

ASX Announcement

9 December 2015

## Sugarloaf update

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### Highlights

- Final University of Adelaide test results indicate the “Sugarloaf Carbon” deposit has optimal potential as an agricultural product for application in soil conditioning and soil remediation
  - The study findings support the decision by Archer to focus on the Sugarloaf deposit as an agricultural project rather than a graphite source for technological use
  - Next steps include further agricultural and soil remediation testing
  - Sugarloaf remains part of broader hub of nearby graphite deposits being developed by Archer for first mining
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Diversified metals explorer and developer, Archer Exploration Limited (ASX: “AXE”) is pleased to announce that the final report from the University of Adelaide on testing of the Company’s wholly-owned Sugarloaf carbon deposit on SA’s Eyre Peninsula, confirms that the mineralisation’s unique physical and chemical attributes is likely best suited to soil amelioration and remediation.

The Sugarloaf project is located on the Company’s own farm and next to its proposed graphite processing plant near Cleve on central Eyre Peninsula where a hub of graphite deposits is being developed by Archer to supply the global battery market.

Archer says it will now move to further soil conditioning and remediation focused testing following the findings of the University of Adelaide.

Archer’s Managing Director, Mr Gerard Anderson:

*“The final Sugarloaf test results support the possible development of Sugarloaf as a low cost source of potentially high value soil improvement and soil remediation products.*

*“Exploration and test work results to date are showing that Sugarloaf is a large and unique project, with much of the carbon present as non-graphite carbon which has characteristics that most favour its use as a soil conditioner and in soil remediation applications.*

*“A locally manufactured carbon based product could contribute to the economic success of Archer’s broader Eyre Peninsula graphite project.”*

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## About Sugarloaf

Testing by Archer has shown that Sugarloaf is not a typical crystalline graphite deposit but a unique form of carbon. Sugarloaf carbon has no defined crystal habit and hence the term **Sugarloaf carbon** now more accurately describes the deposit's gross mineral composition. Chemically, Sugarloaf carbon contains <15 % carbon, >50% silica and multiple trace elements in its bulk structure.



Figure 1: Looking west from top of Sugarloaf hill across Archer's farm land

Drilling by Archer at Sugarloaf has supported an Exploration Target of 40 – 70 million tonnes at a grade of 10 -12% TC. *(It must be noted that whilst the Exploration Target is large, the potential quantities and grades presented in the Exploration Target are conceptual in nature, there has been insufficient exploration to define an overall Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource).*

## Testing by University of Adelaide

Archer previously reported (refer to ASX announcement dated 2 September 2015) that the University of Adelaide had conducted a series of three different tests using raw Sugarloaf graphite, including wheat plant trials, to principally examine plant growth, plant nutrient uptake and soil acidity/pH impacts. The first round of findings favoured its optimal use as a soil conditioner and soil remediation agent



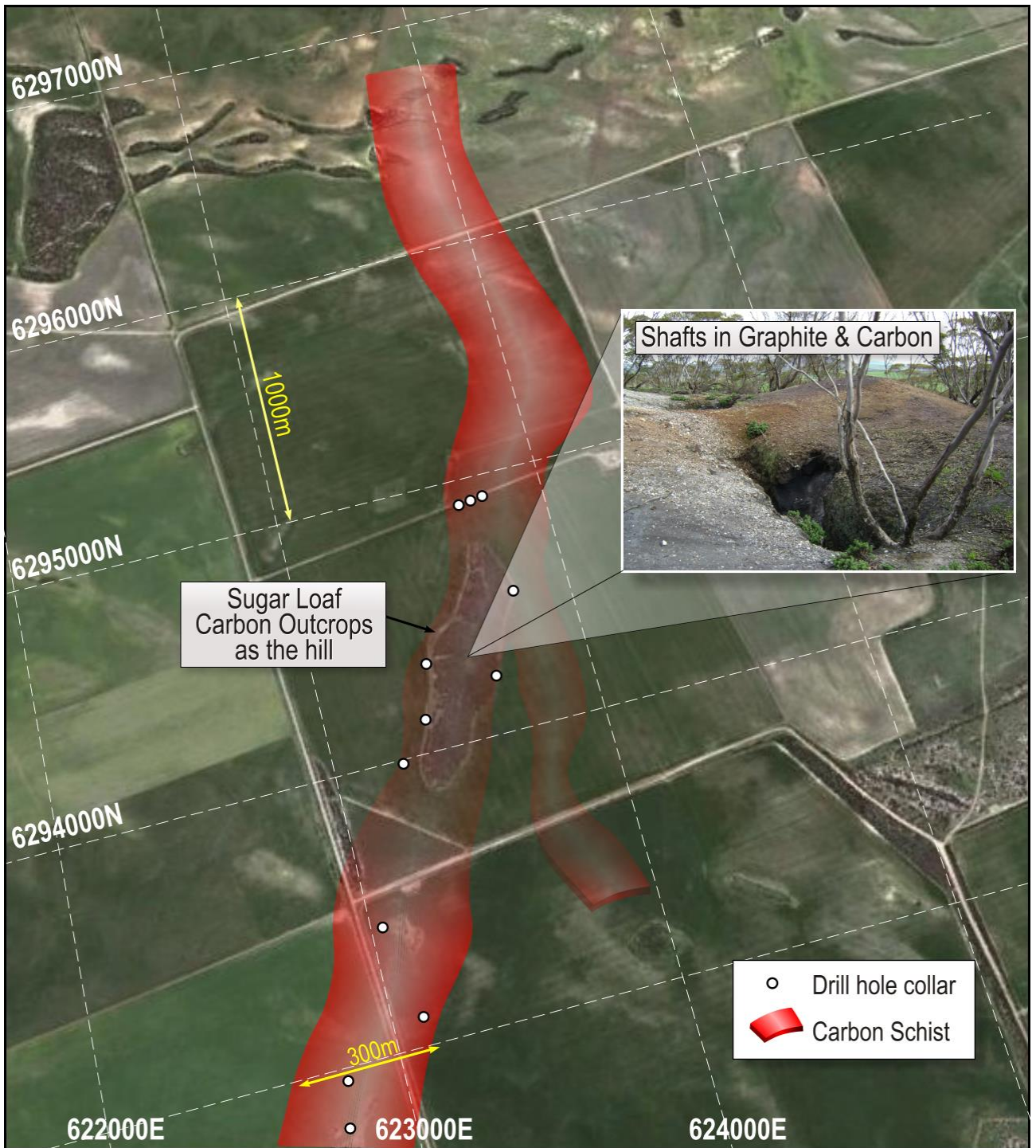


Figure 2: Sugarloaf anti-form showing spatial extent of Exploration Target

## Next Steps

As a result, Archer will now undertake further testing of Sugarloaf carbon including:

- Additional test work with the University of Adelaide's School of Agriculture.
- Determining a fuller picture of the suitability of Sugarloaf for use in soil remediation.
- Designing future geological work and drill programs with the aim of significantly increasing the size of the existing exploration target.

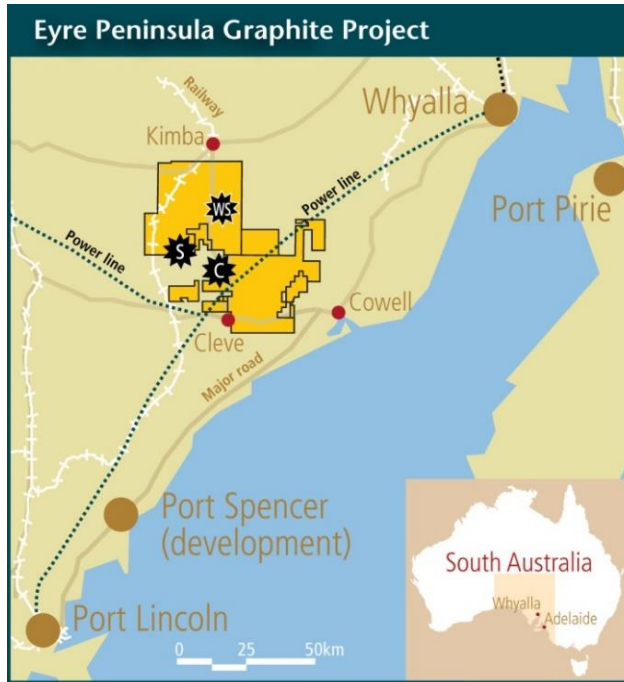
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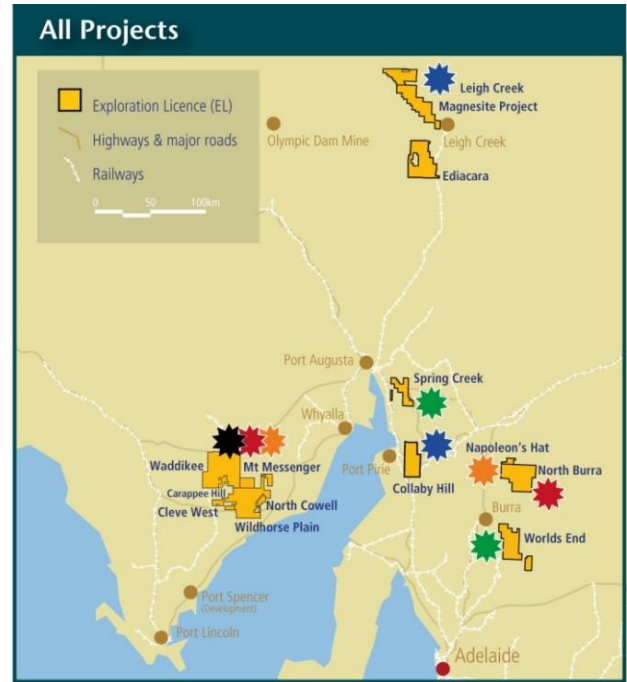
*The exploration results and exploration targets reported herein, insofar as they relate to mineralisation, are based on information compiled by Mr. Wade Bollenhagen, Exploration Manager of Archer Exploration Limited. Mr. Bollenhagen is a Member of the Australasian Institute of Mining and Metallurgy who has more than twenty 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 2012 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.*

Archer Exploration Limited is an Australian Stock Exchange listed company with 100% ownership of 16 tenements all in South Australia covering more than 5,000 km<sup>2</sup>.



**Advanced Graphite Projects**

-  Campoona
-  Sugarloaf
-  Wilclo South



**Priority 1 and 2 targets:**

-  Graphite
-  Magnesite
-  Manganese
-  Copper
-  Gold