LAKE ROSSIGNOL 21A/3E

SURFICIAL GEOLOGY

SCALE 1:50,000

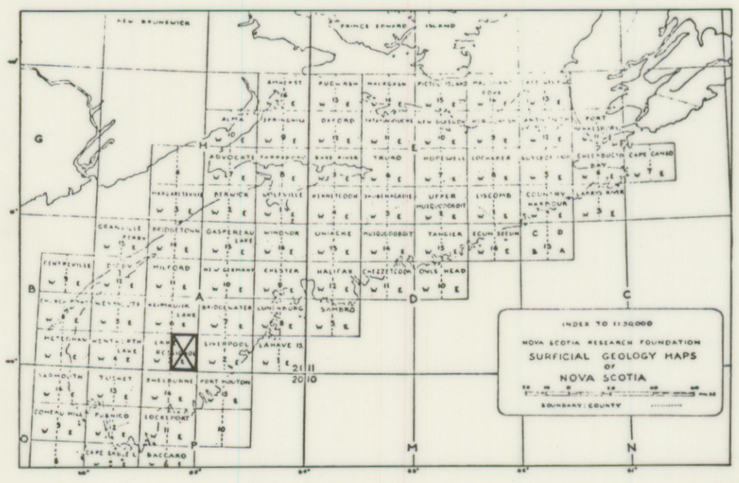
1.25 inches to 1 mile approximately

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

DESCRIPTIVE NOTES

GENERAL

The Lake Rossignol sheet covers an area largely composed of lake, barrens and boggy land and is part of the peneplaned southern upland of the province. The relief is minimal. Drainage is southward toward the Atlantic Ocean. The surface is considered to be modified pre-glacial, the ice having had only small effect on the old surface except to pick up and redistribute the weathered part of the bedrock.

BEDROCK

The whole area is underlain by the slates, quartzites, and metamorphic greywackes (schists) of the Meguma Group's Halifax Formation, all of which have been subjected to glacial erosion and smoothing.

GLACIAL DEPOSITS

Till and Drumlins

The drift is thinly spread over the area with the exception of the western part of the map area which has a number of very elongated drift ridges or drumlins. These could well be described by the obsolete term "ispatineaux". The drift is very sandy, contains much rock flour, and is quite rocky and, in some instances, exceedingly bouldery. The rock types contained in this drift are the metamorphosed sediments of the Meguma Group and the Devonian granite.

Kames may be found in several places where they are generally associated with the eskers. The debris is usually sand and granule-sized, and contains materials derived from the Meguma rocks and the granites to the northward. The rocks are small and rarely exceed 6 inches in size. Occasional boulders of granite and metasediments may be as large as 8 feet, generally under 2 feet in diameter, and mostly in the small boulder, cobble, and gravel range.

Only one delta of any significant size occurs in this map area, and it is to be located southeast of Yeadon Bay, where it is associated with very gravelly, sandy and rock flour debris which is classified as ablation moraine.

This map area has many bogs which contain varying depths of peat and other organic debris. The bogs and the barrens are, in many cases, the sites of glacial lakes into which poured much sand and silt from the melting glacial ice, giving the very flat surfaces found in this region of Nova Scotia.

Striae indicate a movement of ice from approximately the north-northwest with later movement from more north-easterly directions.