11th October, 1989

The Titles Manager
Department of Mines & Energy
Centrepiece Towers
The Mall
DARWIN N.T 0800

Dear Sir,

RE: EXPLORATION LICENCE 6103

Please find enclosed the Annual Report for Year 1 of the subject licence.

The area of this licence is primarily unprospective and the results of work are currently being assessed to decide whether to retain the area. For this reason a forward work programme has not been formulated, however if the licence is retained this will be submitted within the next seven days.

Expenditure for the year totalled $6,555.00 as against a commitment of $8,000.00. In accordance with section 172 of the Mining Act application is hereby made for a variation of the expenditure covenant and the prescribed fee of $50.00 is enclosed.

Yours faithfully,

Melissa McMahon
ASSISTANT TENEMENT MANAGER
ANNUAL REPORT

EXPLORATION LICENCE 6103

ZAPOPAN N.L.

OCTOBER 1989
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INTRODUCTION

Exploration Licence 6103 lies approximately 27 kilometres south of Pine Creek township. The licence comprises two contiguous blocks amounting to 6.4 square kilometres. The licence was granted to Zapopan NL on 9th September 1988 for a period of three years.

Access to the licence can be made via a road extending west approximately 23.5 kilometres south of Pine Creek. After 2.5 kilometres along this road, one heads due south for 2-3 kilometres across country. Camp Creek, a major tributary of the Fergusson River passes through the middle of the exploration licence from east to west. Access to the southern half of the licence can be made on foot or from the south via the Woolgni Goldfield. Only the area south of Camp Creek has been burnt off.

GEOLOGY

Exploration Licence 6103 lies entirely within the Lower Proterozoic Fingerpost Granodiorite, a grey coarse porphyritic biotite-hornblende granodiorite. Small pockets of Poelsche Leucogranite occur which is a pink-grey, fine to medium grained equigranular leucogranite. Both intrusives make up part of the Cullen Batholith.

Approximately 5 kilometres south east of the licence lies the Woolgni Goldfield in which hydrothermal gold mineralization is associated with the Lower Proterozoic Burrell Creek Formation contained between granite and Edith River Volcanics.

In the southeastern margin of the easternmost block of EL 6103 an isolated zone of brecciated greisenised granite was observed in the vicinity where old copper diggings are reported. Whilst a rock chip sample was taken, the zone is too small and isolated to be of any economic value.
Approximately, 1 kilometre north-northwest a large north-south quartz vein extends through the licence, probably associated with a fault zone. The quartz vein is approximately 1-2 metres wide and appears to be barren of sulphide material. Some syenite is associated with the vein.

Flow-banded porphyritic rhyolites of the Edith River Group lie immediately southeast of the licence area. Within these rhyolites and in the vicinity of the granite, small isolated north-south striking contact metamorphosed quartz veins occur. These veins have been sampled but appear too isolated and discontinuous to be of economic significance.

**GEOPHYSICS**

Two magnetic highs are located within the licence. The southernmost anomaly appears to be related to two zones of quartz veining with associated syenite. The veins appear barren and no signs of magnetite nor sulphidic concentrations are apparent in the veins or nearby. The anomalies may be caused by the presence of syenite plugs in the subsurface rather than to mineralization.

The broader anomaly occurring in the northeastern boundary of the licence appears to be broadly coincident with two small converging faults. There are no surface indications of mineralization (Figure 2).

**GEOCHEMISTRY**

Only three rock chip samples were collected from the area:

(a) one composite sample was collected from NNW the brecciated greisen zone in the vicinity of the copper diggings

(b) One composite sample was collected from the NNW trending quartz vein

(c) One composite sample was collected from the banded porphyritic rhyolite.
Assay results for gold are all below detection. The base metal results are yet to be received. Samples have been submitted for Au by fire assay, U by XRF, Sn by AAS.

CONCLUSIONS AND RECOMMENDATIONS

The licence area is contained by granite of the Cullen Batholith which, whilst recognized as a mechanism for gold mineralization, is not known to host gold. The quartz veining and greisen zones are not considered sufficiently extensive to host economic volumes of mineralization and it is most unlikely that the magnetic highs are indicative of ore, but more likely represent more basic intrusives.

A decision will be made whether to investigate these anomalies more thoroughly. Aside from these anomalies the remainder of the area is considered unprospective.

EXPENDITURE

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<td><strong>TOTAL</strong></td>
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Figure 2

EL 6103
GEOLOGY, GEOPHYSICS
AND
SAMPLE LOCATIONS

Scale 1:25 000