



**CHALICE**  
GOLD MINES LIMITED

# CHALICE GOLD MINES LIMITED

## HIGHLIGHTS

### Quarterly Report to 30 June 2006

#### Eastern Goldfields

- Higginsville
- Chalice

- Drilling on three fronts
- Over 10,000 metres of drilling completed at Higginsville and Chalice in the Eastern Goldfields (5,500 metres RC/diamond, 5000 metres RAB/aircore)
- 10,000 metres aircore drilling program commenced at Yandearra last week, testing seven large geochemical anomalies
- Drilling and geophysical work on the Poseidon Thrust at Higginsville has identified prospective zones for follow-up drilling

#### West Pilbara

- Yandearra

- Significant intercepts at Chalice Deeps indicate continuity of system at Deeps 2 and Deeps 4. However, scoping study indicates the existing resource is sub-economic. Consequently, the lower cut used in reporting the resource has been increased, and the mineral resource inventory has been reduced to 77,600 oz at 5.28 g/t Au

#### Murchison

- Gnaweeda

#### Laverton

- Wilga

- Teck Cominco actively testing targets at Gnaweeda. Further drilling planned over next 12 months
- \$5.4 million cash at bank at 30 June 2006

#### CAPITAL STRUCTURE

##### Issued Capital:

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

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## 1.0 HIGGINSVILLE

Eighteen drill holes for 3,206m of RC drilling have been completed at Higginsville, testing the Poseidon Footwall, Mitchell Basement North and Mitchell Basement South targets (Figure 1).

At the **Poseidon Footwall** Prospect, containing the southern extensions of the controlling structure and host stratigraphy to Avoca's Trident gold project (5km to the north along strike), a program of 14 RC holes for 2,480m was completed.

Three east-west orientated traverses of deep RC holes were undertaken to provide geological coverage across the interpreted footwall position of the Poseidon Thrust in the central portion of the tenement area. Although no significant gold values were returned, drilling intersected gabbroic lithologies, which are known to host the mineralisation at Trident, as well as a zone of veining and moderate alteration adjacent to the interpreted footwall position of the Poseidon Thrust.

The logged alteration and veining is consistent with a strong multi-element geochemical anomaly developed in resampling of historical drill hole spoil (Figure 1).

The intersection of the inferred trace of the Poseidon Thrust, and associated alteration zones, or spays off this structure, with the gabbroic rocks logged in the RC drilling is a key conceptual target for Trident-style mineralisation. Further work is warranted on this target.

Significant results from the **Mitchell Basement North** and **Mitchell Basement South** targets included 3m @ 6.18 g/t from 41 metres in hole CHRC003 and hosted in Tertiary palaeochannel material (Figure 1).

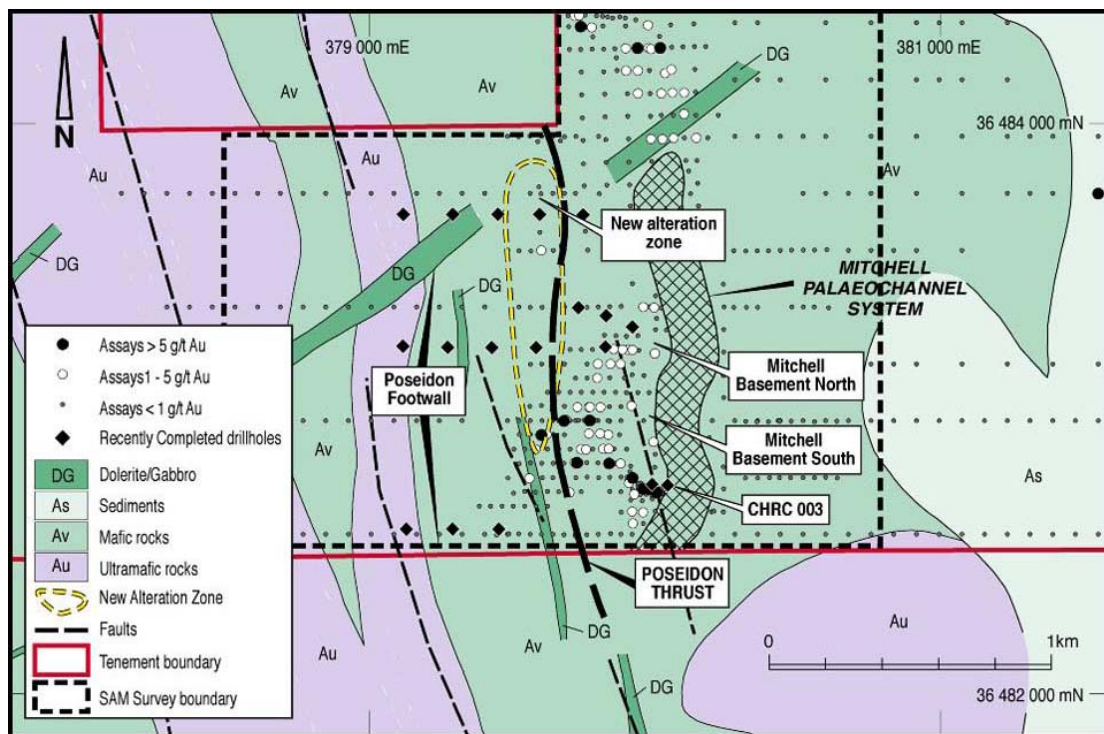


Figure 1: Poseidon Footwall and Mitchell Basement targets, showing recently completed RC drilling and newly defined alteration zone.

A program of AC drilling (12 holes for 1,035m) was completed on the southern shores of **Lake Cowan** after the end of the quarter. The area is interpreted to cover the southern extension of the Poseidon Thrust and north-south trending Mission Fault. Drilling intersected carbonatised, silicified dolerite cut by quartz-fuchsite veins carrying arsenopyrite and minor pyrite. Significant arsenic anomalism was reported in assays, although no significant gold values were reported.

Additional work is planned for the Lake Cowan area, including a Sub-Audio Magnetics (SAM) geophysical survey around the Nawock prospect, where previous work by Resolute Limited reported results including 5 metres at 11.35 g/t Au from 30 metres in LCA0182, 3 metres at 1.65 g/t Au from 29 metres in LCC002 and 4 metres at 33 g/t Au from 103 metres in LCC006.

The intercepts occur mostly on a single east-west drill section, which may suggest that the drilling is at a low angle to the strike of the mineralised structures. The SAM survey may assist in better defining the mineralized structures and targeting drilling in the areas of known mineralisation.

## 2.0 YANDEEARRA

A 10,000m AC program, testing for Indee-style gold deposits in Mallina Formation turbiditic sediments, commenced in mid July. Seven geochemical anomalies along the Central Shear Zone or at Woomerina will be tested (Figure 2).

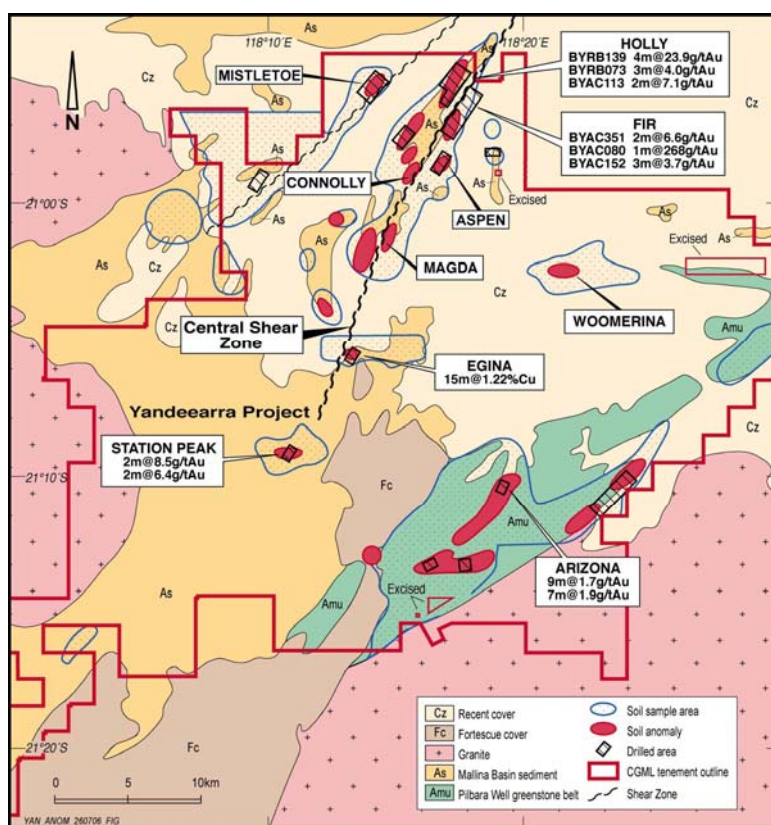


Figure 2 : Yandeearra Project - surface geochemical anomalies and historical drill results

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 Project, located immediately to the north of the Yandeearra Project area.

At the Connolly Prospect, within the Central Shear Zone, a coherent 1.6km x 300m gold and arsenic in soil anomaly has been outlined. The extensive anomaly is located in shallow wind blown sand, and is interpreted to be sourced from blind gold mineralisation in the basement. Two similar anomalies will be tested at Magda and Hogan.

At Woomerina, drilling will test 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.

The drilling program will also extend previously identified anomalism identified at Holly (where previous drilling has reported results including 4m @ 24g/t Au in BYRB139, and 2m @ 7.1g/t Au in BYAC113) and Aspen Prospects (Figure 2) in order to better define targets for potential RC drill testing.

Programs of partial leach soil geochemistry are being planned to test other areas within the corridor defined by the Central Shear Zone and adjacent areas.

### 3.0 CHALICE

#### 3.1 Exploration

At the **Chalice Gold Mine**, four diamond drill holes were completed during the quarter, testing several targets along strike and down plunge of the historical mineralisation. Significant results are listed in Table 1.

Results for hole BCRD003 (testing the upper part of **Deeps 2**) indicate there is good continuity of gold mineralisation in the MUM Lode positions, including several stacked lode positions (drawn in long section in Figure 3 and in cross section in Figure 4). The reported intercepts correlate with historical high grade intersections (eg, BCRD002, 4.0m @ 5.73g/t Au, and WMD0131, 2m @ 12.32 g/t Au). These results suggest there is potential to locate further high grade mineralisation in MUM Lode positions between the base of the historical workings and the top of the Deeps 3 resource.

Results from CHRD005 (2m @ 10.58g/t Au, Figure 5) confirm that the Chalice mineralised system extends at depth below the granite sill where previously it was believed to have terminated. However, drill hole CHRD006, testing the northern edge of the **Deeps 4** system, suggests the system, while open down plunge, is closed off to the north along strike, with no significant result recorded in the Main or MUM lode positions. An intercept of 4.8m @ 3.54 g/t Au was recorded from the Footwall lode in this hole, again suggesting a stacking of lode systems in the Chalice mine area.

Hole No.	Depth From	Depth To	Interval	Grade g/t Au	Comment
BCRD003	344	349	5	2.01	Main Lode
And	354	355.9	1.9	1.33	Main Lode
And	362	363	1	14.1	Main Lode
BCRD003	369.6	376	6.4	2.86	MUM Lode
incl.	369.6	373	3.4	4.27	MUM Lode
And	383	386	3	6.39	MUM Lode
And	476.5	479.53	3	1.14	Footwall Lode
CHRD005	565	567	2	10.58	Main Lode
incl.	566	567	1	18.42	Main Lode
CHRD006	682.2	687	4.8	3.54	Footwall Lode
CHRD008	311	312	1	2.97	MinSys 4- F'wall
And	314	315	1	2.07	MinSys 4- F'wall

Based on 1 g/t Au lower cut off, minimum 1m internal waste. Results based on 50g Fire Assay/AAS analysis of orientated, ½ NQ2 core.  
Reported intervals are downhole widths. True widths are estimated to be approximately 80% of the downhole interval.

Table 1 : Significant intersections, Chalice Mine

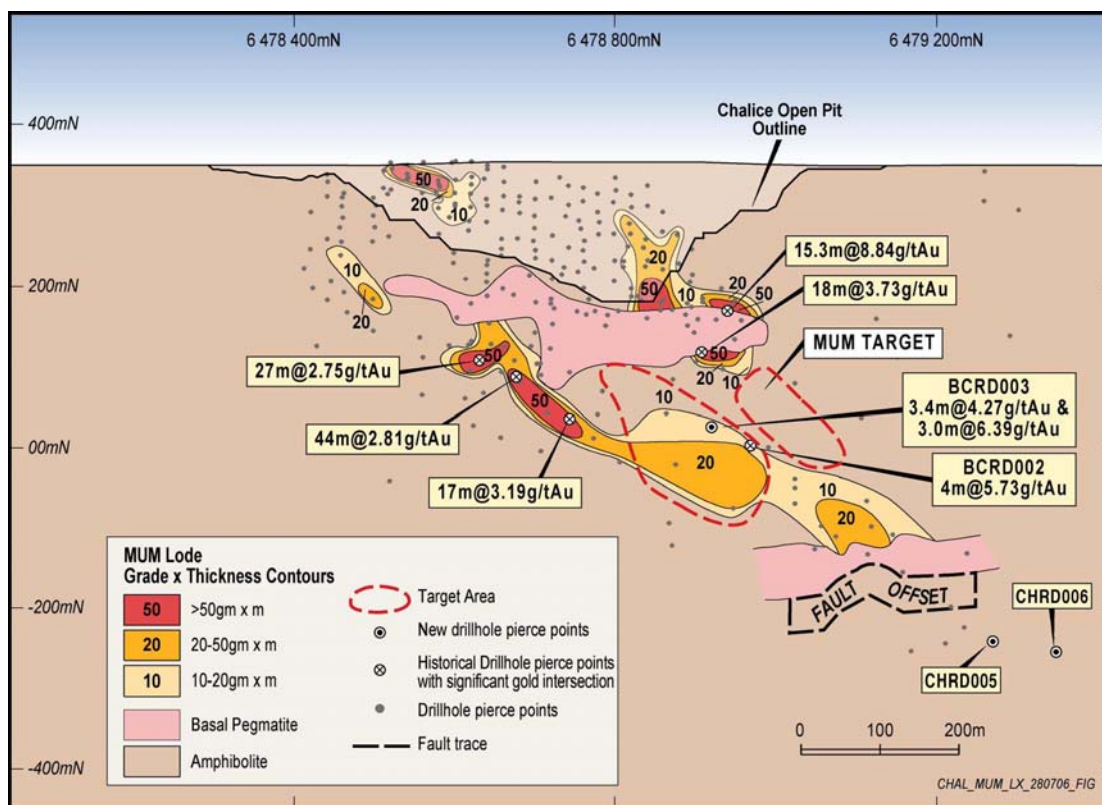


Figure 3 : Chalice Project. Longitudinal section of the MUM lode, showing intersections of BCRD003 and CHRD006



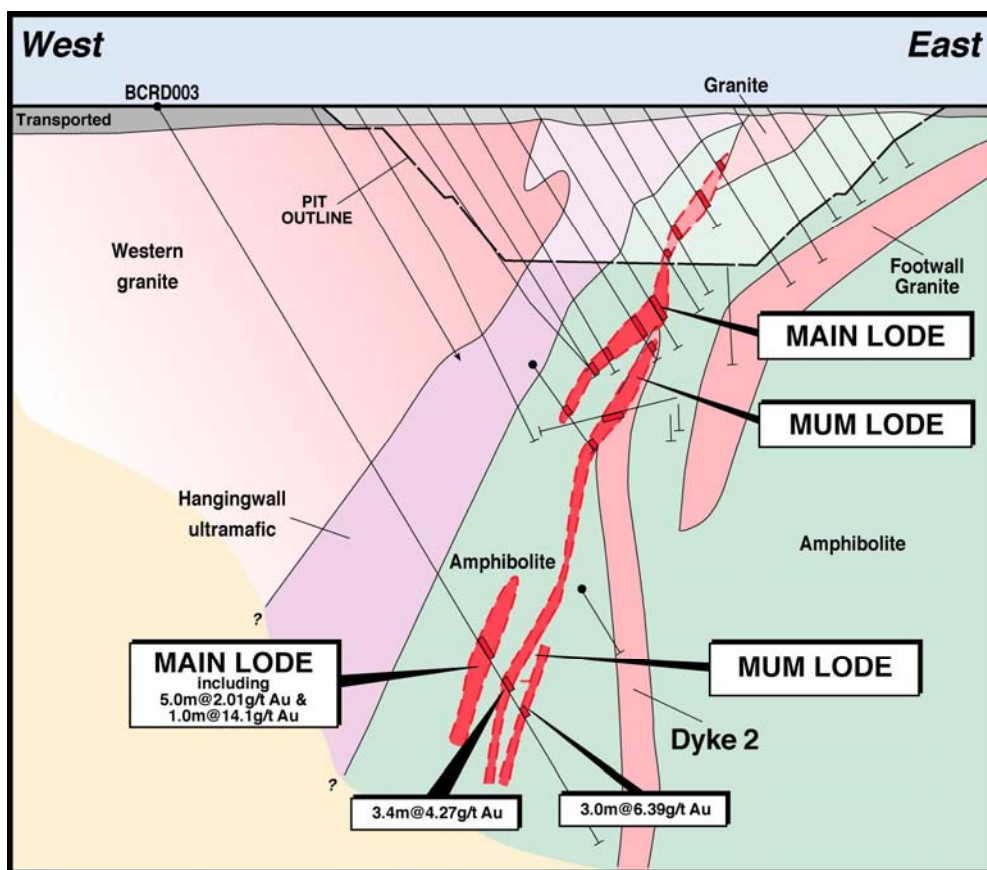


Figure 4 : Chalice Project. Cross section 6478940mN

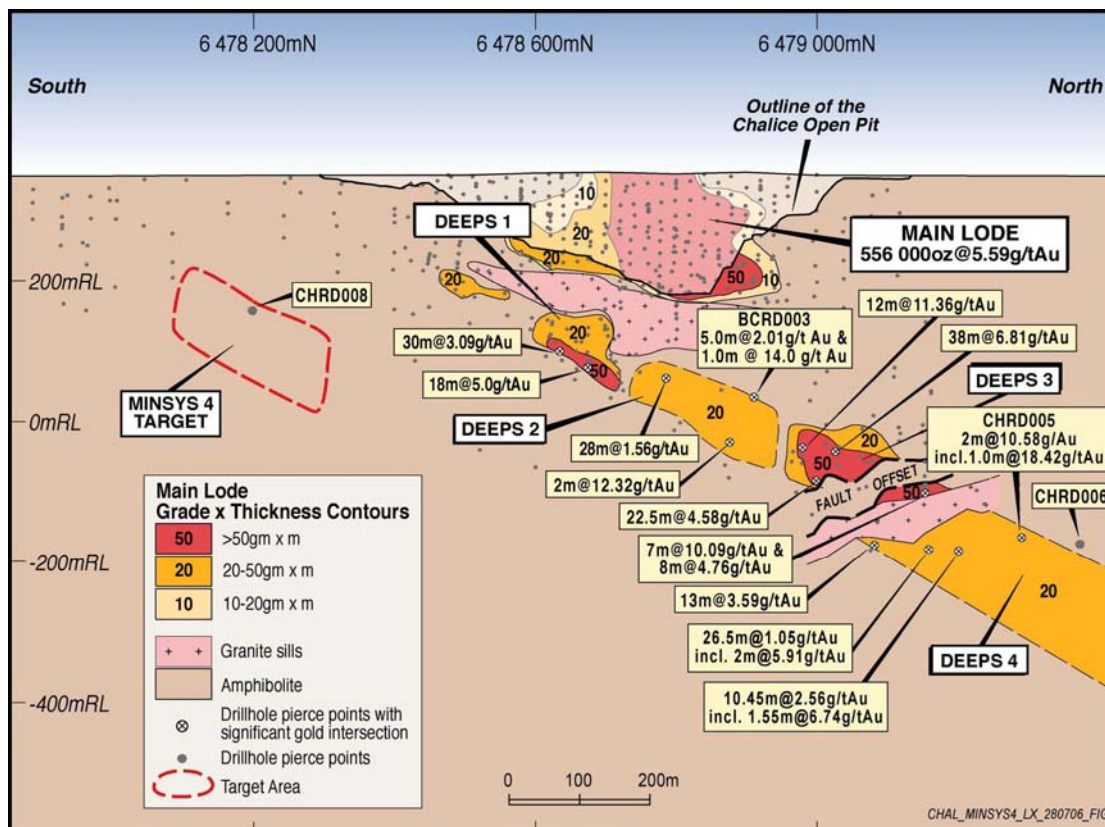


Figure 5 : Chalice Project. Longitudinal section of the Main lode, showing intersection of CHRD005 and CHRD006

A single diamond drill hole (CHRD008) was completed at **MinSys 4** (Figure 5), which is located immediately south of the historical open pit where the regionally NNW trending greenstone sequence swings into a northerly trend. It is also noted that the amphibolite package appears thickened compared to material along strike, and broad zones of alteration and gold anomalism are developed in shallow drilling. The pattern is consistent with the empirical controls on the Chalice open pit, and the system is interpreted to represent the up plunge expression of a new Chalice system developed at moderate depths.

A broad zone of anomalism ( $>0.2$  g/t Au) and alteration was recorded through the mine sequence in the inferred position of the Main Lode horizon. A second zone of anomalism, including 18m @ 0.54 g/t Au from 308m (in a  $>0.2$  g/t Au envelope) was reported in a footwall position, just above the Footwall Ultramafic. This interval included several narrow significant intercepts, reported in Table 1.

The drillhole suggests that alteration and mineralisation in both the Main and possible footwall lode positions are developed along strike of Chalice in the main mine corridor and will be further tested in the forthcoming quarter.

Chalice has re-acquired Induced Polarisation (IP) survey data that Resolute Limited completed immediately north and south of the Chalice gold mine open pit in December 1997. The survey documentation was not preserved, and Chalice has had to reacquire the data from the original contractors, reprocess it, and interpret the data.

Preliminary observations suggest 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. Also, three other mapped mineralised systems are visible as shallow and weak resistive and chargeable mineralisation. This suggests the method could be used elsewhere along strike (wherever a similar regolith is developed) to target Chalice-style mineralisation. In addition, several chargeable and resistive targets have been identified near the Chalice Mine, and warrant drill testing.

### 3.2 Scoping Study and Resources

AMC Consultants (AMC) were engaged to review and update AMC's 1998 underground Pre-Feasibility Study ("PFS") on the Chalice Deeps, conducted for Resolute Limited. The current study was based on the original PFS mine design and schedule, but updated with likely 2006 costs and current gold prices. In particular, the updated study considered the extra costs involved with the requirement to transport to, and toll treat at, a third party mill.

The results of the review indicate that, notwithstanding the current high gold prices, the requirement to toll treat and utilising current mining costs makes mining of the existing resources (both in the Deeps and remanent material around the base of the historical open pit and underground workings), uneconomic. To make the system economic further resources are required to be discovered, at a cut off grade greater than 3.0g/t Au.

Based on this cut off grade requirement, the resource at Chalice has been recalculated with a 3g/t Au lower cut, and is restated as 457,000t @ 5.28g/t Au for 77,623oz (as outlined in Table 2). These resources are located in the Deeps 1 and 3 bodies. In addition, the remanent material around the historical pit (originally quoted as 39,200 ounces of measured and indicated material) has been removed from the resource inventory.

Category	Tonnes	Grade g/t Gold	Ounces
Inferred	457,000	5.28	77,600
<p><i>Calculation Methodology:</i>  All blocks &gt;3.0g/t Au are reported. The estimation uses an inversed distance cubed interpolation, on all material within a 0.3g/t Au wireframe (Deeps 3) or 1.0g/t Au wireframe (Deeps 1) constrained by grade and geology. Upper cuts of 14g/t Au and 25g/t Au have been applied to the Deeps 1 and Deeps 3 bodies respectively.</p> <p><i>Footnote:</i>  This classification under the JORC code relies on the material assumption that further mineralisation of significant grade and width be discovered near the existing resources. Should no further mineralisation be discovered, the company may need to reassess the classification of these resources under the requirement of the Australasian Code for Reporting of exploration results, Mineral Resources and Ore Reserves ("JORC code") 2004 that Resources must have reasonable prospects for eventual economic extraction.</p>			

Table 2: Existing resources, Chalice Gold Mine

## 4.0 GNAWEEDA

Teck Cominco Australia Ltd ("Teck Cominco"), as project managers, report the completion of a total of 72 RAB/Aircore holes for a total of 3,327m during the quarter on tenements in the southern part of the Gnaweeda project area (Figure 6).

The program was designed to test for gold anomalism regionally along strike of the historical mineralisation located at the Turnberry Prospect, and to provide a better understanding of the geology in the southern part of the Gnaweeda Greenstone Belt in an area that had very limited previous exploration. Teck-Cominco reported that anomalous gold results were returned from several holes, and that further RAB drilling and geochemical sampling is planned.



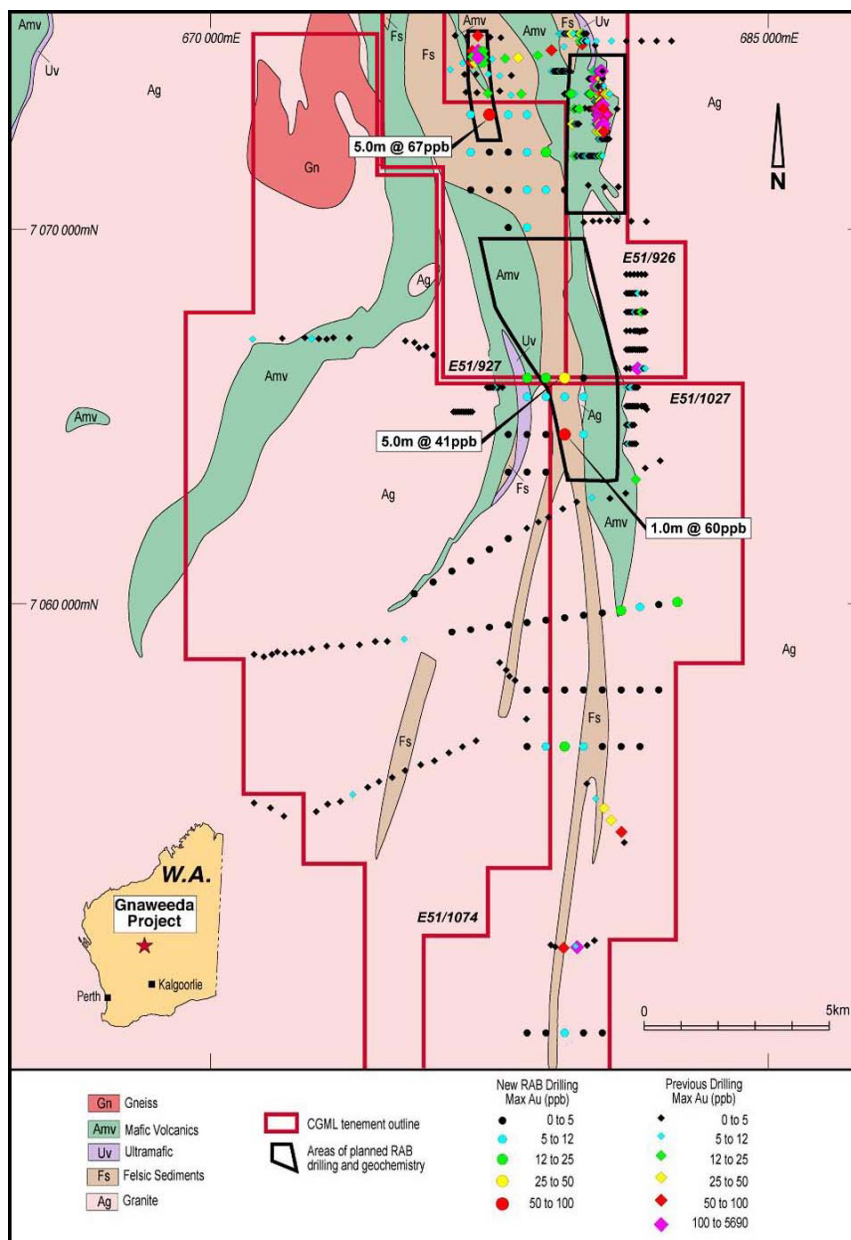


Figure 6 : Gnaweeda Project – drilling summary

*Andrew Bantock*

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.