fairly launched upon its successful career as a rich dividend paying mine. In the meanwhile, Mr. J. A. Finch and Mr. P. Clark had been attracted to the camp, Mr. Finch getting a bond on the War Eagle, which he relinquished after expending several thousands of dollars prospecting; after which, Mr. Clark, who had thrown up his bond on the Josie, obtained one on the War Eagle. In the work hitherto done on this property, a large shute of low grade pyrrhotite, averaging $14 to $16 in gold to the ton, had been more or less explored, but on going farther west a few hundred feet, by trenching, the top of a splendid body of good ore, averaging 2¼ ounces in gold, nearly 100 feet long and 8 to 12 feet wide, was uncovered, and this mine took its place among the best in the camp, paying shortly afterwards its first dividend, February 1st, 1895, of $32,500.

Another strong factor in the rapid progress of the camp is the connection with it of Mr. Heinze and Mr. D. C. Corbin, President of the Spokane Falls and Northern Railroad. Mr. Heinze, the head of a smelting works in Butte, Montana, sent in two men to go over the ground, with the result, after much negotiating, that he made a contract with the management of the Le Roi mine that they should supply him with 37,500 tons of ore on the dump, which he would pay for after the shipment and sampling of each lot, deducting $11 per ton for freight and treatment charges; and also 37,500 tons on which the charges should be at the lowest rates obtainable in the open market. With this amount of ore contracted for, a land grant from the Provincial Government and a bonus of $1 per ton smelted from the Dominion Government, Mr. Heinze erected the Trail Smelter and built the tramway from the smelter to the mine. Mr. Corbin who has extended his road from Northport to Nelson, supplied also with a Provincial charter and land grant, is pushing his road up Sheep Creek from the south to Rossland. Thus constantly as the conditions improve whereby the cost of mining, shipping and treating the ore are materially lessened, does the limit decrease at which the ore ceases to be profitable and much more of the lower grade ore now in sight is made available.

The Ore Deposits.

Mr. R. G. McConnell, of the Geological Survey of Canada, after a short visit in 1894, reported* the country about Rossland to be "an area of eruptive rock, mostly diorite and uralite porphyrite cut by many dykes," but as no complete geological survey has yet been made, nor any reported lithological study, only a very general description can now be attempted. The main mass of all the country rock is evidently diorite, although it presents many different gradations in composition and structure, varying from a fine grained aphanitic rock with very little horneblende at one extreme to nearly massive horneblende at the other, often showing mica and pyroxene. Much of it looks like a basic syenite and samples have been taken for microscopical examination and later report, but the main point of interest is the fact that these ore bodies or veins traverse the diorite, although cores from the hanging and foot walls of the Le Roi shute will be examined as well as samples from either side of the Centre Star ore shute so well defined in the cliff running up Centre Star Gulch, to ascertain whether these samples are all one class of rock or two. In going over this region the variations are seen to be very marked, in some places the rock being stratified as if of sedimentary origin, but in all probability a more or less altered eruptive. Porphyry dykes from one foot up to 60 and 80 feet wide traverse the country, many with a north and south strike, but with no apparent dislocation of the veins which they cut through; indeed, at six such points of intersection the ore seemed to be concentrated, and even to follow along the dyke for some distance, but this must be made clear by further under-ground work. A careful geological survey will reveal very interesting facts relative to the formation of these ore deposits.

In this Rossland ore, much prospect work has shown clearly that there is a large system of lines of fracture with an east by west and north-east by south-west trend, and a persistent northerly dip, along which more or less ore has concentrated, either as bodies of solid sulphides or sulphides scattered through the country rock. Some of these fissures can apparently be traced through several 1,500-foot claims, and along them are the large ore shutes now being mined or developed, the maximum width of pay ore so far being about 35 feet, and maximum length 310 feet. Many of these fissures have been or are now being prospected, and in many instances with surface indications of the most unfavourable character, the improvement has been very marked in the increase of the amount of ore and its value, and the great probability that more rich ore shutes will be found by following these fissures has made all such property valuable, and is deciding the commencement of extensive exploratory work. Again, large shutes of low grade ore, mostly the coarse grained magnetic iron pyrites or pyrrhotite, assaying from traces to $6 to $8 in gold, have been found and are being explored for better grade

*Summary reports of the Geological Survey of Canada for 1894, 1895.