

**MT CHARTER  
TASMANIA  
RL11/1997**

**PROGRESS REPORT  
6<sup>TH</sup> JANUARY 2015 TO 5<sup>TH</sup> JANUARY 2016**

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**Note: All figures and grids are according to the GDA94, Zone 55 datum unless otherwise stated**

## ABSTRACT

Bass Metals Ltd (BSM) commenced management of the Mt Charter Retention Lease (RL11/1997) in 2005.

No exploration activities were undertaken during the reporting period. Historic negatives of Aberfoyle petrological samples were scanned in order to preserve them.

For 2016 further metallurgical test work is proposed on the Mt Charter mineralisation as part of the long term aim to treat the mineralisation through the Hellyer Mill.

**Expenditure -** Reporting period \$16,310

Total to date \$1,262,387

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## **1.0 INTRODUCTION**

This report is a summary of the exploration activities conducted on the Mt Charter retention licence RL11/1997, for the period of 6th January 2015 to 5th January 2016. The licence covers a total area of 4 km<sup>2</sup>.

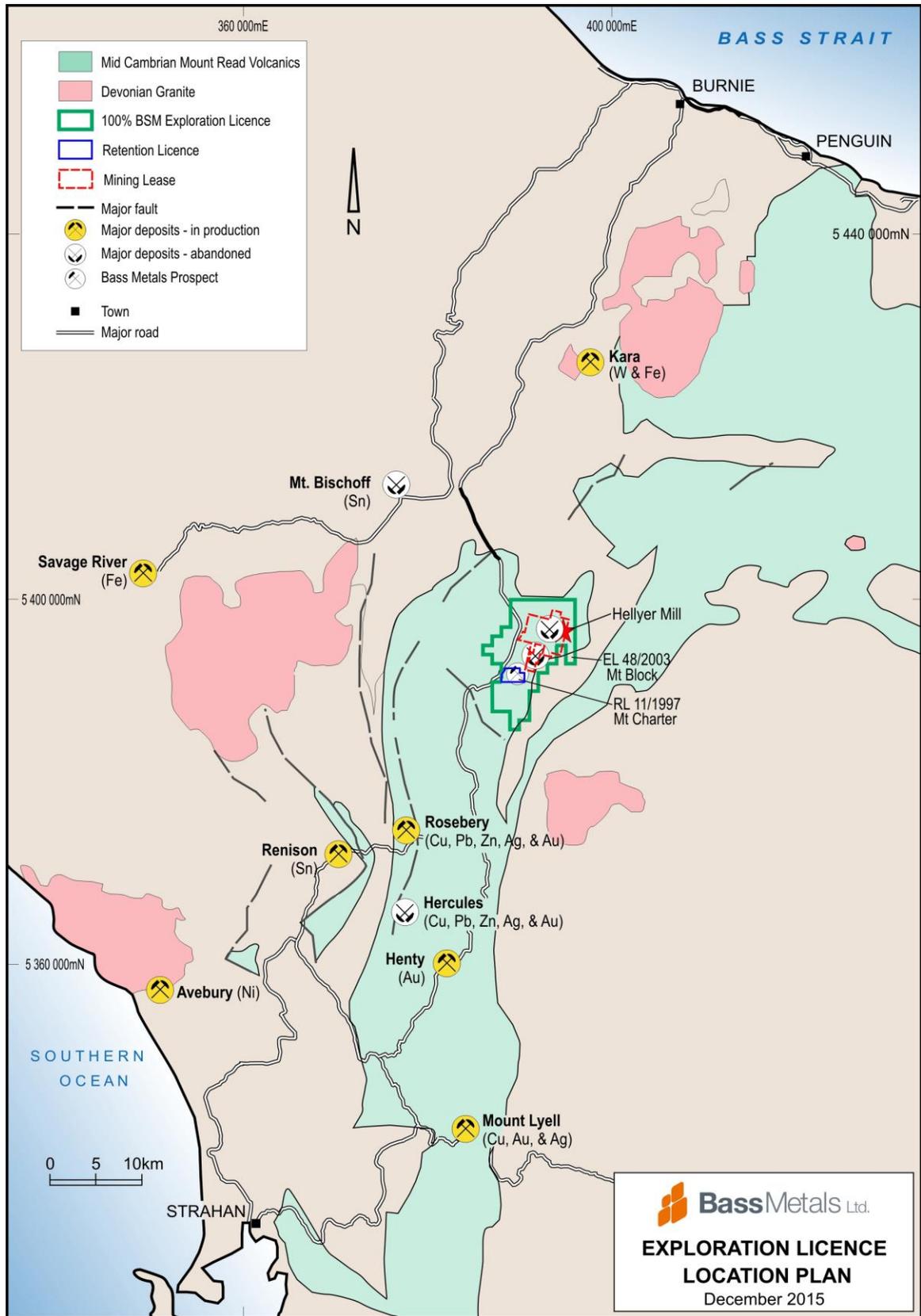
The licence is situated in the northwest corner of Tasmania and was acquired as part of a package of tenements in the Hellyer-Que River area from Intec Ltd. The tenement contains a 6.1 Mt resource of low grade gold-silver mineralisation.

### **1.1 Location & Access**

The tenement is located 13 km north-northeast of the township of Tullah, on the west coast of Tasmania (Figure 1). Access to the area is via the Murchison Highway and tracks which access the 220kv transmission lines which traverse the area. Access within the tenement is via a limited number of 4wd tracks and ATV-only tracks.

The licence area can be found on the Charter 1:25,000 topographic map sheet and the Sophia 1:100,000 LTIS map sheet.

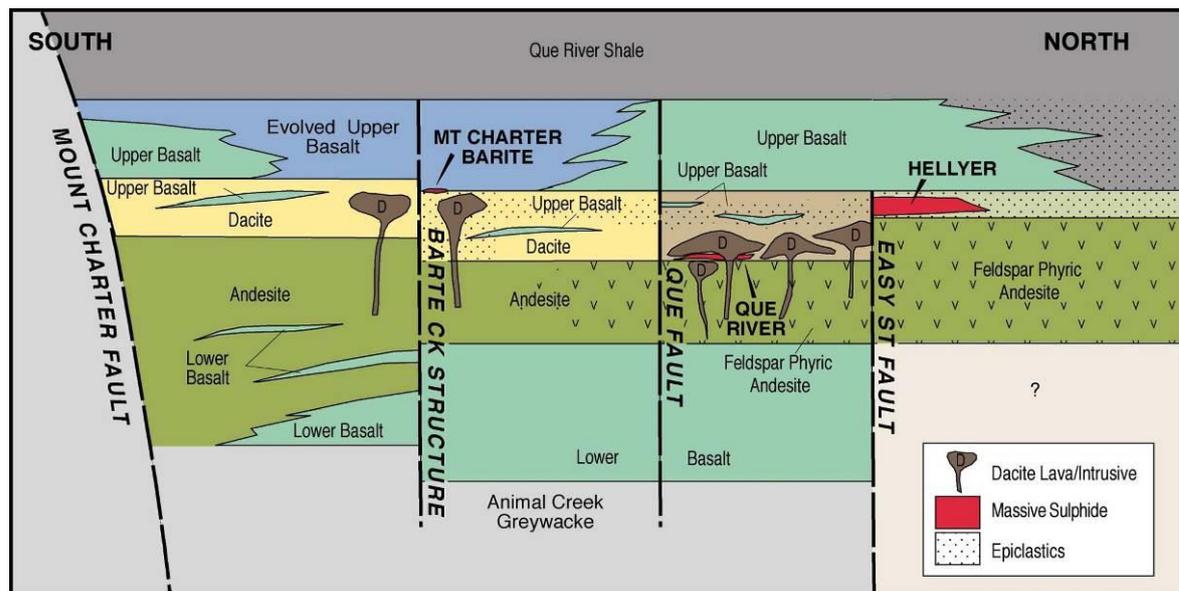
Figure 1. Mt Charter Retention Licence (RL11/1997) location plan.



## 1.2 Geological Overview

The base and precious metal deposits of the Hellyer - Que River - Mt Charter area lie above the main Central Volcanic Complex of the Mt Read Volcanics within a sequence of volcanics and sediments, known as the Mt Charter Group. Within the Mt Charter Group is a volcanic package called the Que Hellyer Volcanics (QHV) comprising a group of andesitic to dacitic volcanics and sediments (Figure 2). The Que River, Hellyer and Mt Charter deposits are hosted by the highly variable 'Mixed Sequence', sandwiched between footwall andesitic and hangingwall basaltic volcanics. Volcanic-related and marine sediments cover the volcanics.

**Figure 2: Schematic stratigraphic long-projection of the Que Hellyer Volcanics**



The QHV are up to 1000m thick near Que and Hellyer, but wedge out to less than 50m to the north west of Hellyer mine. The units of the QHV are summarized below:

- The Upper or Hellyer Basalt consists of massive to pillowed amygdaloidal basalt lava and volcanoclastic rocks.
- The Mixed Sequence host to the Que River, Hellyer and Mt Charter systems is comprised of epiclastics, dacitic lavas and breccias.
- The Feldspar Phyrlic Andesite, a porphyritic andesite lava which is the footwall unit to the Hellyer and Que River deposits and subsequently altered to Silica-Sericite-Pyrite mineralogy at these locations, which in turn is underlain by
- The Lower Basalt, a sequence of basaltic pillow lavas and volcanoclastics, which form the immediate footwall at Que River and Hellyer.

The QHV is overlain by the Que River Shale (Figure 2), which is in turn overlain by rhyolite, felsic volcanoclastics, greywacke and shale of the Southwell Subgroup. The Southwell Subgroup is overlain by the Mt Cripps subgroup which is a sequence of volcanoclastics, siltstones and conglomerates only outcropping along the eastern boundary of the Hellyer area tenements.

Beneath the QHV are the Animal Creek Greywacke and Black Harry Beds, a sequence of sediments defining the base of the Mt Charter Group.

### **1.3 Exploration Rationale**

The Mt Charter area has been a focus of exploration since the 1970's, due to the extensive silica-sericite-pyrite-(barite) alteration exposed at surface. This alteration is similar to the footwall alteration associated with the nearby Hellyer and Que River Volcanogenic Hosted Massive Sulphide (VHMS) Zn-Pb-Ag-Au deposits.

Early work at Mt Charter by Aberfoyle Resources focussed on the base metal potential, with only minor emphasis on the outcropping precious metal mineralisation. When Bass Metals began exploration at Mt Charter in 2005 the focus was on evaluation of the shallow gold-silver mineralisation, whilst still acknowledging the potential for deeper Hellyer - Que River style VHMS targets.

### **2.0 REVIEW OF PREVIOUS WORK**

For an account of historic exploration of the Mt Charter RL, the reader is referred to the 2011 Annual Report (Bates 2011).

From January 2012, as a result of adverse circumstances at its' Fossey Mine operation, expenditure by Bass on exploration was curtailed to help preserve cash flow. In February 2013, Bass Metals sold its' wholly owned subsidiary Hellyer Mill Operations Pty Ltd (HMO) to Ivy Resources Ltd. As part of this agreement Ivy Resources, through HMO, has a sub-licence agreement with Bass Metals over RL11/1997. This agreement gives Ivy Resources exclusive rights to the gold deposits on RL 11/1997, including the current Mt. Charter Gold resource and future gold mineralisation discovered on RL 11/1997.

### **3.0 EXPLORATION COMPLETED DURING THE CURRENT REPORTING PERIOD**

From January to March 2014 a 124 sample multi-element soil sampling program was carried out on Mt Charter RL 11/1997.

This soil sampling program was completed in conjunction with soil sampling on the adjacent Mt Block EL 48/2003. It aimed to increase coverage of multi-element soil sampling of the highly prospective “corridor” between Mt Charter and Hellyer to help refine existing and define new drill targets. In particular the pathfinder element anomalies associated with the Mt Charter hydrothermal system had not been properly closed off by previous sampling.

For 2015 a single 400m hole on section 5450N (mine grid) was proposed, to test the northern end of an extensive As-Sb-Tl soil anomaly related to the Mt Charter mineralizing system. Lack of available funds meant the hole was not completed.

#### **3.1 Historic Petrology Photographs**

During the reporting period, the original negatives of photographs taken of samples submitted by Aberfoyle Resources for thin section description were located. Petrological descriptions for these samples would have been submitted in the relevant Annual Reports during the 1980’s and 1990’s.

In order to preserve the photographs and improve the usefulness of the historic petrology, the original negatives were scanned and are presented in Appendix 1 of this report. The relevant petrological descriptions and any available assays are also included.

Only holes located on the Mt Charter RL are included with this report.

## 4.0 PROPOSED 2016 WORK PROGRAM

In November 2015, it was announced that a Heads of Agreement has been signed between Ivy Resources and BCD Resources NL, where the two companies would merge and combine their assets to re-treat the remaining Hellyer Tailings resource. As well as producing base metal concentrates it is intended to produce an arsenopyrite-gold concentrate, which would be transported to Beaconsfield and treated to produce gold dore.

Ivy Resources has the rights to the precious metal resource on Mt Charter, through the sub-licence agreement with Bass Metals. Their long term plans for the Hellyer Mill include ultimately mining and processing of the Mt Charter mineralisation.

Ivy / BCD wish to conduct metallurgical test work on the Mt Charter mineralisation. Previous test work was conducted by Aberfoyle in 1988 (McNeill, 1988) and by Bass Metals in 2006 (Murphy, 2007). BCD feel there is some ambiguity to the report on the 2006 work provided to Bass Metals.

The proposed test work would be based on three 15kg composites derived from ¼ core from Bass' 2005 - 2006 drill holes. One composite would comprise "massive" barite mineralisation, another vein style mineralisation in altered host rock and the third would comprise a representative mixture of the two.

The test work would include:

- Crushing and grinding
- Flotation testing – to produce a bulk sulphide concentrate (including cleaner stages)
- Leaching test work to evaluate gold and silver extraction
- Assessment of a potential process flow sheet. In particular whether straight CIL or bacterial oxidation followed by leaching is the best method.

The estimated budget for the test work is \$20,000.

## 5.0 ENVIRONMENT

The company has environmental policies in place that minimise the impact that exploration activities have on the environment. The policies include guidelines on how to minimise the impact on the environment during track-development and how to reduce the risk of spreading plant diseases and weeds as a result of day-to-day exploration tasks.

## 6.0 EXPENDITURE

Expenditure incurred on the Mt Charter RL 11/1997 during the current reporting period is shown below in Table 2.

**Table 1. Expenditure 6th January 2015 to 5th January 2016.**

January 2015 to January 2016		
Geoscientific Costs	Geology	\$5,314
	Geochemistry	
	Geophysics	
	Remote Sensing	
Drilling & Gridding Costs	Gridding	
	Drilling	
	Land Access Costs	
	Rehabilitation Costs	
	Feasibility Study Costs	
	Other Costs	\$10,996
	Admin Costs	
	<b>Total - eligible</b>	<b>\$16,310</b>

## 7.0 REFERENCES

**McNeill, A., 1989,** Lake Mackintosh, Exploration Licence 106/87 Tasmania. Technical Progress Report for the Period February 1988 to February 1989. Unpublished Report to Mineral Resources Tasmania by Aberfoyle Resources Ltd.

**Murphy, T., 2007,** Mt Charter Project, Tasmania, R111/1997, Annual Progress Report for Period Ended 5<sup>th</sup> June 2007. Unpublished Report to Mineral Resources Tasmania by Bass Metals Ltd.