

COPPER MINERALS IN THE SEBORUCO AREA, TACHIRA

by

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Introduction

A four day reconnaissance trip was made to the area of Seboruco in order to obtain an idea of the copper mineralization and collect some samples of copper minerals reported from there.

Two creeks were visited, Quebrada Azul and Quebrada de Las Minas (see Map).

The mineralization appears to be limited to surficial incrustations and impregnations along the contact of the La Quinta formation with alluvial terraces as well as to the more porous La Quinta Conglomerates. The lateral penetration of the impregnating minerals is very shallow and does not exceed one centimeter where observed. Although reported, no signs of bornite were found.

Of general geologic interest is the presence of, at least, one exotic cobble within the La Quinta formation with an aureole of copper mineralization (probably malachite) around it.

Geology of the Area

The predominant rocks in the area are of Paleozoic age but there are also La Quinta, Río Negro and Apon outcrops and Pleistocene terraces and Colluvium. Only the La Quinta exposures, the terraces and the Colluvium show copper mineralization and will be discussed here.

La Quinta formation

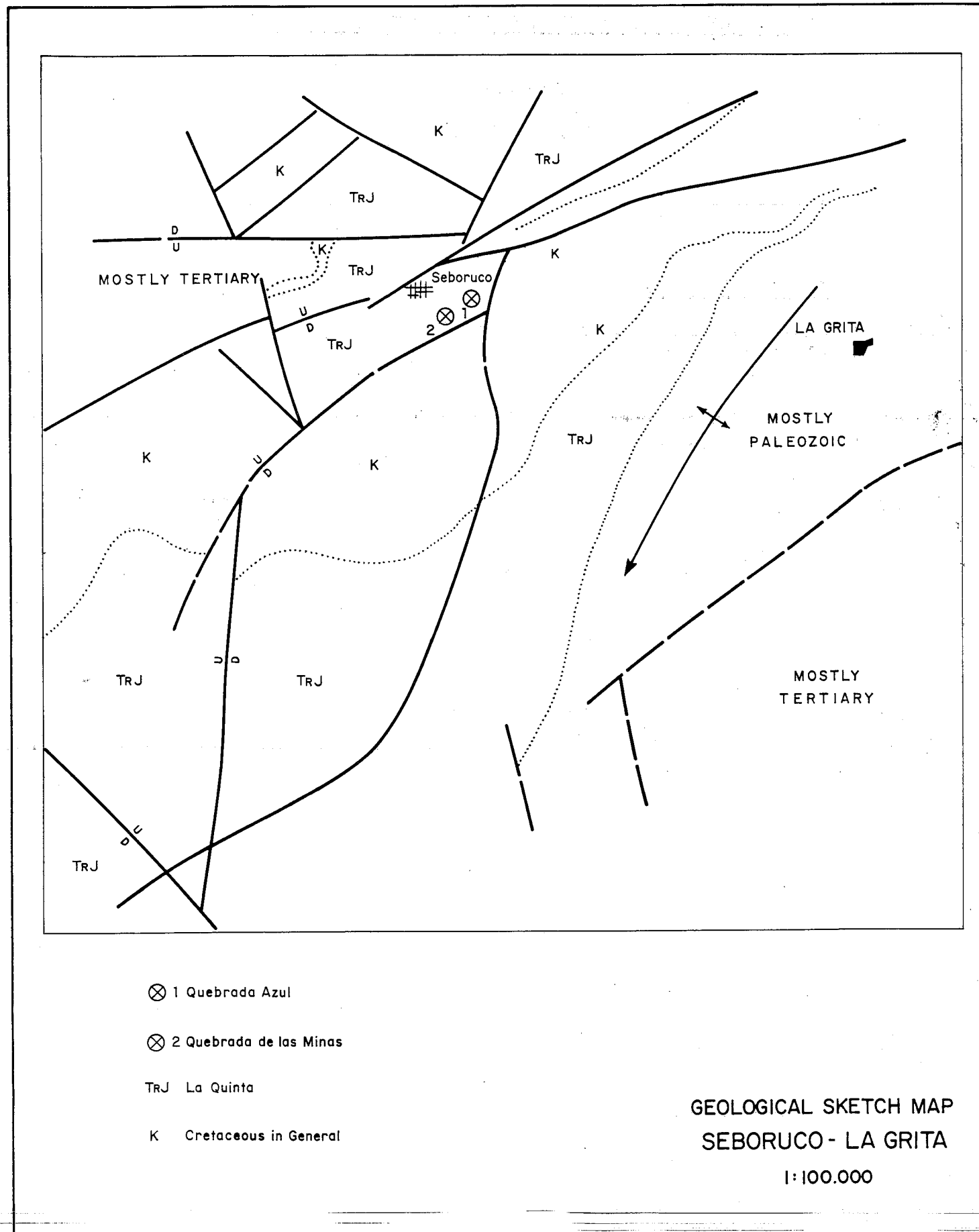
This unit consists of interbedded conglomerates, sandstones, siltstones, shales, calcareous intervals and layers of volcanic rocks. The general color is dark red or brick red but some of the conglomerates can be flesh colored and some of the shales are green. The conglomerates are rich in sub-rounded to angular boulders of limestone and igneous and metamorphic rocks derived from Paleozoic formations.

The unit was deposited under predominantly continental conditions although, locally, some marine influence is apparent. Maximum thickness is of some 3600 meters.

Pleistocene Terraces

Composed of poorly sorted conglomerates, sands, silts and clays derived from pre-existing rocks. They reach thicknesses of one hundred meters or more and are

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GEOLOGICAL SKETCH MAP  
SEBORUCO - LA GRITA

1:100,000

very widespread throughout the Andes.

#### Colluvium

Represents the boulders, gravels, sands, silts and clays which are being deposited in river and creek valleys at present. Also included in this category are the loose rocks and debris that cover the hillsides.

#### The Copper Minerals

The minerals are found as incrustations and films in the bed of Quebrada Las Minas as well as in two adjacent caves. Efflorescent coatings can be observed on some of the steep faces the creek has carved in the La Quinta formation. The minerals are: Azurite, Malachite, Cuprite, Chrysocolla and, possibly, Antlerite.

These minerals are usually found associated under rather arid conditions such as the ones prevailing in the La Grita-Seboruco area. They are considered to be secondary copper ores. The conditions of mineralization appear to be very similar to those found in the Río Mocoy area, State of Trujillo (Jefferson, 1968).

#### Commercial Value

The extent and volumen of the minerals at Seboruco are extremely small. Unless future, more detailed studies, discover a much larger area of mineralization, the copper of Seboruco is clearly non-commercial.

#### References

- Jefferson, C.C. Jr., 1968. El Cobre del Río Mocoy, Estado Trujillo.  
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### EL PROGRAMA DEL 8° CONGRESO MUNDIAL DEL PETRÓLEO

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El 8° Congreso Mundial del Petróleo será inaugurado el Domingo 13 de Junio de 1971 y clausurado el Sábado 19. Las ceremonias de apertura y cierre tendrán lugar en el Palacio de los Congresos del Kremlin. El alojamiento de los 3.000 visitantes extranjeros que se estima van a concurrir al evento, y las sesiones de trabajo se realizarán por primera vez bajo el mismo techo, en el hotel "Rossija", el mayor del mundo.

La parte técnica del Congreso la constituyen 25 mesas redondas (panel discussion), 15 revistas (review papers) y 10 trabajos individuales (special papers). La primera sesión de la mañana, de 9:00 a 10:00, se dedicará a revistas; la segunda sesión de las mañanas, de 10:15 a 1:00 pm., y la de las tardes, de 3:00 a 5:30 pm., serán para mesas redondas y trabajos individuales. Como habrán tres auditorios para las sesiones en el Rossija, el Comité Científico ha efectuado la programación en tal forma que no se celebren reuniones simultáneas sobre temas similares.

Las mesas redondas se han preparado en base a seis trabajos cada una. Las presentaciones de los trabajos no pueden exceder de 15 minutos, incluyendo gráficos. En ciertos casos especiales, el Presidente de la mesa permitirá una contribución de 10 minutos; el resto del tiempo será para discusión libre. Los trabajos individuales y las revistas deberán presentarse en no más de 45 minutos.

La siguiente tabla muestra la distribución geográfica de los trabajos del 8° Congreso.

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