

Morphostructural caraterization of the Cordillera Negra (Ancash), using open source software

J. Gonzalez¹, M. Uribe¹

¹Universidad Nacional Mayor de San Marcos (UNMSM), Ap 15081, Lima, Peru

The research area comprises the western side of the black mountain range, is constitute from 20-g and 20-h of the leaves, corresponding to the quadrangles of Huaraz and Culebras respectively. The geology of the study area, is made up of the Coast Batholith, of granitic composition, the Goyllarisquizga group is constitute for quartz sandstones, gray clay, and volcanic rocks from the Calipuy group, whose are dacitic pyroclastic and rhyolitic deposits. Tectonically, the area presents a huge deformation evidenced in multiplies structures identified in the field along the road Huaraz – Casma. The objective of this recently study is to recognized the main morpho structures from this part of the Andes, which will help us to understand the tectonic setting and the structural style and also the relationship with hydrothermal reservoirs. The study is based on the use of informatic tools (open source), showing that its applicability is quite reliable and give us high quality results.

Regionally, the various volcanic deposits of Cenozoic age located in the central and eastern sector of the study area overlap in angular unconformity to the Mesozoic sedimentary sequences described by Benavides (1958). While in the western sector overlies in some cases intrusive rocks attributed by the Coast Batholith (Wilson, 1984), and they're refilling paleo broken and paleo valleys caved on an erosion surface of Paleo – Eocene age.