TRB-133-135

4. PETROLOGICAL EXAMINATION OF SPECIMENS FROM PYRAMID MINE, UPPER SCAMANDER

62-481.

The specimen is a strongly sheared, fine grained, grey rock, weathered to a yellow-brown on affected surfaces. There is a fracture cleavage at a high angle to the schistosity and a coarse rock cleavage at high angle to both the schistosity and fracture cleavage.

In thin section the schistose structure is well marked, the fine grained sericite of matrix being oriented so as to give aggregate extinction, and opaque white, fine grained clay minerals are also oriented. Irregular, sub-angular quartz grains up to 0.25 mm across are common, and the sericite laminae curve round these grains, showing that they are original and not porphyroblasts.

The rock is a schistose mudstone.

62-483.

The specimen is a pale grey siliceous rock with a little limonitic staining.

In thin section it is a mass of angular quartz grains, the interstices being filled with later formed quartz. The grain size varies from 2 mm down to very small fragments, all being cemented together in a compact mass. There is also structureless and sub-radiating sericite in places and occasionally minute grains of cassiterite.

The rock is a quartzite.

62-490.

The specimen is a medium to fine grained dark grey rock, consisting of white lustrous crystals of feldspar and black crystals

In thin section the texture is sub-ophitic, but the pyroxene is largely altered to hornblende, biotite, chlorite and carbonates. Feldspar is usually quite fresh and shows simple and multiple twinning, but there is incipient alteration to carbonate and some brownish discolouration. A little quartz is present and a good deal of magnetite.

The rock is a quartz dolerite.

62-491. *Surface working near No. 1 Shaft*

The rock is a siliceous breccia consisting of angular pieces of quartzite up to 1 inch long, the interstices being filled with dark crystalline cassiterite with which is associated a little limonite.

In thin section the breccia fragments consist of very fine grained quartzite composed of angular quartz grains in a siliceous and sericitic matrix. Grains of brownish zoned cassiterite vary from 1 mm to 0.2 mm.

62-492. *No. 1 South Low Level Adit*

In hand specimen the rock is pale grey, medium to fine grained, and predominantly siliceous. There is some limonitic staining.

In thin section the specimen consists of sub-angular grains 0.5-1 mm across, mainly of quartz, in a very fine grained matrix of silica and clay minerals. There are also grains merging into the matrix and of the same composition, which may represent in part original feldspar. There is also some brown opaque oxide of iron in minute grains and clumps of grains.

The rock is a quartzite of sedimentary origin.

62-493. *Brock's Adit*

The hand specimen is a fine grained dark yellowish green rock with fine white veinlets of quartz and patches of limonitic staining.

In thin section the rock consists of sub-angular quartz grains from 1 mm in length down to very small sizes merging into a siliceous matrix. The grains show signs of orientation and exhibit cleavage cracks and undulose extinction. There is also some very fine grained interstitial epidote associated with limonitic stains and a little haematite, and occasional minute zircons.

The rock is a quartzite.