

T8633 : metabasalt with epidote
and prehnite veins
(possibly a pillow lava)

This is a compact massive deep green rock with scattered patches of lighter veining, partly weathered out. The original igneous texture is well preserved and varies across the thin section from an equigranular doleritic texture to a quenched texture.

In the doleritic areas plagioclase is preserved, but in the quenched areas, plagioclase/glass interstitial to the original pyroxene (now amphibole) is replaced by epidote.

The doleritic areas have amphibole replicas of pyroxene grains 0.05 - 0.1 mm across, interstitial plagioclase and scattered opaque granules, in part along veins and rarely partly altered to leucoxene. The quench area contains amphibole replicas after phenocrystal and quench pyroxene in altered glass or feldspar, replaced by cloudy fine-grained epidote. In a transitional area, adjacent to a prehnite vein, the feldspar is replaced by prehnite.

Veins of coarse prismatic epidote up to 5 mm wide are composed of zoned prismatic grains to 3 x 0.5 mm. The zones are defined by opaque inclusions in layers around the core. Interstitial weathered (or leached out) opaque mineral(s) occur in patches up to 1 mm across, and fragments of metabasalt are enclosed in the vein. Veins of prehnite occur as extensions to the epidote vein in places and are composed of unoriented prehnite anheda to 0.3 mm across; these occur in the quenched and doleritic parts of the rock.

The original rock was a partly quenched basalt, possibly a pillow lava. The presence of the quenched phase may indicate proximity to a pillow margin.