

LACHLAN
STAR



**UNLOCKING NEW DISCOVERIES IN THE
WORLD-CLASS LACHLAN FOLD BELT, NSW**

Resources Rising Stars - Gold Coast Investor Conference
RACV Royal Pines Resort, 4 September 2024

ASX: LSA

September 2024

IMPORTANT INFORMATION

Forward Looking Statements

This Presentation contains forward-looking statements which are identified by words such as ‘may’, ‘could’, ‘believes’, ‘estimates’, ‘targets’, ‘expects’, or ‘intends’ and other similar words that involve risks and uncertainties. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that, as at the date of this Presentation, are considered reasonable. Such forward-looking statements are not a guarantee of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, the Directors and the management. The Directors cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this Presentation will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements. The Directors have no intention to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this Presentation, except where required by law or the ASX listing rules.

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- accept no responsibility or liability as to the adequacy, accuracy, completeness or reasonableness of this Presentation; and
- accept no responsibility for any errors or omissions from this Presentation.

Exploration by other Explorers

This Presentation contains information sourced from the reports of other companies and public sources. References to the original reports are provided as footnotes where the information is cited in this Presentation. The Company does not vouch for the accuracy of these reports. The Company has taken the decision to include this information as it is in the public domain and has assessed it to be of relevance to shareholders and investors.

Competent Persons Statement

The information in this presentation that relates to Exploration Results for the Basin Creek and North Cobar projects is extracted from the ASX announcements titled:

- “High-Grade Copper Drill Targets Defined at Basin Creek – Junee Project, NSW” dated 15 August 2024; and
- “Positive Start to Exploration in NSW and Acquisition of Priority Ground in Cobar” dated 17 June 2024.

all of which are available on www.lachlanstar.com.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

No offer to sell or invitation to buy Securities

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Authorisation

This Presentation has been authorised for release by the Board.

HIGHLIGHTS



Emerging high-grade copper system at Basin Creek, NSW, in a premier mining jurisdiction



A strategically located first-class exploration portfolio



Disciplined, cost effective targeting and a boots-on-ground exploration focus is delivering results



Well-credentialed Board and management team who have played active roles in major discoveries

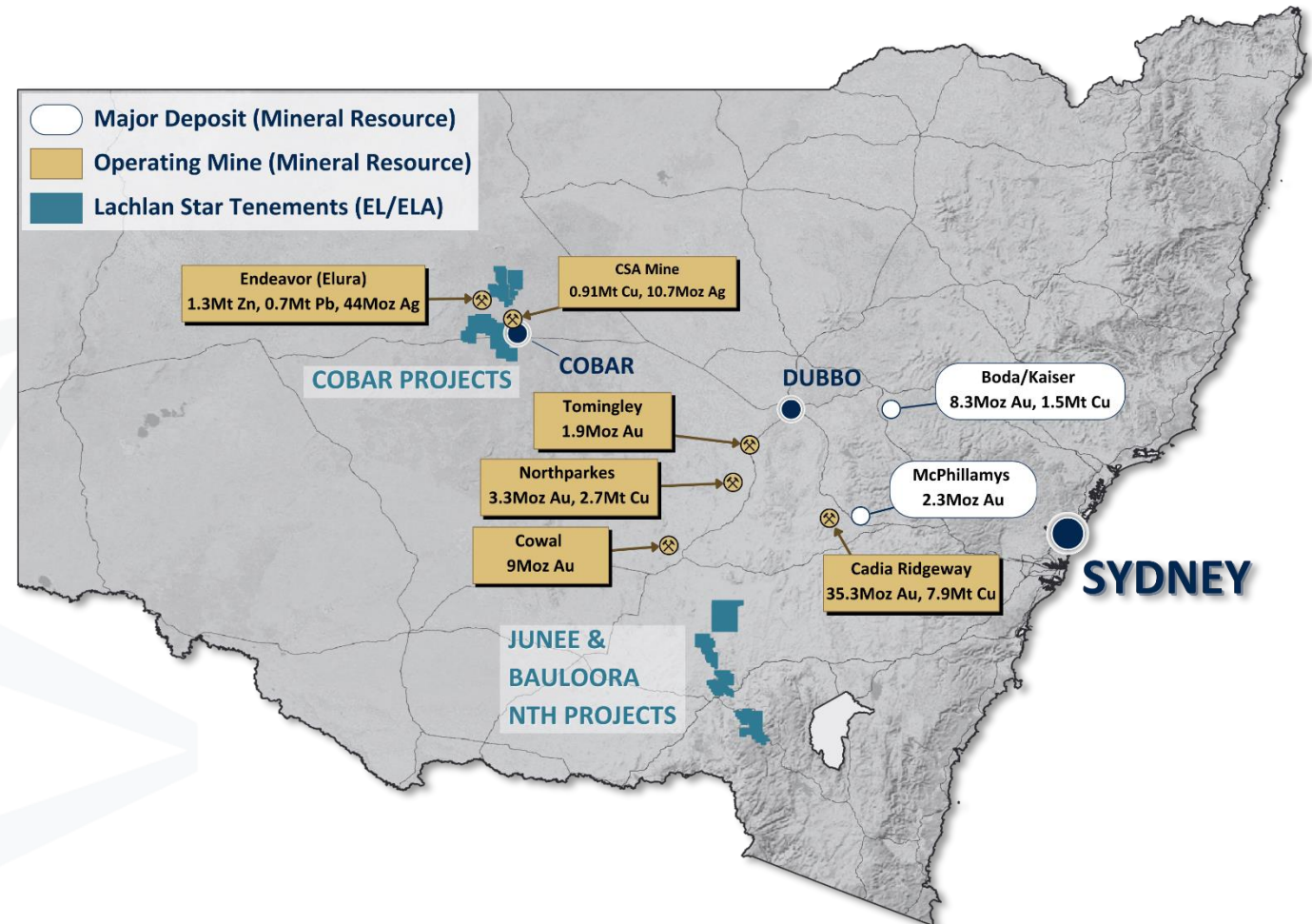
...pursuing value creation through economic mineral discovery



OUR PROJECT FOCUS

New South Wales – Gold and Copper

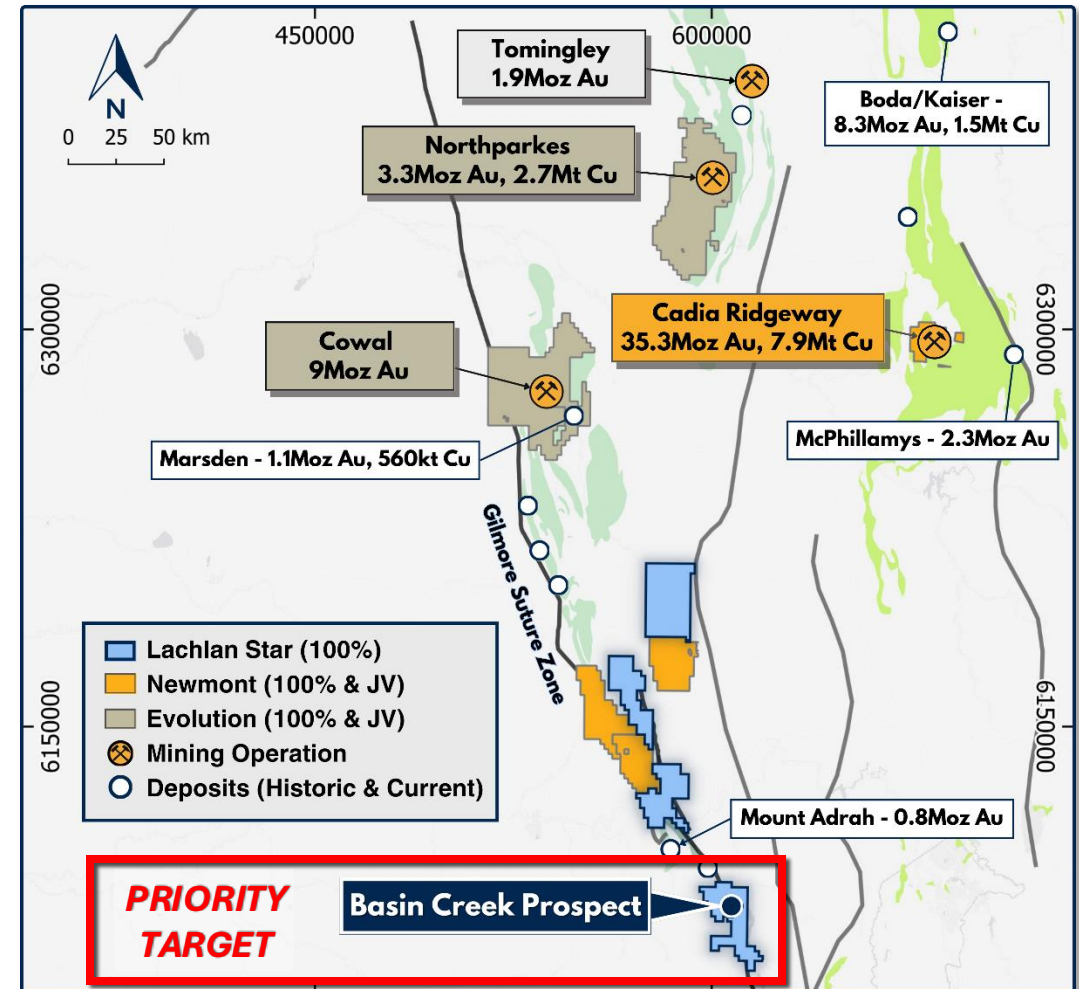
- Top-tier exploration project portfolio
- Endowed mineral provinces near producing mines and high-profile exploration projects
- Potential for world-class gold and copper discoveries



JUNEE – Basin Creek Prospect (LSA 100%)

Emerging high-grade copper opportunity

- Premier mining destination – 110Moz gold and 19Mt copper endowment¹
- Project located on the Gilmore Suture Zone - metal-rich structural corridor
- Significant +10km of gold- and copper-in-soil mineralisation identified, including Basin Creek
- Basin Creek – priority drill target²
 - High-grade copper intersections identified and investigated in historic drilling
 - All necessary permits received and drill ready



Note, Mineral Resources sourced from the relevant Company public domain reports

¹ Current Resource and Past Production – Future of Minerals in NSW Report, March 2020.

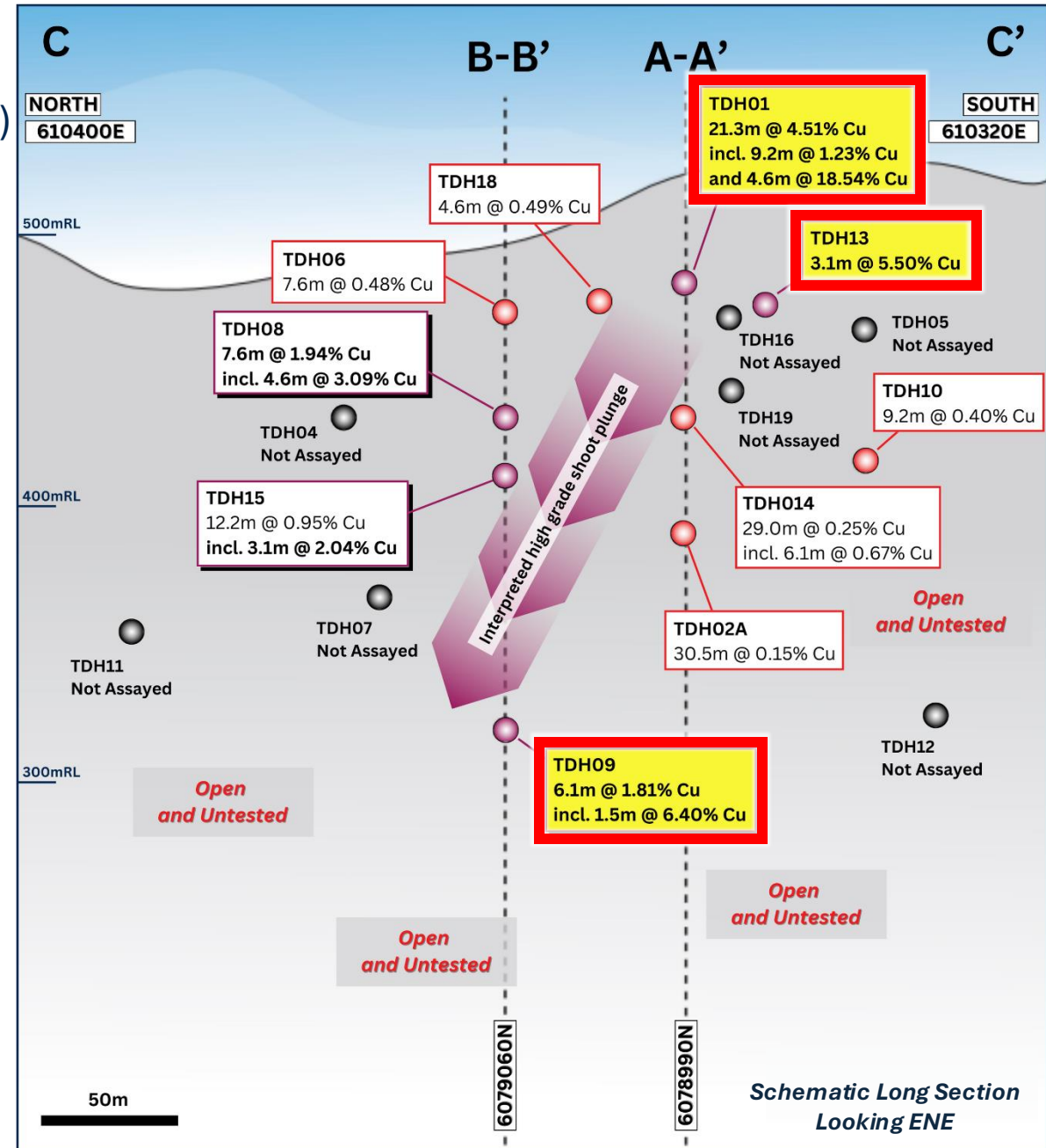
NSW, Dept. of Planning, Industry and Environment

² Refer to Lachlan Star ASX Announcement dated 15 August 2024

Basin Creek Prospect (LSA 100%)

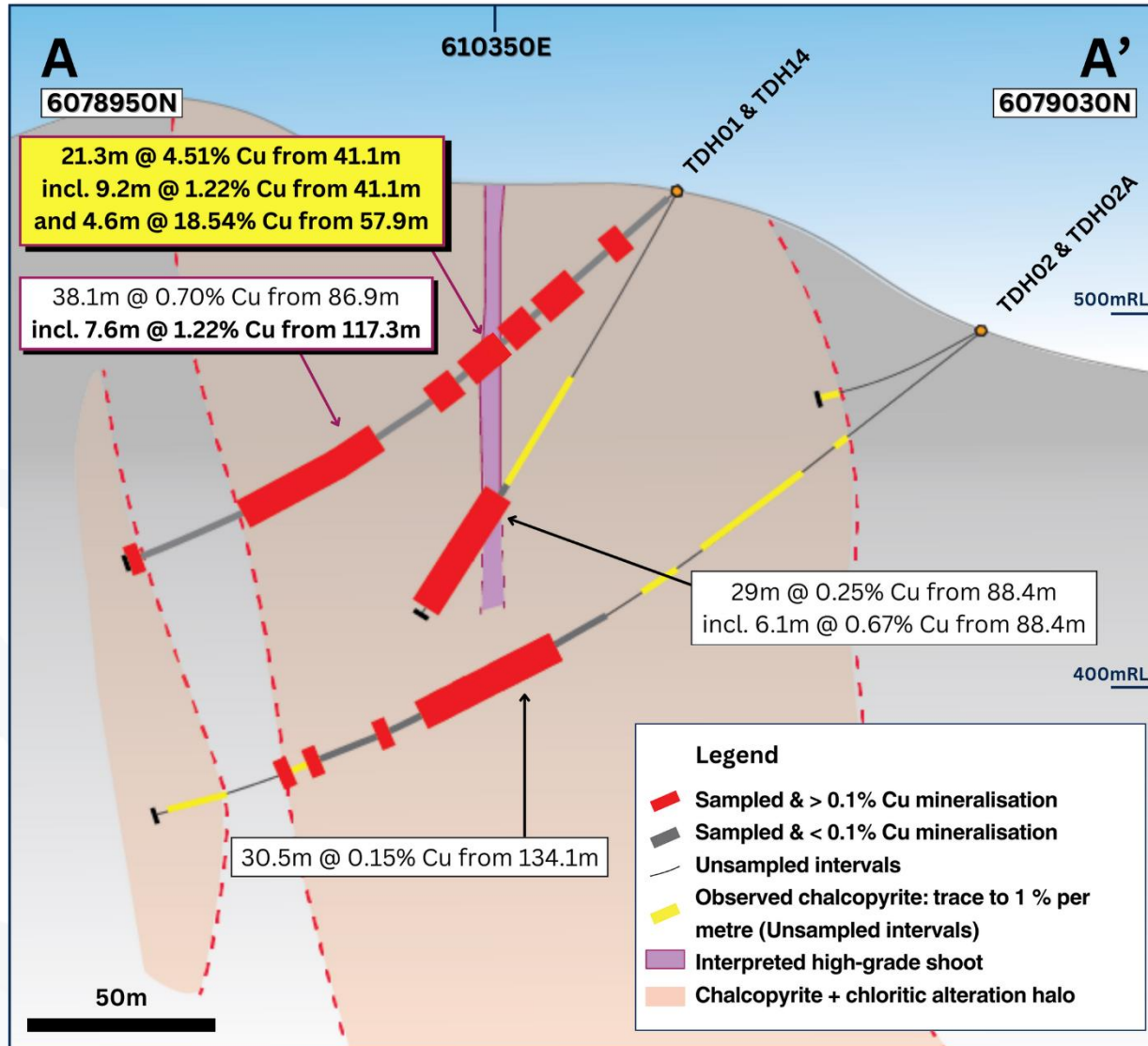
Near-surface, high-grade copper Drill Target

- Comprehensive review of 50-year-old historic data including physical inspection of drill core¹
- Semi-massive high-grade sulphide (chalcopyrite) shoots within broader disseminated copper system
 - **21.3m @ 4.51% Cu**, incl. 9.2m @ 1.23% Cu and **4.6m @ 18.54% Cu** (TDH01)
 - **3.1m @ 5.50% Cu** (TDH13)
 - **6.1m @ 1.81% Cu**, incl. **1.5m @ 6.40% Cu** (TDH09)
- High-grade open down-plunge and along strike

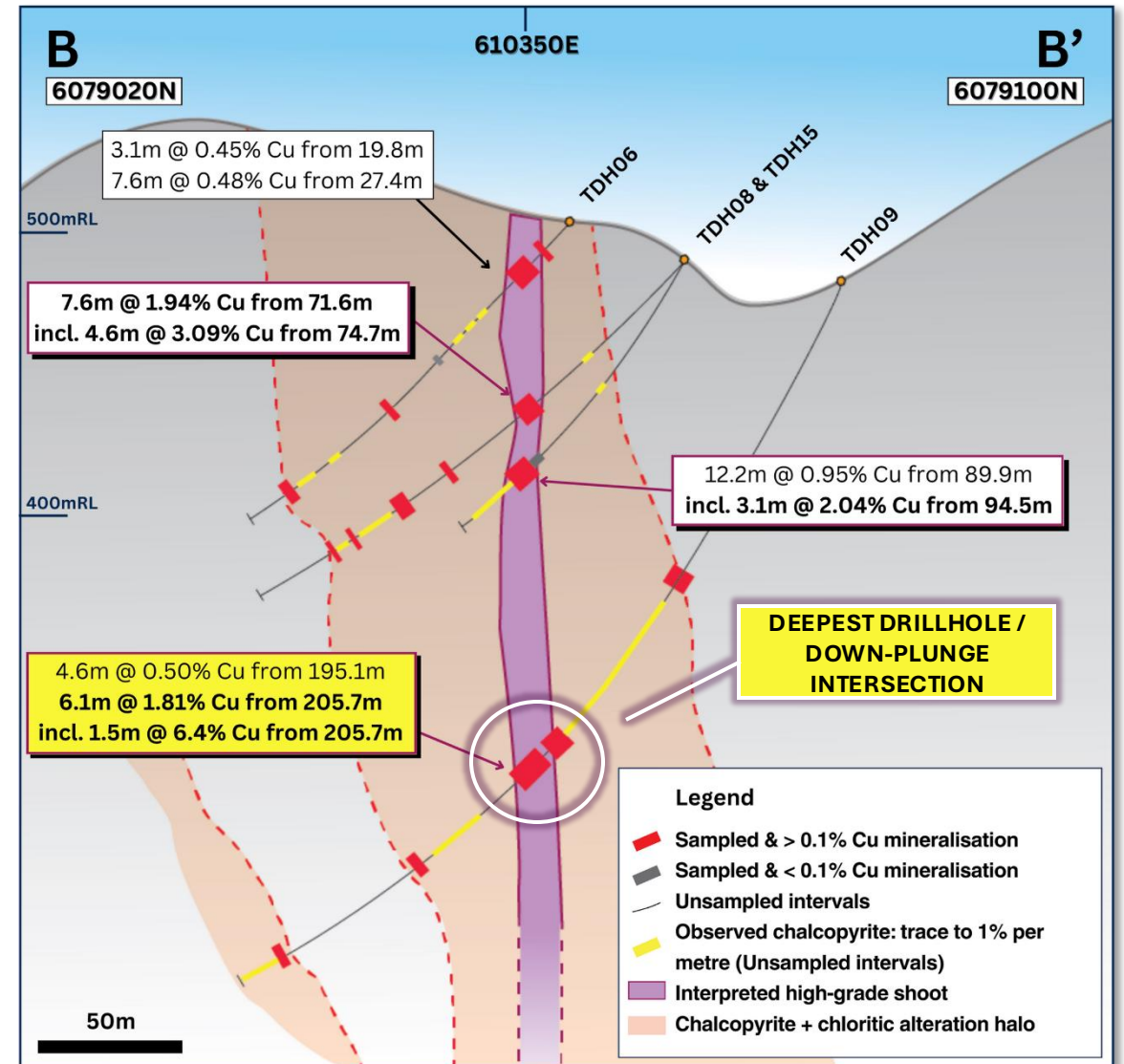


¹ Refer to Lachlan Star ASX Announcement dated 15 August 2024

Basin Creek Prospect: Schematic cross sections (looking NNW) through high-grade copper (chalcopyrite) system



Southern Cross Section Looking towards 350° NNW



Northern Cross Section Looking towards 350° NNW

Basin Creek Prospect (LSA 100%)

Emerging high-grade copper value proposition

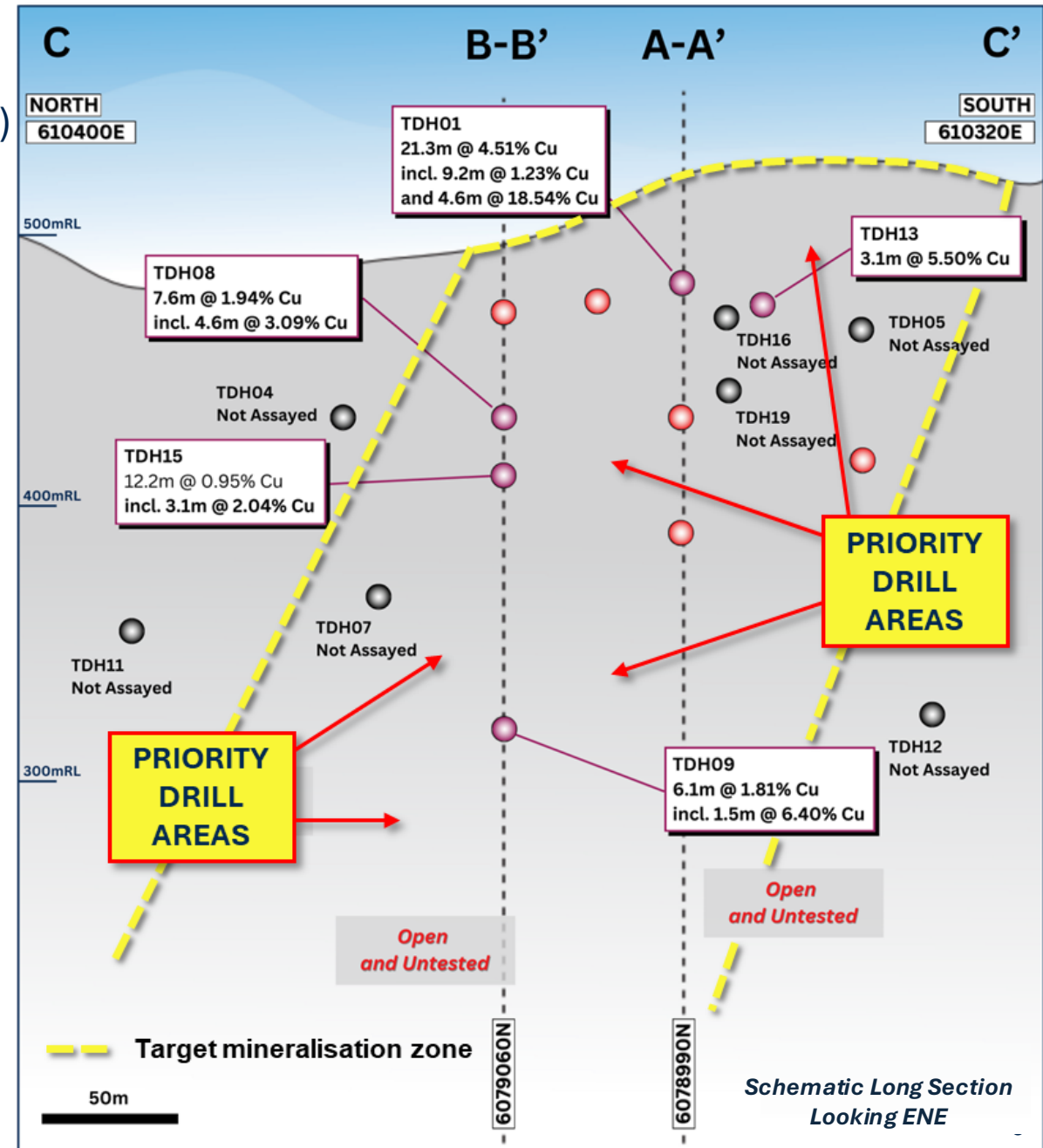
- Prospect is fully permitted and ready to drill early Q4



TDH01 4.6 metres at 18.54 % Cu from 57.9 metres¹ massive chalcopyrite (copper sulphide) - tarnished by length of time in core tray

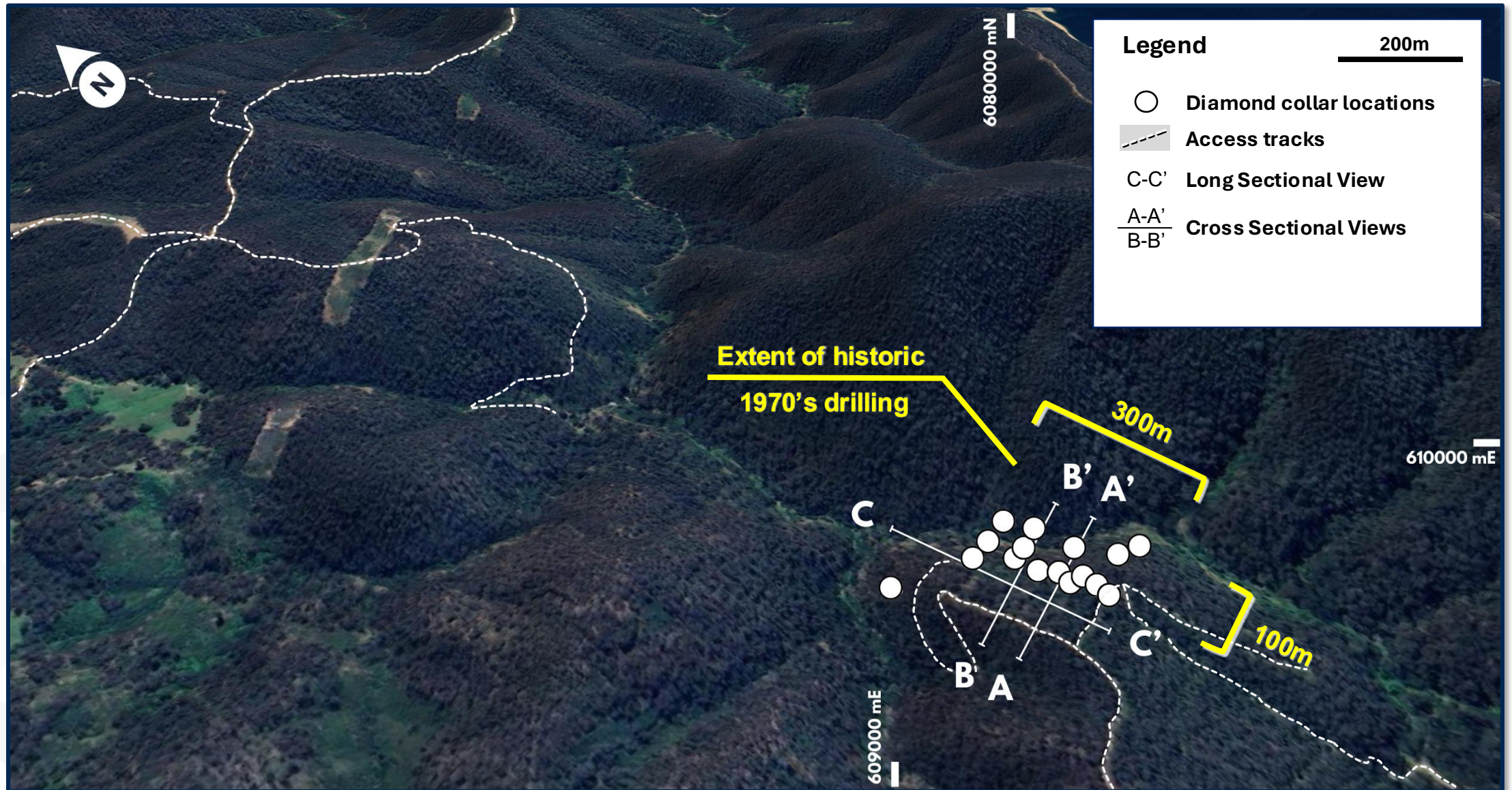


TDH09 1.5 metres at 6.40 % Cu from 205.8 metres¹ chalcopyrite (copper sulphide) in chlorite-magnetite-quartz altered intermediate volcanoclastic breccia. Chalcopyrite tarnished by length of time in core tray

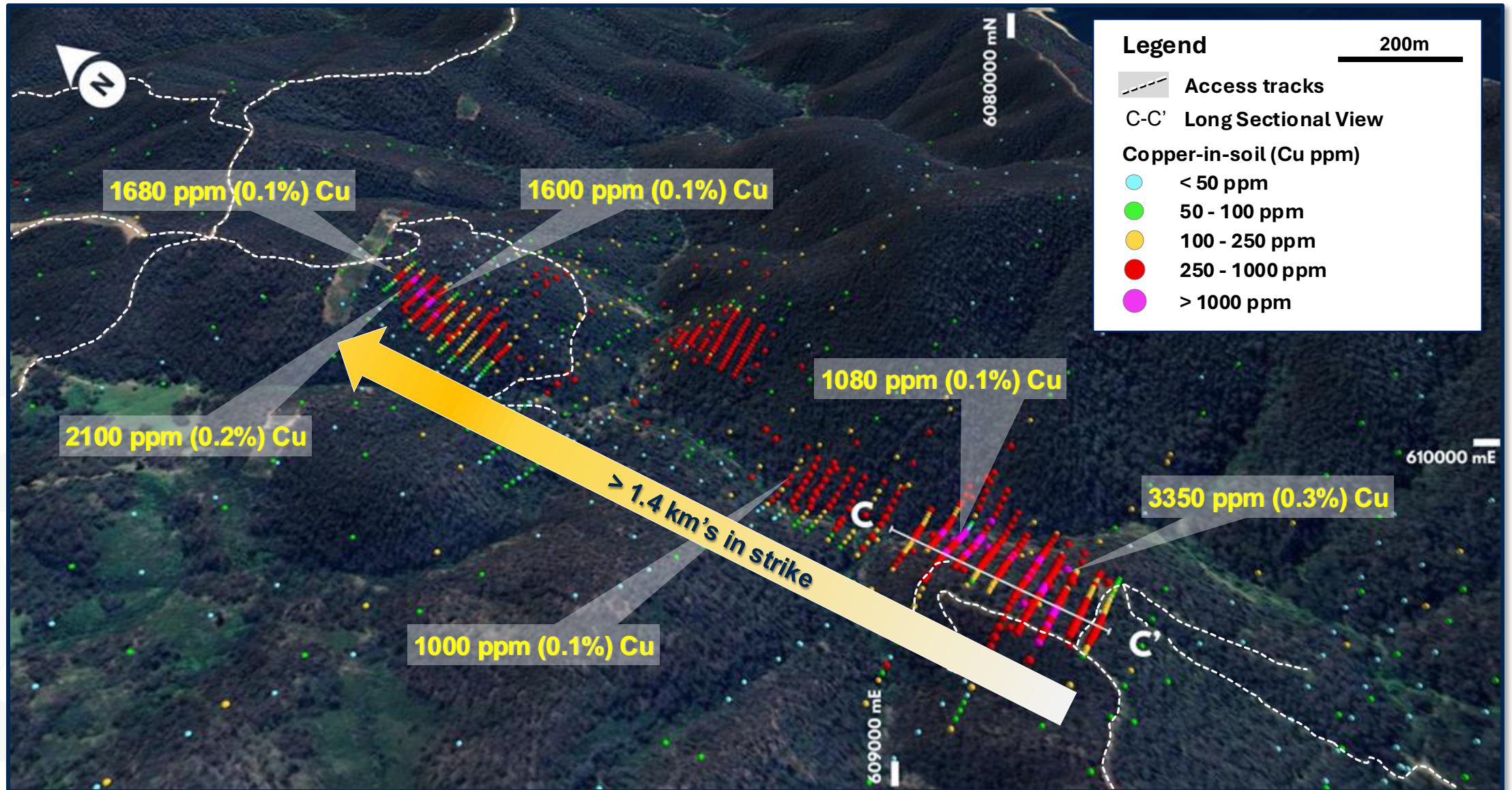


¹ Nethery, J. A., (1975). Tumut EL200 Final Report on Exploration in the Five-Year Period to August 14, 1974. Australian Oil and Gas Minerals Pty Ltd.

Basin Creek Prospect: Isometric view, looking northeast, with historic diamond drill collars shown



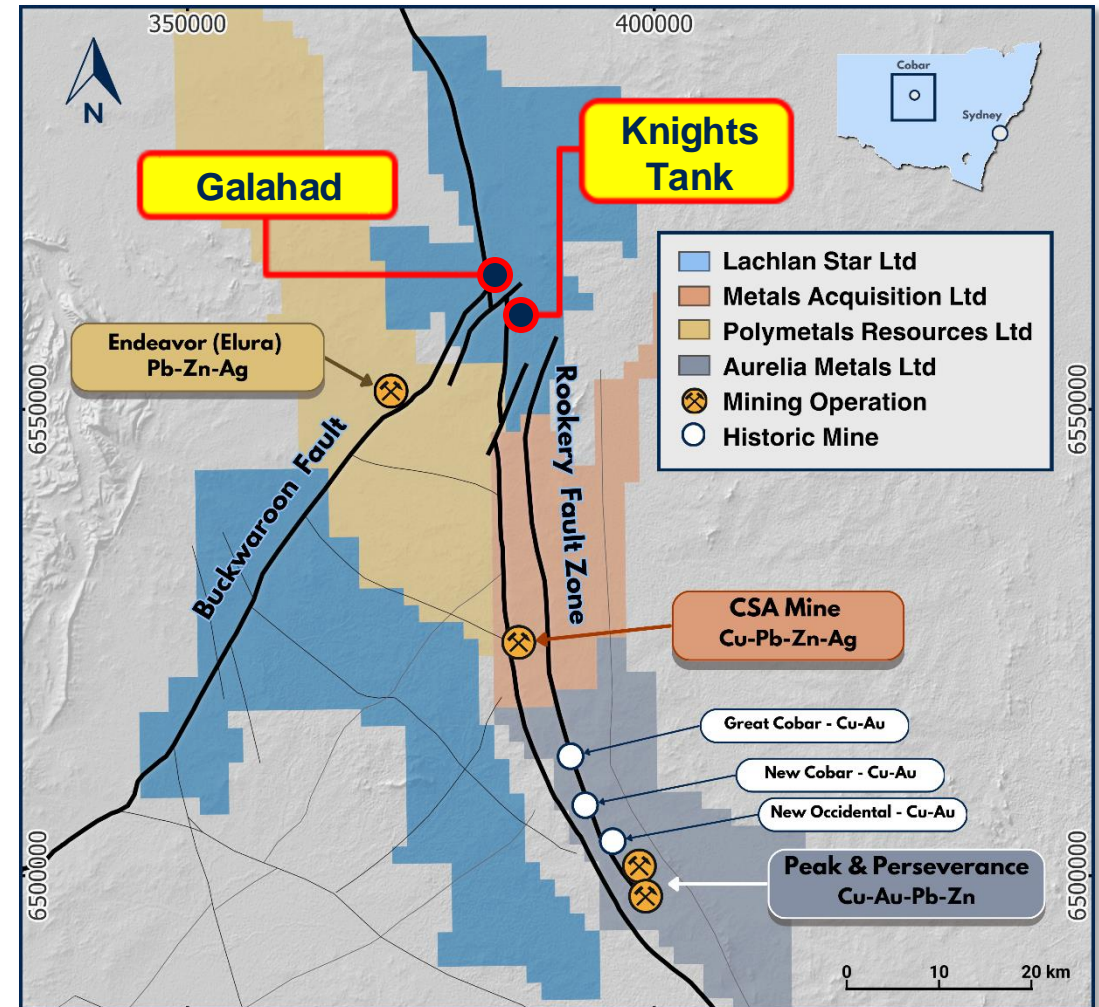
Basin Creek Prospect: Isometric view, looking northeast, with surface copper (Cu) geochemistry in ppm



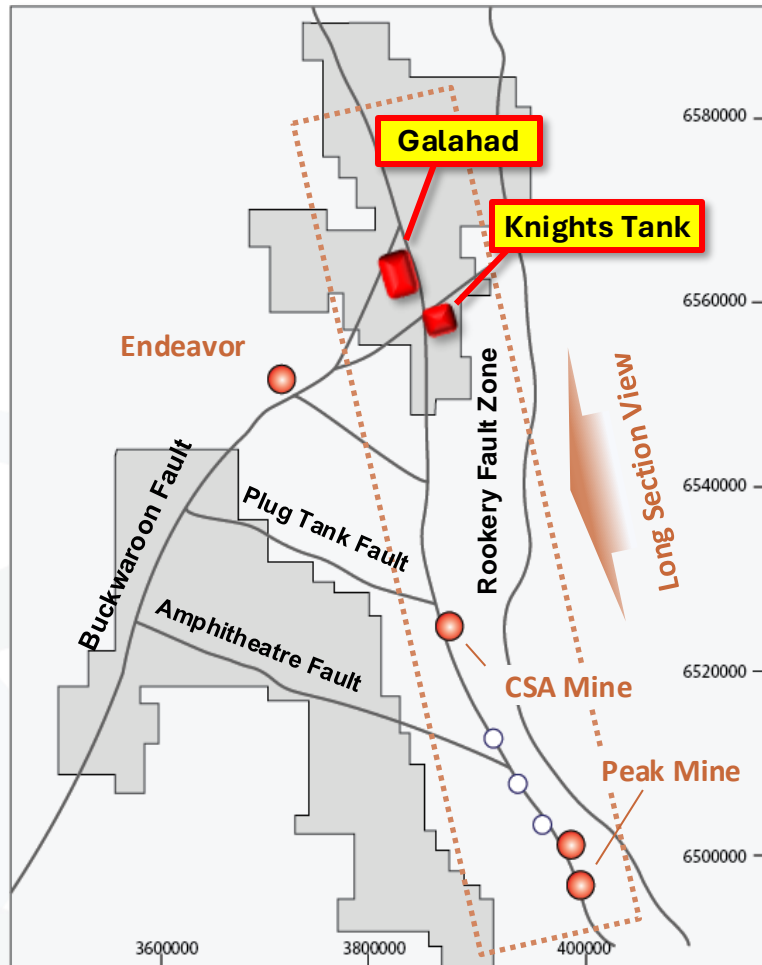
NORTH COBAR (LSA 100%)

Targeting Discovery in the Cobar Copper District

- Endowed copper-gold and lead-zinc district
- Renewed interest in region's mineral potential
- Structure is key to unlocking more discoveries
- Basin margin faults and intersections with NE cross faults provide fertile ground for large deposits
- Drill targets identified
 - Favourable structural faults and intersections
 - Coincident gravity-magnetic geophysical anomalies
 - Anomalous surface geochem (Au-Sb-Pb-Zn-Ag)



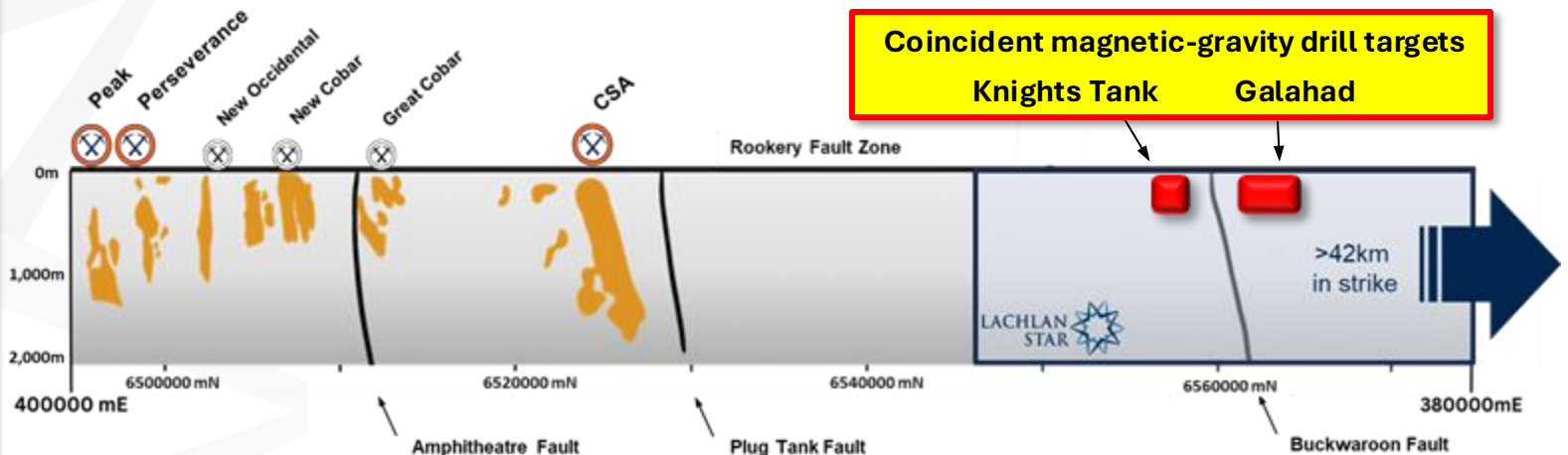
NORTH COBAR (LSA 100%)



Schematic structural framework and deposit locations

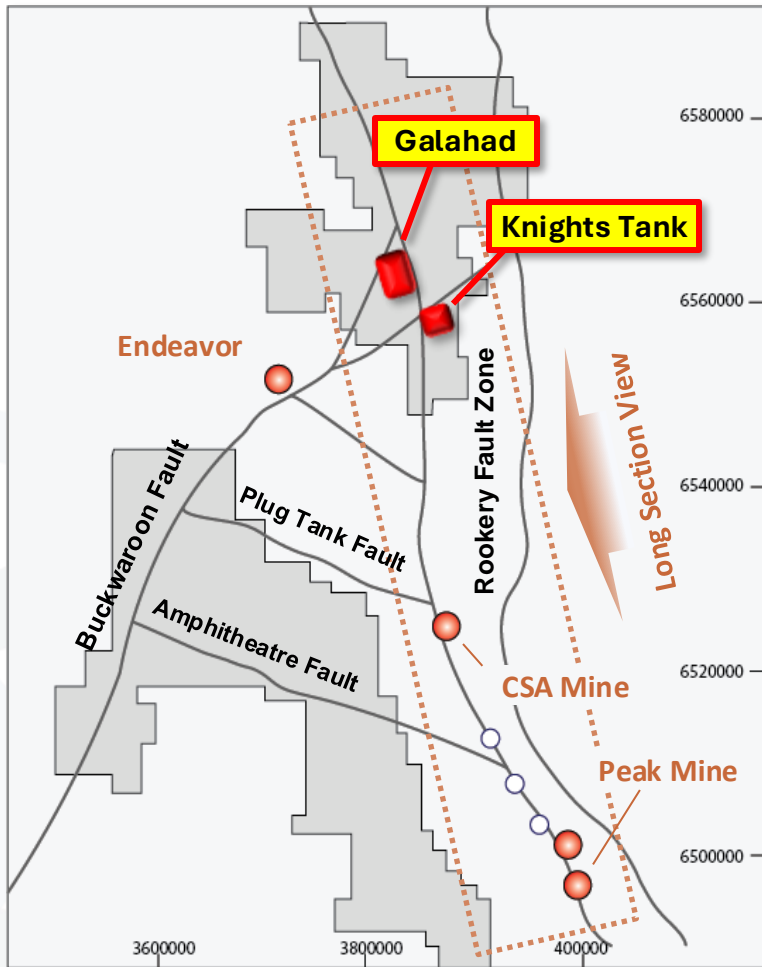
Cobar-style systems - Key Targeting Criteria

- **Gravity highs** – may represent broad alteration systems and addition of metals
- **Magnetic lows and highs** - changes in geology due to hydrothermal alteration
- **Faults** - plumbing pathway for mineralising hydrothermal fluids



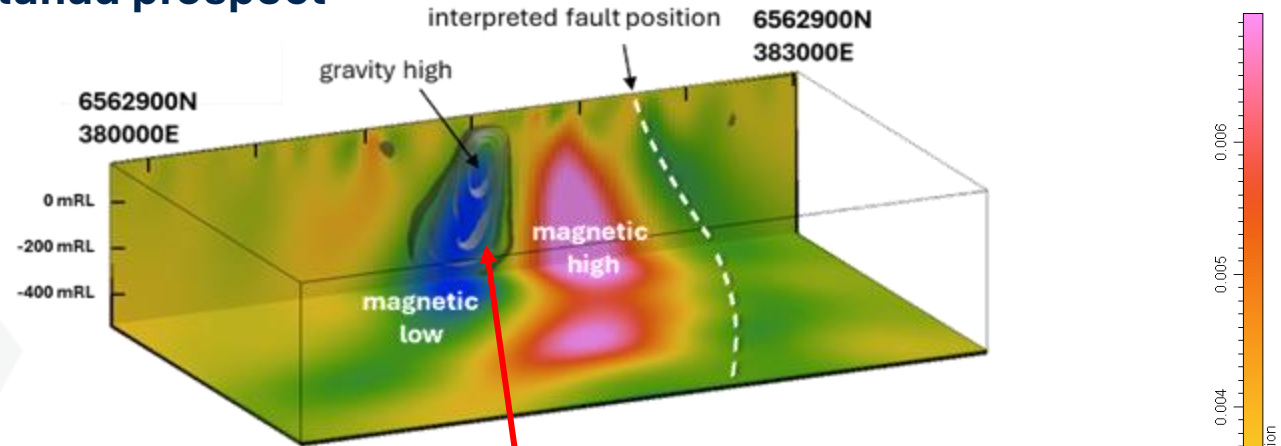
SCHEMATIC LONG SECTION THROUGH THE ROOKERY FAULT ZONE (LOOKING WEST)

NORTH COBAR (LSA 100%)

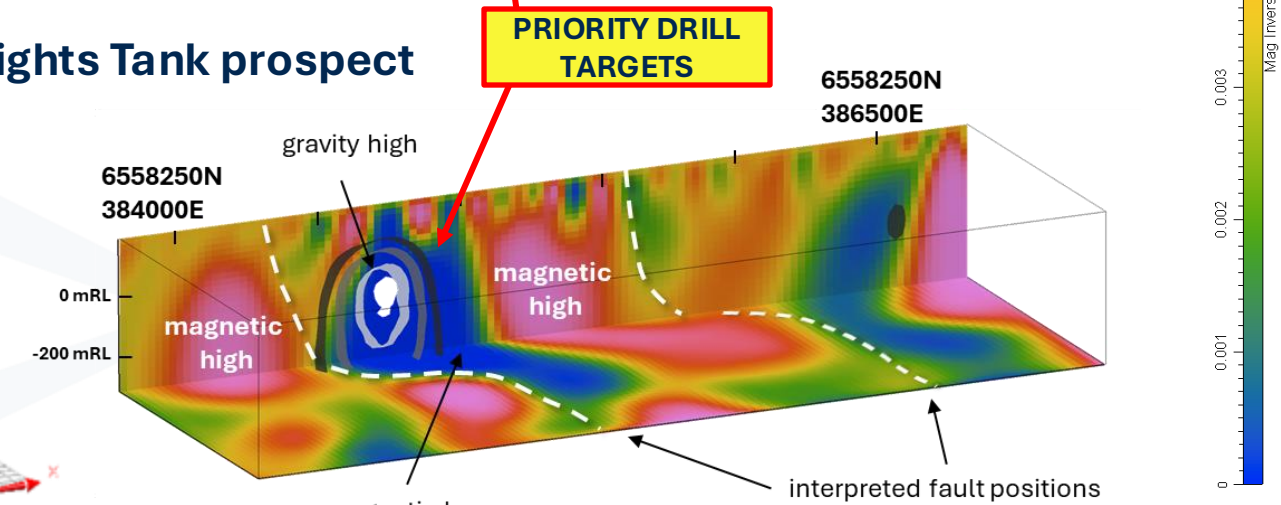


Schematic structural framework and deposit locations

Galahad prospect



Knights Tank prospect



Gravity 3D density contrast Iso-Shells (up to 0.14 g/cc) on magnetic 3D inversion (6×10^{-6}) model

CORPORATE OVERVIEW

CAPITAL STRUCTURE

Share Price (2/09/24)	\$0.105
Shares	207,573,195
Options and Performance Rights	7,000,000
Market Capitalisation	\$21.8M
Cash (30/06/24)	\$1.6M

MAJOR SHAREHOLDERS

Top 20 Holders	56.4%
Directors	6.5%
DevEx Resources Ltd	36.5%

MANAGEMENT

Andrew Tyrrell Chief Executive Officer

Geologist with 20+ years experience in the minerals industry with a primary focus on gold and exploration. Experience spans several international jurisdictions including senior management at AngloGold Ashanti and Gold Road Resources.

BOARD

Gary Steinepreis Non-Executive Chairman

Chartered Accountant with 30+ years experience with ASX-listing rules, corporate governance and equity capital raisings. Has held Non-Executive Director roles with several other ASX-listed companies.

Brendan Bradley Non-Executive Director

Geologist for 25+ years with extensive experience in exploration and development of epithermal gold deposits. Highly experienced in intrusive related nickel-copper-PGE deposits. Managing Director at DevEx Resources and has held senior management roles at Perilya Ltd, Dominion Mining Ltd and Kingsgate Consolidated Ltd.

Alan Hawkins Exploration Manager

Geologist for 25+ years in the minerals industry with a primary focus on gold and copper exploration and exploration business development in the Asia Pacific Region. Principal and management positions at Newmont and Evolution Mining.

Stacey Apostolou Non-Executive Director

Finance Executive with 30+ years experience in the mining and exploration industry. Currently Executive Director at DevEx Resources.

Dan Smith Non-Executive Director & Company Secretary

Over 15 years' primary and secondary capital markets expertise. Has advised and been involved in IPOs/RTOS and capital raisings on the ASX, AIM and NSX. Key focus areas are corporate governance and compliance, commercial due diligence and transaction structuring.

KEY TAKEAWAYS



Basin Creek - high-grade copper intercepts in historic core identified, fully permitted and ready to drill in early Q4



North Cobar - coincident mag-gravity drill targets along trend of CSA & Endeavor, in a metal-rich corridor



Quality Project Pipeline - continuing to generate a quality portfolio of high value of drill targets



Backed by a discovery-driven, technically strong team



...pursuing value creation through economic mineral discovery

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