

Sec., R. L. Rutter, Spokane. Capital stock, 1,000,000 shares of \$1 each. Gen. Manager, E. J. Keller, Rossland. On this property is one of the largest bodies of sulphides in this district, in which a shaft 60 feet deep and 47 feet of cross-cut are altogether in this very low grade massive pyrrhotite. In the bottom of the shaft the ore was showing some change in that some chalcopyrite and quartz were coming in, which may lead to improvement in the grade of the ore, and to a shute of pay ore.

In the valley south-west of the town work is being done on several claims, such as the Commander, Palo Alto and San Joaquin, Butte, Florence, Alameda and Tramway.

COMMANDER.

Area, 52 acres. Title, Crown grant applied for. Location, $1\frac{1}{2}$ miles S. E. of Rossland on the road to Trail. Owners, the Commander Mining and Smelting Co., Spokane. General Manager, W. J. Harris; Secy.-Treas., Frank Watson, Rossland. Capital stock, \$1,000,000 at \$1 each. After considerable work had been done on the surface by trenching, a shaft, 5 by 9 feet, was begun on an outcrop of mineralized rock east of a porphyry dyke that runs nearly north and south. It follows down on a smooth wall for some distance, several tons of ore being taken out in sinking. At the bottom (73 feet July 10th) the diorite carries more or less copper pyrites, and assays in gold from \$4 to \$13 per ton. There is a 20-H.P. boiler, a good gallows frame, and a small sinking pump that was not working very well, thus retarding more rapid sinking, although not much water was coming in. On reaching a depth of 100 feet, drifts will be run east and west to explore the ground, and ore can be shipped by waggon to Trail, or to the tramway, about $\frac{1}{2}$ of a mile distant. Foreman, J. Houghton. Number of men, 12.

PALO ALTO AND SAN JOAQUIN.

Area, each claim is of full size; title, Crown grant. The Palo Alto is owned by the Palo Alto Gold Mining Company, Spokane, P. A. O'Farrell, President and the San Joaquin by the San Joaquin Gold Mining Company, Limited, of Victoria. Trustee, Hon. D. W. Higgins. Through these properties, all east and west, a vein has been traced for some distance; that near the separating end-line is crossed by the porphyry dyke, to the west of which, on the Palo Alto, is a 31-foot shaft, down which for 17 feet was oxidized matter, and after that to the bottom up to a width of 3 feet of ore, or fine grained arseno-pyrite. One hundred feet west of this is an open cut, on six feet of ledge matter, in which not enough depth has been attained to reach unaltered ore. East of the dyke on the San Joaquin, a shaft is being sunk on a narrow crevice, and at a depth of about 18 feet the diorite has become much more mineralized with pyrrhotite and copper pyrites. The Palo Alto is not being worked, but the San Joaquin shaft will be continued.

COST OF MINING.

The cost of labour and mine supplies is now about the same as found in other mining centres of the west. The following is the cost of labour—Miners, \$3 to \$3.50 per 8 and 10 hour shifts; trammers and top-men, \$2.50 per 10 hours; engineers, \$3.50 to \$4 per 10 hours; timbermen and blacksmiths, \$3.50 to \$4 per 10 hours; foremen, \$4 to \$5 per day. The cost of driving tunnels or drifts depends much upon the nature of the rock; in exceptional places, where the ground is much broken, the cost is from \$7 to \$10 per foot; but in the solid, tough diorite, from \$10.50 to \$15.50 per foot. Shaft sinking depends upon the size to some extent, but costs from \$18 to \$30 a foot. The price for timber, lumber, wood and other supplies, is now very reasonable.

I have the honour to be, Sir,

Your obedient servant,

WILLIAM A. CARLYLE,
Provincial Mineralogist.

August 8th, 1896.

VICTORIA, B. C.:

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