

**27 January 2017**

## **ASX ANNOUNCEMENT**

**Lithium Australia geophysics defines lithium/tantalum pegmatites at Lake Johnston Western Australia in collaboration with Poseidon Nickel Ltd (ASX:POS) and Lefroy Exploration Ltd (ASX:LEX)**

### **Highlights:**

- **Ring-shaped potassium anomalies coincide with mapped lithium-tantalum bearing pegmatites**
- **Multiple potassium anomalies without rock expressions are interpreted to be shallowly buried pegmatites**
- **Deep-seated and cross-cutting faults may represent the 'plumbing system' for the pegmatites**

Lithium Australia NL's (ASX: LIT) newly acquired airborne geophysics data from the infill airborne magnetic and radiometric completed in December 2016 has clearly identified known and possibly buried lithium-tantalum bearing pegmatites in the Company's Mt Day, Poseidon Nickel Ltd (ASX:POS) and Lefroy Exploration Ltd (ASX: LEX) Lake Johnston Projects, 420 km east of Perth. The survey covered areas of the Lake Johnston Greenstone Belt where the Maggie Hays Formation has been intruded by lithium-tantalum bearing pegmatites. Previous airborne geophysics was not detailed enough to understand the geological and structural setting of the pegmatites.

Based on the new 50 m line spaced data, the majority of the known lithium-tantalum bearing pegmatites are coincidental with ring-like, potassium radiometric anomalies (Figure 1). Pegmatite outcrops defined through satellite imagery interpretation and field reconnaissance, conducted by the LIT in September 2016 (LIT ASX release 25 October 2016), confirm that many of the pegmatite outcrops are circular in outcrop (Figure 2) and are possibly related to late-stage ring fractures. It is further interpreted that the low to moderate amplitude potassium anomalies without any rock expression are related to shallowly buried pegmatites.

Pegmatites exposures which have been defined through LIT's reconnaissance work, but do not have any potassium anomalism, are those which are predominantly sub-crop to float rather than outcrop.

During the September 2016 reconnaissance, LIT defined five additional lithium prospects; Whitten, Bulldog, Boundary, Trackside, and Floyd. All pegmatites are lepidolite-rich with varying amounts of lithium-bearing zinnwaldite. The geophysical survey has defined a number of exposed and shallowly buried pegmatites which greatly increase the exploration targets.

All the known lithium-tantalum bearing pegmatites either lie directly on or slightly juxtaposed to deep-seated faults and tension cross faults (Figure 3). It is postulated that the pegmatite ring structures are related to a period of movement along these faults, probably due to the emplacement of one of the smaller, 'S-type' pegmatite parent granites in the Maggie Hays Formation.

The survey was completed in collaboration with neighbouring tenement holders Poseidon Nickel Ltd and with LEX which also holds the gold and nickel rights over E63/1777. LIT holds the lithium rights over E63/1722 and E63/1723 in deal completed in October 2016 (LIT ASX release 18 October 2016).

In regard to regional development, LIT and Poseidon plan to share resources to expedite the exploration and resource definition for lithium, tantalite and nickel in the Lake Johnston area. Further exploration activities are planned for 2017.

Managing director, Adrian Griffin said:

*"Lithium Australia continues to develop its outstanding lithium exploration projects to ensure an accessible pipeline of potential lithium feed. We are encouraged by these initial Lake Johnston survey results and are pleased with our collaboration with Poseidon and Lefroy."*

**Adrian Griffin**

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LIT is a dedicated developer of disruptive lithium extraction technologies. LIT has strategic alliances with a number of companies, potentially providing access to a diversified lithium mineral inventory. LIT aspires to create the union between resources and the best available technology and to establish a global lithium processing business.

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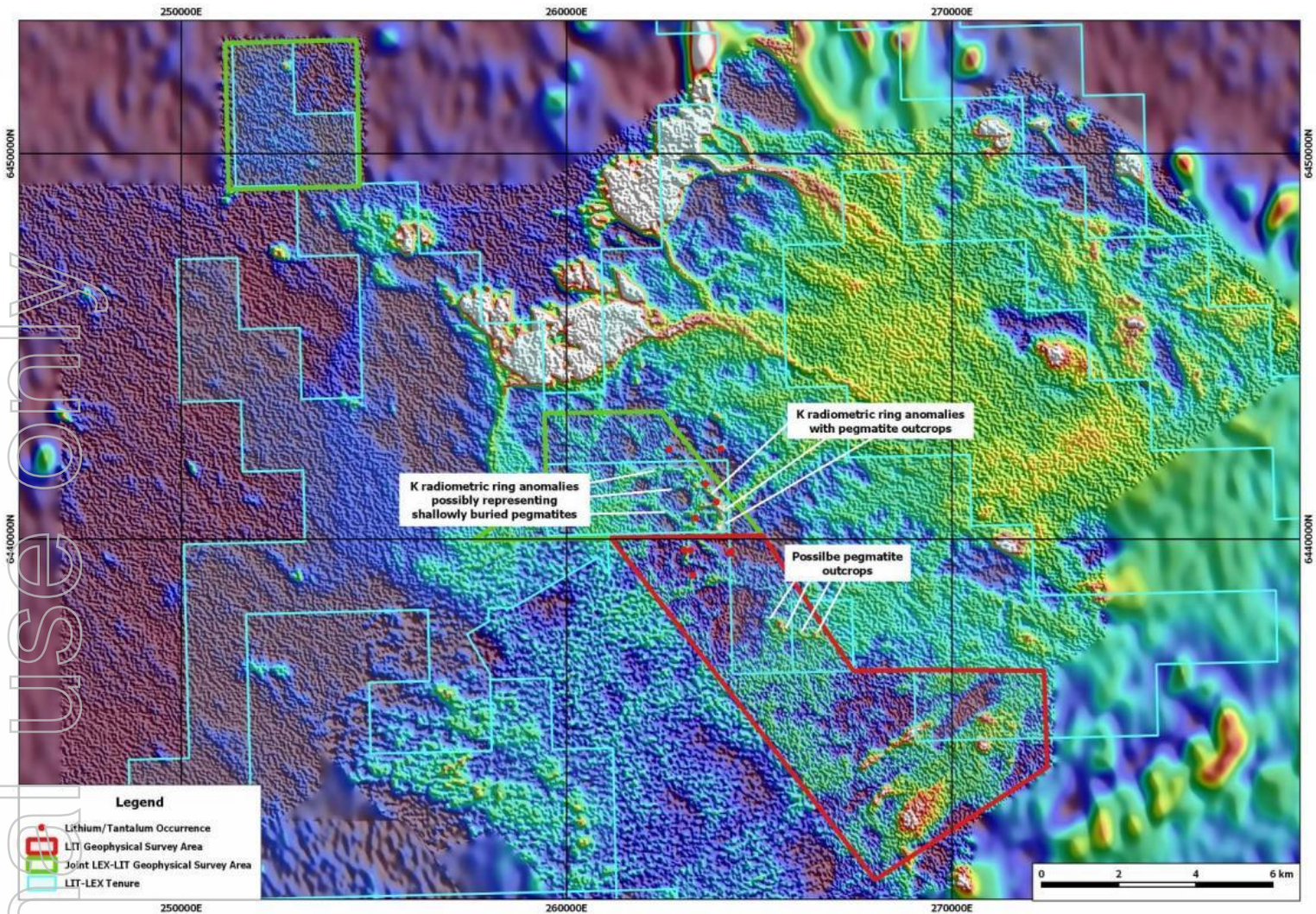


Figure 1: Lithium-Tantalum occurrences located on ring-structures anomalous in potassium

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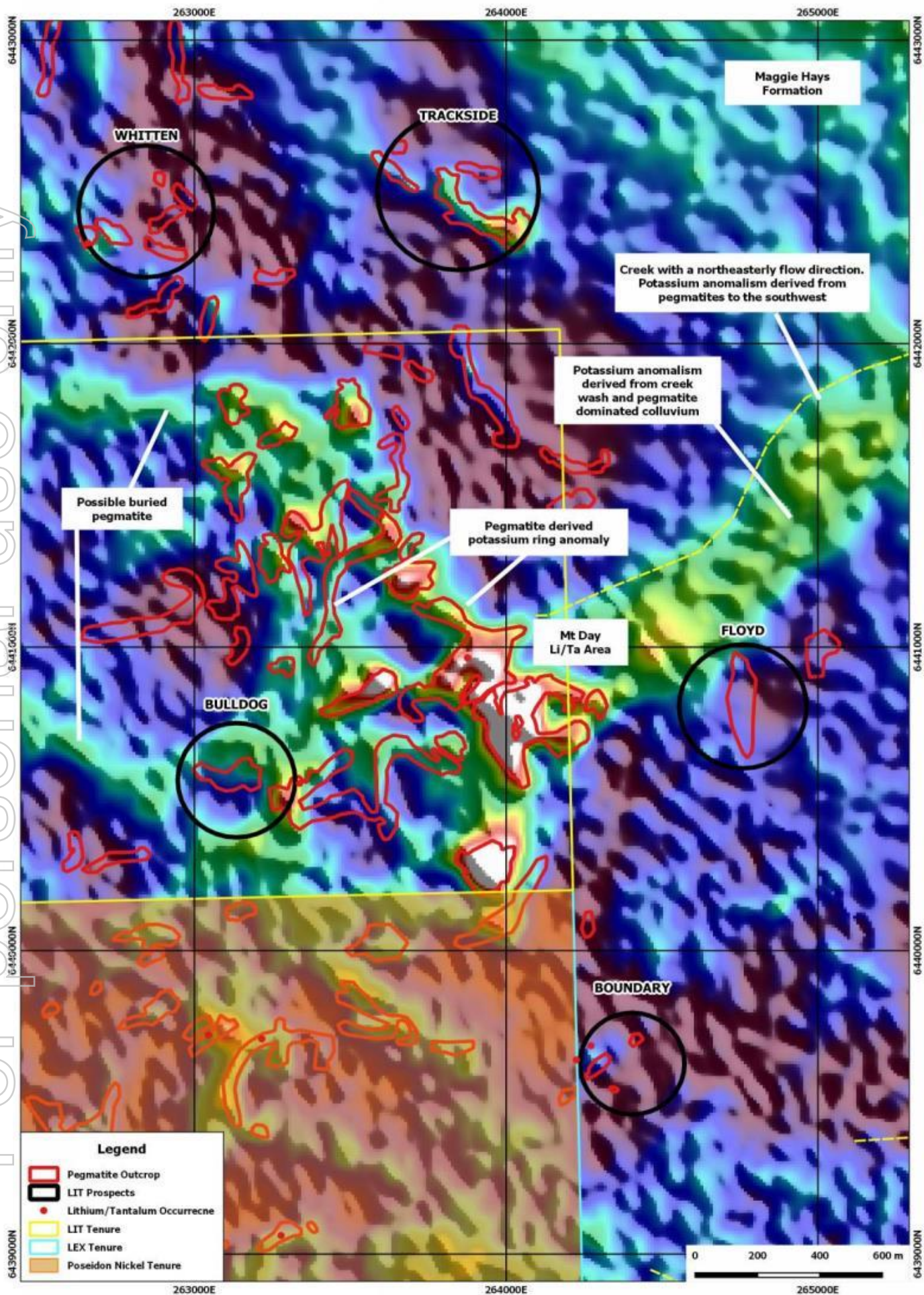


Figure 2: Pegmatite outcrops and possible shallowly buried pegmatites overlaid on potassium radiometric image – Mt Day area



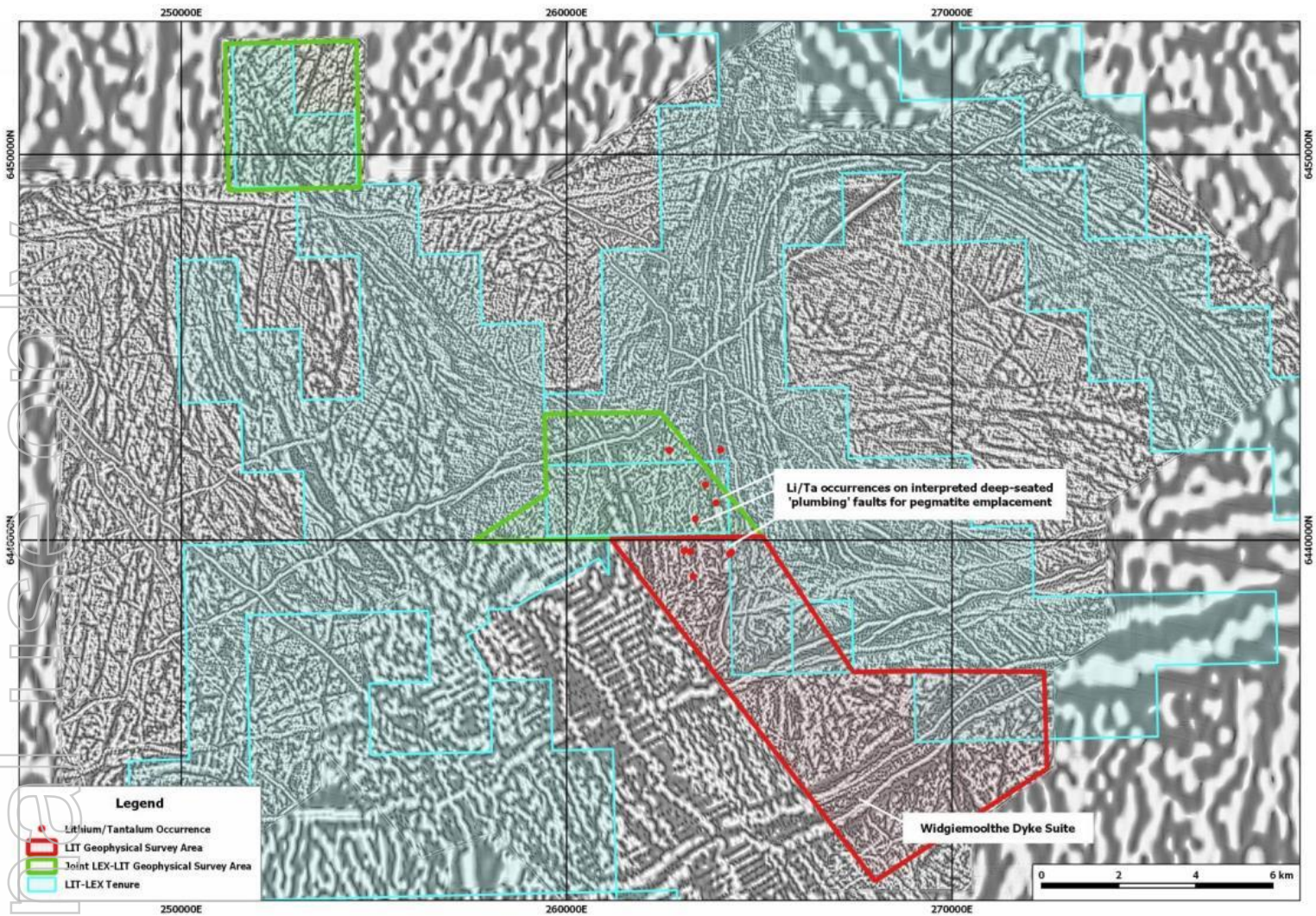


Figure 3: Lithium-Tantalum occurrences on / proximal to deep-seated faults represented by magnetic highs

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