

ASX Release
14 April 2016

QUARTERLY ACTIVITIES REPORT FOR PERIOD ENDING 31 MARCH 2016

Highlights

Mackay SOP Project

- **Hydrogeological modelling based on data collected from field pump tests confirms the potential to extract large-scale volumes of brine**
- **Modelling supports steady-state brine production over at least 20 years exclusively from trenching which is the lowest risk and lowest cost method of brine extraction**
- **Geotechnical study is nearing completion and evaporation trials and process testwork remain in progress**

Agrimin Limited (**ASX: AMN**) ("**Agrimin**" or "**the Company**") is pleased to report its activities for the quarter ending 31 March 2016. During the quarter, Agrimin progressed numerous development studies to allow for the completion of a Scoping Study in mid-2016.

Mackay SOP Project – Western Australia (100% owned)

Overview

The Mackay Project covers the majority of Lake Mackay which is one of a number of salt lakes in Central and Western Australia that occupy topographic low points in internal drainages and host hypersaline brine containing Potassium and other elements.

Lake Mackay is the low point of an enormous groundwater and surface water catchment area that is approximately 87,000km². The lakebed surface area of Lake Mackay is 3,500km², comparable to major sources of SOP production at the 4,400km² Great Salt Lake in the USA and the 5,500km² Lop Nur (Luobupo operation) in China.

The Mackay Project has a Mineral Resource Estimate of 23.2 million tonnes of SOP based on *specific yield* (or drainable porosity). The resource encompasses an area of 2,201km², being the majority of Agrimin's granted

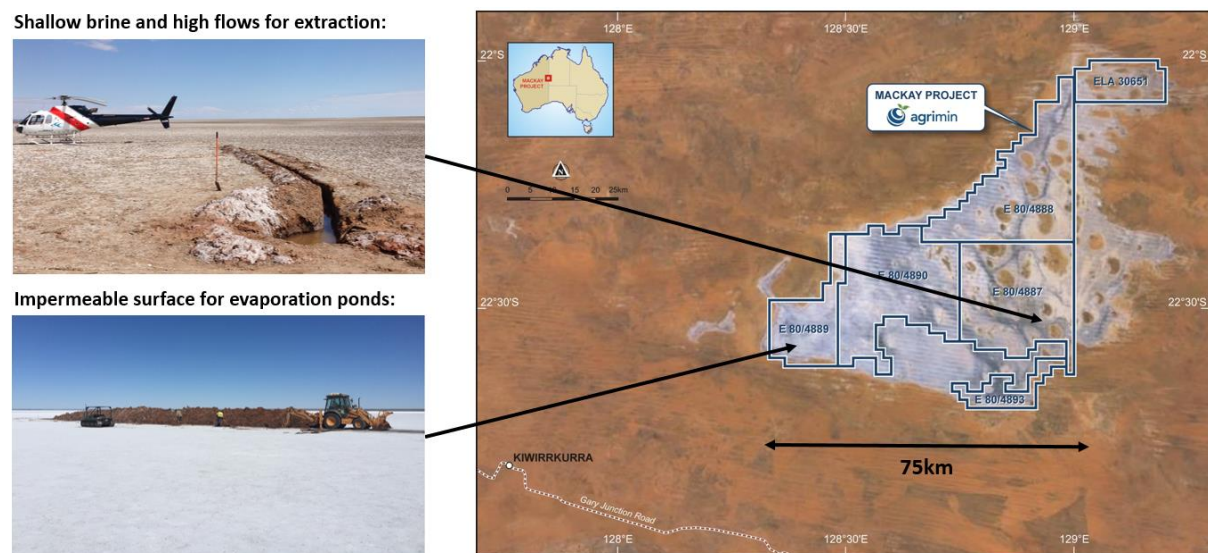
tenements in Western Australia, and does not take into account any potential recharge factor which could increase the amount of extractable resources over the life of an operation.

Agrimin’s development studies are targeting the *specific yield* resource estimate of 9.7 million tonnes which lies within the top 6m from surface. This is the portion of the total 23.2 million tonnes which is predicted to be extracted using low-risk and low-cost trenching methods.

The Project has key competitive advantages due to its unique geological setting and globally significant size (**Figure 1**). The eastern side of the lake contains higher sand and grit content with higher brine flows being encountered. A hydrogeological modelling study has confirmed that this area can produce significant volumes of brine via a shallow trenching network.

In contrast, the western side of the lake appears to host a lower energy zone, with predominantly higher clay content. A geotechnical study to examine this area for the application of un-lined solar evaporation ponds is nearing completion.

Figure 1. Key Features of Lake Mackay



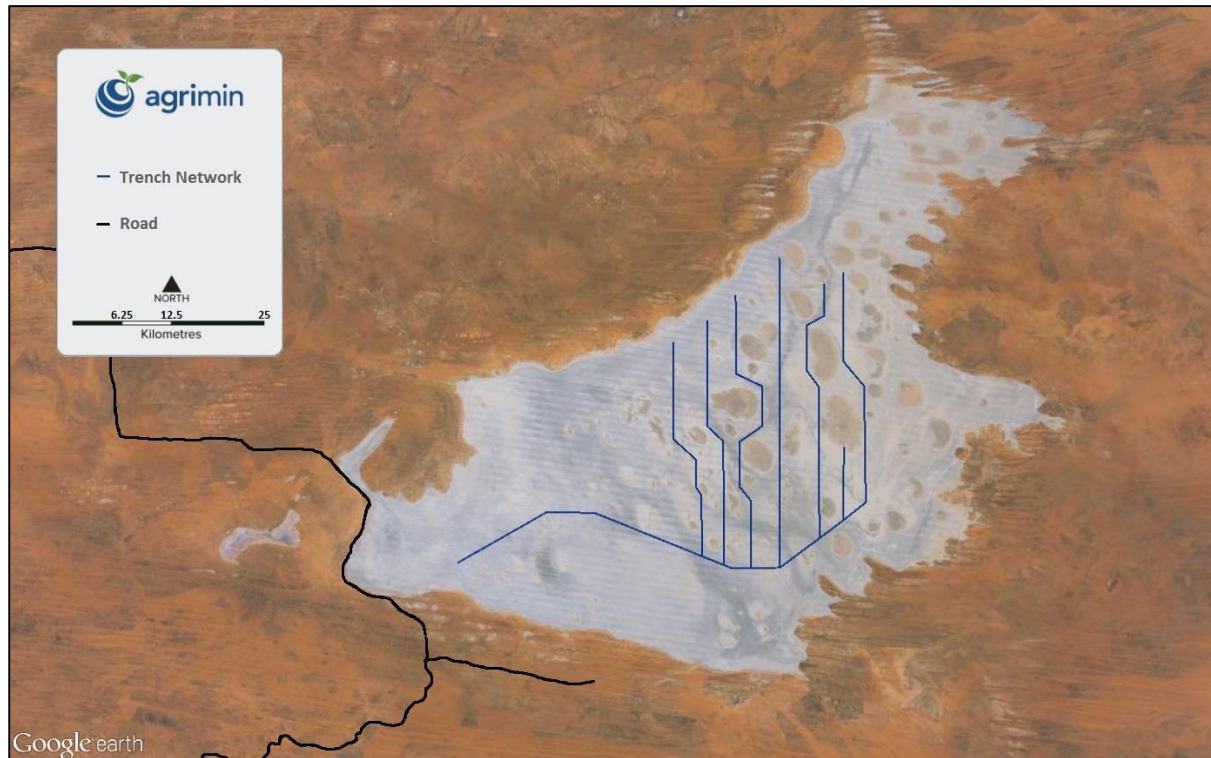
Hydrogeological Evaluation

During the quarter, the Company’s hydrogeologists progressed the development of a hydrogeological modelling study (“**Hydro Model**”). The model was based on permeability and porosity data from field pump tests and laboratory testwork on drill cores. Subsequent to the end of the quarter, the Hydro Model was completed and the results were announced.

Based on the 250km trench design used in the Hydro Model, the base case steady-state brine flow is estimated to be 2,150 litres per second over an initial 20 year operational life. This is equivalent to a brine production rate of 68,000,000m³ per year and confirms the potential to extract significant volumes of brine via a trenching network on the lakebed surface. The construction of the trenching network is likely to be staged depending on initial inflows (**Figure 2**).

The Company’s development focus is centred on the estimated 9.7 million tonnes of drainable resource (based on *specific yield*) which lies within the top 6m from surface. Accordingly, the trench design used in the Hydro Model is based on a depth of only 5.5m.

Figure 2. Trench Design for Hydrogeological Model



The Hydro Model was developed by Groundwater Exploration Services Pty Ltd, an independent hydrogeological consultancy based in Sydney, and has been reviewed by Agrimin’s key consulting hydrogeologist, Murray Brooker. The numerical modelling was undertaken using the Groundwater Vistas software interface in conjunction with the MODFLOW-SURFACT program, an advanced version of the MODFLOW code. The trenching network was implemented within the model using the Drain Package to predict extraction over a nominal 20 year period. The Hydro Model is considered preliminary in nature and falls within the Class 2 confidence level as classified under the Australian Government’s National Water Commission (NWC) guidelines.

Geotechnical Evaluation

During the quarter, a geotechnical study was progressed based on the results from field investigations and laboratory testwork. The study is aimed at determining the likely construction approach for solar evaporation ponds and the likely equipment requirements. This study will enable site specific cost estimates to be incorporated into the Scoping Study.

The study is being undertaken by GHD and is based on data collected from a geotechnical sampling program during the 2015 field program in the south-western area of the lake where the evaporation ponds are expected to be located. The sampling was undertaken within 1m of the natural lakebed surface as this material is expected to form the pond walls and floor. This included three 100mm diameter push tube samples and seven

corresponding disturbed samples. The laboratory testwork program has included permeability, particle size distributions, Atterberg limits, standard compaction and Emerson classifications.

Process Evaluation

During the quarter, evaporation trials were commenced at Independent Metallurgical Operations Pty Ltd (“IMO”) facility in Perth. Agrimin’s technical team is working closely with IMO staff to carry out the trials. The evaporation trials will utilise the 5,000 litre brine sample collected from the Mackay Project and will produce potassium sulphate bearing salts for input into subsequent process testwork (**Figure 3**). This testwork will allow for further development of the process flowsheet for integration into the Scoping Study.

Figure 3. Agrimin’s Evaporation Trial at IMO’s Facility in Perth



A detailed mass balance and process simulation study was completed in 2015 and showed that the Mackay Project has appropriate characteristics for the production of SOP using conventional processing techniques. The process simulation was based on the known brine chemistry and climatic data taken from regional weather stations. The simulation model was developed by Peter Ehren, Agrimin’s Process Engineer, and has been developed over time through the use of well documented literature based on the Na-K-Ca-Mg-Cl-SO₄ system combined with extensive first-hand experience in the investigation and production of SOP (and other products such as lithium) from brine resources across the world.

Mr Ehren has been involved with the assessment, development and production of numerous brine resources across the world, including major SOP producing assets such as SQM’s Salar de Atacama project in Chile and SDIC Xinjiang Luobupo’s Lop Nur project in China. Most recently he has been extensively involved with the commissioning and production ramp up at Orocobre’s Olaroz lithium brine project in Argentina.

Corporate Activities

Share Issues

During the quarter, the Company issued 500,000 ordinary shares due to the exercise of Performance Rights by an employee on the achievement of vesting conditions.

Business Development

Agrimin has a strategic focus on SOP due to market fundamentals which are supportive of new production. The Company continues to actively assess business development opportunities which would be complementary to

its existing project portfolio. As and when acquisitions are completed the Company will make announcements to the market at appropriate times.

Tenement Interests

Table 1. Schedule of Tenement Interests as at 31 March 2016

Tenement Ref.	Project	Holder	State	Blocks	Status	Interest
E80/4887	Mackay	Agrimin Potash Pty Ltd	W.A.	195	Granted	100%
E80/4888	Mackay	Agrimin Potash Pty Ltd	W.A.	200	Granted	100%
E80/4889	Mackay	Agrimin Potash Pty Ltd	W.A.	86	Granted	100%
E80/4890	Mackay	Agrimin Potash Pty Ltd	W.A.	200	Granted	100%
E80/4893	Mackay	Agrimin Potash Pty Ltd	W.A.	36	Granted	100%
E80/4995	Mackay	Agrimin Potash Pty Ltd	W.A.	26	Application	100%
EL30651	Mackay	Agrimin Limited	N.T.	57	Application	100%
EPM 18616	¹	Agrimin Limited	QLD	30	Granted	6%

Notes:

1. Agrimin retains a 1% net smelter royalty on any and all minerals produced from EPM 18616.

ENDS

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Competent Person's Statements

The information in this statement that relates to the Mineral Resource Estimate of December 2015 and to Exploration Results for the Mackay Project is based on information compiled or reviewed by Mr Murray Brooker who is a full-time employee of Hydrominex Geoscience Pty Ltd. Mr Brooker is a geologist and hydrogeologist and is an independent consultant to Agrimin. Mr Brooker is a Member of the Australian Institute of Geoscientists and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person in terms of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code 2012 Edition). Mr Brooker consents to the inclusion of such information in this statement in the form and context in which it appears.

The information in this statement that relates to Mineral Processing for the Mackay Project is based on information compiled or reviewed by Mr Peter Ehren who is a full-time employee of Process and Environmental Consultancy (Ehren-González Limitada). Mr Ehren is a Mineral Process Engineer and is an independent consultant to Agrimin. Mr Ehren is a Member of the Australasian Institute of Mining and Metallurgy and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person in terms of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code 2012 Edition). Mr Ehren consents to the inclusion of such information in this statement in the form and context in which it appears.