

Analysis of Lineations of the NW Sector of the Velasco Range, Sierras Pampeanas, Argentina.

¹TOSELLI, A.J., ¹BAEZ, M.A., ¹LOPEZ, J.P and ¹SARDI, F.G.
¹Instituto Superior de Correlación Geológica, Universidad Nacional de Tucumán, Tucumán, Argentina.

Based on the analysis of lineations carried out from a satellital image (1:230.000) over approximately 1600 Km² and field control in the main granitic unit in Sierras Pampeanas, three litho-structural units were determined: a) Porphiritic Granitic Unit; b) Cataclastic-mylonitic Unit and c) San Blas-Pampa del Melao Granitic Unit.

The isodensity map of lineations shows that the sector of major density corresponds to the outcrops of the Porphiritic Granitic Unit; the sector of intermediate density is observed in the areas of deformed granitoids and the area of minor density corresponds to the San Blas-Pampa del Melao Unit.

Three main directions of lineations were recognized: N 330° - N 350°; N 10° - N 30° and N50° - N70°. The diagram of frequency for the outcrops of the Porphiritic Granitic Unit shows these three maxima; the deformed areas indicate the greater frequencies in the NNW directions predominantly and ENE; while the sector of the San Blas-Pampa del Melao Unit presents a distribution with a maximum in the southern direction.

The information allows to interpret that the Porphiritic Granitic Unit shows the three regional directions that is characteristic of an intrusion in a quiet tectonic ambient. In the deformed region the NNW direction is remarked, generated as consequence of the deformative event and the ENE direction is probably related to the reaction of these efforts. The emplacement of the granitoids of San Blas-Pampas del Melao would have been controlled by the structures of the previous deformative, of N-S direction predominantly.