

SAMPLE NUMBER: 562458

SUMMARY:

This is a greywacke derived mainly from pelitic metamorphics, but with some volcanic quartz; it is definitely correlatable with the Animal Creek Greywacke.

HAND SPECIMEN:

This sample is a massive pale grey fine sandstone with strong calcite alteration, both through the sandstone and as thick veins and segregations.

THIN SECTION:

Welcome to the 'I called the greywacke a basalt' club, founded by me, with about 150 members, and most enthusiastically supported and contributed to by Dougie Jack.

This sample is a fine sandstone with a generally finer-grained but more abundant detrital fraction than the previous sample. The framework grains constitute about 30 modal% of this rock, but are occasionally concentrated into thin coarser, sandy layers with much reduced matrix. Most of the detrital grains are angular and irregular strained quartz, of probable metamorphic or vein origin, although even-extinguishing probable volcanic quartz fragments are also present. A notable detrital component is quite coarse-grained flakes of muscovite, sometimes kinked and clearly of pelitic metamorphic origin. The sericitized albite phenocrysts noted as detrital grains in the previous sample are absent from this rock. Occasional small zoned pleochroic tourmaline grains also suggest derivation from a granitic or pelitic metamorphic source.

The matrix of this rock is shaley to silty, and quite strongly overprinted by calcite, and shows a well-developed meshwork of sericite that defines a weak foliation. This is classic Animal Creek Greywacke.