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## **MINERAL CLAIM C1046**

*BLACK EYE*

### **FINAL REPORT**

*21 August 1991 to 20 August 2001*

*LICENSEE:*

**GIANTS REEF EXPLORATION PTY LTD**

A.C.N. 009 200 346

*AUTHORS:*

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S.C. RUSSELL.

*November, 2001*

**DISTRIBUTION:**

Department of Mines & Energy  
Giants Reef Exploration Pty Ltd  
Giants Reef Mining Limited

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*SE53-14*

*TENNANT CREEK 1:250 000*

*5759*

*FLYNN 1:100 000*

## SUMMARY

Mineral Claim C1046 *Black Eye* is located approximately 30 kilometres north-north-west of Tennant Creek.

The claim is 100% owned by Giants Reef Exploration Pty Ltd.

This report records the exploration work carried out on Mineral Claim C1046 during its term from 21 August 1991 to 20 August 2001.

Targets were gold and copper orebodies.

Reviews of the area concluded that the magnetic features within MC C1046 are of low exploration priority. From Normandy's drilling of hole WMRC-001, it appears highly likely that the cause of the main magnetic anomaly at MC C1046 is caused by disseminated magnetite in sedimentary rocks. This, combined with a Giants Reef initiative to reduce the amount of Mineral Leases and Claims held by the Company, led to the decision to allow Mineral Claim C1046 *Black Eye* to lapse at the end of its second five year term.

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## 1. INTRODUCTION

Mineral Claim C1046 *Black Eye* was applied for to cover an unexplained and untested magnetic anomaly.

This report records the minor amount of exploration work carried out on Mineral Claim C1046 during the term from 21<sup>st</sup> August 1991 to 20<sup>th</sup> August 2001. This is the final report on MC C1046.

Figure 1 shows the Mineral Claims and surrounding tenements.

## 2. LOCATION

Mineral Claim C1046 *Black Eye* is located approximately 30 kilometres north-west of Tennant Creek and 6 kilometres west south-west from the Orlando mine, on the Flynn 1:100 000 map sheet, 5759. There are a number of smaller mines and prospects within a 10 kilometre radius. (The *Black Eye mine* is a different prospect, located 2 kilometres to the northwest of the *Black Eye* Mineral Claim C1046).

Access from Tennant Creek is via the Warrego road to a point 7 kilometres west of the Orlando mine turn-off, then turning south for 0.5 kilometres. There are no established tracks to the claim itself, but the area is easily accessible by four wheel drive vehicle.

## 3. TENURE

The area now covered by MC C1046, *Black Eye* (40 hectares) was originally part of Exploration Licence 5498, held jointly by Giants Reef Exploration Pty Ltd and Western Mining Corporation Limited.

Mineral Claim C1046 was granted prior to the expiry of EL 5498 to Western Mining Corporation Limited (80%) and Giants Reef Mining Exploration Pty Ltd (20%), a wholly owned subsidiary of Giants Reef Mining Limited, on 21<sup>st</sup> August 1991, for a period of five years.

In September 1997 Giants Reef completed its purchase of WMC's interest in the Joint Venture and registration of the transfer of the 80% WMC equity to Giants Reef was effected on 4<sup>th</sup> December 1997.

Mineral Claim C1046 was also one of many tenements in the area between the Warrego, Orlando and White Devil mines that were subject to a joint venture between Giants Reef and Normandy Gold Pty Ltd. This Joint Venture, termed the "Grand Central Joint venture", was in operation from 1997 to 2001, when it was terminated by Giants Reef's purchase of all Normandy's remaining assets in the Tennant Creek goldfield. Normandy were the managers of this joint Venture.

A renewal of the claim was granted for a second five-year period ending 20<sup>th</sup> August 2001.

The claim is within NT Portion 408, Perpetual Pastoral Lease 946, Phillip Creek Station.

## 4. GEOLOGY

### 4.1 Regional

The reader is referred to AusIMM Monograph 14 (Geology of the Mineral Deposits of Australia and Papua New Guinea), Volume 1, pp 829-861, to gain a good introduction to the regional geology and the styles of gold-copper mineralisation of the area.

### 4.2 Local

The claim is underlain by the Palaeoproterozoic Warramunga Formation, (formerly assigned to Carraman Formation of the Warramunga Group) which is host to almost all the gold, copper and bismuth occurrences in the Tennant Creek goldfield. Within the claim, bedrock outcrop is limited and the depth of soil and outwash cover is estimated to be from zero to only a few metres thick.

## 5. PREVIOUS EXPLORATION

The surrounding district had been held and explored at various times by Geopeko, Metana Minerals, CEGB, Normandy and other companies but the Black Eye prospect, as far as Giants Reef is aware, had not been recognised as a prospect in its own right until the area was explored by Western Mining Corporation (WMC), under EL 5498.

In 1988 WMC carried out a ground magnetic survey to investigate an aeromagnetic anomaly noted at this site. A 26 hole vacuum drill geochemical programme was also carried out, which identified low level copper values.

Six reverse circulation percussion holes were drilled in 1990 (TBED27; TBER28-32: total 390 metres) and 75 metres of diamond drill core was added to the end of TBED27. Some of these holes intersected minor ironstone and weakly anomalous levels of copper and bismuth:

Hole	Intersection
TBED27	10m av. 141 ppm Cu and 7 ppm Bi from 26m
TBEC28	5m av. 200 ppm Cu and 8 ppm Bi from 25m 3m av. 118 ppm Cu and 8 ppm Bi from 47m
TBEC31	3m av. 18 ppm Cu, 115 ppm Bi and 0.3 ppm Au from 37m

## 6. WORK DONE DURING THE TERM

### 6.1 Year One (1991-92)

WMC made an assessment the of geochemical and ground magnetic anomalism in MC C1046, and considered more drilling. However there was no drill rig available to test these further.

### 6.2 Years Two to Six (1992-93 to 1996-97)

No work carried out. Management of the exploration of MC C1046 passed to Normandy, under the joint venture with Giants Reef, in 1997.

### 6.3 Year Seven (1997-98)

Normandy carried out a helicopter-borne detailed aeromagnetic survey over the area of the "Grand Central Joint Venture", in the area between the Warrego, Orlando and White Devil mines, in 1998. The key specifications of the survey were flight lines 50m apart and an average clearance above terrain of 30m. MC C1046 was included in this coverage. Normandy referred to the MC C1046 area as the "WMC Area 10".

### 6.4 Year Eight (1998-99)

In December 1998, Normandy made a re-assessment of the earlier work done by WMC on the MC C1046 area. Normandy's interpretation of the magnetic data suggested that the narrow ironstone bodies intersected by WMC under EL 5498 were not the main magnetic source of the anomalies in MC C1046. The main source appeared to be to the south of the area targeted by the WMC drillholes.

An RC hole, WMRC-001 to 333m depth, was therefore drilled to test this. The hole was collared about 25m south of the boundary of MC C1046 (in MC C1230), but was aimed to the north and the greater part of the hole would have been within MC C1046. It intersected siltstone and sandstone, including two zones of siltstone with disseminated magnetite (101m to 134m, and 154m to 333m). Individual peak assays results were 0.07 ppm Au, 48 ppm Cu and 9 ppm Bi. The disseminated magnetite was thought to be the cause of the target magnetic anomaly.

6.5 Years Nine to Ten (1999-2001)

No work carried out.

6. REHABILITATION

No work involving substantial disturbance was carried out, and no rehabilitation was required.

7. CONCLUSIONS

Reviews of the area concluded that the magnetic features within MC C1046 are of low exploration priority. From Normandy's drilling of hole WMRC-001, it appears highly likely that the cause of the main magnetic anomaly at MC C1046 is caused by disseminated magnetite in sedimentary rocks. This combined with a Giants Reef initiative to reduce the amount of Mineral Leases and Claims held by the Company, led to the decision to allow Mineral Claim C1046 *Black Eye* to lapse at the end of its second five year term.

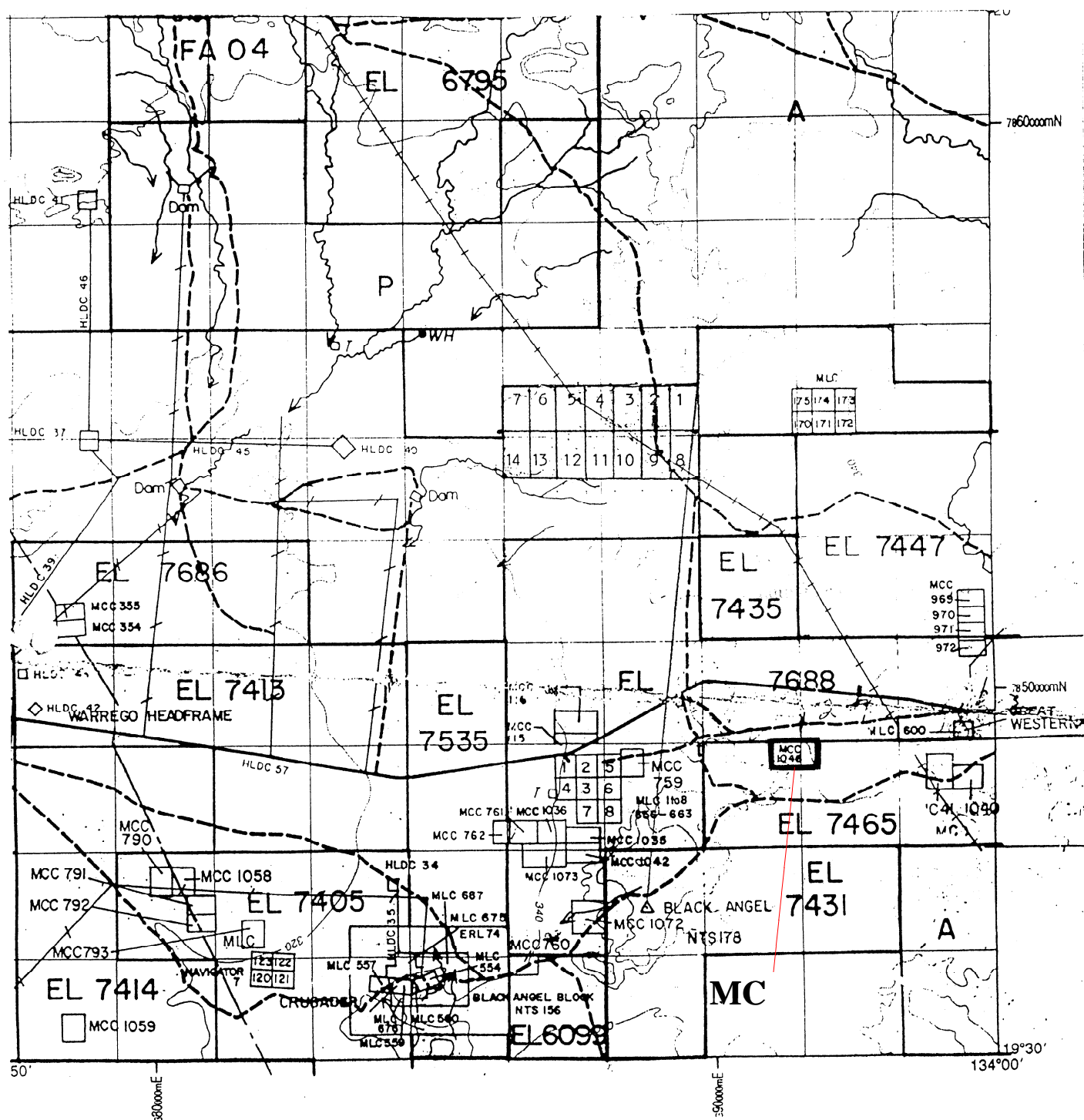
8. EXPENDITURE

No significant expenditure was attributed to Mineral Claim C1046 *Black Eye* By Giants Reef during the reporting period.

Normandy's expenditure on MC C1046 was included as part of the overall expenditure on a group of 94 claims called the "Smelter Leases" (Normandy cost code GC150). Giants Reef is not able to ascertain what actual sum could be attributed to any individual Mineral Claim, such as MC C1046, within this group.

P.G SIMPSON  
EXPLORATION MANAGER

S.C.RUSSELL  
EXPLORATION GEOLOGIST



GIANTS REEF EXPLORATION PTY LTD			
TENNANT CREEK NORTHERN TERRITORY			
AREA	MC C1046 <i>Black Eye</i>		
MAP REF.	52/1 SHORT RANGE 1:100 000		
SUBJECT	Location and Surrounding Tenements <i>Extract DME MINING TENURE 52/2</i>		
DATE	AUTHOR	SCALE	
FEB 2000	DME	1:100 000	<b>FIGURE 1</b>

# GIANTS REEF MINING LIMITED

## **HARD COPY REPORT META DATA FORM**

### **MC C1046 BLACK EYE**

REPORT NAME:	MINERAL CLAIM C1046 BLACK EYE FINAL REPORT 21 August 1991 – 20 August 2001
PROSPECT NAMES(s):	BLACK EYE
GROUP PROSPECT NAME:	
TENEMENT NUMBERS(s):	MC C1046
ANNIVERSARY DATE:	20 AUGUST 2001
OWNER/JV PARTNERS:	GIANTS REEF EXPLORATION PTY LTD
AUTHOR(s):	PETER SIMPSON (Exploration Geologist) STEVE RUSSELL (Exploration Geologist)
COMMODITIES:	GOLD, COPPER
MAPS 1:250 000:	TENNANT CREEK SE53-14
MAPS 1:100 000:	FLYNN 5758
TECTONIC UNIT(s):	TENNANT CREEK INLIER
STRATIGRAPHIC NAME(s)	WARRAMUNGA FORMATION CARRAMAN FORMATION
AMF GENERAL TERMS:	
AMF TARGET MINERALS:	
AMF GEOPHYSICAL:	
AMF GEOCHEMICAL:	
AMF DRILL SAMPLING:	
MINES:	GECKO (416500E, 7825901N) ORLANDO (397900E, 7850101N)
DEPOSITS:	LAST PRINCESS, OLIVE WOOD, ONE OH TWO (None are in the claim area)
PROSPECTS:	
KEYWORDS:	BLACK EYE, MC C1046, WARRAMUNGA FORMATION



## **APPENDIX 1**

### ***MC C1045 BLACK EYE***

Drillhole Database – WMRC-001