



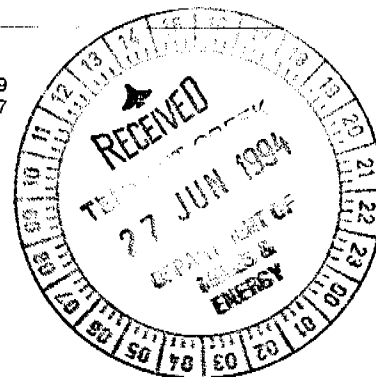
POSEIDON GOLD LIMITED

A.C.N. 007 511 006

A PosGold Company

TENNANT CREEK OPERATIONS :
PO Box 294, TENNANT CREEK
Northern Territory 0861

Telephone : (089) 62 0399
Facsimile : (089) 62 0377



FINAL REPORT

FOR EXPLORATION LICENCE 8034

FOR THE PERIOD 26/5/93 TO 25/6/94

TENNANT CREEK DISTRICT, NORTHERN TERRITORY

IVANHOE PROSPECT

TENNANT CREEK 1:250,000 SHEET SE 53-14

VOLUME 1 OF 1

AUTHOR: J KUONI
EXPLORATION GEOLOGIST

DATE: JUNE 1994

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Report No. 13187

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COMMODITIES: Gold, Copper

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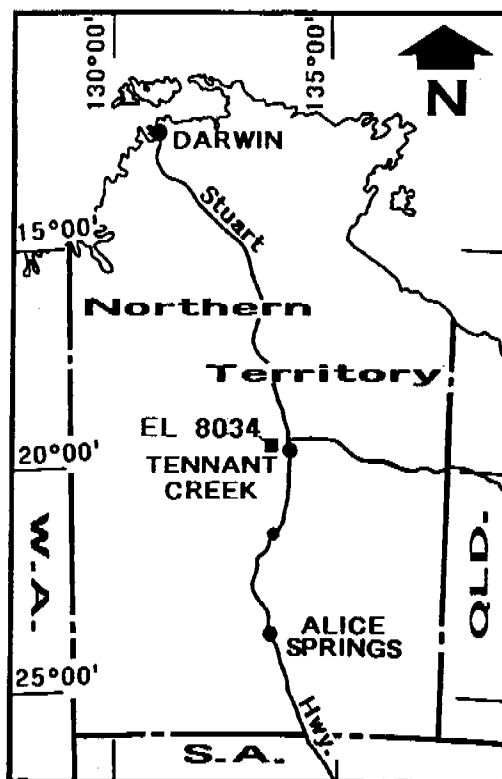
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REPORT NO: 13187
TITLE: FINAL REPORT FOR EXPLORATION LICENCE 8034 FOR THE
PERIOD 26/5/93 TO 25/6/94, TENNANT CREEK DISTRICT,
NORTHERN TERRITORY, IVANHOE PROSPECT
AUTHOR: J KUONI
DATE: JUNE 1994



1. SUMMARY

This report outlines the work completed by Poseidon Gold Limited (PosGold) within EL 8034 since granting on 26/5/93. Exploration Licence 8034 has been included in a Substitute Exploration Licence (SEL(A) 8664), to enable work to be carried out effectively on a more regional scale.

The licence is located approximately 18 kilometres north-west of Tennant Creek. Exploration in the area is being focussed on gold-copper-bismuth mineralisation associated with haematite-magnetite-chlorite alteration assemblages.

To date, an exploration programme involving hand and compass gridding and bedrock geochemical drill sampling has been carried out. Peak values of 5 ppb Au, 29 ppm Cu and 8 ppm Bi were obtained as a result of this work.

2. INTRODUCTION

Exploration Licence 8034 comprises 3 graticular blocks, of which almost 25% is covered by mineral claims under title to a joint venture between North Flinders Mines and Roebuck Resources. The area was considered prospective for Au-Cu-Bi mineralisation due to the close proximity of the Ivanhoe Mine, located less than one kilometre along strike toward the east (refer Figure 1). Access to the area is via the Warrego Road, then along the sealed Ivanhoe Mine road. Cleared lines provide access within the tenement.

Work completed on the EL to date includes hand and compass gridding and bedrock vacuum drilling, summarised in Table 1 below. A Substitute Exploration Licence comprising EL 8034 and two other licences (ELs 8403 and 8390) was applied for and subsequently granted on 15 June 1994. This will enable exploration to continue on a more coherent regional level.

TABLE 1
Summary Work Statistics for EL 8034
for the period 26/5/93 to 25/6/94

Gridding -	Hand & Compass	28 km
Drilling -	Bedrock vacuum	411 m
		(86 holes)

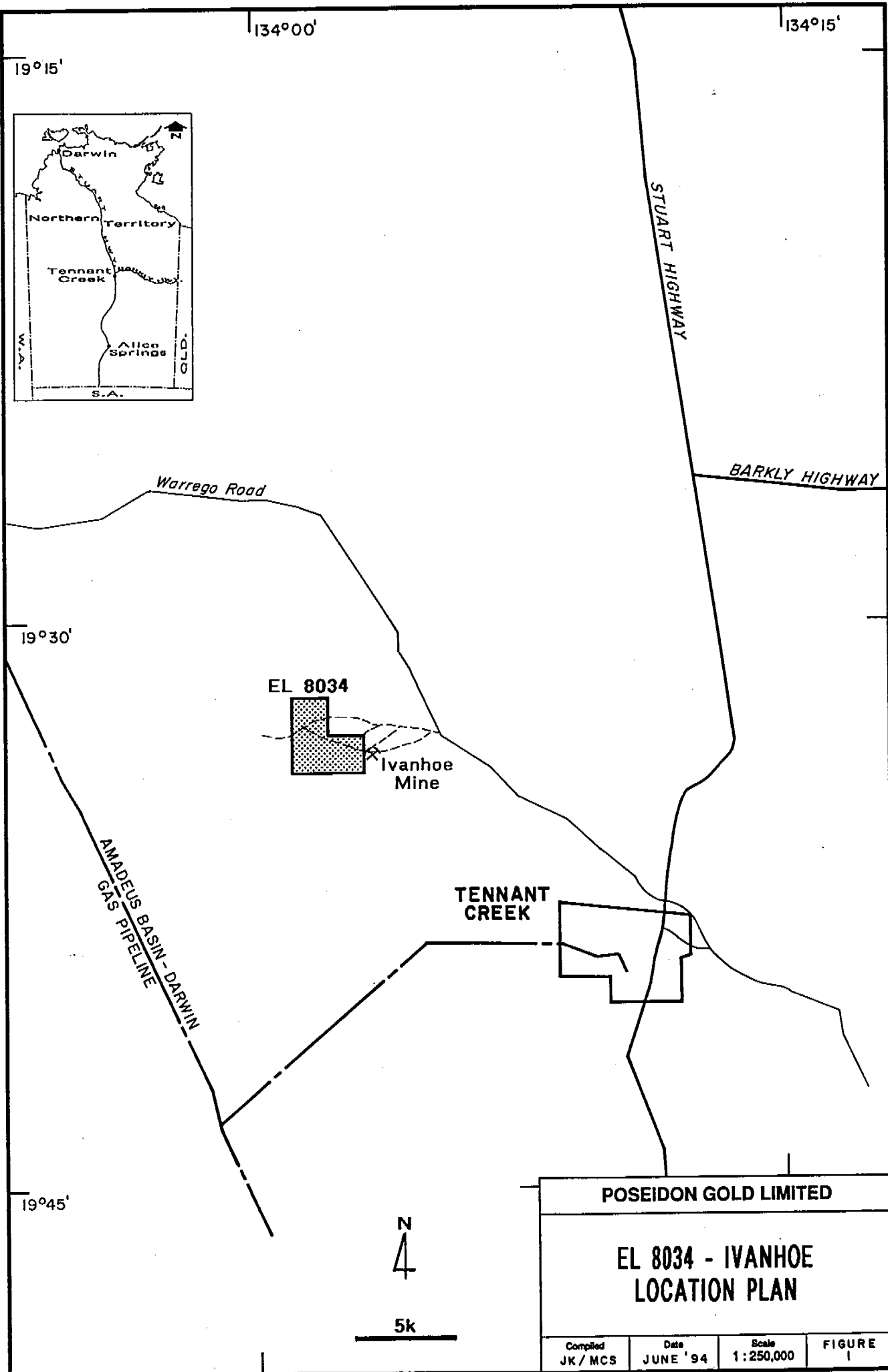
3. PREVIOUS WORK

No evidence exists of previous workings over Exploration Licence 8034, however, Ivanhoe Mine is located within a kilometre toward the east. The Ivanhoe deposit was discovered in 1959 by Peko Wallsend Pty Ltd by deep drilling of a magnetic anomaly known as Explorer 9. Initial drilling during the 1960's outlined a resource of 376,000 tonnes of low to medium grade gold and copper with inner silver. The host to the mineralisation was a steeply dipping brecciated tabular chlorite-magnetic body, with a strike length of 100 metres and a width of 10 metres. A total of 315,000 tonnes of ore was mined before closure in 1972 at an average grade of 2.3 g/t Au, 12.3 g/t Ag and 2.9 % Cu.

4. GEOLOGICAL SETTING

4.1 Regional Geology

Greywackes and shales of the Lower Proterozoic Warramunga Group are the dominant rocks within the licence area. Magnetite-haematite rich ironstones, sometimes carrying economic concentrations of gold-copper-bismuth are found within a sub-unit of the Warramunga Group known as the Carraman Formation.



4.2 Local Geology

On a local scale, interbedded siltstones and quartz porphyries comprise the dominant lithotype in the exploration area. The prospect is covered by a variable amount of Quaternary clays and sands, from less than 2 metres thickness in the west, to a maximum of 6 metres in the east. Massive quartz porphyry outcrops as an east-west trending ridge through the centre of the exploration area. Haematite staining is strongly developed in places but no true ironstones were noted within the area explored.

5. EXPLORATION SUMMARY AND RESULTS FOR THE PERIOD 26/5/93 TO 25/6/94

A vacuum drilling programme was completed over Exploration Licence 8034 during the period of review and comprised 86 holes for 411 metres. Holes were drilled on a 100 metre by 100 metre spaced grid, to an average depth of 5 metres. Fresh bedrock samples were collected and despatched to Australian Laboratory Services (Alice Springs) for low level gold-silver-base metal analysis. Two quality control samples were also submitted.

A peak gold value of 5 ppb was recorded with several low order anomalies of 2-5 ppb Au. Base metal values peaked at 29 ppm Cu, 28 ppm Pb and 40 ppm Zn. Plans showing bedrock geology, gold and copper geochemical dispersion, and location of drill sample locations were included in the Annual Report for EL 8034 26/6/93 to 25/6/94 submitted under separate cover (refer to references). Raw assay data was also included in the annual report for the area.

6. EXPLORATION EXPENDITURE FOR THE PERIOD 26/6/94 TO 25/6/95

The total expenditure on Exploration Licence 8034 during the report period amounted to \$10,599 broken down as follows:

EXPENSE	COST
Employee Costs	\$ 4,888
Overhead	\$ 596
Drilling	\$ 1,751
Assays	\$ 1,360
Operating Costs	\$ 1,912
Specialist Services	\$ 53
Research	\$ 39
	<hr/>
	\$ 10,599

7. CONCLUSIONS

A Substitute Exploration Licence (SEL 8664) was applied for and subsequently granted on 15 June 1994, to include EL 8034, EL 8390 and EL 8403. The SEL was applied for to allow cost effective exploration to be carried out on a more regional scale resulting in lower administrative costs and overheads. A comprehensive exploration programme is planned for the next 12 months and has been reported in the application for SEL 8664.

8. **REFERENCES**

Annual Report for Exploration Licence 8034 for the Period 26/6/93 to 25/6/94, Tennant Creek District, Northern Territory, Ivanhoe Prospect. - J Kuoni, Report No. 13186.

APPENDIX ONE

BIBLIOGRAPHIC DATA SHEET

BIBLIOGRAPHIC DATA-SHEET

REPORT NUMBER	13187
REPORT NAME	FINAL REPORT FOR EXPLORATION LICENCE 8034 FOR THE PERIOD 26/5/93 TO 25/6/94, TENNANT CREEK DISTRICT, NORTHERN TERRITORY, IVANHOE PROSPECT
PROSPECT NAME(S)	EL 8034 IVANHOE PROSPECT
OWNER/JV PARTNERS	POSEIDON GOLD LIMITED
KEYWORDS	IVANHOE REGIONAL GEOLOGY STRUCTURAL GEOLOGY MINERALISATION VACUUM DRILLING GEOCHEMISTRY
COMMODITIES	GOLD, COPPER, SILVER
TECTONIC UNIT	TENNANT CREEK INLIER
1:250,000 MAP SHEET	TENNANT CREEK SE 53-14
1:100,000 MAP SHEET	TENNANT CREEK 52-5