



**CHALICE**  
GOLD MINES LIMITED

# ASX ANNOUNCEMENT

## Strong results move Chalice closer to production at Zara Project

Chalice Gold Mines limited ABN 47 116 648 956

1 October 2009

### Highlights

- Significant progress made in the scoping study at the Koka Gold Deposit within the Zara Project in Eritrea.
- Initial metallurgical test work confirms previous indications that overall gold recoveries will exceed 95%.
- Over 60% of gold recoverable from gravity circuit. This suggests Koka can be treated using a proven, conventional process.
- Water drilling indicates strong flows of good quality process water.
- Final feasibility study on track for mid-2010.



### Scoping Study Update

Chalice is pleased to report that it has made more substantial progress in its plan to develop the Zara Project in Eritrea following its merger with Sub-Sahara. Among the recent key achievements have been highly favourable results from both metallurgical testwork and water drilling.

### Metallurgical Testwork

Metallurgical testwork being undertaken at the AMMTEC Perth laboratory on representative composite samples from seven specifically drilled diamond core holes representative of the Koka deposit is confirming the favourable metallurgical characteristics of the project.

Metallurgical recovery results on the master composite prepared from 104 intervals selected as representative of the orebody is excellent with around 60% of gold recovered by gravity and overall recoveries of 95 to 97% for grind sizes of 80% passing 150 to 75 micron respectively. Reagent consumptions are low at less than 0.5 kg/t for both lime and cyanide.

Further variability testwork and optimisation work is in progress to complete all technical data required for the feasibility study.

### INVESTMENT OPPORTUNITY

High grade gold deposit

Scoping study near completion

Feasibility study by Mid-2010

Medium term production potential

Regional ground position virtually untouched by modern exploration

[www.chalicegold.com](http://www.chalicegold.com)



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Physical properties testing completed on 10 composites of drill core representative of the mineralisation of the Koka deposit indicate the ore to be of medium competency as determined by the SMC test procedure, moderately competent as determined by conventional Bond Work Index (15-18kWhrs/t) and with a normal abrasion index of 0.3.

This simple metallurgy will enable the implementation of a well proven processing route employing crushing and grinding by a conventional ball mill followed by gravity and CIL recovery.

### Water Drilling

Test drilling for water has confirmed the presence of significant water contained within alluvial gravels of the nearby Zara River some 7km from Koka. The Zara River has a catchment of some 970sqkm and is the main drainage system for the region. Production bores are now being established ready for detailed pump testing to establish sustainable yields for bores and thus the number of production bores required. Early indications are that required water volumes should be met from 4-5 bores. Importantly, the water quality is good with low TDS values.

### Overall Study Progress

The Scoping Study involving consultants Lycopodium Minerals, AMC and Knight Piesold remains on schedule for completion in late October and will be presented to the Eritrean Government and released to the Australian Stock Exchange in early November as the first phase of our ongoing commitment to progressing the project to final feasibility stage by mid-2010.

Dr Doug Jones  
Managing Director & CEO

1 October 2009