

**Maiden Meadows Pastoral Pty Ltd  
E.L. 19/99 Miners Ridge  
4<sup>th</sup> Annual and Final Report  
21<sup>st</sup>-January 2003 – 21<sup>st</sup> January 2004**

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## **ABSTRACT**

Maiden Meadows Pastoral Pty Ltd has held tenure to E.L. 19/1999 – Miners Ridge since January 21<sup>st</sup> 1999.

During the initial two year period, the company conducted limited geochemical soil sampling in the vicinity of the Harris Reward prospect. The company also completed two diamond drill holes in this area with unfavourable results.

In the final two years of the lease, no fieldwork has been undertaken whilst joint venture partners have been sought, predominantly in the United States.

Maiden Meadows were unsuccessful in obtaining joint venture funding to finance further exploration and a decision has been made to commence a full relinquishment of the lease.

## **TABLE OF CONTENTS**

- 1. Introduction**
- 2. Review of previous work**
- 3. Exploration during the report period**
- 4. Discussion of results**
- 5. Conclusions**
- 6. Environment**
- 7. Expenditure**
- 8. References**

## **1. Introduction**

This annual report is the 4<sup>th</sup> and final of E.L. 19/1999 for the calendar year to the 21<sup>st</sup> of January 2004.

E.L.19/1999 – Miners Ridge, is held by Maiden Meadows Pastoral Proprietary Limited as the sole registered owners.

The Miners Ridge property, 46sq kms in area, is located on the west coast of Tasmania near the township of Queenstown.

Mineral Resources Tasmania reporting guidelines stipulate that ‘A resume of the exploration philosophy’ be provided as part of the reporting requirements. Any coherent exploration rationale was not apparent during the initial two years of the tenure period, due to poor quality staffing.

Vanzino 2002 indicates three main genetic models of mineralisation applicable to modern exploration within the Mount Read Volcanic belt. These are discussed below:

### **i. Prince Lyell style Cu-Au**

This deposit style is characterised by disseminated and veinlet chalcopyrite mineralisation within hornblende phyric andesites. A distinctive magnetic signature is also a discriminatory feature. The Garfield and Miners Ridge prospects outlined by RGC are examples of this style of exploration target. Current geological thinking is that this genetic style is related to the intrusion of Cambrian granites that have intruded the Eastern Quartz Phyric sequence and the Central Volcanic Complex but predate the Tyndall Group (Large et al 1994).

### **ii. Volcanic Hosted Massive Sulphide Pb-Zn**

These deposits are characterised by small, Zn rich massive sulphide lenses with significant Au credits (2-4g/t). The Rosebery, Hercules, Que River and Hellyer deposits represent major sea floor exhalative horizons. Within ground held by Maiden Meadows, (Dower 1991) has interpreted the Lynch Creek Basalt member to be a geochemical correlate of the Que- Hellyer Volcanics.

These andesitic-basaltic sequences are stratigraphically located close to the top of the Central Volcanic Complex and near the base of the overlying Tyndall Group. This favourable stratigraphy, which hosts the Que River, Hellyer and upper Mt Lyell ore bodies, is found within EL 19/99.

### **iii. Henty Style Au**

This style of deposit is significant as it is the only example of economic mineralisation within the Mount Read Volcanics that is hosted by the Tyndall Group. Within EL 19/99, this group is comprised of volcanoclastic sandstones, breccias and conglomerates with minor felsic lavas, which overlie the Central Volcanic Complex and the Basalt-Andesite units. The highly prospective member - the Lynchford Tuff - outcrops within EL 19/99.

## **2. Review of previous work**

A summary of modern exploration specific to the areal extent of E.L. 19/99 is found in the 3<sup>rd</sup> annual report – Appendix 1, pages 8-10.

The first years programme focussed on the Harris Reward prospect with reconnaissance soil sampling traverses along existing roads and tracks. During the 2<sup>nd</sup> year of tenure, two diamond drill holes were completed near the Harris Reward prospect with neither hole intersecting mineralisation of economic interest. During the 3<sup>rd</sup> year, Maiden Meadows actively sought funding from joint venture partners.

As part of the ‘Due Diligence’ process for a potential U.S. based partner, Deloitte, Touche, Tohmatsu were briefed to provide an evaluation of the property as a requirement of these negotiations.

Luke Vanzino, principal of the consultancy Coast and Mountain Exploration was engaged to provide a geological review of the licence and recommendations for further exploration. This report, a literature review of data held in the Mineral Resources Tasmania library, comprised of both government and industry reports dating from the 19<sup>th</sup> century up to Maiden Meadows recent work undertaken in 2001. This report is included as Appendix 1 to the 3<sup>rd</sup> annual report.

No field work was undertaken during the 3<sup>rd</sup> annual reporting period.

## **3. Exploration during the report period**

No fieldwork was undertaken during the 4<sup>th</sup> period of tenure.

Maiden Meadows were unsuccessful in obtaining joint venture funding to finance further exploration. With a 4<sup>th</sup> year expenditure commitment of \$ 92000, the decision was made to commence a full relinquishment of the E.L.

## **4. Discussion of results**

During the initial 2 years of the lease tenure, Maiden Meadow was done a disservice by the undisciplined and unfocussed work undertaken by the previous geological consultants. M.E Gardner, the author of the 2<sup>nd</sup> annual report notes:

- “Geary (2000) describes some limited reconnaissance geological mapping and geochemical soil sampling in the vicinity of the Harris Reward working. Unfortunately no record of the mapping can be found or of the individual geochemical sample sites”
- “Two diamond drill holes were completed at sites selected by Geary, but the drilling was unsupervised and the core not logged until the present author was requested to take over management of the programme”
- “The two drill holes were disappointing....because target selection was not the result of a properly structured exploration programme involving a mix of geological, geochemical and geophysical surveys on the ground.”

The above indicates the shambolic nature of the exploration effort to date. Any attempt to coherently discuss the results obtained would be futile. The MRT 'Guidelines for Reporting' January 1998 requires that transparencies of plans and digital data sets be lodged with the final report. This information is impossible to provide as the records do not exist due to the negligent, irresponsible and unprofessional services provided by the initial contracting geologists.

## 5. Conclusions

The following text, which is paraphrased from the 3<sup>rd</sup> Annual Report - Appendix 1 pages 14-16, forms the basis of any future exploration programme.

The area contained by EL 19/99 has been subject to exploration on a continuous basis, since the discovery of gold in Lynch's Creek in 1881.

Since 1986, major mining houses utilising the most current techniques available have undertaken systematic and comprehensive exploration programmes. In this time only seven drill holes have been attempted over the entire lease area.

The author acknowledges that this EL is a 'brownfields' project within a mature mining field, however a conclusive determination as to the prospectivity or otherwise of this lease remains. Further work that could be undertaken includes:-

- The Henty style target that was tested by RGC in DDH/LF 04 delineated 27metres of strong alteration and remains unresolved. RGC concluded that the 600m-strike length between LF 01 (drilled by Aberfoyle) and LF 03&04 precluded any substantial ore deposit being present. This was on the basis that the Henty deposit occurs over a strike length of 1000m, and that DHEM in LF 01 did not detect an off hole conductive response that could be attributed to massive sulphides. The RGC drilling programme failed to utilise DHEM in holes LF 03 & 04 because REE and stable isotope studies suggested the jasper unit targeted was not exhalative in nature, yet the alteration observed remains unexplained.
- In RGC's relinquishment report, it is noted that DIGHEM anomalies defined by Aberfoyle during the 1989/90 period have yet to be investigated. Exploration at that time was impractical due to the placement of the HEC Lynchford camp for the King River power development. These anomalies (21/544 & 22/530) also exhibit strong aeromagnetic responses and are located within the Gordon Limestone. Sphalerite and galena veins were reported from excavations at anomaly 22/530. These anomalies are considered prospective for a small Irish style, Pb/Zn deposit and can be assessed quickly and cheaply.
- In 1989 a Bulk Cyanide Leach (BCL) stream sediment survey was conducted by the CRA-Aberfoyle Joint venture in the area south of the King River. Results show BCL values of 2950ppt just east of the King River power station plus values of 2300/1500/1200 in the middle reaches of Newell Creek above the Mount Jukes road. These responses are likely to be associated with old alluvial workings that were known to exist in the 1880's, including the Harris Reward mine.

- Within the Maiden Meadow's lease, a significant Au anomaly remains untested from this period. On the extreme southern perimeter of EL 19/99, hosted by Ordovician Gordon Group limestone, Sample No 482405 returned a 72-mesh value of 0.246g/t Au. Five hundred metres westward, Sample No 482452 returned a BCL value of 3350ppt Au (Noonan 1989). This drainage drains the flanks of West Jukes Peak, and is underlain by Denison Group sediments and the more prospective Central Volcanic Complex lithologies. It should be noted that substantial parts of both anomalous drainages are covered by Holocene glacial deposits, thus contamination may be a factor. None the less this anomaly warrants follow up investigation.
- As noted in Section 6.1, during the Devonian period the Taberraberan Orogeny resulted in localised wrenching, dilation and mineralised void filling. Localised auriferous quartz veins are a feature of the Eldon Group sediments that predominate in the NW portion of EL 19/99. The Mount Read Volcanics are the underlying mineralised basement; evidence exists at the Henty deposit for Devonian remobilisation and redeposition of Au, Pb and Zn (Taheri & Green 1991). Significant northwest/southeast trending faults cut through the Mount Read Volcanics and continue into the Eldon Group and these may provide structural conduits for Devonian aged fluids in splays adjacent to these faults.
- The Victorian gold deposits of Bendigo, Ballarat, Castlemaine and Maldon provide an exploration model to guide any future work programme. There are a substantial number of criteria from this model that can be applied to the Eldon Group sediments. A brief summary is adapted from Phillips and Hughes (1998).

#### **Target**

- 1-10Mt
- Few large, many small deposits.
- Grade 10-40g/t.
- Major metal is Au, minor Ag.
- Low Cu, Pb and Zn.

#### **Mining and Treatment**

- Multiple veins required for Economic size.
- Course free gold in quartz is typical and facilitates recovery.

#### **Geological Criteria**

- Greenschist facies.
- Metasedimentary (flysh) package i.e. 'slate belt'.
- Au contemporaneous with close of deformation.

#### **Geophysical Data**

- Regional aeromagnetic and radiometrics for stratigraphy and structure.
- Low sulphides in most deposits hinder EM and electrical methods.
- Ground magnetics useful where there is mineralisation and related magnetic destruction.

### **Mineralisation Features**

- Quartz veins are mostly hosted by strike faults of moderate to steep dip.
- Goldfields and individual deposits parallel regional structure.
- No spatial relationship to granites.
- Sphalente, Galena and Chalcopyrite only locally abundant, although slightly enriched in many ore shoots.

### **Genesis**

- Syn-metamorphic with Au broadly synchronous with Devonian deformation and thermal anomaly.
- Recent data acquisitioned by Mineral Resources Tasmania includes radiometrics, aeromagnetics and airborne EM in conjunction with a reassessment of the stratigraphy of the Mount Read Volcanics. This data has been collected after the major work programme undertaken by RGC and should be reviewed in this light. At the University of Tasmania, the Centre for Ore Deposit and Exploration Studies (CODES) has a vast and specific knowledge of the Mount Read Volcanic belt. Specialised analysts with over 30 years experience in the Mount Read Volcanics can be accessed at this facility. It is the authors' recommendation that the new MRT geophysical data is married with the expertise that exists at CODES to finesse any future exploration programme within EL 19/99.

## **6. Environment**

Within Maiden Meadows the corporate history and knowledge of the initial 2 years tenure is incomplete due to the changes in geological personnel.

M.E. Gardner the author of the 2<sup>nd</sup> annual report notes: "Some environmental disturbance was involved in the development of access to the drilling sites. Consultation with MRT resulted in an agreed approach to this work, but the use of a larger drill than originally planned by the drilling contractor, and a lack of supervision by the geological contractor, resulted in a greater degree of disturbance than originally agreed. The sites and access have now been rehabilitated to the satisfaction of MRT by pulling back the peat/topsoil cover and placing tea tree slash were appropriate to accelerate revegetation of the areas."

It is the author's belief that there are no outstanding issues between Maiden Meadows and MRT with regard to the issue noted above.

## **7. Expenditure**

A letter address to MRT and dated the 1<sup>st</sup> of April 2003, sought application to apply a cumulative method to meet expenditure obligations over the course of the tenure. This request received a favourable reply and the usual annualised expenditure requirement was waived.

The following table indicates expenditure over the tenure period.

<b>Date</b>	<b>MRT Requirement</b>	<b>M.Meadows Expenditure</b>
Dec 1999 – Dec 2000	\$9,250.00	\$24,800.00
Dec 2000 – Dec 2001	\$23,000.00	\$49,419.90
Dec 2001 – Dec 2002	\$46,000.00	\$9,652.39
<b>TOTAL</b>	<b>\$78,250.00</b>	<b>\$83,872.29</b>

The expenditure commitment for the year ending December 2003 is \$92000.  
Maiden Meadows expenditure in the final year of tenure amounted to \$2,229.44.

## **8. References**

Anon. First Annual Report on Exploration Activities – EL 19/99 – Miners Ridge  
Maiden Meadows Pastoral Proprietary Limited. MRT 01\_4518

Gardner,M.E. Second Annual Report on EL 19/1999-Miners Ridge  
Maiden Meadows Pastoral Proprietary Limited. MRT 02\_4636

Vanzino,L.E. Third Annual Report on Exploration Activities- EL 19/99-Miners Ridge  
Maiden Meadows Pastoral Proprietary Limited. MRT 03-4837