

ASX Announcement

30 May 2017

(ASX:AXE)

Blue Hills – a new copper discovery

Highlights

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- Large sections of malachite and associated copper mineralisation intersected by reconnaissance RC drilling.
 - Blue Hills never previously drilled – this is a new copper discovery.
 - Significant potential for additional copper mineralisation.
 - RC drilling program at North Burra was increased due to success at Blue Hills.
 - Ketchowla and Blue Hills drilling is now completed with results due over coming weeks.
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Archer Exploration Ltd (ASX:AXE, Archer, Company) is pleased to provide an update of exploration activities at the North Burra Project which includes the new Blue Hills Copper Project and the Ketchowla Cobalt Manganese Project.

A reconnaissance reverse circulation (RC) drilling program just completed at the Blue Hills Copper Project, approximately 40km northeast of Burra SA, has encountered significant visual copper mineralisation including malachite and chalcopyrite over lengths of up to 23m (refer to table 1). Assay results are expected in coming weeks and are needed to determine the copper grade present.

The Blue Hills drilling was part of a larger scale regional drilling program designed to assess and prioritise areas within the larger North Burra project area including the Ketchowla Cobalt Manganese Project (ASX announcement 8 May 2017).

Blue Hills is an area of historic copper workings within the larger North Burra Project area. The workings have not been drill tested by historical explorers. Previous field reconnaissance at Blue Hills sampled spoil piles surrounding historical workings in which copper appears in workings that follow the Tapley Hill formation.

The visual observations in the RC drill holes relate to drilling done by Archer around historic copper workings. There is no record of previous drilling at Blue Hills.

Blue Hills has been mapped over a strike length of approximately 1km and based on drilling to date appears open at depth and along strike in both directions. The Blue Hills RC drilling is a new copper discovery and has the potential to establish a large zone of copper mineralisation.

Malachite can be clearly seen on the surface as fracture infill and pervasively staining the country rock, indicating a probable igneous source. Trace amounts of chalcopyrite are observed in drill chips adjacent to areas of bleaching of the host rocks.

The mineralisation appears as a fracture infill along the contact of the unconformable contact between the Tapley Hill Formation and the overlying Wilyerpa Formation. Additional work is required to determine the extent and grade of the mineralisation.



Figure 1: Blue Hills Project area, note old workings in foreground

Figure 2: Stockpile adjacent to old workings at Blue Hills





Figure 3: Archer RC drilling at Blue Hills



Figure 4: Style of supergene copper mineralisation at Blue Hills

Next Steps

Archer has commenced the reprocessing of geophysical data so as to identify the scale of the Blue Hills copper mineralisation. Infill geophysical surveys may be required to better identify future drill targets.

Cobalt and manganese assay results from K1 and K2 drilling (Ketchowla Project) are pending and expected to be received and released later this week with Blue Hills results expected in coming weeks.

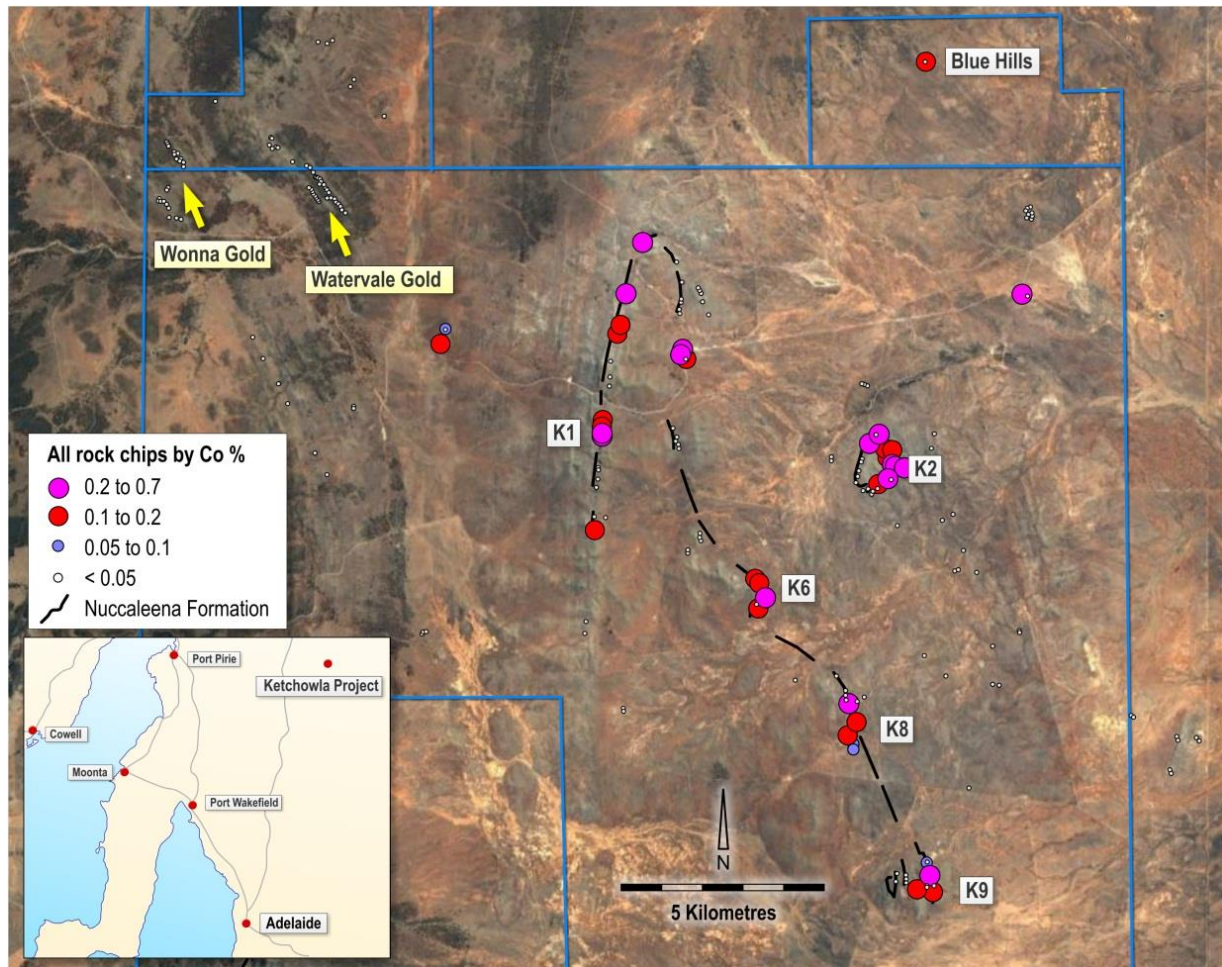


Figure 5: North Burra Project area incorporating Ketchowla Cobalt Manganese Project, Blue Hills Copper Project and Wonna and Watervale Gold Projects.

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Hole ID	Easting	Northing	RL (m)	Depth (m)	Dip (°)	Azimuth (°)	Visual Mineralisation
BHRC1701	339845	6322389	273	43	-60	118	Weak malachite from 4 to 22m then altered to 26
BHRC1702	339824	6322399	283	7	-60	118	Iron oxide from 5 to 7
BHRC1704	339823	6322400	283	12	-60	130	Weak malachite from 8 to 10 altered to end of hole
BHRC1705	339812	6322409	278	6	-90	0	Altered at 5m then fresh end of hole
BHRC1706	339866	6322414	288	4	-90	0	Collar collapsed
BHRC1707	339879	6322404	279	4	-90	0	Collar collapses
BHRC1708	339896	6322401	279	11	-90	0	Altered and weak malachite 6 to 8
BHRC1709	339872	6322379	278	66	-60	283	Trace chalcopyrite from 24 to 44
BHRC1710	339802	6322371	274	25	-60	118	Altered and weak malachite 10 to 15 chalcopyrite intermittent
BHRC1711	339779	6322389	275	55	-60	118	Altered and weak malachite 7 to 22 trace chalcopyrite to end of hole
BHRC1712	339749	6322348	275	25	-60	118	Altered and weak malachite 5 to 16 trace chalcopyrite to end of hole
BHRC1713	339728	6322362	280	59	-60	118	Altered and weak malachite 4 to 14 trace chalcopyrite to end of hole
BHRC1714	339644	6322310	284	18	-60	118	Too far Nth no altered
BHRC1715	339823	6322420	279	63	-60	118	Altered and weak malachite 2 to 6 trace chalcopyrite 44 to end of hole
BHRC1716	339839	6322379	275	37	-60	50	Altered and weak malachite 15 to 21 trace chalcopyrite 26 to end of hole

Table 1: Visual mineralisation, Blue Hills RC drilling

Notes to Table 1

- Copper mineral visual estimates do not necessarily have any direct relationship with yet to be determined copper grade. In addition, not all copper mineralisation is necessarily visual.
- Mineralised widths shown are downhole distances. The estimated true width is interpreted to be approximately 60-70% of the downhole interval but this is provisional and subject to change given the preliminary nature of the drilling. Secondary mineralisation geometries may be present.

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"> Samples 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. No assays are being reported, they are in the process of being analysed at the moment..
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 is 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"> Due to the exploratory nature of the program No certified standards were used in the assessment of the analyses. Analyses was by ALS Perth using their ME-MS61 technique for multi-elements.
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 drill hole collar 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"> A rough 50m by 25m pattern was adopted in the field, 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 intersected the mineralisation in a perpendicular manner. The mineralised horizon is obscured by cover (1m) and has a variable dip strike over the length of the mineralisation, from observations of the strike at each location 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"> To Archers knowledge limited exploration for metals has been taken in the area, the local area has been historically explored for diamonds as kimberlitic rocks are present
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The mineralisation was initially interpreted to be strataform, however field evidence indicates that it was emplaced by hydrothermal fluids
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"> No assays 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 when reported will be down hole length, the true width not known. Geometry is not precisely known as out crops are obscured by cover, it is believed that drilling is perpendicular to the mineralisation. 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"> No plan is provided of the drill hole locations, however the locations are provided.
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"> No other information to be reported, rock chip samples have been taken from areas along strike of the mineralisation, these are not yet available for reporting.

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"> • A program of geophysics to determine the location of significant sulphides will be planned to aid in future drill testing. • Further drilling is required along strike as well as testing for mineralisation under cover. • Figures in the body of this report highlight the gaps in the data.