Geological Survey of Canada.

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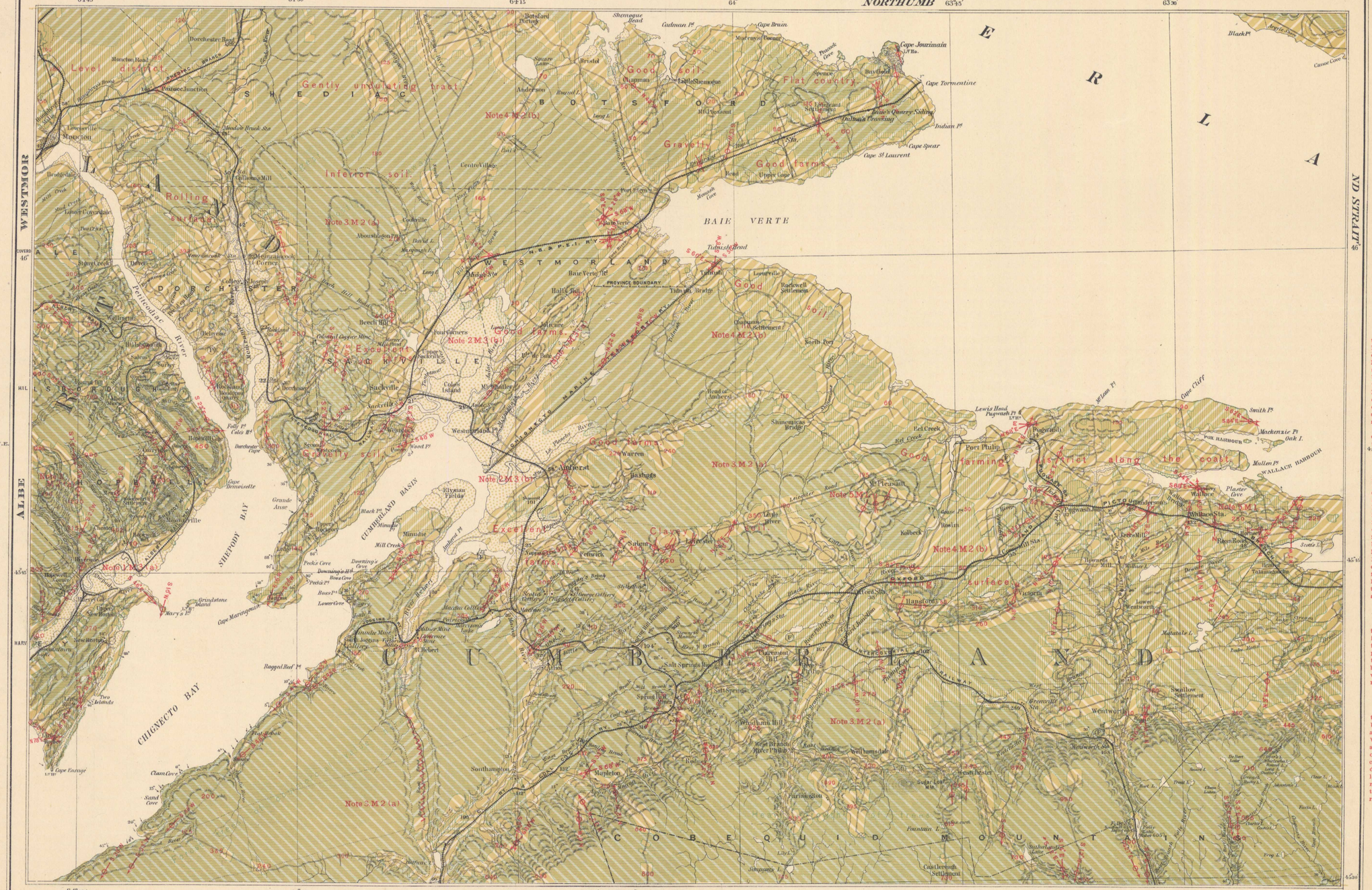
Sheet 5. S.W. — No 4 N.W.



Explanation of Colours, and Signs.

Recent Deposits.

M 3 (a) *Fresh Water.*

M 3 (b) *Marine.*

Pleistocene.

M 2 (a) *Even Surface.*

M 2 (a) *Rolling Surface.*

Non-fossiliferous inland deposits.

M 2 (b) *Saxicava Sand and Leda Clay. (Marine fossils.)*

Stratified Deposits

M 1. *Boulder Clay.*

Glacial striæ.

Kames.

Forest covered Areas.

Old growth.

Recent growth.

Note:— *Heights in feet above mean tide level. From Railway profiles thus:* 192. *Barometrically ascertained:* 235

Note 1. M 3 (a)

No peat bogs of any extent occur in the region embraced in this sheet, except around the borders of the salt marshes at the head of Cumberland Basin, and these are narrow and apparently thin. The largest bogs are along the upper waters of the Missaquash River.

Fluviatile or lacustrine flats (intervales) were observed at Halifax River, Nova Scotia, and in a few other places, and form excellent soil.

Infusorial earth (tripolite) occurs in Folly Lake, forming a large deposit. It was also found in other lakes in the Cobequid Mountains, especially in Sutherland and Pleasant lakes. The Folly Lake bed was opened up some years ago; but little or no use has yet been made of this material.

Note 2. M 3 (b)

The area of salt marsh on this sheet is about 50,000 acres. The marshes around the head of Cumberland Basin are nearly all dyked and under cultivation, their chief production being hay. On the drier portions, however, cereals and root crops are also raised. In agricultural value these marshes rank first among New Brunswick soils. In certain places a deterioration in their yielding capacity is, however, becoming apparent, and means are now being adopted for their re-fertilization. For a detailed description of these marshes, see report accompanying these sheets, Vol. VII. (N. S.) p. 125 M.; also, Dawson's Acadian Geology, second edition, pp. 31-33.

Note 3. M 2 (a)

The deposits included under this note, which are those occupying the region above the highest known Pleistocene shore line, present varied features in the different parts of the region. On the Cobequid Mountains they often exhibit a dry and gravelly soil mixed with boulders, while in other places boulder-clay prevails, forming a heavy soil difficult to cultivate. On the slope between the Cobequid Mountains and Northumberland Strait, these inland deposits afford good soils in most places; but west of the Springhill and Parrsboro' Railway they are sandy and gravelly, and are still largely in a wilderness state.

The higher grounds of Albert and Westmoreland counties are also mostly under forest, and not of much agricultural value.

Note 4. M 2 (b)

The large areas of this sheet lying below the highest Pleistocene shore-line, present a generally level surface with good drainage. A large portion of the country is cleared and under cultivation along the coast, affording some of the best farming lands of these provinces. The marine terraces, formed of Saxicava sand and Leda clay, and also the river terraces lying below the limit of the Pleistocene subsidence, comprise tracts of excellent soil, nearly all of which are tilled. No fossils have yet been found in these marine deposits on the mainland, but they were discovered in them in Prince Edward Island. These terraces face the open Strait of Northumberland, and have, without doubt, been formed when the land stood from 13 to 150 feet lower than at present. Considerable areas below that limit within the region embraced in this sheet are, however, not terraced at all.

Note 5. M 1.

Boulder-clay is one of the commonest constituents of the superficial deposits in this region, but is usually overlain and concealed by later formations. It is, however, exposed in a number of places, more especially on the slope lying between the Cobequids and Northumberland Strait. These boulder-clay exposures are generally good land when not too stony; but if flat they are liable to retain the precipitation, and form a wet, heavy soil.

The elevations shown on this sheet were obtained from railway profiles (these being printed in black), from the charts of the Admiralty Survey, and from aneroid measurements made by myself, W. J. Wilson and a few by W. D. Matthew. The aneroid readings were based on the heights given on the railway profiles and on tide marks along the coasts. The Post-Tertiary shore lines marking the divisions M 2 (a) and M 2 (b) were levelled by spirit level at a few points. All the heights given are referred to mean tide level or the mean sea level of the Atlantic coast. The courses of striæ are all referred to the true meridian.

Compiled and drawn by Scott Barlow, assisted by N. J. Giroux from Surveys made by the Admiralty, Intercolonial Railway and Geological Surveys. Hill features and Railway lines added by R. Chalmers and W. J. Wilson.

4, S.W.

SURFACE GEOLOGY.

PROVINCES OF NOVA SCOTIA AND NEW BRUNSWICK,

Springhill Sheet.

Nat. Scale. $\frac{1}{253,440}$.

Accompanying Part M. Vol. VII. (N. S.) Geologically surveyed by R. Chalmers.

561.

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