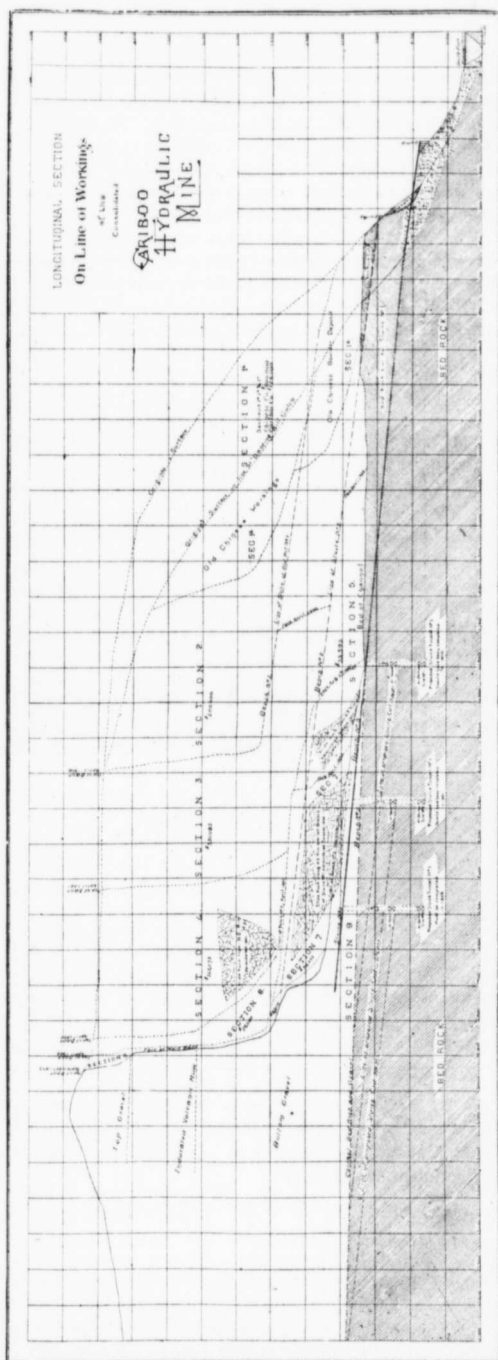


two a longitudinal section on the line of the workings. The longitudinal section shows that all the



ground in the third bench, including sections Nos. 5

and 7, has been worked out up to the face of the main bank, leaving a shallow bench of ground between sluice No. 1 and bed-rock, as bench No. 4, extending from the point where sluice No. 1 goes above bed-rock at "A" about 1,110 feet to the face of the main bank. The manager has also pointed out that the bed-rock cut "B," and sluice tunnel No. 1, at site No. 1, should have been completed during the season of 1900, when all the ground included in sections 4, 5, 6, 7 and 8, and the fourth bench, included in section No. 9, might have been washed through the cut and sluice at a reduced cost of mining and sluice maintenance. During the present season it is proposed to drive a sluice tunnel from either site No. 2 or site No. 3, to afford an outlet to the dumps for the ground worked in 1905.

HINTS TO PROSPECTORS.

IN his preliminary report on the Boundary Creek district, published in the recently-issued Summary Report of the Geological Survey Department, Mr. R. W. Brock gives some useful hints to prospectors. Mr. Brock was occupied the greater part of two seasons in field work in the Boundary and these hints are the outcome of his conclusions after close personal observations extending over several months, and numerous enquiries made by him from mine managers, miners and prospectors, more or less familiarized by practical experience with local conditions. He remarks:

"Since there is a great deal of similarity between the geological conditions in the Boundary district and those of other parts of South-eastern British Columbia, so far as they are known, it is quite likely that the experience gained in the Boundary Creek district may be applied in the districts west of it. Some of the results of observations in the Boundary district may be summarized as follows:

"Ore may be found in any of the Pre-Tertiary rocks where conditions for mineralization were favourable.

"The chief condition for mineralization appears to be heavy Tertiary volcanism. Ore occurs (1) near vents through which the volcanic rocks reached the surface; and (2) where the country rock is extensively dyked by the pink or grey alkali-syenite porphyry. Limestone contacts in such areas should be prospected with particular care.

"On account of the irregular form which the ore bodies may possess and the complex nature of the rock formations, a careful and detailed study of the surface of the ground in the neighbourhood of the mines would be of practical assistance in the exploitation of the ore bodies. For the same reason development work must always be kept well ahead of the actual mining. Cross-cutting must frequently be resorted to, to determine the actual limits of the deposits, and to prove the existence or non-existence of parallel ore shoots. The limits of mineralization must be actually proved, and similarly, only that ore can be certainly