

**PASMINCO ROSEBERY MINE**

**MT. CHARTER EL 10/98**

**FINAL REPORT  
FOR THE PERIOD ENDING 30<sup>TH</sup> JUNE 2002**

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## **1. SUMMARY**

This report details exploration work undertaken within the Mt. Charter EL 10/98 for the period ending the 30<sup>th</sup> of June 2002.

The tenement is underlain, at a depth of 100-300m, by the highly prospective Que-Hellyer Volcanics, which are relatively under-explored. During the fourth year of tenure, no fieldwork was completed and given the lack of advanced targets it has been decided to relinquish EL 10/98 Mt Charter.

## **2. INTRODUCTION**

This report details exploration work undertaken, during the fourth year of tenure, on Mt. Charter EL 10/98 during the period July 1 2001 to June 30 2002.

EL 10/98 was granted to Pasminco Exploration in 1998 for a period of 5 years. The tenement area spans 17km<sup>2</sup> and is partially overlain by CMLs 103M/87 (Hellyer) and 68M/84 (Que River) and easement 10W/80 (covering the Que River Mine access Road) all of which are held by Western Metals Resources.

The location of the tenement is shown in Figure 1. It covers part of the Que-Hellyer Volcanics (QHV) and associated sequences of the Mount Read Volcanics. The QHV are a highly mineralised package which hosts the Hellyer (discovered in 1983; 17 mt @ 13.8% Zn, 7.2% Pb, 0.3% Cu, 167 g/t Ag and 2.5 g/t Au), Que River (discovered in 1974; 3.3 mt @ 13.3% Zn, 7.4% Pb, 0.7% Cu, 195 g/t Ag and 3.3 g/t Au) and Mt Charter (10mt @ 1.0 g/t Au) VHMS deposits. The presence of this mineralisation led to sustained and extensive exploration by Aberfoyle Resources over a 27-year period (1970-1997).

### **2.1 Attribution**

The following personnel were responsible for the work carried out within the Mt Charter licence area during the reporting period:

Senior Geologist:                      Andrew McNeill - Pasminco Exploration Rosebery

## **3. TENURE**

EL 10/98, 17 sq. km, was granted to Pasminco Exploration for a period of 5 years, as a result of a competitive tender for the former EL 106/87, relinquished by Aberfoyle Resources on 5 February 1998. The area granted to Pasminco is partially overlain by CML's 103M/87 (Hellyer) and 68M/84 (Que River) and easement 10W/80 (covering the Que River Mine access Road) all of which are held by Western Metals Resources.

The tenement is subject to a number of land classifications. The current land tenure includes land vested in the Hydro-Electric Commission, in the area immediately surrounding high voltage Transmission Lines, Multiple use State Forest, informal reserves, part of the Reynolds Falls CAR reserve and un-allocated Crown Land. All land tenures are available for exploration under the Mineral Resources Development Act.

## **4. REGIONAL GEOLOGY**

The following description of the setting and geology of the Mt. Charter licence area, as shown in figure 2, is a modified version of that presented in McNeill et al. (1998).

The prospective volcanic package, underlying the majority of the licence form part of the Mt. Charter Group (as defined by Corbett, 1992). The economically significant unit of the Mt Charter Group is the Que-Hellyer Volcanics (QHV) which host the Hellyer, Que River and Mt. Charter VHMS bodies. Published descriptions of the volcanology, stratigraphy and primary lithogeochemistry of the QHV include Waters and Wallace (1992), Corbett (1992) and Crawford et al (1992).

The QHV are a sequence of marine calc-alkaline mafic to felsic volcanics and volcanoclastics deposited/erupted into an extensional basin interpreted to develop as a result of movement on regional synvolcanic faults such as the Henty, Mt. Charter and Mt. Cripps Faults. The QHV can be broadly subdivided into a lower sequence of basalt and feldspar phyric andesite lava and volcanoclastic (geochemical suite 1 of Crawford et al. (1992)) separated from an upper sequence of dominantly basaltic rocks (geochemical suite 3) by a complex interval known as the Mixed Sequence. The Mixed Sequence marks a relatively quiescent period dominated by polymict epiclastics and numerous small volume dacitic lava/breccia bodies. The thickness of the Mixed Sequence varies from a few centimetres to more than 300m whilst the total thickness of the QHV can vary from around 20m (in the NW) to more than 1.5 kilometres in the vicinity of the orebodies.

In the south and southeast of the licence the QHV are conformably and gradationally underlain by the Animal Creek Greywacke, micaceous (chromite-bearing) siliciclastic greywacke and siltstone intruded by rare dolerites (geochemically similar to the suite 3 hangingwall basalts and andesites) and dacitic dykes. To the east the Henty Fault Zone juxtaposes the QHV against quartz-phyric volcanoclastics and intrusive (Tyndall Group or Southwell Subgroup equivalents) and overlying siliciclastic conglomerates and sandstones (Owen Conglomerate). To the west, around the Murchison Highway, the QHV are conformably overlain by the Que River Shale, black carbonaceous and pyritic shale and siltstone, and the basal part of the Southwell Subgroup, polymict quartz-phyric mass flows with minor shale and rhyolitic intrusives.

A strong Cambrian structural control was recognised by Aberfoyle for the formation and morphology of the QHV basin and associated VHMS mineralisation (Richardson, 1992). A network of syndepositional NE (mine grid) trending normal faults linked by NW trending transfer faults has been interpreted, by Aberfoyle, from facies and thickness variations, magnetics, gravity etc. In addition, a major NNE half graben like structure extends at least from Que River to Hellyer, hosting the two orebodies and localising strong footwall alteration. This structural zone is interpreted to relate to oblique extensional reactivation of a deep tapping, basement structure. Compressional structures are thought to largely reflect reactivation of these syndepositional structures during the ?Late Cambrian, Devonian and Mesozoic events.

## **5. PREVIOUS EXPLORATION**

Previous exploration prior to the granting of EL 10/98 has been summarised in Anon (1986), McNeill et al. (1998) and McNeill and Simpson (2000), and the reader is referred to these reports for a detailed summary.

Following the granting of EL 10/98 in 1999 Pasminco Exploration carried out a compilation of previous exploration data and incorporated this information into Pasminco's databases. A review of potential targets on the EL was also conducted based largely on structural targets defined by Aberfoyle. One area (the Amoeba Zone and Bronco prospects) was followed up by refurbishment and extension of existing gridding and partial leach soil sampling. To test the Amoeba Zone and Bronco prospects a total of 10.25 line km of existing 200m spaced Aberfoyle grid was refurbished and 2.5 line km of new grid was cut. This gridding was then located using DGPS (60 stations) and 'B' horizon soil samples were collected at 25m spacings. A total of 535 soil samples (including standards and duplicates) were submitted to Amdel for analysis of Cu, Pb, Zn, Ba, As, Au, Ag, Cd, Co, Bi, Mo, Ni, Sb, La and Sm by method Deepleach 37. Based on the results of this survey there are no base metal targets worthy of follow-up on the Amoeba Zone - Bronco grid, although the interpretation was complicated by considerable cultural contamination (McNeill, 1999).

During 2000, the second year of tenure, exploration work consisted of 3.6 line km of grid cutting over the Bronco area with subsequent DGPS surveying and PL soil sampling (133 samples, including standards and duplicates). This gridding and sampling work was designed to cover and identify buried and blind mineralisation at the prospective Que-Hellyer ore position. No significant targets worthy of follow-up were located (McNeill and Simpson, 2000).

During the third year of tenure, exploration work consisted of Gridding (4.6 line km), DGPS surveying and partial leach soil sampling (175 samples including duplicates and standards) over the area between the Amoeba Zone grid and the northern boundary of Western Metal's RL 9711. No significant anomalies worthy of follow-up were located (McNeill and Simpson, 2001).

## **6. WORK COMPLETED DURING THE 2001-2002 REPORTING PERIOD**

### **6.1 Fieldwork**

No fieldwork was completed during the reporting period.

### **6.2 Ortho Photos**

During 1998 and 1999 Pasminco Exploration commissioned HECEC Australia Pty Ltd. to compile rectified ortho photos of its western Tasmanian tenements, including EL 10/98. This data has not been included in previous reports and is included here in a digital format only (MapInfo format only) as Appendix 1.

## 7. CONCLUSIONS AND RECOMMENDATIONS

No fieldwork was completed by Pasminco on EL 10/98, Mt Charter, in the period July 2001 to 30<sup>th</sup> June 2002. The lack of fieldwork was a direct result of a severely reduced resources and exploration budget, culminating in August 2001, with the disbanding of the Exploration Division and the transfer of responsibility for district exploration to Rosebery Mine.

Previous exploration has failed to locate any high priority targets for follow-up and it is concluded that the highest ranked targets in the Que-Hellyer Volcanics are outside the current tenement (on Western Metals Resources CML 103M/87 and RL 9711). It is therefore recommended that the tenement be relinquished.

## 8. EXPENDITURE

Total expenditure for all work undertaken by Pasminco Exploration within Mt. Charter EL 10/98 for the twelve month period ending 30 June 2002 was **\$5,197**. A detailed expenditure statement is given below.

Computing	\$0
Geochemical/Assays	\$0
Geoscience Consultants	\$0
Land & Environment	\$48
Depreciation, Office, Sundry	\$709
Other Contractors	\$0
Personnel Costs	\$3,968
Stores & Supplies	\$0
Travel & Accommodation	\$0
Vehicles, Plant & Maintenance	\$0
Administration Fee 10%	\$472
<b>Total Tenement Expenditure</b>	<b>\$5,197</b>

## 9. KEYWORDS & LOCALITY

### *Keywords*

ZINC, LEAD, COPPER, GOLD, STRUCTURE, ALTERATION, GEOCHEMISTRY, MOUNT READ, QUE HELLYER VOLCANICS, PARTIAL LEACH, SOILS, MMI

### *Location*

250,000 SK55-3 Burnie

1:100,000 8014 Sophia

Que River, Hellyer, Mt Charter

## 10. REFERENCES

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