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MINERAL LEASES 23216 & C176-C177

CHARIOT

FIRST ANNUAL REPORT

19 July 2002 - 18 July 2003

LICENSEE:

GIANTS REEF EXPLORATION

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SUMMARY

Mineral Leases C176-C177 and Mineral Lease 23216 *Chariot,* covers the Chariot ore reserve as currently defined.

This report records the work completed on ML 23216 and ML C176-177 during the period from the 19th July 2002 to the 18th July 2003.

Exploration targets are shallow haematite-ironstone related gold deposits and deeper extensions to the currently defined ore reserve at Chariot.

Exploration:
Mineral Leases 23216 and C176-C177 *Chariot,* totally enclose the non-magnetic haematite-rich Chariot gold deposit. The Leases are centred on the magnetic structural ridge extending from the Extension mine (300t @ 19.5g/t Au) to TC8 mine (80,680t @ 18g/t Au and 1.2% Cu).

ML 23214 was granted to Giants Reef Exploration Pty Ltd on the 19th July 2002. A signing ceremony was held at Chariot on the 17th July to signify the signing of the Mining Agreement for Mineral Lease 23216. Consequently, the Chariot deposit and associated sub-economic mineralisation is held under granted Mineral Leases (Mineral Leases C176, C177 and ML 23216), which are located within EL 10199.

An orientation gravity survey was conducted over several tenements in the Chariot area including ML 23216 and C176-C177. The survey accurately mapped the haematite-dominant ironstone in the open cut area, discounted the probability of dense non-magnetic rocks (haematite rich) existing below the proposed waste dump area and provided information enabling line and station spacing decisions to be made for a larger regional gravity survey.

A regional gravity survey was conducted over the surrounding tenure of the Mineral Leases. Geophysical modelling of the gravity results are encouraging with several new target areas identified. These targets were recommended for immediate drill testing.

The detailed gravity survey appears to have added a new dimension to Giants Reef's understanding of the non-outcropping geology and the distribution of non-magnetic ironstone bodies within the survey area. The fact that non-magnetic ironstones, hosting gold mineralisation are known to exist (Chariot deposit), yet have not really been searched for previously in the Tennant Creek Goldfield, means that the potential for new discoveries is highly likely.

A meeting was held in Tennant Creek to inform the Traditional Land Owners of the current progress at the Chariot mine and its implications for exploration potential along the Malbec to TC8 line.

A Mining Management Plan, and CLC work programs, detailing all aspects of Giants Reef's plans to drill test the gravity anomalies identified within ML 23216 and C176-C177 were approved.

A program of RC drilling over the Chariot East and Chariot South gravity anomalies is currently underway and full details will be reported in next years report to DBIRD.

Mining:
An open cut was commenced and completed during the period 19th January 2003 to 10th April 2003. Approximately 19,000 tonnes of ore was mined at a grade of 10.4ppmAu and stockpiled at the mine site.

The portal for the underground mine commenced on the 13th June 2003. The decline was advanced 225metres (linear) at a grade of 1 in 7 down. The decline has not yet reached the first of the production levels.

Of the pre-mining reserve (433,618 tonnes at 14.5ppmAu), 406,904 tonnes remain to be mined, entirely from underground, at an average grade of 15.1ppmAu.

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1. INTRODUCTION

Mineral Leases C176-C177 and Mineral Lease 23216 *Chariot,* covers the Chariot ore reserve as currently defined.

This report records the work completed on ML 23216 and ML C176-177 during the period from the 19th July 2002 to the 18th July 2003.

Exploration targets are shallow haematite-ironstone related gold deposits and deeper extensions to the currently defined ore reserve at Chariot.

2. LOCATION

Mineral Leases C176 and C177 and ML 23216 are centred approximately 9km west of Tennant Creek, on the Tennant Creek 1:100,000 scale map sheet (5758).

Access to the Licence area from Tennant Creek Township is via Udall Road to Giants Reef's TC8 mine, through the TC8 mine compound and over the Darwin to Alice Springs rail line, on to an all-weather unsealed haul road. This road extends west from TC8, traversing the northern boundary of EL 10199 for approximately 5km to the Chariot mine site.

Figure 1 shows the Mineral Leases and surrounding tenements with respect to Chariot mine and infrastructure.

3. TENURE

A tenure summary for the Leases follows:

TITLE	NAME	AREA (ha)	GRANTED	2ND TERM	3RD TERM
ML 23216	Chariot	17	19/07/02	18/07/27	
ML C176	Chariot	15	25/06/74	31/12/99	31/12/04
ML C177	Chariot	15	25/06/74	31/12/99	31/12/04

Mineral Leases C176-C177 were granted to Peko Wallsend Limited (Peko) on the 25th July 1974 for a period of 25 years to expire on the 31st December 1999. The Leases were formally known as the Chardonnay Leases.

In 1991 the Tennant Creek assets of Peko were purchased by Poseidon Gold Limited (Poseidon) and the Mineral Leases C176-C177 were registered under the name of Poseidon Gold Limited. In 1996 the assets of Poseidon were purchased by Normandy Tennant Creek Pty Ltd (NTC), including ML C176-C177.

In June 2001, Giants Reef Mining Limited (Giants Reef) purchased NTC and all its assets, including ML C176-C177. After the purchase, NTC was re-named Santexco Pty Ltd (Santexco), and is now a wholly-owned subsidiary of Giants Reef Mining Limited.

Transfer of title for ML C176-C177 from Santexco Pty Ltd to Giants Reef Exploration Pty Ltd was registered on the 17th April 2003.

Mineral Leases 23216 and C177 fall on Inalienable Aboriginal Freehold land held by the Warrumungu Land Trust. Mineral Lease C176 partially falls on Inalienable Aboriginal Freehold land and partially falls on NT Portion 494, Perpetual Pastoral Lease 1142, Tennant Creek Station.

An agreement referred to as the Pre Existing Tenements Agreement was signed by the Central Land Council, Traditional Landowners and NTC on the 9th December 1998. This agreement established land access for mineral exploration upon Warrumungu Land Trust areas, including ML C176-C177.

Mineral Lease 23216 was granted to Giants Reef Exploration Pty Ltd on the 18th July 2002 for a period of 25 years to expire on the 18th July 2027.

Mineral Lease 23216 lies within Inalienable Aboriginal Freehold Land held by the Warumungu Aboriginal Land Trust, NT Portion 4115. All mining activities within the Lease area are governed by the Deed of Terms and Conditions for continued Exploration, Mining and Development as described in the "Mineral Lease 23216 Mining Agreement" signed between the Central Land Council (CLC), on behalf of Warumungu Traditional Owners and Giants Reef Exploration Pty Ltd on the 17th July 2002. The Mining Agreement was subsequently amended to include ML C176-C177 as part of the Mineral Lease area, along with ML 23216.

ML 23216 and ML C176 fall within Giants Reef's Exploration Licence 10199 *Lynx*. ML C177 falls partially within EL 10199 and Giants Reef's Exploration Licence 22240.

Until January 2003, ML C176-C177 were part of the Central Joint Venture 2 (CJV2), which covered the Chariot gold deposit and a number of other tenements to the west of Tennant Creek. The Joint Venture was between Giants Reef, (managers, holding 57% equity), Sons of Gwalia (replacing PacMin; 33%) and Newmont NFM (formerly Normandy NFM; 10%). Giants Reef purchased Sons of Gwalia and Newmont NFM's (43%) Joint Venture assets, and became the sole owner of the CJV2 project, including ML C176-C177.

4. GEOLOGY

4.1 Regional Geology

The regional geology of the Tennant Creek field has been detailed in many publications. 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 area.

A more recent reference is the 1998 Northern Territory Geological Survey second edition geological map and explanatory notes on the Tennant Creek 1:250,000 sheet, which includes a revised stratigraphy.

4.2 Local Geology

There are no outcrops of Proterozoic basement rocks in ML 23216 or ML C176-177, which is blanketed by a layer of colluvium and aeolian sand up to seven metres thick. The Palaeoproterozoic Warramunga Formation is assumed to underlie all of the Licence area. This formation is host to all the magnetite-haematite (ironstone–hosted) gold-copper-bismuth mineralisation and ore bodies in the Tennant Creek goldfield including the Chariot gold deposit. The Chariot gold deposit is hosted by haematite dominated ironstone which is quite unique to the Tennant Creek goldfield.

4.3 Chariot Mine Geology

Rock types known to occur in the immediate vicinity of the mine, include sedimentary rocks (siltstones and greywackes) which host the Chariot and South Lode ironstones, and are intruded by several thin lamprophyres and felsic intrusions.

The Chariot ironstone strikes 090 degrees in the upper half of the mine and 070 degrees in the lower half. Where it strikes 070 it also dips 70 degrees north where otherwise it dips vertically. It extends to a known depth of 300m below surface and laterally up to 100m. It averages about 6m in width but shortens to 60m laterally and thickens to 12m at depth.

The South Lode ironstone is situated approximately 60me south-west of the Chariot ironstone. Little is known on the nature of this ironstone.

The ironstones are surrounded by altered sedimentary rocks. The alteration halo around the upper half of the Chariot ironstone includes chlorite, talc, dolomite (a carbonate), and sporadic silica. The alteration halo around the lower half of the Chariot ironstone is almost exclusively chlorite.

The mineralisation at the Chariot deposit includes anomalous levels gold, bismuth, and copper. Of these, gold is the only item to occur in economic quantities. The gold mineralisation is limited to the ironstone, though not all the ironstone is mineralised. Where the ironstone dips north, the gold mineralisation tends to occur on the hangingwall side of the ironstone. The bismuth and copper mineralisation occurs as sulphides with average metal quantities less than 500ppm.

The base of weathering of the rocks in the mine has its highest point in the ironstone (at 110m below surface) and lowest points in the sedimentary rocks on either side of the ironstone (at 140m below surface). The alteration halo either side of the ironstone has been weathered more deeply than the immediate surrounding sedimentary rocks and ironstone (at 130m below surface).

5. WORK DONE DURING THE TENURE YEAR

CHARIOT EXPLORATION

5.1 Exploration Concepts

5.1.1 Traditional Tennant Creek-type Ironstone hosted Au-Cu-Bi Orebodies

The close association of Tennant Creek ironstones to host Au-Cu-Bi orebodies has enabled the use of magnetic surveys to locate concealed magnetite-rich ironstones. Some of the earliest mineral exploration aeromagnetic surveys in Australia were conducted in the Tennant Creek region, and to this day, magnetics has been the most important exploration tool.

The magnetic exploration technique traditionally used has assumed that mineralisation was intimately associated with magnetite-dominant ironstones, which is supported by the number of high grade orebodies discovered with this tool. Successful examples include Warrego (6.75Mt @ 7.6g/t Au, and 1.9% Cu), Juno (0.45Mt @ 56g/t Au) and Gecko (2.7Mt @ 1.1g/t Au and 4.3% Cu).

Numerous local and regional magnetic surveys have been completed over the Tennant Creek goldfield, primarily targeting ironstone masses within Warramunga Formation host-rock. Using these surveys, magnetic anomalies in structurally prospective trends have been identified and further explored.

5.1.2 Tennant Creek-type Haematite hosted Au-Cu-Bi Orebodies

The discovery of the non-magnetic haematite-rich Chariot deposit in 1998 has resulted in a broader exploration model that allows for the presence of extensive ore grade mineralisation hosted within primary, non-magnetic (haematite-rich) ironstones. Discoveries by Giants Reef of high grade mineralisation associated with haematite dominant ironstone at Marathon and Billy Boy, although small, are further examples of this style of mineralisation.

Exploration for non-magnetic haematite ironstones are best identified using gravity surveys to identify dense rocks within Warramunga Formation sediments. At present there are no gravity maps for the Tennant Creek goldfield considered detailed enough to identify haematite targets.

Apart from its use in a very regional way, the gravity method has not been utilised to any extent in the search for haematite-ironstone related mineralisation in the Tennant Creek field. A small number of projects in the goldfield, in particular those explored by Western Mining Corporation, have been covered with any detail. Most of these projects however, are not situated within the area considered by Giants Reef to hold economic mineralisation potential, and are relatively small survey areas.

As an exploration tool the gravity method would appear to be the obvious way to proceed, but the use of this technique in the same manner as magnetics is prohibitive, principally because of its cost. At present, with the exception of the Falcon airborne gravity gradiometer, there is no technique available to identify (cost effectively), the relatively small bodies of haematite that could contain economic mineralisation. As, essentially the total Warramunga Formation is a potential to host gold-rich ironstone bodies, magnetic and non-magnetic, selective areas for haematite mineralisation require targeting for which gravity surveying is required.

The potential for the haematite ironstones to host mineralisation in non magnetic areas essentially opens up the Tennant Creek goldfield to new target review.

5.2 Literature Review

Mineral Lease 23216 and ML C176-C177 enclose the haematite-rich Chariot gold deposit as currently defined. The Leases are centred on a magnetic, structural ridge extending from the Extension mine (300t @ 19.5g/t Au) to TC8 mine (80,680t @ 18g/t Au and 1.2% Cu). Consequently the ML's and surrounding tenure have been subject to much interest by Giants Reef for their potential to a host orebodies of a similar mineralisation size and style as the Chariot mine.

Near mine exploration focus has focussed on defining strike extensions to the Chariot ore body, and a southern extension to the Chariot Lode.

In July 2002 a detailed literature assessment of the ML's and surrounding tenure was conducted including an assessment of the results from previous exploration conducted by NTC over the Chariot area. This assessment highlighted the fact that previous exploration over the area had focussed on the targeting of magnetic anomalies to identify ironstone bodies. Giants Reef noted that limited gravity data exists over the Mineral Leases and recommended that a detailed gravity survey over the area to assist in the understanding of the gravity response of a non-magnetic shallow haematite dominant ironstone.

Review of the ex-NTC database revealed a gold-in-soil anomaly located in ML 23216. The soil anomaly was noted to be in the location of the proposed Chariot mine waste dump. As open pit operations for Chariot was proposed to begin within the month (January, 2003) an investigation of the geochemical anomaly was prioritised.

5.3 RC Drill Testing of Waste Dump Soil Anomaly

Two RC drill holes (CHRC270-271) were drilled for an advance of 93m. The holes targeted a gold in soil anomaly over the northeastern corner of the proposed Chariot waste dump *(ML 23216)*. Ironstone material (gravel and pebbles) was intersected on the base of the palaeosurface in both holes.

Both intersections were anomalous in gold, as detailed in the table below:

Hole No	East (mine grid)	North (mine grid)	Depth (m)	Azi	Dip	Date Drilled
CHRC270	5501.31	2808.45	40	355	-60	15/01/03
CHRC271	5524.86	2809.99	53	355	-60	15/01/03

Significant intersections from the holes are presented below:

Hole No	From	To	Au ppm	Cu ppm	Bi ppm	Fe %	Lithology
CHRC270	9	10	0.46	26	33	12.9	Ironstone chips and white clay
	10	11	0.11	27	5	6.37	Ironstone gravel in siltstone clays
CHRC271	3	4	2.94	13	<2	7.8	Transported sand and grit
	9	10	0.16	11	4	6.2	Haematite? flecks in transported sand/grit and gravels
	21	24	2.40	1	<2	5.32	Weathered siltstone & minor haematite veining

As there were no deep (greater than 25m) ironstone intersections, the existence of a second separate ironstone south of the mineralised Chariot ironstone was downgraded. It is now thought that the gold in soil anomaly may be the result of mechanical weathering and later transported material from the mineralised Chariot ironstone.

The deeper (21-24m) intersection is interesting and may potentially relate to a small gravity response that was later identified from the Chariot gravity orientation survey (Section 5.6.2). The gravity response may represent a small haematite "pod' or offshoot to the Chariot orebody.

A gold-anomalous horizon (1-2m @1.0g/t Au) typically at 5-10m was intersected in both RC holes and in several previously within the immediate area. Hole CHRC271 returned 1m @ 2.94 g/t Au from 3m. This anomalism is associated with a blocky ironstone horizon (magnetite and haematite) within the transported overburden. The anomalism had previously been attributed to mechanical weathering and subsequent transport of the mineralised Chariot ironstone. However, recent exposure of this same horizon in the Chariot pit is missing any blocky ironstone, suggesting that this may not be the case.

Both holes were down hole magnetically logged and showed no off-hole response.

Figure 2 shows the location of CHRC270-271 with respect to Chariot mine.

All details for CHRC270-271 including collar, assay, lithology and magnetic susceptibility is presented in Appendix 1.

5.4 Negotiations with the CLC

Under the terms of Giants Reef's Mining Agreement for 'Mineral Lease 23216' with the Native Title holders of the Tennant Creek region, it is necessary to obtain clearances from the Native Title holders before field parties can enter onto the Aboriginal Freehold Land. An application was submitted to the CLC which outlined a gravity survey Giants Reef proposed to undertake over the Chariot Mine Leases (and adjoining tenements) and permits to enter were received by Giants Reef at the end of January 2003.

5.5 Gravity Survey

Daishsat Pty Ltd of Murray Bridge, South Australia were contracted to undertake a gravity orientation survey and broader regional gravity survey over the Chariot orebody and surrounding tenure, including ML 23216 and ML C176-C177.

One Scintrex CG-3 gravity meter was used for the gravity data acquisition. Each loop started and ended at the Tennant Creek airport gravity base station (Gravity base 0034). For horizontal and vertical GPS control, two Leica System 500 dual frequency GPS receivers were used. The gravity base (GPS base 099) was set up at the Chariot mine opposite a fence and gate, which was marked with a short star picket.

Gravity observations were made on the regular grids set out by real-time GPS. Two observations were made for each station and each observation consisted of a 20-second or greater stacking time. Two observations were made at each station so that any seismic or instrumental noise could be immediately detected. The accepted tolerance between readings was 0.02 milligals to ensure accuracy. At the survey station the Scintrix CG3 automatically recorded the station, time and readings, which were made digitally to allow for downloading into a computer.

Raw data was processed daily to check for quality and integrity. This interim process produced a set of Bougar Gravity values, which were contoured and imaged to provide a check for any anomalous

reading that would require repeating. Geosoft GRAVRED software was used for the gravity reduction in the field. At the conclusion of the job, the data was reprocessed using the standard AGSO formulae.

Giants Reef's consultant geophysicist Mr Frank Lindeman was on hand in Tennant Creek to supervise the survey on a day-by-day basis.

5.5.1 Gravity Orientation Survey

Daishsat Geodetic Surveyors commenced the close spaced ground based gravity orientation survey on the 30th January 2003 over the known Chariot mineralisation in Mineral Leases C176 and C177 and ML 23216.

The gravity orientation survey was designed:

(a) to identify the gravity signature of the Chariot Deposit prior to the commencement of mining operations (an orientation survey),

(b) based on the above result, to select optimum survey specifications for a larger survey area,

(c) to provide information which could map iron-rich lithologies and highlight buried ironstones, and which would lead to more focussed planning of major drilling campaigns,

(d) to search for subtle gravity responses that might represent possible mineralised ironstone alteration halos,

(e) to assist in sterilising the Chariot mine waste dump and other infrastructure areas.

The orientation survey consisted of 162 stations, completed on north-south traverses. Orientation over the Chariot Pit used 40m line traverses and a 20m station interval. Two traverses were brought in even closer (20m lines x 10m station intervals) over the pit and waste dump area to provide more detailed information.

The survey accurately mapped the haematite-dominant ironstone in the open cut area, discounted the probability of dense non-magnetic rocks (haematite rich) existing below the proposed waste dump area and provided information enabling line and station spacing decisions to be made for the rest of the regional survey.

The gravity survey highlighted an area of dense, non-magnetic material immediately south of the Chariot opencut (Chariot South, in ML 23216). This area is upgraded by the soil geochemical gold response located in the general vicinity which when tested (CHRC270-271) returned 3m @ 2.49 g/t Au from 21m in hole CHRC271. The coincident gravity and geochemical response indicated that the Chariot South anomaly requires drill testing prior to the development of major mine infrastructure.

5.5.2 Regional Gravity Survey

The regional gravity survey working east and west of the known mineralisation at Chariot commenced immediately after the completion of the gravity orientation survey. The regional survey covered the remaining area of ML C176-C177 and ML 23216 that was not covered by the orientation survey.

The regional survey was designed to provide:

(a) information which could map iron-rich lithologies and assist in more focused planning of major drilling campaigns, and

(b) target definition and refinement.

Away from the pit area and based on the gravity orientation survey results, the regional gravity survey used 80m line with 20m station intervals. The regional gravity survey, in total, collected 1,400 stations

over 43 north-south traverses. 359 survey stations were collected within ML C176-C177 and ML 23216 outside of the orientation survey area.

The quite limited but detailed gravity survey appears to have added a new dimension to the Company's understanding of the non-outcropping geology and the distribution of non-magnetic ironstone bodies within the survey area. In areas where magnetic ironstones have been defined and also within completely non-magnetic regions, the gravity data predicted the existence of several, (mainly shallow) haematite-rich ironstones which could be host to gold mineralisation. Remembering that the recorded density contrasts between the haematite-rich ironstone and country rock at the Chariot Deposit range between 1.0 and 2.0 gm/cc, several new bodies with similar density contrasts have been defined at relatively shallow depths with survey area.

The fact that non-magnetic ironstones hosting gold mineralisation are known to exist, yet have not really been explored for previously in the Tennant Creek goldfield, suggests that the potential for new discoveries are highly likely. The gravity method used over ML C176-C177 and ML 23216 and surrounding tenure has provided strong encouragement, and in some form, will be a valuable exploration tool.

The full data set including the gravity readings along the traverse lines for both the orientation and regional gravity surveys are presented in Appendix 2.

5.6 Geophysical Modelling

Giants Reef's consultant geophysicist Mr Frank Lindeman, of Lindeman Geophysics, Melbourne, was contracted to process, analyse and geophysically model the gravity survey data.

Mr Lindeman used a combination of Bouguer gravity, first vertical derivative of the Bouguer gravity and previously collected magnetic information to highlight specific response areas within the survey area. Mr Lindeman also modelled the gravity data from the regional gravity survey that was conducted immediately after the orientation survey over the Chariot Mine Leases. The results of the regional gravity survey and modelled geophysical responses will be reported in the Annual Reports to the Department of Business, Industry and Resource Development for the respective tenure.

5.6.1 Chariot Deposit

Provided with the information generated from the orientation gravity survey a gravity map over the survey area was generated. Figure 3 shows the relationships between the magnetic and gravity responses.

The combination of Bouguer gravity and first vertical derivative of the Bouguer gravity, along with the previously collected magnetic information, has provided a new insight into the survey area. A discrete response from the Chariot deposit, a possible iron-rich lithological continuity from Malbec through to the Chariot deposit, and definition of specific responses identified several new drill targets.

Review of the location of the Chariot ore body on the gravity map indicates a strong gravity response centred within the Chariot open pit. The gravity response lies at the western extremity of the Chariot ironstone magnetic response (Figure 3 a-b). Figure 3b shows the Bouguer gravity anomalies while Figure 3c, the first vertical derivative, best highlights the gravity survey, with the new trends and gravity responses being well defined.

The offset of the gravity response from the magnetic response confirms the haematite-rich nature of this host ironstone the Chariot mine. Mr Lindeman reported that;

> "*This fact can be confirmed by examining and comparing the gravity and magnetic models for Chariot. The gravity response, which is calculated from the several bodies, which replicated the*

entire magnetic response at Chariot, fails to reproduce the observed gravity response. We can conclude therefore that there is non-magnetic haematite within the project area."

The three-dimensional gravity modelling of the Chariot ironstone utilised the following physical property information gathered from the deposit:

Chariot ironstone: Width 20m, length 150m, depth extent 280m.
Density values in oxidised zone ie top 60m:ironstones 3.5 g/cc, sediments 1.8 g/cc, contrast ~2.0g/cc.
Density values in fresh rock: ironstones 3.7 g/cc, sediments 2.8 g/cc, contrast ~1.0 g/cc.

Mr Lindeman found that the model which best fitted the data for the Chariot ironstone was a vertical prism; length 150m, width 15m, depth extent 234m and density contrast of 1.0 g/cc.

Figure 4 shows the Chariot and Chariot South-Bouguer gravity and interpreted gravity models.

5.6.2 Chariot South

The gravity response at Chariot South originally suggested, either a deep, southern extension of the Chariot ironstone or the existence of a second (or more) separate and possibly north-south trending ironstone(s). This area was RC drilled earlier in the year by Giants Reef testing a soil anomaly (CHRC 270-271) as described in Section 5.3. Anomalous Au intersections in CHRC 271 from 21m in weathered siltstone derived clay with up to 30% haematite 'flecks", supports the gravity models in this area.

Down hole magnetic logging of both these holes (CHRC 270-271), predictably, displayed no magnetic response. This confirmed the lack of magnetite in the area, as suggested by the surface magnetic data. Review of the modelled gravity data at Chariot South suggests neither of these holes would have tested the gravity response as the estimated depth to top of the gravity sources is below the bottom of both RC holes.

Three gravity models (bodies 2, 6 and 7) were developed for Chariot South by Mr Lindeman. The density value for Body 2 was given as 0.8 gm/cc, for Body 6 is 1.0 gm/cc, and body 7 is 0.8 gm/cc.

Figure 5 shows the profiles of the Body 2 and Body 6 models and the observed and calculated Bouguer gravity response on Chariot South line 7826380mN (GDA94 datum).

Interestingly the three Chariot South models strike north-south against the regional east-west trend. Mr Lindeman suggested that the gravity anomalism may be a function palaeotopography or alternatively could be related to the mechanical weathering of the Chariot ironstone. However the gravity anomalies were recommended for drill testing prior to major mine infrastructure development.

5.6.3 Chariot East

This target area represents the eastern extension of the Chariot ironstone, and covers a broad area, that extends from ML 23216 and C176-C177 to the eastern limit of the gravity survey in EL 10199. The gravity response is quite large and complex, with a number of modelled magnetic bodies. Two of these bodies lie within the Chariot Mine Leases and will be discussed. Interpretation of the remaining gravity responses for Chariot East will be presented in the relevant Annual Report submitted to the Department of Business, Industry and Resource Development (DBIRD).

Figure 7 shows the Chariot East Bouguer gravity and models. Bodies 2, 6 & 7 are discussed under Section 5.6.1 Chariot South. Bodies 1 & 4 fall within ML C176-C177 and are located within the Chariot East target area.

The interpreted gravity bodies of Chariot East show strong density contrasts, appear quite shallow and are likely to represent iron-rich lithologies. Two distinct gravity responses were interpreted from the gravity data:

Northern Lode Response:
Interpreted gravity body 4 appears to represent the eastern extension of the Chariot Ironstone through to the Chariot East ironstone. Mr Lindemans interpretation supports the previously held idea that there is considerable potential for the existence of haemtatie-rich ironstones in the top 150m in this area.

Body 4 was modelled at 48m depth to top with a width of 15m and a density contrast of 0.6 gm/cc. This body has a strong density contrast suggesting an ironstone body and was recommended for drill testing.

Southern Lode Response:
Body 1 appears to represent a southerly extension to the Chariot South gravity anomaly, and has no magnetic support. Body 1 was modelled at 54m depth with a width of 20m and density contrast of 1.0 gm/cc.

Figure 8 shows the Bouguer gravity model of Body 4, which is located in MC C176 and Body 1 which is located in MC C177.

5.7 End of Joint Venture with Sons of Gwalia

Until January 2003, ML C176-C177 were part of the Central Joint Venture 2 (CJV2), which covered the Chariot gold deposit and a number of other tenements to the west of Tennant Creek. The Joint Venture was between Giants Reef, (managers, holding 57% equity), Sons of Gwalia (replacing PacMin; 33%) and Newmont NFM (formerly Normandy NFM; 10%). Giants Reef purchased Sons of Gwalia and Newmont NFM's (43%) Joint Venture assets, and became the sole owner of the CJV2 project, including ML C176-C177. With the termination of the Joint Venture the Chariot Mineral Leases C176-C177, and hence the Chariot deposit effectively became 100% Giants Reef owned and operated.

5.8 Meeting of Traditional Land Owners

A consent to negotiate meeting was held in the Tennant Creek CLC building on the 18th March to negotiate EL Applications adjoining the Chariot mine Leases that lie on Aboriginal Freehold land. Approximately 40 Traditional Owners were present along with CLC and Giants Reef representatives.

Senior Geologist, Mr Steve Russell made a presentation outlining Giants Reef's proposed exploration over the EL Application area. Also outlined was the current progress of mining at the Chariot mine and its implications for exploration potential along the Malbec to TC8 line. A surface mine tour of the Chariot Mine site was conducted over Mineral Leases 23216 and C176-C177, to allow the Traditional Owners and CLC representatives to inspect the site and ensure that the environmental and cultural obligations were being met.

A brief Chariot Liaison meeting was held after the surface mine visit and included people from the CLC, Traditional Owners and two Giants Reef representatives. Several issues were discussed, however the main focus of the meeting was directed towards local, indigenous employment.

5.9 Mine Management Plan

Giants Reef submitted a Mining Management Plan, detailing all aspects of Giants Reef's plans to drill test the gravity anomalies identified within ML 23216 and C176-C177. The plan was subsequently

approved by the Department of Business, Industry & Resource Development (DBIRD) under Authorisation 0148-01.

Pursuant to condition 4 of the Authorisation, a security of $6,000 was lodged with DBIRD. This security covered all the tenements included within the West TC8 Project Area, of which includes ML 23216 and C176-C177. Release of the $6,000 security is conditional upon Giants Reef's compliance with the activities and commitments contained in the accepted plan (Authorisation 0148-01).

5.10 CLC Work Proposal and Clearance

Under the terms of Giants Reef's 'Mineral Lease 23216 Mining Agreement' with the Native Title holders of the Tennant Creek region, it was necessary to obtain clearances from the Native Title holders before the field party for the planned RC drilling could enter the area. A work program was submitted to the CLC which outlined the work Giants Reef proposed to undertake over ML 23216 and C176-C177 in May 2003.

A site clearance for the proposed drill holes within the West TC8 Project Area, including ML 23216 and C176-C177 was conducted. This involved a day trip by 4x4 vehicles to the proposed drill sites and tracks. A CLC representative and a number of Traditional Owners were directed to the sites by Giants Reef's Senior Geologist for inspection.

The CLC under instruction from the Traditional Aboriginal Owners of the land approved the proposed drilling activities in June 2003. One proviso was that all mature trees of any species must be protected, and stands or groups of trees must be protected.

5.11 Drill Site Preparation

Grid lines were lightly cleared to allow access to the Chariot South and Chariot East drill sites. A small loader was used in the line clearing and preparation of the drill pads.

5.12 Reverse Circulation Drilling

At the time of writing this report a program of reverse circulation (RC) drilling was being carried out over the west TC8 Project Area. This program included four RC holes at Chariot South and two RC holes at Chariot East within ML 23216 and C176-C177 to test the geophysical bodies described above in Section 5.6.

Details of the RC holes at the Chariot South prospect, in ML C177 are as follows;

HOLE	TARGET	EASTING	NORTHING	DIP	AZI	DEPTH	TESTING
P	Chariot South	405320	7826440	-60	270	110	Body 7
Q	Chariot South	405330	7826480	-60	270	110	Body 7
R	Chariot South	405355	7826380	-60	270	100	Body 6
S	Chariot South	405470	7826380	-60	270	130	Body 2

Details of the RC holes at the Chariot East prospect, in ML C176-C177 are as follows;

HOLE	TARGET	EASTING	NORTHING	DIP	AZI	DEPTH	TESTING
T	Chariot East	405630	7826500	-60	180	115	Body 1
U	Chariot East	405330	7826640	-60	180	110	Body 4

Figure 4 shows the proposed drill holes.

All the details and results pertaining to the RC drilling will be presented in the next year's Annual Report to DBIRD.

CHARIOT MINING

5.13 Open Cut Mining

A 363,000m^3 open cut was mined from 19th January 2003 to 10th April 2003. Approximately 19,000 tonnes of ore was mined at a grade of 10.4ppmAu and 5,000 tonnes at 1.9ppmAu of low grade. The ore will later be trucked to Warrego processing facility upon refurbishment of the plant. The low grade ore was stockpiled at the mine and is currently not proposed to be processed.

The open cut was mined with a conventional excavator and truck operation to a depth of 50m below surface. Blasting was required for some of the ironstone and lower levels of the open cut. The batters were cut at 60 degrees and there are two 5m wide berms in the open cut. A 5m deep sump in the bottom of the open cut provides 1.0Ml capacity for rain events (1 x 50mm).

Of the waste material removed from the open cut, 990,000m^3 were used to construct site pads and roads, and a 6km long, 9m wide haul road, 8,000m^3 of topsoil was used to cover the waste dump. The waste dump covers 40,000m^2 and is 12m high. A mine-water dam was constructed at dimension 50m x 40m x 2m deep.

A grade control program of 148 RC percussion holes (5,263m) were drilled for the exclusive purpose of ore delineation for mining. The program was conducted immediately prior to open cut mining operations and run from 5th December 2002 to 15th January 2003. All holes were drilled within the open cut limits at surface and ended within the shell of the open cut.

5.14 Mine Site Surface Infrastructure

Works on surface infrastructure is partly completed and includes a potable water supply, a workshop, and a cement batching plant. Yet to be installed includes offices, diesel generators, magazines, and a bunded fuel bay containing a 50kl tank, electrical cabling, fuel bay for diesel generators, wash-down bay. The mining contractor has only partially mobilised to site.

5.15 Decline Development

The portal for the underground mine commenced on the 13th June 2003. The portal was placed in the south-east wall of the open cut with the floor at 45m below surface. The portal consists of 10 steel sets at 1m spacing with timber lagging and concrete filling.

The decline was advanced 80m (linear) at a grade of 1 in 7 down to the end of June 2003. The bottom of the decline is at 56m below surface. The decline has not yet reached the first of the production levels. The ground support employed consist of mesh and 50mm fibrecete. The decline is just below the water table and has yet to produce free-flowing water.

6. REHABILITATION

Exploration:
On-ground exploration work over Mineral Leases 23216 and C176-C177 in the first tenure year consisted of a ground gravity survey, which was of minimal impact, requiring no direct rehabilitation measures.

Rehabilitation of the drill sites at CHRC270-271 was not necessary as the Chariot Waste dump was subsequently built over the drill sites.

Mining:
The sides of the open cut waste dump were shaped to a fall of 1 in 3. They were then covered with stockpiled topsoil to depth of 20cm and ripped to aid soil retention.

7. CONCLUSIONS

Exploration:
Mineral Leases 23216 and C176-C177 *Chariot,* totally enclose the non-magnetic haematite-rich Chariot gold deposit. The Leases are centred on the magnetic structural ridge extending from the Extension mine (300t @ 19.5g/t Au) to TC8 mine (80,680t @ 18g/t Au and 1.2% Cu).

ML 23214 was granted to Giants Reef Exploration Pty Ltd on the 19th July 2002. A signing ceremony was held at Chariot on the 17th July to signify the signing of the Mining Agreement for Mineral Lease 23216. Consequently, the Chariot deposit and associated sub-economic mineralisation is held under granted Mineral Leases (Mineral Leases C176, C177 and ML 23216), which are located within EL 10199.

An orientation gravity survey was conducted over the Chariot mine. The survey accurately mapped the haematite-dominant ironstone in the open cut area, discounted the probability of dense non-magnetic rocks (haematite rich) existing below the proposed waste dump area and provided information enabling line and station spacing decisions to be made for a larger regional gravity survey.

A regional gravity survey was conducted over several tenements in the Chariot area including ML 23216 and C176-C177 Geophysical modelling of the gravity results are encouraging with several new target areas identified. These targets were recommended for immediate drill testing.

The detailed gravity survey appears to have added a new dimension to Giants Reef's understanding of the non-outcropping geology and the distribution of non-magnetic ironstone bodies within the survey area. The fact that non-magnetic ironstones, hosting gold mineralisation are known to exist (Chariot deposit), yet have not really been searched for previously in the Tennant Creek Goldfield, means that the potential for new discoveries is highly likely.

A meeting was held in Tennant Creek to inform the Traditional Land Owners of the current progress at the Chariot mine and its implications for exploration potential along the Malbec to TC8 line.

A Mining Management Plan, and CLC work programs, detailing all aspects of Giants Reef's plans to drill test the gravity anomalies identified within ML 23216 and C176-C177 were approved.

A program of RC drilling over the Chariot East and Chariot South gravity anomalies is currently underway and full details will be reported in next years report to DBIRD.

Mining:
The open cut was successfully mined. Underground mine development has only just commenced.

J L CAHILL
EXPLORATION GEOLOGIST

S C RUSSELL
SENIOR EXPLORATION GEOLOGIST

C IRVINE
CHIEF MINE GEOLOGIST

8. EXPENDITURE

8.1 Exploration Expenditure

Exploration expenditure over ML 23216 and C176-C177 for the first year of tenure was as follows:

		$ Year 1
1.	Geology	17,592
2.	Geophysics	22,207
3.	Geochemistry	777
4.	Surveying	6,109
5.	Data integration	2,513
6.	Analytical	0
7.	Drilling	3,350
8.	Tenure maintenance	23,451
9.	Administration and overheads	26,758
10.	Feasibility & pre-production	
11.	Rehabilitation	18,714
	TOTAL	$121,471

Total exploration expenditure amounted to an estimated $121,471.

8.2 Mining Open Cut Expenditure

Mining expenditure over ML 23216 and C176-C177 for the year 1/7/02-30/6/03 of tenure was as `follows:

		$ Year 1
1	Open Cut Mobilisation	667
2	Open Cut Contract Mining	1,874,119
3	Open Cut Surveying	2,614
4	Open Cut Dewatering	3,265
5	Open Cut Grade Control	76,621
6	Open Cut Overheads	22,454
7	Open Cut Management Fee (incl. Feasibility & Preproduction)	606,465
	TOTAL	$2,588,503

Total open cut mining expenditure amounted to an estimated $2,588,503.

8.3 Mining Capital Expenditure

Mining expenditure over ML 23216 and C176-C177 for the year 1/7/02-30/6/03 of tenure was as follows:

			$ Year 1
1	UC Portal		216,337
2	UC Decline		302,590
3	UC Waste Development		0
4	UC Primary Ventilation		0
5	UC Escape Way		0
6	UC Waste Rising		0
7	UC Dewatering		4,750
8	UC Other Works		36,300
9	UC Mobilisation		373,370
10	UC Overheads		43,526
11	UC Dayworks		13,473
		TOTAL	$990,345

Total capital mining expenditure amounted to an estimated $990,345.

8.4 Mining Operating Expenditure

Mining expenditure over ML 23216 and C176-C177 for the year 1/7/02-30/6/03 of tenure was as follows:

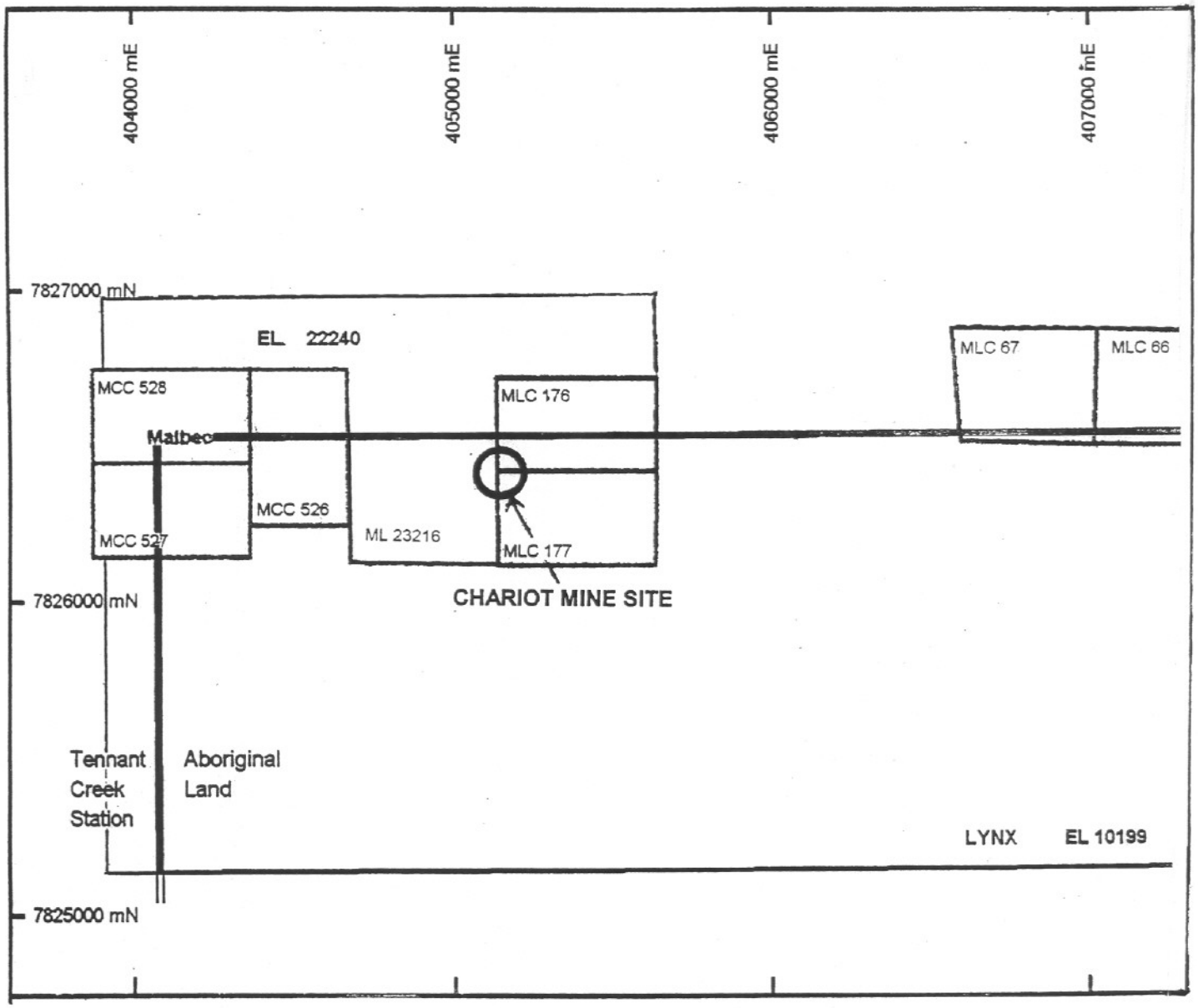
			$ Year 1
1	UG Mobilisation		0
2	UG Mining Overheads		0
3	UG Outside Services		0
4	UG Dewatering		0
5	UG Grade Control		0
6	UG Dayworks		0
7	UG Ore Development		0
8	UG Ore Stoping		0
9	UG Waste Rising		0
10	UG Safety		0
11	UG Training		0
12	UG Rehabilitation		0
13	UG Ore Movement		0
		TOTAL	$0

Total operating mining expenditure amounted to an estimated $0.

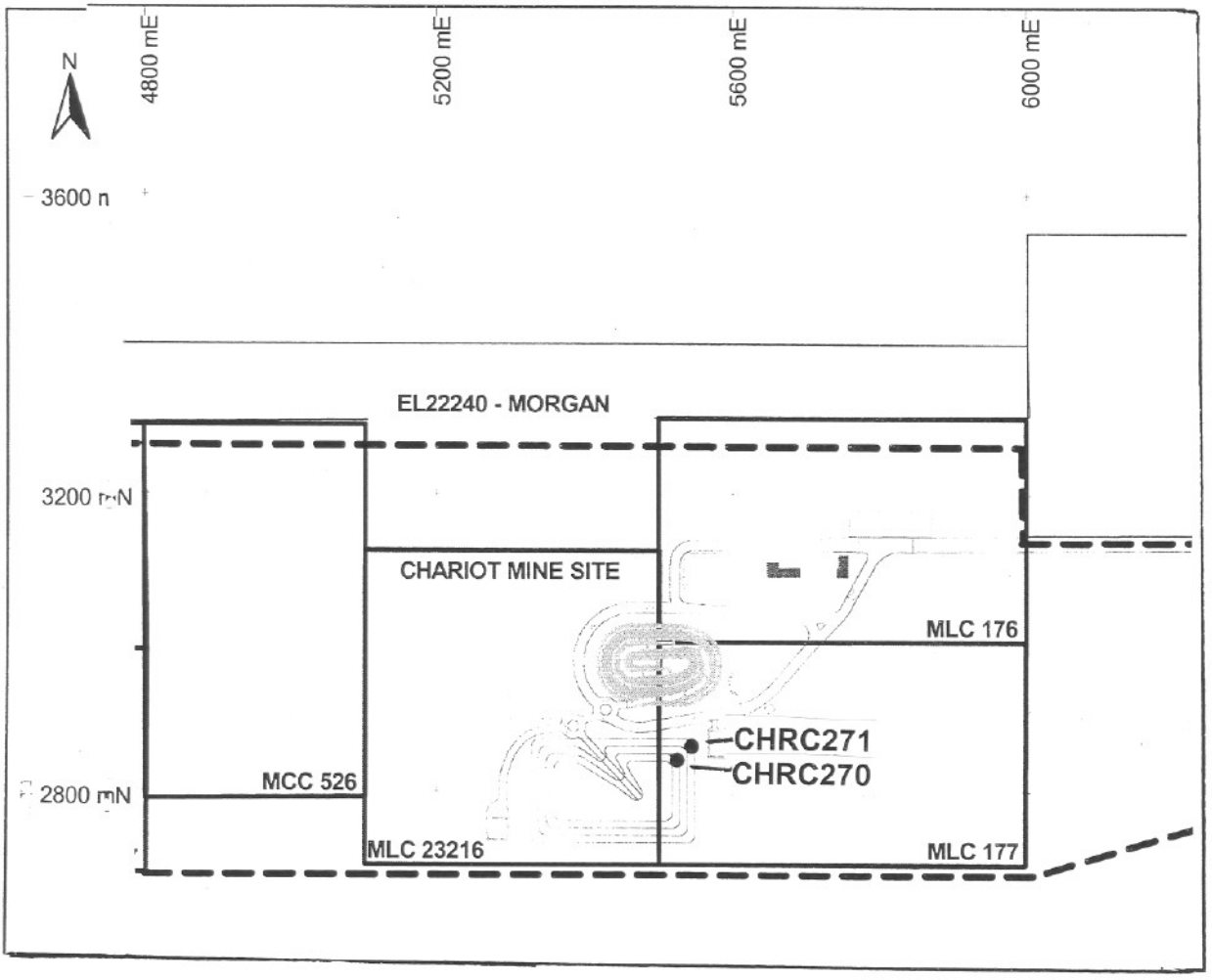
GIANTS REEF MINING LIMITED

HARD COPY REPORT META DATA FORM

REPORT NAME:	ML 23216 & ML C176-C177 *Chariot* FIRST ANNUAL REPORT 19TH JULY 2002-18TH JULY 2003
PROSPECT NAMES(s):	CHARIOT
GROUP PROSPECT NAME:	CHARIOT PROJECT
TENEMENT NUMBERS(s):	ML 23216, ML 176, ML C177
ANNIVERSARY DATE:	19TH JULY 2003
OWNER/JV PARTNERS:	GIANTS REEF EXPLORATION PTY LTD
AUTHOR(s):	J.L.CAHILL S.C.RUSSELL C.IRVINE
COMMODITIES:	GOLD
MAPS 1:250 000:	TENNANT CREEK SE53-14
MAPS 1:100 000:	TENNANT CREEK 5658
MAPS 1:25 000	
TECTONIC UNIT(s):	TENNANT CREEK INLIER
STRATIGRAPHIC NAME(s)	WARRAMUNGA FORMATION
AMF GENERAL TERMS:	
AMF TARGET MINERALS:	GOLD, BISUMITH
AMF GEOPHYSICAL:	GRAVITY ORIENTATION AND REGIONAL SURVEY, GRAVITY INTERP, GEOPHYSICAL MODELLING
AMF GEOCHEMICAL:	
AMF DRILL SAMPLING:	CHRC270-271
HISTORIC MINES:	THE EXTENSION, TC8
DEPOSITS:	CHARIOT
PROSPECTS:	CHARIOT SOUTH, CHARIOT EAST, CHARIOT DEEPS
KEYWORDS:	ML 23216, ML 176, ML C177, CHARIOT, CHARIOT PROJECT, GRAVITY ORIENTATION AND REGIONAL SURVEY, GRAVITY INTERP, GEOPHYSICAL MODELLING , CHRC270-271



GIANTS REEF EXPLORATION PTY LTD TENNANT CREEK NORTHERN TERRITORY			
AREA	ML 23216 & C176-C177 *Chariot Leases*		
MAP REF	52/5 TENNANT CREEK 1:100 000		
SUBJECT	**LOCATION PLAN**		
DATE	AUTHOR	SCALE	
MAY 2003	SCR		**FIGURE 1**



100 0 100 200m

GIANTS REEF EXPLORATION PTY LTD TENNANT CREEK NORTHERN TERRITORY			
AREA	ML 23216 & C176-C177 *Chariot Leases*		
MAP REF	52/5 TENNANT CREEK 1:100 000		
SUBJECT	**LOCATION OF CHRC270-271**		
DATE	AUTHOR	SCALE	
MAY 2003			**FIGURE 2**

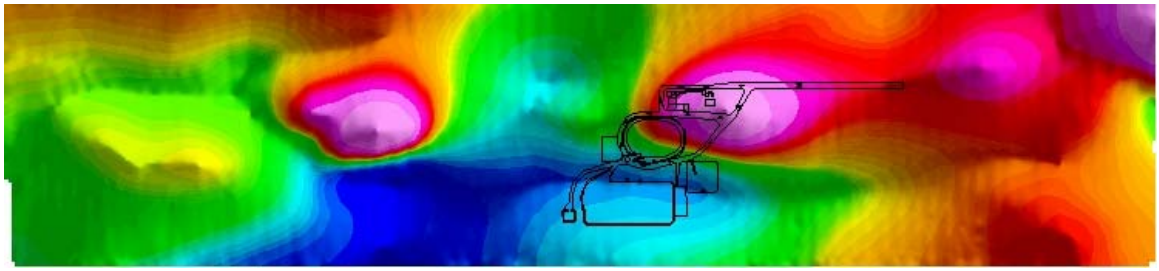


Figure 3a: Total magnetic Intensity (Nobline 1998 Magnetic Survey) with Chariot Mine Infrastructre

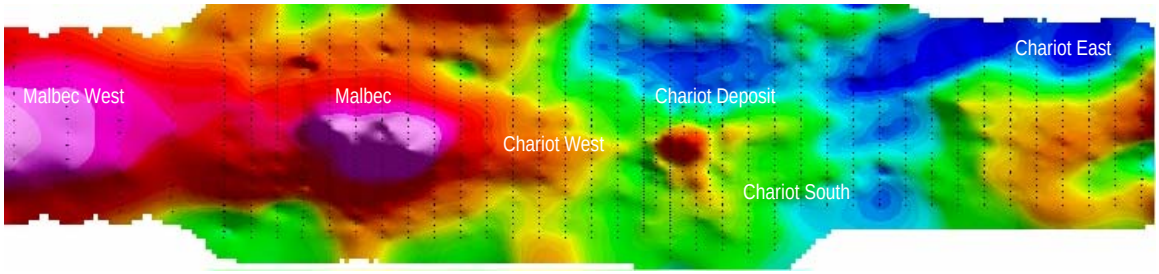


Figure 3b: Chariot Malbec Line-Bouguer Gravity Anomalies and Traverse Lines

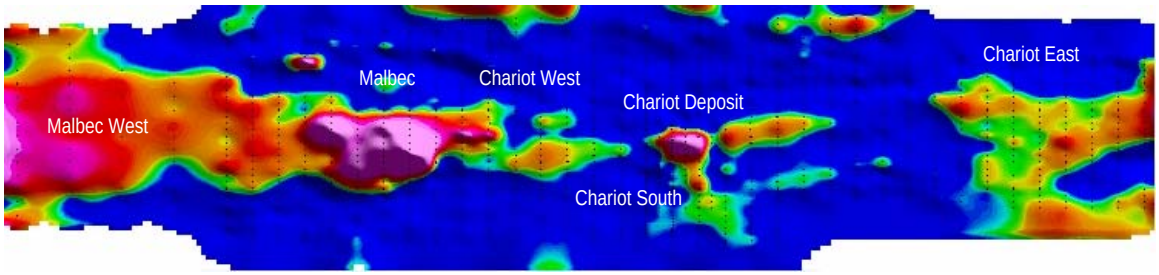
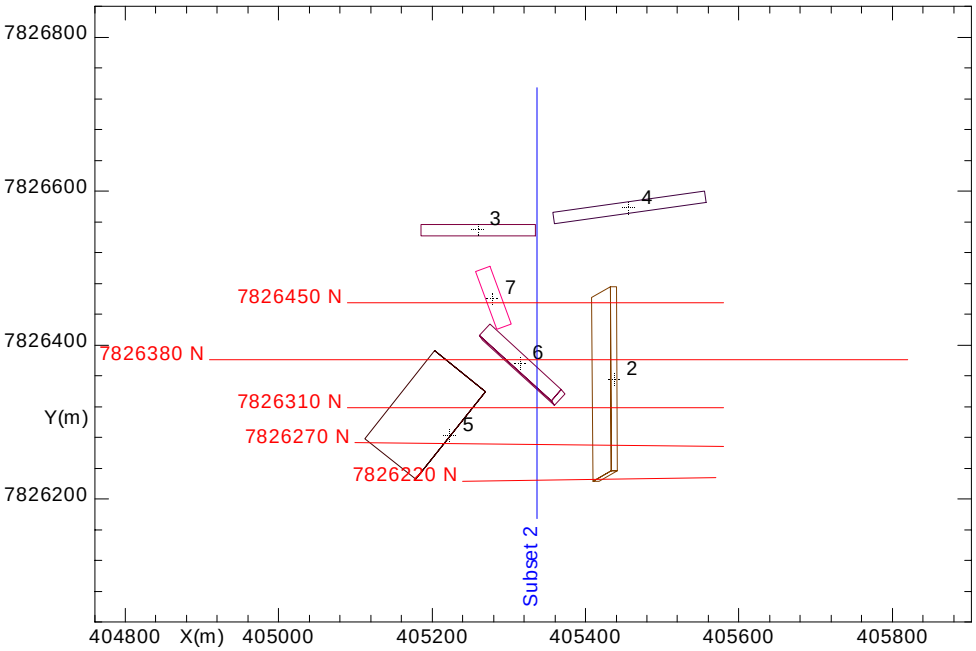
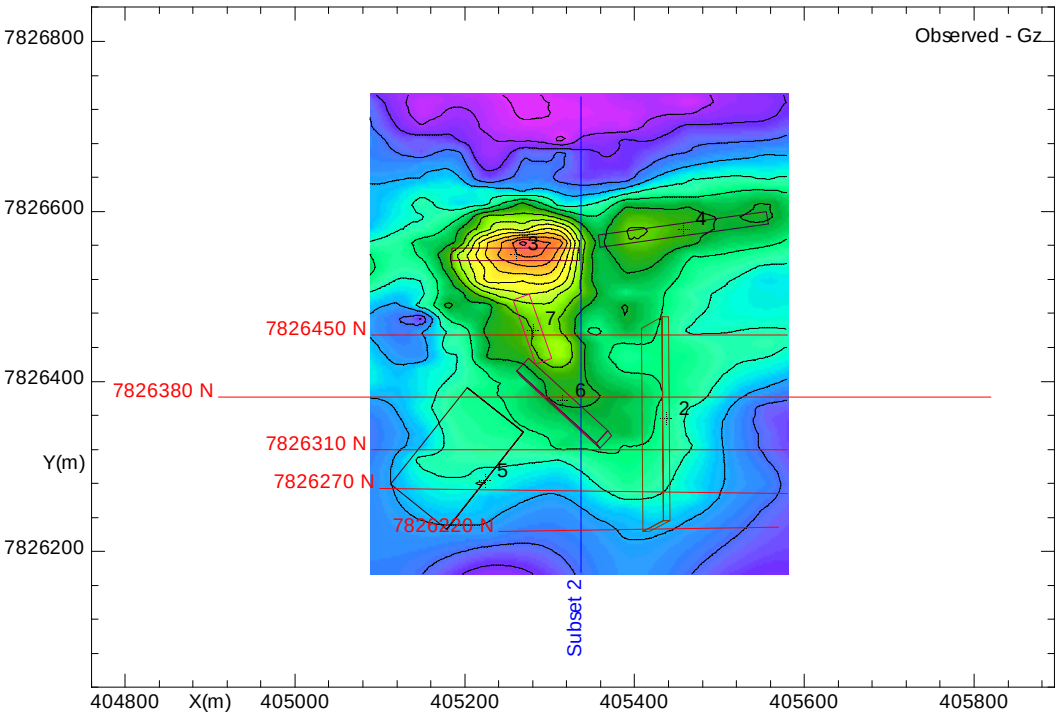


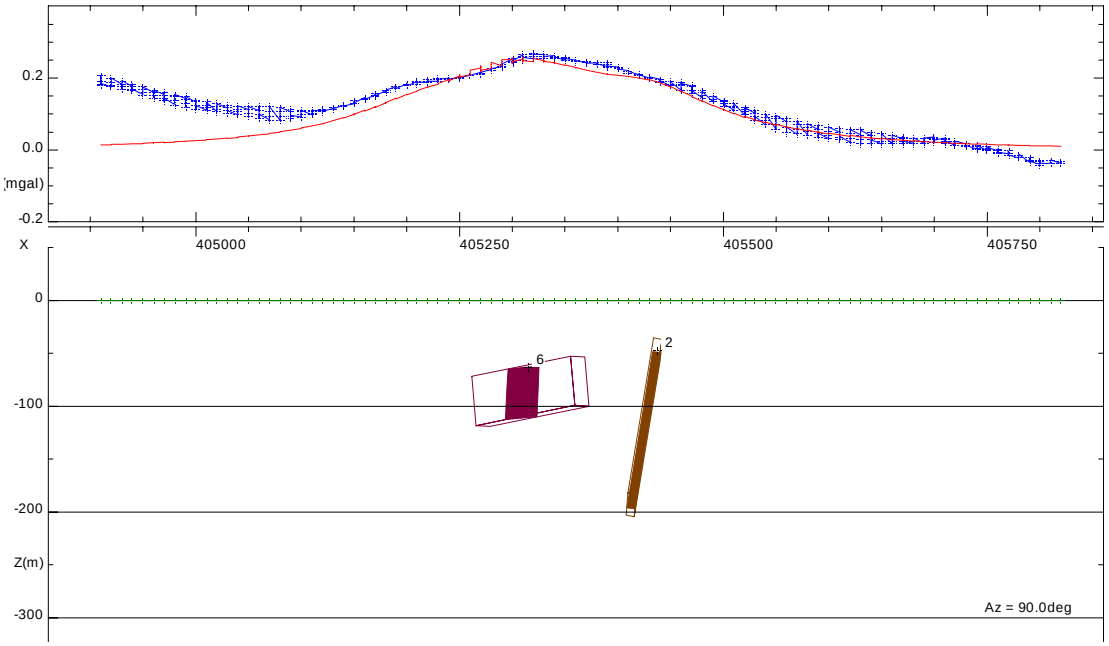
Figure 3c: Chariot Malbec Line-First Vertical Derivative of Bouguer Gravity

GIANTS REEF EXPLORATION PTY LTD TENNANT CREEK NORTHERN TERRITORY			
AREA	ML 23216 & C176-C177 *Chariot Leases*		
MAP REF	52/5 TENNANT CREEK 1:100 000		
SUBJECT	**GRAVITY AND MAGNETIC RESPONSE**		
DATE	AUTHOR	SCALE	
MAY 2003	FWL		**FIGURE 3**



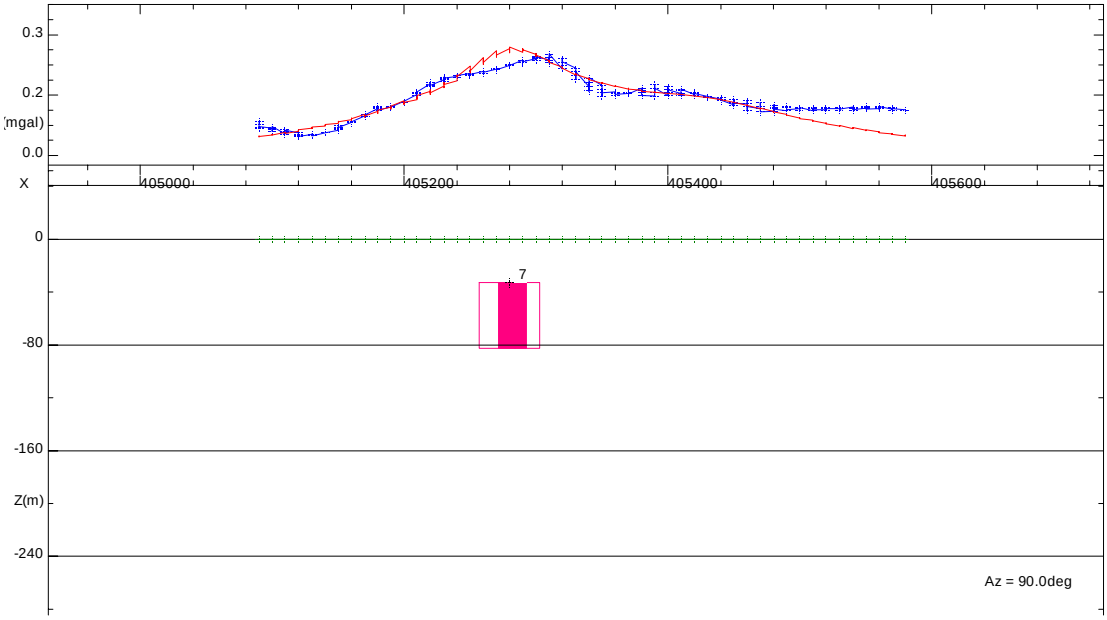


GIANTS REEF EXPLORATION PTY LTD TENNANT CREEK NORTHERN TERRITORY			
AREA	ML 23216 & C176-C177 *Chariot Leases*		
MAP REF	52/5 TENNANT CREEK 1:100 000		
SUBJECT	**CHARIOT AND CHARIOT SOUTH BOUGUER GRAVITY AND INTERPRETED MODELS**		
DATE	AUTHOR	SCALE	
MAY 2003	FWL		**FIGURE 4**



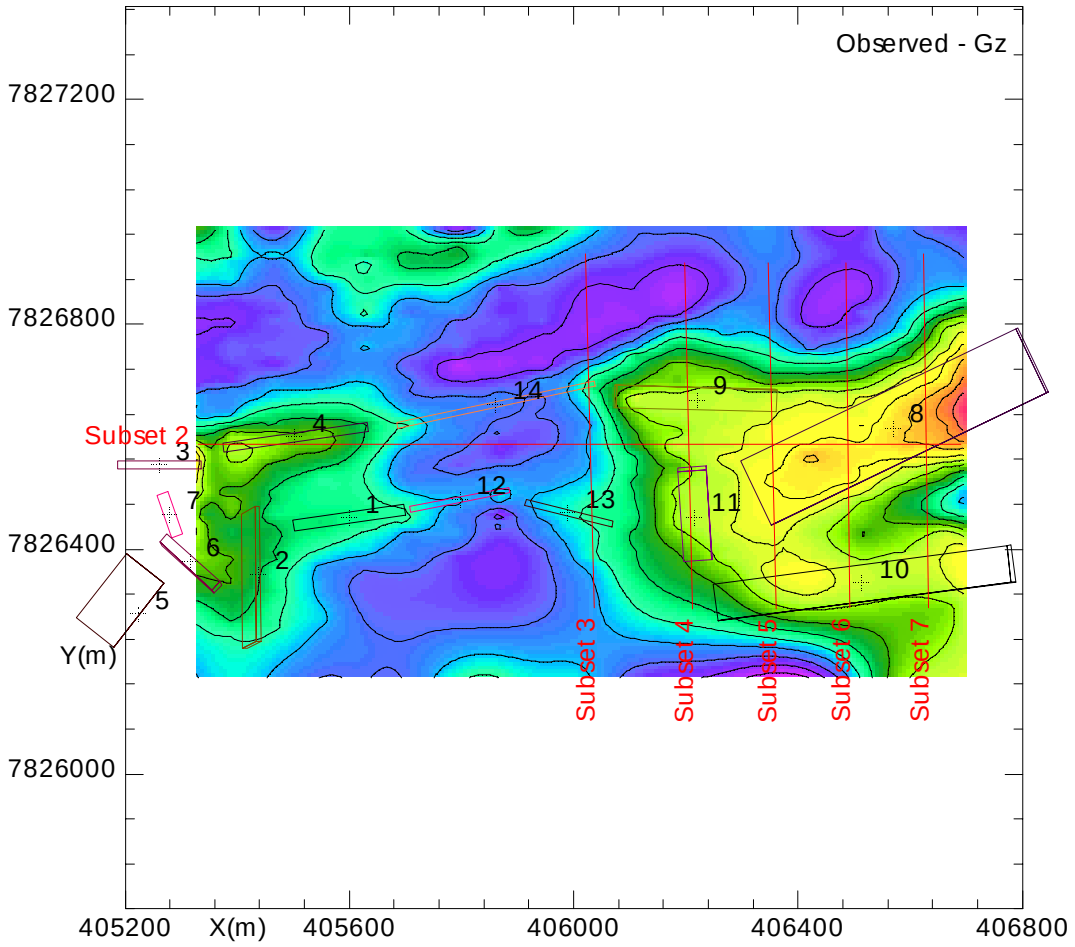
Chariot South Line 7826380N

GIANTS REEF EXPLORATION PTY LTD TENNANT CREEK NORTHERN TERRITORY			
AREA	ML 23216 & C176-C177 *Chariot Leases*		
MAP REF	52/5 TENNANT CREEK 1:100 000		
SUBJECT	**CHARIOT SOUTH: 7826380N BODY 2 & BODY 6 PROFILES AND BOUGUER GRAVITY RESPONSE**		
DATE	AUTHOR	SCALE	
MAY 2003	FWL		**FIGURE 5**

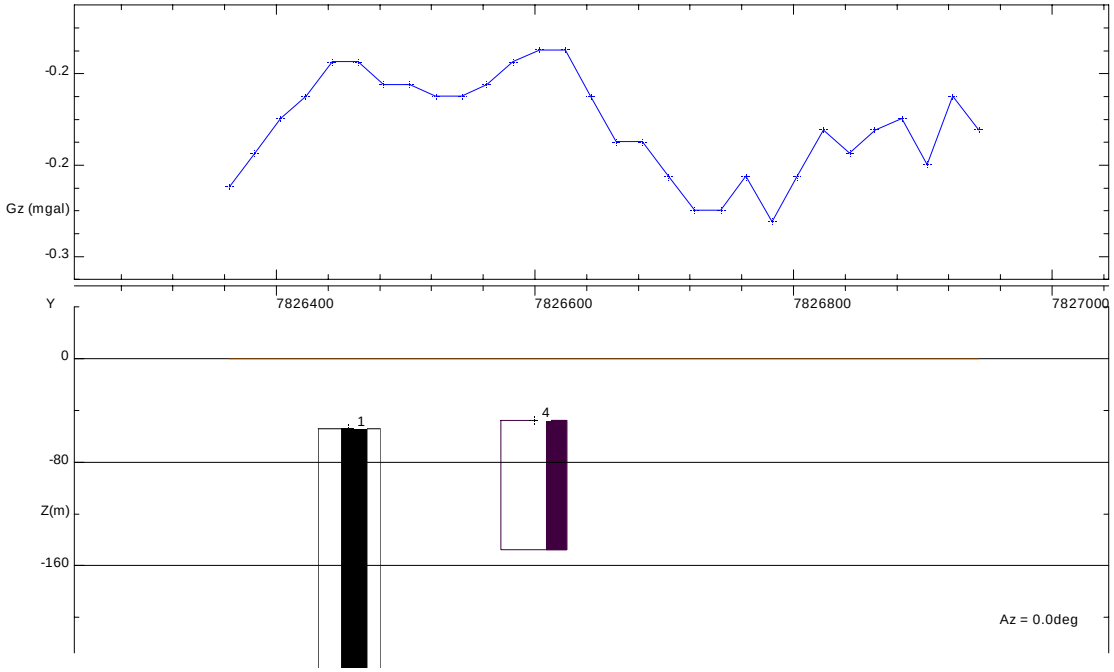


Chariot South Line 7826450N

GIANTS REEF EXPLORATION PTY LTD TENNANT CREEK NORTHERN TERRITORY			
AREA	ML 23216 & C176-C177 *Chariot Leases*		
MAP REF	52/5 TENNANT CREEK 1:100 000		
SUBJECT	**CHARIOT SOUTH: 7826450N BODY 7 PROFILE AND BOUGUER GRAVITY RESPONSE**		
DATE	AUTHOR	SCALE	
MAY 2003	FWL		**FIGURE 6**



GIANTS REEF EXPLORATION PTY LTD TENNANT CREEK NORTHERN TERRITORY			
AREA	ML 23216 & C176-C177 *Chariot Leases*		
MAP REF	52/5 TENNANT CREEK 1:100 000		
SUBJECT	**CHARIOT EAST:** **BOUGUER GRAVITY AND MODELS**		
DATE	AUTHOR	SCALE	
MAY 2003	FWL		**FIGURE 7**



Chariot East Line 405630mE

GIANTS REEF EXPLORATION PTY LTD TENNANT CREEK NORTHERN TERRITORY			
AREA	ML 23216 & C176-C177 *Chariot Leases*		
MAP REF	52/5 TENNANT CREEK 1:100 000		
SUBJECT	**CHARIOT EAST: BODY 1 & BODY 4 BOUGUER GRAVITY AND MODELS**		
DATE	AUTHOR	SCALE	
MAY 2003	FWL		**FIGURE 8**

APPENDIX 1

ML 23216 CHARIOT

RC DRILL TESTING OF THE WASTE DUMP SOIL ANOMALY
Micromine Files

CHRC270-271
Char_coll.dat
Char_ surv.dat
Char_lith.dat
Char_assay.dat

APPENDIX 2

ML 23216 & ML C176-C177
CHARIOT

GRAVITY SURVEY DATA