

Notes on Picture Rock Quarry

Qtz Veining & Silicification.

Calcedonic Qtz Veining is prominent only near serpentinite-intrusive contacts where it is abundant only at the Picture Rock Quarry & the North Adit. All of the Serpentinite on the property was prospected & found to be relatively dry except for the two mentioned areas. In these areas, dominant quartz veins strike at approximately $10\text{--}30^\circ$ & dip either steeply to the north or steeply to the south $80\text{--}85^\circ$. The North Adit & the Picture Rock Quarry are possibly located along the same structure, the Quarry being down-dip from the Adit. ~~The~~ The veining is not traceable in outcrop and the two showings are also separated by a diorite dikes so the area would probably have to be drilled to determine the continuity of the veining.

A highly silicified rock is often found along the contact between the diorite & serpentinite in association with calcedonic qtz veining. This rock appears to be a altered serpentinite & a diorite. It is composed of fine grained qtz with remnant lenses of siderite ~~&~~ magnetite flecks of magnetite, ^{pyrite} & mafics. This is probably a late stage alteration which occurred at the time of veining not intrusion. Because siderite is found incorporated as a relic it can be assumed the ~~#~~ alteration of the serpentinite to ankerite-siderite occurred prior to this event. The serpentinite therefore probably underwent 2 stages of alteration, one ~~pervasive~~ ~~early~~ early pervasive alteration to ankerite-siderite & one later silicic alteration. Reid has mapped this as a silica carbonate rock & his assays found the rock to be dry.

Adit. Serpentinite

- The altered serpentinites are gneissic carbonate serpentinites with lenses of fine grained silicic mafics in siderite ankerite. These lenses often appear boudinaged or mylonitic. Generally these serpentinites contain approximately 60-30% mafic lenses.
- The serpentinite unit has a wavy foliation w/ small scale shallow open folds ~~trending approximately~~ which have

no general trend & shallow dips, $< 50^\circ$

Lenses of unaltered serpentinite are found within the serpentinite units as well as some pyroxenite (D25:D8) (amphibolite?) and cherty siltstones (D24)

The serpentinite is bounded by intrusives, dominantly diorite indicating the diorite is younger. Quartz (calcedonic) veining also crosscuts the diorite indicating that the veining occurred after intrusion & was most likely the final stage of intrusion.