



ZEEHAN EL 28/1988

**ANNUAL REPORT
FOR THE PERIOD ENDING 9th DECEMBER 2016**

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1. SUMMARY

EL28/1988 Zeehan is a prospective lease held by MMG Australia for the purpose of Nickel sulphide exploration potential.

A sale agreement of the Avebury asset was signed during the period. An exploration expenditure moratorium was granted by the minister until the 30th June 2016. A further application for exemption for the current reporting period ending 9/12/2016 was also lodged.

2. INTRODUCTION

EL28/1988 Zeehan is and is located west and south of the Avebury Nickel Mine (Figure 1). The EL is highly prospective for Avebury style nickel sulphide mineralisation. The Avebury deposits are hosted in serpentinised dunite and strongly metasomatised, tremolite-diopside ultramafic skarn intruded into Mid Cambrian basaltic volcanics. Much of the ultramafic is not outcropping so to generate drill targets, heavy reliance is placed on geophysical techniques. High resolution aeromagnetics is a key early exploration tool as the altered ultramafics have a strong magnetic signature due to high concentrations of contained magnetite. Electromagnetic techniques are a key targeting tool in conventional nickel sulphide exploration and will be employed over the Avebury and surrounding tenements. Down hole electromagnetic surveys are also thought to have the potential to significantly enhance exploration success.

MMG take a holistic approach to exploration within the Zeehan to Trial Harbour areas due to the main targets being analogues of the Avebury system. MMG has assembled a highly prospective portfolio of tenements within the area. In line with this approach, exploration expenditure over the surrounding tenements of EL28/1988, EL22/1997 and EL37/2003 have been granted amalgamation to Avebury Mine exploration and resource expenditures.

3. LAND TENURE

EL28/1988 was initially 13 km² and covered the current Avebury and Avebury East Mining leases, with 3M/2003 excised in 2003 and 6M/2007 excised with the delineation of the East Avebury Resource. In 2013 three tenements EL 28/1998, EL22/1997 and EL37/2003 were amalgamated into a single 25 km² tenement EL 28/1998 (Figure 1).

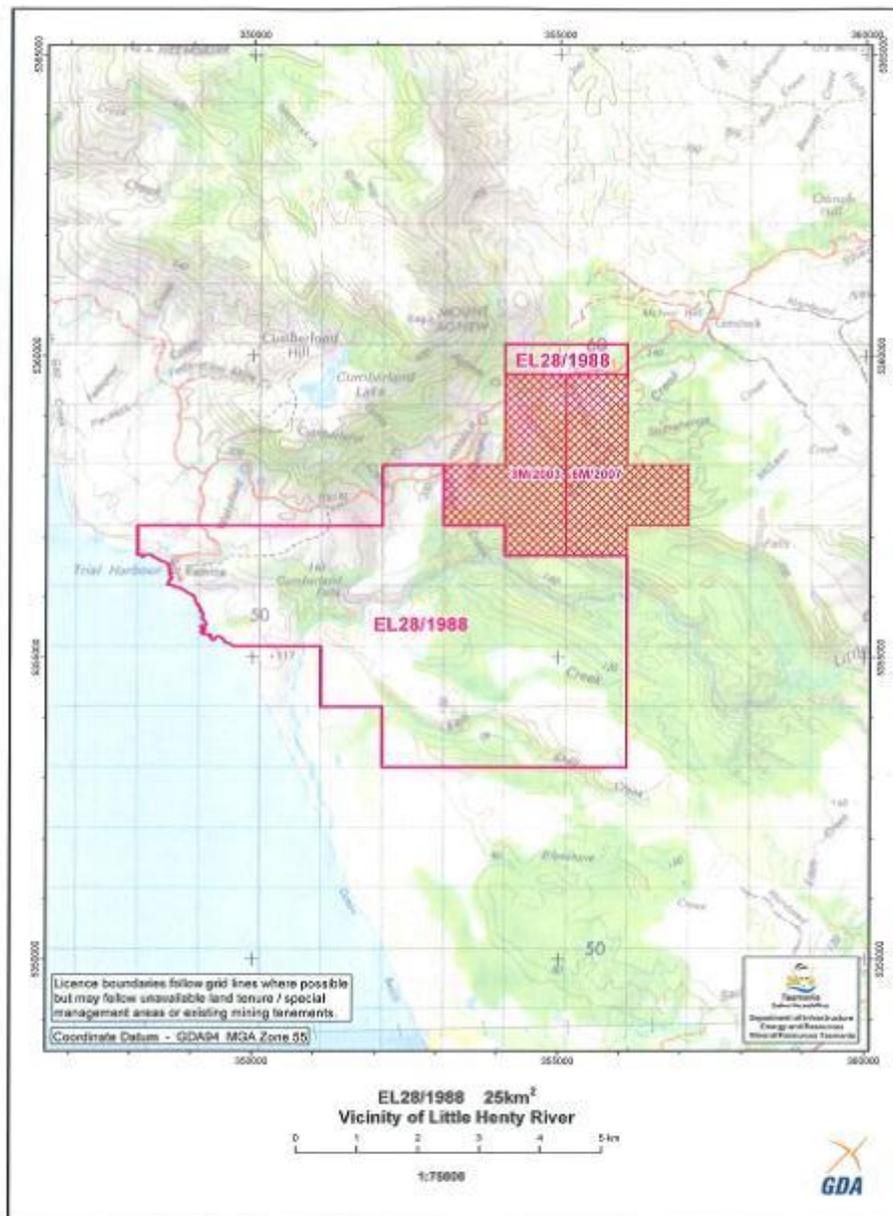


Figure 1: Location of EL 28/1998 Zeehan:

4. GEOLOGY

The Avebury deposits are hosted in serpentinitised Cambrian dunite or strongly metasomatised, tremolite-diopside ultramafic skarn obducted onto Mid Cambrian basaltic volcanoclastics. The ultramafic rocks demonstrably extend onto the surrounding EL's including EL 28/1988. EL 28/1988 is therefore considered highly prospective for Avebury style nickel sulphide mineralisation.

Variable metasomatism of the serpentinitised host ultramafics, thought to have occurred during intrusion of the Heemskirk Granite, has formed two distinctly different mineral assemblages, each of which may host ore grade nickel sulphide mineralisation:

- **Essentially unmetasomatised serpentinitised ultramafic:** a fine grained black rock composed predominantly of antigorite with minor disseminated chromite, magnetite and sulphides
- **Metasomatised serpentinitised ultramafics:** pale grey or green, coarsely crystalline tremolite/actinolite and diopside with minor magnetite, chromite and sulphides.

Sulphide mineralisation in both serpentinitised ultramafic and ultramafic skarn generally consists of pentlandite and pyrrhotite and is associated with magnetite in the form of crystalline intergrowths and veins within massive granular magnetite-chromite. Pentlandite occurs as coarse disseminations and stringer veins associated with secondary magnetite. Sulphide contents are generally low with mineralised ultramafic comprising between 0.5 to 3% sulphides although massive pentlandite does occur in some drill intersections.

Nickel sulphide mineralization is largely concentrated within the ultramafic immediately adjacent to its margins with nickel grades diminishing toward the interior of the intrusions. Some internal zones of nickel sulphide mineralisation are present.

The serpentinitised ultramafics have a strong magnetic signature due to their high concentrations of magnetite, and their presence can be interpreted from magnetic images. The nickel sulphide mineralisation too has a strong magnetic signature due to the pentlandite-pyrrhotite-magnetite relationship. High resolution aeromagnetism is a key early exploration tool.

The Oonah Formation and the Crimson Creek Formation are the most prevalent sedimentary rocks, and the Devonian Granite and McIvor Hill Complex are the most prevalent igneous rocks within EL28/1988 (Figure 3).

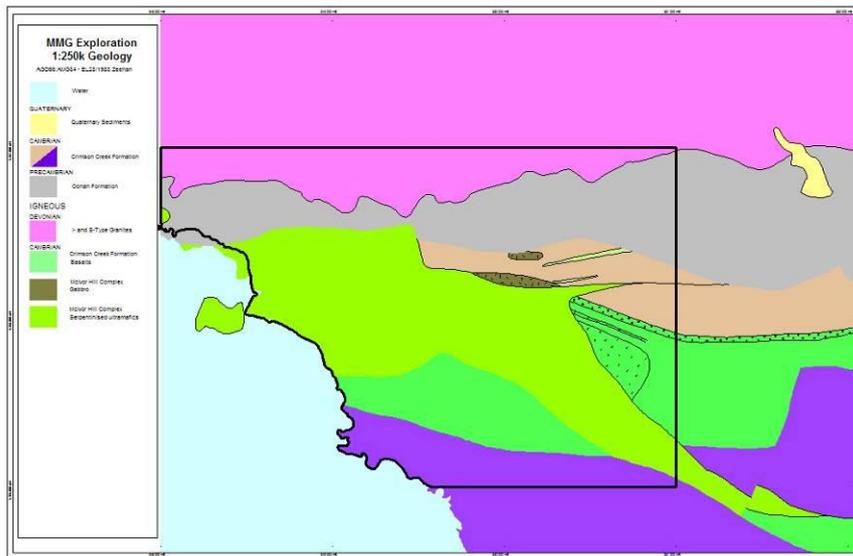


Figure 2: 1:250,000 Geology Map of EL28/1988 Zeehan

5. CURRENT EXPLORATION

Work Completed in the 2015-2016 Period

No field work was completed during the period.

6. ENVIRONMENTAL

There were no surface disturbance or rehabilitation activities undertaken during the reporting period.

7. CONCLUSIONS AND RECOMMENDATIONS

Additional magnetic anomalies remain to be tested, - further drilling is required.

8. EXPENDITURE

A total of \$21,349 was spent on the tenement during the period, not all costs associated with the research have been received.

Salaries	\$17,117
Tenement costs	\$ 2,008
Travel	\$ 2,224
Total	\$ 21,349

9. 2016-2017 WORK PROGRAM:

It is proposed that for the next twelve months that the magnetic anomaly(s) at Trial Harbour are tested for an estimated 1,200 metres of drilling at a cost of \$240,000.