

Emerging Copper Search Space

Deep diamond hole defines new copper search space west of Achilles

- Assay results received for the remaining hole of the recent diamond program, which targeted a large IP geophysics anomaly 600m west of the Achille deposit
- Broad zone of low-grade copper-zinc mineralisation was intercepted in an interpreted structural trap, with copper to 0.42% and zinc to 1.6%
- The copper mineralisation is not spatially associated with the Achilles silvergold-base metal deposit and represents a new copper-dominant search space on the west side of the Achilles shear
- Additional copper targets have been identified as large magnetic high aureoles coincident with IP chargeability anomalies along strike of A3DD006
- A helicopter-borne EM survey has commenced to test for additional mineralisation along the Achilles Shear Zone
- Scheduled restart of drilling at Achilles to commence next week

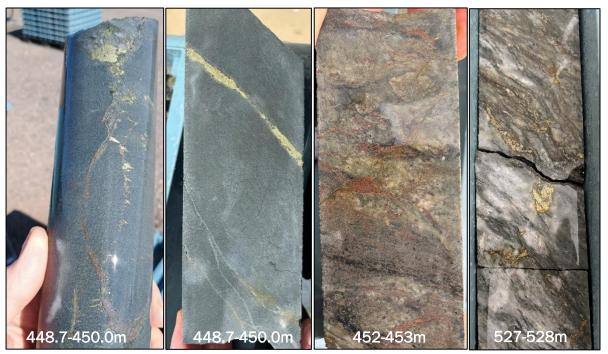


Figure 1: Copper and zinc mineralisation in A3DD006 highlighting stringer and bleb style chalcopyrite (yellow) and sphalerite (brown) in both sediments and volcanics.





Figure 2: Core photographs of the blebby copper-bearing chalcopyrite (yellow) and pyrite/pyrrohtite (bronze) from interval 511-512m that graded 0.4% Cu.

Australian Gold and Copper Ltd (ASX: AGC) ("AGC" or the "Company") is pleased to announce the results from the final hole (A3DD006) of a recent ten-hole diamond drilling program in the Achilles region of the South Cobar Project.

A3DD006 was designed to test a large IP chargeability feature on the western margin of the Achilles Shear Zone, located 600m west of the Achilles deposit (Figures 1-4).

New Copper Trend Emerges

A new area hosting encouraging copper grades was originally defined earlier in 2024 within hole A3RC047, completed 600m northwest of the Achilles deposit (ASX AGC 17 October 2024). A sphalerite zone was recognised with peak zinc grades of 4.2% at 102m above a broad chalcopyrite (copper) zone deeper in the hole, with peak grades of 0.95% copper at 187m.

A3RC047: 4m at 0.2% Cu, 3.0% Pb+Zn from 101m



and 23m at 0.3% Cu from 172m, including 2m at 0.8% Cu from 187m

A3DD006 returned similar broad low-grade zinc and patchy copper mineralisation and intense alteration, hosted in an interpreted structural trap, with peak copper grades to 0.42% and peak zinc grades to 1.6%. Pyrite averaging 2% was recorded over the final 200m of the hole, confirming the effectiveness of the IP geophysics technique.

This target is not spatially associated with the Achilles silver gold base-metal deposit and hence represents a new copper-dominant search space.

AGC Managing Director, Glen Diemar said "As Explorationists, we are always looking for clues in which to leverage our data. We appreciate the grades in this hole are not particularly high, however we are encouraged this new zone is anomalous in pathfinder element bismuth and is well away from any previously known mineralisation. The mineralisation is within the deformed fabric of volcanics and sediments, which is highly significant within the formation of the Cobar Basin mineral systems models."

"The orientation of the wispy copper veins hosted with magnetic pyrrohite is significant because immediately along strike are two very large magnetic anomalies that have the hallmarks of a Cobar-style mineral system"

"With drilling recommencing next week, we are all very excited to grow Achilles further in 2025".

New Western Copper Targets Defined by Geophysics and Geochemistry

A recent drone survey has highlighted two large magnetic high aureoles along strike of A3RC047 and A3DD006 (ASX AGC 23 Dec 2024). These magnetic features are coincident with IP chargeability anomalies caused by sulphide minerals such as pyrite and pyrrohtite. Pyrrohtite is magnetic and is associated with chalcopyrite veining in A3DD006. The two large IP and magnetic-coincident targets in Figure 5 represent a significant copper target.

A helicopter-borne EM survey is currently underway and will test this copper target and others along the Achilles Shear Zone.

The EM survey is corresponding with a scheduled re-start to drilling activities in the Achilles region, with multiple target to be tested in the coming months.

Drill hole details and significant intersections for the recent drilling are given in Tables 1 & 2 and maps with drill hole locations and names are highlighted in Figures 3-7.



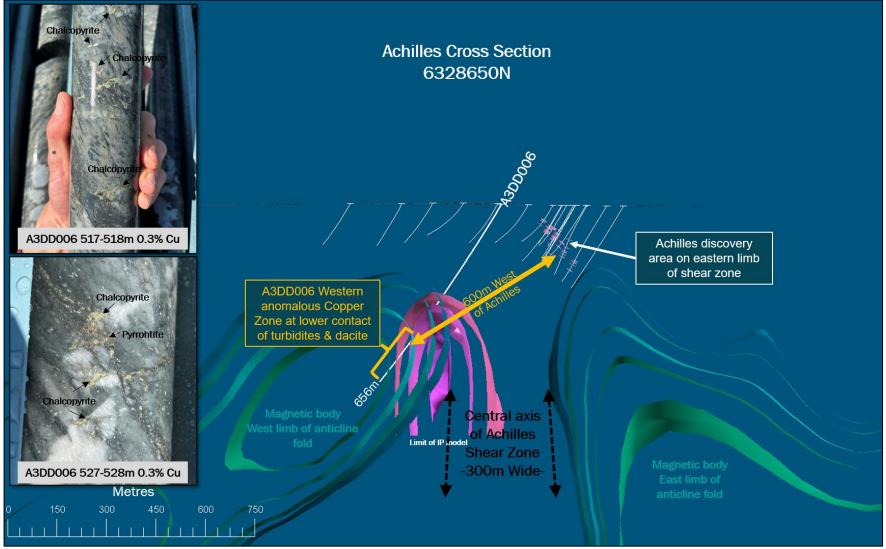


Figure 3: Achilles 3D cross section through A3DD006 showing location of anomalous copper zone relative to the IP chargeability feature (pink) and the Achilles deposit on the eastern side.



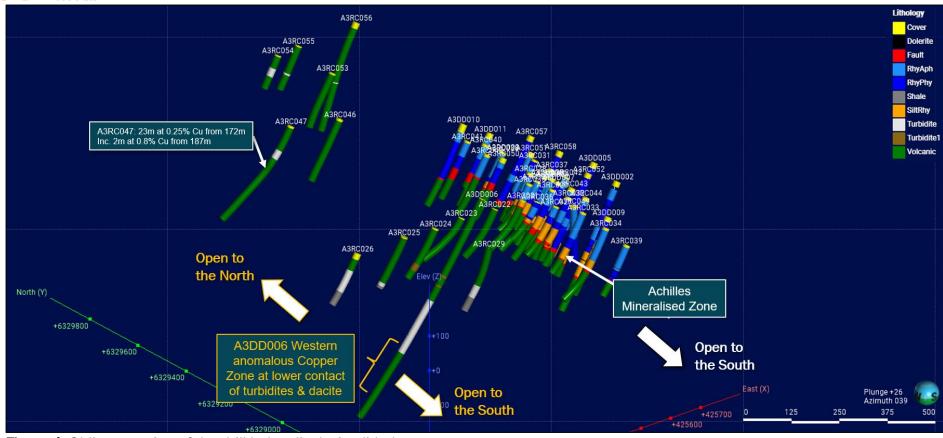


Figure 4: Oblique section of the drill holes displaying lithology.



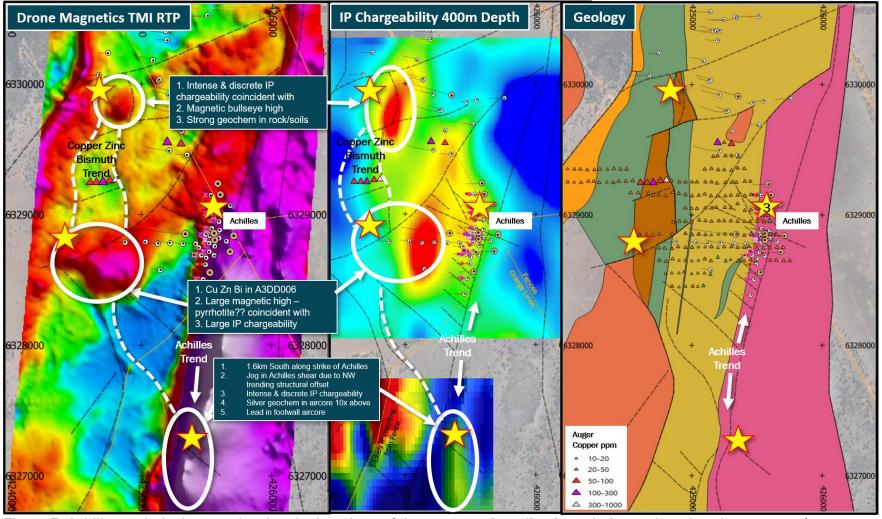


Figure 5: Achilles technical maps showing the locations of the current mineralisation relative to the other three targets1.



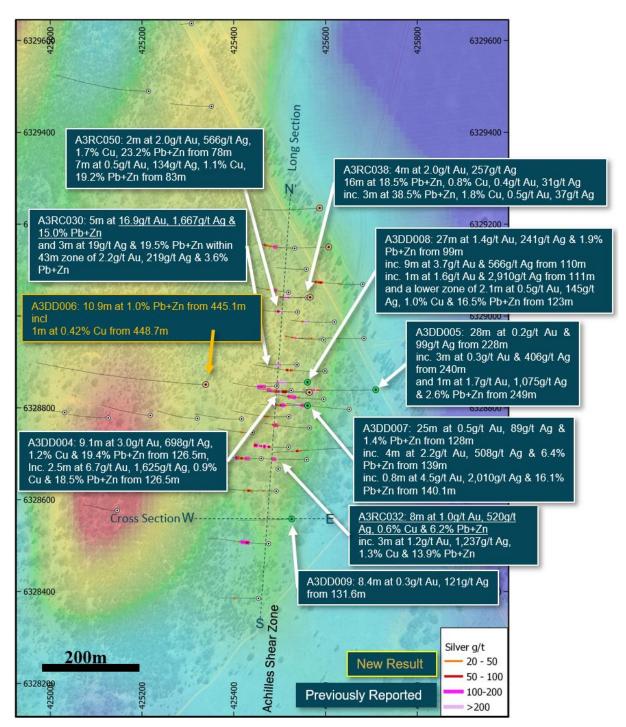


Figure 6: Achilles plan map showing new holes and assay results, along with selected previous results with background IP chargeability depth slice at -400m.



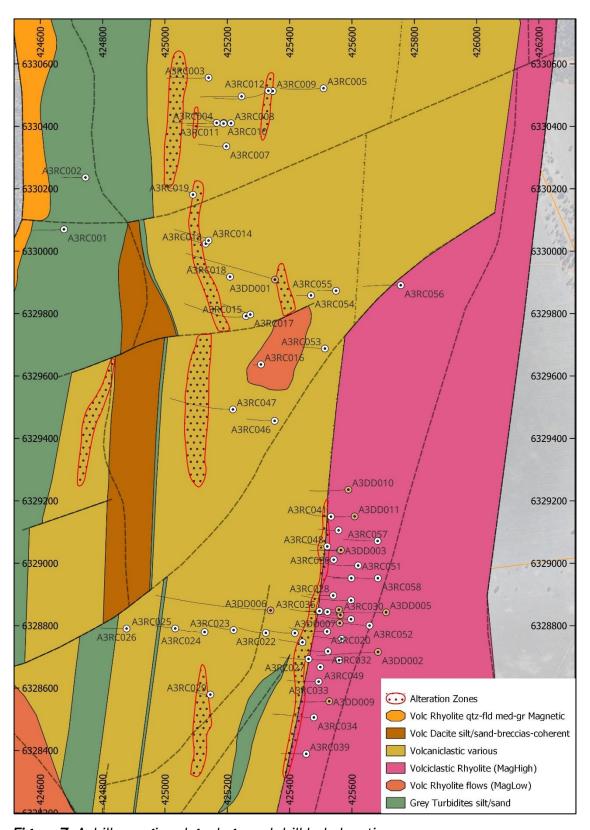


Figure 7: Achilles regional geology and drill hole locations.



Table 1: Details for the diamond drill hole at Achilles reported in this release (GDA94).

I	Hole ID	Туре	Depth (m)	East	North	RL	Dip	Az
	A3DD006	DD	656.2	425339	6328851	161	-60	270

Table 2: Significant intersections for the new diamond hole reported in this release. Intervals represent down hole widths; true widths are currently unknown. Minimum cut off of 0.1% Cu or 0.5% Pb+Zn with internal dilution up to 4m, which is a lower cut off than used for the Achilles deposit.

Hole ID	Interval (m)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Zn+Pb (%)	From (m)
A3DD006	21.7	0.0	2	0.08	0.0	0.8	0.9	445.1
Incl	10.9	0.0	2	0.11	0.0	0.9	1.0	445.1
Incl	1.3	0.0	3	0.42	0.0	0.2	0.2	448.7
	1.2	0.0	0	0.06	0.0	0.9	0.9	470
	4	0.0	0	0.04	0.0	0.5	0.5	491
	1	0.0	0	0.11	0.0	0.5	0.5	498
	1	0.0	1	0.39	0.0	0.1	0.1	511
	1	0.0	0	0.29	0.0	0.0	0.0	517
	1	0.0	0	0.31	0.0	0.0	0.0	527
	1	0.0	0	0.11	0.0	0.4	0.4	569
	1	0.0	1	0.03	0.2	0.3	0.5	652

^{*}may not sum due to rounding

References relating to this release

AGC ASX Prospectus lodged 18th November 2020 and appendixes within

AGC ASX 3 May 2021 Strong base-metal sulphide zone above large EM conductor at Achilles

AGC ASX 23 April 2024, New discoveries at Achilles and Hilltop

AGC ASX 15 May 2024, Achilles delivers outstanding gold and silver results

AGC ASX 16 May 2024, Achilles additional gold result from hole A3RC031

AGC ASX 4 June 2024, Achilles final silver result from hole A3RC030

AGC ASX 17 June 2024, Achilles returns widest high-grade zone to date

AGC ASX 10 July 2024, Extensive exploration campaign underway at Achilles

AGC ASX 5 August 2024 Achilles interim exploration update

AGC ASX 17 October 2024 High grade silver-gold-base-metal mineralisation at Achilles

AGC ASX 13 November 2024 First core drilling confirms high-grades at Achilles

AGC ASX 18 December 2024 Achilles Returns up to 2.9 kilograms per tonne Silver

AGC ASX 23 December 2024 High resolution drone geophysics survey highlights significant new exploration potential

AGC ASX 29 January 2025 Strong silver results extend Achilles strike length

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



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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 forward-looking 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



Appendix I – JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data: South Cobar Project, Achilles DD 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.	Achilles was drilled with diamond drilling techniques. Core sizes were PQ core (diameter: 85 mm) to fresh rock and then HQ core (diameter: 63.5mm) to end of hole (EOH). AGC used a reputable drilling contractor; Ophir Drilling ('Ophir') with a suitable rig. Diamond drill core provide a high-quality sample that are logged for lithological, structural, geotechnical, and other attributes. Sub-sampling of the core is carried out as per industry best practice.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	The drill collar locations were surveyed by a registered surveyor on a DGPS, which has an accuracy of 10mm.
		The HQ drill core was orientated using suitable core orientation tool by the drilling contractor with AGC staff supervision. These orientations are extended onto the remainder of the core and meter marks for logging. The visible structural features (veins, bedding, foliation, faults) are measured against the core orientation marks.
		Core recoveries are systematically recorded and are close to 98% for the current core drilling to date. All core drilled is oriented to the bottom of hole using a Reflex orientation tool. Cutting of core is systematically aligned to the orientation line to avoid bias in 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.	The drill core was logged and cut in Orange by AGC contractors and staff, and samples were transported to ALS Laboratory in Adelaide for assaying. Nominal 1m sample lengths were used except for minor variations due to geological or mineralisation boundaries. Samples will be crushed to 6mm and then pulverized to 90% passing -75 microns. A 50g split of the sample is fired assayed for gold. The lower detection limit for gold is 0.005 ppm, which is believed to be an appropriate detection level. ALS method ME-ICP61 (48 elements) is completed on the pulps to assist with lithogeochemistry and pathfinder analysis. Assay standards, blanks and duplicates are analysed as part of the standard laboratory analytical procedures. Company standards are also introduced into the sampling stream at a nominal ratio of 1 standard for every 25 samples.
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).	Diamond drilling (DD) using industry standard techniques. Drill collar was completed by PQ and then HQ core. A reputable contractor was used. Core orientation completed using a REFLEX tool.



Criteria	JORC Code explanation	Commentary		
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Diamond drill core recoveries were recorded during drilling and reconciled during the core processing and geological logging. Core was generally competent with some zones of broken core. There was some drill core lost during drilling in the faulted zones. See Figure 1. The core loss zones were recorded as no grade.		
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Diamond drill core is measured and marked after each drill run using blocks calibrating depth. Adjusting rig procedures as necessary including drilling rate, run length and fluid pressure to maintain sample integrity.		
	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.	No detailed analysis to determine relationship between sample recovery and gold or base metal grade has been undertaken for this diamond drilling		
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.	 Systematic geological and geotechnical logging was undertaken. Data collected includes: Nature and extent of lithologies and alteration. Relationship between lithologies. Amount and mode of occurrence of minerals such as pyrite and chalcopyrite. Location, extent and nature of structures such as bedding, cleavage, veins, faults etc. Structural data (alpha & beta) are recorded for orientated core. Geotechnical data such as recovery, RQD, fracture frequency. Magnetic susceptibility recorded at 1m intervals 		
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Depending on the input being logged, drill core is logged as both qualitative (discretional) and quantitative (volume percent). Core is photographed dry and wet.		
	The total length and percentage of the relevant intersections logged.	The entire hole is all geologically logged (100%).		
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Core was cut using an automatic core saw. All samples are collected from the same side of drill core. The full interval of half-core sample is submitted for assay analysis, except PQ where ¼ core was taken. Where core was incompetent due to being transported cover or weathered or broken rock, representative samples were collected along the axis of the core. This information is recorded in the cut-sheet and stored in the database.		
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Not applicable – core drilling		
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Drill core is cut in half along the length and the total half core submitted as the sample. This procedure meets industry standards where 50% of the total sample taken from the diamond core is submitted. All intervals were submitted for assaying. Sample weights are recorded by the lab. If core is broken, then a representative selection of half the core is taken.		



Criteria	JORC Code explanation	Commentary		
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	No sub-sampling is completed by AGC. All sub-sampling of the prepared core is completed by the laboratory.		
material collected, including for instance results for field duplicate/second- vie half sampling.		The retention of the remaining half-core is an important control as it allows assay values to be viewed against the actual geology; and, where required, further samples may be submitted for quality assurance or petrography. No resampling of quarter core or duplicated samples have been completed at the project.		
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are appropriate to correctly represent the mineralization based on style of mineralisation.		
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.	4-acid digests was completed by ALS. This method is considered nearly total digest at the detection limits and for the elements reported (ALS method: ME-MS61, 48 element four-acid digest). Gold by 50g fire assay (Au – AA24)		
	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 on the core for each meter by a Terraplus KT-10 magnetic susceptibility meter.		
	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.	Laboratory QAQC involves use of internal lab standards using certified reference material, blanks, splits and replicates as part of their procedures. AGC submitted independent standards inserted approximately every 25 samples.		
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Data is loaded into an industry-standard database and intercepts calculated. Assay data and intercepts are cross checked internally by company geologists and against core photos and logs. Significant intersections are calculated in excel and cross-checked by a second geologist.		
	The use of twinned holes.	Twin holes were drilled, A3RC030 was twinned with A3DD004 diamond hole. A3RC038 was twinned with A3DD003. These were completed to provide detailed structural, mineralogical and grade variation details for these zones, along with density measurements for tonnes and grade calculations and to adopt the RC drilling assay data into a resource.		
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All data and logging recorded directly into field laptops. Visual validation as well as numerical validation was completed by two or more geologists. Data plotted using QGIS and Leapfrog software against detailed aerial photography to ensure accuracy of the survey data. Data was verified by the site geologist. Data stored in cloud and backups (soft copy) are employed both on and off site. All data is stored on off-site industry standard database.		



CODDED			
Criteria	JORC Code explanation	Commentary	
	Discuss any adjustment to assay data.	No adjustments made	
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.	The drill collar locations were surveyed by a registered surveyor on a DGPS, which has an accuracy of 10mm. Down hole surveys were collected every 6m on completion of hole using a north-seeking gyro.	
	Specification of the grid system used.	Coordinates picked up using coordinate system 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.	
	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.	Yes, the data spacing is thought to be sufficient enough to eventually form a first pass resource.	
	Whether sample compositing has been applied.	No sample compositing has been applied for drilling results.	
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The angled drill holes were directed as best as reasonably possible directly across the known lithological and interpreted mineralisation orientation. The orientation of drilling was designed to achieve relatively unbiased sampling.	
	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 Az west 260-280° and the targeted horizon dips at 60° to the east. Holes were designed to intercept perpendicular to geological units and mineralisation to best gain near true widths.	
Sample security	The measures taken to ensure sample security.	Core is held at remote location or when being processed, is stored in secure storage.	
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 is located 20km north west 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 is Freehold and access was granted.
	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.	Previous to AGC, private explorer New South Resources developed the concepts of the targets and ground truthed by compiling quality work completed by previous explorers Thomson Resources and WPG Resources.
Geology	Deposit type, geological setting and style of mineralisation.	Pb Zn Cu Ag Au mineralisation is hosted in felsic to intermediate volcaniclastics, sandstones and siltstones.
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. 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 2.0% 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	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.



Criteria	JORC Code explanation	Commentary		
	aggregation should be stated and some typical examples of such aggregations should be shown in detail.			
	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 recoveries must be derived prior.		
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 Az west 260-280° and the targeted horizon dips at 60° to the east. Holes were designed to intercept perpendicular to mineralisation to best gain near true widths.		
	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').	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 uncertain nature of the high grade zones. 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.		