

UR1960/17-18

(17)

20th April, 1960.

MEMORANDUM:

The following petrographic descriptions apply to rocks collected by Geologist R. McNeil in the Arthur River district.

G. Everard

MINERALOGIST AND PETROLOGIST.

The Director of Mines,  
HOBART.

ARTHUR RIVER No. 1.

Fine grained dense pale gray rock, with planar orientation shown by black slaty inclusions 1 mm - 1 cm long.

In thin section the rock consists of angular fragments up to .1 mm in length of quartz, feldspar and sericite in a very fine grained matrix. The white mica fragments show planar orientation in a more marked manner than the black fragments.

The rock is a sheared arkositic graywacke.

LAWSON RIVER No. 1

Medium to fine grained pale gray rock with strong hexagonal jointing. It weathers a yellowish brown due to light iron staining. The specimen has a somewhat mottled appearance, due to a granular structure, with grayish grains 1 - 2 mm across, very strongly cemented together by a pale yellowish interstitial material. Minute pores are very numerous and are only partly due to the weathering out of iron ore mineral, a few small dark grains of which still remain.

In thin section the granular structure is hard to detect, being only suggested by the innumerable pore spaces and differential staining of limonite. The grains themselves are composed of minute angular fragments of quartz feldspar and sericite in a very fine matrix of a similar nature.

The rock is an arkositic greywacke that has been granulated and recemented.

LAWSON RIVER No. 3

Medium grained gray carbonate rock with irregular mottlings and veins of white carbonate.

Under the microscope the dark carbonate shows patches of crystals averaging about 1 mm across, and very fine grained crystalline patches with grains averaging .05 mm.

The white carbonate shows secondary depositional structures and in the mass is relatively opaque and white.

LAWSON RIVER No. 7.

Pale gray, fine grained rock showing bedding.

In thin section is a fine even grained aggregate of quartz, feldspar, sericite, carbonate and dark and light coloured opaque angular fragments. Average grain size is about .1 mm.

The rock is a graywacke.