

notwithstanding this, although there was a fair quantity of air passing, the mine was hot at places. This is accounted for by the manager by the fact that the in-take tunnels are situated in a gully, and the wind on the day of my visit was not favourable for ventilation; but a furnace should be able to overcome difficulties of this sort.

Green Island Colliery.—I visited this mine on the 19th March, and found that the works on the south side of the railway had been abandoned, and a new dip-drive put down on the north side, striking a good seam of coal. But little work has as yet been done here, but what works there are are in good order.

Kaitangata Colliery.—I paid a visit to this mine on the 20th March and, as usual, found everything in thoroughly good order and every precaution taken to avoid accidents. Since I last visited the mine important works have been undertaken to continue the dip-drive below the level of the shaft. Fresh winding machinery has been erected at what is now the bottom of the incline, and a large boiler has also been erected at the pit bottom. In the meantime the work has been progressing in the upper levels from the incline, and on the south side the tops have been drawn in the bords, and at places the high chambers thus formed have been holed through to the next higher level, so as to secure ventilation. The system which has been employed for drawing this top coal has the recommendation of being as safe as it is possible to make it. All the top coal, as it is broken down, is allowed to remain under foot until the height of the bord has been reached, so that the men are always working in such a position as will enable them to see what they are about and to test the roof. Although, of course, coal standing like this is liable to make a good deal of dross, it is probable that if the coal was drawn as it was broken down the proportion of small coal would be greater, owing to the distance it would have to fall; besides which, high stagings would have to be employed for the men to work on, which would increase the danger of the workings. Notwithstanding the large quantity of coal which has been drawn from this steep area, the stability of the mine does not seem to have been in any way affected, for, the works having been laid out symmetrically, there exist vertical pillars from the base to summit of the workings, and these are strengthened at every level by ribs which have been left in, forming a regular solid network. It is not proposed to in any way interfere with these pillars for the present, but the workings will be continued to the dip on the same system as heretofore. The ventilation is all that can be desired, and, with the exception of the time, a few months ago, when the barometer was so universally low throughout New Zealand, no gas has been seen for a long time. At the time to which I allude a little gas was found, but no accumulation took place, and every care was exercised to be prepared in case of danger.

Nightcaps Colliery.—I visited this mine on the 22nd March and found the workings in good order. Over three acres of new sluicing ground has been opened up, in which the stripping is but little over 2ft. in thickness, besides which the lower or 10ft. seam is being opened up by a tunnel, which has struck the coal after driving for a distance of 90ft. through conglomerate. The upper seam is now being opened up on the north side of the dip-drive, sixteen bords being at work; the workings on the south side are abandoned, with the exception of one pillar, which is being drawn. The levels to the north have now been driven for a distance of 250ft. from a depth of 270ft. along the incline, and the seam is only 2ft. 4in. thick. The ventilation is good, and the Act is carefully observed.

Walton Park Colliery.—I visited this mine on the 25th March, and found all the workings in good order, the ventilation first rate, and the provisions of the Act observed in every particular.

I have, &c.,

S. HERBERT COX,

Inspector of Mines.

The Under-Secretary for Mines, Wellington.

No. 4.

REPORT UPON INSPECTION OF QUARTZ MINES, WESTPORT DISTRICT.

Mr. H. A. GORDON, Inspector of Mines, to the UNDER-SECRETARY for MINES.

SIR,—

Mines Department, Wellington, 14th May, 1884.

I have the honour to forward you my annual report on the quartz mines in the Westport District, for the year ending the 31st March, 1884.

1. *Golden Fleece Quartz Mine.*—24th March, 1884. The whole of the workings in this mine are satisfactorily timbered and well ventilated. There is no ladder-way down the main shaft, as it is only formed with two compartments for winding; but there are good ladders going down winzes from the surface to the lowest or 740ft. level. The winze is not continuous all the way; the men go into a tunnel driven in from the face of the hill, about 100ft. below the level of the mouth of the shaft, until they come to the line of reef, and thence down a winze to No. 2 level, thence travelling northwards on No. 2 level they go down a winze to Nos. 3, 4, and 5 levels, thence travelling a few feet northwards they go down a winze to No. 6 level. The ladders in the several winzes are in fair condition, but they are scarcely ever used by the workmen, unless it is to go from one level to another; nevertheless the winzes are kept specially in good repair, with ladders fixed in them, to allow the workmen to go up or down in case of any accident to the shaft or winding machinery. In the No. 6 level there is a winze sunk down to No. 7 level, which is divided into three compartments, viz., two for winding and one in which is placed ladders for the workmen to go up and down to and from their work. On the top of this winze there is a chamber constructed, and an air-winch erected for winding, worked with compressed air from pipes leading down from the air-compressor on the surface. The same pipes supply air to work the rock-borers and underground diamond-drill: the former is used to stope out the quartz, and the latter is fixed in position in the No. 7 level to prospect the country with; this drill, in addition to being compact and easily handled, can bore at any angle for about 600ft. The first borehole that was started failed to go down further than about 135ft., as the rods got bent and twisted in such a manner that they broke in trying to draw them: the reason the mine manager gives for this is, that the accident is not in the least owing to any