

ASX Announcement (ASX:AXE)

28 May 2018

## RAB drilling confirms copper and gold mineralisation at Blue Hills

## Highlights

- Limited reconnaissance RAB drilling confirms strong widespread copper mineralisation over Blue Hills 2017 soil targets.
- District scale copper anomalism identified under areas of cover.
- Discovery of new widespread zones of gold mineralisation.
- Copper mineralisation at Hood extends over 4km and is open along strike.
- Blue Hills is located within 40km of gas pipeline, 200MW power station, rail line and other critical infrastructure.

Archer Exploration Limited (ASX:AXE, 'Archer' or 'the Company') is pleased to advise that the recently completed Rotary Air Blast ('RAB') geochemical drilling program at the Blue Hills Copper Project, South Australia, comprising 226 holes for 2,661m intersected strong anomalous copper and widespread gold in bedrock on each line of drilling.

Archer's Executive Chairman, Greg English commented: "This round of RAB drilling at Blue Hills was designed as a reconnaissance program across the strong surface soil copper anomalies that have been previously identified. The drilling program sought to establish whether the surface copper was also present in the bedrock."

"The discovery of widespread gold mineralisation associated with the copper gives strong support that the mineralisation is associated with nearby intrusive systems" said Mr English.

"It is particularly encouraging that along each line of drilling over a strike of approximately 4.0km and 3.0km for Hood and Hawkeye respectively, we have intersected zones of anomalous copper within the bedrock. These outstanding results are another step in unlocking the large multi-kilometre scale copper systems at Blue Hills" said Mr English.

## Background

In 2017, Archer identified large copper soil anomalies (Hood, Hawkeye and Katniss) at the Blue Hills Project as follow up work to exploration holes that intersected copper mineralisation (ASX announcements 7 June 2017 and 27 June 2017).



As follow up to this work, an airborne EM survey was completed over the prospects (ASX announcement 15 February 2018). The resulting identification of additional targets under transported cover prompted Archer to undertake the RAB program to investigate the potential for copper mineralisation in the underlying bedrock at these locations. The district scale (+2km) of the individual copper prospects, located close to each other, creates a number of compelling exploration targets.



Figure 1: Blue Hills copper mineralisation contours overlain on magnetic image.

### **Objectives of RAB drilling program**

Archer had previously completed a large (+4,500 samples) geochemical survey at Blue Hills which led to the discovery of the Hood, Katniss and Hawkeye prospects (Figure 1). However, some of the target area was covered by transported soils meaning that RAB drilling through the soils was needed to test the underlying bedrock. The key objective of the drilling was to confirm the presence of copper in the bedrock at Hood, Hawkeye and Katniss as well identify any anomalism under cover at both Ygritte and Legolas (which could not be sampled using soils).



A program of 226 rotary air-blast (RAB) holes for 2,661m was completed during May 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 has led to Archer resubmitting previous soil surveys from Hood, Katniss and Hawkeye to assay for gold. These results are expected in the next 2-3 weeks.

## **Drilling results**

The drill holes encountered a thin residual regolith cover before penetrating the weathered and leached siltstones that dominate the area. Deeper (+20m) drilling was required at Ygritte and Legolas due the volume of transported material present.

Samples were collected at the bottom of the hole as well as other intervals identified by the geologist as significant (e.g. the intersection of quartz veins of iron oxides). The RAB drill hole collar coordinates and significant intervals are shown in Table 1 and Table 2 at the end of this announcement. As the nature of exploration was essentially an advanced soil testing approach using RAB, the mineralisation is consistent with the generally low grade results achieved with this method, in comparison to mining grade ore, however it was sufficient to confirm extensive soil anomalism and identify additional anomalies under cover (i.e. +1m of transported material).

The levels of copper anomalism found in the bedrock reach a maximum of **0.15% (1,500 ppm) copper** but are typically in the range of 14 - 881 ppm (0.001% - 0.09%) copper. Anomalous gold in bedrock achieved a maximum of **401ppb (0.4 g/t) gold**, with grades typically in the range of 1 - 13 ppb (0.001 - 0.0013 g/t) gold.

The anomalous copper and gold mineralisation identified in the RAB drilling was largely contained within a larger halo of +70ppm copper previously identified by Archer at Hood, Katniss and Hawkeye. On the scale of testing undertaken, these results indicate that Hood, Katniss and Hawkeye are very large copper/gold systems and have the capacity to host significant intrusive related mineralisation. Copper and gold mineralisation was also identified under cover at the Ygritte and Legolas prospects, confirming their prospectivity.

The quantity of copper in the system is substantial, even at these relatively low grades. Generally, the copper is expected to be unevenly distributed within these systems along structures such as faults. As a next step Archer intends to assimilate all the data to determine the locations within these large systems where further testing should be undertaken, or that should be vectored towards, in order to improve the chances of intersecting high grade mineralisation.

The results from the limited RAB drilling, and the geophysical modelling, undertaken (Figure 5), further supports the model that the copper and gold mineralisation at Blue Hills is associated with an intrusive related style of mineralisation.



### **Hood Prospect results**

Hood has been defined by Archer as a large 70 ppm soil copper anomaly over a strike of 4km (Figure 1). In planning the RAB drilling at Hood it was decided to only test parts of the anomaly to confirm the bedrock copper anomalism. Five areas, separated by as much as 1.5km were chosen for the location of drill lines to test for sub-surface copper. The best line of results is located some 450m SW of the 2017 RC drilling completed by Archer (Figure 2). The copper identified at this location and to the SE (along strike) is the first evidence at Hood of mineralisation associated with structures away from the area tested in 2017.

It appears that the 2017 RC drilling is located at an intersection of the Hawkeye and Hood prospects, the intersection of two structures.

The mineralisation at Hood is associated with a NW-SE structure that merges with the Ygritte electromagnetic feature 3km to the SE (Figure 2). To the NW, a further 1.6km of the Hood anomaly/structure could not be tested due to access.



Figure 2. Hood RAB holes coloured by Copper with soil anomaly over EM image



### **Hawkeye Prospect results**

The Hawkeye anomaly is located to the NE of Hood and strikes roughly NNE, perpendicular to Hood and the Katniss anomalies. At the surface, it appears as quartz veining with gossanous material indicating a fault or shear.

A number of locations were selected for RAB drilling to test for bedrock copper mineralisation, these proved very successful in confirming the copper prospectivity. Nine locations were selected for drill lines, low level Cu (>100ppm) is reported in all lines except for one, which was drilled outside of the 70ppm copper soil anomaly. Low level gold (<10ppb) is seen in most holes apart from those located in the NE of the anomaly, where values up to 0.19g/t (195ppb) are reported (Figure 3). There is significant gold anomalism in this part of the Hawkeye copper anomaly.



Figure 3. Hawkeye RAB holes coloured according to gold grade, with soil anomaly over EM image



## **Katniss Prospect Results**

Katniss is located to the NW of Hawkeye and may prove to be an extension of the structure that controls mineralisation in this area. The copper soil anomaly in this area is approximately 1.2km in length and is parallel to the structure that possibly controls the mineralisation at Hood. Three lines of RAB holes were drilled roughly 250m apart to test for mineralisation. All three lines of RAB holes intersected copper, with gold up to 0.2g/t (220ppb) reported in the southern most drill line and up to 0.17g/t in the most northern drill line (Figure 4).



Figure 4. Katniss RAB holes coloured according to gold grade, with soil anomaly over EM image

### **Extensive anomalism at Ygritte and Legolas**

Whilst the RAB drilling has proven successful in confirming bedrock mineralisation over the areas defined by soils at Hood, Hawkeye and Katniss, Archer also discovered mineralisation under cover at Legolas and Ygritte. RAB holes at Ygritte and Legolas had to drill through nearly 20m of transported cover, the geological processes that led to the 20m of cover could have easily added to a leaching profile, stripping elements from the near surface. The results of the drilling are comparable to the initial soil sample copper grades at Hood, Hawkeye and Katniss, with results being around the 20-60ppm Cu range, with some values exceeding 100ppm Cu.

Surprisingly, one line within Ygritte reported anomalous gold up to 0.2g/t (217ppb), the location of this line resides over the SE extension of the interpreted Hood structure.



## **Geophysical Review of the Area and targeting**

As a part of the review of the Blue Hills area, which included both the magnetic data sets and electro-magnetic data sets, inversion modelling was undertaken by consultant geophysicists at Terra Resources. The results of this work indicated the presence of intrusive bodies at some +450m depth, with the largest being located near to the Hood-Hawkeye anomaly/ structure (Figure 5).

The presence of an intrusive body, located near to significant structures that have both copper and gold mineralisation, strengthens the model for sub-surface copper mineralisation in this district.

Other intrusions have 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 5. Reprocessed magnetic image showing the location of modelled intrusions with soil anomalies.



#### **Next steps**

The results from the RAB drilling program at Blue Hills are particularly encouraging, with copper in the bedrock having been identified over 3.7km, 3.0km and 1.4km of strike at Hood, Hawkeye and Katniss respectively.

The Company has received a substantial amount of data from this program and is continuing the process of working through the information to enhance its understanding of the Hood, Hawkeye and Katniss prospects to help direct future exploration efforts. A preliminary review of the results, together with the existing extensive geochemical and geophysical datasets, has identified a number of new standout drilling targets and areas within the anomalies for follow up field work.

For further information, please contact:

#### **Contact Details**

Mr Greg English Executive Chairman

Dr Mohammad Choucair Chief Executive Officer

Tel: +61 8 8272 3288

### Shareholders

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

#### **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.





Figure 6. Collar location of all RAB holes, coloured according to copper grade, with soil anomaly over EM image.





Figure 7. Collar location of all RAB holes, coloured according to gold grade, with soil anomaly over EM image.



## Significant RAB drill results

Location	Hole Id	Northing	Easting	EOH	Au (ppb)	Cu (ppm)
Katniss	KT_3_3	6326050	340820	12	220	232
Katniss	KT_3_5	6326080	340855	8	11	677
Katniss	KT_2_1	6326232	340707	25	28	3420
Katniss	KT_1_1	6326350	340450	19	3	1230
Katniss	KT_1_2	6326375	340475	22	17	373
Hawkeye	HY_4_4	6324662	341846	13	195	152
Hawkeye	HY_4_3	6324637	341865	6	406	289
Hawkeye	HY_5_2	6324675	341525	2	1	847
Hawkeye	HY_3_5	6324332	341966	11	4	121
Hawkeye	HY_3_4	6324306	342002	6	5	108
Hawkeye	HY_3_3	6324280	342033	5	1	303
Hood	HD_10_2	6322500	340100	3	5	1530
Hood	HD_10_1	6322473	340123	1.5	2	151
Hood	HD_9_3	6322626	340176	2	9	150
Hood	HD_9_2	6322600	340200	3	10	1920
Hood	HD_3_2	6322125	339555	6	2	642
Hood	HD_3_3	6322095	339535	6	3	519
Hood	HD_3_4	6322066	339518	6	4	1450
Hood	HD_3_5	6322032	339497	6	5	1480
Hood	HD_1_1	6321375	340875	9	6	112
Legolas	L2_4	6322725	341875	27	2	112
Legolas	L2_1	6322725	341800	11	2	185
Ygritte	YG2_12	6320600	343075	18	217	32
Ygritte	YG2_13	6320600	343100	18	73	228
Ygritte	YG2_14	6320600	343125	18	21	59
Ygritte	YG3_4	6319200	344325	18	6	109
Ygritte	YG2_32	6320050	342200	7	1	110
Ygritte	YG1_15	6320500	341800	26	1	193

Table 1: Summary of significant RAB drill results at Blue Hills



## Summary of RAB drill hole information

The following table provides information on the RAB drill holes reported in this announcement. All holes were drilled vertically open hole. In grid GDA 94 Zone 54

Hole ID	Northing	Easting	EOH Depth	Hole ID	Northing	Easting	EOH Depth
KT_3_1	6326020	340780	9	L1_7	6322300	341125	10
KT_3_2	6326034	340800	9	L1_6	6322300	341100	10
KT_3_3	6326050	340820	12	L1_5	6322325	341125	6
KT_3_4	6326065	340838	3	L1_4	6322325	341100	9
KT_3_5	6326080	340855	8	L1_3	6322350	341100	6
KT_2_3	6326268	340745	4	L1_2	6322350	341075	6
KT_2_2	6326250	340725	6	L1_1	6322375	341075	6
KT_2_1	6326232	340707	25	L3_1	6322300	341600	18
KT_1_4	6326425	340525	27	L3_2	6322300	341625	18
KT_1_3	6326400	340500	27	L3_3	6322300	341650	18
KT_1_2	6326375	340475	22	L3_4	6322300	341675	18
KT_1_1	6326350	340450	19	L3_5	6322300	341700	18
HY_1_5	6323400	341175	6	L3_6	6322300	341725	18
HY_1_4	6323400	341150	6	L3_10	6322200	341700	18
HY_1_3	6323400	341125	6	L3_9	6322200	341675	18
HY_1_1	6323600	341050	2	L3_8	6322200	341650	18
HY_1_2	6323658	341075	2	L6_5	6323200	343050	15
HY_2_4	6324125	341525	9	L6_6	6323100	343175	15
HY_2_3	6324100	341550	9	L6_7	6323100	343200	15
HY_2_2	6324075	341575	9	L6_8	6323100	343225	15
HY_2_1	6324050	341600	9	L6_9	6323100	343250	15
HY_4_12	6324873	341699	3	L6_10	6322700	343125	15
HY_4_11	6324849	341719	6	L6_11	6322700	343150	15
HY_4_10	6324822	341731	6	L6_12	6322700	343175	10
HY_4_9	6324791	341759	6	L6_13	6322700	343200	10
HY_4_14	6324796	341703	6	L6_14	6322700	343225	10
HY_4_13	6324847	341761	5	L5_3	6322290	342972	12
HY_4_8	6324763	341778	6	L5_4	6322290	342997	12
HY_4_7	6324735	341799	6	L6_1	6323200	342950	15
HY_4_6	6324710	341813	6	L6_2	6323200	342975	15
HY_4_5	6324685	341832	6	L6_3	6323200	343000	15
HY_4_4	6324662	341846	13	L6_4	6323200	343025	15
HY_4_3	6324637	341865	6	L3_7	6322200	341625	18
HY_4_2	6324613	341880	6	L3_11	6322000	341500	12
HY_4_1	6324591	341900	6	YG2_10	6320600	343025	18
HY_5_4	6324725	341475	3	YG2_11	6320600	343050	21
HY_5_3	6324700	341500	3	YG2_12	6320600	343075	21
HY_5_2	6324675	341525	2	YG2_13	6320600	343100	21



	Northing	Easting	EOH		Northing	Eacting	EOH
	Northing	Lasung	Depth		Northing	Easting	Depth
HY_5_1	6324650	341550	3	YG2_14	6320600	343125	21
HY_3_5	6324332	341966	11	YG2_15	6320600	343150	9
HY_3_4	6324306	342002	6	YG2_16	6320600	343175	9
HY_3_3	6324280	342033	5	YG2_6	6320400	342825	21
HY_3_2	6324255	342064	12	YG2_7	6320400	342850	21
HY_3_1	6324235	342091	12	YG2_8	6320400	342875	21
HY_6_1	6324600	342300	6	YG2_9	6320400	342900	21
HY_6_2	6324600	342325	6	YG2_4	6320300	342850	21
HY_6_3	6324600	342350	6	YG2_5	6320400	342800	18
HY_6_4	6324600	342375	6	YG2_3	6320300	342825	21
HY_6_5	6324600	342400	6	YG2_2	6320300	342800	9
HY_6_6	6324600	342425	6	YG2_1	6320300	342775	15
HD_5_1	6322702	340498	6	YG1_19	6320400	342600	9
HD_5_2	6322728	340470	6	YG1_18	6320400	342500	6
HD_5_3	6322751	340450	6	YG1_16	6320500	342500	4
HD_5_4	6322776	340429	3	YG3_1	6319200	344250	9
HD_5_5	6322800	340409	2	YG3_2	6319200	344275	18
HD_1_3	6321425	340925	8	YG3_3	6319200	344300	18
HD_10_2	6322500	340100	3	YG3_4	6319200	344325	18
HD_10_3	6322526	340076	3	YG3_5	6319200	344350	21
HD_10_1	6322473	340123	1.5	YG3_6	6319200	344650	24
HD_9_3	6322626	340176	2	YG3_7	6319200	344675	27
HD_9_2	6322600	340200	3	YG3_8	6319200	344700	30
HD_9_1	6322576	340224	4	YG3_9	6319200	344725	12
HD_3_1	6322141	339578	6	YG3_10	6319200	344750	9
HD_3_2	6322125	339555	6	YG3_11	6319200	344775	9
HD_3_3	6322095	339535	6	YG3_13	6319200	344825	6
HD_3_4	6322066	339518	6	YG3_14	6319200	344850	9
HD_3_5	6322032	339497	6	YG3_12	6319200	344800	6
HD_3_6	6322000	339474	6	YG4_8	6318375	344750	6
HD_2_1	6321800	339700	6	YG4_7	6318375	344725	9
HD_2_2	6321825	339725	6	YG4_6	6318375	344700	9
HD_2_3	6321850	339750	6	YG4_4	6318375	344650	21
HD_2_4	6321875	339775	6	YG4_3	6318375	344425	21
HD_2_5	6321875	339700	6	YG4_2	6318375	344400	18
HD_2_7	6321800	339775	6	YG4_1	6318375	344375	9
HD_6_4	6321589	339258	6	YG1_20	6320200	342200	6
HD_6_3	6321549	339236	6	YG1_22	6320100	342200	7
HD_6_2	6321515	339218	6	YG1_24	6320000	342200	18
HD_6_1	6321471	339195	6	YG1_23	6320000	342100	6
HD_4_1	6320375	340625	6	YG1_21	6320100	342100	5
HD_4_2	6320400	340625	6	YG2_30	6320050	342100	6



	Northing	E E E E	EOH		Northing	- Eacting	EOH
Hole ID	Northing	Easting	Depth	Hole ID	Northing	Easting	Depth
HD_4_3	6320425	340625	6	YG2_31	6320050	342150	7
HD_4_7	6320475	340650	6	YG2_32	6320050	342200	7
HD_4_6	6320450	340650	6	YG1_1	6320825	342200	16
HD_4_5	6320425	340650	6	YG1_3	6320825	342250	9
HD_4_4	6320400	340650	6	YG1_2	6320825	342225	9
HD_7_1	6320550	340625	6	YG1_6	6320800	342250	9
HD_7_2	6320550	340650	6	YG1_5	6320800	342225	9
HD_7_3	6320550	340675	6	YG1_4	6320800	342200	9
HD_7_4	6320550	340700	6	YG1_7	6320775	342200	9
HD_7_5	6320550	340725	6	YG1_8	6320775	342225	9
HD_7_6	6320550	340750	6	YG1_10	6320750	342225	9
HD_6_5	6321150	340000	6	YG1_9	6320750	342200	9
HD_6_6	6321175	340025	6	YG2_23	6320900	342000	12
HD_8_1	6319550	341150	6	YG2_22	6320950	342000	9
HD_8_2	6319575	341125	6	YG2_24	6320900	342050	12
HD_8_6	6319675	341025	6	YG1_12	6320700	342000	18
HD_8_5	6319650	341050	6	YG1_11	6320700	341900	12
HD_8_4	6319625	341075	6	YG1_14	6320600	341900	26
HD_8_3	6319600	341100	6	YG1_13	6320600	341800	16
HD_1_6	6321475	340900	9	YG1_15	6320500	341800	26
HD_1_5	6321450	340875	9	YG2_29	6320300	341800	14
HD_1_4	6321425	340850	12	YG2_28	6320300	341750	25
HD_1_2	6321400	340900	9	YG2_27	6320300	341700	27
HD_1_1	6321375	340875	9	YG2_26	6320300	341650	18
L2_4	6322725	341875	27	YG2_25	6320300	341600	20
L2_8	6322775	341850	27	YG1_17	6320400	341700	18
L2_7	6322775	341825	27	YG4_5	6318375	344675	54
L2_6	6322775	341800	27	YG4_4	6318375	344650	26
L2_5	6322775	341775	27	YG2_17	6320600	343200	27
L2_3	6322725	341850	27	YG2_16	6320600	343175	27
L2_2	6322725	341825	15	YG2_17	6320600	343200	27
L2_1	6322725	341800	11	YG2_18	6320600	343225	39
L3_13	6322000	341550	15	YG2_19	6320600	343250	27
L3_12	6322000	341525	10	YG2_20	6320600	343275	33

Table 2: Summary of RAB drill hole locations at Blue Hills

## JORC Code, 2012 Edition – Table 1

## Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling Techniques	<ul> <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> <li>Samples are dominantly bottom of hole samples, as well as a few that were submitted due to alteration and proximity to alteration observed by the geologist during geological interpretation.</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>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>
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.).	<ul> <li>The drill type is a Rotary Air Blast (RAB) with a 2.5-inch blade bit. The samples are collected using a scoop after being collected in a bulk bag representing the metre interval.</li> <li>The drilling program is essentially a deeper soils geochemical program to test for bedrock copper and gold mineralisation across selected parts of previously defined anomalies as well as over predicted locations of EM signatures reaching the surface.</li> </ul>

## **,NCHER**

Criteria	JORC Code Explanation	Commentary
Drill Sample Recovery	<ul> <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> <li>No assessment of recoveries was documented.</li> <li>All efforts were made to ensure that the sample was representative.</li> <li>No relationship is believed to exist, but no work has been done to confirm this.</li> </ul>
Logging	<ul> <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> <li>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.</li> <li>Logging was qualitative and quantitative, i.e. percentages of vein material and host rock were estimated as well as noted.</li> </ul>
Sub- Sampling Techniques and Sample Preparation	<ul> <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 insitu 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> <li>All drilling was RAB.</li> <li>All sample material was dry.</li> <li>No additional quality control measures were taken for the sample submission.</li> <li>The sample sizes are considered appropriate for the material being sampled.</li> </ul>

# **,NCHER**

Criteria	JORC Code Explanation	Commentary
Quality of Assay Data and Laboratory Tests	<ul> <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> <li>Certified standards were not used in the assessment of the analyses.</li> <li>Analyses was by ALS Perth using their ME-MS61 technique for multi-elements.</li> <li>The laboratory uses their own certified standards during analyses.</li> </ul>
Verification of Sampling and Assaying	<ul> <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> <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>
Location of Data Points	<ul> <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> <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> <li>Samples are bottom of hole and as such the collar co-ordinates provide sample locations</li> </ul>

Criteria	JORC Code Explanation	Commentary
Data Spacing and Distribution	<ul> <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> <li>There is no regular pattern to the drilling, the spacing is random, the location of the holes was determined by the land surface as no clearing was undertaken for the drill rig. If holes had been drilled in different locations then some of these holes may have produced different results to the one being reported.</li> <li>Data spacing and distribution are sufficient to establish the degree of geological and grade continuity for confirming the bedrock copper and gold anomalism over previously identified soil anomalies.</li> </ul>
Orientation of Data in Relation to Geological Structure	<ul> <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> <li>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.</li> <li>It is believed there is no bias has been introduced.</li> </ul>
Sample Security	The measures taken to ensure sample security.	<ul><li>It is assumed that best practices were undertaken at the time</li><li>All residual sample material (pulps) are stored securely.</li></ul>
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 Exploration	<ul> <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> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <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> <li>No exploration has been undertaken by any other parties</li> </ul>
Done by Other Parties		
Geology	• Deposit type, geological setting and style of mineralisation.	<ul> <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
Drillhole Information	<ul> <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> <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> <li>Refer to the Annexure 1 (at the end of this Document)</li> <li>"Summary of drill hole information"</li> <li>A summary of significant intercepts is reported under each relevant section contained in the document</li> </ul>
Data Aggregation Methods	<ul> <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> <li>Interval length weighted assay results are reported</li> <li>Significant Intercepts are chosen based on the context of the results, for example significant intercepts &gt; 100ppm copper are reported.</li> </ul>

Criteria	JORC Code Explanation	Commentary
Relationship Between Mineralisation Widths and Intercept Lengths	<ul> <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> <li>All assay intervals are down hole length, the true width not known.</li> <li>The subsurface geometry of the mineralisation is unknown at this early stage of exploration.</li> <li>Down hole intercepts are reported.</li> </ul>
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.	See main body of report.
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	<ul> <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>	• 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.
Further Work	<ul> <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> <li>Further drilling is required along strike as well as testing for mineralisation below the surface.</li> <li>Electro-magnetics will be required to vector areas of greater conductivity and higher mineralisation potential</li> <li>Figures in the body of this report highlight the gaps in the data.</li> </ul>