

# **ASX ANNOUNCEMENT**

15 May 2024

Australian Gold and Copper Ltd ACN 633 936 526



## **Achilles Delivers Outstanding Gold and Silver Results**

5 metres at 16.9g/t gold, 1,473g/t silver\* & 15.0% lead+zinc

Max. grades of 45.0g/t gold, +3,000g/t silver\* & 38.8% lead+zinc

Australian Gold and Copper Ltd (ASX: AGC) ("AGC" or the "Company") is pleased to announce that the follow-up drilling program comprising nine reverse circulation (RC) holes for 1,461 metres has now been completed at Achilles.

This drill program covered over half a kilometre of strike and has extended mineralisation beyond the discovery holes recently reported<sup>1</sup> (Figures 1 to 4).

Laboratory analyses from the first holes drilled were expedited, with results extending and significantly upgrading high-grade gold-silver-base metal mineralisation down dip and along strike.

### **Assay Results**

A3RC030 tested to the east and down dip of previously reported results from A3RC028 and A3RC020, returning:

- 5m at 16.9g/t Au, 1,473g/t Ag\* & 15.0% Pb+Zn from 112m
- and 3m at 19g/t Ag & 19.5% Pb+Zn from 139m
- within a mineralised 43m zone of 2.2g/t Au, 196g/t Ag\* & 3.6% Pb+Zn from 99m
- Zone reaches maximum grades of 45.0g/t gold, at least 3,000g/t silver and 38.8% Pb+Zn (Figure 1)

A3RC032 also intersected exceptional grades down dip from A3RC027, with drilling difficulties resulting in the hole ending in mineralisation:

- 8m at 1.0g/t Au, 520g/t Ag, 0.6% Cu & 6.2% Pb+Zn from 131m to end of hole
- including 3m at 1.2g/t Au, 1,237g/t Ag, 1.3% Cu & 13.9% Pb+Zn from 133m, with maximum grades of 2.7g/t gold and 2,590g/t silver

A3RC031 stepped northward 70 metres from A3RC028 and returned:

• 4m at 0.17g/t Au\*\*, 545g/t Ag, 0.2% Cu, 2.9% Pb+Zn from 123m and occurs within a broad lower grade interval.



#### **Silver Results**

Drill hole A3RC030 returned intercepts for silver that triggered overgrade levels higher than 3,000g/t, which is greater than the laboratory can analyse in Australia. These intercepts have been calculated using 3,000g/t Ag for the 115-116 metre interval. This sample is being sent to Canada for gravimetric analysis and the final results for silver will be reported once received.

### **Future Exploration**

Given these very strong results, assays for the six holes pending (A3RC033-38) have also been expedited and are expected in the coming weeks.

The overall mineralised body is interpreted to dip moderately to the east and remains completely open at depth and along strike. The geometry of the high-grade zones within the broader mineralisation are still unknown but are likely vertical, en-echelon shaped, shear related opening structures.

AGC's exploration team are currently designing and permitting the next phase of exploration for Achilles that is likely to include continued RC drilling along strike and deeper diamond drilling to test the currently defined high grade mineralisation, along with further drilling at three additional targets at Achilles.

AGC Managing Director, Glen Diemar said "Achilles is producing some exceptional grades in the drill bit. The first six holes have produced grades including combined lead and zinc to 38%, gold to 45g/t and silver above 3,000g/t. This silver result is so high grade the laboratory is sending the sample to Canada for further analysis, which is a rare occurrence."

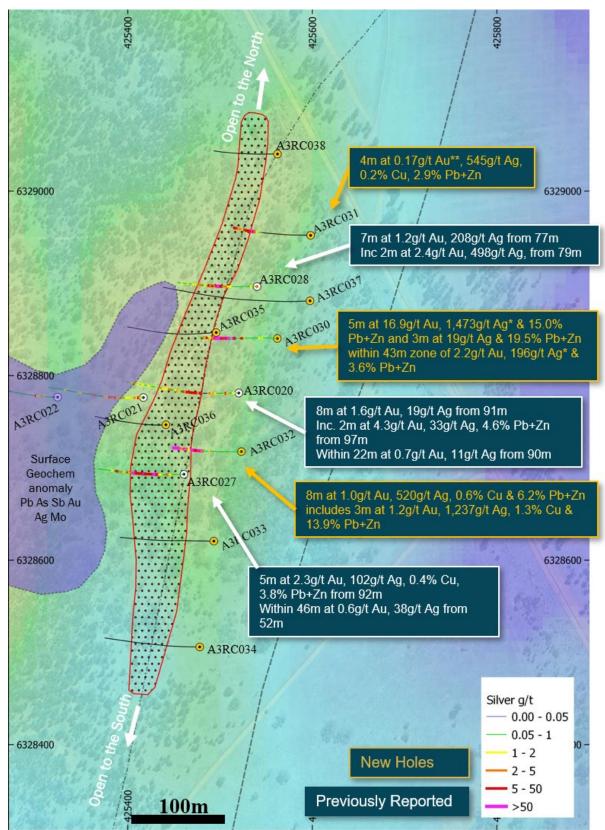
"We are extremely happy with how Achilles is taking shape. With drilling now spread across more than half a kilometre of strike we are excited to see how big this can get. I look forward to the results of the next six holes and can already see that Achilles has a prominent future within the Cobar Basin."





**Figure 1:** A3RCO30 photo of massive sulphide from 115-116m, comprising the zinc mineral sphalerite (brown) and lead mineral galena (grey). This exceptionally high-grade interval yielded 13.8g/t gold, at least 3,000g/t silver, 11.4% lead and 27.4% zinc.





**Figure 2:** Achilles plan map showing previously reported drilling<sup>1</sup> (white collars) and new drill holes completed as a part of the follow-up program (orange collars).



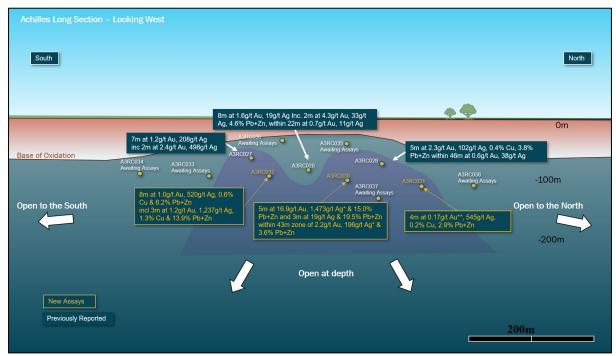


Figure 3: Schematic long section of the mineralised zone at Achilles showing recent results.

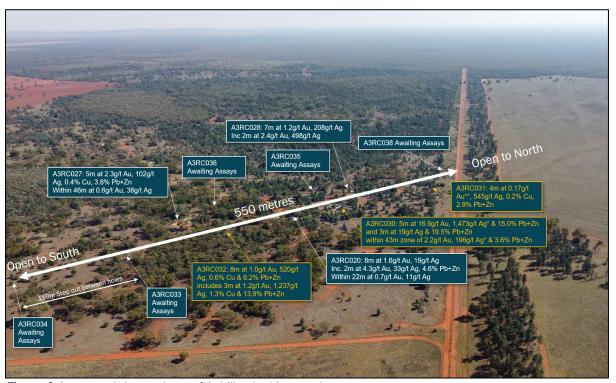


Figure 4: Annotated drone photo of Achilles looking northwest.



Table 1: Achilles RC drill hole details (GDA94).

Hole ID	Туре	Depth (m)	East	North	RL	Dip	Az	Swing (°/100m)	Lift (°/100m)
A3RC030	RC	150	425562	6328840	163	-60	270	1.5	6.8
A3RC031	RC	160	425598	6328952	166	-60	270	6	5.1
A3RC032	RC	139	425523	6328718	169	-60	270	5.6	12.1
A3RC033	RC	180	425493	6328621	171	-60	270	2.3	8.6
A3RC034	RC	186	425478	6328506	169	-60	270	0.7	13.1
A3RC035	RC	148	425496	6328847	165	-60	267	9.2	17.8
A3RC036	RC	120	425441	6328747	171	-60	265	16.3	19.8
A3RC037	RC	252	425598	6328881	154	-60	267	5.3	8.8
A3RC038	RC	126	425562	6329040	171	-60	270	6.3	9.2

**Table 2:** Significant intersections for Achilles holes A3RCO30, A3RCO31 and A3RCO32. Intervals represent down hole widths; true widths are currently unknown. Minimum cut off of 0.2g/t Au or 20g/t Ag or 0.5% Pb+Zn with internal dilution up to 4m.

Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Zn+Pb (%)	Comments
A3RC030	99	142	43	2.2	196	0.1	1.1	2.5	3.6	*115-116m >3,000g/t Ag final result
incl	112	117	5	16.9	1,473	0.4	4.4	10.6	15.0	pending
and	139	142	3	0.1	19	0.3	5.9	13.6	19.6	Pb+Zn interval
A3RC031	122	133	11	0.3	209	0.2	0.9	1.7	2.6	**pending one gold analysis 123-124m
	123	127	4	0.4	545	0.2	1.0	1.8	2.9	**pending one gold analysis 123-124m
A3RC032	88	108	20	0.3	66	0.0	0.1	0.1	0.1	
incl	88	95	7	0.5	93	0.0	0.1	0.1	0.2	
and	103	108	5	0.2	97	0.0	0.0	0.1	0.2	
	119	122	3	0.9	116	0.0	0.3	0.5	0.7	
	131	139	8	1.0	521	0.6	1.9	4.3	6.2	Mineralised to end of hole
incl	133	136	3	1.2	1,237	1.3	4.2	9.6	13.9	

<sup>\*</sup>Drill hole A3RC030 returned intercepts for silver that triggered overgrade levels higher than 3,000g/t, which is greater than the laboratory can analyse in Australia. These intercepts have been calculated using 3,000g/t Ag for the 115-116 metre interval. This sample is being sent to Canada for gravimetric analysis and the final results for silver will be reported once received.

<sup>\*\*</sup>A3RCO31 at time of reporting has one gold analysis pending for 123-124m. The significant intervals for A3RCO31 were calculated with 123-124m as 0.0g/t Au. A3RCO31 is being released due to the significance of the silver results.



#### References

<sup>1</sup>AGC ASX 23 April 2024, New discoveries at Hilltop and Achilles

This announcement has been approved for release by the Board of AGC.

#### **ENDS**

For enquires:
Glen Diemar
Managing Director
Australian Gold and Copper Limited
+61 434 827 965
gdiemar@austgoldcopper.com.au
www.austgoldcopper.com.au

#### **Forward-Looking Statements**

This announcement contains "forward-looking statements." All statements other than those of historical facts included in this announcement are forward-looking statements. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and based upon information currently available to the company and believed to have a reasonable basis. Although the company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and no assurance can be given that these expectations will prove to be correct as actual results or developments may differ materially from those projected in the forward-looking statements. Forward-looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include, but are not limited to, copper, gold, and other metals price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, as well as political and operational risks and governmental regulation and judicial outcomes. Readers are cautioned not to place undue reliance on forward-looking statements due to the inherent uncertainty thereof. The forwardlooking statements contain in this press release are made as of the date of this press release and except as may otherwise be required pursuant to applicable laws, the Company does not undertake any obligation to release publicly any revisions to any "forward-looking statement".

#### **Competent Persons Statement**

The information in this document that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Glen Diemar who is a member of the Australian Institute of Geoscientists. Mr Diemar is a full-time employee of Australian Gold and Copper Limited, and is a shareholder, however Mr Diemar believes this shareholding does not create a conflict of interest, and Mr Diemar 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 for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Diemar consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.

#### **Previously Reported Information**

The information in this report that references previously reported exploration results is extracted from the Company's ASX IPO Prospectus released on the date noted in the body of the text where that reference appears. The ASX IPO Prospectus is available to view on the Company's website or on the ASX website (www.asx.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

## Appendix 1 – JORC Code, 2012 Edition – Table 1

## Section 1 Sampling Techniques and Data: South Cobar Project, Achilles RC drilling

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg 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.	RC drilling and sampling was undertaken by Durock Drilling Pty Ltd. RC drilling is considered the correct method of sampling for early stage, near surface, exploration target testing. 1m samples were collected via reverse circulation (RC) drilling using a cyclone splitter. Samples were mostly dry however below about 80m water was intercepted and has the potential to affect sample quality.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Sampling and QAQC procedures were developed and carried out by AGC staff. Standards and duplicates were inserted every 50 meters  Drilling is angled perpendicular to strike of mineralisation as much as possible to ensure a representative sampling.
	Aspects of the determination of mineralisation that are Material to the Public Report.  In cases where 'industry standard' work has been done this would be relatively simple (eg '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 types (eg submarine nodules) may warrant disclosure of detailed information.	Mineralisation in RC drill chips were geologically logged, magnetic susceptibility and pXRF reading taken on site.  Reverse circulation drilling was used to obtain 1 m samples from which 1-5kg was pulverised to produce a 50 g charge for fire assay AA-24/AA-26 and four acid ICP analysis, ME-MS61 by ALS Perth Laboratory.
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).	Reverse circulation (RC) hammer drilling, using a truck mounted UDR1000 or a track mounted UDR1200. 3 ½ inch tube.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Sample weights were recorded on site using digital scales for each calico sample. Recoveries were generally good however wet recorded poorer recoveries. The sample weights were recorded more for sample security rather than recoveries. If weighing for recoveries, the full sample in the main bulk bag would have to be weighed then compared to the calico weight however AGC did not have the man power to do this task on this program.

Criteria	JORC Code explanation	Commentary		
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	RC Sample sizes were monitored and the cyclone was regularly agitated to reduce the potential for sample contamination. In most holes, surveys were only completed at the end of the hole in order to keep the hole clean and dry while drilling.		
	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.	The relationship between sample grade and recovery has not been assessed. It is possible that drilling technical issues did lead to minor bias however this cannot be determined at this stage. For example, some holes were terminated in mineralisation due to drilling conditions, A3RC032		
Logging	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.	RC chip samples were geologically logged for lithology, mineralisation, veining and alteration. Structure could not be logged.		
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging was generally qualitative except for % sulphides. Photographs taken of chip trays and stored for future reference. Logs were later compared to pXRF readings.		
	The total length and percentage of the relevant intersections logged.	All samples were geologically logged.		
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable as RC do not produce core.		
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC samples were collected via a cyclone cone splitter on the rig.		
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	RC cyclone cone splitters are considered the most appropriate method. Mag sus and pXRF was recorded on site directly into the calico sample bag as this was the most homogenous sample. The calico bag 1-5kg was sent to lab for pulverizing and analysis which is the most appropriate method.		
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Duplicates and certified standard reference materials by OREAS were sampled approximately every 50m. ALS also conduct internal checks every 20m.		
	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.	Duplicates were sampled approximately every 50m and this is considered appropriate for greenfields drilling.  Vanta VMW pXRF also used as a first pass test and these results are compared with lab results.		
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The samples sizes average 3kg per meter and are considered appropriate for the fine grain nature of the volcanic and sedimentary material being sampled.		

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Four acid digest is considered a near total digest for most minerals. Induced coupled plasma ICP produces ultra low detection analysis and is considered the most appropriate method for exploration sampling.
	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.	Magnetic susceptibility was recorded from the calico bag for each meter by a Terraplus KT-10 magnetic susceptibility meter.  Vanta VMW pXRF also used as a first pass test and these results are compared with lab results.
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	Appropriate standards and duplicates were inserted into the sample stream. Magnetic susceptibility readings were taken in isolation away from any other material. Acceptable levels of accuracy for the magsus readings were established and readings were consistent or repeated if not.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	The significant intersections were calculated by numerous company personal as a secondary check and compiled by the competent person.  *Drill hole A3RC030 returned intercepts for silver that triggered overgrade levels higher than 3,000g/t, which is greater than the laboratory can analyse in Australia. These intercepts have been calculated using 3,000g/t Ag for the 115-116 metre interval. This sample is being sent to Canada for gravimetric analysis and the final results for silver will be reported once received.  **A3RC031 at time of reporting has one gold analysis pending for 123-124m. The significant intervals for A3RC031 were calculated with 123-124m as 0.0g/t Au. A3RC031 is being released due to the perceived significance of the silver results.
	The use of twinned holes.	Twinned holes were not completed in these programs.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Data was recorded onto a handheld device and downloaded into a field laptop. Logging and weights data was completed directly into a field computer on the rig. Visual validation as well as numerical validation was completed by two or more geologists.
	Discuss any adjustment to assay data.	No adjustments made to the data.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	A handheld Garmin GPS map was used to pick up collars with an averaged waypoint accuracy of 1m.

Criteria	JORC Code explanation	Commentary
	Specification of the grid system used.	Coordinates picked up using WGS84 and transformed into Map Grid of Australia 1994 Zone 55.
	Quality and adequacy of topographic control.	Using government data topography and 2017 DTM data
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drill holes were preferentially located to most prospective areas to test along strike and down dip.
	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.	RC drilling was a second pass drill program and variable spacing to best test the targets. Step outs were between 60 m to 110m and in a dice five pattern to enhance drill coverage and best start modelling geology and grade. Further drilling would be warranted to be sufficient for a resource estimate.
	Whether sample compositing has been applied.	No, one metre sampling only.
Orientation of data in relation to geological	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The orientation of sampling was designed perpendicular to strike and dip as much as possible to achieve relatively unbiased sampling.
structure	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Drilling dipped at 60° towards 270° and the targeted horizon dips between 30 to 60° to the east. Holes were designed to intercept perpendicular to mineralisation to best gain near true widths.
Sample security	The measures taken to ensure sample security.	Calicos were weighed on site during the logging and sampling process. These weights are compared with the laboratory weights as a method to check sample security and integrity. No issues arose that were not resolved. Samples are picked up by a courier.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or review are warranted at this stage

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary			
Mineral tenement and land tenure status	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.	EL8968 Cargelligo licence is located 20km north of Lake Cargelligo NSW. The tenement is held by Australian Gold and Copper Ltd. Ground activity and security of tenure are governed by the NSW State government via the Mining Act 1992.  Land access was granted.			

Criteria	JORC Code explanation	Commentary
	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.	
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The RC drilling was planned by Australian Gold and Copper exploration staff and drilling contractor Durock Drilling.  Previous to AGC, private explorer New South Resources developed the more recent concepts of the targets and ground truthed by compiling the quality work completed by previous explorers Thomson Resources and WPG Resources, Santa Fe Mining and EZ. WPG/Santa Fe deserve a special mention as the quality of their work, in particular Gary Jones, had significantly expedited the Achilles targets.
Geology	Deposit type, geological setting and style of mineralisation.	See body of report.
Drill hole Information	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:  • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length.	See table 1 in the body of the article
	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.	All info was included as well as the average swing and lift of the surveys. True width of mineralisation was not estimated due to insufficient data to calculate.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.	Intervals represent down hole widths; true widths are currently unknown. Minimum cut off of 0.2g/t Au or 20g/t Ag or 0.5% Pb+Zn with internal dilution up to 4m.  The higher grade intercepts are reported with higher cut off grades only to demonstrate the effect of the high grade zones across the lower grade intervals.
	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.	High grade intervals are only reported where they differ significantly to the overall interval. Reporting of the shorter intercepts allows a more thorough understanding of the overall grade distribution.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents were reported although the addition of reporting a gold equivalent would make for easier reading and understanding, but this is not allowed at such an early stage of exploration confidence.

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and	These relationships are particularly important in the reporting of Exploration Results.	Geological mapping suggests a dip of 60 degrees to the east. Drilling dipped at 60° towards 270° and the targeted horizon dips at around 60° to the east. Holes were designed to intercept perpendicular to mineralisation to best gain near true widths.
intercept lengths	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Drilling dipped at 60° towards 270° and the targeted horizon dips at 40° to the east. True width approximately equal to the low grade intercept width however true widths are not reported given the low density of drilling to date and the uncertain nature of the high grade zones.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	Table 2 in body of report states down hole widths, true widths not calculated.
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.	See figures in body of report
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 to avoid misleading reporting of Exploration Results.	See body of report and previous releases on Achilles
Other substantive exploration data	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.	The geological results are discussed in the body of the report.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	See body of report.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	See figures and text in body of report.