

Esaase Gold Deposit, Ghana, West Africa
Keegan Resources Inc., Vancouver, BC

LOCATION: The Esaase Deposit is located in southwest Ghana in the Ashanti region, 35 km southwest of Kumasi, which is the second largest city in Ghana and the regional capital. The deposit occurs within the national power grid, along a maintained road system and has local sources of water and experienced labor.

STORY: The gold mining region of southwest Ghana contains over 120 million Oz of combined gold, based on previous production and current resource/reserve estimates. The Esaase deposit occurs in the Asankrangwa Belt, a relatively underexplored belt medial to the Kumasi Metasedimentary Basin, lying between the better known Ashanti and Sefwi Belts. This belt also hosts numerous other gold occurrences including the ~3M oz Obotan deposit 13 km to the southwest. The Property totals 73 km² and has previously produced 500,000 Oz of placer gold. Keegan placed the first lode exploration drill hole on the property in October 2006 and within a year, had drilled over 150 resource delineation holes and estimated a total inferred and indicated lode resource of 1.7 M oz. Keegan has since doubled the number of holes and expects the resource to increase commensurately.

GEOLOGY: Mineralized rocks are bounded on the SE by a moderate to steeply NW-dipping fault, which demarcates a highly deformed, weakly electrically resistive, finely interbedded shale-siltstone package of rocks (host rock package) to the NW, from a highly electrically resistive and weakly deformed greywacke-siltstone dominated (footwall) package of rocks to the SE. The host metasedimentary rocks are folded around NE-trending axial planes that climb to the SE. Minor granitic dikes and stocks are present, which are locally sheared and mineralized when occurring within mineralized faults. Multiple stages of variably deformed quartz veins are present. The latest and most obviously gold-bearing veins are steeply-dipping and trend N-S in en-echelon arrays. These arrays are bounded by the aforementioned NE-trending, moderately W dipping regional thrust faults.

DEPOSITS: The Esaase deposit has been modeled as two parallel 20-60 m wide zones, trending NE and dipping moderately west. Gold occurs as free grains in and around quartz veins. The deposit is low sulfide: relatively minor amounts of pyrite and arsenopyrite are present. The host rocks have undergone quartz-sericite-Fe-carbonate-pyrite alteration and quartz-carbonate alteration. Iron carbonate is present as both Fe-rich carbonate porphyroblasts, many of which replace earlier andalusite porphyroblasts, which formed preferentially in aluminum-rich shale. Mineralization is believed to be coincident with the ~2100 m.y. Eburnean Orogeny and is thus coincident with the giant Obuasi, Prestea, Ahafo, and other deposits of the Ashanti and Sefwi Belts. Although Esaase is still in a relatively early stage of exploration and development, the deposit

exhibits multiple potentially economic attributes, including favorable geometry (low strip), good recoveries, low sulfide, and good grades from surface.

DISPLAY: Two core boxes displaying typical rock samples from the Esaase deposit with cross sections and maps are presented to illustrate the deposit.