



ARDIDEN

ASX/Media Announcement

13 May 2015

PROMISING GRAPHENE RESULTS FROM ARDIDEN'S CANADIAN GRAPHITE PROJECT

Important breakthrough with testing confirming that high-quality graphene can be extracted from Manitouwadge graphite

ASX: ADV

Capital structure:

Ordinary shares
433.5m

Options (Unlisted)
68.5m (various)

Shareholders:

Institutional 13%
Board/Mgt 19%
Retail 68%

Top 20: 56%

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Key Points:

- **Successful testwork has been undertaken by researchers at the University of Adelaide on core samples from Ardiden's Manitouwadge Graphite Project in Ontario, Canada.**
- **Testwork has confirmed that graphene was extracted from Manitouwadge graphite using various methods.**
- **The high quality of the graphene produced was described as comparable with synthetic graphene routes.**
- **Thermal and electrochemical extraction methods were successfully used to extract high-quality graphene from processed samples.**
- **The graphite characterisation showed considerable conductivity, which is important for electrochemical processing.**
- **The graphene produced also showed low structural defects, which is considered to be important for advanced storage applications.**

Ardiden Limited ("Ardiden" or "The Company") is pleased to announce highly promising initial results from graphite characterisation and graphene exfoliation undertaken by the University of Adelaide on drill core from its flagship **Manitouwadge Graphite Project** in Ontario, Canada.

The results represent a potential breakthrough development for the emerging Manitouwadge Project, confirming the potential to extract high quality graphene from core sourced from a recent drill program using various methods.

Graphene sells for a substantial premium to conventional graphite because of its exceptional properties as the lightest and strongest known material on earth, as well as its ability to conduct heat and electricity better than any other known substance. Graphene has a growing number of high-technology potential for use and application worldwide including super-capacitors, conductive inks, biomedical, paints, sporting goods, plastics, 3D printing inks, alloys, energy storage and concrete/civil materials.

The graphite tested was sourced from the Company's recent drill program (completed in March 2015) at Manitouwadge. The graphite was a representative sample sourced from Hole MG-02 at 36m depth.

Testing confirmed graphene could be extracted using a number of different extraction methods (see Figure 1 below).

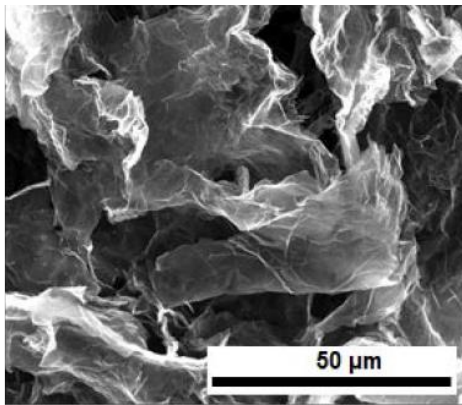


Figure1: Graphene extracted from Ardiden's Manitouwadge graphite

The graphene produced from electrochemical and thermal exfoliation showed low structural defects, which is considered to be important for application in advanced storage technologies such as batteries and super-capacitors. Raman spectroscopy was used to measure the quality of the graphene. A key measure is based on an indication of the defects (D band) compared to the G band (graphitic structure) and presence of 2D peak confirming single or few graphitic layers (see Figure 2 below)

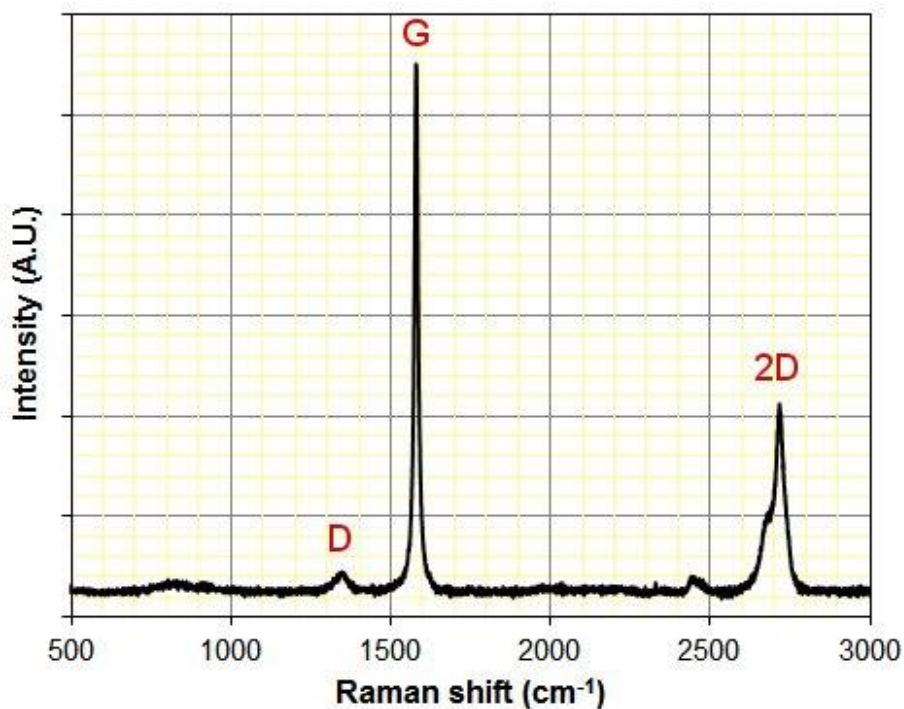


Figure 2: Characterization of quality of graphene extracted using the electrochemical method using Raman spectroscopy confirming high quality by low D;G ratio and 2D peak

Graphene is a single layer 2-D carbon atom arranged in hexagonal patterns. Graphene has a number of extraordinary properties including exceptional strength (over 100 times stronger than steel), 10 times better electricity conductivity than copper, highly translucent (only 2.4% of light absorbed) and is the thinnest (one atom thick) and lightest material (1m² weighs 0.77mg) known to man.

The development of graphene research and the graphene market is being undertaken globally at a rapid pace with substantial investments being made in both commercializing the production of graphene and also the potential applications of graphene.

The lightweight nature, strength and conductivity properties of graphene lend it to usage in a number of multi-billion dollar end markets.

Ardiden is currently awaiting the results of beneficiation testing of graphite from its recently completed drill program to determine the flake size distribution and quality of graphite from the Manitouwadge project. Beneficiated graphite samples from this program will be provided to potential customers as samples and used for further testwork of its graphite and graphene properties.

“While still early days, this is a very exciting development for the Ardiden and the Manitouwadge Project,” said Ardiden Director James Thompson. “The potential to produce graphene of very high quality using a number of different methods opens up a whole new realm of exciting opportunities for this project to be exploited as a scalable producer of graphene as well as of flake or jumbo graphite.

“The characteristics of the graphene produced have been described as comparable with synthetic graphene routes,” he added. “This gives us great confidence in the commercial potential of this project, particularly given its location in an established mining province close to infrastructure.

“Graphene is without doubt one of the wonder materials of the 21st century and the ability to produce high-quality graphene from this project could have major implications for its future commercial development,” Mr Thompson said. “We are looking forward now to the results of beneficiation testwork, which we expect in the coming days.”

Board of Directors
Ardiden Limited

ENDS

About the Manitouwadge Project

Located in an established mining province in Ontario, Canada, the Manitouwadge Project has been confirmed as an attractive near-term development opportunity following a highly successful recent diamond drilling program.

This drilling confirmed the presence of previously identified surface graphite at depth with grades comparable to other graphite deposits in Ontario being developed by TSX-listed companies such as Zenyatta Ventures and Northern Graphite.

Previous testwork has indicated that a significant proportion is high value jumbo or large flake graphite. Testwork has also indicated that simple, low cost gravity and flotation beneficiation techniques can result in graphite purity levels of up to 94.8% for jumbo flake and 94% for large flake.