

LACHLAN STAR



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

Investor Presentation

ASX: LSA

August 2024

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

...pursuing value creation through economic mineral discovery



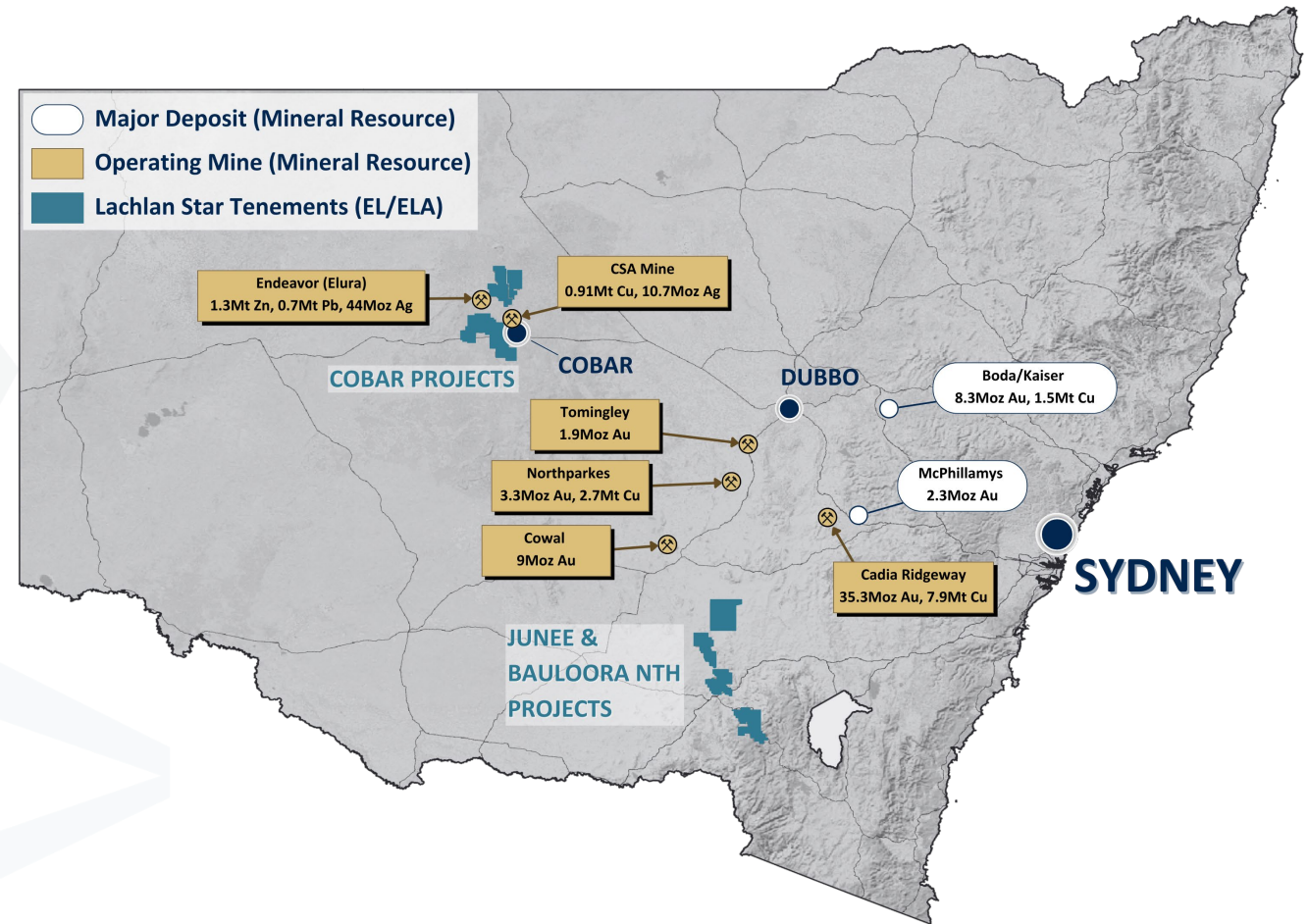
LSA

PORTFOLIO

OUR FOCUS PROJECTS

New South Wales – Gold and Copper

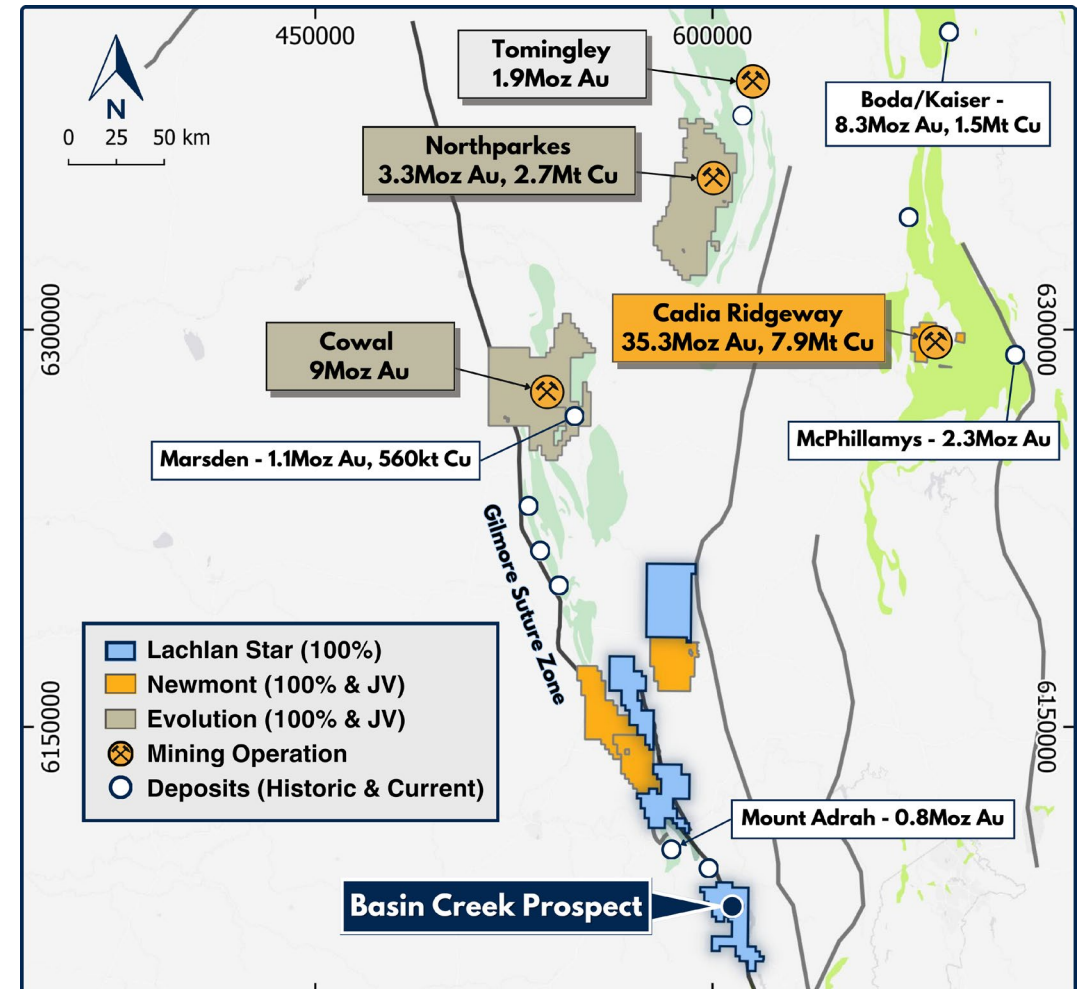
- Exciting portfolio of exploration projects
- Highly endowed mineral provinces near producing mines
- Potential for world-class gold and copper discoveries



JUNEE – Basin Creek Prospect (LSA 100%)

Emerging high-grade copper opportunity

- Premier mining destination - endowed gold and copper mineral province
- Project located along the Gilmore Suture Zone - metal-rich structural corridor
- Project contains encouraging gold and copper (plus Pb-Zn) mineralisation over 15km in strike
- Basin Creek – priority drill target¹
 - Significant copper intersections identified and investigated in historic drilling
 - Targeting advanced and drill ready

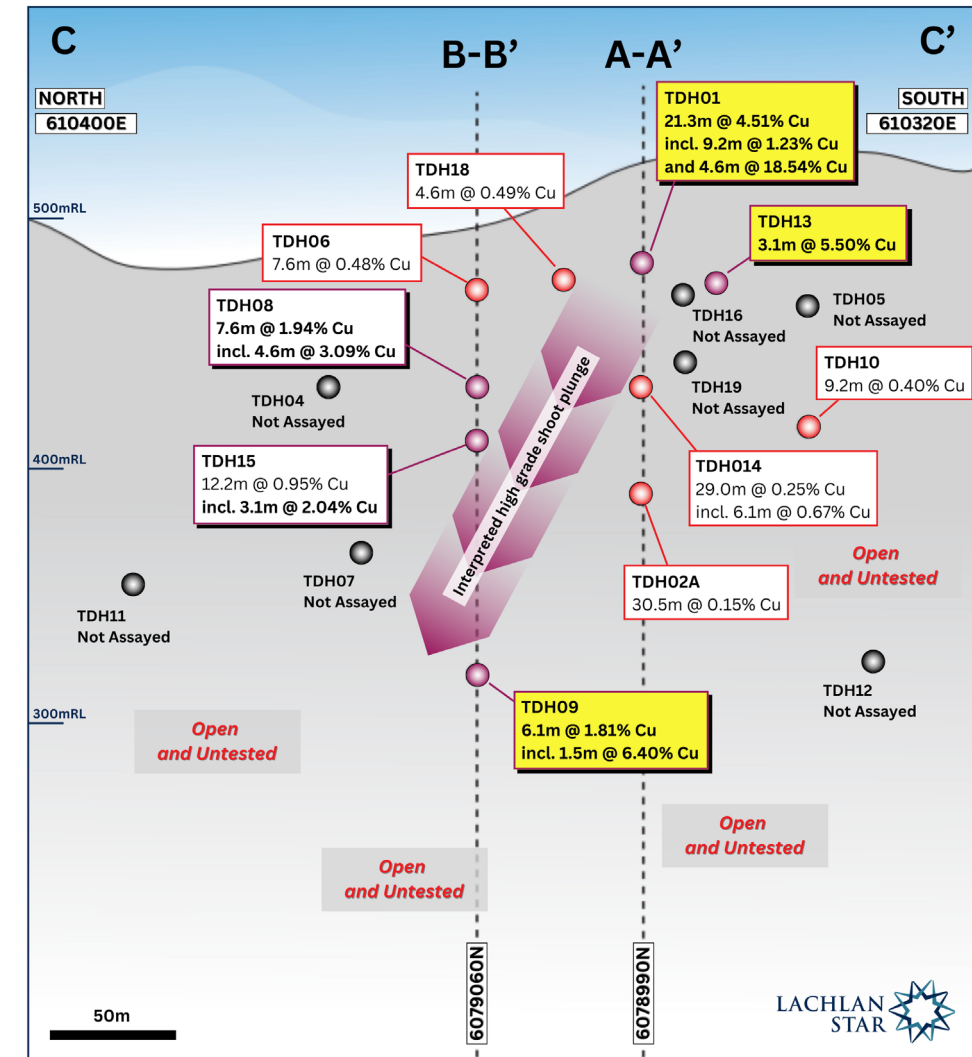


¹ Refer to Lachlan Star ASX Announcement dated 15 August 2024

JUNEE – Basin Creek Prospect (LSA 100%)

Near-surface, high-grade copper Drill Target

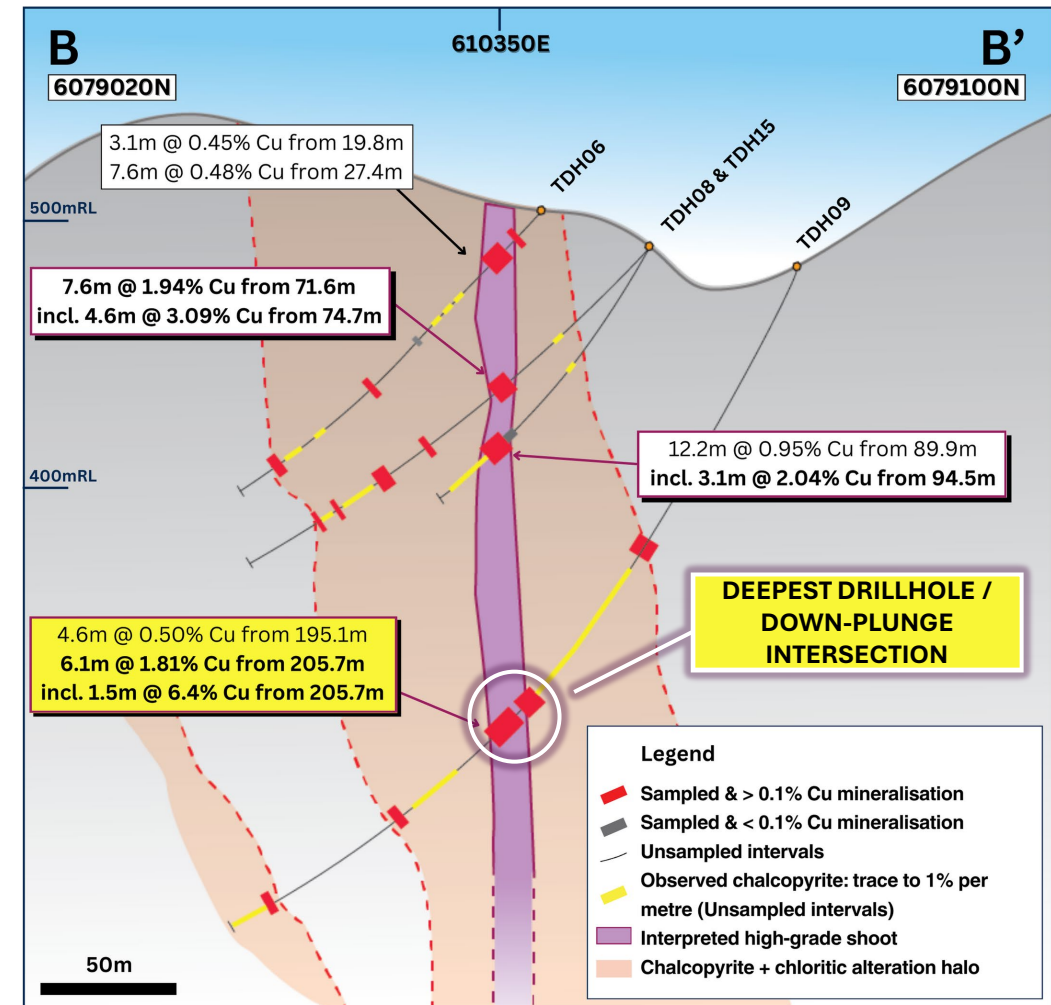
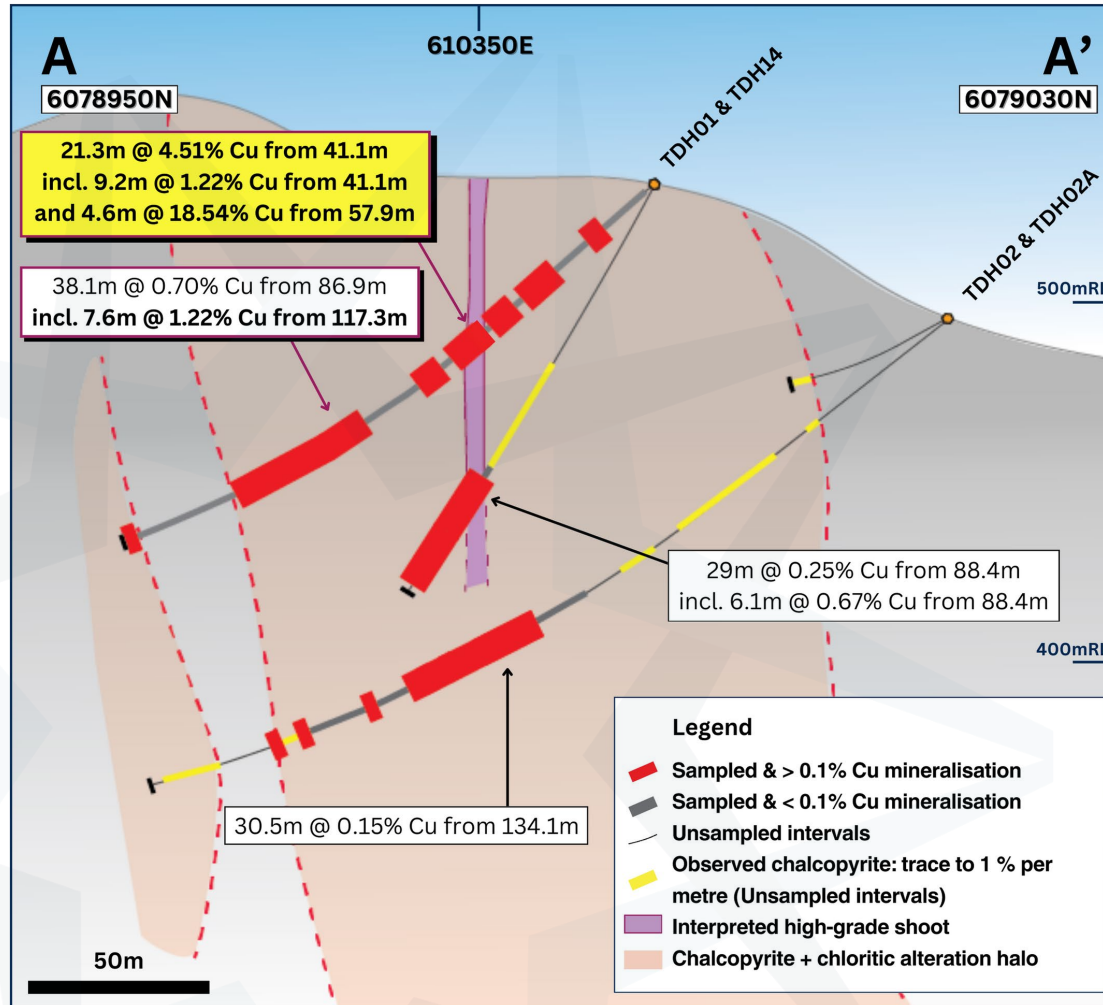
- Comprehensive review of 50-year-old historic data including physical inspection of drill core¹
- Semi-massive high-grade sulphide (chalcopyrite) shoots within broader disseminated copper system
 - 21.3m @ 4.51% Cu**, incl. 9.2m @ 1.23% Cu and **4.6m @ 18.54% Cu** (TDH01)
 - 3.1m @ 5.50% Cu** (TDH13)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



¹ Refer to Lachlan Star ASX Announcement dated 15 August 2024

JUNEE – Basin Creek Prospect (LSA 100%)

Basin Creek Prospect: Schematic cross sections (looking towards 350°) through high-grade copper (chalcopyrite) system



JUNEE – Basin Creek Prospect (LSA 100%)

Emerging high-grade copper value proposition

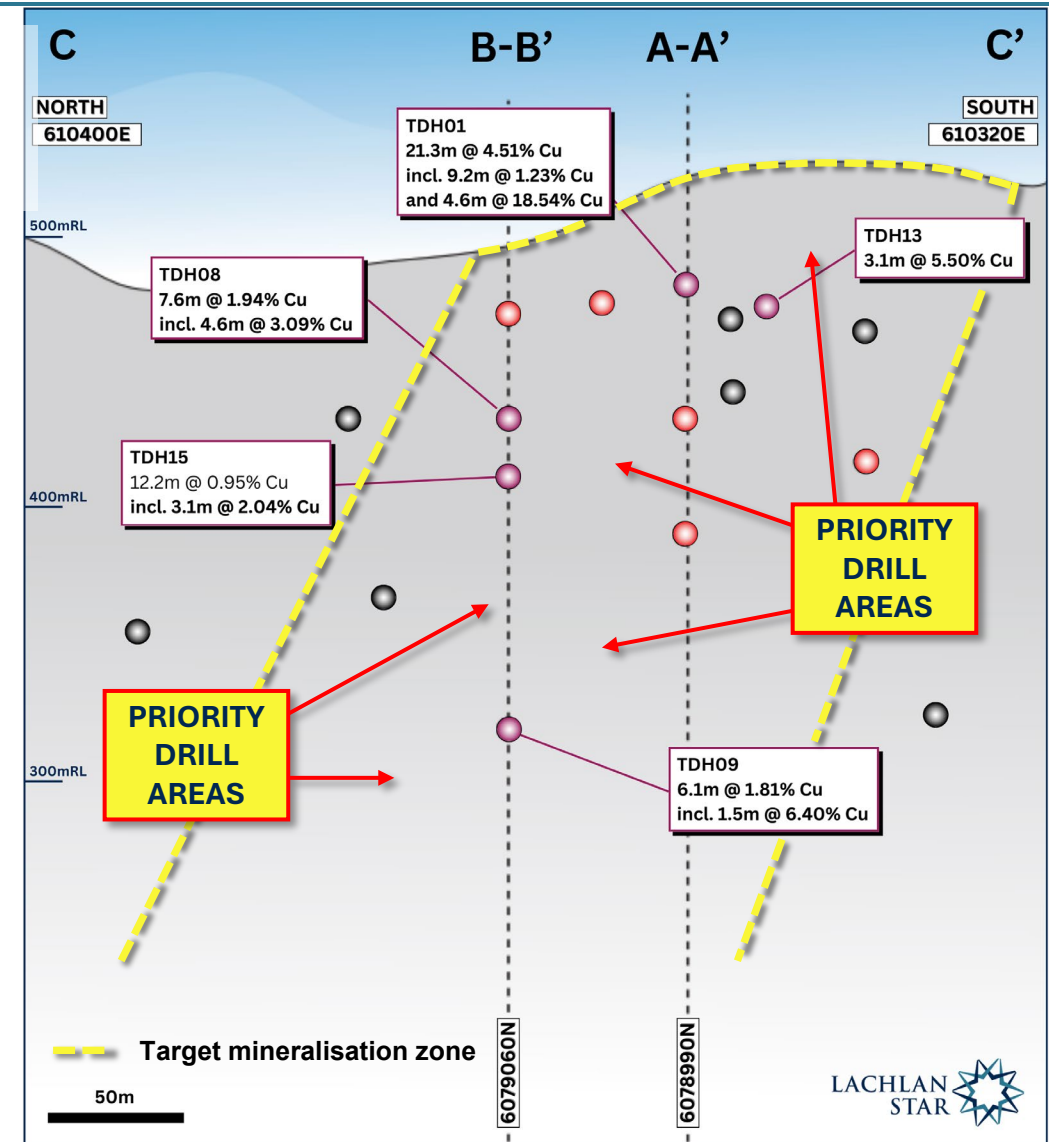
- Prospect is fully permitted and ready to drill in early Q4



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



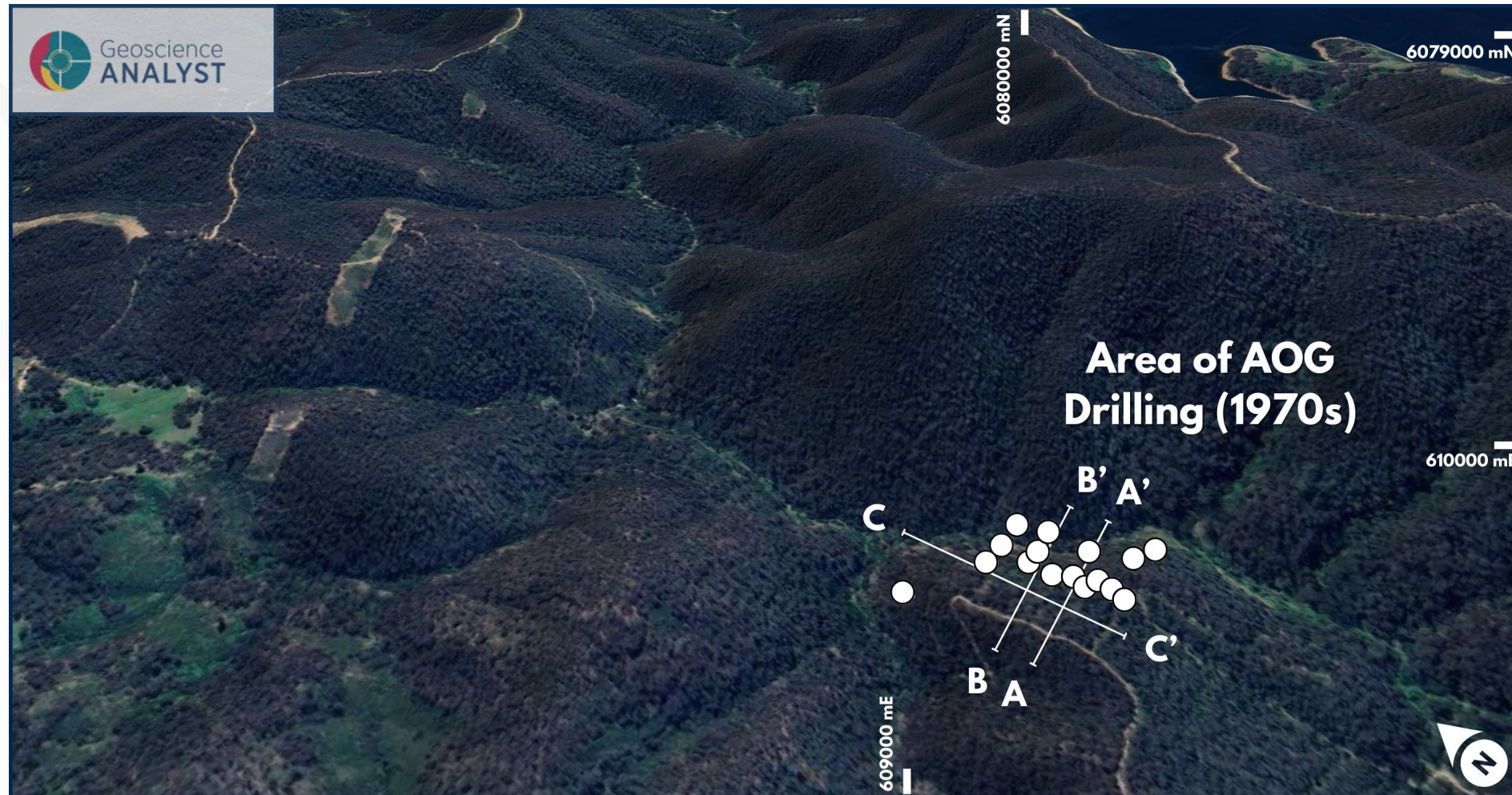
TDH09 1.5 metres at 6.40 % Cu from 205.8 metres¹
chalcopyrite (copper sulphide)
in chlorite-magnetite-quartz altered intermediate volcanoclastic breccia.
Chalcopyrite tarnished by length of time in core tray



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.

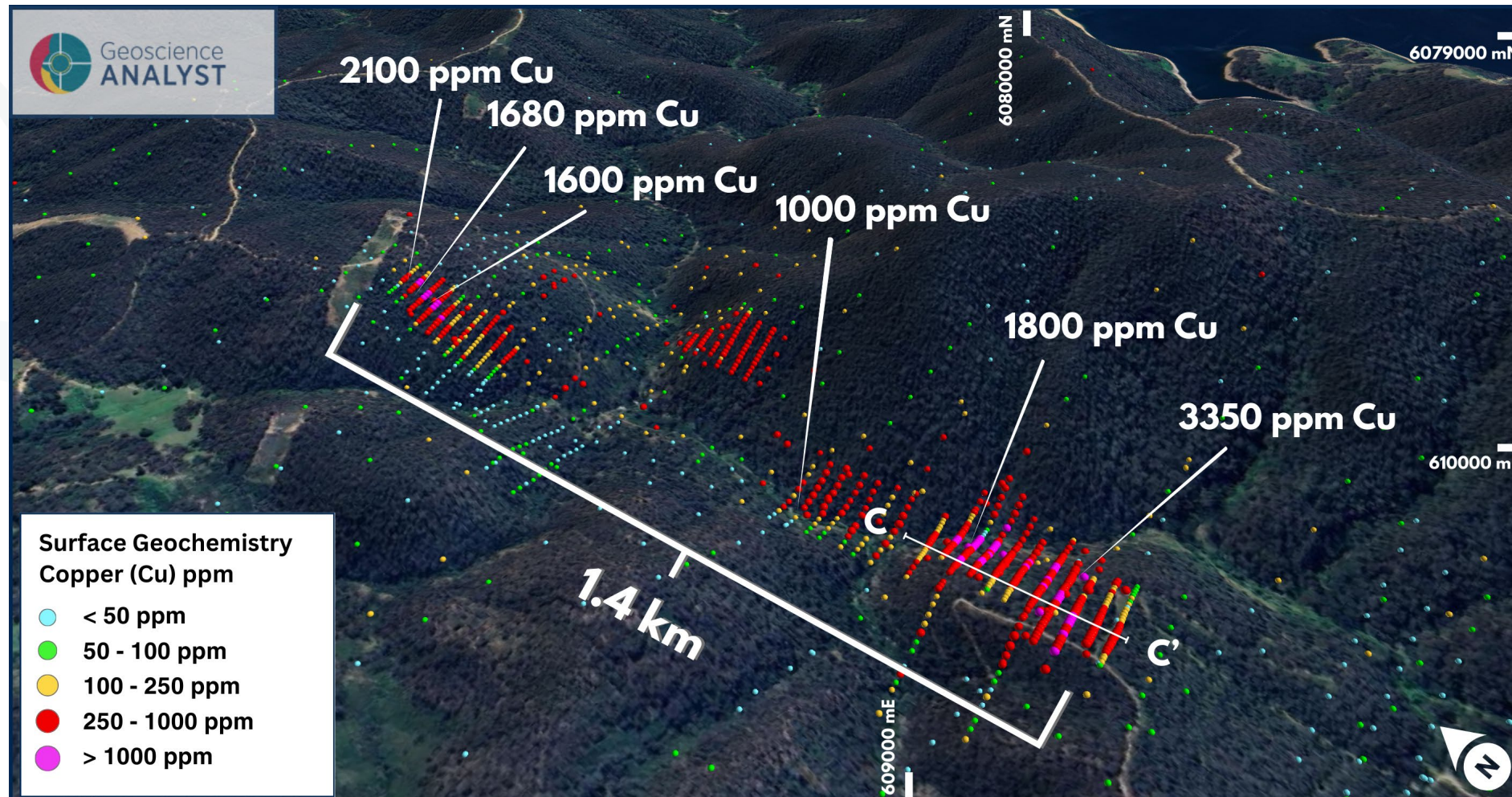
JUNEE – Basin Creek Prospect (LSA 100%)

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



JUNEE – Basin Creek Prospect (LSA 100%)

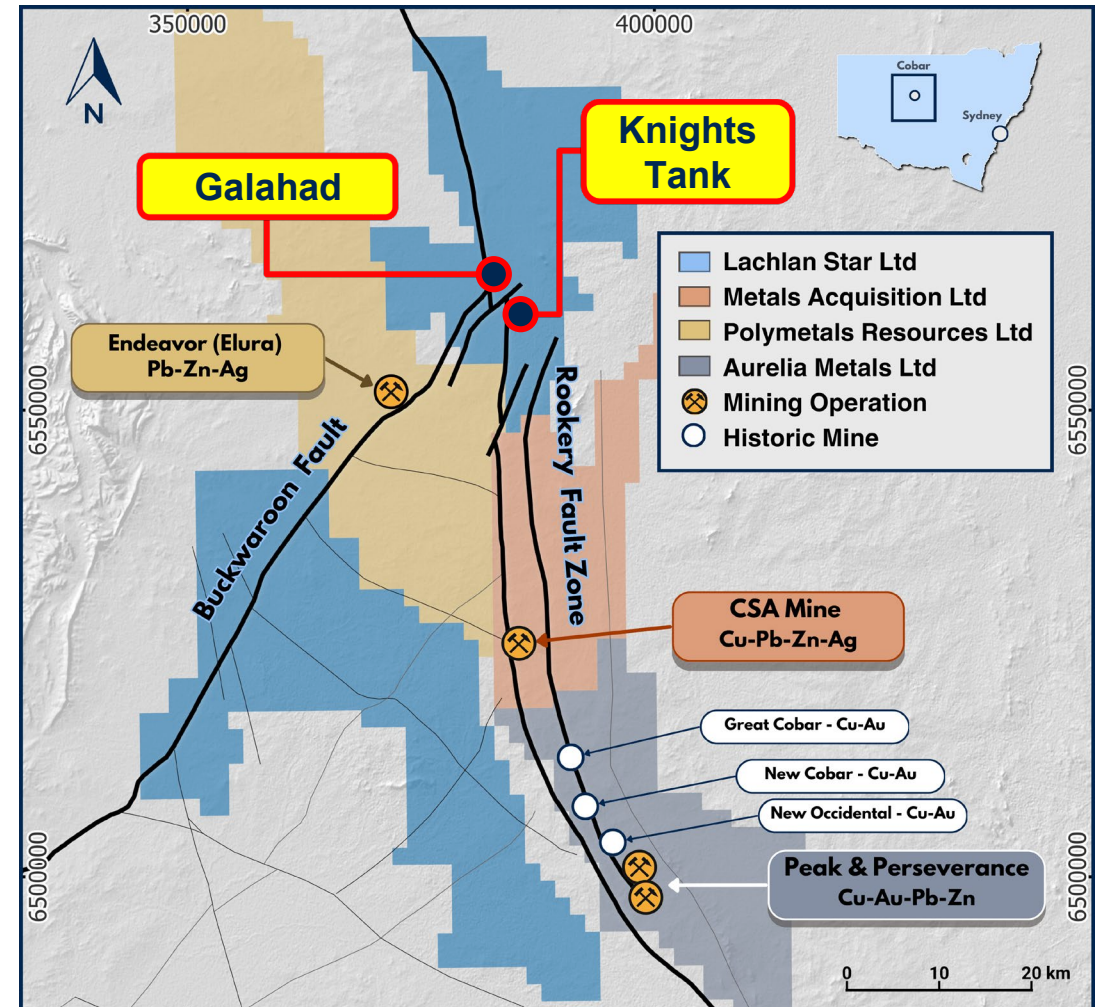
Basin Creek Prospect: Isometric view, looking northeast, with surface copper geochemistry in ppm



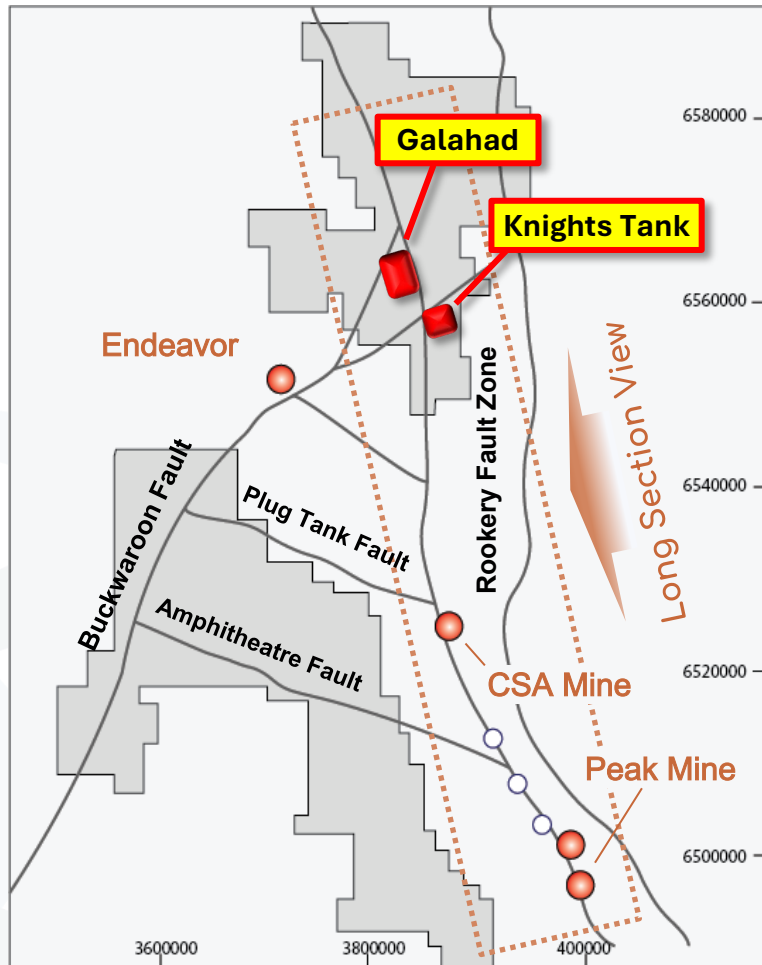
NORTH COBAR (LSA 100%)

Targeting Discovery in the Cobar Copper District

- Highly 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)



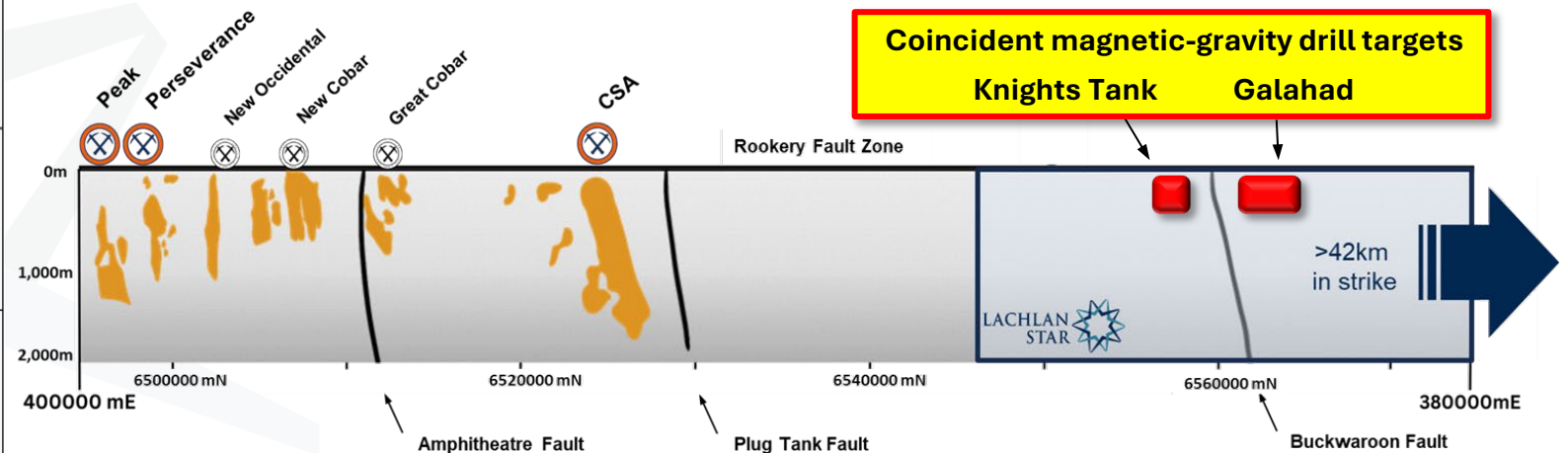
NORTH COBAR (LSA 100%)



Schematic structural framework and deposit locations

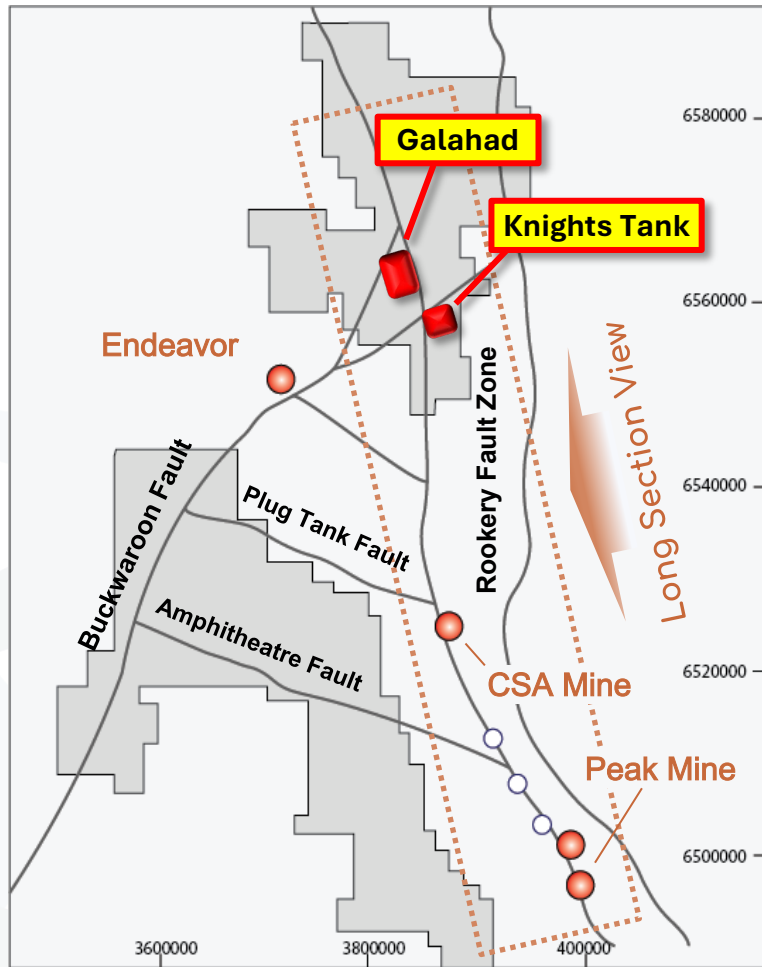
Cobar-style systems - Key Targeting Criteria

- **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



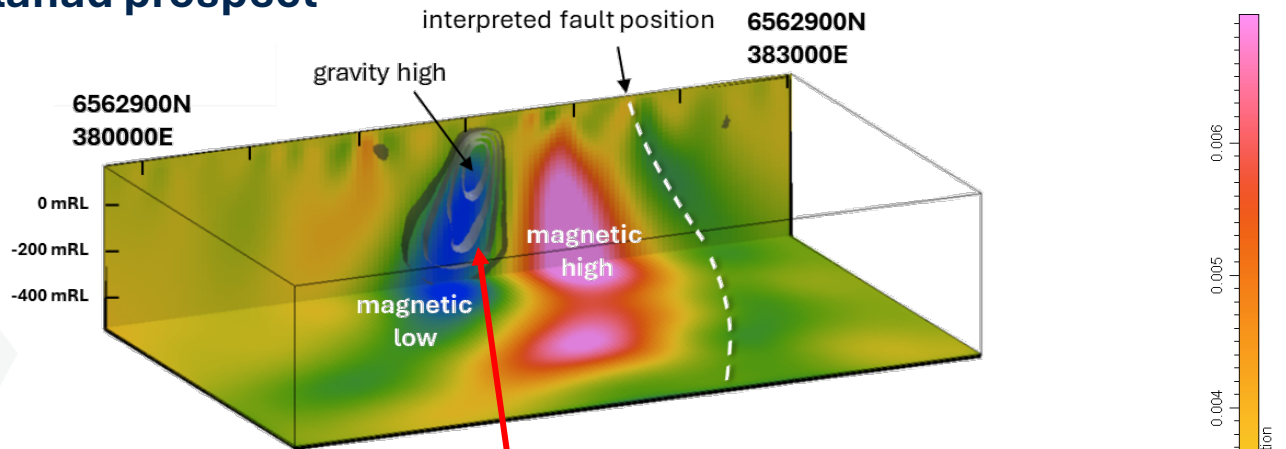
SCHEMATIC LONG SECTION THROUGH THE ROOKERY FAULT ZONE (LOOKING WEST)

NORTH COBAR (LSA 100%)

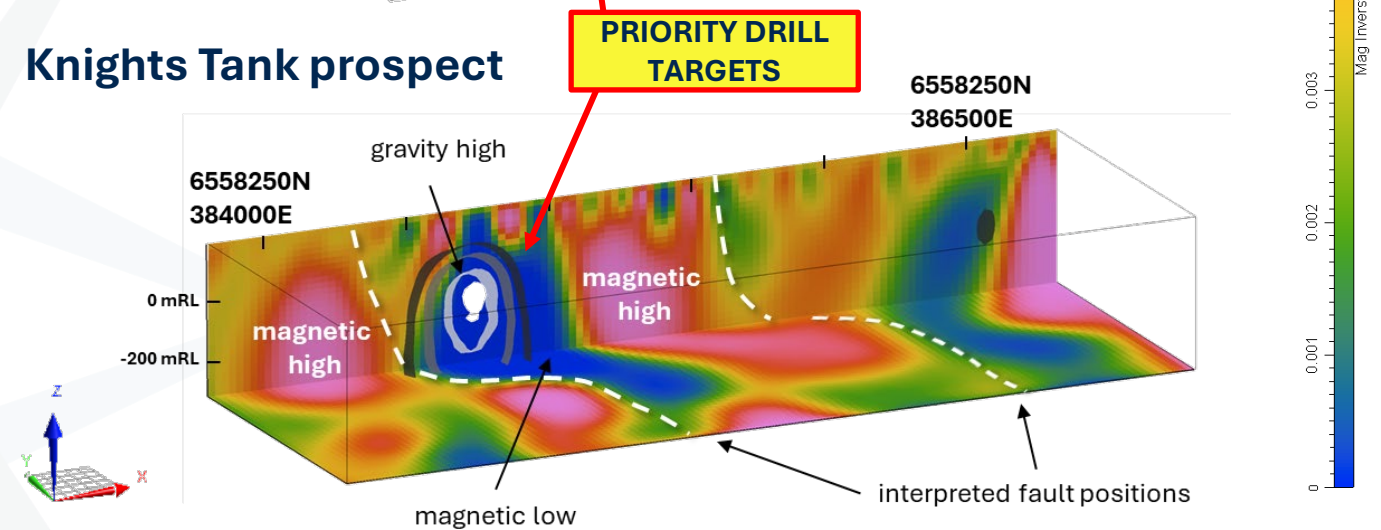


Schematic structural framework and deposit locations

Galahad prospect

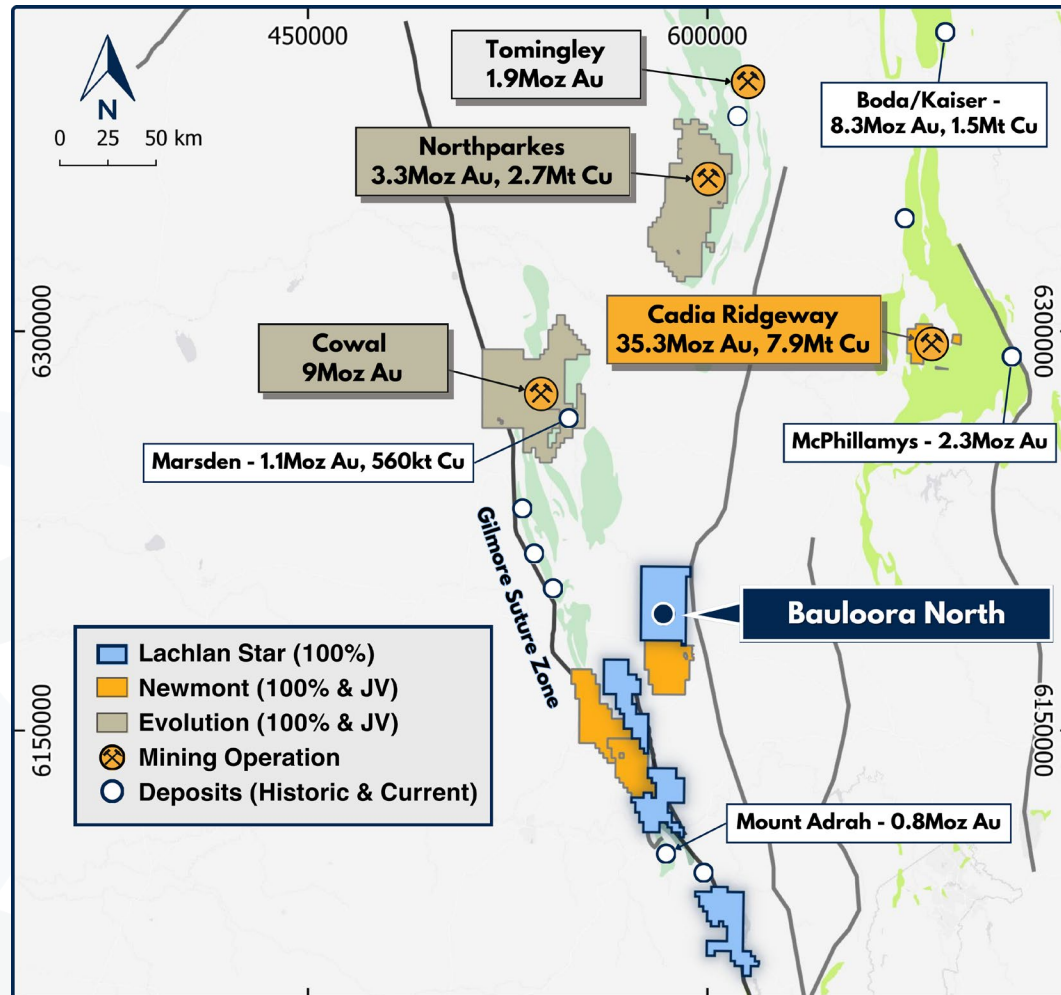


Knights Tank prospect



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

BAULOORA NORTH (LSA 100%)



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

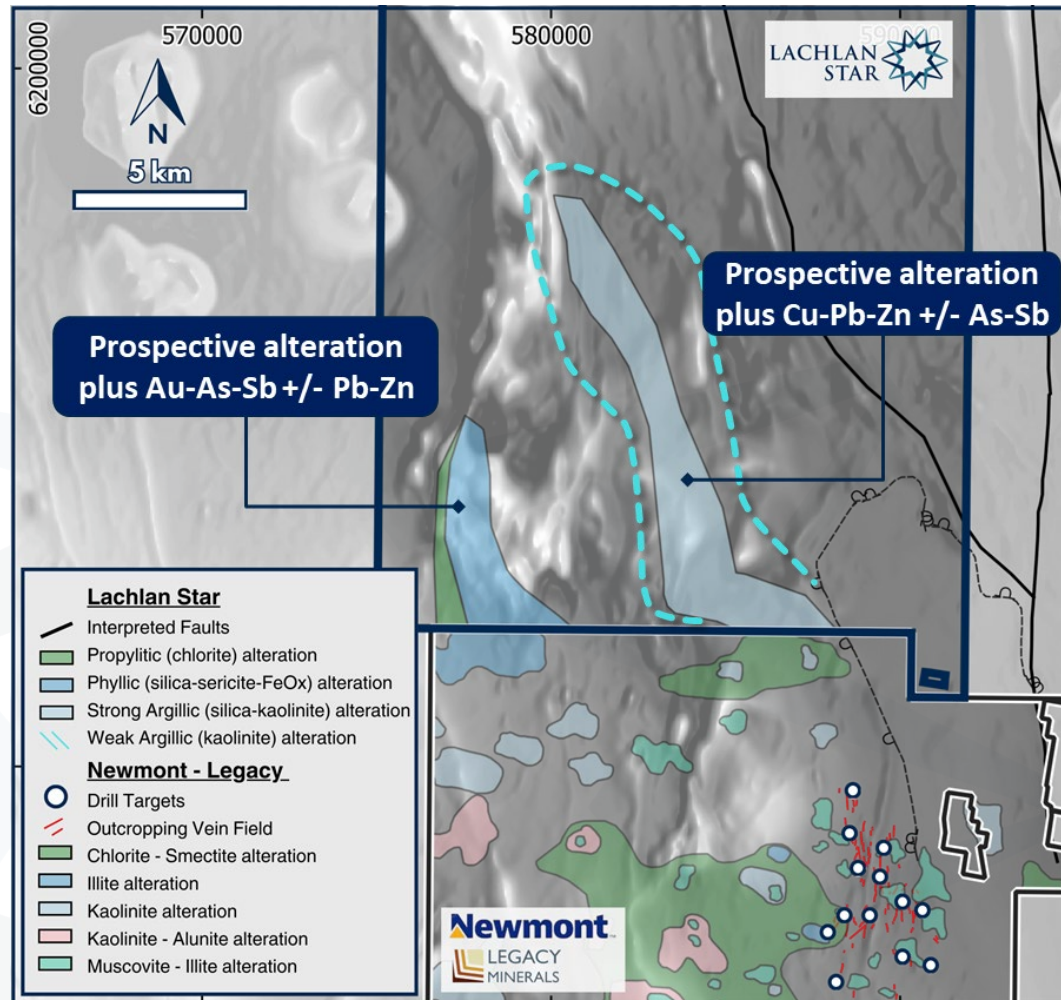
Exploring Australia's Gold-Copper Heartland

- Under-explored region of the Lachlan Orogen
- 110Moz gold and 19Mt copper in current resource and past production¹
- Newmont (ASX:NEM) managed \$15M farm-in agreement with Legacy (ASX:LGM) supports Tier-1 district potential²
- New epithermal discovery² – structures and alteration extend into Lachlan Star's tenement
- Early-stage, grassroots exploration

¹ Future of Minerals in NSW Report, March 2020. NSW, Dept. of Planning, Industry and Environment

² Refer to Legacy Minerals ASX Announcement dated 05 April 2023 and Legacy Minerals website

BAULOORA NORTH (LSA 100%)



Emerging low sulphidation gold targets

- Target areas delineated through mapping
 - Key alteration and textures along trend of gold-silver epithermal system
 - Large cumulative > 50sqkm alteration field
 - Elevated gold-arsenic-antimony (Au-As-Sb) and copper-lead-zinc (Cu-Pb-Zn) assays
- Significant Newmont exploration campaign, including drilling, immediately south
- Maiden surface geochem and IP geophysics planned

¹ Refer to Legacy Minerals ASX Announcement dated 05 April 2023, 14 August 2023 and 21 November 2023

CORPORATE OVERVIEW

CAPITAL STRUCTURE

Share Price (14/08/24)	\$0.07
Shares	207,573,195
Options and Performance Rights	7,000,000
Market Capitalisation	\$14.53M
Cash (30/06/24)	\$1.62M

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



Bauloora North - emerging low sulphidation gold target, maiden geochem and geophysics scheduled



Backed by a discovery-driven, technically strong team

...pursuing value creation through economic mineral discovery



LSA

CONTACT DETAILS

Andrew Tyrrell

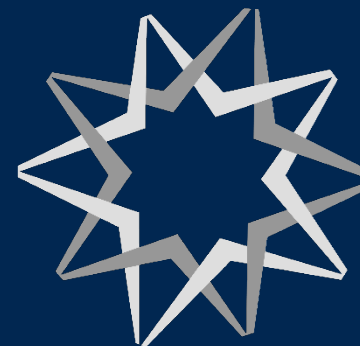
Chief Executive Officer

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Alan Hawkins

Exploration Manager

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August 2024

COMPETENT PERSON'S STATEMENT

The Information in this presentation that relates to Exploration Results for the Basin Creek Project is extracted from the ASX Announcement titled: “High-Grade Copper Drill Targets Defined at Basin Creek - Junee Project, NSW” released on 15 August 2024.

The announcement is 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.