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EXPLORATION LICENCE 8773

LASSO

EXPLORATION LICENCE 8786

FIRST LIGHT

SIXTH ANNUAL REPORT

8 March 2004 - 7 March 2005

LICENSEE:
SANTEXCO PTY LTD
A.B.N. 002 910 296

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April, 2005

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Giants Reef Exploration Pty Ltd	☐	*5758*
Giants Reef Mining Limited	☐	*Tennant Creek 1:100 000*

SUMMARY

This report records exploration undertaken by Santexco Pty Ltd (Santexco) a wholly owned subsidiary of Giants Reef Mining Limited (Giants Reef) on Exploration Licence 8773 *Lasso* and Exploration Licence 8786 *First Light,* for the period from the 8th March 2004 to the 7th March 2005.

On the 13th June 2001, Giants Reef Exploration Pty Ltd, a wholly owned subsidiary of Giants Reef, purchased all of the shares in Normandy Tennant Creek Pty Ltd (NTC) from Normandy Consolidated Gold Holdings Pty Ltd, a subsidiary of Normandy Mining Limited. The name NTC has been changed to Santexco Pty Ltd (Santexco), which is wholly owned subsidiary of Giants Reef.

A detailed ground gravity survey and reconnaissance RAB drilling program was carried out in EL 8786 during the report period. Although no field work was carried on EL 8773 during the year it was included within a package of tenements which were subject to a combined quantitative/qualitative ranking, based on geological, geophysical & geophysical characteristics and other parameters covering work status, target type, land status and economics. Mining at the Edna Beryl mine, located just south of EL 8773, will aid in a greater geological understanding of the area for exploration.

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1. INTRODUCTION

This report records exploration undertaken by Santexco Pty Ltd (Santexco) a wholly owned subsidiary of Giants Reef Mining Limited (Giants Reef) on Exploration Licence 8773 *Lasso* and Exploration Licence 8786 *First Light* for the period from the 8th March 2004 to the 7th March 2005.

Targets are ironstone-related gold-copper deposits.

2. LOCATION & ACCESS

Exploration Licence 8773 *Lasso,* lies approximately 40km north of the Tennant Creek township and straddles the Phillip Creek floodplain immediately to the east of the Stuart Highway. Access is via the Stuart Highway and the unsealed all weather track which runs out to the Edna Beryl mine. EL 8773 is located on the Flynn 1:100 000 scale map sheet (5759).

Exploration Licence 8786 *First Light,* is located approximately 15 km south east of Tennant Creek. Access to the Licence area from Tennant Creek is via the sealed road to the Peko and Nobles Nob Mines, and thence along the Gosse River road. EL 8786 is located on the Tennant Creek 1:100 000 scale map sheet (5758)

The summer period is hot with seasonal heavy rainfall between January and March making access very difficult during these periods.

Figure 1 shows EL 8773 and surrounding tenements. Figure 2 shows EL 8786 and surrounding tenements.

3. TENURE

Exploration Licence 8773 consists of two graticular blocks (approximately 5.7 km^2) and Exploration Licence 8786 consists of four graticular blocks (13 km^2). Both were granted to Normandy Tennant Creek Pty Ltd (now Santexco) on the 8th March 1999 for a period of six years.

The Licences fall on Inalienable Aboriginal Freehold land held by the Warrumungu Land Trust. An Agreement referred to as the Areas of Interest Deed for Exploration was signed by the Central Land Council (CLC), Traditional Landowners and NTC on the 9th December 1998. This agreement established land access for mineral exploration upon Warrumungu Land Trust areas, including EL 8773 and EL 8786.

In June 2001, Giants Reef Mining Limited (Giants Reef) purchased all the assets of Normandy Tennant Creek Pty Ltd (NTC), EL 8773. After the purchase, Normandy Tennant Creek Pty Ltd was re-named Santexco Pty Ltd and is now a wholly-owned subsidiary of Giants Reef Mining Limited.

At the end of the third, fourth and fifth tenure year a waiver of reduction was granted for EL 8773 and EL 8786.

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) give a good introduction to the regional geology and styles of gold-copper mineralisation of the area.

More recently, the regional geology of the Tennant Creek Inlier has been described in the 1:250,000 Tennant Creek geological map and its explanatory notes, published by the Northern Territory Geological Survey in 1999.

4.2 Local Geology

Exploration Licence 8773 is mostly covered by Quaternary alluvial deposits in active channels and on floodplains and quartz-rich dissected colluvial fan deposits. Outcrops of the Ooradidge Group (formerly Flynn Sub-group units Wundirgi and Brumbreu Formations) occur to the south and the north and most likely underlie the alluvial deposits.

The geology of Exploration Licence 8786 includes outcropping Warramunga Formation, comprising fine to medium grained lithic arenite, volcanic arenite (metagreywacke), siltstone, shale, slate and terrigenous mudstone. Ooradidge Group units comprising conglomerate, sandstone, felsic crystal-lithic tuff and lapilli tuff also outcrop. Much of the northern and eastern region of the tenement is covered by Quaternary alluvial deposits which include sandy soil and sheet and dune sand.

5. WORK CARRIED OUT IN YEAR SIX

5.1 EL 8773

Although no field work was carried on EL 8773 during the year it was included within a package of tenements which were subject to a combined quantitative/qualitative ranking, based on geological, geophysical & geophysical characteristics and other parameters covering work status, target type, land status and economics. The tenement was ranked “Intermediate A” which includes regions of Warramunga Formation with moderate magnetic anomalies and proximal to historical workings.

5.2 EL 8786

EL 8786 was included within a package of tenements which were subject to a combined quantitative/qualitative ranking, based on geological, geophysical & geophysical characteristics and other parameters covering work status, target type, land status and economics. The 7300 West target was selected for follow-up as part of the 2005 exploration program.

The exploration approach utilised detailed gravity and shallow regolith drill traverses (RAB) to define anomalies, with the aim of testing any resultant anomalies with RC drilling. The initial focus was the detection of ironstone - hosted oxide gold deposits, and any indications of primary gold deposits at depth. The majority of previous exploration in these areas has focussed on testing magnetic deep primary targets. EL 8786 falls within the Gosse Road Project MMP and approval for exploration was by DBIRD on 18 August (Authorisation No. 0040-02).

The key target tested during the report period included the 7300 West magnetic anomaly. The 7300 West target is located approximately 17km east southeast of Tennant Creek and lies close to the southeast boundary of EL 8786.Geophysical modelling and interpretation of regional gravity data together with previous magnetic survey data was undertaken by Lindeman Geophysics Pty Ltd precatory to the design of a ground gravity survey. Modelling of previously obtained regional gravity was not possible as the data was found to be particularly noisy and not sufficiently detailed, having a line spacing of 500m and a station spacing of 100m. Modelling of the 3 main magnetic anomalies suggest that that they are all deep ironstone bodies >300m below surface.

A detailed ground gravity survey comprising 2.85 km2 was carried out over the 7300W target (of which 1.67 km^2 was located within EL 8786) with the aim of detecting potential ironstone-related gold orebodies in the upper regolith zone and any gravity anomalies that may be co-incident with two prominent magnetic anomalies. The survey area contains numerous vacuum Au geochemical anomalies and two prominent magnetic anomalies lying within the prospective Nob-Line shear structure. Daishsat Geodetic Surveyors completed approximately 28 line kilometres of gravity (of which 14.4 lined kms were located within EL 8786) using 40 m station centres and 80 m line spacing.

In September geophysical modelling and interpretation of the newly acquired gravity data together with previous magnetic survey data was undertaken by Resource Potentials Pty Ltd. The new gravity data revealed considerable more subsurface information than the magnetic data. Two anomalous

areas based on gravity highs coincident with Au in vacuum geochemical anomalies, structures and adjacent magnetic high were defined for drill testing.

A RAB drilling program comprising 35 holes for approximately 868m was completed during October. Of these 14 holes (7WRB001-14) for 343m were completed within EL 8786 (the remainder were drilled in the adjacent SEL 8665). Depth of drilling averaged 24.6m. The aim of the drilling was to test 2 discrete gravity anomalies that were coincident with 2 prominent magnetic anomalies and a number of Au vacuum geochemical anomalies that lie along the principal Nob Line structure. The area includes Warramunga Formation sediments which are interpreted as lying within the prospective Nob line shear structure. Geology encountered from this drilling included moderately sheared in Warramunga Formation, dominated by moderately hematic siltstones, sandstones and intercalated siltstone-sandstones. Many of these units are indurated and exhibit moderate shear textures and silicification.

Results received for the RAB drilling program were disappointing and returned no significant assays. The results from the drilling suggest that the gravity highs occur in association with lithology that is either sheared or more resilient to weathering (oxidation). In contrast, gravity lows appear to be associated with units that are more deeply weathered and are best described as clay saprolite.

Other work carried out on EL 8786 included reprocessing and analysis of geophysical data immediately south of the Nobles Nob Deposit. Vector Research were Pty Ltd were contracted to process Giants Reef's magnetic survey data using their proprietary MAGSURF^{TM} (magnetic surface filter). This data processing uses an algorithm which detects high-frequency magnetic noise associated with surface occurrences of weakly magnetic iron-oxide minerals and is aimed at mapping the high-frequency "textural noise" associated with the surface geology. The application also attempts to resolve detail in the overburden and delineate the noisy surface magnetic responses of sub-surface features such as structures and rock formations. Increasing the magnetic surface filter resolution increases the resolution of high frequencies, or smaller features. High frequencies are associated with features in the surface geology, while low frequencies are associated with large and deeper features. Filter resolution (N) for this study used 2, 4, 6 and 8 and resolution smoothing (nn) used levels 5, 11 and 25 (This is the number of data points averaged by applying a low-pass Hanning filter to the final MAGSURF response).

The Magsurf filter was applied to an area comprising some 20 km2 and covers ELs 8430, 8705 and 8786. Geophysical signatures were compared over 9 prospects within the corridor, including Juno and Nobles Nob deposit with those within ELs. Interpretation of geophysical signatures over the Nobles Nob deposit was made difficult by the presence of both strongly magnetic and non-magnetic waste dumps and the open cut. Giants Reef's Nobline RTP 1VD magnetic data highlights some 27 discrete magnetic anomalies in the corridor ranging from large (Juno, Nobles Nob) to small (Kimberly Kids). Of these, 2 magnetic anomalies are located within the Exploration Licences. Previous mapping in the corridor has defined some 21 outcropping mineralised and non-mineralised ironstones.

The Nobline RTP 1VD magnetic data shows strong magnetic anomalies over the Juno and Nobles Nob deposits and a more subtle magnetic ridge extending west northwest. Interesting the Nobline RTP 1VD magnetic data and Magsurf filters do not highlight many of the mapped ironstones in the survey area.

Neither the Nobline RTP 1VD magnetic data nor Magsurf filters provide a good correlation between any of the anomalies directly over the Nobles Nob deposit, however this is most likely due to the effects of the open cut and irregular, artificial anomalies resulting from magnetite in waste dumps. Probably the best correlation with the deposit is the Nobline RTP 1vd data, which at least covers the eastern end of the pit. The waste dumps surrounding the Nobles Nob deposit is probably best mirrored by the Nobline RTP 1vd anomalies, however there is also some correlation with 400 series Magsurf filters. Interestingly all anomalies extend well beyond the waste dumps, suggesting that deeper source bodies exist or there are perhaps broader haloes of disseminated magnetite surrounding the main ironstone bodies. Another possibility is that the responses result from aerial dispersion of magnetite from the waste dumps and mine haulage activities. Not all of the waste dumps have a magnetic signature, suggesting that they comprise mullock material derived from the barren magnetite ironstone and non-magnetic Warramunga.

The Juno deposit is located centrally within the main Nobline RTP 1vd anomaly and correlates reasonably well with the 200 series Magsurf filters. The 400 series Magsurf filters appear to provide the best correlation to the Juno ironstone and defines a western anomaly which may represent a separate ironstone body. Two prominent magnetic anomalies, which are located approximately 800m south of the Nobles Nob deposit, are highlighted by both the Nobline RTP 1vd data and the 400 series Magsurf filter, however on field inspection these areas coincided with low (<4m) spread out mullock dumps containing varying amounts of magnetite ironstone.

Further filtering (600 and 800 series) appears to only break the responses up into a myriad of anomalies that do not appear to correlate with any particular geological, regolith or topographical features.

The 200 series Magsurf filters defined the prominent north east trending fault structure at Nobles Nob which is also readily observed in the Nobline RTP 1vd magnetic data. This fault structure extends south west through the southern region of EL 8430, however no additional structures were observed in the EL 8786. Interestingly none of the Magsurf filters reflected the prominent north west structure at Juno which is so clearly defined in the Nobline RTP 1vd magnetic data.

None of the filters appeared to correlate with drainage systems either emanating from known deposits or in the Exploration Licences which comprise sheet wash colluvium and minor drainages systems. Likewise areas of topographic relief, including low ridges of outcropping Warramunga Formation were not reflected in any of the Magsurf filtering.

The application of the Magsurf filtering of the magnetic data over Exploration Licences 8786 did not delineate any new targets for exploration. Nor did the data provide any additional information on the structural or geological framework of the area.

6. WORK PROPOSAL FOR YEAR SEVEN

6.1 EL 8773

EL 8773 contains minor units of the Warramunga Formation which is the host to mineralisation within the Tennant Creek Mineral Field. It's proximity to the Company's mining operation at Edna Beryl places a high priority on exploration for similar deposits in the area. As a follow-up to the ranking program undertaken this year, geochemical soil sampling may be undertaken in the southern region of the tenement.

6.2 EL 8786

Work during year seven will focus on the eastern region of Exploration Licence 8786 which includes a number of discrete magnetic anomalies. Some regional geochemical work may be undertaken in the area of these magnetic anomalies.

7. REHABILITATION

As no on-ground work that could cause substantial disturbances was conducted on EL 8773 and EL 8786, no environmental rehabilitation work was carried out during the reporting period.

8. CONCLUSIONS

A detailed ground gravity survey comprising 2.58 km^2 (of which 1.67 km^2 was located within EL 8786) was carried out over the 7300W target with the aim of detecting potential ironstone-related gold orebodies in the upper regolith zone and any gravity anomalies that may be co-incident with two prominent magnetic anomalies.

Four anomalous areas based on gravity highs coincident with Au in vacuum geochemical anomalies, structures and adjacent magnetic high were defined for drill testing. A reconnaissance RAB drilling program of 14 holes for a total 343m) was undertaken to test these 4 magnetic – gravity – structural – Au vacuum geochemical targets. Results received for the RAB drilling program were disappointing and returned no significant assays. The results from the drilling suggest that the gravity highs occur in association with lithology that is either sheared or more resilient to weathering (oxidation). In contrast, gravity lows appear to be associated with units that are more deeply weathered and are best described as clay saprolite.

The application of the Magsurf filtering of the magnetic data over EL 8786 did not delineate any new targets for exploration. Nor did the data provide any additional information on the structural or geological framework of the area.

Work during year seven will focus on the eastern region of Exploration Licence 8786 which includes a number of discrete magnetic anomalies. Some regional geochemical work may be undertaken in the area of these magnetic anomalies.

As a follow-up to the ranking program undertaken this year, geochemical soil sampling may be undertaken in the southern region of EL8773.

9. EXPENDITURE FOR YEAR SIX

9.1 EL 8773

The proposed expenditure for the sixth year of EL 8773 was $6,000. Actual expenditure was as follows:

		$ Year 6
1.	Geology	2,405
2.	Geochemistry	1,248
3.	Geophysics	
4.	Surveying	
5.	Data Integration	404
6.	Drilling	
7.	Analytical	
8.	Administration	614
9.	Tenement Management	1595
10.	Rehabilitation	
	TOTAL	**$6,266**

Total expenditure was an estimated $6,266.

During the year a payment of $ 960.00 was made to the CLC for land access to EL 8773 under the terms and conditions of the Area of Interest Deed for Exploration.

9.2 EL 8786

The proposed expenditure for the sixth year of EL 8773 was $24,000. Actual expenditure was as follows:

		$ Year 6
1.	Geology	1,695
2.	Geochemistry	13,586
3.	Geophysics	
4.	Surveying	
5.	Data Integration	2,640
6.	Drilling	
7.	Analytical	5,005
8.	Administration	2,539
9.	Tenement Management	204
10.	Rehabilitation	
	TOTAL	**$25,669**

Total expenditure was an estimated $25,669.

During the year a payment of $ 960.00 was made to the CLC for land access to EL 8773 under the terms and conditions of the Area of Interest Deed for Exploration.

10 PROPOSED PROGRAM AND EXPENDITURE FOR YEAR SEVEN

10.1 EL 8773

		$
1.	Geology	3,000
2.	Geochemistry	1,700
3.	Geophysics	0
4.	Surveying	200
5.	Data Integration	0
6.	Drilling	0
7.	Analytical	0
8.	Administration	200
9.	Tenement Management	700
10.	Rehabilitation	200
	TOTAL	**$6,000**

Expenditure for this work is expected to be in the vicinity of $6,000. Exploration programs can be affected by results, and while this is the proposed program and expenditure, specific activities may vary according to the results achieved.

10.2 EL 8786

		$
1.	Geology	3,000
2.	Geochemistry	1,700
3.	Geophysics	0
4.	Surveying	200
5.	Data Integration	0
6.	Drilling	0
7.	Analytical	0
8.	Administration	200
9.	Tenement Management	700
10.	Rehabilitation	200
	TOTAL	**$6,000**

Expenditure for this work is expected to be in the vicinity of $6,000. Exploration programs can be affected by results, and while this is the proposed program and expenditure, specific activities may vary according to the results achieved.

11. REFERENCES

Jonstone A. & Donnellan N., 2001. *Tennant Crekk 1:125,000 Integration of Geophysics and Mapped Geology. Edition 1.* Northern Territory Geological Survey, Alice Springs.

Cahill J. 2004. Fifth Annual Report, EL 8773. (8 March 2003 – 7 March 2004)

Parker B. 2004. Fifth Annual Report, EL 8786. (8 March 2003 – 7 March 2004)

Cahill J. & Russell S. 2003. Fourth Annual Report. (8 March 2002 – 7 March 2003)

Simpson P. & Russell S. 2002. Third Annual Report. EL 8773 (8 March 2001 – 7 March 2002)

Simpson P. & Russell S. 2002. Third Annual Report. EL 8786 (8 March 2001 – 7 March 2002)

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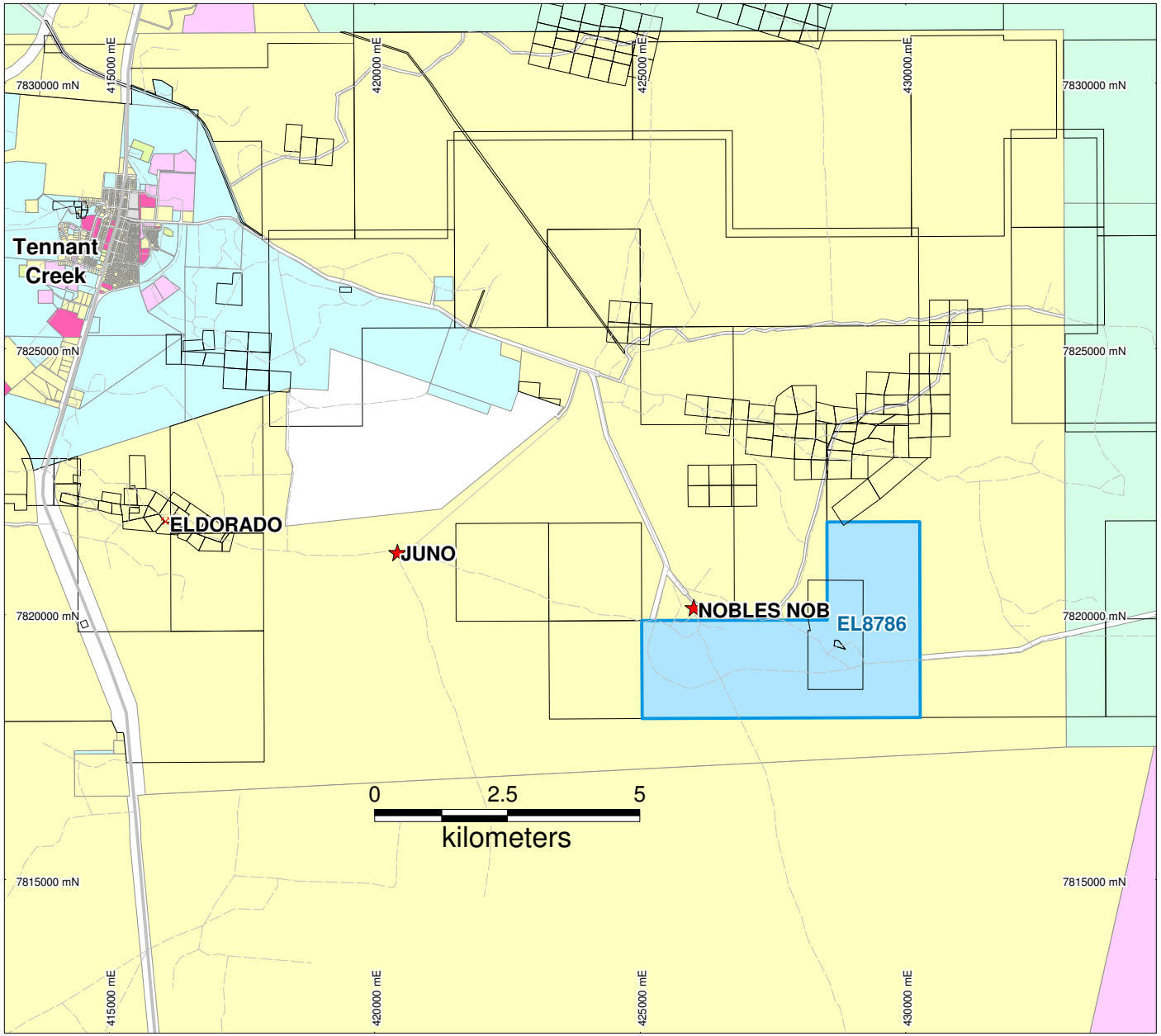
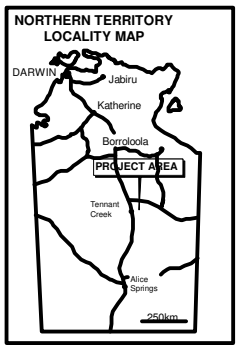
REGIONAL MANAGER - GEOLOGIST



GIANTS REEF MINING LIMITED

Location of EL 8786 and Surrounding Tenure

Authour: GRM	Date: April 2005
Drawn: DMC	Revised:
Dwg No.: EL_locationMap	Report No.:
Projection: GDA94	Scale: 1:100,000



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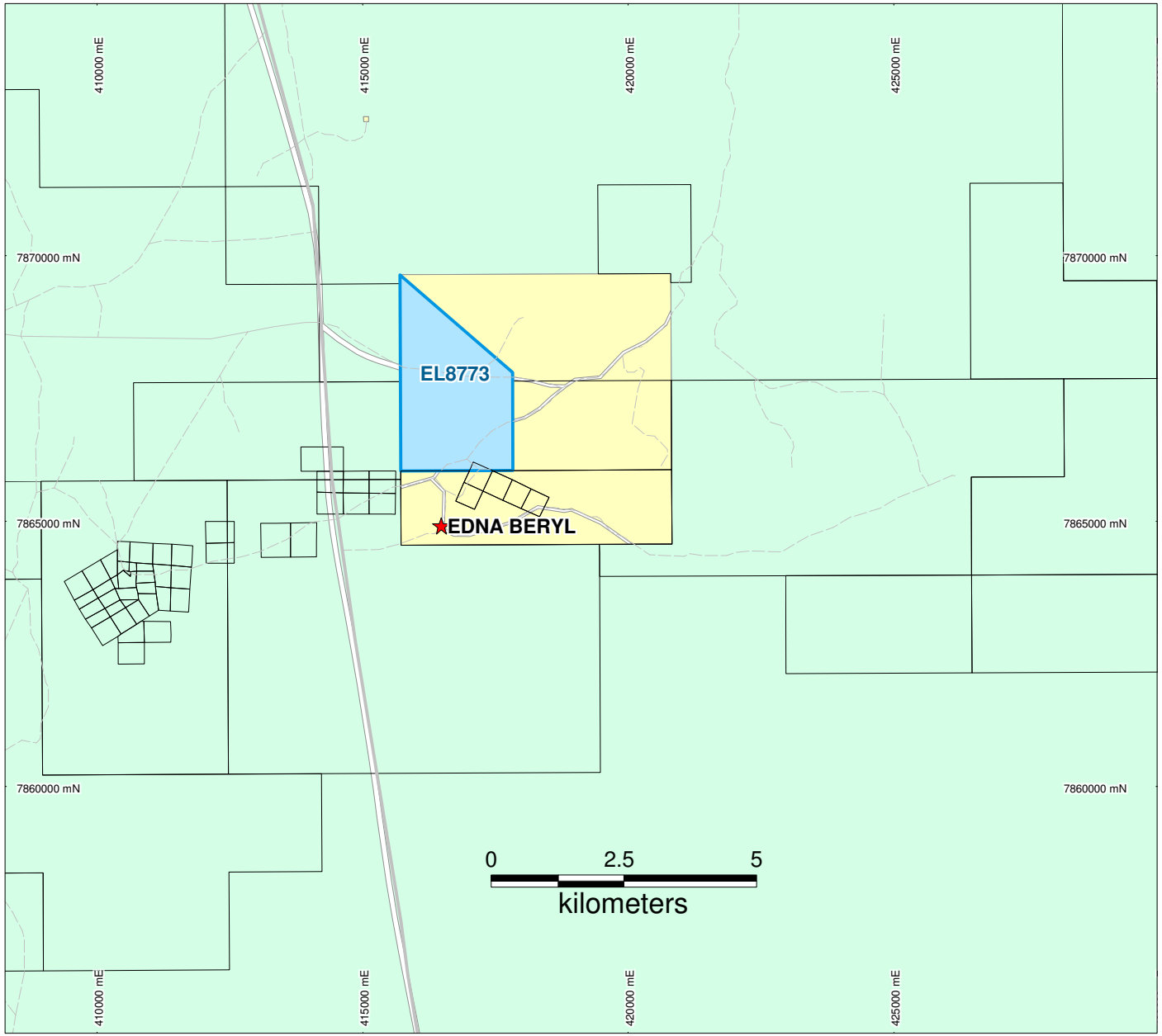
- Aboriginal Freehold Land
- Special Purpose Lease
- Crown Land Perpetual



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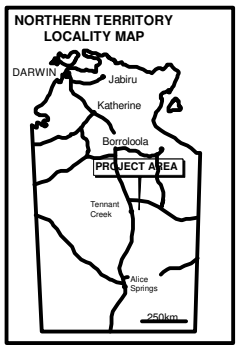

- Perpetual Pastrol Lease
- Aboriginal Freehold Land
- Special Purpose Lease
- Crown Land Perpetual

GIANTS REEF MINING LIMITED

HARD COPY REPORT META DATA FORM

REPORT NAME:	EL 8773 *Lasso*, EL 8786 *First Light* ,SIXTH COMBINED ANNUAL REPORT 8TH MARCH 2004 - 7TH MARCH 2005
PROSPECT NAMES(s):	LASSO, FIRST LIGHT
GROUP PROSPECT NAME:	
TENEMENT NUMBERS(s):	EL 8773, EL 8786
ANNIVERSARY DATE:	8 MARCH 2005
OWNER/JV PARTNERS:	SANTEXCO PTY LTD
AUTHOR(s):	B. J. PARKER
COMMODITIES:	GOLD, COPPER, BISMUTH
MAPS 1:250 000:	TENNANT CREEK SE53-14
MAPS 1:100 000:	TENNANT CREEK 5758
MAPS 1:25 000	
TECTONIC UNIT(s):	TENNANT CREEK INLIER
STRATIGRAPHIC NAME(s)	WARRAMUNGA FORMATION FLYNN GROUP
AMF GENERAL TERMS:	
AMF TARGET MINERALS:	GOLD, COPPER
AMF GEOPHYSICAL:	MAGNETIC MODELLING
AMF GEOCHEMICAL:	
AMF DRILL SAMPLING:	
HISTORIC MINES:	
DEPOSITS:	EDNA BERYL, NOBLES NOB
PROSPECTS:	TROY, 7300 WEST
KEYWORDS:	EL 8773, LASSO, EL 8786, FIRST LIGHT