

# **METALS X LIMITED**

**MOUNT RAMSAY  
EL72/2007  
ANNUAL EXPLORATION REPORT 2011  
FOR THE PERIOD 4 APRIL 2011 TO 4 APRIL 2012**

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## 1 EXECUTIVE SUMMARY

This Annual Report summarises the results of exploration work carried out by Bluestone Mines Tasmania Pty. Ltd. on the Mount Ramsay Project (EL72/2007) during the period 4 April 2011 to 3 April 2012.

The intent of work on the Mount Ramsay Project is to discover a significant deposit of tin (and / or tungsten, base or precious metals), that will compliment the existing production profile of Bluestone's Tasmanian tin operations. The main exploration target at Mount Ramsay is carbonate replacement style tin ( $\pm$  tungsten / base metals) mineralisation, similar to that seen at the nearby Mount Bischoff and Renison Bell tin deposits.

It is envisaged that over its period of tenement ownership, that Bluestone will refine the current list of targets on the lease holding as defined by previous owners by utilising the focussed application of geophysical techniques which is currently being undertaken, as well as geochemical surveys and application of genetic models utilising experience gained at the nearby Renison Bell and Mount Bischoff deposits. It is planned to drill-test the first order targets generated as a result of the updated geophysical interpretation post re-establishing access to the tenement. Follow-up drilling will be undertaken subject to results. However, this additional drilling has not been budgeted for the coming year.

Exploration work during the current year has been impacted by the requirement of the Joint Venture to focus on near mine targets limiting the scope of exploration to the review of the geophysical data

Work in the coming year is expected to consist of completing the regional geophysical review aimed actively ranking targets within the tenement and progressing to a work program to advance the most attractive prospects in the project area.

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## 2 INTRODUCTION

### **Objective.**

Bluestone Mines Tasmania's (Pty. Ltd.) main exploration target at Mount Ramsay is carbonate replacement style tin ( $\pm$  tungsten / base metals) mineralisation, similar to that seen at the nearby Mount Bischoff and Renison Bell tin deposits.

The intent of work on the Mount Ramsay Project is to discover a significant deposit of tin (and / or tungsten, base or precious metals), that will compliment the existing production profile of Bluestone's Tasmanian tin operations. Bluestone sees the cultivation of a comprehensive pipeline of projects in various states of advancement as crucial to the long-term development and sustainability of their Tasmanian operations.

### **Tenement details, Location and Tenure.**

This Annual Report summarises the results of exploration work carried out by Bluestone on the Mount Ramsay Project (EL72/2007) during the period 4 April 2011 to 4 April 2012. The results of the previous exploration work carried out at Mount Ramsay are documented in Pietrass-Wong and Meares (2007).

The following summary detailing the location of the project and project tenure is taken from Pietrass - Wong, and Meares (2007);

The Mount Ramsay Project is centred approximately 23km north of the Renison Bell tin mine in western Tasmania. Access to the project area is from the Waratah - Savage River road, turning off approximately 7km southwest of Waratah and driving a further 1km south to Wombat Flat. From here an abandoned 4WD track extends approximately 10km from north to south through the Mount Ramsay tenement. Access along this 4WD track is limited, with permission required from National Parks and Wildlife who have placed a locked gate across the track at Wombat Flat to prevent public access. Furthermore, access is constrained to all terrain vehicles due to the roughness of the track.

The project is located on uncommitted Crown land within the Meredith Range Regional Reserve (No. 2000/241), which was declared under the Tasmanian National Parks and Reserves Management Act (2002). Regional reserves were established over Crown land set aside for multiple-purpose use, and importantly one of the primary purposes of regional reserves is the utilisation of any mineral resources they may contain.

The terrain is generally steep with myrtle as the dominant cool temperate rainforest species. The understorey is relatively open with tree ferns and native laurel predominating, horizontal scrub is common on the flatter areas immediately east of the abandoned 4WD track and is also common in creek gullies.

The tenement covers an area of twenty four square kilometres and was granted on 4 April 2008 for a period of five years until 4 April 2013. The minimum expenditure commitment during the first two years is \$772,000. Bluestone Mines Tasmania Joint Venture is currently the sole owner and operator of the tenement.

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## Exploration Rationale

Bluestone's primary exploration target at Mount Ramsay is carbonate-replacement tin (+ tungsten / base metals) mineralisation, similar to that seen at the nearby Mount Bischoff and Renison Bell tin deposits. The Mount Ramsay district is seen as highly prospective for the delivery of a greenfields deposit which would eventually add to Bluestone's Tasmanian tin operations production profile due primarily to the projects similar geological setting to Renison, and the known occurrence of economic tin mineralisation related to the Meredith Granite at Mount Bischoff.

The following regional geology summary is taken from MacKay (2006);

The Mount Ramsay region has been mapped by Brown (1986) and the most detailed published geological map is the 1:25,000 "Regional Geology of the Dundas – Mount Lindsay – Mount Ramsay Area" which accompanies Brown's report.

The project lies within the Dundas Element (formerly the Dundas Trough), comprising Proterozoic- to Cambrian-aged sequences of western Tasmania, located east of the Arthur Lineament.

At Mount Ramsay, two adjoining sequences lie to the east of the Devonian Meredith Granite. The western of these sequences, which is in contact with the Meredith Granite throughout the tenement, is the Cambrian Crimson Creek Formation which regionally consists of volcanoclastic siltstone and mudstone, minor carbonate lenses, and reportedly comprised of up to 25% basaltic lava flows in the Mount Ramsay area. The eastern sequence comprises locally isoclinally folded sedimentary members of the Proterozoic Oonah Formation, regionally consisting of quartz sandstone, siltstone and mudstone. Thinly bedded calcareous siltstone is reported to dominate in the Mount Ramsay area. The contact between the Crimson Creek Formation and the Oonah Formation sequences at Mount Ramsay has been mapped by Brown as a fault.

The Meredith Granite is considered to be the source of the tin deposits around its northern margin (ie. Mount Bischoff and Cleveland), and the presence of the Mount Ramsay skarn occurrence at the granite's eastern contact within the tenement, is confirmation of a granite-related mineralising system at Mount Ramsay.

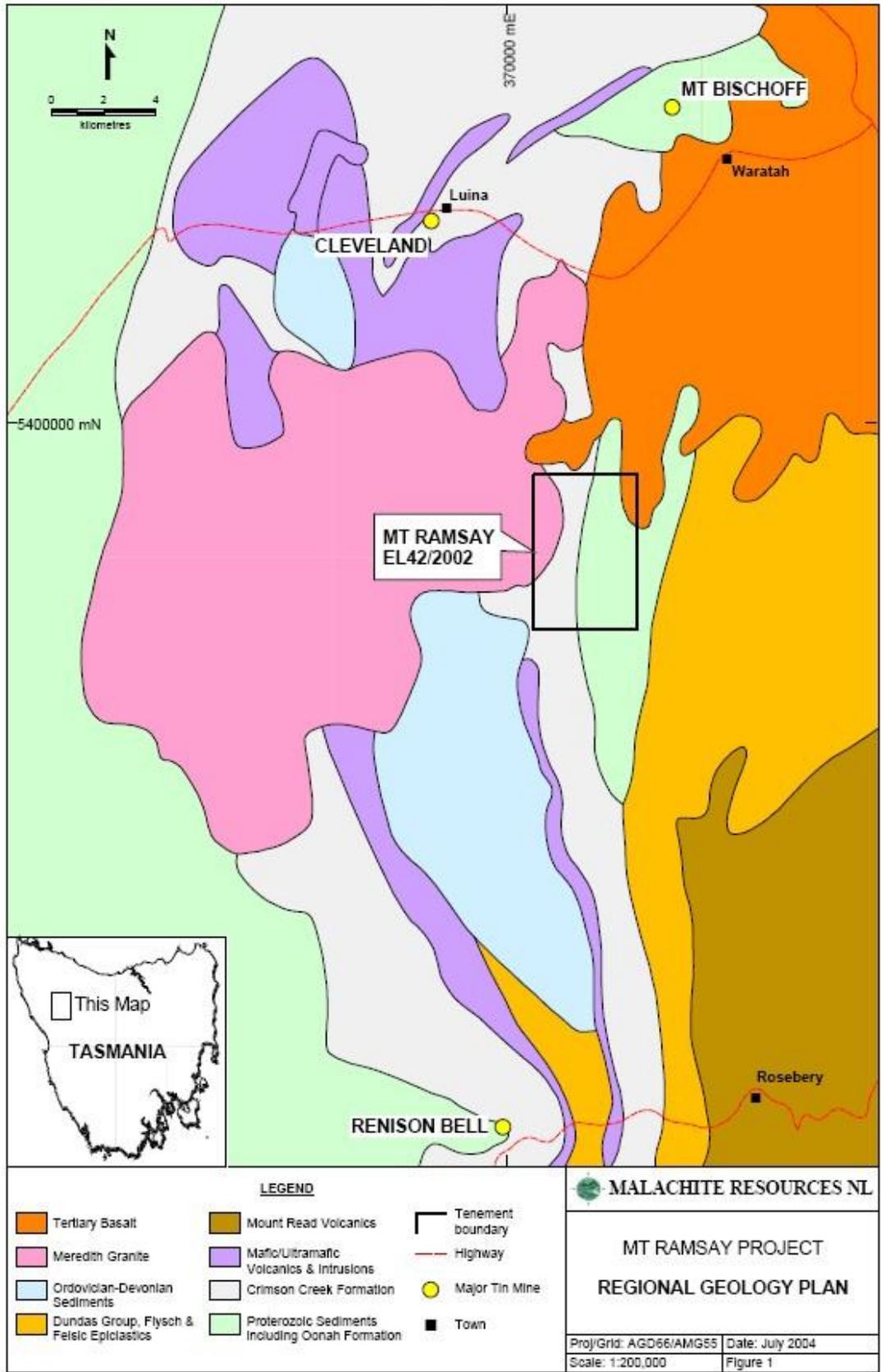


Figure 2.1 Regional geology plan courtesy of Malachite Resources N.L.

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The most advanced exploration targets on the tenement are two linear groups of electromagnetic anomalies (with co-incident strong magnetic anomalies) in geological settings analogous to those of the nearby Renison Bell and Mount Bischoff carbonate replacement tin deposits. To date the northernmost group of anomalies has been tested by a single diamond hole which intersected a significant width of hydrothermal sulphidic breccia / veining, hosted within a fine-grained sedimentary sequence of the Crimson Creek Formation. This zone hosted elevated levels (although not potentially economic) of tin and copper mineralisation.

Although significant tin grades have yet to be discovered at Mount Ramsay, features observed to date indicate that a large volume of mineralised hydrothermal fluid has moved through structural corridors in the area. The latest research undertaken by the previous tenement holder has indicated that the area tested by the diamond holes is potentially too proximal to the granite (ie. the granite sourced hydrothermal fluid would be too hot to allow for significant tin deposition at this distance from the granite), and as such a suitable litho-chemical trap such as reactive calcareous strata located at a greater distance from the Meredith Granite with a coincident suitably anomalous EM response becomes the focus of exploration.

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### 3 REVIEW OF PREVIOUS EXPLORATION

A review and summary of previous exploration in the Mount Ramsay project area has been compiled by Pietrass - Wong, and Meares (2007). This includes accounts of work completed by Comstaff Pty Ltd. in the period 1963 – 1988. Also detailed is the regional airborne (helicopter) EM survey covering the Mount Ramsay tenement completed by Mineral Resources Tasmania (MRT) in 2002. This survey located the EM anomalies targeted by Malachite during their period of ownership of the tenement area, and which are currently a significant focus of the Bluestone review of the area.

In summary significant previous exploration in the area has consisted of;

- No significant work was prior to the 1980's, with only low-level investigation of the skarn system undertaken.
- Drilling was conducted in the early 1980's intersecting anomalous Sn, W, Au, Cu and Bi within the Mount Ramsay skarn.
- The regional airborne survey conducted by MRT in 2002 covered the current tenement area.
- In 2004 Malachite conducted an initial helicopter-supported reconnaissance program to evaluate the potential of the northern airborne EM conductors identified by the MRT survey.
- Ground EM was subsequently conducted across the inferred position of the EM conductors. The conductors were successfully located.
- Follow-up geochemical sampling of the northern EM target area.
- Drilling of a single diamond hole (MRDD01) to a total depth of 408m which intersected a zone of sulphidic brecciation and veining, bearing anomalous Sn and Cu values.

No significant exploration work has been undertaken during the life of the current tenement.

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#### **4 EXPLORATION DURING THE REPORTING PERIOD**

- Bluestone's exploration activities during the reporting period were limited to progressing the geophysical review (recommendations currently outstanding), with acquisition of further data placed on hold pending the findings of the review. However, significant exploration funds were committed on the company's granted mining leases.

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## **5 DISCUSSION OF RESULTS**

No results of significance have been obtained during the reporting period.

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## 6 CONCLUSIONS

Based on information obtained by previous owner and research conducted to date, Bluestone believes that the Mount Ramsay project has the potential to host an as yet undiscovered significant, Sn-bearing, replacement-type deposit.

Initial indications are that focussing exploration on identifying potential trap sites (ie. calcareous sedimentary packages) at sufficient distances from the Meredith Granite, which play host to sufficiently anomalous EM responses should be the immediate exploration focus in the area. To this end it is intended that Bluestone will;

- Continue evaluation of the tenement prospectivity utilising Bluestone's comparative ranking scheme to allow ranking of the Mount Ramsay project in relation to Bluestone's other Tasmanian exploration targets.
- Completion of the geophysical review process to identify anomalous EM (+ magnetic responses) as suitably distant site from the Meredith granite.
- Evaluation of alternate means of remote acquisition of topographic data to assist in modelling and planning activities.
- Undertake field reconnaissance to establish whether evidence of reactive horizons can be indentified in the area of any potentially anomalous EM responses. Coincident geochemical sampling to increase confidence in the target value would also occur at this point.
- Drill testing of potential targets generated from the above activities.
- Evaluate the potential of the area to host greisen style mineralisation at the granite margin.

It is anticipated that resources and weather allowing significant progress can be made on these actives over the coming year post the receipt of the findings of the geophysics review.

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## **7 ENVIRONMENT**

There has been no impact on the environment at Mount Ramsay during the reporting period as the tenement was not accessed by Bluestone.

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## 8 EXPENDITURE

Expenditure for the Mount Ramsay project during the period 4 April 2011 to 3 April 2012 totals \$675.00.

Geoscientific costs	Geology	\$	675.00
	Geochemistry		
	Geophysics	\$	-
	Remote Sensing		
Drilling And Gridding Costs	Gridding		
	Drilling	\$	-
Land access			
Rehabilitation			
Feasibility Study			
Other Costs		\$	-
Administrative			
<b>Total</b>		<b>\$</b>	<b>675.00</b>

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## 9 REFERENCES

Brown, A. V. 1986 *Geology of the Dundas-Mt Lindsay-Mt Youngbuck Region*. Tasmanian Geological Survey, Bulletin 62, 221 pp.

McKay, B. 2006 *Third Annual Exploration Report for the Period 22 August 2005 to 22 August 2006*. Malachite Resources N.L.

Pietrass - Wong, B. and Meares, R. M. D. 2007 *Mount Ramsay Project – EL42/2202 Final Exploration Report*. Malachite Resources N.L.