

the spur from the main line of the railway is extended to the mine. This will be completed in a short time. The ore in the dump, it is thought, will run about \$80 to the ton. The mine has been well opened up by about 1,200 feet of shafts and tunnels, and is in good condition. Mr. Russell left last evening for Brandon, where he will spend the forthcoming holidays.

PROGRESS IN MINING DEVELOPMENT IN THE BOUNDARY.

Greenwood, Dec. 2.—The C. P. R. track laying machine started work laying the steel on the spur line to the Mother Lode mine, Deadwood camp. It will be pushed as rapidly as possible to completion. The rails have been laid on the spur to within about four miles of Phoenix and it is expected if the weather continues favorable to reach there in three weeks. The track is laid to the B. C. and Oro Denero and will be to the Golden Crown within two weeks.

The Phoenix Waterworks company has been incorporated and J. Corryell, C. E., has taken levels for the water system, which is to be installed. Mr. Rumberger, owner of the Rumberger townsite has secured all the water rights in sight.

Paul Johnson, superintendent of the B. C. Copper company, has left for New York to meet the directors and discuss with them the purchase of machinery for the smelter. Good progress is being made on the smelter site and a large force of men is at work.

The C. P. R. will undertake the construction of three spur lines to the smelter for bringing in of ore, for delivering coke and coal for the furnaces and one to carry away the products of the smelter to the main line. Carpenter and blacksmith shops and buildings for the workmen are being erected and boiler room, engine room and other necessary buildings for the machinery will be started immediately. Mr. Johnson the superintendent, has perfected a sampling mill, which does away with the objections that smelting men have to mechanical smelters and his invention has been patented by the Union Iron Works of San Francisco. One of these samplers will be in use in the Greenwood smelter.

GOLD BUG.

The carload of ore sent from the Gold Bug, one of the properties of the Boundary Creek Mining & Milling company, in Deadwood Camp, has arrived at the Trail smelter. The ore carries 131 ounces in silver, 2 oz. 2 dwt in gold, 12 p.c. lead and 11½ p.c. copper. It netted \$110.60 per ton over freight and treatment, or \$2,217 for the carload. Mr. Hector McKee, of this city, is largely interested in this property, and is its managing director.

PAY ORE.

Mr. Smith Curtis reports that during his recent visit to the Boundary Creek country he arranged for having the tunnel on the Pay Ore continued so as to crosscut the ledge. It is now on for a distance of 150 feet and as the face is now in ledge matter it is thought the main ledge cannot be far away. The ore is a pyrrhotite in a quartz gangue.

TAMMANY GROUP.

A company is now being formed to operate the Tammany group claims, which consists of four full claims and four fractions. The owners are George H. Green, Burt Rae, Hector McPherson and Jod Paxton of Rossland. The capital stock will be \$125,000, divided into 1,250,000 shares of 10c each. The group comprises the Tammany, Burnt Basin, Gold Nugget, Jim

Blaino, Tammany Fraction, Gold Nugget Fraction, Burnt Basin Fraction, and Jim Blaino Fraction, covering in all nearly 300 acres. It is one of the oldest and best known group of claims in the camp, and adjoins the well known Mother Lode on the west. More than the owners will be glad to hear that arrangements have at last been made to operate this very promising property. All of these claims were surveyed last summer, and certificates of improvements have been issued.

At the present time a description of the property may be of interest. On the Tammany a quartz vein is traceable for over 500 feet, breaking through at intervals of 30 and 50 feet. At one point an open cut was made showing 15 feet of quartz, with only one wall in sight. Like its famous neighbor, a great deal of free gold was encountered in this cut, which is plainly discernable to the naked eye, the assays obtained being \$8.40, \$12.15, \$90.80, and \$498. On the Tammany Fraction is a quartz vein from two to four feet wide, which has been uncovered quite a distance, giving good values in gold. On the Burnt Basin a quartz ledge has been opened up along the lead in various places, showing it to average about four feet. The values received from this lead range from \$5 to \$85.

On the Jim Blaino a large open cut has been made, showing 15 feet, with neither wall in sight, of a heavy mineralized vein of iron and copper.

The Gold Nugget has a lead of quartz which is traceable nearly the entire length of the claim, showing it to be eight and twelve feet wide in places. This is a contact vein lying between porphyry and granite, the values being similar to the Tammany. On this claim there is also a galena vein uncovered, showing 14 inches of clean ore, which assays from \$27 to \$45 in lead and silver.

Knob Hill, Old Ironsides and Victoria Mines.

Grand Forks, B. C., Nov. 29.—Jay P. Graves, general manager of the Knob Hill and Old Ironsides, has returned from a trip to Phoenix. The Knob Hill tunnel is now in 890 feet, and the vertical depth at its face is 190 feet. The ore now being encountered, according to Mr. Graves, is the best in the history of the mine's development. The average copper values in the last week were four per cent, and besides, the ore carries good gold values. Crosscutting is now in progress to the west from the face of the tunnel, to be driven 130 feet to connect with upraise No. 2 to the surface at that point. The winze has now been sunk 120 feet below the floor of the tunnel. One assay made yesterday after last round of shots had been fired, gave a fraction over 12 per cent. of copper, and this ore looks very much the same as the ore in the Victoria at the 200-foot level, where work is also being steadily carried on. Mr. Graves added that the Knob Hill never looked better than during his recent visit. The Knob Hill spur is being constructed to the ore bins, and made a cut through a portion of the Victoria and Old Ironsides ground of from one foot to 45 feet in depth for a length of nearly 500 feet, exposing ore the entire distance.

The ore in the east drift on the 300-foot level of the Old Ironsides has greatly improved within the past few weeks. The south drift on the same level is following the foot wall, which is well defined. Sinking to the 400-foot level is now in progress, the shaft being down about 330 feet, the greatest depth thus far attained in the Boundary country. The south drift on the 200-foot level is still being extended, and a good grade of ore is being disclosed. The ore bins are being rushed to completion. The new bunk house is practically finished and is partially occupied. An engine and dynamo for the workings will ar-

rive within two weeks. Work on the engine house has already commenced. It is the intention of the management to use electricity in lighting the tunnel of the Knob Hill, and the shafts and drifts of the Old Ironsides and Victoria, as well as the engine house, boarding house and compressor buildings. A pumping plant including a boiler, is now being installed. A tank, with a capacity of 60,000 gallons of water is to be utilized in the washing of the ore, for domestic and other purposes, is now under construction. The ore bins and hoisting plant will be in working order by the time the spurs are laid and the smelter is ready to receive ore. The pay roll exceeds 150 men, but this will be increased to between 300 and 400 as soon as the mines begin to ship. Mr. Graves stated that the management has decided to install an additional compressor plant of 40 drills. Thirty days, he thought, would elapse before the rails reached Phoenix. Mr. Graves added that he had been informed during his stay there, of a new strike in the Brooklyn. At the 150-foot level six feet of high grade ore was encountered.

ORO DENORO.

At the Oro Denero in Summit camp a crosscut from the 200-foot level has been extended 170 feet. For 70 feet of this distance it runs along an ore body. The working will be continued to the surface on the hill where the railroad graders unearthed a rich ledge.

MORRISON.

Mr. F. H. Oliver, manager of the Morrison mine, reports that the property continues to look well as development work advances. The south drift is now in 180 feet, driven in ore all the way. The work will be continued 200 or 300 feet further.

B. C. MINE.

Two new 154-ton ore bins are being erected at the B. C. in Summit camp. With the sinking of the main working shaft an additional 100 feet, and the installation of a new plant, including a new 40-drill compressor, it is calculated that the mine will be able to ship 400 tons a day. About 200 miners will be employed. Ore sorters have already been engaged.

KAMLOOP'S McKINNEY.

The main working shaft of the Kamloops is down nearly 80 feet. The ledge, it is expected, will be encountered at a depth of 150 feet. A crosscut will be run from the 100-foot level. A 30-horse power boiler and hoist have just been ordered. A plant will be installed as soon as the development opens up enough ore to supply a 10-stamp mill. Although high assays have been obtained, the average values are about \$15 per ton.

WORK ON THE SUNSET.

Mr. Smith Curtis said yesterday that a few days since, while he was in Grand Forks, he met Mr. Robert Stevenson, who had visited the Sunset a few days before and had just come in from the Similkameen section. Mr. Stevens reported that the shaft had reached a depth of 70 feet and that the ore was increasing in value with each foot of depth. The intention is to crosscut when a depth of 100 feet has been reached. The sunset is now supplied with a steam plant for hoisting and pumping and later on the intention is to put a large compressor plant. At present there are three shifts at work and progress is being made at the rate of two feet per day.