



EL ORITO COPPER PROJECT

COPPER-GOLD BRECCIA

The El Orito project lies within the Choix Mining District in northern Sinaloa within the southern extension of the continental magmatic belt of Sonora and the southwestern USA. The El Orito breccia is a phyllic altered polyphase breccia spatially and possibly genetically related to a Laramide quartz monzonite porphyry/andesite porphyry complex. The present extent of the breccia covers an area in excess of 33 hectares. Alluvial gold in magnetite sands is presently being mined in the drainages hosting the breccia.

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COPPER-GOLD BRECCIA

SUMMARY

The El Orito Project is located 5 km east of the El Platano breccia pipe (quartz-sulphide-specularite-tourmaline cemented copper breccia). The project is accessed by Hwy 23, 180 km by paved road northeast of the city of Los Mochis and 6.0 km northeast of the city of Choix (50K Choix G12-B69) in northern Sinaloa. The El Orito breccia is a phyllic altered copper-gold polyphase monzonite porphyry cut by a quartz-sericite-pyrite-tourmaline breccia.

HISTORY

The project has been in the owner's family for several decades and has been the focus of historic mining in shallow tunnels, pits, open cuts and dumps. In the early sixties shallow tunnels and several small pits were excavated focused along flashy copper sulphate and copper carbonate mineralization in +100 foot vertical walls in the breccia. In 1977 the El Consejo de Recursos Minerales completed survey work.

GEOLOGY

Late Jurassic magmatism in the region is the southern extension of the continental magmatic belt of Sonora and the southwestern USA and the late Cretaceous magmatism correlates with the Sonora-Sinaloa belt. A granodiorite batholith is intruded by a quartz monzonite/quartz monzonite porphyry /andesite feldspar porphyry complex and related magmatic-hydrothermal breccias. The El Orito Cu-Au breccia is characterized by intense phyllic alteration over a >1000 m width coincident with an intrusive breccia/magmatic-hydrothermal breccia complex. Rhyolite porphyry intrusions mapped nearby.

ALTERATION/MINERALIZATION

Pervasive phyllic (quartz-sericite-tourmaline-pyrite) is centered on the contact between altered quartz monzonite porphyry with clasts of coarse grained quartz monzonite and andesite porphyry with clasts of massive magnetite cut by quartz-sulphide-malachite-tourmaline and quartz-pyrite-chalcopyrite veins (WNW-ESE/dip NE). Massive vertical cliffs of copper carbonate measure >30 m in height. Gold is presently

PROJECT

Laramide age rocks

Porphyry-style Cu

Extensive phyllic

Alluvial gold

Clast-supported bx

Matrix-supported bx

Platano bx 5km W

Santo Tomas 13km N

Excellent access

Water and power

Services near

being mined from magnetite sands from erosion of flat, pitted quartz-limonite veins that cut the pervasive phyllic alteration. Rock float in the creek includes: massive magnetite-chrysocolla-pyrite-bornite-chalcopyrite (see cover photo); quartz-tourmaline-magnetite cemented breccia; and phyllic altered andesite feldspar porphyry cut by quartz-pyrite-malachite-chalcopyrite veins; massive tourmaline-magnetite-pyrite; massive actinolite-chlorite-magnetite; hematite-monzonite-malachite; and milky vein quartz-malachite-limonite.

PROPERTY MAPS AND PHOTOGRAPHS

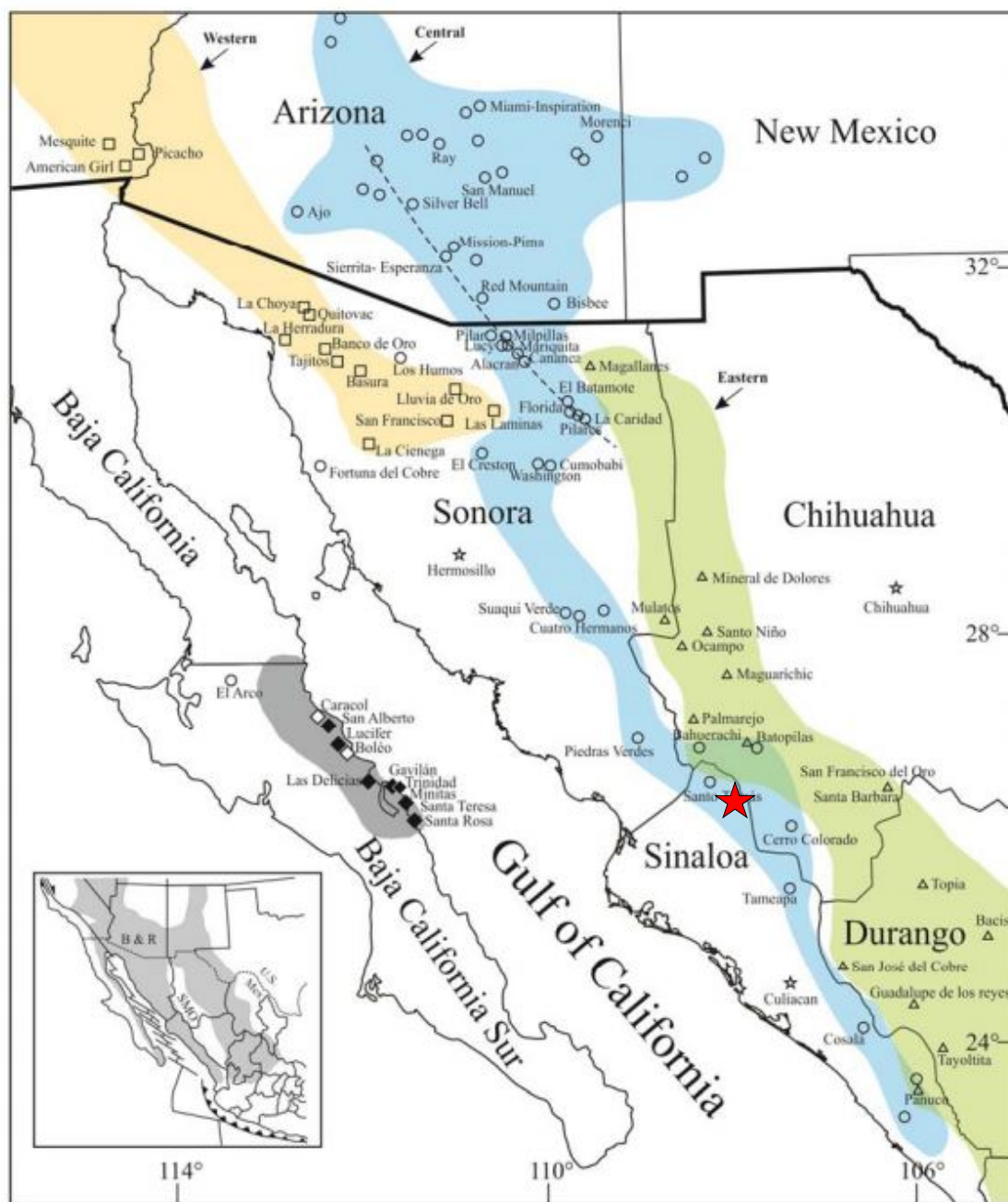


Figure 1: Regional map showing the location of El Orito Breccia (5km east of El Platano)



Figure 2: El Orito quartz-sericite-pyrite-tourmaline-chalcopyrite magmatic-hydrothermal breccia

RECOMMENDATIONS

A regional data review with a focus on magnetic and radiometric surveys; geological mapping and sampling of the property and a district review; a detailed ASTER/Worldview 2/GeoEye alteration and structural interpretation to define exploration targets within the land package.

The author has no direct or indirect interest in this property and is solely acting as an agent.