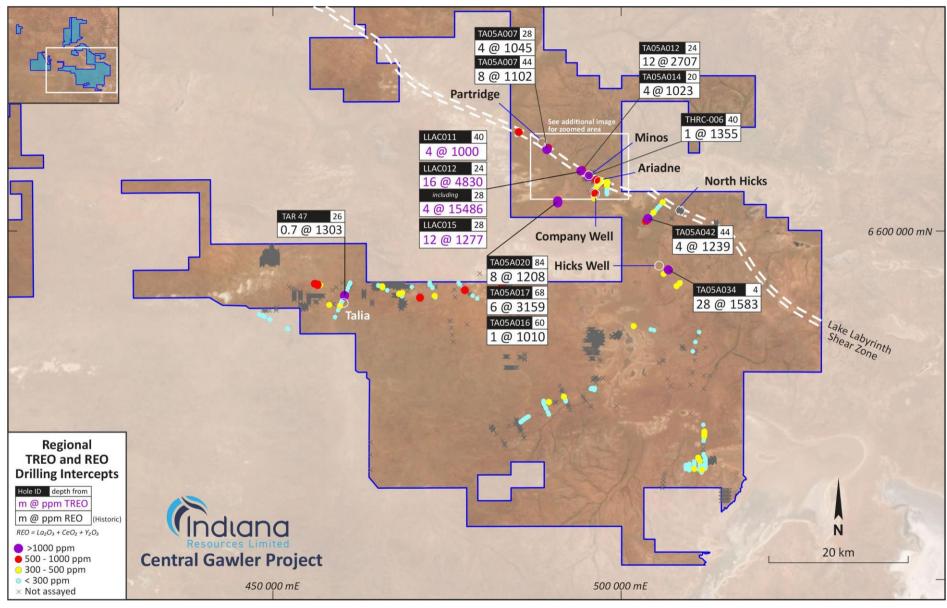


Figure 2: Central Gawler Project – with TREO & REO (Historic REO = $CeO_2 + La_2O_3 + Y_2O_3$ only)



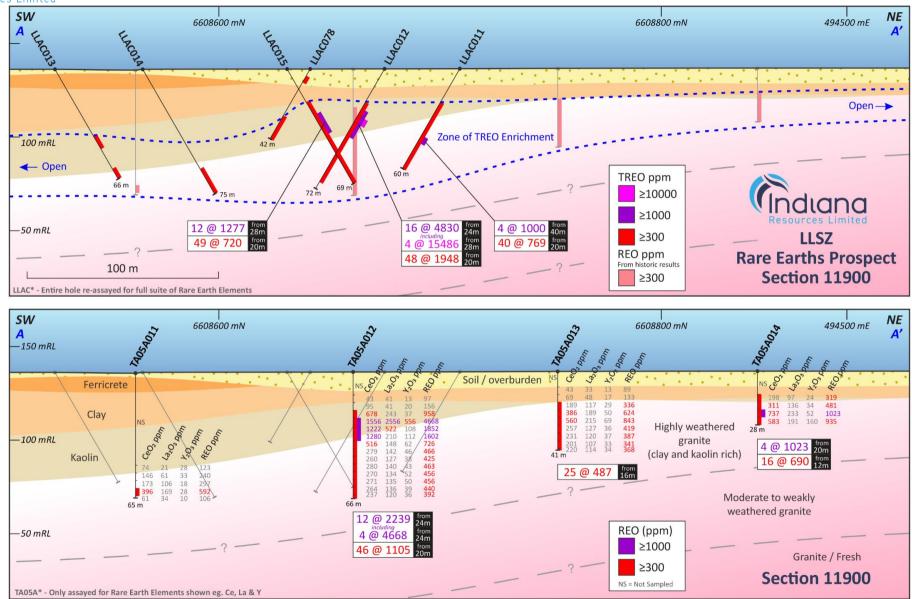


Figure 3: Cross Section showing TREO and REO accumulation (Historic REO = $CeO_2 + La_2O_3 + Y_2O_3$ only)



Technical information included in this announcement has previously been provided to the market in releases dated:

4th August 2020 Indiana to Acquire South Australia Gold Projects
28th September 2020 IDA Completes Acquisition of South Australian Gold Projects
14th June 2022 Rare Earth Potential Identified at Central Gawler Project
2nd August 2022 Assays Confirm High Grade Ionic Clay Rare Earths

Ends

This announcement is authorised for release to the market by the Technical Director of Indiana Resources Limited with the authority from the Board of Directors.

For further information, please contact:

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About Rare Earth Elements

The group of metals referred to as rare earth elements (REE) comprises the 15 elements of the lanthanide series. Metals in the lanthanide series are: lanthanum (La), cerium (Ce), praseodymium (Pr), neodymium (Nd), promethium (Pm), samarium (Sm), europium (Eu), gadolinium (Gd), terbium (Tb), dysprosium (Dy), holmium (Ho), erbium (Er), thulium (Tm), ytterbium (Yb) and lutetium (Lu). In addition, yttrium (Y) and scandium (Sc) are often grouped with the lanthanides and referred to as RFF.

- REO are Rare Earths Oxides oxides of the rare earth's elements. Grades of rare earths oxides are commonly quoted as parts per million (ppm) or percent (%) of TREO where: -
- TREO is the sum of the oxides of the so-called heavy rare earths elements (HREO) and the so-called light rare earths elements (LREO).
- HREO is the sum of the oxides of the heavy rare earths elements europium (Eu), gadolinium (Gd), terbium (Tb), dysprosium (Dy), holmium (Ho), erbium (Er), thulium (Tm), ytterbium (Yb), lutetium (Lu), and yttrium (Y).
- LREO is the sum of the oxides of the light rare earths elements lanthanum (La), cerium (Ce), praseodymium (Pr), neodymium (Nd), and samarium (Sm). The HREO are less common than the LREO and are generally of higher value.
- CREO is a set of oxides the US Department of Energy, in December 2011 defined as critical due to their importance to clean energy requirements and their supply risk. They are Nd, Dy, Eu. Y and Tb.
- MREO is a set of oxides that are referred to as the Magnetic Rare Earth Oxides. They are Nd, Pr, Dy and Tb.
- Neodymium-Praseodymium (NdPr) oxide is the key input to rare-earth magnets needed in the motors and generators of electric and hybrid vehicles, wind turbines, and a variety of other clean energy applications. These rare-earth magnets are 10 times the strength for the same weight as conventional magnets, and there is currently no known substitute.

lonic adsorption clay-hosted REO mineralisation underpins the majority of Chinese REO production, which accounts for c.85% of global REO supply.





These deposits form when rare earths derived from the weathering of underlying basement rocks are subsequently enriched in the regolith profile, forming a shallow, continuous, sub-horizontal zone. Ionic rare earth deposits offer the potential for large scale and low-cost mining compared to hard rock rare earth deposits (Van Gosen et al, 2018). Until recently, there has been limited exploration for this style of REE mineralisation outside of China, however exploration for this style of rare earth mineralisation is now underway in various parts of Australia, Africa and the United States of America

Competent Person Statement

The information in this report that relates to Exploration Results is based on information compiled or reviewed by Ms Felicity Repacholi-Muir, a Competent Person who is a Director of the Company. Ms Repacholi-Muir is a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ms Repacholi-Muir consents to the inclusion of the 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 Exploration Results information included in this report from previous Company announcements.

Forward Looking Statements

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