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GEOLOGY OF PROPOSED IRON GATES TUNNEL

RADIUM HOT SPRINGS, B. C.

The site of the proposed Iron Gates road tunnel is situated about 2400 feet east of Radium hot springs close to the present road. It will have a length of about 300 feet. At its eastern end it will begin in rock and continue so for about 150 feet. Beyond this for some unknown distance it will be partly in rock and partly in silty clay and other soils, and for the remainder of its length in soils exclusively.

The rock through which it will pass is well exposed along Sinclair Creek canyon so close to the tunnel as to give positive indications of the kind of rock the tunnel will pass through.

These rock exposures indicate that the tunnel will be driven in limestone breccia made up of fragments of limestone and related types of rock up to 2 feet in length firmly cemented in a fine matrix of the same material. See plates 1, 2 and 3. These breccias were formed by the great Redwall fault which is many miles in length and extends to depths of many thousands of feet. It has been shown that the block west of the fault, in relation to that east of it, is displaced 5 miles to the south and an unknown distance downward. It has produced a zone of breccia, or fragmented rock, over 1000 feet wide which crosses Sinclair creek just east of Radium hot springs. These springs, as well as others along its extent, are believed to be genetically related to this great fault.

These breccias have great strength and durability as evidenced by their ability to stand for indefinitely long periods in vertical and

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