

STRUCTURAL FEATURES OF CHROMITE DEPOSITS IN
MUSLIMBAGH (PAKISTAN) OPHIOLITES.

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The Muslimbagh ophiolite complex occurs along the Pre-Himalayan Axial Belt in Balochistan. The ophiolites, believed to be fragments of oceanic crust and upper mantle occur south-east of the town in two massifs-Jangtor Ghar (about 150 km²) and Saplaitor Ghar (about 600 km²) each containing numerous small to medium size chromite deposits being mined since 1903.

Primary structures: Banded structure with massive or disseminated chromite grains alternating with layers of serpentine is common. The layers vary from a millimeter to several meters in thickness and length. Thin layers of chromite exhibit rhythmic structure and 35-40 layers can be seen within ten centimeters. The chromite layers also grade into barren rock.

Another prominent primary structure is "grape shot" ore which occurs as discrete "grapes" or as bands alternating with serpentine. Usually the "grapes" are well preserved, though squashed or fractured "grapes", some exhibiting pull-apart texture, also occur. Reverse relationship i.e. "grapes" of olivine /serpentine in matrix of chromite also occur.

In secondary structures, dyke-like cross cutting veins usually confined to the upper horizons of transgressive dunite are common and cut across earlier ore bands. Cigar shaped intrusive ore bodies exhibiting fractures and slickensided contacts with the host rock are present.

Genesis: Layered ore was formed due to fractional crystallization while "grape shot" ore is considered to be the result of liquid immiscibility.