



TENNANT MINERALS

BLUEBIRD COPPER-GOLD PROJECT

Barkly Region
Tennant Creek, Northern Territory, Australia

ASX:TMS | IMARC 2024 | 30 OCTOBER 2024



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 report that relates to exploration results is based on information compiled and/or reviewed by Mr Chris Ramsay. Mr Ramsay is the General Manager of Geology at Tennant Minerals Ltd and a Fellow of the Australian Institute of Mining and Metallurgy ('FAusIMM'). Mr Ramsay has sufficient experience, including over 25 years' experience in exploration, resource evaluation, mine geology, and development studies, 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 Ramsay consents to the inclusion in this report 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.

CASH, CAPITAL STRUCTURE AND SHARE PRICE



MARKET CAP

\$14.33m
(@\$0.014 - 22/10/2024)

CASH

\$4.47m (@30/06/2024)

SHARES ON ISSUE

955.89 m

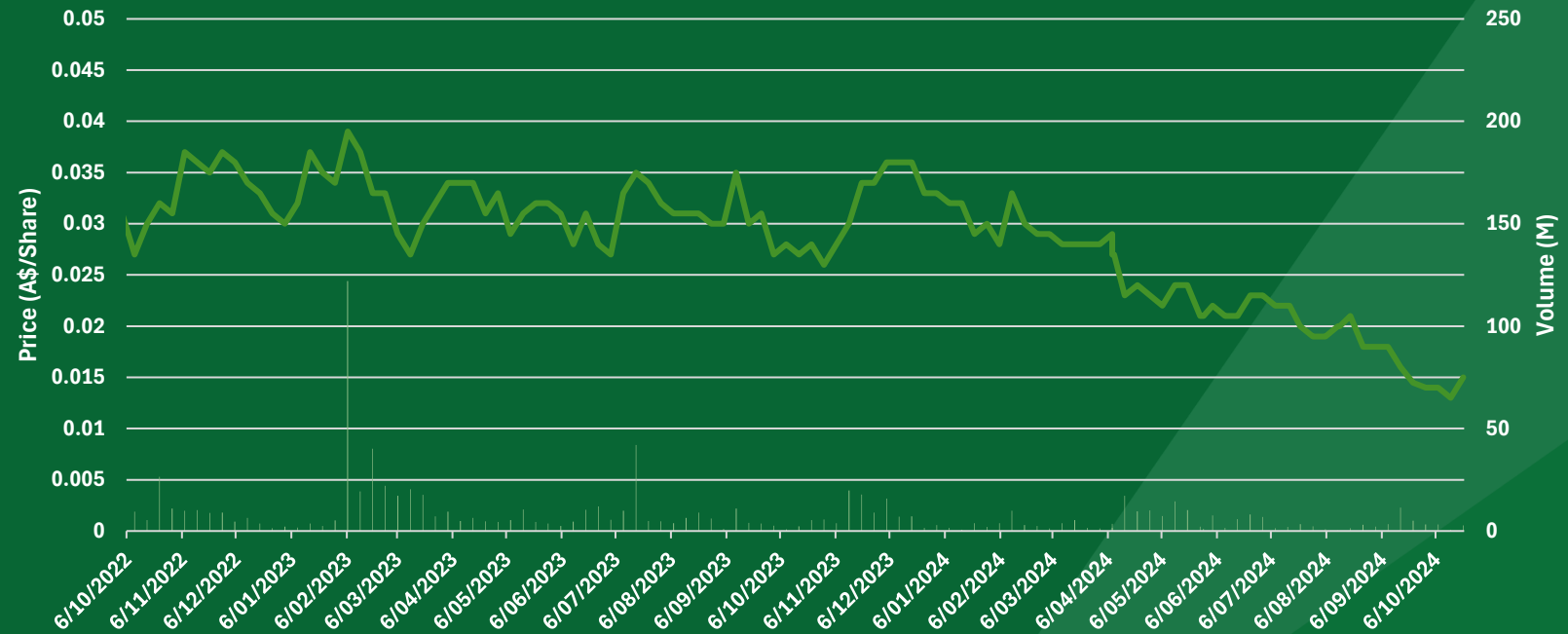
ENTERPRISE VALUE

\$9.86m (@22/10/2024)

OPTIONS

TMSOA (L), 85.4m, \$0.06, Ex 15/7/25
 TMSO(L) 271.9m, \$0.048, Ex 31/12/27
 TMSOPT1 (UNL) 26m, \$0.08, Ex 8/4/25

TMS Share Price Performance



Copper and Gold Positive Investment Outlook



Copper is an essential metal for civilization and the global energy transition



Gold is trading at an all-time high, reaching a price above US\$2,700/oz in October 2024



New copper discoveries such as Bluebird are rare - high-grade, mining friendly jurisdiction, standard beneficiation



Recoverable gold, accessible as part of Cu-Au and Ag mineral systems offers high value opportunity to shareholders



Copper in global supply deficit - demand increasing and inventories falling

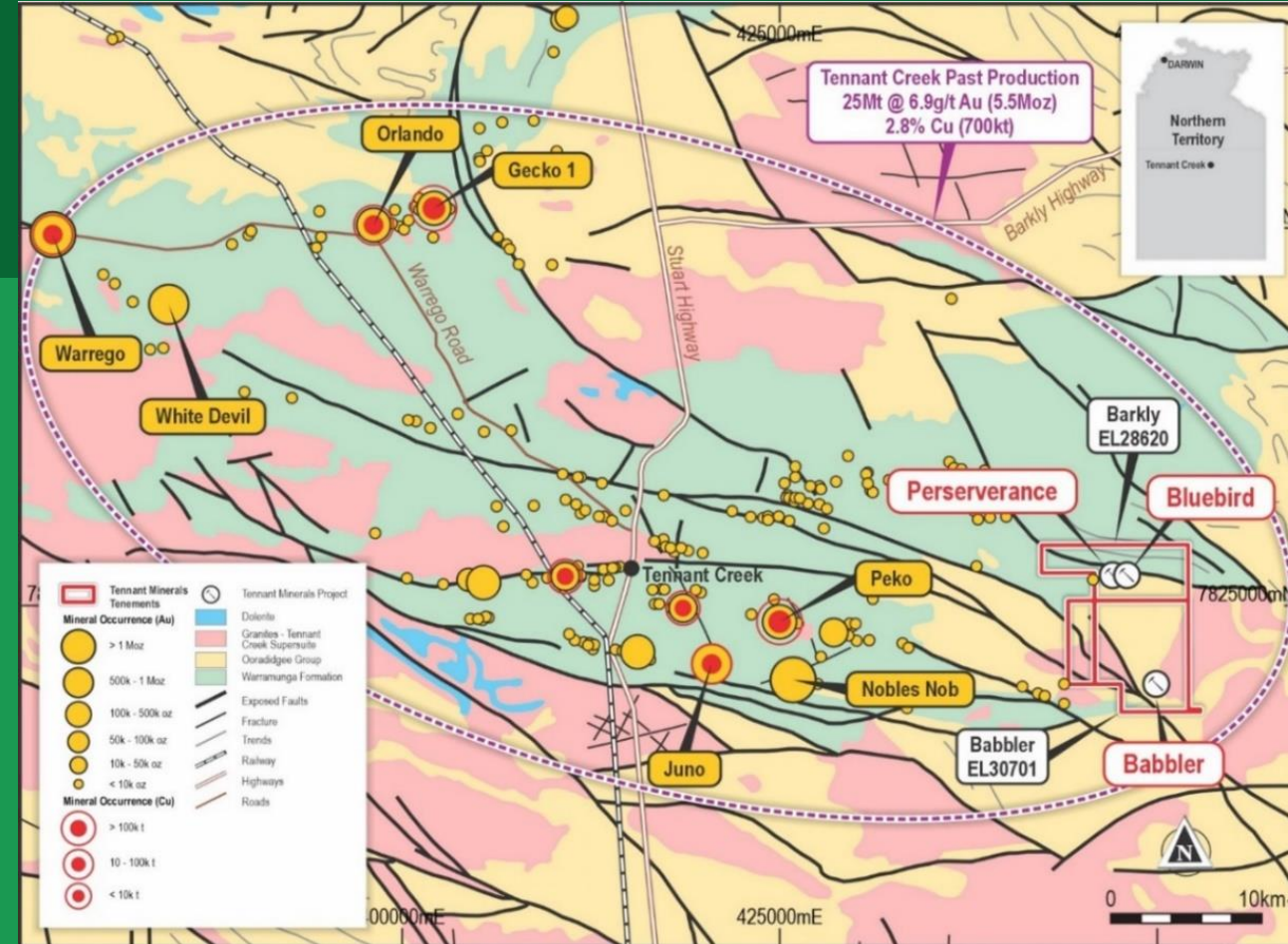


Cu and Au are large commodity markets with strong underlying support

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**¹



✓ Bluebird is a shallow greenfields, high-grade copper-gold discovery in a major mineral field

✓ Bluebird has identified upside potential comparable to major high-grade Cu-Au deposits at Tennant Creek e.g. Warrego (6.75Mt @ 6.6 g/t Au, 1.9% Cu)¹ and Peko (3.7Mt @ 4% Cu, 3.5 g/t Au)¹

✓ Bluebird geology similar to these previously mined major deposits - being hosted by altered and mineralised ironstone with intense hematite alteration in the Warramunga Formation

✓ Intensive exploration and development activity in the region points to potential for revival of this world-class mineral field with TMS and Bluebird an integral part of that revival

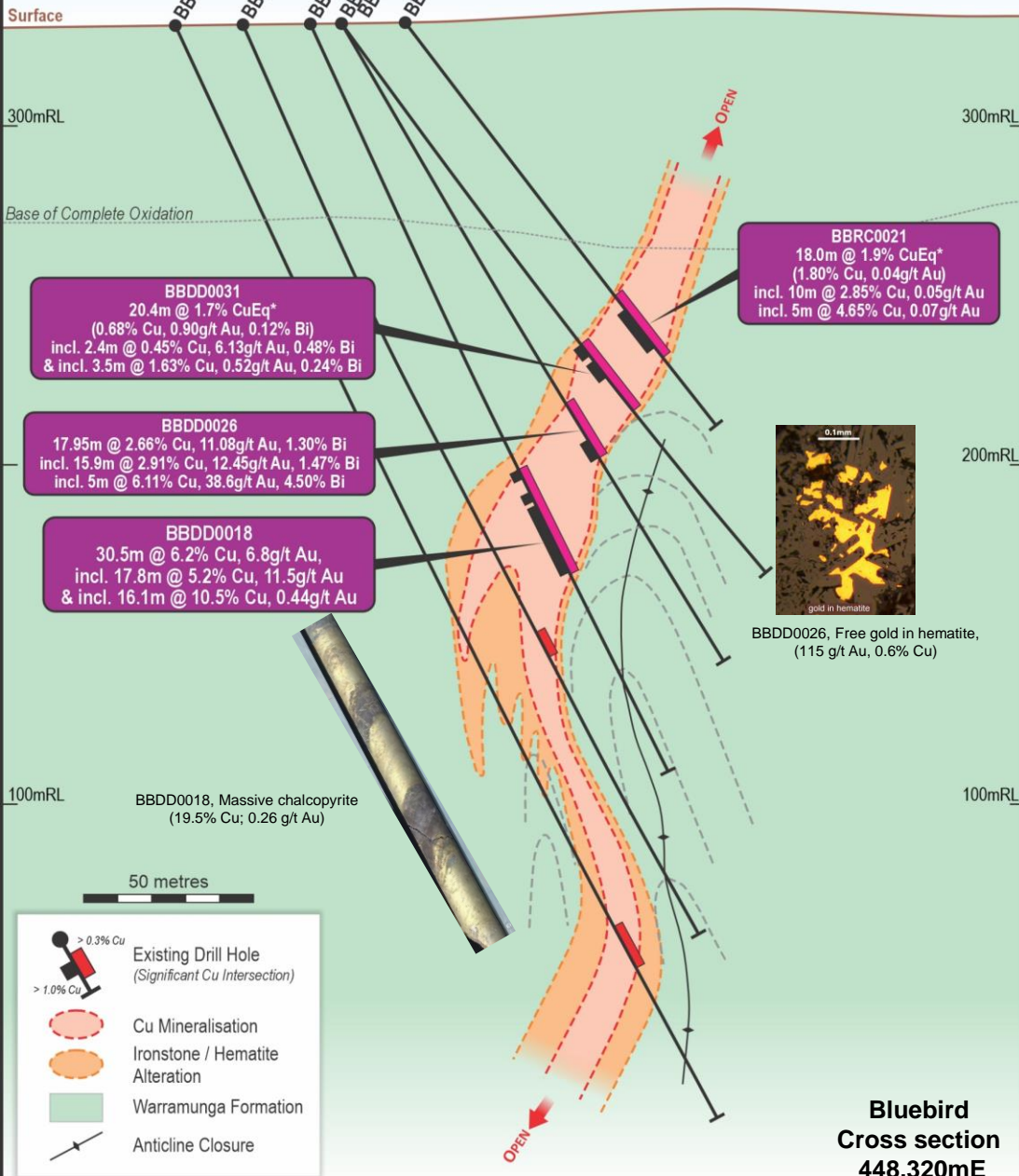
¹ Portergeo.com.au/database/mineinfo. Tennant Creek - Gecko, Warrego, White Devil, Nobles Nob, Juno, Peko, Argo.

782700mN

7827100mN

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Bluebird Copper-Gold Discovery



- A blind discovery (no surface expression) under shallow soil cover and weathered Warramunga Formation sedimentary rocks hosted in mineralised ironstone.
- 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 Au², BBDD0018: 30.5m @ 6.2% Cu, 6.8 g/t Au³).
- High-grade copper and gold mineralisation hosted by deformed and hematite altered ironstone where structure dilates across fold axes⁴.
- Thick, high-grade, copper-gold-bismuth mineralisation associated with First Hydrothermal Event⁴ into the dilational zones⁵.
- Mineralisation includes free gold with intense hematite and/or chlorite alteration and primary and/or secondary copper sulphides (including chalcocite, chalcopyrite and native copper). Metallurgical (gravity and flotation) testing confirm excellent recovery.

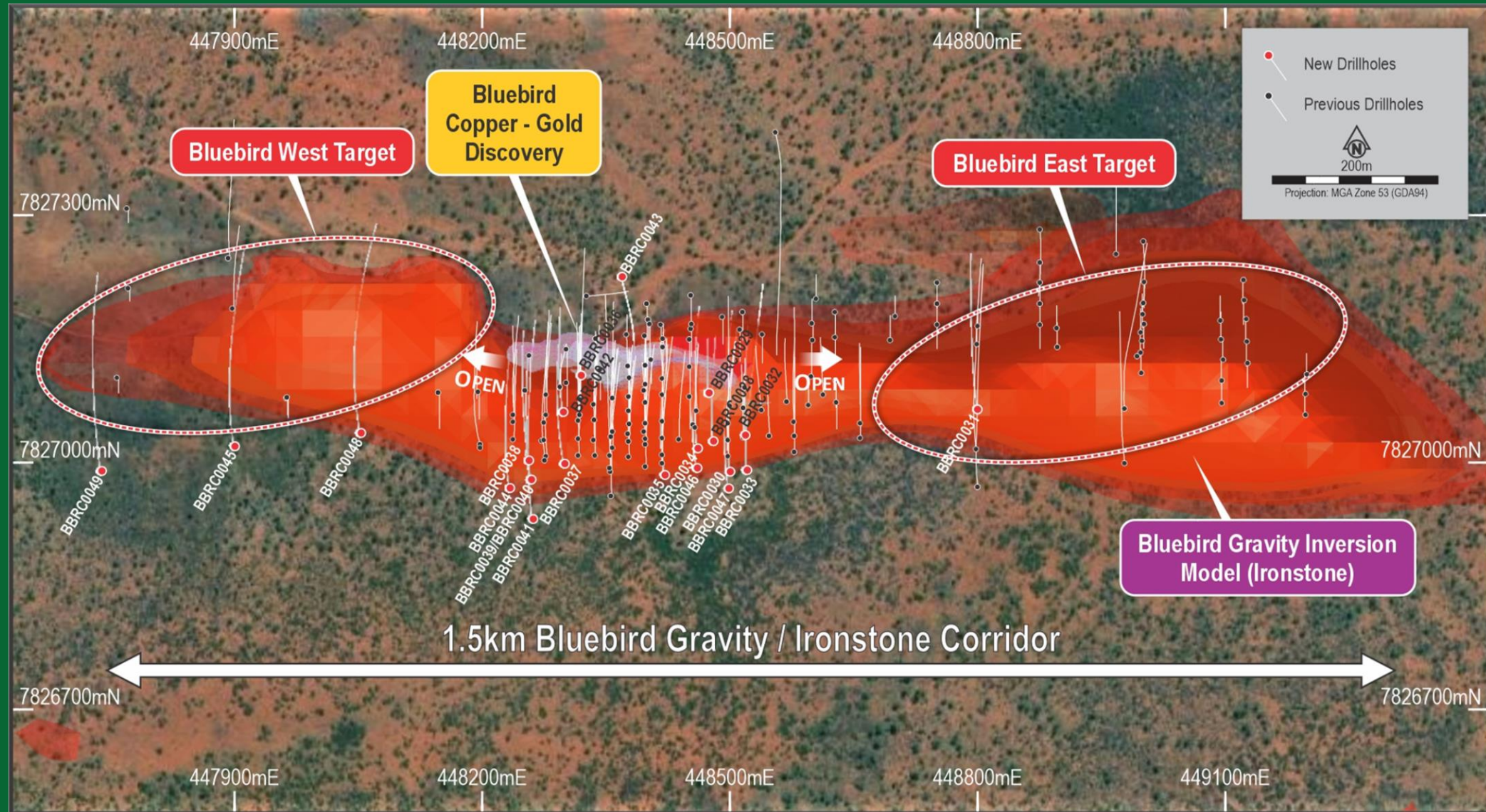
² 17/08/2022. Tennant Minerals (ASX. TMS): "Bonanza 63m @ 2.1% Copper and 4.6 g/t Gold Intersection at Bluebird".

³ 08/02/2023. "Spectacular Drill Hit 30.5m @ 6.2% Cu, 6.8 g/t Au".

⁴ 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.

⁵ 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.

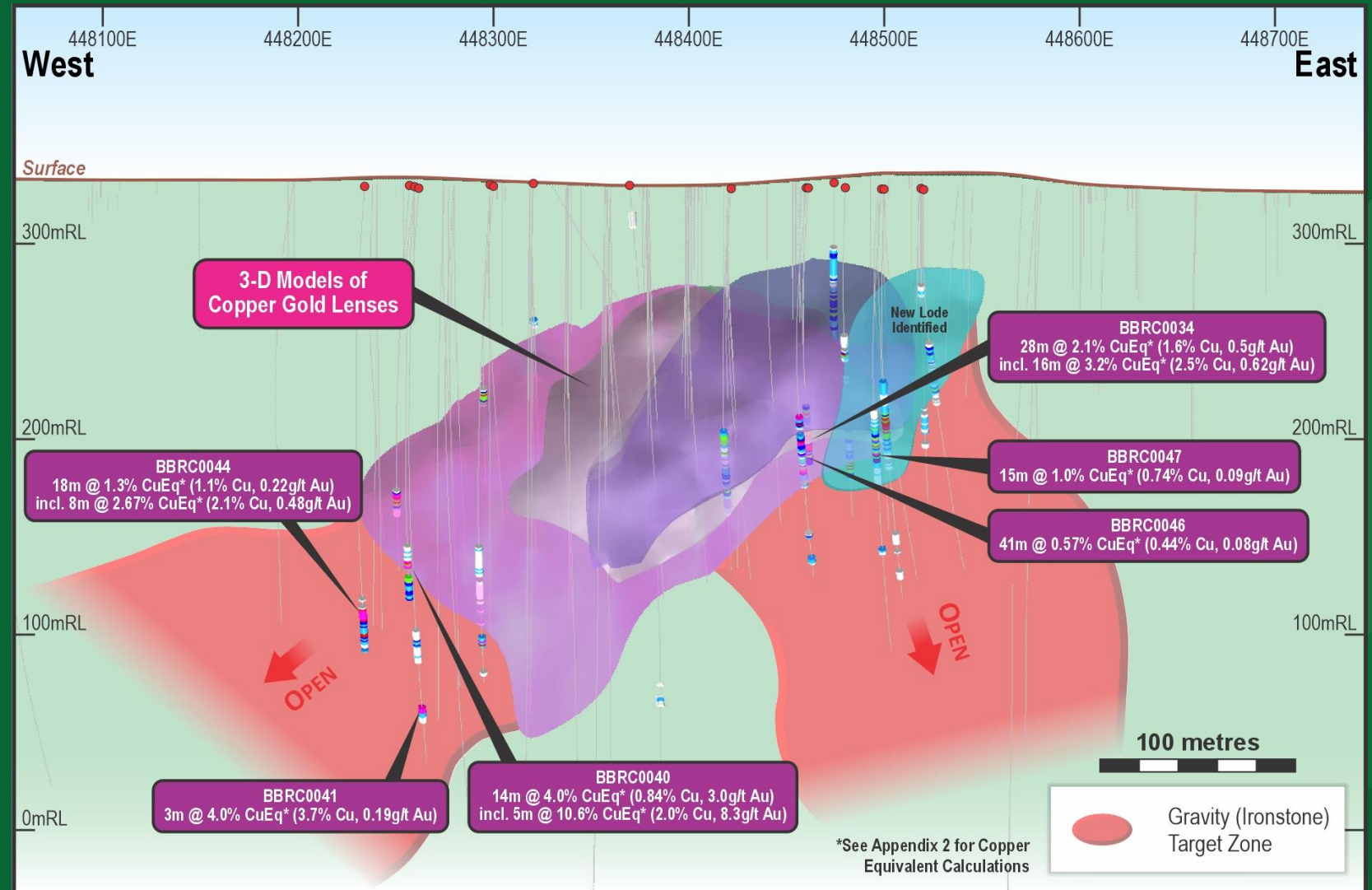
Drilling Program Summary



Bluebird 3D mineralisation model, gravity inversion, key targets and drilling, current and planned

Bluebird Longitudinal View open all directions

- Drilling to date has defined **high-grade copper-gold mineralisation** from 60m to over 400m depth, over 800m strike length – to the east and west⁷.
- Previous intersections of high-grade copper-gold intersections and include:
 - 61.8m @ 2.3% Cu, 0.4 g/t Au⁸
 - 17.95m @ 11.1 g/t Au, 2.7% Cu⁹
 - 14.1m @ 7.6% Cu, 2.4 g/t Au¹⁰
- Drilling in July 2024 completed 6,253m focussed on open extensions and repeats of the high-grade copper-gold mineralisation.
- Objective to define a **substantial high-grade copper-gold Mineral Resource**.



⁷ 22/01/2024. "New Copper Intersection Extends Bluebird Over 400m Depth".

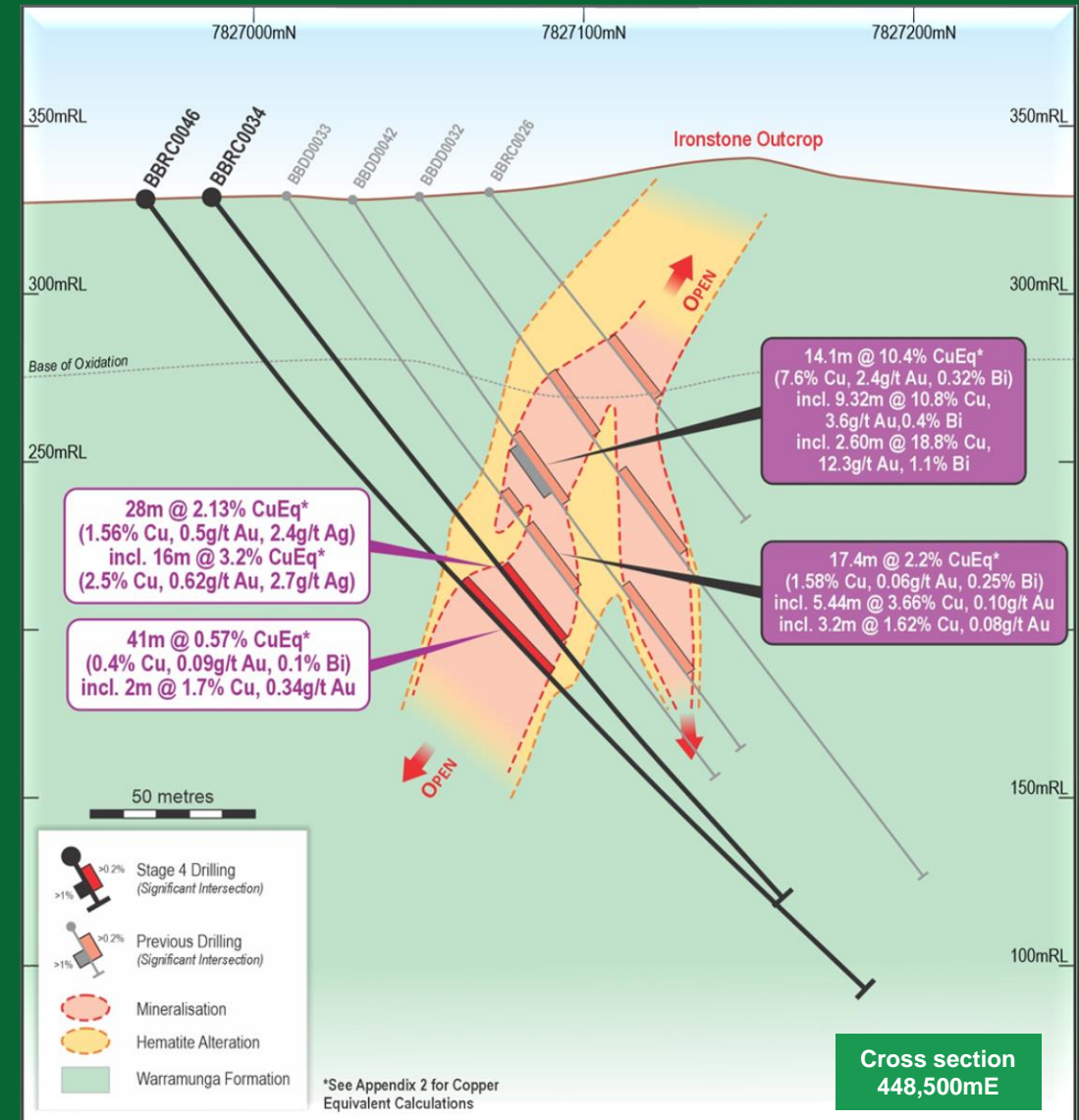
⁸ 12/02/2024. "Exceptional 61.8m @ 2.3% Copper Intersection at Bluebird".

⁹ 9/07/2023. Tennant Minerals (ASX.TMS): "Drilling Doubles Strike Length of Bluebird copper-Gold discovery".

¹⁰ 04/12/2023. Tennant Minerals (ASX.TMS): "Exceptional Copper and Gold Results at Bluebird Extension".

New Drilling Results – Confirming New Structures & Expanding Mineralisation

- Up to four large, high-grade, copper-gold lenses – each up to 300m in length and 200m deep – identified from updated interpretation of the mineralisation at Bluebird.
- Lenses occur within the east-west trending ironstone host corridor – which remains completely open to the east and west down-plunge of the previously-defined mineralisation.



New Drilling Results – Confirming New Structures & Expanding Mineralisation

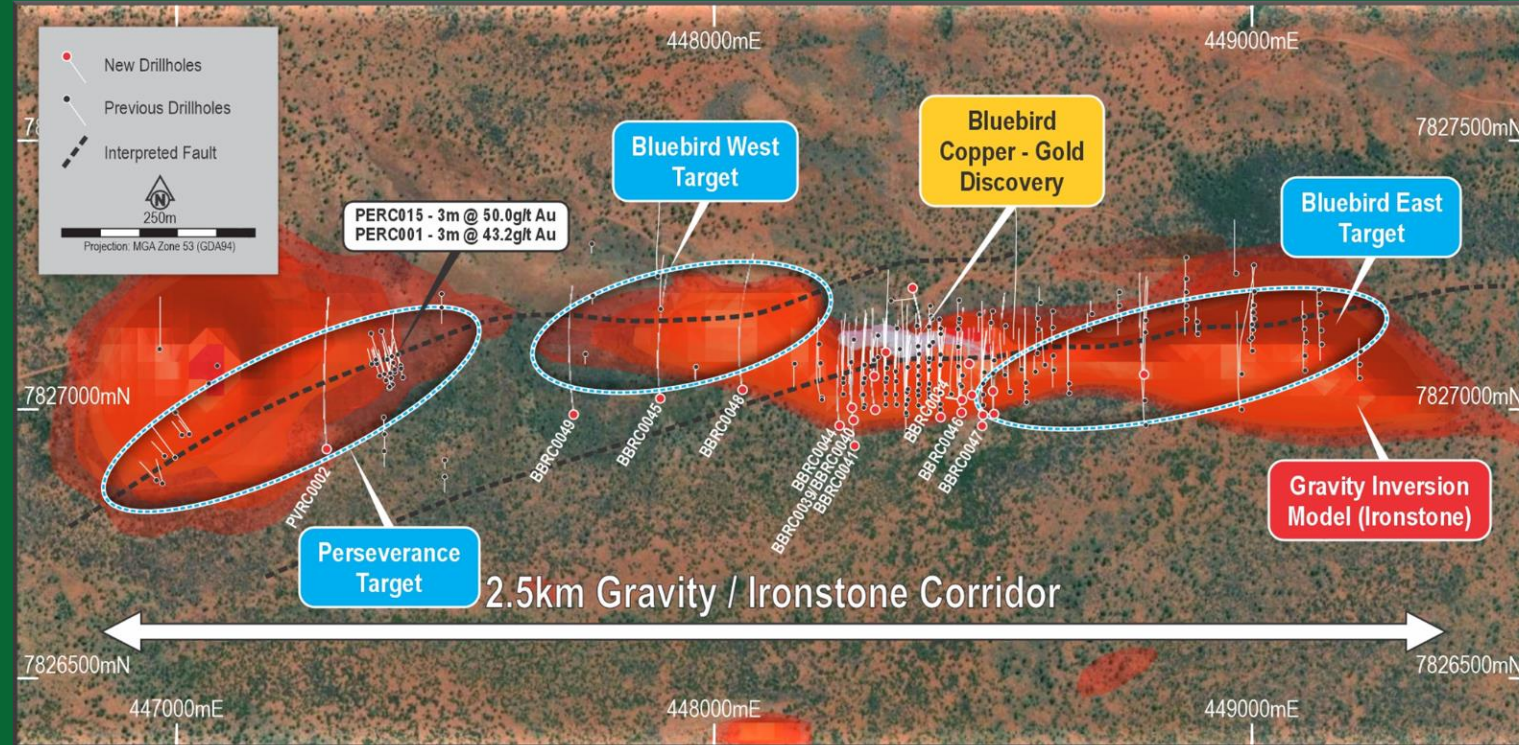
- Further thick, high-grade copper and gold zones including silver intersected in the latest RC drilling program at the Bluebird discovery within Tennant Minerals' 100%-owned Barkly Project in the Northern Territory.
- Latest results¹¹ include new high-grade intersections to the west and down-plunge of previous drilling, confirming and extending the potential for the high-grade mineralisation to continue to the west within the regional ironstone gravity corridor. Results include:
 - **5m high-grade gold zone grading 8.3g/t Au, 2.0% Cu, 9.8 g/t Ag, 0.27% Bi in BBRC0040**
 - incl grades of up to 22.7 g/t Au, 1.6% Cu, 41.4 g/t Ag, 0.51% Bi from 233m, in an overall zone of 14m @ 4.0% CuEq* (0.8% Cu, 3.0 g/t Au, 3.6 g/t Ag, 0.1% Bi)
 - **18m @ 1.3% CuEq* (1.1% Cu, 0.22 g/t Au) from 260m in BBRC0044**
 - incl 8m @2.7% CuEq* (2.1%Cu, 0.48 g/t Au) from 260m
 - **3m @ 4.0% CuEq* (3.7% Cu, 0.19 g/t Au, 3.4 g/t Ag) from 342m in BBRC0041**
- A new well-mineralised zone of copper-gold mineralisation identified at Bluebird East, which is thickening with depth and demonstrates significant expansion potential. Results include:
 - **28m @ 2.1% CuEq* (1.6% Cu, 0.5 g/t Au, 2.4 g/t Ag) from 146m downhole in BBRC0034**
 - incl 16m @ 3.2% CuEq* (2.5% Cu, 0.62 g/t Au, 2.7 g/t Ag) from 158m
 - incl 2m @ 7.9% Cu, 0.85 g/t Au, 7.8 g/t Ag from 158m
 - **15m @ 1.0% CuEq* (0.7% Cu, 0.09 g/t Au, 0.1% Bi) from 166m in BBRC0047**
 - **41m @ 0.57% CuEq* (0.4% Cu, 0.08 g/t Au) from 156m in BBRC0046**

¹¹19/09/2024 Tennant Minerals (ASX:TMS) : "Thick High Grade Copper Hits at Bluebird"

* Refer Appendix 1 for Copper Equivalent (CuEq) Calculations

TMS Receives NT Government Grant for Perseverance Target

- A follow up drill program has been planned to extend the excellent results received from the July 2024 RC program at Bluebird and test the gold target at Perseverance.
- Geophysical information, mainly gravity and magnetic data, strongly support the Perseverance area as a high priority target for Bluebird lookalike discoveries
- Perseverance Gold Mine was a small but very high- grade open cut gold mine to the West of Bluebird. Historical drilling identified¹² :
 - **3m @ 50g/t Au from 42m in PERC 0015**
 - **3m @ 43.2 g/t Au from 72m in PERC001**
- TMS received a NT Government “Resourcing the Territory” Grant for up to 50% of a deep diamond drillhole to test the large geophysical target west of Perseverance Gold Mine.

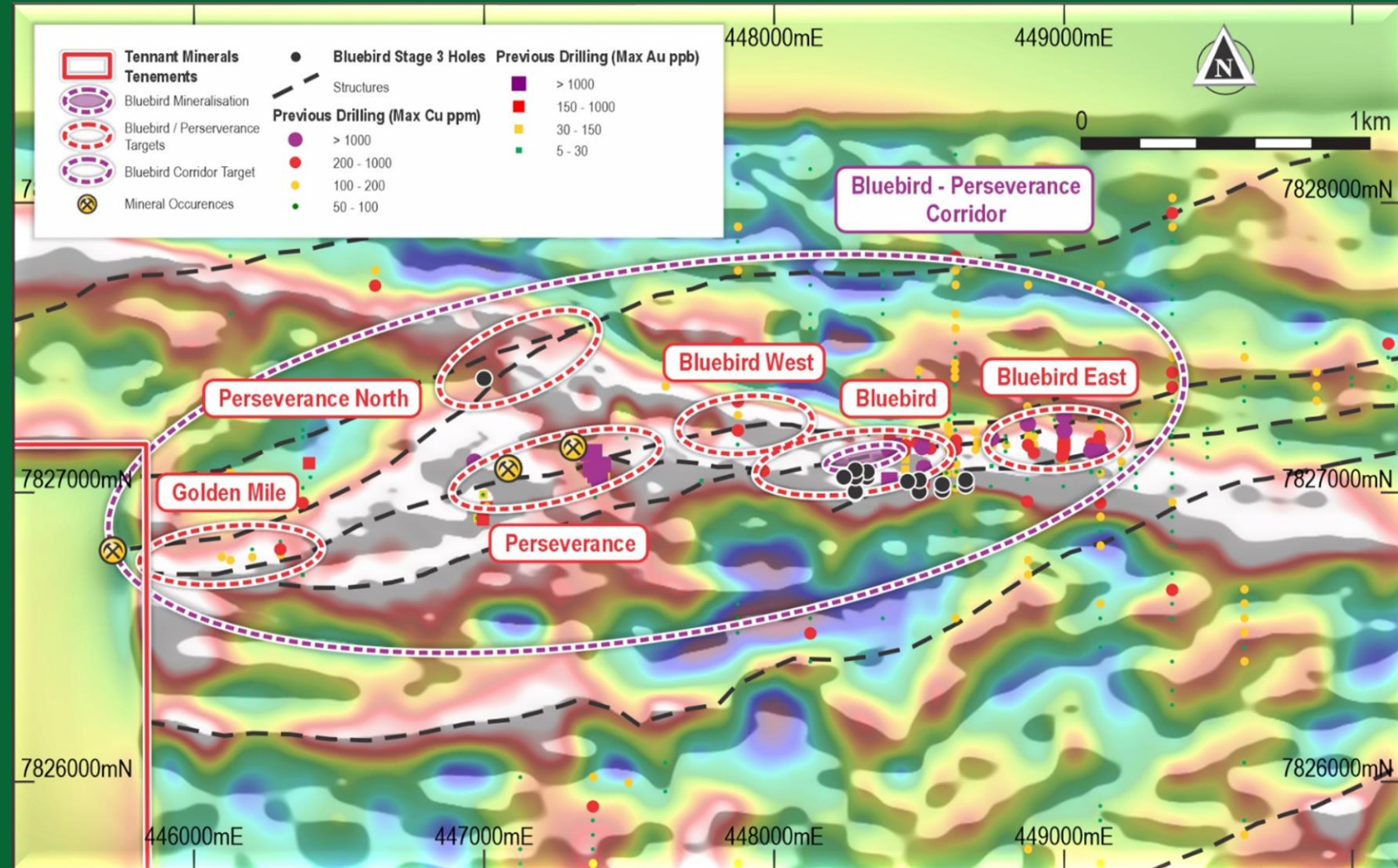


Bluebird 3D mineralisation model, gravity inversion, key targets and drilling, current and planned

¹²NTGS Report ID 1532559938 - Meteoric Resources, MLC57-MLC217-224_2015_GA

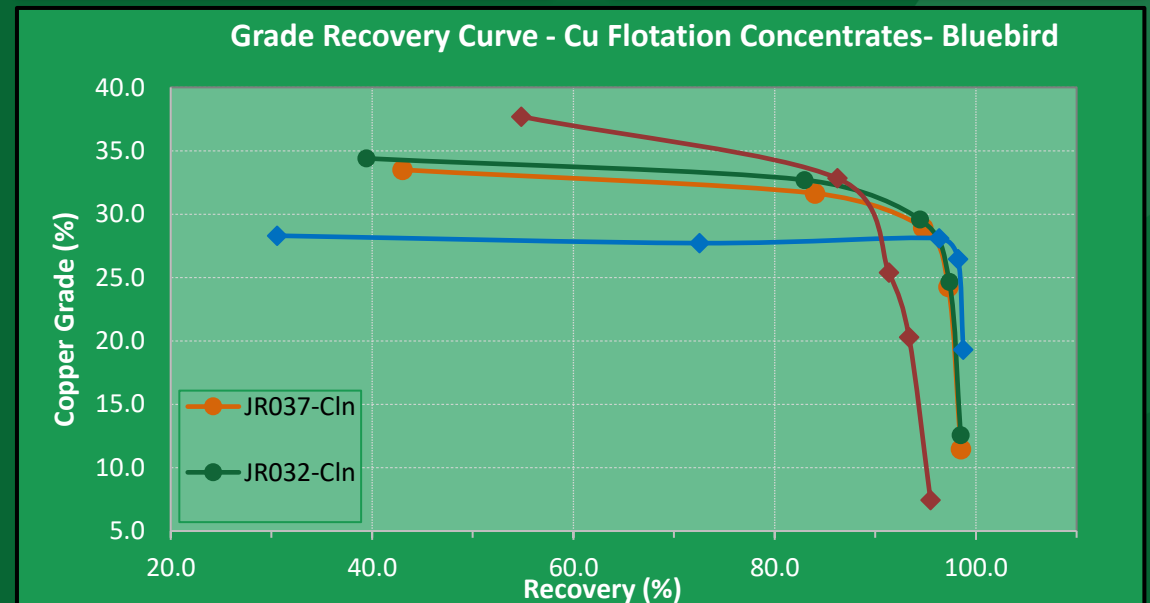
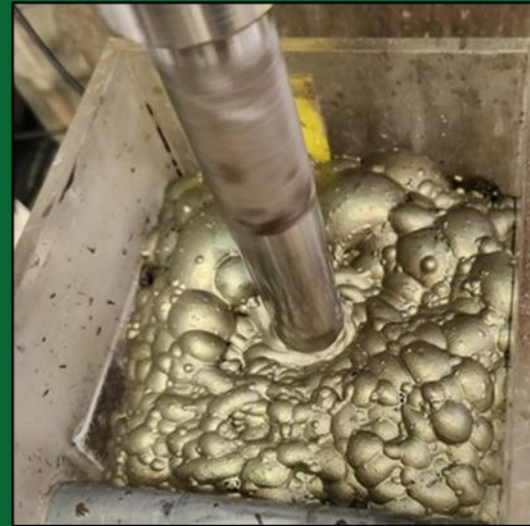
Project Discovery Opportunities—5km Gravity/Ironstone Corridor

- Covers a 5km strike-length, east-west trending gravity-high indicating major ironstone corridor with multiple discoveries potential.
- Gravity/Ironstone corridor intersected by ENE-WSW trending fault structures - associated with copper and gold mineralisation in 2.5km Perseverance to Bluebird Target Zone.
- Bluebird Cu-Au discovery occurs where ENE-WSW structure intersected gravity high/ironstone corridor and introduced Cu-Au mineralization.
- Associated hematite-secondary magnetite evident in magnetic “fingerprint”.
- Mapping, geophysics review and geochemistry programs underway to finalise multiple drill target selection.



Successful Metallurgical Test-work Completed

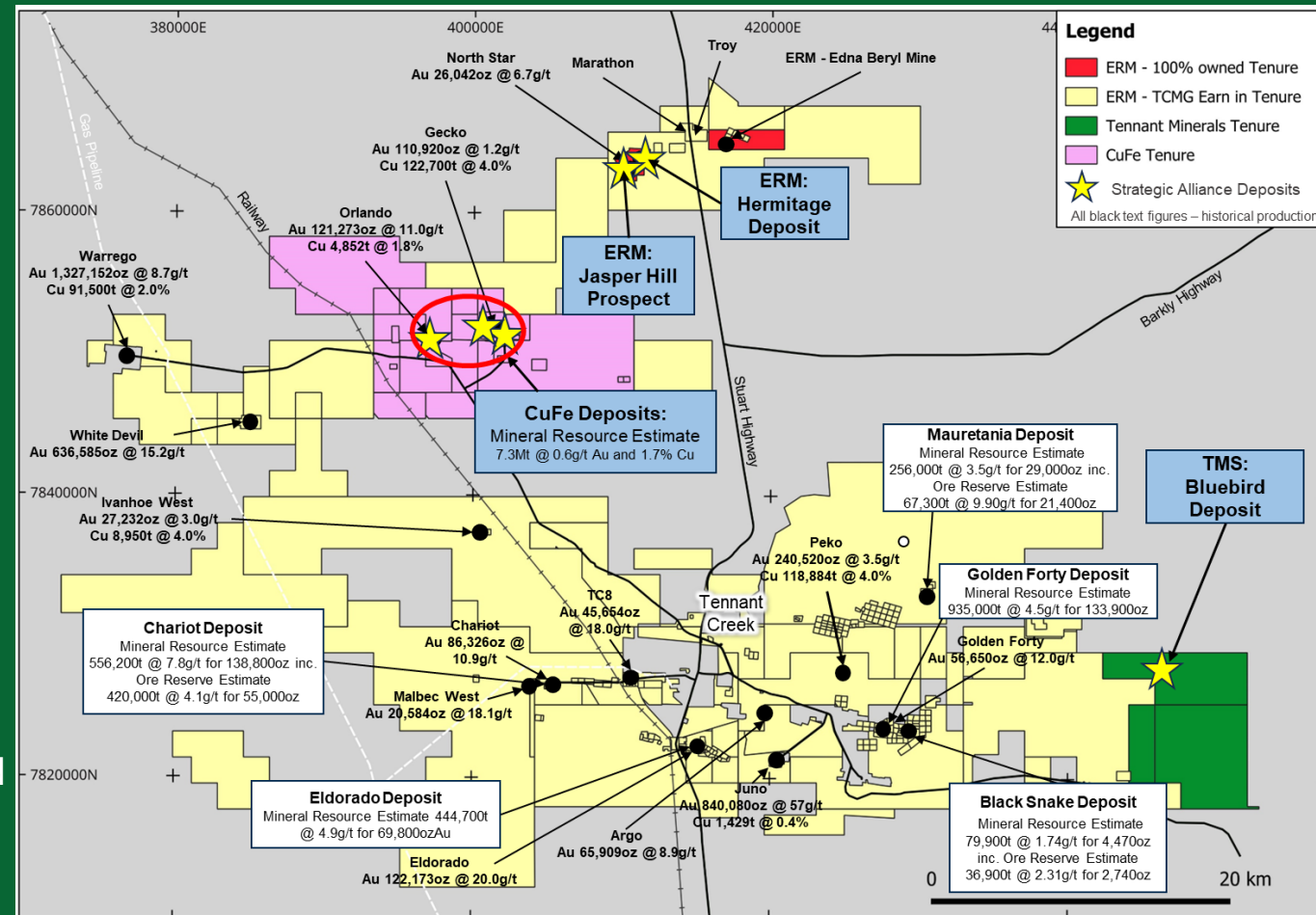
- Test-work shows above 91% of the copper in multiple drill-core composite samples from the Bluebird project can be extracted via conventional flotation, delivering a potentially commercial copper concentrate grading **24-29% copper (Cu) and 1.5- 4g/t gold (Au)**.¹³
- Multiple cleaner flotation tests on a drill-core composite samples from BBDD0045 achieved over 91% and up to 97% Cu recovery to concentrate, at a range of grind sizes from 53 µm to 75µm.
- Gold recovery to the flotation concentrates varied between 57% and 79%, with the remainder reporting to the float tailings.
- Further test-work results are expected aimed at;
 - Refining optimal conditions for all material types to simplify the processing circuit design
 - Investigating gold recoveries from tails
 - Develop pathway for extraction of Critical Minerals other than Copper, being Bismuth and Cobalt.



Strategic Copper & Gold Alliance Agreement



- CuFe Limited, Emmerson Resources and Tennant Minerals have formed a Strategic Alliance in the Tennant Creek region of the Northern Territory. ¹⁴
- Agreement to investigate the potential for development of a single, multi-user processing facility for Copper, Gold and Critical Metals for their Mineral Resources and recent high-grade exploration discoveries
- Landmark agreement designed to collectively fast-track development of copper and gold resources in one of Australia's premier historic production centres
- Replicating that historic multi-user infrastructure will help overcome economic challenge of developing individual resources on a stand-alone basis, while also providing added incentive for all three companies to target fresh high-grade copper-gold discoveries
- The Alliance has commenced a review of information to determine options for the initial Scoping Study, with a view to then moving quickly onto a Pre-Feasibility Study



Alliance has combined resources totalling 145,000 ounces of gold 127,000 tonnes of copper in the Tennant Creek Mineral Field, which historically produced more than 5.5Moz of gold and 700,000 tonnes of copper from 1934 to 2005 through centralised production facilities

¹⁴28/10/2024. Tennant Minerals (ASX:TMS): "Strategic Copper and Gold Alliance for Tennant Creek"

Next Steps October 2024 to March 2025

First pass drilling on multiple new Bluebird 'look alike' targets

Initial Mineral Resource estimation to Support Collaboration Studies

Environmental baseline studies and Heritage Agreement

Current and planned activity

Drilling of eastern and western Bluebird extensions

Auger Soils and Gravity extension and Infill

Follow Up Exploration Drilling on Targets

Feasibility studies and permitting in Collaboration



TENNANT MINERALS

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Cu Equivalence Calculation

Appendix Copper Equivalent Calculation

The conversion to equivalent copper (CuEq) grade must take into account the expected plant recovery/payability and sales price of each commodity in the calculation.

Approximate recoveries/payabilities are based on comparable deposits previously mined in the Tennant Creek mineral field, which are similar to the Bluebird discovery in terms of mineralogy.

The prices used in the calculation are based on current (15/09/24) market for Cu, Au, Ag sourced from the website kitcometals.com whilst estimates for Bi and Co are from other sources for current Bi and Co price.

The table below shows the grades, process recoveries and factors used in the conversion of the polymetallic assay information into an equivalent Copper Equivalent (CuEq) grade percent.

Metal	Average grade (g/t)	Average grade (%)	Metal Prices			Recovery x payability (%)	Factor	Factored Grade (CuEq%)
			\$/oz	\$/lb	\$/t			
Cu	-	0.52	\$0.26	\$4.21	\$9,308	0.8	1.00	0.524
Au	0.27	-	2,579	\$41,264	\$90,945,856	0.8	0.98	0.263
Ag	0.40	-	30.8	\$493	\$1,086,131	0.8	0.012	0.000
Bi	-	0.18	\$0.41	\$6.50	\$14,326	0.8	1.54	0.280
Co	110	0	\$0.69	\$11.03	\$24,300	0.8	0.0003	0.029
							CuEq%	1.10