

## ASX ANNOUNCEMENT

# Substantial drilling results confirm high-grade nature of Koka gold deposit



Chalice Gold Mines Limited ABN 47 116 648 956

22 February 2010

## Highlights

- More high gold grades intersected in latest infill drilling at the rich Koka Gold Deposit.
- Results provide further evidence of Koka's high-grade nature and will form part of the final resource estimate for the feasibility study
- Exploration drilling underway at the highly prospective Koka East zone
- Geotechnical drilling program completed
- Feasibility study due to be completed mid-year



**Chalice Gold Mines Limited** (ASX: **CHN**) is pleased to advise that new results from infill drilling at the Koka Gold Deposit at its Zara Project in Eritrea continue to confirm the high-grade nature of the ore body.

The results, which will form part of the final resource estimate for the Koka feasibility study, include:

- 6 metres grading 12.37 grams of gold per tonne in ZARD 135;
- 5 metres grading 21.90 grams of gold per tonne in ZARD 135;
- 10 metres grading 9.97 grams of gold per tonne in ZARD 136;
- 4 metres grading 32.76 grams of gold per tonne in ZARD 137;
- 2 metres grading 10.58 grams of gold per tonne in ZARD 139, and;
- 9 metres grading 4.68 grams gold per tonne in ZARD 141.

The new results come from diamond drill holes ZARD 135 through to 144 (results from ZARD 143 pending) which achieved significant intersections of quartz stockwork mineralisation within the Koka Main Zone.

A complete tabulation of results is provided in Table 1.

### 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

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Assays have now been received from 15 holes of the 31-hole, ~5,000 metre infill diamond drilling program (Figure 2). Results received to date are consistent with previous drilling that indicated a decline in quartz stockwork development and gold grades at around 150 metres depth (Figure 3).

All 31 holes have now been completed with the last five holes currently being logged prior to processing through the sample preparation facility in Asmara and transport to Genalysis Laboratories in Perth, Western Australia for analysis. Further assay results will be released to the market as they become available.

Following completion of the infill drilling program, one of the drill rigs has moved to the Koka East Zone, which lies 80-100 metres into the hangingwall of Koka Main Zone. Planning for drilling of the Koka South Zone is in progress. In the meantime one of the rigs will be employed on tailings dam foundation testing.

Four geotechnical holes have also been completed which will provide data on ground conditions in the pit highwall that will potentially allow a redesign of the pit to a lower strip ratio.

Koka, which is the flagship deposit at Chalice's 80 per cent-owned Zara Project, has JORC compliant Indicated and Inferred resources of 944,000 ounces.

**Table 1: Significant Koka Prospect Diamond Drill Assay Intercepts:**

Hole	Depth (m)	North (Local)	East (Local)	Azimuth (°)	Dip (°)	From (m)	To (m)	Interval (m)	Gold (g/t)
<b>ZARD135</b>	130.40	9620	4980	102	-51	38	44	6	12.37
including						42	44	2	33.82
						65	70	5	17.22
including						67	68	1	79.14
						75	82	6	5.27
						98	100	2	5.08
						110	115	5	21.90
including						111	113	2	46.53
<b>ZARD136</b>	129.00	9660	4980	102	-51	29	32	3	8.65
						39	49	10	9.97
						69	70	1	29.13
						81	87	5	5.49
						96	101	5	3.60
						109	111	2	18.75
<b>ZARD137</b>	179.4	9620	4940	102	-51	121	122	1	25.95
						130	134	4	32.76
including						130	131	1	127.77
<b>ZARD138</b>	90	9820	5000	102	-50	NSI – drilled into hangingwall of ore shoot			
<b>ZARD139</b>	147.70	9820	4980	102	-50	15	17	2	3.62
						51	59	8	1.35
						72	74	2	10.58
						126	132	6	1.28
						134	135	1	12.09
<b>ZARD140</b>	220	9660	4920	102	-50	NSI – drilled beneath ore shoot			


<b>ZARD141</b>	130	9780	4980	102	-50	31	40	9	4.68
						45	51	6	7.51
						58	59	1	15.06
						74	75	1	12.47
						98	101	3	5.23
						127	129	2	4.95
<b>ZARD142</b>	90	9780	5000	102	-50	10.2	12.5	2.3	5.97
						17	20	3	3.97
						37	39	2	6.33
<b>ZARD143</b>	160	9780	4960	102	-50	Results Pending			
<b>ZARD144</b>	200	9620	4920	102	-50	200	202	2	9.85

*Note 1: 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.*

*Note 2: NSI = No Significant Intersections*

### About the Zara Gold Project

The Zara Joint Venture comprises four Exploration Licenses and two Prospecting Licenses covering an area of 615 km<sup>2</sup> situated in northern Eritrea, approximately 160 km northwest of Asmara city (Figure 1). Chalice holds an 80% interest in the project with the remaining 20% held by Dragon Mining (ASX: DRA). The Koka Gold Deposit within the project contains an estimated resource of 5 million tonnes of ore containing 944,000ozs gold, grading 5.8grams of gold per tonne. Metallurgical test work indicates +95% recovery with ~60% recovered by gravity.



DR DOUG JONES  
Managing Director

22 February 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 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 Koka 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
<b>TOTAL</b>	<b>1.2</b>	<b>5.04</b>	<b>5.8</b>	<b>944</b>



Figure 1: Zara Project Location Map

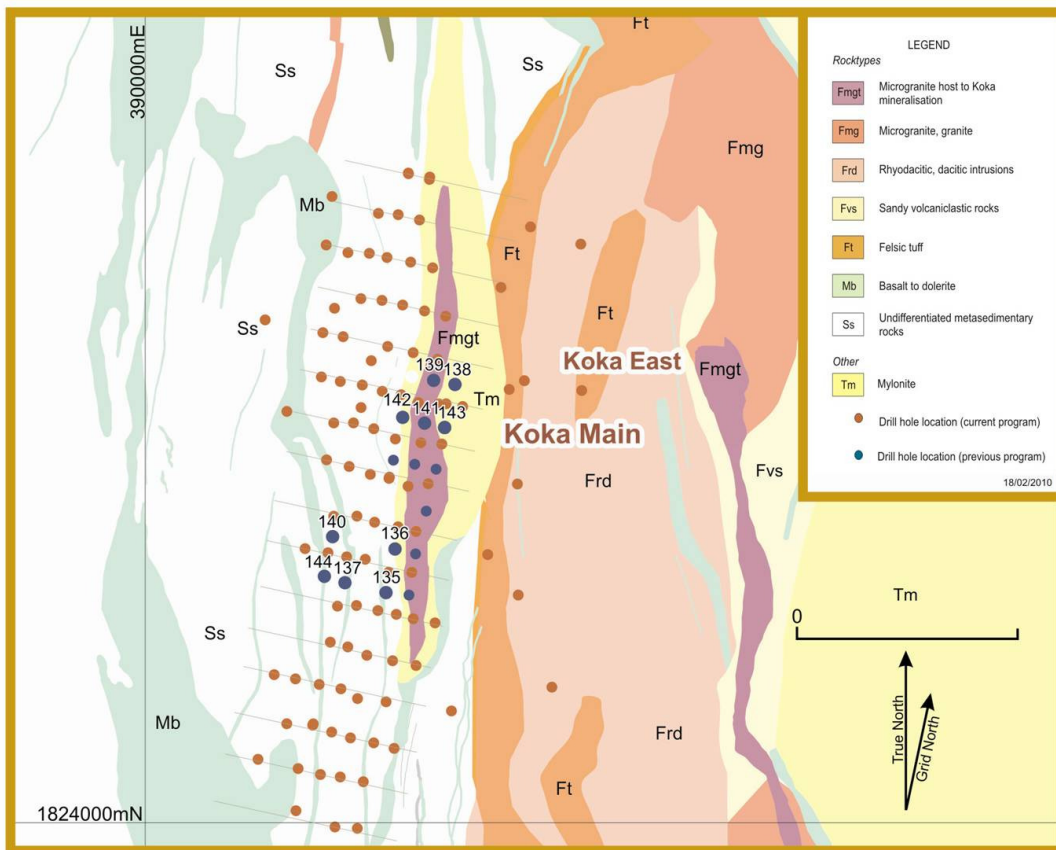


Figure 2: Zara Project – Koka Drill Hole Location Plan showing location of latest drill results.

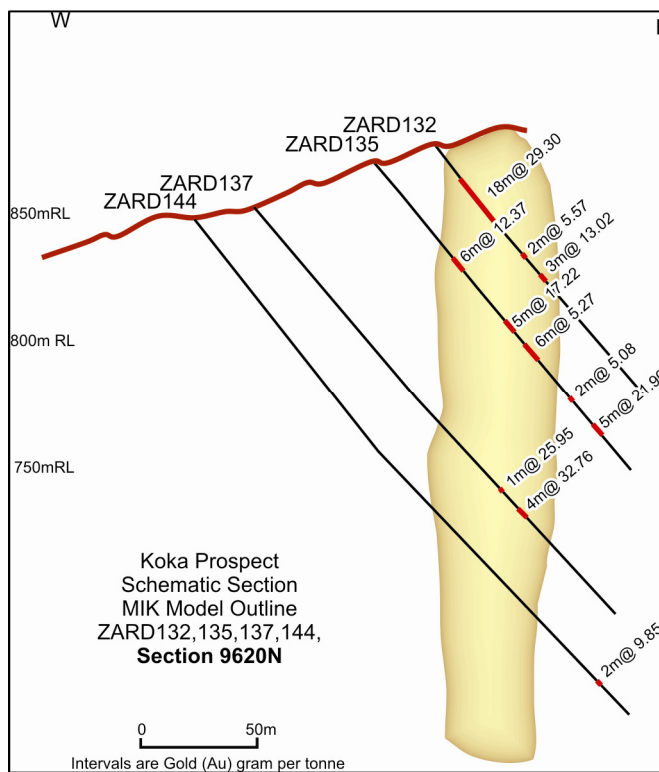


Figure 3: Section 9620N showing results from newly drilled infill holes.