

gravels in which the osmiridium is found, no experiments for saving this metal could be carried out. Punched screen, canvas and cocoa matting for one concentrating table are now on hand at the mine, and experiments should be undertaken next summer as soon as washing commences.

The manager, Mr. A. Hamfield, in his annual report to the directors concludes as follows: "It is hardly necessary here to state that the mine has never before been in such good condition to produce—as it will be next spring when washing operations commence. There will then be available 1,000 miner's inches of water, 6 giants to take care of it, and 5 cuts through which to wash the gravel. Flumes, sluice-boxes, bridges and cartracks will also be in good order. The average of the banks is at present not extremely high, and there will be none, or at least very little, frozen ground or boulder-clay to contend with next season. In all the pits there is pay gravel and in two of them the paystreak on bedrock shews very good. There is therefore all reason to look forward to a successful season's operations next year. I might state that the Cassiar district did attract considerable attention last year from a hydraulic standpoint, all the possible ground of this description being located, and preparations are now being made by the different companies to do some work on their holdings."

ATLIN CAMP IN 1904.

(By J. H. Brownlee.)

THE output of gold from the Atlin district in 1904 is estimated at over \$600,000, an increase above the 1903 production of over \$100,000. The encouraging feature is the fact that the 1904 gold was taken out at a greater percentage of profit than heretofore. This applies more particularly to the companies operating hydraulic plants.

The operators are now adopting better mining methods with gratifying results. This was particularly noticeable on Pine Creek this year where reduced labour costs and a better water supply were responsible for the improved results. There is now more pay gravel exposed in the benches of Pine, Spruce, McKee, Boulder, Beech and Otter creeks than at any time in the history of the camp, and consequently the output from all these creeks should show a further increase next year.

The past year has been one of successful exploitation of new creeks. A syndicate of placer miners have prospected to bedrock on Ruby creek, and so successful have been the operations that preparations are being made to work the creek next summer on a larger scale. Successful development has been carried on at the upper end of Boulder, while the largest amount of gold from dredging operations has been taken from the lower portion of the same creek. Extensive prospecting has been carried on by the Bull Creek Hydraulic Syndicate, covering the entire season of 1904, and with most gratifying results. Prospecting on a smaller scale has paid expenses on Fox creek,

a tributary of Bull creek. Several thousand dollars have been expended in exploiting O'Donell river, 25 miles from Atlin. This ground, and also Bull creek and Dixi creek, were examined last summer by an eminent California mining engineer, who will carry on more extensively prospecting next year for an American company. All of this ground is held under lease, as is also Gold Bottom creek, on which shafts were sunk last winter with gratifying results. It is not overestimating to say that the enterprise of the miners of Atlin district in seeking and prospecting new ground have added fully 5,000 acres to the known auriferous areas of the camp. For the most part this ground will be worked by steam shovels or dry land dredges next year.

1904 was an unusual year for dredging in Atlin, and considering the difficulties encountered in digging cement gravel, disintegrating it and saving the gold, the first dredge installed must be considered a success. It is a proven fact that the ground on which the dredge is working is very rich. A second dredge of similar type is being installed on Upper Spruce Creek by a company allied to the one operating on Gold Run. Both dredges will be operated from the same power plant and practically under the same management. To sum up, conditions in the district are steadily improving, the gold production is increasing and the prospects for the future are decidedly bright.

ATLIN DISTRICT.

(By H. W. Ebbs Canavan.)

THE work of the Pine Creek Power Co., Ltd., on Pine creek this year has been very exhaustive.

The company employed a large force of men and worked a large area of the benches on the south side of Pine creek below discovery. Dynamite was used successfully to loosen the gravel and the returns although not made public are said to show a large increase over those of former years. The company let a contract for the construction of several hundred feet of ditch to replace a flume that previously was the cause of much trouble. This work will materially increase the company's water supply and enable hydraulicing to be carried on next season on a much larger scale. The North Columbia Mining Co., Ltd., under the management of Mr. J. M. Ruffner of Cincinnati, purchasers of the Leeks and Stewardlyke leases and valuable quartz properties in the district confined operations this year to opening up a new pit on the north bank of Pine creek, using the water from the Weeks big ditch. Power was used most effectively in this pit to loosen the yellow dirt, which appears to be a continuation of the Gold Run yellow channel shown to carry large values. Considering the amount of preliminary work required to be done before commencing active operations the result of the company's work is highly satisfactory. The company owns a large area of ground known to contain two distinct pay-streaks or channels and with further development the gold recovery per year should yield large profits. The company also prospected the Stevendyke