ANNUAL EXPLORATION REPORT

MCN 4902-4905, MCN 4907
FOUNTAIN HEAD SOUTH

YEAR ENDING 7TH AUGUST 2004

Ban Ban (14/3-III) 1:50,000
Burrundie (14/6-IV) 1:50,000

Title Holder:- R. M. Biddlecombe (80%)
and Territory Goldfields N.L. (20%)

Distribution
1. Mines Department NT
2. Northern Gold N.L Perth WA
3. Burnside Operations P/L Brocks Creek
4. R. M. Biddlecombe

Compiled by John Shaw
October 2004
SUMMARY

MCNs 4902 - 4905 and 4907 comprise two small groups of mineral claims located south of the Fountain Head tenement group and west of the Yam Creek locality, 140 km SSE of Darwin. They lie on the Ban Ban (14/3-III) and Burrundie (14/6-IV) 1:50,000 sheets.

The claims were originally granted to Dominion Gold Operations Pty. Ltd. in 1996 and were subsequently transferred to R. M. Biddlecombe (80%) and Territory Goldfields N.L. (20%) later that year.

MCN 4907 was granted to R. M. Biddlecombe on the 3rd of August 1995.

Territory Goldfields N.L. and R. M. Biddlecombe entered into an option agreement over MCNs 4902 - 4905 and 4907 on the 16th of October 1996.

Northern Gold N.L. carried out digital terrain modelling, airborne magnetic interpretation and ground geological reconnaissances to evaluate the prospectivity of the tenements.

During April 2002 the tenement holders and Northern Gold NL entered into a joint venture with Buffalo Creek Mines Pty Ltd that merged selected assets within a 30km radius of the Brocks Creek gold treatment plant. The objective of the agreement was to explore for gold resources and treat them at the Brocks Creek Mill. The Fountain Head South tenements were included in the joint venture.

MCNs 4902-4905 and 4907 are proximal to the Fountain Head, Yam Creek and Mt Bonnie gold resource projects and have been included in the overall gold asset review of the merged joint venture project area.

No field work has been carried out on the tenements in the current year, however remote sensing to determine structural controls in the area have been carried out.

Concurrently the Joint Venture has carried out underground development and mining at the Zapopan gold deposit at Brocks Creek, conducted diamond drilling at Cosmo Howley and RC drilling at Fountain Head. This activity is an integral part of the resource identification process within the greater Burnside Region.

To further this objective the JV purchased the Union Reef mill and tenement package from AngloGold (Ashanti) in August 2004. The mill at Brocks Creek was sold as part of this restructuring.

The gold prospectivity of the tenements will be re-ranked during the coming year to take into account the impact of the Union Reefs infrastructure.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUMMARY</td>
<td>2</td>
</tr>
<tr>
<td>1.0 INTRODUCTION</td>
<td>4</td>
</tr>
<tr>
<td>2.0 TENEMENT DETAILS</td>
<td>4</td>
</tr>
<tr>
<td>3.0 GEOLOGICAL SETTING</td>
<td>5</td>
</tr>
<tr>
<td>4.0 PREVIOUS EXPLORATION</td>
<td>6</td>
</tr>
<tr>
<td>5.0 EXPLORATION 2002-2003</td>
<td>7</td>
</tr>
<tr>
<td>6.0 FORWARD EXPLORATION PROGRAM 2004-2005</td>
<td>7</td>
</tr>
<tr>
<td>7.0 REFERENCES</td>
<td>8</td>
</tr>
</tbody>
</table>

# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>Tenement Location</td>
<td>A4</td>
</tr>
<tr>
<td>Figure 2</td>
<td>SPOT Image</td>
<td>A3</td>
</tr>
</tbody>
</table>

# LIST OF APPENDICES

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix One</td>
<td>Floppy disk of report and Figures</td>
</tr>
</tbody>
</table>
**1.0 INTRODUCTION**

MCNs 4902 - 4905 and 4907 are located 140 km SSE of Darwin, on the Ban Ban (14/3-III) and Burrundie (14/6-IV) 1:50,000 sheets.

The tenements are situated within the historic Fountain Head and Sandy Creek gold mining areas adjacent to the Yam Creek centre and have a group reporting status.

Following earlier agreements with R. Biddlecombe, Territory Goldfields and Buffalo Creek Mines P/L entered into a joint venture agreement in April 2002 that places the tenements under the management of Burnside Operations P/L. The Burnside Joint Venture jointly owns the Union Reefs gold treatment facility located 35km to the SE of the tenements.

This report discusses exploration work carried out during the year ended October 7th 2004.

**2.0 TENEMENT DETAILS**

MCNs 4902 - 4905 and 4907 cover an area totalling 107 hectares and lie between latitudes 13°29’ south and 13°33’ south and longitudes 131°30’30” east and 131°32’30” east (Figure 1).

They are enclosed by Pastoral Lease No. 903, Douglas, held by Tovehead Pty. Ltd.

Access to the mineral claims is well served via the Stuart Highway thence northwards on the Grove Hill road, then along prospector or station tracks.

MCNs 4902 - 4905 were originally granted to Dominion Gold Operations Pty. Ltd. on the 8th of October 1996 for a period expiring on the 31st of December 2005. The mineral claims were subsequently transferred to R. M. Biddlecombe (80%) and Territory Goldfields N.L. (20%) on the 16th of October 1996.

MCN 4907 was granted to R. M. Biddlecombe on the 3rd of August 1995 for a period expiring on the 31st of December 1999. The licence was subsequently renewed for a period expiring on the 31st of December 2003.

Territory Goldfields N.L. and R. M. Biddlecombe entered into an option agreement over MCNs 4902 - 4905 and 4907 on the 16th of October 1996. The tenements were included in the Burnside Joint Venture in April 2002 and presently are managed by Burnside Operations Pty Ltd.

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<td>8-10-96</td>
<td>31-12-05</td>
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<tr>
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<td>8-10-96</td>
<td>31-12-05</td>
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</tr>
<tr>
<td>MCN 4905</td>
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<td>31-12-05</td>
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</tr>
</tbody>
</table>
3.0 GEOLOGICAL SETTING

The tenements are situated within the Pine Creek Geosyncline, a Lower Proterozoic basin comprising mainly pelitic and psammitic sediments with interlayered tuff and flow units. Sills of Zamu Dolerite intruded the older formations and were folded with the sediments during the Pine Creek Orogeny. The sequence is tightly folded along north westerly to north trending fold axes and major faults are on NW and NE trends.

All the lithologies in the area have been metamorphosed to phyllitic greenschist, and in places, medium grade, biotite-amphibolite metamorphic assemblages under compression and the thermal effects of late syn to post-orogenic Proterozoic granitoids.

Younger, less deformed Middle to Upper Proterozoic clastic rocks and volcanics unconformably overlie the older Groups. Cambrian plateau basalt and sediments as well as Cretaceous sediments may onlap the older rocks. Cainozoic duricrusts and alluvial deposits in river drainages obscure bedrock in many areas.

3.1 Local Geology

The mineral claims are underlain by Formations of South Alligator Group and comprise sediments of the Koolpin Formation, Gerowie Tuff and Mount Bonnie Formations that have been concordantly intruded and dilated by sills of Zamu Dolerite.

The oldest unit the Koolpin Formation is typified by carbonaceous siltstone-mudstone, greywacke and thin magnetic iron formation facies with cherty nodules and bands.

Gerowie Tuff conformably overlies Koolpin and is typified by thin to medium bedded cherty tuffite bands rapidly alternating with siltstone and greywacke.

Mt Bonnie Formation conformably overlies Gerowie Tuff and largely comprises a cyclic siltstone dominated package alternating with subordinate greywacke and mudstone-dominant beds. Thin chert horizons, felsic porphyry and lamprophyre dykes are present.

The Mt Bonnie Formation is conformably overlain by the basal flysch greywacke and siltstone sedimentation of the Finniss River Group, represented by the regionally extensive, Burrell Creek Formation.

Within the Pine Creek region, gold mineralisation has a tendency to be focused by a late to post orogenic hydrothermal event in the axial zones of anticlinal folds within South Alligator Group sediments. Faulting on north east to north trends has offset the sequence and generated further favourable structural settings for gold mineralisation. See Figure.
4.0 PREVIOUS EXPLORATION

Historical Background

The Yam Creek, Fountain Head and Golden Dyke region was one of the most significant early bedrock and alluvial gold mining areas in the Northern Territory. The first significant reef gold discovery, the Priscilla Reef, at Yam Creek was made in 1872. This was followed by a period of intense reef and alluvial mining activity that continued until the early twentieth century and since then when gold prices have been favourable.

The district was famous for its gold nuggets, the largest being 700 ounces (22.5 kilograms). The alluvial deposits in the North Point area and at Fountain Head were worked by Chinese miners until about 1900.

In the Sandy Creek region, it was discovered that the gold mineralisation occurs predominantly in ladder quartz veins and stockworks hosted by Zamu Dolerite. Alluvial gold shed into the creek system.

Modern Exploration

During 1996/97 Northern Gold N.L. as manager of the tenements, completed a work program based on digital data acquisition and enhancement. Landsat Imagery, SPOT Imagery and AGSO mapping were obtained and used in conjunction with aerial mapping and site visits, to determine the best method of exploration to be used.

GIS software and satellite imagery were used to identify soil types, their distribution and to interpret the structural geology of the region.

During 1997/98 Northern Gold N.L. completed a work program involving magnetic data interpretation, and digital terrain modelling. The data was used in conjunction with aerial mapping and previous digital data interpretations.

The results of the geophysics were used primarily as imaged processed data for regional interpretation of exploration concepts. A contour map, showing the slope vectors of the terrain, was also compiled.

No work was reported between 1998 and 2000, however during 2000 to 2001 the data was further reviewed as part of a target ranking generation exercise. A series of field inspections and reconnaissances were included.

During the 2001-2002 year the Burnside Joint Venture was formed and managed the tenements as part of a comprehensive district coverage of the Burnside Project. The tenements were reviewed and reported on as part of the wider Yam Creek, Fountain Head and Sandy Creek-Golden Dyke groups of prospects.

In 2003 the Joint Venture focused its efforts on establishing economic gold resources at its first ranking properties. A decline access was installed to the 980RL at the Zapopan Mine and diamond drilling from underground was carried out. An aggressive diamond drilling
program was also carried out at the Cosmo Howley mine, testing the deeper extensions to mineralisation. RC drilling was conducted at Fountain Head at the Woolwonga mine. At the Fountain Head South tenement group work was limited to reporting and low level technical review.

5.0  EXPLORATION 2003-2004

In August 2004 the Joint Venture purchased the Union Reefs mill and tenement package from AngloGold (Ashanti) Ltd. At the same time it sold its Brocks Creek mill to Tanami Gold NL.

Further exploratory drilling was carried out at Cosmo Howley and Fountain Head followed by resource modelling. The newly acquired infrastructure at Union Reef is 35km from Fountain Head and Yam Creek and is capable of being quickly brought into operation.

As a lower priority entity, the Fountain Head South tenements received only minimal attention during the year. Work was restricted to reporting and to a review of the structural setting using SPOT imagery.

6.0  FORWARD EXPLORATION PROGRAM 2004-2005

The availability of the Union Reefs facility is expected to enable the joint venture’s first rank resources to be mined and treated in the short to medium term.

As a lower ranked entity, activity on the Fountain Head South tenements will be subordinate to the prime objective of bringing the advanced stage resources and reserves into production.

A thorough review and economic study is in progress on all first and second rank resources. The tenements the subject of this report are at an early, immature stage of exploration and will be scheduled for later in the mine plan. Nonetheless, they are expected to be included in a thorough technical review in the coming year. The results of this review will determine the type and level of exploration activity that is warranted.
7.0 REFERENCES


