

20 April 2017

## **SALT LAKE POTASH PLANS SOP PILOT PLANT AT GOLDFIELDS SALT LAKES PROJECT. ONGOING DISCUSSIONS WITH PROSPECTIVE GLOBAL INDUSTRY PARTNERS.**

The Directors of Salt Lake Potash Ltd (**Salt Lake** or **the Company**) are pleased to advise that Amec Foster Wheeler (AMEC) have been appointed to prepare an analysis of the alternatives for the Company to construct a Pilot Plant at the Goldfields Salt Lakes Project, intended to be the first salt-lake brine Sulphate of Potash (**SOP**) production operation in Australia.

A Pre-Feasibility Study (**PFS**) on the full-scale production model is continuing and the Pilot Plant will form a part of the feasibility study process.

Salt Lake has been in discussions since last year with a range of international industry SOP and specialist fertiliser producers and distributors, including several global market leaders, about the optimal way to realise Salt Lake's outstanding potential in the global SOP market.

Based on those discussions, the Company has formed the view that the appropriate path forward is to initially construct a Pilot Plant to demonstrate the technical and commercial viability of brine SOP production from the Goldfields Salt Lakes Project, before expanding the plant to long term optimal production levels on a staged, modular basis. AMEC have been engaged to initially consider a 20,000-40,000tpa Pilot Plant processing only brine feed drawn from the near surface Measured Resource.

The Company believes the advantages of the Pilot Plant approach are:

- Proof of concept for SOP production from salt-lake brines in Australia. This will substantially de-risk the full-scale project, with commensurate improvement in financing costs and alternatives. While substantial salt-lake brine production of SOP is undertaken in China, Chile and the USA, it is new in Australia and overseas production models need to be tested and adapted for Australian conditions.
- Refinement of design and costing of engineering elements at Pilot Plant scale may result in considerable cost savings at larger scale.
- Market acceptance of a new product in conservative agricultural markets is best achieved progressively and in conjunction with existing, established partner(s). It is important to establish Salt Lake's product(s) as premium, sustainable nutrients in the key long term markets and staged production increases are the best way to achieve this objective.
- A Pilot Plant offers an accelerated pathway to initial production, with limited infrastructure requirements and a faster, simpler approval process. The Pilot Plant is intended to operate for 12-24 months to establish parameters for larger scale production, and the Company's objective is to commence construction in 2017, harvesting first salts in 2018.
- Relative ease of financing a Pilot scale plant. Initial indications are that a Pilot Plant of this scale (40,000tpa) would cost up to US\$35m. While the Pilot Plant's principal objective is to prove the technical concept, the Company intends for it to still be cashflow positive. While economies of scale for a Pilot Plant are limited, the Goldfields Salt Lakes Project's considerable location and infrastructure advantages will be important in sustaining its economic parameters.

Several of the global SOP industry parties have expressed a keen interest in partnering with Salt Lake to market and distribute Pilot Plant production, as well as to provide technical and financial assistance in design and construction of the Plant. Those discussions are ongoing however, Salt Lake notes that the discussions are incomplete and there is no guarantee the discussions will result in any firm offtake, technical or other arrangements.

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### Background to the Goldfields Salt Lakes Project

Amec Foster Wheeler, in conjunction with international brine and salt processing experts, previously completed a Scoping Study for the Lake Wells Project (a component of the Goldfields Salt Lakes Project) in 2016 which concluded a 2-stage development producing up to 400,000tpa of SOP with estimated capital costs<sup>1</sup> of A\$230m and C1 operating costs<sup>2</sup> of \$185/t, both amongst the lowest in the world. See ASX announcement dated 29 August 2016, viewable on the Company's website: <http://www.saltlakepotash.com.au>

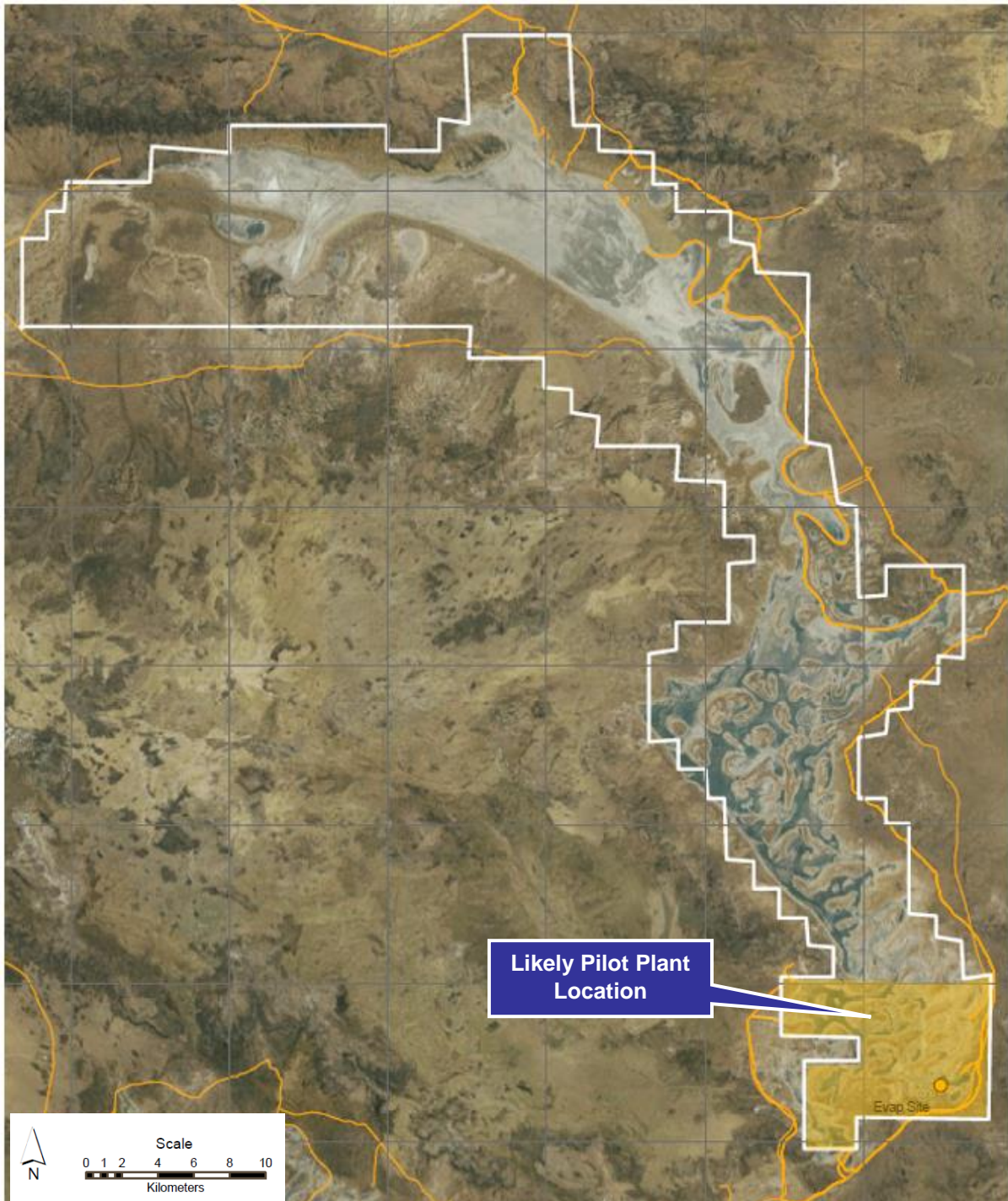


Figure 1: Lake Wells Project Area

<sup>1</sup> Capital Costs based on an accuracy of -10%/+30% before contingencies and growth allowance but including EPCM.

<sup>2</sup> C1 Operating Costs based on an accuracy of  $\pm 30\%$  excluding transportation & handling (FOB Esperance), royalties and depreciation

Subsequent to the Lake Wells Scoping Study, Salt Lake has focussed comprehensive exploration at the Southern end of Lake Wells, a likely site for a Pilot Plant. This work has substantially advanced the hydrogeological model for the surface aquifer of the Lake in this area, giving the Company a high level of confidence about the quality of brine production from low cost surface trenching. This work has included sustained pumping of a range of surface trenches up to 125m long and 4.5m deep, for up to 31 days.



**Figure 2: Test Trench Excavation and Trench Pumping at Lake Wells**

Exploration and trenching work has also provided substantial stratigraphic and geotechnical information, to support the Company’s model for cost-effective on-lake evaporation pond construction, as well as brine extraction.



**Figure 3: Examples of Evaporation Ponds and Harvesting**

Parallel with the on-lake exploration work, Salt Lake has also been running a large site evaporation trial since October 2016. As this trial, which is designed to represent the likely salt production model at Lake Wells, has settled into equilibrium, it has provided substantial and important data for the long term seasonal, brine evaporation and salt crystallisation model which will form a critical part of the Mass Balance model for the Pilot Plant study.



**Figure 4: Site Evaporation Trial with Two Pond Trains in Operation**

The site evaporation trial has processed approximately 185t of Lake Wells brine to date. Through the natural evaporation process the trial is producing over 100kg of harvest salts per week, with an average K grade of between 5 and 10%, for conversion to SOP.



**Figure 5: Harvest Salts produced by the Site Evaporation Trial**

The Company has also been undertaking ongoing process optimisation work at SGS Laboratories in Perth to improve the attrition, flotation, conversion and crystallisation process for production of SOP from harvest salts. The input of SLP's key technical advisers, world leading experts in this field, is critical. See Company's website: <http://www.saltlakepotash.com.au>



Figure 6: Lake Wells SOP Produced by SGS

Transport from site to port is the single largest cost factor for (export oriented) Australian salt lake SOP projects and the Goldfields Salt Lakes Project has a considerable advantage in this regard, with excellent proximity to the Kalgoorlie-Leonora rail line and the Goldfields Highway. The Company has made substantial progress in understanding and optimising its advantage in this regard, with major economies of scale to be achieved as the transport volume increases in subsequent stages of the Project.

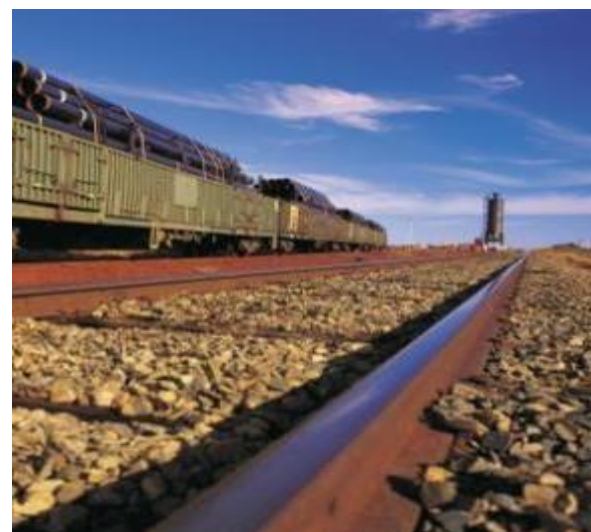


Figure 7: Road train and Malcolm Siding

A substantial part of both the exploration and production testwork which the Company is undertaking for Lake Wells, also has application for the Company’s eight other lakes in the Goldfields Salt Lakes Project, which means progress on the other lakes will be substantially accelerated and also considerably cheaper.

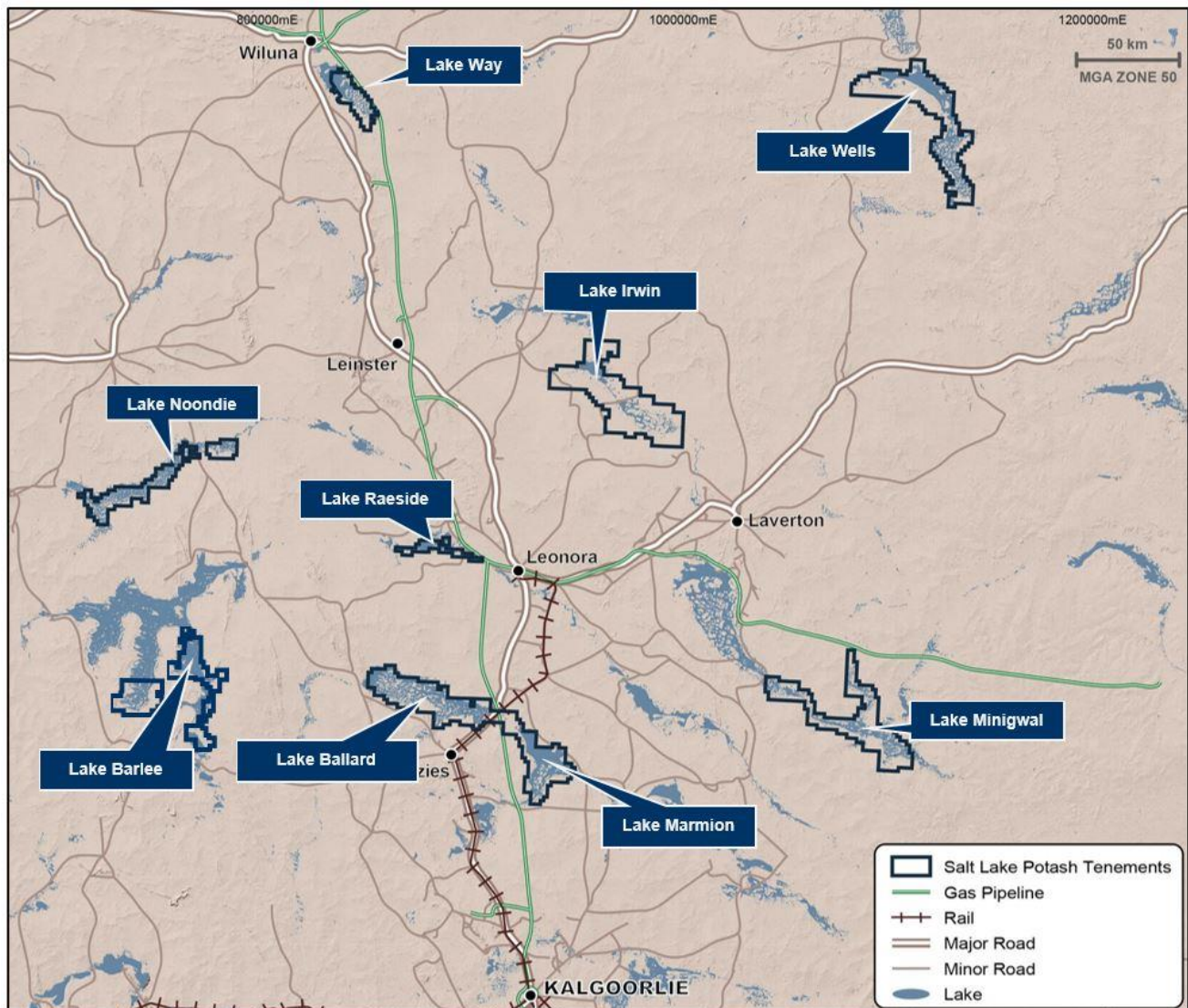


Figure 8: Goldfields Salt Lakes Project

Already, initial evaporation testwork has demonstrated that both Lake Irwin and Lake Ballard can produce potassium and magnesium salts amenable to conversion to SOP and potentially other valuable co-products. These two large lakes, as well as others in the Goldfields Salt Lakes Project, have similar brine chemistry and evaporation characteristics to Lake Wells and even better transport logistics, with Lake Ballard and Lake Marmion in particular located either side of the Goldfields Highway, the Leonora rail line and the gas pipeline, just 140km north of the major mining centre of Kalgoorlie.

**Forward Looking Statements**

*This announcement may include forward-looking statements. These forward-looking statements are based on Salt Lake's expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Salt Lake, which could cause actual results to differ materially from such statements. Salt Lake makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement, to reflect the circumstances or events after the date of that announcement.*

**Competent Person Statements**

*The information in this report that relates to Process Testwork Results is based on, and fairly represents, information compiled by Mr Bryn Jones, BAppSc (Chem), MEng (Mining) who is a Fellow of the AusIMM, a 'Recognised Professional Organisation' (RPO) included in a list promulgated by the ASX from time to time. Mr Jones is a consultant of Inception Consulting Engineers Pty Ltd. ("Inception"). Inception is engaged as a consultant by Salt Lake Potash Limited. Mr Jones has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Jones consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

**Production Target**

*The Production Target stated in this Report is based on the Company's Scoping Study for the Lake Wells Project as released to the ASX on 29 August 2016. The information in relation to the Production Target that the Company is required to include in a public report in accordance with ASX Listing Rule 5.16 was included in the Company's ASX Announcement released on 29 August 2016. The Company confirms that: a) it is not aware of any new information or data that materially affects the information included in the original announcement; b) all material assumptions and technical parameters underpinning the Production Target, and related forecast financial information derived from the Production Target included in the original announcement continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this report have not been materially modified from the original announcement.*

*The Production Target referred to in this Report and the Scoping Study Announcement is based on 100% Measured Mineral Resources for Stage 1 and 70% Measured Mineral Resources and 30% Inferred Mineral Resources for Stage 2. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Measured or Indicated Mineral Resources or that the production target or preliminary economic assessment will be realised.*