

QUARTERLY REPORT

30 September 2009



CHALICE
GOLD MINES LIMITED

Chalice Gold Mines Limited ABN 47 116 648 956

Highlights

- Significant progress achieved with the Scoping Study of the Koka Gold Deposit within the Zara Project in Eritrea, East Africa.
- Final Feasibility Study on track for completion by mid-2010.
- Landsat interpretation commenced over the Zara Project.
- Merger completed between Chalice Gold Mines and Sub-Sahara Resources.
- \$4.4 million capital raising completed to fund ongoing development of the Zara Gold Project.



1. Zara Project Scoping Study Update

During the Quarter, Chalice made substantial progress towards planned development of the **Zara Gold Project** in Eritrea following completion of its merger with Sub-Sahara Resources. Among the recent significant achievements have been favourable results received from both metallurgical test-work and water drilling at the 944,000oz Koka deposit.

The Zara Project Scoping Study, involving consultants Lycopodium Minerals, AMC and Knight Piésold, is scheduled for release in early November following board consideration. It will then be presented to the Eritrean Government as the first phase of the Company's ongoing commitment to progressing the Zara Project to final feasibility stage by mid-2010.

Metallurgical Test-Work

Metallurgical test-work being undertaken at the AMMTEC Perth laboratory on representative composite samples from seven specifically drilled diamond core holes representative of the Koka Gold Deposit has confirmed the favourable metallurgical characteristics of the Project. Metallurgical recoveries on the master composite prepared from 104 intervals selected as representative of the ore body are 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.

INVESTMENT HIGHLIGHTS

High-grade gold deposit
(944,000oz @ 5.8g/t)

Scoping Study near completion

Feasibility Study by mid-2010

Medium-term production
potential

Extensive regional ground
position virtually untouched
by modern exploration

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Further variability test-work and optimisation work is currently in progress to obtain all technical data required for the Feasibility Study.

Physical properties testing completed on 10 composites of drill core representative of the mineralisation from the Koka Gold 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 resources contained within the alluvial gravels of the nearby Zara River, some 7km from the Koka Gold Deposit. The Zara River has a catchment of some 970km² 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 therefore 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 (Total Dissolved Solids) values.

In-fill Resource Drilling

A further 5,000m of drilling is required to in-fill the Koka Gold Deposit resource (Indicated and Inferred Resource of 5.04 million tonnes at 5.8g/t Au for 944,000 ounces of contained gold) and upgrade it from its current Indicated and Inferred status.

Two diamond drill rigs are currently being mobilised to undertake this initial drilling, which is planned to commence early in November.

2. Regional Exploration

Chalice has retained Perth-based remote sensing consultants, Earthscan Pty Ltd, to undertake an interpretation of satellite imagery covering the Proterozoic sedimentary and volcanic formations in north-western Eritrea, the prospective stratigraphy which hosts the Koka and Bisha Deposits.

This extensive study area covers over 35,000 square kilometres, centred on the Company's 615 square kilometre Zara Project, which is located 165 kilometres north of the capital, Asmara.

Landsat ETM+ 7 (Enhanced Thematic Mapper plus) satellite data will be computer enhanced to highlight geological outcrop, regolith landforms, structural features and mineral alteration zones within the study area, which lies along major north-west trending structural corridors.

Targets identified by this process will then be ranked and followed up on the ground over the coming months. Preliminary results from the Landsat interpretation were released subsequent to the end of the Quarter and have resulted in the definition of over 60 priority anomalies indicative of gold or base metal targets on the Zara Project tenement area.

The regional exploration strategy will be progressed in parallel with forthcoming programs of in-fill and resource extension drilling at the Koka Gold Deposit, together with completion of the Scoping and Feasibility Studies.

3. Merger Completion

In August 2009, Chalice and Sub-Sahara Resources merged by Scheme of Arrangement following receipt of shareholder approval by Sub-Sahara Resources shareholders.

Mike Griffiths, the former Managing Director of Sub-Sahara Resources, has joined the Board of Chalice as an Executive Director.

4. Australian Projects

Yandearra (Chalice 100%)

During the Quarter, Atlas Iron ("Atlas") continued to investigate the potential for the Mallina Project area to host magnetite mineralisation and/or DSO (Direct Shipping Ore), under the terms of the exploration option signed with Chalice in October 2008.

Atlas' work during the Quarter consisted of desktop studies and review of available aeromagnetic data, including one bulls-eye magnetic anomaly which was thought to be a potentially large magnetite body under cover. After reviewing the data and earlier reports on the anomaly prepared for Chalice by Southern Geoscience, Atlas concluded that the probable depth to the target precluded the possibility of it hosting an economically recoverable magnetite resource.

With the Mallina option period expiring subsequent to the Quarter end, Atlas has given notice of its formal withdrawal from the option agreement with Chalice.

Gnaweeda

Teck Australia conducted a fixed wing geophysical survey comprising 1,924 line km by Thomson Aviation over the southern part of the Gnaweeda Project during the Quarter. The survey comprised collection of magnetic and radiometric data with interpretation to be conducted at a later date.

Kent Exploration completed 1:5,000 and 1:750 scale mapping at Bunarra.

Wilga

During the quarter, infill aircore drilling was undertaken by AngloGold Ashanti (Australia) Limited throughout the tenement to a 200 metre by 40 metre spacing to follow up first past aircore drilling completed during the second quarter of 2009.

The follow-up drilling was carried out in areas where gold anomalism was identified by the previous aircore drilling. Sheared quartz veins in mafic rocks, vein-rich lithological contacts between mafic and ultramafic units in the west and vein-rich domains within the central BIF have remained the predominant targets. The best intercept achieved was 3 metres grading 3.46 g/t Au from 43 meters depth.

Three RC-Diamond holes for 1,108 metres were drilled to investigate the deeper lithostratigraphy of the area. Results from this drilling are pending.

5. A\$4.4 million Capital Raising


In September, Chalice raised \$4,401,000 (before issue costs) to fund the ongoing development of the Zara Project through the placement of 16,300,000 shares at 27 cents per share (“the Placement”).

The Placement, which was made to institutional and sophisticated investors introduced by Sydney-based Southern Cross Equities as lead manager, was undertaken pursuant to the 15% allowance under the ASX Listing Rules.

The capital raising has strengthened Chalice’s balance sheet while it completes the Scoping and Feasibility Studies for the Koka Gold Deposit.

6. Corporate

At 30 September 2009, the Company had cash on hand of \$9,661,000. Please refer to the attached Appendix 5B for further details.



Doug Jones
Managing Director

27 October 2009

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Dr Doug Jones, a full-time employee and Director of Chalice Gold Mines Limited, who is a Member of the Australasian Institute of Mining and Metallurgy and is a Chartered Professional Geologist. Dr Jones has 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 Independent Resource Estimate for the Koka Gold Deposit was prepared by Mr Brian Wolfe, whilst employed as a Specialist Resource Geologist for Coffey Mining Pty Ltd. Mr Wolfe, who is a Member of the Australasian Institute of Mining and Metallurgy, has sufficient experience in the field of Resource Estimation 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 break-down between Indicated and Inferred Resource categories at the Koka Gold Deposit is as shown in the Table below.

Category	Lower grade cut-off (g/t)	Tonnes (Mt)	Gold (g/t)	Metal (koz)
Indicated	1.2	4.55	5.9	867
Inferred	1.2	0.49	4.9	77
Total	1.2	5.04	5.8	9.44