1903. NEW ZEALAND.

COAL-MINES

(REPORT ON THE WORKING OF) FOR THE YEAR ENDING THE 31st MARCH, 1903.

Presented to both Houses of the General Assembly in accordance with the requirements of Section 14 of "The State Coal-mines Act, 1901."

POINT ELIZABETH COAL-MINE.

Mr. A. B. Lindop, Manager of State Coal-mines, to the Under-Secretary of Mines, Wellington. Greymouth, 20th June, 1903.

I have the honour to submit my annual report on the State Coal-mines at Seven-mile

Creek, Point Elizabeth, for the year ending the 31st March last.

The coalfield may be taken as two distinct sections—namely, the northern section, which lies to the north of the Seven-mile Creek, and the southern section, which lies between Coal Creek and

Most of the development-work done has been over the southern section This will be worked from three distinct openings, owing to two large faults crossing the field, which have caused a displacement of the coal on the western side of the fault of fully 100ft. in each case. These openings are made by tunnels driven in from the western face of the range, to cut the coal to the dip of the seams showing in outcrop on higher spurs, and will in each case enable a large area of coal to be won level-free.

No. 1, or the most southern tunnel, has to be driven a distance of 693 ft. to reach the coal. This distance has been accurately ascertained by a shaft which was sunk some years ago on the upper side of the most eastern of the fault-lines before referred to. A borehole was put down from the bottom of this shaft, which went through 16 ft. of an excellent quality of coal. The tunnel at the end of March last was constructed for a distance of 408 ft., leaving 285 ft. yet to be driven to cut the coal. This distance will be driven by the end of June, when a commencement will be made to open up headings in the coal, and an opening will be made to the surface for the purpose of procuring good ventilation. The headings require to be driven for a considerable distance into the coal before any large output can be expected. These works will be energetically carried on, and will be well advanced by the time the railway is completed.

No. 2 tunnel is estimated to be 594 ft. in length before it will reach the coal, but this distance is not definitely fixed, as it depends to a certain measure on the dip or inclination the coal is lying at. It is, however, approximately correct, as far as can be ascertained from surface indications, and the inclination of the strata and coal-seam shown in the Exhibition outcrop. The range rises abruptly, and would necessitate about 600 ft. of a bore to test the coal-seam at the point where the tunnel is expected to cut it. It was not considered desirable to incur the expense of putting down a bore after ascertaining the inclination of the seam at the Exhibition outcrop, which shows there to be 14 ft. of excellent coal, and this seam will be worked from this tunnel. At the end of March last the tunnel was driven a distance of 304 ft., leaving something like 300 ft. to drive to cut the

coal-seam.

No. 3 tunnel: This opens up as much of the western portion of the field as can be worked level-free. Any coals to the southward of the tunnels will have to be worked from shafts, and with the exception of a borehole, which was put down in the bottom of a gully near Camp Creek, between Nos. 1 and 2 tunnels, nothing is known of this portion of the field. The borehole in this gully is down to a depth of 381 ft., and went through, it is said, about 8 ft. 4 in. of good coal. It is estimated that the No. 3 tunnel will have to be driven a distance of 528 ft. to cut the coal, but this distance is not definitely ascertained, as the great depth of borehole required to test the coal at this point would entail an expenditure not warranted, having other information available. This means that the tunnel may be required to be driven some distance further than extincted, but it will depend upon whether any slight alteration has occurred in the angle of the dip from that shown at the coal-outcrops.

These three tunnels have been driven continuously by three shifts.

No. 4 tunnel: This is to open up the section on the northern side of the Seven-mile Creek, where there are several outcrops of hard coal highly suitable as fuel for steam purposes exposed. Before this portion of the field can be worked a bridge will have to be constructed across the Seven-mile Creek, and a tramway connection made between the tunnel and the site of coal-bins. As it only requires a short drive of $2\frac{1}{2}$ chains to reach the coal-seam, one shift has been

employed on this work.

The northern section of the mine is likely to form a large coal-bearing area, but as there has been very little prospecting-work done to prove the thickness of the coal-seams, and determine the number of faults and amount of displacement, there has been very little detailed information acquired respecting it, beyond the fact that numerous outcrops of coal are to be seen alongside the Seven-mile Creek and at the Nine-mile Bluff. At the latter place Mr. John Kane opened out about twelve months ago a seam of coal in the terrace fronting the sea-beach. This seam was of good quality and 6 ft. in thickness.

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The outcrops appearing along the Seven-mile Creek at different horizons, and the general strike of the coal-measures being all to the westward, show that there will be several faults to contend with, but very little is at present known as to the amount of displacement or the lines of fault in this section. One thing, however, is clear, that the coal-measures extend over a large area, and that more than one seam of coal exists.

The Nos. 1, 2, and 3 tunnels will enable a very large area of coal to be won above water-level, and whilst the southern area is being worked, ample time will be given to systematically prospect

the northern section.

On taking charge of this mine on the 15th November last, the first thing that had to be determined was the site for coal-bins that would be convenient to both the northern and southern sections of the property. This question had been previously considered by Mr. John Hayes, the Inspecting Engineer of the Mines Department, and his reports and recommendations were handed to Mr. H. A. Gordon, the Consulting Engineer, and myself to fully examine and report as to what we considered the most suitable site for the requirements of the field.

After carefully examining the methods proposed by Mr. Hayes of bringing the coal from the different openings of the mine, and the estimated cost, we could not indorse the recommendation then made, which was to have the coal-bins at or near the four-mile peg on railway-line, and bring the coal to that point by endless-rope-haulage system. We deemed it more desirable to extend the line of railway about 60 chains, and have the coal-bins as close to the present openings into the mine as possible, so as to reduce the cost in working-expenses on a short length of rope haulage. Another reason was that the railway can be extended from this point up Seven-mile Creek at some future period, if deemed necessary, to work what is known as "Moody's series" of coalseams, some two miles further up the Seven-mile from the site of the proposed bins. This site is central, and commands the working of both sections of the coalfield.

After deciding the site for the bins, a survey was made for an endless-rope-haulage road to command Nos. 1 and 2 tunnels as well as the bins, and possibly this haulage system may connect with No. 3 tunnel, which is only a short distance from the bins, but this will not be decided until the survey of the haulage-road from No. 4 tunnel on the northern section is completed, when it is possible that they may be all worked from the one haulage system. The surveys of the haulage-road can not be undertaken until the Public Works Department has completed the survey of the railway and decided as to the best site for a station-yard. The whole of the works are now in hand, and

will be completed by the time the railway and station-yard are constructed.

As there is a large quantity of good milling-timber on the ground, it is proposed to erect a small sawmill to cut all the timber for the construction of the bins and buildings and other timber required for mining. A site for this has been decided upon, and ground prepared for erecting the mill.

As the works are now well in progress, the routes of the tramway-line and railway decided upon, and a arge number of men employed, it is desirable that a township should be laid off. At the present time the men employed are squatting about at the upper end of Camp Creek.

Estimates of the costs of opening out and equipping the mine have been carefully gone into by the Consulting Engineer and myself. These have already been forwarded to you, in order that the ropes, rails, &c., may be procured from England in time for completing the haulage-roads.

Tenders were called for the supply of 750 mine-tubs, to be made and galvanised in the colony,

and a contract has been entered into with Messrs. Griffiths and Co., of Birchfield.

In concluding my first annual report on Point Elizabeth State coal-mine, I would mention that the development-work is being pushed forward with all diligence consistent with economy. It will entirely depend upon the completion of the railway-line as to when a certain quantity of coal may be sent to port of shipment, and it will take at least twelve months before any large output can be expected, as headings will have to be driven a considerable distance from each opening before bords can be opened out to work the mine in a systematic manner.

I have, &c.,

ALFRED B. LINDOP, Manager.

The Under-Secretary, Mines Department, Wellington.

SEDDONVILLE COAL-MINE.

Mr. A. B. Lindop, Manager of the State Coal-mines, to the Under-Secretary of the Mines DEPARTMENT, Wellington.

Greymouth, 15th June, 1903. I have the honour to submit my annual report on the State coal-mine at Seddonville for

the year ending the 31st March last.

This property was originally worked by the Westport-Cardiff Company, but the mine portion of the property opened out by this company took fire and still continues to burn. The ground has fallen in places, and the surface is so full of holes and rents that it is almost impossible now to exclude the air from the burning seam. Even were it possible to do so, no coal could be got from the area on fire.

The portion of the property now being opened up as a State coal-mine is known as the "Cave Area," and is completely isolated from the burning area by a large fault which can be traced between Chasm Creek and Coal Creek. On the upper side of this fault there are several outcrops along the side of the terrace fronting Chasm Creek, and extending for a considerable distance up the stream. The highest outcrop is known as "Grant's Face," where the coal is 21 ft. in thickness and of excellent quality. A small drive has been put into the coal from this face for a distance of 15 chains. In several places in this drive the coal is of a softer character than at the outcrop, but in other places the coal is of a harder nature more like that at the outcrop. There is a considerable area here containing coal, but until the mine is properly opened up the extent and quality cannot be definitely stated.

On one side of the Cave Area there is a belt of granitoid rock, through which a tunnel has to be driven for a distance of 24½ chains to cut the coal. This tunnel at the end of March last was

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driven 14½ chains, leaving 10 chains yet to be driven before the coal is met with. The place where it strikes the coal will admit of a considerable area of coal being worked whilst the main and back headings are being extended towards Grant's Face. The small drive from Grant's Face is driven on the line of the back heading, so that when the face of this drive is reached very little work will be required to widen the drive to Grant's Face as a back heading for ventilation.

Several boreholes have been put down through the coal-measures on the line of the main tunnel, one of which had a depth of 200 ft., of which 14 ft. was in coal.

A shaft for ventilating purposes is in course of construction on the line of the back heading, at a distance of 22 chains along the course of the tunnel from its mouth. When this shaft is completed a crosscut will be driven to the line of the main tunnel, and it can be driven from two faces, thus expediting the driving of the tunnels, and we may expect the main heading to reach the coal about the end of July. A ventilating-fan will be required at the shaft before the heading in the coal is far advanced, but provision is arranged for this.

An endless-rope-haulage road is in course of construction from the mouth of the main tunnel to the coal-bins on Seddonville Flat, a distance of 87 chains. This road was laid out and a portion of it constructed prior to my taking charge of the works. The line at the change or alteration of grades had, however, to be altered before the tubs would run satisfactorily. This has to some extent delayed its completion, and at the present time there is a shortage of rails to complete the road on the incline, but arrangements have been made to get a sufficient quantity of second-hand rails from the Railway Department.

The coal-bins and staging formerly erected by the Cardiff Company are now in an advanced state of decay, all the beams and most of the planking require to be renewed. Timber is now

being cut for this purpose, and the renewals and alterations are being proceeded with.

The former railway-siding to the coal-bins has been greatly damaged by flood-water from the Mokihinui River. This has necessitated the construction of a water-channel alongside the siding for a distance of about three chains, and the making of an opening across the line and the construction of a bridge to provide for taking away the flood-water. A loop-line has also been surveyed from the railway-line beyond the Seddonville Railway-station to the coal-bins, as the railway accommodation previously arranged was inadequate to deal with any large output of coal from the mine. This loop-line will allow the empty wagons to be shunted in at the back of the bins, and lowered down on the siding towards the main railway as they are loaded. A commencement has been made towards clearing the bush and forming the line. The length of this loop-line is 24 chains.

The steam-engine and hauling-gear are in good order, but a considerable quantity of filling had to be done at the back of the engine-house to get a suitable place to erect tension-wheels for the

haulage-rope. A commencement has been made with this work.

The blacksmith's shop requires to be raised a few feet to keep the floor above flood-level. Piles have been fixed so that this can be done, and the floor of the shop filled in. It is not intended to disarrange the forges, benches, and machines until such times as the principal blacksmithing-work is done.

I conclude my first annual report on the Seddonville State Coal-mine, with the assurance that the works are being pushed rapidly ahead. I hope that by the end of September we shall be able to send out a small quantity of coal, which will be gradually increased as the headings are driven and the mine opened out. I have, &c.,

ALFRED B. LINDOP, Manager.

The Under-Secretary, Mines Department, Wellington.

Balance-sheet, together with Statement of Accounts, showing with respect to each Coalmine worked by the Minister of Mines, under "The State Coal-mines Act, 1901," the Financial Position and Financial Result of its Operations for the Year ended the 31st March, 1903.

Liabilities. £ s. d. s. 0 150,000 98,000 0 0 52,000 0 371 11 6 Consolidated Fund (interest advanced) Accrued interest payable 1st April, 1903 605 1 £52,976 15 7

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BALANCE-SHEET, together with STATEMENT OF ACCOUNTS—continued. Receipts.

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Н. Ј. Н. Еглотт, Under-Secretary of Mines.

Robert, J. Collins,
Assistant Secretary to the Treasury.

Submitted to the Audit Office for audit in conformity with the provisions of section 4 of the State Coal-mines Act, 1901."

Jas. McGowan,

Minister of Mines. "The State Coal-mines Act, 1901."

£ s. d. 52,000 0 0

Examined and found correct.—J. K. Warburton, Controller and Auditor-General.

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