

**GRM**

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**EXPLORATION LICENCE 10203**

*WHITE HILL BORE*  
**SECOND ANNUAL REPORT**  
*17 June 2002 - 16 June 2003*

*LICENSEE:*

**GIANTS REEF EXPLORATION PTY LTD**  
A.B.N. 009 200 346

*AUTHORS:*

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June 2003

DISTRIBUTION:

Department of Business Industry & Resource Development   
Central Land Council   
Giants Reef Exploration Pty Ltd   
Giants Reef Mining Limited

*SE53-14*  
*TENNANT CREEK 1:250000*  
*5758*  
*TENNANT CREEK 1:100 000*

## SUMMARY

Exploration Licence 10203 *White Hill Bore*, is located 18km northeast of Tennant Creek. The Licence was acquired by Giants Reef Exploration Pty Ltd (Giants Reef) to follow up on information received from the CSIRO concerning samples of groundwater taken in 1988 from a cattle station water bore in the area (*White Hill Bore*) that were highly anomalous for gold.

The target of exploration in EL 10203 is gold mineralisation, probably in a non-magnetic host rock, located in the contact metamorphic zone of the Tennant Creek Granite.

This report summarises the exploration work done on EL 10203 during the second year of tenure, from the 17<sup>th</sup> June 2002 to the 16<sup>th</sup> June 2003.

Groundwater sampling of *White Hill Bore* has confirmed that the water in this bore is carrying highly anomalous levels of gold, as was first noted by the CSIRO in 1988. The bore is located within a tourmalinised contact zone between the Tennant Creek Granite to the north and Palaeoproterozoic sedimentary formations to the south.

A 6 hole drill program around *White Hill Bore* to obtain assay samples and geological information that could lead to locating gold mineralisation was proposed for the second year of tenure.

As a result of Giants Reefs exploration commitments being focused elsewhere in the goldfield, the proposed drill program was postponed for the second tenure year. Giants Reef plan to undertake the drill program in the next field season.

It is important to note that *White Hill Bore* itself is not the actual target or prospect, but that chemical information from analysis of the bore water has provided the main clue for the existence of gold mineralisation *somewhere in the vicinity*.

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2. Boundaries of EL 10203

## 1. INTRODUCTION

Exploration Licence 10203 *White Hill Bore*, is located 18km northeast of Tennant Creek. The Licence was acquired by Giants Reef Exploration Pty Ltd (Giants Reef) to follow up on information received from the CSIRO concerning samples of groundwater taken in 1988 from a cattle station water bore in the area (*White Hill Bore*) that were highly anomalous for gold.

The target of exploration in EL 10203 is gold mineralisation, probably in a non-magnetic host rock, located in the contact metamorphic zone of the Tennant Creek Granite.

This report summarises the exploration work done on EL 10203 during the second year of tenure, from the 17<sup>th</sup> June 2002 to the 16<sup>th</sup> June 2003.

## 2. LOCATION

EL 10203 *White Hill Bore* is located approximately 18km northwest of Tennant Creek township, on the Tennant Creek 1:100 000 scale map sheet (5759).

Access from Tennant Creek is north via Stuart Highway to a point about 700m north of the old Overland Telegraph Station, then easterly along bush tracks to *White Hill Bore*.

Figure 1 shows the location of EL 10203.

## 3. TENURE

EL 10203 *White Hill Bore* was granted to Giants Reef Exploration Pty Ltd on the 17<sup>th</sup> June 2001 for a period of 6 years.

The Licence covers 3 one-minute graticular blocks, with a total area of 9.7km<sup>2</sup>. The Licence lies within NT Portion 494, Perpetual Pastoral Lease 1142 (Tennant Creek Station).

The Licence area is subject to an Indigenous Land Use Agreement signed in September 2000 with the Native Title holders of the Tennant Creek region and the Central Land Council.

At the end of the second year a waiver of reduction was made to retain the 3 blocks.

Figure 2 shows the boundaries of the Licence area.

## 4. GEOLOGY

### 4.1 Regional Geology

Papers contained in AusIMM Monograph 14 (Geology of the Mineral Deposits of Australia and Papua New Guinea), Volume 1, pp. 829-861 provide a good introduction to the regional geology and styles of gold-copper mineralisation of the Tennant Creek Mineral Field.

A more recent reference is the 1:250 000 geological map of Tennant Creek and Explanatory Notes, published by the Northern Territory Geological Survey in 1998, which includes a revised stratigraphy.

### 4.2 Local Geology

The bedrock geology of EL 10203 is largely masked by alluvial and colluvial material associated with the drainage system of Tennant Creek, which flows through the middle of the EL. Outcrops of the Tennant Creek Granite, with quartz reefs and veins, are found in the northern block of the Licence. The Tennant Creek geology map 5758, published in 1995 by the NTGS, shows an outcrop of possible Flynn Sub-group sediments about 1km south of the granite area, and there are some small

tourmaline-rich outcrops around White Hill Bore, but the rest of the southern blocks are lacking in outcrop. From the field evidence, aeromagnetic data and petrographic report it appears that White Hill Bore itself is sited on or very close to a contact-metamorphosed zone along the southern margin of a lobe of the Tennant Creek Granite. The granite may be in contact with the Warramunga Formation turbidite sequence or with Flynn Sub-group sediments, or both.

The rock units mentioned above are all of Palaeoproterozoic age. Deposition of the Warramunga Formation was followed by the emplacement of the Tennant Creek Granite, then by the deposition of the Flynn Sub-group sediments.

There are no mines or prospects within EL 10203. The nearest historic workings are about 6km to 8km to the south, and include the Lone Star, the Memsahib, Plain Jane, Maple Leaf, Aga Khan and the Mint.

## 5. WORK DONE DURING YEAR TWO

### 5.1 Targets and Concepts

In the first tenure year Giants Reef assessed the CSIRO hydrogeochemistry over the Licence (water sampling and trace element analysis). The analysed bore is located within a tourmalinised contact zone between the Tennant Creek Granite to the north and Palaeoproterozoic sedimentary formations to the south. Groundwater sampling of White Hill Bore by Giants Reef confirmed that the water in this bore is carrying highly anomalous levels of gold, as was first noted by the CSIRO in 1988.

Assessment of the available gravity and aeromagnetic data along with geophysical modelling did not identify any anomalies or clues to the source of the anomalous Au values from the Bore, and did not identify any drill targets. Giants Reef found that the immediate White Hill Bore area does not display any of the dipolar magnetic anomalies associated with the typical Tennant Creek ironstone masses that are host to virtually all the gold mineralisation within the Tennant Creek Mineral Field. Therefore any gold mineralisation around White Hill Bore is seen as being non-magnetic, and hence more difficult to find.

The location of White Hill Bore is marked on Figure 1.

It is important to note that White Hill Bore itself is not the actual target or prospect, but that chemical information from analysis of the bore water has provided the main clue for the existence of gold mineralisation *somewhere in the vicinity*.

### 5.2 Work Area Clearance by Central Land Council

Under the terms of the Indigenous Land Use Agreement Giants Reef must provide the Central Land Council (CLC) with a Work Program before carrying out exploration work in EL 10203 so that the local Native Title holders can determine whether the proposed work will cause damage to important sites in the area.

Giants Reef submitted a Work Program on the 15<sup>th</sup> May 2001, and a revision of this was sent to the CLC on 13 March 2002. The work proposed was to drill a pattern of six shallow vertical holes around White Hill Bore to obtain assay samples and geological information that could lead to locating gold mineralisation. It has been ascertained that White Hill Bore is located more or less exactly on meridian 134° 19'E as per the AGD94 datum. This meridian forms the boundary between EL 10203 and Giants Reef's EL 8879 to the east. Three of the six proposed holes will therefore be in EL 8879 (see Figure 1).

The CLC has given approval for the proposed drilling to go ahead.

### 5.3 Postponement of Field Work

The proposed drilling for the 2002 field season over EL 10203 was postponed as a consequence of Giants Reef commitments elsewhere in the Tennant Creek Goldfield, and the purchase of NTC's assets.

During the 2002 field season a program of immediate-priority definition drilling of the Chariot gold deposit prevented the planned drilling over EL 10203 being carried out. Further exploration focus by Giants Reef for 2002 was on the drilling of the Bluebush Project Area, EL's 8882 and 8883, which came under an Alliance with BHP Billiton. The focus on the Bluebush area and the definition drilling at Chariot gold deposit prevented Giants Reef from undertaking the proposed drilling over EL 10203.

### 5.4 Tenement Review

An internal review of the Giants Reef tenement portfolio and a classification of exploration opportunities in September 2002 assessed the future exploration potential of EL 10203. The Exploration Licence was rated as a moderate to low priority exploration target although a great deal of geological assessment and compilation may still be required.

The review recommended the Licence be retained and Giants Reef pursue the proposed drill program.

## 6. REHABILITATION

No work was done in EL 10203 *White Hill Bore* that required any rehabilitation measures.

## 7. CONCLUSIONS

Groundwater sampling of White Hill Bore has confirmed that the water in this bore is carrying highly anomalous levels of gold, as was first noted by the CSIRO in 1988. The bore is located within a tourmalinised contact zone between the Tennant Creek Granite to the north and Palaeoproterozoic sedimentary formations to the south.

A 6 hole drill program around White Hill Bore to obtain assay samples and geological information that could lead to locating gold mineralisation was proposed for the second year of tenure.

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8. EXPENDITURE

The expenditure covenant for the first year of tenure was \$8,700. Actual expenditure was as follows:

	\$
1. Geology .....	1,581
2. Geophysics .....	600
3. Geochemistry .....	0
4. Surveying .....	0
5. Data integration .....	0
6. Analytical .....	0
7. Drilling.....	0
8. Tenure maintenance .....	636
9. Administration and overheads .....	200
TOTAL	3,017

Total expenditure amounted to \$3,017. As the expenditure covenant was not met, an application for a variation of the minimum expenditure accompanies this report.

9. WORK PROGRAM AND EXPENDITURE FOR YEAR THREE

Work proposed for Year 3 includes further geological review of the all the data generated over the Licence area. It is expected that no amendments to the 2002 drilling proposal around White Hill Bore will be required. On completion of the review, a Mine Management Plan for the 6 hole drill program it will be submitted to the Department of Business, Industry and Resource Development, and the CLC work proposal will be resubmitted.

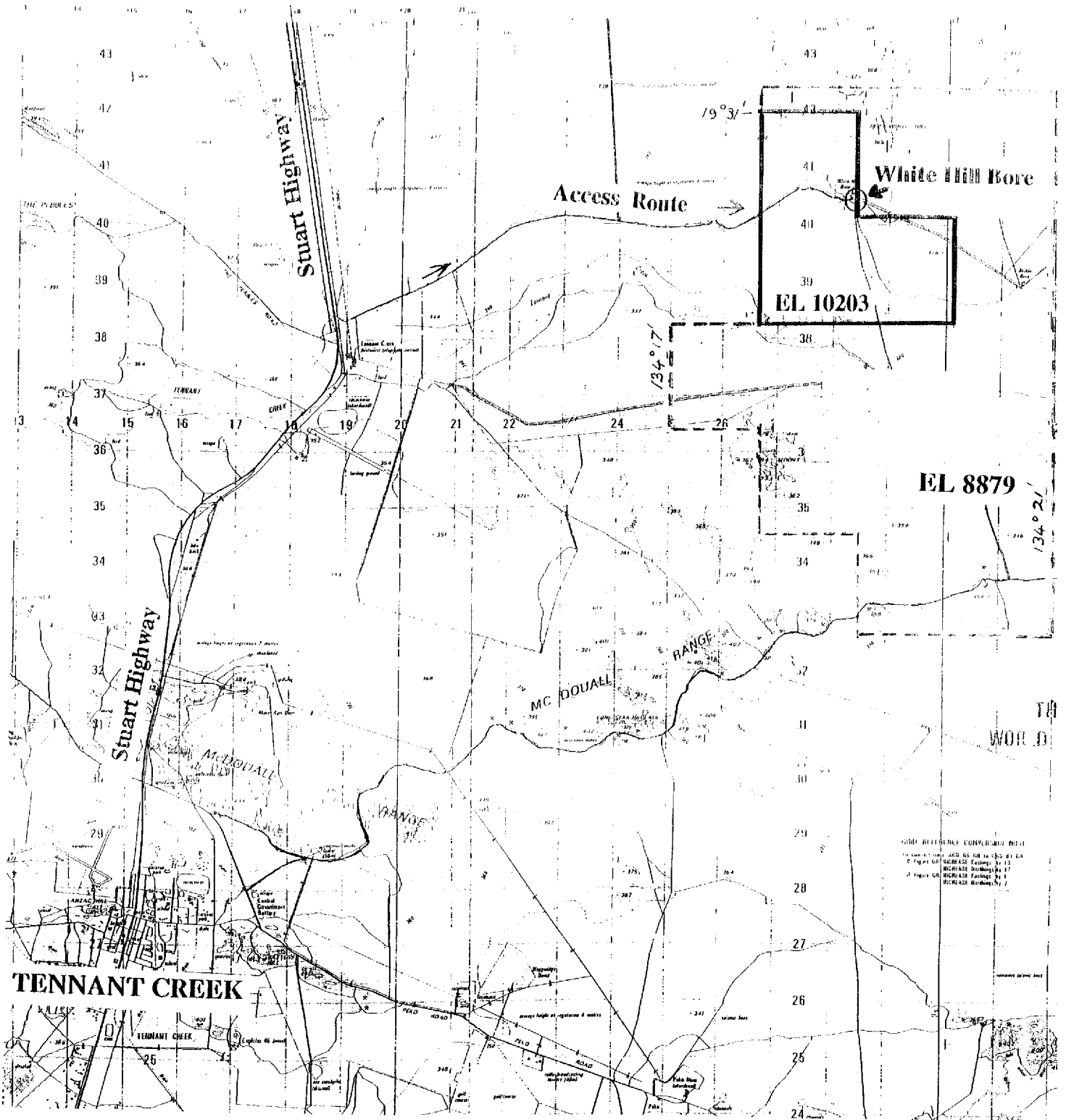
	\$
1. Geology .....	400
2. Geophysics .....	400
3. Geochemistry .....	700
5. Data integration.....	500
6. Analytical .....	1,100
7. Drilling.....	4,400
8. Tenure maintenance .....	200
9. Administration and overheads .....	1,000
TOTAL	8,700

Exploration programs are affected by the results achieved as the work progresses, and while this is the proposed program and expenditure for the coming year, some changes may become necessary.

J. L. CAHILL  
 EXPLORATION GEOLOGIST

S. C. RUSSELL  
 SENIOR EXPLORATION GEOLOGIST





GRID REFERENCE CONVERSIONS  
 1 Figure OR INCREASE Easting: 50 13  
 2 Figure OR INCREASE Easting: 50 13  
 3 Figure OR INCREASE Easting: 50 13  
 4 Figure OR INCREASE Easting: 50 13



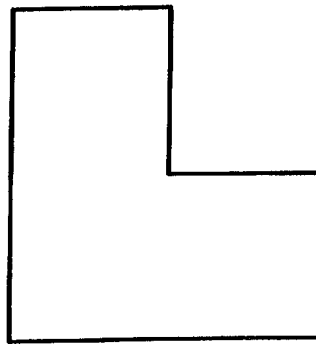
Scale 1:100,000



GIANTS REEF EXPLORATION PTY LTD TENNANT CREEK NORTHERN TERRITORY			
AREA	EL 10203 White Hill Bore		
MAP REF	5758 Tennant Creek 1:100 000		
SUBJECT	LOCATION MAP		
DATE	AUTHOR	SCALE	
July 2002	PGS	1:100,000	FIGURE 1

134° 18'

134° 20'



19° 31'

19° 33'

**EL 10203**  
**3 BLOCKS**  
**9.7 sq kms**

<b>GIANTS REEF EXPLORATION PTY LTD</b>			
TENNANT CREEK NORTHERN TERRITORY			
AREA	EL 10203 <i>White Hill Bore</i>		
MAP REF	5758 Tennant Creek 1:100 000		
SUBJECT	<b>BOUNDARIES of EL 10203</b>		
DATE	AUTHOR	SCALE	
July 2002	PGS		<b>FIGURE 2</b>



# GIANTS REEF MINING LIMITED

## *HARD COPY REPORT META DATA FORM*

REPORT NAME: SECOND ANNUAL REPORT FOR EL 10203 WHITE HILL BORE FOR THE PERIOD 17 JUNE 2002 TO 16 JUNE 2003

PROSPECT NAMES(s): EL 10203 – WHITE HILL BORE

GROUP PROSPECT NAME:

TENEMENT NUMBERS(s): EL 10203

ANNIVERSARY DATE: 17 JUNE 2003

OWNER/JV PARTNERS: GIANTS REEF EXPLORATION PTY LTD

AUTHOR(s): J.L.CAHILL  
S.C.RUSSELL

COMMODITIES: GOLD, COPPER, BISMUTH

MAPS 1:250 000: TENNANT CREEK SE53-14

MAPS 1:100 000: TENNANT CREEK 5759

MAPS 1:25 000:

TECTONIC UNIT(s): TENNANT CREEK INLIER

STRATIGRAPHIC NAME(s): WARRAMUNGA FORMATION  
TENNANT CREEK GRANITE

AMF GENERAL TERMS:

AMF TARGET MINERALS: GOLD, COPPER, BISMUTH,

AMF GEOPHYSICAL:

AMF GEOCHEMICAL: WHITE HILL BORE GEOCHEMICAL ANOMALY,  
GROUNDWATER SAMPLING

AMF DRILL SAMPLING:

HISTORIC MINES:

DEPOSITS:

PROSPECTS: WHITE HILL BORE

KEYWORDS: EL 10203, WHITE HILL BORE, GROUNDWATER SAMPLING