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**Discovery of Blind Gold in Elgaab Unconformity Plain of  
Phanerozoic Overburden Basement Complex, North Sudan**

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**Abstract**

Artisanal Gold Mining was known in Sudan since Pharaonic Kingdoms. The rush of this activity during last period (1998–2015) has attracted attention of exploration geologists and attention of the investors as well. Hence, more than 266 locations and over 1,500,000 individuals involved in this mining activity. Estimation output of gold amounts to 67-ton of gold annually. This represents 85% of the total Au national production and makes 4 % of the total National revenues.

The studied area of Elgaab was discovered recently by Artisanal Gold Miners in the northern state where more than 1200 grams of gold /day is believed to be extracted from quartz veins injected within the foliation planes of highly sheared weathered metavolcano-sedimentary rocks of the Basements complex that intruded by porphyritic micro-diorite. The placer gold deposits as result of weathering of this formation have also been prevalent in the area.

Elgaab Artisanal mining area represent the extension of NE shearing zone extends from North Kurdofan (Sodri – Um Badir shear zones) up to the west of the River Nile, North Sudan. The area is dominated by Phanerozoic sediments covering the basement complex rocks, which until the last 5 years wasn't considered to be potential target for gold. . The discovery of this blind gold occurrences increase very much the potentialities to discover localities in other terrains of similar geomorphologies and geotectonic natures.