

ASX Announcement (ASX:AXE)

6 December 2017

More high-grade cobalt identified at Yarcowie

Highlights

- More cobalt discovered at Yarcowie, with high rock chip grades of up to 0.52% cobalt.
 - Latest sampling supports previous results of up to 0.94% cobalt.
 - Zone of known cobalt mineralisation greatly extended.
 - Further sampling planned to determine extent of mineralisation.
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Archer Exploration Limited (ASX:AXE, Archer or the Company) is pleased to announce the results of its latest reconnaissance rock chip sampling program undertaken on the Company's 100% owned Yarcowie Project.

Greg English, Executive Chairman said "The discovery of new cobalt mineralisation extending over a wide area is very exciting. The latest results confirm our previous work where up to 0.94% cobalt was discovered in rock chips during our maiden exploration program at Yarcowie."

"Yarcowie is ideally situated close to all the required existing infrastructure which will aide further exploration and possible project development. We are very encouraged by these initial results and the wider potential of the Project area and plan to undertake further exploration at Yarcowie" said Mr English.

Project description

The Yarcowie Project is located approximately 20km east of the Tesla 100MW battery array at Jamestown, South Australia. The Yarcowie tenement area crosses the Barrier Highway and is within close proximity to existing rail, power, gas and other significant infrastructure.

On 8 November 2017 Archer announced the results from the maiden reconnaissance sampling program at Yarcowie. Rock chips were collected over a large area at Yarcowie with high grades ranging from 0.36% (3,600ppm) to 0.94% (9,400ppm) cobalt.

Latest results

The latest exploration work involved geological mapping and the collection of rock chips in proximity to the site of the previous rock chip sampling. Cobalt mineralisation was mapped over a length of 1km and a width of approximately 500 metres. Encouragingly, cobalt was discovered 1km to the southeast of the original cobalt discoveries suggesting that the mineralisation is more extensive than originally anticipated.



Figure 1: *Jamestown Tesla battery farm, approximately 20km from Yarcowie cobalt project*
 (source: <http://www.adelaidenow.com.au/news/south-australia/worlds-largest-lithium-battery-switched-on-near-jamestown/news-story/2c4992845ce77309d7dad0d48a2d754c>)

The vein sets that host the manganese and cobalt mineralisation were originally thought to be conformable to the geology (i.e. orientated in the same direction), however the discovery of cobalt over a larger area suggests that the mineralisation is in fact at right angles to the stratigraphy. This feature will require further exploration to better understand the structure, topographical features and geology that controls the cobalt mineralisation.

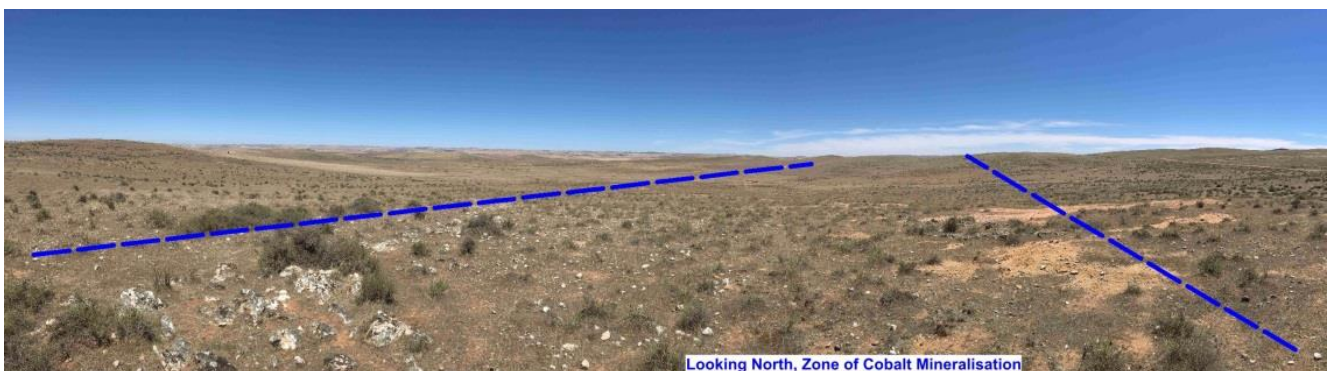


Figure 2: *Standing at site of Sample Hill271117_15 (0.15% cobalt) looking north along conceptual mineralised corridor*

The assay results from the latest rock chip sampling are summarised below:

Sample #	Easting	Northing	Co %	Mn %	Ni (ppm)	Zn (ppm)	Cu (ppm)
Hill271117-01	303601	6315975	0.00	0.02	11.3	26	20.5
Hill271117-02	303561	6315851	0.02	1.97	30.3	86	54.7
Hill271117-03	303561	6315850	0.00	0.08	38.1	109	30.5
Hill271117-04	303602	6315842	0.08	1.35	374	276	79.8
Hill271117-05	303616	6315853	0.10	2.23	204	243	135.5
Hill271117-06	303572	6315827	0.24	5.3	567	499	243
Hill271117-07	303432	6315641	0.16	3.77	239	365	259
Hill271117-08	303857	6315659	0.44	7.64	571	555	319
Hill271117-09	303598	6315620	0.26	5.07	1030	538	232
Hill271117-10	303578	6315606	0.13	5.36	1955	748	227
Hill271117-11	303600	6315615	0.49	21.5	877	827	444
Hill271117-12	304057	6315395	0.38	14.05	997	1960	111.5
Hill271117-13	304115	6315282	0.52	14.65	625	931	680
Hill271117-14	304115	6315282	0.40	8.66	480	722	529
Hill271117-15	304318	6315065	0.15	6.94	337	324	381

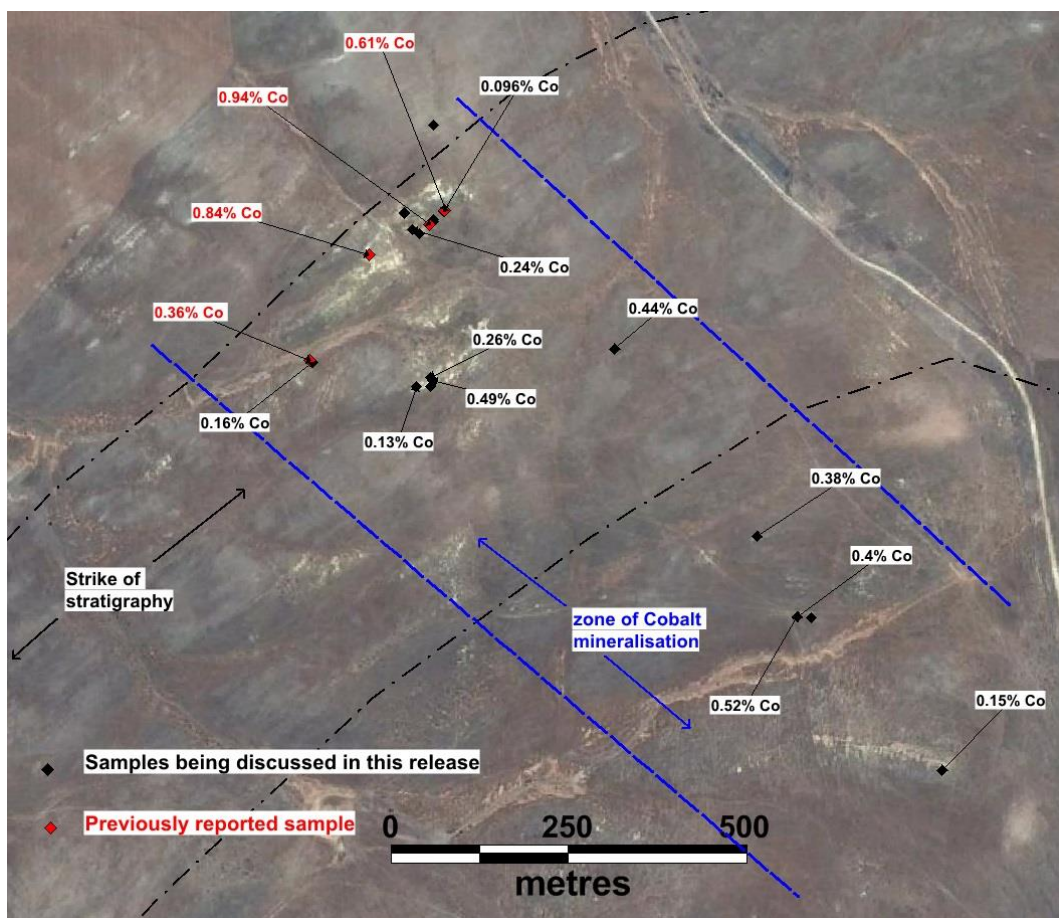


Figure 3: Location and grade (cobalt only) of Yarcowie rock chip samples.

Next Steps

Archer will assess these latest results and plans to undertake further exploration in the coming months and report these results as they come to hand. The data from the rock chip sampling will be integrated with available geophysical data to identify additional target areas.

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	<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 are rock chip samples and surface samples taken that contained quartz and manganese from within vein sets and veinlets identified on the ground. 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.
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.). 	Drilling is not being reported in this release.

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. 	Drilling is not being reported in this release.
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. 	Drilling is not being reported in this release.
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. 	Drilling is not being reported in this release.

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"> Drilling is not being reported in this release. Only laboratory 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. 	<p>Drilling is not being reported in this release.</p>
Location of Data Points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> MGA94 Zone 54 grid coordinate system is used. A hand-held GPS was used to identify the sample location Quality and adequacy is appropriate for this level of exploration
Data Spacing and Distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	<p>Drilling is not being reported in this release.</p>

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. 	Drilling is not being reported in this release.
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. 	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 5935 (owned by SA Exploration Pty Ltd, a subsidiary of AXE). The tenement is in good standing with no known impediments.
Exploration Done by Other Parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> No exploration has been under taken on this area, apart from a single reported rock chip sample taken by the DPC in 1989 with no geological description. In the district considerable exploration has been undertaken by numerous companies exploring for diamonds within the kimberlites.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The mineralisation appears associated with quartz veinlets and veins that host manganese and other minerals, these appear conformable with stratigraphy. All of the vein sets appear to be constrained to a zone that cross cuts the stratigraphy, this zone has not been fully identified. The enrichment of manganese of elements like Co,Ni Cu and Zn appears typical of the area.

Criteria	JORC Code Explanation	Commentary
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. 	Drilling is not being reported in this release.
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. 	Drilling is not being reported in this release.
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'). 	Drilling is not being reported in this release.
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. 	See main body of report.

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.	None to report at this stage of reconnaissance, which was to confirm the presence of cobalt from historical work.
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. 	Figures in the body of this report highlight the gaps in the data.