

SUPPLEMENTARY NOTE ON MT. LLOYD

310059

Since completion of the report of May 1956, new facts of interest have been noted. A brief petrological examination, by Mr. Spry, of specimens from the southern area, interpreted in the field as dykes of hornfels (p.3), has shown that they are in fact dykes of chilled dolerite, intruding and stopping an earlier dolerite. The two types are easily recognised in the field, the later intrusion being brown in colour, more fine grained, and seemingly porphyritic.

The Mt. Lloyd Post Office is built on top of a bare, convex hill of dolerite (called 'Barren Hills'). The edges of this hill are flanked with metamorphosed shale in the north, and quartzite at Leeson's mill, dipping away from the hill. Underneath the clothes-line at the Post Office, and behind the side door, are small dykes of white, fine-grained quartzite intruding the dolerite. The dykes vary between $\frac{1}{2}$ and 1 inches in diameter, branch frequently, and are up to 20 feet long. They are interpreted as fused sediment intruded into cooling joints in the roof of the dolerite intrusion.

The composition of these dykes is seemingly identical with the large numbers of very thin platy veins that intrude the dolerite in the southernmost creek on the map. The veins are less than $\frac{1}{10}$ " thick, traverse the width of outcrops, and are arranged on a grid pattern in sections normal to the plane of the veins.

The small dyke on Paddy's Flat shows strong metamorphism of the sandstones on the south, but relations on the northern side are obscure. There is a marked jointing or flow structure parallel to the sides of the intrusion. The rock contains olivine phenocrysts, so is probably of Tertiary age. There are very small remnants of an old basalt flow near the farmhouses in the extreme northeast

corner of the map.

A further point of interest is a very strong magnetic anomaly on the cliff just north of the gully that lies $\frac{1}{2}$ mile E.N.E. of bore site No. 2.

A piece of rock 16" x 8" x 12" high was sufficiently magnetic to cause an 180° compass deviation. Even on top of the range the compass showed a 30° variation. A check of the compass later showed a maximum instrument error of 1° of arc. The observations were confirmed by Brian Garrett, a surveyor of New Norfolk.

Arrangements have been made for the writer to inspect drill core during the summer, and it is hoped to find occasion to more thoroughly investigate the phenomenon.

Sgd. (K.L. Burns)

GEOLOGIST

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