

27th January 2017

Airborne Geophysical Survey and Drill Targeting Completed at Lake Johnston

Highlights

- **Airborne magnetic and radiometric geophysical survey completed to assess Ni and Li targets**
- **Lithium pegmatite mapping, soil sampling and radiometric targeting progressed**
- **Lithium soil samples in prospective “hot spots” align with radiometric survey**
- **Primary drill targets identified**
- **Previous rock chip sampling returned up to 3.85% Li₂O and evidence of Ta₂O₅**
- **Surface geochemistry soil sampling returned multiple anomalies >200 Li_Index**
- **Flora survey progressed to support lithium exploration at Lake Johnston**
- **Collaborative exploration approach with Lithium Australia**

Poseidon Nickel Limited (ASX:POS or the Company) is pleased to update the market with results from magnetic spectrometry (MagSpec) surveys commissioned in December 2016. Airborne magnetic and radiometric geophysical surveys were completed over the northern area of the Lake Johnston tenements based on detailed 50m line spaced data collection grid to identify nickel and lithium targets.

The survey also covered the Abi Rose nickel discovery in the south of the survey area and the northern lithium exploration targets (Figure 1). The survey was completed collaboratively with neighbouring tenement holders Lithium Australia, significantly reducing the acquisition cost of the survey.

Interpretation of the radiometric data has defined multiple prospective anomalous trends which are highlighted in the combined Total Count and Potassium radiometric image below (Figure 2).

Numerous pegmatite outcrop trends have been located during field mapping and aerial photo interpretation (yellow lines on Figure 2), supporting the position and trend of many of the defined radiometric targets. The radiometric survey also highlights potential new target zones which had not been previously identified.

Previous rock chip sampling of outcropping pegmatites returned results of up to 3.85% Li_2O and evidence of Ta_2O_5 . The Company progressed surface geochemistry exploration for lithium in the northern area of the tenement package (ASX: High Grade Lithium Bearing Pegmatites Located at Lake Johnston, 23/5/16). Follow up soil sample results over the area returned multiple calculated Li_Index anomalies of greater than 200ppm and up to 650ppm Li_Index (ASX: Lithium Targets Generated at Lake Johnston, 12/10/16).

The radiometric anomalies coincide well with the Li_Index soil anomalies (Figure 3) and mapped pegmatites allowing for primary exploration drill targets to be well defined (Figure 4).

Poseidon plans to progress nickel and lithium exploration drilling at Lake Johnston. Following a detailed flora survey and exploration drilling programme definition a meeting was held with the Department of Mines and Petroleum (DMP) and the Department of Parks and Wildlife (DPAW) clearing the way for the Company to submit regulatory clearing permits.

It is anticipated that aircore/RC drilling will commence early second quarter 2017 once approvals are secured and the drilling sub-contractor is mobilised. The results from the airborne MagSpec will also be applied to support the nickel exploration planned to extend the recently identified Abi Rose nickel discovery.

Poseidon is working collaboratively with Lithium Australia which hold adjacent tenements in the Lake Johnston area. The Company plans to share resources to expedite the exploration and resource definition for lithium, tantalite and nickel in the Lake Johnston area.

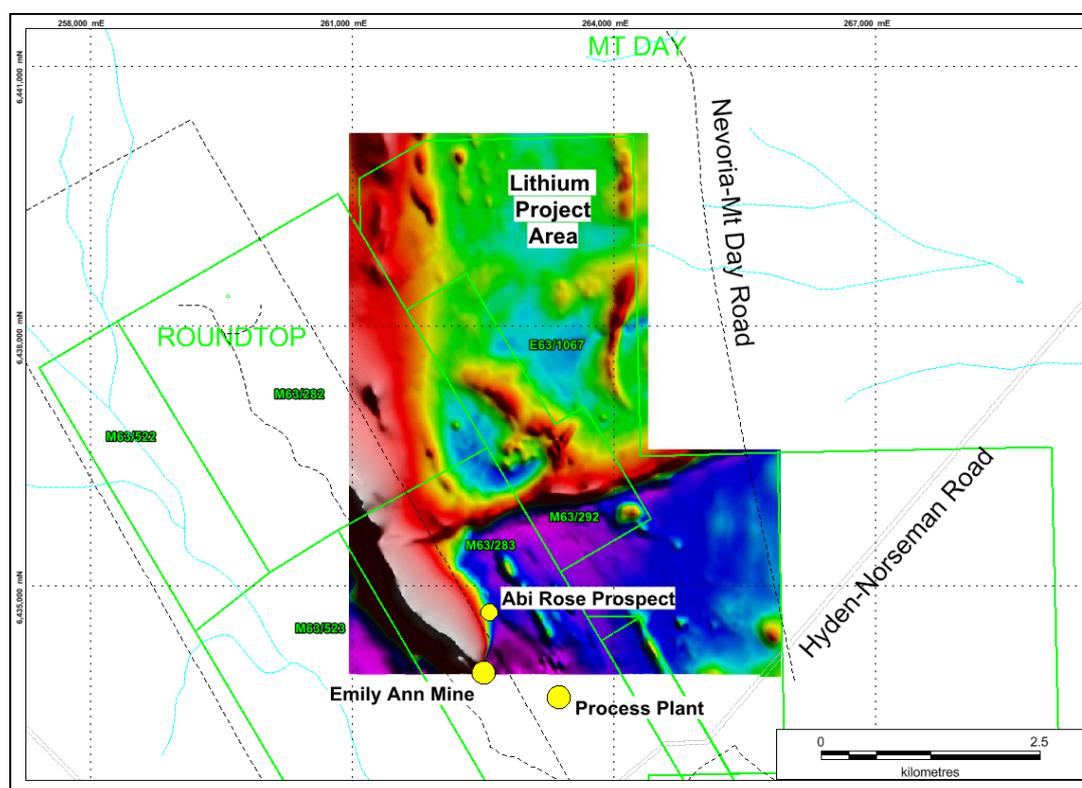


Figure 1: MagSpec survey area showing Total Magnetic Intensity (TMI) image and prospect locations and tenement boundaries

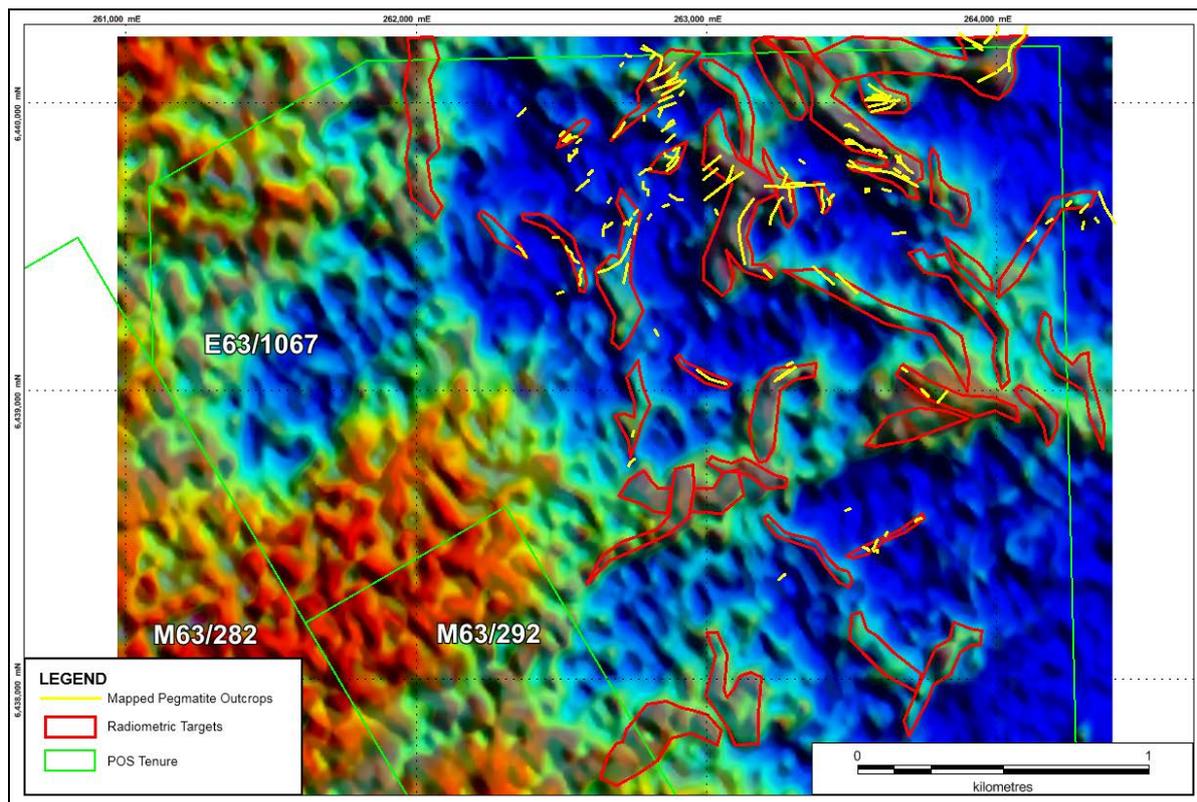


Figure 2: Potassium and total count radiometric anomalies define multiple strong anomalies (red outlines) which coincide with known mapped pegmatites (yellow lines) as well as additional anomalies in the south

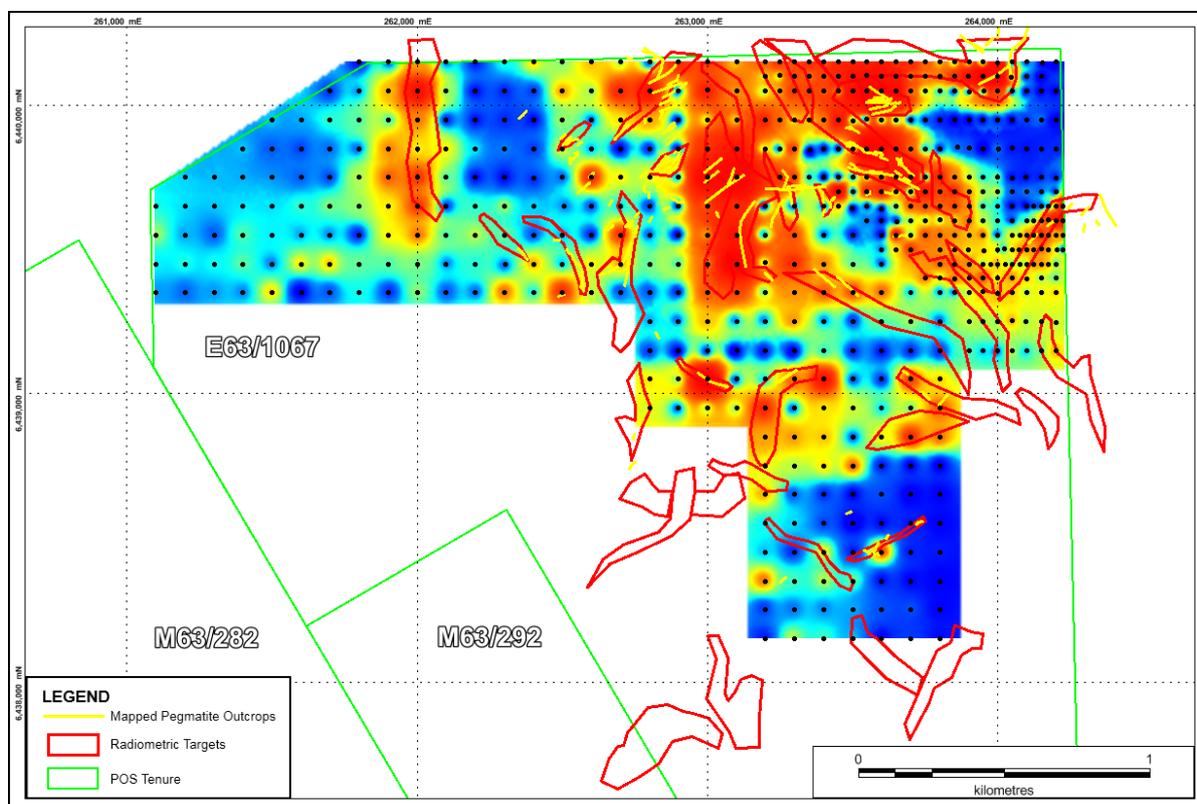


Figure 3: Identified radiometric anomalies coincide with lithium soil sampling anomalies as well as highlighting new unsampled target areas

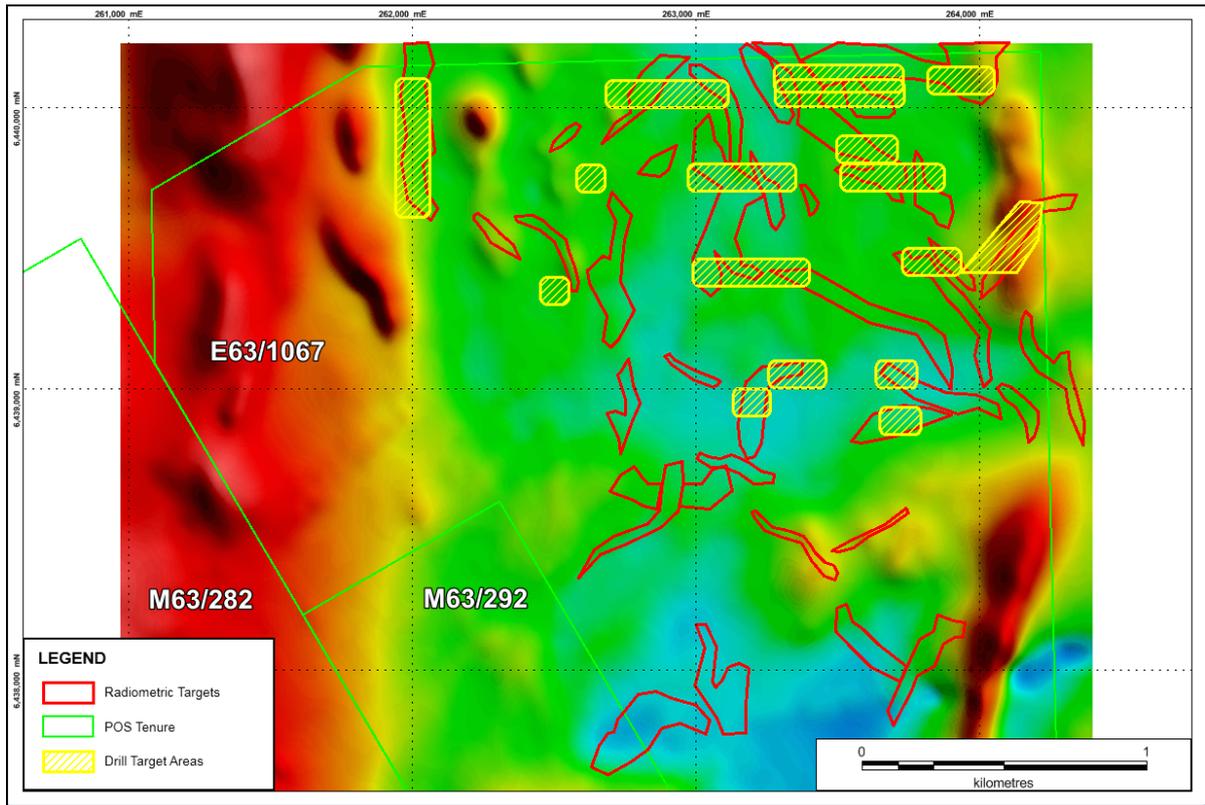


Figure 4: Drill targets (yellow hatched areas) overlie TMI image and the coincident defined radiometric-soil anomalies

Notes

The information in this report that relates to Exploration Results is based on information compiled and reviewed by Mr N Hutchison, General Manager of Geology who is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists.

Mr Hutchison has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which they are 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' (the JORC Code 2012). Mr Hutchison has consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Australian Securities Exchange has not reviewed and does not accept responsibility for the accuracy or adequacy of this release.

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Home Exchange

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