

**ESTRUCTURAS, ALTERACION Y MINERALIZACION EN EL ÁREA DEL RIO
BLANCO. ULLUM. SAN JUAN.**

Nilda Mendoza, Carlos Treo y Nestor Weidmann
Departamento de Geología (UNSJ). E-mail: rcabanay@infovia.com.ar

Abstract

The characterisation of hydrothermal alteration, mineralization and the relationship between present structures and terciary subvolcanic bodies in the Rio Blanco area, is determined.

The study area is located in the geological province of Precordillera, 20 km west to the capital, San Juan Province.

Geologically, the area is characterized by a stratigraphic sequence integrated by Paleozoic and Cenozoic rocks, intruded by subvolcanic mesosilicic bodies. These bodies are divided in five main units: altered Dacite-riolite,, Ullum dacite, Cerro Blanco andesite, Ullum andesite, and hybrid andesite.

Two groups of rocks are mainly well known: the argillitized and silicified dacites-andesites, and the completely altered dacites-andesites. The first group presents phyric texture with quartz phenocrysts, argillitized_feldspars with patches of calcite, cryptocrystalline silica and mafic minerals replaced by calcite and clay minerals. Clay, silica and calcite were observed in the matrix. The second one is completely replaced by clay and cryptocrystalline silica.

Furthermore, fine disseminated pyrite and pyrite with specular iron in boxworks have been detected, which represent the evidence of hydrothermal activity of moderate to low range.

Caolinite-halloysite-illite were determined by the portable spectrometer PIMA. Chemical analysis detected Ag, Cu, Zn, Mo, Sb, As, Pb and Hg as trace elements.

Main fault structures strike NW-SE coinciding with Blanco river trend. A second main group has a N-S direction and a third one strike NE-SO. The intersection of fault systems developed a structural node where major alteration is located.

This observation has to be considered as a good prospecting evidence as superficial expression of a possible precious metal mineralization in depth.