Enclosure K. in Appendix I.

TRIAL OF SPRINGFIELD COAL.

11th April, 1878.

In our last trial of native coal it was found to give very unsatisfactory results, but since then, having fitted up an engine especially to burn it, and having secured the services of an experienced driver and fireman from Auckland to run the engine, I am able to report favourably on its use.

The results given below are obtained from the driver's daily sheets, O 74 engine:-

Date.		Engine Mileage.		
19th February to 26th March	***	 2,813	Native	530
Deduct for Newcastle		 100	Newcastle	18
		2,713 miles		

for 530 cwt. of native coal, or something under 22 lb. per engine mile.

The average consumption of coal (Newcastle) on engines O 72 and O 73 may be taken at 18 lb. per mile for the current year, the cost of Newcastle coal is 28s. 9d. per ton at Lyttelton; of native coal, 17s. at Sheffield.

28.75	17
18	22
23000	34
2875	34
51750	5175)374000(72)
	36225
	11750
	10350

so that native coal is nearly 28 per cent cheaper than Newcastle, so far as engines of this class are concerned.

With Springfield coal at 7s. 6d., at which rate it should be obtainable if the railway were connected with the mine, the saving would be as under:—

$$\begin{array}{r}
 7.5 \\
 22 \\
\hline
 150 \\
 150 \\
\hline
 5175)165000(82 \\
\hline
 15525 \\
\hline
 9750
\end{array}$$

—a saving of more than 67 per cent. On the 20th ultimo I ordered 60 tons more of this native coal for experimenting with the American engines, but, owing to the difficulty of transportation, none has yet heen supplied. I am informed by the manager of the pit that he is unable to supply the greater part of the coal he receives orders for, on account of the scarcity of trucks, and the expense of cartage.

As the pit is only about five miles from the terminus, and there is a railway reserve nearly all the way, it becomes a matter of important consideration whether the Government do not see their way to put the pit in direct railway connection with the branch line.

The Commissioner of Railways, Middle Island.

ALLISON D. SMITH,

Locomotive Engineer.