

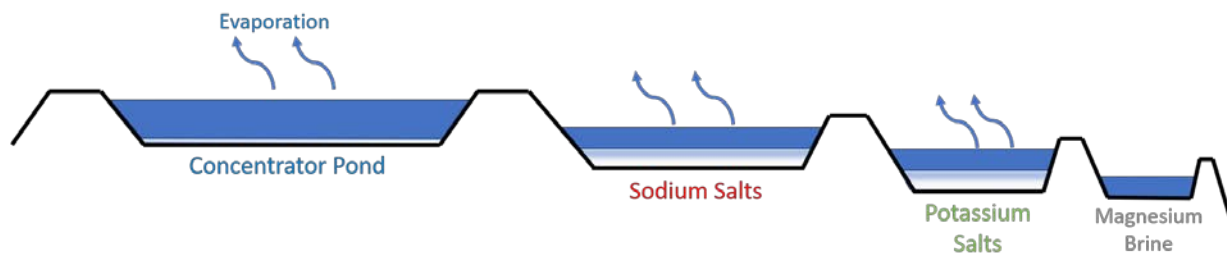
## ASX Release

Tuesday 20 February 2018

### Successful EcoMag Magnesium Pilot Trials

Kalium Lakes Limited (KLL) and EcoMag Limited (EcoMag) are pleased to announce a successful EcoMag pilot plant trial, processing residual brines from the Beyondie Sulphate Of Potash Project's (BSOPP) large scale pilot evaporation ponds, to recover high purity hydrated magnesium carbonate (HMC).

- The trials, undertaken at EcoMag's facility in Karratha, confirmed initial laboratory works completed during 2017.
- The pilot plant produced 99.5% pure HMC, with overall magnesium recovery exceeding 95%.
- The magnesium brine feedstock provided by KLL makes use of the residual liquid from the evaporation ponds after the production of mixed potassium salts. It has a magnesium content of 8 to 9%.



- Additional optimisation works are being undertaken by EcoMag as part of the pilot trials, including further downstream processing to produce even higher value magnesium oxide products.
- The pilot works confirm EcoMag's process beyond the laboratory scale and provide data for capital and operating cost estimates for a planned commercial scale plant.
- KLL and EcoMag are currently in discussions with regard to a Pre-Feasibility Study (PFS) examining the commercial viability of recovering magnesium from residual BSOPP brines.
- On completion of a positive PFS, the companies intend to work together toward the commercial scale processing of BSOPP brine to produce and sell high grade magnesium products.
- The recovery of magnesium products has the potential to generate significant additional revenue for the Kalium Lakes BSOPP.

Shaun Triner, EcoMag's General Manager for Western Australia, said: "The success of the pilot scale facility to date has been very pleasing. We are now optimising the process, which will feed into the design and development of the full scale plant, with engineering design works already well advanced."

KLL's Managing Director, Brett Hazelden, said: "We continue to enjoy a strong working relationship with EcoMag and look forward to completing the Pre-Feasibility Study. The addition of a magnesium based product is expected to increase profitability of the Beyondie Sulphate Of Potash Project which will, in turn, improve the potential return to our shareholders."



**EcoMag General Manager, Shaun Triner (left) and KLL Managing Director, Brett Hazelden (right), at the EcoMag Pilot Facility in Karratha**



**Sample of Hydrated Magnesium Carbonate produced during the trials**



**EcoMag General Manager, Shaun Triner (second right), with the EcoMag team and KLL Chairman, Mal Randall (right)**

## About EcoMag Limited:

EcoMag is an unlisted Australian public company established to commercialise a process developed by Korea's Chonnam National University (CNU). EcoMag has been granted an exclusive Australian licence to the technology for recovering high purity magnesium-based materials such as hydrated magnesium carbonate, magnesium oxide and magnesium hydroxide from bitterns and brines. These materials are used in a range of high-value applications, including chemically-toughened glass and fire retardants, and may in future be used in new-generation magnesium batteries.

The technology employed by EcoMag has been refined and successfully demonstrated at laboratory and pilot scales. EcoMag's pilot plant is being utilised to demonstrate the process at a larger scale and in-situ, on the site of the planned commercial scale plant.

EcoMag has recently joined Korea Chemical Corp (KC) and CNU, in a (US\$10 million) World Class 300 Project to develop further downstream magnesium products and commercial applications.

EcoMag's Technical Director, Professor Tam Tran, is a co-inventor of the CNU Technology.

For more information about EcoMag please view <https://ecomagnesium.com/>

### Compliance Statement

The information in this document that relates to Exploration Targets, Exploration Results, Mineral Resources, Ore Reserves and Production Targets have been extracted from the report(s) listed below.

- 3 October 2017:  
Pre-Feasibility Study with Maiden Ore Reserve Confirms Low Cost, Long Life and High Margin Beyondie SOP Project. (Including the attachment, JORC (2012) and NI 43-101 Technical Report, compiled by German Potash Experts and Competent Persons, K-UTEC AG Salt Technologies (K-UTEC)).

The report(s) are available to be viewed on the website at: [www.kaliumlakes.com.au](http://www.kaliumlakes.com.au)

Kalium Lakes confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources, Ore Reserve Estimates, Exploration Targets or Production Targets, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

### Cautionary Statement Regarding Forward-Looking Information

Statements regarding plans with respect to the Company's mineral properties may contain forward looking statements. Statements in relation to future matters can only be made where the Company has a reasonable basis for making those statements. This announcement has been prepared in compliance with the current JORC Code 2012 Edition and the current ASX Listing Rules. The Company believes it has a reasonable basis for making the forward-looking statements on 3 October 2017, including any production targets, based on the information contained in the announcement and in particular the JORC 2012 and NI 43-101 Technical Report.

All statements, trend analysis and other information contained in this document relative to markets for Kalium Lakes, trends in resources, recoveries, production and anticipated expense levels, as well as other statements about anticipated future events or results constitute forward-looking statements. Forward-looking statements are often, but not always, identified by the use of words such as "seek", "anticipate", "believe", "plan", "estimate", "expect" and "intend" and statements that an event or result "may", "will", "should", "could" or "might" occur or be achieved and other similar expressions. Forward-looking statements are subject to business and economic risks and uncertainties and other factors that could cause actual results of operations to differ materially from those contained in the forward-looking statements. Forward-looking statements are based on estimates and opinions of management at the date the statements are made. Kalium Lakes does not undertake any obligation to update forward-looking statements even if circumstances or management's estimates or opinions should change. Investors should not place undue reliance on forward-looking statements.

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## Corporate Profile (as at 19 February 2018)

Kalium Lakes Limited is an exploration and development company, focused on developing the Beyondie Sulphate Of Potash Project in Western Australia with the aim of producing Sulphate of Potash (SOP) for the domestic and international markets.

The Beyondie SOP Project comprises 15 granted exploration licences and a miscellaneous licence covering an area of approximately 2,400 square kilometres. This sub-surface brine deposit will supply an evaporation and processing operation located 160 kilometres south east of Newman.

The results of the Pre-Feasibility Study (PFS), announced on 3 October 2017, confirmed that the Project, is technically and financially robust. The key outcomes of the PFS are:

- Indicated Resource of 4.37 Mt @ 14,000 mg/l SOP at a cut-off grade of 3,500mg/l K and an Inferred Resource of 13.74 Mt @ 12,788 mg/l SOP at a cut-off grade of 3,500mg/l K.
- Maiden Probable Reserve of 2.66 Mt @ 14,210 mg/l SOP at a cut-off grade of 3,500mg/l K based solely within the Stage 1 Approval Footprint, which represents ~21% of total lake surface area within the tenement package.
- Development base case of 150 ktpa SOP, with the option to incrementally phase the project, through a ramp up from 75 ktpa to 150 ktpa SOP, to minimise operational and financial risks.
- Development base case pre-tax NPV10 of A\$388M, IRR of 28.7%, average EBITDA of A\$83 Mpa, EBITDA margin of 62%, a payback period of 3.7 years and Life of Mine (LOM) free cash flows of more than +A\$1B, based on an initial 21 year LOM and a USA\$500/t SOP sales price @ A\$/A\$US exchange rate of 0.75.
- Estimated LOM Operating Cash Cost of A\$244-253/t SOP FOB Geraldton or Fremantle Port. This places the BSOPP in the lowest quartile cost of global SOP production.
- Pre-production Capital Cost of A\$220 million including a 78 kilometre gas pipeline for the base case or A\$124 million for the phased ramp-up scenario.
- Potential additional revenue associated with recovery of magnesium by-products which have not been included in the current financial outcomes.

The Company is also a Joint Venture partner with BC Iron Limited (BCI) in the Carnegie Potash Project, a potash exploration project located approximately 220 kilometres north-east of Wiluna. Carnegie comprises one granted exploration licence and two exploration licence applications covering a total area of approximately 1,700 square kilometres.

### Kalium Lakes Limited

ABN: 98 613 656 643

ASX: KLL

Ordinary Shares on Issue: 169,793,465

### Board of Directors:

Mal Randall	Non-Executive Chairman
Brett Hazelden	Managing Director
Rudolph van Niekerk	Executive Director
Brendan O'Hara	Non-Executive Director

### Chief Financial Officer and

**Join Company Secretary:** Frederick Kotzee

**Joint Company Secretary:** Gareth Widger

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Web: [www.kaliumlakes.com.au](http://www.kaliumlakes.com.au)

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Tel: (outside Australia): +61 3 9415 4000