

## ASX Release

Tuesday 5 September 2017

### First Salts In Large Scale Pilot Ponds

#### Highlights

- **First salts commence precipitating in large scale pilot ponds**
- Kalium Lakes confirms the Pre-Feasibility Study (PFS) inclusive of an updated Mineral Resource Statement and targeted Maiden Reserve is on track for release during September
- The PFS works, including CAPEX and OPEX, are currently being **Independently Reviewed**
- **Realised cost of installing lined ponds is approximately \$5.40 per square metre**, inclusive of cut and fill earthworks to create level tiered pond floors, pond wall construction, liner supply and liner installation

Kalium Lakes Limited (KLL) is pleased to announce today that first salts have commenced precipitation in the large scale pilot ponds at its 100% Owned Beyondie Sulphate Of Potash Project (BSOPP).



*First Salts Precipitation - Large Scale Pilot Ponds*

Managing Director, Brett Hazelden, commented: “The production of first salts was achieved at the expected point and time within the Large Scale Pilot Pond system, which continues to confirm the quality of our previous work both in the laboratory and during small scale pilot trials.

“It is important to continue to focus on real data, obtained from actual operational and construction outcomes. The veracity and rigour of our approach and work will be vitally important when looking to secure project finance on completion of a Bankable Feasibility Study.

“A key strength of the Kalium Lakes team continues to be the quality of its people. We have a strong team of proven project developers, experienced in all phases of a project’s life from exploration through to construction, commissioning and operation, both in the Pilbara and overseas,” he said.

Kalium Lakes also confirmed the PFS, inclusive of an updated Mineral Resource estimate and targeted Maiden Reserve, is due to be finalised during September and is based solely on Stage 1 of the Project which covers 6,369 hectares or 21% of the 30,225 hectares of total available lake surface area.

Importantly, an Ore Reserve requires at least the completion of a Pre-Feasibility Study, as defined by the JORC Code. KLL is currently undertaking Independent Reviews of the PFS works, including capital and operating costs, as well as confirming compliance with the JORC Code 2012 modifying factors.

KLL also wishes to advise the market that the cost of installing lined evaporation ponds is approximately \$5.40 per square metre inclusive of:

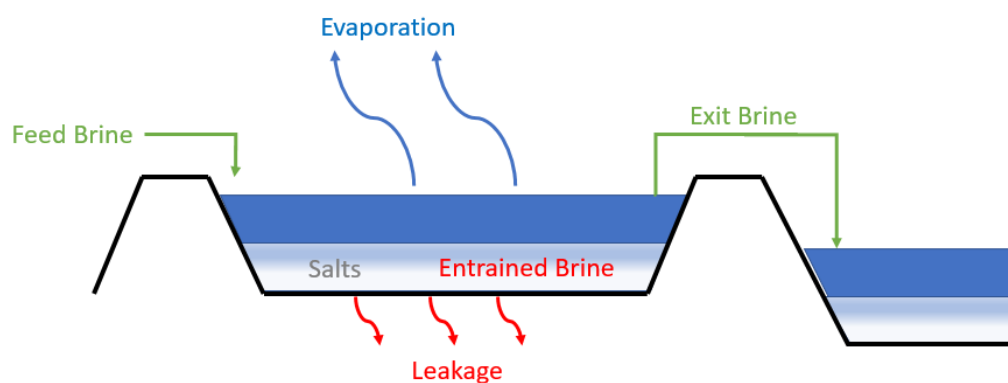
- cut and fill earthworks to create level tiered ponds floors;
- pond wall construction; and
- liner supply and liner installation.

The total cost of installing lined evaporation ponds at the BSOPP is only about 20% of the total capital cost requirement of the Project. This cost is based on the actual costs achieved during the construction of the Large Scale Pilot Ponds completed in July.

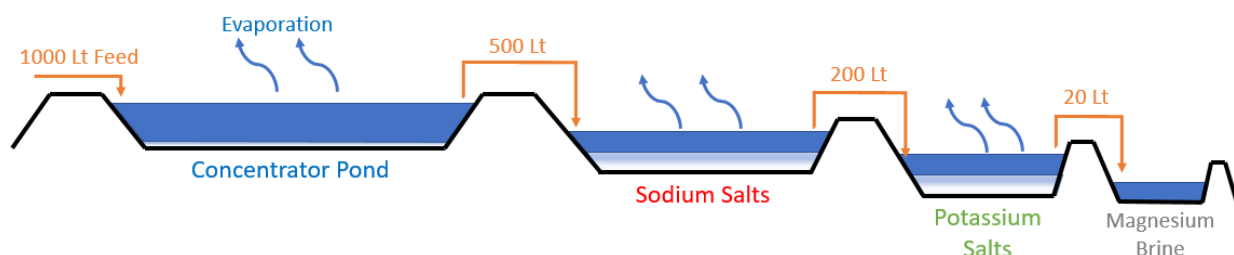
The Company has investigated both on-lake and off-lake pond location options and made the informed decision to move off-lake. One of the key reasons behind this decision is the requirement for the ponds to be tiered to be able to achieve a continuous gravity flow from one pond to the next. Operating heavy earthmoving equipment on the playa lake over a large area was also determined to be impractical, due to the boggy nature of the lake surface along with the high leakage rates and observed associated potassium recovery losses. Finally, on-lake ponds effectively sterilise areas of the lake surface from being able to extract the brine resource via trenching.

The excess sodium salts also need to be harvested in order to avoid potassium recovery losses where approximately 30% of the salt bed volume comprises entrained brine. By harvesting, draining and removing these sodium salts potassium recovery is maximised through the evaporation stage. This eliminates the ongoing capital and operating costs associated with continually constructing higher pond walls to contain the increasing volume of sodium salts being precipitated in these ponds over time. High impurity (Na:K ratio of >10:1) brines will also incur additional costs to remove the excess salts from the pond system prior to the precipitation of mixed potassium salts for plant processing.

**Figure 1: Indicative Evaporation Pond Profile**



**Figure 2: Brine Flow, Evaporation and Leakage Diagram**



As Kalium Lakes has the highest grade potassium Resource and lowest impurity levels in Australia, it has a competitive advantage through the significantly smaller pond foot print requirement and reduced excess salt stockpiling area. It is anticipated that this will translate to lower capital and operating costs.



**Continuous Gravity Flow - Large Scale Pilot Ponds**

## Compliance Statement

The information in this document that relates to Mineral Resources Estimates has been extracted from the reports listed below.

- 28 November 2016:  
Disclosure Document - Kalium Lakes Limited Independent Expert's Report Project Number AU9636 October 2016
- 11 January 2017:  
Resource Statement and Technical Report - "Technical Report for the Beyondie Sulphate of Potash Project, Australia, JORC (2012) and NI 43-101 Technical Report" dated 23 May 2016
- 2 May 2017:  
"Current Drilling Program Delivers Outstanding Potassium Grades" - ASX Release
- 13 June 2017:  
"Excellent Brine Test Pumping Flowrates With Consistently High Potassium Grades" - ASX Release
- 26 July 2017  
"High Grade Potassium Results Continue" – ASX Release
- 23 August 2017  
"Consistent High Grade Results - Two Year Comparison" – ASX Release

The Reports 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, 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

All statements, trend analysis and other information contained in this document relative to markets for Kalium Lakes including 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.

\*\*\* ENDS\*\*\*

## **Corporate Profile** (as at 5 September 2017)

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 for the domestic and international markets.

The Beyondie Sulphate Of Potash 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 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: 135,030,035

#### **Board of Directors:**

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

#### **Company Secretary:**

Gareth Widger

#### **Contact Details:**

Unit 1, 152 Balcatta Road  
Balcatta, Western Australia 6021

PO Box 610  
Balcatta, WA 6914

T: +61 (0)8 9240 3200  
E: [info@kaliumlakes.com.au](mailto:info@kaliumlakes.com.au)  
W: [www.kaliumlakes.com.au](http://www.kaliumlakes.com.au)

#### **Share Registry:**

Computershare Investor Services Pty Ltd  
Level 11, 172 St Georges Terrace  
Perth, WA 6000  
Telephone (within Australia): 1300 850 505  
Telephone (outside Australia): +61 3 9415 4000