

Sample Number :

3049

251127

Identification :

Quartz-veined, siliceous exhalite with abundantly disseminated rhombic pores after probable dolomite

Description :

The hand specimen is an apparently slightly weathered sample of very fine-grained, light grey rock, speckled with fine sand-sized pores and cut by numerous porous, white, thin fissure veins.

A staining test revealed no K-feldspar.

In thin section the main bulk of the sample is seen to consist of cherty quartz with abundant aligned fine sericite and numerous rhombic pores 0.1 to 0.3mm in size. No carbonate is preserved, but the pores are very likely to represent former dolomite. The grainsize of most of the sericite and apparent quartz is finer than 0.01mm.

Cutting the sample there are numerous fissure veins, up to 4mm wide, filled with sutured, strained quartz, along with minor rhombic cavities, probably after dolomite. Minor sericite, concordant with the sericitic host occurs in some quartz veins.

An apparent mode is :

- 50-70% cherty quartz
- 10-30% sericite
- 10-15% rhombic cavities probably after dolomite
- 8-10% vein quartz

Comments and Interpretation :

The sample is considered to be a siliceous exhalite which crystallized abundant rhombs of probable dolomite during diagenesis and very fine sericite during low grade regional metamorphism. Abundant quartz fissure veins with minor probable dolomite formed prior to regional metamorphism. It is unclear whether they are simply remobilized material in a brittle host or represent some externally imposed hydrothermal event.

No sulphide mineralization is visible.

It is strange that all inferred carbonate is now missing from the rock, even where the rhombic pores are surrounded by apparently massive rock.