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PARTIAL RELINQUISHMENT REPORT

FOR THE REPORTING PERIOD

20 JUNE 2010 TO 19 JUNE 2011

EPM 15771

GLADSTONE MANGANESE PROJECT

Gladstone Area

Commodity: Manganese

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Date:

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Genesis Report No: 48

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Summary report on VTEM survey

1 Summary

This partial relinquishment report presents the 18 sub-blocks relinquished after the fourth year of the lease. The whole of EPM15771 is prospective for manganese, as well as for gold. The relinquished area is of lesser interest for Genesis Resources Ltd, as the main prospective area is the historic Mount Miller Manganese Mine, the focus of future exploration.

2 Introduction

The Gladstone Manganese Project is located approximately 15 kilometres west of Gladstone in Queensland (Figure 1). The project comprises Exploration Licence (EPM15771), which covers a total area of 63.93 km² that is easily accessed from the Dawson Highway from the Gladstone Township. The EPM area lies on the Rockhampton 1:250,000 Geological Sheet Series (SF56-13).

The climate of the region is sub-tropical, characterized by distinct wet and dry season. Winters are warm and dry with most rain falling in the hot summer months. The topography over the current tenure is dominated by steep terrain in the northern portion, with pockets of rainforest remaining in steeply incised gullies draining the NE and SW slopes. The remainder of the area is low and undulating, either lightly wooded with dry sclerophyll forest, or cleared for grazing purposes.

The project contains one granted exploration licence (EPM) with the tenement details summarised in Table 1.

Table 1: Gladstone Project - Tenement Summary

Project	Tenement	Status	Current Area		Current	Granted	Expenditure Covenant (\$)
	Number		Blocks	(sq km)	Holder	Date	
Gladstone	EPM15771	Granted	21	63.93 km ²	Genesis Resources Ltd	19/06/07	\$17,300

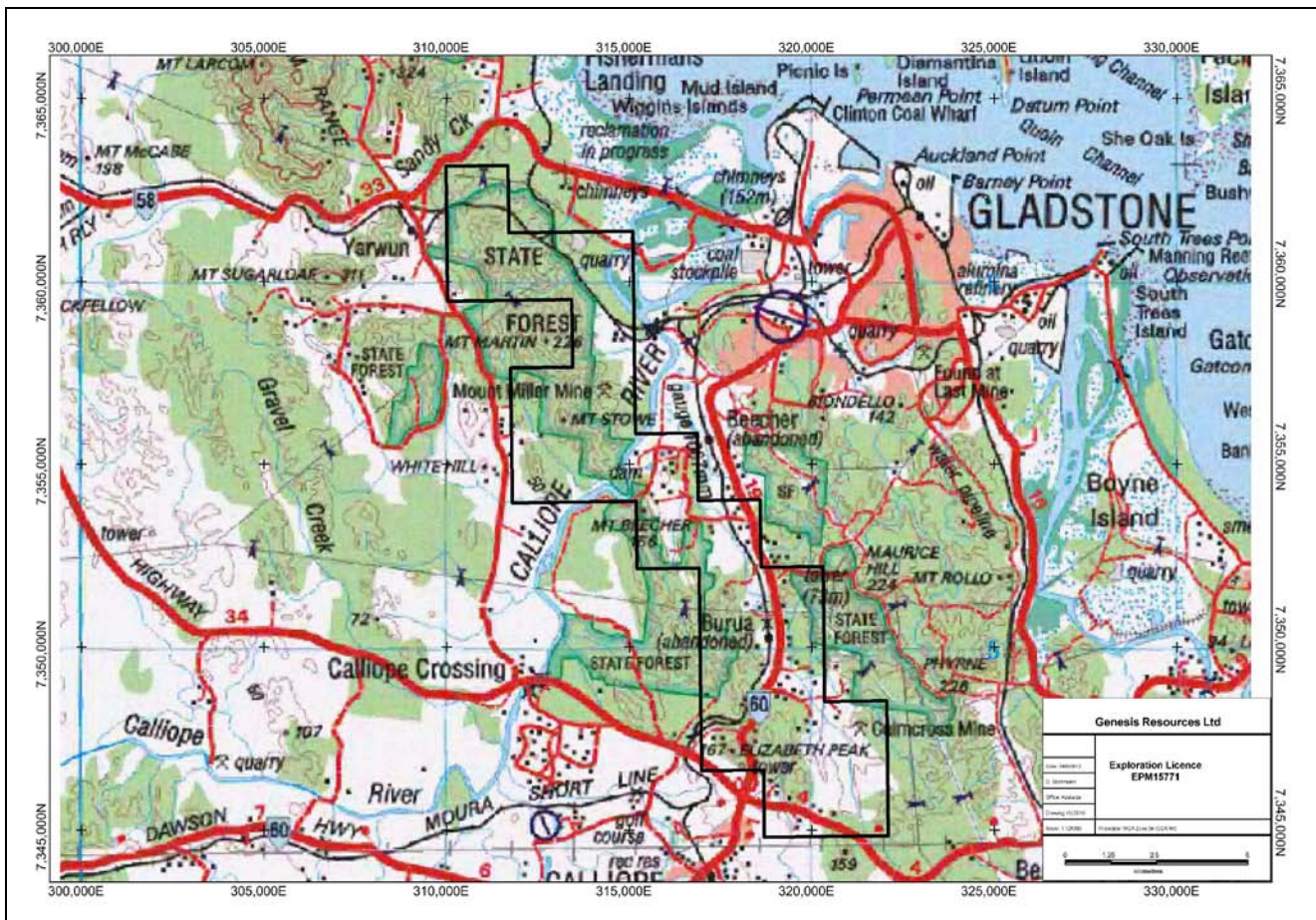


Figure 1: Location of EPM15771

3 Prospectivity

EPM 15771 hosts several historical manganese occurrences of such small size that they were not located during field reconnaissance surveys. One known manganese occurrence is the historic Mount Miller Mine, on the retained area. Mt Miller Mine has produced 21,785 tonnes of manganese ore with a grade ranging from 71 to 75% MnO₂. This prospect indicates the potential for other significant manganese deposits in the area relinquished, perhaps associated with the VTEM anomalies highlighted on Figure 3. However, due to financial restrictions Genesis was unable to further this line of investigation.

4 Exploration activity summary

The dominant part of the exploration conducted on EPM15771 targeted the Mt Miller Mine area, which is to be retained.

A VTEM survey was realised in December 2010 in the northern part of the tenement, as shown on Figure 3. The results do not show any strong response associated with known Mn occurrences. Several VTEM anomalies in the relinquished area may, however, be of interest and should be further explored.

5 Relinquished area

The relinquished area consists of 18 sub-blocks as shown in Figure 2. The relinquishment area excludes the Mt Miller Mine and nearby sub-blocks. It is however, still prospective for manganese and gold mineralisation, as numerous historical occurrences of manganese have been previously reported. Those occurrences have, however, not been located during field visits. The VTEM anomalies may represent zones of hydrothermal mineralisation and can thus represent potential exploration targets (Figure 3).

No sampling has been done in the relinquished area.



Figure 2: EPM15771 showing proposed relinquishment area.

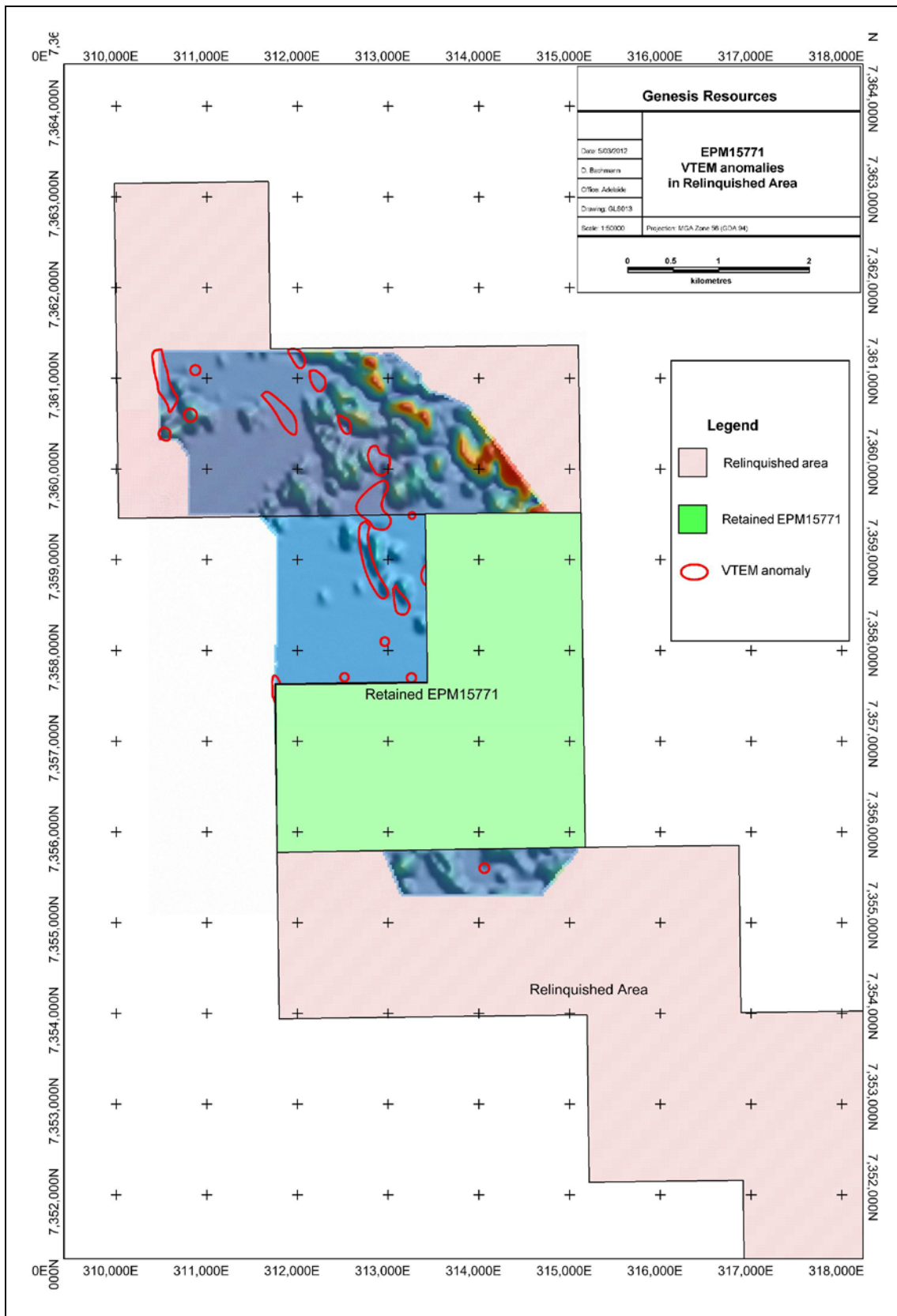


Figure 3: Prospectivity of the relinquished area from VTEM anomalies.

6 Conclusion

Genesis Resources Ltd proposes a relinquishment of 18 sub-blocks as presented in this report. The relinquished area is still prospective for manganese and gold mineralisation.

SUMMARY REPORT

To : John Howard – Genesis Resources Ltd.
From : Nigel Cantwell - Resource Potentials Pty Ltd.
Subject : VTEM data processing and target generation for the Gladstone Project, QLD
Date : 3 May 2011

Summary

Genesis Resources Ltd commissioned a VTEM helicopter electromagnetic (EM) survey at the Gladstone Project, QLD. Survey data were acquired during December 2010. The Gladstone Project is considered by Genesis to be prospective for Mn mineralisation and there are a few small known Mn occurrences located within the VTEM survey area: Mt Miller, Reid's and Morgan's. Mn is typically an electrically conductive material and may produce a measureable EM response to an induced electrical field.

The results are summarised as follows:

- There are no strong VTEM responses associated with the known Mn occurrences, although a shallow conductivity response extends south from the Mt Miller mine and could represent mineralisation.
- EM responses due to cultural features pervade the data in the north and along the eastern margin, where there are a number of power lines and a high voltage transmission line. These are high amplitude responses that swamp the EM data, could not be filtered out, and make detection of possible Mn target responses difficult.
- 29 anomalies have been identified in the VTEM channel and profile data and are ranked from 1 to 3. Though many of the lower ranked anomalies are early EM channel time responses that likely represent regolith features, they may represent an indirect vector towards mineralisation.
- There are a few late time conductors with limited strike length. These have ID numbers: 10, 12, 18, 20, 26, 27 and 28.
- The conductivity depth inversion (CDI) processing has highlighted weak, discrete conductivity variations along strike of Mt Miller Mn mine.

- All anomalies warrant further investigation and integration with other geological, geochemical and geophysical data to further prioritise the anomalies for ground geophysics, drilling, etc.

Survey Description

The VTEM survey was completed by Geotech Airborne Pty Ltd during December 2010. Geotech utilised the VTEM Max system for this survey. The VTEM Max has a relatively large EM transmitter loop with diameter 35m, resulting in a transmitted dipole moment on the order of 900,000 A/m².

The EM transmitter and receiver are towed behind the helicopter via a cable of length 57m. Survey flight lines are oriented E-W and spaced 100m apart. The tie lines are oriented N-S and spaced 1,500m apart. The nominal terrain clearance of the helicopter is 87m and the nominal terrain clearance of the transmitter and receiver is 40m. A total of 209 line-km were flown.

This VTEM system measured the Z (vertical) component only. The earth's EM response is measured over 50 time windows/channels for each recording. Geotech have provided channels 13 to 48 in the final data (36 channels). B-Field data is also provided by Geotech for each component, but this is a product derived from the dB/dT data and in this survey does not appear to provide extra information. Images have been generated for the B-Field EM channels, but the data products and subsequent targetting are focussed on the dB/dT data.

A magnetometer is also mounted on the VTEM system in a bird to provide a measurement of the earth's magnetic field. The bird is placed part way (approximately 13m from the helicopter) down the towed cable that tows the EM transmitter and receiver. An altimeter is also used to measure the height above the ground and derive a digital terrain model (DTM).

Data Processing and Products Generated

Magnetics

MapInfo registered ECW images have been created for the total magnetic intensity data. All images have been reduced to the magnetic pole (RTP) to correct for anomaly distortions caused by the inclination and declination of the local Earth magnetic field. Filtered images include a 1st vertical derivative (1vd), second vertical derivative (2vd), automatic gain control (agc) and tilt derivative (tilt).

DTM

The DTM is calculated by subtracting the radar altimeter height (distance of the helicopter above land surface) from the GPS height of the helicopter (height with reference to the AHD geoid). A few MapInfo registered ECW images have been created with varying sun angles, colours, etc.

VTEM Channels

Images have been generated for each of the supplied data channels 13 to 80. Images are supplied as MapInfo registered ECW images. Pseudocolour images with easterly sun shading are supplied with a histogram equalisation applied to the colour stretch and a logarithmic transform applied to the intensity layer of the images. This has the effect of flattening the EM high amplitude features, which are mostly associated with cultural features, and highlighting more subtle responses in the data.

Also supplied are 1st vertical derivative (1VD), greyscale images of the VTEM channel data. The 1VD images help to give narrower anomalies and to reduce the dominance of the high amplitude cultural responses relative to subtle target responses.

VTEM CDI's

Conductivity Depth Inversion's (CDI's) were generated using EM Flow software. The CDI processing converts the measurement of EM decay versus time into a representation of the earth's conductivity along the beneath each recording station. The results are gridded along the survey flight line to create an inversion section. CDI data are also gridded between survey flight lines to create a 3D conductivity block model. Depth slice grids are extracted from the block model. Images have been generated from the depth slice grids. The depth slice represents the conductivity at a distance from the DTM surface i.e. 10m depth slice represents the CDI results 10m below land surface.

VTEM Profile plus CDI Section Plots

Profiles of the VTEM dB/dT and B-Field channel data are shown above their respective CDI sections and are supplied as PNG image files for each line.

Animations

Various animations have been generated from VTEM channel and CDI data. The animations are used to visualise the variation in measured EM response with time (channel image animations) and the variation in inverted conductivity with depth (CDI image animations). An animation of the VTEM dB/dT channel 1st VD images was created for a clipped area, masking out the cultural noise on the eastern edge of the survey area.

Results and Target Generation

There are no distinct VTEM responses associated with the known Mn occurrences in the survey area: Mt Miller, Morgan's and Reid's. These Mn occurrences may be too small or not conductive enough to generate a significant EM response. The Mn deposits may not be massive, and therefore weakly conductive. Such non-massive deposits tend to be fractured and brecciated, and therefore are more detectable using IP surveying.

There are strong EM responses associated with cultural features such as the NE trending power transmission line in the northern section of the survey area, and along the road located

in east of the survey where there is likely a power line for local supply. There may also be a significant contribution from groundwater associated with a river trending along the eastern boundary of the survey. These features “swamp” the EM data making detection of subtle target responses more difficult.

29 anomalies have been selected from the VTEM channel images and animations, and examination of EM profile data on a line by line basis. The anomalies are listed in Table 1 and are shown over an aerial photograph image in Figure 1. Many of the anomalies are shallow features in early time channel data that likely reflect variable weathering of the regolith or shallow Mn mineralisation. These may represent an indirect vector towards Mn mineralisation or direct targeting.

Many more anomalies could be interpreted from the VTEM CDI depth slices, however it is possible that some of these are just artefacts from the inversion process. The CDI data appears to highlight the more subtle conductivity contrasts throughout the survey area, but also produces anomalies coincident with late time noise in the VTEM channel data.

There is a weak CDI anomaly incorporating and trending N-NW along strike of the Mt Miller Mn occurrence. In shallower CDI depths (60m to 110m in B-Field CDI) there are a series of discrete CDI responses along strike of the Mt Miller Mn mine (Figure 2). At deeper CDI depth slices (220m to 300m in B-Field CDI), the CDI anomaly is more continuous throughout this strike length (Figure 3). Though not outlined as a target anomaly, due to a lack of response in the channel data, these discrete CDI responses have the potential to represent zones of weak conductivity associated with Mn mineralisation or mineralised structures. Alternatively, they could represent areas of current channelling along a geological contact. Further field investigation is required to determine if these zones represent valid targets.

Note that the amplitude of the CDI anomalies along strike of Mt Miller is on the order of 1mS/m, which is considered very low. In comparison, a conductive black shale or massive sulphide may have conductivity on the order of 500mS/m or greater, and massive Mn should be about 25-50% of this.

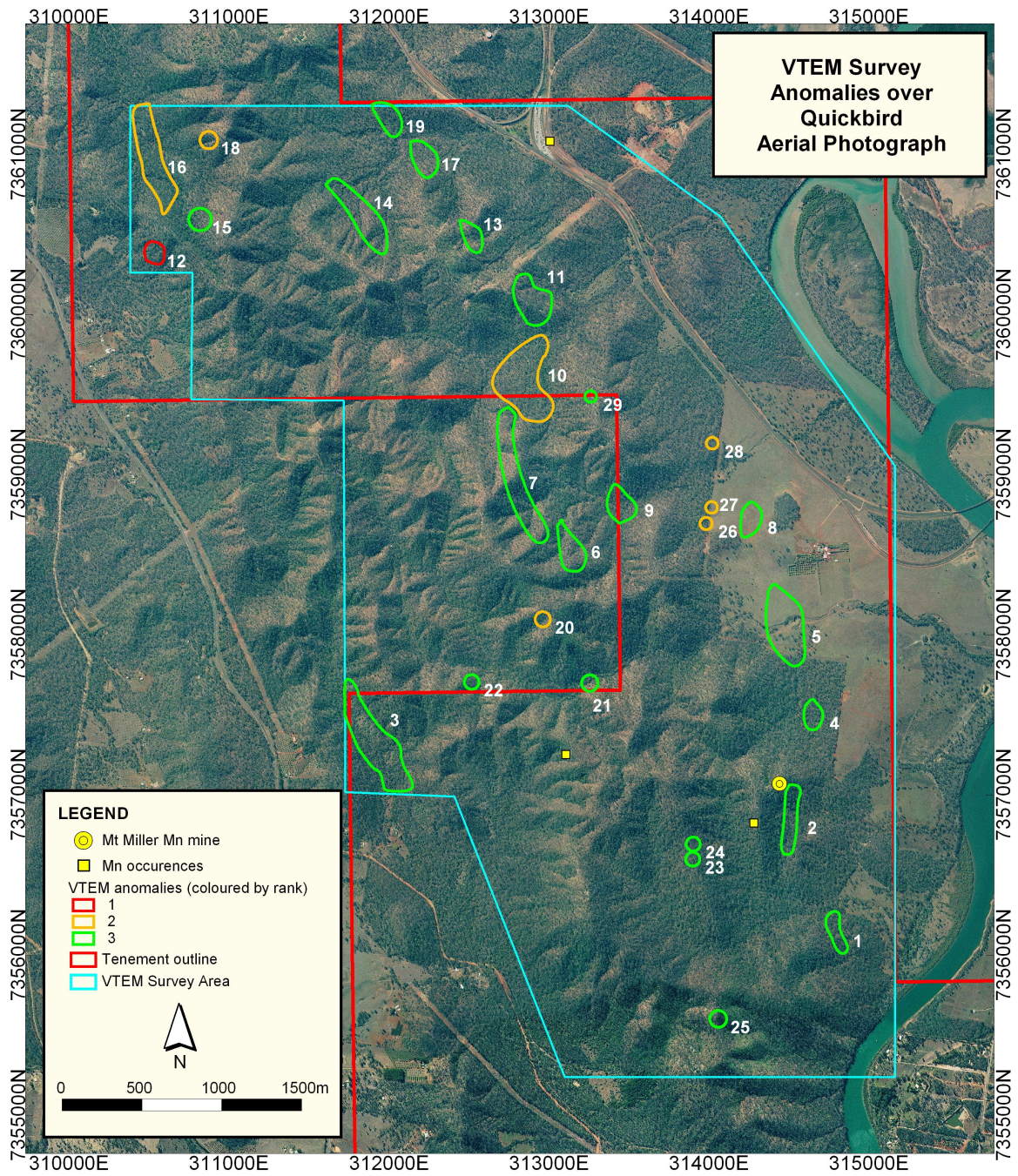


Figure 1: VTEM anomalies over aerial photograph image.

Table 1: Anomalies interpreted from the VTEM channel images and profiles.

ID	TYPE	Ranking	VTEM Flight Lines	Easting (MGA Zone 56)	Northing (MGA Zone 56)
1	early channels	3	10080-10100	314796	7356143
2	early channel	3	10150-10180	314509	7356849
3	early channels	3	10190-10250	311915	7357325
4	increased cond along contact?	3	10230-10240	314650	7357497
5	increased cond along contact?	3	10270-10310	314479	7358054
6	early channels	3	10320-10350	313135	7358529
7	early channels	3	10340-10420	312805	7358970
8	increased cond along contact?	3	10350-10360	314260	7358720
9	early channels	3	10360-10370	313447	7358811
10	early to mid channels	2	10420-10460	312849	7359588
11	early channels	3	10480-10500	312894	7360087
12	mid to late time peak	1	10520	310535	7360386
13	early channels	3	10520-10540	312519	7360490
14	early channels	3	10520-10560	311829	7360619
15	late time peak	3	10540	310819	7360595
16	early to mid channels	2	10550-10610	310524	7360983
17	early channels	3	10570-10580	312220	7360975
18	weak mid channel double peak	2	10590	310873	7361091
19	early channels	3	10600-10610	311997	7361228
20	late time double peak	2	10290	312961	7358097
21	late time peak	3	10250	313255	7357699
22	late time peak	3	10250	312516	7357706
23	late time peak	3	10140	313898	7356599
24	late time peak	3	10150	313901	7356693
25	late time peak	3	10040	314058	7355601
26	late time peak	2	10350	313982	7358696
27	late time peak	2	10360	314016	7358796
28	late time peak	2	10400	314020	7359197
29	late time peak	3	10430	313261	7359489

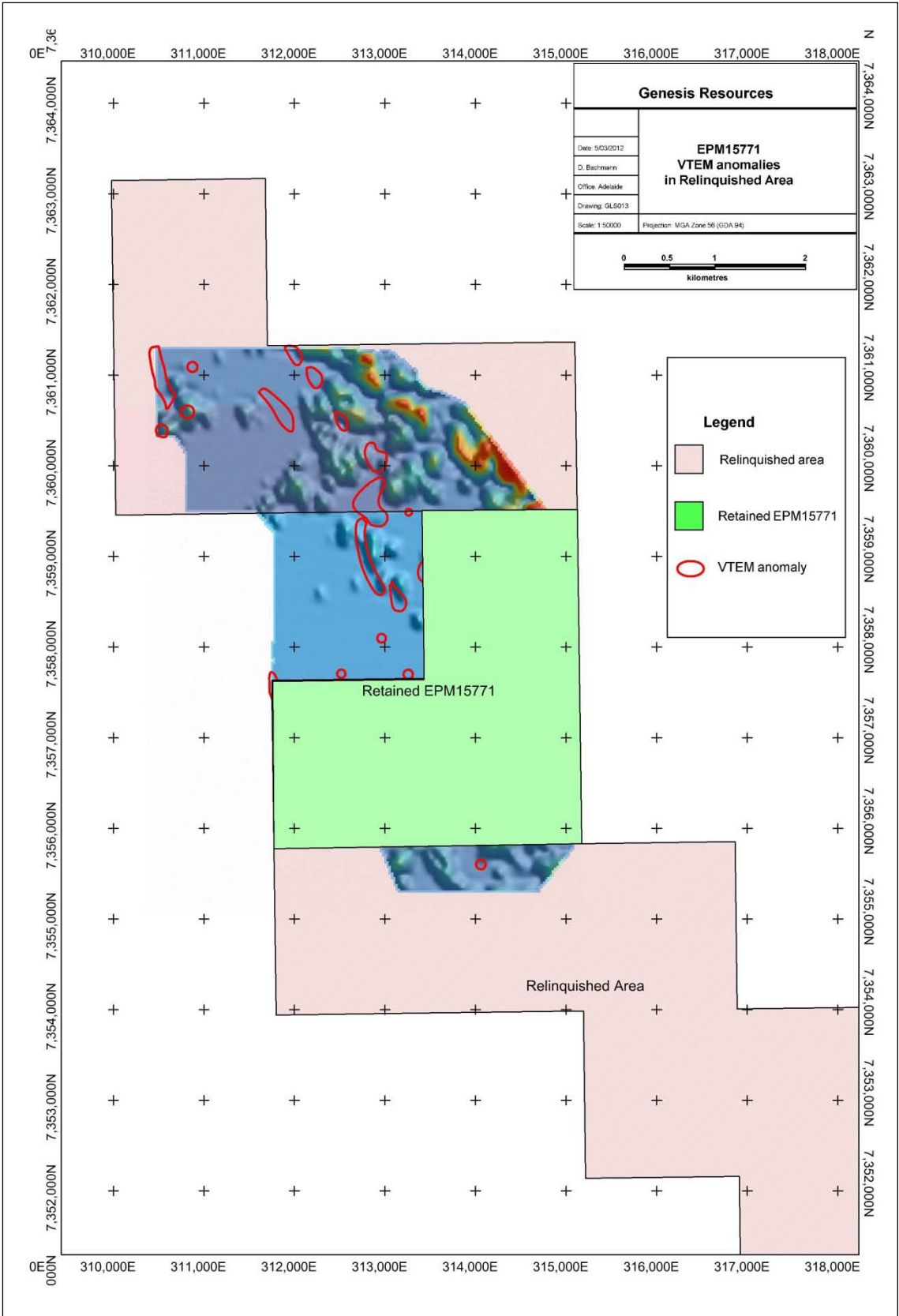


Figure 2

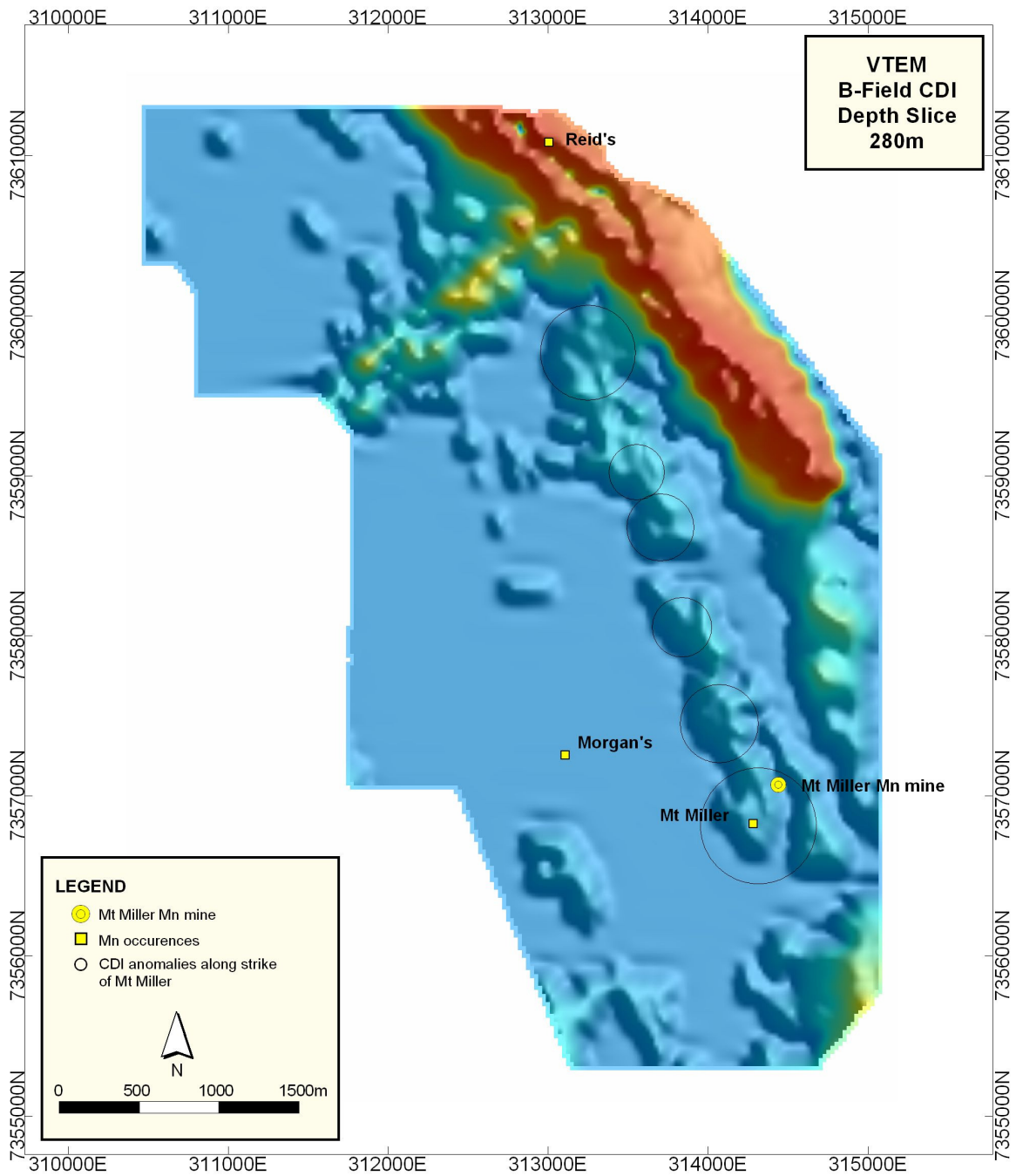


Figure 3: Image of B-Field CDI at depth slice 280m below surface. Shallower CDI anomalies along strike of Mt Miller have been highlighted by black circles. At this depth slice the CDI anomaly along strike to the N-NW of Mt Miller is more continuous and may be reflecting weak conductivity along a geological contact.

Conclusions and Recommendations

There are no “booming” VTEM anomalies that warrant immediate drill testing. The known Mn occurrences: Reid’s, Morgan’s and Mt Miller do not generate significant VTEM responses. However, there is a weak, shallow VTEM channel and profile response trending south of the Mt Miller mine.

29 anomalies have been generated from analysis of VTEM channel and profile data and ranked from 1 (higher priority) to 3 (lower priority). Many of these are early channel time features that are likely due to variably weathered regolith. A few of these anomalies have mid to late time double-peak Z component VTEM responses, typically of near-vertical bedrock conductors: anomalies 12, 18 and 20 and therefore have been given higher priority. It is recommended that these anomalies be modelled, prior to any drill testing, using EM plate modelling software such as Maxwell to determine an estimate for the depth to the top of the interpreted conductor.

The CDI processing and resulting depth slice images and animations are highlighting several weakly conductive features that are not easily detected in the channel and profile data. In particular, there are a number of weak, discrete CDI responses along strike N-NW of the Mt Miller Mn mine. Many of the CDI responses may be artefacts of the inversion processing, due to current channel along geological contacts or the inversion highlight noise features, which are not as pronounced in the channel data due to the strong response of the powerlines.

Further integration of available geology mapping, geochemistry and other datasets is required to determine if the CDI responses represent valid targets and to further prioritise anomalies interpreted from the VTEM channel images and profiles. Follow up ground work to image the Mn mineralisation at depth should be dipole-dipole IP transects, but only for targets at some distance from power lines.