EXPLORATION LICENCE
EL 20/2007
STRAHAN, WESTERN TASMANIA

ANNUAL REPORT
FOR THE YEAR ENDED
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Prepared by:
John Richardson
Consulting Geologist
Macquarie Harbour Mining Limited

Submitted by:
Frank Rogers
Managing Director
Macquarie Harbour Mining Limited

Macquarie Harbour Mining Limited ABN 124 212 175
52 Channel Hwy, Kingston, Tasmania, 7050
TELEPHONE: 03 6229 9955 FACSIMILE: 03 6229 8430
EMAIL: info@mhml.com.au WEBSITE: www.mhml.com.au

1 EXECUTIVE SUMMARY

EL 20/2007 (Strahan) is the only one of Macquarie Harbour Mining Limited's Western Tasmanian tenements to be located on the north-eastern side of Macquarie Harbour. It is considered prospective for volcanic hosted massive sulphide (VHMS) deposits within Cambrian volcanics, carbonate hosted zinc-lead in rocks of Ordovician age, and possibly ultramafic hosted nickel beneath cover in the southern part of the tenement.

During the past 12 months further background research was carried out on previous exploration results and work commenced on building a spatial geochemical database for EL20/2007 and other MHM tenements in the Macquarie Harbour area.

Discussions with geophysical consultants has led to an agreement for a heliborne EM survey to be flown over the area in March 2010.

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2 INTRODUCTION

This is the second annual report on EL20/2007 (235 sq km) which is held in the name of Goldstock Mining Pty Ltd, a wholly owned subsidiary of Macquarie Harbour Mining Ltd ("MHM"). The location of the tenement, together with the other MHM West Coast tenements, is shown in Figure 1.The licence lies on the Cape Sorell 1:100,000 topographic map sheet with the town of Strahan situated at its north-western end; it is bounded by Macquarie Harbour along most of its western boundary.
Access into much of the area is extremely limited, particularly in the central and southern parts of the tenement.

3 REGIONAL GEOLOGY AND ECONOMIC POTENTIAL

The boundaries of the licence and the geology that it covers are shown in Figure 2. The lower reaches of the King River flow over the section of the Cambrian Belt south east of Strahan before entering the Macquarie Harbour just north of King Point. At the mouth of the King River a delta has formed which contains a significant proportion of tailings derived from the Mt Lyell Copper Mines. These have been deposited in a black shale environment within the deltaic deposits and have been assessed as a source of base metals, gold, and pyrite. It has been estimated that there are 100Mt of sediment in the delta of which 15% is tailings containing 45% sulphides. These deposits are not covered by the MHM licence.

Tracing the regional airborne magnetics (Figure 3) from south to north reveals that the general strike of the Cambrian volcano-sedimentary package swings to the north west on the northern side of Macquarie Harbour beneath a significant thickness of Cainozoic sediments. In the central area of the tenement the strike is generally NNW-SSE and the Cambrian rocks outcrop, while to the west of Strahan there is a further covering of Tertiary and Quaternary sediments. A magnetic low is centred approximately 5km west of that portion of the Sorell Peninsula lying immediately west of the entrance to Macquarie Harbour (outside EL20/2007), indicating that rocks of low magnetic susceptibility exist in this area, possibly a granite, which may increase the economic potential of volcanics in the vicinity of Strahan.

Although the tenement is considered to be prospective for base metal mineralization there are no identified deposits indicated on the MRT online database. Sub-economic base metal mineralization has been reported from the Ordovician sediments which outcrop to the east of the Cambrian succession but there has been no exploration in recent years. The western part of the Cambrian volcanics, particularly in the Pine Cove Creek area south of the King River, may have potential for gold-rich massive sulphide mineralisation.

4 REVIEW OF WORK BY PREVIOUS EXPLORERS

In 1956 a JV between The Electrolytic Zinc Company of Australasia Limited and Mt Lyell Mining and Railway Co Ltd (Lyell – EZ Explorations or the LEE JV) was formed to explore the Mt Read Volcanics in the southwest of Tasmania. In 1958 an airborne magnetic survey by the JV identified an anomaly at Ocean Beach. This was investigated and was due to magnetite in beach sands. In 1960 the LEE JV mounted field exploration programmes in the area. On the northern side of the harbour they undertook a study of the Tertiary cover. This was reported to consist of unconsolidated sands and gravel containing bands of clay and lignite in a central zone. The total thickness was calculated to be 225m minimum with 170m being below sea level. Dating by fossils in the lignite suggested a Pliocene age for these deposits.

In 1981 CRA Exploration Pty Ltd mounted a drilling programme to assess the brown coal potential of the Cainozoic succession. The drilling rig was not capable and the programme was abandoned. The limited results obtained were interpreted to indicate there was little potential for brown coal.

In 1987-1990 a JV between BHP, Utah, and New Holland explored the sub outcropping Cambrian rocks north of the King River with EL29/1987.They report that these appear to have a dominantly felsic provenance. There are few indications that hydrothermal activity has been intense in the area. Stream sediment sampling revealed low level Cu-Zn anomalism in the SW of the area (up to 228 ppm Zn, 63 ppm Cu). An airborne GEOTEM EM survey did not detect any responses that could be attributed to conductive sulphide mineralization so no further work was undertaken. This JV also explored an easterly area of the Cambrian stratigraphy to the south of the King River with EL30/1987. They reported evaluation of previous geophysical and geological data suggested that the volcanics are possible time equivalents of the Que-Hellyer and Noddy Creek volcanics. Several additional structures were delineated. A significant structural zone was located in which a major NW-SE trending magnetic lineament abruptly truncates magnetic mafic volcanics. Seven rock chip samples showed weak anomalism in Zn and Cu. An airborne EM survey was carried out but did not detect any responses that could be attributed to bedrock conductors such as sulphide mineralisation. No further follow up work was undertaken. BHP-Utah withdrew from the JV and New Holland relinquished the tenements. The exploration programme conducted by this JV did not include any drilling.

CRAE acquired EL64/1994 in 1994 to explore Ordovician carbonates of the Gordon Group in the Swift Creek area for Irish-type carbonate hosted zinc. Part of this area falls within the extreme eastern part of EL20/2007 where the prospective rocks have a faulted contact with the Cambrian succession to the west. Bedrock sampling at two localities indicated anomalous zinc and lead which may be analogous with the Grieves mineralisation near Zeehan. A fence of five short diamond holes was drilled to test the prospective stratigraphy but only narrow zones with low values were intersected.

5 PREVIOUS WORK BY MHM

Most of the work on EL20/2007 in the first year of tenure comprised data compilation and literature research from hard copy and digital reports available from the Mineral Resources Tasmania. Diamond drill core from CRAE's exploration campaign and held by MRT was also examined.

A reconnaissance field trip in November 2008 enabled the following:

(a) A considerable section of the Cambrian succession to be examined, along both the Lyell Highway and eastwards from the mouth of the King River.

(b) Access via forestry tracks southwards from the highway into the eastern part of the tenement.

No indication of mineralisation or hydrothermal alteration was observed in the volcanic rocks and little outcrop was observed in the Teepookana Plateau area where the Ordovician rocks are mapped.

6 EXPLORATION COMPLETED DURING THE REPORT PERIOD

No field work has been carried out on EL20/2007 during the report period. A short aerial reconnaissance of the tenement by helicopter was conducted by newly appointed Exploration Manager Richard Lindsay and Senior Exploration Geologist Hugh Simmons in Jan 2010.

Review of previous exploration

Re-examination of open file information has drawn attention to possible potential for VHMS mineralisation at shallow to moderate depths near the western boundary of the Cambrian volcanic unit (Csv) in the vicinity of Pine Cove Creek (see Figure 2). The geology at this locality comprises interlayered andesitic to basaltic lavas/intrusives with some volcaniclastic sediments and minor acid volcanics at the base of the Tyndall Group.

The Geotem data from the BHP-Utah airborne survey (Read 1990B) revealed the survey area to be generally resistive with a conductive zone following the coast on the western side of the tenement. The majority of the Geotem anomalies display early time responses of broad character and low amplitude suggestive of structural or lithological conductors. A number however exhibited a slower decay, higher amplitude and smaller spatial wavelength, suggesting a source separate to the lithological/structural conductors. Predominantly these conductors occur on one or two lines indicating short strike lengths. Five were classified as low priority while two exhibited some bedrock characteristics that graded into surface conductor characteristics and were consequently graded as medium priority conductors. The surface expression of these two adjacent anomalies lies close to Pine Cove Creek, about 1km south of King River and the same distance from the coast. The conductors trend NNW and are spatially associated with a strong magnetic trend immediately to the east.

Geological follow-up of the two medium priority Geotem anomalies showed that they occur within, or close to, an andesitic unit and were attributed to contact effects between the overlying conductive Tertiary sediments (mainly siltstone) and the more resistive andesites. Of interest are anomalous Zn, Cu and Au values in chloritic andesite which was sampled in the vicinity. Similar low level Zn and Cu anomalism was encountered in stream sediment sampling approximately 3km to the north in the SW corner of EL29/87 where altered “andesites” were observed. This area lies on a northerly extension of the same EM trend.

There is a possibility that several of the BHP Geotem conductors may be reflecting volcanogenic mineralisation like that of the gold rich Que River massive sulphide deposit which is hosted by andesitic lavas of similar age.

Airborne EM survey

Enquiries commenced in October 2009 with Geoforce, a Brisbane- based geophysical consulting company about the cost and logistics of conducting a heliborne EM survey over MHM’s tenements in Western Tasmania. In December an agreement was reached whereby:

- Geoforce will design, plan and manage a heliborne transient electromagnetic survey (HTEM) which will be flown by Geotech using their VTEM system and is scheduled to commence in early March.
- Prior to the survey, background work will include the collation of historical EM data into Mapinfo Tables and an Excel spreadsheet in order to develop a detailed line plan.
- Following the signing of the final contract with Geotech, Geoforce would organise logistics such as ordering and delivery of fuel, safe work programme and emergency plans.

- While the survey is in progress there will be onsite preliminary real-time interpretation of EM data and close liaison with the MHM site representative.
- When the survey is completed a final interpretation in report form will be provided for MHM.

The area to be flown in EL20/2007 will be confined to a NW trending zone in the central part of the tenement north and south of the King River, targeting the known conductive zone on the western side of the volcanics. The precise boundaries of the survey will not be available until the flight plan is completed by Geoforce.

Compilation of data into a GIS format

Work has commenced on building a spatial geochemical database for the area covered by MHM tenements EL20/2007, EL21/2007, EL22/2007 and EL23/2007, all in the Macquarie Harbour area. Data will include all relevant sample data already available in digital form from Mineral Resources Tasmania in addition to old hard copy exploration report information which will need to be digitised. Initial priority has been given to stream sediment and rock chip samples collected in “district scale” programmes, to be followed by more detailed “prospect scale” data.

Ongoing work

Results from the airborne survey will be evaluated and significant EM anomalism viewed in the light of known geology and the distribution of the compiled geochemical data. This will be of particular interest for EL20/2007 in casting more light on the significance of the Geotem anomalies and any bedrock association.

Any areas of potential will be investigated in a subsequent field follow-up.

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8 EXPENDITURE

Total annual expenditure for EL20/2007.

Geoscientific Costs	
Geology	13,143.00
Geochemistry	
Geophysics	
Remote sensing	
Drilling & Gridding Costs	
Gridding	
Drilling	
Earthmoving	
Land Access Costs	
Feasibility Costs	
Other Costs	6,037.00
Rental fees	
Vehicular track Construction	
Surveying, contract drafting etc	
Capital equipment purchase	
Administration Costs	
(note: not to exceed 10% of annual expend)	
Legal	
Office & Admin	
Total	**19,180 .00**