

QUARTERLY REPORT

31 December 2009



Chalice Gold Mines Limited ABN 47 116 648 956

Highlights

- Scoping Study finds Koka Gold Deposit at the Zara Project in Eritrea has the potential to be financially robust based on a gold price of US\$800 an ounce
- Koka forecast to produce an average of 110,000oz per year at a cash cost of US\$424 an ounce
- Results from in-fill drilling continue to confirm the continuity and high grade nature of the Koka mineralisation
- Close to 80% of in-fill drilling program now completed with further assays pending
- Detailed planning underway for exploration drilling at priority Koka East and Koka South prospects following completion of in-fill drilling program at Koka



INVESTMENT HIGHLIGHTS

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

Scoping study completed

Feasibility study by Mid-2010

Medium term production
potential

Large underexplored ground
position with potential for
discovery of additional
resources

www.chalicegold.com

Overview

The December 2009 Quarter was a pivotal period for Chalice Gold Mines Limited (ASX: **CHN**) with substantial progress achieved at its 80%-owned **Zara Gold Project** in northern Eritrea, east Africa.

This included the completion of an independent Scoping Study based on the flagship Koka Gold Deposit (JORC resource of 5.04Mt @ 5.8g/t for 944,000oz) and the commencement of in-fill drilling which has so far delivered excellent results.

The Company also expanded its strategic exploration footprint in this largely under-explored region during the Quarter and laid the foundations for a significantly expanded regional exploration campaign in 2010 targeting highly prospective areas in close proximity to the Koka Deposit. Priority targets include the Koka East and Koka South prospects, which lie in a similar geological setting to the Koka Deposit and offer good potential to discover repeats of this mineralisation.

1. Zara Gold Project – Koka Feasibility Study Update

Significant progress was achieved during the Quarter with the completion of an independent Scoping Study undertaken by Lycopodium Minerals. On the strength of these results, Chalice has proceeded to a full Feasibility Study, which it expects to complete by mid-2010, based on forecast annual gold production of **110,000 ounces** at a **cash cost of US\$424 an ounce** over a six-year life.

As a key component of the Feasibility Study, a 5,000m in-fill diamond core drill program commenced during the Quarter and is currently nearing completion. This will improve resource confidence and will be incorporated into a new resource model prior to completion of the Feasibility Study.

In addition, a five-hole geotechnical program designed to provide data on ground conditions in the pit highwall will commence shortly. This may potentially allow the re-optimisation of the pit shells to incorporate steeper pit walls and hence significantly improve the economics of the project.

1.1 Scoping Study Results

In October 2009, the Company announced the results of an independent Scoping Study undertaken by Lycopodium Minerals. The Scoping Study estimates that the Koka Gold Project will have capital costs of US\$97.8 million and average cash operating costs of US\$424 per oz over a project life of approximately six years, with annual production averaging approximately 110,000 oz per annum.

Koka has the potential to be a financially robust project based on gold price of US\$800 per ounce – well below the current spot price. The cash costs will be low by world standards and the mining and processing will be relatively straightforward, providing low project technical risk. Key parameters of the project as outlined in the Scoping Study are as follows:

Parameter	
Average gold production	~110,000 oz per annum
Life of mine	~ 6 years
Total capital costs	US\$97.8 million
Total cash costs	US\$424 per oz
Total gold mined	712,000 oz
Gold recoveries	95%
Gold produced	677,000 oz
Plant capacity	500,000 tpa
Mining costs	US\$241 per oz
Processing costs	US\$169 per oz
G&A costs	US\$14 per oz
Total mined	45.3 million tonnes
Ore milled	3.4 million tonnes
Strip ratio	12.4

Table 1: Scoping Study Parameters

The parameters exclude any funding costs, taxation and royalties.

The Project is 80% owned by Chalice Gold Mines and 20% owned by Dragon Mining Limited. The Government is entitled to a 10% free carried interest. In addition, the Government has the right to purchase up to a further 30% in the Project based on an independently determined NPV.

1.2 Koka In-fill Drilling Results

Assays have been received from six holes from the planned 31-hole, 5,000 metre in-fill diamond drilling program designed to bring further confidence to the high-grade mineralisation of the Koka Main Zone and to be used as part of the final resource estimation for the Koka Feasibility Study. A total of 24 diamond drill holes have now been completed (*see Figure 2*).

Results received to date from the in-fill drilling program have all achieved significant intersections of quartz stockwork mineralisation within the Koka Main Zone and continue to support the robust, high- grade nature of the deposit. Significant intersections from the first six holes are tabulated in Table 1 below:

Hole	Depth (m)	North (Local)	East (Local)	Azimuth (°)	Dip (°)	From (m)	To (m)	Interval (m)	Gold (g/t)
ZARD128	170.1	9740	4960	102	-52	44	75	31	6.48
including						44	46	2	38.22
including						52	55	3	18.68
						79	82	3	7.78
						104	108	4	3.25
						116	117	1	31.48
						143	144	1	100.54
ZARD 129	113	9740	4980	102	-50	10	19	9	6.13
						32	40	8	9.47
ZARD 130	98	9740	5000	102	-52	6	12	6	26.92
						29	46	17	4.66
ZARD 131	102.4	9700	5000	102	-50	17	20	4	5.15
						23	29	6	3.17
						42	53	11	4.68
						68	69	1	11.02
						90	92	2	27.78
ZARD 132	101.9	9620	5000	102	-51	9	27	18	29.30
including						9	11	2	49.14
including						14	15	1	71.28
including						18	19	1	188.25
including						24	27	3	45.15
						41	43	2	5.57
						50	53	3	13.02
ZARD 134	99.5	9660	5000	102	-51	5.70	12	6.3	9.93
						23	24	1	21.70
						38	39	1	20.25
						45	56	11	8.29

Table 1: Significant Koka Deposit Diamond Drill Assay Intercepts

Note: The metres quoted are down hole metres and gold grades are uncut with up to 2 metres of internal dilution (<0.25g/t gold). All samples are prepared at the Africa Horn Laboratory in Asmara, Eritrea and then analysed by Genalysis Laboratories in Perth, Western Australia.

Following completion of the in-fill drilling program the drill rigs will focus on exploration of the nearby **Koka South** and **Koka East** zones. Detailed planning for these exploration programs has commenced.

1.3 Regional Exploration

High resolution Aster and Quickbird satellite imagery has been acquired over the Company's granted tenements at the Zara Project to supplement previously acquired Landsat imagery.

A detailed litho-structural interpretation has commenced using these various sets of imagery which will be integrated with previously reported alteration mapping (*see ASX Release dated 19 October 2009*). This work will provide a basis for planning and prioritisation of regional drainage geochemical sampling and prospecting activities to commence during the March 2010 Quarter.

2. Investment in London Africa

During the Quarter, Chalice invested in the United Kingdom-based company London Africa Limited ("London Africa") (www.londonafrica.co.uk), which holds a number of Prospecting Licences in Eritrea. Chalice has subscribed for 1.6 million shares in London Africa at 12.5p per share for GBP200,000 (A\$358,000) giving Chalice an 11.8% interest in the company. The funds will be applied to a work program currently being undertaken and managed by London Africa.

The London Africa tenements cover 1,562 square kilometres in the prospective Akordat-Orata area in Eritrea, which lies immediately south of Chalice's Zara Project. This increases the Company's strategic footprint in this highly prospective region of northern Eritrea.

3. Australian Projects

Wilga Gold Project (100% Chalice)

During the Quarter, Chalice agreed to sell its interest in the Wilga Joint Venture to AngloGold Ashanti Australia Limited ("AGAA") for \$20,000. In addition, a 1.5% Net Smelter Return interest will be retained in possible future production capped at \$1.5 million.

Yandearra Project (100% Chalice)

Following the election by Atlas Iron Limited ("Atlas") to withdraw from an option agreement to acquire the iron ore rights at the Yandearra Project in the West Pilbara, the Company has rationalised the project ground position to a single Exploration Licence covering the area most prospective for gold mineralisation.

Under the terms of the option agreement with Atlas, \$125,000 worth of Atlas shares were received as compensation for withdrawing from the option agreement. These shares have been subsequently sold for a small profit.

Gnaweeda Gold Project (70% Teck, 30% Chalice)

Teck Resources Limited ("Teck") has advised that they have exercised the second option under the terms of the option agreement by incurring expenditure of \$1,500,000 and have therefore earned a 70% interest in the Gnaweeda Gold Project. Chalice may either form a joint venture and contribute pro rata to the ongoing exploration or dilute its interest. The Company is currently considering its position.

As previously advised, Teck has entered into an exclusivity agreement with TSX Venture Exchange listed company Kent Exploration Inc. ("Kent") which contemplates Kent earning 100% of Teck's interest in the project by spending \$3 million, subject to Teck retaining a 75% claw-back.

4. Corporate

At 31 December 2009, the Company had cash on hand of approximately \$7.3 million. Please refer to the attached Appendix 5B for further details.



Doug Jones
Managing Director

29 January 2010

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.

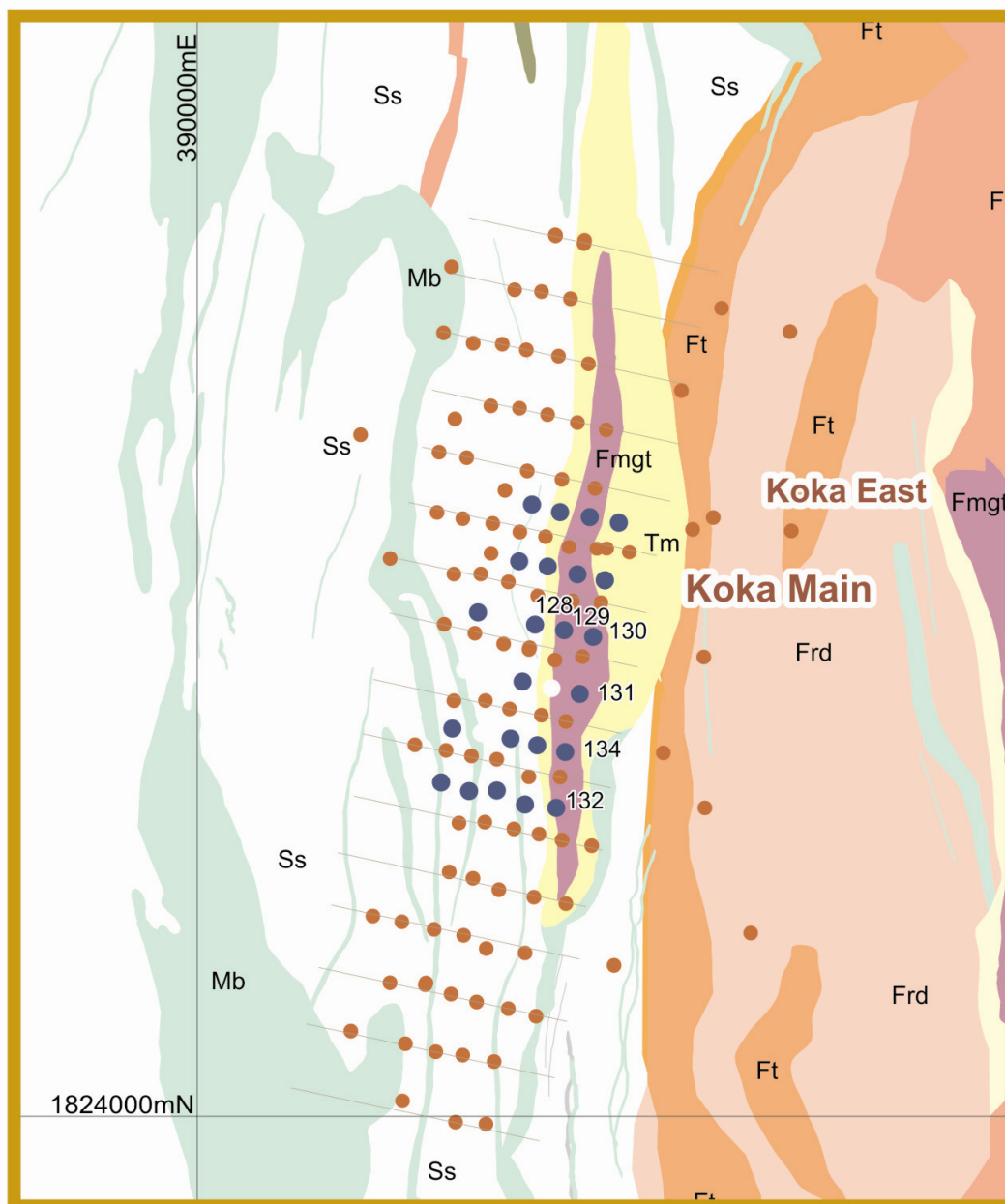
The Independent Resource Estimate for the Koka Gold Deposit was prepared by Mr Brian Wolfe, whilst employed as a Specialist Resource Geologist for Coffey Mining Pty Ltd. Mr Wolfe, who is a Member of the Australasian Institute of Mining and Metallurgy, has sufficient experience in the field of Resource 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	944



Figure 1 – Zara Project Location Map



Legend

Qa Alluvial Cover and River Bank	Ft Felsic tuff	
Fmg Koka Mineralisation Microgranite host rock	Tm Tectonic Mylonite	● Drill Hole Location (Current Programme)
Fmg Microgranite, granite	Mb Basalt to dolomite	● Drill Hole Location (Previous Programmes)
Frd Rhyo-dacitic, dacitic intrusives	Ss Undifferentiated Metasediments	
Fvs Sandy Volcano clastic sediments		

Koka Main Geology Plan

Figure 2 – Zara Project – Koka Drill Hole Location Plan