

**LEVEN RIVER PROJECT
BLACK BLUFF RANGE GROUP
TASMANIA
EL53/2004**

**FINAL REPORT
8TH AUGUST 2009 TO 11TH MARCH 2010**

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Mineral Resources Tasmania
Clancy Exploration Ltd
Bass Metals Ltd

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

Disclaimer

The conclusions and recommendations expressed in this report / table represent the opinions of the Authors based upon the data available and provided to them. The opinions and recommendations provided from this information are in response to a request from the client and no liability is accepted for commercial decisions or actions resulting from them.

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ABSTRACT

Bass Metals Ltd (BSM) commenced management of the Leven River exploration licence (EL53/2004) on 8 August 2005. There has only been minimal work conducted on the licence for this final reporting period.

Expenditure – Reporting period \$8,486.15

Total to date \$107,553

TABLE OF CONTENTS

	Page
1.INTRODUCTION	4
1.1 Location and Access	4
1.2 Geology Overview	6
1.2.1 The Mount Read Volcanics	6
1.2.2 The Owen Group	6
1.2.3 Tertiary Basalts	7
1.3 Exploration Rationale	7
2. REVIEW OF PREVIOUS WORK – Prior to current tenement	9
2.1 Historical Mining	9
2.2 Previous Exploration	9
3. DURING CURRENT TENEMENT	
3.1 2005 – 2006 (BSM)	11
3.2 2006 – 2007 (BSM)	12
3.3 2007 – 2008 (BSM)	12
3.4 2008 – 2009 (BSM)	13
4. CURRENT WORK – Exploration completed during the report period 8th Aug 2009 – 11th Mar 2010 (BSM)	13
5. ENVIRONMENT	14
6. EXPENDITURE	15
7. REFERENCES	16
LIST OF FIGURES	
Figure 1. Leven River licence (EL53/2004) location.	5
Figure 2. Regional Geology and licence boundary.	8
Figure 3. Environmental Activity Map	14
LIST OF TABLES	
Table 1. Expenditure 8 August 2009 to 11 March 2010	15

1. INTRODUCTION

This final report is a summary of the exploration activities conducted on the Leven River exploration licence, EL53/2004 (Figure 1), for the period 8 August 2009 to 11 March 2010. The tenement covers a total area of 81 km². The Leven River licence is subject to an exploration joint venture agreement between Bass Metals Ltd (BSM) and Geoinformatics Exploration Ltd. BSM has managed the exploration of this tenement from a base at the Hellyer Mine site for the past 4 ½ years.

The licence is located in western Tasmania and is dominated geologically by the Cambrian Mt Read Volcanics (MRV), Cambro-Ordovician Owen Group sediments and Tertiary basalts.

The MRV belt is host to a number of large volcanic-hosted massive sulphide (VHMS) deposits in Tasmania, including the Hellyer (Pb-Zn-Ag-Au) and Que River (Pb-Zn) deposits. Exploration at Leven River will target Cambrian VHMS deposits.

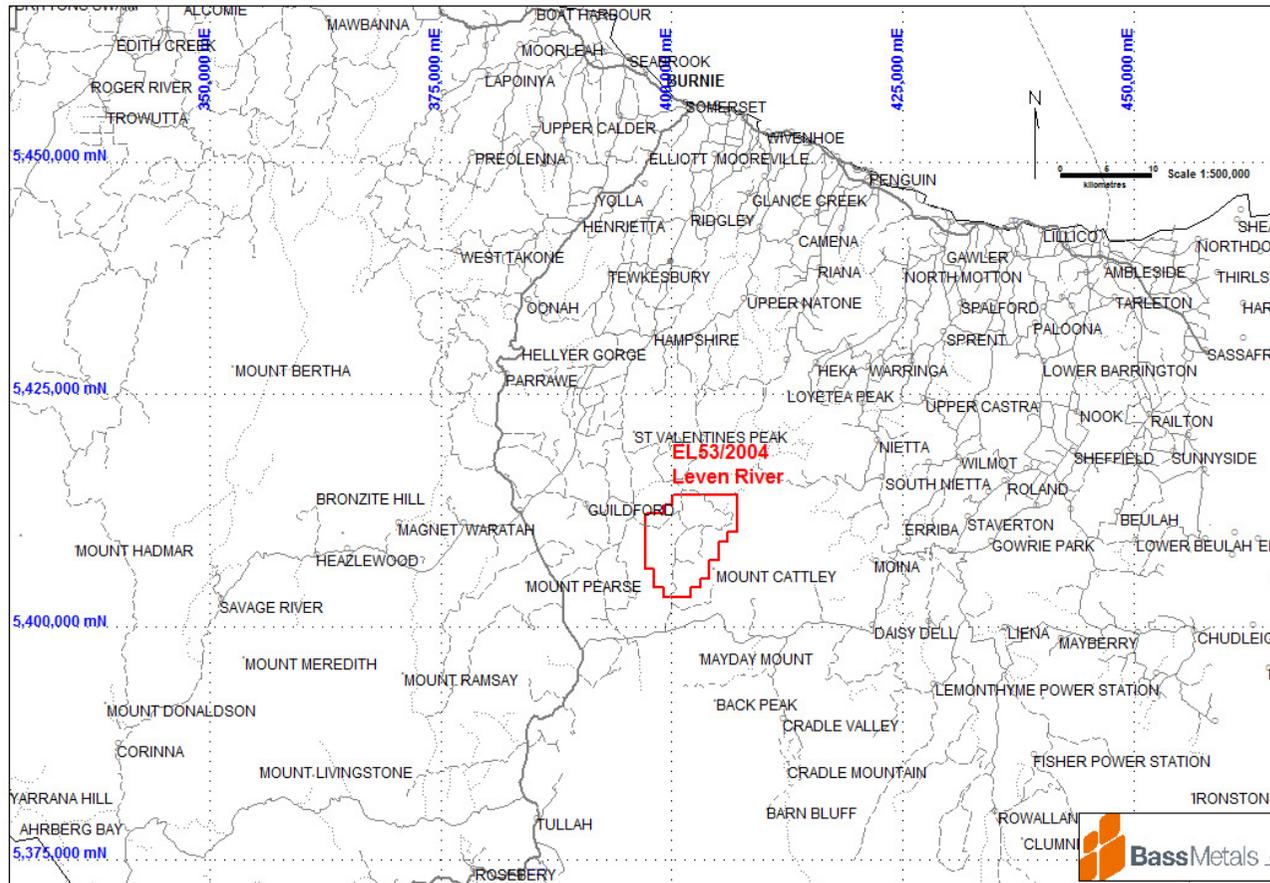
1.1 Location and Access

The Leven River licence covers a total area of 81 km² and lies approximately 10km northeast of the Hellyer Mine Site in western Tasmania (Figure 1). The licence is shown on the Hellyer & Sophia 1:100,000 scale LTIS map sheets.

The licence overlies open accessible farmland with some state forest reserve and can be easily accessed via a network of secondary roads running off the Cradle Mountain Link Road.

Topographically the licence is generally flat along the western side with hill slopes along the eastern edge of the tenement. Mt Cattley is located 500m east of the licence.

Figure 1. Leven River Exploration Licence (EL53/2004) is located in north-west Tasmania.



1.2 Geology Overview

Geologically the licence contains the MRV belt, sediments of the Cambro-Ordovician Owen Group and Tertiary basalts. Tertiary basalts cover approximately 70% of the Leven River licence. Refer to the Regional Geology Map in Figure 2.

1.2.1 The Mount Read Volcanics

The MRV are a belt of volcanic, volcanoclastic and sedimentary rocks of Mid-Cambrian age. The belt hosts Tasmania's world-class polymetallic (VHMS) deposits (eg. Rosebery, Hellyer & Que River). The Leven River licence occurs along strike to the northeast from the Mt Charter, Que River and Hellyer deposits and is interpreted as containing the northern continuation of the Que-Hellyer stratigraphy. Units of the younger Tyndall Group of the MRV are also mapped on the licence.

Central Volcanic Complex

The Central Volcanic Complex is dominated by proximal volcanic rocks (rhyolite and dacite flows, domes and cryptodomes and massive pumice breccias) and andesite and rare basalt (lavas, hyaloclastites and intrusive rocks) deposited in a marine environment (Seymour et al., 2006).

Western Volcano-Sedimentary Sequence

This unit is coeval with the Central Volcanic Complex of the MRV though older than the Tyndall Group. It is described as including beds of lithicwacke turbidite, mudstone (commonly rich in shards), siltstone and shale. It also contains subordinate intrusive and volcanic rocks, which are commonly andesitic (Seymour *et.al.*, 2006).

Tyndall Group

The Tyndall Group is a unit of quartz-bearing volcanoclastic sandstone and conglomerate. It also contains minor volcanic, intrusive and ignimbritic rocks of mixed felsic and andesitic provenance (Seymour *et.al.*, 2006).

1.2.2 The Owen Group

The Owen Group is Cambrian to Ordovician in age and sits unconformably on the MRV. The unit typically includes large volumes of coarse siliclastic conglomerate composed dominantly of metaquartzite clasts derived from the Tyennan Metamorphics. It also includes turbidite and shallow marine sandstone units (Seymour *et.al.*, 2006).

1.2.3 Tertiary Basalts

Radiometric dates from basalts across Tasmania indicate an age range of between 16.4Ma and 64.5Ma. These basalts cover approximately 70% of the central and western licence area making exploration of the underlying Cambrian Mt Read Volcanics difficult. The thickness of these basalt units potentially vary significantly but are interpreted to be generally less than 100m thick.

1.3 Exploration Rationale

The tenement overlies the interpreted northern continuation of the Que River–Hellyer stratigraphy. A fault zone associated with the well defined Hellyer-Que River-Mt Charter trend passes through the Leven River licence. Several northwest trending faults also cross-cut the Mt Read Volcanics on the licence.

Target generation by Geoinformatics incorporating recent MRT airborne geophysical data has highlighted VHMS style targets within the licence that have not been adequately tested.

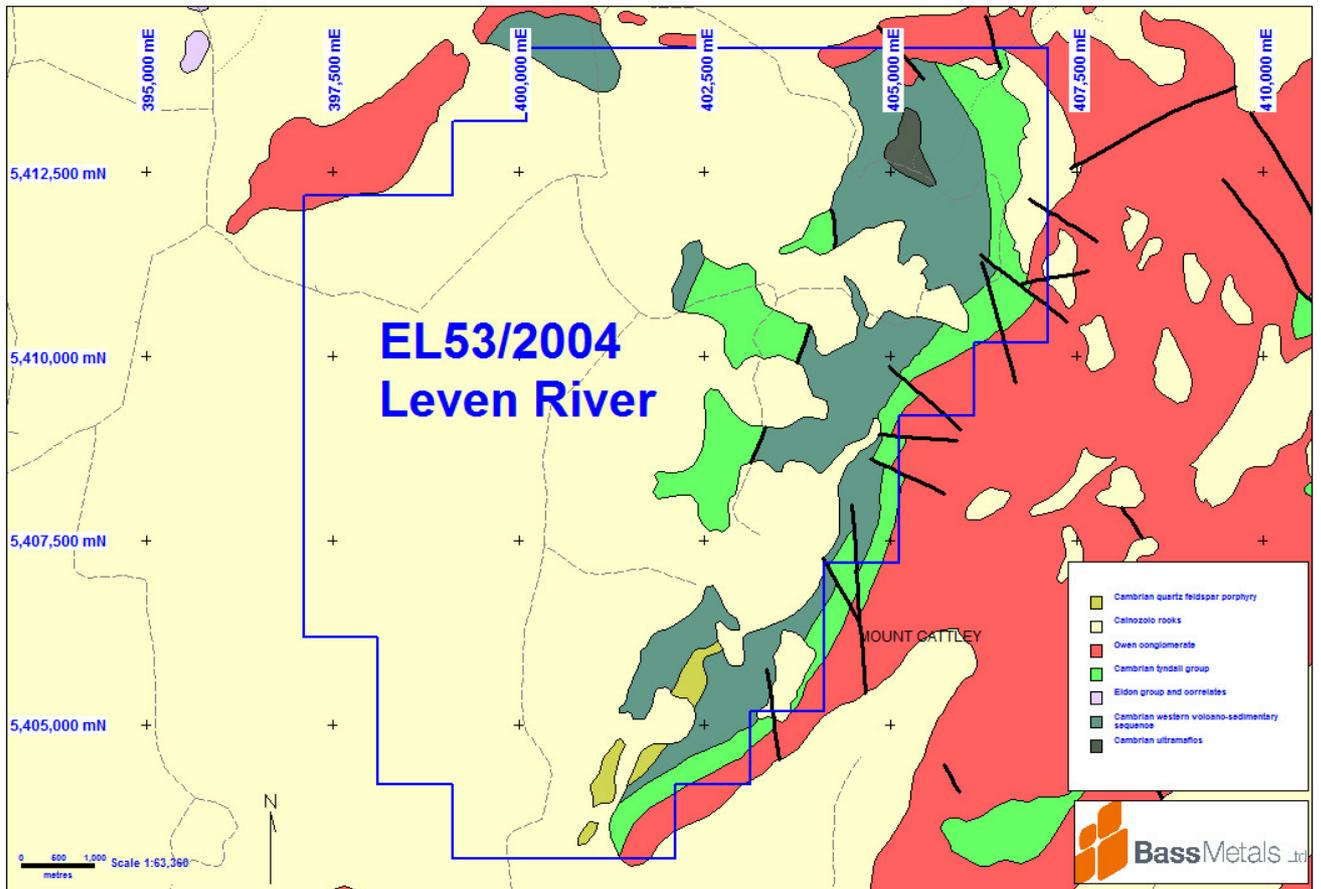


Figure 2. Regional Geology showing Licence Area boundaries

2. REVIEW OF PREVIOUS WORK – Prior to current tenement;

2.1 Historical Mining

No mining is recorded within EL53/2004 Leven River but the area does contain 6 known minor mineral occurrences which include the Two Hummocks (Pb), The Hummocks (Ba) and Leven River Bridge (Au) occurrences.

The Hellyer (16.5Mt @ 13.9% Zn, 7.2% Pb, 0.38% Cu, 169g/t Ag & 2.55g/t Au), Que River (3.3Mt @ 13.3% Zn, 7.4% Pb, 0.7% Cu, 195g/t Ag & 3.3g/t Au) and Mt Charter (6.1Mt @ 1.2g/t Au & 36g/t Ag) mineral deposits occur 8km, 12km and 15km to the southwest of the Leven River licence respectively. The Hellyer and Que River deposits were mined during the period 1981 to 2000. The Mt Charter deposit has not been mined.

2.2 Previous Exploration

Modern exploration over the Leven River licence commenced in the late 1970's although the most comprehensive exploration programmes were completed during the period 1983 through to 1990. The Final Report on the Mt Cattley licence by Aberfoyle Resources Ltd (Hicks, 1996) provides a good summary of historic exploration within the tenement area.

A summarised version of the exploration history on the licence is given below:

Date: 1978

Company: Geopeko Limited

Exploration Philosophy: Targeting VHMS deposits.

Work Completed: Licence covers part of current Leven River licence but all work concentrated to the west around the Mariner 1-7 prospects.

Results and Conclusions: No data from current Leven River licence area.

Report: Van Den Bogaart, R. & Buckland, G.L., 1978

Date: 1987- 1989

Company: Billiton Australia & Shell Metals

Exploration Philosophy: Targeting base metal deposits.

Work Completed: Auger soil sampling, costeaning & diamond drilling (CRD86-1 & CRD88-1).

Results and Conclusions: Soil anomalies defined and some anomalies from costeaning. Lead isotope studies conducted by CSIRO indicate Cambrian age. Downhole EM of CRD88-1 has identified an off hole conductor.

Report: Randell, J.P., 1988. Randell, J.P., 1989.

Date: 1989 - 1990

Company: Billiton Australia & CRA Exploration Pty Ltd

Exploration Philosophy: Targeting base metal deposits.

Work Completed: TEM surveying, auger soil sampling.

Results and Conclusions: No significant conductors identified. Scattered base metal anomalies defined.

Report: Randell, J.P. & Hungerford, N., 1989. Randell, J.P. & Hungerford, N., 1990.

Date: 1990 - 1991

Company: Outokumpu Exploration Australia Pty Ltd

Exploration Philosophy: Targeting VHMS deposits.

Work Completed: Sampling MRT stratigraphic drill hole MXRD1, downhole TEM survey of MXRD1, sampling and assay of drill holes MCDD4 & MCDD5, diamond drilling of MCDD6.

Results and Conclusions: Assays for MCDD5 returned a best result of 1m @ 0.2% Cu, 0.25% Pb, 2.8% Zn, 11g/t Ag and 0.03g/t Au in pyritic sediment from 196.6m. Drill hole MCDD6 passed through 327m of cover including basalt and lignitic sediments prior to intersecting interpreted Cambrian volcanics. Geochemical evaluation of analyses from MXRD1 concluded that the sequence at Mt Cattle is comparable to the sequence at Hellyer-Que River.

Report: Herrmann, W., 1990. McKay, G., 1991.

Date: 1994 - 1996

Company: Aberfoyle Resources Ltd

Exploration Philosophy: Targeting Hellyer-Que River style VHMS deposits

Work Completed: Surface EM survey to cover the western limb of the Black Marsh Syncline, 600 line km aeromagnetic survey, soil geochemistry, wholerock geochemistry, TMI soil geochemistry & diamond drilling.

Results and Conclusions: A rock chip sample of altered siltstone with nodular pyrite from near the Leven River Bridge assayed 0.2ppm Au and 488ppm Pb. EM anomalies identified. Soil geochemistry failed to identify anomalism but the prospective Cambrian stratigraphy in the area is overlain by Tertiary basalt cover.

Report: Richardson, S., 1995a. Richardson, S., 1995. McNeill, A.W., 1996. Hicks, D.J., 1996.

Date: 1999

Company: Haslam, C.O.

Exploration Philosophy: Targeting Hellyer-Que River style VHMS deposits beneath basalt cover.

Work Completed: Literature reviews and MMI sampling over a large area (432 samples collected).

Results and Conclusions: Assay results not available.

Report: Mineral Strategies, 1999a. Mineral Strategies, 1999.

3. DURING CURRENT TENEMENT;

3.1 2005 – 2006 (BSM)

This section reports on exploration conducted between 8 August 2005 and the 7 August 2006 by BSM and Geoinformatics. Initial work undertaken consisted of collating previous exploration information in the area as well as acquiring datasets that may be of assistance in targeting VHMS and intrusion-related mineral deposits. The MRT topographic, geophysical and 1:100,000 scale digital geological map series were used as base maps for presenting other historical company datasets. Previous exploration company reports in PDF format were downloaded from the Mineral Resources Tasmania website.

TERRA Satellite (ASTER Data)

BSM purchased ASTER data over the northwest corner of Tasmania. It was decided that the data would be used in a more regional sense than had originally been anticipated.

ASTER is an acronym for 'Advanced Spaceborne Thermal Emission and Reflection Radiometer' and it is an instrument that flies on the Terra Satellite. It collects a similar radiation spectrum to the HyMap instrument but at a lower resolution (4x4m pixels versus 30x30m pixels). BSM had this ASTER data forwarded to Bob Agars at Australian Geological & Remote Sensing Services. . A report describing the interpretation methodology utilized was included as appendix 1 in the report for the period (8/8/05-7/8/06).

BSM realised that because of the lower resolution of the ASTER data and the issue of vegetation shielding radiation reflected from the ground surface that the data would be more useful for targeting 'active zones' rather than providing the bulls-eye targets that had originally been hoped for from the HyMap data.

Areas of the Leven River tenement (EL53/2004) that are considered to have anomalous alteration types have been marked using a green ellipse outlining their extent.

Three areas of alteration are evident on ASTER images of the Leven River licence. Area 1 covers a 4km x 2km region on the western side of the tenement consisting of propylitic (chlorite), iron oxide and carbonate alteration. Area 2 is in the northern part of the tenement and covers a 2km x 1km region marked by silica, iron oxide and carbonate alteration. Area 3 occurs along the eastern side of the tenement and is marked by propylitic (chlorite) and silica alteration covering a 3km x 1km region.

Geoinformatics Geological Modelling & Targeting

BSM utilised Joint Venture partners, Geoinformatics to compile a 3-dimensional spatial database (GIS).

The Geoinformatics process involves the efficient capture of historical data in proprietary Geoinformatics database and software systems (eg IFS & FracSIS). Proprietary software and methods are then used to generate 3-dimensional geological models and targets (Monte Carlo Ranking). The Leven River work is part of a larger 'Intervention

Project' called the MRVIP (Mount Read Volcanics Intervention Project - Stage 1b). The Stage –1b Project focuses on all of BSM 13 regional licences.

The Stage 1b Project attempts to incorporate Geoinformatics understanding of the three dimensional controls on world class VHMS mineralisation to rapidly provide BSM with high-quality targets in the Leven River licence for rapid drill testing and other areas for follow-up field work including soil type geochemistry. Models were also developed for the targeting of intrusive related tin systems (e.g. Renison and Mt Bischoff) and intrusive related nickel skarn systems (e.g. Avebury). Targets were identified and ranked according to probabilistic Monte Carlo analysis of best-available 2D and 3D geoscientific data and allowed an assessment of exploration risk and uncertainty.

Much of the data for the project was obtained from open file reports. A data audit of 1,300 reports was completed by Dan Core, Graeme Cameron, Neville Panizza and Helen Ly. Work on the Stage 1b Project commenced in early February 2006 and was largely complete by July 2006. A target workshop with alliance personnel was held at Hellyer in July 2006 and final targets were delivered in August 2006. A summary Geoinformatics report was included in the report for the period (8/8/05-7/8/06)

At Leven River, Geoinformatics targeting has generated four Rosebery-Hellyer VHMS style targets on the licence.

3.2 2006 – 2007 (BSM)

Program preparation for Geological Mapping & Rock Chip Sampling

Preparation has been underway to pursue approval and execute geological mapping and rock chip sampling of Geoinformatics generated target areas to confirm that the stratigraphy is comparable to the interpreted Hellyer and Que River stratigraphic positions. Untested EM anomalies will also be field checked.

Data gained by mapping and rock chip sampling of the VHMS targets will be assessed prior to alternative follow-up being proposed.

3.3 2007 – 2008 (BSM)

A new team member was assigned to this tenement and has commenced a literature review and familiarisation activities including 2 field excursions assessing access options for future exploration activities. It has been noted that forestry activities have disturbed the majority of the project area and will give way to easy access for exploration activity in the future.

A VTEM survey was proposed for the northern half of the licence but due to the existence of aeromagnetic data this was rejected.

3.4 2008 – 2009 (BSM)

A factual map was being compiled for the basis of a revised interpretation of the geology on both Grasree Ridge and Leven River tenements. Several field trips were carried out. Sinosteel drilled two 500m – 600m holes adjacent to the Leven River tenement. This core was processed at Bass Metals core shed, the geologists from Sinosteel were

very receptive and much information was gained about the stratigraphy of the area. This information will be useful in planning further exploration programs on both the Grass Tree Ridge and Leven River tenements

4. CURRENT WORK – Exploration completed during the final report period 8th Aug 2009 – 11th Mar 2010 – BSM

Factual Map

Last reporting period a factual map was being compiled for the basis of a revised interpretation of the geology on both Grasstree Ridge and Leven River tenements; unfortunately the staff member producing this is no longer with BSM and this map cannot be found.

Ground EM

The ground EM survey proposed during the last reporting period was evaluated and it was decided that its association with Tertiary Basalt, and the fact that this tenement is in the wrong stratigraphic position for a VMS deposit down weighed the need for a survey.

The two anomalies that were to be tested were found to be included in the numerous shallow EM anomalies caused by current channelling beneath Tertiary Basalt in the area.

This tenement contains the northern extensions of Hellyer at considerable depth. The Wilmot, Leven River, Grasstree Ridge and Bonds Range tenements were interpreted together in a large area that included the Hellyer Corridor as part of the “Mt Read Volcanics Intervention Project **Stage 1b**”. It was recognised in this project that the location of the host horizon was unknown in these tenements but it would be at considerable depth. The study concluded that “Targets in this area should thus be taken as more general areas of interest that will require considerable follow-up work to reach a drill ready status”.

The only way forward here is drilling of very deep, expensive stratigraphic holes, as a platform to generate mineralised targets with a low probability of success.

The depth to the base of the Hellyer basalt is > 800m, and it is unknown whether the host horizon (the mixed sequence) would occur. The very high exploration cost and the considerable stratigraphic uncertainty makes this an extremely difficult target with a low probability of success and it is therefore recommended that this tenement be relinquished.

5. ENVIRONMENT

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

The attached Environmental Activity Map (Figure 3) shows the location of the Exploration Licence relative to conservation areas. BSM is aware that the Leven River EL contains environmentally sensitive areas and all guidelines have been adhered to in relation to those detailed below.

Land Tenure

The Leven River Exploration Licence comprises:

- Private Property
- State/Multiple Use Forest
- MDC Informal Reserves

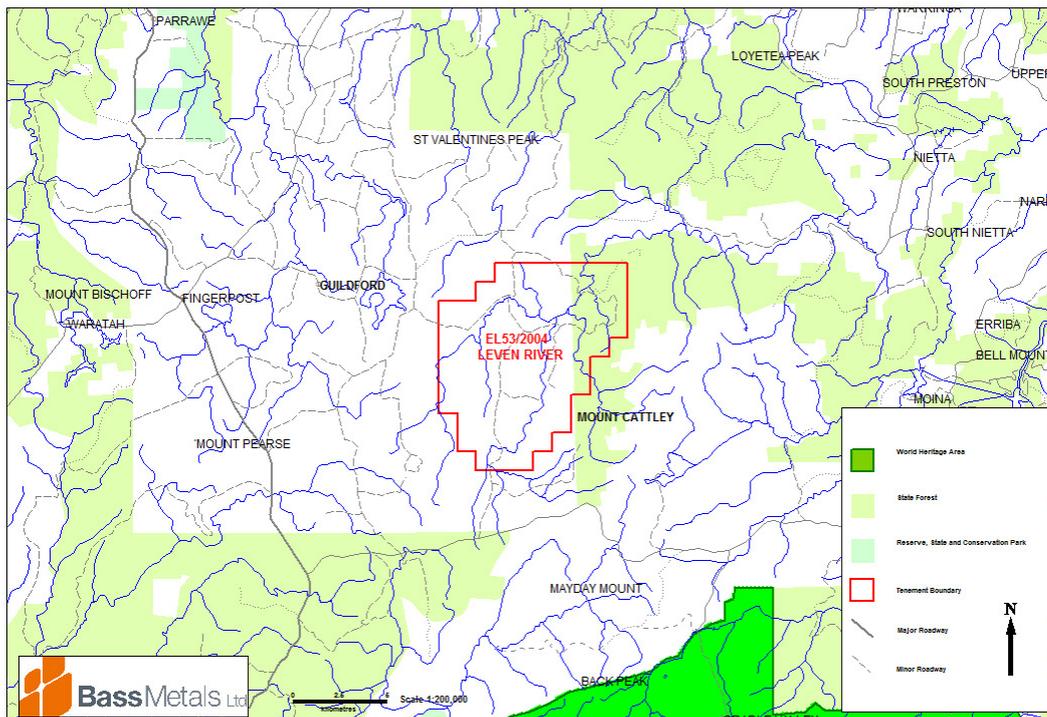


Figure 3. Environmental Activity Map

No ground disturbing exploration activities have taken place during this reporting period therefore no rehabilitation was required.

6. EXPENDITURE

August 2009 - March 2010		
Geoscientific Costs	Geology	4,720
	Geochemistry	16
	Geophysics	
	Remote Sensing	
Drilling & Gridding Costs	Gridding	
	Drilling	
	Land Access Costs	
	Rehabilitation Costs	
	Feasibility Study Costs	
	Other Costs	3,751
	Admin Costs	
	Total - eligible	\$8,487

Table 1. Expenditure 8 August 2009 to 11 March 2010
**Includes expenditure upto and including 31st January 2010*

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