UR 1957/28-29

GR/1 13th February, 1957

MEMORANDUM FIVE MILE COPPER-NICKEL PROSPECT

The rocks described hereunder are specimens collected by Geologist Robinson at the Five Mile Copper-Nickel workings north of Zeehan.

1. Light grey medium grained rock with signs of shearing. There are conspicuous grains of white and others of various shades of grey.

   In thin section rounded and angular fragments of quartz, crystals of more or less completely altered felspar, glassy and opaque material and rock fragments are visible. The interstices between the grains are filled with opaque and isotropic material, and there are some shard-like fragments.

   The rock is a tuff.

2. Fine grained, white, siliceous rock with brown oxide stains.

   In thin section the rock appears as a mass of irregular, angular, interlocking grains of quartz, irregularly stained. The grains vary from very minute up to .1 mm. across and show depositional structure.

3. Light grey, fine grained banded rock, showing iron pyrites.

   In thin section the rock appears as a fine grained aggregate of quartz and sericitic and clayey minerals with occasional felspar.

   The dark bands are due to disseminated pyrite.

   The rock is a shale.

4. Very fine grained light greenish grey rock showing cleavage.

   In thin section minute grains of quartz appear, set in a very fine ground mass of sericitic and clayey material.

   Minerals in the ground mass show extinction parallel to the cleavage.

   The rock is intermediate between a shale and a phyllite.

5. Chocolate coloured, fine grained rock with strong cleavage. The rock is somewhat shattered and cracked and the cracks have been

filled with quartz.

In thin section the groundmass is opaque with minute spots of birefringent material. Larger grains up to .05 mm, generally arranged in bands, can be seen. They consist of completely sericitised felspar and sharply angular quartz.

The rock is a shale.

6. Very similar to above. Fine stringers cut across the cleavage and consist of quartzo-felspathic material, partly altered to sericite.

7. Greenish-grey rock with hackly fracture, showing visible fragments of quartz and sparsely disseminated pyrite.

Thin section shows a very fine grained siliceous rock with dark bands. Fine veinlets of quartz cut across the rock and from them finer less well-defined bands penetrate along bedding planes. Fragments of rock isolated by veinlets have been rotated and their positions have been altered to give a brecciated structure.

The rock was originally a shale which has been shattered and injected with siliceous solutions.

8. Pale greenish sheared rock, much weathered and altered.

In thin section it is a structureless aggregate of sericite and dark green glassy material. The outlines of original felspar phenocrysts are still faintly discernible together with other faint structures of doubtful origin which may represent rock fragments.

The rock is a tuff.

(G. Everard)
MINERALOGIST AND PETROLOGIST

The Director of Mines,
Department of Mines,
HOBART.