

EXPLORATION LICENCE No.7246 "PINE CREEK" NORTHERN TERRITORY

PARTIAL RELINQUISHMENT REPORT
FOR NULLARBOR HOLDINGS LIMITED

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CR 93/680

94.11.93

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SUMMARY

Exploration Licence 7246 was granted to Nullarbor Holdings Ltd on the 17th January 1991, for three years.

This is the partial relinquishment report for EL 7246 which has been written to comply with the Northern Territory Department of Mines and Energy reporting requirements and for company records.

Follow up stream sediment sampling was carried out in conjunction with a rock chipping program within the northern block of the exploration licence area. Rockchip and stream sediment samples did not contain anomalous levels of gold.

As the northern block of the licence area contains no significant surface indicators of mineralisation, it is recommended that the block be relinquished.

1. INTRODUCTION

Exploration Licence 7246 was granted to Nullarbor Holdings Ltd on the 17th January 1991, for three years.

This is the partial relinquishment report for EL 7246 which has been written to comply with the Northern Territory Department of Mines and Energy reporting requirements and for company records.

Follow up stream sediment sampling was carried out in conjunction with an extensive rock chipping program within the exploration licence area. There was one rockchip and a number of stream sediment samples that contained anomalous levels of gold.

2. LOCATION AND ACCESS

EL 7246 is centred approximately 220 km southeast of Darwin in the Northern Territory. It consists of a three graticular blocks (Figure 1). The EL lies within the Pine Creek 1:50,000 sheet (5069-II), the Pine Creek 1:100,000 sheet (5069) and the Pine Creek 1: 250 000 sheet (SD 52-8).

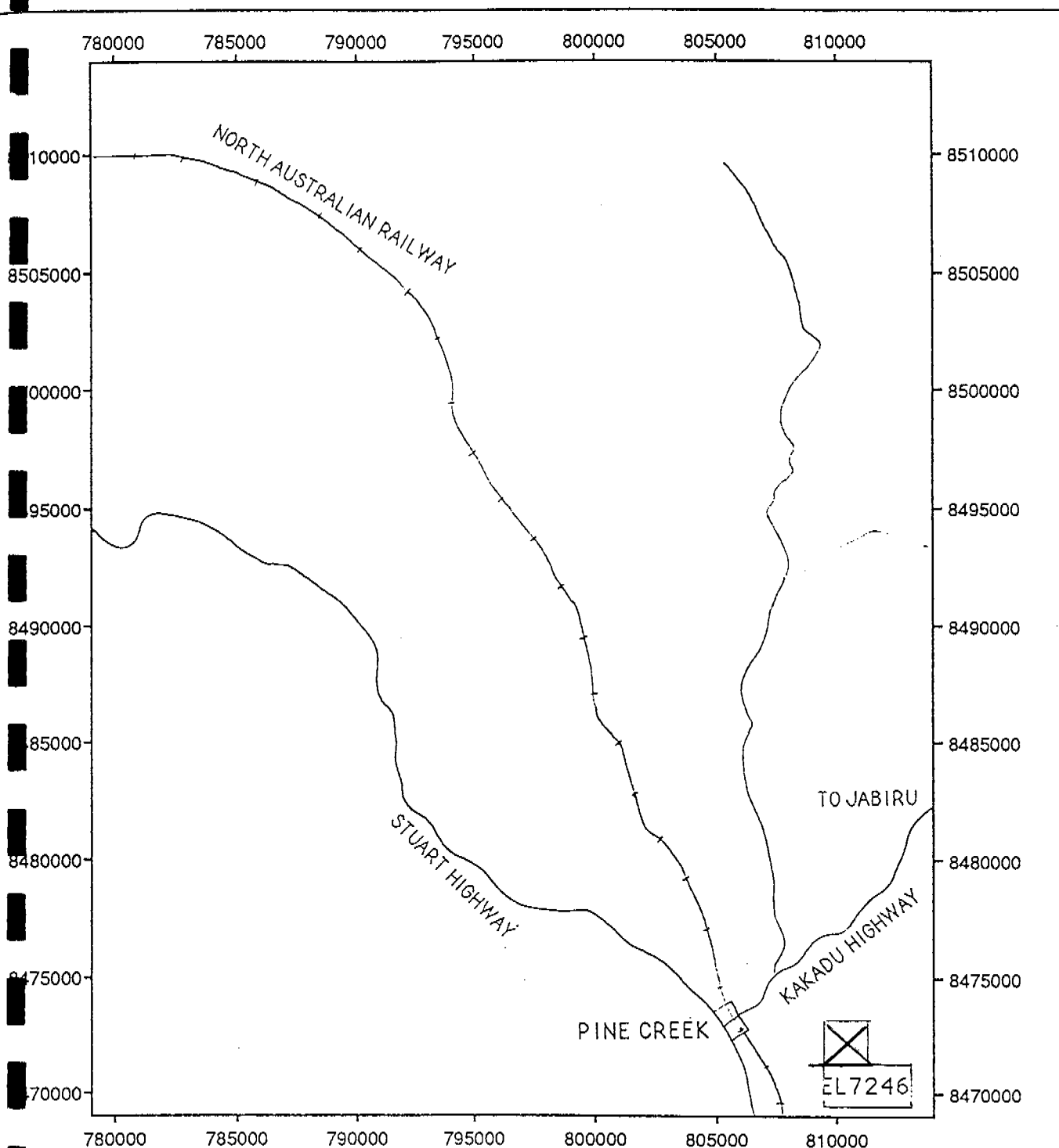
Access from Darwin is via the Stuart Highway to Pine Creek and then eastwards from the Police Station along a track for three kilometres. The licence area is only four kilometres east of the Pine Creek Gold Mine. Access around the Licence is relatively easy and is possible during the Wet Season.


3. TENURE


Exploration Licence 7246 was granted to Nullarbor Holdings Ltd on the 17th January 1991, for three years. Expenditure commitment for the second year was set at \$15,200.

4. GEOLOGY

EL 7246 is located in a southern portion of the Lower Proterozoic Pine Creek Inlier (Needham & Stuart-Smith, 1985). The Exploration Licence is underlain by metasedimentary rocks of the Burrell Creek Formation of the Finnis River Group and the Mount Bonnie Formation of the South Alligator Group. In the licence area these metasediments are composed predominantly of metamorphosed siltstone and sandstone.



 Relinquished Block

EL 7246 "PINE CREEK"		
LOCATION DIAGRAM		
Scale: 1:250,000		
Geol: W.J.A.W.	S 	Report:
Drawn: W.J.A.W	Date: 12-11-91	Plan: Figure 1

map  1000m

The metasedimentary rocks were intruded by Mid-Proterozoic granitoid plutons such as the Bonrook Granite which outcrops in the eastern parts of the Licence.

The licence area consists of undulating sandy rises with isolated granite tors. Metamorphic rocks are exposed on steep ridges of siltstone and sandstone with occasional lenses of massive white quartz.

Most of the metamorphic rocks are steeply dipping and trend parallel to the Pine Creek Shear Zone (NNW-SSE).

5. PREVIOUS WORK

Exploration has been spasmodic in the area. The licence area is only three kilometres east of Pine Creek and prospecting in the area was common from 1880 to present. Some gold prospecting consisting of stream sediment sampling and mapping was undertaken by Goldfields Exploration in the early 1980's (Stephenson 1985). Felstone carried out grid soil sampling and some rock chip sampling in 1989 (Gibson 1989) and Rosequartz Mining did some minor work in the area (Orridge 1991).

Work completed in the first year consisted of collecting sixteen stream sediment samples and seven rockchip samples and a brief aeromagnetic interpretation.

6. WORK COMPLETED IN SECOND YEAR

6.1 Geochemical Stream Sediment Sampling

Two stream sediment samples were collected during the second phase survey of the licence area (Sample No's PC18 - PC22). Most of the streams are reasonably poorly defined.

Stream sediment samples were sieved in the field through a 5mm sieve. The sample was sent for analyses to Assaycorp Pty Ltd, Pine Creek and analysed for gold by bulk cyanide leach method (BLEG 2kg). In addition, the samples were sieved to a -80 mesh size and analysed for Cu, Pb, As and Zn.

The initial survey indicated that one water course had sediment which was enriched in gold. An anomalous value of 7.2 ppb, was located in the most eastern stream. Gold values for PC18 was 2.7 ppb and PC22 1.2 ppb. Base metal results were not anomalous but correlated to the gold values. Stream sediment sample locations are shown on Figures 2 and results in Figure 3. Assay results are presented in Appendix 1.

6.2 Rockchip Sampling

Eleven rockchip samples were collected from the area (PCR41 TO PCR50 and PCR53) in addition to the one from the previous year.. The rock samples was analysed for Au, Pt, Pd, Cu, Pb, As and Zn by Assaycorp, Pine Creek.

There was no significant gold detected in the samples except for PCR50 (Au 0.03ppm) and PCR53 (Au 0.07ppm). Results are presented in Appendix 2.

7. CONCLUSION

As the northern block of the licence area contains no significant surface indicators of mineralisation, it is recommended that the block be relinquished.

REFERENCES

GIBSON B.G., 1989: Exploration Licence 4955, Exploration Report surrendered graticular blocks the year ending 15th June 1989. Felstone Investments , Report to the NTDME (unpublished).

NEEDHAM R.S. & STUART-SMITH P.G., 1985: Revised stratigraphic nomenclature and correlation of Darwin-Katherine region, Northern Territory. *BMR Journal of Australian Geology and Geophysics*, 9, 233-238.

ORRIDGE G.R., 1991: Exploration Licence 6687 Bonrook NT, Report for the year ending 8th February 1991. Rosequartz Mining NL , Report to the NTDME (CR 91/188) (unpublished).

STEPHENSON P.R., 1985: Final report Exploration Licence 4398 Pine Creek Goldfields Ltd, Report to the NTDME (CR 86/073) (unpublished).

APPENDIX 1

SAMPLE DESCRIPTIONS

STREAM SEDIMENT SAMPLES

PC 19 - Dark Silt
PC 22 - White Clay

ROCK CHIP SAMPLES

PCR 41	80m east of pipeline 100m NE of hill. Finely laminated quartzite, a little haematite
PCR 42	Massive quartz and haematite/tin limonite, with some fresh sulphide on western side of cleared pipeline.
PCR 43	Quartz stringers in synform Pfb - brown siltstone
PCR 44	50m to east of PCR 43 and 20m south of road. Numerous small quartz veins in Pfb.
PCR 45	Massive quartz trending // (100') to Pfb. Some haematite veining.
PCR 46	50m to west of PCR 45 haematite (globular and red) in massive quartz.
PCR 47	Quartz with haematite pockets.
PCR 48	Pfb with numerous small quartz veins
PCR 49	As above 40m across strike low temp quartz x tab on edges.
PCR 50	15m south west - Limonite rich Pfb with minor quartz veining. Rock trending 143° and dipping 62° - SW
PCR 53	As above, quartz/limonite/Pfb quartz