



**CHALICE**  
GOLD MINES LIMITED

# CHALICE GOLD MINES LIMITED

## HIGHLIGHTS

### Quarterly Report to 30 September 2006

#### Eastern Goldfields

- Higginsville
- Chalice

- Over 12,600 metres of aircore drilling was completed at Yandearra, testing seven large geochemical targets. Anomalous results were reported from four prospects.
- Ongoing soil and stream sediment geochemical surveys are underway at Yandearra. Anomalous results were returned from an area south of Woomerina.
- Additional reverse circulation (RC) drilling was completed at Poseidon South. Carbonate quartz veining was intersected, however no significant gold results were recorded.
- Teck Cominco is actively testing targets at Gnaweeda. Further drilling is planned over the next 12 months.
- An initial phase of soil geochemical sampling was completed at Wilga.
- Project and investment assessment continued to identify acquisition and joint venture opportunities.

#### West Pilbara

- Yandearra

#### Murchison

- Gnaweeda

#### Laverton

- Wilga

#### CAPITAL STRUCTURE

##### Issued Capital:

Shares	72,800,000
Options	6,575,000

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## 1.0 HIGGINSVILLE

At the **Poseidon Footwall Prospect**, 6 RC drill holes were completed to test a significant intercept of 3m @ 4.60 g/t from 85m, reported last quarter from drill hole CDRC015. While drilling around this result intersected extensions to the zone of shearing and alteration that hosted the gold intercept, no significant intersections were reported.

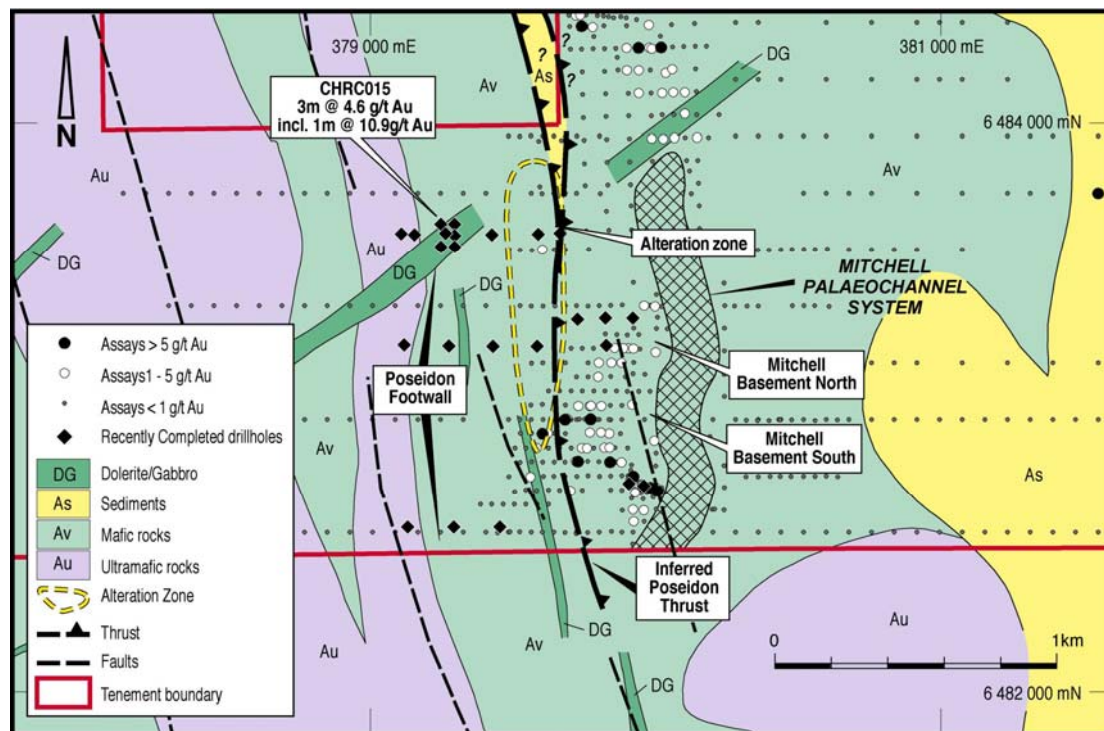


Figure 1: Poseidon Footwall and Mitchell Basement targets, showing recently completed RC drilling and newly defined alteration zone.

Sub-audio magnetics (SAM) geophysical surveys were conducted over the Poseidon Footwall Prospect and over the Nawock Prospect and broader Lake Cowan area (Figure 2). Preliminary interpretation of the latter survey has identified a number of discrete trends. When this information is combined with previous drill identified gold anomalism, a number of targets for follow up drilling are identified.

The Nawock Prospect and greater Lake Cowan area (Figure 2) is an area of focus for further exploration. Previous exploration in the area is limited and comprises broad spaced east-west traverses over the interpreted southern extension of the Zuleika Shear Zone (Poseidon Thrust) and Mission Fault (a splay off the Zuleika Shear that runs down through the Norseman gold camp), with some detailed drilling around Nawock.

The majority of drilling by previous explorers in the southern area failed to penetrate through the Tertiary cover sequence and has not provided a definitive test of the interpreted structures. Regional drill traverses, targeting geophysical and geological anomalies will be required to further test this region. This could be expedited by undertaking additional SAM surveys in order to quickly and effectively define target areas.

The program of AC drilling completed on the southern shores of Lake Cowan on the Polar Bear Peninsula (shown in Figure 2), recorded supergene gold anomalism, warranting further work. A number of these drill holes also recorded significant bedrock alteration, further enhancing the prospectivity of the target.

A program of regional target generation is underway and targets will be prioritised for appropriate follow-up testing.

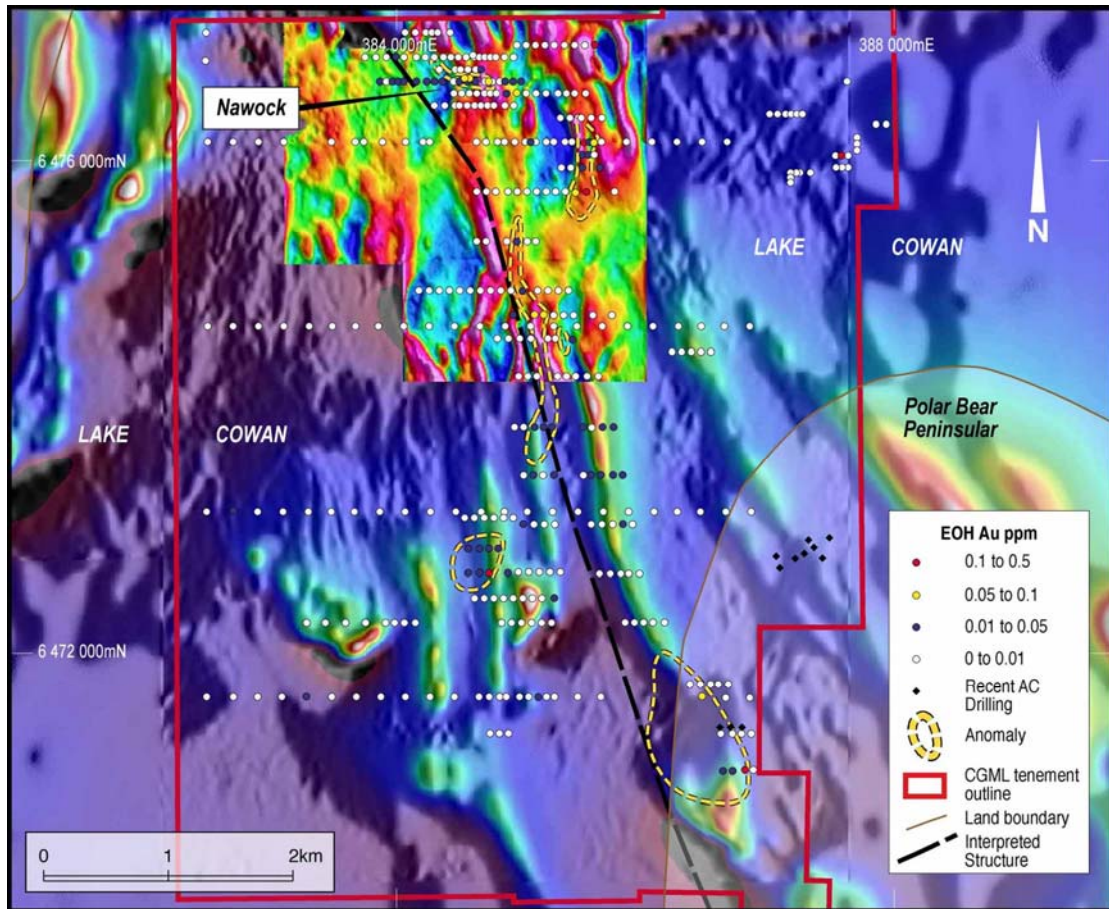


Figure 2 : Lake Cowan area showing image of MMR superimposed on aeromagnetics and end of hole gold anomalism.

## 2.0 YANDEEARRA

During the quarter, a 12,601m aircore program, testing for Indee-style gold deposits in Mallina Formation turbiditic sediments, was completed. Six geochemical anomalies (Holly, Fir, Aspen, Connolly, Magda and Hogan) along the Central Shear Zone and a seventh target at Woomerina were tested (Figure 3).

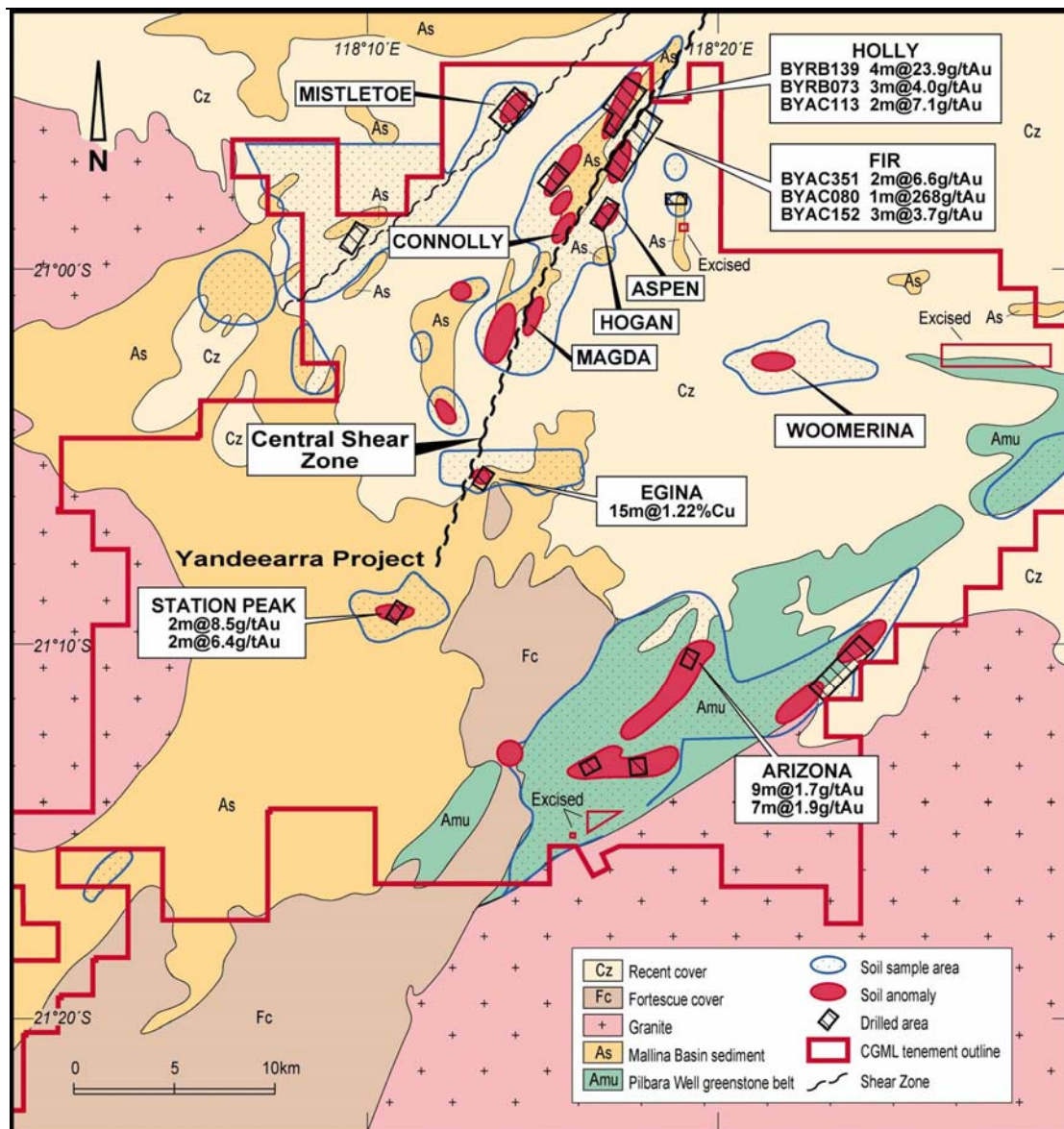


Figure 3 : Yandeearra Project - surface geochemical anomalies and historical drill results

The Central Shear Zone is interpreted as a significant splay off the east – west trending Mallina Shear Zone, host to Range River's 529,000oz\* Indee Gold Project, located immediately to the north of the Yandeearra Project area.

At the Holly (where previously identified anomalism has reported results including 4m @ 23.9g/t Au in BYRB139, and 2m @ 7.1g/t Au in BYAC113) and Aspen Prospects, step out drilling was undertaken in order to extend identified targets. Results received to date (Table 1, with resamples listed in Table 2 where available) from the Central Shear Zone have extended the strike of the known mineralised corridor to over 4km.

At the Connolly Prospect a coherent 1.6km x 300m gold and arsenic soil anomaly was tested by 4 traverses of drilling. The extensive anomaly is located in shallow wind blown sand, and is interpreted to be sourced from blind gold mineralisation in the basement. Results from the Connolly Prospect have defined a north-northeast trending zone of gold mineralisation 150m x 1km as defined by +300ppb Au contour (Tables 1 and 2 below). This zone of anomalism is hosted within a weakly quartz veined and limonite-altered siltstone. Detailed geological mapping of the prospect will be completed to identify mineralisation controls and to aid in the assessment of these results.

At Woomerina, drilling tested a 1 km x 500m gold and arsenic vacuum sample anomaly, again partly buried under shallow cover. The anomaly is situated over an

east-west orientated structure, parallel to the Mallina Shear Zone to the north. Preliminary interpretation indicates better anomalism associated with an east-west trending outcropping quartz-tourmaline vein which traverses part of the area.

Prospect	Hole_Id	North	East	Width	Interval	Grade (ppm Au)	Comments
ASPEN	CYAC055	7682096	633689	4m	52-56m	1.59	4m comp
ASPEN STH	CYAC059	7681596	633614	4m	16-20m	0.27	4m comp
CONNOLLY	CYAC105	7678796	631072	4m	32-36m	0.4	4m comp
CONNOLLY	CYAC119	7678398	630945	4m	32-36m	0.31	4m comp
CONNOLLY	CYAC120	7678397	630917	4m	12-16m	0.31	4m comp
CONNOLLY	CYAC132	7678003	630898	4m	32-36m	0.59	4m comp
CONNOLLY	CYAC133	7678003	630870	8m	44-52m	0.86	4m comp
CONNOLLY	CYAC134	7677998	630841	4m	0-4m	0.88	4m comp
CONNOLLY	CYAC135	7677999	630821	2m	52-54m	2.29	2m comp
CONNOLLY	CYAC138	7678003	630735	4m	4-8m	0.44	4m comp
WOOMERINA	CYAC180	7672023	641206	5m	49-54m	0.27	4m comp
WOOMERINA	CYAC181	7672053	641202	2m	21-23m	0.34	4m comp
WOOMERINA	CYAC181	7672053	641202	1m	28-29m	0.24	1m
WOOMERINA	CYAC181	7672053	641202	1m	30-31m	0.26	1m
WOOMERINA	CYAC197	7672027	641605	8m	4-12m	0.49	4m comp
WOOMERINA	CYAC198	7672050	641601	4m	4-8m	0.37	4m comp
WOOMERINA	CYAC202	7672163	641597	4m	8-12m	0.36	4m comp

Table 1. Yandeearra Project. Anomalous assay results in composite samples. Based on 0.25 g/t Au lower cut off for composite samples, analysis by low level aqua regia digest and AAS finish.

Prospect	Hole_Id	North	East	Width	Interval	Grade (ppm Au)	Comments
HOLLY	CYAC007	7683405	633303	5m	68-73m	0.66	
			<i>Incl</i>	<i>1m</i>	<i>70-71m</i>	<i>1.15</i>	
HOLLY	CYAC018	7683496	633413	1m	10-11m	1.75	
HOLLY	CYAC019	7683497	633393	2m	11-13m	1.82	
HOLLY	CYAC024	7683496	633234	1m	26-27m	2.1	
HOLLY	CYAC035	7683303	633298	7m	40-47m	0.73	EOH
			<i>Incl</i>	<i>3m</i>	<i>41-44m</i>	<i>1.32</i>	
HOLLY	CYAC007	7683405	633303	5m	68-73m	0.66	
			<i>Incl</i>	<i>1m</i>	<i>70-71m</i>	<i>1.15</i>	
HOLLY	CYAC018	7683496	633413	1m	10-11m	1.75	
HOLLY	CYAC019	7683497	633393	2m	11-13m	1.82	
CONNOLLY	CYAC102	7678795	631166	1m	31-32m	0.69	
CONNOLLY	CYAC105	7678796	631072	1m	32-33m	1.43	
CONNOLLY	CYAC120	7678397	630917	1m	15-16m	0.84	
CONNOLLY	CYAC128	7678396	630671	1m	52-53m	0.51	
CONNOLLY	CYAC132	7678003	630898	3m	33-36m	1.08	
CONNOLLY	CYAC133	7678003	630870	3m	47-50m	2.11	
CONNOLLY	CYAC134	7677998	630841	1m	2-3m	1.43	
CONNOLLY	CYAC135	7677999	630821	2m	52-54m	3.15	
CONNOLLY	CYAC137	7678005	630760	1m	49-50m	0.72	
CONNOLLY	CYAC138	7678003	630735	1m	5-6m	0.63	
CONNOLLY	CYAC144	7678003	630576	1m	13-14m	0.5	

Table 2. Yandeearra Project. Anomalous assay results, 1m resamples of anomalous composite samples. Based on 0.50 g/t Au lower cut off, 1m internal waste, analysis by Fire Assay, 50g aliquot.

Detailed geological and regolith mapping of these prospects will be completed shortly. Results of this work, as well as recently completed Portable Infrared Mineral Analyser (PIMA) results will aid in assessment of drill assay results and the interpretation of mineralisation and alteration systems identified to date. Future targeting in the region will follow.

Ongoing programs of partial leach soil geochemistry and stream sediment sampling are being undertaken to screen other areas within the corridor defined by the Central Shear Zone and adjacent areas to the east which are covered by variable amounts of cover. Preliminary assay results from an area south of Woomerina, have identified gold and arsenic geochemical anomalism in an area of cover. Infill geochemical programs are underway to ascertain the importance of these results.

### 3.0 CHALICE

Last Quarter Chalice re-acquired original induced polarisation (IP) survey data that Resolute Limited ('Resolute') completed immediately north and south of the Chalice Gold Mine open pit in December 1997. The data suggests the alteration halo around the Chalice gold mineralisation is visible in the IP data, and is characterised by both resistive and chargeable alteration and mineralisation (Figure 4). Also, three other mapped mineralised systems in the footwall to the main Chalice mineralisation are visible as shallow and weak resistive and chargeable mineralisation. This suggests that the IP method could be used elsewhere along strike (wherever a similar regolith is developed) to target Chalice-style mineralisation at reasonable depths.

A 3D IP survey is scheduled for late November to delineate further targets in the near mine environs, up to 2km south of the Chalice Mine. The area has been drilled reasonably extensively in the near surface (but generally to depths less than 100m), principally following up on any geochemical anomalism. The survey is designed to locate gold mineralisation associated with disseminated sulphides within the mine sequence likely at moderate depths (below 100m from surface). Identified targets will be prioritised and scheduled for further appropriate testing by RC/DD drilling.

In addition to future IP work, several chargeable and resistive targets have been identified in the existing data near the Chalice Gold Mine (Figure 4), and warrant further work.

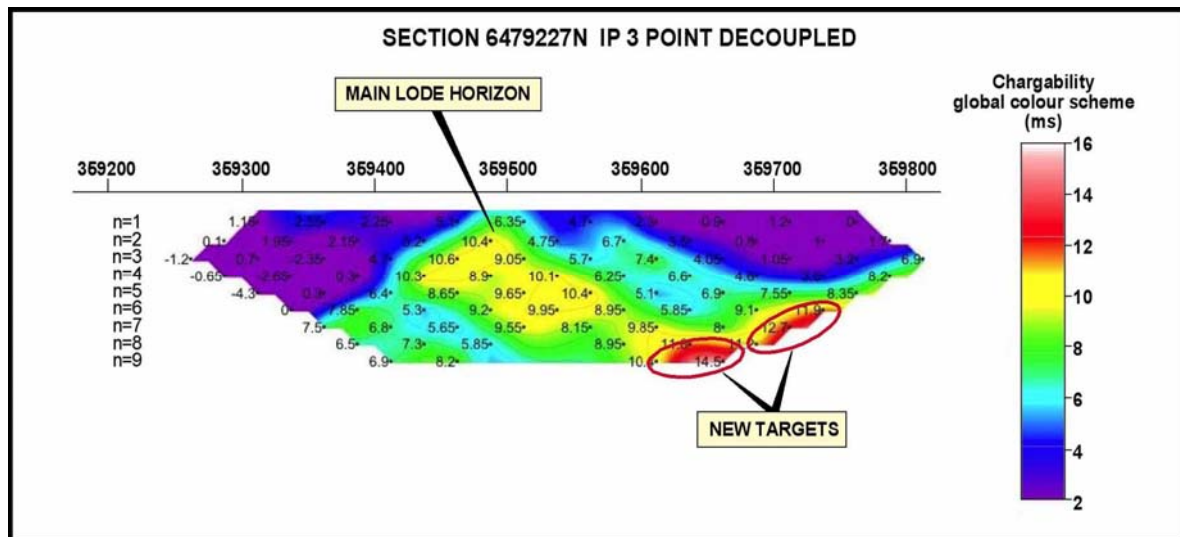


Figure 4: IP Section 6479227N

An orientation program of partial leach soil geochemical sampling was undertaken in the immediate mine environs. Previous geochemical work completed by previous explorers consisted predominantly of -6mm lag sampling and has potentially been mostly ineffectual. This program may provide additional targets for drill testing.

### 4.0 GNAWEEDA

Teck Cominco Australia Ltd ("Teck Cominco"), as project managers, report the completion of a total of 70 RAB/aircore holes for a total of 4,831m during the quarter

on tenements in the northern part of the Gnaweeda project area (E51/926, E51/927). Figure 5 shows the locations of the drill holes, which were generally drilled to infill previous holes at line spacings of 200-250m and hole spacings of 100-150m. In addition to the drilling, a programme comprising 130 soil geochemical samples was completed over the southern part of E51/927.

Infill RAB/aircore drilling was designed to follow up previously defined targets within the north-south trending Fairway Magnetic Package (FMP), a 2-4km wide belt of mafic intrusive and felsic intrusive/volcanic rocks. Previous broader spaced drilling defined localised gold associated with broader arsenic anomalism in this package. Results received to date support the general arsenic trend, and reveal a spot high of 4m @ 2.91g/t gold within a downhole interval of 45m of anomalous arsenic values (300-1200ppm arsenic) in hole GNAC082. Further work is needed to test the extent of mineralisation and the lithological/structural framework.

Three holes were also completed within the eastern sub-domain testing an arcuate ultramafic body, visible as a strong magnetic feature in the TMI image. A coarse grained mafic to ultramafic rock defined by relict olivine cumulate textures and relatively shallow weathering (10-30m) was intersected. Results received were very encouraging with elevated Ni and Co in all three holes. A best result of 13m @ 0.33% nickel and 368ppm cobalt was returned from 15m to end of hole in GNAC052. Additional geochemistry will be undertaken to further evaluate the potential of this body.

Geochemical sampling was completed over the interpreted southern extension of the FMP and eastern sub-domain in an area marked by subcrop and shallow cover. Previous exploration in the general area is marked by restricted RC drilling at the Central Bunarra Prospect and diamond drilling testing gossans of the Bunarra Bore area. Results for these samples are pending.

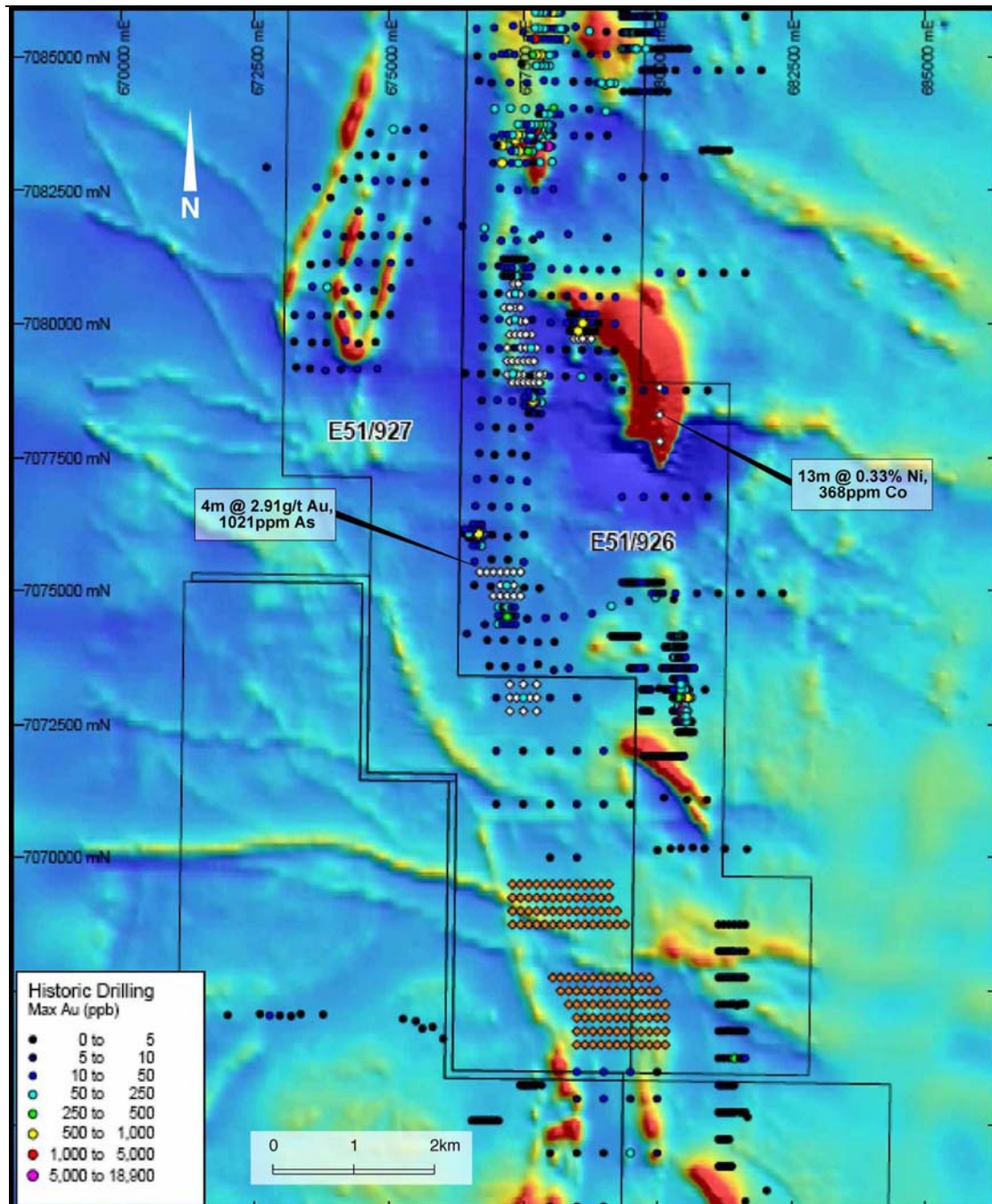


Figure 5 : Gnaweeda Project – Aeromagnetics showing recent drilling (white) and geochemistry (orange) and anomalous results.

#### 4.0 WILGA

Compilation of open file historical exploration data and purchase of digital geophysical data over the tenement area and immediate surrounds was completed. A program of soil geochemical sampling was commenced over areas of residual regolith in the central portions of the tenement. The results of this program were not available as at date of this report.

Further soil geochemical sampling and mapping is proposed.





ANDREW BANTOCK  
Executive Chairman

The information in this report that relates to Exploration Results is based on information compiled by Mr Geoffrey Allen, a full-time employee of Chalice Gold Mines Limited, who is a Member of the Australian Institute of Mining and Metallurgy. The information in this report that relates to Mineral Resources is based on information compiled by Mr John McIntyre, a full-time employee of Chalice Gold Mines Limited, who is a Member of the Australian Institute of Geoscientists. Mr Allen and Mr McIntyre have sufficient experience in the field of activity being reported to qualify as a Competent Person as defined in the 2004 edition of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves, and consents to the release of information in the form and context in which it appears here.

\*The resources attributed to Range River Gold Limited's ("Range") Indee Gold Project is compiled from Ranges' published ASX releases.