



EL28/1988 ZEEHAN

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1. SUMMARY

Exploration Licence EL22/1988 is one of a group of contiguous ELs and ML's within which lies the Avebury Nickel Sulphide deposit.

Ground exploration activities in 2009 on EL 28/1988 commenced in mid-October. A program of 600m of diamond drilling in three holes and earthworks entailing the construction of 2 drill pads and some 600m of track is planned to have been completed by the end of November 2009.

The drilling program was initiated to follow-up a nickel sulphide intersection of 61-64m, 3m @ 0.8% Ni in diamond drill hole A223. The planned program aimed to test for the A223 mineralised horizon both down dip and along strike to the east of A223. This location is now referred to internally as the Denali prospect.

Due to the short time available between completing this drilling program and the due date for the Annual Report (of 9 November 2009) for this tenement, the results of this drilling campaign are not available for interpretation and inclusion in this report.

2. INTRODUCTION

The Avebury deposits are hosted in serpentinised Cambrian dunite or strongly metasomatised, tremolite-diopside ultramafic skarn which has been obducted onto Mid Cambrian basaltic volcanoclastics. The ultramafic rocks demonstrably extend onto the surrounding EL's including EL28/1988.

Development of the Avebury Mine and Mill was completed in June 2008, but is currently on care and maintenance.

EL22/1988 is considered highly prospective for Avebury style nickel sulphide mineralisation. Exploration has continually extended the Avebury Resource and MMG continue to explore the tenement package. EL28/1988 is strategically important to the Avebury Project and will continue to be the focus of exploration and resource expansion.

3. TENEMENT SITUATION

Exploration Licence EL22/1988 is one of a group of contiguous ELs and ML's within which lies the Avebury Nickel Sulphide deposit. The tenement comprises two separate areas summing 13 km² (Fig 1). The EL once covered the current mine leases, with 3M/2003 excised in 2003 and 6M/2007 excised in 2008 with the delineation of the East Avebury Resource.

There has been no ground based exploration on the tenement since early 2008 which arose through a variety of reasons including:

- Uncertainty to budgets and work programs surrounding the integration of the newly acquired Allegiance Metals assets into Zinifex in early 2008
- Integration of the Exploration Departments of Zinifex and Oxiana following the merger of Oxiana and Zinifex to form OZ Minerals on 1 July 2008.
- The Global Financial Crisis of 2008/09 which forced OZ Minerals to place the Avebury operation on care and maintenance in December 2008

In June 2009 China Minmetals Non-Ferrous Metals Co Ltd acquired from OZ Minerals Ltd a 100% indirect interest (through its subsidiary Album Investment Pty Ltd) in MMG Australia Limited (previously OZ Minerals Australia Ltd). MMG Australia Limited holds 100% of the shares in Allegiance Mining Pty Ltd the owner of the Avebury Mine and the surrounding tenements.

Following this transaction and a renewed period of project reviews, project divestments, budget revisions and redistribution of exploration assets, MMG exploration has been actively exploring its tenement holdings

4. GEOLOGY

The Avebury deposits are hosted in serpentinitised Cambrian dunite (Figure 2) 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, presumed to have arisen due to the 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 (Figure 3). 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.

5. RECENT EXPLORATION COMPLETED

5.1 2007 – 2008

During the twelve month period ended 8 December 2008 three holes (A221, 223 and 224) were drilled into the large amplitude Trial Harbour aeromagnetic anomaly (Figures 2 and 3).

All three holes successfully intersected the host ultramafic rock, and one hole, A223, intersected Aveybury-style nickel sulphide mineralisation. Follow up exploration was recommended, particularly around the outcropping northern margin of the Trial Harbour Anomaly.

DDH A223 was designed to test the Trial Harbour ultramafic intrusion at shallow levels beneath an intense magnetic high. It intersected serpentinised ultramafic, ultramafic skarn and massive magnetite with what were interpreted to be xenoliths of volcanoclastic sandstones (Appendix 1 and Figure 4). The hole ended in volcanoclastics. A223 intersected several zones of nickel sulphide mineralisation with a best intercepts of:

61.0 – 64.0m, 3.0m @ 0.8% Ni

5.2 2008 - 2009

Ground exploration activities on EL 28/1988 commenced in mid-October 2009. A program of 600m of diamond drilling in three holes and earthworks entailing the construction of 2 drill pads and some 600m of track is expected to have been completed by the end of November. The drilling program was planned to follow-up a significant nickel sulphide intersection of 61-64m, 3m @ 0.8% Ni in diamond drill hole A223. The planned program is aimed to test for the mineralised horizon intersected in A223 both down dip and along strike to the east of A223.

Due to the short time available between commencing this drilling program and the due date for the Annual Report (of 9 November 2009) for this tenement, it is unlikely that the results of this drilling campaign will be available for inclusion in the 2009 Annual Report. Expenditure figures are also not likely to include all the expenditure for the program carried out.

Hole	E (Nom.)	N (Nom.)	Dip	Azimuth (AMG66 / z55)	Depth (Nom./Act.)	Comments
A242	349 760	5356 220	-70°	000°	200m/161.2m	Intersected black serpentinite variably skarn altered throughout. No Sig. Min.
A243	349 980	5 356 150	-80°	000°	200m	Mottled dark and pale green serpentinite to date
Site 2	349 980	5 356 150	-50°	000°	200m	

Table 1: Planned work program October-November 2009

A242 - collared in black serpentinite then drilled through black serpentinite, variably skarned black serpentinite and totally skarned serpentinite to approx 90m where it passed into pyrrhotitic volcanoclastic sediments. A 1cm slug of pentlandite, pyrrhotite and magnetite was observed at 87m. This corresponds to the target position (more-or-less considering variation in dip and strike of the serpentinite and uncertainty in the azimuth of the drill hole due to magnetic effects). The hole was stopped at 161.2m in pyrrhotitic volcanoclastic sediments.

A243 – located approximately 200m ESE of A242. It collared in green serpentinite and was still in green serpentinite with abundant fine disseminated magnetite and rarer 2-5mm magnetite blebs at 95.5m (last core viewed).

6. PROPOSED EXPLORATION 2009 - 2010

The proposed exploration program for EL 28/1988 for December 2009 to December 2010 includes:

- Core logging and geochemical analysis of core from the 600m drilling program at the Denali Prospect,
- Interpretation of drill program results and potentially follow-up drilling
- 750m of helicopter supported drilling in 2 holes at the Burbank Prospect
- Core logging and geochemical analysis of core from the 750m drilling program at the Burbank Prospect
- Interpretation of drill program results and potentially follow-up drilling

7. EXPENDITURE 2008 - 2009

Expenditure on EL28/1988 for the period from 23 December 2008 to 31 October 2009 is estimated to have been in the order of \$129,750. This figure is an estimate only and contains incomplete drilling and earthworks expenditure.

Personnel	\$56,989
Contract Field Support	\$6,846
Geoscience Consultants	\$950
Track Cutting, Gridding	\$15,413
Geochemical/Assays	\$0
Diamond Drilling	\$31,000
Other Contractors (road works)	\$55
Stores & Supplies	\$250
Vehicles, Plant & Maintenance	\$1,376
Land & Environment	\$656
Equipment Hire	\$0
Depreciation, Office, Sundry	\$4,425
Administration Fee 10%	\$11,796
Total	\$129,756.00