1910. NEW ZEALAND.

PETROLEUM AND OTHER MINERALS IN EASTERN WAIRARAPA DISTRICT

(REPORT ON PROBABLE OCCURRENCE OF).

Laid on the Table of the House of Representatives by Leave.

REPORT ON THE PROBABLE OCCURRENCE OF PETROLEUM AND OTHER MINERALS IN THE EASTERN WAIRARAPA DISTRICT, WELLINGTON.

By P. G. Morgan, M.A., General Geologist.

NARRATIVE.

Acting on instructions received, the writer left Wellington for Masterton on the afternoon of Tuesday, the 12th July. Next day he proceeded by coach via Taueru to Awatoitoi Station, near Carswell's, a post-office sixteen or seventeen miles east of Masterton. On Thursday, the 14th July, the gas-spring between Awatoitoi and Blairlogie homesteads was visited, but owing to the wet weather very little other work could be done on this day. On Friday, the 15th, the writer rode via Tenui to Whakataki, a small settlement on the east coast at the mouth of the Whakataki Stream. Next day he rode up the coast to Aohanga, and on the following day returned to Whakataki, whence on the same day he proceeded via Castlepoint to Otahome Station, the property of Mr. W. Andrew. On the 18th the writer rode across country to Mr. Campbell's residence, near Ica, and from there returned to Awatoitoi by the road. En route, Cameron's gas-spring was visited. On the 19th a mineral spring and other points of interest on Awatoitoi Station were inspected. The writer then returned to Masterton, and on the 20th reached Wellington.

Throughout the trip Mr. D. Laing, of New Plymouth, accompanied the writer, and acted as guide.

CHARACTER OF COUNTRY EXAMINED.

The Town of Masterton is situated in the broad Wairarapa Valley, drained by the Ruamahanga River and its tributaries. Westward are the ranges known as the Rimutakas and the Tararuas, while to the eastward is the country specially examined, a region of rolling hills varying in height from a few hundred feet to possibly 2,000 ft. There are no well-marked ranges more than a few miles in length. The various elevations that, owing to their rugged appearance, are designated "taipos" occur at intervals along a more or less irregular N.N.E.-and-S.S.W. line passing through Tenui. The "taipos" are masses of hard sandstone that, on account of their resistance to denuding agencies, stand out above the surrounding country, and form prominent hills with precipitous slopes. The Trooper Range is a ridge, averaging perhaps 1,000 ft. in height, that runs roughly parallel to the coast from Whakataki southward to the mouth of the Whareama River. Mount Percy (1,557 ft.) is a prominent hill near the coast-line north of Whakataki and south of the Mataikona River.

The chief streams of the area are the Taueru, a tributary of the Ruamahanga: the Whareama River, with its chief tributary the Tenui: Otahome Stream, Ngakauau Stream, Whakataki Stream, Mataikona River, and the Aohanga River. Except the Taueru, all these streams flow to the east coast. In general the drainage of the area may be described as somewhat irregular or disorderly. The larger river-valleys, especially that of the Whareama, exhibit some alluvial flats. The smaller streams are often in deep valleys, cut in rolling table-lands. Rock-bound gorges are rare. Whilst the last movement of the land may have been one of slight depression, as indicated by alluvial flats at the mouths of some of the streams, the land-forms suggest three distinct periods of elevation in fairly recent geological times.