

ASX Announcement REGIONAL EXPLORATION PROGRAM RAMPS UP AT ZARA

Further encouraging results from Zara North; new soil anomaly identified at Fah prospect



Chalice Gold Mines Limited ABN 47 116 648 956

20 December 2010

Highlights:

- Further results from Zara North confirm strong stream sediment anomalism over 10km strike length
- Follow-up and infill sampling over this target well advanced with new areas of artisanal workings identified
- Soil sampling at Fah prospect defines extensive gold anomaly
- Large heliborne magnetic and radiometric survey underway



Chalice Gold Mines (ASX: **CHN**) (TSX: **CXN**) is pleased to report that it is ramping up regional exploration at its **Zara Gold Project** in Eritrea, East Africa, with a focus on identifying new prospects to increase resources in the vicinity of its flagship Koka Gold Deposit, which hosts an indicated Mineral Resource of 840,000oz at a grade of 5.3g/t gold.

Follow-up geochemical sampling and geological mapping on the Zara North licence continues to confirm previously reported gold anomalism (see announcement to the ASX dated 22 July, 2010). Identifying the source of this anomalism will be a focus for intensive exploration over the coming months but work currently underway has identified several zones of previously unknown artisanal workings within the source area for the anomalies.

In addition, results from a soil sampling program at the Fah prospect, located 5 kilometres southeast of Koka, have revealed extensive high order gold anomalism.

Further, in order to better assess the exploration potential of the broader Zara licences, which encompass 615 sq km, a large heliborne magnetic and radiometric survey has commenced over the Zara licences with the objective of identifying alteration zones typically associated with Koka-style gold systems.

The Company is steadily increasing its exploration capability through the addition of resources and personnel and plans to use helicopter support to expand and accelerate these programs.

INVESTMENT HIGHLIGHTS

High grade Indicated gold Resource
(840,000 oz @ 5.3 g/t gold)

Mine permitting underway:

- Low cash costs of \$338/oz
- 7 year mine life at >100,000 oz average production per year

Large unexplored ground position
in the Arabian Nubian Shield

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1. Koka North Stream Sediment Geochemistry

As reported the ASX on 22 July 2010, results from a reconnaissance Bulk Leach Extractable Gold (BLEG) drainage sampling program completed over the Zara North and Zara South Prospecting Licenses outlined an extensive zone of gold anomalism in the western half of the Zara North tenement.

Follow-up infill sampling using conventional stream sediment sampling has confirmed that this gold anomalism extends over a strike length of ~10 km (see Figure 1) with **values of up to 876ppb gold** recorded. Field checking has revealed artisanal workings in several of the anomalous drainages, often associated with a semi-continuous high-strain zone with intense carbonate-sericite alteration and quartz veining over a 30-50m wide zone that extends the length of the anomalous zone (see Figure 2). Such shearing and alteration is often related to gold systems such as Koka. Reconnaissance rock chip sampling along this zone has returned assays of up to 11 g/t gold in a grab sample.

Chalice has recently commenced a program of detailed geological mapping and soil sampling to identify both the source and extent of the anomalism in the Zara North tenements. This program will be a major focus over the coming months and the Company has assigned additional technical staff to expedite its progress.

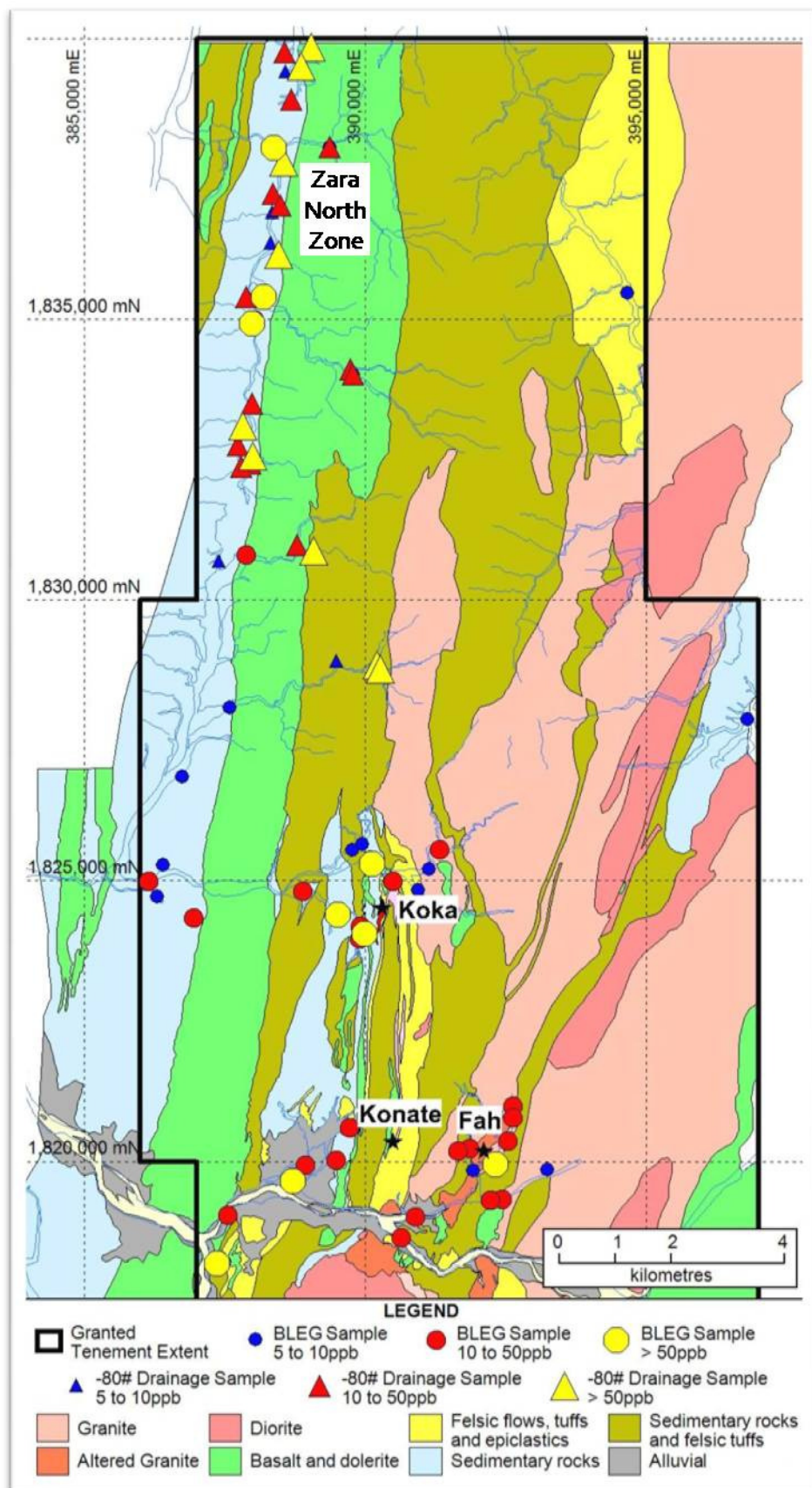


Figure 1: Anomalous BLEG and -80 mesh gold values – northern Zara Project



Figure 2: Zara North prospect – carbonate-sericite alteration associated with veining in source area of BLEG and Conventional -80 mesh drainage geochemistry gold anomalism

2. Aeromagnetic and Radiometric Survey

An extensive airborne magnetic and radiometric survey covering the Zara North, South and Central properties has commenced and is progressing well.

This 12,750 line kilometre survey will help define the regional geological structure, alteration patterns and granitoid suites/phases that may be associated with gold (and possibly other) mineralisation.

3. Fah Soil Sampling

Results from a recent geochemical survey over the Fah prospect, located 5km southeast of Koka (see Figure 1), have been received. They reveal a robust gold-in-soil anomaly extending over a strike length exceeding 1 kilometre and exceeding 100ppb gold (see Figure 3). It encompasses the main historical artisanal workings at Fah and overlies an intensely altered and finely quartz stockworked microgranite suggestive of a strong mineralising system. Two scout holes drilled beneath the main artisanal workings intersected disseminated sulphides associated with multiple narrow quartz stringers as well as several larger metre-scale quartz-sulphide veins. Assays from these holes are currently pending.

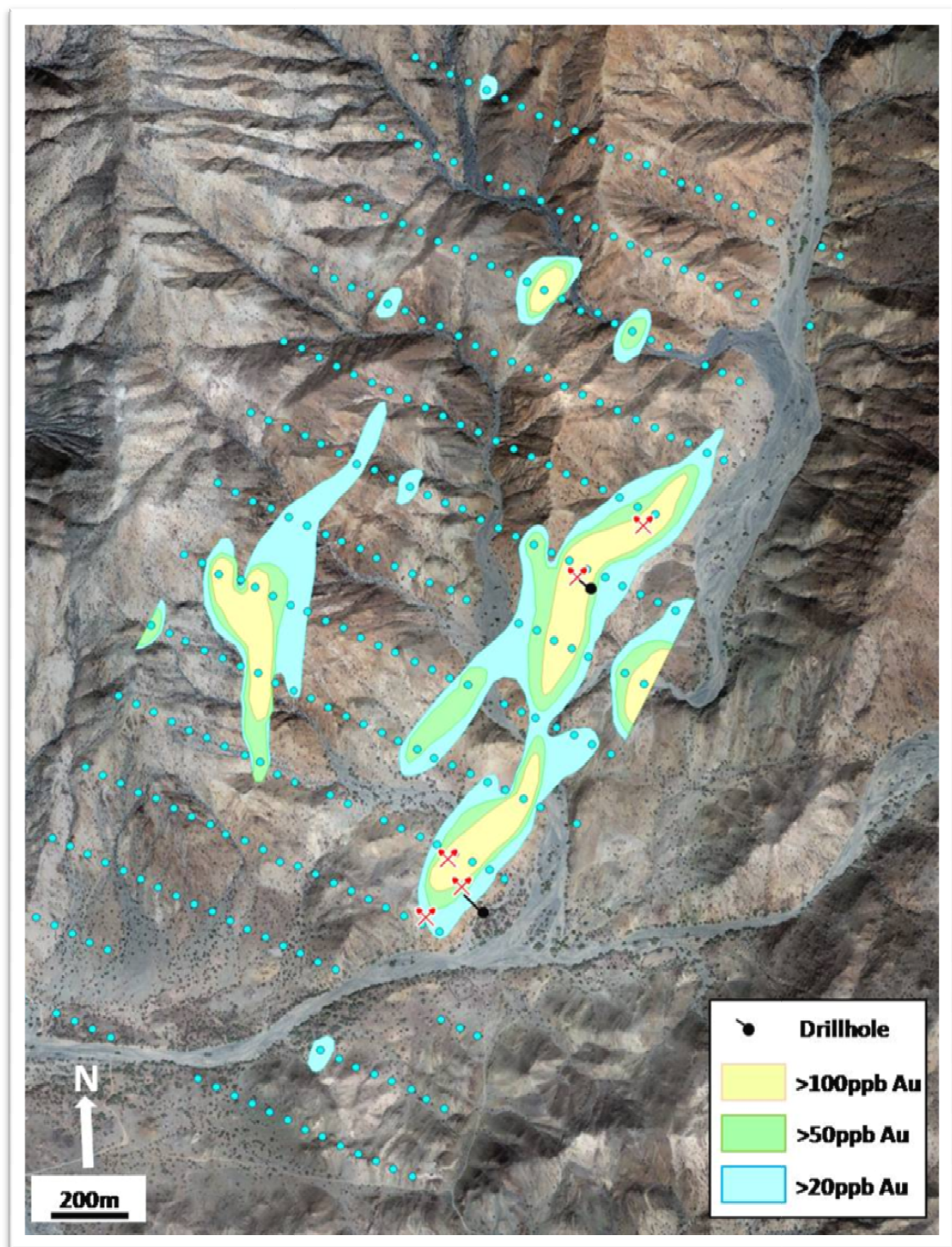


Figure 3: Fah Prospect – gold anomalies in -80 mesh soil samples

Douglas Jones

Doug Jones
Managing Director
20 December 2010

About the Zara Gold Project

The Zara Project comprises four Exploration Licenses and two Prospecting Licenses (currently being converted to exploration licences) covering an area of 615km² situated in northern Eritrea, approximately 160km northwest of Asmara city. Chalice currently holds a 100% interest in the project subject to the Eritrean Government's right to acquire a 30% interest, at fair value, in any mining project in addition to a 10% carried interest.

The Zara Project encompasses a portion of the Arabian-Nubian Shield, which straddles the Red Sea. This area is highly prospective for gold and offers similar potential to some of the better-known parts of West Africa, such as Ghana and Burkina Faso, but is still very much in its infancy in terms of exploration. Mines and projects within the Arabian Nubian Shield include Sukari gold mine and the Bisha gold-copper-zinc VMS mine currently under construction. Most of Chalice's 615 square kilometre tenement package at Zara remains virtually untouched by modern exploration.

The Koka Gold Deposit, within the Zara Project, contains a Probable Mineral Reserve of 4.6 million tonnes grading 5.1 grams of gold per tonne and containing 760,000 oz of gold. This is contained within an Indicated Mineral Resource of 5.0 million tonnes grading 5.3 grams of gold per tonne containing 840,000 oz of gold.

As Chalice announced to the Australian Securities Exchange ("ASX") on 13 July 2010, key parameters of the project obtained from a Feasibility Study for the Koka Gold Deposit prepared by Lycopodium Minerals Limited and completed in July 2010 are as follows:

- Average life-of-mine total cash operating costs* of US\$338 per oz of gold;
- After-tax net present value at a 5% discount rate of US\$196 million, life-of-mine earnings before income taxes, depreciation and amortisation* of US\$589 million and an after-tax internal rate of return of 35% at a gold price of US\$1,200/oz;
- Average annual gold production of approximately 104,000oz per year with gold production totaling 731,000oz;
- Forecast mine life of seven years at a mill throughput of 600,000 tonnes per annum, rising to 700,000 tonnes per annum from year 5;
- Estimated start-up capital cost of US\$122 million.

This announcement sets out a summary of information contained in the Technical Report released on 8 October 2010. For investors to fully understand the information in this announcement, they should read the Technical Report in its entirety, including all qualifications, assumptions and exclusions that relate to the information set out in this announcement.

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Competent Persons and Qualified Person 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 is a Qualified Person under National Instrument 43-101 – 'Standards of Disclosure for Mineral Projects'. The Qualified Person has verified the data disclosed in this release, including sampling, analytical and test data underlying the information contained in this release. Dr Jones consents to the release of information in the form and context in which it appears here.

The Mineral Resource estimate was prepared by Mr. John Tyrrell who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Tyrrell is a full time employee of AMC and has sufficient experience in gold resource estimation to act as Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code)' and is a Qualified Person under National Instrument 43-101 – 'Standards of Disclosure for Mineral Projects'. Mr Tyrrell consents to the inclusion of this information in the form and context in which it appears.

The information in this statement of Ore Reserves is based on information compiled by Mr David Lee who is a Member of the Australasian Institute of Mining and Metallurgy and a full time employee of AMC. Mr Lee has sufficient relevant experience to be a Competent Person as defined in the JORC Code and is a Qualified Person under National Instrument 43-101 – 'Standards of Disclosure for Mineral Projects'. Mr Lee consents to the inclusion of this information in the form and context in which it appears.

Sampling Procedures and Quality Assurance

Soil samples are collected from sites located using GPS. Soil material is collected from a depth of 5-20cm with a plastic trowel and sieved to 180µm mesh using stainless steel sieves. Approximately 120 grams of material is placed into two small Kraft paper sample bags, sealed and tagged with a unique number, with both bags being numbered identically. One of these samples is sent to NATA-accredited Intertek-Genalysis Laboratories in Perth Western Australia for assay whilst the other sample is retained as a duplicate in the Chalice Eritrea sample storage.

Samples are analysed for multi-element suites using ICP-OES after aqua regia digest on a 25g sub-sample and vacuum filtering prior to voluming to preclude errors resulting from insoluble residues. Au is analysed as an additional element utilizing Graphite Furnace AAS. Chalice Gold Mines inserts field blanks, field duplicates, repeats and certified reference materials (CRMs) into its sample sequences sent to the routine and umpire laboratories to control the accuracy and reliability of the analytical results.

Blank samples are introduced at the rate of 1 per 20 to 25 routine samples to test contamination during sample preparation. Certified reference materials (CRMs) are submitted with all sample batches at the rate of 1 per 20-25 routine samples. The CRM's inserted have values ranging from very low to high grade. 5% of the returned coarse reject samples are routinely submitted to an umpire laboratory (Ultra-trace Laboratories, Perth, Western Australia) to test the analytical precision of the principal laboratory. Standard samples are included at a rate of 1 per 20 routine samples and there is at least one standard per submission. The Company monitors the QA/QC information to ensure there are no systematic biases or overall analytical quality issues.

Rock-chip samples are collected and assayed in essentially the same manner except that the sieving step is omitted and 1-2 kg of sample is collected and bagged in a heavy-duty plastic bag before dispatch to Intertek-Genalysis Laboratories.

Non GAAP Measures

Information in this news release marked with a "*" above represent non-IFRS (International Financial Reporting Standards) measures.

Forward Looking Statements

This document may contain forward-looking information within the meaning of Canadian securities legislation and forward-looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995 (collectively, forward-looking statements). These forward-looking statements are made as of the date of this document and Chalice Gold Mines Limited (the Company) does not intend, and does not assume any obligation, to update these forward-looking statements.

Forward-looking statements relate to future events or future performance and reflect Company management's expectations or beliefs regarding future events and include, but are not limited to, statements with respect to the estimation of mineral reserves and mineral resources, the realization of mineral reserve estimates, the timing and amount of estimated future production, costs of production, capital expenditures, success of mining operations, environmental risks, unanticipated reclamation expenses, title disputes or claims and limitations on insurance coverage. In certain cases, forward-looking statements can be identified by the use of words such as plans, expects or does not expect, is expected, budget, scheduled, estimates, forecasts, intends, anticipates or does not anticipate, or believes, or variations of such words and phrases or statements that certain actions, events or results may, could, would, might or will be taken, occur or be achieved or the negative of these terms or comparable terminology. By their very nature forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Such factors include, among others, risks related to actual results of current exploration activities; changes in project parameters as plans continue to be refined; future prices of mineral resources; possible variations in ore reserves, grade or recovery rates; accidents, labour disputes and other risks of the mining industry; delays in obtaining governmental approvals or financing or in the completion of development or construction activities; as well as those factors detailed from time to time in the Company's interim and annual financial statements and management's discussion and analysis of those statements, all of which are filed and available for review on SEDAR at www.sedar.com. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements.

Accordingly, readers should not place undue reliance on forward-looking statements.