

ASX Announcement (ASX:AXE)

15 February 2018

AEM survey defines large copper-gold targets

Highlights

- 373 line km Airborne Electro-Magnetic (AEM) survey defines large high quality copper targets at Blue Hills.
- AEM survey has defined conductive targets in geology highly prospective for copper mineralisation.
- AEM identified discrete EM conductors beneath, and adjacent to, recently discovered copper zones at Hood, Hawkeye and Katniss.
- Survey has identified two additional prospects (Legolas & Ygritte) which are under cover.
- New exploration licence application lodged to the South East and North West of Blue Hills project tenements.
- Final processing of AEM data expected end of February.

Archer Exploration Ltd (ASX:AXE, Archer, Company) is pleased to announce the completion of an aerial electro-magnetic (AEM) survey over Archer's 100% owned Blue Hills Project, located approximately 60km east of the township of Jamestown and 30km south of the trans-Australia railway line.

Initial interpretation of the preliminary AEM data has highlighted a number of basement conductors that are considered prospective for intrusion related sedimentary hosted coppergold mineralisation (Figure 1). Some of these are co-incident with previously reported soil anomalies (Hood, Hawkeye and Katniss). Additionally, a number of large, conductive targets (Legolas & Ygritte) have been identified by the new AEM survey within the Blue Hills area. These are located to the east of the soil anomalies and are under cover.

The AEM was flown at a variety of line spacings and lengths to cover the soil anomalies reported in 2017 as well as other prospective areas (Figure 2).

The identification of new targets at Legolas and Ygritte has led to Archer applying a new exploration licence ELA 23/2018 (Figure 5) that covers these new prospects and possible extensions to Hood.

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Figure 1: Preliminary depth slice (50m) image of AEM data, highlighting the Katniss, Hood and Hawkeye soil anomalies and newly identified Legolas and Ygritte AEM anomalies (red colour signifies areas of high conductivity that are most prospective for copper mineralisation)

The preliminary AEM images indicate that the survey has been highly successful at seeing well into the ground (+150m). Initial interpretation of the preliminary AEM imagery has highlighted a number of discrete basement conductors that are considered extremely prospective for copper mineralisation. Processing of the data for target generation has commenced with results expected by the end of the month.

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Figure 2: AEM survey flight lines shown on reprocessed *magnetic image.*



Figures 3 and 4: Geosolutions TDEM survey equipment at Blue Hills



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Next Steps

The results reported in this announcement are preliminary with the final processed AEM data expected end of February. Archer will use the final AEM data and the exciting drillhole and geochemical data to design a shallow RAB drill program to commence early next Quarter.



Figure 5: Location of new exploration licence application ELA 23/2018 (solid purple)

For further information, please contact:

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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	 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 	No sampling being reported.
	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.	
Drilling Techniques	• 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.).	Drilling is not being reported in this release

Criteria	JORC Code Explanation	Commentary
Drill Sample Recovery	 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. 	Drilling is not being reported in this release.
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	 No sampling being reported. Drilling is not being reported in this release
Sub- Sampling Techniques and Sample Preparation	 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 insitu 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. 	Drilling is not being reported in this release.

Criteria		JORC Code Explanation		Commentary
Quality of Assay Data and Laboratory Tests	•	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	•	No sampling being reported.
	•	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.		
Verification of Sampling	•	The verification of significant intersections by either independent or alternative company personnel.	•	No sampling being reported.
and Assaying	•	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.		
Location of Data Points	•	Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	•	No sampling being reported.
	•	Specification of the grid system used.		
	•	Quality and adequacy of topographic control.		
Data Spacing	•	Data spacing for reporting of Exploration Results.	•	Drilling is not being reported in this release.
and Distribution	•	Whether the data spacing and distribution is sufficient to establish the		
Distribution		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.		



Criteria	JORC Code Explanation	Commentary
Orientation of Data in Relation to Geological Structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	Drilling is not being reported in this release.
Sample Security	The measures taken to ensure sample security.	No sampling being reported.
Audits or Reviews	The results of any audits or reviews of sampling techniques and data.	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	•	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.	•	Tenement status confirmed on SARIG. Work being reported is from EL 5794, EL 6000 and EL 6029 (owned by SA Exploration Pty Ltd, a subsidiary of AXE The tenements are in good standing with no known impediments.
Exploration Done by Other Parties	•	Acknowledgment and appraisal of exploration by other parties.	•	Work has been completed under 6000 &6029, primarily in the search for diamonds, most recently Flinders Diamonds. Work by Aberfolye (early 1980's) to search for a Copper-Gold- Moly porphyry deposit at the Willara anomaly was undertaken using shallow vertical RAB holes, many of these did not penetrate further than 5-10m in an environment of shallow dipping sediments.
Geology	•	Deposit type, geological setting and style of mineralisation.	•	The mineralisation style indicates that it was emplaced by fluids (e.g. an intrusive source).

Criteria	JORC Code Explanation	Commentary
Drillhole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: Easting and northing of the drill hole collar Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar Dip and azimuth of the hole 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. 	Drilling is not being reported in this release.
Data Aggregation Methods	 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. 	Drilling is not being reported in this release.
Relationship Between Mineralisation Widths and Intercept Lengths	 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'). 	Drilling is not being reported in this release.
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	 Drilling is not being reported in this release.

Criteria	JORC Code Explanation	Commentary
Balanced Reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	The reporting is considered to be balanced.
Other Substantive Exploration Data	 Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	Nothing to report at this stage
Further Work	 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. 	 Further drilling is required along strike as well as testing for mineralisation under cover. Electro-magnetics data collected still needs to be processed for drill target generation. Figures in the body of this report highlight the gaps in the data.