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COMBINED ANNUAL REPORT FOR THE WESTERN PROJECT AREA GR056/09

16 MAY 2011 – 15 MAY 2012

LICENCEES:

GIANTS REEF EXPLORATION PTY LTD
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A.B.N. 002 910 296

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JULY 2012

DISTRIBUTION:
Department of Resources
Central Land Council
Emmerson Resources Ltd

	MAP SHEETS:	
☐		1:250 000
☐	TENNANT CREEK	SE53-14
☐		1:100 000
	FLYNN	5759
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☐	TENNANT CREEK	5758
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1. SUMMARY

Exploration Licences (ELs) and Mineral Authorities (MAs)in the WPA, were acquired by Giants Reef Exploration Pty Ltd (Giants Reef) and Santexco Pty Ltd to search for Tennant Creek style iron oxide copper-gold deposits. Giants Reef Exploration Pty Ltd (Giants Reef) and Santexco Pty Ltd are wholly owned subsidiaries of Emmerson Resources Ltd.

This combined report records the exploration work completed on these ELs during the WPA Combined Reporting period from 16 May 2011 to the 15 May 2012.

Exploration activities were limited within the WPA during the reporting period, due to Emmerson's focus at the 'Proof of Concept' drilling in the Northern Project Area (NPA). The main focus in the WPA was at the NAV7 prospect and HeliTEM survey focused within EL 28603.

Exploration activities conducted consisted of;

1. Exploration RC drilling – 3 Holes, totalling 717m

2. Completion of a HeliTEM survey over the White Devil Area, which include EL 28603. This data has yet to be assessed, interpreted or modelled in great detail, due to the focus on ' Proof of Concept' drilling in the NPA, but an initial first pass analysis identified a coincident anomaly with the Historical NAV7 area, hence the above RC drilling.

Emmerson will be analysing, interpreting and modelling the HeliTEM data from the WPA over the next reporting term with the aim of generating targets for drill testing.

2. INTRODUCTION

Exploration Licences (EL) and Mineral Authorities (MA) in the Western Project Area (WPA), were acquired by Giants Reef Exploration Pty Ltd (Giants Reef) and Santexco Pty Ltd (Santexco) to search for Tennant Creek style iron oxide copper-gold deposits. Giants Reef and Santexco are wholly owned subsidiaries of Emmerson Resources Ltd (Emmerson).

This combined report records the exploration work completed on these EL's and MA's during the WPA Combined Reporting period from 16 May 2011 to the 15 May 2012.

On the 6 August 2005 the Manager of Customer Services – Minerals & Energy Titles (now DRDPIFR) approved Giants Reef's request to combine its EL's and MA's into four (4) project areas for purposes of combined annual reporting. The 4 areas are divided into the Northern Project Area (NPA), Southern Project Area (SPA), Eastern Project Area (EPA) and WPA, initially each area averaged around 720km^2, the area of the WPA currently stands at 860.6km^2. Details of the tenure contained within the WPA are outlined in Section 4 Tenure.

The aim of creating the 4 tenement project areas was to simplify tenement statutory reporting and project management, and also more clearly convey exploration expenditure aligned to the Company's project work areas, which are not restricted to individual tenements.

Emmerson entered into a Joint Venture Agreement (JV) with Ivanhoe Australia (Ivanhoe) on 16 April 2009. The JV is aimed at the discovery of economic IOCG deposits in the majority of Emmerson's Tennant Creek Tenements, and includes all EL's, SEL's and A's within the WPA. Ivanhoe must spend a minimum of $18 million dollars in the first three years to earn a 51% interest in the tenure subject to the JV, and spend an additional $10 million over years four and five to retain that interest. The JV is specific in relation to targeting of deposits, such that, JV exploration is targeting Tier 1 (>1 000 000oz Au) deposits in Emmerson's Tennant Creek Tenements that are subject of the JV, where Ivanhoe can earn up to a 70% interest in such a deposit, by sole funding the project to production. The JV also allows for Emmerson to remove two projects in a 12month period where it can sole fund the projects for 100% ownership (and removal from the JV).

This JV and Sole Fund Option places Emmerson in a very strong position to deliver significant in-ground exploration activities and hence expenditure over its Tennant Creek tenure, including all EL's and MA's over the coming years, with the possibility of, into the long term should JV exploration be successful.

3. LOCATION

EL's and MA's contained in the WPA, cover an area of some 860.6km^2 west and north-west of the Tennant Creek Township.

The principal access to the EL's and MA's in the WPA from Tennant Creek is north via the Stuart Highway then northwest and west via the Warrego Road, then north, south and west from the Warrego Road by various unsealed roads, tracks and fence line tracks. However, much of the WPA is rocky, without tracks and difficult to reach, even in a 4x4 vehicle. The unsealed tracks become impassable during the wet season.

Figure 1 below shows the location of the tenure within the WPA with respect to the town of Tennant Creek.

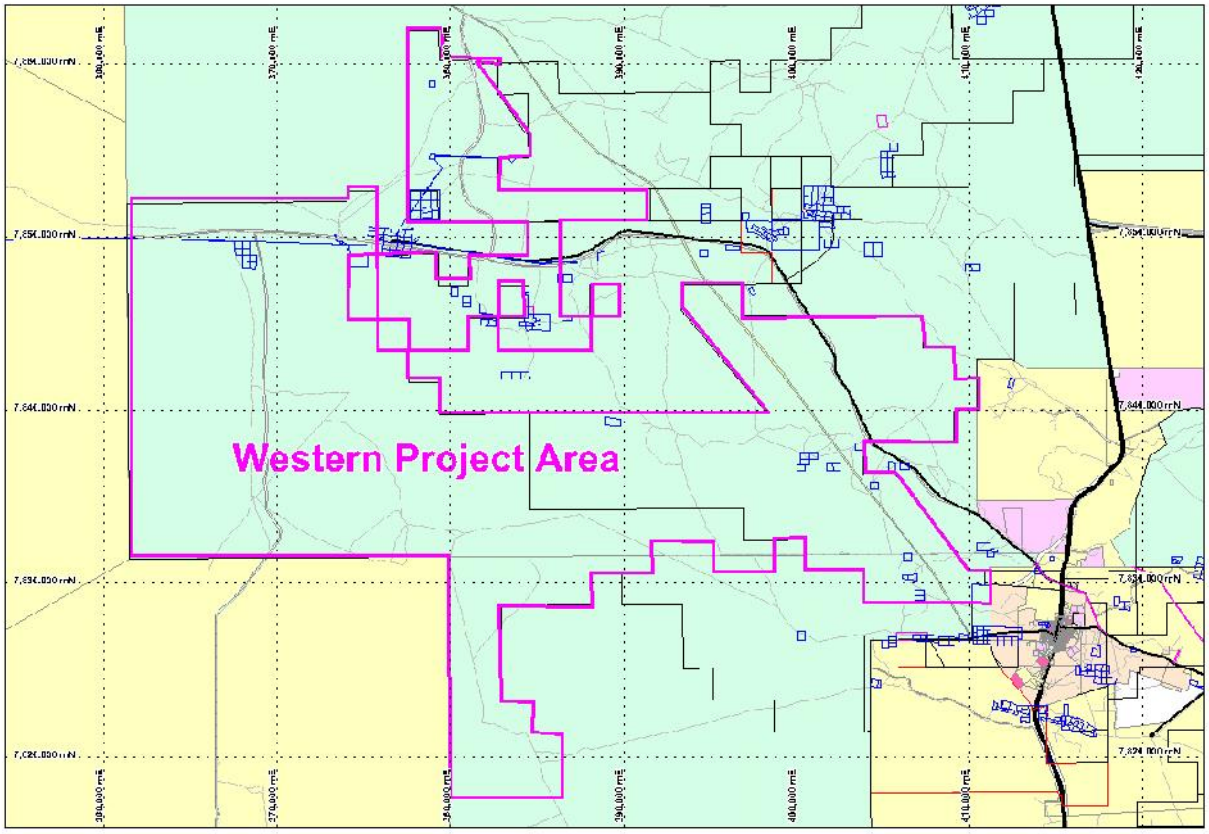


Figure 1: WPA

3.1 EL10015 SMELTER

Exploration Licence 10015 SMELTER, is located approximately 36 km north west of the Tennant Creek township. Access to the Licence area from Tennant Creek is via the sealed Warrego Road. The Warrego Road runs through the Licence and further access to the tenement is via unsealed tracks to the north and south. EL 10015 is located on the Short Range 1:100 000 scale map sheet (5659).

Figure 2 below shows the location of EL 10015 and surrounding tenure.

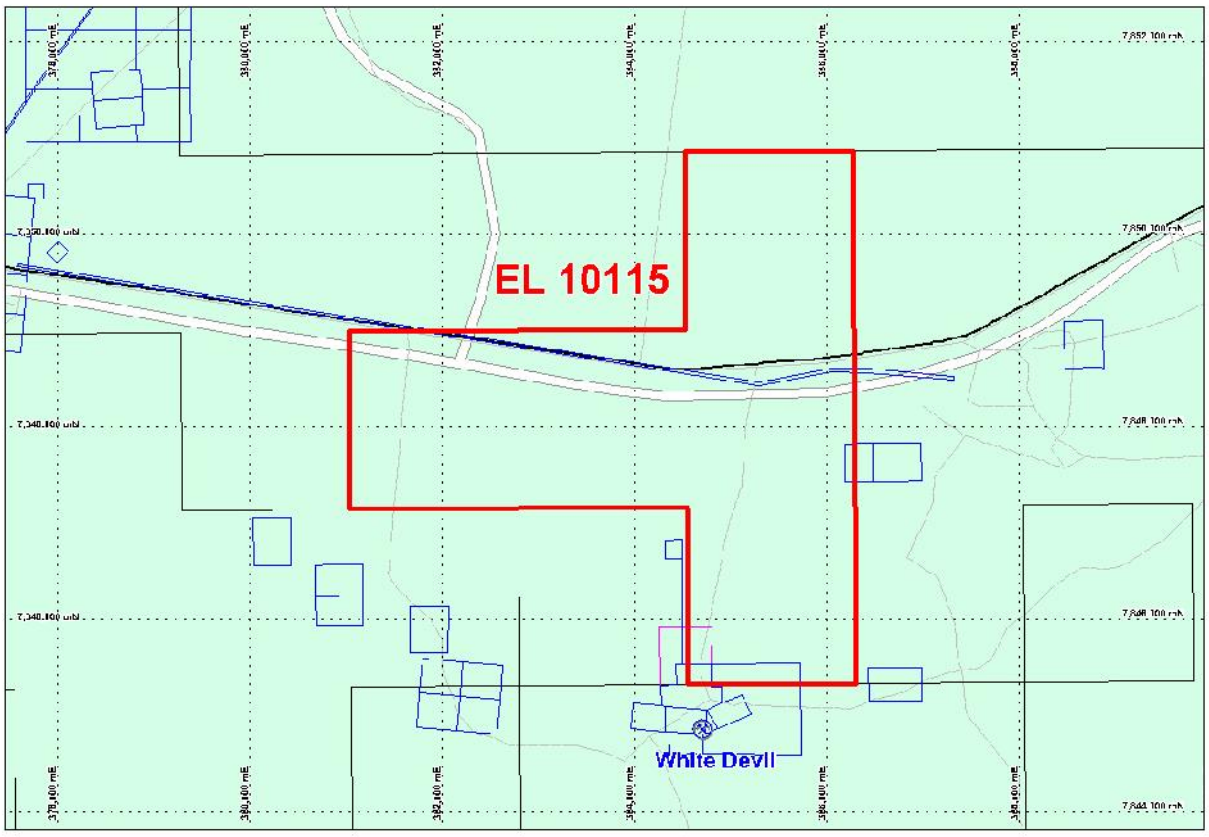


Figure 2: EL 10015

3.2 EL10052 RED BLUFF

EL 10052 RED BLUFF is located between 18 km and 32 km north west of the Tennant Creek Township.

Access from Tennant Creek town is via the sealed Warrego Road. A series of un-sealed minor tracks run west from Warrego Road, approximately 14km's from the Tennant Creek Township, these tracks provide access to the remainder of the licence. During and immediately after rain the area is generally inaccessible. EL 10052 is located on the Kelly (5658) and Flynn (5759) 1:100 000 scale map sheets.

Figure 3 below shows the location of EL 10052 and surrounding tenure.

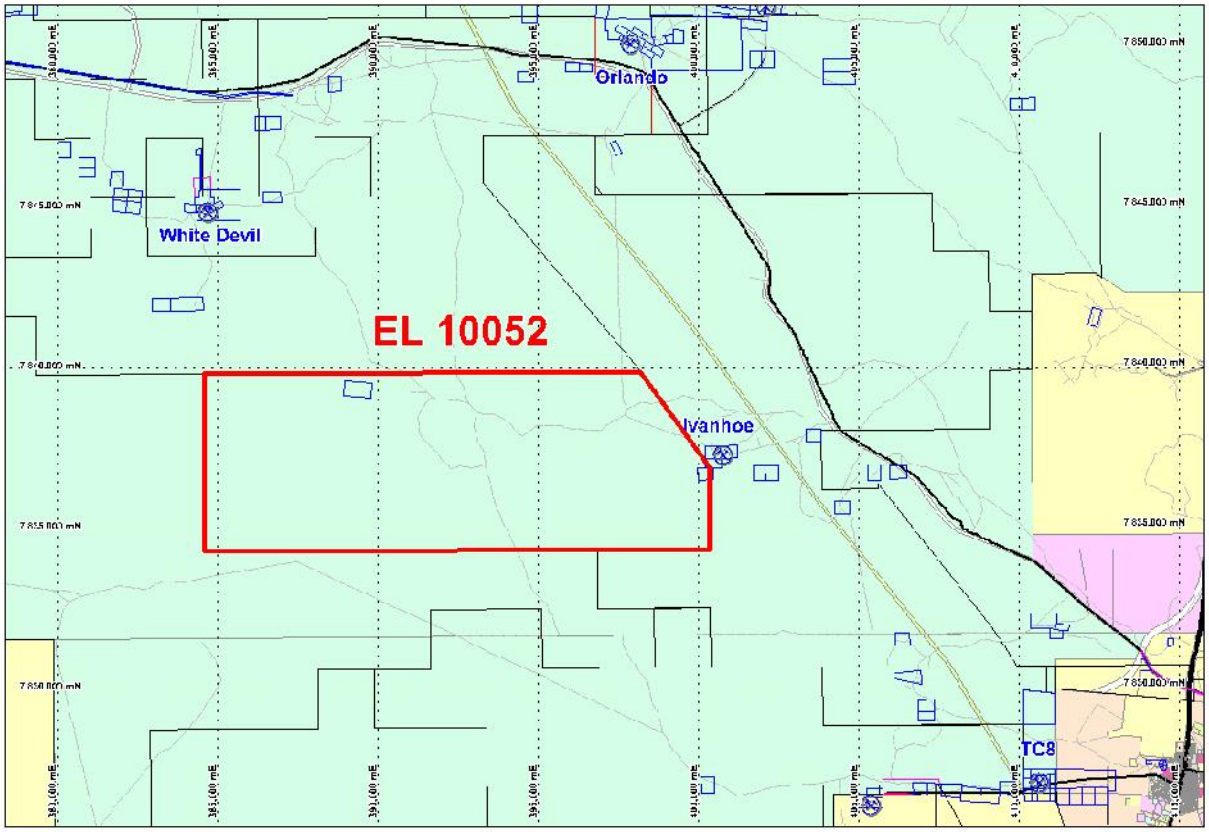


Figure 3: EL 10052

3.3 EL22728 BLACK ANGEL

Exploration Licence 22728 BLACK ANGEL, is located approximately 32km north west of the Tennant Creek Township on the Short Range 1:100 000 scale map sheet (5659).

Access to the Licence area is via Warrego Road then south, approximately 12 km from the Warrego Plant, via a series of unsealed tracks, which during and immediately after rain generally become inaccessible.

Figure 4 below shows the location of EL 22728 and surrounding tenure.

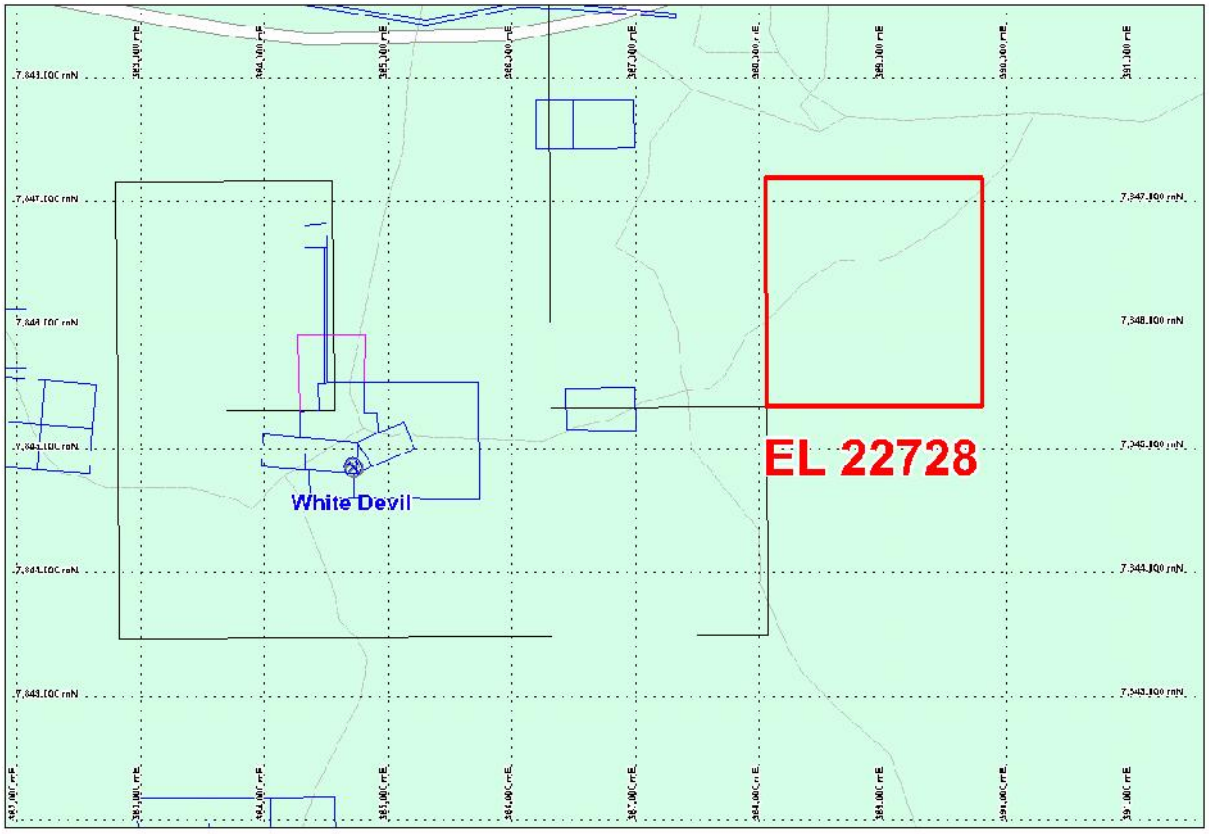


Figure 4: EL 22728

3.4 EL22868 NORTH JUBILEE

Exploration Licence 22868 NORTH JUBILEE, is located between 5 km and 27 km north west of the Tennant Creek Township on the Short Range (5659), Tennant Creek (5758) and Flynn (5759) 1:100 000 scale map sheets.

Access to the Licence area is via the Warrego Road which dissects the Licence, approximately 17 km from the Tennant Creek Township. Further access to the remainder of the Licence is via a series of unsealed tracks to the west and east from Warrego Road, which during and immediately after rain generally become inaccessible.

Figure 5 below shows the location of EL 22868 and surrounding tenure.

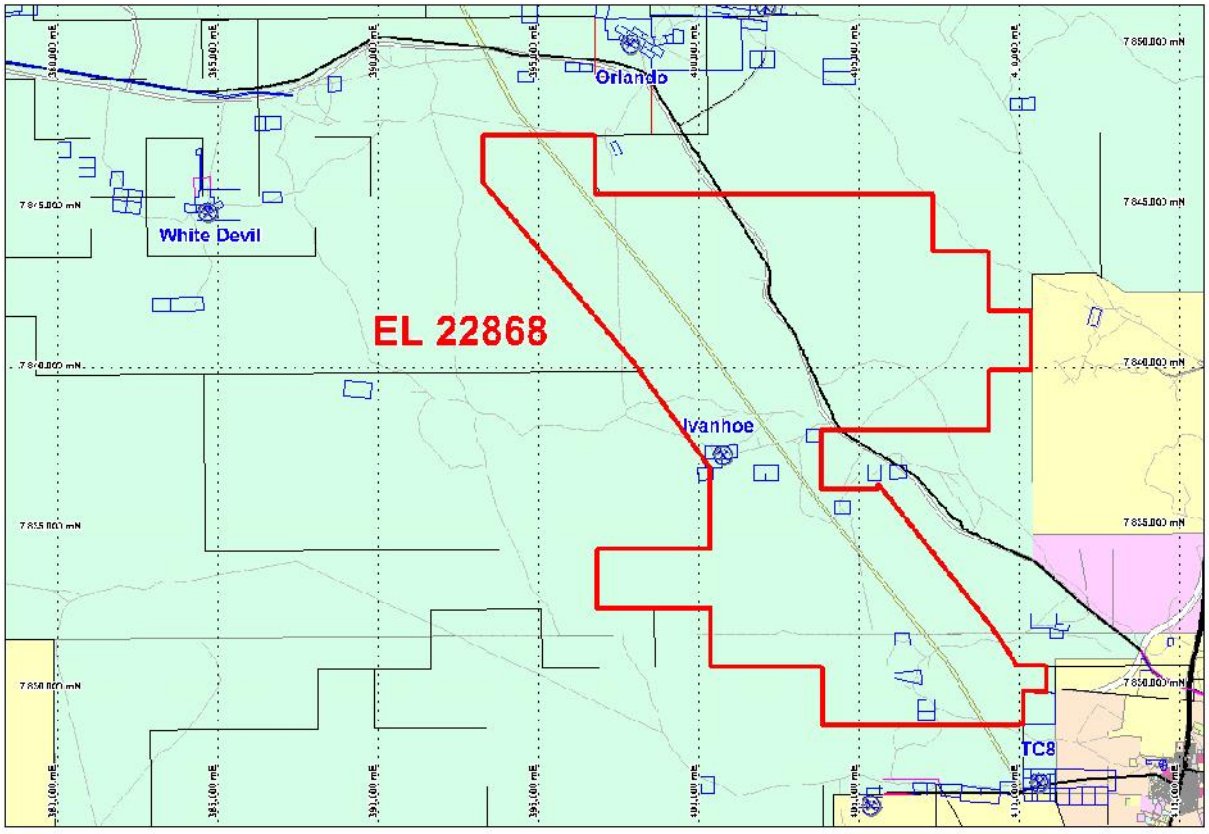


Figure 5: EL 22868

3.5 EL23914 WHITE DEVIL 2

Exploration Licence 23914 WHITE DEVIL 2, is located approximately 33km north west of the Tennant Creek Township on the Short Range 1:100 000 scale map sheet (5659).

Access to the Licence area is via Warrego Road then south, approximately 7km's from the Warrego Plant, via a series of unsealed tracks which during and immediately after rain generally become inaccessible.

Figure 6 below shows the location of EL 23914 and surrounding tenure.

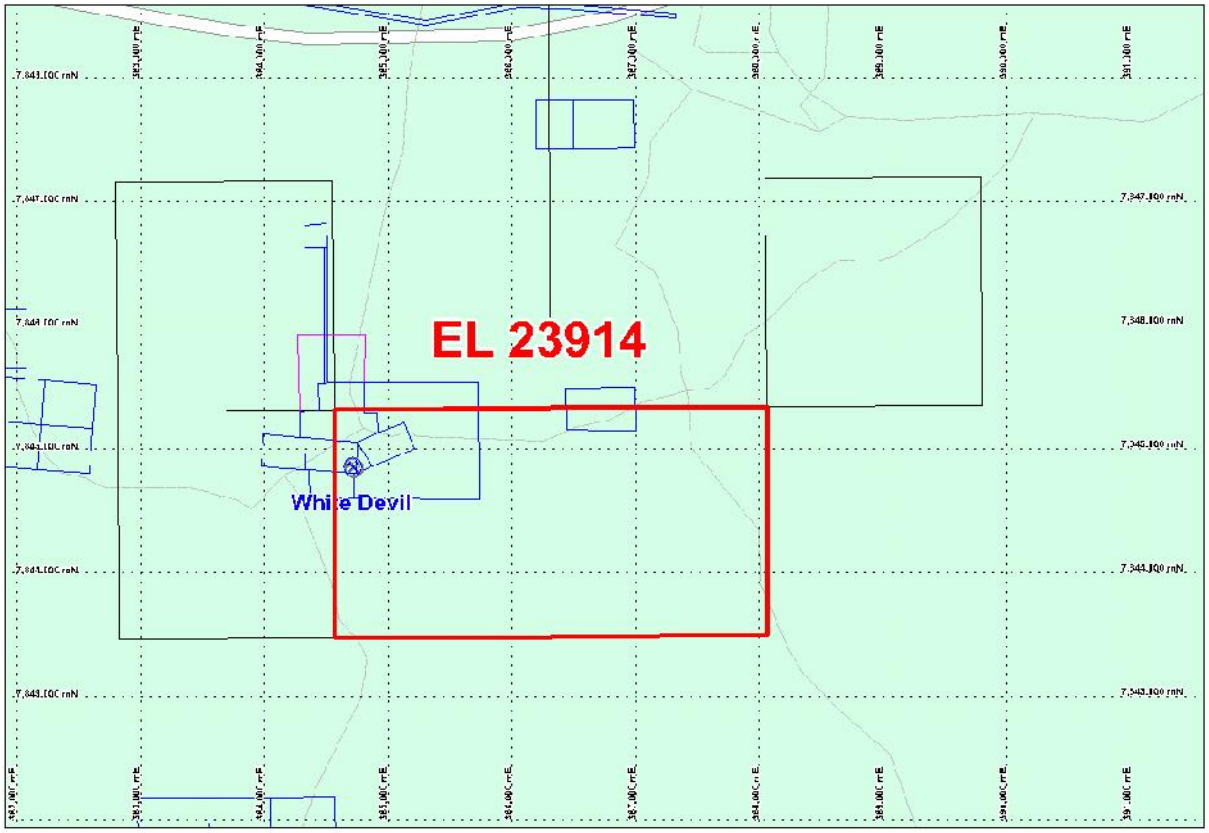


Figure 6: EL 23914

3.6 SEL 24979 WALTERS

Substitute Exploration Licence 24979 WALTERS, is located between approximately 16km and 50km west northwest of the Tennant Creek Township on the Short Range (5659), Kelly (5658) and Tennant Creek (5758) 1:100 000 scale map sheets.

Access to the Licence area is via Warrego Road then south, from the Warrego Road, via a series of unsealed tracks and fence line tracks, which during and immediately after rain generally become inaccessible.

Figure 7 below shows the location of SEL 24979 and surrounding tenure.

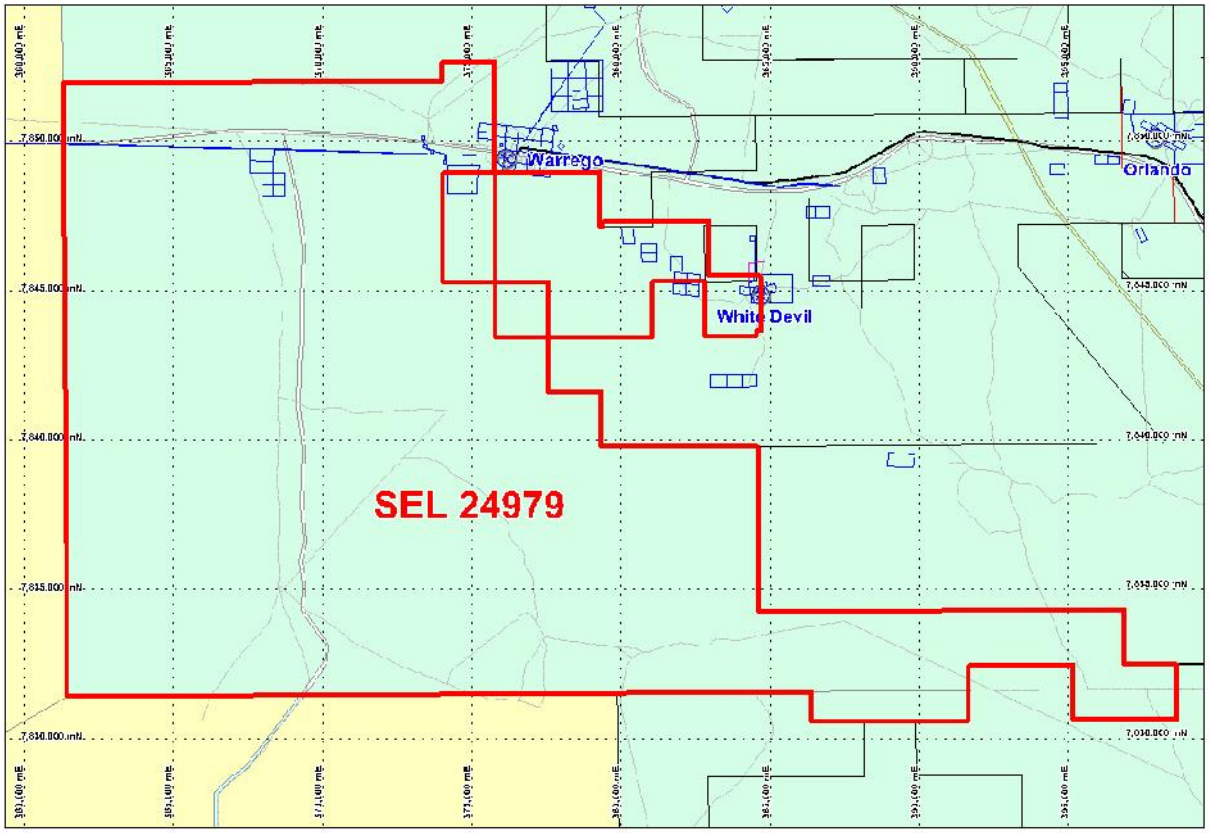


Figure 7: SEL 24979

3.7 EL27136 RESERVOIR

Exploration Licence 27136 RESERVOIR, is located between approximately 33km and 51km north west of the Tennant Creek Township on the Short Range 1:100 000 scale map sheet (5659).

Access to the Licence area is via Warrego Road then at approximately 6km form the Warrego Plant turn north along the road to the Reservoir with dissects the licence from south to north. Access to the other areas of the licence can be gained via a series of unsealed tracks which during and immediately after rain generally become inaccessible.

Figure 8 below shows the location of EL 27136 and surrounding tenure.

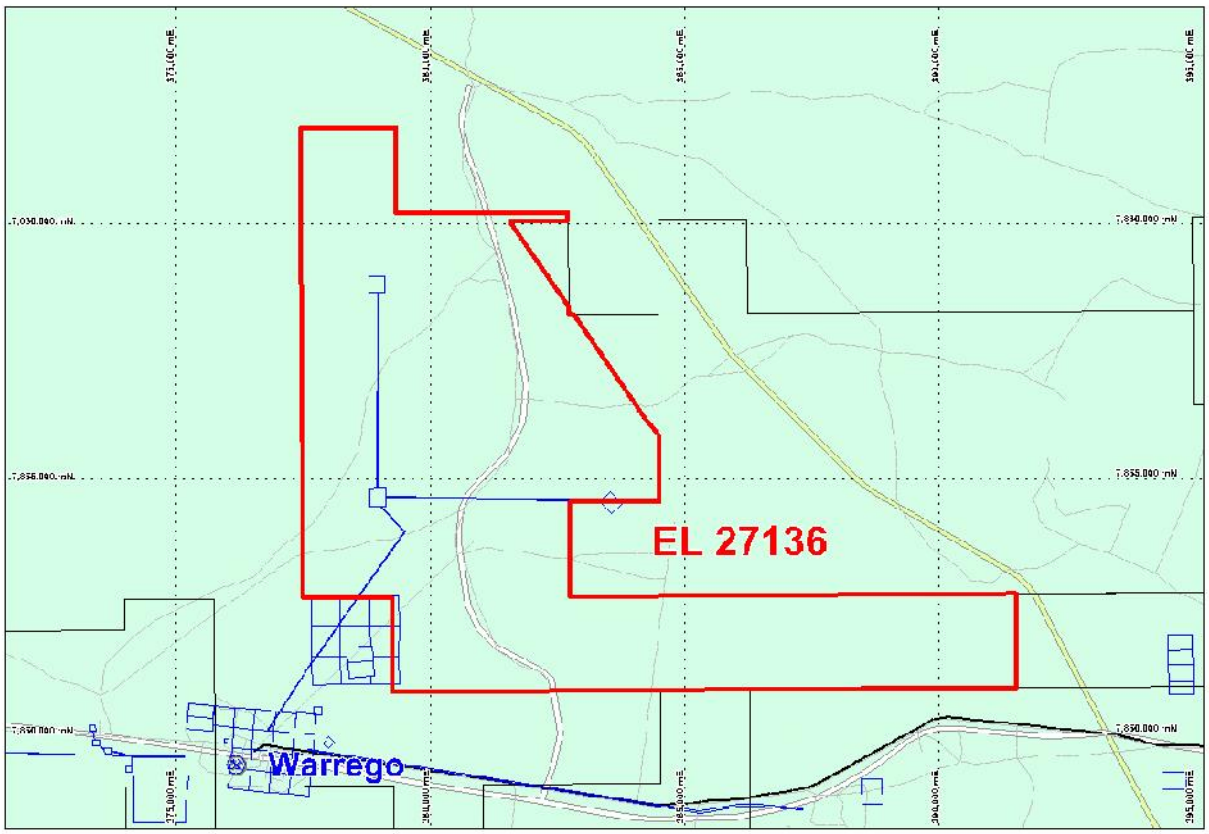


Figure 8: EL 27136

3.8 MA27163 EAGLE

Mineral Authority 27163 EAGLE, is located approximately 5km north west of the Tennant Creek Township on the Tennant Creek 1:100 000 scale map sheet (5758).

Access to the Licence area is north west along a series of unsealed tracks which during and immediately after rain generally become inaccessible.

Figure 9 below shows the location of A 27163 and surrounding tenure.

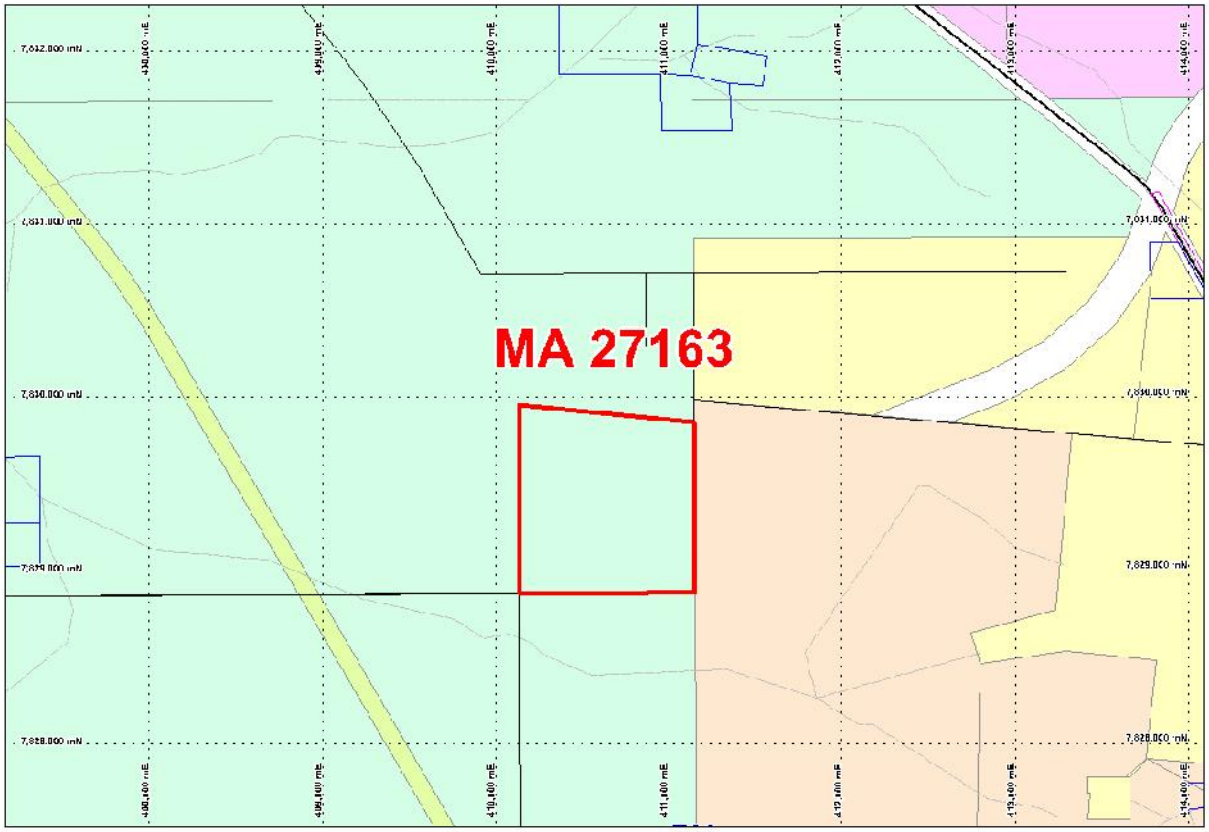


Figure 9: MA 27163

3.9 EL27164 HAWK

Exploration Licence 27164 HAWK, is located approximately 5.5km north west of the Tennant Creek Township on the Tennant Creek 1:100 000 scale map sheet (5758).

Access to the Licence area is north west along a series of unsealed tracks which during and immediately after rain generally become inaccessible.

Figure 10 below shows the location of EL 27164 and surrounding tenure.

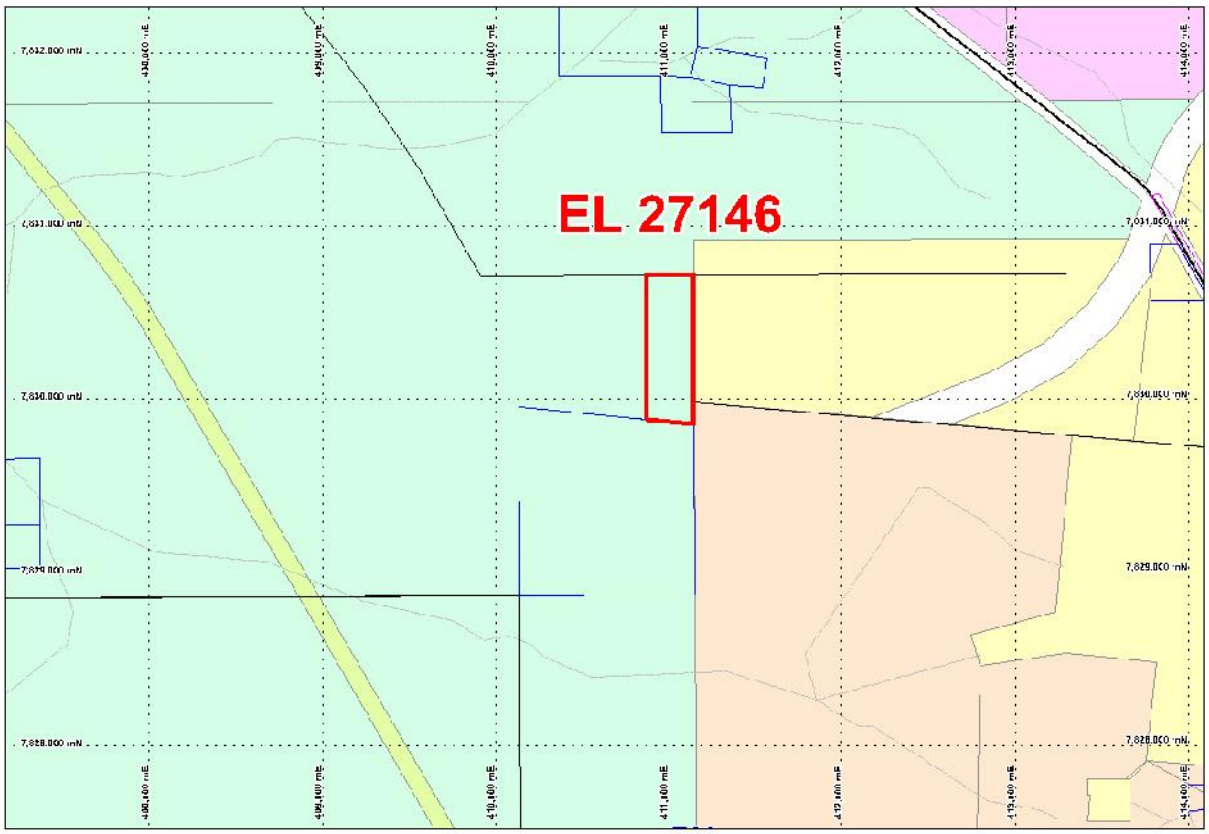


Figure 10: EL 27164

3.10 EL28602 RED BLUFF

Exploration Licence 28602 RED BLUFF, is located between approximately 15km and 60km north west and west of the Tennant Creek Township on the Tennant Creek (5758), Short Range (5659) and Kelly (5658) 1:100 000 scale map sheets.

Access to the Licence area is via Warrego Road to the Warrego Processing Plant then south, from the Warrego Road, via a series of unsealed tracks and fence line tracks, which during and immediately after rain generally become inaccessible.

Figure 11 below shows the location of EL 28602 and surrounding tenure.

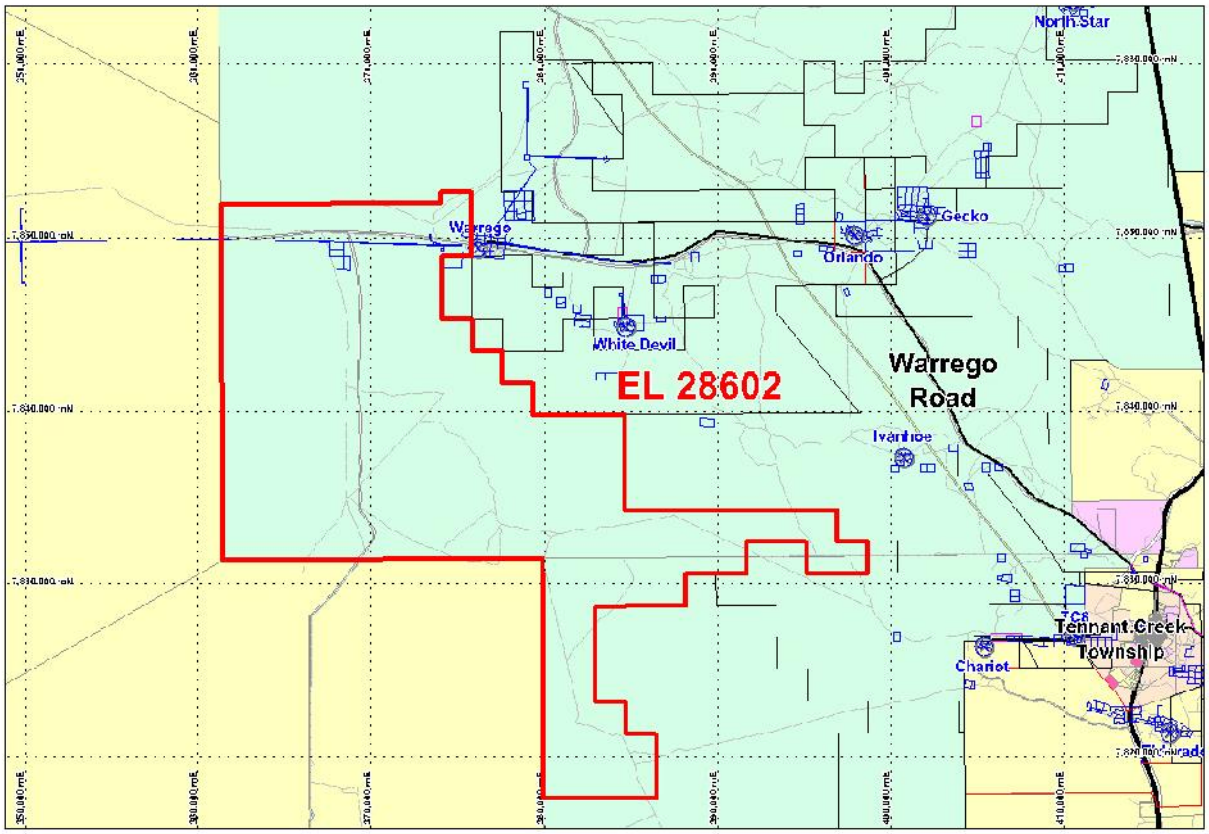


Figure 11: EL 28602

3.11 EL28603 WHITE DEVIL

Exploration Licence 28603 WHITE DEVIL, is located between approximately 30km and 45km north west of the Tennant Creek Township on the Short Range (5659) 1:100 000 scale map sheet.

Access to the Licence area is via Warrego Road to approximately 10km east of the Warrego Processing Plant then south and north, from the Warrego Road, via a series of unsealed tracks and fence line tracks, which during and immediately after rain generally become inaccessible.

Figure 12 below shows the location of EL 28603 and surrounding tenure.

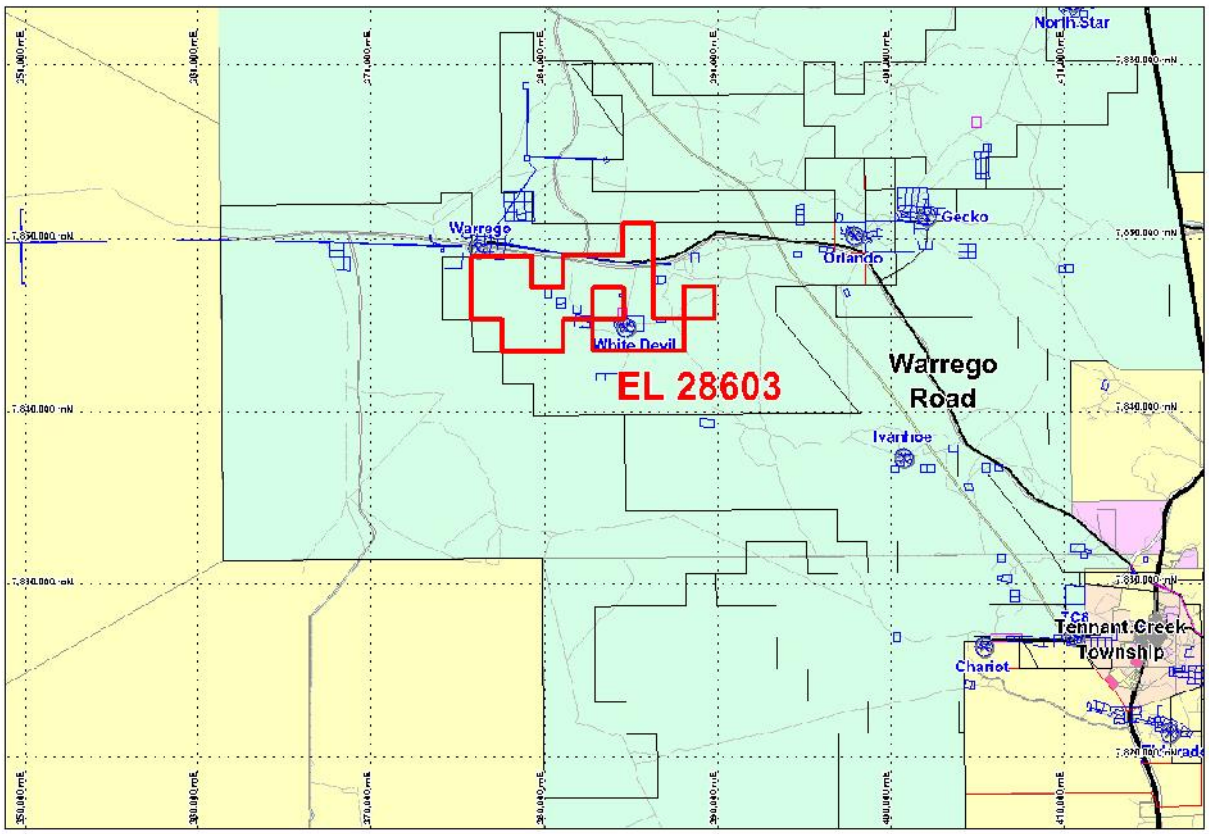


Figure 12: EL 28603

3.12 EL28774 COLOMBARD

Exploration Licence 28774 COLOMBARD, is located between approximately 5km and 33km north west of the Tennant Creek Township on the Tennant Creek (5758), Short Range (5659), Flynn (5759) and Kelly (5658) 1:100 000 scale map sheets.

Access to the Licence area is via Warrego Road to approximately 17km from Tennant Creek then east, west, south and north, from the Warrego Road, via a series of unsealed tracks and fence line tracks, which during and immediately after rain generally become inaccessible.

Figure 13 below shows the location of EL 28774 and surrounding tenure.

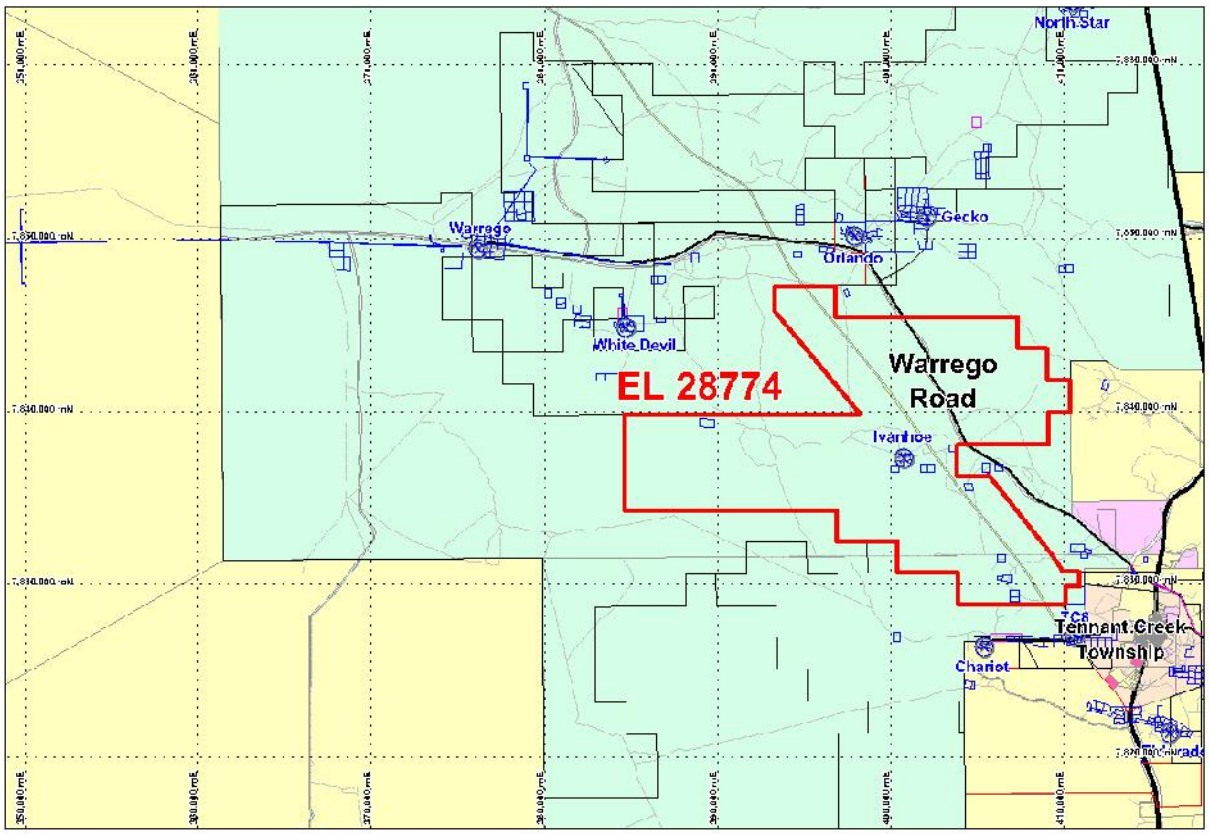


Figure 13: EL 28774

4. TENURE

Tenure details for the 5 Exploration Licences and 1 Mineral Authority within the WPA are as follows:

Table 1: WPA Tenure details.

Exploration Licence	Licence Holder	Blocks & part-blocks	Area (km^2)	Date of Expiry	Period of Grant/ *Renewal*
EL 27136 RESERVOIR	GIANTS REEF EXPLORATION PTY LTD	24	69.07	24 May 2015	6
MA 27163 EAGLE	GIANTS REEF EXPLORATION PTY LTD	2	1.05	12 November 2015	6
EL 27164 HAWK	GIANTS REEF EXPLORATION PTY LTD	1	0.23	18 October 2011	2
EL 28602 RED BLUFF	GIANTS REEF EXPLORATION PTY LTD	171	485.6	07 July 2015	4
EL 28603 WHITE DEVIL	GIANTS REEF EXPLORATION PTY LTD	17	55.05	07 July 2015	4
EL 28774 COLOMBARD	GIANTS REEF EXPLORATION PTY LTD	83	249.1	25 September 2015	4

All EL's and MA's in the WPA lie within NT Portion 408, Phillip Creek, Perpetual Pastoral Lease 946 and NT Portion 00409, Tennant Creek, Perpetual Pastoral Lease 1142.

An Agreement referred to as the Indigenous Land Use Agreement (ILUA) Deed for Exploration was signed by the Central Land Council (CLC), Traditional Landowners. All the tenure in the WPA are on Perpetual Pastoral Lease and are subject to this ILUA, signed in September 2000 between the Native Title holders of the Tennant Creek region, represented by the CLC, and Giants Reef.

As stated in the Introduction, Section 1.0, Ivanhoe, through the JV agreement, will earn a 51% interest in the above listed tenure, should there expenditure exceed $18 million dollars by 16 July 2012.

EL's 10015, 22728, 23914 and SEL 24979 (part only) all expired on 07 July 2011 when EL 28603 was granted, which amalgamates all the licences.

SEL 24979 (part only) and EL 8883 (part only) expired on 07 July 2011 when EL 28602 was granted, which amalgamates the two licence part areas.

EL's 10052 and 22868 expired on 26 September 2011 when EL 28774 was granted, which amalgamates the two licences.

4.1 EL27136 RESERVOIR

Exploration Licence 27136 *Reservoir,* was granted to Giants Reef on the 25 May 2009 for a period of six years. The Exploration Licence consists of twenty four blocks covering an approximate area of 69.07km.

The Licence comes under the terms of an ILUA entered into between Giants Reef and the CLC, in September 2000.

EL 27136 is within NT Portion 408, Perpetual Pastoral Lease 946, Phillip Creek Station.

4.2 MA27163 EAGLE

Mineral Authority 27163 Eagle*,* was granted to Giants Reef on the 13 November 2009 for a period of six years. The Authorisation consists of two blocks covering an approximate area of 1.05km².

The Licence comes under the terms of an ILUA entered into between Giants Reef and the CLC, in September 2000.

A 27163 Eagle lies within NT Portion 494, Perpetual Pastoral Lease 1142, Tennant Creek Station.

4.3 EL27164 HAWK

Exploration Licence 27164 Hawk*,* was granted to Giants Reef on the 19 October 2009 for a period of two years. The Exploration Licence consists of one block covering an approximate area of 0.23km².

The Licence comes under the terms of an ILUA entered into between Giants Reef and the CLC, in September 2000.

EL 27164lies within NT Portion 494, Perpetual Pastoral Lease 1142, Tennant Creek Station.

4.4 EL28602 RED BLUFF

Exploration Licence 28602 RED BLUFF*,* was granted to Giants Reef on the 08 July 2011 for a period of four years. The Exploration Licence consists of one hundred and seventy one blocks covering an approximate area of 485.6km². This EL amalgamates SEL 24979 (part only) and EL 8883 (part only, formerly in the Southern Project Area).

The Licence comes under the terms of an ILUA entered into between Giants Reef and the CLC, in September 2000.

EL 28602 lies within NT Portion 408, Perpetual Pastoral Lease 946, Phillip Creek Station and NT Portion 00409, Tennant Creek Station, Perpetual Pastoral Lease 1142.

4.5 EL28603 WHITE DEVIL

Exploration Licence 28603 WHITEDEVIL, was granted to Giants Reef on the 07 July 2011 for a period of four years. The Exploration Licence consists of seventeen blocks covering an approximate area of 55.05km². This EL amalgamates EL's 23914, 10115, 22728 & SEL 24979 (part only).

The Licence comes under the terms of an ILUA entered into between Giants Reef and the CLC, in September 2000.

EL 28603 lies within NT Portion 408, Perpetual Pastoral Lease 946, Phillip Creek Station.

4.6 EL28774 COLOMBARD

Exploration Licence 28774 COLOMBARD, was granted to Giants Reef on the 26 September 2011 for a period of four years. The Exploration Licence consists of eighty three blocks covering an approximate area of 249.1km². This EL amalgamates EL's 10052 & 22868.

The Licence comes under the terms of an ILUA entered into between Giants Reef and the CLC, in September 2000.

EL 28774 lies within NT Portion 408, Phillip Creek, Perpetual Pastoral Lease 946 and NT Portion 00409, Tennant Creek, Perpetual Pastoral Lease 1142.

5. GEOLOGY

5.1 Regional Geology

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

In 1995 the Northern Territory Geological Survey released a geological map and explanatory notes for the Flynn, Kelly, Short Range and Tennant Creek 1:100,000 sheets, which covers the area of the Licences.

The rocks of the Warramunga Formation host most of the orebodies in the region and underlie most of the Exploration Licences.

5.2 Geology of the Western Project Area

The WPA covers a region of the Tennant Creek Province and includes deformed lower-greenschist facies flyshe sequence (Warramunga Formation) intruded by syn-orogenic granite and granodiorite as well as stratabound felsic porphyry. This sequence is overlain by silicic volcanics and volcaniclastics (Flynn Subgroup) and intruded by late orogenic granite, porphyry and lamprophyre. The Warramunga Formation comprises greywacke, siltstone, shale with interbedded felsic volcanics. Crustal melting resulted in the formation of dry, I-type granodiorite melts and granitic differentiates (Tennant Creek Supersuite), which intruded the Warramunga Formation and lower parts of the Flynn Subgroup during and subsequent to the Barramundi Orogeny. Deformation of the Warramunga Formation produced tight upright folds with a pervasive sub-vertical east west slaty cleavage accompanied by lower greenschist facies metamorphism. Deposition of the volcanosedimentary Flynn Subgroup more or less coincided with the plutonic events.

Progressive dextral shearing resulted in large-scale east trending open folds, as defined by the stratabound porphyries. Disharmonic folds, angular folds and plunging doubly peaking anticlines with a weak sub-vertical crenulation cleavage developed within the Warramunga Formation. North west trending open folds of disharmonic style were generated within the Flynn Subgroup.

The youngest igneous events in the Tennant Creek Province were intrusion of the Warrego and Gosse River East granites, as well as lamprophyre dykes and sills.

The WPA can be largely divided into outcropping and non-outcropping areas. The central and eastern regions of the WPA is dominated by biotite bearing and undifferentiated granites, covered by Quaternary sands and gravels in relict fluvial systems, active channels, floodplains and quartz-rich dissected colluvial fan deposits.

Outcrop within the WPA is limited to ridges found mainly in the eastern and northern regions of the WPA. These ridges comprise scattered outcrops of Palaeoproterozoic Warramunga Formation and Flynn Sub-group/ Tomkinson Creek Sub-group (Ooradidgee Group), with less extensive Lamprophyre present.

The WPA includes a number of significant gold-copper-bismuth deposits, including Warrego, White Devil, Black Angel, Crusader, Premier, Ivanhoe and Jubilee.

5.1 EL27136 RESERVOIR

The Licence area is blanketed by a layer of colluvium and aeolian sand up to 7m thick, with some outcrop. The north of the licence area is dominated by underlying Palaeoproterozoic Ooradidgee Group; Wundirgi Formation rocks, but the remaining Licence area is underlain by sandstones, siltstones and other sediments of the Palaeoproterozoic Warramunga Formation in the south and east. This formation is host to all the magnetite-haematite (ironstone–hosted) gold-copper-bismuth mineralisation and ore bodies in the Tennant Creek goldfield. The Chariot gold deposit is hosted by haematite dominated ironstone which is quite unique to the Tennant Creek goldfield.

Some Warrego Volcanics of the Ooradidgee Group exist in the central part of the licence.

5.2 MA27163 EAGLE

The northern part of the licence is dominated by sandstones, siltstones and other sediments of the Palaeoproterozoic Warramunga Formation. This formation is host to all the magnetite-haematite (ironstone–hosted) gold-copper-bismuth mineralisation and ore bodies in the Tennant Creek goldfield. The Chariot gold deposit is hosted by haematite dominated ironstone which is quite unique to the Tennant Creek goldfield. While the southern and majority of the licence area is dominated by a porphyry felsic intrusive.

5.3 EL27164 HAWK

The Licence area is underlain by sandstones, siltstones and other sediments of the Palaeoproterozoic Warramunga Formation. This formation is host to all the magnetite-haematite (ironstone–hosted) gold-copper-bismuth mineralisation and ore bodies in the Tennant Creek goldfield. The Chariot gold deposit is hosted by haematite dominated ironstone which is quite unique to the Tennant Creek goldfield.

5.4 EL 28602 RED BLUFF

The Licence is located in the western region of the Tennant Creek Province. The geology in EL 28602 consists of scattered outcrops of weathered siltstone and greywacke of the Palaeoproterozoic Warramunga Formation. Much of the Licence is covered by Cainozoic sediments including soils, sands and alluvial material. Airborne and ground magnetic data

and field mapping suggest that metasediments of the Palaeoproterozoic Warramunga Formation underlie the Licence area.

The most western region of the licence is dominated by biotite bearing and undifferentiated granites.

5.5 EL 28603 WHITE DEVIL

Exploration Licence 23914 covers an area of intermittent outcrops. Mapping in the general Navigator Fault area suggests that the Licence is underlain by the Palaeoproterozoic Warramunga Formation meta-sediments that have been intruded by later quartz-feldspar porphyries. At the nearby White Devil mine this porphyry has been dated using Rb/Sr at 1856 ±4Ma.

The Mary Lane Shear, one of the most prominent tectonic structures in the Tennant Creek goldfield, runs in a northwest to southeast direction through EL 23914.

The north western portion of EL 23914 includes Mineral Leases which host the White Devil (701 966 oz Au), Black Angel and Crusader deposits.

5.6 EL 28774 COLOMBARD

The majority of the Licence is underlain by turbidite sediments of the Palaeoproterozoic Warramunga Formation (1865-1855 Ma), predominately greywacke and siltstones. This formation is host to virtually all the magnetite-haematite (ironstone–hosted) gold-copper-bismuth mineralisation and ore bodies in the Tennant Creek goldfield.

Exposure of the Proterozoic bedrock is fair to poor. The Warramunga Formation is intruded in the western and north-western parts of EL 22868 by the Tennant Creek Granite (1855-1840 Ma), and in its southern parts by felsic porphyries.

There are numerous abandoned small mines within the boundaries of the Licences including Premier, Curlew, Ivanhoe, Jubilee, Explorer 80 and Wolseley, many of these are held under Mineral Claims or Mineral Leases, and therefore are not covered in this report.

6. PREVIOUS EXPLORATION

6.1 Targets and Concepts

Exploration within the WPA has been aimed at discovering Tennant Creek style iron oxide copper-gold (IOCG) deposits within the Warramunga Formation.

This type of deposit is well documented. Better known examples of the primary copper-gold type in the region include Peko and Argo. These deposits are all hosted in ironstone (magnetite +/- haematite) masses with associated chloritic, dolomitic and silicic alteration. An example of the primary gold type is the Juno deposit. A local example of the oxide gold type are the Nobles Nob and Eldorado deposits.

Successful application of HeliTEM technology resulted in the discovery of a shear hosted vein arrays mineralisation style never discovered before in Tennant Creek, Emmerson will also continue to develop this model and apply it to exploration over the entire field.

There are numerous old mines and prospects within the WPA, held under Mineral Leases and Claims by Santexco Pty Ltd and Giants Reef Exploration Pty Ltd. Some of the more significant deposits included in these are Warrego (1 586 000 oz Au), White Devil (701 966 oz Au), Ivanhoe (30 961.1 oz Au), Jubilee (479.4 oz Au) and Black Angel (6 851 oz Au).

There are numerous ironstone outcrops and magnetic anomalies that represent non-outcropping ironstone masses, scattered throughout most of the WPA.

The discovery of the haematite-magnetite Chariot deposit in 1998 has shown the potential for variations on the classic magnetite ironstone hosted gold +/- copper deposits, where lower order magnetic anomalies, plus gravity methods can define new targets. Discoveries by Giants Reef of mineralisation such as at Malbec West, Marathon and Billy Boy further support this. Giants Reef considers the potential for the discovery of mineralisation in hematite dominant ironstones in this group of tenements is excellent.

Emmerson submitted and was granted a Mining Management Plan over the WPA in November 2008 with renewals submitted and granted on an annual basis since then - Authorisation 0461-03, covers all Emmerson Tenements in the WPA and combines all historical MMP's over the tenements of the WPA.

During 2010 Emmerson and contract geophysical consultants, Spinifex Geophysics, further developed a processing technology, Vector Residual Magnetic Intensity (VRMI) aimed at existing magnetics data from Emmerson's Tennant Creek tenure package, figures 14 (pre-VRMI) & 15 (VRMI) represent the success of the VRMI technology. Emmerson applied this processing technique to all its tenements, including those in the WPA, immediate identification of highly prospective VRMI targets reprioritised Emmerson's target matrix, the Red Bluff Area in Emmerson's WPA became the No. 1 priority area for exploration activities. Drilling during 2010 at Red Bluff confirmed the VRMI technology with significant intercepts of thick ironstones; although assay results were mixed the successful ironstone intercepts were evidence to support the development and use of VRMI technology.

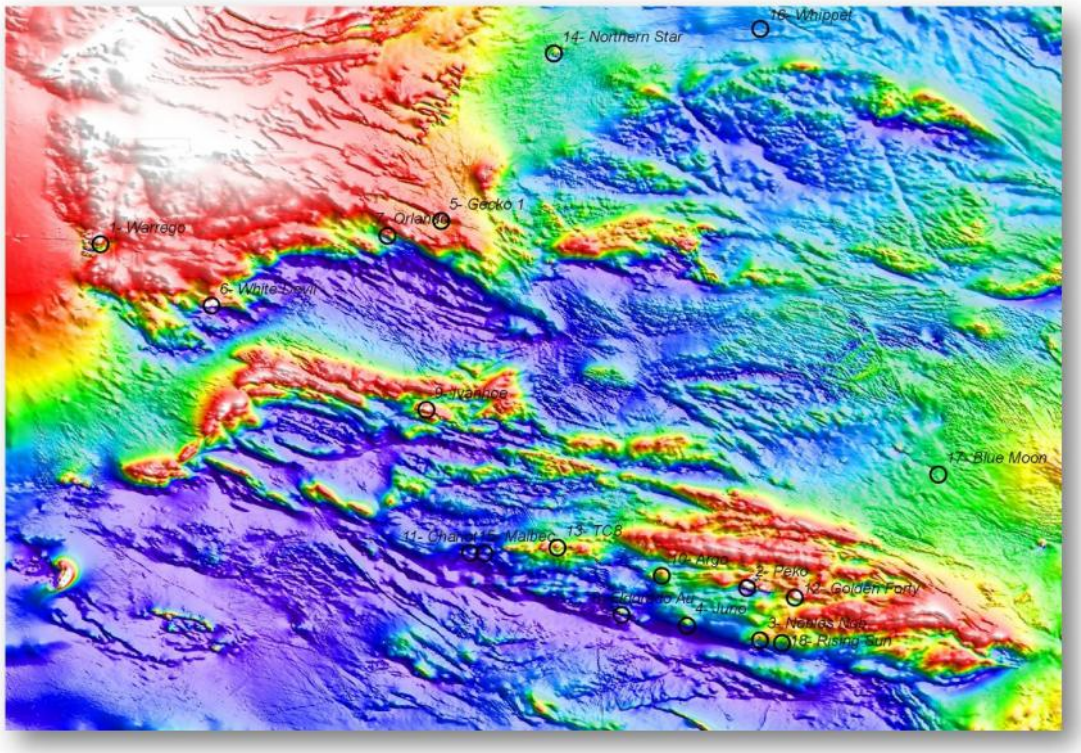


Figure 14 : Regional Magnetic Image (pre-VRMI)

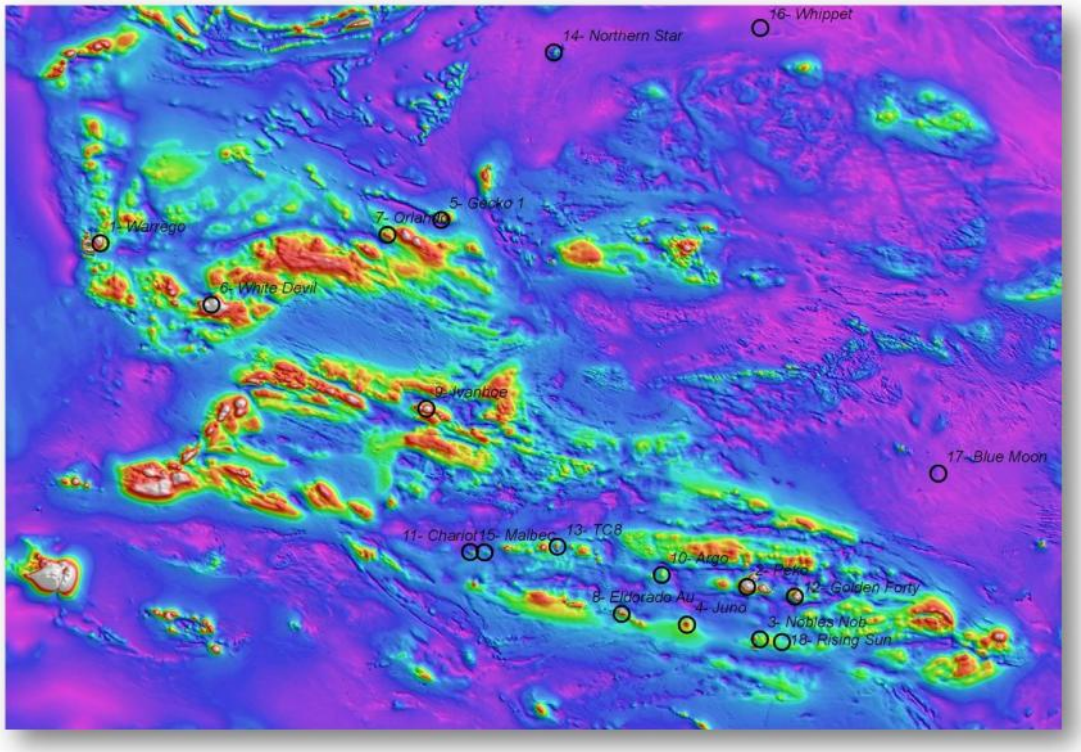


Figure 15: Regional Magnetic Image using VRMI

6.2 EL27136 RESERVOIR

Exploration Activities conducted over EL 27136 have been very limited due to Emmerson's focus elsewhere in the WPA, namely Colombard, Trireme, Drakkar, Eagle, White Devil and the Red Bluff Area.

Work that was completed involved the analysis of the data captured from the two major geophysical surveys conducted over the Tennant Creek Mineral field, included many of the tenements in the WPA. Analysis, interpretation and modelling of this captured data was conducted by Emmerson consultant Geophysicists Steve Massey and Brett Adams (Spinifex Geophysics). Other work completed involved the identification of historical drilling within the licence in preparation for validation against hard copy records stored on-site at Emmerson's Tennant Creek Offices.

Due to the volume of drilling data identified and Emmerson's limited resources, due to focus on higher priority targets elsewhere in the WPA, validation of identified data will take place on a as needs basis, and as yet no validation of data for EL 27136 has occurred.

The initial first pass analysis and interpretation conducted by Emmerson using VRMI, has yet to conducted in detail to identify any targets within EL 27136, refer to figures 16 (VRMI) & 17 (Gravity). From the two figures it can be clearly seen that potential exists in many parts of the licence, but due to the focus at already identified higher priority areas within the WPA a more detailed analysis of the processed VRMI data will be required to determine its prospectivity prior to any relinquishments.

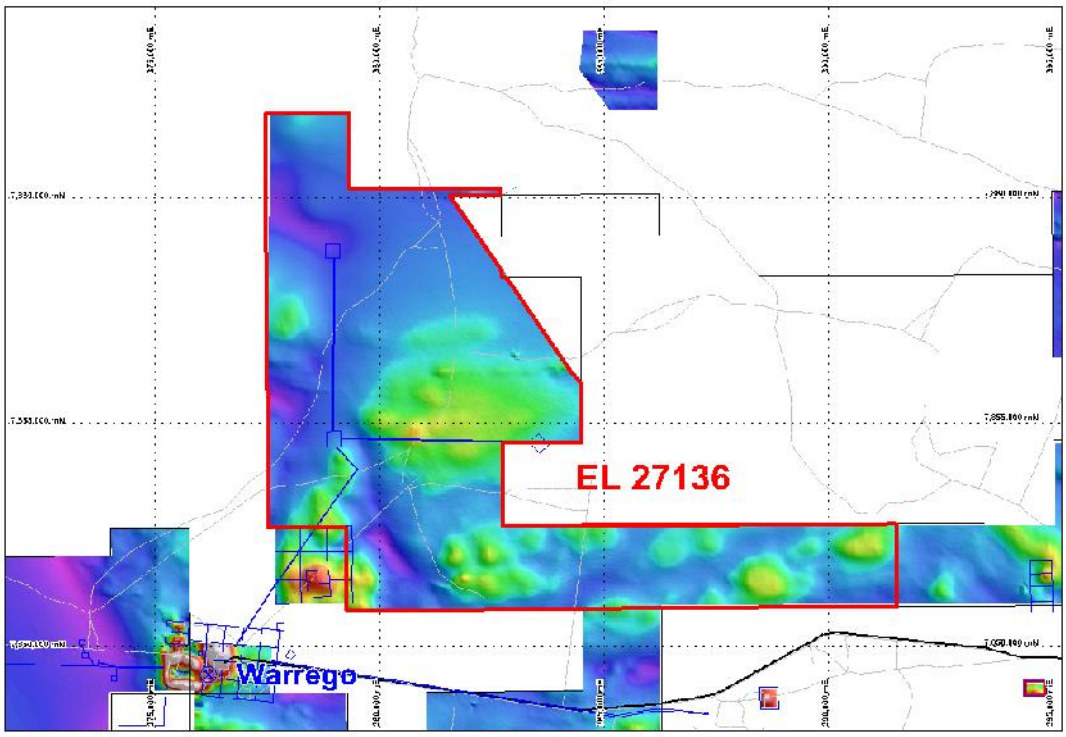


Figure 16: EL 27136 vs. VRMI

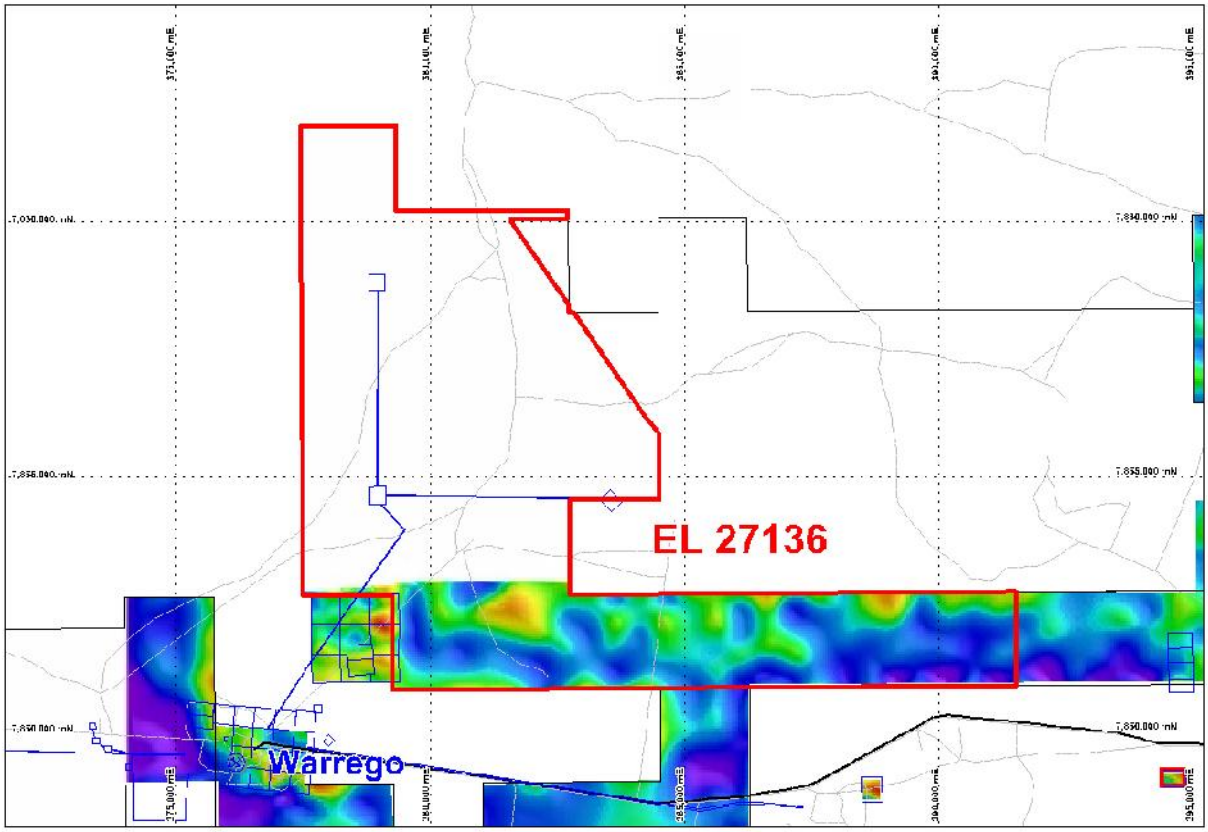


Figure 17: EL 27136 vs. Gravity

6.3 MA27163 EAGLE

Exploration Activities conducted over MA 27163 have been very limited due to Emmerson's focus elsewhere in the WPA, namely Colombard, Trireme, Drakkar, Eagle (EL 28774), White Devil and the Red Bluff Area.

Work that was completed involved the analysis of the data captured from the two major geophysical surveys conducted over the Tennant Creek Mineral field, included many of the tenements in the WPA. Analysis, interpretation and modelling of this captured data was conducted by Emmerson consultant Geophysicists Steve Massey and Brett Adams (Spinifex Geophysics). Other work completed involved the identification of historical drilling within the licence in preparation for validation against hard copy records stored on-site at Emmerson's Tennant Creek Offices.

The initial first pass analysis and interpretation conducted by Emmerson using VRMI, has yet to conducted in detail to identify any targets within EL 27136, refer to figures 18 (VRMI) & 19 (Gravity). From the two figures it can be clearly seen that potential exists in many parts of the licence, but due to the focus at already identified higher priority areas

within the WPA a more detailed analysis of the processed VRMI data will be required to determine its prospectivity prior to any relinquishments.

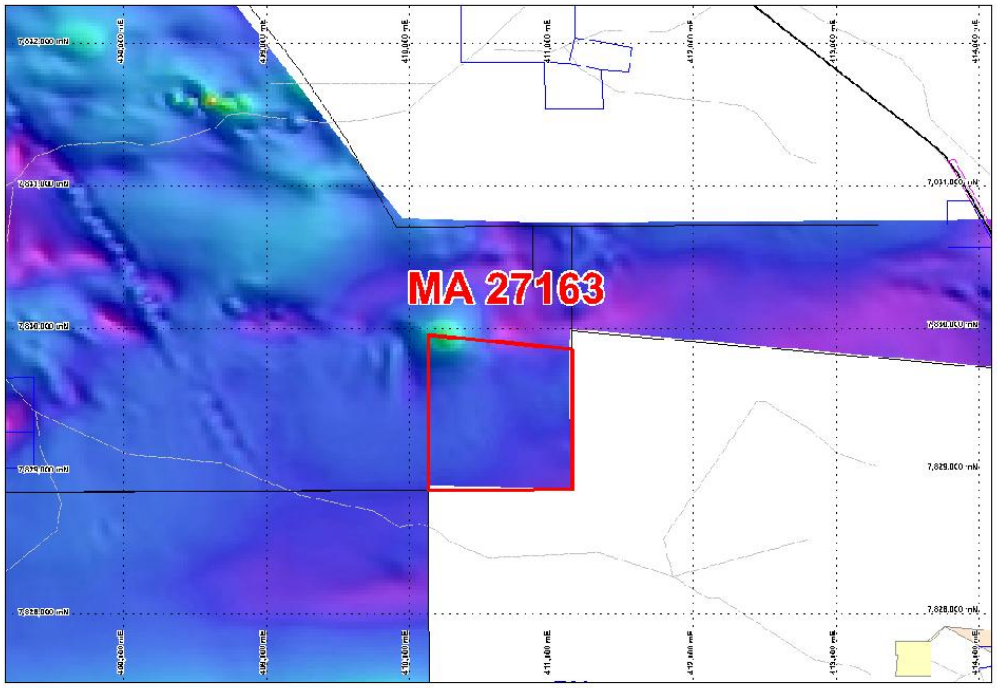


Figure 18: A 27163 – Identified Targets vs. VRMI

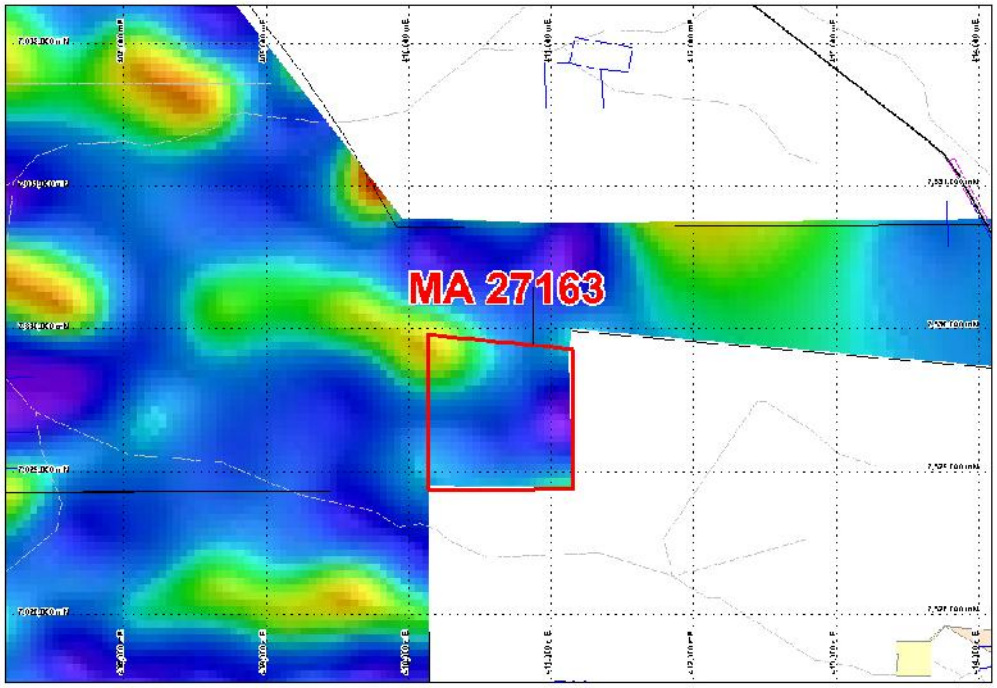


Figure 19: A 27163 – Identified Targets vs. Gravity

Although the Eagle target is located within EL 28774, a significant portion of the anomalous geophysical feature is located within MA 27163, and potential for exploration

of this target from within the Mineral Authority may be required. Exploration activities were carried out at the eagle prospect but were focused within EL 28774. This work indicated strong prospectivity of the Eagle target, but due to it not being classed as potential Tier 1, further work has been postponed.

6.4 EL27164 HAWK

Exploration Activities conducted over EL 27164 have been very limited due to Emmerson's focus elsewhere in the WPA, namely Colombard, Trireme, Drakkar, Eagle (EL 28774), White Devil and the Red Bluff Area.

Work that was completed involved the analysis of the data captured from the two major geophysical surveys conducted over the Tennant Creek Mineral field, included many of the tenements in the WPA. Analysis, interpretation and modelling of this captured data was conducted by Emmerson consultant Geophysicists Steve Massey and Brett Adams (Spinifex Geophysics). Other work completed involved the identification of historical drilling within the licence in preparation for validation against hard copy records stored on-site at Emmerson's Tennant Creek Offices.

Due to the volume of drilling data identified and Emmerson's limited resources, due to focus on higher priority targets elsewhere in the WPA, validation of identified data will take place on a as needs basis, and as yet no validation of data for EL 27164 has occurred.

The initial first pass analysis and interpretation conducted by Emmerson using VRMI, has yet to conducted in detail to identify any targets within EL 27164, refer to figures 20 (VRMI) & 21 (Gravity). From the two figures it can be clearly seen that potential exists in many parts of the licence, but due to the focus at already identified higher priority areas within the WPA a more detailed analysis of the processed VRMI data will be required to determine its prospectivity prior to any relinquishments.

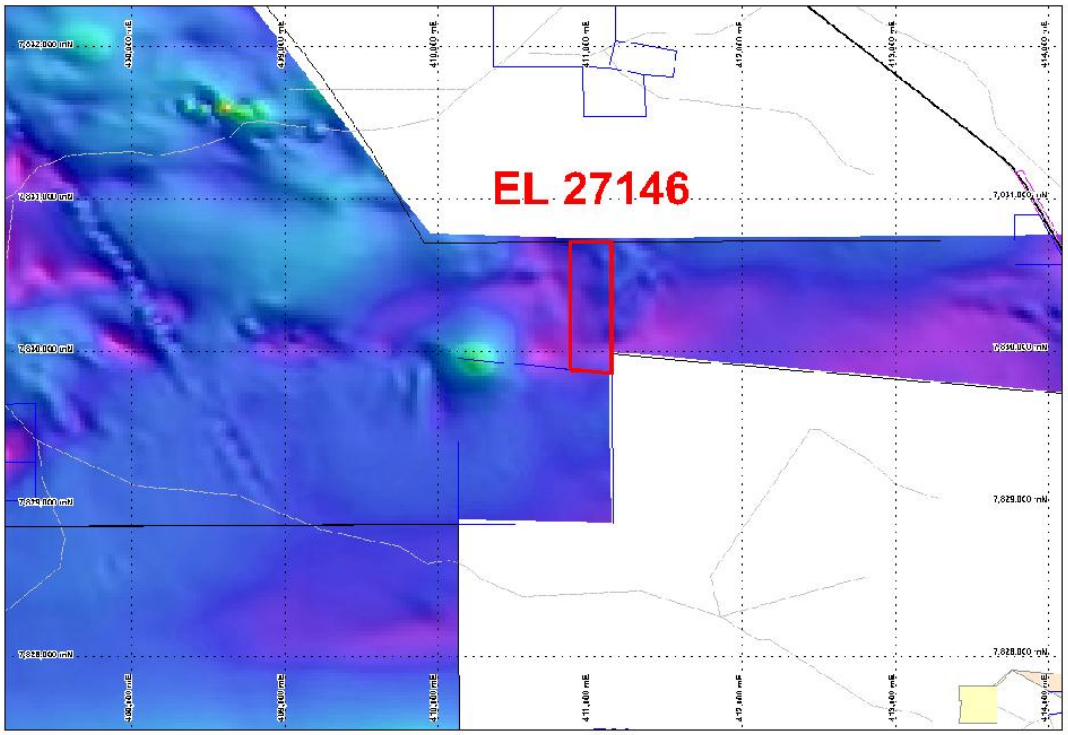


Figure 20: EL 27164 – Identified Targets vs. VRMI

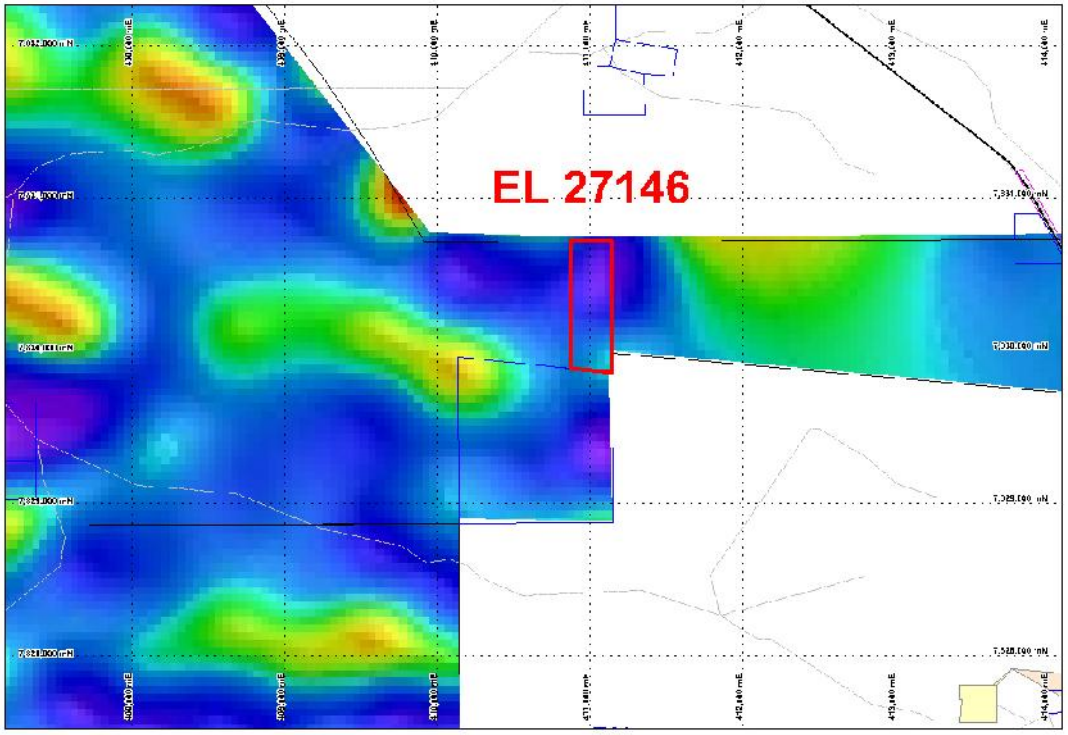


Figure 21: EL 27164 – Identified Targets vs. Gravity

6.5 EL28602 RED BLUFF

EL 28602 was explored under numerous other EL's over its history and are detailed below;

EL9789 CHAUMONT

Searches within the Tennant Creek Library failed to find any information about previous exploration over the Licence area.

In the Regional Exploration Tenement Status and Geological Review undertaken by NTC in 2000, no mention of work completed over the area was recorded. NTC noted that the area was covered by EL 7153 in 1994, but searches by NTC also failed to locate any information regarding previous exploration over the area.

Since the granting of the Licence in May 2002, Giants Reef has only been able to undertake a brief geological appraisal. Taken into consideration was previous exploration history, geophysics, surrounding geology and proximal targets.

Exploration Licence 9789 was applied for to cover an area of favourable geological setting (structure, lithology and geophysics), and its proximity to multiple high production mines, especially Warrego. Giants Reef viewed the location of the Licence as highly prospective, with a potential chance of producing local gold ounces for Giants Reef's Warrego ore treatment plant.

The bedrock geology of the Licence was assumed to be in contact with the Warrego Granite, resulting in the relatively complex magnetic signature of the area. Giants Reef did not identify any distinct geophysical targets within the Licence, nor located targets generated by previous companies.

Giants Reef located little to no data detailing the geochemical Au-Cu-Bi anomaly extending out from the Warrego orebody, northwest into EL 9789. Giants Reef concluded that it was probable that due to the Licence area being under application for 6 years this geochemical anomaly remains open. This geochemical anomaly warranted further investigation.

An internal review of the Giants Reefs tenement portfolio and a classification of exploration opportunities in September 2002 assessed the future exploration potential of EL 9789. Giants Reef rated the Licence as a moderate priority exploration target, although a great deal of geological assessment and compilation is required, hence EL 9789 was recommended for retention. The review recommended that the Licence be geophysically modelled to generate target areas. No further work was conducted.

SEL 24979 (part only)

Under the management of Emmerson exploration has been limited due to the initial purchase period and the period required to list the company on the Australian Stock Exchange (ASX), which occurred on 12 December 2007.

During the 2008 field season Emmerson completed two major geophysical surveys;

1. A Detailed Ground Gravity Survey, conducted by Fugro Geophysics. This ground gravity survey was conducted over Emmerson's Tennant Creek tenure package and included SEL 24979. The survey was conducted by three teams, each team consisted of a quad bike and rider equipped with a station meter. The three teams were supported by a Toyota Landcruiser 4WD Ute. The readings were taken on a regional 500m station spacing's, on lines 500m apart oriented North – South. Readings in areas requiring more detail were taken on 50 station spacing's on 100m spaced lines oriented North - South. The survey was completed during October 2008.

2. A Detailed Airborne Magnetic, Radiometric and Digital Terrain Survey was conducted by UTS Geophysics and commenced 26 May 2008 and was completed on 22 July 2008. The survey included areas of the WPA and included SEL 24979. The survey was flown with a FU24 – 954 fixed wing survey aircraft on 75m line spacing's, with 750m tie line spacing's and a sensor height of 25m for a total Line KM of 38,278, with 5,139km's (approximately 13.43%) being in the WPA. Magnetic Data was captured using a Scintrex Cesium Vapour CS-2 total field magnetometer, Fluxgate three component vector magnetometer, RMS Aeromagnetic Automatic Digital Compensator (AADC II) and a Diurnal monitoring Magnetometer (Scintrex Envi8mag). Radiometric Data was captured using an Exploranium GR-820 gamma ray spectrometer and Exploranium gamma ray detectors.

Work that was completed over the entire licence involved the analysis of the data captured from the two major geophysical surveys conducted over the Tennant Creek Mineral field, included many of the tenements in the WPA. Analysis, interpretation and modelling of this captured data was conducted by Emmerson consultant Geophysicists Steve Massey and Brett Adams (Spinifex Geophysics). Other work completed involved the identification of historical drilling within the licence in preparation for validation against hard copy records stored on-site at Emmerson's Tennant Creek Offices.

Due to the volume of identified targets and drilling data identified and Emmerson's limited resources, the focus on higher priority targets elsewhere in the WPA, and clear guidelines under Emmerson Joint Venture Agreement with Ivanhoe Australia, validation of identified data was limited to all potential Tier 1 Greenfield targets within SEL 24979, namely the Red Bluff Area. This validation work is detailed as follows - available geology was compiled to assist with refining the geophysics models. This information included regional lithological dip and strike, surface geology, structural controls and any ironstones proximal to the target, attempting to assist in constraining the geophysics models. The data was then loaded into Emmerson's DataShed database.

An infill gravity survey was completed over sections of the Red Bluff Area during March 2010, containing 57 lines for 1360 stations.

Two priority targets had been identified within the Red Bluff Area (interp incomplete) and these will be the focus of additional data compilation, geophysical and geological targeting. A RAB program was completed between 04 May – 14 May 2010 in the Red Bluff area and 59 holes (RBRB050 – 108) have been drilled totalling 3,111m.

The Red Bluff Area was divided into nine project areas, refer to figure 22. Of the 10, 6 are located within the EL 28602.

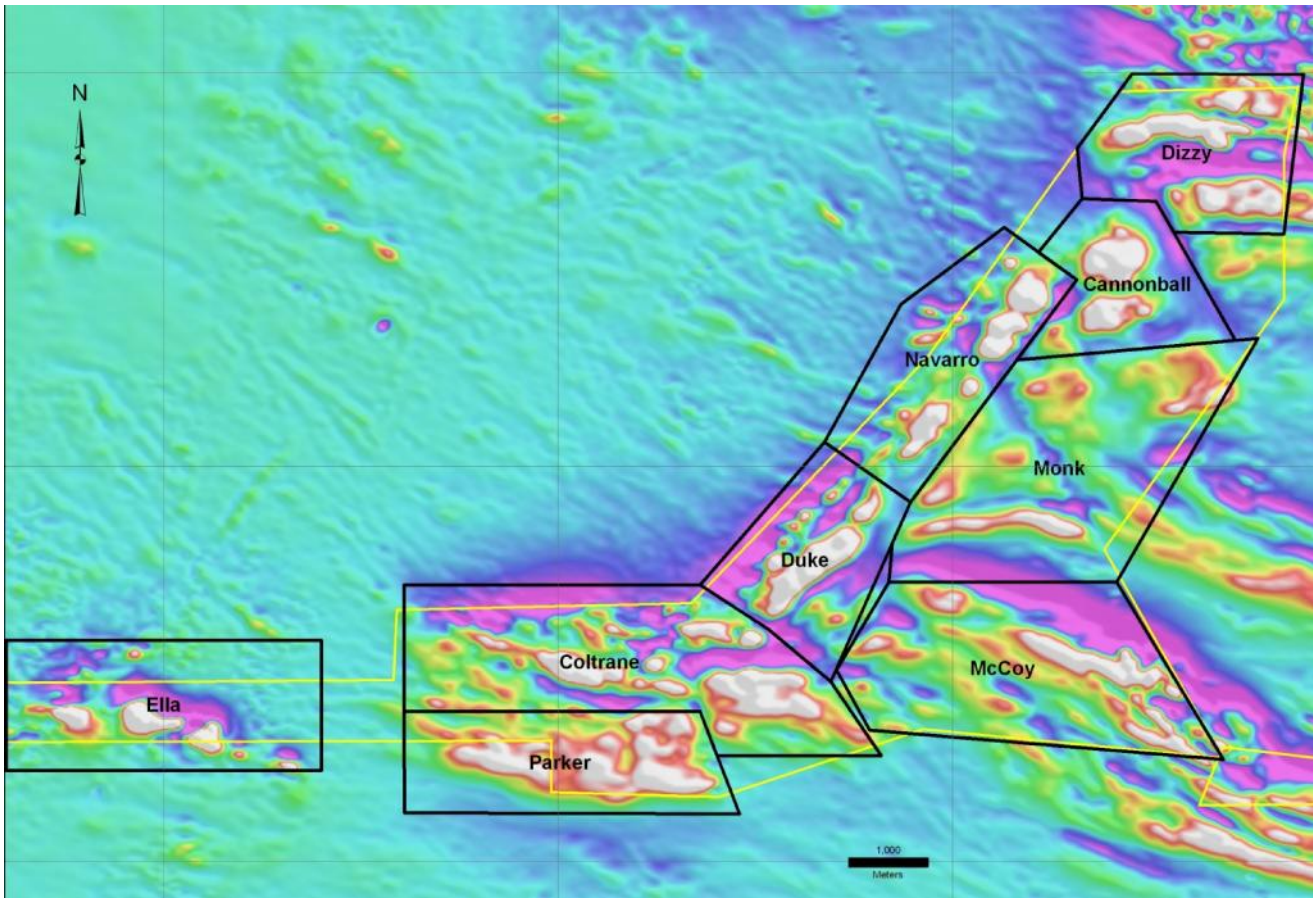


Figure 22: Project Areas for the Red Bluff Camp. Background image is VRMI 1VD and the yellow box is the Red Bluff Camp outline.

Exploration activites were conducted and included;

<u>Regional Interpretation</u>

A structural interpretation has been completed for the entire Red Bluff Camp using multiple geophysical datasets and testing it against the historical mapping. The interpretation indicates that the Camp is likely a big fold structure with the fold nose potentially located in the Ella Area. D1 faulting is interpreted to be along the main fold axis and these structures are interpreted to be overprinted by D2 folding and faulting as well as granitic intrusions in area. The period of folding and thrusting in D2 likely resulted in the 'kink' in the central portion of the camp which makes interpreting the connectivity of D1 structures difficult. There are four major D1 structures in the Red Bluff camp that all

appear to concentrate near the southeast corner of the area into one major structure that continues southeast through the Trinity area along the Southern Shear Zone.

Ella – Smokey - Armstrong

RAB Drilling – 88 Holes (RBRB172 – 232 & 328 – 354) totalling 4,861m.

Diamond Drilling – 9 Holes (RBDD001 – 004, 011, 013, 014 & 017) totalling 4,470.10m (including 9 RC pre-collars totalling 1,348m).

RC Drilling – 3 Holes (RBRC011, 016 & 016A) totalling 618m (excluding 9 RC pre-c0llars totalling 1,348m)

A geological model for the Ella area has been developed based on historical diamond drilling and geophysical modelling. Available data indicates a porphyry 'cap' in the area with the ironstones on a D1 structure which is similar to the Warrego Mine. Prior to the discovery of the Warrego Mine, regional targeting identified Warrego, Ella and Armstrong as equally high ranking targets.

The RAB program completed in May returned an anomalous intersection at Smokey below a 15 m hematitic ironstone of 2m at 38 ppb Au, 11.48 ppm Bi, 11.95% Fe and 3.36 ppm Te in RBRB0052. The anomalous intersection is on the western portion of the drill grid, refer to figure 23. Additional anomalism from the RAB program includes uranium values up to 29.44 ppm in the Smokey and Armstrong prospects associated with hematitic ironstone. At present, the strength of this anomalism and its relevance is not yet understood.

Diamond drilling was aimed to test the extent of ironstone in the Ella and Armstrong Prospects. Historic drilling intersected ironstone with anomalous gold, copper and bismuth grades up to 24.2 m @ 0.65 g/t Au. Geophysical 3D inversion and forward magnetic models, combined with geological modelling of historical diamond drilling suggest the potential for a large Tier 1 ironstone system at Ella which is potentially geologically similar to that of Warrego. Armstrong has the same geological similarities, but due to its smaller size it would be a potential Tier 2 satellite body and warranted testing.

RBDD001 intersected three zones of iron oxide alteration with one zone intersecting 15 m of ironstone. The ironstone was brecciated with magnetite crystals being pulled apart in the direction of the main foliation. No significant mineralisation was present. A very distinct chlorite-sericite alteration is present with multiple stages/types of iron-oxide alteration present.

RBDD002 intersected two significant zones of iron oxide alteration with ironstone in both zones. The main zone was 60 m in length from 303 m down hole. The ironstone was intensely sheared with highly strained, hematitic quartz-feldpsar porphyry. Within the 60 m zone, 3 m of 1-2% mineralised chalcopyrite is present with local zones up to 15%. The chalcopyrite rims the magnetite breccia similar to that in RBDD001. Chalcopyrite and pyrite also occur as blebs within highly strained chlorite-magnetite rock.

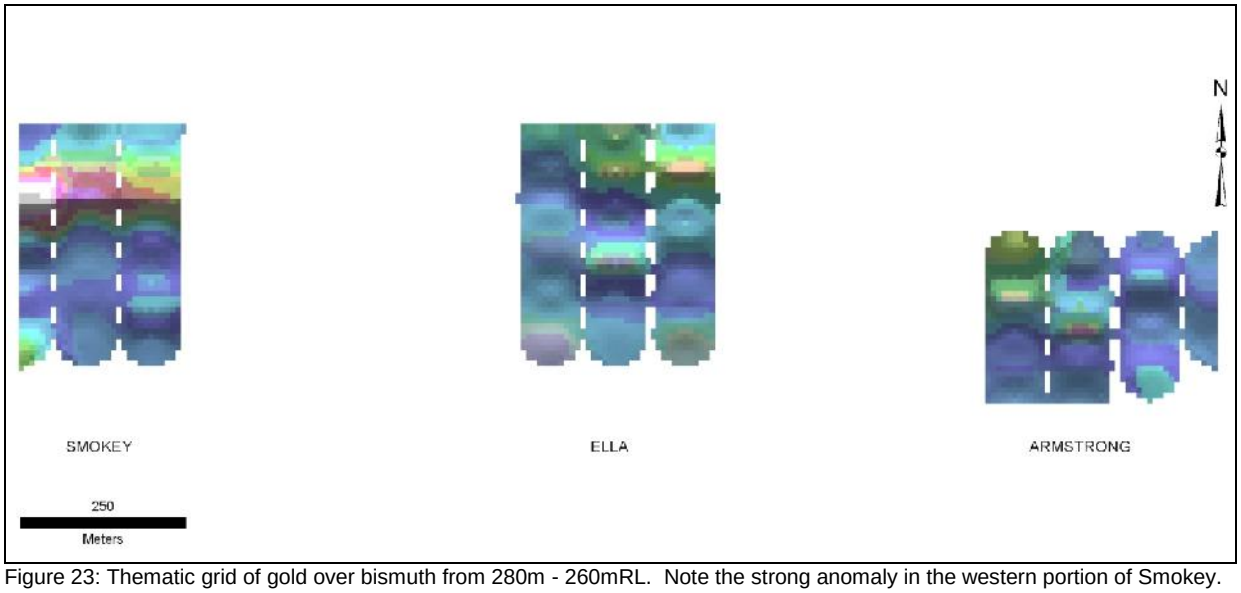


Figure 23: Thematic grid of gold over bismuth from 280m - 260mRL. Note the strong anomaly in the western portion of Smokey.

RBDD004 at Armstrong was drilled to 430. 7m and intersected multiple zones of ironstone, mostly less than 2 m in thickness, with one main zone from 335.2 to 351.65 m.

Duke

Historical data was compiled, validated and intergrated with Emmerson's DataShed Database.

RAB Drilling – 17 Holes (RBRB272 – 288) totalling 716m.
No anomalous results were returned.

RC Drilling – 6 Holes (RBRC008, 008A, 009, 020 & 020A) totalling 1,320m.
No anomalous results were returned.

The RC program was aimed to test the potential for ironstone within north-east striking folding magnetic sediments north of a signficant structural flexure in the area.

McCoy

Historical data was compiled, validated and intergrated with Emmerson's DataShed Database.

Coltrane

Diamond drilling – 2 Holes (RBDD005 – 006) totalling 717.40m.

RC Drilling – 2 Holes (RBRC007 & 015) totalling 798m.

3D inversion of the gravity and magnetic data reveals that the gravity and magnetic data have different spatial characteristics, the magnetic data forming a maximum south of a prominent EW-trending D1 fault, whilst the gravity feature forms a narrow deep feature localized along the D1 fault along the northern edge of the magnetic feature. This separation was initially interpreted to reflect a non-magnetic intermediate-mafic body to the north (?diorite) juxtaposed against a large body of magnetic sediments to the south.

Emmerson contract geophysicist Steve Massey interpreted 3 forward models along the D1 fault. The western (T1) and eastern (T3) models have coincident gravity/magnetic signatures while the central model (T2) has gravity support only. The inverted 3D gravity SG=3.1 shell shows a lower ridge-shaped gravity anomaly with top located 850m BGL that appears to “feed” a thin 300m wide “plug” of similarly dense material before opening out into a horizontal dyke-like body between 550m BGL and 100m BGL. This upper level “dyke-like” body extends for 2.95km WNW from T2 (including T1) and there is a gap of 400m to the east of T2 before a similar upper “dyke-like” body extends for another 1.3km including T3. The “feeder” position also correlates with a magnetic protuberance, refer to figure 47, however only T1 truly has both gravity + MagSus juxtaposition and this may explain why the FWD model at T1 has an SG of 3.5 rather than 3.3 at T2 and T3.

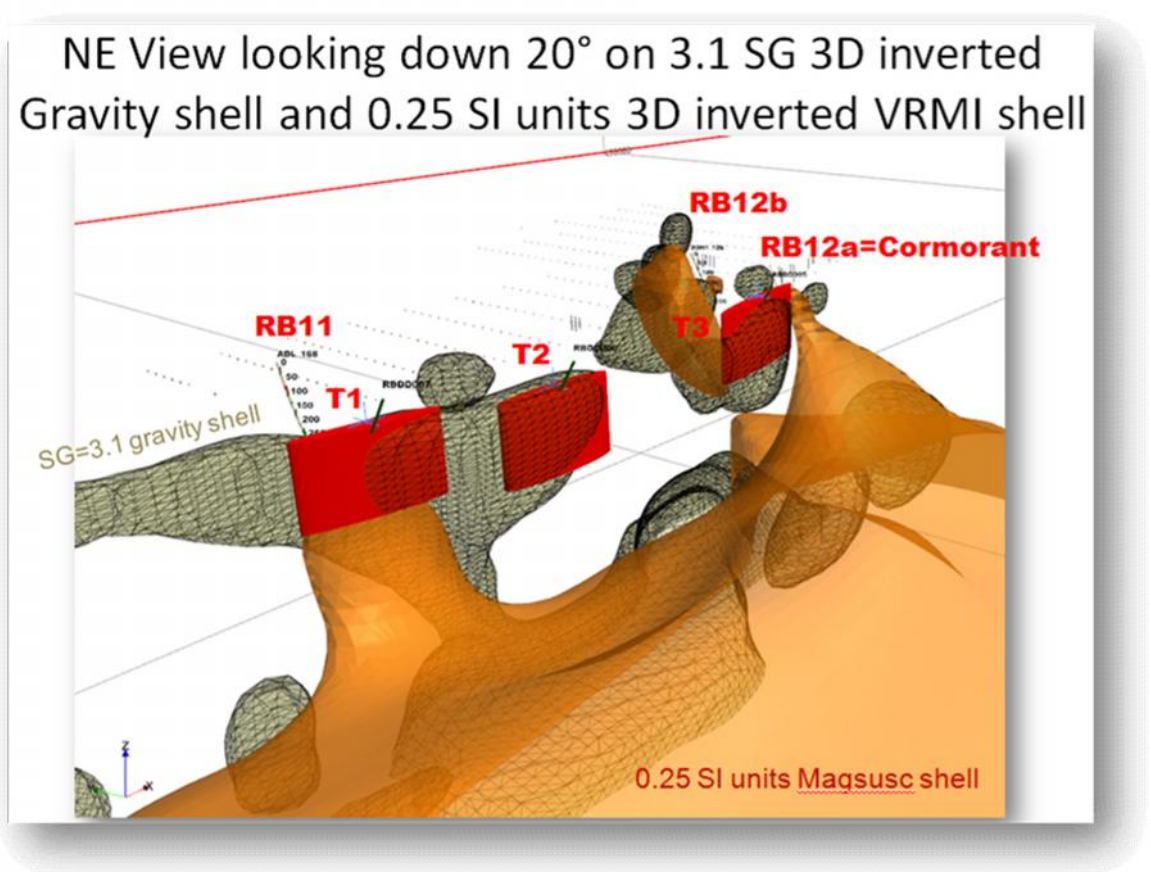


Figure 24: Project Areas for the Red Bluff Camp with background *VRMI 1VD image. The circles denote the ranking of the targets* within each of the project areas.

Two diamond holes were drilled at Coltrane to test the magnetic and gravity anomalism present in the area.
RBDD005 intersected magnetic sediments with two very minor zones of trace mineralisation proximal to faulting with magnetite banding within the sediment (50cm) at 273 m and a small chlorite rock zone (30 cm) at 299 m. The trace mineralisation in the magnetite banding was 10-15% dissemianted chalcopyrite with bornite and chalcopyrite blebs in the chlorite rock zone (<5%).
RBDD006 only intersected magnetic sediments, no evidence of any iron oxide alteration package or lithology was present.

6.6 EL28603 WHITE DEVIL

EL 28603 has been explored under numerous licences in its past and activities are detailed below;

EL9800 MIKE

The land covered by EL 9800 has been explored for Au-Cu-Bi by numerous companies (GeoPeko, Poseidon Gold Limited, Roebuck Resources - North Flinders Exploration Joint Venture and Metana Minerals - Placer Exploration Joint Venture) since 1969.

GeoPeko (1969-1991)

GeoPeko explored three magnetic anomalies identified in 1969, named Navigator 1, Navigator 4 and Navigator 10. GeoPeko drilled six diamond holes at Navigator 1 to test the magnetic anomaly. Interpretation of drilling results concluded that there is a biotite-quartz zone with disseminated magnetite and haematite continuous through the drilled area, which adequately explains the magnetic anomaly. Best results were 1.22m @ 0.47 g/t Au, 500ppm Cu. Ground magnetics survey and shallow auger/bedrock sampling failed to locate significant mineralisation at the Navigator 4 anomaly. The Navigator 10 magnetic anomaly was defined using a ground magnetic survey and was attributed to magnetic sediments.

PosGold (Early 1990's)

PosGold renamed the Navigator 1 and Navigator 4 prospects Tiger South and Tiger respectively, and conducted a ground magnetics survey over both the anomalies. Geophysical modelling suggested that both the Tiger and Tiger South anomalies might represent ironstone bodies at depth. RC drilling at these targets returned no significant assay results.

Roebuck Resources/North Flinders Exploration JV (Early 1990's)

The Tiger anomaly was considered by the joint venture parties to have similar lithological characteristics with the Warrego deposit, and it was suggested that the magnetic feature

had been offset by faulting and was once part of the White Devil system. Vacuum and RAB drilling at the prospects identified structurally contorted but parallel porphyry bodies with anomalous Cu-Bi associated with moderately high intensity magnetic anomalies.

Follow up RAB drilling at Tiger South identified minor ironstone veining at 43-51m depth with weakly anomalous Au and Cu results. Correlation between the geology (ironstone vein occurrences) suggested that the ironstone/geochemical target was associated with a shallow easterly dipping (30-35°) shear zone.

Vacuum drilling at the Tiger prospect identified a north-west south-east trending Bi-Cu anomaly within porphyry, and a north south trending Cu-Bi anomaly within muscovite quartz schist. Follow up RAB drilling returned disappointing assay results with no repeat gold anomalism, and Cu-Bi values only slightly elevated above the bedrock drilling results.

Giants Reef conducted a brief geological appraisal over the Licence area taking into consideration the previous exploration history and targets. The appraisal noted that the exploration focus over EL 9800 by previous companies had been on magnetic targeting, with little significant geochemical success.

An internal review of the Giants Reefs tenement portfolio and a classification of exploration opportunities in September 2002 assessed the future exploration potential of EL 9800. The exploration potential of the Navigator 1 and 4 (Tiger) prospects located in the Licence area was assessed. Giants Reef rated the Licence as a moderate priority exploration target, although a great deal of geological assessment and compilation was still required, hence EL 9800 was recommended for retention.

During the 2003 field season a program of immediate-priority definition drilling of the Chariot gold deposit prevented further geological review over the Licence area.

The tenement underwent geophysical and geochemical reviews as part of a review of the tenements between Warrego and Black Angel where some RC drilling took place. The area was rated highly by Giants Reef geologists for a number of reasons, including both anomalous geochemistry and anomalous magnetic signatures present within the tenement.

A proposal to cover the entire tenement in a detailed ground gravity geophysical survey was proposed, but considered too costly because of the large area required to be surveyed.

EL22729 MAGELLAN

Exploration Licence 22729 was originally applied for by Giants Reef in 2000 to cover a group of Mineral Claim Applications (MC C1427-C1432) which were being withdrawn as a consequence of the termination of the Western Mining Joint Venture.

No literature was located explaining the justification of the application for MC C1427-C1432, however it is expected that the Claims, and then the EL was applied for to cover a

north west striking magnetic high that runs through the upper half of the Exploration Licence.

In the first year of tenure Giants Reef conducted a brief review of all current information, and exploration by previous Companies over the EL. The review identified the magnetic target within the reporting area EL 22729, being the Nav 2 prospect. A brief assessment of the prospectivity of the EL was conducted. No historical drilling or geochemical surface sampling over the EL was identified. The review also identified the Magellan EL was held under EL 7151, by Western Mining Corporation. Western Mining conducted detailed geophysical reviews of the prospect area and modelled a number of geophysical bodies. Information located suggests that a RC hole was drilled at the prospect, however Emmerson was unable to source data on this work. The brief assessment highlighted the fact that previous exploration over the tenure had focussed on the targeting of magnetic anomalies to identify magnetic ironstone bodies. Giants Reef noted that limited gravity data exists over the tenure and concluded that the potential for new discoveries in EL 22729 was highly likely.

The location of the Warrego mine and the White Devil gold mines to EL 22729 along the Navigator Fault line ranked EL 22729 as a moderately prospective exploration area due to its structural significance, under Giants Reef's ranking structure. Additionally, the EL's location to existing mine infrastructure at Warrego ranked this Licence area favourably.

Work completed over EL 22729 in the first tenure year involved no on-ground exploration. Giants Reef's commitments in establishing mining operations at Chariot, Edna Beryl, Cats Whiskers and Malbec West prevented any on-ground exploration over EL 22729.

EL9472 GILBERT

The area of EL 9472 was subject to exploration at the sites of the Crusader, Black Angel and Navigator 7 (Cabernet) prospects. The Crusader anomaly was tested by a number of exploration companies. GeoPeko and later Metana followed by Placer Pacific. North Flinders Mining in joint venture partnership with Roebuck Resources utilised magnetic modeling software to target reverse circulation and diamond drill holes. Roebuck Resources returned to grass roots methods of exploration before North Flinders Mining took over control of the licence. The direction of exploration then turned to exploring for the possible strike extension of mineralisation between Warrego Mine and White Devil Mine.

The Black Angel prospect was situated within the historical tenement ERL 74. GeoPeko conducted the first recorded exploration in the area which included magnetics, gravity, costeaning and sixteen reverse circulation/diamond drill holes. Normandy Gold Pty Ltd has since conducted a number of additional exploration programs. Normandy's approach has included: detailed ground magnetics, a gravity survey, vacuum drilling to bedrock, costeaning, and reverse circulation / diamond drilling.

A total of thirteen diamond drill holes were drilled by GeoPeko and four reverse circulation drill holes to test the Navigator 7 and Navigator 7W anomalies. The holes were drilled to

test east-west magnetic features (targeting mineralisation oriented normal to the White Devil anomaly) and for mineralisation of the Navigator Fault Zone. North Flinders Mining completed a gravity survey over most of the area and a number of RAB traverses.

Work undertaken by NTC during the first year of EL 9472 included a regional aeromagnetic interpretation and a regional gravity interpretation. A helimagnetics survey was conducted over Exploration Licence 9472 as part of a larger survey covering the Warrego-Gecko area in 1997. The data was gathered using the Normandy proprietary helimagnetics sensor suspended beneath the aircraft. The survey configuration was 50-metre spaced N-S lines, automatically sampled approximately every 7 metres, and with an average terrain clearance of 30 metres. GeoSolutions software was used to model the magnetic response. The data was processed to produce reduced to pole magnetic field and first vertical derivative images.

In 1998/1999 a detailed interpretation of the helimagnetic survey was carried out and a number of distinct features were delineated. The most prominent was a magnetic dipole associated with the White Devil ironstone in the eastern block of the Licence. A smaller magnetic dipole is associated with the Navigator 7 and 7W anomaly. Two sub-parallel fault zones within the Licence were represented as areas of reduced magnetic response oriented at about 315 degrees and continuing north-westerly into EL 9574.

In the long period leading up to Normandy's departure from the Tennant Creek goldfield and the sale of EL 9472 and numerous other tenements to Giants Reef, no field work was carried out on this Exploration Licence.

Since the purchase of the EL in June 2001, Giants Reef (on behalf of Santexco) did not had sufficient time to do anything other than make a brief assessment of the potential of EL 9472. Giants Reef noted that it was clear that the EL is situated in an area of favourable structural complexity along the Navigator Fault zone, roughly midway between the Warrego and White Devil mines. The nearby Cabernet prospect, held under Mineral Leases C120 to C123, was additional evidence of the prospectivity of the Licence area.

A reconnaissance trip to the White Devil mine area was made after 2003/2004 wet season. An assessment of the rehabilitation over the mine area was made by an independent consulting company. The required rehabilitation of the mine area does not extend out of the White Devil Mineral Claims into EL 9472. On inspection, the Licence area appears to be rehabilitating well with all historical drill pads ripped and repaired, all drill holes capped and rubbish removed.

Geophysical consultant Resource Potentials Pty Ltd reviewed EM data (PosGold/Normandy, 2000) over the White Devil deposit with the aim of assessing its usefulness in mapping out shear zone structures, potential for the extension of these into EL 9472 and also the potential application of this technique to other areas in the Tennant Creek Field. Results from this work provided support to indicate that the shear zone structures do extend west into EL 9472 and warrant further investigation. Gravity data over White Devil was also reviewed to assess its applicability to EL 9472. Results from this work showed the tenor of gravity responses from ironstone bodies were relatively small

e.g. White Devil 15Mt ironstone 400m depth extent from surface 1mgal gravity response. This work also highlighted the fact that the use of gravity prior to DGPS navigation and digital gravity systems would have been prone to system drift, large noise levels and poor height controls.

Other work completed by Centralian Minerals Limited (formerly Giants Reef) included data compilation, validation and integration of historical hard copy and digital data into the Company's exploration GIS database. Various ground reconnaissance mapping surveys and rock chip sampling were also undertaken.

EL9574 HAMISH

EL 9574 was acquired to search for IOCG deposits hosted in Warramunga Formation units within the White Devil trend (Navigator Fault area) and to evaluate three prominent magnetic anomalies i.e. Explorer 176, Navigator 3 and Navigator 8.

The area was originally explored by GeoPeko Wallsend Limited (Peko) who defined a number of anomalies, which they termed "Explorers" (Explorer 176 is situated within MCC791). Concurrent to the exploration conducted by Peko, Metana Minerals actively explored the region between 1988 and 1991 and undertook stream and soil geochemical surveys and detailed ground and aeromagnetic surveys. The latter work delineated a number of prospective magnetic anomalies including M8/9 (termed "M" series). North Flinders Mining Limited (NFM) and Roebuck Resources NL (Roebuck) also carried out exploration in the Navigator area. Peko conducted a number of ground magnetic surveys and diamond drilling programs, however this was restricted to within the mineral claims. NFM and Roebuck however, conducted a number of vacuum drilling programs over broader areas of the Navigator region, however results of this work were not encouraging.

In 1999 Normandy carried out a detailed helicopter-borne magnetic survey and modelling of this data led to the delineation of a poorly tested magnetic anomaly (Navigator 3) within MCC793. Geophysical modelling indicated it comprised an ellipsoid ironstone body of approximately 2.5Mt mass with a depth to its top of 160m.

All magnetic anomalies within the Licence remain poorly tested. Explorer 176 has received the most attention and has been tested by 3 diamond (DDH001, 002, MAGD04) and two RC holes (MAR01 & 2). The M9 target has been tested by 3 RC holes (M9RC1 & 2 and CRR002). The Navigator 3 anomaly has been tested by 1 diamond hole (NVGD01) and records indicate that the Navigator 8 anomaly has been tested by shallow RAB drilling, however remains untested by deeper RC or diamond drilling. The results from this drilling were generally disappointing, however anomalous copper values were intercepted at Explorer 176.

From the acquisition of the Licence by Giants Reef the tenement 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. As a result of these reviews the Company considered the prospectivity of the Licence to remain high.

A review of the historic vacuum and surface geochemistry sample data over the Licence area shows that gold anomalism is relatively weak (1 – 2 ppb Au), however a number of individual high anomalies returned values including 1,480 ppb Au over the Marsanne magnetic anomaly and 85 ppb Au over the NAV 8 magnetic anomaly. Apart from shallow vacuum and RAB drilling, the NAV 8 remains poorly tested. Vacuum drilling over the NAV3, M8 and M9 magnetic anomalies failed to return any significant results. Approximately half of the Licence has been tested by vacuum drilling.

EL 9574 was included in the Company's assessment of known prospects with shallow oxide gold resource potential. While no immediate drill targets were identified in the Licence area, drilling was undertaken at the Black Angel prospect, which is located approximately 1.7 km to the south east.

Giants Reef's assessment of detailed helimagnetic data over the Licence showed that only 3 of 16 anomalies have been tested by deep RC or diamond drilling, half have been tested by broad-spaced shallow vacuum and RAB drilling and 5 small magnetic anomalies in the south west have yet to be tested. Review of historical exploration data and geophysical modelling of magnetic data highlighted that the size of the ironstone, and consequent target size may have previously been underestimated, and depths to target overestimated. This was dependent on proportion of hematite. Modelling by previous explorers generally assumed a higher magnetic content, rendering in some cases, an ironstone target of insufficient size for the Company(s) concerned.

Work also included a number of field trips into the tenement to examine outcropping porphyry units in the western region of the tenement and all areas that coincide with magnetic anomalies.

EL23914 WHITE DEVIL

In the first year of tenure a brief review of all current information, and exploration by NTC over the EL was conducted. The review identified a prominent magnetic ridge extending east west within the northern boundary EL 23914.

Review of drilling conducted over the magnetic high identified some vacuum drilling, however efforts made to source the results were unsuccessful. A brief assessment of the prospectivity of the EL was conducted, this assessment highlighted the fact that previous exploration over the tenure had focussed on the targeting of magnetic anomalies to identify magnetic ironstone bodies. Giants Reef noted that limited gravity data existed over the tenure and concluded that the potential for new discoveries in EL 23914 were highly likely.

The proximity of the White Devil and Black Angle deposits to EL 23914 and presence of significant magnetic anomalies resulted in the EL being ranked as highly prospective under Giants Reef ranking structure. Additionally, the EL's location to existing mine infrastructure at Warrego ranked this Licence area favourably.

Work completed over EL 23914 in the first tenure year centred on desk top reviews of existing geological data and a number of reconnaissance trips to ground truth areas such as the Navigator 6 target.

Giants Reef's commitments to mining operations at Chariot, Edna Beryl, Cats Whiskers and Malbec West prevented further exploration over EL 23914.

Under the management of Emmerson exploration has been limited due to the initial purchase period and the period required to list the company on the Australian Stock Exchange (ASX), which occurred on 12 December 2007.

During the 2008 field season Emmerson completed two major geophysical surveys;

1. A Detailed Ground Gravity Survey, conducted by Fugro Geophysics. This ground gravity survey was conducted over Emmerson's Tennant Creek tenure package and included EL 23914. The survey was conducted by three teams, each team consisted of a quad bike and rider equipped with a station meter. The three teams were supported by a Toyota Landcruiser 4WD Ute. The readings were taken on a regional 500m station spacing's, on lines 500m apart oriented North – South. Readings in areas requiring more detail were taken on 50 station spacing's on 100m spaced lines oriented North - South. The survey was completed during October 2008. 23 station readings were taken in EL 23914 and consisted of 23 Regional readings.

2. A Detailed Airborne Magnetic, Radiometric and Digital Terrain Survey was conducted by UTS Geophysics and commenced 26 May 2008 and was completed on 22 July 2008. The survey included areas of the WPA and included the southern portion of EL 23914. The survey was flown with a FU24 – 954 fixed wing survey aircraft on 75m line spacing's, with 750m tie line spacing's and a sensor height of 25m for a total Line KM of 38,278, with 5,139km's (approximately 20.9%) being in the WPA. Magnetic Data was captured using a Scintrex Cesium Vapour CS-2 total field magnetometer, Fluxgate three component vector magnetometer, RMS Aeromagnetic Automatic Digital Compensator (AADC II) and a Diurnal monitoring Magnetometer (Scintrex Envi8mag). Radiometric Data was captured using an Exploranium GR-820 gamma ray spectrometer and Exploranium gamma ray detectors.

Further to the geophysical surveys conducted during 2008 exploration activities conducted over 2009 & 2010 in EL 23914 were very limited due to Emmerson's focus elsewhere in the WPA, namely Colombard, Trireme, Drakkar, Eagle and the Red Bluff Area.

Work that was completed involved the analysis of the data captured from the two major geophysical surveys conducted over the Tennant Creek Mineral field, included many of the tenements in the WPA. Analysis, interpretation and modelling of this captured data was conducted by Emmerson consultant Geophysicists Steve Massey and Brett Adams (Spinifex Geophysics). Other work completed involved the identification of historical drilling within the licence in preparation for validation against hard copy records stored on-site at Emmerson's Tennant Creek Offices.

Due to the volume of drilling data identified and Emmerson's limited resources, due to focus on higher priority targets elsewhere in the WPA, validation of identified data will take place on a as needs basis.

The preliminary first pass analysis and interpretation of the processed VRMI by Emmerson, has identified a number of anomalous zones, but closer and more detailed analysis is required.

Initially two prospects within this area, Crusader/Black Angel and Navigator 6 East were reviewed for drill potential. A wire frame of the ironstone at Crusader aligned with the latest model indicating this target had been adequately tested. The Navigator 6 East prospect however returned three parallel east west trending large targets in a previously untested area, south of historical vacuum drilling.

EL10015 SMELTER

In the first year of tenure, a brief review of all current information, and exploration by NTC over the EL was conducted. The review identified one magnetic target within the reporting area EL 10015, being the Beirut prospect.

The Licence appears to be located within an area of magnetic complexity on the contact with Flynn Group sediment, Warramunga Formation sediment and located east of the Warrego granite. A number of magnetic ridges run North West through the Licence, with regions of broad magnetic highs.

A brief assessment of the prospectivity of the EL was conducted. This assessment highlighted the fact that previous exploration over the tenure had focussed on the targeting of magnetic anomalies to identify magnetic ironstone bodies. Giants Reef noted that limited gravity data existed over the tenure and concluded that the potential for new discoveries in EL 10015 were highly likely.

With close proximity to the location of the Warrego mine and the White Devil gold mines along the Navigator Fault line, ranked EL 10015 as a moderately prospective exploration area due to its structural significance, under a Giants Reef ranking structure. Additionally, the EL's location to existing mine infrastructure at Warrego ranked this Licence area favourably.

Work completed over EL 10015 in the first tenure year involved no on-ground exploration. Giants Reef's commitments in establishing mining operations at Chariot, Edna Beryl, Cats Whiskers and Malbec West prevented any on-ground exploration during that period.

Exploration during the second year of tenure included a review and interpretation of all geological, geophysical and geochemical data. This was followed up by a number of field visits to investigate areas of interest. Reconnaissance work over the EL failed to delineate areas of outcropping Warramunga Formation, however did confirm the presence of recent colluvium cover. The high magnetic response over the EL supports the presence of prospective Warramunga Formation basement beneath the shallow colluvium profile. A

review of detailed airborne magnetics highlighted a prospective group of magnetic anomalies (385,027mE, 7,846,638mN, MGA94) proximal to an early interpretive, major splay fault off the Mary Lane Shear. Apart from broad spaced geochem (200m x 50m) and a small program of RAB drilling which was undertaken to the north east the magnetic anomaly, the latter remains largely untested. The eastern half of the EL has been tested by vacuum geochemical drilling, however results from this work remain inconclusive as infill lines failed to fully repeat first pass anomalies and the main magnetic anomaly has yet to be infill tested.

Under the management of Emmerson exploration has been limited due to the initial purchase period and the period required to list the company on the Australian Stock Exchange (ASX), which occurred on 12 December 2007.

During the 2008 field season Emmerson completed a Detailed Ground Gravity Survey, conducted by Fugro Geophysics. This ground gravity survey was conducted over Emmerson's Tennant Creek tenure package and included EL 10015. The survey was conducted by three teams, each team consisted of a quad bike and rider equipped with a station meter. The three teams were supported by a Toyota Landcruiser 4WD Ute. The readings were taken on a regional 500m station spacing's, on lines 500m apart oriented North – South. Readings in areas requiring more detail were taken on 50m station spacing's on 100m spaced lines oriented North - South. The survey was completed during October 2008. 36 station readings were taken in EL 10015 and consisted of 36 Regional readings.

EL22728 BLACK ANGEL

Exploration Licence 22728 was originally applied for by Giants Reef in 2000 to cover a group of Mineral Claim Applications (MC C1400-C1408) which were being withdrawn as a consequence of the termination of the Grand Central Joint Venture.

No literature was located explaining the justification of the application for MC C1400-C1408 The Angel, however it is expected that the Claims, and then the EL was applied for to cover a north west striking magnetic high that runs through the lower half of the Exploration Licence.

No Explorers, Navigators or prospect names identifying the magnetic high have been located in Giants Reef's GIS database.

YEAR 1

In the first year of a tenure a brief review of all current information, and exploration by NTC over the EL was conducted. The review identified a series of discrete magnetic anomalies within the south west region of EL 22728, but the locations of these identified anomalies could not be located.

The Licence appears to be located within an area of magnetic complexity along strike and to the east northeast of the Black Angel and White Devil Deposits. Early interpretation of

airborne geophysics suggests the tenement is underlain by Warramunga Formation units and a small porphyry intrusive, which have been truncated by a series of north west trending fault systems.

A brief assessment of the prospectivity of the EL was conducted. This assessment highlighted the fact that previous exploration over the tenure was limited to a number of vacuum drilling programmes over portions and much of the tenement remained unexplored. This assessment highlighted the fact that previous exploration over the tenure had focussed on the targeting of magnetic anomalies to identify magnetic ironstone bodies.

The location of EL 22728 proximal to the Warrego mine and the White Devil gold mines, the presence of Warramunga Formation units and the presence of a number of prominent faults placed the tenement as an area of moderately prospective exploration, under Giants Reef ranking structure. Additionally, the EL's location to existing mine infrastructure at Warrego ranked this Licence area favourably.

No in-ground exploration was carried out on the tenement during the first year due to Giants Reef's commitments in establishing mining operations at Chariot, Edna Beryl, Cats Whiskers and Malbec West deposits.

YEAR 2

Exploration on EL 22728 during year 2 included a review and interpretation of all geological, geophysical and geochemical data. This was followed up by a number of field visits to investigate areas of interest. Reconnaissance work over the EL confirmed significant outcropping of Warramunga Formation and the presence of a number of outcropping magnetite-hematite ironstones and favourable shear/fault structures. A review of detailed airborne magnetics highlighted a prospective group of discrete magnetic anomalies (389,827mE, 7,844,868mN MGA94) proximal to a series of major north west trending faults and just south of the licence area. No drilling was conducted by Giants Reef within the tenement and apart from a number of historic vacuum geochem drilling traverses, the area remains largely untested.

Under the management of Emmerson exploration has been limited due to the initial purchase period and the period required to list the company on the Australian Stock Exchange (ASX), which occurred on 12 December 2007.

During the 2008 field season Emmerson completed a Detailed Ground Gravity Survey, conducted by Fugro Geophysics. This ground gravity survey was conducted over Emmerson's Tennant Creek tenure package and included EL 22728. The survey was conducted by three teams, each team consisted of a quad bike and rider equipped with a station meter. The three teams were supported by a Toyota Landcruiser 4WD Ute. The readings were taken on a regional 500m station spacing's, on lines 500m apart oriented North – South. Readings in areas requiring more detail were taken on 50 station spacing's on 100m spaced lines oriented North - South. The survey was completed

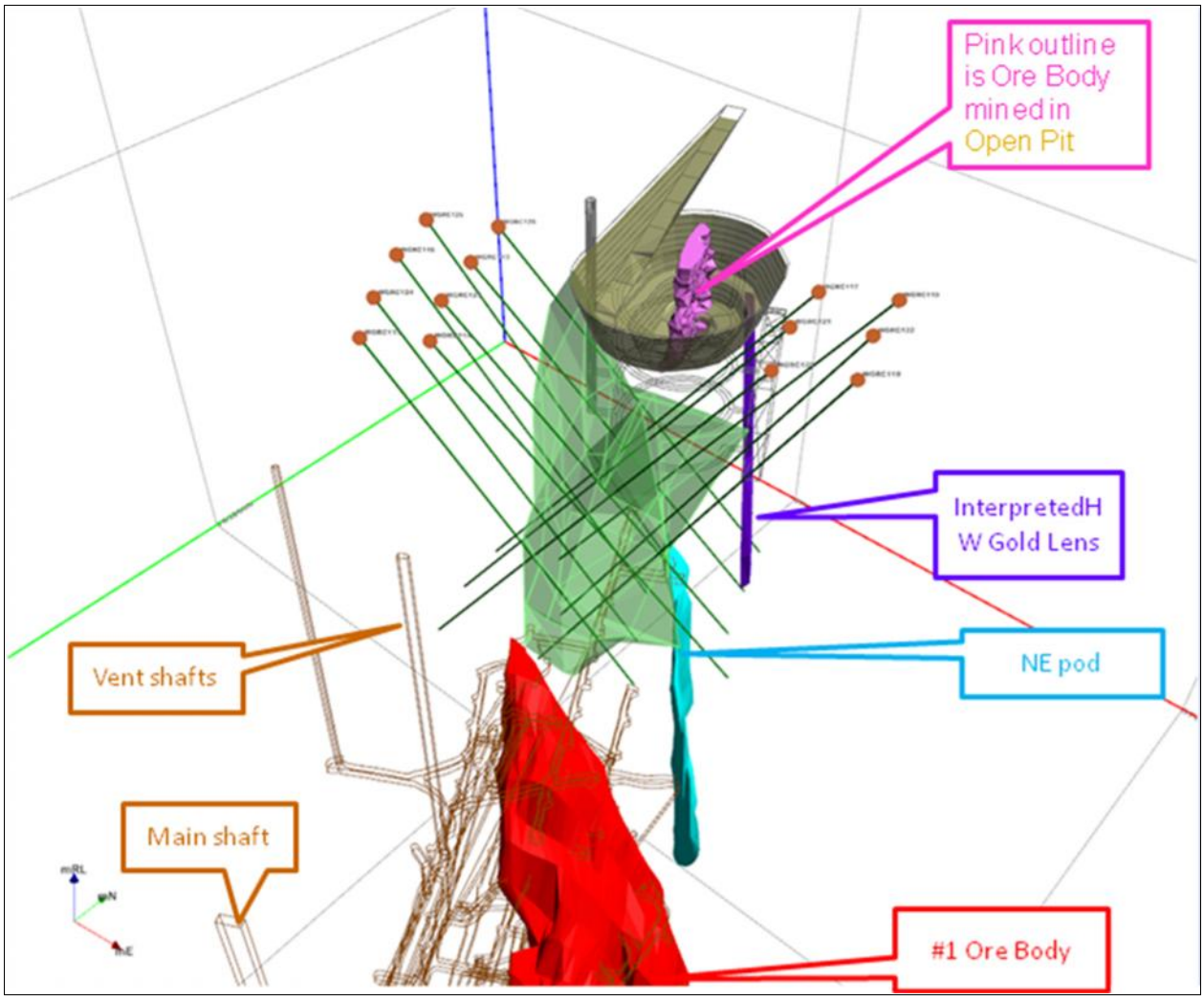
during October 2008. 14 station readings were taken in EL 22728 and consisted of 14 Regional readings.

Warrego Fault Splay (MCC 22)

Work was conducted with mining lease but on the boundary of the licenec area during earl 2011, whihc included RC Drilling – 5 Holes (WFSRC001 – 005) totalling 864m.

The approved Warrego Fault Splay RC program was designed to target shallow mineralized structures sub-parallel to the Salvage Yard ore body and the HW Gold Lens, between the NE Pod structure (fault?) and the FW fault, and above 2 Level (160m BGL). These structures should strike ca150°, dip sub-vertically and be related to late D3 (or later?) deformation. This style of mineralization maybe distinct from the bedding/cleavage accumulation confined by the Warrego quartz porphyry. The untested volume is estimated at 435,000m^3.

Figure 25: Warrego Fault Splay Drilling target (Identified as the Green Volume) with all proposed and drilled holes.



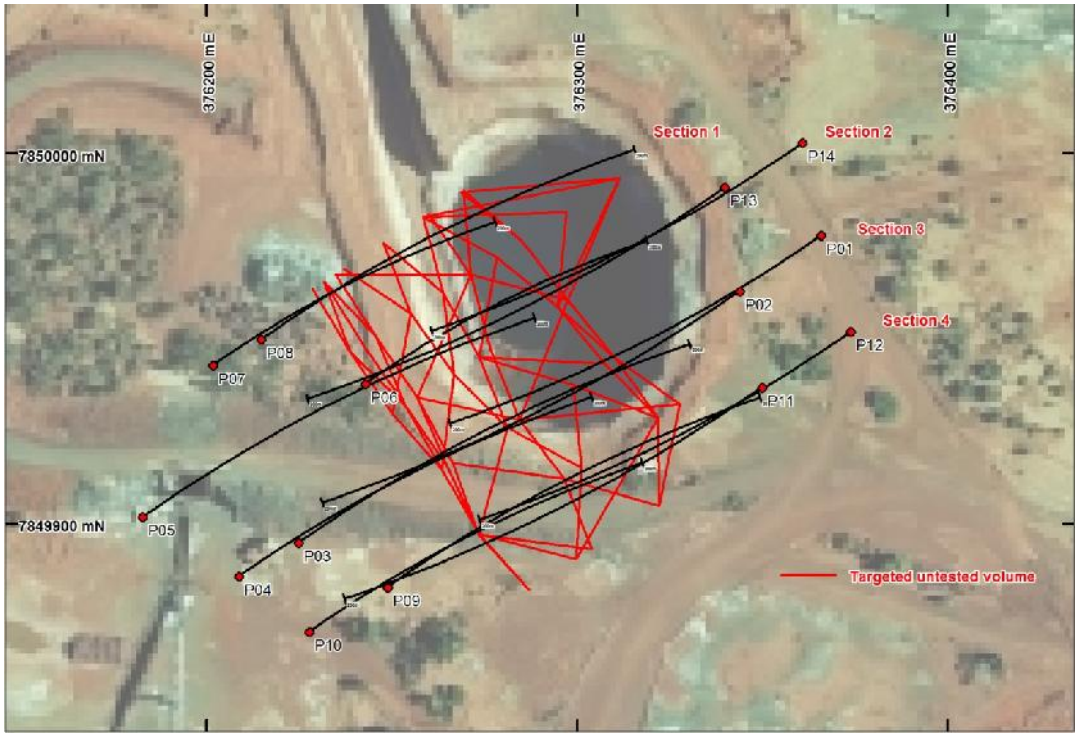


Figure 26: Warrego Fault Splay Drilling, Plan view with infrastructure before drill pad construction.

NAVIGATOR 3, 7 & 8.

Emmerson contract geophysicists 'Spinifex' completed AMAG forward models incorporating the preliminary geological interpretation that the ironstone targets strike NW-SE. Geological and geophysical compilation will be completed in June & July 2011.

6.7 EL28774 COLOMBARD

EL 28774 was explored under a number of licences over its history and are the activities are detailed below;

EL10052 RED BLUFF

Year 1

Normandy held an area measuring approximately 9km east-west x 1.5 km north-south in the north-central part of what is now EL 10052, under multiple mineral claims. These claims covered an area of outcropping Warramunga Formation, felsic porphyries and some ironstone, such as the Curlew and Premier gold mines. A second block of claims

approximately 2km x 2km was held in the western part of the licence area. Normandy carried out extensive shallow geochemical drilling and deeper drilling on these large areas but without encouraging results and the blocks of claims were eventually relinquished.

Almost all of the EL appears to underlain by the Warramunga Formation, apart from a few square kilometres of the Tennant Creek Granite in the northwest corner. Early interpretations of the regional magnetic pattern within EL 10052 showed relatively high amplitude magnetic features with generally NW-SE orientations in the eastern, northern and western areas of the EL. The south-central part of the EL is magnetically subdued. This contrast was initially interpreted as reflecting the different strength magnetic facies that are known in the Warramunga Formation. Major regional structures – the Mary Lane Shear and the Navigator Fault – were clearly recognisable in the AGSO 1998 200m line-spaced magnetics images.

Several of the Explorer series of magnetic anomalies identified in the 1970's by GeoPeko lie within the northern half of the EL. These are (from west to east) Explorers 73, 47, 52, 63, 62, 2, 115 and 13. Most of these were in the area explored by Normandy mentioned above. Outside EL 10052 immediately to the east are the Ivanhoe mine and associated magnetic anomalies, which are on a continuation of the same easterly trend. Another magnetic anomaly of early interest was the Explorer 54 anomaly in the SE corner of the EL.

On the basis of the magnetics data, Giants Reef concluded that the area of most potential for the identifying of new exploration targets was in the area west of the Navigator Fault. Some of this area was explored by Normandy under Mineral Claims C247 to C252 and C316 to C318 (referred to as the Red Bluff Central claims).

Although the previous work by both ADL and Normandy involved a certain amount of drilling, Giants Reef's assessment is that the magnetic anomalies in this area are not well tested or fully explained.

Year 2

In April 2002 the Red Bluff Central Claims were surrendered. On surrender Mineral Leases C249-C252, C316 & C318 were subsumed by Exploration Licence 10052 Red Bluff.

Year 3

Exploration was non-existent during this year due to Giants commitments elsewhere in the field.

Year 4

A comprehensive review of the vacuum geochemical data and geophysics over the tenement was undertaken during the year and this work resulted in the delineation of a number of highly prospective magnetic anomalies which either coincide with existing Au anomalies or have not received any geochemical testing, details of the locations of these

identified anomalies was not located. A reconnaissance survey undertaken over these areas and this work confirmed that all targets are covered by either alluvial plains, quartz-rich dissected colluvial fan deposits, sheet sand or sandy soil on rise overlaying sub-crop and consequently will require testing by deeper regolith/geochemical methods. Follow-up exploration on these targets was curtailed during the year due to Giants Reef's commitment in developing the Malbec West, Edna Beryl, Cat's Whiskers deposits and other higher priority regional targets in the Tennant Creek Mineral Field.

Under the management of Emmerson exploration has been limited due to the initial purchase period and the period required to list the company on the Australian Stock Exchange (ASX), which occurred on 12 December 2007.

During the 2008 field season Emmerson completed two major geophysical surveys;

1. A Detailed Ground Gravity Survey, conducted by Fugro Geophysics. This ground gravity survey was conducted over Emmerson's Tennant Creek tenure package and included EL 10052. The survey was conducted by three teams, each team consisted of a quad bike and rider equipped with a station meter. The three teams were supported by a Toyota Landcruiser 4WD Ute. The readings were taken on a regional 500m station spacing's, on lines 500m apart oriented North – South. Readings in areas requiring more detail were taken on 50 station spacing's on 100m spaced lines oriented North - South. The survey was completed during October 2008. 252 station readings were taken in EL 10052 and consisted of 252 Regional readings.

2. A Detailed Airborne Magnetic, Radiometric and Digital Terrain Survey was conducted by UTS Geophysics and commenced 26 May 2008 and was completed on 22 July 2008. The survey included areas of the WPA and included all EL 10052. The survey was flown with a FU24 – 954 fixed wing survey aircraft on 75m line spacing's, with 750m tie line spacing's and a sensor height of 25m for a total Line KM of 38,278, with 5,139km's (approximately 20.9%) being in the WPA. Magnetic Data was captured using a Scintrex Cesium Vapour CS-2 total field magnetometer, Fluxgate three component vector magnetometer, RMS Aeromagnetic Automatic Digital Compensator (AADC II) and a Diurnal monitoring Magnetometer (Scintrex Envi8mag). Radiometric Data was captured using an Exploranium GR-820 gamma ray spectrometer and Exploranium gamma ray detectors.

<u>EL22868 NORTH JUBILEE</u>

Year 1

This large (59 blocks and part-blocks) EL is largely underlain by the Warramunga Formation, but also contains three relatively small areas of the Tennant Creek Granite.

Giants Reef's assessment of the AGSO 1998 200m line-spaced magnetics data, and the Normandy Tennant Creek database did not produced any geophysical or geological

targets in this area considered worth following up, despite the central and southern areas of the EL contain a number of magnetic anomalies and old mine workings on ironstone outcrops. The exceptions to this are the former GeoPeko targets called Explorer 53 and Explorer 58.

Explorer 53 (AGD84 co-ords, 401500E 7842650N) has no associated magnetic anomaly. GeoPeko reports describe it as quartz filling in a fault, and this material was at one time considered as a possible source of silica flux for the Peko Mines Limited smelter. This occurrence was of no interest to Giants Reef.

Explorer 58, on the other hand, had a pronounced blind magnetic anomaly at a location where the Ivanhoe Fault zone intersects a NW-SE-trending magnetic feature. GeoPeko took 16 auger samples at the anomaly and recorded 'low Cu Pb Zn values' and recommended no further work. Giants Reef did not find any records of any subsequent work on this anomaly by Normandy, and it appears likely that Explorer 58 was not considered a target. Giants Reef intended to carry out a magnetic modelling exercise on this anomaly and decide from this whether to proceed to the next level of exploration involving drilling. The remainder of EL 22868 was set to be surrendered.

Year 2

The proposed magnetic modelling exercise for Explorer 58 was not undertaken during the second tenure year and as a consequence of more prospective areas within the EL becoming available for exploration, it was downgraded in priority.

The termination of the Newmont Wiluna Gold Pty Ltd and Giants Reef Exploration Pty Ltd Joint Venture in December 2002 thus resulted in no further renewal of the JV tenements. This included Mineral Claims C866 - C879 at their expiry of the fifteenth year of tenure, and Mineral Claims C1150 - C1155, and C1191 at their expiry of the tenth year of tenure on the 31st December 2002. These Mineral Claims were situated on the central and southern areas of EL 22868.

The expired Mineral Claims C866 – C869 Mary Lane, C870 – C874 Mt Otto, and C1150 - C1155 & C1191 Jubilee, were considered by Giants Reef to be located in a prospective area given their close proximity to the Jubilee mine and the Mary Lane Shear.

Review of the exploration over the expired Mineral Claim areas, by Giants Reef, identified a number of geochemical anomalies, either through surface lag sampling or vacuum drilling to bedrock. Preliminary rotary air blast drilling at Jubilee, Mt Otto and Mary Lane failed to intersect economic mineralisation. Giants Reef considered these anomalies as not fully tested, and recommend detailed geophysical assessment and structural mapping.

Year 3

No exploration was conducted during the third tenure year, due to Giants Reef's commitments elsewhere in the field.

Year 4

A compilation of geophysical, geochemical and drilling data sets was carried out, along with an evaluation of potential oxide gold drill targets. Reconnaissance investigations were undertaken at the Explorer 117, Explorer 13 and Explorer 80 prospects. This work culminated in the drill testing (8 holes) of the Explorer 80 target within MCC797 and assessing the immediate surrounding area within EL 22868. Giants Reef noted although the results from the drilling confirmed the presence of low grade mineralization, the potential of the immediate prospect appeared to be limited, and a high grade ore shoot was not readily apparent based upon the results. Previous deeper drilling failed to intersect encouraging grades, and they concluded supergene effect may be the cause. The presence of other hematite-jasper-quartz outcrops to the west and east suggest that the mineralization may be more extensive than the current drill pattern and a RAB/VAC program was proposed to investigate this structure along strike. A vacuum drilling program was also proposed to test the strike extent of this structure including areas within EL 22868. A magnetic anomaly within EL 22868 and 1 km south east of the Ivanhoe mine was identified for further investigation.

Giants Reef's commitments to mining operations at Chariot, Edna Beryl, Cats Whiskers and Malbec West prevented further exploration over EL 22868.

Under the management of Emmerson exploration has been limited due to the initial purchase period and the period required to list the company on the Australian Stock Exchange (ASX), which occurred on 12 December 2007.

During the 2008 field season Emmerson completed two major geophysical surveys;

1. A Detailed Ground Gravity Survey, conducted by Fugro Geophysics. This ground gravity survey was conducted over Emmerson's Tennant Creek tenure package and included EL 22868. The survey was conducted by three teams, each team consisted of a quad bike and rider equipped with a station meter. The three teams were supported by a Toyota Landcruiser 4WD Ute. The readings were taken on a regional 500m station spacing's, on lines 500m apart oriented North – South. Readings in areas requiring more detail were taken on 50 station spacing's on 100m spaced lines oriented North - South. The survey was completed during October 2008. 420 station readings were taken in EL 22868 and consisted of 420 Regional readings.

2. A Detailed Airborne Magnetic, Radiometric and Digital Terrain Survey was conducted by UTS Geophysics and commenced 26 May 2008 and was completed on 22 July 2008. The survey included areas of the WPA and included all EL 22868. The survey was flown with a FU24 – 954 fixed wing survey aircraft on 75m line spacing's, with 750m tie line spacing's and a sensor height of 25m for a total Line KM of 38,278, with 5,139km's (approximately 20.9%) being in the WPA. Magnetic Data was captured using a Scintrex Cesium Vapour CS-2 total field magnetometer, Fluxgate three component vector magnetometer, RMS Aeromagnetic Automatic Digital Compensator (AADC II) and a Diurnal monitoring Magnetometer (Scintrex Envi8mag). Radiometric Data was captured using an

Exploranium GR-820 gamma ray spectrometer and Exploranium gamma ray detectors.

Analysis, interpretation and modelling of this captured data was conducted by Emmerson consultant Geophysicists Steve Massey and Brett Adams (Spinifex Geophysics). Other work completed involved the identification of historical drilling within the licence in preparation for validation against hard copy records stored on-site at Emmerson's Tennant Creek Offices.

Potential exists in many parts of the licence and due to the volume of identified targets and drilling data identified and the clear guidelines under Emmerson Joint Venture Agreement with Ivanhoe Australia, identification of historical drilling and validation of this identified data was limited to all initially identified potential Tier 1 Greenfield targets within EL 22868, namely Jubilee, ERM 146, ERM089, Colombard (ERM148), Trireme (ERM049), Drakkar (ERM130) and Eagle.

Exploration activities conducted at these identified targets are detailed as follows;

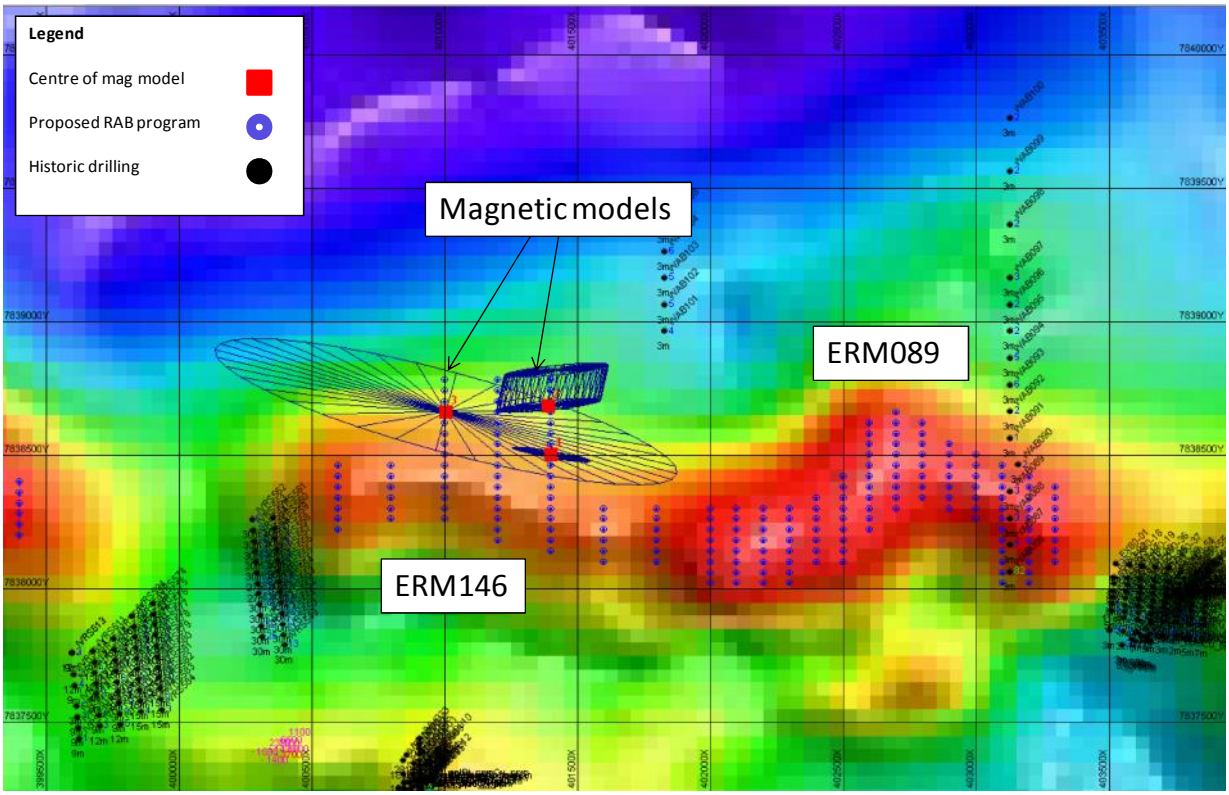
Jubilee

The prospect modelling interpreted a body smaller than anticipated, shaped as a narrow lens and down plunge of high grade intercepts in historic drilling. This prospect hosts ironstone in a quartz -breccia envelope. At this stage no drilling has been proposed.

ERM146 and ERM089

A RAB program of 194 holes for 6,984m was designed to test a strong, discrete gravity high coincident with a broad magnetic high and inflected D1 with cross-structures. Historically, the gravity high has only been drilled with 5 shallow (3m) RAB holes (over ERM089). WAB086 intersected 82ppm Cu from 2-3m. ERM146 was modelled by Emmerson consultant geophysicist Brett Adams, producing three magnetic targets. Three extended RAB lines on easting's; 401000mE, 401200mE and 401400mE will test anomalism above these three magnetic models. A 100m x 40m RAB drilling program was proposed to test ERM089. The holes required to be drilled to a depth of 30-40m. A 200m x 40m RAB drilling program was proposed to test ERM146 and to be drilled to a depth of 30-40m. There is a railway corridor located immediately to the west of the proposed program, which is also indicated in the magnetics – ground checking and mapping will be recommended prior to drilling.

Figure 27: Magnetic Models of ERM089 & ERM146



Data validation for ERM089 and ERM146 included regional lithological dip and strike, surface geology, structural controls and any ironstones proximal to the target, attempting to assist in constraining the geophysics models.

Colombard (ERM148)

Data validation was conducted, this validation of information included regional lithological dip and strike, surface geology, structural controls and any ironstones proximal to the target, attempting to assist in constraining the geophysics models.

A drill program was designed to intersect magnetic models at the Colombard prospect SE of the historical Ivanhoe mine. Four RC holes (CBRC001-002, CBRC004 and CBRC006) were completed at the Colombard prospect for a total of 910.0 m. Two RC pre-collars (CBDD003 and CBDD005) were also drilled for 295m.

CBRC001 intersected a broad zone of magnetite/chlorite sediments from 69-174m before grading into chlorite-altered siltstones/sandstones and quartz feldspar porphyry sills.

CBRC002 targeted the second Colombard magnetic model which corresponds to an outcropping ironstone ridge approximately 70m x 10m in dimension. The hole intersected a broad zone of intense magnetite/chlorite sediments from 146m -157m, containing 2-5% sulphides (py>cpy). The hole then intersected a further 28m of strong chlorite+ magnetite rock with pyrite blebs and porphyry sills to 185m before grading into weak chlorite altered siltstones and sandstones to 209m.

Due to the intense magnetite/chlorite/sulphide rock intersected in CBRC002, a diamond tail was warranted and a pre-collar, CBDD003 was drilled to 185m. The target zone was at a depth of 200m.

CBRC004 intersected a strong siliceous-sericite-magnetite and quartz-veined zone from 86-94m (fault zone) with up to 5% pyrite and trace chalcopyrite and bornite. A broad zone of intense magnetite/chlorite altered greywacke sediments was intersected from 94-114 m containing 2-5% sulphides (pyrite). From 114-140m magnetite altered sediments were intersected. From 140-175m (EOH) chlorite altered greywacke sediments were intersected with a porphyry sill encountered from 153-154m. Due to the intense magnetite/chlorite/sulphide rock intersected in CBRC004, a diamond tail was warranted on this intercept and a pre-collar was drilled, CBDD005 to a depth of 110m.

The final hole aimed to test the magnetic model target for the Colombard prospect was drilled to 257m with hole CBRC006. It intersected 90m of porphyry granite from surface before entering chlorite and weakly magnetic sediments. The hole was terminated at 257m with only 2m of higher magnetic susceptible sediments intersected (unlikely to explain the magnetic signature modelled). The hole was PVC cased for later probing.

The diamond tail for CBDD003 was from 185m to 244.10m. The hole intersected pyrite and chalcopyrite rich magnetite-chlorite-quartz ironstone and strongly sheared quartz porphyry from 190.20 to 226.81m. Structural readings indicate that beds are trending west-northwest and the ironstone is discordant to bedding.

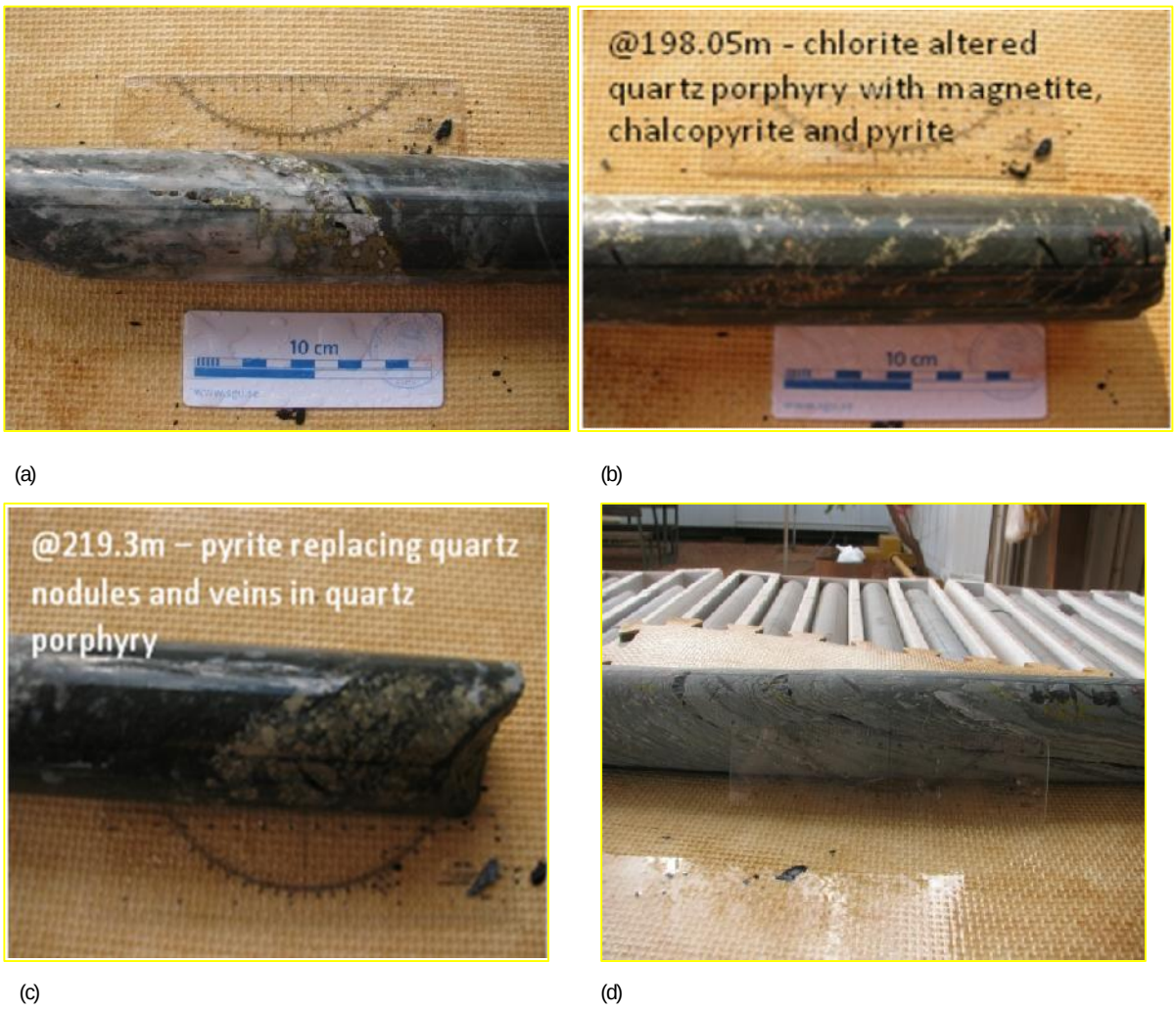


Figure 28: *Core photos of CBDD003. (a)192.85m – quartz vein with chalcopyrite and pyrite in contact with magnetite; (b)198.05m - chlorite altered quartz porphyry with magnetite, chalcopyrite and pyrite; (c) 219.3m – pyrite replacing quartz nodules and veins in quartz porphyry; (d) 221.7m – strongly foliated quartz porphyry.*

Diamond tail for CBDD005 was drilled from 110m to 197.70m. The hole intersected sheared quartz porphyry and massive magnetite with minor pyrite and chalcopyrite veins from 134.63 to 136.92m. Quartz porphyry intersected in this hole was not as sheared or deformed as that seen in CBDD003.

The magnetic models for CBDD003, CBDD005 and CBRC006 were re-modelled using downhole magnetic data. The CBDD003's re-model now dips to the northeast, therefore CBRC002 and CBDD003 were drilled almost perpendicular to the mag model.

Figure 29: *Core photos of CBDD005. (e) @134.5m – hydrothermally altered siltstone with pyrite, siltstone and hematite veins; (f) @134.7m – sheared looking quartz porphyry with dark chlorite alteration with pyrite veins; (g) @135.1m – magnetite with quartz veins, chlorite, pyrite and chalcopyrite veins; (h) @135.64m – brecciated looking magnetite with pyrite in quartz veins*

For CBDD005's re-model, Brett Adams was only able to determine the top of the new magnetic model, which coincides with the old model since the downhole data was only up to the RC pre-collar, due to a blockage in the PVC casing.

Downhole data for CBRC006 suggests that the magnetic source for that area is 150m to the southeast of the hole. Decision to drill the new position was dependent on the assay results of CBRC006.

Significant results returned for the Colombard drilling are as follows;

Hole Number	East (GDA94_53)	North (GDA94_53)	RL (GDA94_53)	Dip (deg)	AZI mag (deg)	From (m)	To (m)	Width (m)	Au (g/t)	Bi (ppm)	Cu (ppm)	Cu (%)	Fe (%)	Zn (ppm)
CBRC002	401986.10	7836864.72	345.69	-70	200.5	144	153	9	0.005	27.56	2228	0.22	11.79	106

Incl						147	150	3	0.011	69.19	3876	0.39	19.49	132
And						162	165	3	0.015	5.23	1843	0.18	16.02	130
And						180	183	3	0.002	0.3	1078	0.11	8	108
CBDD003	401990.36	7836881.14	345.67	-72	200.5	190.25	207	16.75	0.046	42.14	3849	0.38	19.44	86.61
And						210	215	5	0.024	15.37	2562	0.26	12.77	126.6
And						219	220.3	1.3	0.025	1.08	1089	0.11	10.99	128
And						223.8	224.8	1	0.02	4.81	1004	0.10	12.32	135
CBRC004	401670.03	7837000.28	344.92	-70	200.5	83	92	9	0.069	21.08	6837	0.68	10.56	119
Incl						84	85	1	0.11	18.46	9860	0.99	7.04	150
And						**87**	**88**	**1**	**0.1**	**55.73**	**17661**	**1.77**	**17.1**	**97**
And						90	91	1	0.12	24.5	4953	0.50	8.92	87
And						94	95	1	0.03	5.73	3269	0.33	15	140
And						105	108	3	0.007	10.41	1708	0.17	18.29	131
And						110	111	1	0.01	21.12	1542	0.15	20.07	124
CBDD005	401680.18	7837020.78	345.03	-70	200.5	133.5	135.93	2.43	0.052	16.65	3164	0.32	15.84	95.13

A second round of drilling was proposed to test the intersected mineralization at depth of CBRC002 and CBDD003 and a geochemical surface anomaly identified on an old North Flinders (NFM) map. CBDD007 RC pre-collar was drilled north of CBDD003 and was designed to intersect the mineralized down-dip interval 80m below and slightly to the northwest of CBDD003. The pre collar was drilled to a depth of 173m. CBDD008 RC pre-collar was drilled to the southeast of CBDD003 and was planned to test the Cu and Bi anomaly from the NFM geochemical map. The pre collar was drilled to a depth of 155m.

Diamond tails were drilled, CBDD007 was drilled from 173.00m to 380.80m and CBDD008 was drilled from 155.00m to 241.90m with a combined total diamond hole meterage of 293.90m. CBDD007 intersected dark chlorite quartz poprhyry with minor magnetite veins and pyrite and chalcopyrite in between two magnetite-chlorite veins from 303.25 to 315.55m.

Hole Number	East (GDA94_53)	North (GDA94_53)	RL (GDA94_53)	Dip (deg)	AZI mag (deg)	From (m)	To (m)	Width (m)	Au (g/t)	Bi (ppm)	Cu (ppm)	Cu (%)	Fe (%)	Zn (ppm)
CBDD007	402007.04	7836935.35	345.78	-72	200.5	303.5	305.3	1.8	0.04	102.14	6868	0.69	19.53	112
Incl.						303.5	304.5	1	0.06	142.95	10647	1.06	21.93	142
CBDD008	402033.77	7836862.71	345.75	-70	200.5	185.5	189.5	4	0.03	355.38	5023	0.5	14.45	112

Note: (1) Minimum cut-off of 0.5 g/t Au or 0.5% Cu
(2) All half cores were assayed using 50g Fire Assay

A further round of drilling was undertaken, CBRC009 and CBRC010 pre-collars were drilled to 102m and 155m, respectively. Diamond tails for both holes were postponed indefinately, due to a suggestion that the pyrite overprinting all of the sediments, porphyries and mineralized ironstone is due to the Mary Lane Shear Zone.

At the area where CBRC002, CBDD003 and CBDD007 were drilled, the gravity and magnetic models overlapped, it is interpreted that the larger gravity response reflects the Ivanhoe shear which contains a mélange of lithologies which have been overprinted by chlorite, some magnetite and secondary sulphides. It is conceivable that this shear feature may be up to 250-300m wide and encompass all of the magnetic and gravity models produced by Brett Adams.

Emmerson consultant geophysicist Steve Massey reassessed Colombard exploration using a new algorithm in conjunction with a new infill gravity survey. The preliminary gravity images and maps generated using the this new algorithm were based on a survey of 18 lines for 1150.

All the models for the Colombard area were initially magnetic targets. Using the infill gravity data, the Colombard (ERM148) magnetic model now lies on the northern margin of the gravity ridge. CBRC006, which failed to intersect any ironstone, appears to be drilling away from the gravity anomaly and should have been collared to the north of the drilled hole. There is a significant offset between highs of the magnetic and gravity anomalies. All the magnetic anomaly highs (both in VRMI and AS maps) are in the southwest of the gravity anomaly ridges.

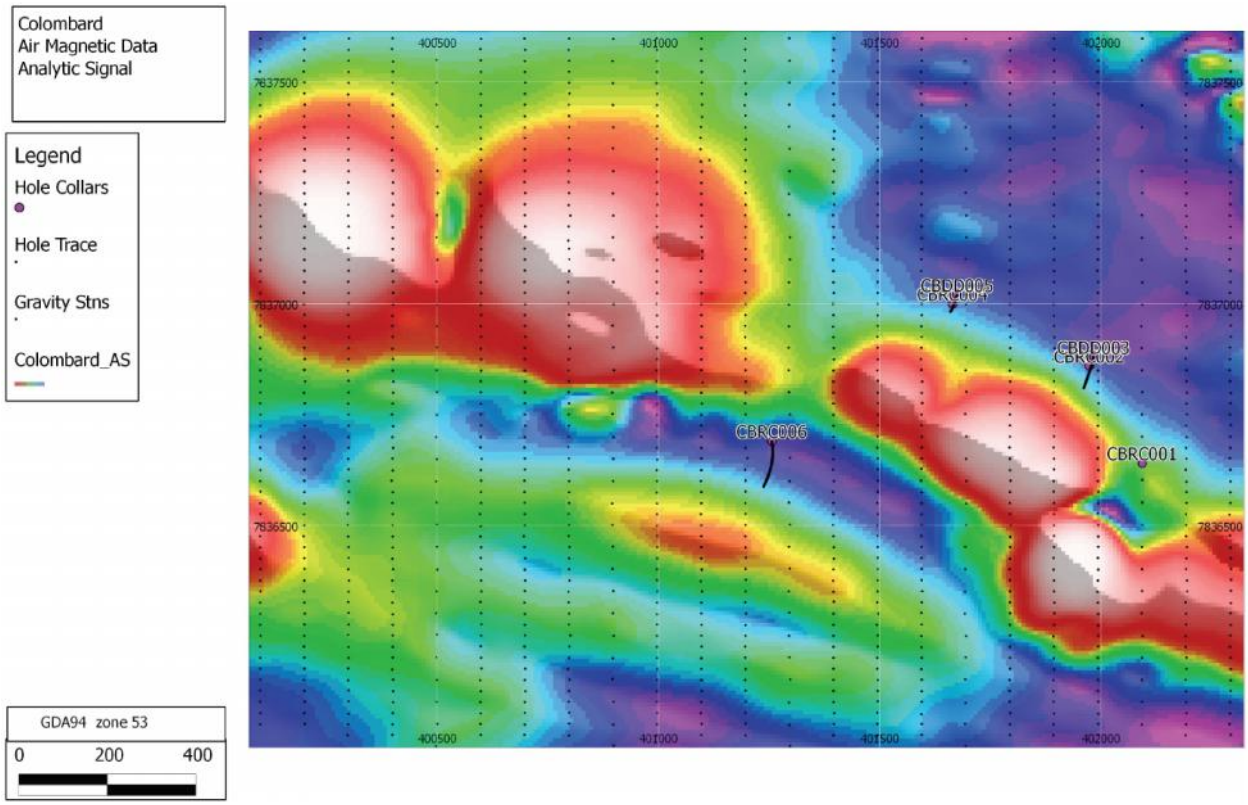


Figure 30: Colombard area over Magnetic Analytical Signal.

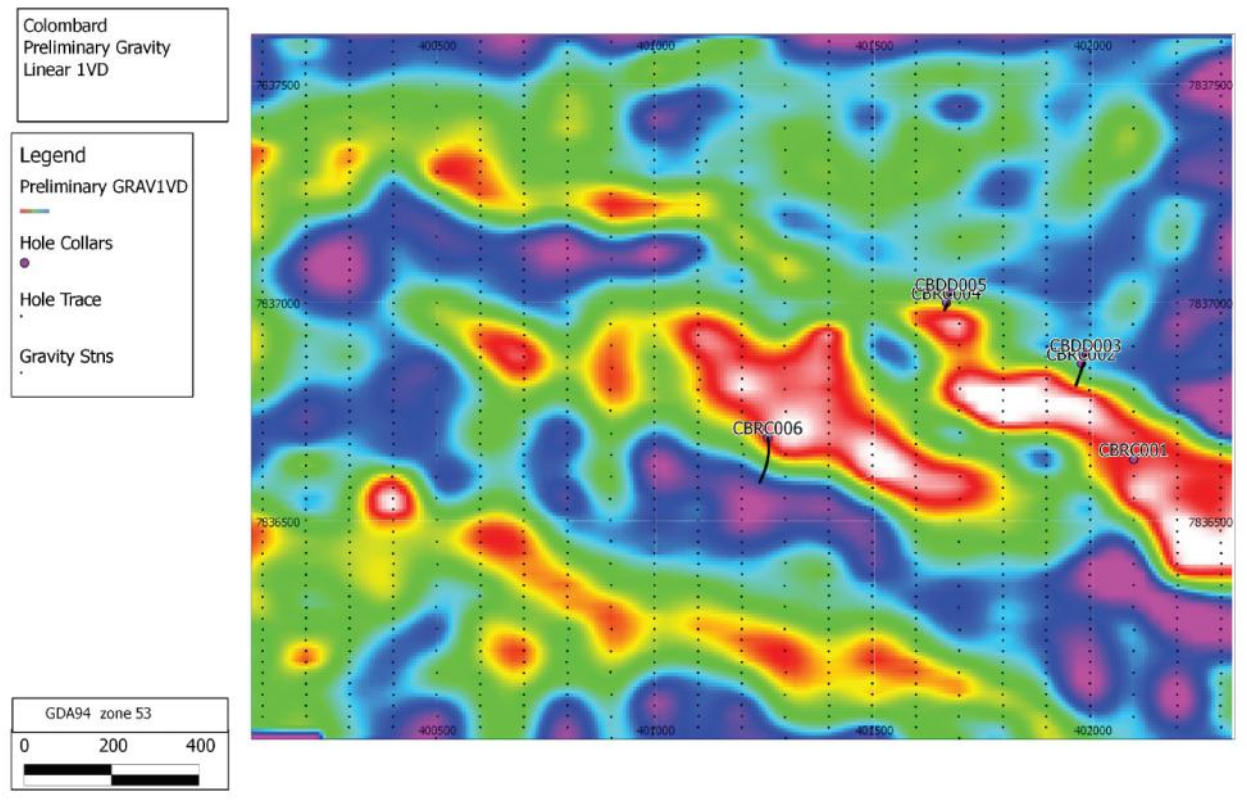


Figure 31: Colombard area over preliminary gravity. 1VD with linear color stretch.

After the quarterly review held during early May 2010, it has been decided that although the Colombard area is still highly prospective, it is not a Tier 1 project and further exploration in this area is postponed.

Drakkar (ERM130)

Data validation for Drakkar commenced, this validation of information included regional lithological dip and strike, surface geology, structural controls and any ironstones proximal to the target, attempting to assist in constraining the geophysics models.

Three RC holes, DKRC001 – 003 were drilled for 837m. DKRC001 intersected sediments of weak- moderate alteration. There was nothing explaining the magnetic model targeted. The hole lifted significantly (20 degrees), however has passed through the modelled magnetic body. The hole was PVC cased for later probing. DKRC002 and DKRC003, both holes intersected thick intervals of chlorite altered sediments with minor disseminated magnetite.

All three holes drilled at Drakkar have failed to explain the source for the magnetic anomalies. A down hole GPX modelling report was requested.

After the quarterly review held early May 2010, it has been decided that although the Drakkar area still remains prospective, it is not a Tier 1 project and further exploration in this area is postponed.

Trireme (ERM049)

Two holes were proposed for Trireme but oly one hole was drilled. TERC001 was drilled to 251m and intersected magnetic sediments from 125m to the end of the hole. After drilling other holes in the area (Colombard and Drakkar) in which the holes only intersected thick intervals of sediments with disseminated magnetite, it has been decided not to drill the last hole.

Downhole data for TERC001 was sent to B. Adams to help in constraining the initial magnetic model used. An infill gravity survey was done in the area to help explain the massive gravity ridge to the east of the area drilled. 16 lines for 656 stations were surveyed in the Trireme area.

After the quarterly review held early May 2010, it has been decided that although the Trireme area is still prospective, it is not a Tier 1 project and further exploration in this area is postponed.

Eagle

Eagle - A single 384m RC drillhole (EARC007) was drilled at the Eagle prospect to follow up on incomplete historic drilling and revised geological/geophysical models. A wide zone of chlorite+-magnetite alteration was intercepted between 167 and 348m downhole. A chloritic magnetite ironstone was drilled between 234 and 252m beneath a quartz-feldspar

porphyry. Sulfide development to 2% over the lower half of the interval was encountered. A chlorite-rock alteration halo was also evident around the ironstone.

Quartz-feldspar porphyry from 189 to 206m was unusually chlorite altered and also displayed weak magnetism. This implies a large and intense alteration system operated around the ironstone which in turn could produce a volume of ore rich fluid large enough to from a deposit. The drillhole was cased and will be downhole probed in order to remodel the anomaly in greater detail.

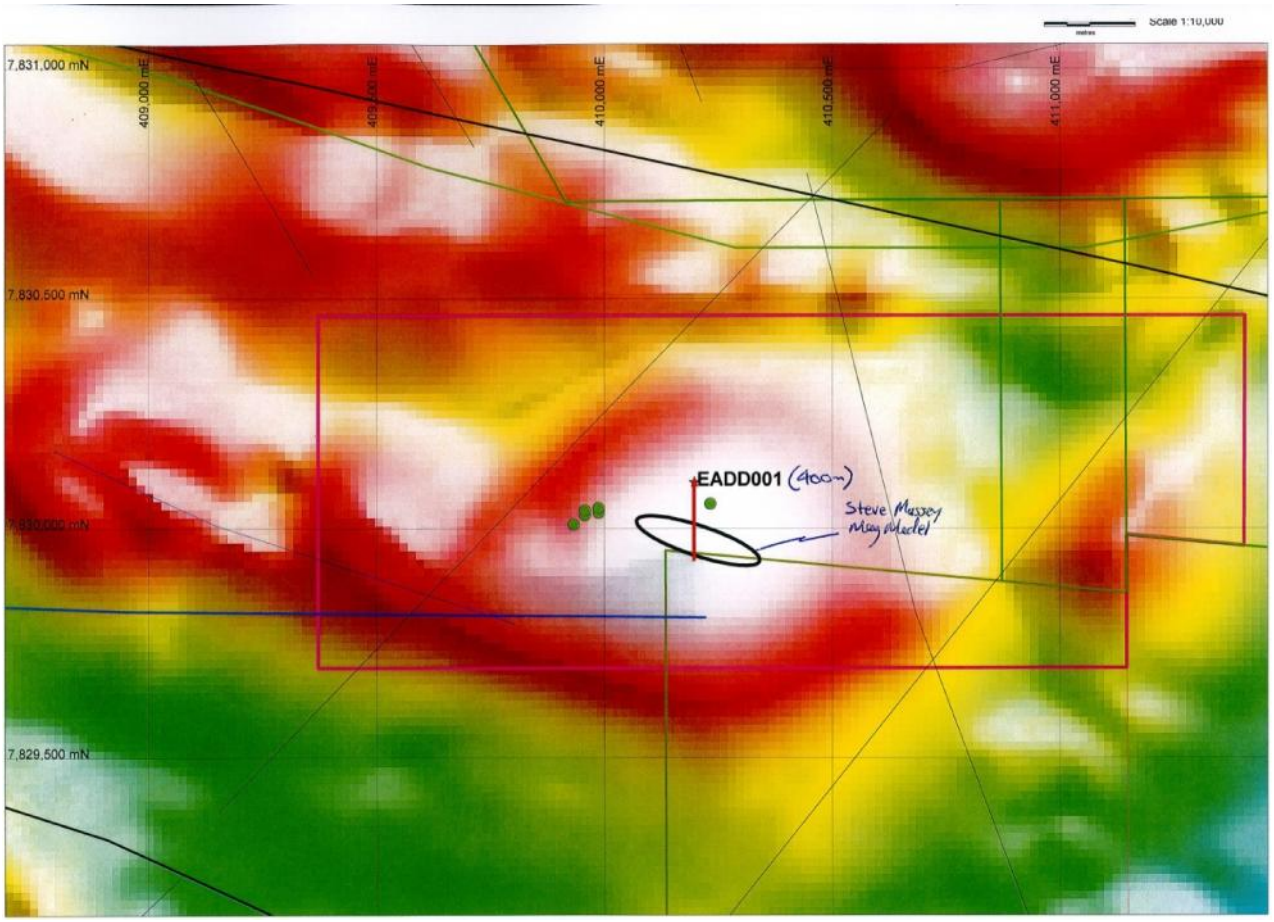


Figure 32: Eagle ASVI magnetic image showing magnetic model and trace for proposed drillhole EADD001 (410200mE, 7830100mN)

Results returned from EARC007 identified a zone of 6m @ 0.13% Cu from 162m, at the contact of the lamprophyre zone and the talc-chlorite altered siltstone. Coincidently the zone has elevated Bi – max 32.7ppm. The adjacent talc-chlorite shear 167m -174m reported elevated Cu, Ag, Bi and Zn although not economic. The ironstone from 234m - 252m returned no anomalous results in any of the multi-elements. Most significant was 6m @ 56ppb Au from 246m.

The initial residual magnetic model of Emmerson consultant geophysicist Steve Massey derived from the airborne magnetics targeted in the drilling was between 290-360m down hole. EARC007 passed through the model and only encountered regionally altered

Warramunga sediments. The only ironstone intersected being between 234m – 252m, which was a dislocation of some 67m horizontally from the targeted model.

An interpretation was attempted based on the geometry of the aeromagnetic images to explain the lithology's encountered. The interpretation, is for a eastern plunging anticlinal fold closure hosting a "saddle reef" style ironstone, which is overlain by a similarly folded quartz feldspar porphyry. A flexurable dip slip shear dipping south, based on talc chlorite altertion, lamprophyre contact and anomalous Cu/Bi mineralisation. This interpretation was subsequently passed to Brett Adams to use as a basis for modelling the down hole 3 component magnetic probe results. The resulting magnetic modeling, supports the "saddle reef" style model, although the simulated model of folding improves the fit to the field data. The result was not convincing enough to categorically confirm or disqualify the proposal.

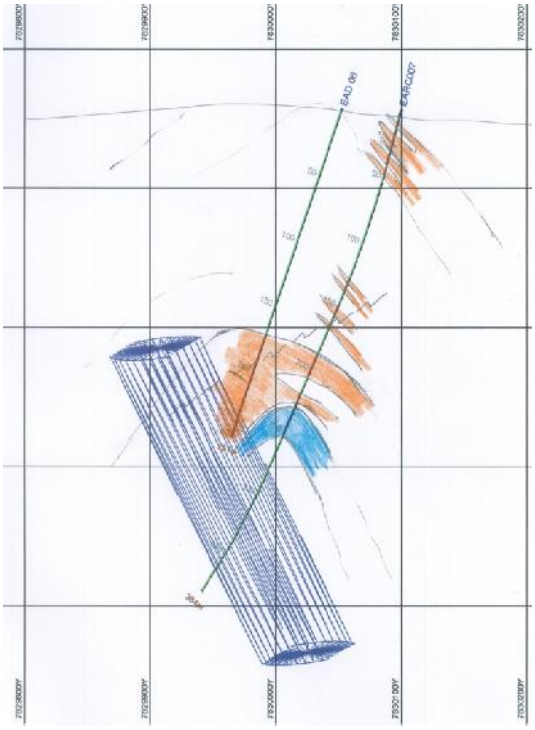


Figure 33: Geological sectional interpretation of Eagle drilling, showing EARC007 trace, targeted residual magnetic model and interpreted geology.

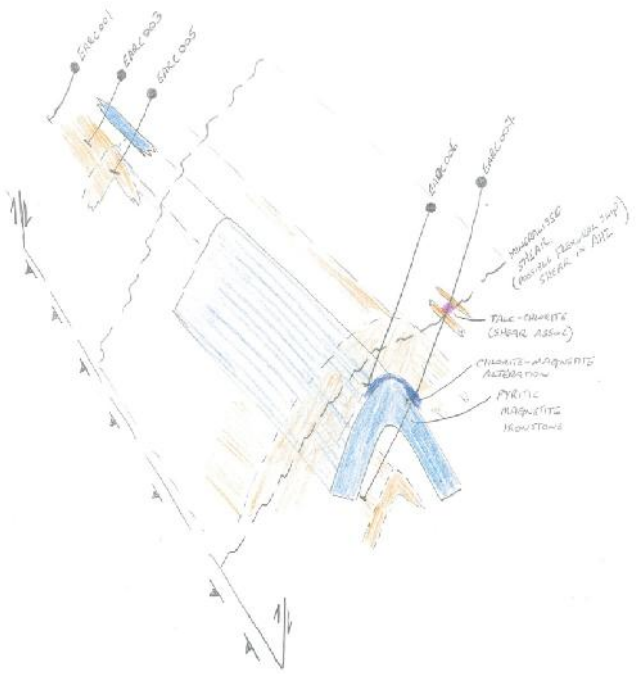


Figure 26: Interpreted geology in isometric view looking WNW, showing east plunging fold and saddle reef style ironstone.

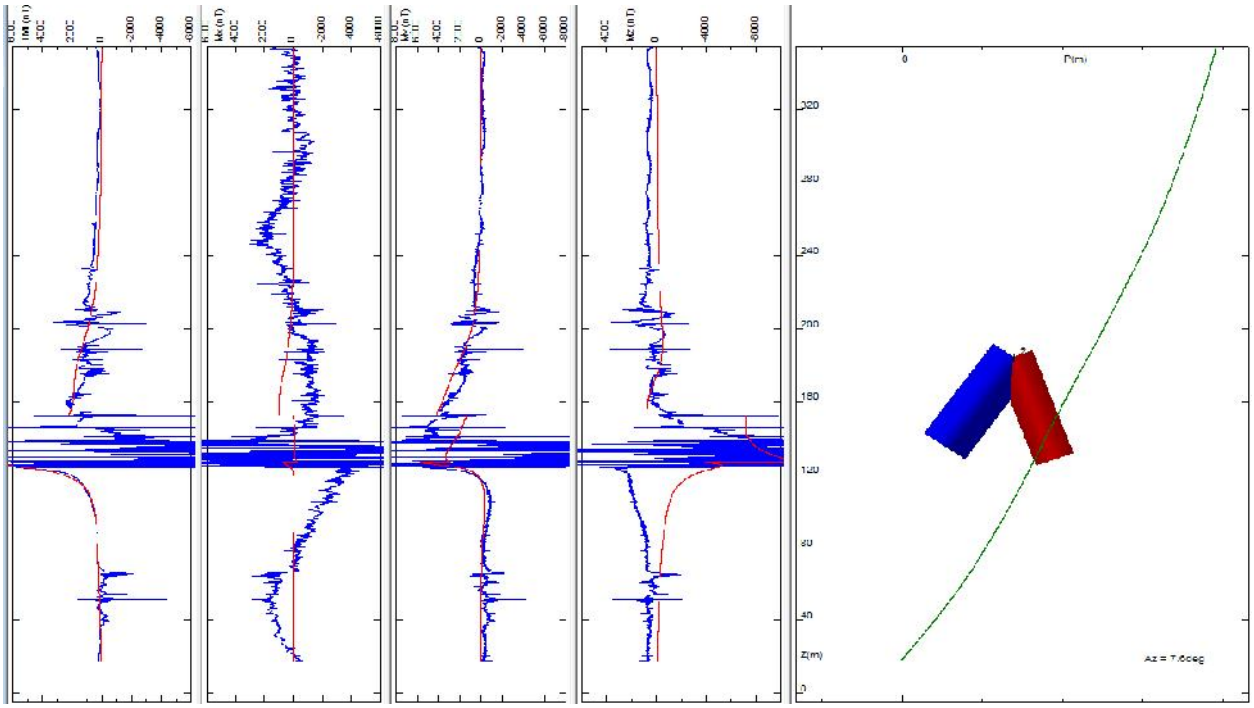


Figure: 34: Compent magnetic probe profiles and modeled source by Brett Adams.

An RC green bag survey commenced using the Niton to test if the Niton could be used in analysing the RC pre-collars rather than sending the samples to the lab for assaying. The results of both the Niton and the lab were sent to Emmerson geochemical consultant Nigel

Brand for comments. Nigel suggested that the results for Cu, Zn and Fe of the Niton should be sufficient or comparable with the lab's assay results in discriminating possible ironstones.

7. WORK DONE DURING THE REPORT PERIOD

EL's and MA's in the WPA were explored by Giants Reef and Santexco for Tennant Creek style iron oxide copper-gold deposits (IOCG deposits). Giants Reef and Santexco are wholly owned subsidiaries of Emmerson Resources Ltd.

The following sections record the exploration work completed on these tenements during the WPA Combined Reporting period from 16 May 2011 to the 15 May 2012.

7.1 EL27136 RESERVOIR

Exploration on the title area was limited during the reporting period as Emmerson is currently focusing on exploration activities driven by the application of both VRMI and HeliTEM.

HeliTEM is described below and VRMI was described in detail in the previous exploration section of this report. Figure 35 below displays the VRMI image overlain by EL 27136, this clearly demonstrates the presence of VRMI, anomalism.

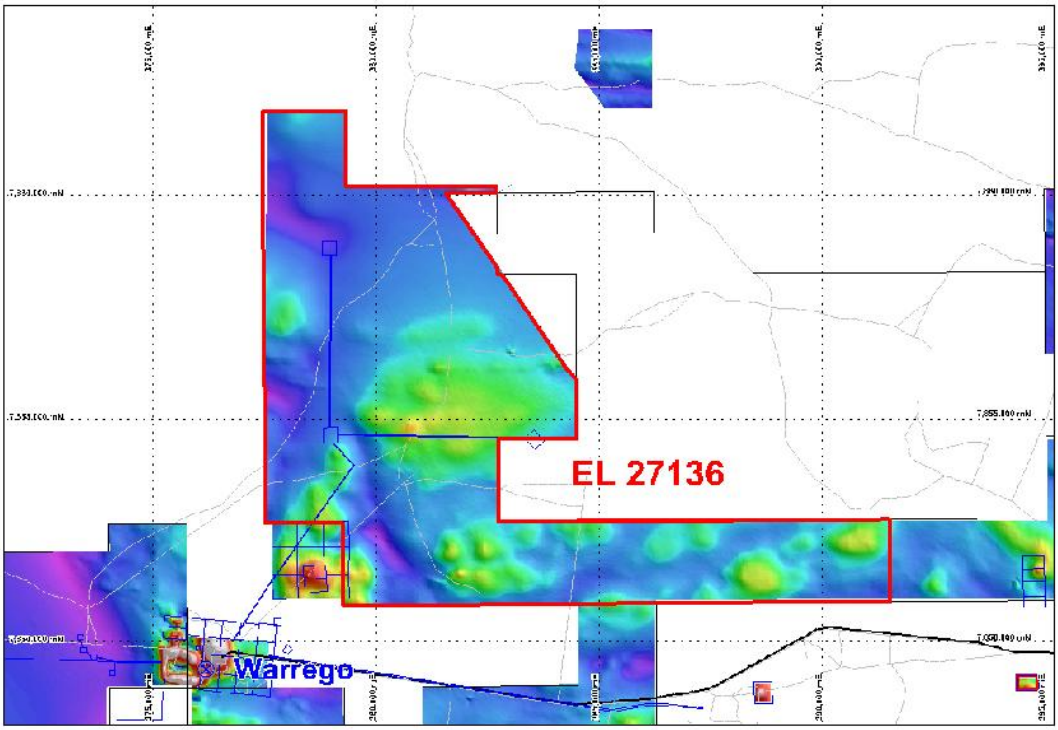


Figure 35: EL 27136 vs. VRMI

Anomalies within the tenure area ranges from anomalous as displayed in the figure above to subdued. The recent work at Goanna (Gecko Area) as produced economic intersections with the high possibility of an economic deposit from within a VRMI subdued area, as discussed below.

HeliTEM - Heli-TEM is a helicopter mounted system capable of measuring the conductivity of the rocks to significant depth and utilises the world's most powerful airborne, time-domain electromagnetic system. A breakthrough during late 2010 and early 2011 has been the recognition that drill core from the mineralised portions of Tennant Creeks historic deposits is conductive up to 80times the background levels. Emmerson completed the first round of "Proof of Concept' drilling of identified HeliTEM targets in the Gecko and Orlando Areas and resulted in success with the several intersections of mineralisation, gold and copper rich. Further drilling will be conducted in this area to further define the economic potential and further develop and refine the application of HeliTEM.

HeliTEM was flown over the White Devil Area in the WPA, and was limited to EL 28603 and is described below.

The most significant factor in the application of HeliTEM has been the Goanna and Monitor discoveries (in the Gecko Area) as discussed in section 7.5, below and this has vast implications for exploration in the rest of the field and particularly the prospective tenure, including EL 27136.

7.2 MA27163 EAGLE

Exploration on the title area was limited during the reporting period as Emmerson is currently focusing on exploration activities driven by the application of both VRMI and HeliTEM.

HeliTEM is described above in section 7.1 and VRMI was described in detail in the previous exploration section of this report. Figure 36 below displays the VRMI image overlain by MA 27163, this clearly demonstrates the presence of VRMI and subdued anomalism.

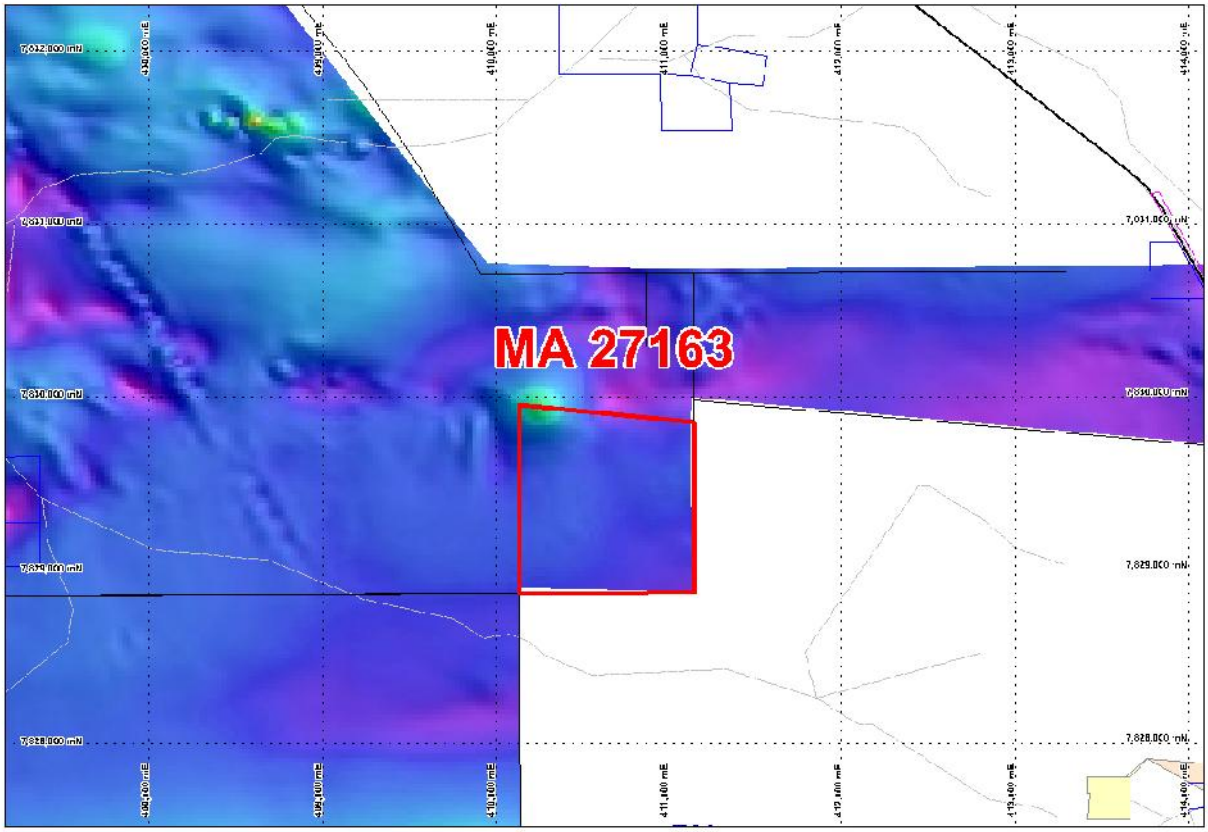


Figure 36: MA 27163 vs. VRMI

Anomalies within the tenure area ranges from anomalous as displayed in the figure above to subdued. The recent work at Goanna (Gecko Area) as produced economic intersections with the high possibility of an economic deposit from within a VRMI subdued area, as discussed in section 7.1 above.

HeliTEM was flown over the White Devil Area in the WPA, and was limited to EL 28603 and is described below.

The most significant factor in the application of HeliTEM has been the Goanna and Monitor discoveries (in the Gecko Area) as discussed in section 7.5, below and this has vast implications for exploration in the rest of the field and particularly the prospective tenure, including MA 27136.

7.3 EL27164 HAWK

Exploration on the title area was limited during the reporting period as Emmerson is currently focusing on exploration activities driven by the application of both VRMI and HeliTEM.

HeliTEM is described above in section 7.1 and VRMI was described in detail in the previous exploration section of this report. Figure 37 below displays the VRMI image overlain by EL 27164, this clearly demonstrates the presence of VRMI and subdued anomalism.

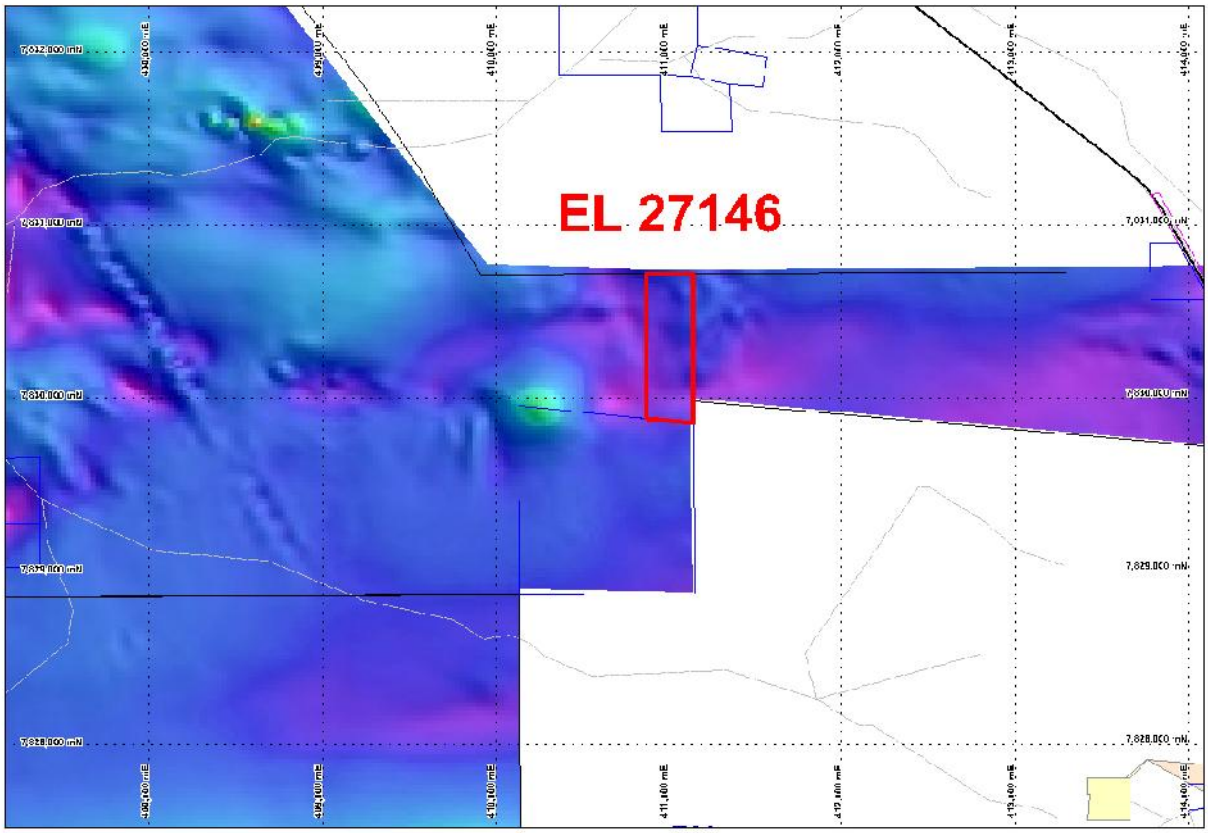


Figure 37: EL 27164 vs. VRMI

Anomalies within the tenure area ranges from anomalous as displayed in the figure above to subdued. The recent work at Goanna (Gecko Area) as produced economic intersections with the high possibility of an economic deposit from within a VRMI subdued area, as discussed in section 7.1 above.

HeliTEM was flown over the White Devil Area in the WPA, and was limited to EL 28603 and is described below.

The most significant factor in the application of HeliTEM has been the Goanna and Monitor discoveries (in the Gecko Area) as discussed in section 7.5, below and this has vast implications for exploration in the rest of the field and particularly the prospective tenure, including EL 27134.

7.4 EL28602 RED BLUFF

Exploration conducted over EL 28602 includes all exploration conducted over SEL 24979 (part only) and EL 8883 (part only) up to their expiry on 07 July 2011.

Exploration on the title area was limited during the reporting period as Emmerson is currently focusing on exploration activities driven by the application of both VRMI and HeliTEM.

HeliTEM is described above in section 7.1 and VRMI was described in detail in the previous exploration section of this report. Figure 38 below displays the VRMI image overlain by EL 28602, this clearly demonstrates the presence of VRMI and subdued anomalism.

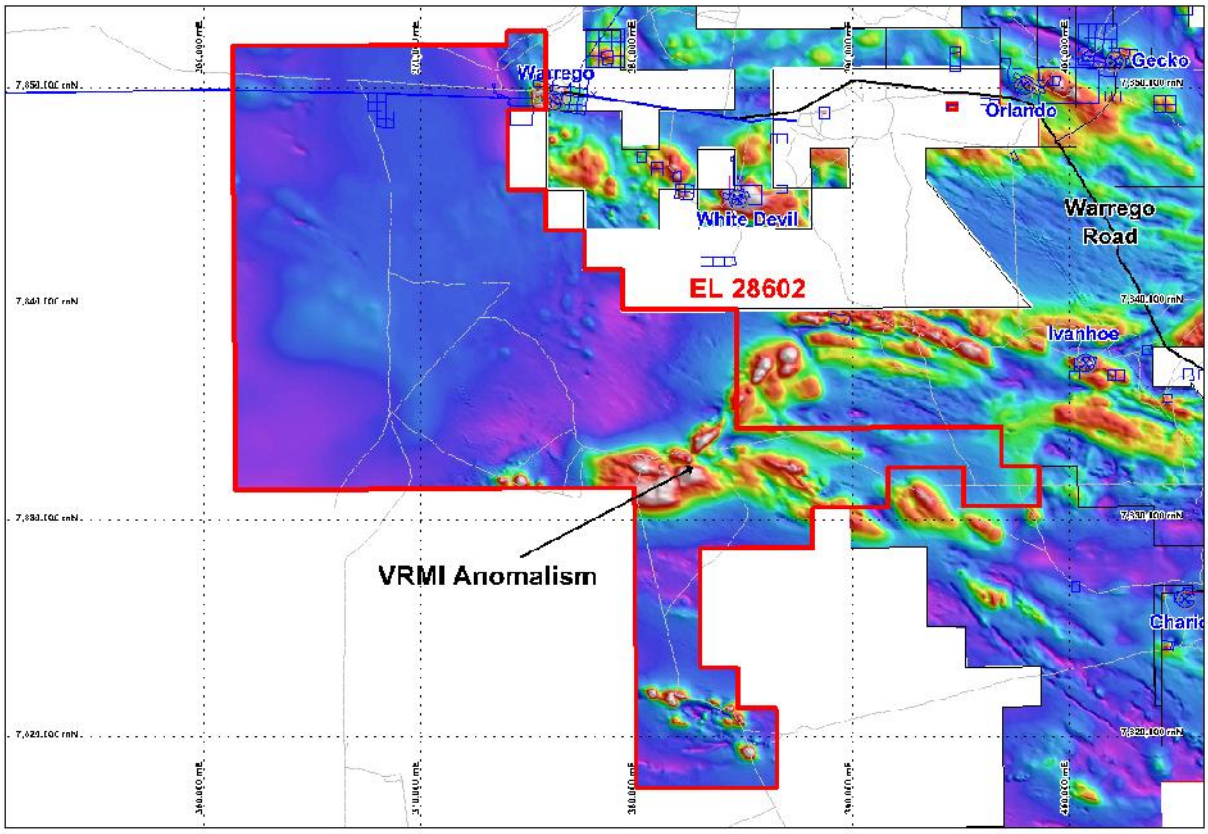


Figure 38: EL 28602 vs. VRMI

Anomalies within the tenure area ranges from anomalous as displayed in the figure above to subdued. The recent work at Goanna (Gecko Area) as produced economic intersections with the high possibility of an economic deposit from within a VRMI subdued area, as discussed in section 7.1 above.

HeliTEM was flown over the White Devil Area in the WPA, and was limited to EL 28603 and is described below.

The most significant factor in the application of HeliTEM has been the Goanna and Monitor discoveries (in the Gecko Area) as discussed in section 7.5, below and this has

vast implications for exploration in the rest of the field and particularly the prospective tenure, including EL 28602.

7.5 EL28603 WHITE DEVIL

Exploration conducted over EL 28603 includes all exploration conducted over SEL 24979 and EL's 23914, 10015 and 22728 up to their expiry on 07 July 2011.

Exploration consisted of a HeliTEM survey and RC drilling. The RC drilling was within Mineral Leases MLC 120 at the Navigator 7 (NAV7) prospect a target identified from the HeliTEM survey and located on the boundary of EL 28603.

HeliTEM - Heli-TEM is a helicopter mounted system capable of measuring the conductivity of the rocks to significant depth and utilises the world's most powerful airborne, time-domain electromagnetic system. A breakthrough during late 2010 and early 2011 has been the recognition that drill core from the mineralised portions of Tennant Creeks historic deposits is conductive up to 80times the background levels. Emmerson completed the first round of "Proof of Concept' drilling of identified HeliTEM targets in the Gecko and Orlando Areas and resulted in success with the several intersections of mineralisation, gold and copper rich. Further drilling will be conducted in this area to further define the economic potential and further develop and refine the application of HeliTEM.

HeliTEM was flown over the White Devil Area which included EL 28603.

The most significant factor in the application of HeliTEM has been the Goanna and Monitor discoveries (in the Gecko Area) as it occurs in subdued magnetic signatures, therefore confirming that magnetic anomalies are not the only potential hosts for economic mineralisation in the Tennant Creek Field. Figure 39 below shows the magnetic image (VRMI) of the Gecko Corridor, it can be seen that the drilling at both Monitor and Goanna has focused on the 'blue' area (magnetic low), compare this with the HeliTEM image in figure 40 and it can be seen that the drilling has focused on a HeliTEM anomaly not seen in the magnetics, this has vast implications for exploration in the rest of the field and particularly the prospective tenure, including EL 28603.

HeliTEM was flown over EL 28603 but has yet to be analysed in detailed or modelled and interpreted due to the focus on proof of concept at Gecko. The title is in a historically very prospective location and during the next reporting term Emmerson aims to fully evaluate in detail the HeliTEM survey in the WPA, including this title for any anomalism with the aim of generating drill targets for testing.

The first pass analysis and modelling highlighted a very obvious HeliTEM anomaly, coincident to the NAV7 historical prospect, Emmerson conducted an RC drilling program at this prospect to test the HeliTEM target, during July 2011. 3 RC holes (NAV&RC014 – 16) were drilled totalling 717m.

The navigator target consists of high grade gold zones within the HW shear zone, down dip to the immediate SW and along strike to the NW of the Navigator 7 ironstone. The interpretation of previous drill testing indicates an ironstone of the dimensions 100m N-S, 70m E-W and 10-40m thickness, dipping shallowly (20 deg) to the SW and plunging 30-35

deg to the SE. The ironstone is open in ALL directions. Quartz porphyry overlies and effectively caps the ironstone alteration system.

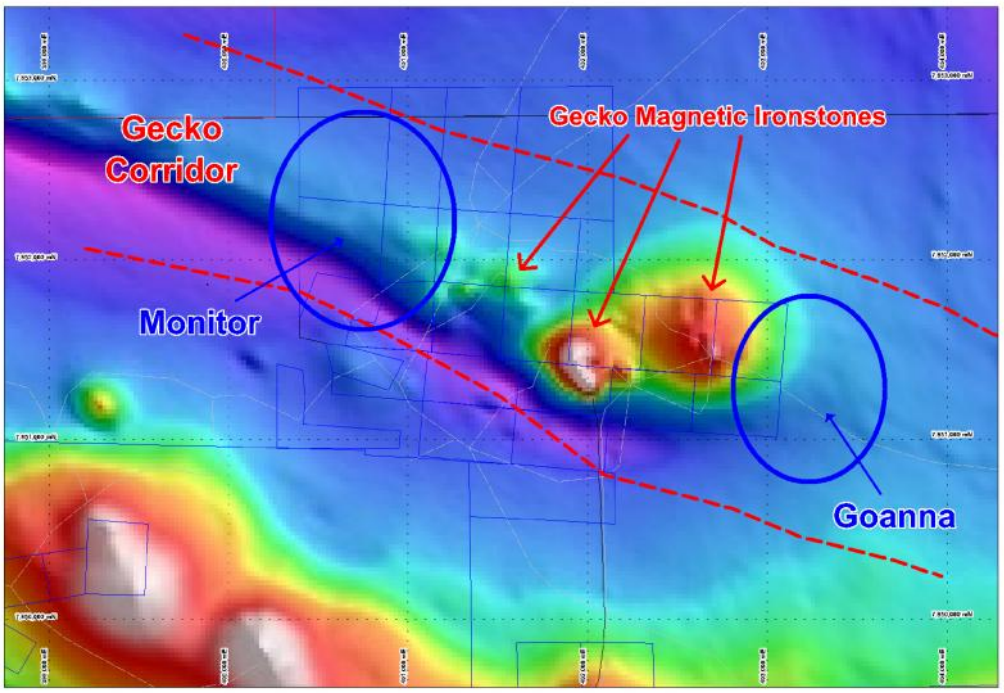


Figure 39: Gecko Corridor vs. VRMI

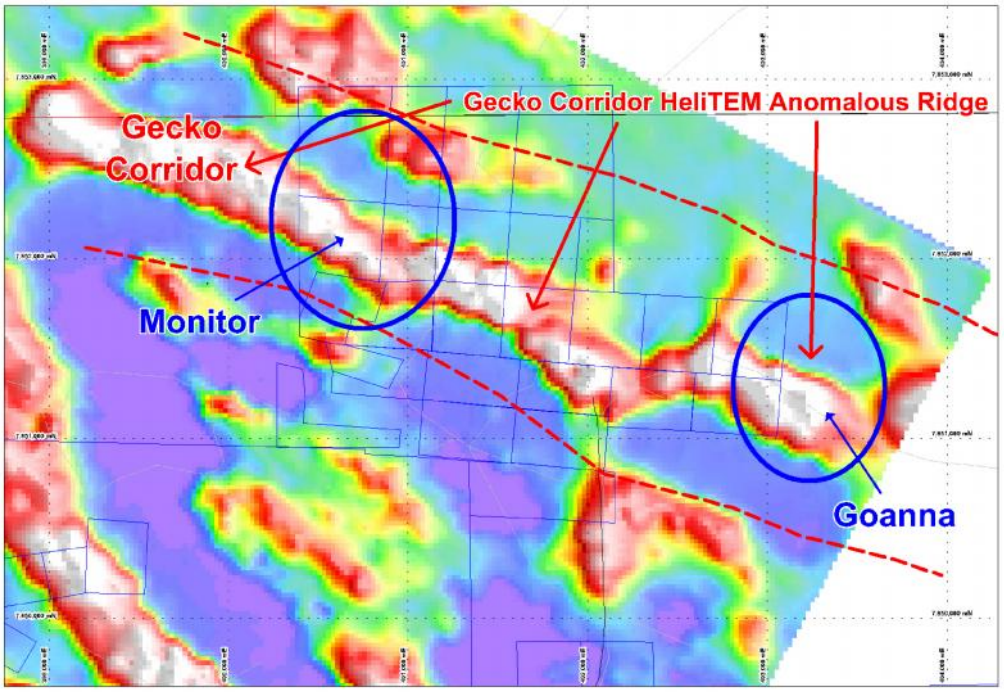


Figure 40: Gecko Corridor vs. HeliTEM (depth Slice at 350m below surface)

Hole No	MGA_East	MGA_North	RL	Dip	Azi (mag)	RC (m)	Samples
NAV7RC014	382040.05	7845093.00	326.97	-68	35.3	281	143289-389
NAV7RC015	382034.5	7845016.1	326.5	-55	37.5	311	143802-912
NAV7RC016	382045.5	7845099	326.5	-60	37.5	125	143913-53

Drilling conducted at Navigator 7 Prospect during July 2011.

Drilling did not proceed as planned with drill holes steepening rather than lifting as planned. Nav7RC014 was intended to test the first priority of three targets at Navigator 7. Extreme drill hole deviation from the plan resulted in it testing the deeper third priority target. The hole passed through the capping QFP from surface and passed into Warramunga metasediments at 91m. An abrupt transition into intense chlorite alteration at 172m corresponds with the predicted HW fault. The intense chlorite alteration zone continued down hole for 5m before intersecting massive Dolomite-Talc rock over the interval 177-215m. After passing through the Dol-Talc zone another zone of intense chlorite alteration was intersected 215-224m. The hole then continued to 281m in moderately chlorite altered Warramunga metasediments, with localised quartz-pyrite veins.

Nav7RC015 was redesigned to test the second priority of the three targets at Navigator 7. Drilling went largely as planned, although the hole lifted gently and deviated more with rotation than expected. The primary target zone was tested 15m above planned depth. The geology intersected is weathered, unaltered Warramunga siltstones and sandstone to

135m. Bedrock weakly altered Warramunga siltstones and sandstone were intersected to 195m, with localized thin shear zones with chlorite-magnetite (<2%) alteration. The predicted hanging wall shear chlorite-magnetite alteration zone was intersected over the interval 195-244m. Magnetite abundance is in the range 0.5-5% throughout the alteration zone. No sulphides were noted in the interval. At 244m the drill hole passed abruptly out of intense chlorite-magnetite alteration into Warramunga metasediments with localised chloritic alteration. The predicted FW shear, characterised by chlorite-magnetite alteration, was intersected in the interval 284-298m. Weakly chlorite altered Warramunga metasediments continued until end of hole at 311m.

Nav7RC016 was redesigned to test the first priority of the three targets at Navigator 7. Drilling went largely as planned, but the hole was parked at 125m due to demand for precollars at Gecko. The hole passed through the capping QFP from surface and passed into Warramunga metasediments at 77m. Weathered Warramunga metasediments continue to 125m.

The drilling extended to the FW shear zone to ensure effective testing for ironstone repetition or FW shear mineralisation and to test the Tier 2 Navigator 7 ironstone alteration system for high grade gold zones.

Results returned no significant intersections.

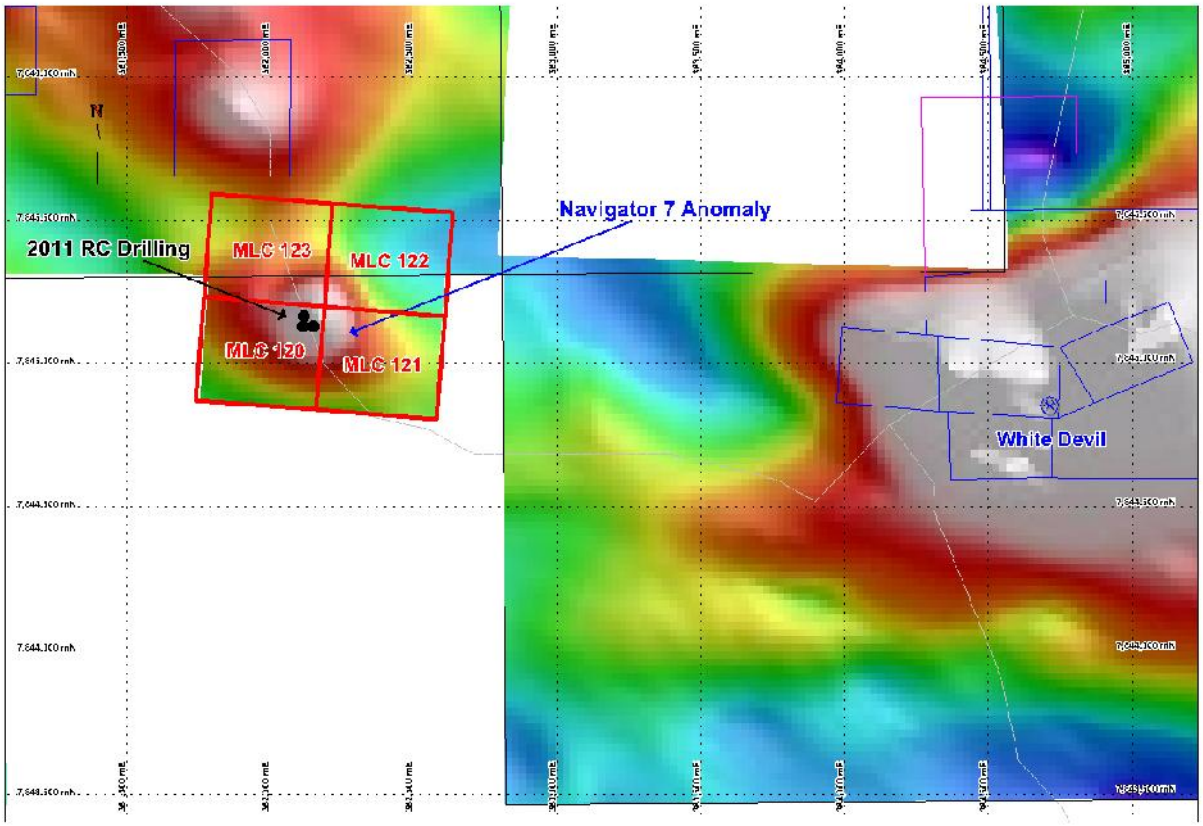


Figure 41: NAV& drilling vs. VRMI

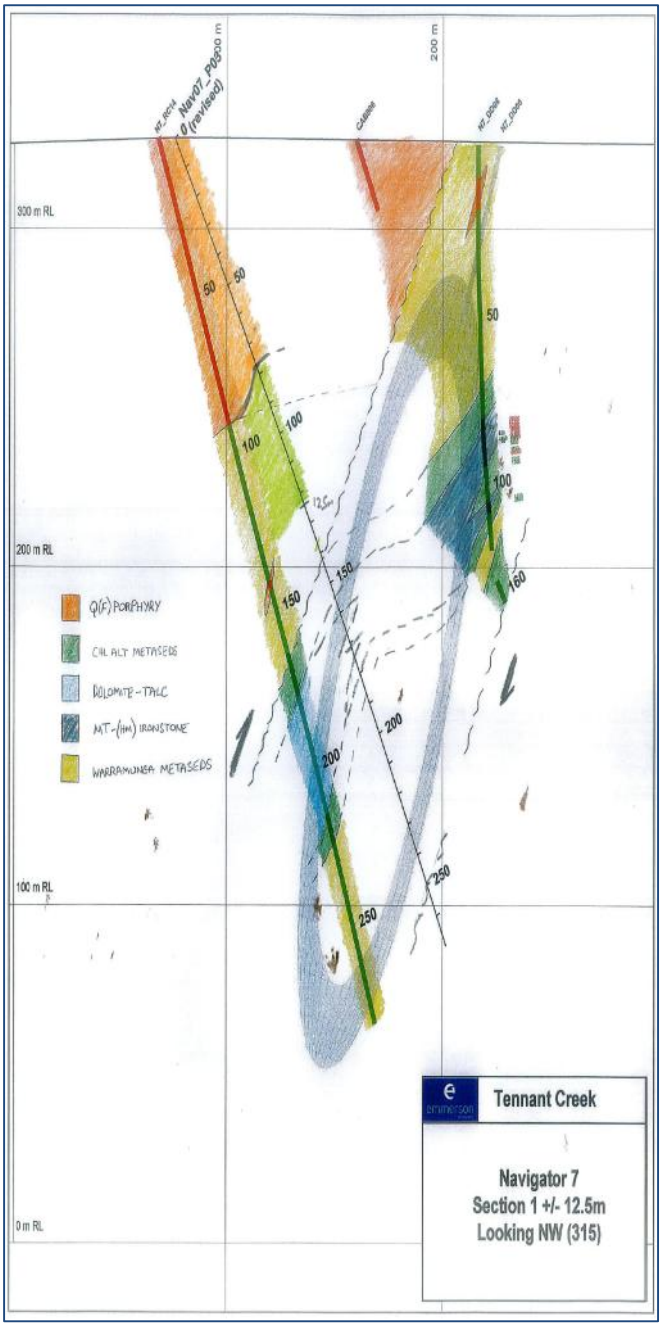


Figure 42: Nav7RC014 & 16 – intersected geology.

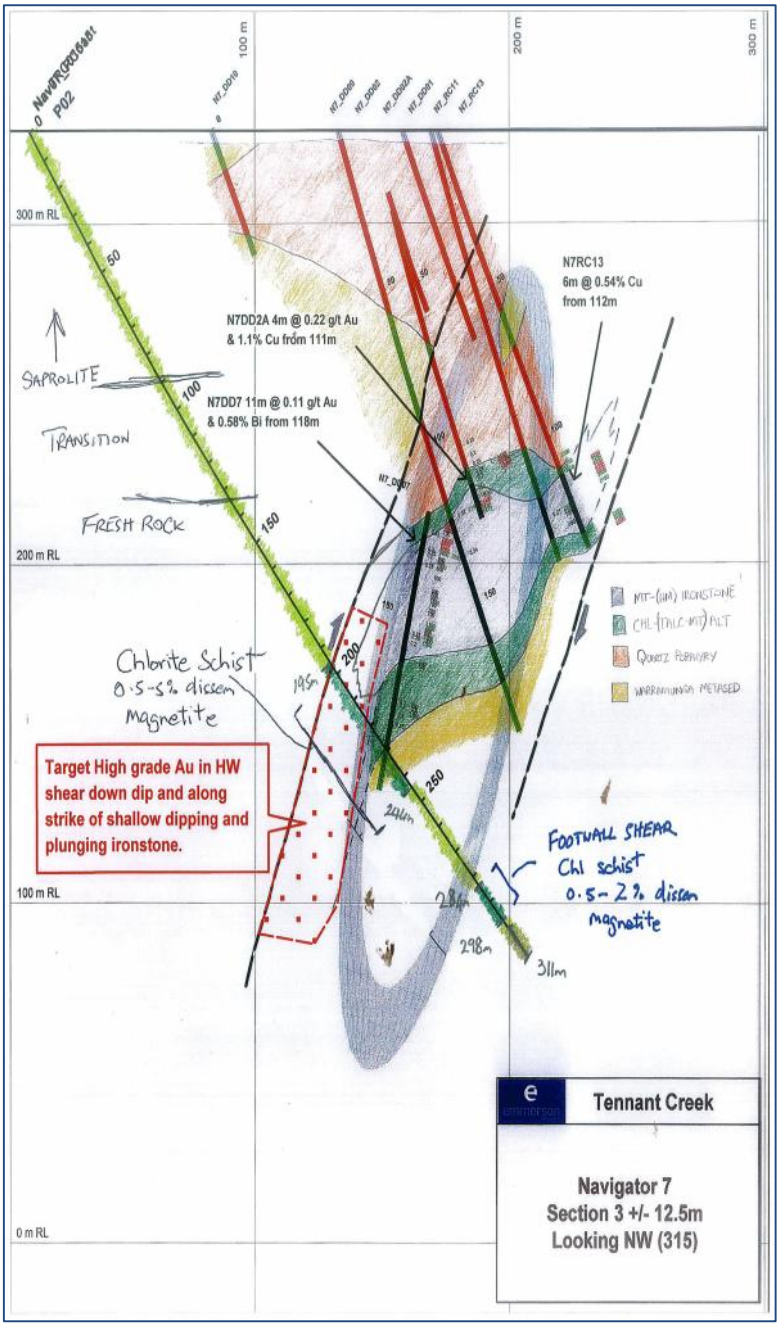


Figure 43: Nav7RC015 – intersected geology.

7.6 EL28774 COLOMBARD

Exploration conducted over EL 28774 includes all exploration conducted over EL's 10052 and 22868 up to their expiry on 26 September 2011.

Exploration on the title area was limited during the reporting period as Emmerson is currently focusing on exploration activities driven by the application of both VRMI and HeliTEM.

HeliTEM is described above in section 7.1 and VRMI was described in detail in the previous exploration section of this report. Figure 44 below displays the VRMI image overlain by EL 28602, this clearly demonstrates the presence of VRMI and subdued anomalism.

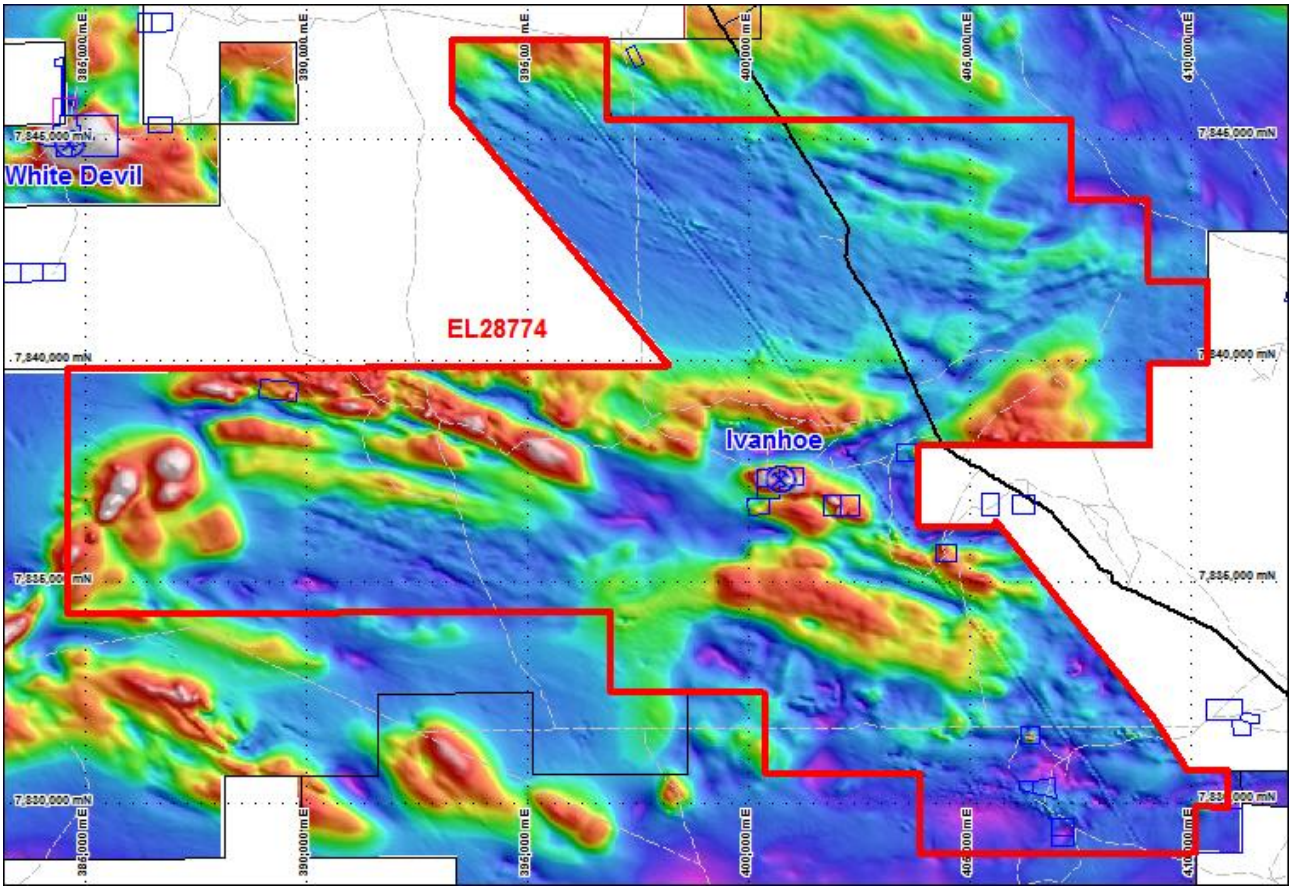


Figure 44: EL 28774 vs. VRMI

Anomalies within the tenure area ranges from anomalous as displayed in the figure above to subdued. The recent work at Goanna (Gecko Area) as produced economic intersections with the high possibility of an economic deposit from within a VRMI subdued area, as discussed in section 7.1 above.

HeliTEM was flown over the White Devil Area in the WPA, and was limited to EL 28603 and is described below.

The most significant factor in the application of HeliTEM has been the Goanna and Monitor discoveries (in the Gecko Area) as discussed in section 7.5, below and this has vast implications for exploration in the rest of the field and particularly the prospective tenure, including EL 28774.

8. REHABILITATION

Exploration within the WPA was limited to non invasive airborne geophysical surveys and an RC drilling program at the NAV7 prospect (3 RC holes and drill pads). Ground disturbing Reverse Circulation (RC) drilling was conducted as described above. There were also outstanding rehabilitation from 2010 drilling as described below;

- 19 Pads form RC drilling at Red Bluff (Cannonball, Coltrane, Duke, Navarro & Smokey)
- 12 Pads and any associated sumps related to Precollars and Diamond holes at Red Bluff (Ella, Armstrong, Cannonball, Coltrane & Smokey).

All rehabilitation has been completed as per the guidelines and commitments made under the Western Project Area (WPA) Mining Management Plan (MMP) Authorisation 0461-02, and Emmerson now considers all rehabilitation in the WPA to be complete.

Due to the extensive numbers of rehabilitated sites Emmerson has provided a photographic example of the rehabilitation completed in the below figures;

Example – Before Rehab

Example – After Rehab

9. CONCLUSIONS

9.1 EL27136 RESERVOIR

The success of the 'Proof of Concept' drilling for the application of HeliTEM data has provided paradigm shift for Emmerson's exploration of its Tennant Creek tenements. The mineralisation at Goanna and Monitor is a new style, which has never been explored for before in Tennant Creek, therefore this opens up prospectivity for the entire Emmerson tenure package, but more importantly EL27136, which also displays VRMI anomalism and subdued VRMI. Emmerson will be conducting a detailed evaluation, analysis and modelling of the HeliTEM data flown over EL28603 with the aim of generating targets for drill testing and application of lessons learnt at Gecko and then in EL 28603 to EL 27136.

9.2 MA27163 EAGLE

The success of the 'Proof of Concept' drilling for the application of HeliTEM data has provided paradigm shift for Emmerson's exploration of its Tennant Creek tenements. The mineralisation at Goanna and Monitor is a new style, which has never been explored for before in Tennant Creek, therefore this opens up prospectivity for the entire Emmerson tenure package, but more importantly MA27163, which also displays VRMI anomalism and subdued VRMI. Emmerson will be conducting a detailed evaluation, analysis and modelling of the HeliTEM data flown over EL28603 with the aim of generating targets for drill testing and application of lessons learnt at Gecko and then in EL 28603 to MA 27163.

9.3 EL27164 HAWK

The success of the 'Proof of Concept' drilling for the application of HeliTEM data has provided paradigm shift for Emmerson's exploration of its Tennant Creek tenements. The mineralisation at Goanna and Monitor is a new style, which has never been explored for before in Tennant Creek, therefore this opens up prospectivity for the entire Emmerson tenure package, but more importantly EL27164, which also displays VRMI anomalism and subdued VRMI. Emmerson will be conducting a detailed evaluation, analysis and modelling of the HeliTEM data flown over EL28603 with the aim of generating targets for drill testing and application of lessons learnt at Gecko and then in EL 28603 to EL 27164.

9.4 EL28602 RED BLUFF

The success of the 'Proof of Concept' drilling for the application of HeliTEM data has provided paradigm shift for Emmerson's exploration of its Tennant Creek tenements. The mineralisation at Goanna and Monitor is a new style, which has never been explored for before in Tennant Creek, therefore this opens up prospectivity for the entire Emmerson tenure package, but more importantly EL28602, which also displays VRMI anomalism and

subdued VRMI. Emmerson will be conducting a detailed evaluation, analysis and modelling of the HeliTEM data flown over EL28603 with the aim of generating targets for drill testing and application of lessons learnt at Gecko and then in EL 28603 to EL 28602.

9.5 EL28603 WHITE DEVIL

The success of the 'Proof of Concept' drilling for the application of HeliTEM data has provided paradigm shift for Emmerson's exploration of its Tennant Creek tenements. The mineralisation at Goanna and Monitor is a new style, which has never been explored for before in Tennant Creek, therefore this opens up prospectivity for the entire Emmerson tenure package, but more importantly EL28603, which also displays VRMI anomalism and subdued VRMI. Emmerson will be conducting a detailed evaluation, analysis and modelling of the HeliTEM data flown over EL28603 during 2012 with the aim of generating targets for drill testing and possible further geophysical surveys such as Induced Polarisation (IP).

9.6 EL28774 COLOMBARD

The success of the 'Proof of Concept' drilling for the application of HeliTEM data has provided paradigm shift for Emmerson's exploration of its Tennant Creek tenements. The mineralisation at Goanna and Monitor is a new style, which has never been explored for before in Tennant Creek, therefore this opens up prospectivity for the entire Emmerson tenure package, but more importantly EL28774, which also displays VRMI anomalism and subdued VRMI. Emmerson will be conducting a detailed evaluation, analysis and modelling of the HeliTEM data flown over EL28603 with the aim of generating targets for drill testing and application of lessons learnt at Gecko and then in EL 28603 to EL 28774.

EMMERSON RESOURCES LIMITED

HARD COPY REPORT META DATA FORM

REPORT NAME:	COMBINED ANNUAL REPORT FOR THE WESTERN PROJECT AREA 16 MAY 2011 – 15 MAY 2012
PROSPECT NAMES(s):	RED BLUFF, COLOMBARD, WHITE DEVIL, RESERVOIR, HAWK, EAGLE
GROUP PROSPECT NAME:	
TENEMENT NUMBERS(s):	EL 27136, A 27163, EL 27164, EL 28602, EL 28603 & EL 28774
ANNIVERSARY DATE:	15 MAY
OWNER/JV PARTNERS:	GIANTS REEF EXPLORATION PTY LTD, SANTEXCO PTY LTD, IVANHOE AUSTRALIA
AUTHOR(s):	A. WALTERS
COMMODITIES:	GOLD, COPPER, BISMUTH, BASE METALS
MAPS 1:250 000:	TENNANT CREEK SE53-14
MAPS 1:100 000:	FLYNN 5759, TENNANT CREEK 5758, KELLY 5658, SHORT RANGE 5659
MAPS 1:25 000	
TECTONIC UNIT(s):	TENNANT CREEK INLIER
STRATIGRAPHIC NAME(s)	WARRAMUNGA FORMATION, CAMBRIAN WISO BASIN
AMF GENERAL TERMS:	
AMF TARGET MINERALS:	GOLD, COPPER, LEAD, ZINC
AMF GEOPHYSICAL:	MAGNETIC INTERPRETATION, GRAVITY SURVEY
AMF GEOCHEMICAL:	
AMF DRILL SAMPLING:	

HISTORIC MINES:	WARREGO, WHITE DEVIL, BLACK ANGEL, CRUSADER, PREMIER, IVANHOE, JUBILEE, WOSELEY, MT OTTO, CURLEW, EXPLORER 80
DEPOSITS:	WARREGO, WHITE DEVIL, BLACK ANGEL, CRUSADER, PREMIER, IVANHOE, JUBILEE, WOSELEY, MT OTTO, CURLEW, EXPLORER 80
PROSPECTS:	WARREGO, WHITE DEVIL, BLACK ANGEL, CRUSADER, PREMIER, IVANHOE, JUBILEE, WOSELEY, MT OTTO, EXPLORER 6, EXPLORER 7, EXPLORER 44, CURLEW, EXPLORER 73, EXPLORER 62, EXPLORERE 2, EXPLORER 115, EXPLORER 54, GRIS, IVANHOE WEST, COLOMBARD, THREE SNAKES, ZINFANDEL, EXPLORER 105, MERLOT, EXPLORER 205, EXPLORER 80, EXPLORER 53, MARSANNE, NAVIGATOR 6, NAVIGATOR 3, NAVIGATOR 8, NAVIGATOR 1, NAVIGATOR 2, NAVIGATOR 4, NAVIGATOR 10
KEYWORDS:	GILBERT, HAMISH, CHAUMONT, MIKE, SMELTER, RED BLUFF, WINDGATE, BLACK ANGEL, MAGELLAN, NORTH JUBILEE, WHITE DEVIL, WALTERS, RESERVOIR, EAGLE, HAWK, COLOMBARD