## Ghader_Abad nickel laterite occurrence, Zagrous folded belt, Iran

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Ghader-Abad nickel laterites are located at the Bavanat area, is a part of the Zagrous folded belt. Ghaderabad Ni-laterite occured between Darian and Jahrom formations is developed on the serpentinised harzborgites due to lateritic weathering processes. Two
studied weathering profile is included; profile A and profile B are both paleodeposits. The deposits are developed on the Neyriz ophiolitic serpentinite body. The weathering profiles are both laterally and vertically variable. An oxide zone, which is the main ore horizon, is located at the base of the profile. A hematite horizon is located above the limonite, which in the south of the deposit is capped by Eocene freshwater limestones and in the north by a siliceous horizon. The deposit lacks a significant saprolite zone with little development of Ni silicates. Mineralogical association of the lateritic zone included: quartz, $\mathrm{Fe}-$ oxides, carbonates and clay minerals. Minerlogically, the Ghader-Abad nickel laterites, is an oxide subtype deposit, and goethite and hematite are the main Nibearing minerals. Distribution pattern for Ni and Co in both of profiles is similar and show a positive correlation with $\mathrm{Fe}_{2} \mathrm{O}_{3}$, that it due to exist of Fe oxides minerals. $\mathrm{SiO}_{2}$ concentrations are relatively high within both of profiles and show major variations with $\mathrm{Fe}_{2} \mathrm{O}_{3}$ concentrations. Low nickel values correspond with higher CaO and $\mathrm{SiO}_{2}$ concentrations. Overall Ni values are relatively low possibly due to transportation and associated leaching of the Ni. Dilution of Ni grades by the precipitation of calcite and silica will also decrease Ni concentrations.
[1] Valiey, R., 2015, geochemistry and occurrences mechanism of the Ghader -Abad Ni laterite, Fars Province, Iran, M.Sc. Thesis, Shiraz University.

