BURNSIDE OPERATIONS PTY LTD

MCN 4293-4296 and MCN 4956-4958

BRIDGE CREEK NORTH

ANNUAL EXPLORATION REPORT

Year Ending June 26th 2003

Burnside (14/2-II) 1:50,000

Title Holder:- Northern Gold N.L. & Camelot Northern Territory Limited

Distribution
1. DBIRD Darwin NT
2. Northern Gold N.L., Perth Office
3. Brocks Creek Mine office NT

Compiled by:-
John Shaw
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SUMMARY

The tenements that comprise the Bridge Creek North report group are MCNs 4293 - 4296 and 4956 – 4958. They are located approximately 35km SE of Adelaide River NT.

The mineral claims cover the northern continuation of the Howley Anticline, approximately 12 km along strike from the Cosmo Howley Gold Mine and 12 km from the Brocks Creek treatment plant.

The geology of the area is similar to that found at the Cosmopolitan Howley gold mine, and is dominated by folded and faulted units of the South Alligator Group and the Finnis River Group.

Work was restricted to a review of existing geological, geochemical and geophysical data as part of regional target generation.

The tenement group was included in a joint venture agreement between Territory Goldfields NL and Buffalo Creek Mining NL that was finalised in April 2002.

The Burnside Joint Venture has the objective of commencing gold mining centred on the Brocks Creek gold treatment plant following extensive RC drilling of local priority targets during 2002-2003 and the development of underground resources at the Zapopan decline.

Further exploration over the Bridge Creek North group mineral claims will include geological mapping, rock chip sampling and a data review. The adjacent Bridge Creek gold resource will be further evaluated and reinterpreted as part of the updated ranking process. The objective will be to establish the relative prospectivity of this tenement group within the Burnside Joint Venture.

The expenditure over the mineral claims, during the year ending 26th June 2003, totalled $400.00
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1.0 INTRODUCTION

The Bridge Creek North MCNs 4293 - 4296 and 4956 - 4958 are located approximately 35km SE of Adelaide River NT and form part of the Burnside Joint Venture tenements.

They are contiguous with and enclose a structural continuation of the Bridge Creek tenements that previous exploration programs have shown to contain gold resources.

The Burnside area is under joint venture management with access to the treatment plant at Brocks Creek. The operating entity, Burnside Operations P/L, comprises Territory Goldfields NL and Buffalo Creek Mines P/L which in turn are controlled by Northern Gold NL and Harmony Gold (Australia) P/L.

2.0 TENEMENT DETAILS

The Bridge Creek North tenement group comprise MCN4293 to MCN4296 inclusive and MCN4956 to MCN4958 inclusive and total 272 ha.

**MCNs 4293 - 4296** were originally granted to Mr. R. J. Edwards on the 1st of July 1992, expiring on the 30th of June 1997.

Northern Gold N.L. and Reynolds Australia Metals Limited entered into an option agreement over all its Bridge Creek tenements on the 5th of May 1993.

Ranford Gold Mines Pty. Ltd. carried out alluvial mining over MCNs 4293 - 4296 under an agreement with R. J. Edwards. A transfer of these tenements from R. J. Edwards to Northern Gold N.L. (50%) and Camelot Northern Territory Limited (50%), formerly Reynolds Australia Metals Ltd., was registered on the 4th of July 1995.

The mineral claims were renewed on the 4th of December, 1997, for a period expiring on the 31st of December, 2001. A further renewal has been applied for.

**MCNs 4956 - 4958** were granted to Northern Gold N.L. on the 26th of June, 1995, for a period of 10 years, expiring on the 31st of December 2004. These claims were added to the Bridge Creek alluvial agreement in October 1995.

The Bridge Creek alluvial agreement was terminated in December 1998.
The tenements were incorporated into the Burnside Joint Venture (50% Territory Gold NL, 50% Buffalo Creek Mines Pty Ltd) on 4th April 2002, under the management of Burnside Operations Pty Ltd.

3.0 LOCATION AND ACCESS
The mineral claims lie between latitudes 13°24’ south and 13°26’ south, and longitudes 131°18’ east and 131°20’ east (Figure 1). They are within Pastoral Lease No. 718, Mount Ringwood, held by W. E. & V. J. Moon, Pastoral Lease No. 903, Douglas, held by Tovehead Pty. Ltd. and Crown Lease (Perpetual) No. 900, held by the Northern Territory Land Corporation.

Access to the tenements may be achieved via the Stuart Highway that passes just west of the group. A seasonal track traverses longitudinally through the tenements passing north from Bridge Creek. Access is severely affected during the wet season due to creek crossings and black soil flats.

4.0 GEOLOGICAL SETTING

4.1 Regional Geology
The Bridge Creek North tenements are situated within the Pine Creek Geosyncline, a tightly folded sequence of fine to coarse grained clastic basinal sediments of Lower Proterozoic age.

In the report area the sequence has been regionally metamorphosed to greenschist facies and has been intruded by late syn-orogenic to post orogenic granitoid intrusions. These intrusions imparted thermal contact metamorphic and metasomatic effects and contributed to the deposition of a range of economic minerals in structurally permissive sites.

There is a tendency for gold mineralisation to be focused in anticlines within strata of the South Alligator Group and lower parts of the Finniss River Group. This sequence evolved from initial low energy shallow basinal sedimentation to higher energy deeper water flysch facies. A water-lain tuffaceous component is present and the prospective sequence has been intruded by pre orogenic mafic sills.

Less deformed Middle Proterozoic sedimentary and volcanic sequences unconformably overlie the Lower Proterozoic. In the broader region, Cambo-Ordovician lavas and sediments of the Daly River Group, as well as Cretaceous strata, onlap the older sequences.
Cainozoic sediments, laterite and Recent black soil and sand alluvium may obscure parts of the Pine Creek Geosyncline lithologies, but exposure of the more resistate units of the prospective sequence is generally good.

4.2 Local Geology

Bridge Creek North, MCNs 4293 - 4296 and 4956 – 4958, cover the northern continuation of the Howley Anticline, approximately 12km along strike from the Cosmo Howley Gold Mine. The Howley Anticline is a macroscopic fold structure, which has been traced from the Cosmo Howley Gold Mine in the south to Mount Paqualin in the north, a distance of 30km.

The fold can be described as a doubly plunging upright, asymmetric, tight, non-cylindrical fold, which plunges north in the vicinity of the Cosmo Howley Mine and to the south, at approximately 12°, in the Bridge Creek area. In mineralised zones the fault is cut by a series of NE striking anastomosing brittle-ductile shear zones with associated quartz veining as well as reverse faults that generally dip westerly.

The geology of the area is dominated by units from the South Alligator Group and the Finniss River Group.

At Bridge Creek erosion of the north striking Howley Anticline and parasitic folds has exposed foliated, sulphidic and carbonaceous black mudstones and wackes of the Koolpin Formation. These are in turn overlain by foliated epiclastic and volcanoclastic tuffaceous rocks of the Gerowie Tuff Formation. These lithologies have been invaded by pre orogenic concordant sills of Zamu Dolerite. These act as markers and help to define fold limbs and the position of the axis and core of the Howley Anticline. The contact zone between the Zamu Dolerite and the Gerowie Tuff is locally strongly deformed with some apparent tectonic interleaving of lithologies.

Late-stage north easterly trending faults transect and dextrally offset the axis of the Howley Anticline. These faults are believed to play a part in the localisation of gold mineralisation in the Bridge Creek to Bons Rush trend.

See Figs. 1, 2 for further details of the geological setting.

5.0 PREVIOUS EXPLORATION

The axial closure of the Howley Anticline has historically been the subject of alluvial gold exploration and mining for over 100 years. Surficial gravels shed from extensive vein deposits within the Koolpin Formation, Gerowie Tuff and sheared sectors of the Zamu Dolerite have been worked
intermittently to the present day. An alluvial treatment agreement existed until 1998 on MLN766 and MLN 1060 at Bridge Creek, just south of the report area and treatment also extended into the Bridge Creek North Group itself. Extensive RC drilling of the Bridge Creek primary gold resource extended onto MCN4295.

The area now held as MCNs 4293 - 4296 and 4956 - 4958, was previously covered by EL 5319. Soil sampling over this tenement gave anomalous results which corresponded with soil sampling by Northern Gold N.L. to the south, at Bridge Creek, on MLN 1060.

During the **1992/93** field season, Northern Gold N.L. completed a reverse circulation drilling program over MCNs 4293 - 4296. A total of 1,273m was completed for 22 angled (-60°) drill holes. Samples were collected at 1m intervals, and sent to Assaycorp in Pine Creek for analysis. Drilling was directed at testing beneath a previously delineated gold soil anomaly, which was coincident with the Howley Anticline. The area tested was along strike, and to the north of the Bridge Creek mineralisation. The drilling intersected minor anomalous mineralisation with assay results indicating a weak discontinuous mineralised system.

Between **December 1992 and December 1996**, Ranford Gold Mines Pty. Ltd. carried out alluvial mining under an agreement with R. J. Edwards, who held the alluvial rights over the area.

In the **1999-2001** seasons no field exploration was carried out. Work was restricted to a review of existing geological, geochemical and geophysical data as part of a target generation and ranking exercise for the whole Howley Anticline trend.

During the **2001-2002** year work comprised a ranking review of the Bridge Creek North gold prospects in the context of the needs of the recently formed Burnside Joint Venture.

**6.0 EXPLORATION YEAR ENDING JUNE 26TH 2003**

On April 4th 2002 Northern Gold NL and Buffalo Creek Mines Pty Ltd concluded a joint venture agreement. The agreement comprised a merging of mining assets in the Burnside region. The merged entity includes scheduled tenements of both parties plus the gold treatment infrastructure at Brocks Creek.

The principal objective of the joint venture was to commence mining at Zapopan near Brocks Creek and thence jointly exploit the known gold resources within the surrounding tenements using the central treatment
facility. The Zapopan decline was completed to the 1000 RL in 2003 and underground diamond drilling of the lode continued until July.

The Bridge Creek North mineral claims that form the subject of this report are included within the Burnside Joint Venture tenements. While no work was done on the ground during the past year it is planned to continue exploration of the Group with a view to establishing mineable gold resources. Costs associated with reporting and review amounted to $400.00

7.0 PROPOSED WORK PROGRAM to JUNE 26TH 2004

As work by the Joint Venture has been focused on the Zapopan, Cosmo Howley, Chinese Howley and Yam Creek areas, the Bridge Creek North group of tenements with marginal gold concentrations were assigned a lower priority.

When work is renewed in the area data reviews and modelling are planned to allow better ranking of Bridge Creek North with the remainder of the Burnside JV tenements.

An estimation of the cost of these programs is $600.00
8.0 REFERENCES


Geosyncline, Northern Territory 1:500,000 scale geological map. Bureau of Mineral Resources Australia.


