UR/1944/31-33 GEOLOGICAL REPORT ON PORT DAVEY AREA 31

Introduction

The recent visit to the Port Davey district was made primilarily to observe and to report on the operations of Mr. H.E. Evenden and his party during the time spent by them in the expenditure of a Government grant of £300. The grant was made available for the purpose of prospecting for the source of Bitumen, fragments of which have, from time to time, been gathered from the foreshores.

As supervision of these operations was not a full-time occupation, a Geological Survey was made of portion of the area.

The journeys to and from Settlement Point were made on the Fishing Boat, Nguna, Capt.S.Dale. The outward journey occupied the period 9th to 14th February whilst the inward journey occupied from 27th March to 3rd April.

The Geological examination covered an area of approximately 90 square miles extending in a northerly direction from Davey Head to Hell's Gates and in an easterly direction from the West Coast, in the vicinity of Kelly's Basin to the northern branch of Deep Creek in the vicinity of Settlement Point.

As one object of the expedition was the supervision of prospecting operations directed towards the discovery of the source of Bitumen, reported as occurring on the foreshores, some time was occupied in their detailed examination. In this connection a compass survey of some nine miles of the eastern foreshore of Port Davey was made.

Previous Reports

There have been no reports written of the area immediately under review but previous writers have dealt with adjoining areas.

Loftus Hills, M.Sc. Assistant Government Geologist, in Geological Survey Bulletin No. 18 published in 1914 deals with the country between Cape Sorell and Point Hibbs.

W.H. Twelvetrees, Government Geologist, in Geological Survey Bulletin No. 24 published in 1915 reports on the area between Recherche Bay and New River, Southern Tasmania. In that publication he refers to all the occurrences of Bitumen known in the State.

In Secretary for Mines report for 1918 is published a Mines Department Circular "The Search for Petroleum in Tasmania" in which Port Davey is mentioned.

P.B. Nye, M.Sc. B.M.E., Government Geologist, in 1928 and in 1930 reported on Port Davey, dealing particularly with its southern section and the area eastwards towards Cox Bight.

Topography

The greater portion of the area examined is occupied by Button Grass plains and swamps. These are bounded by comparatively high mountain ranges trending north-westerly to conform with the general strike of the rocks. The Davey river flows centrally

in a southerly direction through the northern portion of the area to empty into Port Davey. Several small streams chief of which are Blackwater Creek and Deep Creek, drain the area.

Geology

The oldest rocks of the area are a series of Quartzites and Schists regarded as being of Pre-Cambrian age. These rocks strike in a north-westerly direction and dip in a general north-easterly direction with considerable local variations in both strike and dip. The rocks vary considerably in texture and in composition, the high mountainous country being composed essentially of Quartzites and Quartz Schists with the lower swampy, Button Grass lands showing Mica Schists with a lesser amount of the Quartzitic varieties. On the foreshore the more prominent headlands are Quartzitic whilst soft Mica Schists are exposed in the many bays occurring as inlets from the Harbour.

Igneous Rocks

Only two outcrops of igneous rocks were recorded. Pt. Curtis, the north-eastern point of Bond Bay and the south-western point of Payne Bay is composed of Basic Igneous Rocks (Gabbro) occurring as a comparatively narrow dyke striking in a north-westerly direction. Its north-westerly extension is covered in the Button Grass plains. A similar though smaller occurrence was noted about 10 chains west from Point Curtis on the northern shore of Bond Bay and on a small island a few chains from the shore.

Recent Sediments

On the eastern foreshores of Port Davey and about a mile to the north of Coffin Creek there are occurrences of recent sediments overlying the schists. These sediments are in places upwards of 40 feet in thickness and occur as fillings of old valleys in the shhists. Their lateral extent inland has not been determined. The lower section of these sediments, 4 feet in thickness, is conglomeratic in nature but testing failed to disclose any minerals of economic value.

Economic Geology

It was reported that Bitumen and Rutile occurred at Port Davey.

Bitumen

The Geological evidence is definitely against the occurrence of Bitumen at Port Davey. Except for the limited areas of recent sediments to be found on the eastern shores of Port Davey and the two small occurrences of Igneous rocks at Bond Bay the whole of the area is occupied by Quartzites and Schists of Pre-Cambrian age. What Bitumen has been won from Port Davey has always been found on the foreshores as fragments some of which have been reported to weigh approximately one hundred-weight. There has been no discovery of Bitumen in situ. Previous writers have all assumed a drift theory for its occurrence. Although it was reported, immediately prior to this investigation, that fragments of Bitumen were plentifully distributed, search of the fore-shores during the investigation failed to reveal any fragments of Bitumen. The prospecting party

which was also present at Port Davey reported the finding of only one piece of Bitumen of which the weight would be approximately 4 oz.

Rutile

Rutile occurs in limited quantities at several points along the coast of Port Davey.

From a creek about one mile to the north of Coffin Creek good quality rutile was won from wash about 3 feet deep. The rutile is coarse-grained and well rounded.

From the northern branch of Blackwater Creek fine-grained rutile was won from shallow wash.

From a creek flowing into the northern side of Bond Bay, good quality rutile was won.

In each instance the rutile is of good quality and grain size. Further prospecting is necessary before reliable information as to quantity available could be obtained but unless the grade, of the ground as revealed by the present testing, is improved, it is doubtful whether at ruling prices the mineral could be profitably won.

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