Northern Gold NL

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MLN 1111

· FINAL REPORT
FROM 29/2/95 to 10/7/96

Pine Creek Sheet SD 57 Burnside 14/2-II

Licence Holders:- Northern Gold NL & Camelot Northern Territory Ltd
Operator: Northern Gold NL

July 1996
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NTDME
Northern Gold N.L., Adelaide River
Northern Gold N.L., Perth Office
SUMMARY

An authority to occupy 61(2) was issued to R. J. Edwards on MLN 1111 on the 29th February 1995, to mine a mineralised area defined by Western Mining Corporation.

An application had been made to the Aboriginal Areas Protection Authority in 1994 to vary the site numbered 5171-29 to allow mining at the base of Mt Paqualin. The Aboriginal elders visited the site and failed to give clearance to work on the mineralised zone.

Northern Gold NL then rehabilitated all work by previous tenement holders and closed all access roads to the area to prevent accidental entry to the site area.
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1.0 INTRODUCTION

1.1 Title

An application for MLN 1111 was lodged by Western Mining Corporation on the 22nd March 1993. The application was lodged in order to allow the mining of a small pod of high grade ore which had been defined at the base of Mt. Paqualin. An authority to occupy under section 61(2) was issued to R. J. Edwards on MLN 1111 on the 29th February 1995. The area was then under an option agreement managed by Northern Gold NL.

1.2 Location and Access

MLN 1111 is located within the Cullen Mineral Field, approximately 25 kilometres east-southeast of Adelaide River and immediately north of the Mount Paqualin trig (Figure 1). Access to the tenement is via a 7 kilometre dirt track north from the Bridge Creek alluvial mine or via a temporary track through the "Western Arm" from the Stuart Highway. Access is restricted to four wheel drive vehicles, especially during the wet season when much of the ground in the area becomes inundated. The licence falls within Mount Ringwood Station, Pastoral Lease No 718.

2.0 PREVIOUS EXPLORATION

The area was explored by Western Mining under the Exploration Licence 5319. A resource of approximately 20,000 tonnes at 4.2 g/t Au was defined in the near surface area and the MLN application was lodged to mine the zone.
3.0 GEOLOGY

3.1 Regional Geology

MLN 1111 is situated within the Pine Creek Geosyncline, a tightly to isoclinally folded sequence of mainly pelitic and psammitic Lower Proterozoic sediments with interlayered tuff units. All the lithologies in the area have been metamorphosed to low, and in places medium grade, metamorphic assemblages. For the purposes of this report the prefix meta is implied, but omitted, from rock names and descriptions. The sequence has been intruded by pre-orogenic dolerite sills of the Zamu Dolerite and a number of late syn-orogenic to post-orogenic Proterozoic granitoids. Largely undeformed Middle and Late Proterozoic, Palaeozoic and Mesozoic strata as well as Cainozoic sediments and laterite overlie the Pine Creek Geosyncline lithologies.

3.2 Local Geology

MLN 1111 contains sequences belonging to the South Alligator Group, the lowermost formation within the licence being the Koolpin Formation, which forms Mount Paqualin, and the uppermost unit being the Mount Bonnie Formation. Zamu Dolerite intrudes as a series of discontinuous sills, and locally occurs between the Koolpin and Gerowie Tuff Formations.

The Howley Anticline is the dominant structural feature of the area, running parallel to the margin of the Burnside Granite to the east. The structure is mineralised locally, and contains several historical gold producing areas to the south, known collectively as the "Howley Line" prospects.

The Koolpin Formation is composed of interbedded mudstone and graphitic mudstone. It contains ferruginous and carbonaceous phyllite with chert bands, lenses and nodules in part. The Gerowie Tuff is a sequence of interbedded siltstone, phyllite, argillite and tuff. It is commonly laminated to thinly bedded, and may be massive, cherty and spotted. Interbedded black, carbonaceous and/or tourmalinic shales occur at the middle to lower part of the formation.
4.0 EXPLORATION COMPLETED

4.1 Aboriginal Areas Protection Authority (AAPA) Certificate

In 1994, Northern Gold lodged an application for an AAPA certificate over a larger area. The certificate received excluded the area containing the mineralisation on MLN 1111. A certificate granted to Western Mining Corporation in the area excluded only the area above the 100m RL on MT Paqualin, which allowed work on the mineralised area. An application for a variation of the certificate issued in 1994 was made for site 5171-29 to. The Aboriginal elders visited the site and failed to give clearance to work on the mineralised zone.

4.2 Rehabilitation

Northern Gold NL rehabilitated all work by previous tenement holders and closed all access roads to the area to prevent accidental entry to the site area.
5.0 CONCLUSION

Although an economic zone of mineralisation exists on the area previously held as MLN 1111, the existence of an aboriginal site close to the zone prevented development of the resource.

6.0 EXPENDITURE

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