

# HANNANS

4<sup>th</sup> Quarter Activities Report 2018/2019

## Fast Facts

**ASX Code:** HNR

## Capital Structure

**Shares on issue:** 1.98 billion

**Market cap:** \$19.8M (at 1.0c)

**Cash:** \$2.6M (30 June)

**Debt:** Nil

## Non-Executive Chairman

Jonathan Murray

## Executive Director

Damian Hicks

## Non-Executive Directors

Markus Bachmann

Clay Gordon

Amanda Scott

## Key Projects

### Sole Funded

Forrestania (Nickel & Lithium)

Queen Victoria Rocks (Nickel)

### Free-Carried to Decision to Mine

Forrestania (Gold) 20%

Lake Johnston (Nickel & Lithium) 15%

During the 4<sup>th</sup> Quarter (April – June 2019) and prior to release of this report:

- ∅ Forrestania (Nickel) – continued joint venture discussions with high quality organisations seeking access to the world class Forrestania nickel sulphide belt; planned flora & fauna surveys for Spring (August – October) to enable ground disturbing exploration activities to recommence as soon as practical;
- ∅ Mt Holland (Lithium) – received government approval for exploration at Mt Holland West enabling an 80 hole aircore reconnaissance drill program to commence on 8 August; planned flora & fauna surveys for Spring at Mt Holland East to enable reconnaissance drill programs to recommence as soon as practical; and
- ∅ Corporate (New Projects) – assessed new opportunities.

During the 4<sup>th</sup> Quarter (July – September 2019) Hannans aims to:

- ∅ Forrestania (Nickel) – execute binding joint venture agreement with high quality partner, complete flora & fauna surveys and recommence field exploration (geophysics and drilling) for high grade massive nickel sulphide mineralisation;
- ∅ Mt Holland (Lithium) – complete reconnaissance aircore drilling at Mt Holland West, complete Spring flora & fauna surveys at Mt Holland East and thereafter commence second phase of aircore drilling; and
- ∅ Forrestania (Gold) – review gold exploration results from joint venture partner Classic Minerals Ltd (ASX:CLZ) (Hannans free-carried to Decision to Mine at 20%).

## About Hannans Ltd

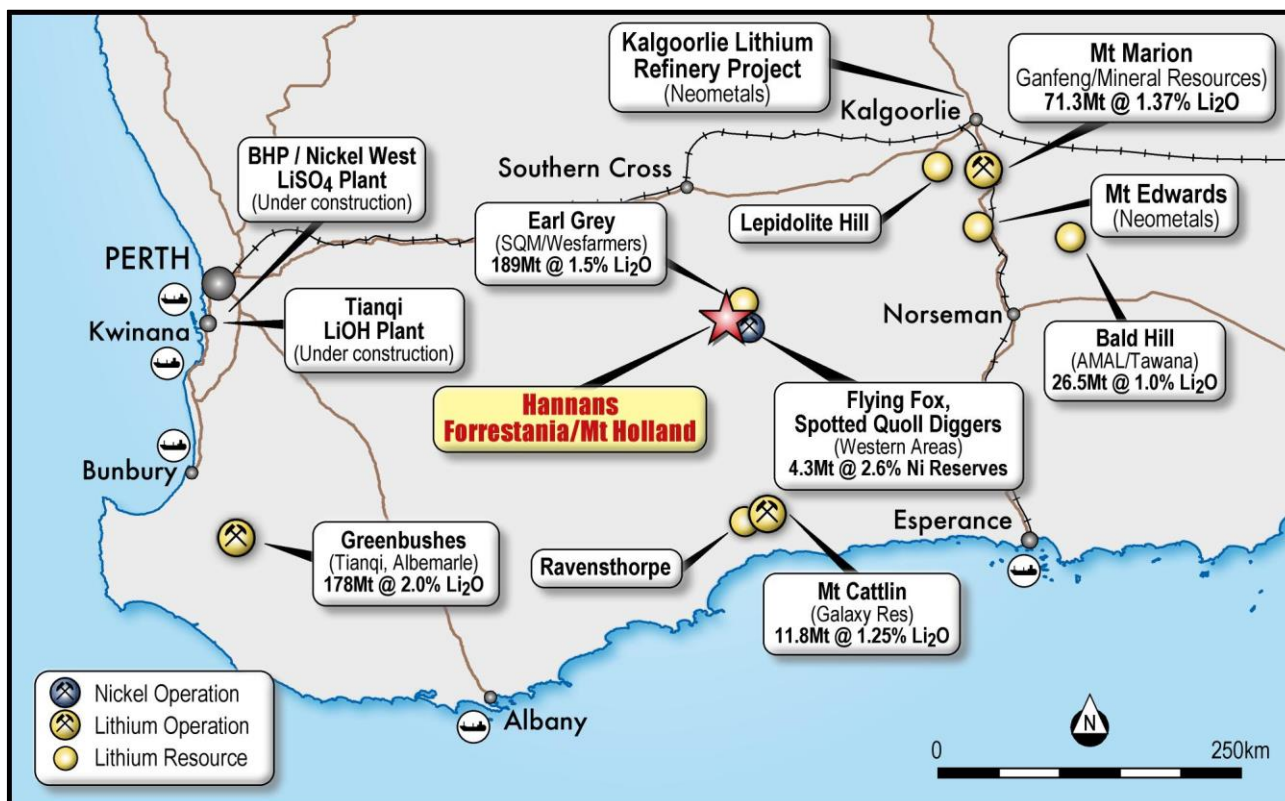
Hannans Ltd (ASX:HNR) is an exploration company with a focus on nickel, gold and lithium in Western Australia. Hannans' major shareholder is leading Australian specialty minerals company Neometals Ltd. Since listing on ASX in 2003 the Hannans group of companies has signed agreements with Vale, Rio Tinto, Anglo American, Boliden, Warwick Resources, Cullen Resources, Azure Minerals, Neometals, Tasman Metals, Grängesberg Iron, Lovisagravan and Montezuma Mining Company. Shareholders at various times since listing have included Rio Tinto, Anglo American, OM Holdings, Craton Capital and BlackRock. For more information visit [www.hannansreward.com](http://www.hannansreward.com) and search for 'Hannans' on Twitter.

## Acknowledgement

Hannans would like to acknowledge the professional work completed by various advisors, consultants and contractors ("Team") during the Quarter. Hannans appreciates the quality, focus and attention to detail of the individuals within these small to medium sized organisations. Hannans and its Team are focussed on the discovery of a world class orebody at Forrestania and Mt Holland.

## Note

All material results and commentary included in this Quarterly Report have previously been released to ASX. Please refer to [www.hannansreward.com](http://www.hannansreward.com) for more information.



**Figure 1:** Location Map showing location of Hannans' Forresteria Nickel Project and Mt Holland Lithium Project, the world class Forresteria nickel mines (Flying Fox/Spotted Quoll) and location of major lithium mines and projects in the south-west of WA.  
Source: Company web sites

### Forresteria Nickel Project (Hannans 100%)

By way of background the Forresteria Nickel Project (FNP) is located approximately 120 kilometres south of Southern Cross and 80 kilometres east of Hyden in the Goldfields region of Western Australia. The FNP is located adjacent to, and north of the high-grade Flying Fox and Spotted Quoll nickel sulphide mines. Importantly the Team assisting Hannans played major roles in the discovery of nickel deposits at Forresteria including Flying Fox and Spotted Quoll<sup>1</sup>.

#### Background

Hannans' tenure is located within the Forresteria Greenstone Belt which has a length of ~250 kilometres, a width ranging from ~5 to 35 kilometres and is subdivided into six ultramafic<sup>2</sup> belts namely the Western, Mid-Western, Takashi, Central, Mid-Eastern and Eastern (refer Figure 2 on page 3).

The Western ultramafic belt is regionally the most well-endowed with nickel-sulphide mineralisation. The Spotted Quoll, New Morning, Beautiful Sunday and Flying Fox<sup>3</sup> nickel sulphide deposits are all located within the Western ultramafic belt. Hannans' tenure covers a significant strike length of the Western, Mid-Western and Takashi ultramafic belts and minor parts of the Central and Mid-Eastern ultramafic belts.

The Forresteria Greenstone Belt hosts several different nickel sulphide mineralisation settings and styles including basal massive sulphides, matrix sulphides, disseminated sulphides in cumulates and remobilised massive sulphides<sup>4</sup>. The nickel deposits are generally associated with olivine cumulate<sup>5</sup> ultramafic rocks, however mineralisation may occur in a range of rock types / settings and exhibit a range of geophysical responses.

<sup>1</sup> Flying Fox and Spotted Quoll are owned by Western Areas NL (not Hannans Ltd).

<sup>2</sup> Ultramafic rocks (also referred to as ultrabasic rocks, although the terms are not wholly equivalent) are igneous and meta-igneous rocks with a very low silica content (less than 45%), generally >18% MgO, high FeO, low potassium, and are composed of usually greater than 90% mafic minerals (dark coloured, high magnesium and iron content). The Earth's mantle is composed of ultramafic rocks. Wikipedia contributors. (2019, April 5). Ultramafic rock. In Wikipedia, The Free Encyclopedia. Retrieved 02:06, July 31, 2019, from [https://en.wikipedia.org/w/index.php?title=Ultramafic\\_rock&oldid=891036300](https://en.wikipedia.org/w/index.php?title=Ultramafic_rock&oldid=891036300)

<sup>3</sup> All of these deposits are owned by Western Areas NL (not Hannans Ltd).

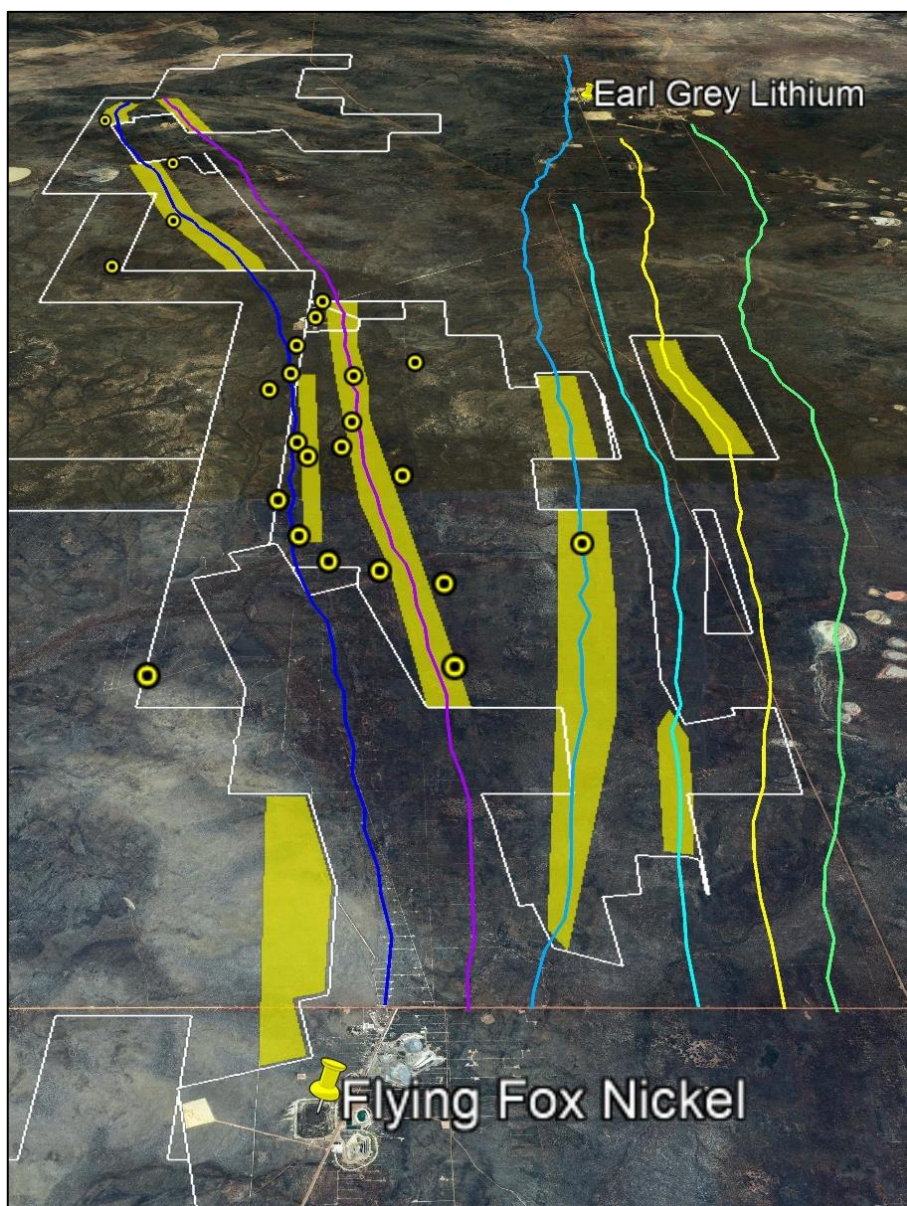
<sup>4</sup> There are five different settings to nickel sulphide mineralisation at Flying Fox.

<sup>5</sup> Cumulate rocks are igneous rocks formed by the accumulation of crystals from a magma either by settling or floating. Wikipedia contributors. (2019, January 27). Cumulate rock. In Wikipedia, The Free Encyclopedia. Retrieved 02:09, July 31, 2019, from [https://en.wikipedia.org/w/index.php?title=Cumulate\\_rock&oldid=880503818](https://en.wikipedia.org/w/index.php?title=Cumulate_rock&oldid=880503818)

A review of the FNP completed early 2019 identified:

- untested coincident geophysical/geochemical anomalies (i.e. high priority targets);
- geophysical anomalies (short strike-length EM anomalies i.e. nickel sulphide targets) occurring adjacent to large formational conductors (i.e. conductive sediments and or BIF);
- geochemical anomalism (Ni, Cu, PGE);
- significant anomalism in belts other than the Western and Eastern ultramafic belts; and
- geological areas of interest that lack historic exploration coverage.

During the Quarter Hannans lodged work plans with the government seeking approval to commence field exploration activities. Prior to granting approval the government requires flora & fauna surveys to be completed within areas proposed to be disturbed, to ensure no rare or endangered flora and or fauna are damaged or destroyed. The appropriate time to complete the flora surveys in the Forrestania region is generally considered to be August through October. These surveys will be completed in August. As soon as the government approves the work plans, field exploration activities will recommence. The aim will be to test the targets identified during the review of the FNP as soon as possible.

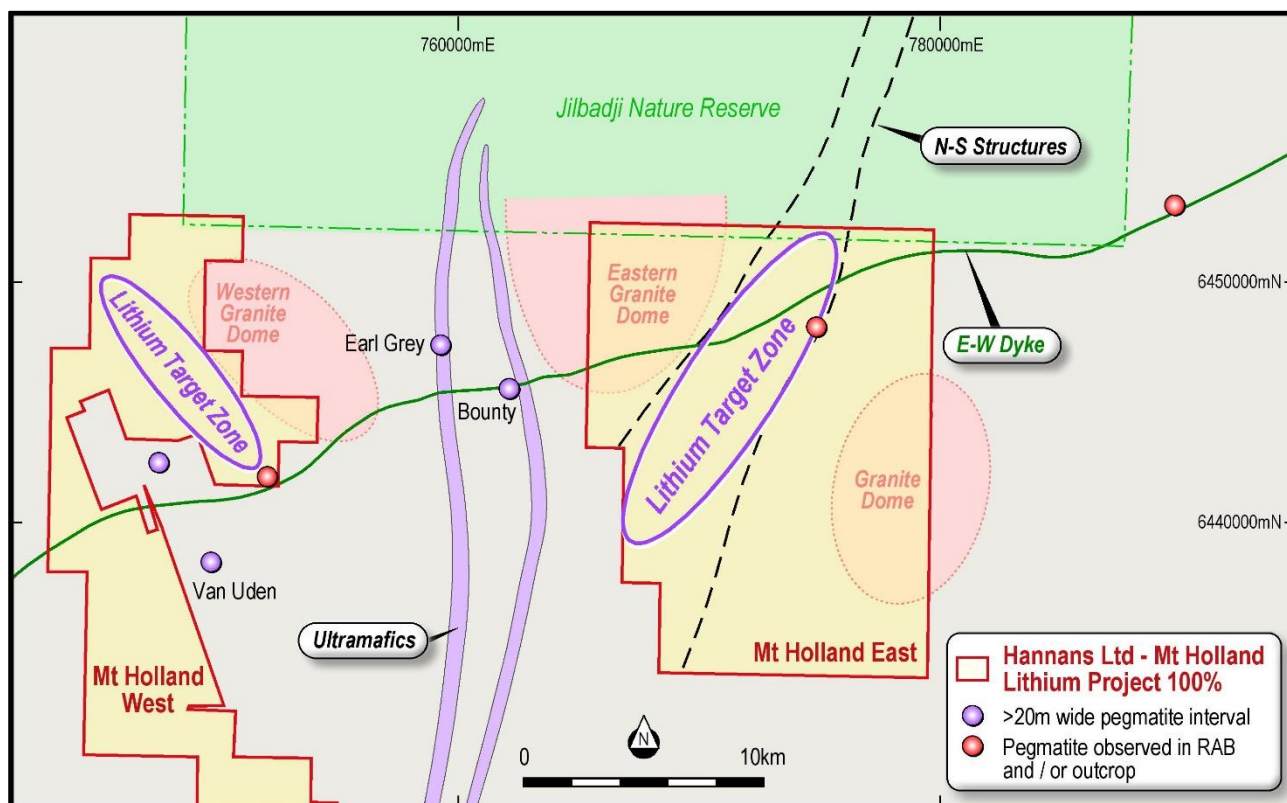


**Figure 2:** Location Map showing Hannans' Forrestania Nickel Project. Hannans tenements in white. Hannans targets from the review of the Forrestania Nickel Project comprising a mixture of geological, geochemical and geophysical targets are highlighted by the yellow circles with black centres. The yellow shaded areas are underexplored and recommended for significant EM coverage. From west to east the coloured lines represent the Western, Mid-Western, Takashi, Central, Mid-Eastern and Eastern ultramafic units. The world class Flying Fox nickel sulphide mine (not owned by Hannans Ltd) is in the foreground. Image looking North. Distance from Flying Fox to Earl Grey is ~38kms.

### Mt Holland Lithium Project (Hannans 100%)

The Mt Holland Lithium Project is located adjacent to Earl Grey, one of the most significant hard rock lithium deposits in the world jointly owned by New York Stock Exchange listed SQM and ASX listed Wesfarmers Ltd<sup>6</sup>. Earl Grey will underpin a world-class long-life integrated lithium project.<sup>7</sup> Hannans' exploration goal at Mt Holland is to discover a lithium deposit comparable to Earl Grey.

Hannans' major shareholder is Neometals Ltd, a leading Australian specialty minerals company. Dr Bryan Smith, a consulting exploration geoscientist to both Neometals and Hannans, was previously responsible for exploration at the Mt Marion lithium project and is overseeing exploration at Mt Holland. The exploration strategy at Mt Holland is at an early stage and further substantive drilling (both from a coverage and depth perspective) is required to effectively test the project.



**Figure 3:** Location Map showing Hannans' Mt Holland Lithium Project (in yellow) and its proximity to the 3<sup>rd</sup> largest hard rock lithium deposit in the world, Earl Grey owned by the world's largest producer of lithium the New York Stock Exchange listed SQM and one of Australia's largest listed companies Wesfarmers Ltd (ASX:WES). Source: Company web sites

Hannans notes that:

- the potential of the greater Mt Holland area to host globally significant hard rock lithium deposits is confirmed simply by the presence of the Earl Grey and Bounty lithium deposits<sup>8</sup>;
- there are large areas of prospective tenure within the Hannans' project that remain unexplored;
- elevated lithium and lithium pathfinder elements (caesium, bismuth, beryllium, tantalum and tungsten) identified at Mt Holland East require validation and will be tested in September/October 2019;
- despite intersecting pegmatites in aircore and reverse circulation drilling at Mt Holland West, to date there has been no indication in the analyses of fertile pegmatites<sup>9</sup>;
- the exploration model for locating pegmatites 'under cover' as opposed to 'outcropping at surface' is evolving;
- the top 50m from surface is generally very weathered, and covered by windblown sands and vegetation making it difficult to visually identify pegmatites at surface; and
- reconnaissance exploration drilling has so far been confined to pre-existing cleared lines to reduce exploration costs and disturbance to the vegetation.

<sup>6</sup> Subject to the successful takeover of Kidman Resources Ltd.

<sup>7</sup> Refer [kidmanresources.com.au](http://kidmanresources.com.au)

<sup>8</sup> Owned by Kidman Resources and SQM, not Hannans.

<sup>9</sup> The host to the lithium mineralisation.

Hannans' exploration model is based on:

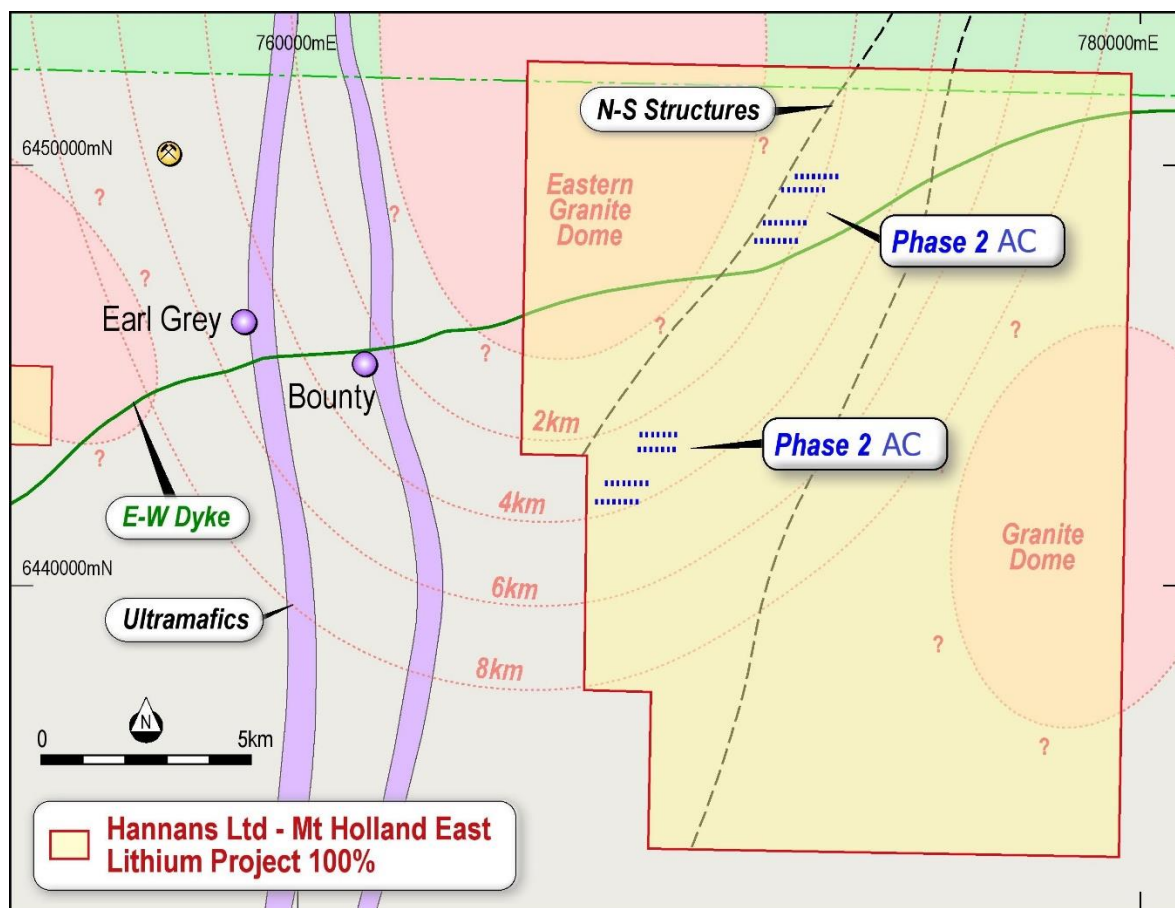
- targets located within a 10 km radius of late stage fertile granitoids.
- reliance on the best geological interpretation of aeromagnetic data for defining granitoids, greenstones and structures; and
- interpretations of data from weathered samples recognizing the high mobility of lithium in the weathered zone.

#### Mt Holland East (MHE)<sup>10</sup>

Hannans has completed one phase of reconnaissance drilling across ten structural targets at Mt Holland East (169 AC holes for a total of 5,400m drilled late 2018). The aim of the program was to penetrate through the weathered horizon and intersect the top of underlying fresh rock (saprolite) to assist with refining the geological map and testing structural targets.

The Phase 1 drilling identified several intriguing lithium anomalies that required follow up drilling. Drill holes in the north-east sector of tenement E77/2489 across a major NNE/SSW trending major structure in dominantly granitic terrain, intersected elevated values for lithium in the upper horizons of the regolith. The structure is coincident with a chain of salt lakes which likely represents a paleo drainage that follows the structural trend. Lithium is highly mobile in the weathered zone, so the source of the anomalous lithium could be at some distance from the location of the drill holes.

Phase 2 drilling will determine whether the anomalous lithium geochemistry is indicative of nearby lithium-bearing pegmatites, or simply related to variations in the geochemistry of the granitoids. Flora & fauna surveys along the planned drill lines will be completed in August with drilling approvals anticipated to be received in September / October 2019.



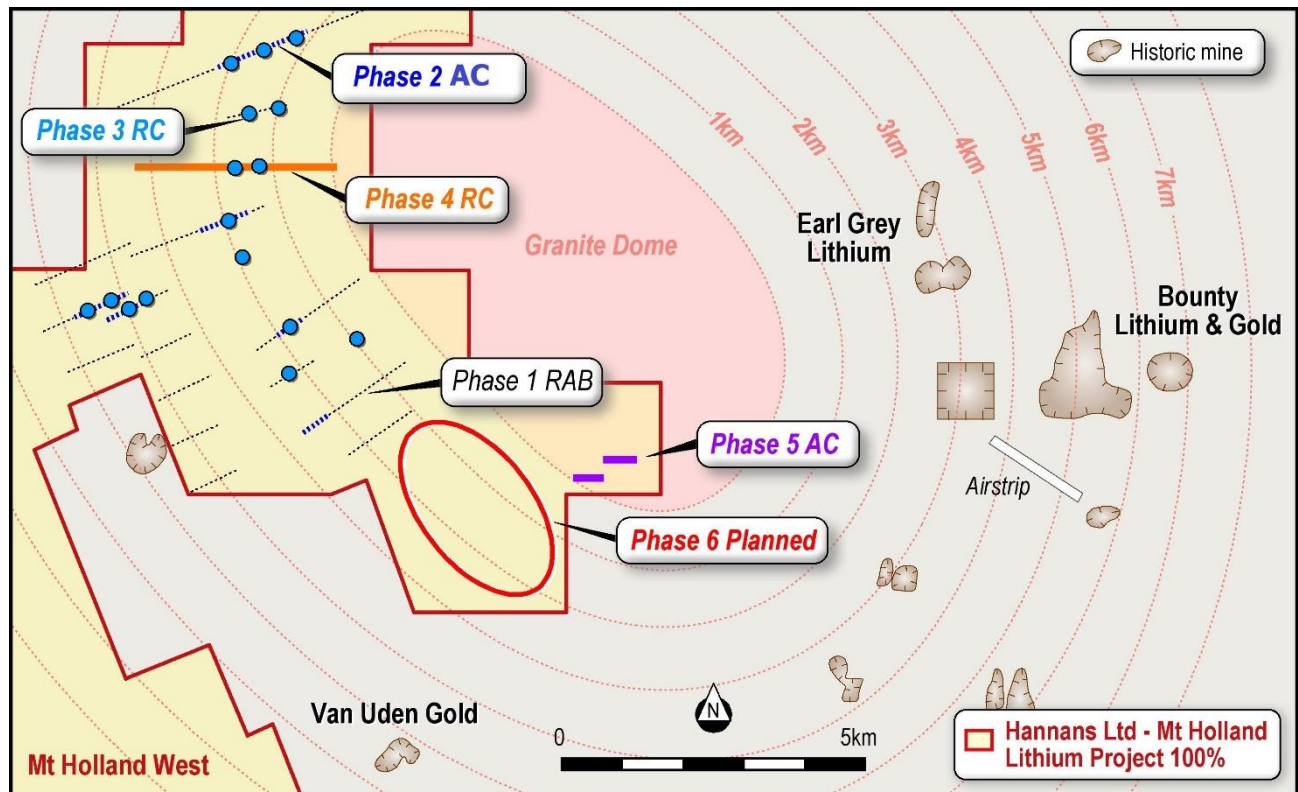
**Figure 4:** Location Map showing Hannans' Mt Holland East Lithium Project (in yellow) and its proximity to the 3<sup>rd</sup> largest hard rock lithium deposit in the world. The planned Phase 2 aircore drill traverses are shown as broken blue lines. The targets are well located according to Hannans' exploration model.

<sup>10</sup> Results released by Hannans Ltd to ASX on 24 January 2019.

Mt Holland West (MHW)

The Phase 6 aircore drill program was approved during the Quarter and is expected to commence on 8 August. The program will comprise approximately 80 holes for 4,000m (estimated average depth of 50m per hole). An update to the ASX will be released once all assays are returned and the detailed interpretation completed.

Reconnaissance field work was also completed on tenement E77/2460 located 18km due south of Earl Grey. This tenement is considered within the target zone of a potential source granite (located 3kms to the east). Flora & fauna surveys along the planned drill lines will be completed in August with drilling approvals anticipated to be received in September / October 2019.



**Figure 5:** Location Map showing Hannans' Mt Holland West Lithium Project (in yellow) and its proximity to the 3<sup>rd</sup> largest hard rock lithium deposit in the world. The planned Phase 6 aircore drill traverses are contained within the red ellipse. The targets are well located according to Hannans' exploration model. Phase 1 RAB depth of drilling ~12m. Phases 2 and 5 AC depth of drilling was ~50m. Phases 3 and 4 RC depth of drilling was ~ 150m. Phase 6 AC depth of drilling will be ~50m.

**Forrestania Gold (Hannans 20% Free-Carried)**

Hannans holds a 20% free carried interest in the Forrestania Gold Project (excluding Lady Lila and Kat Gap). The project is funded and managed by joint venture partners Classic Minerals Ltd (ASX:CLZ). Hannans shareholders are therefore exposed to exploration success without the need to fund exploration.

**ASX ANNOUNCEMENTS FOR 4<sup>th</sup> QUARTER 2018/2019**

Date	Announcement
29/04/2019	3 <sup>rd</sup> Quarter Activities Report
29/04/2019	3 <sup>rd</sup> Quarter Cashflow Report

**Table 1:** ASX Announcements between the period 1 April 2019 to 30 June 2019

## CONTACT DETAILS

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witter: @hannansreward

## COMPLIANCE STATEMENT

The information in this document that relates to exploration results at Forrestania is based on information compiled by Dr Bryan Smith, a Competent Person who is a Member of the Australian Institute of Geoscientists. Dr Smith is a consultant to Hannans Ltd and its subsidiary companies. Dr Smith has sufficient experience, which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which has been undertaken 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 (JORC Code). Dr Smith consents to the inclusion in the report of the matters based on his information in the form and context to which it appears.

## CURRENT TENEMENTS

Tenement number	Interest 4 <sup>th</sup> Quarter 2018/2019		Note	Tenement number	Interest 4 <sup>th</sup> Quarter 2018/2019		Note
	Start	End			Start	End	
<b>HR FORRESTANIA PTY LTD</b>							
Location: Forrestania, Australia							
E77/2460	100%	100%					
<b>REED EXPLORATION PTY LTD <sup>1</sup></b>							
Location: Queen Victoria Rocks, Australia				Location: Sandalwood Rocks, Australia			
E15/1416	100%	100%		E63/1897	100%	100%	
Location: Forrestania, Australia							
E77/2207-I	100%	100%	1	P77/4291	100%	100%	1
E77/2219-I	100%	100%	1	E77/2488	100%	100%	
E77/2220-I	100%	100%	1	E77/2489	100%	100%	
E77/2239-I	100%	100%	1	E77/2498	100%	100%	
E77/2303	100%	100%	1	E77/2520	100%	100%	
P77/4290	100%	100%	1	E77/2545	100%	100%	

**Note:**

- 1 Reed Exploration Pty Ltd (REX) is a wholly owned subsidiary of Hannans Ltd. REX is the registered holder of the tenements. REX holds a 100% interest in all minerals excluding gold. REX holds a 20% free-carried interest in the gold rights.

## TENEMENTS UNDER APPLICATION

Tenement number
<b>REED EXPLORATION PTY LTD</b>
Location: Forrestania, Australia
E77/2546
E77/2579
E77/2590

## RELINQUISHED, REDUCED OR LAPSED TENEMENTS

Tenement number	Interest 4 <sup>th</sup> Quarter 2018/2019		Note
	Start	End	
<b>HR FORRESTANIA PTY LTD</b>			
Location: Forrestania, Australia			
E63/1865	100%	0%	