

**Lottah Mining Pty Ltd**  
**Annual Report on exploration on**  
**EL 18/2007 “Hampshire 2”**  
**July 2018 to July 2019**

**Grant MacDonald**

**Abstract**

Work Completed on EL18/2007 during the period of July 2018 – July 2019 consisted of final planning for drilling at the L13 prospect with other proposed drone magnetics and geological mapping at the L4, Suttons Skarn and St Valentines Peak prospects due to follow.

Unfortunately expected funding was held up and work was unable to commence.

That funding has become available and it is intended that the L13 drilling work be completed immediately with the other work to follow.

## Table of Contents

<b>1.0</b>	<b>Introduction</b>	<b>1</b>
1.1	Location and access	1
1.2	Land status and usage	1
1.3	Tenure	1
1.4	Exploration focus	1
<b>2.0</b>	<b>Geology</b>	<b>3</b>
<b>3.0</b>	<b>Review of Previous Work</b>	<b>4</b>
3.1	Prior to current tenement	4
3.2	During current tenement	4
<b>4.0</b>	<b>Exploration completed during the reporting period July 2017 to July 2018</b>	<b>13</b>
<b>5.0</b>	<b>Discussion of Results</b>	<b>14</b>
<b>6.0</b>	<b>Proposed works programme 2018/19 year</b>	<b>18</b>
<b>7.0</b>	<b>Expenditure</b>	<b>19</b>
<b>8.0</b>	<b>Environmental</b>	<b>20</b>
<b>9.0</b>	<b>References</b>	<b>21</b>

## Tables

<b>5.1</b>	<b>Proposed holes for L13 Prospect</b>	<b>15</b>
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## Figures

1.1	EL 18/2007 location	1
1.2	Land tenure of EL18/2007	2
3.1	L13 prospect showing existing shallow augers (+) and proposed holes superimposed on drone magnetics survey (flight lines from the survey are the east west lines) TMI image. Red dashed line is 25m RTP TMI anomalies outline used as reference line. Dark solid magnetic image contour lines are for reference in the following figure. Small coloured shapes are outcrop – green is skarn, pink is granite and tan is basalt.	5
3.2	L13 prospect showing existing shallow augers (+), proposed drill holes as purple squares (discovery holes) and blue diamonds (resource definition holes), superimposed on geology which is from Tasmania Mines mapping in 1974. Red dashed line is 25m RTP TMI anomalies outline used as reference line. Dark solid lines are reference lines from previous figure.	6
3.3	L4 prospect showing areas of mapped outcropping magnetite skarn, existing drill holes (at Hampshire), ground magnetics survey (at Hampshire) superimposed on 25m RTP TMI image. Tenements are shown as brown line and text. Red dashed line is 25m RTP TMI anomalies outline used as reference line.	7
3.4	L4 prospect showing existing drill holes (at Hampshire), proposed drill holes as purple squares (discovery holes) and blue diamonds (resource definition drill holes) at Hampshire, proposed drone magnetics survey as dashed black line, superimposed on geology. Tenements are shown as brown line and text. Red dashed line is 25m RTP TMI anomalies outline used as reference line.	8
3.5	St Valentines area showing prospect locations, existing drill holes as black dots, superimposed on 25m RTP TMI image. Tenements are shown as brown line and text. Red dashed line is 25m RTP TMI anomalies outline used as reference line.	9
3.6	St Valentines area showing prospect locations, existing drill holes as black dots, proposed drone magnetics survey as dashed black line, superimposed on geology. Tenements are shown as brown line and text. Red dashed line is 25m RTP TMI anomalies outline used as reference line.	10

3.7	Suttons Skarn showing area of outcropping magnetite skarn, existing shallow auger holes, and ground magnetics superimposed on 25m RTP TMI image. Red dashed line is 25m RTP TMI anomalies outline used as reference line.	11
3.8	Suttons Skarn showing current (shallow auger) holes as black crosses, proposed drill holes as purple squares (discovery holes) and blue diamonds (resource definition holes), proposed drone magnetics survey as dashed black line, and ground magnetics superimposed on geology. Red dashed line is 25m RTP TMI anomalies outline used as reference line.	12
5.1	Proposed L13 holes on airphoto	15
5.2	Proposed L13 holes on hillshade	16
5.3	Proposed L13 holes (southern fences) on old track plan from ANZECO's work (1974).	17

## 1.0 Introduction

### 1.1 Location and access

EL 18/2007 covers an area of 62 km<sup>2</sup> in Tasmania's northwest, inland from Burnie.

The tenement is best accessed by from the Murchison Highway which passes within 2km to the north of the licence. Access within the licence is via a network of historic and current logging roads and tracks.

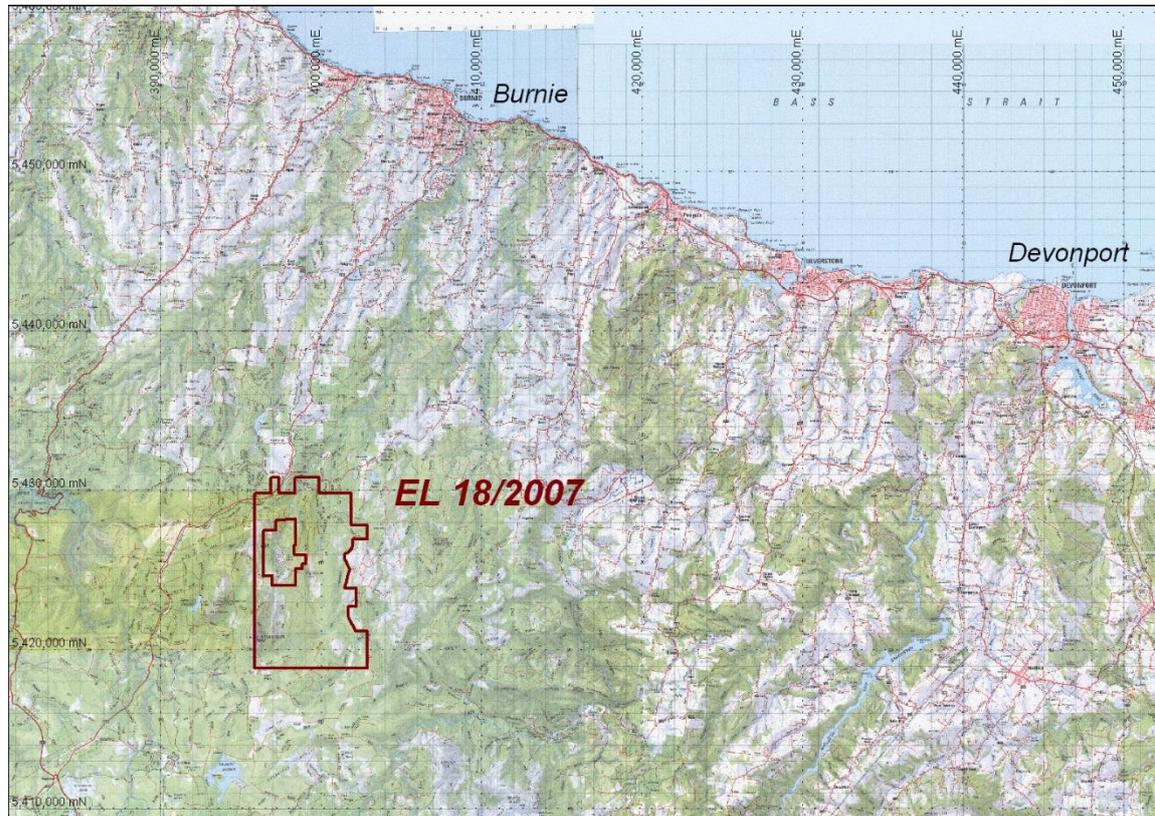


Figure 1.1: EL 18/2007 location.

### 1.2 Land status and usage

EL 18/2007 consists of primarily private land, Crown Land and Regional Reserve. Almost the sole usage of the land is forestry.

### 1.3 Tenure

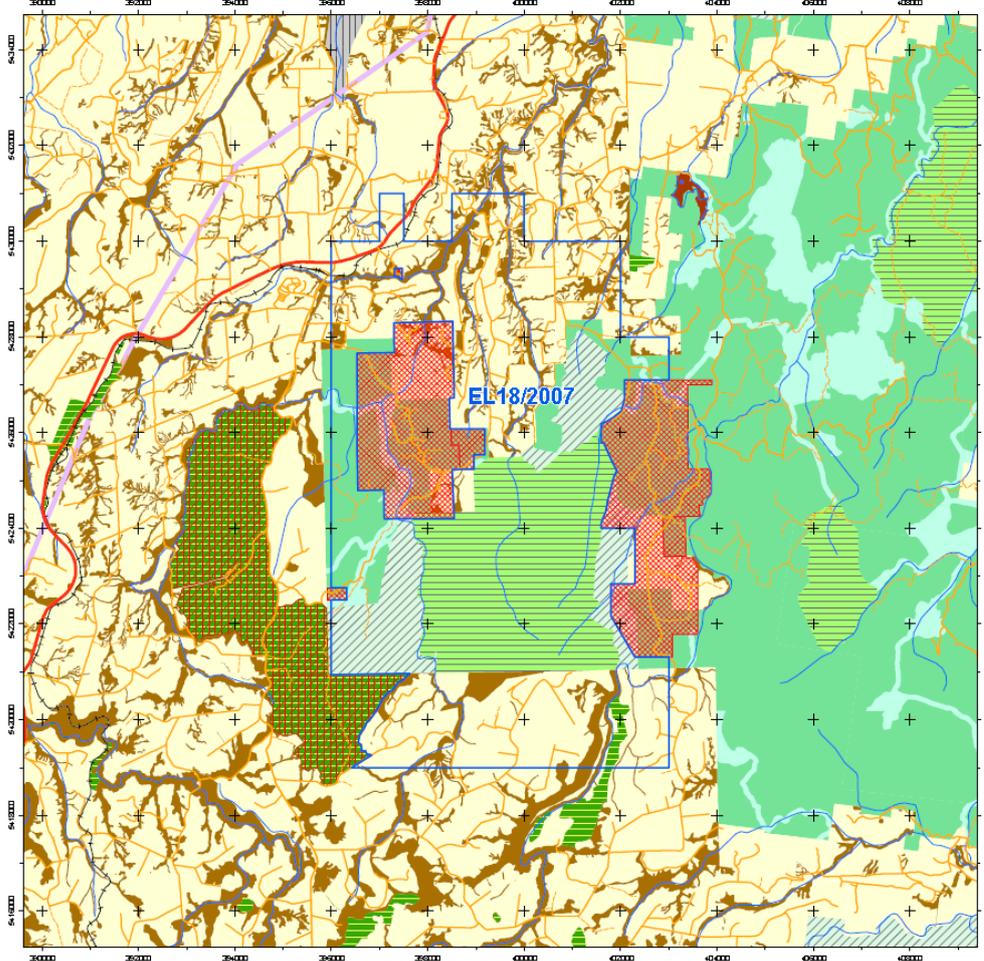
Exploration Licence EL 18/2007 "Hampshire 2" was granted to Blythe River Iron Pty Ltd in 2007. Blythe River Iron Pty Ltd was bought out by Forward Mining whose parent company is Lottah Mining Pty Ltd.

ML 1996P/M was excised in part from EL 18/2007 on 14<sup>th</sup> June 2015.

EL 18/2007 remains in the name of Blythe River Iron Pty Ltd but is owned and managed by Lottah Mining Pty Ltd.

### 1.4 Exploration focus

Lottah Mining Pty Ltd has a JORC compliant magnetite iron resource at its Rogetta North project on ML 1996P/M to the immediate east of EL 18/2007. ML 1996P/M was in part excised from EL18/2007.



EL18/2007 62km<sup>2</sup>  
Vicinity of Hampshire  
0 1 2 3 4 5 km  
1:75,000  
Coordinate Datum - GDA94 MGA Zone 55



Figure 1.2: Land tenure of EL 18/2007

Lottah Mining Pty Ltd also has a JORC compliant hematite iron resource deposit on EL6/2005 to the northeast of EL 18/2007.

Lottah Mining Pty Ltd is targeting further magnetite and/or hematite iron deposits to add to its resource inventory.

Lottah Mining Pty Ltd is also targeting any commodities of commercial interest including but not limited to W03, Sn, Bi, Mo, Cu, Pb, Zn, Au, Ag, Li, Ni, REE, wollastonite and facing stone.

## 2.0 Geology

Regionally the geology of the Rogetta Project area is dominated by a basement of Proterozoic metasediments (and minor mafic volcanics) of the Oonah/Burnie Formations unconformably overlain by a sequence of Cambro-Ordovician volcanics and sediments, both intruded by the Devonian Husetop Granite, all obscured by a veneer of Tertiary basalt.

The basal unit of the Cambro-Ordovician sequence consists of Mt Read Volcanics, correlated with Tyndall Group. These are overlain by the Owen Group sediments.

The basal member of the Owen Group is a quartz pebble conglomerate with local additions of volcanoclastic detritus. The conglomerates are overlain by the Moina Sandstone which has a gradational contact with the overlying Gordon Group Limestone, becoming more calcareous towards the contact.

The Gordon Group limestones and dolomites are the host to skarn mineralisation.

These basement rocks were deformed in the Middle Tabberrabberan Orogeny under a largely east-west compressive stress regime. This resulted in the development of north to north-northeast striking F2 folds superimposed on a much broader east-west F2 fold.

Late in the orogeny the I-type Husetop Granite was emplaced passively and underlies most of the Rogetta Project tenements.

Skarn mineralisation was introduced into calcareous rocks by fluids derived from this granite with rarer vein style mineralisation also associated with this intrusive. Whilst previously considered to be a single body more recent work (McKeown, 1994) suggests that the granite consists of a number of phases often intruding as dykes as opposed to a large rounded batholith geometry.

In the Tertiary topographic lows were filled by basal sediments followed by thick Tertiary basalt flows which spilled over onto more undulating topography as a thin veneer.

Within EL 18/2007 the Proterozoic rocks remain obscured with the oldest rocks exposed being the Cambrian volcanics in the western part of the licence. Granite outcrops on the eastern and western margins of the tenement and underlies the folded Cambro-Ordovician sequence. Much of the tenement contains outcropping Owen Group sediments and Gordon Group Limestone. Tertiary basalt obscures the basement geology in the north and south of the tenement.

### **3.0 Review of Previous Work**

#### **3.1 Prior to current tenement**

The existence of deposits of magnetite and hematite iron in the northern part of Tasmania has been known since the late 19<sup>th</sup> century.

Modern exploration commenced in the late 1950's with regional geophysical surveys.

From 1969 the area was explored by a number of permutations of Tasminex/Tasmania Mines NL/Tasmania Mines Ltd in joint venture with ANZECO (1971-1974) initially then McIntyre Mines (1977 – 1985). These companies targeted the magnetite skarn for its tungsten and tin potential in particular eventually excising the Kara tungsten+magnetite resource and developing a mining operation.

The focus later shifted to magnetite. In 2005 Red River Resources took up the majority of the current project area forming a joint venture with Iron Mountain Mining Ltd in 2007.

Limited exploration for magnetite has been undertaken on the prospects now within EL 18/2007 with ground magnetics and shallow auger hole drilling at Suttons Skarn (L2) and L13 and ground magnetics at L4 and St Valentines Peak.

Soil sampling for tungsten and tin has also been carried out on a number of prospects.

#### **3.2 During current tenement**

In the 2008/09 reporting period work focussed on the Rogetta cluster of deposits (now in ML 1996P/M) with evaluation of historic work, ground magnetics and RC and diamond drilling.

In the 2009/10 period work was carried out at;

- St Valentines Peak - RC drilling (4 holes for 565m) and limited rock sampling
- Suttons Skarn – 120 augered soil/weathered rock samples

From 2010 to 2015 work focussed on the Rogetta North resource with a range of activities including further drilling for both resource and geotechnical purposes, resource estimation, pre-feasibility and feasibility studies, metallurgical testwork, geophysical surveys, and baseline environmental studies culminating in an application for a mining lease over the Rogetta cluster of deposits.

In the 2015/16 period work refocussed on the other prospects remaining in EL 18/2007. In particular work consisted of the commencement of data compilation as well as (incomplete) gravity surveys and basic field reconnaissance. A UAV magnetic survey was also completed over the L13 deposit (see figure 5.5).

In the 2016/17 period work consisted of the commencement of a comprehensive compilation of historical exploration work carried out on the tenement. Reconnaissance field mapping was also carried out on the L13, Suttons Skarn and Wollastonite Creek prospects.

In the 2017/18 period work consisted of (1) completion of a comprehensive compilation of previous exploration work commenced in 2016/17, and (2) generation of work programmes for each of the following prospects within EL 18/2007.

- L13
- L13 north
- Suttons Skarn
- L4
- St Valentines Peak/L11

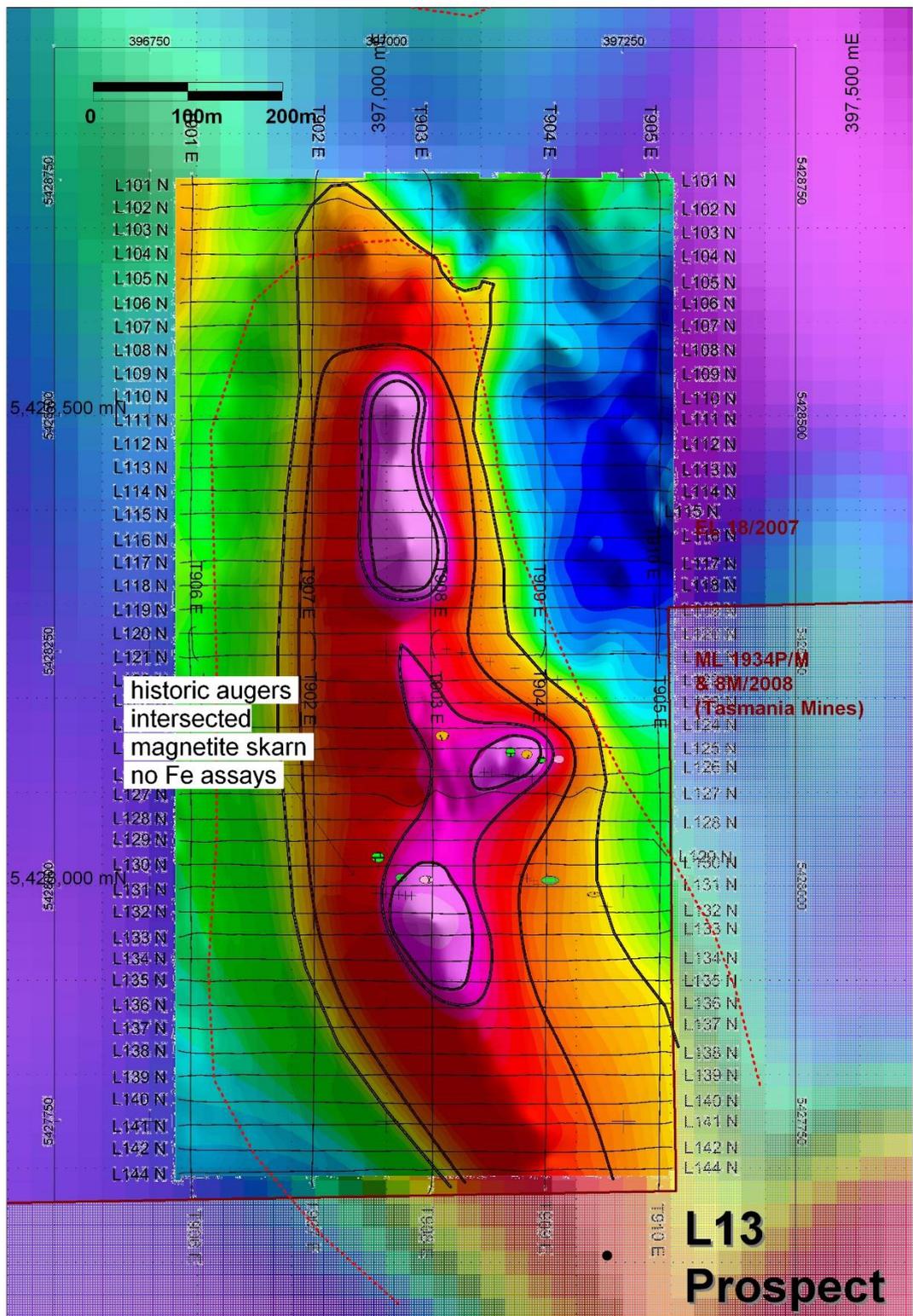


Figure 3.1: L13 prospect showing existing shallow augers (+) superimposed on drone magnetics survey (flight lines from the survey are the east west lines) TMI image. Red dashed line is 25m RTP TMI anomalies outline used as reference line. Dark solid magnetic image contour lines are for reference in the following figure. Small coloured shapes are outcrop – green is skarn, pink is granite and tan is basalt.

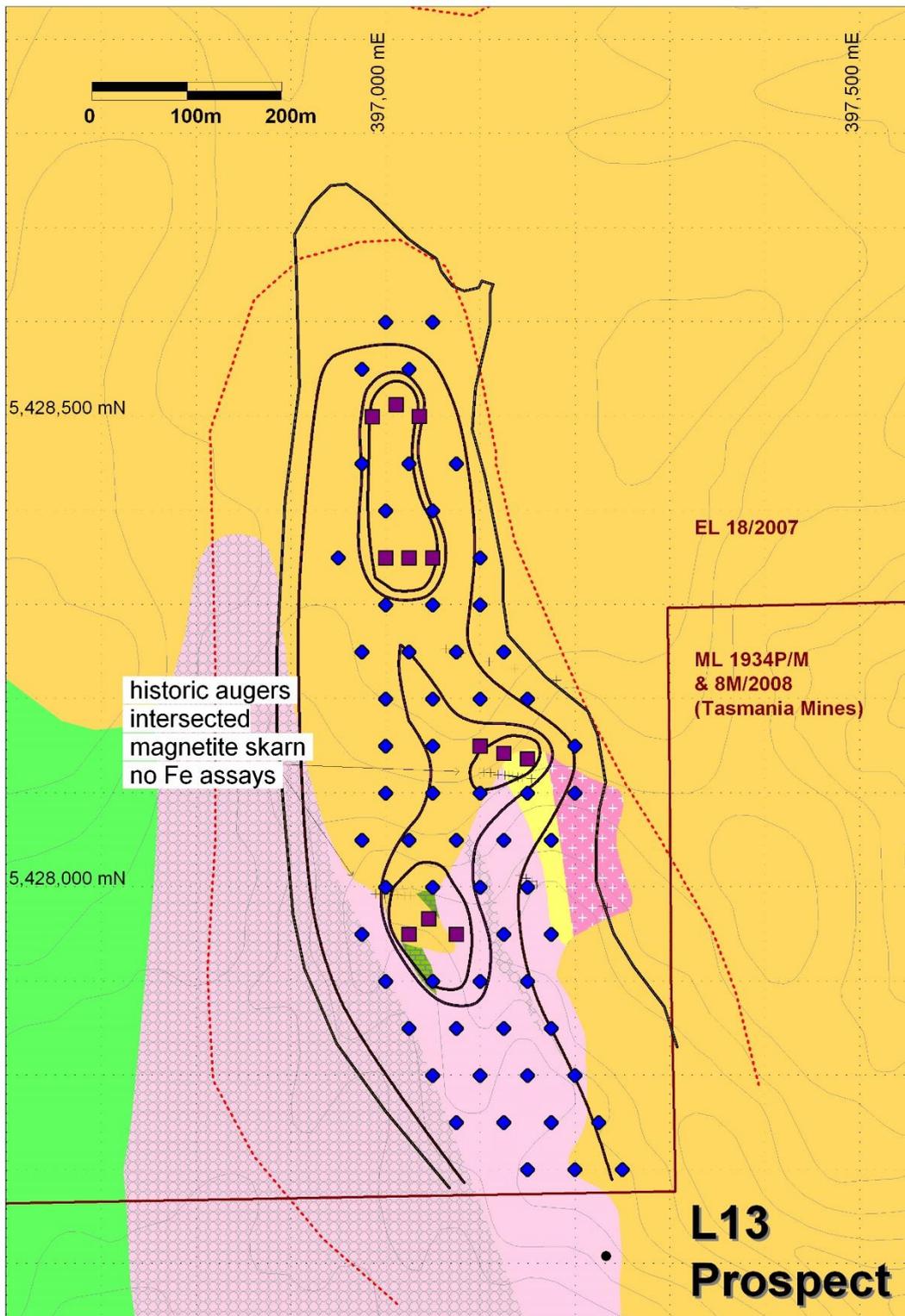


Figure 3.2: L13 prospect showing existing shallow augers (+), proposed drill holes as purple squares (discovery holes) and blue diamonds (resource definition holes), superimposed on geology which is from Tasmania Mines mapping in 1974. Red dashed line is 25m RTP TMI anomalies outline used as reference line. Dark solid lines are reference lines from previous figure.

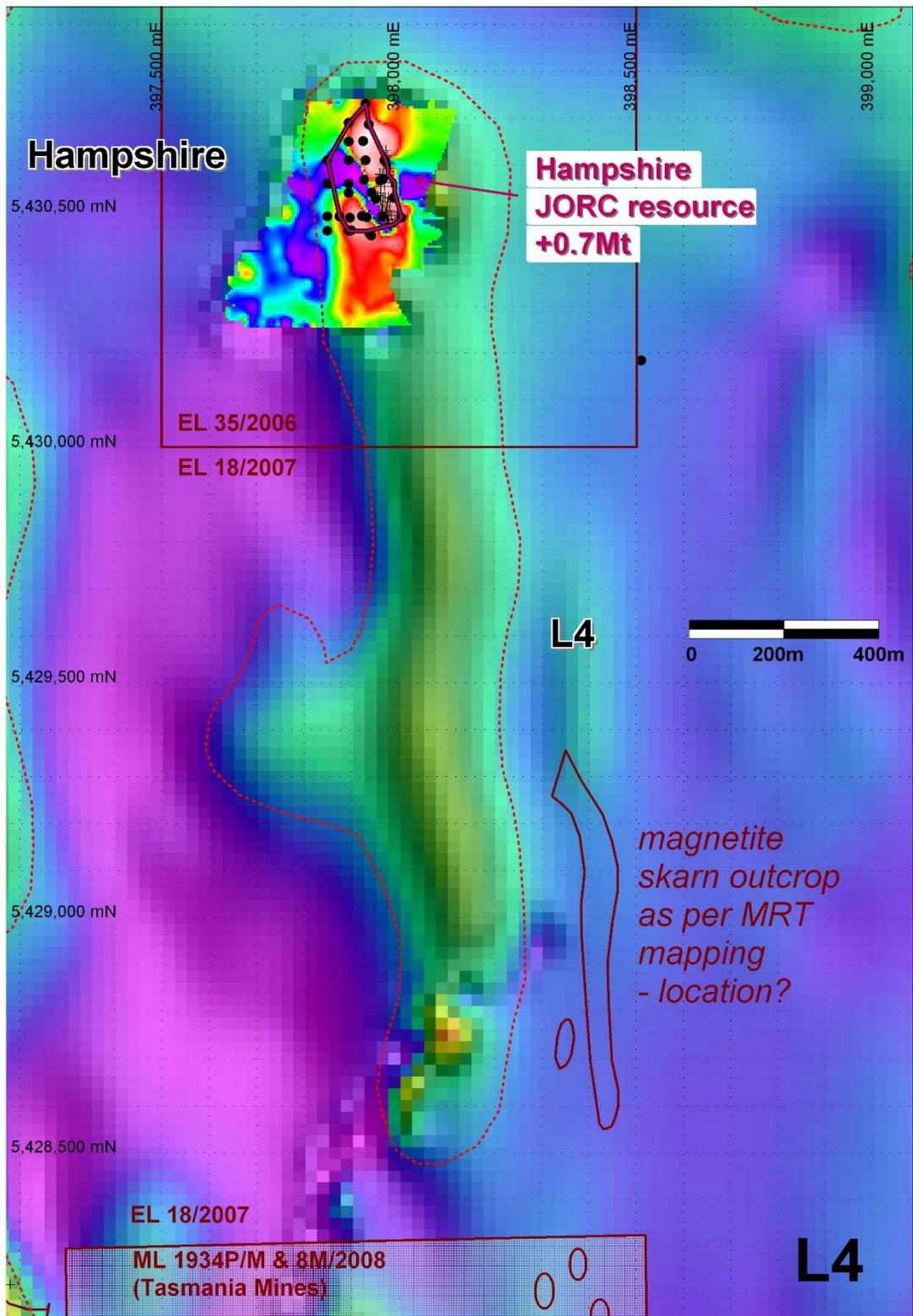


Figure 3.3: L4 prospect showing areas of mapped outcropping magnetite skarn, existing drill holes (at Hampshire), ground magnetics survey (at Hampshire) superimposed on 25m RTP TMI image. Tenements are shown as brown line and text. Red dashed line is 25m RTP TMI anomalies outline used as reference line.

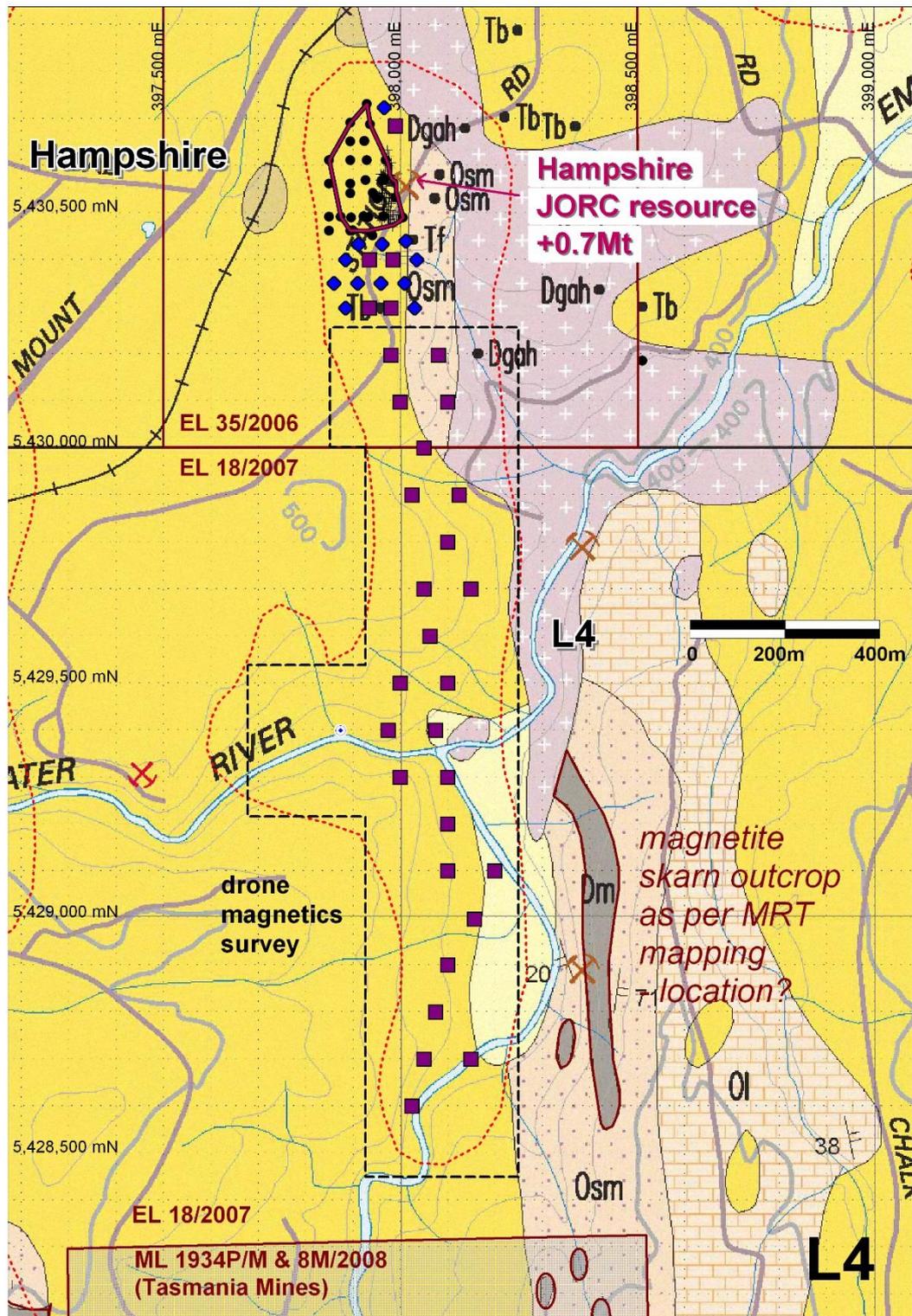


Figure 3.4: L4 prospect showing existing drill holes (at Hampshire), proposed drill holes as purple squares (discovery holes) and blue diamonds (resource definition drill holes) at Hampshire, proposed drone magnetics survey as dashed black line, superimposed on geology. Tenements are shown as brown line and text. Red dashed line is 25m RTP TMI anomalies outline used as reference line.

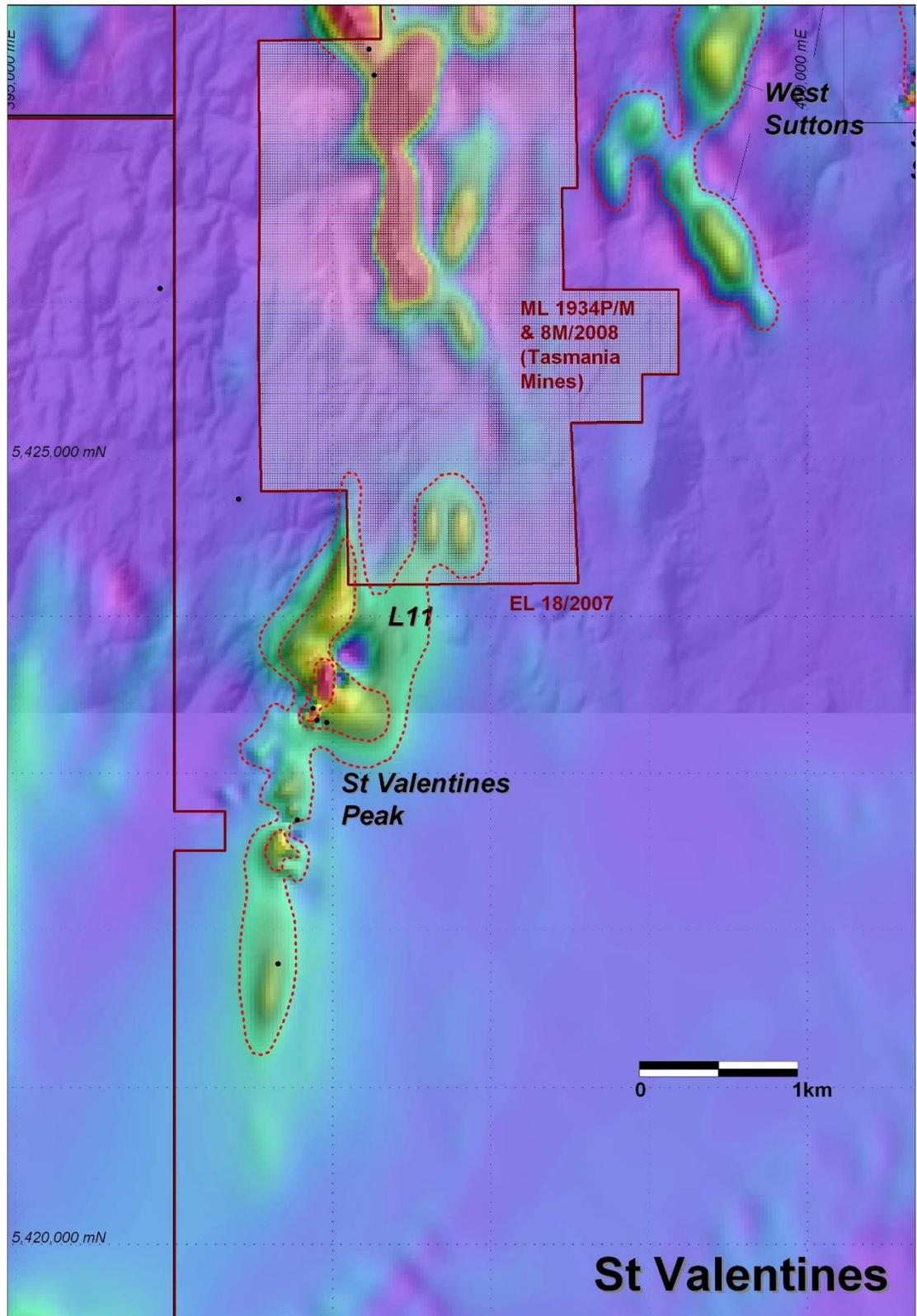


Figure 3.5: St Valentines area showing prospect locations, existing drill holes as black dots, superimposed on 25m RTP TMI image. Tenements are shown as brown line and text. Red dashed line is 25m RTP TMI anomalies outline used as reference line.

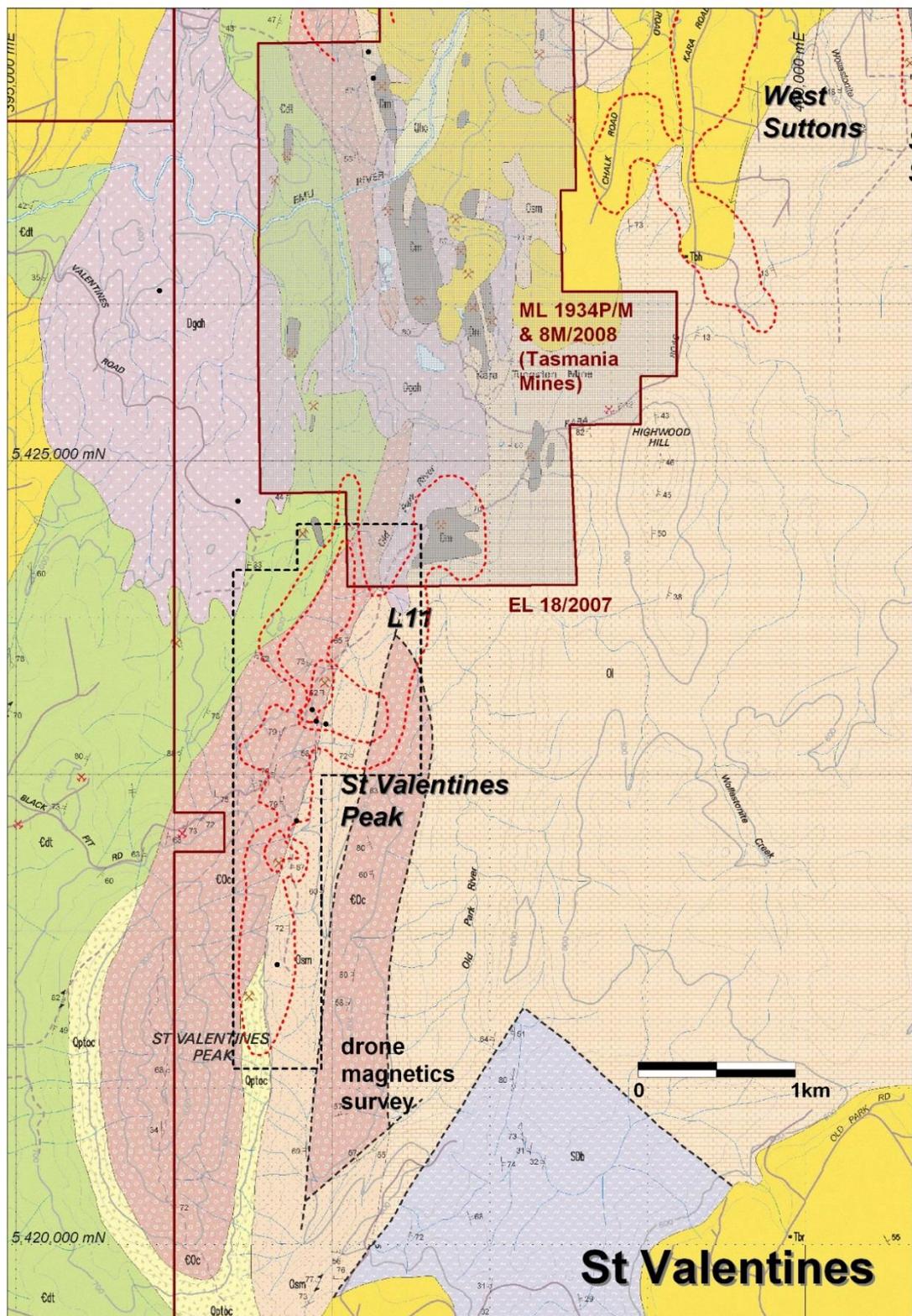


Figure 3.6: St Valentines area showing prospect locations, existing drill holes as black dots, proposed drone magnetics survey as dashed black line, superimposed on geology. Tenements are shown as brown line and text. Red dashed line is 25m RTP TMI anomalies outline used as reference line.

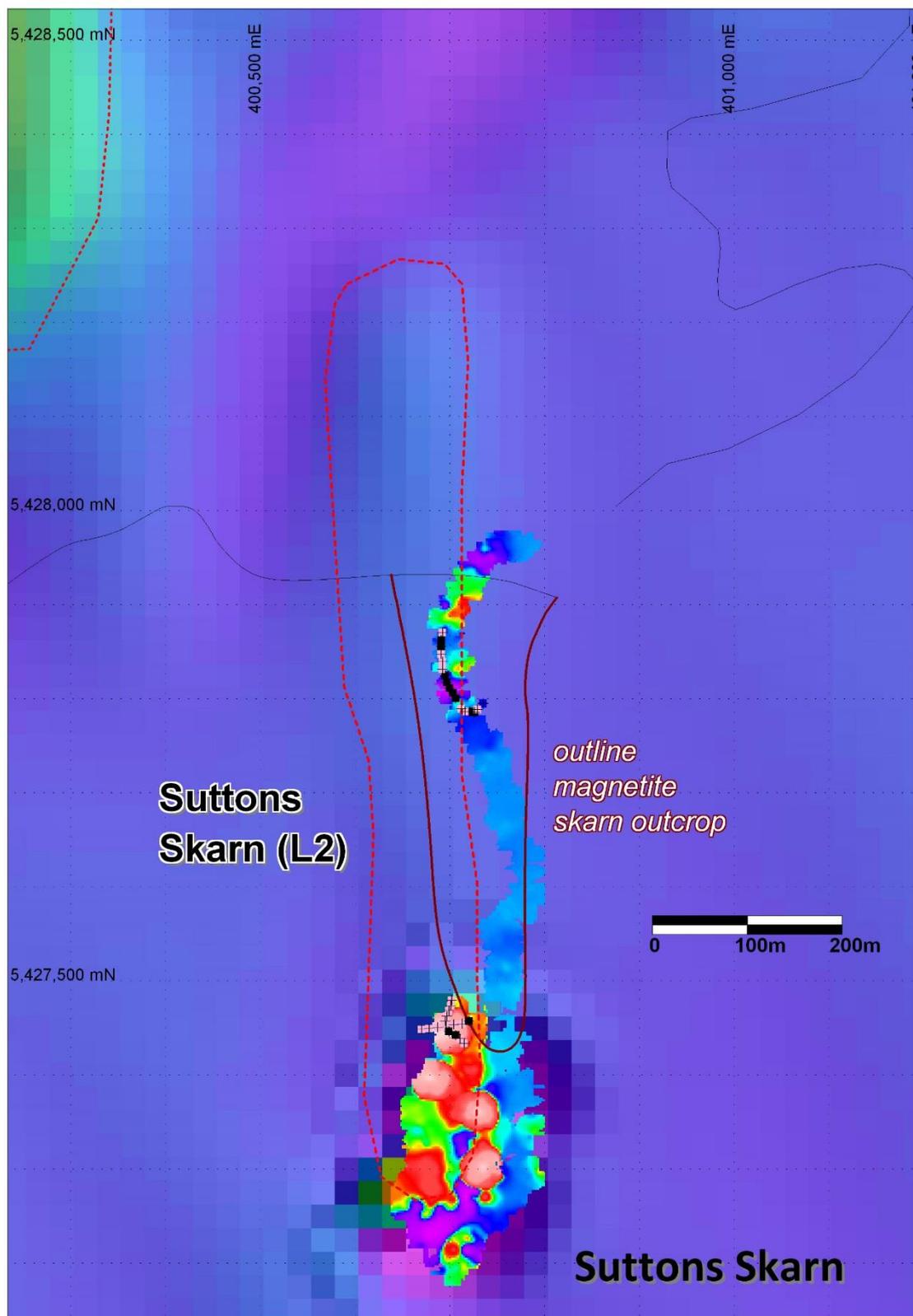


Figure 3.7: Suttons Skarn showing area of outcropping magnetite skarn, existing shallow auger holes, and ground magnetics superimposed on 25m RTP TMI image. Red dashed line is 25m RTP TMI anomalies outline used as reference line.

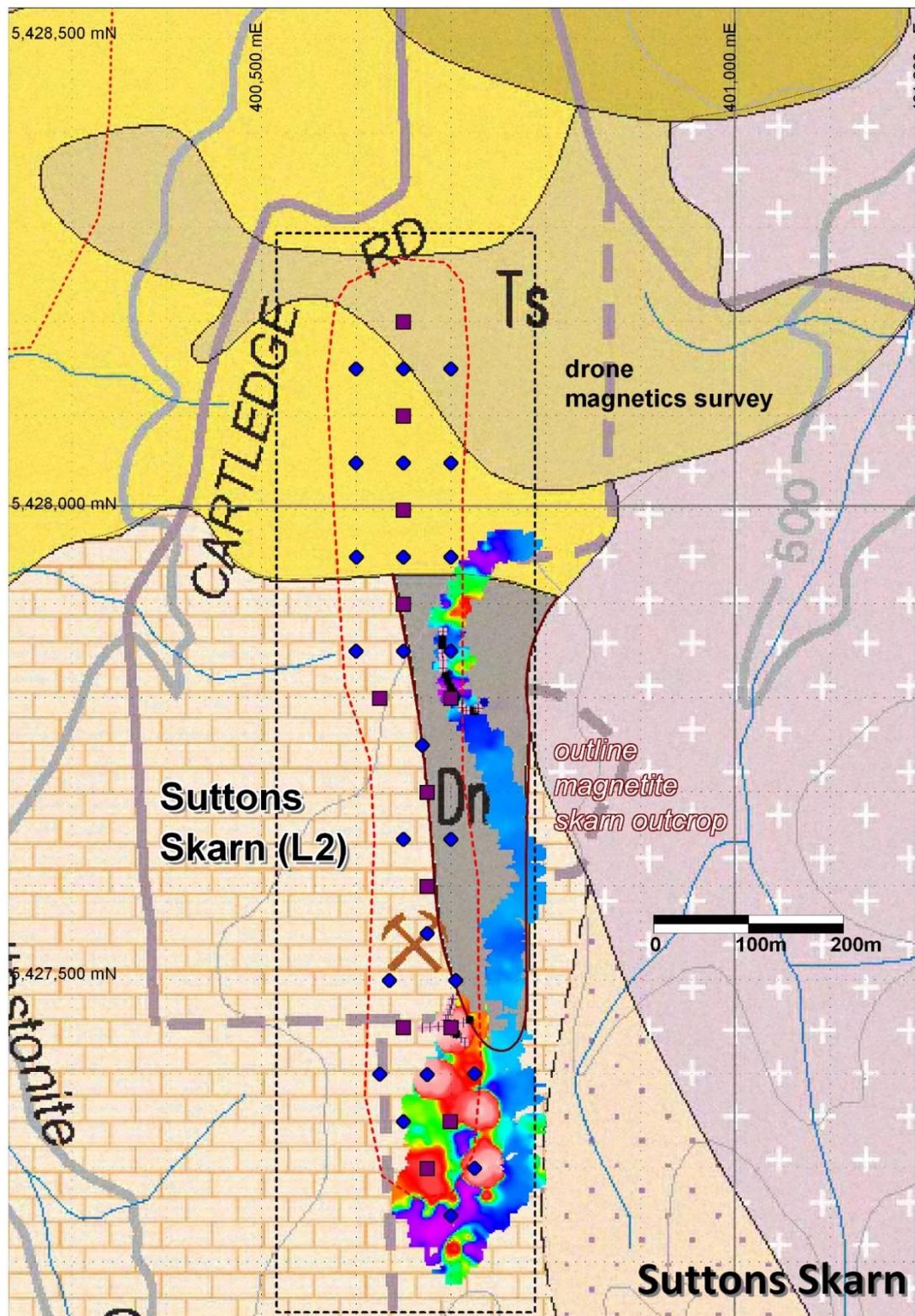


Figure 3.8: Suttons Skarn showing current (shallow auger) holes as black crosses, proposed drill holes as purple squares (discovery holes) and blue diamonds (resource definition holes), proposed drone magnetics survey as dashed black line, and ground magnetics superimposed on geology. Red dashed line is 25m RTP TMI anomalies outline used as reference line.

#### **4.0 Exploration completed during the reporting period July 2018 to July 2019**

Work on EL18/2007 during the period of July 2017 – July 2018 has consisted of the following;

- **Data compilation** - A thorough approach to compiling historic exploration data and in particular drillhole data, has been implemented with drillhole collars accurately georeferenced and assay and lithological data also input in order to create a comprehensive drillhole database. That work is essentially complete for EL 18/2007.
- **Refinement of Drilling Programme for L13 Prospect** - Proposed drillholes for the L13 prospect were refined following discussions with drillers, FORICO and private land owners.

## 5.0 Discussion

The L13 drilling is illustrated below with both airphoto and hillshade based plans (see figures 5.1 and 5.2). The land is private land owned by Forico.

4 fences of 3 holes each have been planned with a total metreage of 1080m though not all holes might be drilled depending on results.

The northern two fences (holes A to C and D to F) lie within Forico plantation land with semi-mature eucalypts in rows.

The southern two fences (G to I and J to L) lie within open understorey regrowth forest, also on private land.

Drilling will be in two phases with the northern two fences drilled with Spauldings small (2m wide) track mounted diamond drill rig usually used for geotech work as it will fit easily between the tree rows and not cause any damage to trees. The southern two fences will be drilled with the same rig, or Spauldings larger track mounted rig at around the same time or shortly after.

The two northern fences of holes are such that the western hole in each case will be on the old track with the following two holes in each case along the in-between tree row.

The southern two fences in the regrowth forest are on old formwork remaining from the early 1970's when ANZECO (74\_1035) (see figure 5.3) carried out trenching in the area (see figure attached). Access to the drill pads will utilise this old formwork which will be repaired and any small regrowth cleared with an excavator.

**Table 5.1: Proposed holes for L13 Prospect**

Prop_hole_id	mga94_E	mga94_N	expected_depth
L13_prop_E	397045.6	5427977	120
L13_prop_D	397075	5428008	120
L13_prop_F	397025.9	5428011	120
L13_prop_B	397150.2	5428141	120
L13_prop_A	397124.3	5428148	120
L13_prop_C	397100	5428150	120
L13_prop_H	396998.1	5428333	70
L13_prop_G	397023.2	5428358	70
L13_prop_I	397041	5428375	70
L13_prop_K	396991.5	5428490	50
L13_prop_L	397012.7	5428503	50
L13_prop_J	397030.4	5428520	50
		total	1080

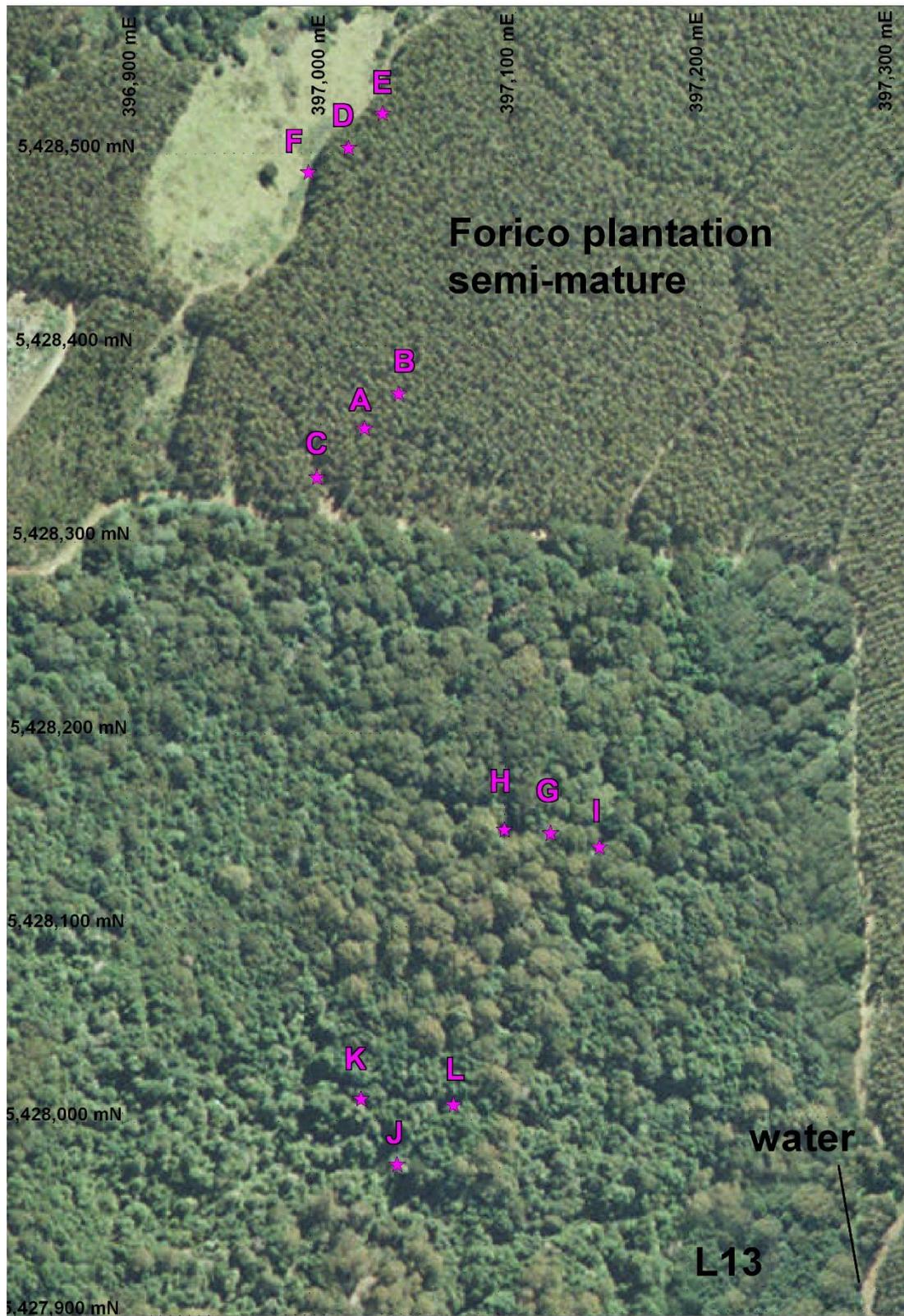


Figure 5.1: Proposed L13 holes on airphoto.

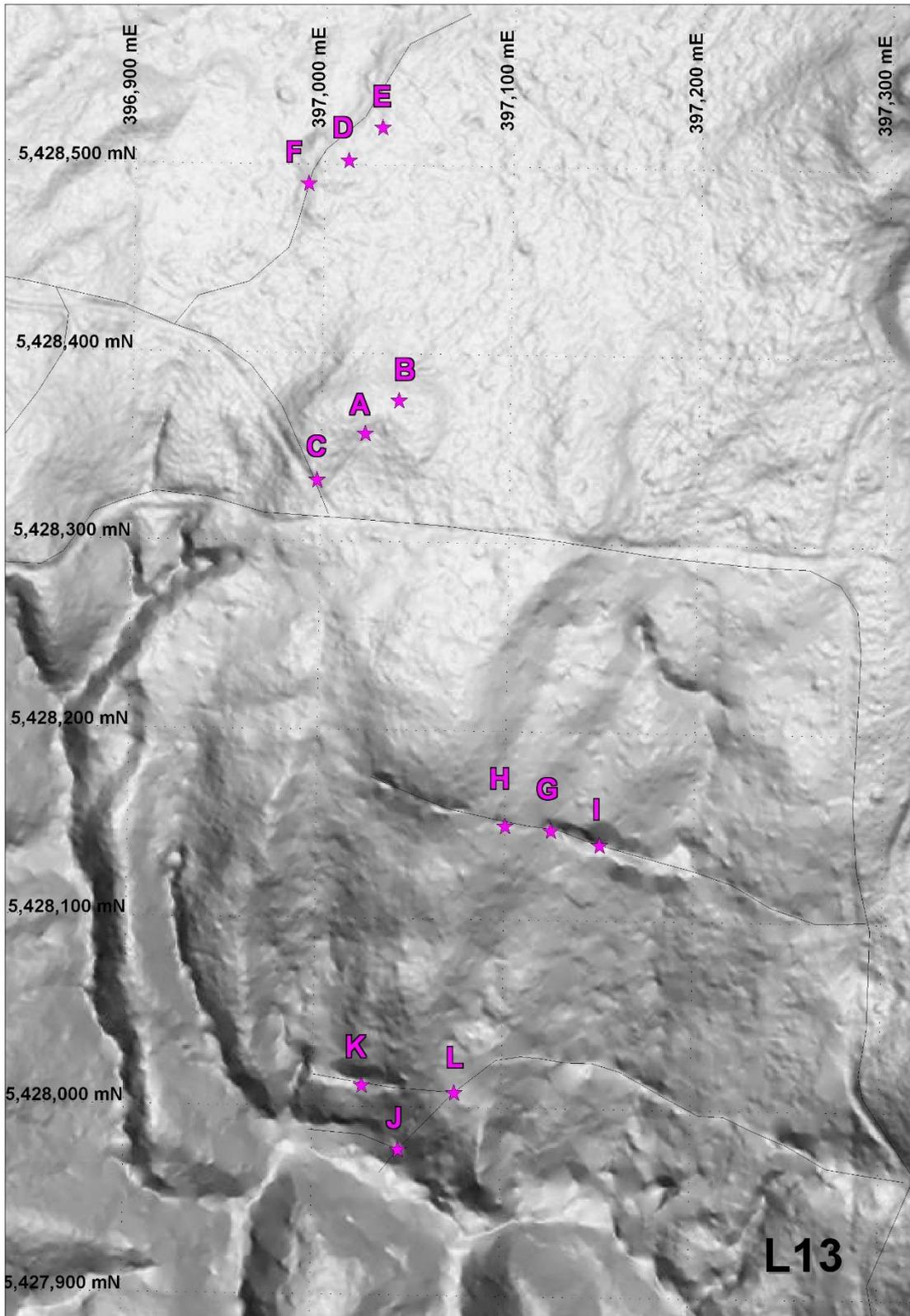


Figure 5.2: Proposed L13 holes on hillshade.

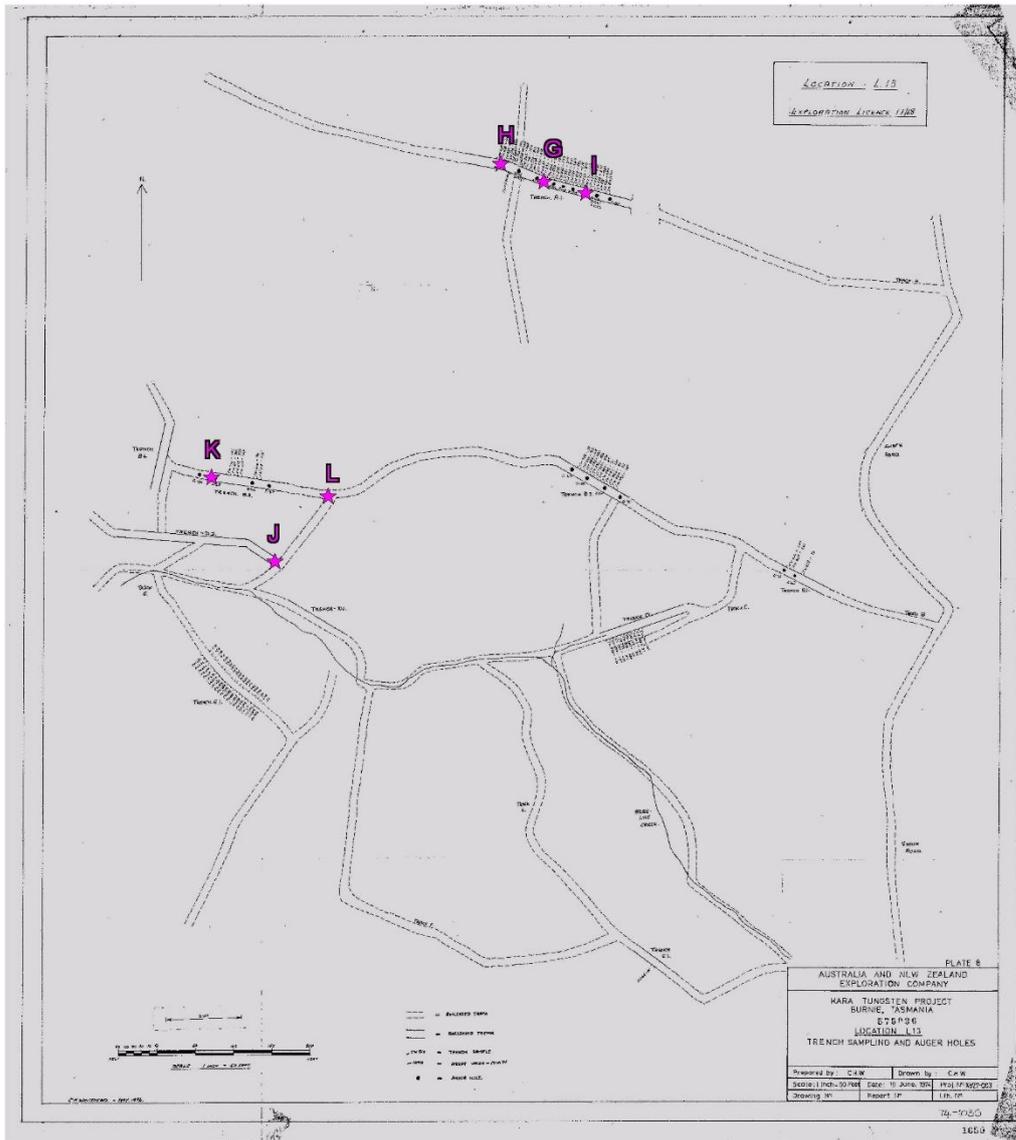


Figure 5.3: Proposed L13 holes (southern fences) on old track plan from ANZECO's work (1974).

## **6.0 Proposed Works Programme 2018/19 year**

It is proposed to drill the L13 drill holes immediately.

Further drone magnetics and geological mapping work is proposed for the summer months later in 2019.

## 7.0 Expenditure

Exploration expenditure for EL 18/2007 for the period July 2018 to July 2019 was \$8,910 bringing the total to date to \$4,392,194.

	\$
Geology	5,000
Geochemistry	0
Geophysics	0
Remote Sensing	0
Drilling	0
Gridding	0
Land Access	0
Rehabilitation	0
Feasibility Studies	0
Other	3,410
Administration	<u>500</u>
Total	8,910

## **8.0 Environmental**

Environmental disturbance on EL18/2007 during the reporting period was negligible.

Existing infrastructure access was utilised for site visits.

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