

---

## POSITIVE YALLOURN FLY ASH TEST RESULTS

*New test work achieves over 90% recoveries of magnesium, calcium & iron  
Magnesium grade nearly double compared with alternative methods  
New IP owned by LMG*

---

**2 May 2018, Sydney Australia:** Latrobe Magnesium Limited (ASX:LMG) has achieved very positive test results on processing Yallourn fly ash from its test work conducted at Monash University.

Since January 2018 LMG has been working with Monash University, which has been performing laboratory scale tests on the Yallourn fly ash. This test work has shown that it can breakdown the magnesioferrite, the most abundant mineral in the Yallourn fly ash and extract the magnesium oxide (MgO), calcium oxide and iron oxide separately. The recovery rates achieved for each material is over 90%.

As a feed stock for LMG's fast cycle retort, the MgO grade is nearly double that produced by alternative methods. This result is achieved mainly by the effective reduction in the high iron content in the Yallourn fly ash as well as the specific targeting of the minerals by this process.

This Monash process will replace the iron removal stage in LMG's normal hydrometallurgical process. LMG owns the intellectual property developed during this project with Monash University.

In January 2018, LMG and EnergyAustralia Yallourn Pty Ltd (Yallourn) signed a Memorandum of Understanding (MoU) for Yallourn power station to supply its fly ash to LMG's proposed 3,000 tonnes per annum magnesium plant in the Latrobe Valley. The MoU allows for the expansion of the plant to 40,000 tonnes per annum.

There are a number of stages in this project and the development of the project is conditional on the successful completion of the pilot stage and the signing of formal agreements.

Further work is being conducted at Monash University to finalise a preliminary flowsheet and material balance. This will enable LMG to confirm the economic benefit of the higher MgO feed stock.

LMG will then be in a position to produce a large scale beneficiated sample of Yallourn fly ash to process through its fast cycle retort. Upon completion of this work LMG will then be in a position to complete a feasibility study using Yallourn fly ash.



David Paterson  
Chief Executive Officer

## **About Latrobe Magnesium**

Latrobe Magnesium is developing a magnesium production plant in Victoria's Latrobe Valley and another plant near Cologne in Germany using its world-first patented extraction process. LMG intends to extract and sell magnesium metal and cementitious material from industrial fly ash, which is currently a waste stream from brown coal power generation.

LMG has completed a preliminary feasibility study validating its combined hydromet / thermal reduction process that extracts the metal. Construction is estimated to start on its initial 3,000 tonne per annum magnesium plant in the fourth quarter of 2018 year with production commencing 12 months later. The plant will then be expanded to 40,000 tonne per annum magnesium 18 months later. The plant will be in the heart of Victoria's coal power generation precinct, providing immediate access to feedstock, infrastructure and labour.

LMG plans to sell the refined magnesium under long-term contracts to Australian and overseas customers. Currently, Australia imports 100% of the 8,000 tonnes annually consumed.

Magnesium has the best strength-to-weight ratio of all common structural metals and is increasingly used in the manufacture of car parts, laptop computers, mobile phones and power tools.

The LMG project is at the forefront of environmental benefit – by recycling power plant waste, avoiding landfill and is a low CO<sub>2</sub> emitter. LMG adopts the principles of an industrial ecology system.