

13 September 2017

## POSEIDON & LITHIUM AUSTRALIA ENTER INTO LAKE JOHNSTON MOU

### *Highlights*

- Poseidon & Lithium Australia enter into an MOU to evaluate joint exploration and lithium processing at Lake Johnston
- Joint exploration increases the prospective lithium tenement portfolio to over 1,000km<sup>2</sup>
- Enhances progress towards establishing Lake Johnston as a central lithium processing hub
- Poseidon has shown the Lake Johnston processing plant can produce lithium concentrate
- Exploration success will establish Lake Johnston as a low capital cost entry into the lithium market
- Poseidon has developed technology and know-how for producing lithium concentrates utilising a nickel sulphide process plant
- Commercialisation of SiLeach® technology could unlock downstream processing of lithium minerals
- Poseidon & Lithium Australia will explore producing lithium concentrate at Lake Johnston
- On-going discussions with third parties for toll treating lithium ores
- Poseidon retain 100% ownership of nickel, copper & cobalt rights
- Retain the flexibility to co-process nickel via the concentrator

Poseidon Nickel Limited (ASX:POS, Poseidon or the Company) is pleased to announce it has entered into a Memorandum of Understanding (MOU) with Lithium Australia NL (ASX:LIT) to complete due diligence and negotiate key commercial terms that will underpin a final agreement. The parties plan to explore for lithium hosted pegmatites on tenements held by both Poseidon and LIT at Lake Johnston and Ravensthorpe. The combined tenement package at Lake Johnston will cover an area of approximately 1,000km<sup>2</sup> significantly improving the prospectivity for discovering lithium mineralisation.

Poseidon Chief Operating Officer, Mr Michael Rodriguez stated, "Entering into an MOU with LIT represents an opportunity to combine resources, reduce costs and, importantly, improves the prospectivity for discovering a commercial lithium deposit on the combined tenement

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package. This is consistent with the Company’s stated strategy of establishing Lake Johnston, with all of its existing plant and infrastructure, as a central lithium processing hub.”

Poseidon maintains a portfolio of tenements in the Lake Johnston region which are prospective for lithium hosted pegmatites. The tenements are adjacent to a substantial package held by LIT exploring for lithium in the area. Figure 1 below highlights the combined tenement area.

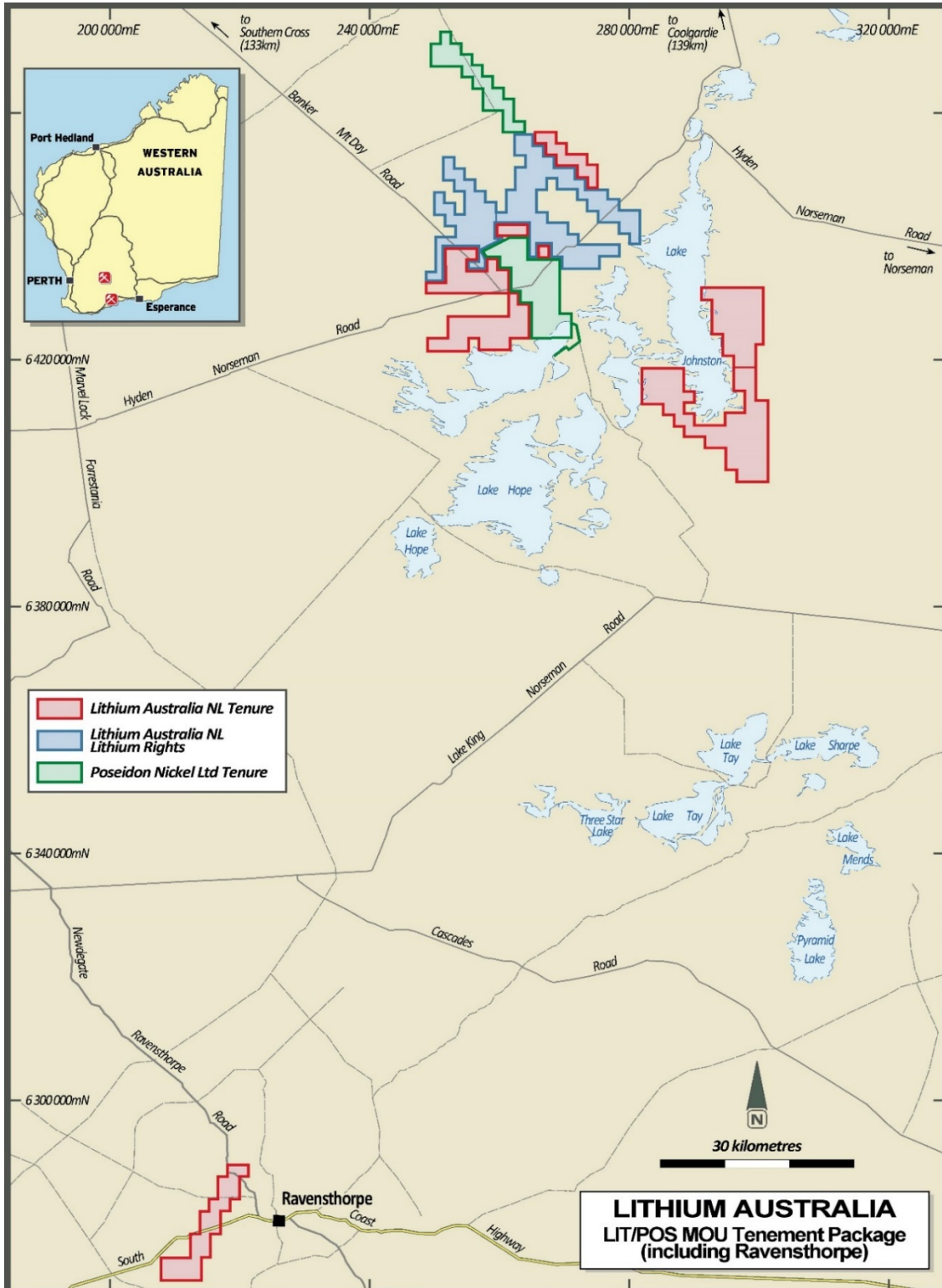


Figure 1: Poseidon & Lithium Australia MoU Tenement Package including Ravensthorpe

The Company will retain ownership of nickel, copper and cobalt rights at Lake Johnston. Poseidon is continuing to monitor the improved sentiment returning to the nickel market and will retain the flexibility of process nickel via the secondary milling circuit at Lake Johnston.

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At 9% nickel in resource, the Company plans to restart Silver Swan as a priority if the nickel market continues to improve.

During the Kidman Option period, testwork and engineering was progressed for the use of the Lake Johnston process plant to produce a saleable lithium concentrate. As set out in the Agreement, all confidential information generated by Kidman and its contractors for the restart of Lake Johnston has now been transferred to Poseidon.

Poseidon also completed testwork and engineering, developing intellectual property for the processing of lithium hosted pegmatites through an existing nickel sulphide concentrator, resulting in the application of several patent applications lodged by the Company.

LIT has developed intellectual property and know-how in its own right and has applied for patents relating to the hydrometallurgical recovery of lithium from silicates. LIT's intellectual property include the SiLeach® process. LIT has progressed the design of the large scale pilot plant (LSPP) using SiLeach® at a scale of about 2000 tonnes per annum of lithium carbonate equivalent product. Lake Johnston could initially be set up to progress a 60,000 tonne plant trial to produce the volume of lithium concentrate feedstock required for the LSPP feed.

Under the terms of the MOU, the parties intend to evaluate entering into a commercial agreement to explore tenements held by the parties at Lake Johnston for lithium hosted pegmatites and utilise the Lake Johnston Operations to process lithium ores and produce a saleable lithium concentrate.



**Figure 2: Lake Johnston Operations**

An aerial view of the Lake Johnston Operations is shown in Figure 2. The facility was placed into care and maintenance by Norilsk Nickel in 2013 and tenements, plant and equipment remain in good standing. The Lake Johnston Operations is a 1.5 million tonne per annum (Mtpa) processing facility that includes 3 ball mills, 2 flotation circuits, multiple thickeners, 2 Larox filters and a large concentrate storage shed.

Infrastructure at Lake Johnston includes existing tailings disposal cells, a borefield and water treatment plant, large mine workshop and maintenance facilities, administration buildings, functional laboratory and metallurgical laboratory, plant stores and workshop areas, medical centre and emergency response control centre. The site power is supplied by a local power station.

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Poseidon Chief Operating Officer, Mr Michael Rodriguez commented, "A lithium discovery on the combined tenement package at Lake Johnston may support a restart of the Lake Johnston Operations to produce a lithium concentrate and the commercialisation of SiLeach® technology developed by Lithium Australia unlocking downstream processing of lithium minerals."



**Figure 3: Secondary milling capacity at Lake Johnston**

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## **CORPORATE DIRECTORY**

### **Director / Senior Management**

Chris Indermaur	Non-Executive Chairman
David Singleton	Non-Executive Director
Geoff Brayshaw	Non-Executive Director
Robert Dennis	Non-Executive Director
Eryn Kestel	Company Secretary

### **Corporate Enquiries**

P: 61 8 6167 6600  
F: 61 8 6167 6649

E: [admin@poseidon-nickel.com.au](mailto:admin@poseidon-nickel.com.au)

### **Shareholder Enquiries**

Enquiries concerning shareholdings should be addressed to:

Computershare Investor Services  
GPO Box D182, Perth WA 6840  
P: 61 8 9323 2000

### **Principal & Registered Office**

Unit 8, Churchill Court  
331-335 Hay Street  
SUBIACO WA 6008  
P: 61 8 6167 6600  
F: 61 8 6167 6649

### **Media Enquiries**

P: 61 8 6167 6600  
F: 61 8 6167 6649  
E: [admin@poseidon-nickel.com.au](mailto:admin@poseidon-nickel.com.au)

### **Home Exchange**

The Company's shares are listed on the Australian Securities Exchange and the home exchange is Perth  
ASX code: POS

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