



Northern Gold NL

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**MLN 214, MLN 341, MLN 343, MLN 349, MLN 823 - 832,
MLN 858 - 863 and MLN 940**

**MCN 46 - 47, MCN 49 - 50, MCN 624 - 625, MCN 898 - 899,
MCN 4428, MCN 4430, MCN 4432, MCN 4434 and MCN
4723**

ANNUAL REPORT to 31st December 1998

**Ban Ban (14/3-III) 1:50,000 Scale Map Sheet and
Burrundie (14/6-IV) 1:50,000 Scale Map Sheet**

**Title Holder:- Territory Goldfields N.L.
Managed by:- Northern Gold N.L**

CR99/054

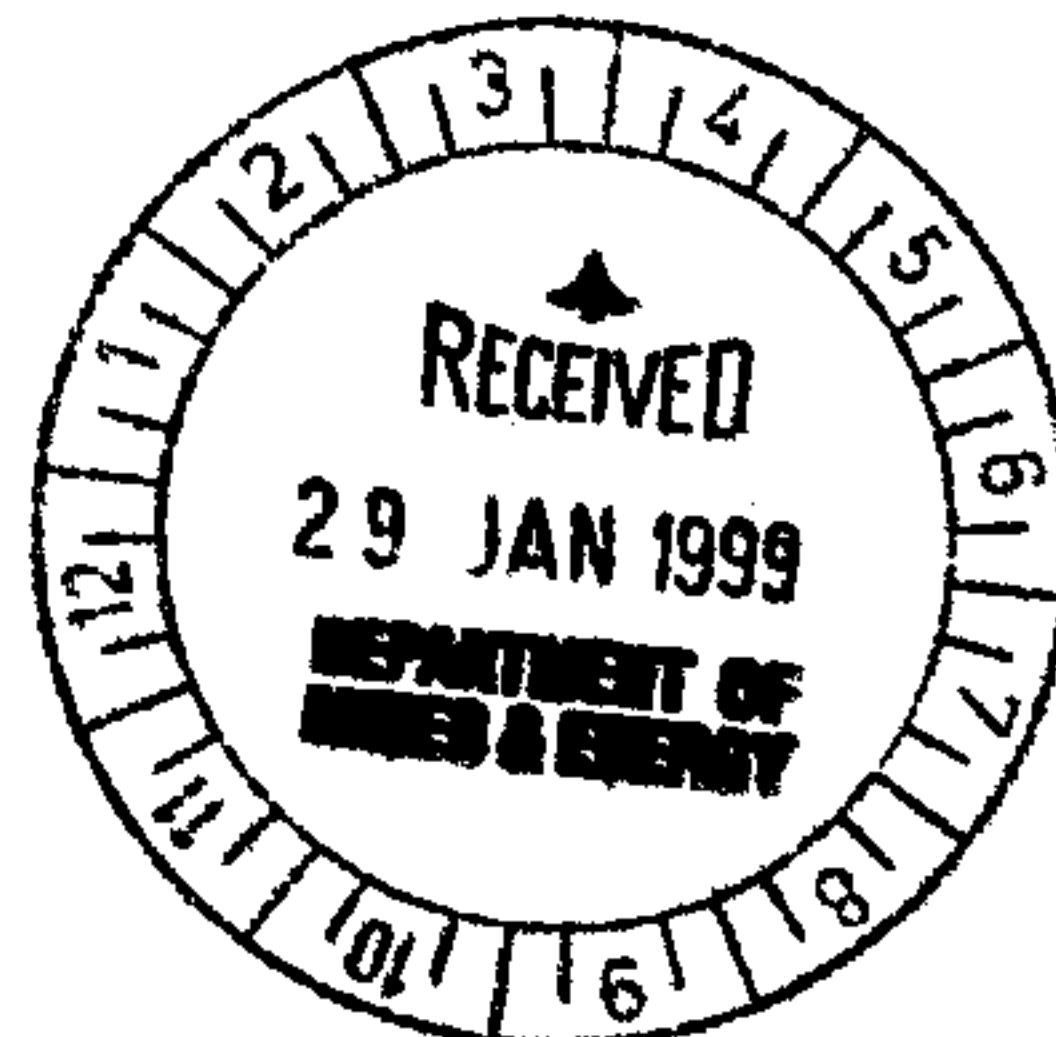
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NTDME

Northern Gold N.L., Adelaide River

Northern Gold N.L., Perth Office



SUMMARY

Yam Creek is located approximately 150 kilometres south south - east of Darwin, 20 kilometres east of the Cosmo Howley Mine and 10 kilometres north - east of Hayes Creek, on the Ban Ban (14/3-III) 1:50,000 scale map sheet and the Burrundie (14/6-IV) 1:50,000 scale map sheet.

The Yam Creek region was one of the most significant early hard rock and alluvial gold mining areas in the Northern Territory. The first significant reef gold discovery, the Priscilla Reef, was made in 1872. This was followed by a period of intense reef and alluvial mining activity, which continued until the early twentieth century. The district was famous for its gold nuggets, the largest being 700 ounces (22.5 kilograms). The alluvial deposits in the North Point area were worked by Chinese miners late last century.

Previous exploration has been completed by Territory Resources N.L., Dundas Gold Corporation N.L., Dominion Gold Operations Pty. Ltd. and Northern Gold N.L.

The Yam Creek and Iron Blow mining tenements are held by Territory Goldfields N.L. and managed by Northern Gold N.L. The tenement details are listed in Table 1 (Section 1.0).

A thorough data review was completed during the 1998 year of tenure, and discussions are currently under way with a prospective joint venture partner.

Further RC drilling will be undertaken to determine the extent of mineralisation within the Yam Creek tenements.

The expenditure for the 1998 year of tenure totalled \$1,865.

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1.0 INTRODUCTION

Yam Creek tenements are located approximately 150 kilometres south south - east of Darwin, 20 kilometres east of Cosmo Howley Mine and 10 kilometres north - east of Hayes Creek, on the Ban Ban (14/3-III) 1:50,000 scale map sheet and Burrundie (14/6-IV) 1:50,000 scale map sheet. The Yam Creek area consists of 21 mineral leases and 13 mineral claims, covering an area totaling 570.97 hectares, lying between latitudes 13°28' south and 13°32' south and longitudes 131°31' east and 131°34' east (Figure 1). Yam Creek is situated within Pastoral Lease No. 903, Douglas, held by Tovehead Pty. Ltd.

Access to the tenement is via the Stuart Highway to the Mount Bonnie Road.

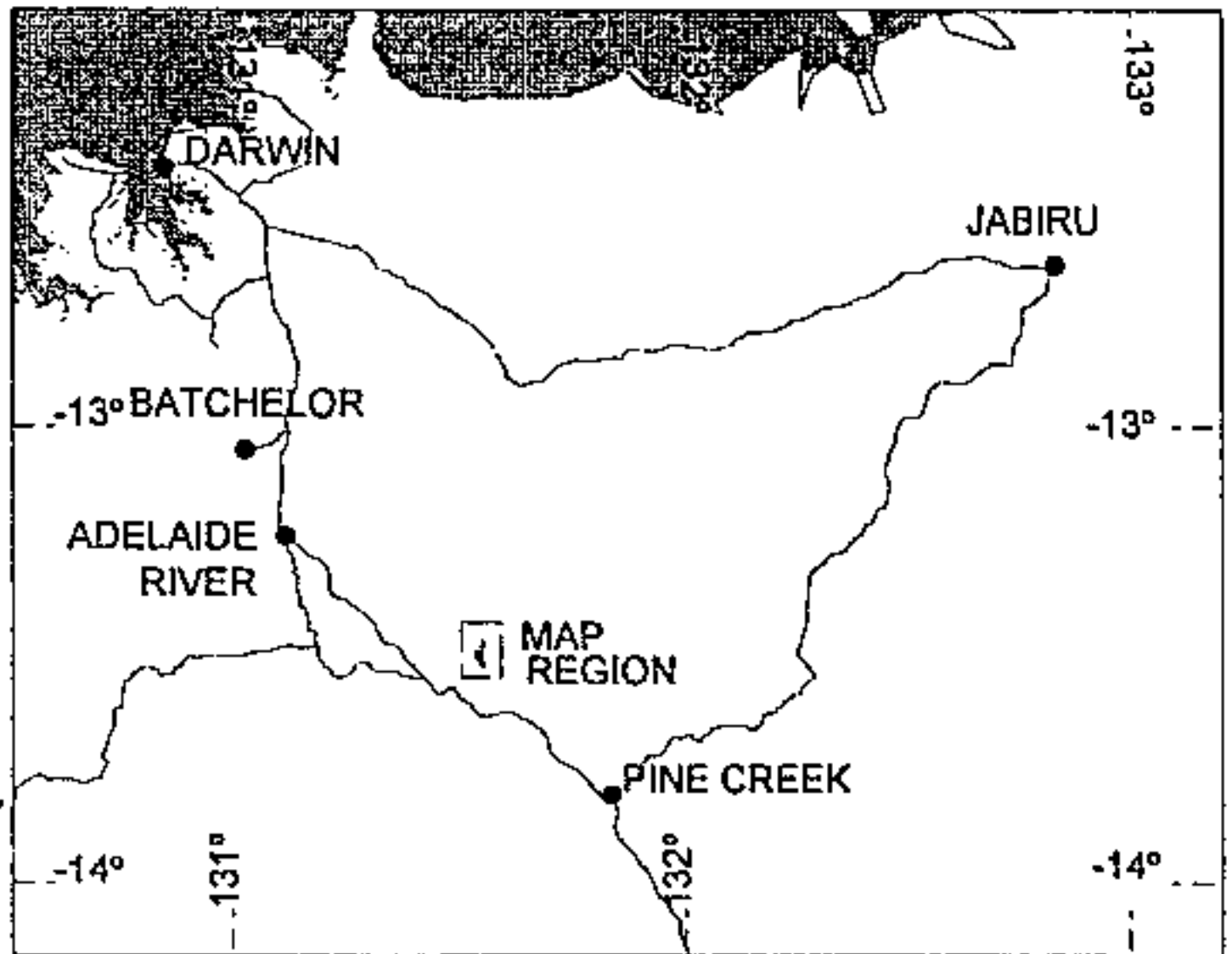
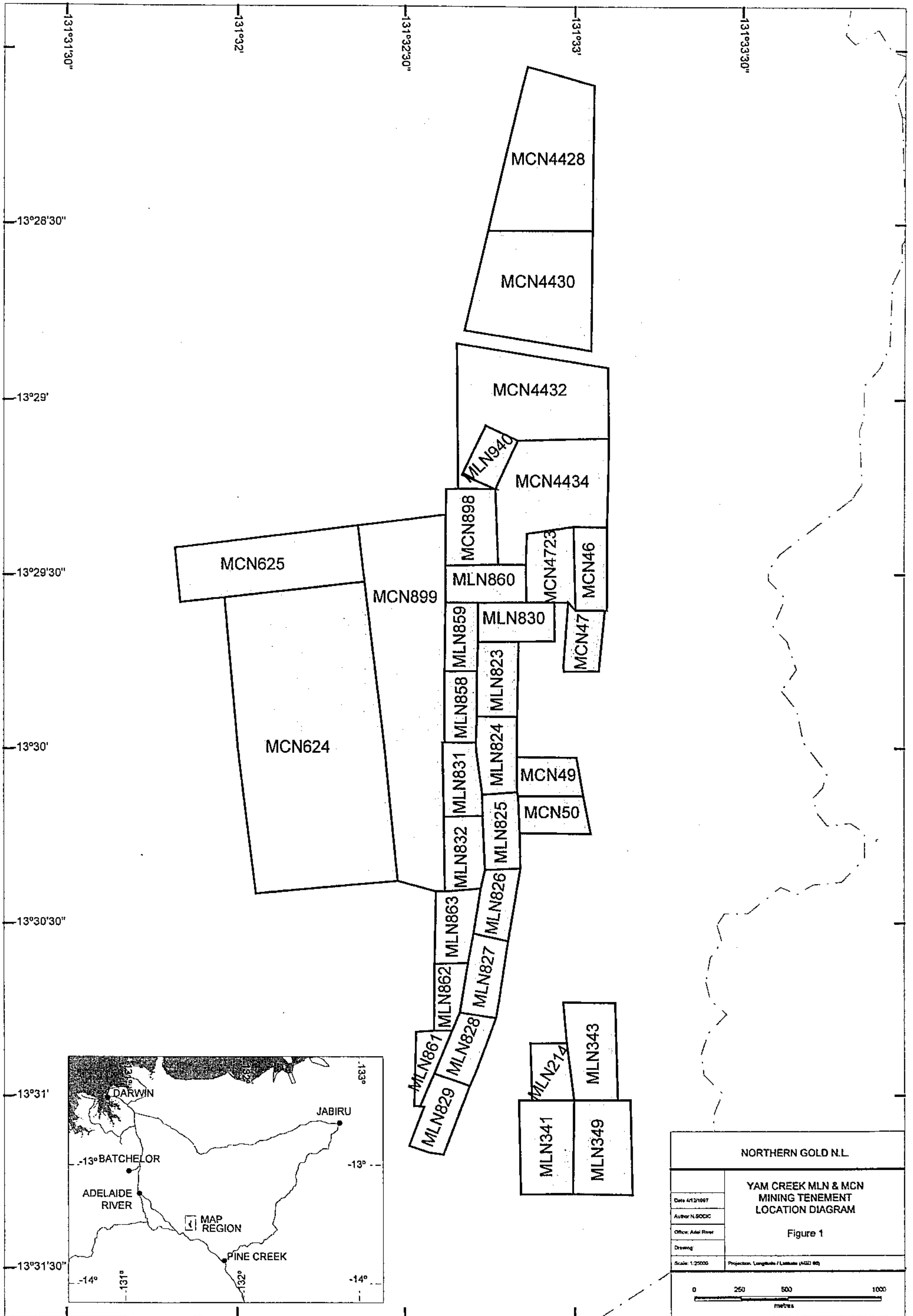
The Yam Creek and Iron Blow mining tenements are held by Territory Goldfields N.L. and managed by Northern Gold N.L. The tenement details are listed in Table 1.

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The expenditure for the 1998 year of tenure totalled \$1,865.

Table 1 Yam Creek Mineral Claim and Lease Details

Tenement	Grant Date	Expiry Date	Renewal Application	Size (Ha)
MCN 46	25/10/82	31/12/02	*	8.00
MCN 47	25/10/82	31/12/02	*	9.00
MCN 49	25/10/82	31/12/02	*	8.08
MCN 50	25/10/82	31/12/02	*	8.08
MCN 624	31/08/83	31/12/98	30/09/98	111.38
MCN 625	31/08/83	31/12/98	30/09/98	30.00
MCN 898	30/12/85	31/12/98	30/09/98	8.00
MCN 899	30/12/85	31/12/98	30/09/98	63.56
MCN 4428	05/04/93	04/04/98	05/01/98	37.62
MCN 4430	05/04/93	04/04/98	05/01/98	37.94
MCN 4432	05/04/93	04/04/98	05/01/98	36.33
MCN 4434	05/04/93	04/04/98	05/01/98	29.81
MCN 4723	02/09/94	31/12/98	30/09/98	9.00
MLN 214	06/01/72	31/12/96	19/09/96	6.27
MLN 341	07/06/76	31/12/96	19/09/96	14.90
MLN 343	07/06/76	31/12/96	19/09/96	14.90
MLN 349	26/11/76	31/12/96	19/09/96	15.00
MLN 823	12/10/77	31/12/02	*	8.00
MLN 824	12/10/77	31/12/02	*	8.00
MLN 825	12/10/77	31/12/02	*	8.00
MLN 826	12/10/77	31/12/02	*	8.00
MLN 827	12/10/77	31/12/02	*	8.00
MLN 828	12/10/77	31/12/02	*	8.00
MLN 829	12/10/77	31/12/02	*	8.00
MLN 830	15/02/78	31/12/98	30/09/98	8.00
MLN 831	15/02/78	31/12/98	30/09/98	8.00
MLN 832	15/02/78	31/12/98	30/09/98	8.00
MLN 858	23/01/79	31/12/99	*	6.73
MLN 859	23/01/79	31/12/99	*	5.85
MLN 860	23/01/79	31/12/99	*	7.82
MLN 861	23/01/79	31/12/99	*	5.82
MLN 862	23/01/79	31/12/99	*	4.64
MLN 863	23/01/79	31/12/99	*	6.24
MLN 940	25/05/82	31/12/02	*	6.00



NORTHERN GOLD N.L.	
YAM CREEK MLN & MCN MINING TENEMENT LOCATION DIAGRAM	
Figure 1	
Date 4/12/1997	Author N.SODIC
Office Adelaide	Drawing
Scale 1:25000	Projection Longitude / Latitude (AGD 86)
0 250 500 1000 metres	

2.0 GEOLOGY

2.1 Regional Geology

The mineral claims and leases are 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 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.

2.2 Local Geology

The licences cover the Yam Creek anticline north of the Golden Dyke Dome and Margaret Syncline (Socic, 1998).

Lithologies present in the tenement consist of sediments of the Mount Bonnie Formations and the younger Finniss River Group consisting of flysch sediments of the Burrell Creek Formation and Gerowie Tuff (Socic, 1998).

The Yam Creek anticline is affected by the Hayes Creek Fault, a regional north north - east trending structure, and associated fault splays (Socic, 1998).

3.0 PREVIOUS EXPLORATION

The Yam Creek region was one of the most significant early hard rock and alluvial gold mining areas in the Northern Territory. The first significant reef gold discovery, the Priscilla Reef, was made in 1872. This was followed by a period of intense reef and alluvial mining activity, which continued until the early twentieth century. The district was famous for its gold nuggets, the largest being 700 ounces (22.5 kilograms). The alluvial deposits in the North Point area were worked by Chinese miners late last century. Until recently, little work has been carried out in the area (Ormsby, 1988c).

Previous exploration has been completed by Territory Resources N.L., Dundas Gold Corporation N.L. and Dominion Gold Operations Pty. Ltd.

Exploration by Territory Resources N.L. included an aeromagnetic survey, a Geo - Flite multispectral scanning survey, geological mapping, pitting and costeaning of the alluvial areas and costeaning of the hard rock areas (Ormsby, 1988c).

An aeromagnetic survey was conducted in 1985 over MCN 898, MCN 899 and MCN 900, in conjunction with exploration activities over EL 4415.

In 1986, an extensive pit sampling and alluvial mapping program was completed over North Point, covering MCN 898, designed to examine the extent of the alluvial deposits in the area (Ormsby, 1988b). Gold was recovered from most samples and encouraging results were obtained (Ormsby, 1988c).

Four costeans were sampled and mapped in detail on MCN 898 (North Point) to follow up previous indications of hardrock gold mineralisation. This work is fully documented in Jettner, 1986 and 1987.

Territory Resources N.L. collected bulk samples from the upper metre on MCN 898 and MCN 899. The upper half metre of laterite and elluvial/colluvial material was mined from the eastern section of MCN 898. Mining also took place on MCN 899, where approximately 70 centimetres of colluvial and alluvial material was removed from two pits (Ormsby, 1988b).

Potential exists for hard rock gold mineralisation along the northern extension of the Priscilla Reef at North Point as indicated by the interpretation of the aeromagnetic data (Ormsby, 1988c). It was discovered that the hard rock mineralisation occurs predominantly in ladder quartz veins and stockworks within a greywacke unit of the Mount Bonnie Formation, which forms the northern extension of the "Priscilla Line". Further south, in the Sandy Creek region, gold mineralisation has been identified within quartz veins hosted by Zamu Dolerite.

The hardrock potential of MCN 625, MCN 624 and MCN 898 were further examined by mapping and nine percussion holes being drilled. The percussion holes were drilled on the southern portion of MCN 898. Encouraging results were obtained and are documented in Ormsby, 1988a.

Exploration over MCN 625, MCN 624 and MCN 899, was completed by an independent consultant, on behalf of Territory Resources N.L. The objective of the program was to investigate the alluvial diggings by the Chinese last century and to investigate the hard rock gold potential of the North Point area, at the northern end of the Priscilla Line of mineralisation, adjacent to the Yam Creek Mine. The work undertaken included gridding, geological mapping, excavator pitting, mapping and sampling of excavator pits, panning of samples from the pits and assaying of the pan concentrates. This work is reported in Lees, 1986.

Dominion Gold Operations Pty. Ltd. completed geological mapping, reconnaissance rock chip sampling and a data review over MCN 46, MCN 47, MCN 49 and MCN 50. They concluded that MCN 49 and MCN 50 showed the most potential. An anticlinal axis runs roughly through their western regions. These mineral claims contain many of the old workings within the area, which followed the quartz veins on the western most axial zone. Dominion's sampling of these quartz veins returned a best assay of 2.84 g/t. The quartz vein sampling completed within MCN 46 and MCN 47 revealed the area to be virtually barren (Tisdall, 1987).

In 1987, Dundas Gold Corporation N.L., commissioned Elliott Exploration Co. Pty. Ltd. to carry out a detailed evaluation of MLNs 823 - 832 and MLNs 858 to 863. This work involved the excavation of 41 costeans, geological mapping, sampling, resource calculations and 326 percussion drill holes for a total of 8,942 metres (Elliott *et al.*, 1988 and Collett, 1988).

During the 1996 field season, Northern Gold N.L. completed a work program based on the acquisition and manipulation of digital data, MMI geochemical soil sampling and RC drilling (Mottram *et al.*, 1997).

The MMI soil sampling program consisted of the collection of 1,100 samples, which were submitted to Amdel for MMI analysis by WAM-B technique. Samples were taken on a 10 metre spacing on 100 metre lines (Mottram *et al.*, 1997).

Results returned were highly anomalous with peak values of 784 ppb Au and 448 ppb Au. The northern area showed wide highly anomalous zones. The central part on the Yam Creek line, although densely covered in old workings, showed relatively poor results (Mottram *et al.*, 1997).

Infill RC test drilling consisted of the completion of 26 holes for a total of 1,996 metres. All samples were submitted to Assaycorp for 50 gram fire assay, quartz flush Au analysis (Mottram *et al.*, 1997).

Drilling located the high grade mineralisation previously defined by Dominion in 1994, and Dundas exploration in 1987. Results from drill testing the eastern greywacke were the most encouraging, with best intersections returned in drill hole YC151, reporting 6 metres @ 14.25 g/t Au from 24 metres, and in drill hole YC150 with 4 metres @ 2.98 g/t Au from 10 metres. The second phase of drilling identified southern strike and dip continuations of this high grade mineralisation intersected in the eastern greywacke. Best results for the second program include 2 metres @ 5.62 g/t Au from 58 metres in drill hole YC153, 5 metres @ 1.14 g/t Au from 40 metres in drill hole YC155, and 3 metres at 4.24 g/t Au from 22 metres in drill hole YC161 (Mottram *et al.*, 1997).

During the 1997 exploration season, Northern Gold N.L. completed a work program involving magnetic data acquisition and manipulation, ore resource studies and digital terrain modelling. The data was obtained and used in conjunction with aerial mapping, site visits, previous digital data interpretations and data reviews to determine the best method of exploration to be used on the licence (Socic, 1998).

Northern Gold N.L. purchased multiclient aerial geophysics from World Geoscience. The results of the geophysics were used primarily as imaged processed data for regional interpretation of exploration concepts. A contour map of the region was also compiled (Socic, 1998).

The Yam Creek Prospect lies on MLN's 828 - 832. The prospect was block modelled using inverse distance squared methodology, with a greywacke unit of the Mount Bonnie Formation (Farrelly, 1996).

The block model produced used large search ranges in order to find sufficient data to estimate block grades, and lacks sufficient support to be classified as either measured or indicated as defined by the JORC code (Farrelly, 1996).

The resource at Yam Creek is estimated above a 0.90 g/t Au cut off to be:-

959,770 t @ 2.02 g/t Au (Uncut)

959,770 t @ 1.31 g/t Au (Cut 10)

4.0 1998 EXPLORATION COMPLETED

No field work was completed over the Yam Creek tenements during the 1998 exploration season. All data is has been reviewed and discussions are currently under way with a prospective joint venture partner.

5.0 1998 EXPENDITURE

The expenditure on the Yam Creek MLN's and MCN's, during the 1998 year of tenure, totaled \$1,865. Details of this expenditure are listed below as Table 2.

Table 2 Yam Creek MCN and MLN 1998 Expenditure

<u>COSTS</u>	<u>AMOUNT</u>
Report Compilation	205
Tenement Management	340
Data Review	310
Stationary and Office Expenses	20
Computing	25
Motor Vehicle Expenses and Fuel	80
Salaries and Wages	575
Subtotal	1,555
Administration @ 20%	310
TOTAL	<u>\$1,865</u>

6.0 1999 PROPOSED WORK PROGRAM

The proposed work program for the 1999 year of tenure will comprise RC drilling programs in the central region of the project area.

An estimation of the cost of these programs is \$5,000.

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