



# **MINCOR ZINC PTY LTD HEAZELWOOD PROJECT**

EL9/2007

## **RELINQUISHMENT REPORT**

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Site Visit Notes by Ken Morrison

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Processed Digital VTEM Data

## **1. INTRODUCTION**

Exploration Licence 9/2007 covers an area of approximately 20 square kilometres situated south of the Waratah Road between Savage River and Luina. Exploration Licence 9/2007 was granted to Mincor Zinc Pty Ltd on the 10<sup>th</sup> August 2007 for a five year period.

## **2. EXPLORATION PHILOSOPHY AND OBJECTIVES**

- Mincor is an aggressive and professional explorer with a strong focus on cost effective delineation and evaluation of new mineral deposits in a safe and environmentally responsible manner.
- Mincor conducts rigorous, appropriate exploration, utilising new technology where appropriate.
- Mincor is not restricted by commodity type or geographic location, as long as mineral potential and a path to development can be seen.

Mincor's exploration objective beyond maintaining and expanding its nickel interests is to bring a new gold or base metal mine into production within the next five years. The work described in this report forms part of that strategy, in which potentially prospective ground is identified and subjected to a staged evaluation. Each stage represents a decision point at which stage priority and future work is determined.

Exploration at Heazlewood has focused on potential volcanic/intrusive related base metal enriched skarns, associated with the thermal aureole of the Meredith Granite. Styles of mineralisation targeted are:

1. Auebury style NiS mineralisation associated with "ultramafic skarns" formed as a result of the intrusion of Devonian granites (Meredith Granite) in close proximity to underlying rocks of the early Cambrian Heazlewood Ultramafic Complex (comprising ultramafic rocks, related mafic lavas and serpentinites).
2. Skarn or other related copper, gold, zinc-lead, tungsten, tin within the stratigraphic package overlying the Meredith granite as well as within the granite itself within the southernmost part of the ERA.
3. Extensions to known Cu +/- Au +/- Zn +/- Pb occurrences e.g. at Duffs Hill, Old Jasper, New Jasper, Mt Wright, Mt Stewart and Heazlewood. Known occurrences have received the most attention in the past however a literature review has indicated that not all potential targets have been thoroughly tested.

### **3. PREVIOUS WORK**

The tenement contains a number of old diggings on ultramafics in the north being around Duff Hill and Heazelwood, and Mt Jasper, and previous explorers have focused attention on these areas. District soil sampling was carried out during 1969-1970 and stream sediment sampling was carried out in the Mt Stewart area (in the southern ultramafic area) during 1976. Availability of this data, techniques used and elements assayed are not known at this stage. CRA also carried out reconnaissance scale drainage geochemistry and rock chip sampling around Duffs Hill in 1995.

Mincor's general approach will be to re-do all such historical work with modern, uniform surveys. This approach will also be applied to previous geophysical surveys such as early aeromagnetics, Dighem and Scirotem surveys carried out in the 1970's and 1980's. It is important to bear in mind the different foci of previous explorers, ranging from tin and tungsten to copper and gold with much of the work being focused on targets outside of the current ERA 680.

Allegiance Mining carried out a regional helicopter borne magnetic survey in 2003 that identified several magnetic features that they suggested may be associated with mineralised zones in the Heazelwood area.

### **4. GEOLOGY**

The Meredith Granite, one of several large and economically important Devonian granite intrusives within the main mineral belt of north western Tasmania; outcrops in the southeast corner of the tenement. Its aureole is thought to extend throughout the rest of the tenement and to be the fluid source for a number of Cu-Au and Pb-Zn-Ag mineralised veins hosted by Devonian faults. The geology of the northern third of the licence comprise ultramafic rocks related mafic lavas and serpentinite of the Early Cambrian Heazelwood Ultramafic Complex and the southern third the Mt Stewart Ultramafic Complex. The remainder are Neoproterozoic quartzwacke turbidites, Ordovician limestones and Silurian-Devonian shallow marine sequences. These are covered by Quaternary alluvium in the east on the flats around the Whyte River. See Figure 1.

The area hosts a number of known mineralisation occurrences. There are several mineralised Cu-Au veins in the Heazelwood area within basalts being New Jasper, Old Jasper and Duffs Hill which also contains significant Pb-Zn-Ag. The Mt Stewart and Wrights-Heazelwood mines are localised vein deposits of Pb-Zn-Ag within altered ultramafics. Localised nickel mineralisation occurs near the northern area of the tenement at Lord Brassys and others. Alluvial Osmium also occurs near Mt Stewart.

### **5. EXPLORATION COMPLETED**

A reconnaissance visit was made to the area during 2008, a helicopter borne EM survey (VTEM) was completed covering the entire tenement and data processing was completed. The survey was carried out by Geotech Airborne Pty Ltd and comprised a VTEM time domain EM system for locating conductive anomalies and

mapping earth resistivities, and a high sensitivity caesium magnetometer for mapping geologic structure and lithology. Line spacing was 100m of East-West lines for a total of 220km.

Five anomalies were detected locations for which are shown in Appendix A.

The only new fieldwork work completed during the 2008 – 2009 reporting period were a field visit to the area to locate the anomalies on the ground. Technical, logistical and environmental planning for ground EM follow up of VTEM targets was initiated however this work was not completed.

A review of target selection criteria carried out in the light of changed economic conditions led to a down grading of EL9/2007 relative to other projects. Anomalies A, C, D and E were regarded as most likely representing formational features, and anomaly B, although displaying highest conductance, was not followed up due to its location being within the Whyte River area. In addition, a field visit to the area of the large (but low conductance) anomaly A area and adjacent Old Jasper prospect was carried out by consultant geologist Ken Morrison. Field notes pertaining to this visit are attached as Appendix B. The full digital VTEM dataset is included in Appendix C. These remain valid targets and should be followed up by means of a program of ground EM over each target area

Proposed exploration for the area would be as follows:

- Ground follow up of VTEM anomalies
  - fixed loop EM
  - soil stream and rock chip geochemistry
- Detailed mapping of known prospects and geochemical sampling
- RC diamond drilling of defined targets.

## 6. CONCLUSIONS

Whilst the area is prospective on a regional scale, it is without doubt the contact aureole of the Meridith granite that yields the greatest local prospectivity. The results of the airborne VTEM survey will help guide future work within this contact area but should not down grade known prospects as a viable orebody may be present that does not contain enough massive sulphide to generate an EM target.

## 7. EXPENDITURE

Expenditure on EL9/2007 for the Financial Year end 30 June 2009 is as follows:

• Computer: Software Maintenance	\$279
• Geophysical Consulting	\$10,129
• Geophysical Contract	\$1,683
• Contractor: Labour	\$6,693
• Contractor: Other	\$4,070

• Drafting and Printing	\$1,417
• Salaries and Wages	\$8,208
• Telephone & Fax	\$516
• Travel: Accommodation, Meals Airfares, Car Hire	\$2,026
	\$35,021

## **8. REFERENCES**

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## **APPENDIX A**

## **APPENDIX B**

## **APPENDIX C**