

**NEWS RELEASE**

April 13, 2016

**Symbol: TSX-V: MMS**  
For Immediate Dissemination

## **MACARTHUR MINERALS FURTHER EXPANDS ACREAGE FOR HARD ROCK LITHIUM**

**Macarthur Minerals Limited (TSX-V: MMS)** (the “Company” or “Macarthur Minerals”) is pleased to announce that it has applied for three additional exploration licences in the Pilbara and Ravensthorpe regions of Western Australia expanding its potential tenement area to 1,192 square kilometres. One of the two new Ravensthorpe applications has mapped pegmatites with potential to host lithium mineralisation.<sup>1</sup>

The Company now has one of the largest tenement portfolios for ‘hard rock’ lithium of any junior exploration company globally and is one of a few TSX-V listed companies to have potential projects for lithium in Australia. The expansion of the Company’s acreage package is consistent with the Company’s focus on exploration of raw materials for the production of lithium batteries.

### New Pilbara Tenement

The location of the new Pilbara exploration licence application E45/4735, which covers an area of 16 square kilometres, is shown in Figure 1.

The new Pilbara application is proximate to the Company’s existing application E45/4732 and the lithium projects of Australian Securities Exchange listed companies, Pilbara Minerals Limited and Altura Mining Limited. Pilbara Minerals Limited recently announced that it has raised A\$100 million to develop its Pilgangoora lithium-tantalum project.<sup>2</sup>

### New Ravensthorpe Tenement

The location of the two new Ravensthorpe exploration licence applications E74/587 and E74/588, which cover an area of 91 square kilometres, is shown in Figure 2.

The new Ravensthorpe exploration licence applications are proximate to the Mount Cattlin project of Australian Securities Exchange listed Galaxy Resources Limited (“Galaxy”), which is currently mining and processing spodumene and tantalum concentrate near Ravensthorpe in South Western Australia.<sup>3</sup>

### Geological Setting of New Applications

#### *New Pilbara Application (E45/4735)*

Like the Company’s previous applications in the Eastern Pilbara, new application E45/4735 was selected based on its geological attributes compared with the currently accepted exploration model for Lithium-Caesium-Tantalum (“LCT type”) rare element pegmatites. The application covers an area of potential pegmatite host rock sequences (‘greenstone belts’) and is located within 5–10km of interpreted syn- to post-tectonic monzogranite intrusions, which are the expected magmatic source for the pegmatites. The fertile character of the monzogranites<sup>4</sup>, and potential link to lithium mineralisation, adjacent to and within the new application is highlighted by the numerous occurrences of lithium (Li), tantalum (Ta), tin (Sn), and

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<sup>1</sup> Newdegate Geological Survey of Western Australia 1:250,000 map, <http://www.geoscience.gov.au/geoportal-geologicalmaps/download?map=250dpi/si5008.jpg>

<sup>2</sup> <http://www.asx.com.au/asxpdf/20160407/pdf/436cb822nflw3w.pdf>

<sup>3</sup> <http://www.asx.com.au/asxpdf/20160401/pdf/4366rv115j4ycm.pdf>

<sup>4</sup> Monzogranites are biotite granite rocks that are considered to be the final fractionation product of magma <https://en.wikipedia.org/wiki/Monzogranite>

beryl (Be) associated with these monzogranites.

As indicated in Figure 1, the application contains similar geological settings to the Pilgangoora Li-Ta pegmatite deposits, which host the lithium projects of Australian Securities Exchange listed companies, Pilbara Minerals Limited and Altura Mining Limited.

#### *New Ravensthorpe Applications*

The new Ravensthorpe exploration licence applications E74/587 and E74/588 are located within the Cocanarup Terrane, which is dominated by intensely sheared and isoclinally folded Archean ultramafic rocks including spinifex-textured komatiite and pelitic metasediments.

EL74/588 is situated near the margin between the Yilgarn Craton granites and the South-West Terrane greenstone and Annabelle Volcanics to the south west and the Youanmi Terrane greenstones to the north. The greenstones in the south-west include amphibolite, basaltic pyroclastic tuff and metamorphosed basalts. The area has been intruded by numerous pegmatites, feldspar dykes, quartz veins and dolerite dykes. Several pegmatites are known from immediately south of the south-western portion of the tenement throughout the Annabelle volcanics.

New application E74/587 is positioned primarily on the Annabelle Volcanics dominated by metamorphosed basalt and pyroclastic tuff and adjacent to the Manyutup Tonalite in the same setting as Galaxy's Mount Cattlin project, which is 10 kilometres to the north-east. As indicated in Figure 2, a large pegmatite is mapped on the exploration licence application and extends for almost half its length.

#### Tenure Prospective for Lithium

The Company has undertaken an extensive review of geological datasets for available acreage prospective for lithium in Western Australia based on geological attributes referred to above. That review indicates that available acreage in Western Australia having those geological attributes is becoming scarce.

#### Tenement (application) Package

The Company now holds 13 exploration licence applications covering a total area of 1,192 square kilometres across the Pilgangoora, the Eastern Pilbara, Ravensthorpe and the Mid-West regions of Western Australia. Figure 3 shows the location of those applications across the Pilbara, excluding E59/2174, which is located to the south in the Mid-West region and E74/587 and E74/588, which are located near Ravensthorpe in South Western Australia.

Owing to the Company's large acreage package, it is currently in discussions with parties to joint venture some of its acreage to accelerate the exploration program.

#### Next Steps

The Company will, with the assistance of CSA Global, initially undertake geological reconnaissance to locate outcropping pegmatites. In areas of outcrop, pegmatites, intrusives, and host rocks, will be mapped to ascertain the mineral assemblages and rock chip sampled to determine key geochemical fractionation trends and lithium contents. Areas with sub cropping potential host rock units, with no evidence of surface based pegmatites, will be soil sampled to locate geochemical haloes related to lithium-bearing pegmatites. Target areas under transported cover, will require drilling to sample bedrock and locate pegmatites and/or related geochemical aureoles.

### **ABOUT CSA GLOBAL**

CSA Global is a leading geological, mining and management consulting company whose staff includes geologists, mining engineers, project managers, data management professionals, and technical personnel. CSA Global has been operating from Perth, Western Australia since 1986. It is an independent company, with origins dating back to 1984 as part of the CSA Group founded in Ireland. CSA Global now has offices in the UK, Indonesia, Johannesburg, Vancouver, Darwin, and Brisbane. CSA has a high level of expertise in most mineral commodities gained from over twenty years' experience within the exploration

and mining industry at an international level. It has experience in all stages of the mining cycle from project generation to production. For further information regarding CSA Global, please refer to the company website at [www.csaglobal.com](http://www.csaglobal.com).

Dr Andrew Scogings MSc, PhD, MAIG, MAusIMM, has more than 30 years of experience in industrial minerals exploration, geology, mining, product development, and marketing. During his time with CSA, he has undertaken project management and technical advice for a diverse range of industrial minerals exploration and mining projects including lithium, graphite, chromite, potash, mineral sands, silica, and REE in Australia, Africa, Greenland, Indonesia and Norway. Andrew is a regular contributor to Industrial Minerals Magazine (UK), SME Mining Engineering (USA) and Geobulletin (RSA) having published several papers on the requirements of JORC 2012 Clause 49, highlighting the need to report industrial minerals resources according to market specifications. Andrew was lead author for Industrial Minerals Research's recently published '*Natural Graphite Report- Strategic outlook to 2020*'. He is a member of the AIG and AusIMM and is a Registered Professional Geoscientist (RP Geo.) specializing in industrial minerals.

Mr Ralph Porter MSc, BSc (Geology), MAIG, MSEG is a geologist with over 35 years' of mineral exploration experience. He is highly experienced in target generation, project evaluation and exploration program implementation for gold, base metals, tantalum, nickel and PGM's. He has a strong understanding of many deposit styles with particular strength in orogenic gold, epithermal gold and porphyry copper-gold systems. He is credited with the discovery of the Pajingo epithermal gold deposits, North Queensland, Australia and was involved in the early exploration and discovery phases of Thunder Bay North PGM-Ni-Cu deposit, Ontario, Canada. Ralph was Exploration Manager for Sons of Gwalia in Western Australia for nearly 10 years including responsibility for tantalum pegmatites for 4 years. Ralph was Special Projects Manager for Sons of Gwalia in Western Australia for nearly 10 years, including responsibility for tantalum pegmatite evaluation and exploration for 4 years.

#### **QUALIFIED PERSONS**

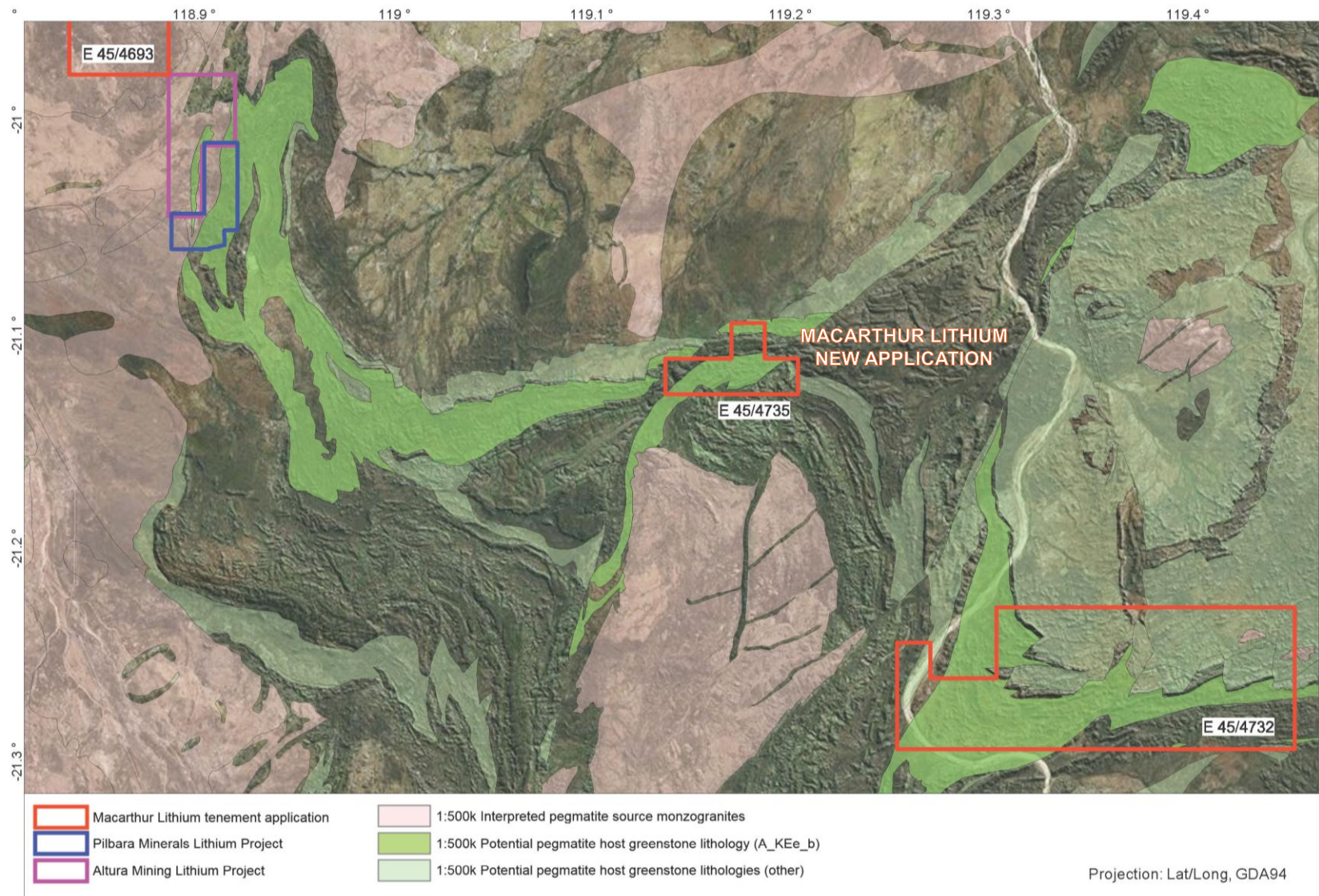
Mr Porter, a member of the Australian Institute of Geoscientists, is a full-time employee of CSA Global Pty Ltd and is a Qualified Person as defined in National Instrument 43-101. Mr Porter has reviewed and approved the technical information contained in this news release.

Dr Scogings, a member of the Australian Institute of Geoscientists and Registered Professional Geoscientist (Industrial Minerals), is a full-time employee of CSA Global Pty Ltd and is a Qualified Person as defined in National Instrument 43-101. Dr Scogings has reviewed and approved the technical information contained in this news release.

#### **ABOUT MACARTHUR MINERALS LIMITED (TSX-V: MMS)**

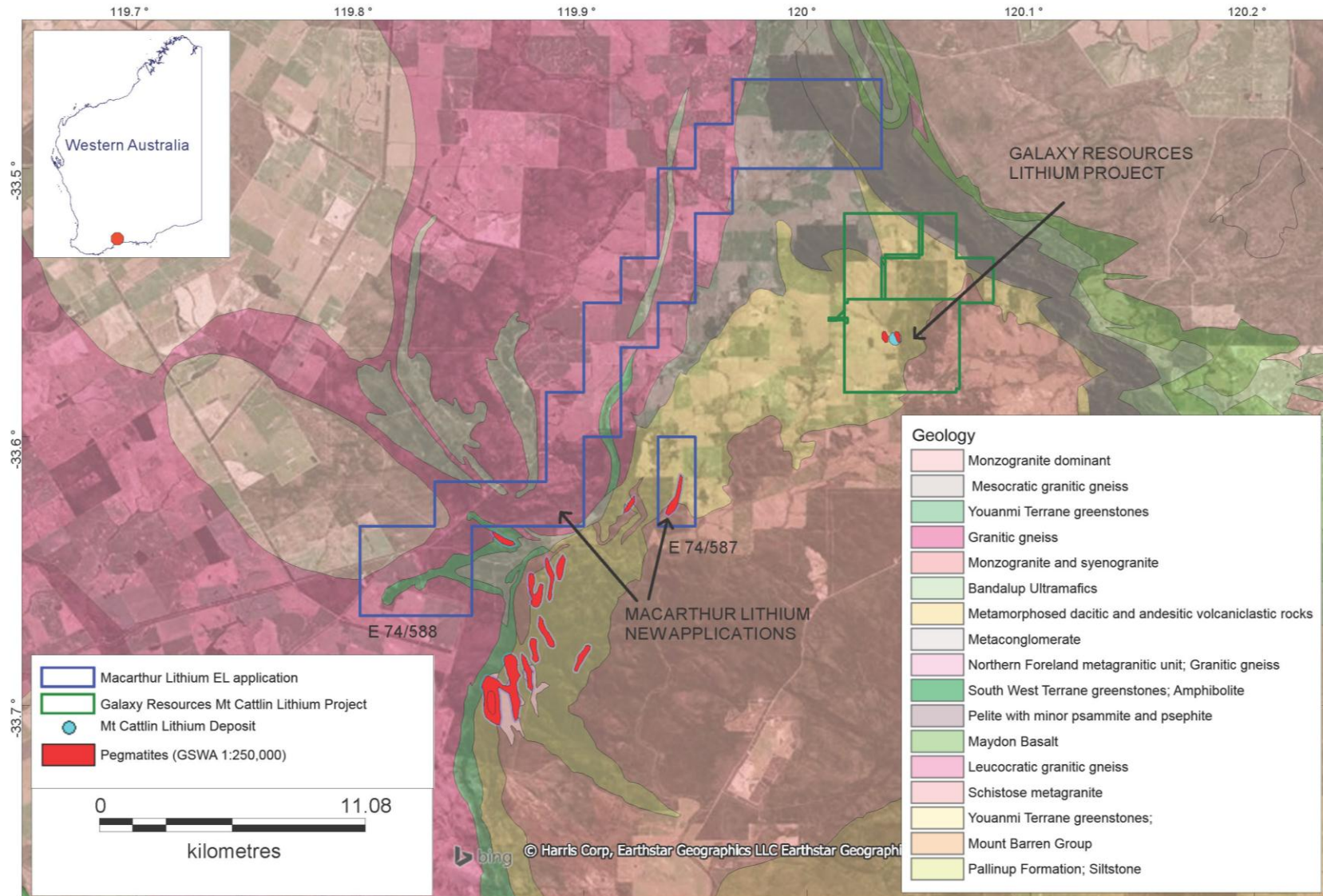
Macarthur Minerals Limited is an exploration and development company that is focused on identifying lithium and counter cyclical investments that complement Macarthur's capabilities.



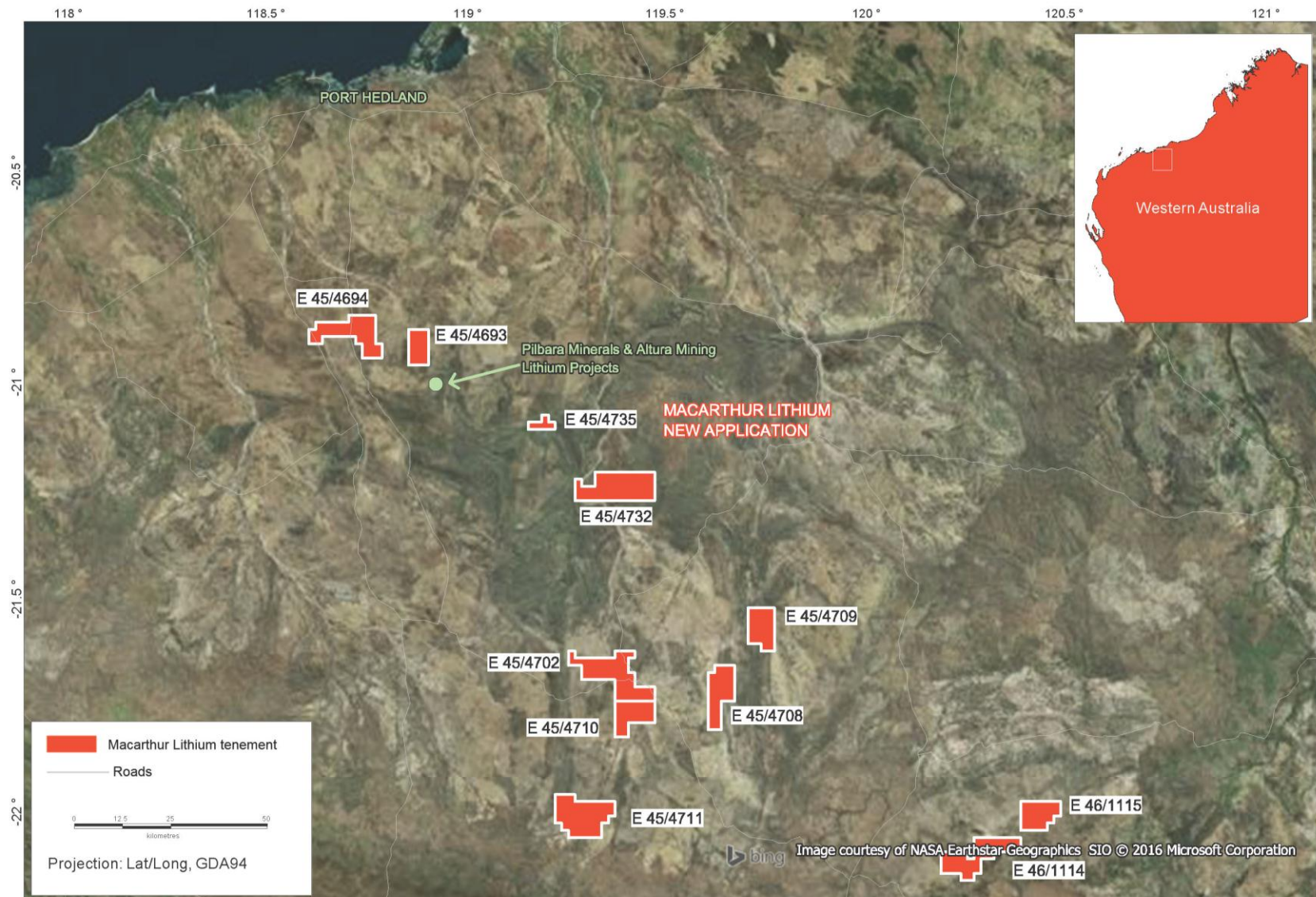


**Figure 1** – Macarthur’s new Exploration Licence application showing similar geological settings to the lithium projects Pilbara Minerals Ltd and Altura Mining Ltd.





**Figure 2** – Macarthur’s Exploration Licence applications in the Ravensthorpe region of Western Australia.



**Figure 3** – Macarthur’s lithium tenement holdings in the Pilbara region of Western Australia.



On behalf of the Board of Directors,  
**MACARTHUR MINERALS LIMITED**

"Cameron McCall"  
Cameron McCall, Chairman

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