**ASX ANNOUNCEMENT** 





# **Exploration Fast-Tracked at Bluebird Copper-Gold Discovery**

- New diamond drilling to extend Bluebird discovery and high-resolution drone magnetic survey to prioritise additional targets along 5km strike
  - Parallel exploration programs being fast-tracked at Tennant Mineral's 100%-owned Bluebird copper-gold discovery in Tennant Creek to follow up on latest exceptionally thick, high-grade drilling intersections, including:
    - o <u>50.0m @ 2.70% Cu and 0.52 g/t Au</u> from 158m (down hole) in BBDD0009<sup>1</sup>,
      - including <u>24.0m @ 5.01% Cu and 1.01 g/t Au</u> from 159m,
    - o <u>35.5m @ 2.58% Cu and 0.27 g/t Au</u> from 194m (down hole) in BBDD0010<sup>2</sup>,
      - including 18.0m @ 4.74% Cu and 0.50 g/t Au from 197m,
  - Titeline Drilling are contracted and mobilising a diamond rig to Bluebird for a follow-up 1,500m drilling program designed to grow the footprint of the Bluebird copper-gold discovery
  - Initial holes will target the central part of the shallow westerly plunging copper-gold shoot above the exceptional BBDD0010 and BBDD0011 intersections. Drilling will then step out to the west, testing extensions to the mineralisation in an area which remains completely open
  - The accelerated exploration program also includes a high-resolution drone-magnetics survey to better define multiple, coincident, magnetic-gravity targets within the 5km Bluebird Corridor. Historical shallow drilling failed to effectively test these targets and the results from this survey will guide new drilling for further copper-gold discoveries along the corridor
  - Success in the next diamond drilling phase and definition of multiple new targets for repeats of Bluebird along strike - will open up the potential for a major new, high-grade copper-gold discovery at the eastern end of the Tennant Creek Mineral Field



# Tennant Minerals Chairman, Mr Matthew Driscoll, commented:

"We are very excited to continue this highly-successful drilling program at Bluebird, to see how big this new copper-gold discovery at Tennant Creek can grow.

"In addition, the new drone magnetics survey we are undertaking will enable us to better define and prioritise the multiple copper-gold targets already identified over the 5km potentially mineralised corridor. These targets are all similar, if not larger, than Bluebird, which adds to our confidence in making further high-grade coppergold discoveries and thus unlocking the true potential of this exciting discovery."

Tennant Minerals Limited (ASX: TMS) ("Tennant", or the "Company") is pleased to announce it has fast-tracked exploration at Bluebird copper-gold discovery ("Bluebird") to follow-up on recent exceptional drilling results.

Bluebird is located within Tennant's 100% owned Barkly Project, 45km east of Tennant Creek township in the Northern Territory (see location, Figure 6).

# Follow-Up Diamond Drilling Program

Tennant has finalised a new drilling contract with Titeline Drilling Pty Ltd ("**Titeline**"), who are mobilising to carry out a follow-up diamond drilling program at Bluebird. A minimum of 6 holes for 1,500m of diamond drilling is planned to commence early to mid-April.

Initial holes will target the central part of the shallow westerly plunging copper-gold shoot above the **BBDD0010** (see Figure 1) and **BBDD0011** (see Figure 2) intersections<sup>2</sup>, immediately down plunge from the thick high-grade intersection in **BBDD0009** of <u>50.0m @ 2.70% Cu, 0.52 g/t Au from 158m incl. 24.0m @ 5.01% Cu, 1.01 g/t Au<sup>1</sup></u>.

Further step-out holes, 40m to the west of the BBDD0011 intersection, on section 448,300mE, will extend testing of the Bluebird coper-gold discovery to over 200m strike-length (see longitudinal projection, Figure 3). The scoped dimensions of the deposit will then be of similar scale to other, major, copper-gold deposits in the Tennant Creek Mineral Field such as the **Peko** deposit 20km to the west of Bluebird that historically produced **147,000 tonnes of copper grading 4% Cu and 414,000oz of gold at 10 g/t Au** between 1934 and 1981<sup>3</sup>.

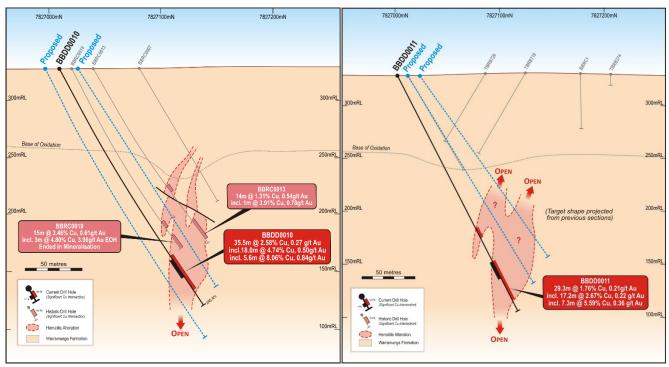


Figure 1: Cross-section 448,360mE with BBDD0010

Figure 2: Cross-section 448,340mE with BBDD0011

The recent intersections of high-grade copper with gold mineralisation in **BBDD0010** (Figure 1) and **BBDD0011** (Figure 2) both penetrated the primary copper-sulphide (chalcocite) zone after passing through a transitional supergene zone that included native copper. Copper grades are generally similar in the sulphide zone (e.g.



chalcocite intersection of **5.0m** @ **6.53% Cu**, **0.67** g/t **Au** from **197m** in **BBDD0010**<sup>2</sup>), with higher-grade bismuth, cobalt and iron but lower grade gold when compared with the supergene zone (e.g. previous intersection **20m** at **0.61% Cu**, **8.17g/t Au**, from **157m** in **BBDD002**<sup>4</sup>, see Figure 3).

The intersection of high-grade copper in primary sulphide mineralisation and iron enrichment at Bluebird indicates that Bluebird is a significant primary sulphide deposit associated with an iron oxide copper-gold (IOCG) system - typical of the high-grade copper-gold ore-bodies mined in the Tennant Creek Mineral Field.

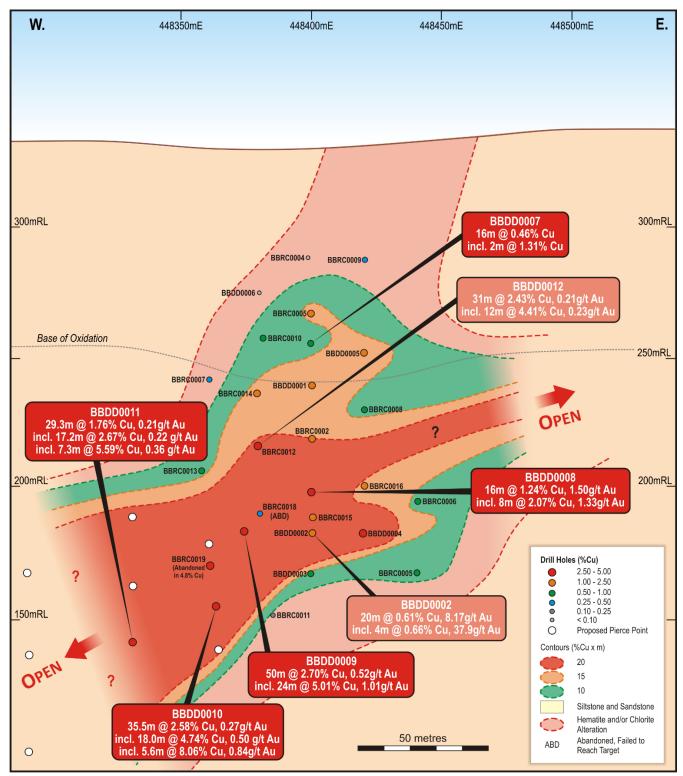


Figure 3: Bluebird longitudinal projection with BBDD0010 & BBDD0011 intersections and planned hole pierce points



## High-Resolution Drone Magnetic Survey to Define Multiple Targets in 5km Bluebird Corridor

Previous detailed gravity surveying indicates that Bluebird is associated with a gravity high, that is part of a five kilometre (5km) long gravity anomaly or "ridge" (see Figure 4 below), indicating widespread iron enrichment in the primary zone below the near surface leaching that penetrates to >80m depth at Bluebird.

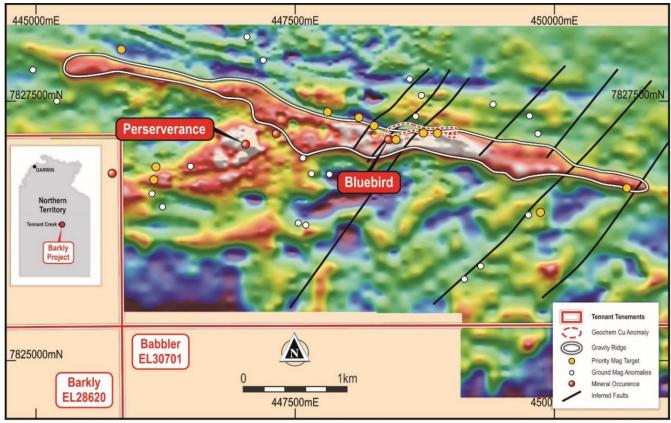


Figure 4: Bouger 1VD gravity image with Bluebird Prospect and magnetic targets in the 5km Bluebird Corridor

In addition, previous ground magnetics indicates that Bluebird is associated with a bullseye magnetic anomaly that is evident in recently pre-processed magnetic imagery (see Figure 5 below). The re-processing has reversed the apparent polarity of the magnetic anomalies and has now highlighted multiple "positive" magnetic features along strike from Bluebird, associated with coincident gravity highs (Figure 5).

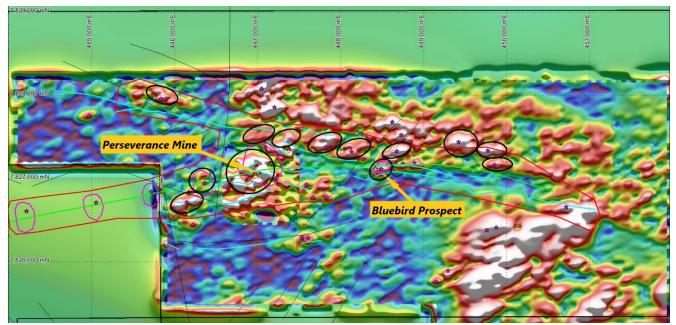


Figure 5: Reversed Ground-Magnetics Image, with Bluebird and other magnetic targets in the Bluebird Corridor



In order to better define these magnetic anomalies along strike from Bluebird a new, high-resolution, drone magnetic survey is being flown over the 5km Bluebird gravity/magnetic corridor to better define at least 12 other priority targets for further drilling.

This drone magnetic survey will be carried out in early April, just prior to the diamond drilling program, so that processing can be carried out to define priority targets for further, targeted, drill-testing.

It is evident that there are multiple coincident magnetic – gravity highs along the 5km Bluebird Corridor that have not been effectively tested with previous drilling and may be associated with additional high-grade copper-gold deposits.

Planning of a further, extensive, RC drilling program will be fast-tracked following completion of the dronemagnetics survey and modelling of both the gravity and magnetics data.

# ABOUT THE BARKLY PROJECT AND THE BLUEBIRD COPPER-GOLD DEPOSIT DRILLING PROGRAM

The Barkly Copper-Gold Project ("**Barkly**" or "**the Project**") is located approximately 45km east of the town of Tennant Creek and comprises two Exploration Licences, EL 28620 (**Barkly Project**) and EL 30701 (**Babbler Project**) (Figure 6).

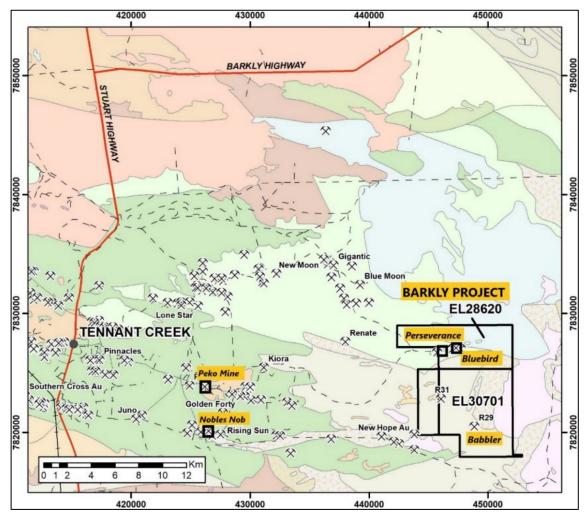


Figure 6: Location of the Barkly (EL 28620) and Babbler (EL 30701) Barkly Projects showing Peko and Nobles Nob mines

The **Barkly** and **Babbler** Projects are considered highly prospective for magnetite – hematite hosted copper-gold mineralisation, similar to other major deposits found elsewhere in the Tennant Creek Mineral Field, such as the **Peko deposit** (Figure 6), only 20km to the west of the Barkly Project, that produced **147,000 tonnes of 4% Cu and 414Koz at 10 g/t Au** between 1934 and 1981<sup>3</sup>.

The Company's initial focus is the Bluebird prospect, where previous drilling intersected high-grade copper-gold mineralisation at relatively shallow depth.



The recently completed diamond drilling program at the Bluebird prospect included five diamond drillholes for a total of 1,048m of drilling. The program has successfully tested the entire, up to 50m, thickness of the high-grade coppergold mineralisation, as well as intersecting down-dip / plunge extensions of the zone that remains open at depth and to the west (see longitudinal projection, Figure 3).

The drilling follows-up previous high-grade drilling intersections from the November 2020 RC drilling program<sup>5</sup>, when the Company undertook an initial exploration drilling campaign at the Barkly Project of seven drill holes for a total of approximately 1,170m.

Significant intersections from the 2020 program included:

BBRC0015	20m @ 1.67% Cu, 1.79g/t Au from 156m, including 10m @ 2.32% Cu, 2.87 g/t Au <sup>5</sup>
BBRC0019	15m @ 3.46% Cu, 0.61g/t Au from 172m, including 4m @ 6.28% Cu, 0.24g/t Au from 175m,
	and 1m @ 4.80% Cu, 3.95g/t Au from 186 (finishing in mineralisation, Figure 1) <sup>5</sup>

The 2020 RC holes were drilled to in-fill and extend previous RC and diamond drilling completed in 2014<sup>6</sup>, that intersected high-grade copper-gold mineralisation within an ironstone unit on a west-northwest trending, steeply south dipping, fault zone and produced several very high-grade intersections, including:

BBDD0004:	16m at 3.02% Cu, 0.65g/t Au from 139m, incl. 4m at 6.49% Cu, 0.74g/t Au <sup>6</sup>
BBRC0012:	31m at 2.48% Cu, 0.21g/t Au from 116m incl. 12m at 4.41% Cu, 0.23g/t Au <sup>6</sup>
BBDD-2:	20m at 0.61% Cu, 8.17g/t Au, from 157m incl. 0.66% Cu, 4m at 37.9g/t Au <sup>4</sup>
BBRC-5:	25m at 1.90% Cu, 0.28 g/t Au from 62m incl. 4m at 8.99% Cu, 1.06g/t Au <sup>4</sup>
BBRC0013:	14m at 1.31% Cu, 0.54g/t Au from 162m incl. 1m at 3.91% Cu, 0.78g/t Au <sup>4</sup>

Significantly, drill hole **BBRC0019**<sup>5</sup>, drilled below BBRC013, which was previously the deepest and most westerly hole drilled at Bluebird<sup>7</sup>, intersected strongly hematite altered siltstone and ironstone from 172m to 187m but was abandoned at that depth due to in-hole caving and **ended in high-grade copper-gold mineralisation, with the last metre assaying 4.81% Cu and 3.9 g/t Au<sup>5</sup>.** 

The recently completed diamond drilling program at Bluebird has now tested the entire thickness of the mineralised zone at Bluebird, with **BBDD0009 intersecting 50m of high-grade copper with gold mineralisation<sup>1</sup> and BBDD0010, producing a 35.5m high-grade copper intersection<sup>2</sup> below BBRC0019 (see Figure 1).** 

The deepest hole of the recent program, a step-out of 30m down plunge from **BBDD0011**, produced a **29.3m copper** intersection of mineralisation that is open up and down dip as well as down plunge to the west<sup>2</sup> (Figures 2 and 3).

Further drilling will now test the extent of this exciting new copper-gold discovery at Tennant Creek.

Appendix 1, JORC Table 1, includes drilling details and sampling procedures in previous drill holes.

## REFERENCES

<sup>1</sup> 08 March 2022. Tennant Minerals (ASX. TMS): "Spectacular 50m @ 2.70% copper intersection at Bluebird"

<sup>2</sup>15 March 2022. Tennant Minerals (ASX. TMS): "More Exceptional Copper Intersections from Bluebird"

<sup>3</sup> Portergeo.com.au/database/mineinfo. Tennant Creek - Gecko, Warrego, White Devil, Nobles Nob, Juno, Peko, Argo

<sup>4</sup> 24 September 2019. Blina Minerals (ASX: BDI): "Strategic Acquisition of High-Grade Gold-Copper Project"

<sup>5</sup> 18 March 2020. Blina Minerals (ASX: BDI): "High-Grade Copper and Gold Intersected in Drilling program at Bluebird"

<sup>6</sup> 09 December 2014. Blaze International Ltd (ASX: BLZ): "High Grade Copper Sulphide Intersection at Bluebird"

<sup>7</sup> 06 December 2021. Tennant Minerals (ASX. TMS): "New Intensely Mineralised Cu Zone Intersected at Bluebird"

\*\*\*ENDS\*\*\*



# CONTACT AND AUTHORISATION

This release was authorised by the Board of Tennant Minerals Ltd (ASX:TMS).

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#### CAUTIONARY STATEMENT REGARDING FORWARD LOOKING INFORMATION

This release 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 or reviewed by Mr Nick Burn who is Exploration Manager for Tennant Minerals and a member of the Australian Institute of Geoscientists. Mr Burn 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 of Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Burn consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## ASX LISTING RULES COMPLIANCE

In preparing this announcement the Company has relied on the announcements previously made by the Company and specifically dated 09 December 2014, 24 September 2019, 18 March 2020, 06 December 2021, 13 December 2021, 21 December 2021, 8 March 2022 and 15 March 2022. 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.



# APPENDIX 1 JORC 2012 Edition - Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g., 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation.</li> </ul>	<ul> <li>Exploration results are based on industry best practices, including sampling, assay methods, and appropriate quality assurance quality control (QAQC) measures.</li> <li>Core samples (2021) are taken as half HQ3 core and sampled on nominal 1m intervals, with sampling breaks adjusted to geological boundaries where appropriate.</li> <li>Reverse Circulation (RC), 2020 program: RC drill chips were collected at 1m intervals via a cone splitter in pre-numbered calico bags. The quantity of sample was monitored by the geologist during drilling.</li> <li>RC samples of between 3-4kg were sent to the laboratory where they were pulverised to at least 85% passing 75 microns. The pulp sample is then split to produce a sample for analysis.</li> <li>Diamond drill samples submitted to the laboratory are crushed and pulverised followed by a four-acid total digest and multi-element analysis by inductively coupled plasma optical emission spectrometry (ICP-OES) and inductively coupled plasma applical emission spectrometry (ICP-OES) finish.</li> </ul>
Drilling techniques	<ul> <li>Drill type (e.g., core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>RC drilling (2020) was conducted using a 5<sup>1</sup>/<sub>4</sub>" face sampling hammer, with holes drilled -60 degrees.</li> <li>Rotary mud (RM) drilling (2021) was completed with 126mm PCD hammer with holes drilled between -60 and -65 degrees.</li> <li>2021 Diamond drillholes were collared using RM drilling and switched to HQ3 approximately 30m before the target position is intersected. All coordinates are quoted in GDA94 datum unless otherwise stated.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>RC sample recovery is monitored by the field geologist. Low sample recoveries are recorded on the drill log. The geologist is present during drilling to monitor the sample recovery process. There were no significant sample recovery issues encountered during the drilling program.</li> <li>RM sample recovery was monitored by the site geologist, logged and a sample record was retained for future interpretation. No</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>analysis of rotary mud collars was undertaken.</li> <li>The quality of diamond core samples is monitored by the logging of various geotechnical parameters, and logging of core recovery and competency.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>All logging is completed according to industry best practice.</li> <li>RC chips are logged at 1m intervals using a representative sample of the drill chips. Logging records include lithology, alteration, mineralisation, colour and structure.</li> <li>RM chips are logged at 2m intervals using a representative sample of the drill chips. Logging records include lithology, alteration, mineralisation and colour</li> <li>Detailed diamond drillcore information on lithology, sample quality, structure, geotechnical information, alteration and mineralisation are collected in a series of detailed self-validating logging templates.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the arain size of the material being sampled</li> </ul>	<ul> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique is considered adequate as per industry best practice.</li> <li>RC samples of 3-4kg are collected at 1m intervals using a cone splitter. The sample size is appropriate for the style of mineralisation and the grain size of the material being sampled.</li> <li>RC samples are dried at the laboratory and then pulverised to at least 85% passing 75 microns.</li> <li>RM samples were not analysed. A sample was retained for future interpretation.</li> <li>Core is cut using an Almonte automated core cutting saw. Half core is taken for sampling.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>grain size of the material being sampled.</li> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.</li> </ul>	<ul> <li>All samples were submitted to the Intertek Laboratories sample preparation facility at Alice Springs in the Northern Territory where a pulp sample is prepared. The pulp samples are then transported to Intertek in Perth or Townsville Australia for analysis.</li> <li>Pulp sample(s) were digested with a mixture of four Acids including Hydrofluoric, Nitric, Hydrochloric and Perchloric Acids for a total digest.</li> <li>Analysis of 2020 RC drilling; Cu, Pb, Ag, Bi, Co Ni, Sb have been determined by Inductively Coupled Plasma (ICP) Mass Spectrometry (MS-OES).</li> <li>Analysis of 2021 core drilling; Ag, Al, As,Ba,Bi,Ca,Cd,Ce,Co,Cr,Cu,Fe,K,La,Li,,Mg,Mn, Mo,Na,Ni,P,Pb,S,Sb,Sc,Sn,Sr,Te,Ti,Tl,V,W,Zn</li> </ul>



Criteria	JORC Code explanation	Commentary
Verification of	<ul> <li>The verification of significant intersections by</li> </ul>	<ul> <li>have been determined by Inductively Coupled Plasma (ICP) Mass Spectrometry (MS-OES).</li> <li>Gold was analysed by Fire Assay with a 25g charge and an ICP-MS finish with a 5ppb Au detection limit.</li> <li>A Field Standard, Duplicate or Blank is inserted every 25 samples. The Laboratory inserts its own standards and blanks at random intervals, but several are inserted per batch regardless of the size of the batch.</li> <li>All significant intercepts are reviewed and</li> </ul>
sampling and assaying	<ul> <li>either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>confirmed by at least two senior personnel before release to the market.</li> <li>No adjustments are made to the raw assay data. Data is imported directly to Datashed in raw original format.</li> <li>All data are validated using the QAQCR validation tool with Datashed. Visual validations are then carried out by senior staff members.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>All drill hole collars were located with a handheld GPS with an accuracy of +/-5m. At the completion of the drilling program all holes were surveyed by DGPS.</li> <li>Downhole surveys (2020 RC) were taken at 30m intervals using a Reflex single shot camera. The camera records azimuth and dip of hole.</li> <li>Downhole surveys for the 2021 diamond drilling were taken at 6-12m intervals by solid state gyro to maintain strong control of drill direction</li> <li>Survey co-ordinates: GDA94 MGA Zone 53.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Data spacing and distribution used to determine geological continuity is dependent on the deposit type and style under consideration. Where a mineral resource is estimated, the appropriate data spacing, and density is decided and reported by the competent person.</li> <li>For mineral resource estimations, grades are estimated on composited assay data. The composite length is chosen based on the statistical average, usually 1m. Sample compositing is never applied to interval calculations reported to market. A sample length weighted interval is calculated as per industry best practice.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have</li> </ul>	<ul> <li>Orientation of sampling is as unbiased as possible based on the dominating mineralised structures and interpretation of the deposit geometry.</li> <li>If structure and geometry is not well understood, sampling is orientated to be</li> </ul>



Criteria	JORC Code explanation	Commentary
	introduced a sampling bias, this should be assessed and reported if material.	perpendicular to the general strike of stratigraphy and/or regional structure.
Sample security	• The measures taken to ensure sample security.	<ul> <li>All samples remain in the custody of company geologists and are fully supervised from point of field collection to laboratory drop-off.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	None yet undertaken for this dataset

# JORC 2012 Edition - Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The Company controls two contiguous Exploration Licences, EL 28620 and EL30701 located east of Tennant Creek. All tenure is in good standing at the time of reporting. There are no known impediments with respect to obtaining a licence to operate in the area.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Several other parties have undertaken exploration in the area between the 1930s through to the present day including Posgold, Meteoric Resources and Blaze Resources.</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>The Barkly Project covers sediments of the Lower Proterozoic Warramunga Group that hosts all of the copper-gold mines and prospects in the Tennant Creek region. At the Bluebird prospect copper-gold mineralisation is hosted by an ironstone unit within a west-northwest striking fault. The ironstone cross cuts the sedimentary sequence that mostly comprises of siltstone.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>For drilling details of the 2020 RC drilling program refer to Appendix 1 of the ASX announcement of 18 March 2020 by Blina Minerals (ASX: BDI): "High-Grade Copper and Gold Intersected in Drilling program at Bluebird"</li> <li>For drilling details of the 2014 Diamond and RC programs refer to Appendix 1 of the ASX announcement of 24 September 2019 by Blina Minerals (ASX: BDI): "Strategic Acquisition of High-Grade Gold-Copper Project".</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.</li> </ul>	<ul> <li>All exploration results are reported by a length weighted average. This ensures that short lengths of high-grade material receive less weighting than longer lengths of low- grade material.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>No high-grade cut-offs are applied</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').</li> </ul>	<ul> <li>Mineralisation at Bluebird is interpreted to be striking east-west true azimuth with a dip of 70-80 degrees towards 180 degrees true azimuth.</li> <li>All holes are drilled as perpendicular as practical to the orientation of the mineralised unit and structure. Intersection lengths are interpreted to be close to true thickness.</li> </ul>
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	<ul> <li>Refer to Figures 1, 2, and 3 for appropriate sections though the Bluebird mineralisation including pierce point locations, and Figures 4 and 6, plan view and location of the Bluebird prospect respectively.</li> </ul>
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.	<ul> <li>All background information is discussed in the announcement.</li> <li>Full drill results for copper and gold assays for previous drilling are shown in Appendix 1 of the ASX announcement of 18 March 2020, "High-Grade Copper and Gold Intersected in Drilling program at Bluebird".</li> </ul>
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>No other data is material to this report.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Additional drilling is planned to extend mineralisation along strike and in particular to the west from BBDD011.</li> <li>Regional targeting including modelling of gravity and magnetics will be carried out to drill target repeats of the high-grade Bluebird copper gold shoot within the 5km Bluebird Corridor.</li> </ul>