

carried to a point 156 ft. east of that crosscut. At about 50 ft. east of the crosscut the ore-body started to split up, and did not live eastward of that. At 100 ft. east of the Boundary reef crosscut, or 10 ft. within the Grand Junction Co.'s area, a crosscut was put out northward across the main body of the Martha lode. The full length of this crosscut was 76½ ft., measured from the south wall of the lode. The first 25 ft. was calcite, and from 25 ft. to 70 ft. a mixture of quartz and country rock of low value. Empire lode, south part: Investigation of the run of sulphide ore on the footwall of the lode intersected in the extension of London south-east crosscut just west of No. 4 shaft main north crosscut was continued. A drive was extended eastward from London south-east crosscut to a total distance of 89½ ft. and connected to an old drive on this part of the reef. Ore of good grade was exposed throughout. The western drive was extended to a total distance of 221 ft. in good-grade ore and connected to an old stope on the main part of the Empire lode. For the first 150 ft. of driving the ore-body was the full width of the drive, but westward became smaller, though still assaying well. A stoping block, known as Furze block, 225 ft. in length and extending from 140 ft. west of London south-east crosscut to 85 ft. east, has been opened up on the above ore. It is estimated to contain 24,912 tons, of an average value of £1 9s. 7d. per ton. At the end of the year this stope had been carried up 41 ft.

No. 9 level (1,000 ft. below collar of No. 5 shaft).—Martha lode: An extensive investigation of the hanging-wall of this lode was carried out in the neighbourhood of the Waihi Co.'s eastern boundary and also in Grand Junction Co.'s property, and is being continued. The results have been very encouraging. The locality of the investigation was immediately over the run of sulphide ore opened up in Waihi Co.'s ground at No. 10 level and now being stoped as Brook's block. The south crosscut from the Martha lode at 440 ft. east of No. 6 shaft south crosscut at No. 9 level was extended to a total distance of 51 ft. Sulphide ore of payable value was intersected between the 22 ft. and 26 ft. marks. Up to the end of the year a drive had been carried eastward on this make of ore a total distance of 409 ft. The drive crossed the boundary at 112 ft. east. Samples from the first 69 ft. of driving were low grade, but from the 69 ft. mark to 282 ft. east the values were consistently good, the assays giving results ranging from £1 1s. 6d. to £3 per ton for the width of the drive. There was a poor stretch between 282 ft. and 339 ft., but from 339 ft. to 409 ft. assays ranged from £1 15s. 9d. to £2 9s. 3d. per ton. A crosscut at 410 ft. showed a width of 12 ft., assaying £2 9s. 6d. per ton. The drive is still in good ore. The work done indicates a substantial quantity of payable ore to be won from this area. Driving eastward is being continued.

No. 8 level, 60 ft. sub-level.—Edward lode, West Section: The 60 ft. sub-level was extended southward in good ore to 185½ ft. south of Sprat west wall pass. The reef then narrowed to 2½ ft., and was of low value, and driving was stopped. A considerable amount of work was carried out above this sub-level, and stoping of two blocks known as the Perchson and Tubman blocks was in operation on high-grade ore. This section of the Edward lode is dipping flatly towards the west.

No. 8 level, 48 ft. sub-level—Martha lode: Operating from the southern end of Peach block at a point 48 ft. below No. 8 level a crosscut was put out to the Martha lode in country rock, and a further test of the lode was made in this western area. The total width of quartz and mixture was 45 ft., of which 5 ft. on the south wall was sulphide ore assaying £2 13s. 8d. per ton, the balance being low grade, averaging only 7s. 6d. per ton. The make of ore on the south wall will be further investigated.

No. 8 level—Martha lode: An investigation of the Martha lode above the run of sulphide ore opened up on the hanging-wall of the lode at No. 9 level near Waihi Co.'s eastern boundary was in progress, but up to the end of the year there was no development of importance. Martha lode—arches, &c.: The eastern portion of the Martha lode between Nos. 8 and 7 levels supplied a large tonnage of ore throughout the year from arches and caved sections. Operations are being conducted from four sub-levels. North section of Empire lode: With a view to further investigation of the ground above Leather block on the north section of the Empire, the drive eastward from Alexandra east crosscut was extended to 166½ ft. At 116 ft. east crosscuts were put out, 7 ft. to the north and 22 ft. to the south, and, at 162 ft., 5½ ft. to the south and 78½ ft. to the north. So far these crosscuts have disclosed only leaders of low grade. Dreadnought lode: To further test the ground south of the Empire lode in the eastern part of the company's property, and particularly the Dreadnought lode, driving was started eastward along the Empire lode from the Alexandra east crosscut, and at 55 ft. east of Snape winze crosscut 100 ft. to the south across the line of the Dreadnought lode. A borehole was also started at 70 ft. east of the main north-west crosscut. This bore disclosed 8 ft. of quartz on the line of the lode. At 100 ft. south in Snape crosscut, as measured from the south wall of the Empire lode, the Dreadnought lode was met with, and was tested for 8 ft. eastward and 39 ft. westward. There was one promising assay at 8 ft. west, but westward from this point the reef decreased in both width and value, and driving was stopped. The country to the east was further tested by a crosscut from the Dreadnought lode at 34 ft. west, but it penetrated light-grey andesite of unfavourable nature, and crosscutting was stopped at 58½ ft.

No. 7 level—Martha lode: Longson's crosscut opposite No. 1 shaft was extended across the Martha a total distance of 160½ ft. and connected by a short drive westward to No. 1 shaft, where the latter had collapsed. A caving block was opened up east and west of this crosscut, and is supplying ore of good grade. Good-grade ore was also won by caving east and west of Longson pass at No. 6 level, 120 ft. sub-level.

No. 6 level: Operations were confined almost entirely to stoping and trucking. An investigation of a section of No. 2 reef was, however, carried out by a crosscut from the north branch of the Martha lode at 132 ft. east of Wheel north crosscut. At the end of the year the crosscut was in country rock.

No. 5 level—Martha lode, north branch: The investigation of a length of this lode situated at 350 ft. north of No. 2 shaft, commenced last year, was continued. A drive was extended westward from Taylor's north crosscut, situated at 85 ft. east of No. 2 shaft north-west crosscut, for a total distance of 186 ft., passing along the north of a rich make of ore worked some years ago. At 150 ft. west a crosscut was put out to the south which connected with these old workings. A leader that was followed proved to be small and generally low grade, with occasional good assays. An eastward drive was extended from 74 ft. to 172 ft. For a distance of 132 ft. east of the crosscut there was a width of from 2 ft. to 5 ft. of ore of good average grade, with occasional rich patches, but eastward from this assays were low, and between the 157 ft. and 172 ft. marks only a trace of quartz was seen. Taylor's north crosscut was then extended to 38½ ft. north, and between the 33 ft. and 36½ ft. marks a make of sulphide ore of good grade was passed through. A stoping-block east and west of Taylor's crosscut, and including the main north branch and a loop on the north side, was opened up. The block is about 150 ft. in length and 10 ft. in width at No. 5 level. Truck samples show a value of £1 17s. per ton. The north branch of the Martha lode, east of No. 1 filling-pass, was also driven on eastward from the filling-pass for a total distance of 245 ft., driving being stopped close to the west end of the empty Whiteson block. The lode proved to be small, only ranging from 1½ ft. to 4 ft. in width, but it was of good value, and a good deal of ore was won from it. A stope will probably be opened up on this section. At 203 ft. east a crosscut was put out to the north for 71 ft. and connected with old workings on No. 2 reef. Between the 41 ft. and 48½ ft. marks 7 ft. of ore, assaying £2 10s. 6d. per ton, was passed through. This ore was followed westward 68½ ft., and eastward 17 ft., at which latter distance the drive connected to an empty stope. This reef has been designated "South branch of No. 2" and will be further investigated. At 203 ft. east another crosscut was put out southward for a distance of 24 ft., when it connected with the Martha footwall gangway. Between the 6 ft. and 10 ft. marks in this crosscut 4 ft. of quartz was met with, assaying £1 6s. 4d. per ton. This make of stone was named "Cameron reef." It was driven on westward for 23 ft., and eastward 172 ft., but proved of no commercial value, and was found to consist of small leaders of quartz divided by much country rock.

Surface workings: Ore of good grade was won throughout the year from the Emily block on the Welcome lode, from the Merry Arch block on the Martha lode, and by open-cut working from the south branch of Martha lode east of No. 2 filling-pass crosscut.