

ASX Announcement (ASX:AXE)

11 August 2017

Gold identified in copper drilling at Blue Hills

Highlights

- Gold up to 0.76g/t reported with copper in recent drill intervals.
 - The presence of copper-gold supports an intrusive related mineralisation style, typically associated with large copper deposits.
 - Field work has commenced with results expected during the coming months.
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Archer Exploration Ltd (ASX:AXE, Archer, Company) is pleased to update the market with the latest gold assays from the Company's 100% owned Blue Hills Copper Project, located approximately 40km southeast of Peterborough, South Australia.

In May 2017, the Company completed a reconnaissance drill program at Blue Hills. A total of RC 16 holes were drilled, targeting unrecorded historic workings in the area. The drill program was successful and intersected significant copper from surface, including 23m @ 0.3% (hole BHRC 1701).

The RC drilling campaign at Blue Hills was successful in identifying significant copper mineralisation along strike and below historic copper workings located to the north of the Ketchowla Cobalt Manganese drilling. The drilling was followed up with a regional rock chip sampling program which showed the presence of gold in the area (best result of 8.1 g/t).

As a result of the discovery of gold in rock chips near Blue Hills, the Company re-assayed the RC drill samples for gold. Many of the copper mineralised drill intervals have also be found to have gold present with many of these intervals reporting above 0.1g/t gold (refer to results table in Annexure 1). The best results include:

- 1m @ 0.76g/t gold (BHRC 1710)
- 10m @ 0.15g/t gold (BHRC1711)
- 6m @ 0.12g/t gold (BHRC1716)
- 5m @ 0.24 g/t gold (BHRC1710)

Whilst the gold itself is not high grade, the presence of gold in the mineralised copper system is significant, as it supports the geophysical modelling and the Company's view that Blue Hills is an intrusive style copper mineralised system.

Executive Chairman, Greg English said, "The presence of gold with copper at Blue Hills, provides further evidence that Archer has potentially identified a large intrusive related copper gold system. The presence of gold and copper in the mineralisation makes Blue Hills different to the other types of copper deposits in the area."

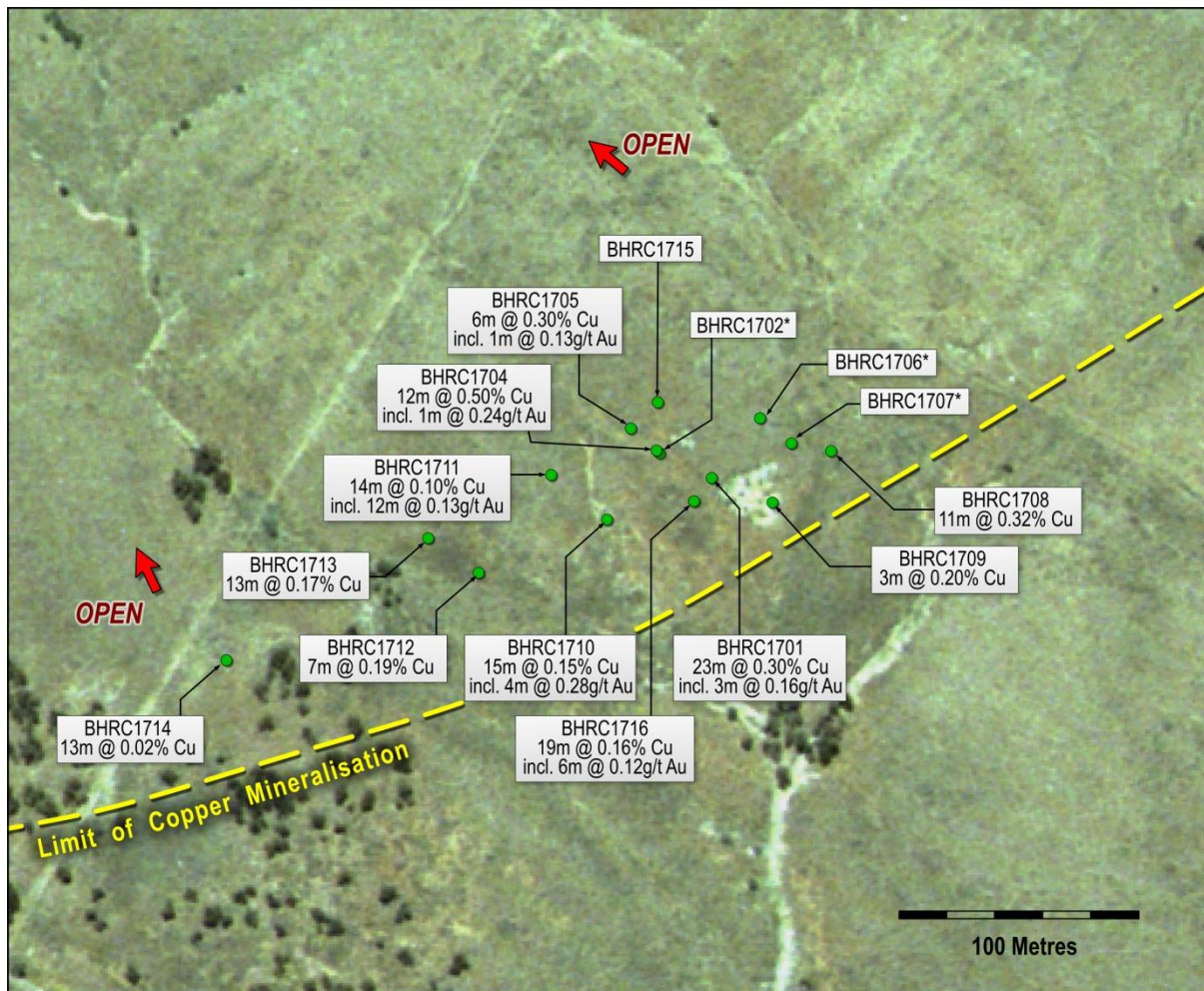


Figure 1: Location of significant gold intervals being reported.

Many copper deposits of varying sizes and graded have been historically discovered within 80km of Blue Hills, including the Monster Mine at Burra. However, these deposits are not considered to be intrusive related, the gold and copper present have been deposited in separate events meaning that the copper and gold are not co-mingled.

It is accepted that gold is not commonly added later to copper mineralisation from other sources, although gold can be redistributed within the mineralised system

during cooling or later events. This is one of the reasons why gold grade may vary within a copper mineralised system. The co-mingling of copper and gold at Blue Hills is important as it shows that these minerals have been deposited by a single process, consistent with intrusive style mineralisation.

Why does Archer believe that the copper mineralisation is intrusive related?

Historically the world's most profitable copper mines have been large-scale porphyry deposits, which is just one type of intrusive related copper mineralisation. Whilst these deposits do not have the highest grades of ore, they tend to have large overall resources.

The United States Geological Survey has released a Global Mineral Resource Assessment Report⁽¹⁾ which supports the intrusive mineralisation model at Blue Hills. The report identified a type of igneous rock (I-type) in the Blue Hills region that is related to large scale geological processes that have the potential to create and host intrusive related copper-gold deposits. These igneous rocks are contained within a belt (sub-tract) that spans Victoria, South Australia and New South Wales.

On 25 July 2017, Archer announced that magnetic data re-processed by Archer supported the presence of a large intrusive related structure. The co-location of this magnetic anomaly together with the strong copper-gold results at Blue Hills, together confirm a sizeable potential intrusive related copper-gold target. The interpreted dimensions of the magnetic anomaly are significant, covering an area of approximately 20km².

Next Steps

Archer has commenced a systemic soil and rock chip sampling over the area of the Blue Hills copper anomaly which covers an area of approximately 20km². The purpose of this work is to expand the mineralised footprint of Blue Hills and aid in the identification of future drill targets.

The assay results from the sampling work will be reported as they come to hand.

Exploration will continue on ground to expand the mineralisation footprint.

For further information, please contact:

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⁽¹⁾ Zientek et al. 2010, 'Porphyry Copper Assessment of Eastern Australia', *USGS Global Mineral USGS Resource Assessment*, Scientific Investigations Report 2010-5090-L, Appendix B. Available from: <https://pubs.usgs.gov/sir/2010/5090/l/sir2010-5090-L.pdf> [11 August 2017].

Competent Person Statement

The information in this report 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.

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"> Sample pulps were selected based upon their Copper assay and other geological factors for submission for gold analyses. 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 gold 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 4 inch face sampling hammer bit. The samples are collected after passing through a 2 tier splitter attached underneath the rig mounted cyclone. The drill company was E drill.

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 All sample material was dry. 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 not used in the assessment of the analyses. Analyses was by ALS Perth using their Au-AA26 technique for gold. 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
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. Data spacing and distribution are sufficient to establish the degree of geological and grade continuity for future drill planning, but not for resource reporting.

Criteria	JORC Code Explanation	Commentary
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. 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
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. 	<p>Refer to announcement to which this document is attached, in particular tables titled:</p> <ul style="list-style-type: none"> “Summary of drill hole information” “Summary of drilling results”

Criteria	JORC Code Explanation	Commentary
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"> Interval length weighted assay results are reported Significant Intercepts are chosen based on the context of the results, for example significant intercepts > 100ppm copper are 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"> All assay intervals are 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 reported. True widths are likely to be 60-70% of the down hole widths.
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

Criteria	JORC Code Explanation	Commentary
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 as well as testing for mineralisation under cover. Electro-magnetics will be required to vector areas of greater conductivity and higher mineralisation potential Figures in the body of this report highlight the gaps in the data.

Annexure 1

Summary of drill hole information

The following table provides information on RC drilling results reported elsewhere in this announcement. The drilling was undertaken by Archer Exploration Pty Ltd in May 2017, the collar co-ordinates are presented in ASX release 27 June 2017 ("Further copper intersected at surface at Blue Hills").

Summary of drilling results

The following table provides the significant intersections from the drilling being reported. The following table reports intervals submitted for gold assay and being discussed in this release, previously reported copper and sulphur numbers are presented again with the gold to maintain the mineralisation perspective. Assays presented here are considered relevant to the release; gold assays below 0.1g/t are listed but not discussed in the release, assays below 0.05g/t are not being reported (except where they form part of a higher grade interval)..

Hole Id	From (m)	To (m)	Au (g/t)	Cu %	S (%)
BHRC1701	0	1	0.12	0.08	0.05
BHRC1701	6	7	0.05	0.50	0.01
BHRC1701	7	8	0.06	0.46	0.02
BHRC1701	8	9	0.14	0.31	0.01
BHRC1701	9	10	0.21	0.40	0.01
BHRC1701	10	11	0.14	1.21	0.01
BHRC1702	1	2	0.13	0.06	0.12
BHRC1704	0	1	0.05	0.07	0.04
BHRC1704	1	2	0.05	0.07	0.02
BHRC1704	8	9	0.24	1.03	0.01
BHRC1704	9	10	0.06	0.82	0.01
BHRC1705	2	3	0.07	0.51	0.11
BHRC1705	3	4	0.13	0.82	0.03
BHRC1709	7	8	0.05	0.03	0.01
BHRC1710	2	3	0.08	0.07	1.98
BHRC1710	11	12	0.76	0.04	0.02
BHRC1710	12	13	0.02	0.04	0.02
BHRC1710	13	14	0.05	0.12	0.07
BHRC1710	14	15	0.3	1.32	0.2
BHRC1710	15	16	0.07	0.42	0.06
BHRC1711	1	2	0.13	0.06	0.53
BHRC1711	2	3	0.13	0.04	0.63

Hole Id	From (m)	To (m)	Au (g/t)	Cu %	S (%)
BHRC1711	3	4	0.1	0.04	0.13
BHRC1711	4	5	0.09	0.04	0.1
BHRC1711	5	6	0.09	0.03	0.05
BHRC1711	6	7	0.07	0.03	0.03
BHRC1711	7	8	0.07	0.03	0.04
BHRC1711	10	11	0.37	0.16	0.01
BHRC1711	11	12	0.34	0.69	0.02
BHRC1711	12	13	0.06	0.20	0.01
BHRC1711	38	39	0.11	0.00	0.12
BHRC1712	9	10	0.16	0.21	0.04
BHRC1712	10	11	0.05	0.90	0.14
BHRC1714	8	9	0.15	0.02	0.11
BHRC1716	9	10	0.05	0.23	0.01
BHRC1716	12	13	0.32	0.06	0.02
BHRC1716	13	14	0.1	0.13	0.01
BHRC1716	14	15	0.01	0.14	0.01
BHRC1716	15	16	0.02	0.96	0.01
BHRC1716	16	17	0.2	0.20	0.02
BHRC1716	17	18	0.07	0.01	0.05