

New Minerals of "El Guanaco", Antofagasta Chile.

KARLSSON A.C., CLAUSEN C. and AYALA R. F. Mineral Investigation Methods, Córdoba National University, Argentine

The auriferous deposit " El Guanaco" is located in the region of Antofagasta province, (Lat.24°26'-25°07'S and Long. 69°31-69°32'W) Chile, in the mining district having the same name, 2900 above sea level.

This volcanogenic hydrothermal deposit is chiefly associated with Tertiary volcanic rocks, predominantly andesite-dacite. Deposits are controlled by faults and the ore bodies occurs in form of veins, pipes and stockworks. The deposits are frequently associated with rich ore forming sporadic concentrations or bonanzas.

The usual ore consists of pyrite, marcasite, enargite, , chalcopyrite, bornite, pyrrhotite, and secondary copper minerals, associated with gold.

Cryptocrystalline habit minerals have been determined by means of roetnographic studies. The crystals have been named for the first time in the The Guanaco deposit. Chalcographic studies have also been carried out.

The metallic ore is represented by stubby prismatic enargite with euhedral gold inclusion. Also, transformations of enargite into tennantite have taken place, often following crystallographic directions

Associated to the metallic ore brochantite has been determined. Plancheite with malachite and shattuckite has been determined, associated with the veins of auriferous quartz.

In pockets formed in the quartz vein borders beautiful baryte crystals have been developed covered by oolitic cerussite layers.

On the surface of contact of the volcanic rock chenevixite has been determined. Besides vugs developed in the volcanic rock has been filled up by rhombic sulfur crystals.