

# ZAMIA GOLD

## MINES LIMITED

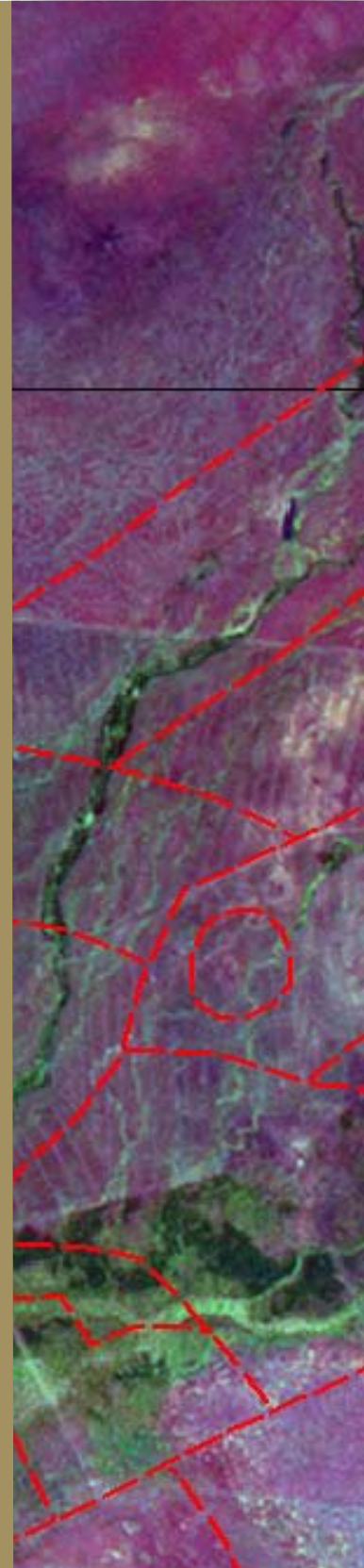
ABN 73 120 348 683

QUARTERLY ACTIVITIES REPORT  
for the Quarter ended  
30 September 2007

Zamia Gold Mines Limited (ASX-ZGM) is an Australian-based gold and base metal exploration company which continues to focus exclusively on the Clermont region in Central Queensland.

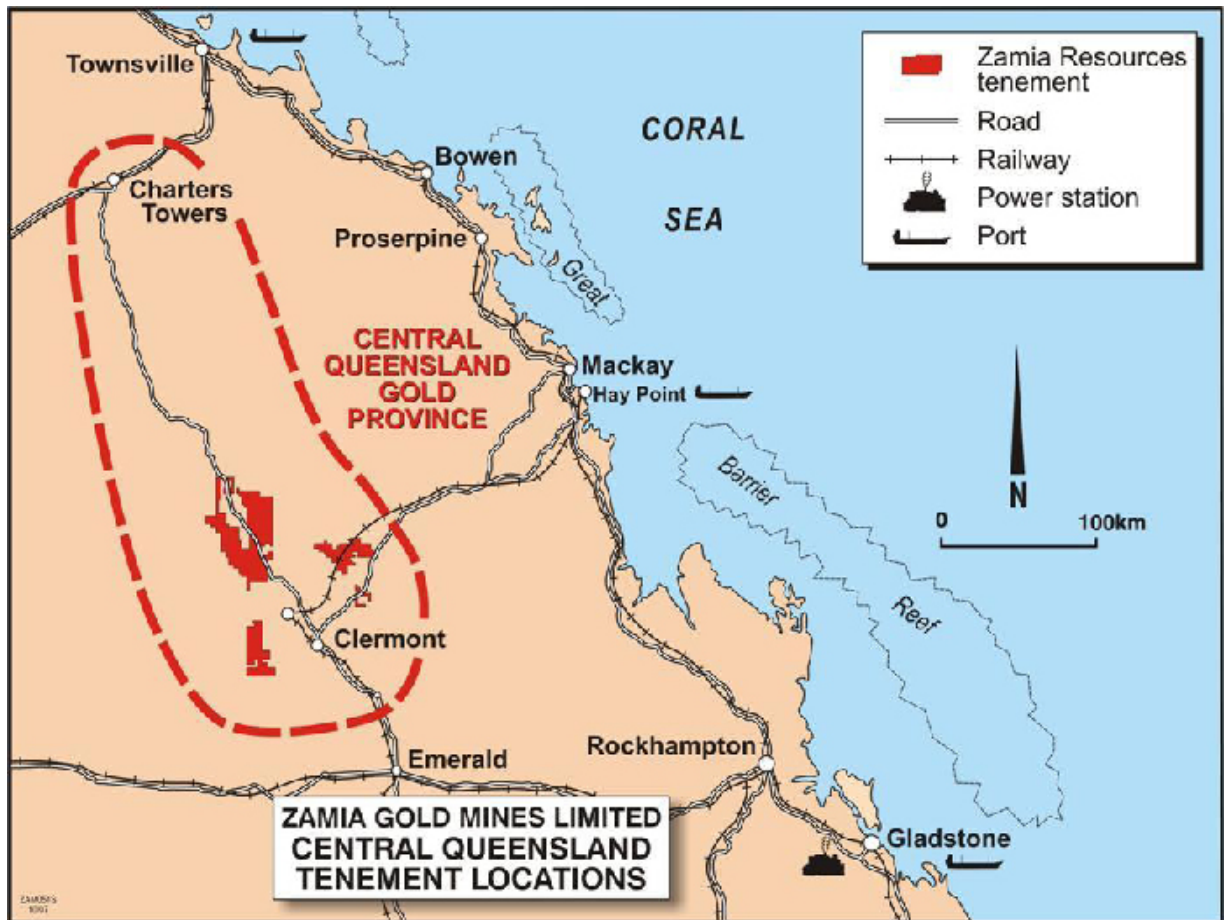
### Highlights

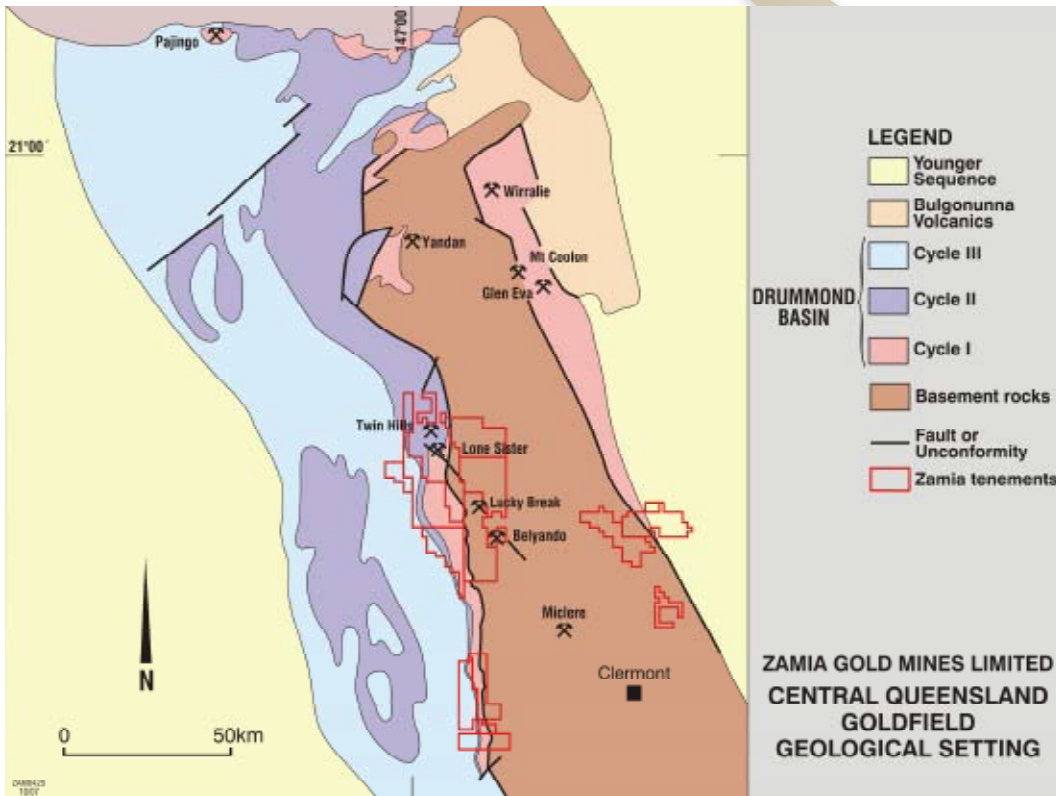
- Further evaluation of the Mount Rolfe Caldera structure and its surrounds has led to recognition of possible indications of epithermal gold mineralisation at several prospects within the Caldera and on its western margin.
- Soil sampling west of the old Lucky Break mine site has outlined a distinct gold-silver anomaly in an area where the airborne geophysical data indicates the presence of concealed prospective features.
- Soil and rock chip sampling at the Sally Ann prospect has returned promising results with a peak soil sample value of 2g/t gold and gossanous rock chip sample results of 9g/t and 38g/t gold. These results together with ground magnetic data suggest the possible presence of a porphyry copper deposit at depth. Detailed field mapping is planned prior to drilling in the 2008 dry season.
- A reassessment of previous exploration data from the Dead Horse Bore area has defined a significant molybdenum anomaly (named Anthony molybdenum target). Mapping and sampling is being undertaken in the current quarter to define a drill target.
- At the end of the quarter, eminent consultant Dr Greg Corbett undertook a field review of ZGM's projects. The review has enabled ZGM to prioritise its targets.
- ZGM has applied for two additional EPM Applications totalling about 160 km<sup>2</sup>, enhancing ZGM's presence in the Central Queensland Gold Province.



# “Gold Exploration and Development in Central Queensland”

## Exploration Overview





ZGM's exploration effort is focussed entirely on the Central Queensland Gold Province, and is directed towards three major target types:

- Epithermal gold deposits (similar to the Vera Nancy deposits in the northern part of the Drummond Basin).
- Quartz-pyrite vein gold deposits as have previously been mined at Belyando and Lucky Break
- Porphyry style deposits which may be copper-gold deposits (similar to the Cadia Mine in NSW), molybdenum-copper-gold deposits or copper-gold skarn deposits.

ZGM now has a number of targets, at varying stages of appraisal, for the three deposit styles.



## Exploration Activities

In the September quarter exploration included the interpretation of remote sensing data, both conventional and Mobile Metal Ion (MMI) soil sampling, reconnaissance rock chip sampling and induced polarisation (IP) surveys over a number of key prospects on the project areas. The results of these surveys are currently being compiled so that drilling programmes can be planned for the most prospective targets.

Eminent epithermal gold consultant Dr Greg Corbett spent four days reviewing ZGM's major projects at the end of the quarter. Dr Corbett's report will be used to help prioritise the targets.

## Mount Rolfe Caldera Epithermal Gold Potential

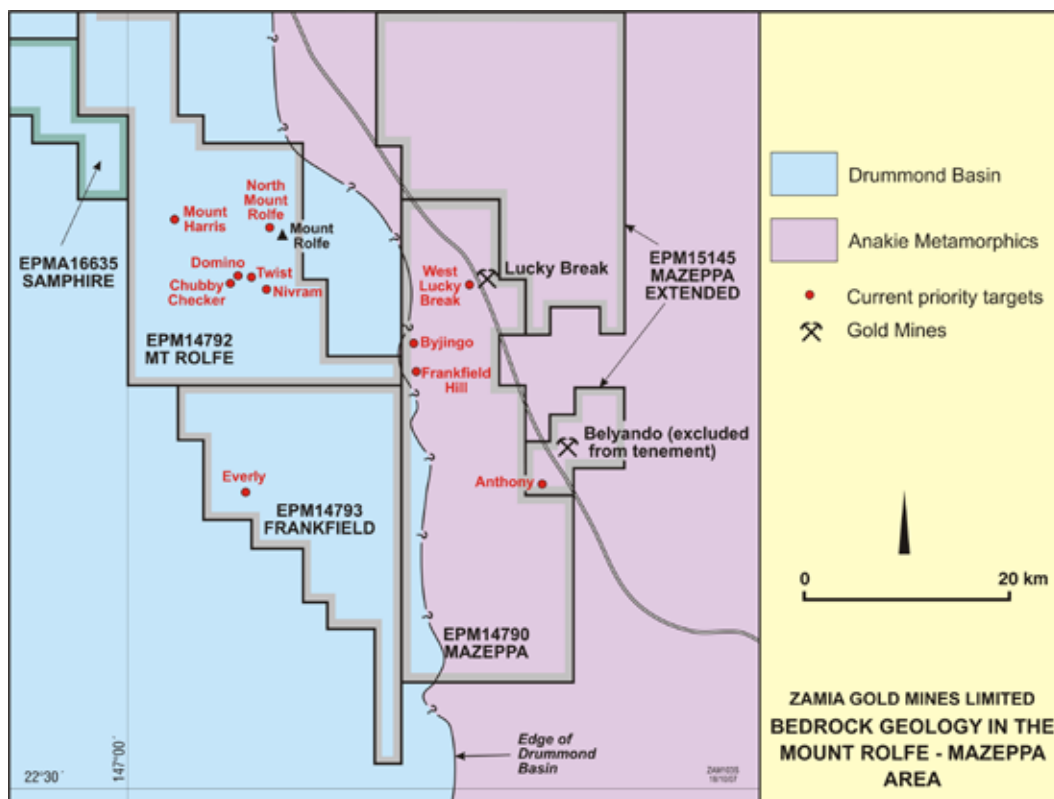
The identification of the large Mount Rolfe Caldera presents possibilities for discovery of very large gold systems within the Company's tenement package.

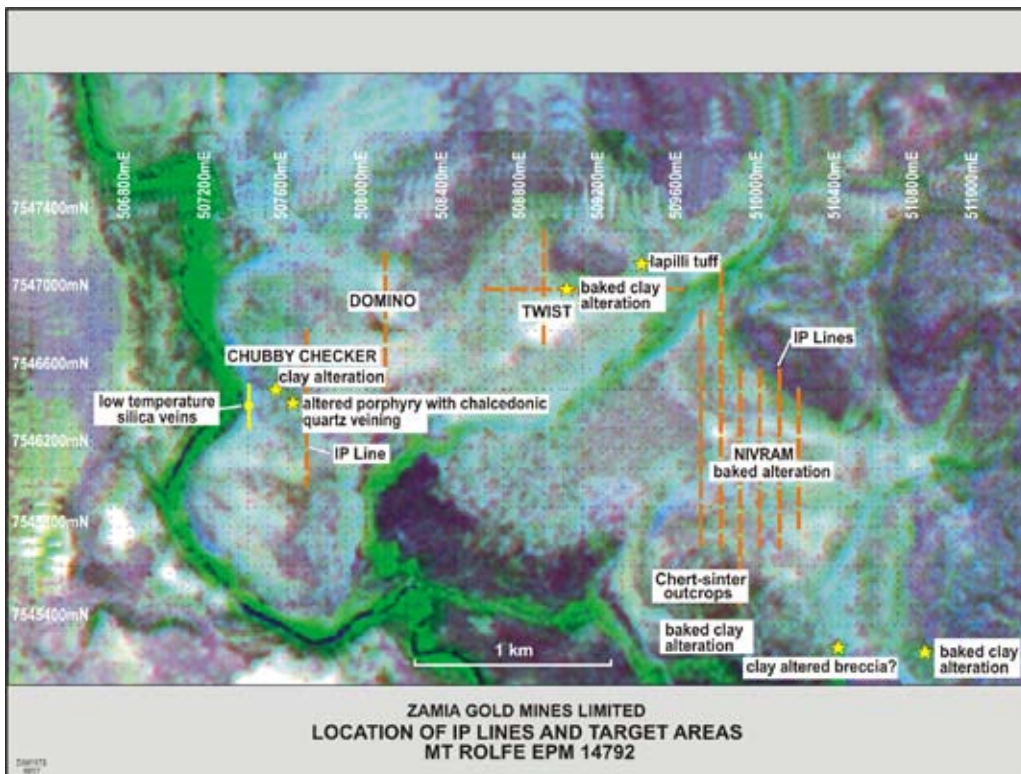
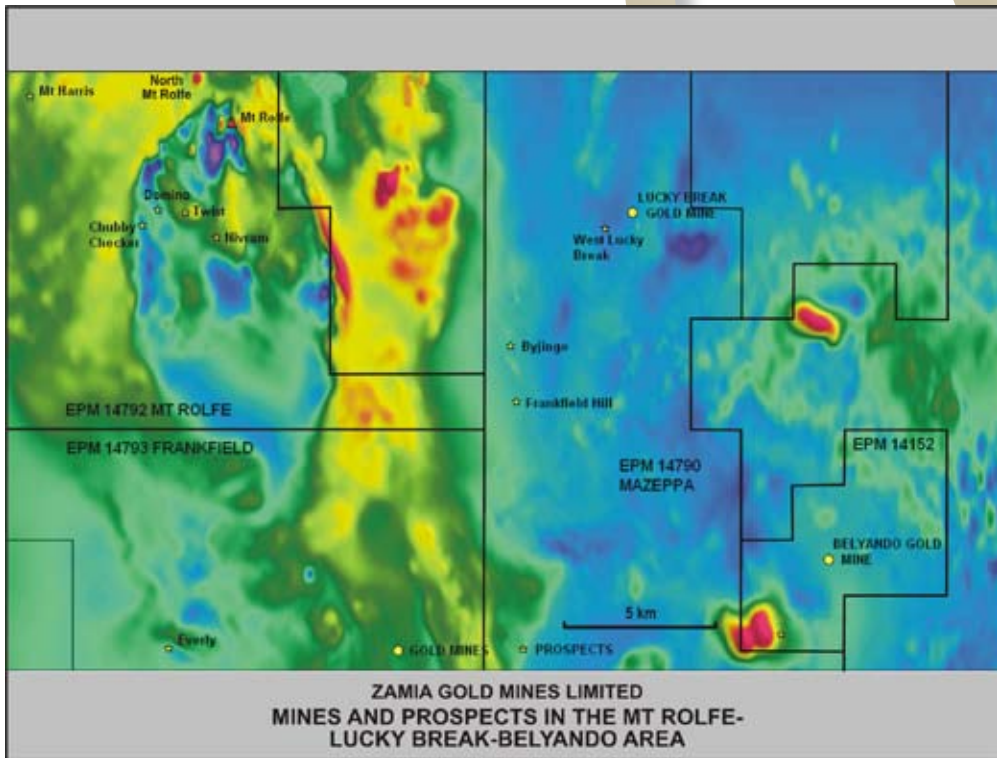
The magnetic imagery of the 15 x 7 km Mount Rolfe Caldera highlights a ring feature plus other fractures and faults as zones of demagnetisation. These demagnetised zones may be the focus for movement of potentially gold-bearing hydrothermal fluids.

Such structures host much of the high-grade epithermal gold mineralisation in world-class caldera-related gold systems. Examples include Lihir, Papua New Guinea (44 million ounces of gold) and the Emperor mine in Fiji (6 million ounces of gold).

To date, nine prospects associated within the caldera and its surrounds have been subject to initial ground assessment. In a number of instances, geological mapping has revealed features common to the upper levels of other epithermal gold deposits.

Exploration included remote sensing interpretation followed by reconnaissance mapping, MMI soil geochemical sampling and IP geophysical surveys.





### ***Nivram***

The Nivram target is interpreted to have the structural setting for a possible high-grade epithermal gold deposit at depth.

Previous exploration by Battle Mountain revealed anomalous arsenic, molybdenum and bismuth in soils. Battle Mountain also drilled 28 shallow Reverse Circulation (RC) holes which returned low-grade gold values. Recent re-interpretation by Zamia indicates that the holes were not in the optimum location and too shallow to intersect likely mineralised bodies.

Interpretation of remote sensing data and field mapping has outlined a probable silica sinter deposit and associated acid sulphate cap. At this high level in a geothermal system, near surface mineralisation is not expected. This interpretation is supported by MMI soil geochemical responses that showed slightly elevated values for gold and palladium but low silver.

The potential for concealed gold mineralisation at depth has been enhanced by an IP survey. This highlighted a strong “bulls eye” resistivity anomaly with E-W linears which represents a potential deep target that will require drilling to a minimum depth of 200m. This target was not investigated at all by previous drilling in the area.

### ***Chubby Checker, Domino and Twist***

To the west of the Nivram area, several other similar targets have been recognised. These have been variously tested by MMI geochemistry and/or IP survey lines. The targets include Chubby Checker, Domino and Twist. MMI results display only weakly anomalous results but IP survey lines have given some encouraging resistivity responses. Low temperature quartz veining in a N-S fault structure at Chubby Checker has been rock-chip sampled and results are pending. This fault appears to be an expression of the western edge of the caldera. None of these target areas were investigated by previous explorers.

### ***North Mount Rolfe***

This prospect, measuring about 2 km x 2 km, is located just beyond the northern extremity of the caldera and is expressed as a magnetic “low” in surrounding non-welded andesitic lapilli tuffs.

Immediately to the south of the magnetic “low” and within the rhyolitic tuffs that fill the caldera, float containing platy calcite castes was found. Such castes tend to be indicators of epithermal systems.

The conceptual target is stratabound epithermal gold mineralisation in non-welded lapilli tuff adjacent to the caldera ring fault and intruded by a late stage stock that may have “porphyry” style mineralisation.

The target area is covered by transported alluvium. Consequently the initial exploration was restricted to IP geophysics. The results of this were largely negative.



### ***Mount Harris***

This target, located on an arcuate rim fracture to the north of the caldera, was identified as a strong spectral target indicative of clay alteration on Landsat imagery prior to recognition of the caldera on the subsequently acquired aeromagnetic data. Field inspection confirmed the presence of a large silica-alunite-hematite-pyrite alteration zone exhibiting liesegang rings of fine hematite hosted by flat lying partly welded tuffs. While MMI and conventional soil sample results returned slightly elevated silver, gold and palladium values, the style of alteration is unlikely to host significant gold deposits and the prospect has been down-graded.

### ***Everly***

A previously reported rock chip sample with anomalous gold was not repeated in duplicate samples and MMI soil sampling did not return significantly anomalous results. Similarly an IP survey was disappointing. No further work is planned.

### **Quartz-Pyrite Reef Gold Discovery Potential**

Quartz-pyrite reef gold was previously mined from Lucky Break and Belyando. An RC drilling programme undertaken by the company shortly after ZGM's ASX listing confirmed extensions to the mineralisation at both properties but the tenure of the gold mineralisation was low with the exception of a 1m intersection which returned 15g/t Au. Subsequent re-appraisal of both areas has led to the identification of new targets. Mineralisation of this nature under shallow cover in deeply weathered terrains has the potential to contain supergene enriched portions with high free milling gold grades.

### ***West Lucky Break***

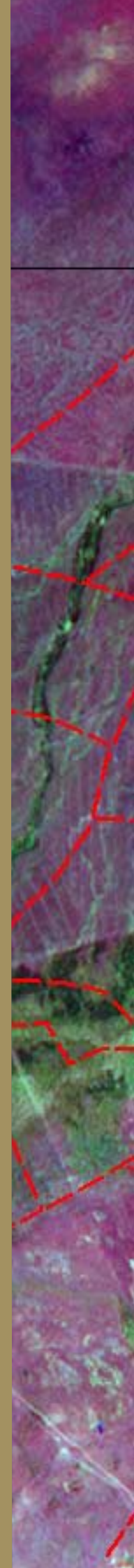
As previously reported, initial conventional soil geochemical surveys outlined arsenic and silver anomalies in the Lucky Break area. Only more mobile path-finder elements were analysed because variable superficial cover would have rendered gold analyses erratic. The anomalous areas identified by this survey were subsequently covered by MMI soil surveys that included gold and silver assays.

The Anakie Metamorphics in the West Lucky Break area are overlain by a thin veneer of Devonian sandy sediments rendering the use of conventional soil geochemistry ineffective. MMI soil sampling has been used to 'see' through this sandy cover. An initial MMI soil survey has outlined a strong 300 x 300m gold and silver anomaly that is open to the south. The original soil grid has recently been expanded to the south and north and results are awaited.

An interpretation of the aeromagnetic data has also identified a probable regional thrust fault within the Anakie Metamorphics in the West lucky Break area which is a potential host structure for mineralisation.

An isolated rock chip sample in the north of the area assayed 1.96g/t Au.

An initial IP survey is currently in progress over the original MMI soil anomaly. The results will aid in the selection of drillhole sites.





### ***Frankfield Hill***

Frankfield Hill has been partially explored by earlier companies. It is close to the unconformable contact between the Cambrian Anakie Metamorphics and the Devonian Silver Hills Volcanics of the Drummond Basin. Wide spaced MMI geochemical sample results located strong gold and silver anomalies on two lines 400m apart which will be followed up with additional sampling and mapping.

### ***Other Targets***

The interpretation of the aeromagnetic data has also indicated the presence of other Devonian intrusive complexes within the Anarkie Metamorphics with the potential to host either mesothermal gold mineralisation and/or copper-gold-molybdenum porphyry deposits.

### **Porphyry and Skarn-type Copper-Gold Potential**

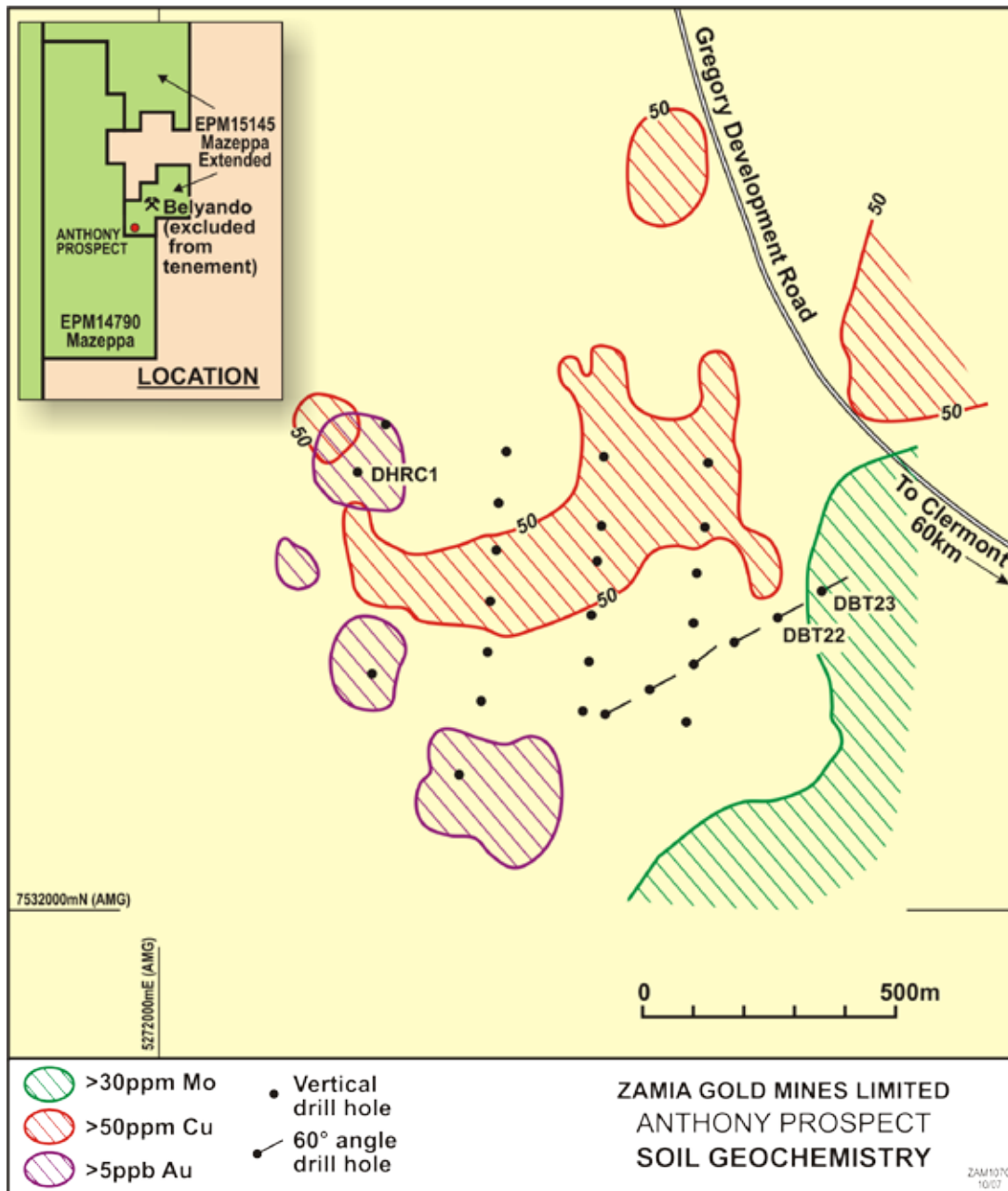
Two potential drill targets for these frequently related deposit styles are being aggressively explored.

### ***Anthony Prospect***

The Anthony prospect (formerly called Dead Horse Bore) is located approximately 3 km south-west of the Belyando mine site. As a precursor to a field programme, past exploration data is being compiled and reinterpreted. Of particular interest is CRA's 1993-94 drilling data, and results of geochemical sampling and drilling by Cyprus Gold Australia in 1995-96. CRA undertook two programmes of RC and aircore drilling. Cyprus completed a soil sampling programme and four short vertical RC drill holes.

The soil geochemical data highlighted a central zone of anomalous copper, a western zone of anomalous gold, and a south-eastern zone of anomalous molybdenum, which remains open to the east and south-east. There is an additional eastern copper anomaly, which remains open to the east. The positions of these anomalies are shown on the figure below.





Two CRA holes (drilled prior to the Cyprus soil sampling) fall within the molybdenum anomalous area. A re-examination of the results of both holes indicates that molybdenum mineralisation was noted in the drill chips and highly anomalous molybdenum analyses were recorded.

- Hole DBT 22 intercepted 63m grading 219 parts per million (ppm) molybdenum (Mo) from 66m to the end of the hole at 129m depth;
- Hole DBT 23 averaged 184 ppm Mo from surface to the end of the hole at 105m depth.

Both holes were drilled at 60° to the north-east. (Note: 230 ppm = 0.023%, and molybdenum prices are above \$US30/lb). A summary of the results is outlined in the table below.

Hole	From (m)	To (m)	Width (m)	Mo (ppm)
DBT 22	66	129	63	219
including	108	111	3	759
and	120	123	3	553
DBT 23	0	105 (EOH)	105	184
including	57	60	3	837
and	102	105 (EOH)	3	622

In addition, Cyprus hole DHRC1 intersected 0.8 g/t Au over 6m from 16m to 22m depth.

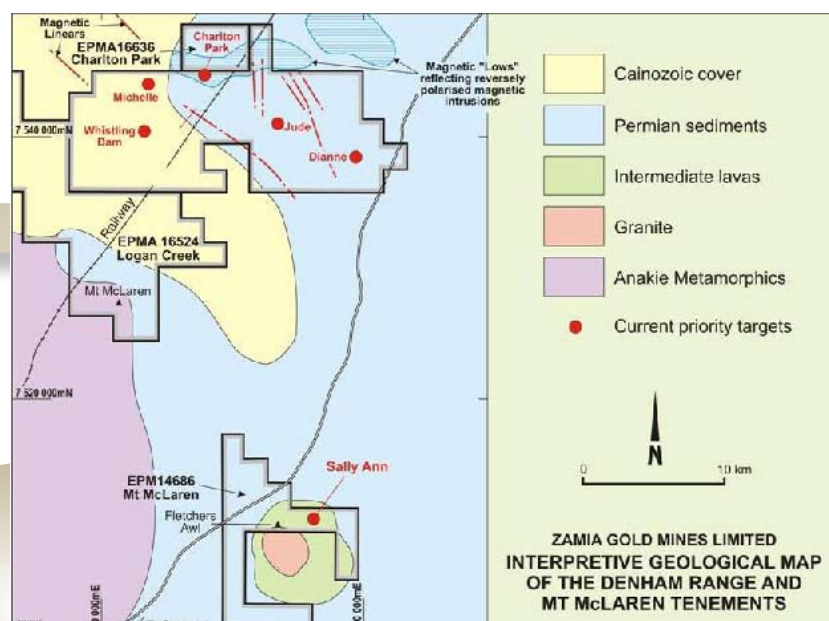
Altered phyllite with stockwork veining is common (see photograph below) and small outcrops of an altered intrusion occur near BDT 23.



Photo: Altered phyllite showing stockwork quartz and hematite staining

Mapping of rock types, alteration style and structural setting will enable the optimisation of a drilling programme when a suitable rig becomes available.

### Sally Ann Prospect





The Sally Ann Prospect was first identified by prospectors and has been subjected to limited exploration by earlier companies including drilling in 1993 with recorded drill hole intersections of 5m grading 1.57 g/t Au and 6m of 2.64 g/t Au associated with elevated amounts of tin, tungsten, molybdenum and bismuth. A rock chip sample of gossanous outcrop was also reported to contain 4% Cu.

Recent gossan sampling by Zamia returned gold assays of 38 g/t and 9g/t. Later soil sampling over a 400 x 400 m grid revealed gold values up to 2 ppm (g/t). The grid has been extended. The results of the additional sampling have recently been received and indicate widespread but somewhat erratic anomalous copper values.

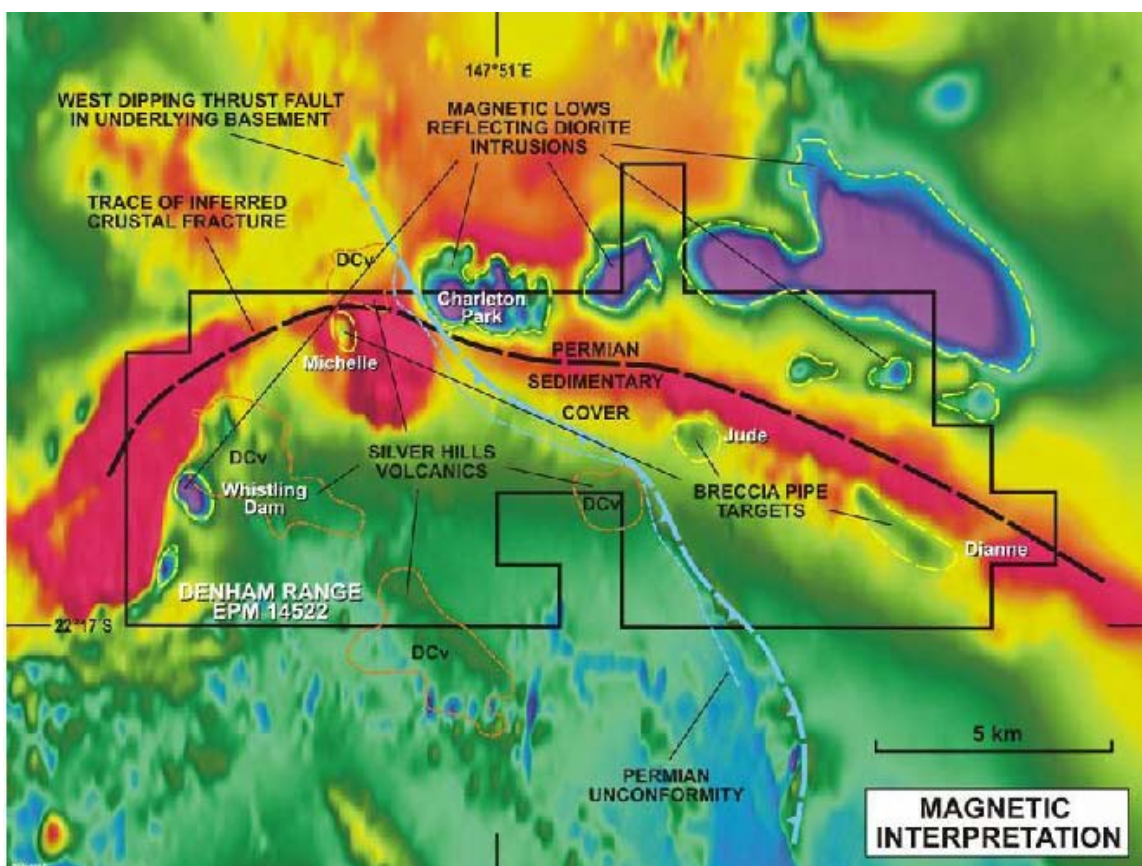
A ground magnetic survey has been completed and indicates a number of east – west trending magnetite bearing veins and dykes plus a large anomaly (200m diameter) at depth.

The data generated to date suggest possible presence of skarn copper – gold mineralisation in andesitic volcanics underlain by a mineralising intrusion.

Detailed mapping and additional geophysical surveying is planned prior to drilling in the 2008 dry season.

### Other Targets

Evaluation of several targets in the Denham Range area has commenced. No significant results have been received yet, but a large number of soil sample results are outstanding







# ZAMIA GOLD MINES LIMITED

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