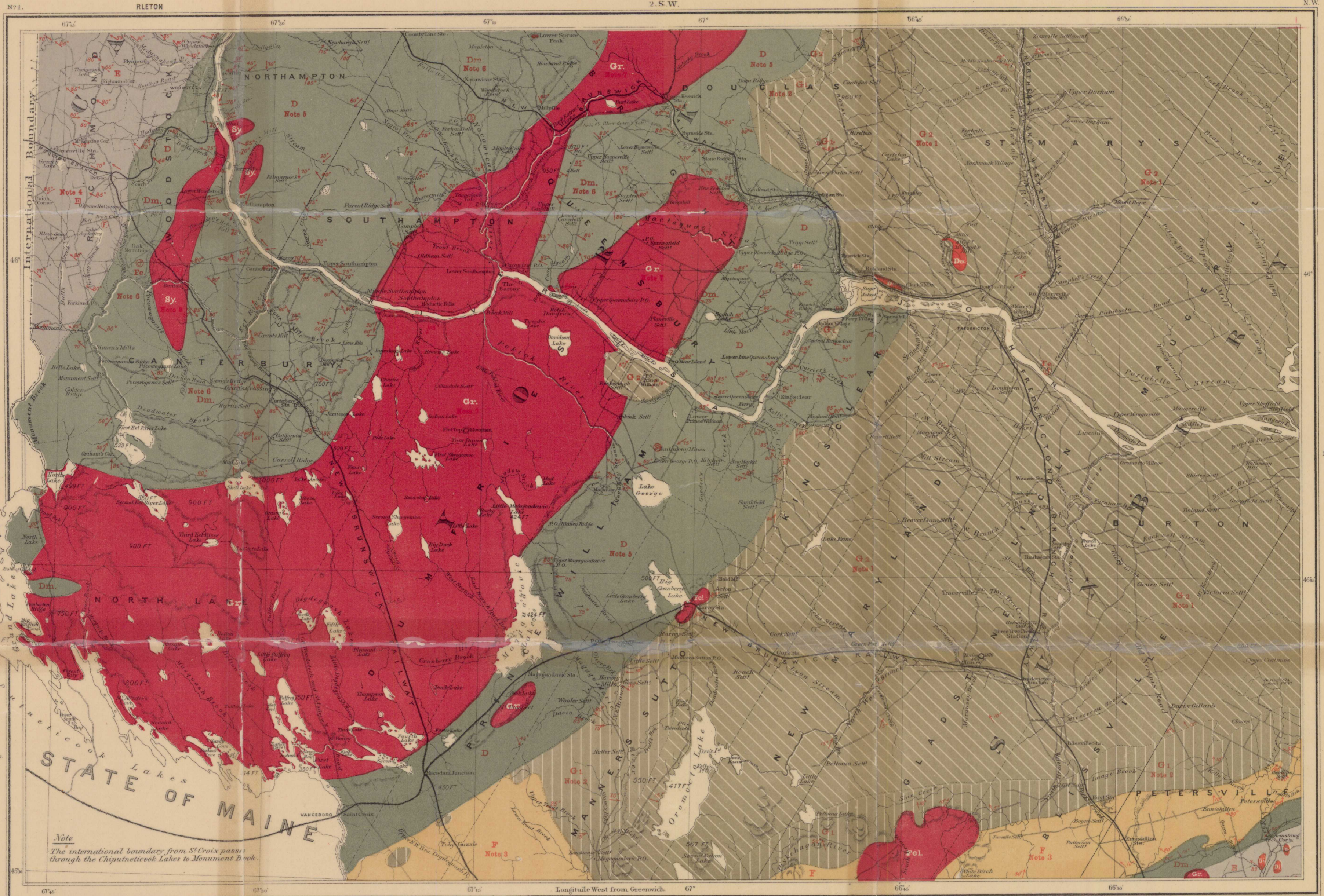


Geological Survey of Canada.

Alfred R.C. Selwyn I.L.D. F.R.S. & Director.
1884.
2. S.W.

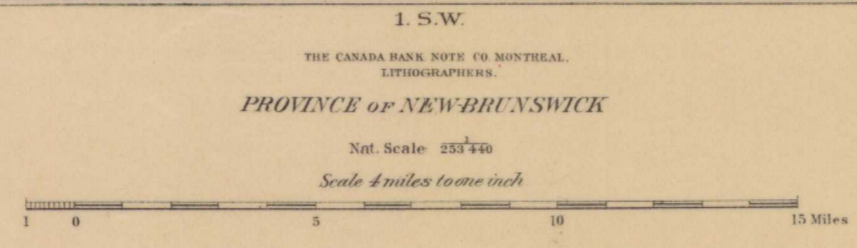


Explanation
of Colours
and Signs.

- G2. Carboniferous.
- G1. Lower Carboniferous.
- F. Devonian.
- S. Silurian.
- D. Cambro-Silurian.
- Dm. Cambro-Silurian (Metamorphic).
- Gr. Granite.
- Do.Dl. Diorite &c.
- Fossils.
- 60° Dips.
- Geological boundaries.
- Parish Lines.
- County Lines.
- Cu. Copper.
- Fe. Iron.
- Antimony.
- Coal.
- Mineral Spring.
- Church. School House.

Note
The international boundary from St. Croix passes through the Chiputnetook Lakes to Monument Rock.

Compiled and drawn by Wallace Broad, assisted by W. E. Jones from Plans made by the Crown Lands Department, N.B. and the Geological Survey. Geologically Surveyed by Messrs Bailey, Matthew, Ellis, Broad & M. Fass.



To illustrate Reports by Messrs Bailey, Matthew & Ellis.

Note 1.
The rocks of the millstone grit, here represented, consist mainly of grey sandstones, which toward the base become coarse quartz conglomerates. They are in general but little disturbed, forming a country comparatively flat and, except along the river valleys, of inferior agricultural capacity. Small coal seams occur at several points in this area, but are too thin to be of value.

Note 2.
These rocks consist of bright red conglomerates, sandstones and shales, all of which are highly calcareous, and which crumble readily into deep, loamy and highly productive soils. Associated with the upper part of the Lower Carboniferous there are at various points large accumulations of volcanic rocks, such as basalt, amygdaloid, felsite, claystone, &c., which generally form somewhat prominent elevations.

Note 3.
The supposed Devonian age of these rocks, which consist of argillites and fine micaceous sandstones, is based in part upon their stratigraphical relations, but chiefly on the fact of their containing, at various points, plant remains apparently of Devonian type, and similar to those of the well-known Devonian at St. John. They are, however, confessedly obscure, and therefore the reference of the rocks containing them to this horizon is provisional.

Note 4.
The larger portion of the Silurian in this region consists of highly calcareous shales, sometimes associated with beds of limestone. The rocks are not unfrequently highly fossiliferous, more especially in the area included in the sheet adjoining this on the north.

Note 5.
The Cambro-Silurian here represented is composed chiefly of hard slates and quartzites, highly disturbed and altered when in proximity to the granitic areas.

Note 6.
The Cambro-Silurian region is hilly and broken, in some parts not unproductive, but generally inferior to the Silurian, and over considerable tracts wholly unfit for settlement.

Note 7.
The areas represented as "Metamorphic Cambro-Silurian" Dm., embrace the more distinctly schistose, micaceous and foliated portions. The altered rocks gradually pass into the unaltered portions, so that the limiting line is necessarily somewhat arbitrary. It is here fixed where the evidently micaceous strata are succeeded by ordinary argillites and quartzites.

Note 8.
These granites are generally grey, varying to white and red, coarse grained, and often conspicuously porphyritic. They contain, however, many beds, well adapted for architectural purposes. From their relations to the associated schists, into which they send numerous veins, and of which they also enclose numbers of detached blocks, they are regarded as intrusive, and probably of Devonian age.

Note 9.
The rock included in this area is a red quartziferous syenite of granitoid aspect, with little or no mica, but having the hornblende somewhat replaced by epidote. It grades gradually, and is unfrequently to be seen to graduate into the surrounding rocks, more particularly those referred to in Note 6, and to be only a more highly altered portion of the latter.

Note 10.
The heights on this sheet are from observations by Mr. Chalmers, and from "A Preliminary Report on the Geology of New Brunswick," by Prof. Hind, Fredericton, 1866.