

ASX Announcement (ASX:AXE)

25 January 2019

Large intrusive style copper-gold alteration at Blue Hills

Highlights

- RC drilling program completed at Hood at Blue Hills Copper Gold Project.
 - Drilling to date appears to confirm the conceptual model of Hood as an intrusive style copper gold mineralised system.
 - RC drilling of soil anomalies and ground EM conductors at the Hood prospect has intersected:
 - Multiple phases of alteration, with veins comprising quartz-carbonate-hematite and sulphide mineralisation observed in rock chips, are very favourable indicators that the target intrusive has the capacity to host copper-gold mineralisation, which will be tested with additional drilling.
 - Magnetite, pyrite, and chalcopyrite at the depths expected in the EM model. This is considered very encouraging for subsequent down-hole EM surveying and targeting of the larger system.
 - This maiden drill program at Hood will provide a very important vector into the target zone to be tested with subsequent drill holes.
 - Hood assay results expected in next 2 – 3 weeks.
 - Drilling at Katniss and Hawkeye to be completed over the next 2-3 weeks with assay results expected mid-February.
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Archer Exploration Limited (“Archer”, the “Company”) (ASX:AXE) is pleased to provide an update of the reverse circulation (RC) drilling program (Program) at the Hood prospect, which is part of Archer’s Blue Hills Copper-gold Project, located approximately 240 km north of Adelaide, South Australia (see About Blue Hills). The aim of the wider drill program involving Hood, Katniss and Hawkeye prospects is to test large areas of coincident copper-gold mineralisation targets identified from geochemical, rotary air blast (RAB) and electromagnetic (EM) surveys conducted by Archer at Blue Hills.

Archer’s Executive Chairman, Greg English, said “We have had an excellent start to our maiden exploration program at Hood, which is part of the larger Blue Hills Project. The early drilling results at Hood confirm what could potentially be a very large copper gold system.”

“The spatial alteration and zonation pattern of large intrusive copper gold systems is well understood, and what we have seen at Hood so far is consistent with this style of mineralisation.

In terms of the wider potential, it is also important to note that Hood is only a small part of our overall project area, with the larger North Burra project covering an area more than 3,000km²” said Mr English.

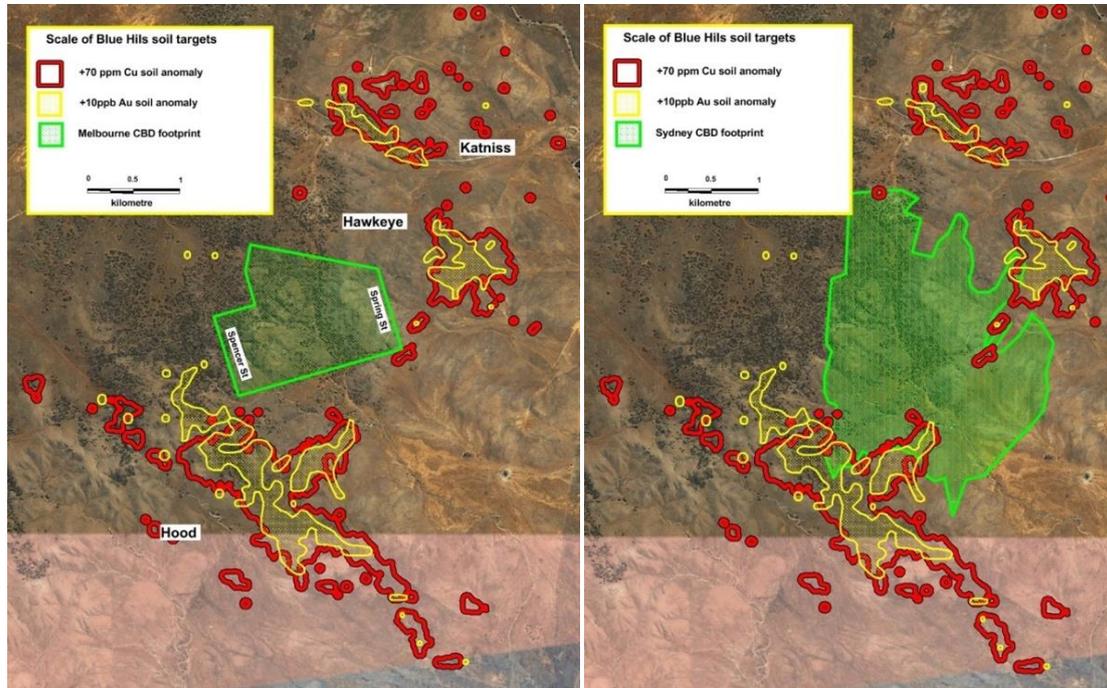


Figure 1. Images showing the area of the three prospects discovered to date at Blues Hills (Hood, Hawkeye and Katniss) compared to the size of the Sydney CBD (left) and Melbourne CBD (right). The Hood target alone covers an area of approximately 8km².

Observations

The three holes drilled so far at Hood (HDRC10-001 to 003) confirm that the rocks at Hood are different to the surrounding geology and that Hood has been subjected to a large-scale alteration event. The results to date (see below) confirm that the alteration at Hood is consistent with the type of alteration associated with intrusive style copper gold deposits.

Drill hole HDRC19-001

A highly altered sequence of Tapley Hill Formation (THFm) was intersected over the hole; alteration observed includes silicification (\pm carbonate) which has led to bleaching of the rocks. Potential propylitic alteration evinced by the vein styles.

- 0 to 29m downhole depth - highly oxidised shale with hematite veinlets was observed. Rock chip samples indicate these are typically mineralised.
- 29 to 60m - weathered THFm.
- 60 to 69m - minor zones of bleaching encountered. Most of the rock was completely recrystallised with all sedimentary textures obliterated.
- 85 to 115m end of hole (EOH) - variably altered dolomite comprising chlorite \pm hematite veinlets. The hole was stopped due to the collapsing nature of the ground.

Drill hole HDRC19-002

A weakly graphitic altered sequence of Tapley Hill Formation (THFm) was intersected at the top of the hole until alteration was encountered at 79m downhole to the end of the hole (127m).

- 0 to 79m downhole depth - sequence of weakly graphitic THFm was encountered. It is interpreted that the presence of graphite is due to heating of the highly carbonaceous rocks to a point where the carbon becomes graphite. Quartz (qtz)-carbonate (cb) ± hematite (he) (ex magnetite (mt)) veinlets observed throughout this interval, with the frequency increasing towards the bottom of the interval, where trace chalcopyrite (cpy) is observed.
- 79 to 105m - variably altered dolomite was intersected with veining comprising qtz-cb-he-cpy. The chlorite content increases towards the end of the interval. Minor breccias observed in some rock fragments.
- 105 to 127m (EOH) - chlorite becomes a common mineral throughout the rock, with qtz-cb-he(mt) ± cpy also observed.

Drill hole HDRC19-003

A weathered sequence of Tapley Hill Formation (THFm) was intersected at the top of the hole until alteration was encountered at 48m downhole to the end of the hole (61m).

- 0 to 48m downhole depth - a sequence of weakly graphitic and strongly oxidised THFm was intersected, with minor qtz-cb-he veinlets encountered.
- 48 to 57m - variably weathered and altered dolomite intersected.
- 57 to 61m (EOH) - chlorite becomes a common alteration mineral throughout the rock; veinlets of py-mt are observed.

In addition to the results from the three Hood RC drill holes, Archer geologists have discovered albitite (a sodium rich rock) as float in the Hood area and also in situ between Hawkeye and Katniss (Image 1). The vein nature of this material could be a “high level” type of rock/mineral, which exists above the actual granite intrusion. The presence of albitite supports the intrusive model being proposed for the large-scale mineralising system at Blue Hills.

Next Steps

Archer has been systematically progressing exploration at Blue Hills with the objective of discovering copper-gold mineralisation associated with intrusive system. The three holes drilled at Hood have supported the application of this mineralisation model. Further drilling and analysis will take place at Katniss and Hawkeye during February 2019.

While all the observations described in this announcement are considered to be very encouraging, investors are advised that it is only when laboratory assays are received (expected within a few weeks) that the gold-copper grades will be known. Assay results from all holes drilled at Hood are expected in the next 2-3 weeks.

Petrology is required to fully characterise the lithology, alteration and mineralisation seen at Hood. Potential remains for intrusive style copper gold project at this stage, although the test work may show that other styles are also possible, such as porphyry style.



Image 1. Cut piece of Blue Hills albitite, with voids after carbonate.



Image 2. Program at Hood for hole HDRC19-001.

- Ends -

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For more information about Archer's activities, please visit our:

Website

<https://archerx.com.au/>

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Competent Person Statement

The information in this announcement that relates to Exploration Results is based on information compiled by Mr Wade Bollenhagen, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and is a full-time employee of Archer Exploration Limited.

Mr Bollenhagen has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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. Bollenhagen consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

About Blue Hills

Archer's 100% owned Blue Hills copper gold project is part of the larger North Burra project area which covers an area of more than 3,000km². Blue Hills is located approximately 240 km north of Adelaide, South Australia and within 50 km of the Moomba to Adelaide Gas Pipeline, the Hallet 203 MW gas power station, the trans Australia railway line, Barrier Highway, high voltage power line, known aquifers and the established townships of Peterborough and Jamestown.

Archer has discovered three large gold and copper in soils anomalies at Blue Hills, namely Hood, Hawkeye and Katniss. Regional exploration programs have identified multiple other targets which are yet to be tested by Archer (Figure 2).

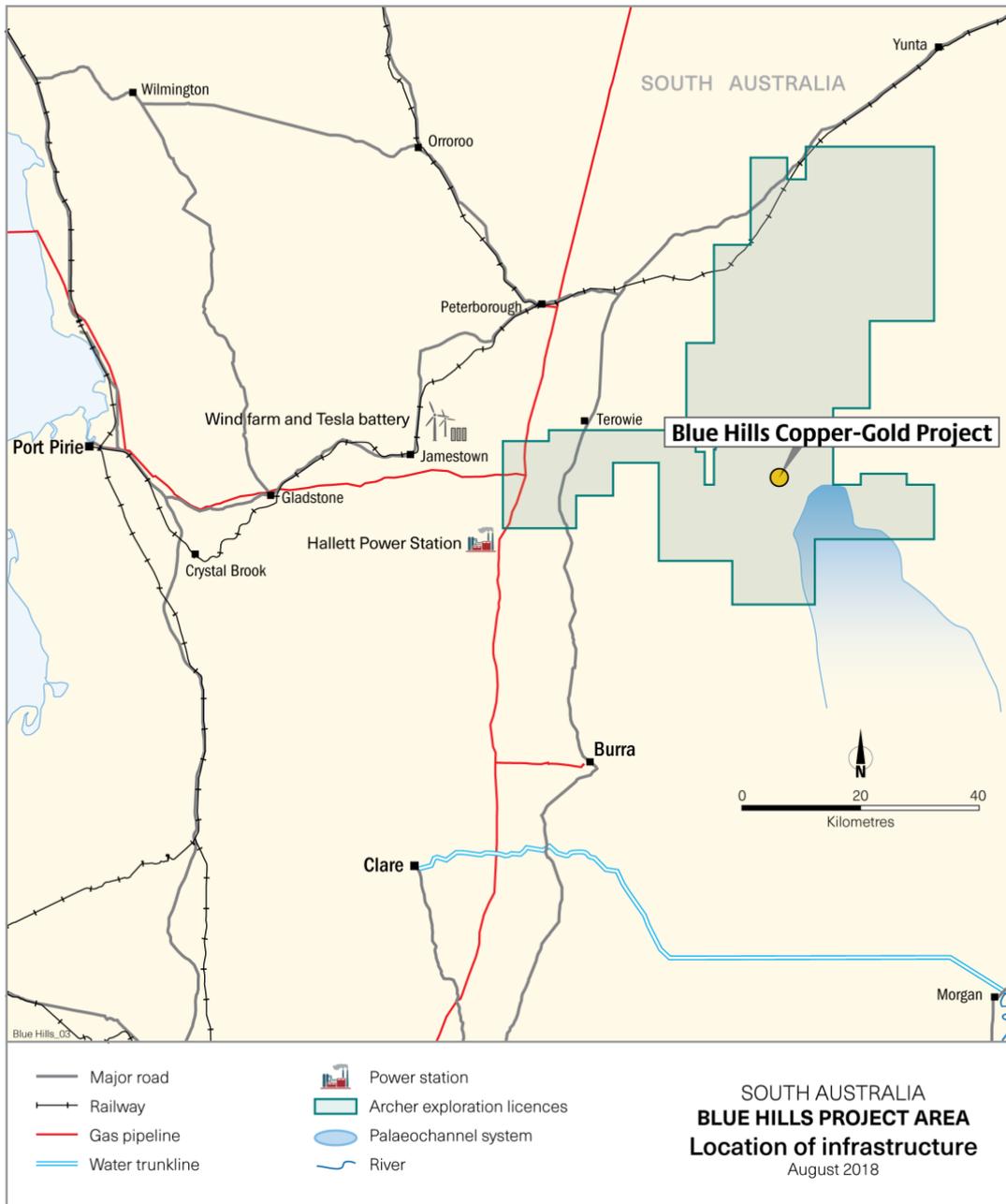


Figure 2. The Blue Hills Project Area and the location of infrastructure and the Archer exploration licences.

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code Explanation	Commentary
Sampling Techniques	<ul style="list-style-type: none"> 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 downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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 (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 types (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Samples comprise that were submitted due to alteration and proximity to alteration observed by the geologist during geological interpretation. Sampling was guided by Archer’s protocols as the program was exploratory in nature. No standards were submitted by the company during analyses. All samples were sent to ALS laboratory in Adelaide for preparation and forwarded to Peth for multi-element analyses. All samples are crushed using LM2 mill to –4 mm and pulverised to nominal 80% passing –75 µm.
Drilling Techniques	<ul style="list-style-type: none"> Drill type (e.g. core, reverse circulation, open hole 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.). 	<ul style="list-style-type: none"> The drill type is a Reverse Circulation (RC) with a 5.25 inch face sampling hammer bit. The samples are collected after passing through a 2 tier splitter attached underneath the mounted cyclone. The drill company was B&T Lehmann.

Criteria	JORC Code Explanation	Commentary
Drill Sample Recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	<ul style="list-style-type: none"> No assessment of recoveries was documented. All efforts were made to ensure that the sample was representative. No relationship is believed to exist, but no work has been done to confirm this.
Logging	<ul style="list-style-type: none"> 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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> All samples were geologically logged, as the hole collars were never accurately surveyed (a hand-held GPS was used) no data can be used for mineral resource estimation. Logging was qualitative and quantitative, i.e. percentages of vein material and host rock were estimated as well as noted.
Sub-Sampling Techniques and Sample Preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> All drilling was Reverse Circulation (RC), with a face sampling hammer bit. All samples were riffle split on a 2-tiered splitter, except for those that are wet, these were speared in the bag, by laying it on the side and taking a cross cutting representative sample. Samples from 55m onwards have been wet as the volume of water is considered to be significant. Initial samples submitted for assay are composites, this material is collected from the individual split sample. No additional quality control measures were taken for the sample submission. The sample sizes are considered appropriate for the material being sampled.

Criteria	JORC Code Explanation	Commentary
Quality of Assay Data and Laboratory Tests	<ul style="list-style-type: none"> • The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • 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. • 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. 	<ul style="list-style-type: none"> • Certified standards were used in the assessment of the analyses. • Analyses was by ALS Perth using their ME-MS61 technique for multi-elements. • The laboratory uses their own certified standards during analyses.
Verification of Sampling and Assaying	<ul style="list-style-type: none"> • The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> • No verification of sampling, no use of twinned holes. • Data is exploratory in nature and exists as excel spread sheets. • No data adjustment.
Location of Data Points	<ul style="list-style-type: none"> • Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> • MGA94 Zone 54 grid coordinate system is used. • A hand-held GPS was used to identify the sample location • Quality and adequacy is appropriate for this level of exploration

Criteria	JORC Code Explanation	Commentary
Data Spacing and Distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	<ul style="list-style-type: none"> There is no pattern to the sampling, the spacing is random, the location of the holes was determined by the land surface as no clearing was undertaken for the drill rig so many sites were unsuitable to drill. Some of these may have produced different results to the one being reported, some of the more significant electro-magnetic responses have not yet been drill tested. Data spacing and distribution are sufficient to establish the degree of geological and grade continuity for future drill planning, but not for resource reporting.
Orientation of Data in Relation to Geological Structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. 	<ul style="list-style-type: none"> It is unknown whether the drill holes have interested the mineralisation in a perpendicular manner. The mineralised horizon is obscured by a veneer of transported material, from observations of the strike of outcrop it was believed that the mineralised structure was being drilled perpendicularly. Bedding in the area dips to the SE (about 30°), there is a high angle foliation to this in places (striking NNE) in places. The soil anomaly at Hood (topic of release) is orthogonal to the direction being drilled (roughly striking 135°). It is believed there is no bias has been introduced.
Sample Security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> It is assumed that best practices were undertaken at the time All residual sample material (pulp) are stored securely.
Audits or Reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> None undertaken.

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 style="list-style-type: none"> 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. 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. 	<ul style="list-style-type: none"> Tenement status confirmed on SARIG. All work being reported is from EL 5794 (owned by SA Exploration Pty Ltd, a subsidiary of AXE). The tenement is in good standing with no known impediments.
Exploration Done by Other Parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> No exploration has been undertaken by any other parties
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The mineralisation style indicates that it was emplaced by fluids (e.g. an intrusive source). The strike appears to be NNE. 18km to the east is the Bendigo Granite, which is reported as being Cu-Mo mineralised and under gazette by the SA govt for further work.

Criteria	JORC Code Explanation	Commentary
Drillhole Information	<ul style="list-style-type: none"> • 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 style="list-style-type: none"> – 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 – Downhole length and interception depth – Hole length • 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. 	Refer to announcement to which this document is attached, in particular tables titled: <ul style="list-style-type: none"> • “Summary of drill hole information”
Data Aggregation Methods	<ul style="list-style-type: none"> • 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. • 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. • The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> • No assays are being reported.
Relationship Between Mineralisation Widths and Intercept Lengths	<ul style="list-style-type: none"> • These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. ‘downhole length, true width not known’). 	<ul style="list-style-type: none"> • No assays are being reported. • All assay intervals will be down hole length, the true width not known. • The mineralisation is interpreted to be steeply dipping. Drill holes have been angled to intercept the mineralisation as close to perpendicular as possible. • Down hole intercepts are not being reported. True widths are likely to be 60-70% of the down hole widths.

Criteria	JORC Code Explanation	Commentary
Diagrams	<ul style="list-style-type: none"> 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 style="list-style-type: none"> See main body of report.
Balanced Reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The reporting is considered to be balanced.
Other Substantive Exploration Data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Nothing to report at this stage
Further Work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> Further drilling is required along strike. Figures in the body of this report highlight the gaps in the data.

Annexure 1

Summary of drill hole information at Hood

The following table provides information on RC drilling results undertaken by Archer in January 2019 in relation to the Program at Hood.

Hole ID	Easting	Northing	RL (m)	Final Depth (m)	Dip (°)	Azimuth (°)
HDRC19-01	339492	6322081	293	115	-60	030
HDRC19-02	339464	6322044	283	127	-60	030
HDRC19-03	339511	6322121	283	60	-60	030