

PACIFIC-NEVADA MINING PTY LTD

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**EI24/97 DETENTION RIVER
NORTH WESTERN TASMANIA**

FINAL REPORT

Volume 1 of 1

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1.0 Introduction

This is the final report for Exploration Licence 24/97, Detention River, as the licence is to be relinquished. During the second year of tenure Pacific-Nevada Mining Pty Ltd did not conduct field exploration over this exploration licence. Please refer to Westbrook & Turner (1998) for detailed information on geochemistry and geology.

2.0 Exploration Concepts

EL24/97 is one of numerous exploration licenses held by Pacific-Nevada Mining in northwest Tasmania, which are being collectively explored for the following potential ore deposit types:

- Proterozoic iron-formation Au (Homestake model)
- Proterozoic iron-formation Cu-Au pipes (Selwyn/Starra)
- Proterozoic sediment-hosted Cu (eg. Kuperschieffer/White Pine)

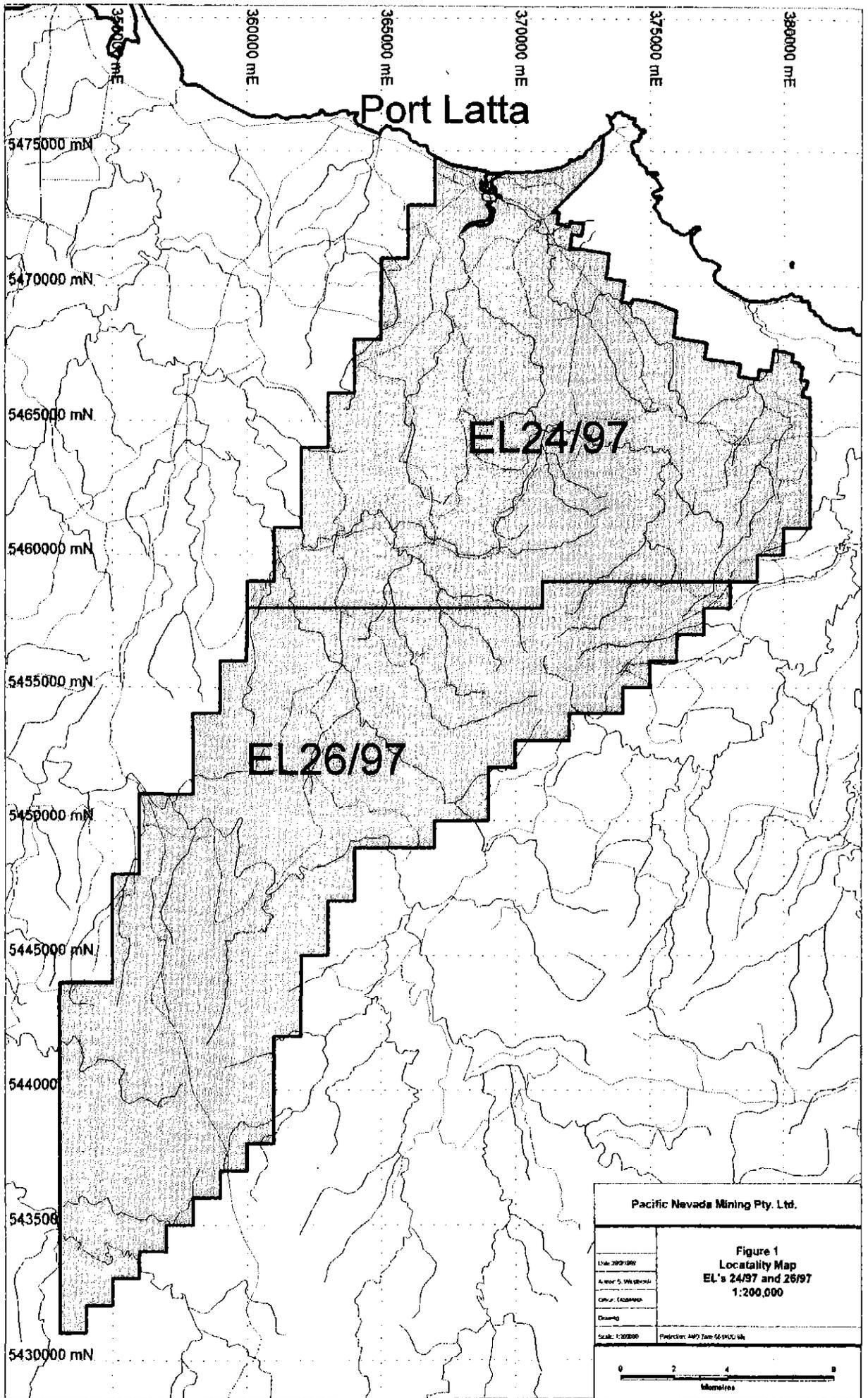
Within the EL's 24/97 and 26/96, Pacific-Nevada Mining identified a series of structural target areas and a target of possible buried granite (four target areas in total, Figure 2). Only one such target area, "Target Area 2", is located within EL24/97.

3.0 Previous Work

Parts of EL24/97 have been the subject of previous reconnaissance exploration programs. Much of the area would have been stream sediment sampled by Pickands Mather (Anon, 1966) but results of this old work have not been located. Stream sediment sampling by BHP (Anon, 1983) extended east in EL24/97 to near 370000E and south to 5460000N. Geopeko carried out water sampling for gold throughout part of EL24/97 (Virgoe and Mathison, 1990).

BHP's program targeted Sn-W though gold, diamonds, Pb-Zn and copper were also considered. Granitic veins carrying cassiterite and wolframite had been reported previously on Hilder Road (Longman and Mathews, 1961), a few kilometers to the east. BHP carried out regional stream sediment sampling and found that the Arthur River is strongly anomalous in tin, thought to be derived from Mt Biscoff. Metal values in locally sourced streams were considered to be uninteresting.

Geopeko's water sampling program was dogged by uncertainty as to the validity of analytical results. This was a major factor causing the program to be abandoned. Initial results for a number of areas were encouraging but could not be substantiated by resampling. These areas included Exploration Creek in EL24/97.



Port Latta

EL24/97

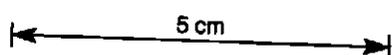
EL26/97

Pacific Nevada Mining Pty. Ltd.

Figure 1
Locality Map
EL's 24/97 and 26/97
1:200,000

Date: 20/2/00
 Author: S. Wainwright
 Compiler: G. M. H. H. H.
 Drawing:
 Scale: 1:200,000

Projection: AMG Zone 56 (MAD) M



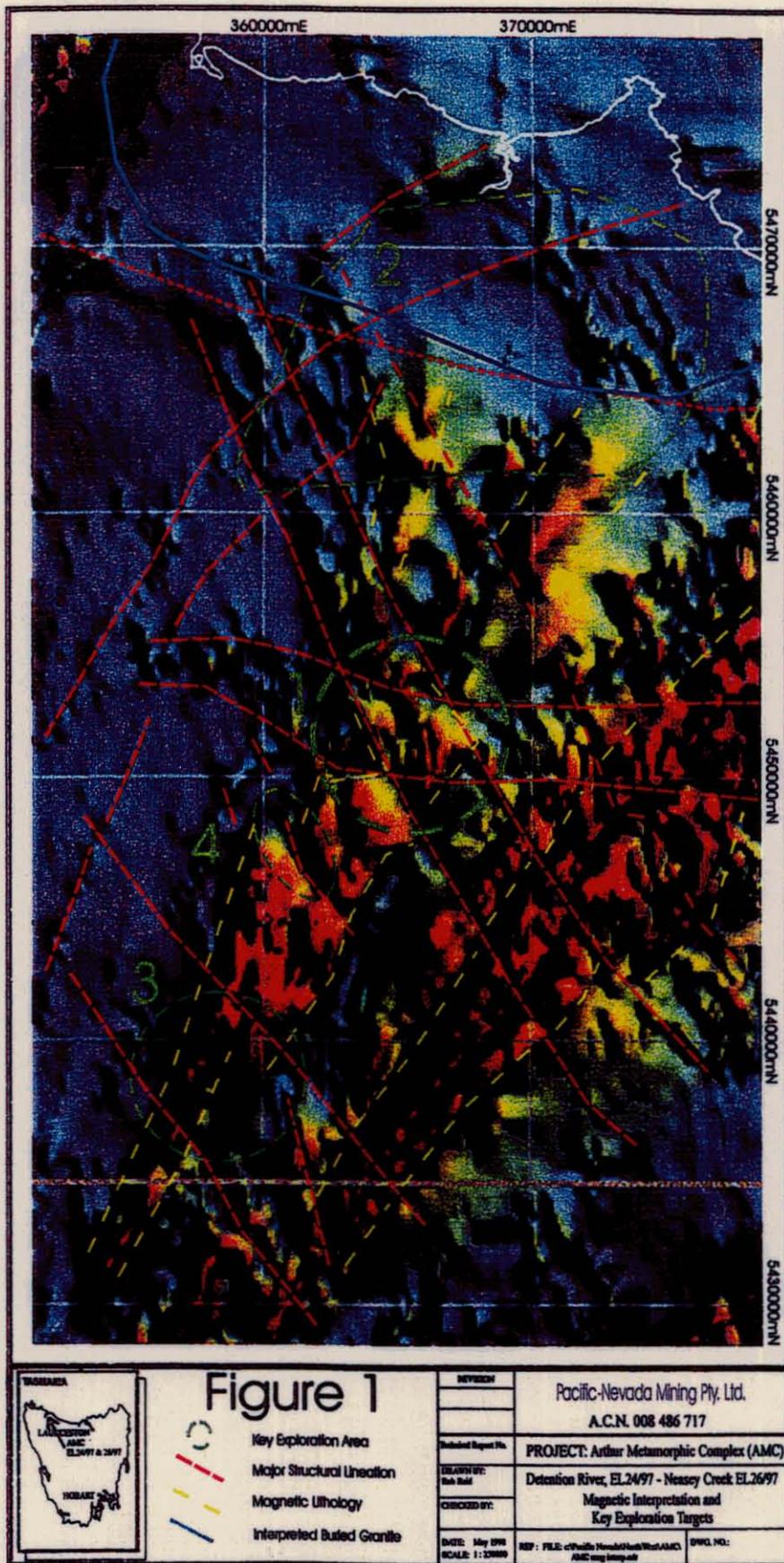
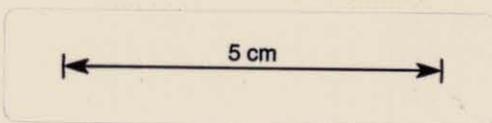


Figure 2: Magnetic interpretation and key exploration targets.
 Scale 1: 250 000.



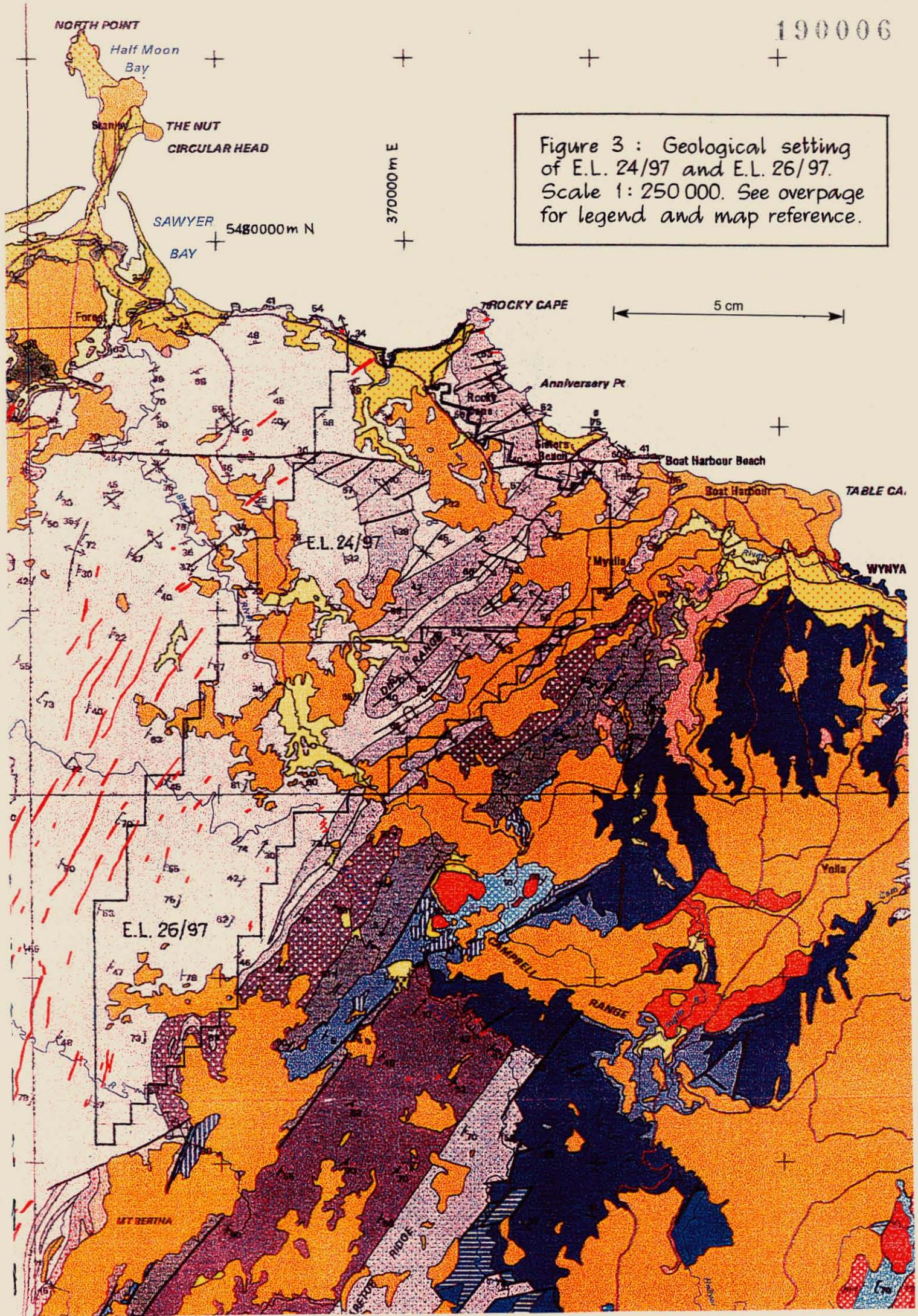


Figure 3 : Geological setting of E.L. 24/97 and E.L. 26/97. Scale 1: 250 000. See overpage for legend and map reference.

4.0 Regional Geology

The Proterozoic rocks in EL24/97 are assigned to the Rocky Cape Group. The lowest formation in this group, called the Cowrie Siltstone, occupies much of the western part of the EL. The Cowrie Siltstone comprises siltstone with subordinate quartzose sandstone and mudstone.

The Detention Subgroup of mainly orthoquartzite overlies the Cowrie Siltstone. A series of anticlines and synclines in this subgroup occupy much of the central and eastern parts of EL24/97. The overlying formation (Irby Siltstone) forms the core of synclines in the central and south eastern parts of the EL. The Irby Siltstone consists of siltstone, mudstone and subordinate dolomite.

Overlying the Irby Siltstone is orthoquartzite of the Jacob Quartzite, the uppermost unit in the Rocky Cape Group. The Jacob Quartzite runs along the south eastern edge of the exploration licenses.

There are numerous hypabyssal dykes in the Rocky Cape Group. They range from mostly basic compositions to subordinate intermediate compositions. Some varieties display strong alteration.

Deformation becomes progressively stronger across the EL, from north west to south east. Folds in the Detention Subgroup change from open in the central part of EL24/97 to tight and overturned to the east along the south eastern edge of EL24/97 and the adjoining EL26/97. Steep thrust faults with a similar sense of west-over-east movement are present. The fabric of pelitic rocks changes from moderately cleaved or slaty in the north west to slaty or phyllitic in the south east.

Although the intensity of deformation and metamorphism increases progressively across the EL, the nominal boundary of the Arthur Metamorphic Complex is just outside the license. It corresponds to the eastern boundary of the Jacob Quartzite, which is interpreted as a thrust fault (Everard et al, 1996). The presence of conglomerate in places along the boundary suggests that it is also a structurally modified stratigraphic boundary.

5.0 Exploration Carried Out by Pacific-Nevada

Pacific-Nevada Mining Pty Ltd conducted regional scale exploration over EL24/97. This work was carried out by contract geologist Nic Turner and his field crew. A total of 95 stream sites were sampled in Area 2 (Plan 1). A panned concentrate and -80 mesh sample were collected at all but a few of the sites. BCL samples were collected in low gradient tracts of larger streams and at downstream sites in most drainages.

Stream sediment sample types and analytical methods are detailed in Appendix 3 where AMG coordinates and analytical results are also given. Microscope descriptions of representative panned concentrates are presented in Appendix 1. - TCR 99-4307

Geology was recorded at most sample sites and a limited amount of mapping was done elsewhere. A total of 42 rock chips were collected for analysis. Hand specimen descriptions along with analytical methods and results are given in Appendix 2. - TCR 99-4907

6.0 Discussion of Results

6.1 PROSPECT GEOLOGY

Target Area 2 situated in EL24/97 is covered by the 1:50,000 scale Geological Survey maps titled Table Cape, Smithton and Trowutta. These maps are the geological references for the stream sediment survey.

Observations made during the survey are generally consistent with the published geological maps. An exception is found on the Newhaven Track, where the Irby Siltstone was found to be predominantly siltstone (c.f. Smithton map) with subordinate mudstone and an interval of siliceous sandstone at 372400E/5464000N.

6.2 SAMPLE RESULTS

Table 1 summarises the highest analytical results returned from all sample types in EL24/97 except panned concentrates which all returned analysis results below detection limit. The values are plotted in Plan 1.

Table 1. Summary of highest analytical results for BCL, -80# and Rock Chip sample taken in EL24/97.

Sample	Au µg	Au ppb	Cu ppm	Pb ppm	Zn ppm	Co ppm	Ni ppm	Ag ppm	As ppm	Sn ppm	W ppm	Fe %	Mn ppm
BCL		≥3	≥10	≥10	≥10			≥1					
22015		3.82											
22066		5.73											
22070		8.60											
22071		6.15											
22072					11.90								
22073		5.28											
-80#		≥3	≥50	≥20	≥100	≥50	≥50		≥50	≥20	≥10		
32002				29								0.85	30
32015				21								0.93	47
32021				38	207							0.50	39
32023				26	111							3.31	673
32023A				27								0.35	19
32036		3										0.25	19
32094		4										1.59	189
32095		3										1.58	196
32137				120								2.99	691
Rock Chip		≥3	≥50	≥30	≥150	≥50	≥50	≥1	≥50				
42007		4										1.6	95
42014			72				100					6.97	22
42016					296	49	59					34.1	3060
42020			54	79				1.7				10.4	88
42021			49									3.63	61
42022			64									2.64	105
42023			86	30				1				0.665	40
42024		6										4.18	66
42025								3.5				1.05	38

There are a few scattered elevated gold values in BCL and -80# samples along the length of Hook Creek (up to 8.60ppb in BCL and 4ppb in -80#).

Most sample sites are in Cowrie Siltstone but the source of the gold values is unknown.

In the eastern part of Area 2 elevated lead and zinc values in -80# samples may be related to Tertiary basalt though on lead-only site (32023A) is in drainage derived from the Detention Subgroup. Copper and nickel in a weathered dolerite (42014) in the same general area are consistent with the rock-type. A secondary limonite-goethite rock (42016) returned elevated zinc, cobalt and nickel.

In a quarry off Etchells Road, near its junction with the Mawbanna Road, there is a shear zone with associated alteration in Cowrie Siltstone. The alteration includes a small silicified lens with disseminated pyrite (42022 – Appendix 2) and weathered, clay-rich material (42021, 42024). There are patches of stockwork quartz veins with cellular limonite (42020). One of the altered rocks returned 6ppb Au. Elevated copper, lead and silver are present in other rocks. However, it seems unlikely that the shear zone is indicative of the possible presence of more substantial mineralised structures.

7.0 Conclusions and Recommendations

Low order gold and base metal values were generally returned from panned concentrate, BCL, -80# and rock chip samples collected in EL24/97. No further work is warranted.

8.0 Environmental Matters

No work requiring environmental rehabilitation has been undertaken.

9.0 Expenditure

Expenditure	Total to-date
Geology	\$3,057
Geochemistry	298
Administratiion	372
Total	<u>\$3,727</u>

10.0 References

Anon. 1966. Interim report for the northwest Tasmania Exploration Project. Pickands Mather and co. International. MRT open file report 66-439.

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Everard, J.L; Seymour, D.B; Bown, A.V. 1996. Geological Atlas 1:50,000 series. Sheet 7915N Trowutta. Tasmanian Geological Survey.

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Virgoe, K; Mathison, I. 1990b. EL44/89 Wedge Plains. Report on exploration activity Jan 1990-Nov 1990. Geopeko. MRT Open File Report 91-3220.