

The Pushtashan ophiolite: New Evidences for Iraq Zagros Suture Zone, Kurdistan Region, NE Iraq

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Fragmented ophiolite complexes are abundant in the Iraq Zagros Suture Zone, which marks the boundary between the Arabian and the Eurasian continents. These ophiolites were emplaced in two major episodes in Late Cretaceous and Paleogene times (Ismail et.al. 2014). The Late Cretaceous Pushtashan ophiolite (POC) outcrop trends parallel to the Zagros belt and attains a width of six kilometres. There is a major structural break between the sequence underlying Tertiary Red Beds.

POC displays the classic ophiolite sequence and consists of three units. The top-most is volcanic rock, approximately 1000m thick, consisting of basalt and andesite. POC intrusive rocks approximately 140m thick form the middle part of the Pushtashan ophiolite and consist mainly of norite. Felsic igneous intrusions (mostly plagiogranite) are present in the upper part of the norite body. A small granitic sill is associated with plagiogranite. Ultramafic rocks make about 10% of the complex and form the lower unit. The maximum 40m ultramafic rocks consist of serpentized peridotite, sometimes altered to chrysotile asbestos and magnesite.

References:

Ismail S.A, Kettanah Y.A., Chalabi S.N. Ahmed A.H. and Arai S., 2014. Petrogenesis and PGE distribution in the Al- and Cr-rich chromitites of the Qalander ophiolite, northeastern Iraq: Implications for the tectonic environment of the Iraqi Zagros Suture Zone. *Lithos* 202–203 (2014) 21–36.