NEW GERMANY 21A/10E

SURFICIAL GEOLOGY

SCALE 1:50,000

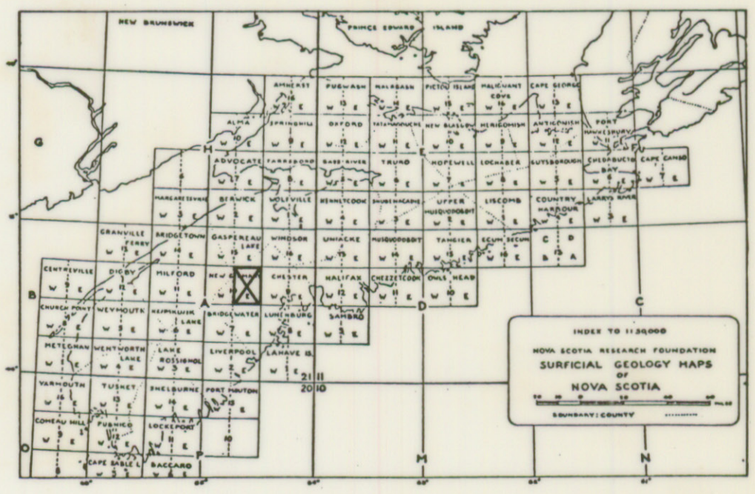
1.25 inches to 1 mile approximately

1 0 1 2 3 Miles

1000 500 0 1000 2000 3000 4000 Metres

NOVA SCOTIA RESEARCH FOUNDATION CORPORATION

Geology by R.H. Mac Neill, 1956



LEGEND

- DRUMLIN & MORAINE
- KAME
- ESKER
- DELTA
- TILL AREAS (undiff.)
- SWAMP
- ROADS & TRAILS
- STREAMS
- GLACIAL STRIAE

DESCRIPTIVE NOTES

The area covered by the New Germany Map Sheet is part of the Southern Upland peneplane surface of Nova Scotia. The surface is a rolling one, and the drainage has been long established and the area has been but little modified by the passing of the continental ice sheets except to remove most of the weathered material and re-deposit it as glacial drift in several forms.

BEDROCK GEOLOGY

The northern and extreme eastern and western parts of the map area are dominantly Devonian batholithic granite with the remainder being the Goldenville and Halifax Formations of the Cambro-Ordovician Meguma Group. No rocks of other ages are to be found. The outcrops have been well smoothed by glacial ice and frequently show good striations.

PLEISTOCENE DEPOSITS

Till and Drumlins

The map sheet area is liberally sprinkled with drumlins. These occur more profusely on and adjacent to the Meguma rocks and thin out very significantly in the granite areas. These drumlins are oriented in the general north-northwest to south-southeast direction as a result of their being deposited by the advancing continental ice sheet in that direction They have not been significantly modified by late ice. Till mantles the bedrock but thinly in many places and in others the rock was denuded of any soil. The till reflects the bedrock of the immediate area and yet contains some farther-travelled clasts from the northward. A rock drumlin may be found north of Barss Corners.

Glaciofluvials

Kames and eskers are infrequently found. One esker may be found north of Tommy Lake in the Wildcat Brook area and it is associated with a kame and delta. Kames may be found in and northwest of Upper Northfield, in Falkland Ridge, west of Lake Pleasant and south of Waterloo Lake. There are also two drumlins in the Hemford area which are mantled on their western flanks by kame gravels and sands. This is attributed to the deposition of meltwater from the late ice cap. Outwash and/or delta deposits generally occur in areas adjacent to the rivers: Upper Northfield, New Germany, Meiseners and Wildcat Brook. A smaller one may be found west of Sherbrooke Lake and at Falkland Ridge. At Morton's Corner a larger complex of this type of glacial deposit occurs.

Striae

Striae are numerous and generally show the direction of movement of the Classical Wisconsin ice sheet. Only rarely are striae seen which deviate from that pattern and then only by a very small amount. An exception to this occurs west of Newburn where crossing striae show the direction of the Classical ice movement and one showing a later movement to the east-southeast.