

Placer Gold Deposits in Madari Gold Mine, Southern Eastern Desert, Egypt: Orientation, Source and Distribution

Authors : Tarek Sedki

Abstract : Madari gold mine is delineated by latitudes 22° 30' 29" and 22° 32' 33" N and longitudes 36° 24' 03" and 35° 11' 44" E. Geologically, Madari rock units are classified into dismembered ophiolites, arc volcanic assemblage, syntectonic metagabbro-diorites and Mineralized quartz diorite and granodiorite. Deposition of gold in area occurred as a direct result of weathering of nearby gold-bearing veins. Main concentrations of gold are supposed to ensue close to the bed rock. Nevertheless, the several shallow channel-fill features covering lag deposits, arising throughout the alluvial fan sequence would definitely contain a percentage of the finer gold due to the limited washing and sorting capacity of the uncommon flood events. Gold deposits arise as disseminated and separate gold with limited pyrite, arsenopyrite and chalcopyrite everywhere veins in the wall rocks and lode gold deposits in quartz veins. In places, the wall rocks, in near district of the quartz vein, are grieyed strong silicification, chloritization and pyritization as a result of a metasomatic alteration due to purification of external hydrothermal fluids. Quartz veins are mostly steeply dipping and display banding features and frequently sheared and brecciated.

Keywords : Madari gold mine, placer deposits, southern eastern desert, gold mineralization, quartz veins

Conference Title : ICAMG 2021 : International Conference on Applied Mineralogy and Geochemistry

Conference Location : Sydney, Australia

Conference Dates : January 28-29, 2021