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30 January 2024

Quarterly Activities Report 31 December 2023

Highlights

- **West Arunta Stansmore Project land access progressing with drilling expected to commence once heritage surveys are completed in early 2024**
- **Downhole electromagnetic (DHEM) survey at Bow River identified weak off-hole anomalies within close proximity of the drillholes**
- **Sulphide mineralisation intersected in both drillholes shows a strong correlation to the upper limit of the modelled gravity anomaly, remaining untested over >1km strike extent**
- **Appointment of Adrian Di Menna to the Board as non-executive Director and Chairman**

Lycaon Resources Limited (ASX: LYN) ("the **Company**" or "**Lycaon**") is pleased to report on the December 2023 quarterly activities.

Projects Summary

Bow River Prospect (*Ni/Cu/Co±PGE*)

A diamond drilling program was completed at the Bow River Project in the East Kimberley region of Western Australia during Q3 of 2023. The drill program consisted of two diamond drillholes to a depth of 800m and 786m each, with both drillholes intersecting visual Ni-Cu sulphides, Table 1, 2.

Sulphide mineralisation intersected in both drillholes shows a strong correlation to the upper limit of the modelled gravity anomaly between approximately 330-360m depth, with the remainder of the gravity anomaly untested over the >1km strike extent, Figure 3. Downhole electromagnetic (DHEM) surveys were completed on both diamond drillholes to a depth of 690m (BRDD001) and 760m (BRDD002) during Q4 of 2023. The DHEM survey results identified weak off-hole anomalies within close proximity of the drillholes. Drill samples were sent to ALS in Perth for priority assay with results showing a clear correlation between nickel and sulphides as well as nickel and copper, supporting nickel copper sulphides are present, Figure 1, 2.

Approximately one third of the samples show nickel enrichment above background levels of 300ppm, up to a peak of 742ppm Ni however, overall there were no results recording any significant nickel or copper mineralisation >1% Ni or Cu.

Drilling was planned to target the deeper more primitive part of the intrusion thought to be related to the highest density gravity anomaly. The recent drilling stepped out from the historical drilling centred on the nickel-copper gossan, to the west by 1.2km and drilled to a depth of 800m, far exceeding the deepest historical drillhole of 180m, Figure 4, 5.

DHEM surveys were completed to investigate potential conductors and, together with the assay data results, to assist in building greater geological confidence in the mineralisation model ahead of further drilling.

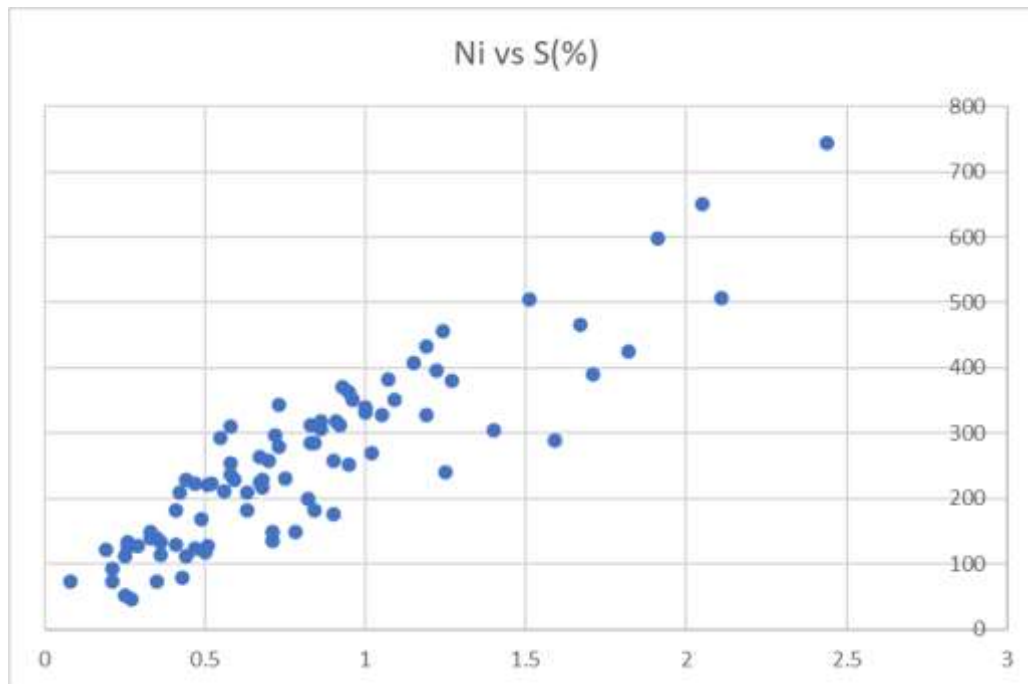


Figure 1. Nickel ppm (y axis) showing strong correlation to Sulphide % (x axis).

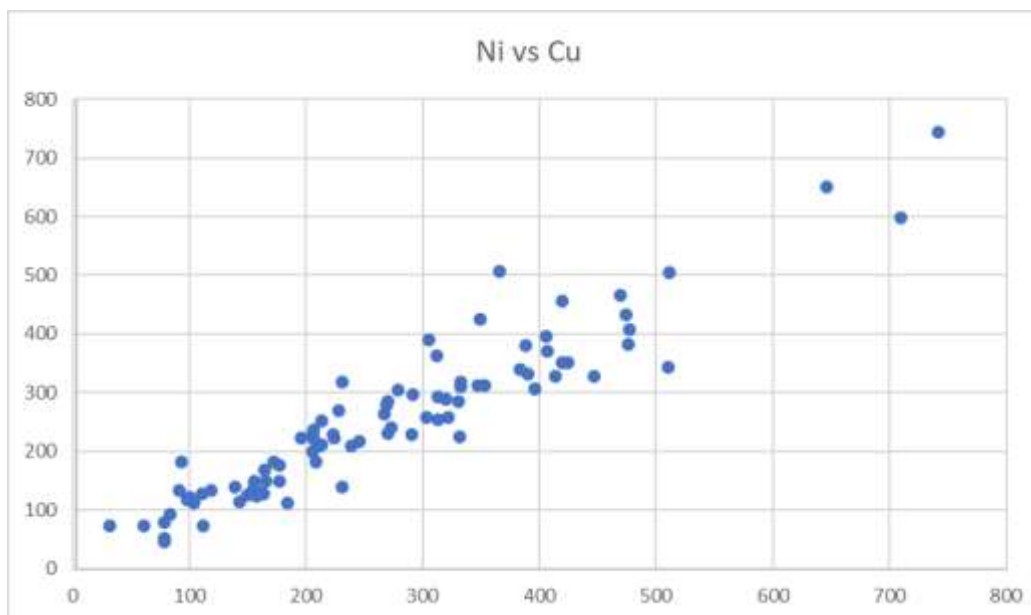


Figure 2. Nickel ppm (y axis) showing strong correlation to Copper % (x axis).



Figure 3. Photos showing examples disseminated and blebby sulphides in hole BRDD002.
 (Left) Nickel-Copper sulphides at 348m, (Right) Disseminated sulphides 338 – 342m
 Note core is NQ2 being 2 inches or 50mm in diameter

Table 1: Significant Sulphide Intervals – Visual Estimates

Hole ID	From (m)	To (m)	Interval (m)	Mineralisation Style	Sulphide Type	Sulphide %	Prospect
BRDD001	364.7	377.5	12.8	Disseminated/Blebby	Pyrrhotite, Pentlandite, Chalcopyrite	1 -5	Bow River
BRDD001	394.1	402.2	8.1	Disseminated/Blebby	Pyrrhotite, Pentlandite, Chalcopyrite	1 -5	Bow River
BRDD002	330.1	375.3	45.2	Disseminated/Blebby	Pyrrhotite, Pentlandite, Chalcopyrite	1 -5	Bow River

Table 2: Drillhole Collar Data (GDA94 MGAz52)

Hole ID	Easting	Northing	RL	Dip	Azimuth	EOH	Type	Prospect
BRDD001	427597	8134664	170	-70	0	800	Diamond	Bow River
BRDD002	427839	8134722	170	-75	120	786.3	Diamond	Bow River

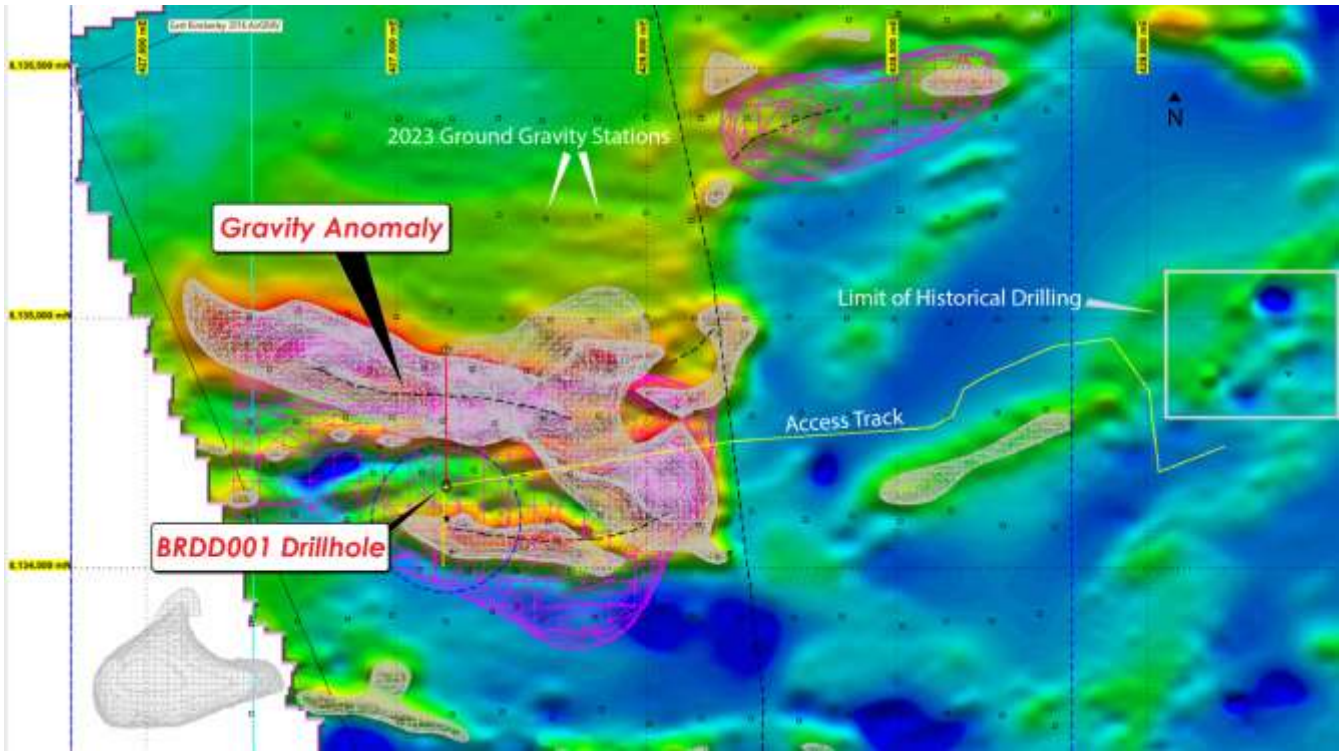


Figure 4. Drillhole BRDD001 (Azimuth 0 degrees) planned to intersect the gravity anomaly, between upper contact at 350m and 750m basal contact.

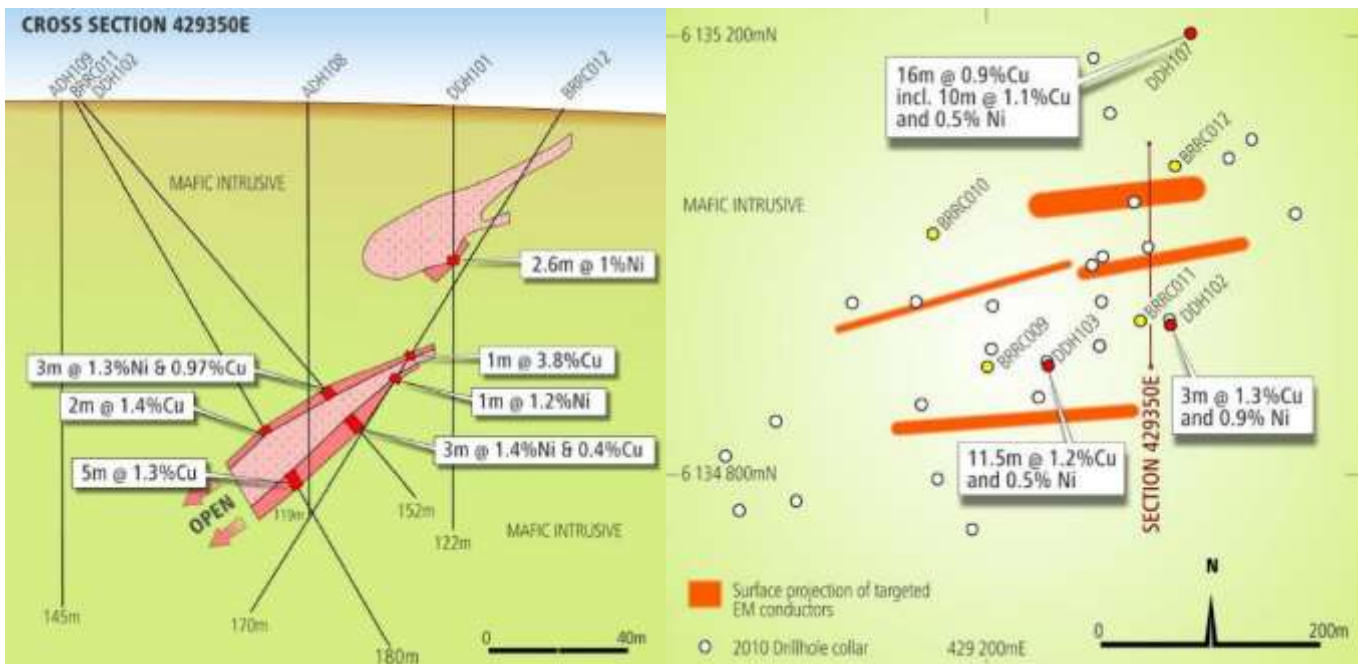


Figure 5. Location of historical drilling at Bow River nickel copper sulphide project.

Stansmore – West Arunta Project (Nb/REE±PGE)

The Company is currently working through the approvals processes required to enable heritage surveys and drilling to be undertaken as soon as possible. During the previous quarter the Company executed the land access agreement with the Parna Ngururpa traditional owners at our West Arunta Stansmore Niobium-REE Project at an on-country meeting held in Balgo, Western Australia. The Company is aiming to complete heritage surveys and a diamond drilling program in the next few months, subject to the approvals processes being finalised.

The Stansmore carbonatite target consists of a regionally prominent 700m long magnetic feature analogous to WA1's discoveries and Encounter's Worsley prospect.

Recent discoveries by WA1 Resources and Encounter Resources have demonstrated the potential for the West Arunta region to host significant REE and IOCG type mineralisation systems, Figure 6. Previous shallow aircore drilling by BHP Minerals in 1982 recorded shallow cover of approximately ~5-10m depth. Southern Geoscience Consultants (SGC) re-processed magnetic data over the Stansmore Carbonatite Project which highlighted multiple new targets identified prospective for Niobium-REE mineralisation, Figure 7.

Alkaline systems are key drivers in the formation of IOCG and carbonatite-hosted REE deposits, with the region seeing a renewed exploration focus for these deposit types. Carbonatite deposits are an important source of REE and niobium production. This includes the world's largest REE mine, Bayan Obo 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.

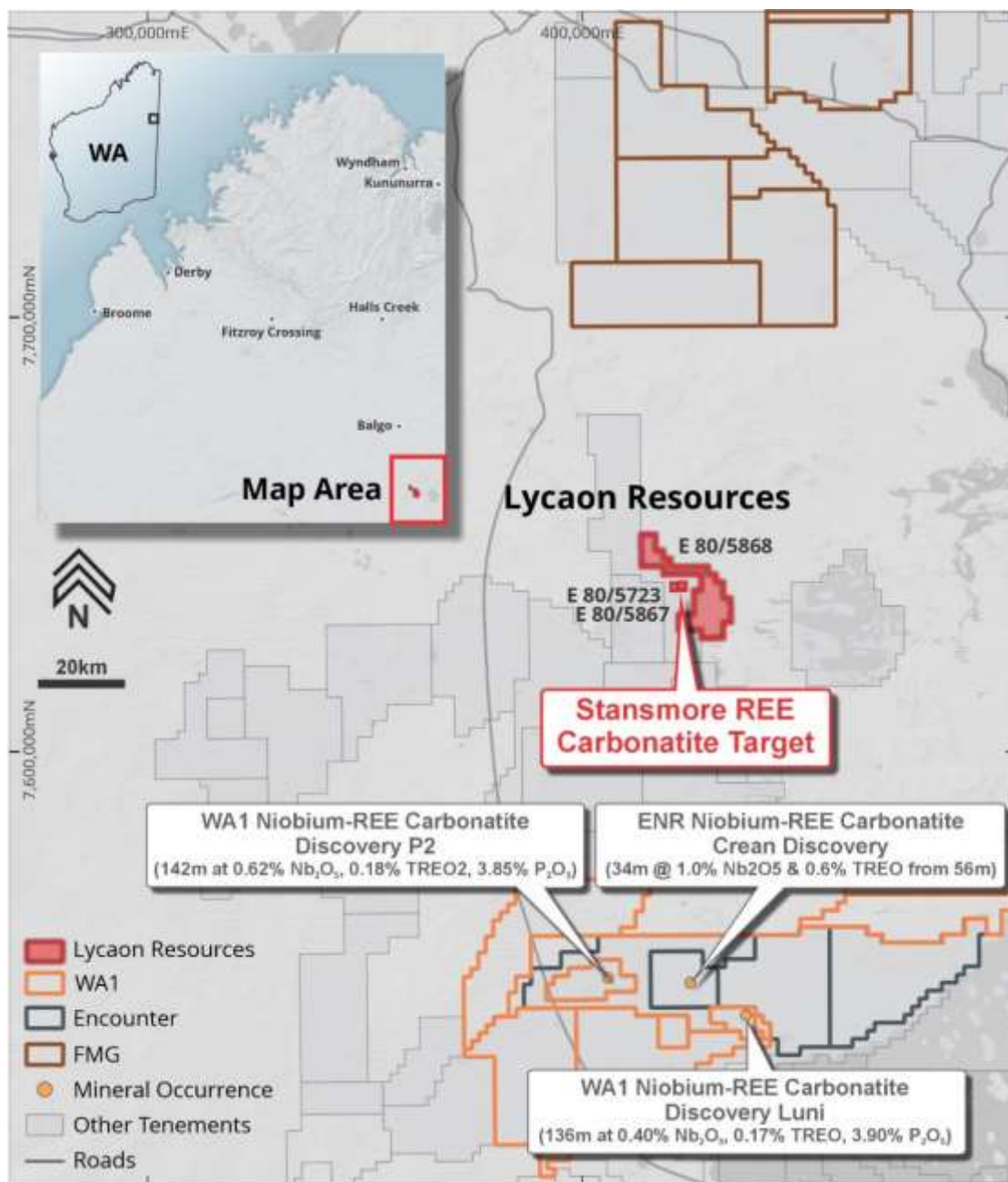


Figure 6. Stansmore Nb-REE Carbonatite ± IOCG Project Location Map.

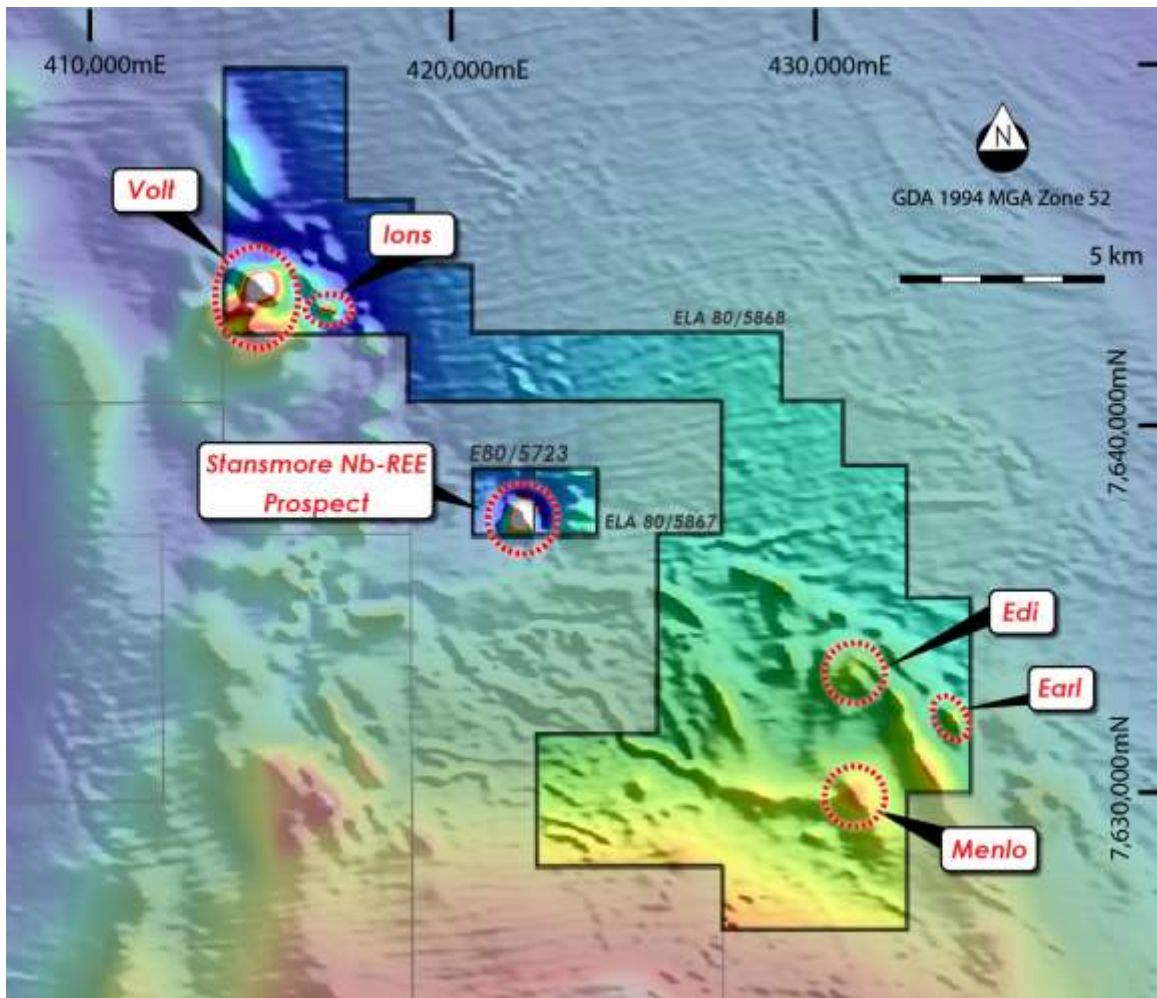


Figure 7. Reduced to Pole Magnetics (TMI grid) highlighting the prominent magnetic anomaly at Stansmore Prospect and other agnetic targets.

Gnewing Bore Project (*Gold, Silver, Copper*)

The Gnewing Bore Project is approximately 28km to the northwest of the Halls Creek townsite, within the Kimberley Region of Western Australia. Figure 8. Halls Creek is situated 350km south of Kununurra and is readily accessible via the sealed Great Northern Highway. The Project has generally good outcrop and easy access via stations tracks on the Moola Bulla pastoral lease.

An RC drilling program has been designed to test the 50m long, gossanous outcrop consisting of brecciated quartz material and iron oxides after sulphides. The Gnewing Bore Project represents a hydrothermal/epithermal gold-silver target, containing some low-level copper anomalism which appears primarily shear controlled. Historic work highlights high-tenor gold grades plus supporting silver and copper grades in the rock chip samples, with a lack of decent exploration work to sufficiently test the target's potential.

To date, notwithstanding its best and continuing efforts, the Company has unfortunately not been able to obtain the necessary heritage approvals to allow it to carry out its proposed drilling program.

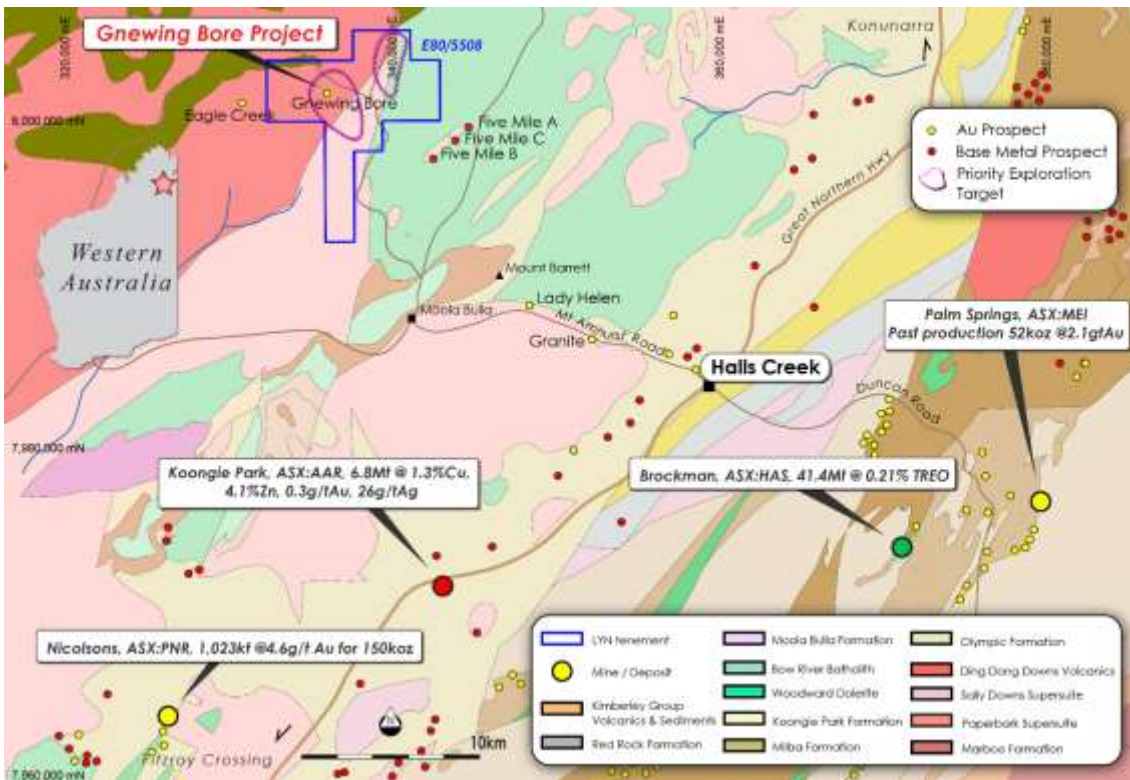


Figure 8. Gnewing Bore Project Location and Geology.

Corporate

Assessment of Additional Project Opportunities

As part of its ongoing business development model, Lycaon continues to assess project opportunities across a broad range of commodities and geographies with a view to identifying attractive, suitably priced assets that will add shareholder value.

Change of Chairman

During the quarter, the Company was pleased to advise that Adrian Di Menna was appointed to the Board as non-executive Director and Chairman following the 2023 AGM on 29 November 2023. Lycaon's previous Chairman, Pat Burke, resigned as a non-executive Director at the conclusion of the 2023 AGM.

Mr Di Menna is a corporate lawyer with over 12 years' experience advising private and public companies operating in Australia and overseas, particularly in the mining and resources sector. He has a wide range of experience in equity capital markets (including initial public offerings and secondary capital raisings), mergers and acquisitions, divestments, joint ventures, corporate governance and general corporate and commercial law.

Mr Di Menna holds a Bachelor of Laws and a Bachelor of Commerce from Murdoch University and is currently a lawyer at Steinepreis Paganin, a corporate and commercial law firm.

ASX Additional Information

As per ASX Listing Rule 5.3.1: Exploration and Evaluation Expenditure during the Quarter was \$581,525. Full details of exploration activity during the Quarter are set out in this report.

As per ASX Listing Rule 5.3.2: There were no substantive mining production and development activities during the Quarter.

As per ASX Listing Rule 5.3.5: Payments to related parties of the Company and their associates during the Quarter was \$92,326.

The Company advises that this relates to directors' fees and accounting and company secretarial related services.

As per ASX Listing Rule 5.3.4 the following expenditures have occurred:

Item	Current Quarter (\$)	Since Listing (\$)	As per IPO Prospectus dated 29 September 2021* (\$)	Variances (\$)
Exploration – Rocky Dam	-	553k	1.07m	(517k)
Exploration – Gnewing Bore	12k	191k	1.21m	(1.019m)
Exploration – Julimar	-	157k	540k	(383k)
Exploration – Bow River / Salt Lick	570k	1.42m	-	1.42m
Exploration – Stansmore	-	54k	-	54k
Expenses of the offer	-	733k	500k	233k
Corporate and administration costs	151k	1.05m	500k	550k
Working capital	-	34k	1.5m	(1.466m)

* Costs per the prospectus are over the first two years following admission of the Company to the official List of ASX

The differences in the above are as follows:

Exploration – Rocky Dam

During the quarter, the tenements associated with the Rocky Dam project were relinquished. The reason for the difference in spend of approximately \$517,000 on the project compared to what was disclosed in the prospectus is because of disappointing geochemical results and no significant targets identified to warrant follow up drilling. The Company does not consider it is in the best interests of its shareholders to expend further funds on this prospect.

Exploration - Julimar

During the quarter, the tenements associated with the Julimar project were relinquished. The reason for the difference in spend of approximately \$383,000 on the project compared to what was disclosed in the prospectus is because of the auger sampling program and helicopter EM survey results which have not highlighted any priority targets for follow up exploration work. The geophysics spend were under budget by \$69k because no further ground geophysical surveys were completed subsequent to the initial airborne survey due to poor results. Therefore, no drilling occurred and no expenditure on other associated costs of field support and land access were deemed necessary. The Company does not consider it is in the best interest of its shareholders to expend further funds on this prospect.

Exploration – Gnewing Bore

The reason for the difference in spend of approximately \$1,019,000 on the project compared to what was disclosed in the prospectus is due to unfavourable land access issues. The Company initially flew an airborne geophysical survey which delineated multiple targets for follow up with geochemical surveys and potential further ground geophysical surveys and drill programs which were additional to the planned drilling at the main Gnewing Bore Project. The Company has unfortunately not been able to obtain the necessary heritage approvals to allow it to carry out ground disturbing activities. Pending further heritage surveys being successfully completed, all exploration programs will remain on hold until land access is resolved.

Exploration – Bow River / Salt Lick

Since listing, the Company acquired East Kimberly Resources Pty Ltd which holds the tenement licence E80/4955 in June 2022. The costs associated to acquire the project and further develop this prospect of approximately \$1,424,000 were allocated as a separate line item in the table above as it is not considered 'working capital' in nature given the Company acquired the project.

Expenses of the offer

These costs include legal costs, accounting and tax advice costs, and other support services. Delays in the anticipated listing of the Company increased costs of the offer, predominately legal costs.

Working capital

The Company's working capital is to be utilised to fund further exploration activities and/or acquisitions or investment costs (including due diligence investigations and experts fee in relation to such acquisitions or investments), as applicable. Any amounts not expended will be applied towards corporate and administration costs for the period subsequent to the initial two-year period following admission of the Company.

ENDS

For further information:

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Tenement Register

Project	Tenement	Holder(s)*	Location	Interest at 1/10/2023	Acquired / Disposed	Interest at 31/12/2023
Gnewing Bore	E 80/5508	Matmetals WA Pty Ltd	WA	100%	-	100%
Bow River and Salt Lick	E80/4955	East Kimberley Resources Pty Ltd	WA	100%	-	100%
Stansmore	E 80/5723	West Arunta Resources Pty Ltd	WA	100%	-	100%
Stansmore	E 80/5867	West Arunta Resources Pty Ltd	WA	100%	-	100%
Stansmore	E 80/5868	West Arunta Resources Pty Ltd	WA	100%	-	100%

* Matmetals WA Pty Ltd, East Kimberley Resources Pty Ltd and West Arunta Resources Pty Ltd are 100% owned subsidiaries of Lycaon Resources Limited. There are no Farm-in or Farm-out Arrangements held by Lycaon Resources Limited.

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

Forward-Looking Statements

This announcement contains “forward-looking statements.” All statements other than those of historical facts included in this announcement are forward-looking statements. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and based upon information currently available to the company and believed to have a reasonable basis. Although the company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and no assurance can be given that these expectations will prove to be correct as actual results or developments may differ materially from those projected in the forward-looking statements.

Forward-looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include, but are not limited to, copper, gold, and other metals price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, as well as political and operational risks and governmental regulation and judicial outcomes. Readers are cautioned not to place undue reliance on forward-looking statements due to the inherent uncertainty thereof. The forward-looking statements contained in this press release are made as of the date of this press release and except as may otherwise be required pursuant to applicable laws, the Company does not undertake any obligation to release publicly any revisions to any “forward-looking statement”.

Competent Persons 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 full-time employee of Lycaon 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.