

Sample #5
Weathered, altered porphyry(?)

887366

Summary description

Protolith fabric largely obliterated by alteration but less intense carbonate alteration than Sample 4. Conspicuous sericite pseudomorphs after plagioclase, some twinned plagioclase remnants. Scattered quartz grains not obviously associated with quartz impregnation.

Groundmass obliterated by irregular masses of very fine felted sericite and quartz clusters, segregations irregular impregnation.

Microscopic description**Protolith remnants**

Plagioclase; 30% (included with sericite), subhedral/anhedral (<0.1 to 2.0 mm). Partial to generally near complete pseudomorphous replacement by very fine felted sericite. A few twinned remnants. R.I. > quartz. Indicated composition in low andesine range.

Quartz; 5%, subhedral (<0.2 to 2.0 mm). Widely scattered regular grains, composite coarse grains. Generally show strained extinction. Some associated with pyrite crystals.

Alteration assemblage

Sericite; 60%, includes altered plagioclase phenocrysts, anhedral (microgranular to 0.2 mm). Fine felted. Partial to complete pseudomorphic replacement of plagioclase crystals. Other smaller irregular felted masses in groundmass.

Carbonate; 15%, euhedral/subhedral, (<0.1 to 2.0 mm). Disseminated fine to coarse grains, clusters of grains. Superimposed in groundmass. Coarse sieve texture (poikilitic-like) enclosing small quartz grains. Associated iron stain and dusting.

Impregnation

Quartz; 20%, anhedral, (<.05 to 0.2 mm). aggregates of irregular gains permeate the groundmass producing diffuse irregular segregations and discontinuous networks.

Accessory minerals

Apatite; traces, euhedral/subhedral (to 0.2 mm) Widely disseminated.

Opaques

Pyrite; <1%, euhedral to 3.0 mm). Widely scattered crystals.