

# ABSTRACT

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This report concerns about the geologic and metallogenetic-previsional data of the Serra Talhada sheet (SB.24-Z-C), on the scale 1:250.000. That sheet comprises the central-north sector of Pernambuco state, the southwest of Paraíba and southeast of Ceará. Taking into consideration the geological aspects, the area is positioned at the central region of Borborema Province, covering environments of four geotectonic domains or terranes: the Granjeiros and Piancó on the north, the Alto Pajeú on the south, and the Piancó-Alto Brígida on the central part. Covering these domains are found paleo-meso and cenozoic lithified sediments.

The Granjeiro Terrane comprehends two units, the Caicó (tonalite metaplutonic including supracrustals) and the Serra dos Quintos complexes. The Piancó Terrane is represented by the schists and gnaisses of the Piancó Complex, including the presence of migmatization as well meso and neoproterozoic intrusions. The Alto Pajeú Terrane comprises metasedimentary sequences, sometimes including metavolcanic rocks, corresponding to the Riacho da Barreira, Sertânia and São Caetano complexes, presenting metamorphism at green schist to amphibolite facies. At this terrane occurs also the Irajá Complex that corresponds to a metavolcano-sedimentary sequence that includes basic and granitic intru-

sions of mesoproterozoic age as well syntranscurrent calcalkaline granitoids (Itaporanga and Conceição type) and late to pos-transcurrent peralkaline granites (Catingueira and Triunfo types) of neoproterozoic age. The Piancó-Alto Brígida Terrane presents two neoproterozoic metasedimentary complexes, Salgueiro and Cachoeirinha, and two metavolcano-sedimentary mesoproterozoic complexes, Riacho Gravatá and Poço dos Cachorros. At the interior of this domain occurs great number of calc-alkaline granitic bodies.

Lithified platformal covers are present at the west and south of the Serra Talhada sheet: near the Patos Lineament is positioned the Iara basin of Eo-Cambrian age; representing the Paleozoic are found the Tacaratu formation at the Fátima basin and the Mauriti formation at the Araripe and S. José do Belmonte basins. Covering the Araripe and S. José do Belmonte basins there occur transitional terrigenous sediments of mesozoic age – the Brejo Santo and Missão Velha formations. Small amounts of detritic sediments of tertiary age are found, as well as quaternary alluvial deposits.

Considering the metallogenetic aspects, the area presents diversified environments:

1 - Stratiform deposits related to chemical, sedimentary and volcanogenic mineralizations represented by limestones in the Serra dos Quintos

and Sertânia Complexes, and less significant than ones found in the Salgueiro and Cachoeirinha Groups, the iron deposits in the banded iron formations in the Serra dos Quintos, Cachoeirinha, Riacho Gravatá and Poço dos Cachorros complexes and iron-manganese-graphite occurrences in the Poço dos Cachorros Complex.

2 - Lode-hidrothermal prospects of gold and sulphides related to shear zones or skarn amphibolite horizon (Itajubatiba Type).

3 - Mineral occurrences related to basic and ultrabasic rocks-nickel, asbestos and talc, at the environment of the Caicó, Serra dos Quintos and Riacho Gravatá complexes and Salgueiro Group and finally

at the Sertânia Complex where is found one occurrence of talc.

4 - Prospects related to pegmatites comprehend mineral occurrences of quartz and feldspar found in the Sertânia Complex, with small significance, as well as agate prospect in the Caicó Complex.

Concerning economic and previsual aspects, nine prospective areas have been selected, giving emphasis to limestone, iron and gold, being indicated the sedimentary basins due to the groundwater potential. The Serra Talhada sheet presents abundance of granitoids, the potentiality of these rocks are important for civil construction and as dimension stones.