EL 8183
FINAL REPORT

Katherine 1:100 000 Sheet

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NTDME
Northern Gold N.L., Adelaide River
Northern Gold N.L., Perth Office
BarnJam Mining Company Pty. Ltd.
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1.0 SUMMARY

Exploration on EL 8183 has included gridding, LAG sampling, and vertical and angled RAB drilling.

The LAG sampling identified a gold anomaly 800 metres long x 100-200 metres wide with a peak response of 28 ppb Au. This anomaly was subsequently drill tested with poor results.

Substitute Exploration Licence 9212 was granted over the area on the 9th of February 1996 for a period of four years.

Expenditure for the final year of tenure to the 9th of February 1996 was $1000.
2.0 LOCATION AND TENURE

EL 8183 is located on the Katherine 1:100,000 and Edith River 1:50,000 map sheets and lies between latitudes 14°05' south and 14°06' south and longitudes 132°05' east and 132°06' east. Access is via the Stuart Highway and then along maintained tracks (Figure 1).

The licence consists of one graticular block, 3 square kilometres in size, and was granted to Dominion Gold Operations Pty. Ltd. on the 22nd of October 1993 for a period of two years. EL 8183 was renewed for a term of two years, expiring on the 21st of October 1997.

The tenement formed part of Dominion's Wandie Project area. EL 8183 was then held by Territory Goldfields N.L. and the Barnham Mining Company, which holds a 10% interest through a Joint Venture.

SEL 9212 was granted over the area on the 9th of February 1996.

3.0 GEOLOGY

3.1 Regional Geology

EL 8183 is situated within the Pine Creek Geosyncline, a tightly to isoclinal 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 purpose of this report, the prefix meta- is implied, but omitted from the rock names and descriptions.

The sequence has been intruded by pre-orogenic dolerite sills of the Zamu Dolerite and a large 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 laterites, overly the Pine Creek Geosyncline lithologies.

3.2 Local Geology

The area covers folded massive greywacke and shale of the Burrell Creek Formation.
4.0 EXPLORATION COMPLETED
The following is a summary of exploration conducted on the area of EL 8183.

1989 - 1991
The Billiton Aust./Denehurst Ltd JV completed aerial magnetic surveys, reconnaissance mapping and stream sediment sampling of their EL 1900.
No magnetic anomalies of interest were located and results for the -8# BCL stream sediment survey were low.

1992 - 1993
Zapopan completed a -2 millimetre BCL stream sediment survey of their EL 7304. The highest result received was 4.5 ppb Au and the area was subsequently dropped.

1993 - 1996 - EL 8183
Dominion Mining Limited completed gridding, LAG sampling, vertical RAB drilling and angled RAB drilling.

4.1 Gridding
Gridding was completed over EL 8183 as a basis for all exploration programs. A theodolite controlled baseline of 1.8 kilometres and 4.8 kilometres of topofil and compass crosslines were completed (Backo, 1994).

4.2 LAG Sampling
LAG sampling was completed on EL 8183 as a first pass exploration tool. The aim of the program was to sample suitable sites on a nominal 800 metre x 200 metre pattern. The area is dominated by rolling hills divided by areas of loamy silica silt and wash zones. Soils are generally thin and 90% of the area is amenable to LAG sampling.
LAG sampling involved the collection of approximately 2 kilograms of +2 millimetre - 6 millimetre material lying on the surface. This was achieved by using a wide, heavy duty broom to sweep up surface material which was then sieved in the field to gain the correct size fraction.
The first pass (800 metre x 200 metre) program involved the collection of 20 samples. Anomalous areas were infill sampled to bring the grid spacing to 400 metres x 100 metres. This involved the collection of a further 17 samples.
All samples were dispatched to Amdel (Darwin) for low level gold analysis (1 ppb detection limit). This was achieved by fusing the pulverized sample with litcharge
and flux. The resultant lead button is cupelled and digested in aqua regia and then analysed by graphite furnace AAS.

Samples were also analysed for arsenic and bismuth using a perchloric acid digest followed by analysis by AAS. A detection limit of 2 ppm Bi and 20 ppm As was achieved using this method.

The program was successful in outlining an anomaly situated in the north-east corner of the block. The contoured gold assays for this prospect define an anomaly (named Boomerang) at the 5 ppb Au level that is 800 metres long (north-south) and 100-200 metres wide (east-west). Peak responses of 28 ppb Au, 140 ppm As and 14 ppm Bi were recorded (Backo, 1994).

4.3 Vertical RAB Drilling

Vertical RAB drilling was conducted to confirm the Boomerang anomaly.

The drilling was conducted by Gaden Drilling. At each site a hole was drilled to weathered bedrock with a single bottom of hole sample collected for assay. Samples were dispatched to Amdel (Darwin) and analysed for Au, As and Bi.

Two lines of vertical RAB drilling were completed on a 400 metre x 50 metre pattern. In total 22 holes for 93 metres were completed with 22 samples dispatched to Amdel (Darwin) for Au, As and Bi analysis.

The results were generally low with peak responses of 27 ppb Au, 110 ppm As and 10 ppm Bi. Most of the anomalous gold responses were confined to line 8440400N and coincided with the peak LAG response of 28 ppb Au (Backo, 1994).

4.4 Angled RAB Drilling

Angled RAB drilling was completed to test the coincident LAG/bedrock anomaly on line 8440400N. The drilling was completed by Thompson Drilling using a GK850 rig. A total of 8 holes for 278 metres were completed and thirty 10 metre composite samples dispatched to Amdel (Darwin) for Au, As and Bi. The drilling revealed greywacke and hornfelsed sediments of the Burrell Creek Formation. The best result was 10 metre @ 0.11 g/t Au (10-20 metres) in hole 94 BRAR 003 (Backo, 1994).
5.0 EXPENDITURE

The following is a breakdown of costs incurred in the final year to 9/2/96 of tenure for EL 8183:-

- Report Compilation
- Data Review
- Tenement Management

TOTAL $1000

6.0 REFERENCES