ABN: 64 123 993 233

ASX Announcement (ASX:**AXE**) 6 April 2018

Technical analysis directly proves the high quality of Campoona graphite

Highlights

- Technical analysis undertaken by Archer and The University of Sydney to view individual carbon atoms has confirmed graphite from Archer's Campoona deposit is structurally near-perfect down to the atomic scale.
- The intrinsic physical properties of Archer's graphite confirm suitability for use in batteries and the production of graphene.
- The high quality of Archer's graphite is maintained even after mechanical and chemical processing.
- The results of the technical analysis will now be used to find potential off-take partners and end users.

Archer Exploration Limited (ASX:AXE, Archer, Company) is pleased to provide the following results of technical analysis undertaken by Archer at the world-class Australian Centre for Microscopy & Microanalysis at The University of Sydney with respect to the structural and physical properties of graphite samples sourced from its Campoona graphite deposit.

Nano-scale and atomic-scale analysis of representative, processed samples of Archer's graphite materials extracted from the Campoona deposit, was undertaken using a variety of techniques, including use of a JEOL 3000F Transmission Electron Microscope. The aim was to investigate the structural integrity and quality of the graphite samples that had undergone mechanical and chemical treatment to yield 99%+ total graphitic content, and to enable this information to be provided to potential off-take partners and high volume down-stream end users.

The enhanced high-resolution transmission electron microscope (TEM) images at an atomic level show a structurally near-perfect hexagonal graphite lattice, demonstrating the structural integrity and high quality of the graphite sourced from Campoona (Fig. 1). The material analysed shows minimal defects are present, which is critical for battery applications and high-quality graphene production using graphitic feedstocks.

The results confirmed the structure of the Campoona graphite lattice closely matches the perfect theoretical crystalline structure for graphite. The graphitic material samples consistently showed a high degree of crystallinity clearly visible in the 'honeycomb' structure/lattice shown in the electron microscope images.

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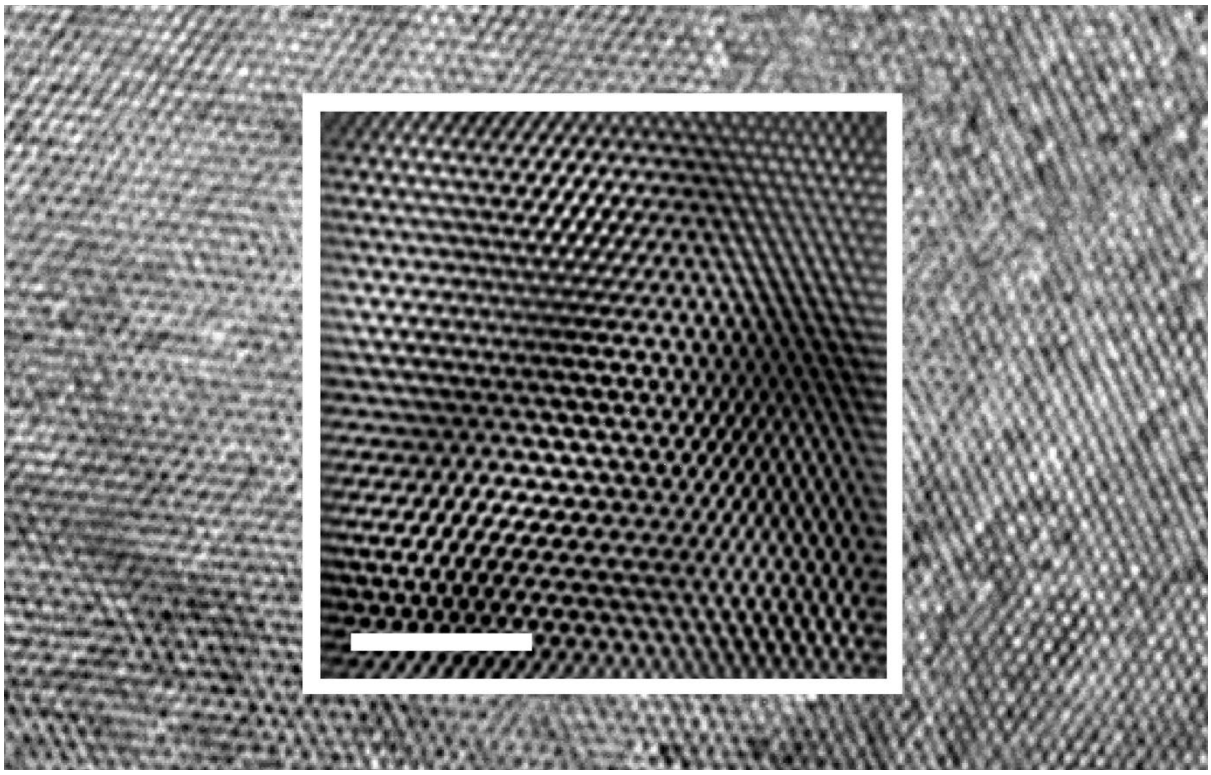

Fig. 1. ***An enhanced high-resolution image of Archer's Campoona graphite taken using a JEOL3000F Transmission Electron Microscope showing a highly defined, intricate and periodic honeycomb structure constituting the graphite material. Scale bar represents 2 nm.***

Archer CEO Dr Mohammad Choucair commented, "This is an exciting development for Archer and it confirms our view that we are capable of producing high quality graphite from our Campoona deposit. These excellent results will greatly assist the ability for us to market our material to potential customers and end users.

"Together with atomic-scale imaging of our graphite, we also performed a number of microscopic, spectroscopic and physical property technical analyses to capture a complete picture of the material quality. The ability to obtain atom-level insights using Archer's in-house expertise is unique and sets Archer apart from other companies. This technical data is now available to potential offtake partners and customers ready to integrate our materials in high-volume applications down-stream".

"At the most fundamental level, this work shows the graphite sourced from Campoona, after mechanical and chemical processing, retains its high structural integrity. We are confident in our capability to produce high quality graphite which is also suitable for high-value graphene production".

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