

#### 29th November 2012

## **ASX ANNOUNCEMENT / MEDIA RELEASE**

Archer Exploration Limited
ABN 64 123 993 233

Level 1, 28 Greenhill Road Wayville, SA 5034 Australia

Telephone +61 (0)8 8272 3288 Facsimile +61 (0)8 8272 3888 info@archerexploration.com.au www.archerexploration.com.au

## **ELECTROMAGNETIC DATA DEFINES CONDUCTIVE BODIES AT WORLDS END**

#### **HIGHLIGHTS**

- EM modelling suggests the presence of a highly conductive body at Worlds End which hosts the Mimic polymetallic exploration target.
- EM modelling at Robertstown has identified a conductive body occurring adjacent to the Nms9 stratigraphic unit which is an important lithological unit for copper and polymetallic mineralisation in the Burra region.

### **Background**

Archer Exploration Limited is clearly focussed on developing the Campoona Graphite Deposit and has directed much of its exploration budget in 2012 to advancing that project to the point where a Maiden JORC Resource is expected in early December.

In mid-2012 Archer sold its West Roxby tenements to BHP Billiton for \$8 million in cash and successfully completed a share placement and capped SPP which enabled the Company to have cash reserves of \$11.7 million as at 31 October 2012.

Whilst the Company will continue to push mining and mineral processing studies at Campoona at pace, the cash balance has enabled the Company to look at a number of longstanding exploration targets in the Burra region of the Adelaide Fold Belt that, for lack of funds, remained undrilled.

Archer is now in a great position not only to fund exploration and development studies on the Campoona graphite deposit but also to fund exploration on promising copper and gold targets.

## **Polymetallic Exploration Targets**

Throughout 2009 and 2010 Archer defined a number of copper targets (World's End and Robertstown), gold targets at Napoleon's Hat and Watervale and manganese targets at North Burra (Ketchowla).

Of particular interest are the copper (polymetallic) targets - Mimic and Robertstown located on EL 4230 Worlds End.

Previous exploration on these polymetallic targets has consisted of soil sampling and rock chip sampling. An airborne EM survey conducted in October over Mimic and Robertstown has indentified conductive bodies that may reflect polymetallic mineral occurrences.

Further EM data modelling is being undertaken to define drill targets for testing in early 2013.

## EL 4230 Worlds End

Worlds End EL4230 contains outcropping Skillogalee Dolomite which plays host to several local historical copper mines including the Burra Monster Mine (86,000t of refined copper produced) and the Princess Royal located to the west of EL 4230.

Historic mining shows two units within the Skillogalee Dolomite (Nms7 and Nms9) (Figure 1) to be important hosts for copper and polymetallic mineralisation ( $Cu \pm Au \pm Ag \pm Pb \pm Zn$ ).

Copper mineralisation in the Burra Region is often accompanied by iron enrichment at the surface. Such iron expressions occurred at Robertstown and Dunstan's (to the south of Mimic).

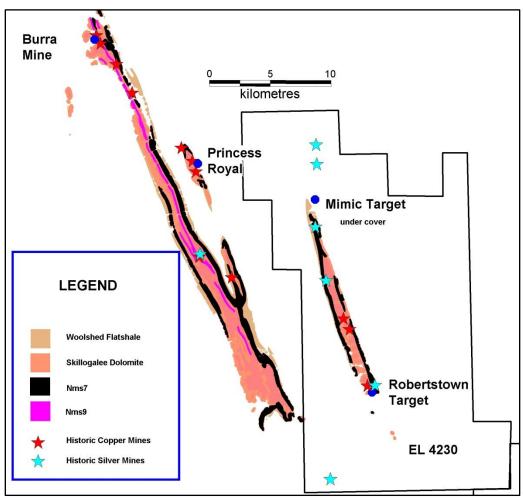


Figure 1. Worlds End geology showing stratigraphy and historic copper mines

Significant silver was reported between Robertstown and Mimic prior to 1886. The area hosted a number of mines that drew analogies to the Silverton deposits at Broken Hill. Most operations were shallow (<40m) with mining ceasing once the iron- rich material was mined out.

In late 1912 there was a revival in mining in the area when cerrussite ore ( $PbCO_3$ ) was identified at Robertstown. By mid 1913 shaft sinking had reached a depth of 30m recovering over 50 tons of polymetallic ore containing gold, copper, silver, lead and zinc. Mined ore was shipped to Germany for treatment. Reports documented that the lode improved in size towards the water table. By October 1913 the shaft was at 70m. At this point because of the depth, the owners approached the SA government to drill a diamond hole to test extensions with a view for development. No drilling was ever undertaken.

The EM identified conductive bodies at depth at both Robertstown and Mimic (Figure 2).

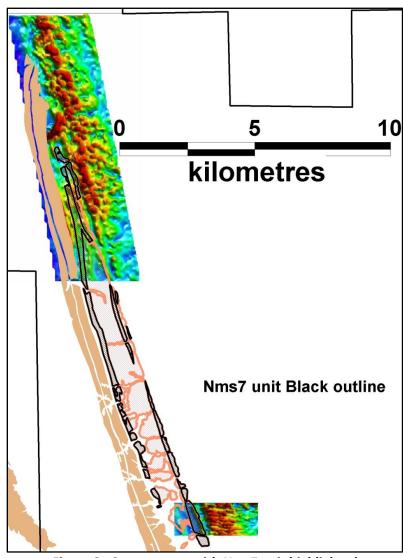


Figure 2. Survey areas with Nms7 unit highlighted

### Mimic

The Mimic target is a conceptual blind target modelled to exist within the hinge of a faulted north plunging anti-form. Such a structural setting would result in limited surface exposure of

any mineralisation. The presence of substantial "iron blows" to the south supports of the mineralisation model. Whilst there is no record of copper being mined at the location (1867), silver was mined from several deep shafts located along the iron blows.

Figures 3 and 4 show conductive depth slices from the EM survey which highlight structurally related conductive drill targets.

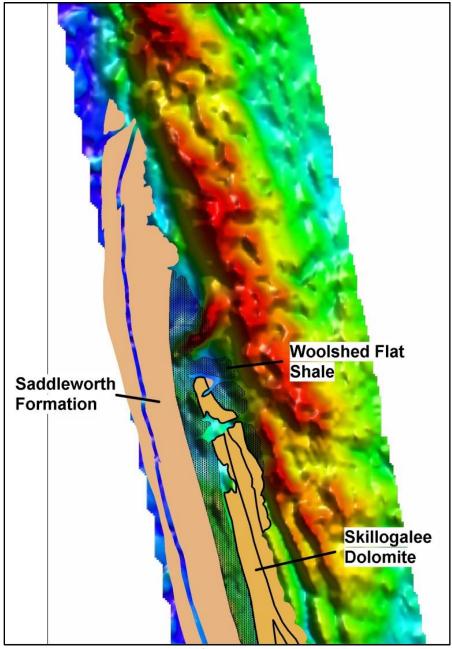


Figure 3. EM response from 80m with outcrop geology

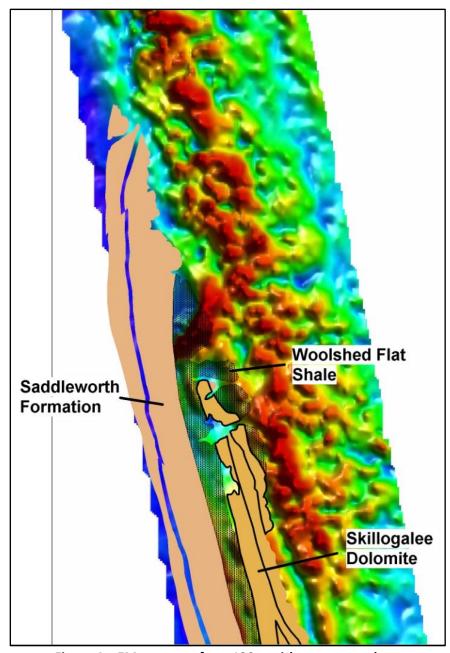


Figure 4. EM response from 120m with outcrop geology

The conductive body cross cutting the stratigraphy to the north of the Skillogalee Dolomite is one of a number of drill targets. Additional EM targets reside to the east adjacent to cross cutting structures. All targets are considered to be blind and have no surface expression.

#### Robertstown

Robertstown is an area of historic mining for copper and silver (pre 1900). All evidence of historic workings has been removed.

Historical reports (1913) indicate that sizeable underground mining development occurred at Robertstown with shafts reaching 230ft. A polymetallic ore comprising lead, zinc, copper, silver and gold were won from underground workings. The mining company petitioned to get the State owned drill rig to drill the mine extensions. That drilling did not eventuate and the workings ceased.

EM data at Robertstown indicates conductive bodies at depth (figures 5 and 6). These conductive bodies will be drill tested in early 2013.

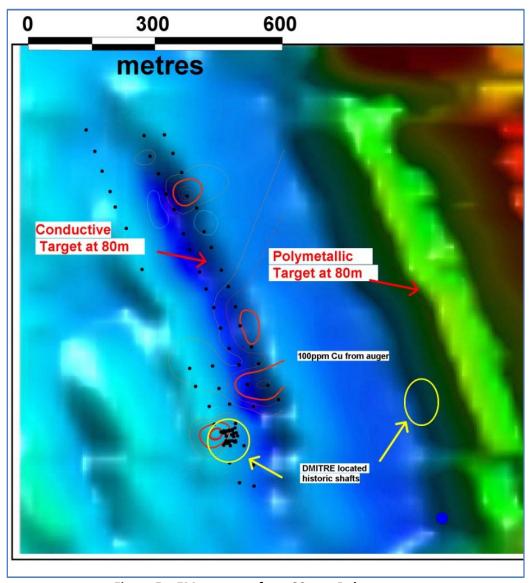


Figure 5. EM response from 80m at Robertstown

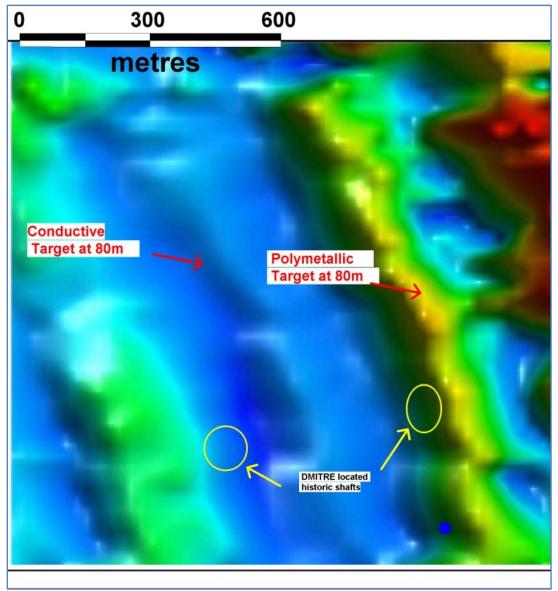


Figure 6. EM response from 120m at Robertstown

# **Future Work**

- Additional modelling of the raw EM data sets will be ongoing with a view to create sections for drill testing.
- Landowner discussions have commenced with a view for drill access.
- Application is to be made to DMITRE to drill test the final targets in early 2013.

For further information please contact:

Mr Greg English Chairman Archer Exploration Limited Tel: (08) 8272 3288 Mr Gerard Anderson Managing Director Archer Exploration Limited Tel: (08) 8272 3288

The exploration results reported herein, insofar as they relate to mineralisation, are based on information compiled by Mr. Wade Bollenhagen, Exploration Manager of Archer Exploration Limited. Mr. Bollenhagen is a Member of the Australasian Institute of Mining and Metallurgy who has more than eighteen years experience in the field of activity being reported. Mr Bollenhagen has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" relating to the reporting of Exploration Results. Mr. Bollenhagen consents to the inclusion in the report of matters based on his information in the form and context in which it appears