



**TENNANT MINERALS**

**AXS:TMS**

*New discoveries for a sustainable future*



- Tennant Creek

- Alice Springs

**RIU Resurgence Conference**  
**22–23 November 2023**  
*The Next Big Discovery*

# **BLUEBIRD HIGH-GRADE COPPER-GOLD DISCOVERY**

**THE BARKLY PROJECT  
TENNANT CREEK  
NORTHERN TERRITORY, AUSTRALIA**

# Cautionary Statements and Competent Persons Declaration

## CAUTIONARY STATEMENT REGARDING FORWARD LOOKING INFORMATION

This presentation contains forward-looking statements concerning Tennant Minerals Ltd. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward-looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes.

Forward looking statements in this release are based on the company's beliefs, opinions and estimates of Tennant Minerals Ltd as of the dates the forward-looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

## COMPETENT PERSONS DECLARATION

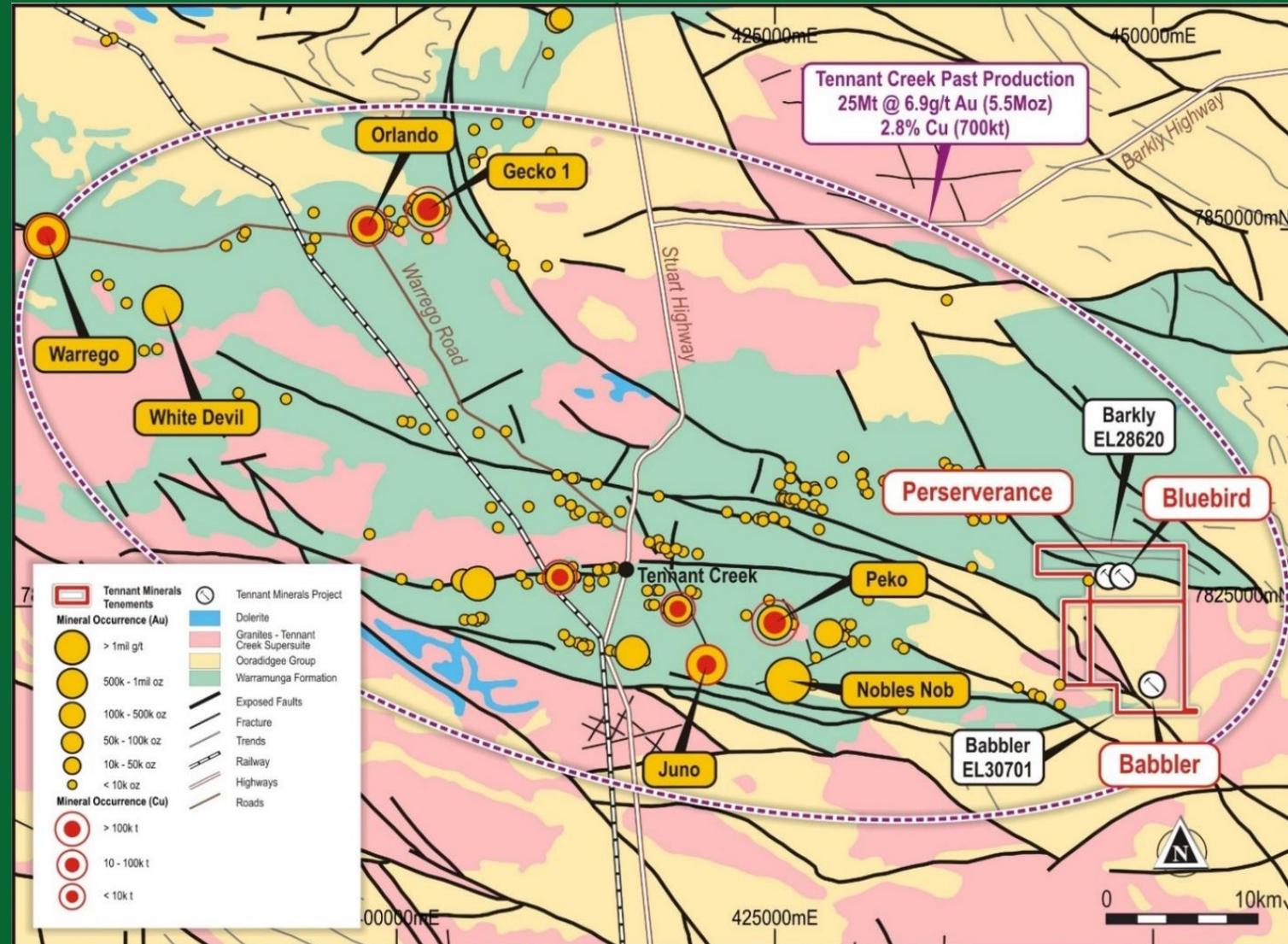
The information in this presentation that relates to exploration results is based on information compiled and/or reviewed by Mr Jonathon Dugdale. Mr Dugdale is the Technical Advisor to Tennant Minerals Ltd and a Fellow of the Australian Institute of Mining and Metallurgy ('FAusIMM'). Mr Dugdale has sufficient experience, including over 35 years' in exploration (discovery), resource evaluation, mine geology, development studies and finance, relevant to the style of mineralisation and type of deposits under consideration 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, Minerals Resources and Ore Reserves. Mr Dugdale consents to the inclusion in this presentation of the matters based on this information in the form and context in which it appears.

## ASX LISTING RULES COMPLIANCE

In preparing this presentation the Company has relied on the announcements previously made by the Company that are referenced below the first mention of the information. The Company confirms that it is not aware of any new information or data that materially affects those announcements previously made, or that would materially affect the Company from relying on those announcements for the purpose of this announcement.

# Barkly Project and the Bluebird Cu-Au Discovery: World-Class Location

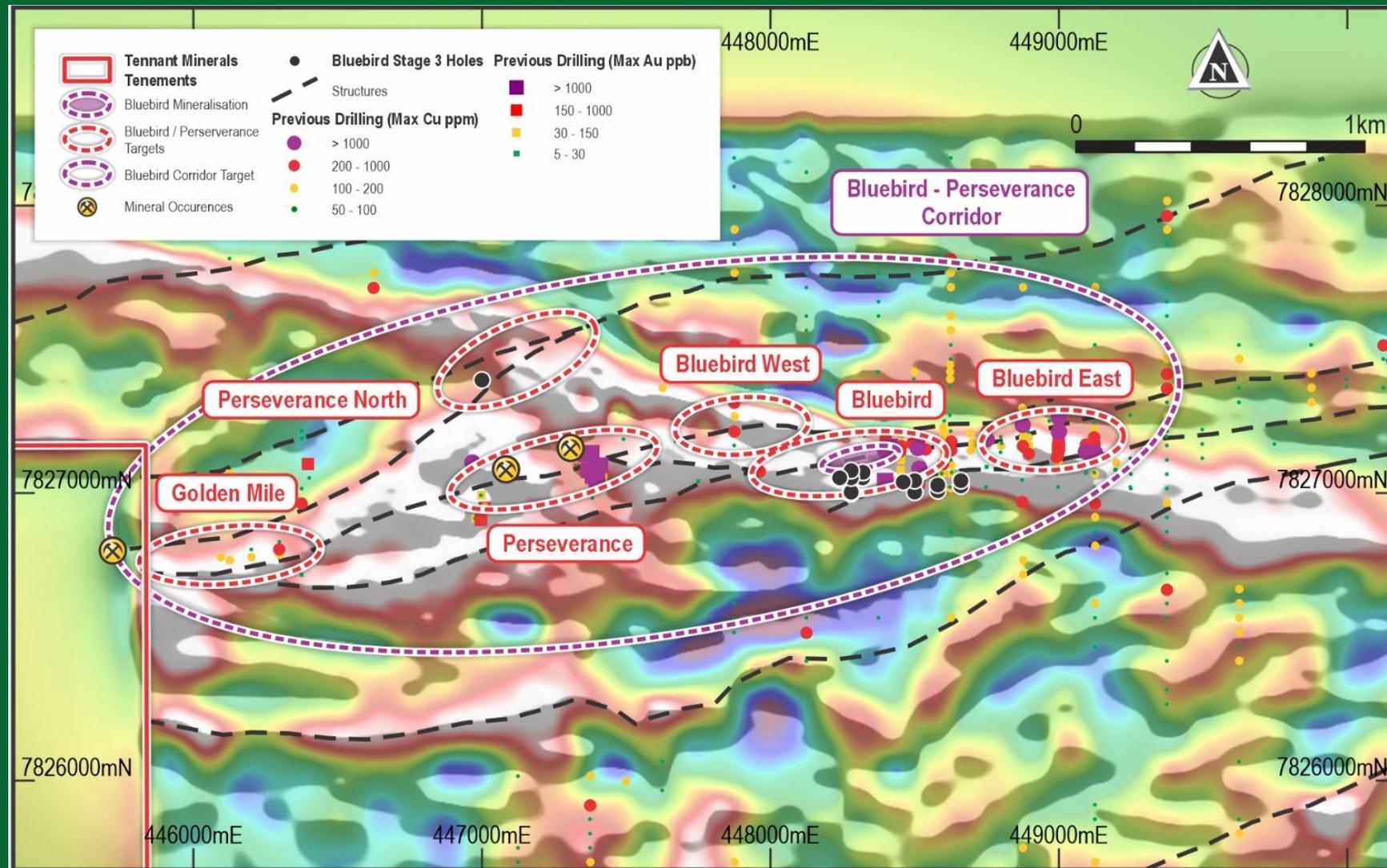
- The Barkly Project and the **Bluebird discovery** are located 40km east of Tennant Creek at the eastern end of this major copper-gold field, which has produced **5.5Moz of gold and 700kt of copper**<sup>1</sup>.
- Largest previously mined deposits include **Warrego (6.75Mt @ 6.6 g/t Au, 1.9% Cu)**<sup>1</sup> and **Peko (3.7Mt @ 4% Cu, 3.5 g/t Au)**<sup>1</sup>.
- **Bluebird is a greenfields, high-grade copper-gold discovery** in an area of shallow cover.
- **Bluebird geology is similar to previously mined major deposits such as Warrego and Peko** - being hosted by altered and mineralised ironstone within the Warramunga Formation.



<sup>1</sup>Portergeo.com.au/database/mineinfo. Tennant Creek - Gecko, Warrego, White Devil, Nobles Nob, Juno, Peko, Argo.

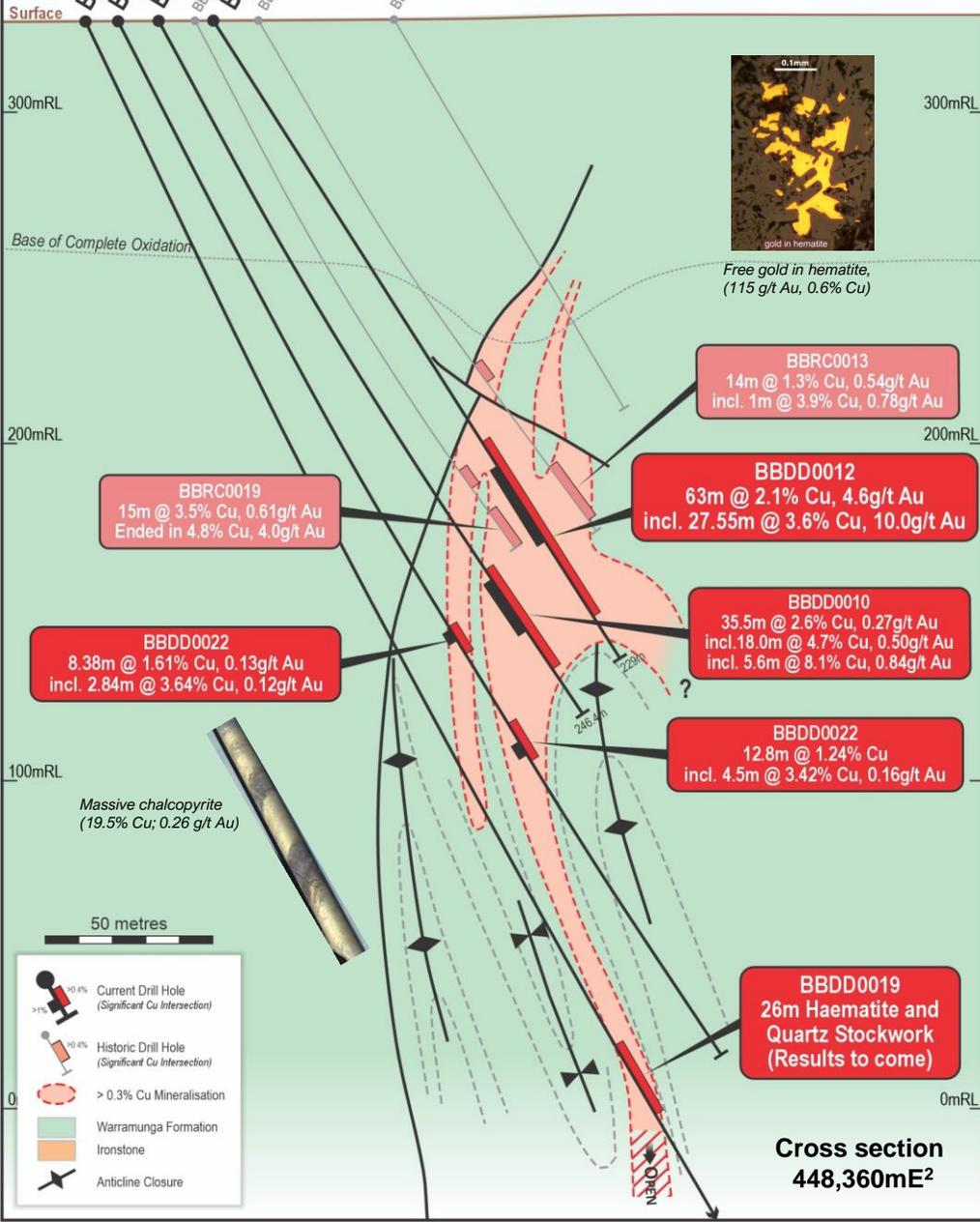
# Barkly Project (Bluebird Discovery) - major gravity target corridor

- Covers a 5km strike-length, east-west trending gravity-high indicating a **major ironstone corridor**.
- Ironstone corridor intersected by **ENE-WSW trending fault structures - associated with mineralisation** (also shown by magnetics).
- Bluebird Cu-Au discovery associated with ENE-WSW structure which has **intersected the gravity high/ironstone corridor and introduced Cu-Au mineralisation**.
- **Multiple geophysical (gravity and magnetic) targets remain untested.**



782700mN 7827100mN 7827200mN

# The Bluebird Copper-Gold Discovery



- **Blind discovery** under shallow soil cover and weathered Warramunga Formation sedimentary rocks. The main discovery was made through follow-up of shallow drilling and drill-testing the entire ironstone (e.g. BBDD0012: **63m @ 2.1% Cu, 4.6 g/t Au<sup>2</sup>**).
- High-grade copper and gold mineralisation hosted by deformed and altered ironstone localised in D<sub>1</sub> fold axes, interpreted to have formed early during the *Tennant deformational event*<sup>3</sup>.
- Thick, high-grade, copper-gold-bismuth mineralisation was introduced during the *First Hydrothermal Event*<sup>3</sup> into dilational zones where D<sub>2</sub> faulting and brecciation, and bismuth mineralisation was introduced during the *First Hydrothermal Event*<sup>3</sup> into dilational zones where D<sub>2</sub> faulting and brecciation developed in the shallow plunging D<sub>1</sub> folds<sup>4</sup>.
- **Mineralisation includes free gold with intense hematite and/or chlorite alteration and primary and/or secondary copper sulphides** (including chalcocite, chalcopyrite and native copper) as well as bismuth sulphides (e.g. wittichenite - Cu<sub>3</sub>BiS<sub>3</sub>).

<sup>2</sup>17/08/2022. Tennant Minerals (ASX. TMS): "Bonanza 63m @ 2.1% Copper and 4.6 g/t Gold Intersection at Bluebird".

<sup>3</sup> Huston DL, Bolger C and Cozens G, 1993. A comparison of mineral deposits at the Geko and White Devil deposits: implications for ore genesis in the Tennant Creek District, Northern Territory, Australia. *Economic Geology* 88, 1198–1225.

<sup>4</sup> Donnellan N, 2013. Chapter 9 - Warramunga Province: in Ahmad M. and Munson T.J. (compilers). 'Geology and mineral resources of the Northern Territory.' Northern Territory Geological Survey, Special Publication 5.

# Bluebird Longitudinal View – 500m footprint, open all directions

- Drilling to current program defined high-grade copper-gold mineralisation from 60m to over 250 m depth, over a 500m strike length – open in all directions.

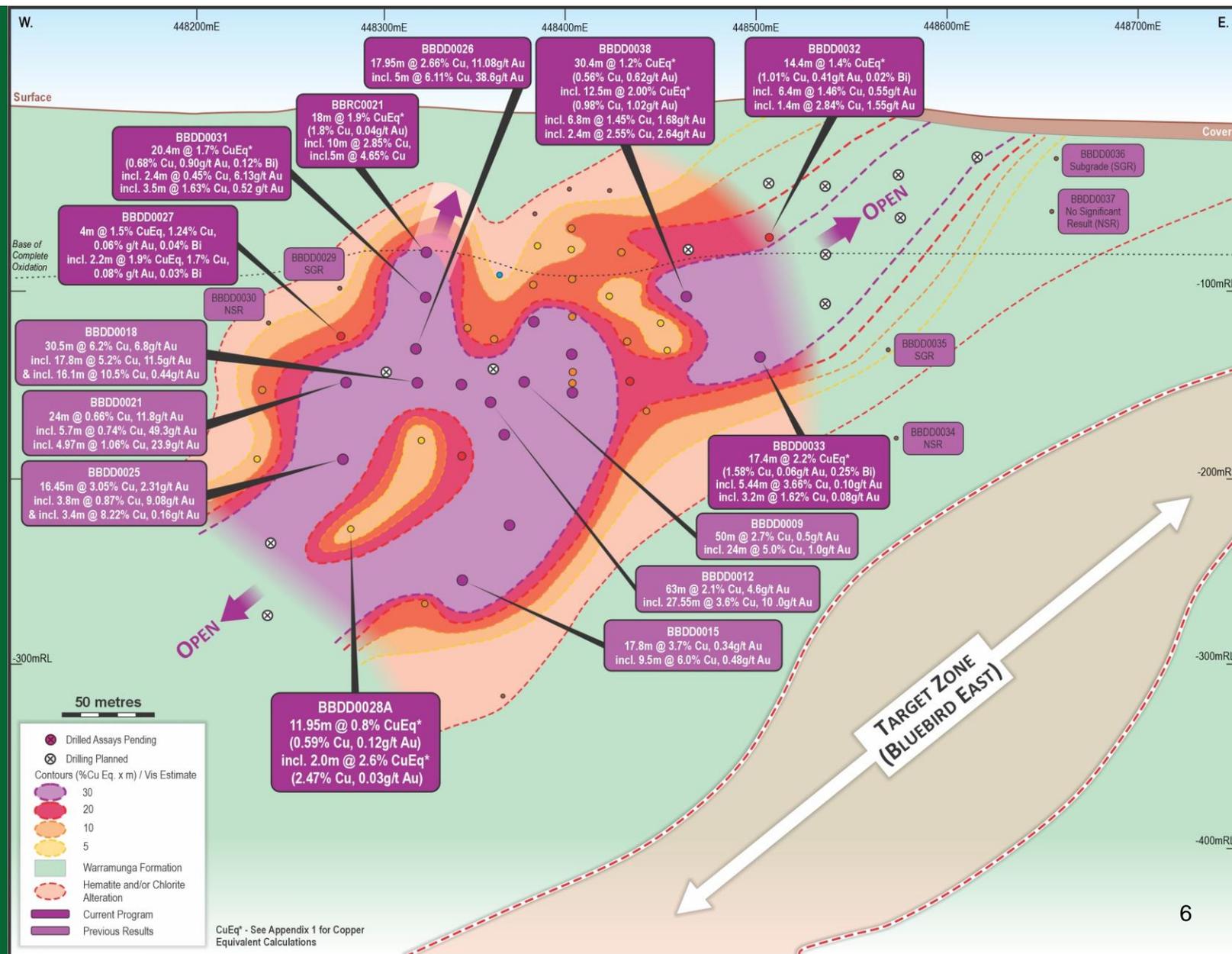
- Thick, high-grade, copper-gold intersections to date include:

- BBDD0026: 18.0m @ 2.66% Cu, 11.08 g/t Au incl. 5.0m @ 6.11% Cu, 38.6 g/t Au<sup>4</sup>

- BBDD0018: 30.5m @ 6.2% Cu, 6.8 g/t Au incl. 17.8m @ 5.2% Cu, 11.5 g/t Au<sup>5</sup>

- BBDD0012: 63m @ 2.1% Cu, 4.6 g/t Au incl. 27.55m @ 3.6% Cu, 10.0 g/t Au<sup>6</sup>

- New drilling, in progress, designed to extend Bluebird to the east, west and at depth and ultimately define a substantial high-grade copper-gold Mineral Resource.



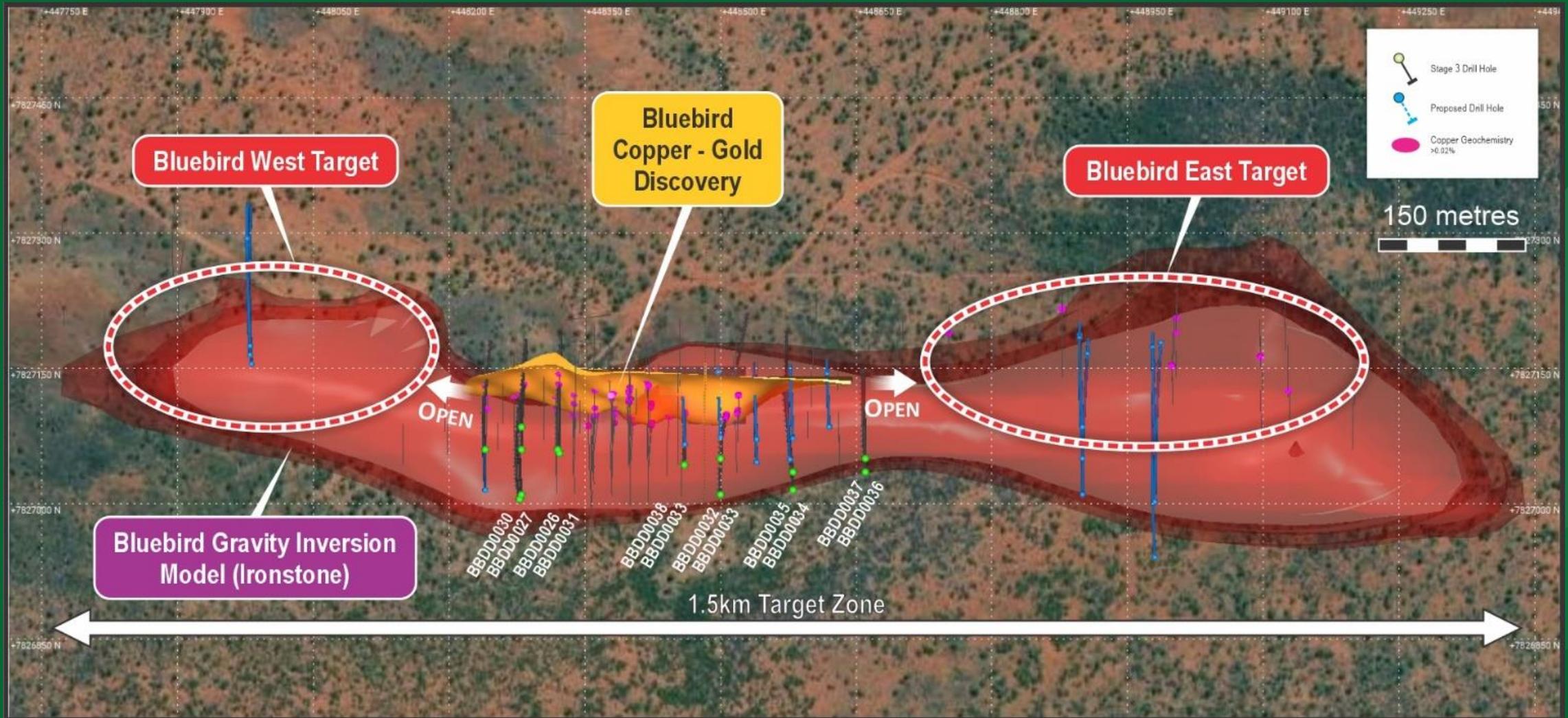
<sup>4</sup> 19/07/2023. "Drilling Doubles Strike Length of Bluebird Copper-Gold Discovery".

<sup>5</sup> 08/02/2023. "Spectacular Drill Hit 30.5m @ 6.2% Cu, 6.8 g/t Au".

<sup>6</sup> 17/08/2022. "Bonanza 63m @ 2.1% Copper and 4.6 g/t Gold Intersection at Bluebird".

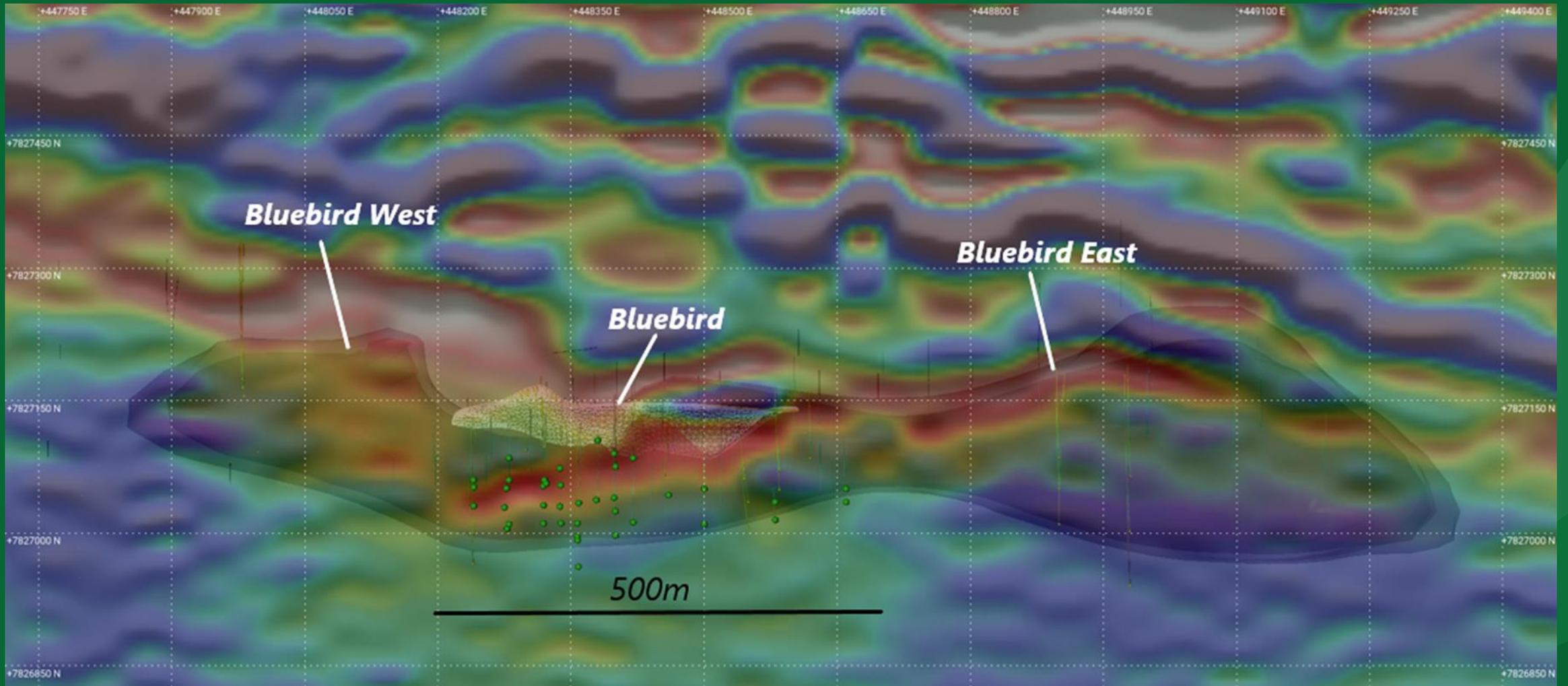


# Bluebird Gravity Model – potential to triple the strike length



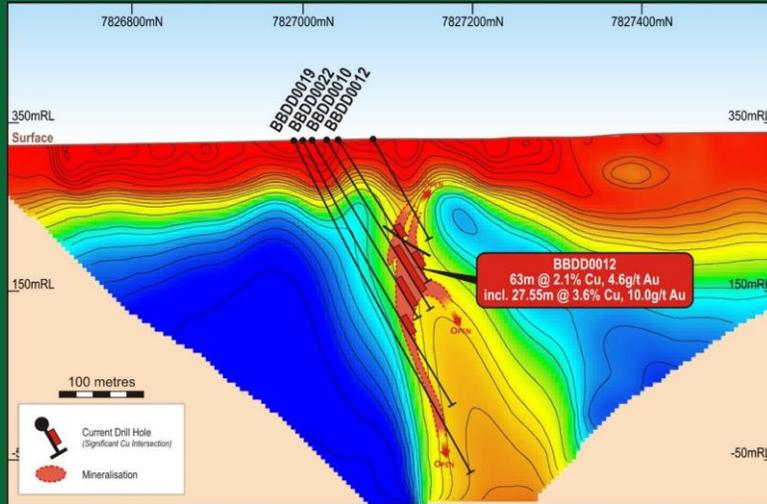
Bluebird 3D model in plan projection with gravity inversion model, recent drilling and current drilling planned

# Bluebird Magnetics Image – highlights magnetite/hematite alteration

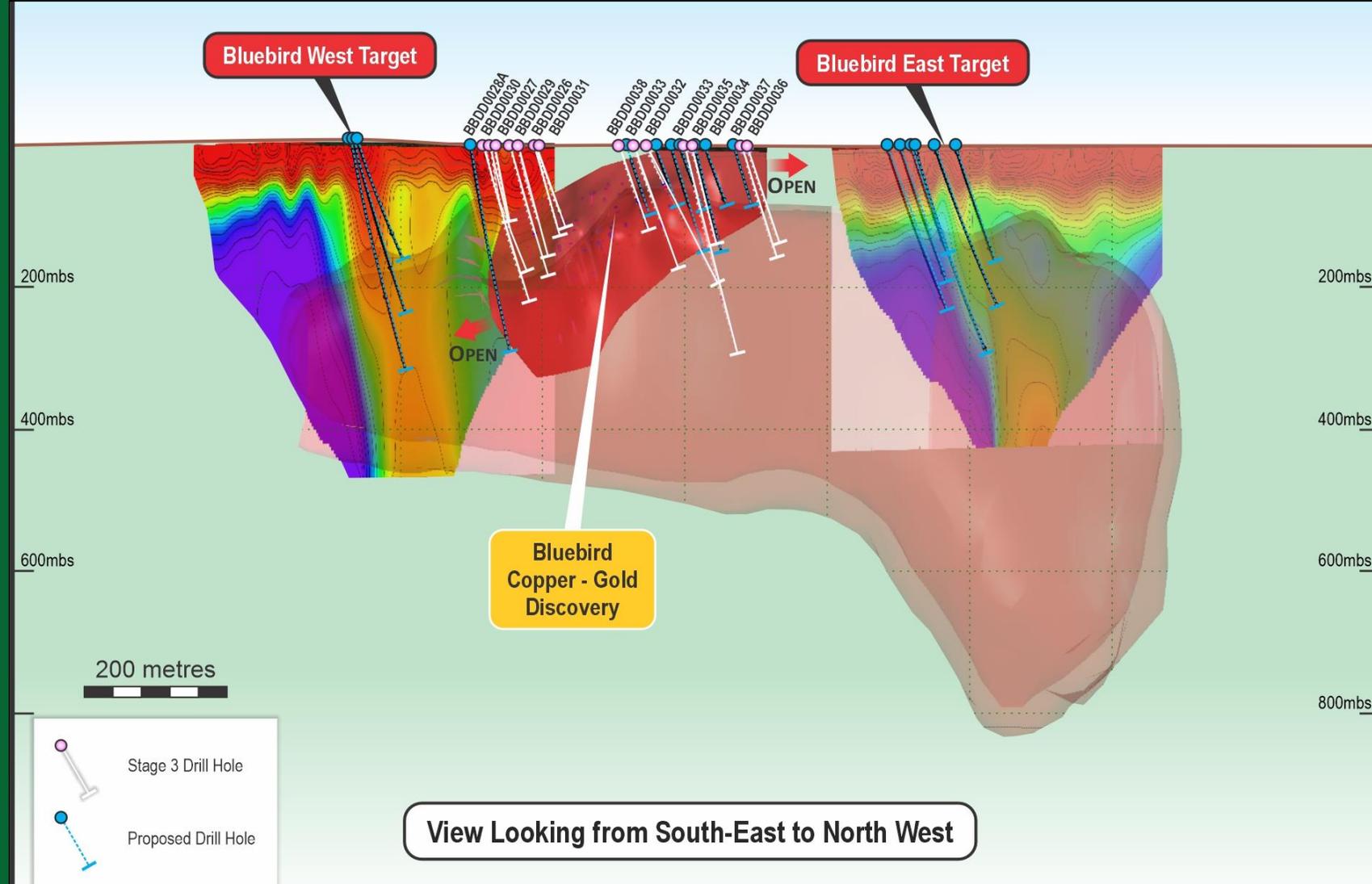


*Bluebird 3D model in plan projection with inverted magnetic anomalies and key targets*

# IP Resistivity Drill-targeting – potential to directly detect mineralisation



- Bluebird discovery section (448,320mE) on Induced Polarisation (IP) resistivity<sup>8</sup> - shows correlation with mineralisation.
- Step-out IP resistivity<sup>9</sup> highlighted targets at Bluebird East and Bluebird West with potential to triple the strike-length<sup>7</sup>.
- New drilling, in progress, testing these key target areas.

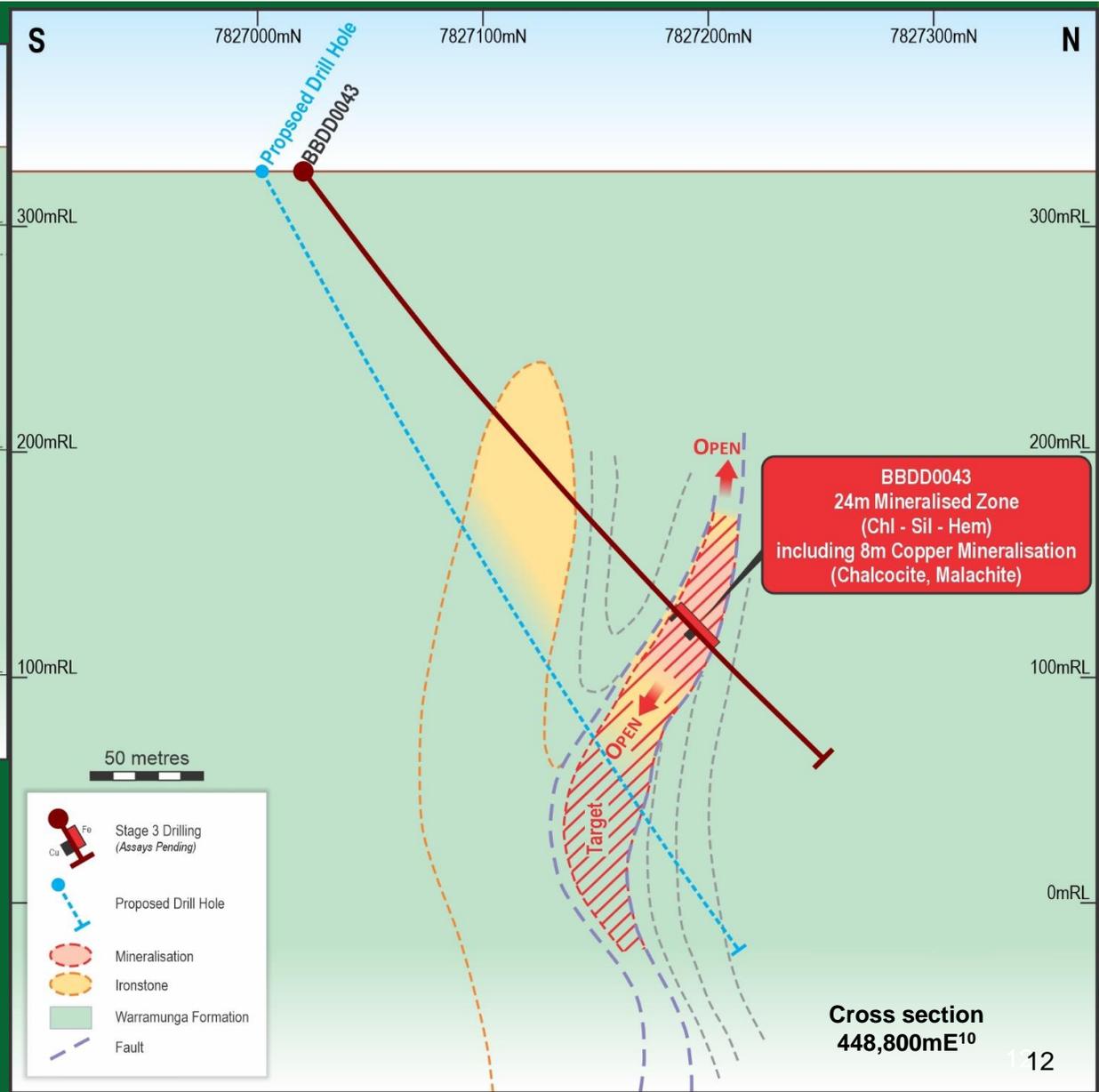
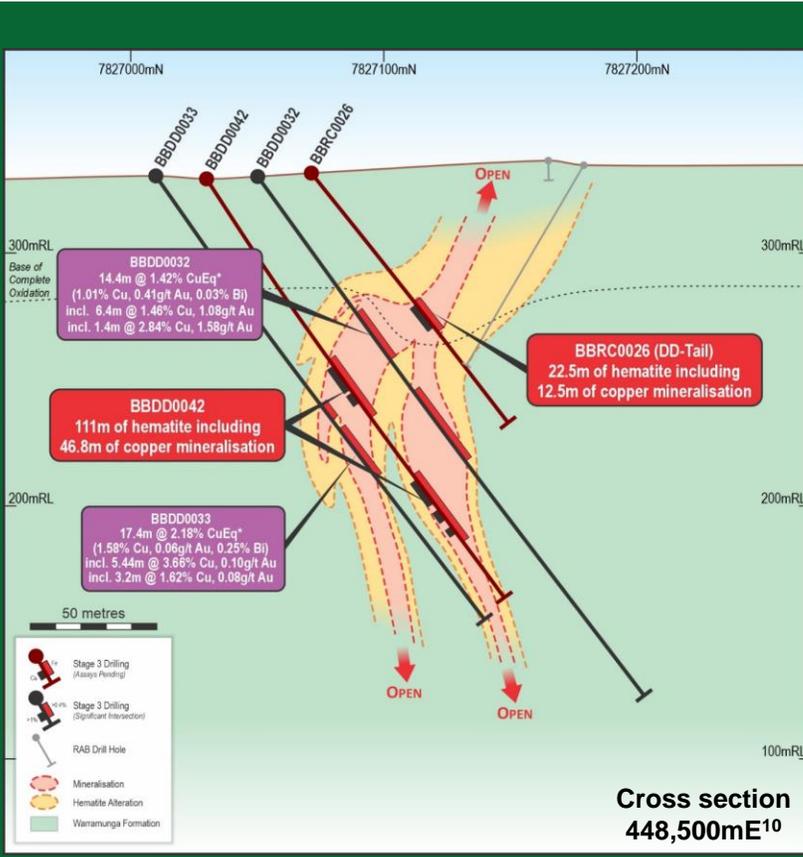
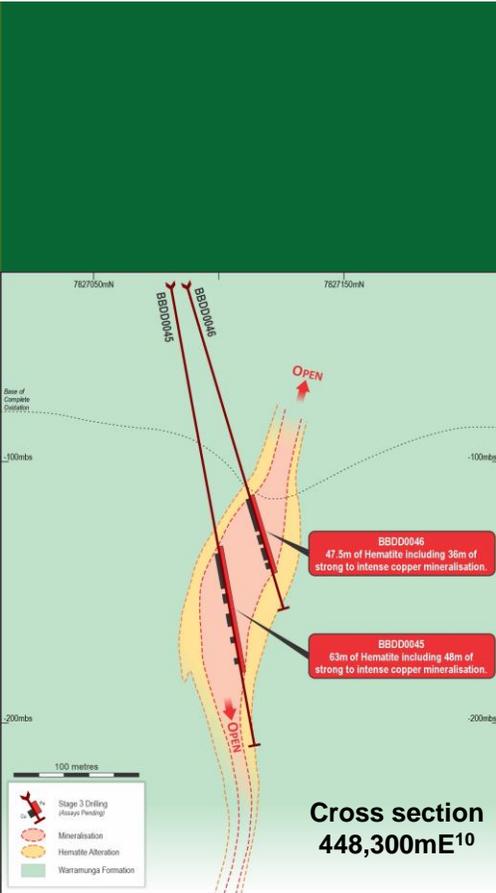


<sup>8</sup> 25/08/2022. Tennant Minerals (ASX. TMS): “Standout Geophysical Targets to Replicate Bluebird Cu-Au Discovery”.

<sup>9</sup> 24/01/2023. Tennant Minerals (ASX. TMS): “Mineralised Structures at Key Copper-Gold Targets”



# New strongly mineralised intersections in three key target areas



Bluebird West Zone

Bluebird Extension

Bluebird East

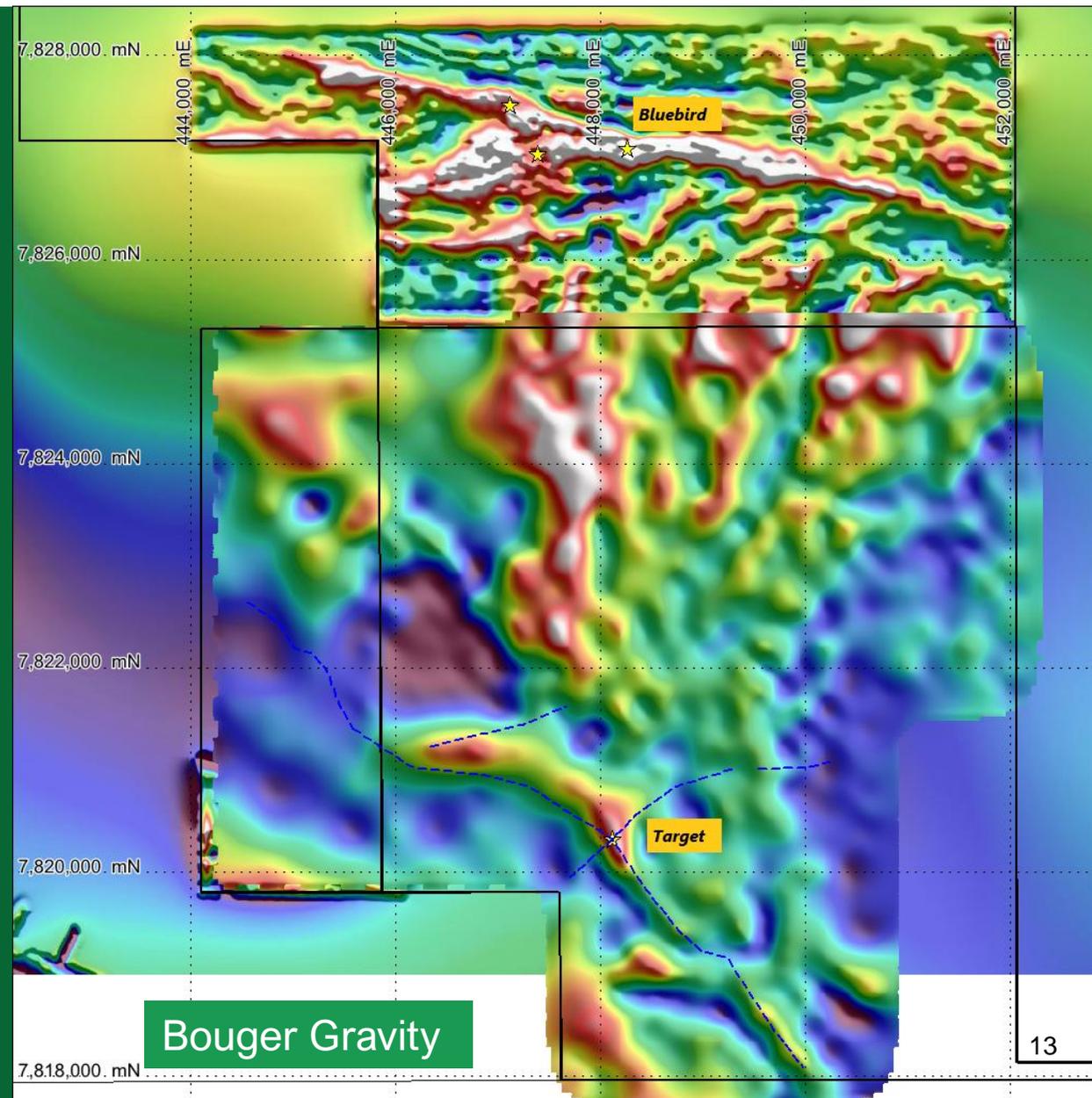
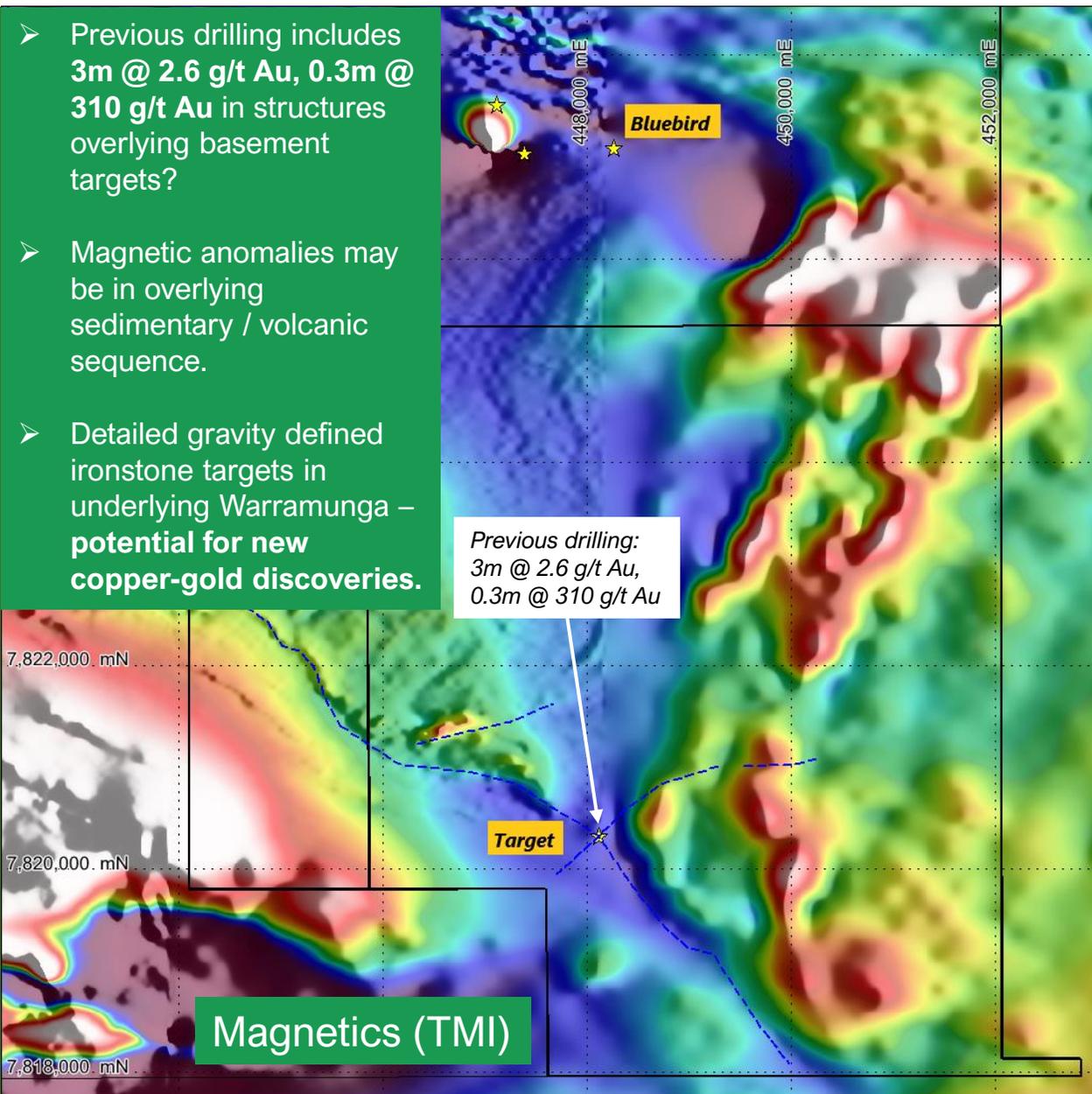
# Other Key Targets - Babbler Project

➤ Previous drilling includes **3m @ 2.6 g/t Au, 0.3m @ 310 g/t Au** in structures overlying basement targets?

➤ Magnetic anomalies may be in overlying sedimentary / volcanic sequence.

➤ Detailed gravity defined ironstone targets in underlying Warramunga – **potential for new copper-gold discoveries.**

Previous drilling:  
3m @ 2.6 g/t Au,  
0.3m @ 310 g/t Au



# TMS - Corporate Overview



## TMS

ASX Code

## \$24.3M

Market Cap (at \$0.032 21/11/23)

## Options:

- TMSO (L). 383.7m, \$0.03, Ex. 23/4/24
- TMS (UL). 26.0m, \$0.08, Ex. 8/4/25
- TMSOA (L). 85.4m, \$0.06, Ex. 15/7/25

## \$3M

Cash (30 September 2023)

## 759.4m

Shares on Issue

## ~\$21m

Enterprise Value

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## TMS Share Price Chart





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- **Current and planned drilling:**
  - Testing and defining shallow eastern extensions.
  - Testing Bluebird East and Bluebird West targets – aiming to triple the mineralised footprint.
  - Testing other key targets e.g. Babbler.
- **Metallurgical testwork** on key drillholes.
- **Mineral Resource estimation** when sufficient size for potential stand-alone project.
- **Initial development studies**, environmental baseline studies.
- **Feasibility studies and permitting.**



TENNANT MINERALS

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