At Aspen Grove, at the head waters of 1-mile creek, the predominating ore is copper glance. A group of claims have latterly been bonded here and active operations will no doubt soon follow.

At 10-mile creek, above Nicola, bornite occurs again this time in a talcose formation. On the Aberdeen several tons of this ore has been sacked for transport to the smelter.

(4). *Coal.*—Coal occurs both at Princeton and White lake. Until lately little has been done towards this section of the industry. A diamond drill and a calyon drill, both of which have lately started boring operations at Princeton, will find out the extent and nature in depth of the seams in this district.

Access to the country—Different Routes.—The approach to the Similkameen can be made : (1) From the north from Spence's Bridge on the C. P. R. main line via Nicola to Princeton at the west end of the valley, or from Sicamous junction on the C. P. R. main line via

TWENTY-MILE CREEK CANYON.

Okanagan lake steamer to Princeton, and thence by stage to Keremeos and Hedley.

(3). From Hope on the west, 60 miles by trail to Princeton.

(4). From Wenatchee on Great Northern, by steamer and stage to Amoville and thence up Similkameen.

Transportation.—Two railroad surveys have been made through this valley by the C. P. R., one route direct over the Hope Pass, another via One-mile creek joins their present main line at Spence's Bridge. The V. V. & E. were granted a charter also and their surveyors reached Amoville last December. A third project, in embryo, decides to run a spur from the Great Northern up the valley. The topography of the valley is an ideal one from a railroad engineer's point of view. With transportation this will be one of the busiest and richest mining sections in British Columbia and there is a very good chance of the railroad dream being fulfilled in the near future.

MICA MINING.

ATTENTION has lately been directed to the extensive occurrences of mica in different sections of British Columbia, notably those at the head waters of the Thompson and Canoe rivers, in the vicinity of Tete Jaune Cache, in the Big Bend of the Columbia river, and elsewhere. Last winter a considerable consignment of mica from mines near Golden was sent to Great Britain, and this year efforts are to be made to systematically develop these and other properties. It is, of course, too early yet to determine whether the mining of mica in this country may be profitably undertaken, in fact, as a writer, Mr. G. W. Colles, in the *Engineering Magazine* points out, "experience shows that in only a few regions of the earth occur dikes which contain mica in paying quantities, and even in these regions no certain indications of the presence of mica in a dike have yet been discovered. For the most expert miner, it is still substantially a mere guess whether paying mica is present or not. When present there is often a distinct lead which the mica blocks follow, strung out along either the hanging or foot wall of the dike, and in this case the excavations may be made through the somewhat softer country rock instead of in the hard pegmatite. But this lead is often discontinuous, petering out into worthless trash or scrap ; and it may, or may not, start afresh farther on in remunerative quantities. Thus days may be lost in groping about for a new lead, and it has happened that the entire profits of a rich haul of mica have been consumed in this manner. Mines have been abandoned as exhausted, and yet when again worked by a subsequent owner have yielded plentiful returns. Nor are leads always present, for the mica often occurs bunched together in pockets, in great agglomerations of crystals, or even single crystals of large size."

The difficulties and losses of mica mining are very numerous, and even when the substance occurs in blocks of commercial size it is, to quote the same authority, rendered valueless or comparatively so by one or more of a series of defects which may be classed as follows :

"Colour, specks, ruling, ribbing, and wedge-formation. Colour, is a defect only for certain uses, as for stove glazing, and, in ground mica, for decorative purposes. The colour of mica may be anything from black, dark green or wine colour, to yellow and pure white or, rather, colourless ; the former kind being useful principally for electric and the latter for glazing purposes. The colour of mica is dependent on its composition, and both together are the main guides to its value, independently of other defects.

"A great variety of minerals known to the geologist, all of more or less indefinite composition, are classed as mica. Physically, all have the well-known micaceous lustre and cleavage ; and chemically, all are substantially compound silicates of aluminum and of some other base or bases, such as soda, potash, lithia, lime, magnesia, iron, manganese, etc. For present purposes, we may roughly classify the three main commercial varieties as white or potash mica ("muscovite"); yellow or magnesia mica (phlogopite") ; and black or iron mica ("biotite"); but it is not to be understood that these form hard and fast lines, for they shade insensibly into each other. The last is much the commonest of the three, and indeed most coloured micas owe their tints to iron, which is the all but universal colouring agent, and biotite is found in all colours between light yellow green, smoky brown, and black. The potash mica is too hard and brittle for most electrical uses, but well adapted for glazing and flour. The yellow mica (which includes the "amber mica" of the trade) is fairly well