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**RGC** Exploration

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MINE  
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TASMANIA

Relinquishment Report  
June 1998

Tasmanian Base Metals Project  
2194 & 1795  
E.L. 3294 and 1795

EL 2/94

Queen River / Lynchford

See Folio 7216A

Vol 1 of 1

HELD BY: Renison Limited

MANAGER & OPERATOR: RGC Exploration Pty Ltd

**OPEN FILE**

AUTHOR(s):  
M Vicary

6 July, 1998

PROSPECTS: SPECIMEN CREEK, KING RIVER GOLD MINE

MAP SHEETS:  
FRANKLIN

1:25,000: OWEN, STRAHAN

1:100,000:

GEOGRAPHIC COORDS

Min East: 375000 m E  
Min North: 5328000 m N

Max East: 383000 m E  
Max North: 5338000 m N

COMMODITY(s): Cu, Au, Zn, Pb, Ag

KEY WORDS: Queen River, Miners Ridge, Lynchford, Yolande River Sequence, Tyndall Group

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98-4197

RELINQUISHMENT REPORT -  
EL'S 2/94 & 17/95 - RGC  
M VICARY

**SUMMARY**

This report concludes the exploration conducted by RGC Exploration Pty Ltd in EL 2/94 and EL 17/95 in the Queen River/Miners Ridge and Lynchford areas.

Garfield style Cu-Au mineralisation associated with distinctive bullseye aeromagnetic anomalies was targeted in the Queen River area. Two drill holes LF002 and LF005 were drilled to test the northern most magnetic anomaly associated with outcropping hornblende phytic andesites, similar to those which host the mineralisation at Garfield. Both holes intersected only weak base metal abundances associated with disseminated and veinlets of pyrrhotite in siltstone units in the Yolande River Sequence which overlies the andesite sequence. The southern most aeromagnetic anomaly was not drilled. This broad scale (possibly deep) anomaly is most probably associated with pyrrhotite rich Yolande River Sequence.

Henty style Au and base metal mineralisation was targeted at a zone of hematitic jasper and carbonate which outcrop at the base of the Tyndall group in the Lynchford area. Two drill hole (LF003 and LF004) tested this horizon to the north of the King River Mine Lease. Aberfoyle's drill hole LF001 which targeted the horizon to the south of the mine lease was considered to have adequately tested the horizon close to the Specimen Creek Fault and suggested that there was insufficient space available to host an economic mineral deposit.

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## 1. INTRODUCTION

EL 2/94 - Queen River is held by Renison Ltd and explored by RGC Exploration (RGCE), both wholly owned subsidiaries of RGC Limited. The licence was granted on June 24, 1994 as the result of a successful tender application for ETA's 322 and 346. The tenement is situated about 5 km south of Queenstown in western Tasmania, and in 1994 had an area of 21 km<sup>2</sup>.

EL 17/95 is also held by Renison Limited and explored by RGC Exploration (RGCE), both wholly owned subsidiaries of RGC Limited. The licence was granted on July 10th, 1995 as the result of a successful tender application for ETA 378. The tenement is situated about 5 km south of Queenstown in western Tasmania, and in 1995 had an area of 9 km<sup>2</sup>.

On granting of EL 17/95 the licence was amalgamated into EL 2/94 as the area is a contiguous block. EL 2/94 now has an area of 30 km<sup>2</sup> (Figure 1). Two mining lease 14M/96 and 25M/95 are excised from the exploration licence

The area was acquired for its potential to host Garfield style Cu-Au, Henty style Au and Rosebery style base metal mineralisation.

The digital data relevant to exploration at Queen River / Lynchford has been supplied to Mineral resources Tasmania in a CD supplied separately from this report. A list of the digital data is presented in Appendix 1.

## 2. TENURE

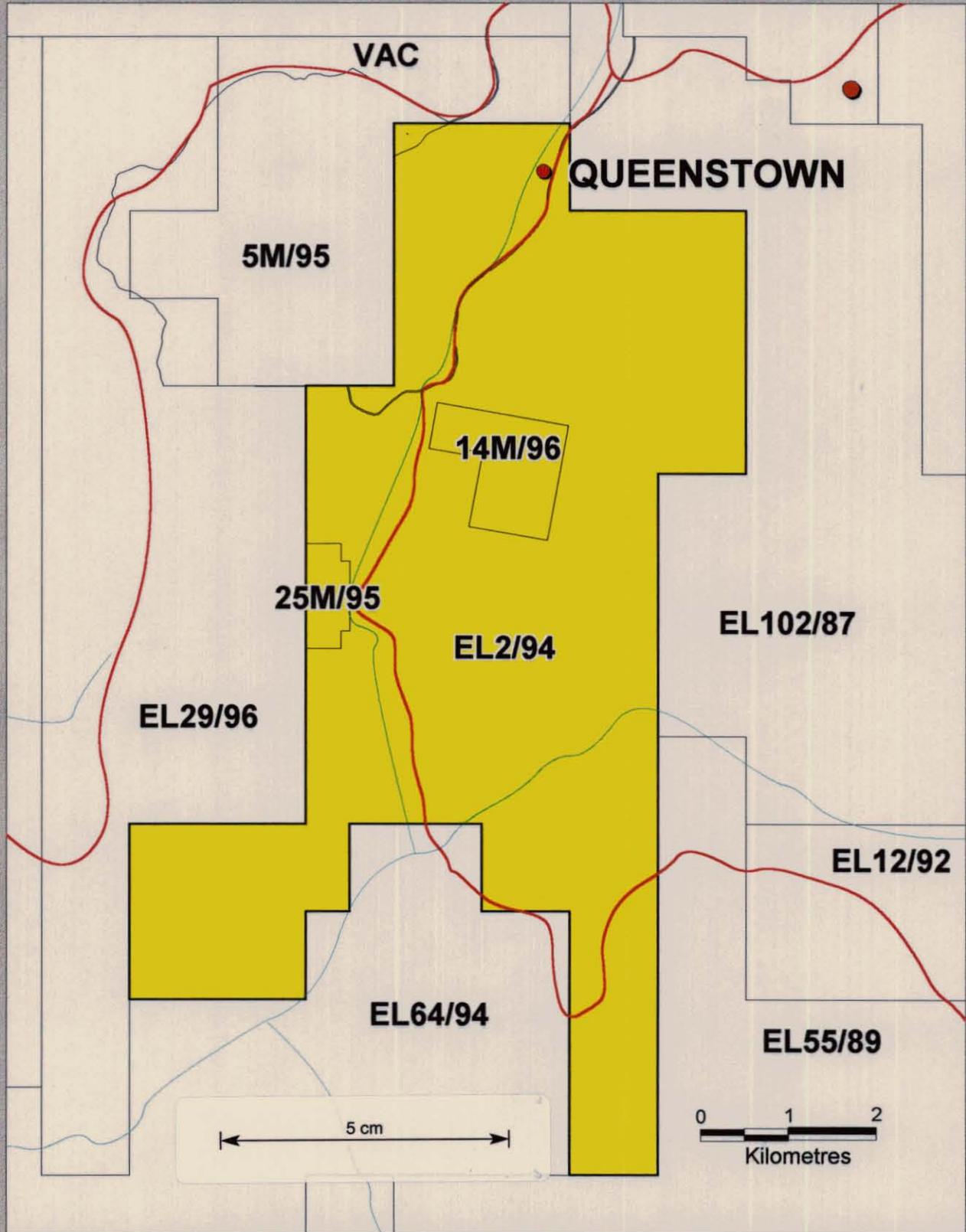
The EL comprises: Crown Land, State Forest (Multiple Use Forest Land and Deferred Forest Land), Private Property and Land Vested in the HEC. The area contains parts of the South West Tasmania; Australian Heritage Commission Act; Registered Entry.

## 3. PREVIOUS EXPLORATION

The Lynchford EL consists of a sequence of Cambrian basaltic - rhyolitic lavas, intrusions and volcanoclastics of the Mt Read Volcanic Belt. Younger sediments onlap the Cambrian sequence to the west. The Lynchford area has undergone wrenching during the Devonian Tabberabberan Orogeny, which introduced a minor volume of auriferous fluid into isolated dilational sites, and caused a concentration, in shear zones, of low volume base metals in more mafic rocks. Exploration since 1966 has focussed on these auriferous quartz veins and base metals sweats. The exploration history of EL 2/94, prior to 1994, is summarised by Vicary and Corlett, 1995.



# Figure 1. EL 2/94 Tenement Location Plan



#### 4. WORK COMPLETED BY RGC EXPLORATION 1995-1998

The exploration completed by RGC Exploration in the Queen River / Lynchford area between 1994 and 1998 is reported in the following Annual Reports:-

1994-95	Vicary and Corlett, 1995
1995-96	Denwer, 1996,
1996-97	Denwer and Gregory, 1997 and
1997-98	Stockwell, 1998.

The following section summarises RGC's exploration program. Refer to the above reports for a more detailed discussion.

##### 1994 - 1995

Access	15 line kms of grid cut in Queen River area
Geology	Literature review of previous exploration 1:2500 mapping of the Queen River grid 1:5000 geological compilation Reconnaissance mapping near old HEC village at Lynchford.
Geochemistry	15 rock chip samples analysed 570 soil samples analysed from Queen River grid
Geophysics	Helimag survey over Queen River area

##### 1995 - 1996

Geology	1:5000 geological mapping
Drilling	LF001 relogged
Geochemistry	Collation of Aberfoyle's data base 2 soil samples from Queen River grid reanalysed
Geophysics	Reprocessing of Aberfoyle's Helimag data

##### 1996 - 1997

###### **Miners Ridge area**

Access	5.3 line km of grid cut to north of Queen River grid
Geology	extended grid mapped at 1:2500 1:100 scale mapping of road cuttings
Drilling	drill hole LF002 (367m) completed
Geochemistry	96 soil samples analysed from extended grid 562 soil samples analysed from Queen River grid assayed by NAA 6 rock chip samples from extended grid analysed 111 split core samples from LF002 analysed
Geophysics	Extended grid surveyed by Ground Magnetics Computer modelling of magnetic data

**Lynchford area**

Geology

1:5000 geological mapping continued

**1997 - January 1998****Miners Ridge area**

Geology

Project review by Wally Herrmann

In fill mapping at 1:5000 scale

1:5000 geological compilation

Drilling

Drill hole LF005 (347m) completed

Geochemistry

38 split core samples from LF005 analysed

Geophysics

Additional modelling of magnetic data

**Lynchford area**

Geology

1:5000 geological mapping

1:5000 geological compilation

Drilling

LF003 (271m) and LF004 (279m) completed.

Geochemistry

LF001 relogged to confirm structural interpretation.

8 REE analyses of jasper samples

1 C-O isotope analysis

Geophysics

45 split core samples from LF003 and LF004

**January 1998 - June 1998**

No additional work completed.

## 5. RECOMMENDATIONS

Due to changes in the corporate exploration strategy the Lynchford area is recommended for relinquishment. The following discussion and recommendations are taken directly from Stockwell 1998

Drilling of the southern outcrop of jasper by Aberfoyle (LF001), and the subsequent DHEM and UTEM surveys, failed to define a target worthy of follow-up, either along the jasper-rich contact at the base of the Tyndall Group, or the Specimen Creek structure.

In light of these results, and the results of the mapping, REE and stable isotope studies carried out by RGC Exploration, the potential of the Lower Tyndall Group at Lynchford (especially in the vicinity of the King River Andesite) to host an economic VHMS-style deposit is considered low. No further work in this area is recommended.

A number of DIGHEM anomalies were defined by airborne geophysics during the 1989/90 period by Aberfoyle Resources Ltd (Noonan 1990). Further work on two of these anomalies (21/544 & 22/530) was impractical due to the location of the Lynchford HEC camp. Sphalerite and galena veins were reported from excavations in the Gordon Limestone at the site of 22/530. Both DIGHEM anomalies are contained within an area of strong aeromagnetic response ( Plan TASH 2860; Noonan 1990). A small auger sampling (or short-hole RAB or RC) programme is recommended in the area enclosed by the magnetic anomaly to test the possibility of a small Irish-type deposit being located in the Gordon Limestone at the now disused HEC camp site.

Down-Hole EM surveys for drill holes LF002-LF005 are recommended. This is especially applicable for LF004, in which significant alteration was encountered.

A possibility exists for further work mapping paleocurrent directions in the Miners Ridge area to ascertain the source region for pyrite clasts in felsic mass flow units. Textural assessment of clasts within the mass flows would assist in isolating an area of provenance. However this is a long shot, considering the lack of good outcrop at Lynchford and the ubiquitous occurrence of pyrite clasts throughout the Mt. Read Volcanics, and is not considered a priority.

When testing Garfield-type magnetic anomalies, drilling should be designed to intersect the anomaly by the most economic means possible. A cheaper alternative to the 714 metres drilled at the Miners Ridge Grid, would have been a single hole, drilled vertically into the magnetic high. The loss in geological information would be compensated for by the reduction in expense incurred to explain the (purely) magnetic target.

**6. REFERENCES**

Denwer, K., 1996. Annual Report. Tasmanian Base Metals Project. EL 2/94 - Lynchford. RGC Exploration Pty Ltd.

Denwer, K and Gregory, D., 1997. Annual Report. Tasmanian Base Metals Project. EL 2/94 - Lynchford. RGC Exploration Pty Ltd.

Stockwell, R., 1998. Annual Report May 1997 - May 1998. Tasmanian Base Metals Project. EL 2/94 - Lynchford. RGC Exploration Pty Ltd.

Vicary, M., and Corlett, S., 1995. Annual Report. Tasmanian Base Metals Project. EL 2/94 - Lynchford. RGC Exploration Pty Ltd.

**APPENDIX 1**

**LIST OF DIGITAL DATA SUPPLIED TO MINERAL  
RESOURCES TASMANIA**

**List of digital data supplied to Mineral Resources Tasmania**

- Geochemistry**      Drillholeassay.xls - Assays for drill holes LF002 - LF005  
Jasperree.xls - REE analyses of Jasper rock chips  
Lynchfordisotope.xls - Carbonate C-O isotope data  
Lynchfordallsoil.xls - All soil and rock chip assays from Miners  
Ridge and Queen river areas
- Geology**            Various MapInfo .ID, .MAP, .DAT, and .IND Files  
(Faults, Geology, Localgrids, Tenements)
- Drilling**            Collar.xls - Collar details for Lynchford drill holes  
Geology.xls - Down hole geology for Lynchford drill holes  
Survey.xls - Survey details for Lynchford drill holes
- Geophysics**        Results for Ground Magnetic surveys at Queen River  
Grid and Miners Ridge Grid. Mag Sus results for LF002 and  
LF005.