

the central line traverses?—I know about Tongariro, Ruapehu, and south of Taupo. I was snowed-up there on Christmas Day, 1869, but I do not actually know that part of the line west side of that mountain. West of the pumice land is a bush country. In some cases, I have known fairly good totara forest growing upon such very light pumice soil, as, for example, at Oruanui, north of Taupo Lake; but such instances are rare. I should judge, from the existence of forest, that there must be abundance of moisture in the Upper Wanganui. Of course, moisture falling from the atmosphere is quite a different thing from moisture retained in the soil. In pumice land all the rain that falls is at once absorbed and sinks into the subsoil 10ft. or 20ft., and is then quite out of the reach of the roots of plants.

67. If you look at the map you will see that the central route for fifty or sixty miles crosses such country at an elevation of over 2,000ft. Do you consider that elevation very favourable to settlement?—No, I should say that there was no chance of settlement along such a line, because above an elevation of 1,800ft., as far as I know, all the country is volcanic, with the exception of a few outliers of limestone, which actually are found up to 3,200ft. In fact, you can see on the southern slopes of the Kaimanawa Range the old sea-shore, large oyster-shells and barnacles now forming incrustations on the rocks there; but, with the exception of this, the bulk of the country, especially to the west of Ruapehu above 1,800ft., is entirely volcanic, and that portion which is coloured light pink on the map could only be settled for purposes connected with tourist traffic, and the like.

68. Is the whole of the country, as far as you are acquainted with it, between the central and the Ngaire routes, equally moist; is it what you would designate a decidedly wet country?—I should think that it would not be nearly so wet as the climate of Taranaki. I must point out that none of the level alluvial flats in the Wanganui Valley are shown on the map, and I believe there must be a considerable extent of land of very fine quality. In former years it maintained a very large Maori population.

69. Upon what evidence do you think it has maintained a large Maori population?—From the Natives at the head of the Wanganui River, and many of the old travellers. For instance, I believe Sir George Grey, Major Parris, and others gave evidence to this effect on a former occasion.

70. It is a locality which the Natives favoured for settlement?—Yes; the Maoris certainly throve there.

71. Of course you cannot give any idea as to the possibility of diverting the line?—No, I should state that a large portion of it I have never seen. From what I have seen I should think probably the worst part of the Wanganui River could be avoided. The Waitotara River, which I examined for a long distance up, looks a frightful country if it is viewed from a canoe; but I also walked a very short distance back from its valley and found a level plateau, and coming down the river in the canoe afterwards, I was surprised at the different impression which the same country produced. It looked frightfully rugged in the latter case, whilst in the former it looked a table land.

72. Is your knowledge of the country sufficiently clear to indicate whether you think it possible that this central line between Ohakune and Taumarunui might be diverted more to the west?—I could not say. I should try to get near the coal, and keep on the low ground, and it would be a very important thing for the whole railway system of the Wellington and Taranaki districts.

73. As to the character of the coal in the Mokau and Upper Wanganui?—It is not a gas coal, but it makes a very useful kind of coke—not a spungy coke, but a hard coke.

74. Is it equal to the Bay of Islands coal?—Yes; as far as steam generating is concerned it is equal to the Bay of Islands coal, but it would not make gas; on the other hand, it is not hurtful to the furnace bars.

75. You are satisfied, as far as its power to generate steam is concerned, that it is equal to the Bay coal?—I think it is approximately as good. It is like the Springfield coal in Canterbury.

76. I understand the Springfield coal in Canterbury is inferior coal?—Yes, now; but it used to be thought very good.

77. Then, it would be a better coal than what is known as Kaitangata?—Yes; more steaming-power.

78. *Mr. Duncan.*] Would it be safe to use in the engine passing through the country in regard to sparks, or is it liable to spark out?—No, not more than any other coal—not more so than other coals now used. The difficulty in regard to sparks is easily overcome by the use of the spark-catcher.

79. I should like to ask you, do you think we have sufficient information to locate the railway without further surveys?—My opinion is that it would be better to get more information. We have too frequently seen the evils of hurriedly-constructed railways. After going to great expense, as settlers grew familiar with the country, it has been frequently, in New Zealand, discovered that the railway should have gone some other way. I do not, of course, say that that would be the result in this case.

80. *The Chairman.*] Can you tell the Committee when the Waimarino Block was purchased?—I do not know anything about the purchase of that block, but I should think some time after the last investigation of the subject, although I am not sure.

81. Seeing that this was acquired by the colony, and is of large area, do you not think it would be wise to have a thorough exploration of that portion of the colonial estate before finally locating this railway?—I certainly think so.

82. From your knowledge of the district, you think the good land in the Waimarino Block would lie well to the west of what is marked as the central route?—Well, it would certainly begin west of the central line, but very probably the line was selected to keep on the comparatively level and hard volcanic land, and to avoid the bush land which is broken in outline.

83. Would you like to say anything further?—I do not think so. The evidence I gave before was pretty full on the subject.