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PROGRESS REPORT

TWELVE MONTHS TO APRIL 1989

EXPLORATION LICENCE 100/87

DUNDAS

TASMANIA

**OPEN FILE**

**MICROFILMED**

AMG REFERENCE POINTS ADDED

ROGER POLTOCK GEOLOGICAL PTY LTD FOR ROGER POLTOCK

*R Poltock.*

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#### SUMMARY

The Dundas licence covers the eastern edge of the Henty Penepplain adjacent to Mt Dundas. The licence is a regional topographic low underlain by Ordovician to Devonian age sediments. Carbonates in this sequence host silver, lead and zinc mineralization at Mariposa and Bannockburn.

These palaeozoic sediments are locally overlain by Tertiary to Quaternary alluvials which locally contain anomalous levels of gold, platinoids and chromite. The heavy minerals are interpreted to have been derived from Cambrian volcanics and ultramafics in the Mt Dundas area east of the licence.

The alluvials were considered to be the primary exploration target in 100/87, however grid based mapping and Wacker drilling in the area between Farrell Rivulet and Amber Creek failed to locate the extensive deep lead reported by Blake 1931.

Recorded mineral production from the licence is from the Mariposa mine, where 1354 ton averaging 33% lead and 17oz silver were produced upto 1911. No production figures are available for the alluvials.

Exploration since the 1930's has been targeted at limestone hosted silver, lead and zinc mineralization.

The current exploration program was initiated with a literature search which defined three main styles of mineralization:

- Farrell Deep lead, gold, osmiridium and chromite.
- Palaeo placers in Devonian Crotty Quartzite, chromite.
- Limestone hosted silver, lead and zinc.

The Farrell Lead is the only target that has been assessed.

CONCLUSIONS AND RECOMMENDATIONS

Exploration has shown that alluvials associated with the Farrell Deep lead are of limited extent and are not a potential source of gold, platinoids or chromite.

It is recommended that the postulated chromite bearing fossil placers associated with the Crotty Quartzite be investigated and a review be made of the zinc potential of the limestone hosted mineralization at Mariposa and Bannockburn.

#### INTRODUCTION

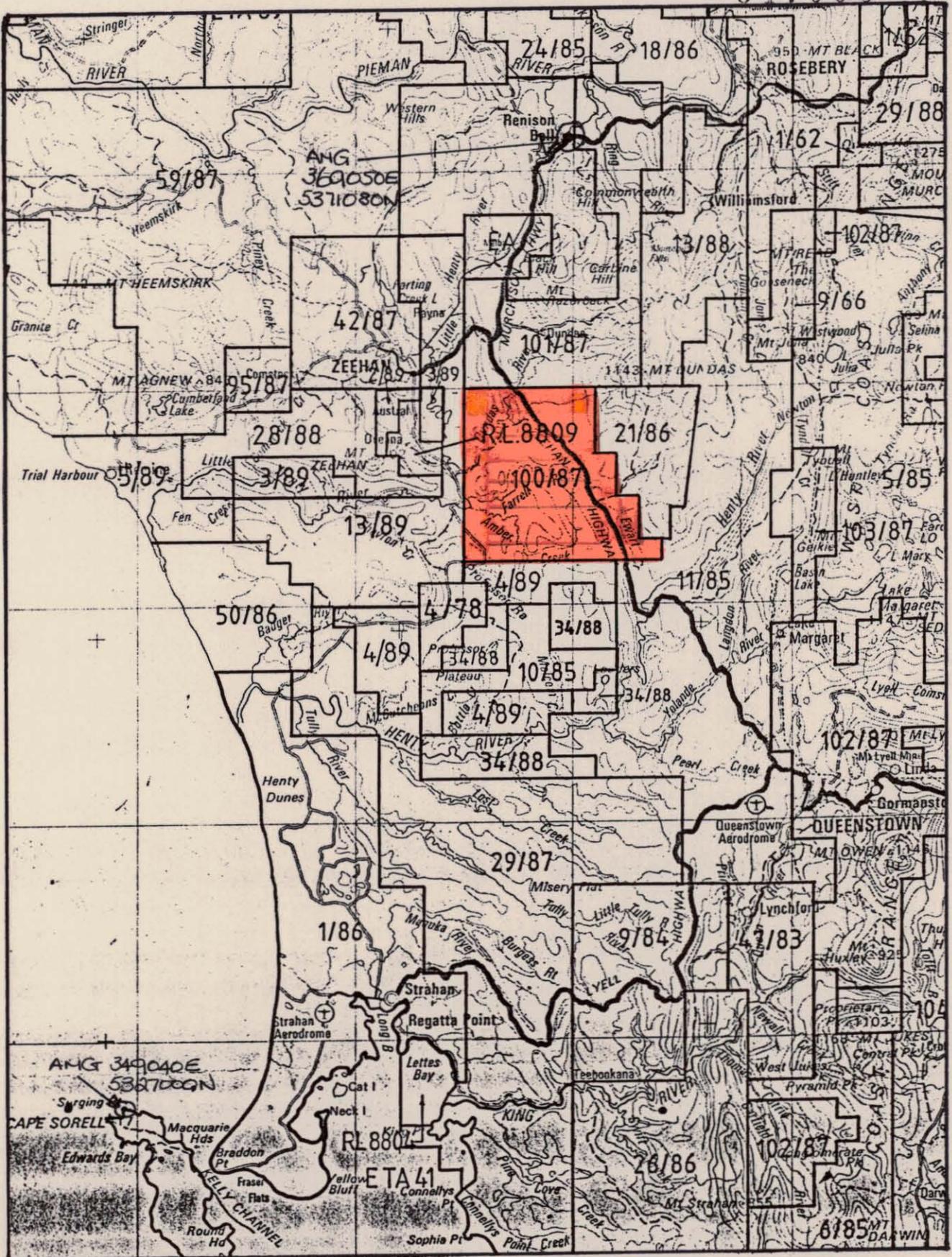
This report details exploration activities on E.L 100/87 for the twelve months ending April 1989.

The licence comprises 56kms and was part of ETA No 7, formerly E.L 15/76. It was granted to Roger Poltock on 21 April 1988. The licence is located 5km SE of Zeehan in western Tasmania, lying between the Queenstown and Strahan Highways see Fig 1.

Work completed during the year consisted of a literature search and assessment of the Farrell Deep lead in the western part of the licence.

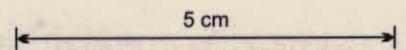
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E. L 100/87



LOCATION PLAN

Scale 1 : 250000

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Fig 1

#### HISTORY AND PREVIOUS EXPLORATION

The licence is located on the southern margin of the Zeehan silver lead field and has been prospected since 1890 for these commodities, Blissett 1962.

The main prospects are the Mariposa and Bannockburn, the former being the most extensive with production from underground workings between 1893 and 1911.

Uptil the 1930's alluvial gold and osmiridium was prospected in the Farrell Rivulet and it's tributaries, Blake 1931.

Since the 1940's the area has been explored by a number of companies, including Zeehan Explorations Pty Ltd, Rio Tinto, McIntyre Mines (Australia) Pty Ltd, Tenneco Australia Inc, CSR and Amoco. The main exploration target was limestone hosted silver lead mineralization. Work carried out by the companies included geochemistry, geophysics and diamond drilling.

#### GEOLOGY AND MINERALIZATION OF THE PROPERTY

The licence is underlain by the Ordovician to Devonian aged Junee and Eldon Group sediments, the sequence includes quartz conglomerate, sandstone, shale and limestone.

This well-bedded sequence has been deformed during the Devonian Tabberabberan Orogeny, the sediments folded into a broad north trending and plunging synclinorium. Cambrian Dundas Group sediments are exposed on the eastern flank of the synclinorium.

The area has been mapped on a regional scale by the Geological Survey of Tasmania, Department of Mines, Zeehan 1" : 1 Mile. Prospect scale mapping has been carried out at the Mariposa and Bannockburn by several companies, the most recent being CSR and Amoco.

The Junee and Eldon Group sediments were eroded during the Tertiary to form an extensive wave cut platform, part of the Henty Peneplain. Since the Tertiary, alluvium derived from the mountainous hinterland to the east has been deposited on the peneplain either as shallow leads in the Tertiary or extensive glacial outwash in the Quaternary. Palaeo drainage through the Farrell Rivulet is interpreted to predate the present Henty River. Chromite, platinoids, gold and cassiterite have been derived from ultramafics, felsic volcanics and Devonian vein style mineralization in the hinterland.

Two styles of mineralization have been recognised within the licence:

- precious and industrial metals in alluvials.
- silver, lead and zinc in veins and possible stratiform deposits within the Ordovician limestone.

In addition fossil placer deposits of chromite and platinoids may occur in Silurian sandstones.

**WORK CONDUCTED BY ROGER POLTOCK**

Work conducted by Roger Poltock during the first licence year included:

- literature search
- collection of 8 panned heavy mineral concentrates from streams
- cutting 3.5km of access and grid lines at Farrell Rivulet
- Wacker drilling 16 holes for a total depth of 64.5m  
*no analyses performed RW*

**Literature search**

This search was primarily targeted at locating alluvial gold, platinoid and chromite occurrences.

Data sources included:

- Blake 1931, outlines prospecting activity in the early 1900's, describing alluvial gold and osmiridium occurrences in Farrell Rivulet, Tom Creek and Westerway Creek.
- CSR E.L 15/76, anomalous occurrences of gold and chromite associated with fluvioglacialls were located in the headwaters of Farrell Rivulet at Howards Road, now part of Renison's E.L 21/86
- CSR/Amoco E.L 15/76 joint venture, anomalous chromite in stream sediments at 369000mE, 5353500mN, draining the Crotty Quartzite.

### Panned concentrates

These samples were collected on a reconnaissance basis throughout the licence see Appendix 1 and Fig 2.

Approximately 35kg of gravel was collected from trap sites in streams and concentrated to 100gms. The concentrate was visually inspected for precious metal grains, maximum grain count was 20 coarse grains of gold and osmiridium (sample 1756). The stream in this area drains Tertiary gravels.

None of the samples were assayed.

### Farrell Rivulet Deep Lead

This area is located between Amber Creek and Farrell Rivulet in the western part of the licence see Fig 2. Attention was initially drawn to the area by Blake's assessment.

A panned concentrate survey confirmed the occurrence of precious metals associated with coarse cobble gravels and assisted in the location of old alluvial workings.

An access line was then cut from the Strahan Road and three crosslines were cut across the interpreted deep lead see Fig 2.

A volume assessment of the gravels using the Wacker drill was completed along two of the lines see Fig 2. The gravels were found to be of limited extent, a maximum of 8m depth, underlain by folded siltstones. The gravels probably occur as a raised terrace of the present Farrell Rivulet rather than a deep lead.

The alluvials in this area don't warrant further work.



## ROGER POLTOCK

EXPENDITURE FOR THE TWELVE MONTHS ENDED 21 APRIL 1989

DUNDAS EXPLORATION LICENCE 100/87

	\$
Geology - Wages	3357
Geochemistry	160
Drilling - Wacker percussion	1100
Grid line cutting	2715
Administration and Licence fees	2054
TOTAL	\$9386

## REFERENCES

- Blissett, A.H; 1962 Geological Survey Explanatory Report  
Zeehan One Mile Geological Map Series  
Tasmania Department of Mines
- Blake, F; 1931 Geological Reconnaissance of South Dundas  
Geological Survey Typed Reports
- Jones, P.A; 1982 Progress Report January to June 1982  
Amoco-CSR Joint Venture  
Part Exploration Licence 15/76  
Dundas Tasmania

APPENDIX 1

SAMPLE RECORD AND DATA SHEETS

