

## REMOTE SENSING APPLIED TO THE IDENTIFICATION OF SCHEELITE MINERALIZATION IN THE SERIDÓ BELT (RN-BRAZIL)

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The skarns type scheelite deposits that occur in the region of Acari - Currais Novos-RN (Brazil) possess remarkable economic relevance. In the stratigraphic succession, they occur in the following contexts: i)- in the contact between marble and *metasediments*; ii)- *in the contact between marble and intrusive rocks*; iii) - inside paragneiss, schists and amphibolitic rocks.

For the digital treatment images of Landsat TM5 in the bands TM1-TM7 and Spot were used, with applications of directional and high-pass filter types in the directions N-S and NW-SE, evidencing the border limits of the lithologies, as well as the lineaments originated from the regional structures. The results obtained were transformed by a linear function of contrast producing enhances in the tonal component of the spectral content of the targets. The presence of the carbonatic rocks, associated with the mineralizations, was enhanced in ratios TM5/TM7, and the components of iron oxide present in the derived soils of the biotite-gneiss, calc-silicate rocks, biotite-schists and quartzites, were enhanced with the ratios application TM3/TM1 and TM5/TM7. The quartzites, due to its high content in iron oxide, were enhanced in the ratios TM3/TM1.

The relation of the information obtained by RS, together with the field informations, geochemistry and geophysical data, allow a revaluation of the regional distribution of the calc-silicate rocks where occur the scheelite deposits, supplying important information for the elaboration of regional maps for this type of mineral occurrences.