

ASX Announcement (ASX:AXE)

26 June 2018

## **Large-scale coincident copper and gold anomalism at Blue Hills**

### **Highlights**

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- Discovery of large gold anomaly at Blue Hills with gold grades up to 0.42 g/t.
  - Gold anomaly is coincident with previously discovered copper anomaly at Blue Hills.
  - Blue Hills has been upgraded from a copper only to a copper-gold project.
  - Presence of copper-gold mineralisation and results from airborne electromagnetic survey supports Archer's "intrusive style" geological model.
  - Gold and copper anomalies extend over multiple kilometres and Blue Hills is truly a district scale discovery.
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Archer Exploration Limited (ASX:AXE, 'Archer' or 'the Company') is pleased to announce the latest results from the ongoing exploration program at Blue Hills, located approximately 60km east of the township of Jamestown and 30km south of the trans-Australia railway line.

New assay results from soil samples taken in 2017 reveal widespread gold anomalism coincident with copper at Blue Hills.

Archer's Executive Chairman, Greg English commented, "These results add further support to the presence of a significant district scale copper and gold mineralisation. Coupled with the interpreted buried intrusions nearby and early RAB results, the Blue Hills project is continuing to produce encouraging results."

### **Background**

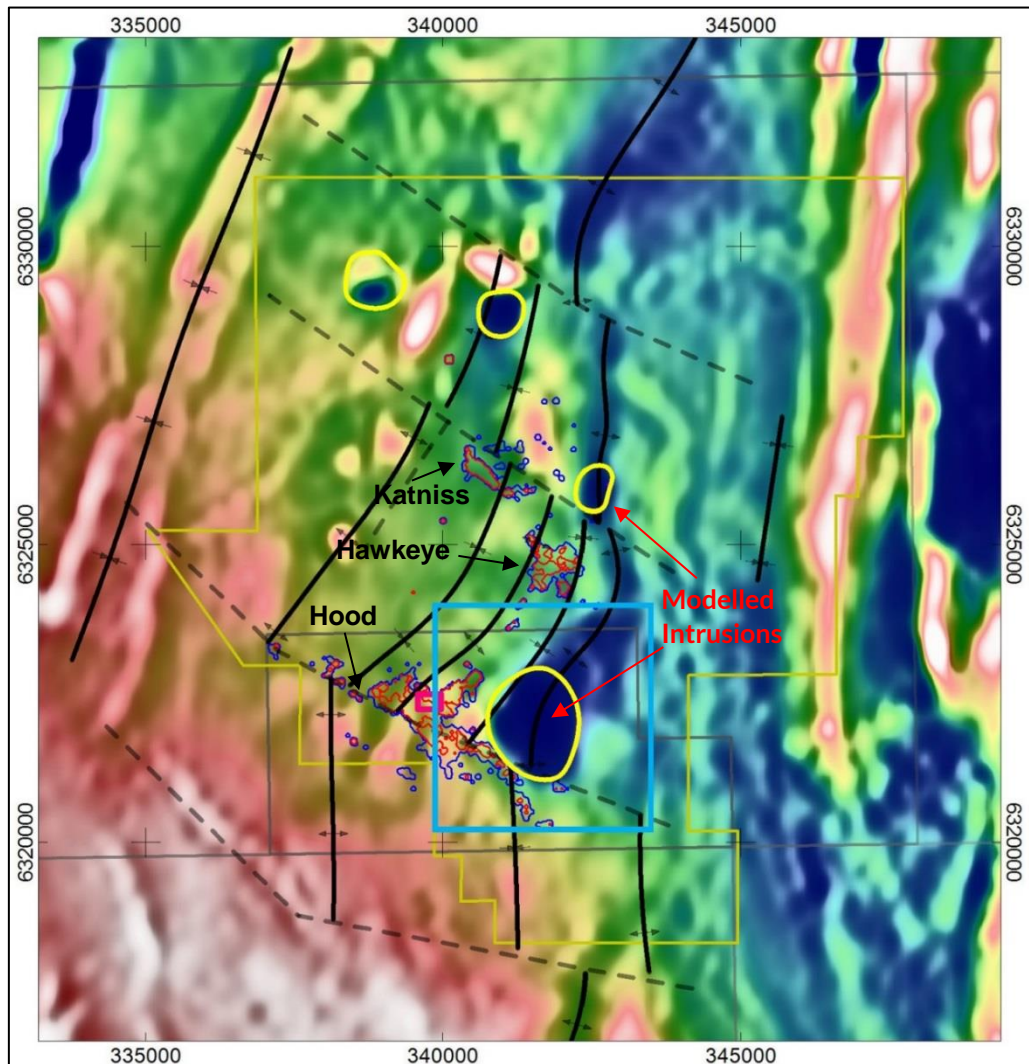
In late 2017, Archer completed a comprehensive geochemical sampling program at Blue Hills with more than 4,700 samples collected over an area of 40km<sup>2</sup>. The results of this work confirmed the size and continuity of the Hood, Hawkeye and Katniss prospects at Blue Hills (ASX announcements 25/09/17 and 28/11/17).

Hood, Hawkeye and Katniss are situated on two large, parallel copper mineralised corridors that cross cut the geographical area. The higher-grade copper mineralisation appears to cross several geological formations rather than being constrained to one formation. The Hood anomaly features in one corridor whereas the Katniss and Hawkeye anomalies are in the other.

The copper anomalies are hosted in Neo Proterozoic siltstone rocks of the Wilyerpa Formation as well as dolomitic rocks of the Tindelpina Shale and the Tapley Hill Formation. The copper in

soil anomalies cross-cut the local stratigraphy which suggests the potential for bedrock copper mineralisation.

Earlier this year Archer completed an airborne electromagnetic survey (AEM) at Blue Hills. The AEM confirmed the presence of intrusive bodies at depth (Figure 1). The presence of an intrusive body, located near significant structures that have both copper and gold mineralisation, strengthens the model for sub-surface copper mineralisation in this district. Other intrusions have also been modelled in the district: one located to the SE of Katniss (along strike) as well as two others being located further to the NW and NNW of Katniss (Figure 1).

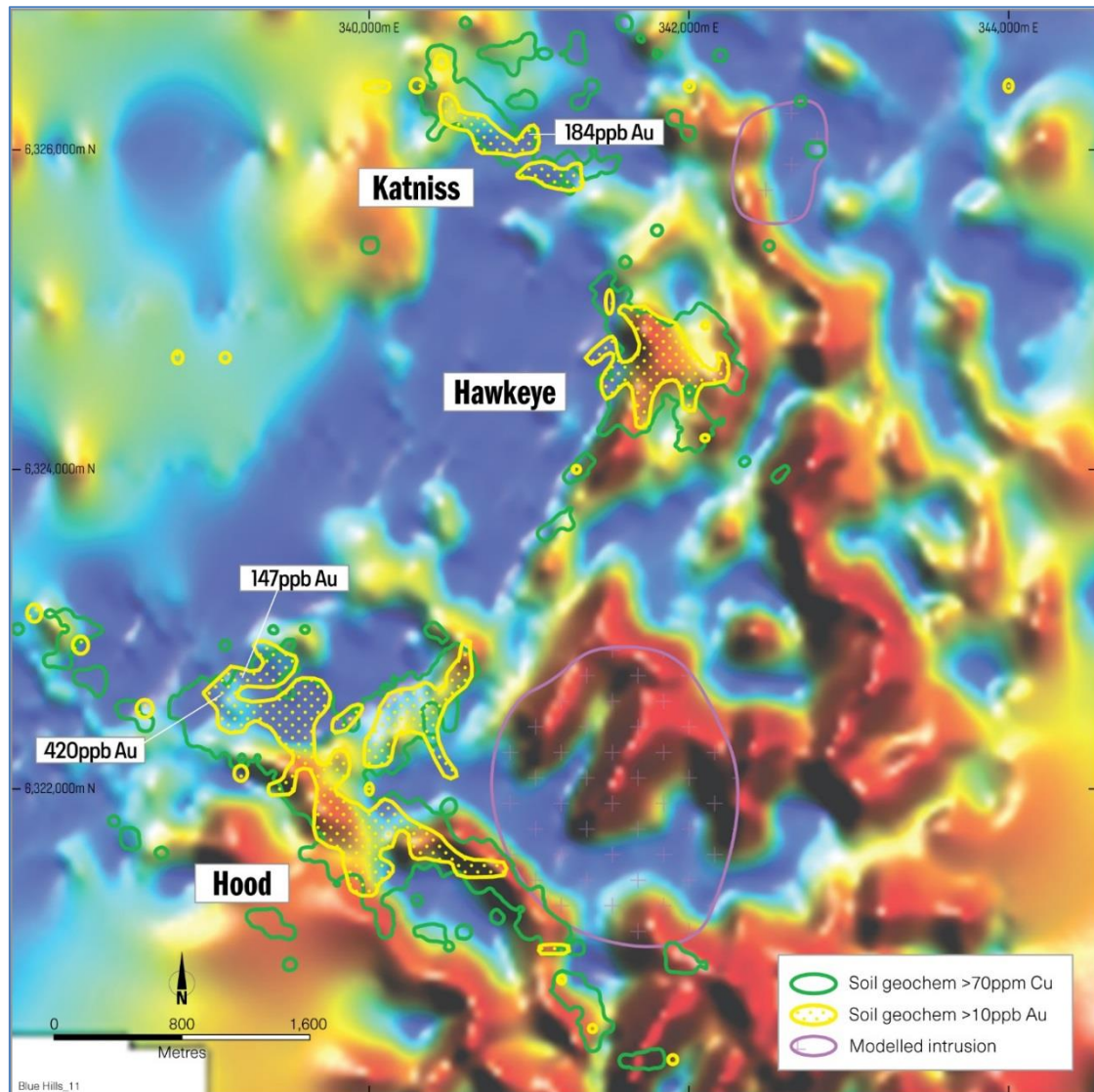


**Figure 1.** Reprocessed magnetic image showing the location of modelled intrusions with soil anomalies.

Last month, Archer completed a RAB drilling program to test shallow geochemical targets. A total of 226 rotary air-blast (RAB) holes for 2,661m was completed, providing a first pass test of the previously identified soil geochemical anomalies. The majority of the drilling was focused on the Hood, Katniss and Hawkeye targets plus drilling to the southeast providing coverage of the geophysical anomalies at Ygritte and Legolas.

The RAB drilling not only identified copper mineralisation in the bedrock, but also led to the discovery of associated widespread gold mineralisation. The discovery of widespread gold in the

system led to Archer resubmitting previous soil surveys from Hood, Katniss and Hawkeye to assay for gold. This announcement reports the results of these gold assays.



**Figure 2.** Blue Hills Gold & Copper soil anomalies with modelled Intrusion over EM depth slice.

## Gold soil sampling

The previously collected soil samples were assayed for gold with results received for most of these samples. Results to date have recorded elevated gold at each of the prospects, with values as high as 0.42g/t (420ppb) at Hood. This compares to the areas surrounding the prospects which have background gold readings of close to 1ppb (0.001g/t). As gold values up to 10x background are considered anomalous (i.e. 10ppb), these results support the concentration of gold only within the prospect areas.

The gold in soils appears to be related to copper, i.e. the soil anomalies are coincident and appear to have similar strike lengths to that reported for copper. Currently, the gold anomaly is still open to the NE along strike at Hood, with further results expected in the coming weeks.

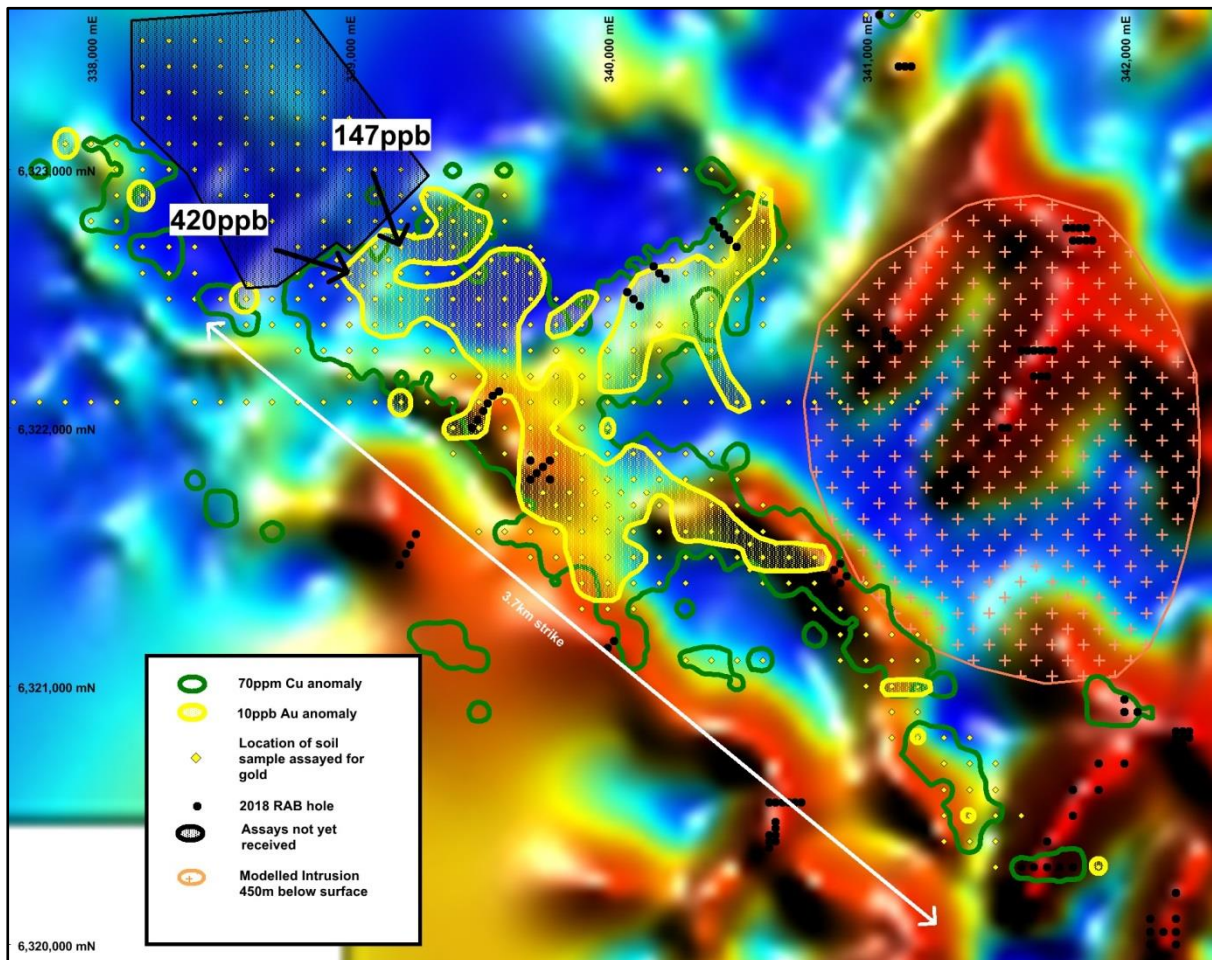


If assuming Blue Hills was a copper only target, then the large-scale anomalies at Hood, Hawkeye and Katniss could be interpreted as simple leaching of copper from nearby rocks by fluids. However, the presence of gold with copper mineralisation and the results of the AEM survey supports the intrusion related geological model proposed by Archer (Figure 1).

The location and orientation of the copper-gold anomalies relative to the nearby intrusion, coupled with the highly conductive electromagnetic signatures, over long strike lengths, provide ideal targets for possible economic mineralisation within 200m of the surface.

## Hood Prospect results

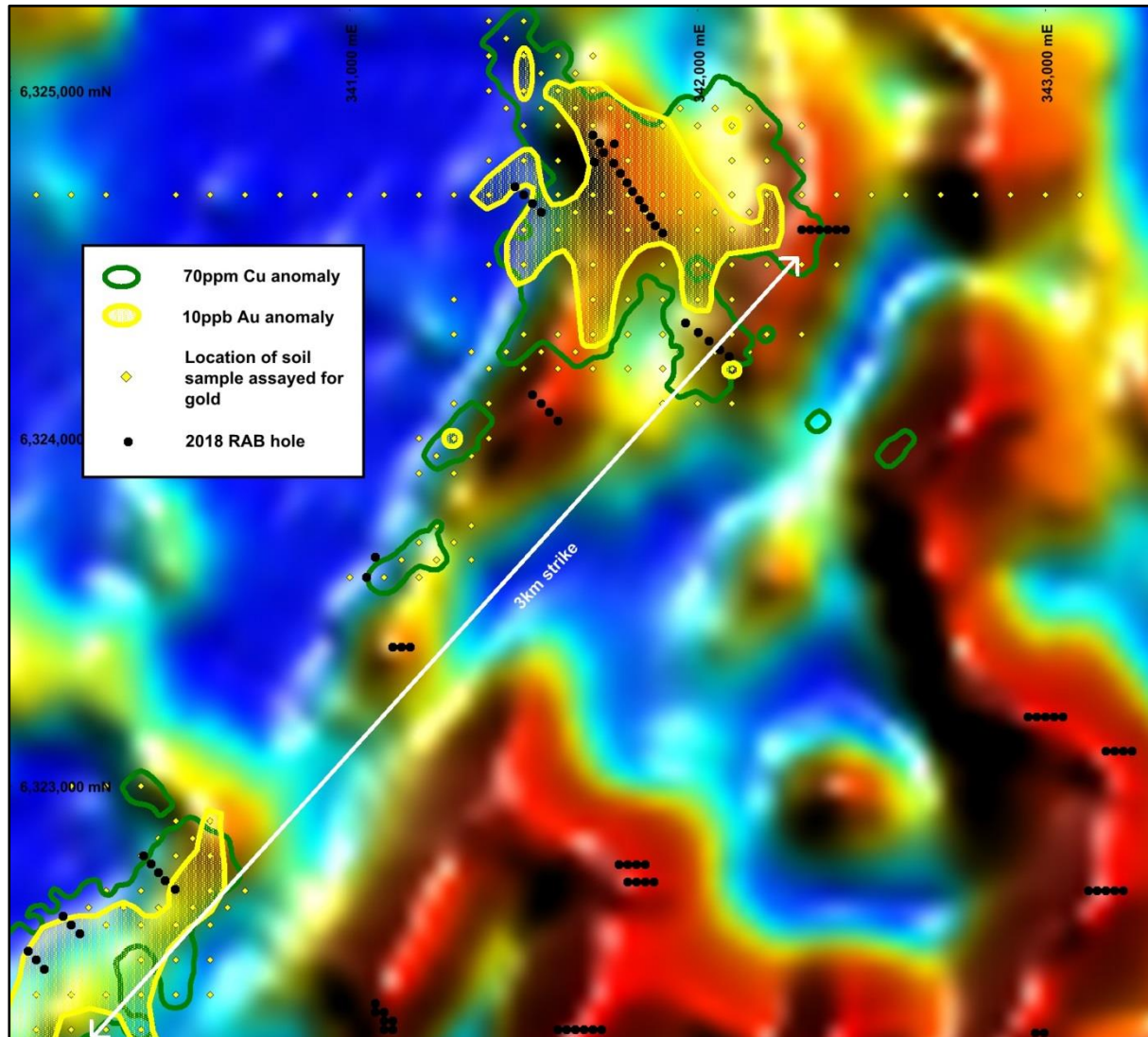
The gold anomalism is still open to the NW at Hood (Figure 3), with additional assay due in the coming weeks that cover this open area. The anomalism at Hood reported the highest gold assays in soils with one sample reporting 0.42g/t Au (420ppb) and another reporting 0.147g/t (147ppb). The two samples are located at the edge of the known anomaly which suggests that the anomaly may extend beyond the limits tested. Figure 2 shows the extent of the coincident copper-gold mineralisation at Hood.



**Figure 3.** Hood Gold & Copper soil anomalies with 2018 RAB holes over EM depth slice.

## Hawkeye Prospect results

Similar to Hood, the Hawkeye copper anomaly also contains coincident copper and gold mineralisation (Figure 4), indicating the mineralisation comes from a similar source. The dominant orientation to the mineralisation in the area is NW-SE, which is perpendicular to the mineralisation orientation at Hawkeye, indicating that Hawkeye could be due to “leakage” from the main structures (Hood and Katniss). The presence of the EM anomaly below the copper-gold mineralisation provides support for possible mineralisation within 200m of the surface.



**Figure 4.** Hawkeye Gold & Copper soil anomalies with 2018 RAB holes over EM depth slice.



## Katniss Prospect Results

The Katniss anomaly is also a copper-gold anomaly (Figure 5) with a peak grade of 0.18g/t Au (184ppb), the mineralisation is supported by the results reported in the RAB drilling (ASX Announcement 28/05/2018).

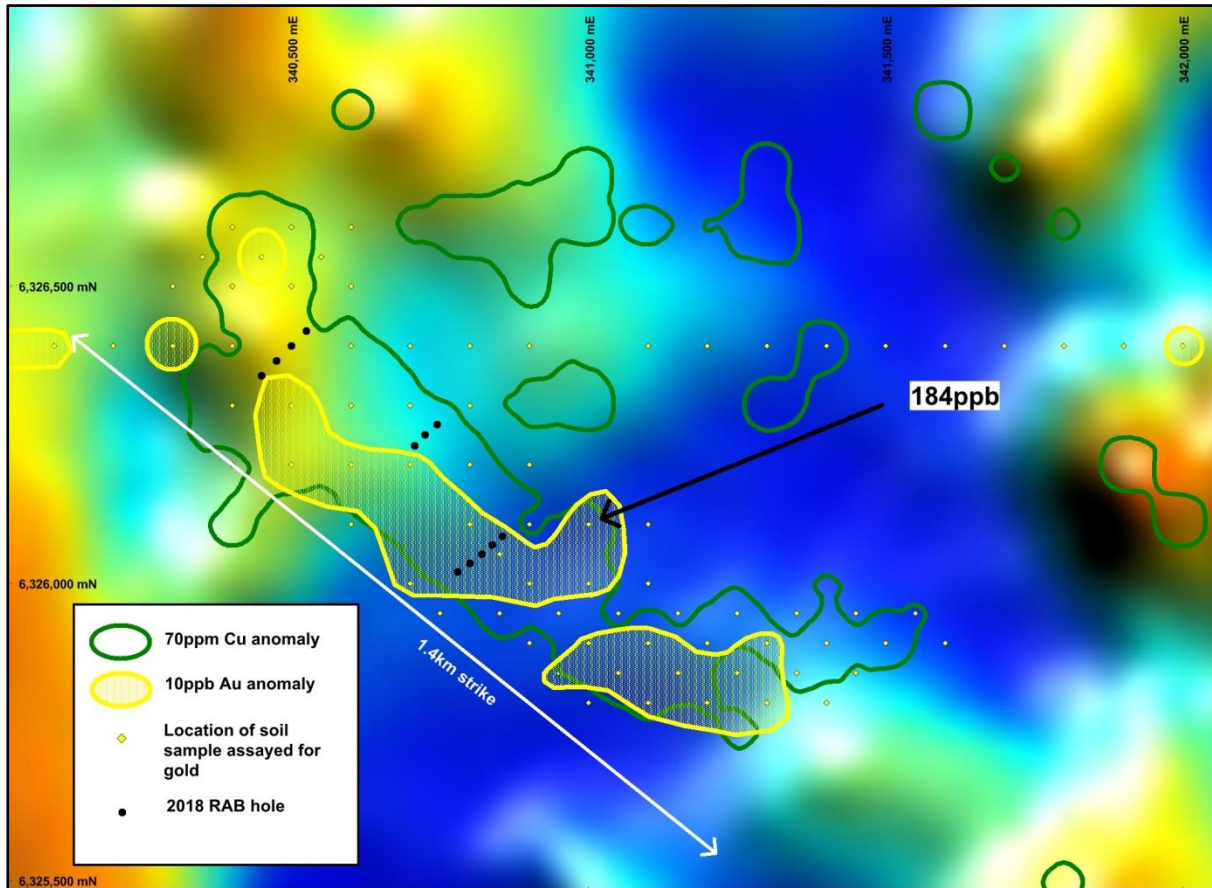


Figure 5. Katniss RAB holes coloured according to gold grade, with soil anomaly over EM image

## Next steps

The presence of gold in the mineralisation at Blue Hills supports Archer's focus on the district scale project. With 3 prospects comprising more than 8km of mineralised strike, Archer has the potential to discover a number of significant copper-gold occurrences within the Blue Hills Project area.

For further information, please contact:

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**Shareholders**

For more information visit our website  
<https://archerx.com.au/investors/>

**Competent Person Statement**

The information in this report that relates to Exploration Results and an Exploration Target 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	JORC Code Explanation	Commentary
<b>Sampling Techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Soil samples taken on a regularised grid of 100m by 100m (nominally).</li> <li>Sampling was guided by Archer’s protocols as the program was exploratory in nature. No standards were submitted by the company during analyses.</li> <li>The soil sample was taken in 2017 from the B horizon and sieved to –1.6mm and placed into a sample bag ready for assaying with the PXRF. A field duplicate was taken every 50<sup>th</sup> sample and marked with an “a”. A range of standards were used during the analyses, with a standard being read as every 40<sup>th</sup> assay a duplicate reading was also made every 40<sup>th</sup> sample as well. See ASX release 25<sup>th</sup> September 2017.</li> <li>All samples were sent to ALS laboratory in Adelaide for preparation and forwarded to Peth for multi-element analyses.</li> <li>All samples are crushed using LM2 mill to –4 mm and pulverised to nominal 80% passing –75 µm.</li> </ul>
<b>Drilling Techniques</b>	<ul style="list-style-type: none"> <li>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.).</li> </ul>	<ul style="list-style-type: none"> <li>Drilling is not being reported in this release.</li> </ul>



Criteria	JORC Code Explanation	Commentary
<b>Drill Sample Recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling is not being reported in this release.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were described for geological purposes</li> <li>Drilling is not being reported in this release</li> </ul>
<b>Sub-Sampling Techniques and Sample Preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling is not being reported in this release.</li> <li>For all samples taken, all surficial organic material was removed from the site where the sample was to be taken, this involves the removal of 2 to 10cm of surface material in places.</li> <li>A sample of material (200gm) was then taken from the location (10 to 20cm deep) and sieved so that only material of -1.6mm was retained.</li> <li>This was placed inside a pre-numbered bag for assay.</li> </ul>

Criteria	JORC Code Explanation	Commentary
<b>Quality of Assay Data and Laboratory Tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>Certified standards were not used in the assessment of the analyses.</li> <li>Analyses was by ALS Perth using their Au-TL43 technique for gold.</li> <li>The laboratory uses their own certified standards during analyses.</li> </ul>
<b>Verification of Sampling and Assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>No verification of sampling, no use of twinned holes.</li> <li>Data is exploratory in nature and exists as excel spread sheets.</li> <li>No data adjustment.</li> </ul>
<b>Location of Data Points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>MGA94 Zone 54 grid coordinate system is used.</li> <li>A hand-held GPS was used to identify the sample location</li> <li>Quality and adequacy is appropriate for this level of exploration.</li> </ul>
<b>Data Spacing and Distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling is not being reported in this release.</li> </ul>

Criteria	JORC Code Explanation	Commentary
<b>Orientation of Data in Relation to Geological Structure</b>	<ul style="list-style-type: none"><li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li><li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li></ul>	<ul style="list-style-type: none"><li>Drilling is not being reported in this release</li></ul>
<b>Sample Security</b>	<ul style="list-style-type: none"><li>The measures taken to ensure sample security.</li></ul>	<ul style="list-style-type: none"><li>It is assumed that best practices were undertaken at the time</li><li>All residual sample material (pulp) are stored securely.</li></ul>
<b>Audits or Reviews</b>	<ul style="list-style-type: none"><li>The results of any audits or reviews of sampling techniques and data.</li></ul>	<ul style="list-style-type: none"><li>None undertaken.</li></ul>



## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code Explanation	Commentary
<b>Mineral Tenement and Land Tenure Status</b>	<ul style="list-style-type: none"><li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li><li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li></ul>	<ul style="list-style-type: none"><li>Tenement status confirmed on SARIG.</li><li>All work being reported is from EL's 5433, 5794 &amp; 6000 (owned by SA Exploration Pty Ltd, a subsidiary of AXE).</li><li>The tenement is in good standing with no known impediments.</li></ul>
<b>Exploration Done by Other Parties</b>	<ul style="list-style-type: none"><li>Acknowledgment and appraisal of exploration by other parties.</li></ul>	<ul style="list-style-type: none"><li>Work was undertaken for diamond exploration in the past, the detailed magnetic data is a result of the exploration of kimberlites for diamonds.</li></ul>
<b>Geology</b>	<ul style="list-style-type: none"><li>Deposit type, geological setting and style of mineralisation.</li></ul>	<ul style="list-style-type: none"><li>The mineralisation style indicates that it was emplaced by fluids (e.g. an intrusive source).</li><li>The strike appears to be NW-SE with another component in the NNE direction.</li></ul>

Criteria	JORC Code Explanation	Commentary
<b>Drillhole Information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>Easting and northing of the drill hole collar</li> <li>Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>Dip and azimuth of the hole</li> <li>Downhole length and interception depth</li> <li>Hole length</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling is not being reported in this release.</li> </ul>
<b>Data Aggregation Methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling is not being reported in this release.</li> </ul>
<b>Relationship Between Mineralisation Widths and Intercept Lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>Drilling is not being reported in this release.</li> </ul>

Criteria	JORC Code Explanation	Commentary
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>See main body of report.</li> </ul>
<b>Balanced Reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The reporting is considered to be balanced.</li> </ul>
<b>Other Substantive Exploration Data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>Nothing to report at this stage. Ongoing geophysical interpretation of available information has modelled the presence of Intrusions in the mineralised areas, supporting the theory of fluids derived from these intrusions being significant in the mineralisation.</li> </ul>
<b>Further Work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Deeper drilling is required to test for mineralisation below the anomalies and where conductive bodies are reported.</li> <li>Figures in the body of this report highlight the gaps in the data.</li> </ul>