ASX: LYN I ABN 80 647 829 749

Assay Results from West Arunta Drilling

Key Highlights:

- **Assay results received from the maiden drill program completed at the Stansmore Nb-REE target at West Arunta Project**
- **Single reverse circulation drill hole completed to a depth of 324m into the Stansmore magnetic geophysical anomaly**
- **Best result of 1m @ 425ppm Nb+Nd+Pr and 217ppm Y+Yb from 302m**
- **Zone associated with sulphide mineralisation (12% S) and weakly elevated geochemistry (Ag, As, Bi, Ce, Co, Cu, Pb, Y& Yb) within a mafic intrusive**
- **Elevated Cu (1%) and Ag (1.5g/t) recorded at base of weathering**
- **Assessment of additional geophysical targets within the West Arunta Project are continuing**

Lycaon Resources Ltd (ASX: LYN) (**Lycaon** or the **Company**) announces the assay results for the maiden drill program testing the Stansmore target at the Company's 100%-owned West Arunta Stansmore Project in the West Arunta region of Western Australia.

In April 2024, the Company was awarded a co-funding grant of up to a maximum of $180,000 for drilling at the Stansmore Project, under Round 29 of the Western Australian Exploration Incentive Scheme (refer to Lycaon's ASX Announcement dated 1 May 2024).

The drilling program was designed to test the central peak of a regionally prominent, 500m diameter magnetic anomaly[1]. Recent discoveries by WA1 Resources Limited and Encounter Resources Limited have demonstrated the potential for the West Arunta region to host significant niobium (Nb) and Rare Earth Elements (REE) mineral systems within carbonatite intrusions which are characterised by geophysical features similar to that at Stansmore.

The single reverse circulation (RC) drillhole, STRC01, was completed in December 2024 and drilled to a depth of 324m (see Figure 1 and Table 1).

The RC drill hole was undertaken to test the geophysical target beneath the surficial cover for copper, gold, niobium and rare earth mineralisation.

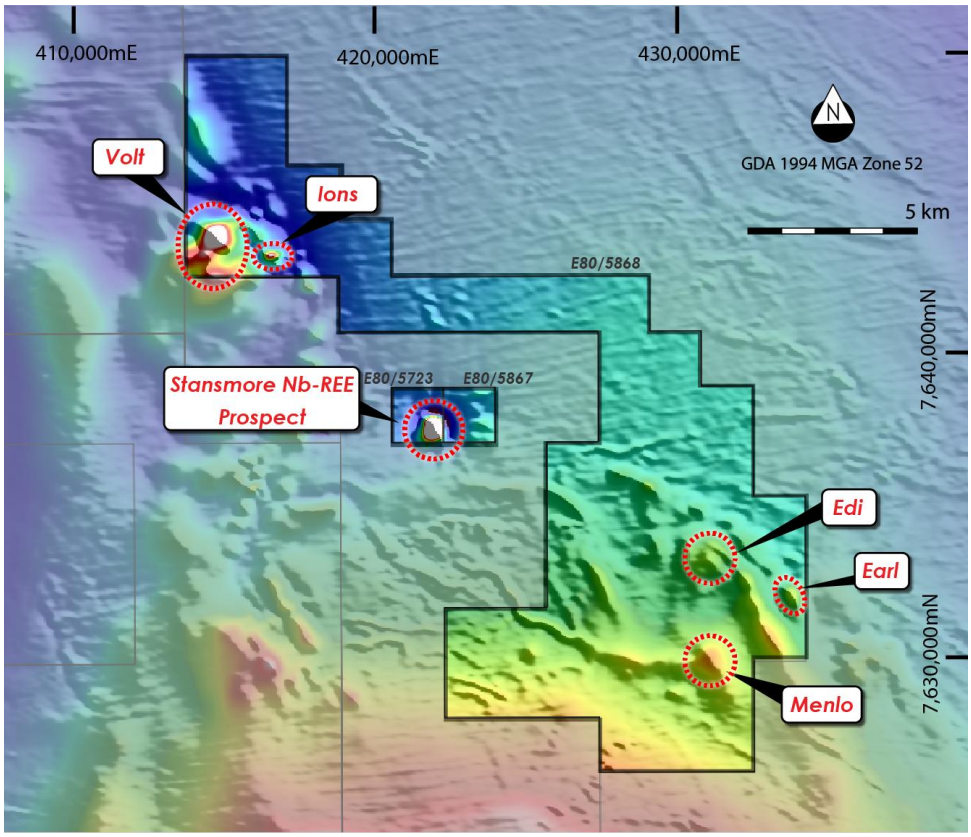

Figure 1: Reduced to Pole Magnetics (TMI grid) highlighting the prominent magnetic anomaly at Stansmore Prospect and other magnetic targets

Results

The drill hole intersected a variably magnetic mafic intrusive with trace sulphides within the fresh rock below 80m depth. Zones of elevated sulphides and chlorite alteration were logged however, no lithologies typical of carbonatites were intersected.

Assays (see Table 2 for significant anomalous results) indicated elevated silver (Ag) and copper (Cu) at the base of the weathering profile/top of fresh rock, which is likely to be related to supergene enrichment of the mafic intrusive.

The best result of 1m @ 425ppm Nb+Nd+Pr and 217ppm Y+Yb was returned from a depth of 302-303m from within fresh rock. This zone is associated with sulphide mineralisation (12% S) and weakly elevated multi-element geochemistry (Ag, As, Bi, Ce, Co, Cu, Pb, Y & Yb). This result is likely to be shear related and is not determined to be significant, and is not considered to warrant further follow up drilling.

Lycaon's Executive Director, Mr James Robinson, commented: "*With the co-funding grant, Lycaon was able to test the Stansmore target in a timely and cost-efficient manner and although these results were not as significant as we were hoping for, Lycaon's West Arunta Stansmore Project does contain several other substantial and unexplained geophysical anomalies which remain untested, demonstrating the under-explored nature of this region. The Company is continuing to assess these other targets to determine next steps, while it continues to evaluate new project acquisition opportunities.*"

Background - Stansmore Project and the West Arunta Region

The Stansmore target consists of a regionally prominent magnetic feature 500m in diameter that is considered to have similar characteristics to the geophysical anomalies associated with the mineralised carbonatites discovered by WA1 Resources Limited and Encounter Resources Limited elsewhere in the West Arunta region[2-5].

These recent discoveries have demonstrated the potential for the West Arunta to host significant niobium-rich and REE-mineralised systems, with the region seeing a renewed exploration focus on these deposit types.

Carbonatite deposits are an important source of REE and niobium production. This includes the world's largest REE mine, Bayan Oho in Inner Mongolia, Lynas Rare Earths' Mt Weld deposit and the world's three major operating niobium mines. Niobium is one of a suite of commodities identified by the Australian Government as critical minerals, being minerals (or elements) considered vital for the well-being of the world's economies, yet whose supply may be at risk of disruption.

Drillhole details

Table 1: Collar location for drillhole results within this release

Hole ID	Drill Type	Easting (MGA Z52K)	Northing (MGA Z52K)	RL (m)	Dip (degree)	Azimuth (degree)	Depth (m)
STRC01	RC	421873	7637628	373	-85	103	324

Table 2: Drilling Results - Anomalous Intercepts

Hole ID	Sample ID	From (m)	To (m)	Interval (m)	Nb+Nd+Pr (ppm) c/o *200ppm*	Y+Yb (ppm) c/o *200ppm*	Ag (ppm) c/o 0.4ppm	Cu (ppm) c/o 5000pmm	S (%) c/o 5%
STRC01	LYN0179	79	80	1	49	51	0.5	**10,777**	0.8
STRC01	LYN0185	85	86	1	42	38	**1.49**	1894	0.3
STRC01	LYN0402	302	303	1	**425**	**217**	0.4	1507	**12**

- ENDS-

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

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

For enquiries:

Lycaon Resources Limited

T: +61 8 6188 8181

E: admin@lycaonresources.com

References:

1. ASX: LYN, West Arunta Refined Geophysical Modelling, 5 September 2024
2. ASX: WA1, West Arunta Project Discovery of Niobium-REE Mineralised Carbonatite System, 26 October 2022
3. ASX: WA1, West Arunta Project High-Grade Infill at Luni, 8 November 2023
4. ASX: ENR, Thick, high-grade Niobium-REE at Aileron – West Arunta, 25 July 2023
5. ASX: ENR, New West Arunta high-grade niobium intercepts - Crean & Emily, 8 July 2024

Cautionary Statement

This announcement and information, opinions or conclusions expressed in the course of this announcement contains forecasts and forward-looking information. Such forecasts, projections and information are not a guarantee of future performance, involve unknown risks and uncertainties. Actual results and developments will almost certainly differ materially from those expressed or implied. There are a number of risks, both specific to Lycaon, and of a general nature which may affect the future operating and financial performance of Lycaon, and the value of an investment in Lycaon including and not limited to title risk, renewal risk, economic conditions, stock market fluctuations, commodity demand and price movements, timing of access to infrastructure, timing of environmental approvals, regulatory risks, operational risks, reliance on key personnel, reserve estimations, native title risks, cultural heritage risks, foreign currency fluctuations, and mining development, construction and commissioning risk.

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 Neil Hutchison of Geolithic Geological Services who is a member of the Australian Institute of Geoscientists (MAIG). Mr Neil Hutchison is engaged as an independent consultant to Lycaon Resources Ltd. Mr Hutchison 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 Hutchison consents to the inclusion in this document 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 form and context in which the Competent Person's findings are presented have not been materially modified from the original reports.

JORC Code, 2012 Edition – Table 1

Section 1 – Sampling Techniques and Data

(Criteria in this section also applies to the succeeding section)

CRITERIA	COMMENTARY
Sampling techniques	• Geological information referred to in this ASX announcement was derived from a single Reverse Circulation (RC) drill hole program. • Single meter cyclone split samples of approximately 2-3kg weight were split and collected into a calico bag via the rig mounted cyclone splitter. • The entire split material for each meter interval of RC drilling was collected and submitted to the laboratory for processing. • RC samples were collected over 1m intervals, sieved into chip trays, logged onsite and the split samples transported to Intertek-Genalysis in Perth for sample preparation.
Drilling techniques	• RC holes were drilled using a Schramm T450 drill rig with a 146mm diameter face sampling hammer.
Drill sample recovery	• RC sample recoveries were visually estimated for each metre and recorded. • All samples were dry and recoveries of 100% were recorded for all samples.
Logging	• RC drill chips were wet sieved, place into chip trays then logged for geology, alteration, and mineralisation by the Company's geologist. Drill logs were recorded digitally using Excel logging templates and have been verified by Geolithic Geological Services. • Logging of drill chips is qualitative and based on the presentation of representative chips retained for all 1m sample intervals in the chip trays.
Sub-sampling techniques and sample preparation	• All RC samples were collected as single metre samples from the drill rig splitter directly into calico bags. • Certified Reference Materials (CRMs) and field QAQC samples were not used due to the first pass exploration nature of the drill program.

Quality of assay data and laboratory tests	• Samples were dispatched to Intertek-Genalysis in Perth for independent laboratory test woks. • Standard laboratory QAQC was undertaken and monitored by the laboratory and then checked by Geolithic Geological Services upon receipt of assay results. • Field CRMs were not inserted into the sample stream. • The laboratory standards have been reviewed by Geolithic Geological Services and have passed internal QAQC checks.
Verification of sampling and assaying	• Results have been checked by Geolithic Geological Services and merged into the logging and sampling master template. • This data will be uploaded into the Company's database by an external consultant and will be further checked and verified. • Analytical QC is monitored by assessing the laboratory inserted standards, blanks as well as repeat assays. • The elevated geochemical intersections have been verified against the logged downhole geology. • Logging, survey and sampling data was recorded digitally in the field into an Excel master logging template.
Location of data points	• Drillhole collar was surveyed and recorded using a handheld GPS at completion of the drilling. • All co-ordinates are provided in the MGA94 UTM Zone 52 co-ordinate system with an estimated horizontal accuracy of ±3.0m. • Azimuth and dip of the drillholes are recorded after completion of the hole using an AXIS GYRo II. A reading was taken approximately every 30m with an assumed accuracy of ±0.1 degree azimuth and ±0.3 degree dip.
Data spacing and distribution	• See drillhole table for hole position and details. • A single drill hole was drilled testing one priority target. • No further drilling has taken place.
Orientation of data in relation to geological structure	• The hole was drilled subvertical into the core of the anomaly to test the target as well as depth of cover and oxidation.

	• See drillhole table for hole details and the text of this announcement for discussion and further information regarding the orientation of the drillhole.
Sample security	• Sample security is not considered a risk with LYN personnel operating the collection and transportation of the samples.
	• All samples were collected and logged by LYN personnel and delivered via couriers to Intertek-Genalysis Laboratories in Perth.
Audits or reviews	• The drilling and assay data has been reviewed by independent consulting company Geolithic Geological Services.

Section 2 - Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section)

CRITERIA	COMMENTARY
Mineral tenement and land tenure status	• Lycaon Resources Ltd's wholly owned subsidiary, West Arunta Resources Pty Ltd, entered into a binding conditional agreement with Thomas Edward Langley to acquire the exploration licence, E80/5723, in the West Arunta Region of Western Australia, forming part of the Stansmore Project. • West Arunta Resources Pty Ltd now holds a 100% interest in E80/5723. • West Arunta Resources Pty Ltd also applied for and has been granted 2 exploration licences, E80/5867 and E80/5868. • The Stansmore Project now consists of E80/5723, E80/5867 and E80/5868. • The Stansmore Project (E80/5723, E80/5867 and E80/5868) covers 1 Native Title Determination by the Parna Ngururrpa Aboriginal Corporation (WAD357/2006).
Exploration done by other parties	• The Stansmore Project has had limited historic work completed within the project area with the broader area having limited exploration being focussed on gold and diamonds. • Significant previous explorers of the project area included BHP Minerals Limited. Only 6 shallow RAB drillholes were completed (WAMEX Report A12302).
Geology	• The Stansmore Project is located on the Western Australian side of the West Arunta Orogen, representing the western-most part of the Arunta Orogen which straddle the Western Australia–Northern Territory border. • Outcrop in the area is generally poor, with bedrock largely covered by Tertiary sand dunes and spinifex country of the Gibson Desert. • As a result, geological studies in the area have been limited, and a broader understanding of the geological setting is interpreted from early mapping as presented on the MacDonald (Wells, 1968) and Webb (Blake, 1977 (First Edition) and Spaggiari et al., 2016 (Second Edition)) 1:250k scale geological map sheets. • The West Arunta Orogen is considered to be the portion of the Arunta Orogen commencing at, and west of, the Western Australia-Northern Territory border. It is characterised by the dominant west-

	north-west trending Central Australian Suture, which defines the boundary between the Aileron Province to the north and the Warumpi Province to the south. • The broader Arunta Orogen itself includes both basement and overlying basin sequences, with complex stratigraphic, structural, and metamorphic history extending from the Paleoproterozoic to the Palaeozoic (Joly et al., 2013).
Drill hole Information	• Refer to Table 2 for drill hole details.
Data aggregation methods	• No data aggregation has been undertaken. • No metal equivalents have been reported.
Relationship between mineralisation widths and intercept lengths	• The drill hole was drilled sub vertically into a magnetic target to test for sub-horizontal supergene-enriched or oxide mineralisation and to test for bedrock-hosted mineralisation. • The relationship between widths and intercept lengths has not been determined.
Diagrams	• Refer to figures provided within this ASX announcement.
Balanced reporting	• All relevant information has been included and provides an appropriate and balanced representation of the results.
Other substantive exploration data	• All meaningful data and information considered material and relevant has been reported in the body of this ASX announcement.
Further work	• The Company is currently reviewing its options at the Stansmore Project and no further work has been planned at this stage.