



Syama

Project Background

The Syama Gold Project is located in the south of Mali approximately 30kms from the Côte d'Ivoire border and 300km south-east of the capital Bamako.

The mine was initially brought into production in 1990 by BHP, was purchased by Randgold Resources Limited in 1996 and has produced over 1.5 million ounces of gold. The gold ore was mined using open cut methods and processed using a combination of "whole of ore" roasting and carbon-in-leach (CIL) extraction of gold from the roaster calcines. Following a sustained drop in the gold price during the late 1990's, operations were suspended in early 2001 and the mine placed on care and maintenance.

In April 2003 Resolute entered into a 12-month option-to-purchase agreement during which it evaluated the economics of re-opening the project. In April 2004 Resolute exercised its option to acquire the project based on positive conclusions of a pre-feasibility redevelopment study.

The Syama project comprises a single exploitation lease (200km²) which covers a 30km strike extent of the Syama shear zone.

Geology and Mineralisation

The Syama Project is located along a structural and geological feature known locally as the Syama Shear that extends for some 200km south into northern Côte d'Ivoire. Gold mineralisation is hosted within an overturned and thrust basalt-metasediment package that is in contact (structural footwall) with a largely undeformed conglomeratic unit.

Detailed structural studies at the Syama mine and nearby satellite ore bodies confirm that gold mineralisation is controlled by intersecting north-north-east trending reverse faults and north-

east trending thrusts, which envelope and bound the ore body in association with intense brecciation, sulphidation and carbonate alteration.

Higher-grade ore is typically found in highly veined and fractured carbonate-altered, intensely bleached and silicified basalt containing various quantities of abundant fine-grained and coarse-grained euhedral pyrite. Pyrite is typically observed as two phases, a very fine-grained disseminated phase, with a second much coarser-grained euhedral phase. Rare arsenopyrite has been observed within this unit, with occasional chalcopyrite. Carbonaceous material, probably graphite, is often observed as silicified fine 1mm thick wisps/veinlets, or as free carbon on fracture surfaces within drill core.

Mineralisation in the main ore body has a strike length of over 800m, averages 40m to 50m in width, and has been confirmed by diamond drilling to be open at depths of 600m below surface. Ore body modelling indicates a plunge to the north-west, where at depth the ore body is 100m wide.

FIGURE 2

Syama Project location and regional geology

