

Mr. MATTHEW PAUL, Inspector of Mines, Waihi, to the UNDER-SECRETARY, Mines Department, Wellington.

SIR,—

Inspector of Mines' Office, Waihi, 27th March, 1909.

I have the honour to present my report on the gold-mining industry in the Hauraki Mining District, together with statistics, for the year ended 31st December, 1908.

Waihi Gold-mining Company (Limited).

The following is a concise report, bearing principally on the mining operations carried out on the Nos. 8 and 9 levels, where the most important development-works have been conducted during the year.

No. 9 Level (1,000 ft.).—North crosscut from No. 5 shaft was driven to a point vertically under No. 4 shaft and extended north from this point a distance of 239 ft. At 86 ft. from No. 5 shaft the north section of the Royal lode was intersected, and followed north for 137 ft., the lode giving very little water. The crosscut is now being extended in a direct line to No. 6 shaft. At 224 ft. from No. 5 shaft the Empire lode was driven into 15 ft. without disclosing north wall of lode. A large volume of water is coming from this lode.

South crosscut from No. 5 shaft has been extended a total of 124 ft.; and at 103 ft. in, the Royal lode was intersected 16 ft. wide.

Royal Lode: A total length of 546 ft. has been driven on this lode, 256 ft. east and 290 ft. west of No. 5 shaft south crosscut. Moran Pass was connected with No. 8 level, providing better ventilation and also travelling-way between Nos. 8 and 9 levels.

No. 8 Level.—South-east crosscut from No. 5 shaft: This was advanced 151 ft. during the year, making a total of 1,451 ft. At the end of the crosscut a total of 350 ft. was bored horizontally with the diamond drill. Several stringers of quartz of no value were passed through, and boring was discontinued on account of puggy ground being met.

Royal Lode: The total length opened up on this lode is 2,111 ft. East of North Section junction the level was extended in good-quality ore from 772 ft. to 873 ft. West of same the level was extended from 653 ft. to 1,138 ft. From Edward junction to 160 ft. west the lode varies from 3 ft. to 15 ft. in width of good-quality ore.

Rex Lode: On course of lode the level was extended from 20 ft. to 65 ft. south of Royal junction. A total distance of 428 ft. was driven west of No. 5 shaft south-east crosscut, the lode being 5 ft. in width.

Empire Lode: The total length opened up on this lode is 1,510 ft., 471 ft. having been driven during the period under review. The total distance now west of No. 4 shaft crosscut is 1,005 ft., and east of same 505 ft. The western end junctioned at 1,005 ft. with the Edward lode.

Alexandra Lode: East of 753 ft. crosscut on Empire lode: This has been opened up a total length of 459 ft., averaging 6·4 ft. in width.

Reef at 226 ft. in No. 4 shaft crosscut: The level was driven westward on course of lode from 50 ft. to 104 ft., at which point the lode almost disappears. The average width is 2 ft. Eastward the level was extended from 14 ft. to 89 ft., the average width of lode being 8 in.

Edward Lode: The total length opened up on this lode is 736 ft. of which 536 ft. has been driven during the year. This lode has widened out to very large dimensions, the ore being of first-class quality.

Martha Lode: On the North section a total length of 1,464 ft. has been opened up, and stopping operations are now in progress. South section: Stopping is proceeding between No. 4 shaft north-west crosscut and No. 6 shaft crosscut. Regina section: The level was extended 80 ft. west, making a total of 596 ft. The level has been widened, and stopping is in progress.

No. 7 Level.—*Royal Lode*: At the west end a distance of 236 ft. was opened up during the year, making a total of 2,011 ft.

A new steel pit-head frame has been erected at No. 4 shaft. Hauling from No. 6 shaft with automatic tipping-skips was commenced during the year and has proved very satisfactory.

Shafts.—No sinking has been done in any of the shafts during the year. The depths at the close of the year are as follows: No. 1 shaft, 708 ft.; No. 2 shaft, 935 ft.; No. 3 shaft, 348 ft.; No. 4 shaft, 853 ft.; No. 5 shaft, 1,020 ft.; No. 6 shaft, 856 ft.

About 300,000 tons of filling-material has been obtained from the various filling-cuttings and deadwork crosscuts for filling up the depleted stopes underground. Nine shafts, varying in depth from 600 ft. to 700 ft., are in use for conveying this filling into the mine. The total footage driven, risen, and sunk during the year was 17,320 ft., and the total tonnage of ore crushed amounted to 393,214 tons (dry weight) of 2,000 lb. per ton. The ore was obtained in the following proportions from the various reefs worked during the year: Martha, 206,431 tons; Royal, 42,302 tons; Welcome, 43,017 tons; Empire, 42,198 tons; Edward, 37,069 tons; No. 2, 9,603 tons; Albert, 7,530 tons; Reef I, 2,665 tons; Victoria, 1,065 tons; Princess, 855 tons; Regina, 318 tons; Rex, 161 tons: total, 393,214 tons.

Reduction-works.—The tonnages crushed at the three mills, together with the totals crushed during 1907, were respectively as follows:—

	1907.	1908.
Waihi Mill (90 stamps and average of 3·18 tube mills running full time)	117,409	116,570
Victoria Mill (200 stamps and average of 6·62 tube mills running full time)	211,062	249,293
Union Mill (40 stamps)	28,503	27,351
Totals	356,974	393,214