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# QUARTERLY ACTIVITIES REPORT FOR PERIOD ENDING 31 DECEMBER 2017

# Highlights

## Mackay SOP Project

- Native Title Agreement signed with the Kiwirrkurra people, the recognised native title holders of the land at the Mackay SOP Project
- PFS progessed for a 370,000 tonne per year SOP operation contained solely within the 2,384km<sup>2</sup> (238,400ha) area which has been cleared under the Native Title Agreement
- First four months of pump testing data has been delivered to hydrogeological consultants for incorporation into the PFS
- Pilot evaporation pond construction commenced

#### **Corporate**

• Cash balance was \$9.5 million at 31 December 2017

Agrimin Limited (ASX: AMN) ("Agrimin" or "the Company") is pleased to report its activities for the quarter ending 31 December 2017.

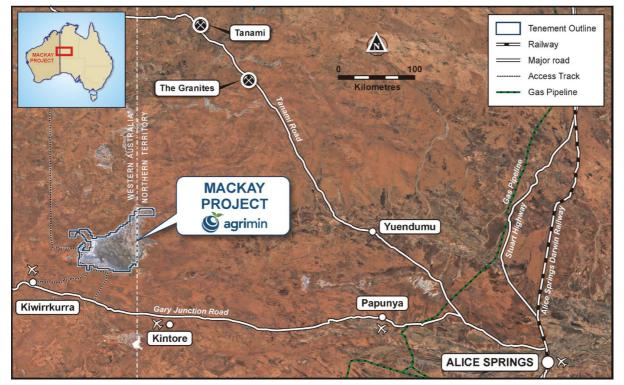
# Mackay SOP Project – Western Australia (100% owned)

The Mackay Sulphate of Potash ("**SOP**") Project is located in Western Australia and is 100% owned by Agrimin (**Figure 1**).

Lake Mackay is the largest known SOP-bearing salt lake in Australia and is the low point of an enormous groundwater and surface water catchment area that is approximately 87,000km<sup>2</sup>. The lakebed itself covers an area of approximately 3,500km<sup>2</sup> and measures approximately 80km east-west and north-south. The lakebed is comparable to the lakebed areas at two major sources of SOP production, being the 4,400km<sup>2</sup> Great Salt Lake in the USA and the 5,500km<sup>2</sup> Lop Nur (Luobupo operation) in China.



Lake Mackay's hydrogeological setting and significant size provide important attributes that support the development of a world-class salt lake operation. The Project currently has Indicated Mineral Resources of 4.3 million tonnes and Inferred Mineral Resources of 18.9 million tonnes of SOP based on specific yield. Current Mineral Resources are hosted by a single contiguous deposit covering an on-lake area of 2,201km<sup>2</sup> with brine commencing approximately 40cm below surface across the entire deposit area. The deepest hole drilled on Lake Mackay has been 30m with the deposit remaining open below this depth.



# Figure 1. Location Map

Agrimin completed a Scoping Study for the Mackay SOP Project in August 2016. The Study indicated SOP production of 370,000 tonnes per year over a 20 year life at an average total cash cost of US\$256/t FOB (inclusive of road, rail and port costs)<sup>1</sup>.

SOP production begins with pumping brine from trenches into a series of solar evaporation ponds. The Study incorporates brine extraction exclusively from trenches cut into the lakebed. It is planned to harvest the Potassium salts from the ponds and feed them into the process plant. The process route is conventional and will comprise milling, flotation, SOP crystallisation, drying and sizing. The finished SOP products are planned be transported to a port for shipment.

# Pre-Feasibility Study

Agrimin's owners team and consultants continued to progress the Pre-Feasibility Study ("**PFS**") which is assessing a number of production and transport scenarios. Advisian is the PFS engineer and project manager. During the

<sup>&</sup>lt;sup>1</sup> Refer to the ASX Release dated 23 August 2016 for full Scoping Study details. All material assumptions underpinning the production target and forecast financial information derived from the production target continue to apply and have not materially changed.



quarter, the Company elected to extend the PFS program to allow assessment of options which have the potential to materially increase production rates and lower the Project's cash costs.

The extended PFS program is planned for completion in Q2-2018 and the Company intends to provide interim updates as key milestones are attained. Based on the Company's project delivery timeline, the extension to the PFS will not impact the overall timeline to first production. Extension of the PFS is expected to allow a more efficient and focused approach for the Definitive Feasibility Study ("**DFS**") and environmental assessment process.

## **Hydrogeological Studies**

Following extensive infill drilling and hydrogeological characterisation works completed in 2015 and 2016, Agrimin commenced a trench pump testing program in August 2017. To date, 14 trenches have been excavated with long-term pumping tests completed on four of the trenches. Pumping test durations have ranged from 25 to 125 days. During the quarter, the Company provided data from the completed tests to its consultants at Knight Piesold ("**KP**"). This data is being used to update the Mineral Resources, calibrate the hydrogeological model and improve the understanding of the hydraulic properties of shallow lake sediments to support the PFS.

The Company plans to continue pilot trenching and long-term pump testing at other locations throughout 2018. Collection of additional representative data at different sites across the lake will provide increased confidence in predicted brine recovery rates for a DFS.

#### **Evaporation Trials and Process Studies**

During the quarter, the Company commenced the construction of pilot evaporation ponds to support a DFS. The ponds are being constructed on the lake surface using a cut-to-fill construction method, which is the same method proposed for full-scale construction and as advised by KP. The evaporation pond design for the Mackay SOP Project has been developed by Global Potash Solutions ("**GPS**") based on extensive process testwork recently completed at the Saskatchewan Research Council ("**SRC**"). The proportional size, number of cells and configuration of the pilot ponds is representative of the full-scale PFS design.

Geotechnical testwork and studies have been completed for proposed locations of large-scale solar evaporation ponds. Agrimin's geotechnical consultants at KP have provided critical design assumptions for incorporation into the PFS. The outcomes have confirmed the natural lakebed surface has suitable geotechnical conditions for the application of un-lined ponds.

During the quarter, the Company also completed a major track construction and maintenance program. This has improved existing site access in anticipation of increased fieldwork activities during 2018. A new track provides access to the edge of Lake Mackay where pilot evapotation ponds are currently being constructed.

#### Native Title

During the quarter, a Native Title Agreement was signed by representatives of Agrimin and Tjamu Tjamu (Aboriginal Corporation) RNTBC, the native title registered body corporate for the Kiwirrkurra people. The proposed development area for the Mackay SOP Project, being the area subject of PFS, is based solely on Agrimin's existing tenements within the Kiwirrkurra determination area in Western Australia.



## **Environmental Studies**

During the quarter, the Company completed further environmental surveys with assistance from the Kiwirrkurra IPA rangers. To date, the Company has carried out a range of studies to assist an environmental assessment of the Project. Additionally, the Company continues to consult with key authorities and stakeholders.

# **Corporate Activities**

## Share Issues

During the quarter, Agrimin issued 7.5 million performance rights to directors and employees as approved by shareholders at the Company's General Meeting held on 15 September 2017. No ordinary shares or other securities were issued by the Company during the quarter.

## **Business Development**

Various business development opportunities are continually under consideration, with all opportunities being assessed in context of the Company's current strategic goals and risk profile. During the quarter, the Company lodged applications for two new Exploration Licences (EL31780 and EL31781) covering Lake Mackay in the Northern Territory. The Company intends to provide further updates on the status of this tenure shortly.

# **Tenement Interests**

Tenement Ref.	Project	Holder	State	Status	Interest
		Exploration Licence	s	•	
E80/4887	Mackay SOP	Agrimin Potash Pty Ltd	W.A.	Granted	100%
E80/4888	Mackay SOP	Agrimin Potash Pty Ltd	W.A.	Granted	100%
E80/4889	Mackay SOP	Agrimin Potash Pty Ltd	W.A.	Granted	100%
E80/4890	Mackay SOP	Agrimin Potash Pty Ltd	W.A.	Granted	100%
E80/4893	Mackay SOP	Agrimin Potash Pty Ltd	W.A.	Granted	100%
E80/4995	Mackay SOP	Agrimin Potash Pty Ltd	W.A.	Granted	100%
E80/5055	Mackay SOP	Agrimin Potash Pty Ltd	W.A.	Granted	100%
E80/5108	Mackay SOP	Agrimin Potash Pty Ltd	W.A.	Application	100%
E80/5124	Mackay SOP	Agrimin Potash Pty Ltd	W.A.	Application	100%
EL30651	Mackay SOP	Agrimin Limited	N.T.	Application	100%
EL31780	Mackay SOP	Agrimin Limited	N.T.	Application	100%
EL31781	Mackay SOP	Agrimin Limited	N.T.	Application	100%
		Miscellaneous Licenc	es		
L80/87	Mackay SOP	Agrimin Potash Pty Ltd	W.A.	Granted	100%
L80/88	Mackay SOP	Agrimin Potash Pty Ltd	W.A.	Granted	100%
L80/89	Mackay SOP	Agrimin Potash Pty Ltd	W.A.	Application	100%

#### Table 1. Schedule of Tenement Interests as at 31 December 2017



#### **Contacts**

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#### About Agrimin

Based in Perth, Agrimin Limited is a leading fertilizer development company focused on the development of its 100% owned Mackay SOP Project. The Project is situated on Lake Mackay in Western Australia, the largest undeveloped SOP-bearing salt lake in the world. Agrimin is aiming to be a global supplier of high quality SOP fertilizer to both traditional and emerging value-added markets. Agrimin Limited's shares are traded on the Australian Stock Exchange (ASX: AMN).

## **Forward-Looking Statements**

This ASX Release may contain certain "forward-looking statements" which may be based on forward-looking information that are subject to a number of known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially from those presented here. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. Forward-looking information includes exchange rates; the proposed production plan; projected brine concentrations and recovery rates; uncertainties and risks regarding the estimated capital and operating costs; uncertainties and risks regarding the development timeline, including the need to obtain the necessary approvals. For a more detailed discussion of such risks and other factors, see the Company's Annual Reports, as well as the Company's other ASX Releases. Readers should not place undue reliance on forward-looking information. The Company does not undertake any obligation to release publicly any revisions to any forward-looking statement to reflect events or circumstances after the date of this ASX Release, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.

#### **Competent Person's Statements**

The information in this ASX Release that relates to exploration results, Mineral Resources Estimates and Scoping Study results are extracted from the relevant ASX Releases and are available on www.asx.com.au and Company's website on www.agrimin.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous ASX Releases and, in the case of the Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the ASX Release on 15 December 2015 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 previous ASX Releases.