

#### 1 November 2016

#### **ASX Market Announcements**

# Imagine Intelligent Materials

# Market Update – October 2016

Pacific American Coal limited (**ASX:PAK**) is pleased to provide shareholders the latest Imagine Intelligent Materials (**Imagine IM**) update. PAK holds a 40% equity interest in Imagine IM, which forms the cornerstone of the Company's investment into technology companies. Imagine IM is focused on delivering value through the commercialisation of graphene based technologies.

For information further on the Imagine IM Market Update – October 2016, please contact:

Chris Gilbey OAM Chief Executive Officer Imagine Intelligent Materials Pty Ltd By visiting http://imgne.com/

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More details are available on PAK's website: www.pamcoal.com



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## In the Imagine IM October newsletter:

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### First Sales Order

I am delighted to report that we have just received our *first sales order* for imgne® X3 masterbatch from Geofabrics. The leak detection application is for a coal seam gas tailings tank liner and will be installed early December. This critical step will require our product solutions to perform as well as or better than other solutions in the challenging physical environment that they are designed for.

### Certification

Last week the Company excuted an MOU with Swinburne University in Melbourne to establish the Imagine Intelligent Materials Graphene Certification Centre. The process of product certification is at the heart of our licensing business model. We need to provide certification of materials throughout the supply chain, in order to develop and deliver a robust quality assurance regime and give confidence to our customers and licensees. This is what will enable us to build a significant licensing business.

### Awards

In the last month Imagine IM received an Engineering Excellence Award from the AEEA for Innovation. The award was presented jointly to Imagine IM and Austeng, the engineering company contracted to provide design and engineering services to deliver our pilot graphene masterbatch plant.

In the last week we found we had been nominated for another award, from the World Technology Network, and this time in the category of "materials". The WTN has some stellar advisors and award recipients, including Elon Musk, Craig Venter and Andre Geim. Obviously I will keep you posted as and when there is anything to report.

## People

David Rieser recently joined the company to work with me on business case development. Originally the intent was for this to be in a part time capacity. He has now agreed to assume a "whole of business management and operations" role – essentially to become COO. David has previously run manufacturing operations in the US and improved productivity for large companies Georgia Pacific Corporation. His first area of focus for Imagine IM will be to manage the optimisation of the Imagine IM plant to ensure it will meet anticipated orders for masterbatch, and that the plant itself will be able to be replicated for deployment as and when our first international sales contracts are executed.

This will enable Phil Aitchison, who has been both head of R&D and COO to focus on the company's R&D activities – an absolutely critical part of building enterprise value over the coming months/years.

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## Imagine IM graphene plant

As you know our plant is now operational. Our next goal is to improve materials throughput and efficiency and reduce unit cost so that we can generate the target level of margin. The current planning indicates that it will take until the middle of 2017 to bring the plant to its optimal productivity and masterbatch throughput.

## Product Launch

The first geotextiles to be manufactured will be installed in early December at an Origin Energy coal seam gas operation in Queensland. We are treating this as a "beta" product release. We will be ensuring that we have our people on site during the installation to monitor every aspect of both installation and testing, which will provide important feedback for our production process.

## **Capital Raising**

The company will need to raise further capital at the beginning of next year in order to continue funding existing operations and to provide additional capital expenditure for improving masterbatch throughput of the plant to enable fast turnaround of orders that we are anticipating from Geofabrics in the next 12 months. In addition we will need to bring the plant up to a specification where we can confidently manufacture samples of masterbatch suitable for different kinds of polymers that are in use by geotextile companies operating in some international markets. Our strategic intent is to identify financial partners/licensees to whom we will license manufacturing rights while maintaining the plant in Australia as a part of our research and development capability.

If you are interested in finding out more about the capital raising, please contact me directly.

Regards

Chris Gilbey

Chris Gilbey OAM CEO