

years was arrived at, under which the Grand Junction undertakes to pay an increased proportion of the pumping-expenses. Several winzes have been commenced on these two lodes, and the main shaft is down 90 ft. below No. 8 level, so that the opening-up of another level is well in hand.

An important discovery was made by this company on extending No. 5 level on the Mary lode north into the property recently acquired from the Waihi Extended. The lode matter changed from low-grade quartz with bunches of mineral to a regular mineralized ore-body about 3 ft. wide containing payable values. This improvement of the lode has been followed for 400 ft. at No. 5 level, and has been found to extend up to No. 3 level. Work is now in progress to test the reef at No. 6 level. The extension of these drives still farther north on the Mary lode—which probably corresponds to the north footwall branch of the Martha lode in the Waihi Mine—will be interesting, as they will be penetrating a class of andesite which on the surface is favourable, and an area upon which no great amount of prospecting has as yet been attempted.

Talisman Consolidated (Limited).—This company allowed the water to rise at No. 16 level and have confined their attention to the extension south of No. 15 level. Apart from a short length of payable values extending over 50 ft. nothing favourable was encountered, and driving was suspended when broken and soft country was entered in the Dubbo section of the mine. A rise was started where the improvement had taken place in the reef, and this disclosed values going up for 80 ft. Immediately under this rise No. 16 winze was commenced, and this showed that the reef maintained its width and carried high-grade mineralized ore for some considerable distance, but at its present depth (166 ft.) it is narrow and unpayable. The extent and value of this development, some 400 ft. south of the abandoned face of No. 16 level, cannot very well be estimated until driving north and south from the bottom of the winze is in progress. Diamond drilling operations in the neighbourhood of Nos. 6 and 12 winzes at No. 15 level are in progress. As the ore reserves had become exhausted, milling operations were suspended last October, and will not be again commenced unless the development work undertaken by the company justifies resumption.

Muir's Gold Reefs.—This company, which commenced milling operations during April, treated 4,100 tons of quartz for a return of bullion valued at £17,703. Apart from the quartz won from development this ore was drawn from the stopes above the upper level. The upper and lower levels, which are 200 ft. apart, are connected by a main rise, and from this an intermediate has been commenced. This intermediate has recently been connected to the surface, and two rises have been started to cut the ore-body above the low level into stoping-blocks. A well-defined reef opening out to about 8 ft. wide has been followed for over 400 ft. at the low level, and there is every appearance of this size being maintained on the farther extension south of the present face. The company was unfortunate in having a portion of its small milling and treatment plant destroyed by fire last January. The erection of a 20-stamp battery and four tube mills is now proceeding, and alterations and additions to the existing cyanide plant are contemplated.

West Coast Inspection District.

Higher prices for supplies, increased wages, and shortage of suitable labour has already seriously affected mining operations in this district. To some small extent the increased costs have been compensated by a slightly higher price for the gold won during the last few months. A return to the former price, with the present conditions prevailing, will necessarily lead to a further reduction in the number of producing mines.

Blackwater Mines.—This company has carried the main shaft down some 300 ft. below No. 8 level and is preparing to open out at Nos. 9 and 10 levels. The discovery of a payable shoot of ore in the southern section of the reef was recorded last year, and subsequent driving to the south at Nos. 6, 7, and 8 levels has added a considerable tonnage to the ore reserves. The ore won from the last three levels on the original pay-shoot in this mine, which has a decided pitch to the northern boundary, has fallen off both in quantity and grade. This change in the reef-contents has possibly arisen from the intersection of known fault fissures at this horizon, and may reasonably be expected to be only a local disturbance.

Blackwater Mines North.—This company has recently been formed to take over the interests of the North Blackwater Development Syndicate. Arrangements are now proceeding to obtain the necessary capital to further develop the mine and erect a crushing and treatment plant. No work was carried out underground during the year.

New Big River Gold-mining Company.—This company treated a slightly reduced tonnage during the year, and the grade of ore declined 5s. 6d. per ton. Owing to shortage of labour stoping operations were curtailed and very little development attempted.

Murray Creek Gold-mining Company.—The mine was closed down during the latter part of the year, but recently underground development was resumed with a reduced staff. The company's operations are now confined to sinking two winzes below the stoping-block at No. 4 level in the southern section of the mine. At this level the reef was small and not well defined, so that the present work was necessary to disclose the vertical extent of this disturbance.

Southern Inspection District.

In Otago and Southland gold-quartz mining operations were unimportant.

(2.) DREDGE MINING.

On the west coast of the South Island four dredges produced gold, but of these only two were in active commission throughout the year. At Kumara the dredge owned by the Kapitea Goldfields (Limited) treated 400,000 cubic yards of material, averaging 2½d. per cubic yard, and showed a slight profit. The Chambers Reward dredge, formerly known as Worksop No. 2, which started work in April treated 202,000 cubic yards, averaging 3½d. per cubic yard. Owing