GIANTS REEF MINING LIMITED

A.B.N. 71 058 436 794 1/26 IRVINE STREET TENNANT CREEK NT 0860 PO BOX 1244 TENNANT CREEK NT 0861

Telephone 08 8962 1330 Facsimile 08 8962 2900 Email: email@giantsreef.com.au Website: www.giantsreef.com.au

EXPLORATION LICENCE 9934

PIEBALD
FINAL REPORT

28 January 1998 –13 January 2003

LICENSEES:
NEWMONT WILUNA GOLD PTY LTD
Formally NORMANDY WILUNA GOLD PTY LTD

A.B.N. 009 751 795

and

GIANTS REEF MINING LIMITED A.C.N. 058 436 794

> AUTHOR: J. L. CAHILL

February, 2003

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Giants Reef Exploration Pty Ltd		TENNANT CREEK 1:100 000
Giants Reef Mining Limited	П	

SUMMARY

Exploration Licence 9934, *Piebald*, was part of a Joint Venture between Newmont Wiluna Gold Pty Ltd and Giants Reef Mining Limited (Giants Reef) over numerous tenements in the Tennant Creek goldfield. Together with EL 9351, MC C1026 to C1031, and MC applications C1172, C1175, C1178, C1181 to C1190, it is one of a contiguous group of tenements which was part of the *Peko-Juno Group*.

The Top End Joint Venture was established by the Joint Venture Agreement on 1st January 1994 with Giants Reef as operators with the right to earn equity in the tenements by funding exploration. Giants Reef has continued to sole fund exploration expenditure and Newmont Wiluna is diluting its interest by not contributing. At present Giants Reef have earned 60% interest in the tenements covered by the agreement.

Targets were Tennant Creek-style magnetite ironstone associated gold and copper ore bodies.

This report summarises the work completed on EL 9934 *Piebald* during the five years of tenure, from 28th January 2001 to the surrender of the EL in December 2002.

Work conducted during the five year tenure of Exploration Licence 9934 concentrated on follow up exploration of the previously identified geochemical, gravity and magnetic anomaly, Juno North prospect and the new South-Argo magnetic anomaly. This involved a detailed aeromagnetic survey, data integration and interpretation, magnetic modelling, technical data and literature reviews.

The Juno North magnetic anomaly was identified in the Juno North prospect area via the aeromagnetic survey. A number of drill holes from Giants Reef (GRJD-1) and previous companies have intersected the mineralisation with encouraging results. Magnetic modelling of the anomaly has placed the modelled source at a depth to its top of 340m, however this calculated response does not match with the observed profile.

The South Argo magnetic anomaly was identified in the first year of tenure and confirmed by the aeromagnetic survey in the second year of tenure. Geophysical modelling of the anomaly initially placed the South Argo source at 400m, which, on subsequent recalculation was placed at a significantly shallower depth of 200m.

In July 2002 an internal review of the Giants Reef tenement portfolio and a classification of exploration opportunities included a detailed assessment of the Top End Joint Venture tenements. Giants Reef decided to forfeit the Joint Venture tenements based on the lack of productivity of the venture, given its long life span, coupled with the low to moderate exploration potential of the tenements relative to defined high-priority exploration targets.

With the termination of the Top End Joint Venture between Giants Reef and Newmont Wiluna in December 2002, all the tenements of the Joint Venture were surrended. Exploration Licence 9934 was surrended on the 13th January 2003.

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1. INTRODUCTION

Exploration Licence 9934, *Piebald*, was part of a Joint Venture between Newmont Wiluna Gold Pty Ltd and Giants Reef Mining Limited (Giants Reef) over numerous tenements in the Tennant Creek goldfield. Together with EL 9351, MC C1026 to C1031, and MC applications C1172, C1175, C1178, C1181 to C1190, it is one of a contiguous group of tenements which was part of the *Peko-Juno Group*.

The Top End Joint Venture was established by the Joint Venture Agreement on 1st January 1994 with Giants Reef as operators with the right to earn equity in the tenements by funding exploration. Giants Reef has continued to sole fund exploration expenditure and Newmont Wiluna is diluting its interest by not contributing. At present Giants Reef have earned 60% interest in the tenements covered by the agreement.

Targets were Tennant Creek-style magnetite ironstone associated gold and copper ore bodies.

This report summarises the work completed on EL 9934 *Piebald* during the five years of tenure, from 28th January 2001 to the surrender of the EL in December 2002.

2. LOCATION

EL 9934 is centred 6km south-east of Tennant Creek township. It is located on the Tennant Creek 1:100 000 scale map sheet (5758).

Access is along the sealed Nobles Nob road, which runs easterly from Tennant Creek township and turning south along the Juno road, then into the Licence area via the Juno Horse Farm.

Figure 1 shows the Exploration Licence 9934 and surrounding tenements.

3. TENURE

Exploration Licence 9934, covering two part blocks of approximately 5 square kilometres, was granted to Wiluna Gold Pty Ltd (a fully owned subsidiary of Great Central Mines Pty Ltd) and Giants Reef Mining N.L. on 28th January 1998 for a period of 6 years.

Transfer of title from Giants Reef N.L. to Giants Reef Exploration Pty Ltd was registered on the 16th February 1998.

In December 1999 Great Central Mines Pty Ltd became a fully owned subsidiary of Normandy Mining Limited (Normandy). Subsequently Normandy became a wholly owned subsidiary of Newmont Mining Corporation. (Newmont Wiluna)

During the third year of tenure the Licence was reduced to one part block of approximately 2.11 km².

EL 9934 is within NT Portion 1918, Freehold Land registered in the name of M. S. McAskill, covering the Juno Horse Farm.

EL 9934 is subject to an Indigenous Land Use Agreement (ILUA), signed in September 2000 with the Native Title holders of the Tennant Creek region and the Central Land Council.

In December 2002 a Termination Agreement was signed by both Joint Venture parties, Newmont Wiluna and Giants Reef. The surrender of the Joint Venture tenements was executed, thus concluding the Top End Joint Venture. Exploration Licence 9934 was surrended on the 13th January 2003.

Figure 2 shows the Licence area in the first tenure year.

Figure 3 shows the Licence area in the fifth and final tenure year.

4. GEOLOGY

4.1 Regional Geology

The reader is referred to AuslMM 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 styles of gold-copper mineralisation of the area.

4.2 Local Geology

The area is mostly covered by thin soils and quartz scatter. Bedrock exposures in the southern part of the EL and surrounding geology indicates that Palaeoproterozoic Warramunga Formation underlies the Licence area.

5. WORK DONE DURING THE TERM

5.1 Year 1 (1998-1999)

5.1.1 Data Integration

Tenure information and geoscientific data on EL 9934 and all of Giants Reef's tenements was compiled and imported into GIS ArcView.

5.1.2 Detailed Aeromagnetic Survey

In October 1998, a detailed aeromagnetic survey was flown over EL 9934 and a very extensive surrounding area for Normandy.

Key specifications of the survey, flown by Kevron Geophysics Pty Ltd of Perth, were north-south flight lines 50m apart, at a height of 40m above ground.

5.1.3 Geophysical Target

A discrete geophysical anomaly in EL 9934 has was noted in the data from the mid-1980s Geopeko aeromagnetic survey of the central part of the goldfield. The anomaly lies on the northern boundary of the EL, centred approximately at AMG co-ordinates 419100E 7823400N. An early assessment suggests that it has a deep-seated source, which is probably situated just inside EL 9934.

5.1.4 Juno North Prospect

The Juno North prospect is a coincident geochemical, gravity and magnetic anomaly, where limited past drilling under predecessor tenements by Geopeko, Asarco and Giants Reef has encountered anomalous gold and copper mineralisation. This included 6m averaging 3.0g/t Au in Geopeko's hole JDH16. The 1995 deep diamond hole by Giants Reef (GRJD1, to 298m) intersected magnetic sediments which were regarded as the likely source for the magnetic anomaly. However, this hole did not establish a source for the gravity anomaly.

A reassessment of the Juno North prospect was made. It was proposed to drill several lines of RAB holes across the area surrounding the earlier percussion and diamond holes, to give targets for deeper RC percussion holes, and later diamond drilling if warranted.

A detailed account of the data generated during the first year of tenure can be found in Simpson, P.G. (1997): Exploration Licence 9934 *Piebald*: First Annual Report, 28 January 1998 to 27 January 1999. Report to NTDME.

5.2 Year 2 (1999-2000)

5.2.1 Aeromagnetic Survey Data Interpretation

In October 1998, a detailed aeromagnetic survey was flown over EL 9934 and a very extensive surrounding area for Normandy. Data from Normandys survey over granted tenements belonging to Giants Reef was given to Giants Reef.

Two magnetic anomalies were noted:

Anomaly	AMG Easting (approx.)	AMG Northing (approx.)
Juno North	419100E	7823400N
South Argo	420300E	7822100N

The Juno North magnetic anomaly, which is part of a wider area called the Juno North prospect, has been the subject of ground magnetics, gravity and limited drilling prior to the grant of EL 9934. The prior investigations included adjacent Mineral Claims C1030 and C1031, which were held by Giants Reef and Newmont Wiluna.

The Argo South magnetic anomaly lies close to, or on, the northern boundary of EL 9934. It was identified as a target during the first year of the EL.

Consultant Mr Frank Lindeman, of Lindeman Geophysics Pty Ltd of Melbourne, examined the data from the Normandy aeromagnetic data in the light of earlier (pre-EL 9934) information, and his findings are summarised in the next two sections of this report.

5.2.2 Juno North Aeromagnetic Anomaly

The Juno North magnetic anomaly has two peaks or lobes. The northern lobe was drilled by Giants Reef's vertical diamond hole GRJD-1 in January 1995, to 298m depth. A 60m intersection of magnetic sediments appeared to explain the magnetic anomaly. AMG co-ordinates of the hole are 422020E 78220200N.

Minor gold values were found in the percussion pre-collar, from ~25m to ~39m (max. 0.13 g/t Au), and weak copper anomalism (max. 276 ppm Cu). This mineralisation was in the general area of higher grades found by previous Asarco RC drillholes TRC 25 and TRC 26, and before that by Geopeko's diamond hole JDH16 (6m @ 3 g/t Au from 64m). This remains a target for further shallow drilling in what may be a haematitic shear zone. Downhole magnetic probing of GRJD-1 by Surtron Technologies in September 1995 did not locate any off-hole magnetic sources.

The southern lobe has not been explained. Giants Reef's diamond hole GRJD-2, drilled in January 1995 to 298m depth, did not intersect any magnetic material that would have accounted for the southern lobe of the anomaly.

AMG co-ordinates for GJRD-2 are 420400E 7821675N (ie, just outside the southern boundary of current EL 9934). It was angled at -60° to 189° magnetic, with a final depth of 294m. Again, downhole magnetic probing did not locate any nearby off-hole magnetic sources.

An earlier interpretation (in-house report by Barrett, 1994) produced a model invoking an ellipsoidal body for the northern lobe and an irregular prism for the larger southern lobe.

Mr Lindeman's new model uses a simple large ellipsoid with a magnetic susceptibility of 0.01 SI units to combine and explain both magnetic lobes. His modelled source had a depth to its top of 340m, which would make it a very deep target to drill. There is an element of uncertainty in this estimate, as the match between the observed profile and the calculated response is 'less than ideal'.

5.2.3 South Argo Aeromagnetic Anomaly

A discrepancy was noted between the location of data in the detailed Normandy aeromagnetics and the AGSO aeromagnetics. It was assumed that the Normandy survey was correctly located, as features in that data matched well with the same features in the older Giants Reef ground magnetics. To achieve a location for the South Argo anomaly source, it was necessary to utilise the AGSO data, as the Normandy data did not cover the entire anomaly. By shifting the AGSO data about 300m to the south-east, the location of the source of the anomaly could then be calculated. This was done by the Analytic Signal method, which is used to show the source in plan view vertically above its actual position. A magnetic susceptibility of 0.0487 SI was used. Only the southern half of the source body appears to be within EL 9934.

The depth to top of the South Argo source was calculated to be 400m. As with the Juno North anomaly, this is a dauntingly deep target for drilling.

A detailed account of the data including the aeromagnetic data received from Normandy, anomaly locations, and the magnetic modelling generated during the second year of tenure can be found in Simpson, P.G. (2000: Exploration Licence 9934 *Piebald*: Second Annual Report, 28 January 1999 to 27 January 2000. Report to NTDME.

5.3 Year 3 (2000-2001)

A review of the Joint Venture was carried out by Great Central during December 1999 and January 2000. This review included all of the data held by Giants Reef in Tennant Creek. Following this assessment, Great Central verbally indicated their intention not to contribute to the Joint Venture and to exercise their right to dilute their equity. However, before this was formally documented, Great Central became a wholly owned subsidiary of Normandy Mining Limited. Consequently, discussions were held with Normandy concerning their intention regarding the proposed Joint Venture dilution.

The planned RAB drilling program was postponed pending a Great Central/Normandy decision. Work on EL 9934 consisted of the integration of the geophysical modelling data carried out by Lindeman Geophysics, research and geological assessment of the remodelled bodies.

A detailed account of the generated during the third year of tenure can be found in Simpson, P.G. (2001): Exploration Licence 9934 *Piebald*: Third Annual Report, 28 January 2000 to 27 January 2001. Report to NTDME.

5.4 Year 4 (2001-2002)

A brief technical review of the Exploration Licence was carried out by Giants Reef. Essentially, the targets remain the same as in the previous year. These are:

- The Juno North prospect, which is a coincident geochemical, gravity and magnetic anomaly located at (AMG AGD84) 420300E 7822100N. Shallow gold mineralisation (intersected by previous Asarco, Geopeko and Giants Reef drilling) has been detected here.
- The "South Argo" magnetic anomaly on the northern boundary of EL 9934, at approximately (AMG AGD84) 419400E 7823400N. In previous years the northern half of this anomaly was located in ground held by Normandy, but since the purchase by Giants Reef of all the assets of GIANTS REEF MINING LIMITED

Normandy Tennant Creek Pty Ltd, now re-named Santexco Pty Ltd, Giants Reef now has tenure over the whole anomaly. The northern half of the interpreted magnetic source is in Santexco's EL 8280 San Miguel.

A recalculation of the depth of the "South Argo" magnetic source was made, giving a revised depth estimate to the top of the body of around 200m. This is substantially shallower than previous estimates of approximately 400m, and makes it more attractive as an exploration target.

The planned RAB drilling program at Juno North was again postponed while the future of the Joint Venture with Great Central Mines (now a wholly-owned subsidiary of Normandy Mining Limited) was being discussed.

A detailed account of the generated during the fourth year of tenure can be found in Simpson, P.G. (2002): Exploration Licence 9934 *Piebald*: Fourth Annual Report, 28 January 2001 to 27 January 2002. Report to DBIRD.

5.5 Year 5 (2002-Jan 2003)

In July 2002 an internal review of the Giants Reef tenement portfolio and a classification of exploration opportunities included a detailed assessment of the Top End Joint Venture tenements. Giants Reef decided to forfeit the Joint Venture tenements based on the lack of productivity of the venture, given its long life span, coupled with the low to moderate exploration potential of the tenements relative to defined high-priority exploration targets.

Newmont was subsequently informed that Giants Reef wished to terminate the Joint Venture and was offering them all titles and applications. Newmont was informed that if they did not want to take over 100% ownership of these tenements, Giants Reef would withdraw all applications and not renew MC's and EL's and that many of the titles, when surrended, would fall into Giants Reefs wholly-owned tenements.

In June 2002 Newmont informed Giants Reef that they wished to withdraw from the Joint Venture and that all the tenements covered by the agreement could be withdrawn. In December 2002 a Termination Agreement was signed by both parties and the surrender of Joint Venture tenements executed, thus concluding the Top End Joint Venture.

6. REHABILITATION

None of the work done during the five year tenure of Exploration Licence 9934 has required rehabilitation measures.

7. CONCLUSIONS

Work conducted during the five year tenure of Exploration Licence 9934 concentrated on follow up exploration of the previously identified geochemical, gravity and magnetic anomaly, Juno North prospect and the new South-Argo magnetic anomaly. This involved a detailed aeromagnetic survey, data integration and interpretation, magnetic modelling, technical data and literature reviews.

The Juno North magnetic anomaly was identified in the Juno North prospect area via the aeromagnetic survey. A number of drill holes from Giants Reef (GRJD-1) and previous companies have intersected the mineralisation with encouraging results. Magnetic modelling of the anomaly has placed the modelled source at a depth to its top of 340m, however this calculated response does not match with the observed profile.

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the South Argo source at 400m, which, on subsequent recalculation was placed at a significantly shallower depth of 200m.

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With the termination of the Top End Joint Venture between Giants Reef and Newmont Wiluna in December 2002, all the tenements of the Joint Venture were surrended. Exploration Licence 9934 was surrended on the 13th January 2003.

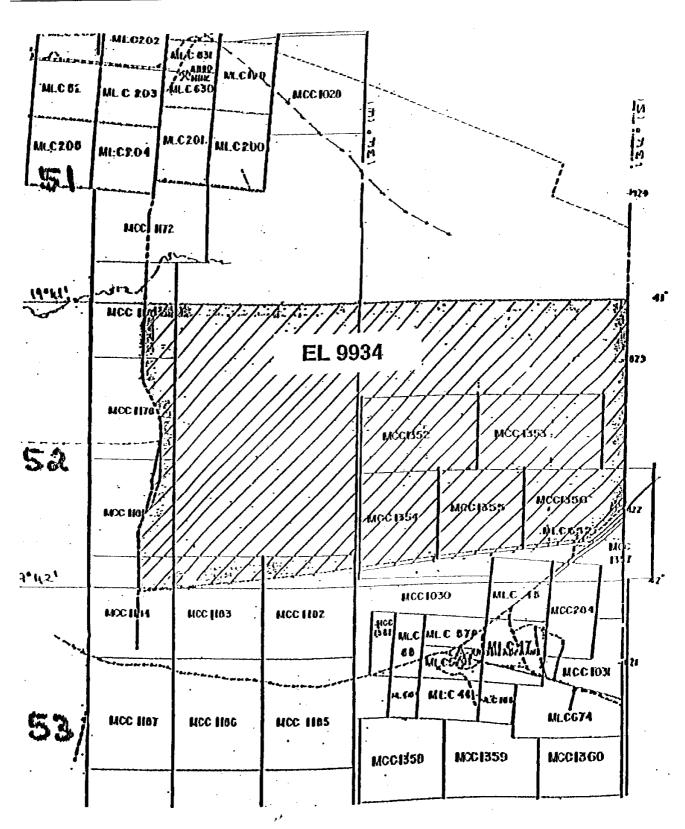
8. EXPENDITURE

The five year expenditure for the Exploration Licence 9934 within the archived expenditure records is summarised below:

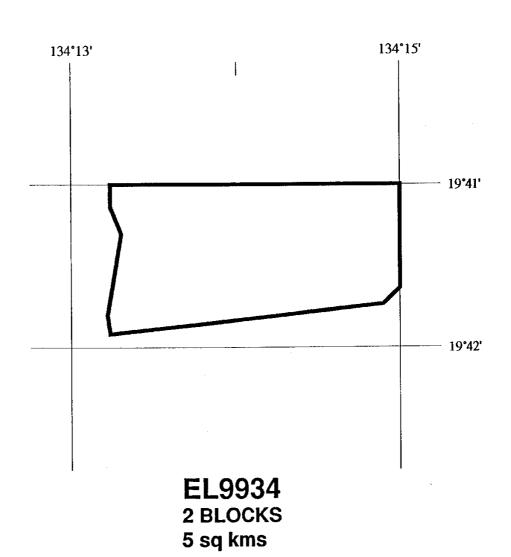
		Year 1	Year 2	Year 3	Year 4	Year 5
1.	Geology	1,629	1,338	2,130	31	631
2.	Geophysics	342	1,116	1,705	0	375
3.	Geochemistry	0	0	0	0	0
4.	Surveying	0	0	0	0	0
5.	Data integration	1,488	237	589	0	0
6.	Analytical	0	0	0	0	0
7.	Drilling	0	0	0	0	0
8.	Tenure maintenance	430	667	1,650	1,243	842
9.	Administration and Overheads	1,286	1910	1,675	977	149
	TOTAL	\$5.175	\$5,270	\$7.752	\$2,251	\$1,998

Based on this information, Exploration Licence 9934, *Piebald*, incurred an estimated \$22,446 from 28th January 1998 to 13th January 2003.

JUSTINE CAHILL EXPLORATION GEOLOGIST



GIANTS REEF MINING LIMITED TENNANT CREEK NORTHERN TERRITORY					
AREA EL 9934 - PIEBALD					
MAP REF.	5758 TENNANT CREEK 1:100 000				
SUBJECT	i i	Location and Surrounding Tenements Extract DME MINING TENURE 52/5			
DATE	AUTHOR	SCALE			
AUG 2000		1:25 000	FIGURE 1		



GIANTS REEF MINING N.L.
TENNANT CREEK NORTHERN TERRITORY

AREA

EL 9934 - PIEBALD

MAP REF.

5758 TENNANT CREEK 1:100 000

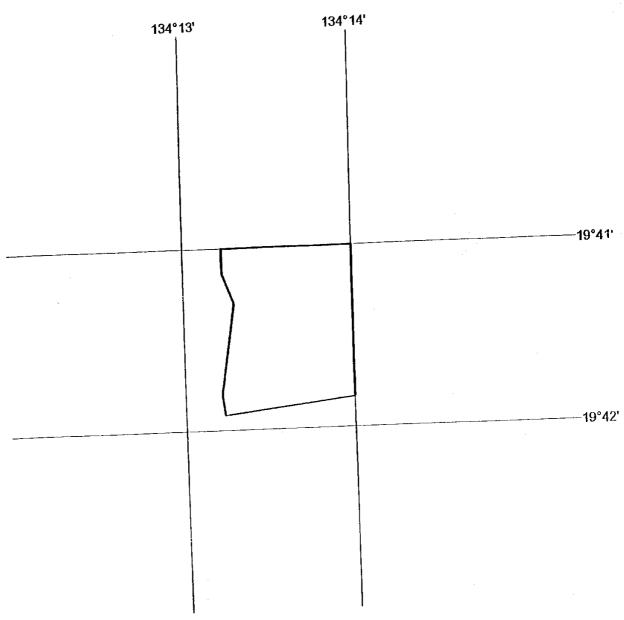
Year 1 Licence Area
Extract DME SCHEDULE

DATE

AUTHOR

SCALE

FIGURE 2



EL 9934 1 BLOCK 2.11 sq kms

GIANTS REEF MINING LIMITED TENNANT CREEK NORTHERN TERRITORY				
AREA EL 9934 - PIEBALD				
MAP REF.	5758 TENNANT CREEK 1:100 000			
SUBJECT	Year 5 Licence Area Extract DME SCHEDULE			
DATE	AUTHOR	SCALE		
APR 2001			FIGURE 3	