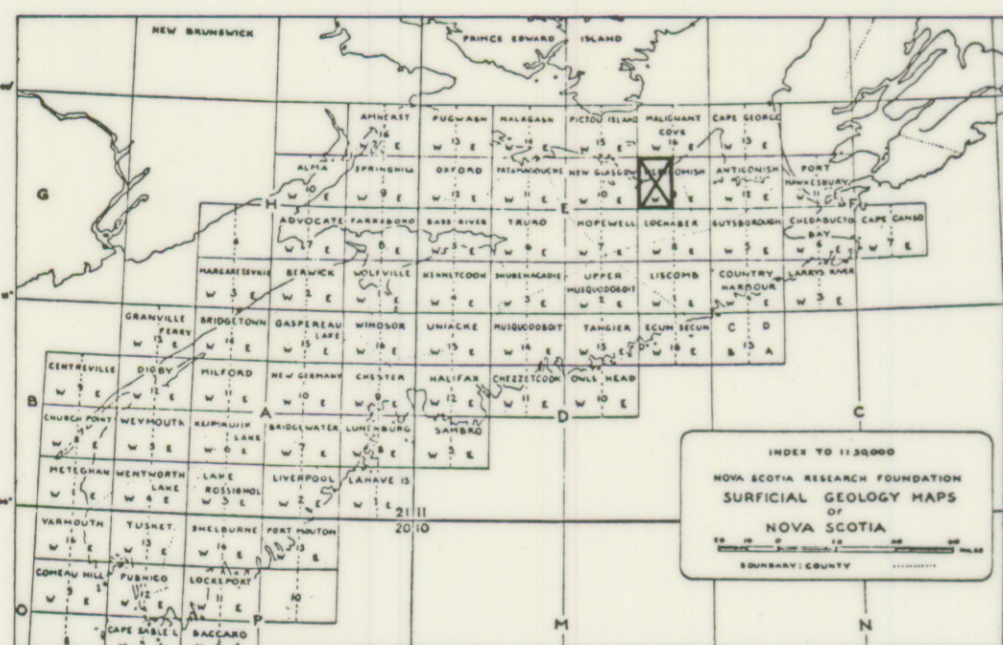


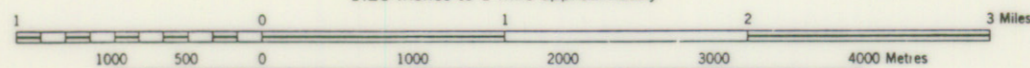
Geology by R.H. MacNeill, 1956



# MERIGOMISH 11E/9W

## SURFICIAL GEOLOGY

SCALE 1:50,000  
1.25 inches to 1 mile approximately



NOVA SCOTIA RESEARCH FOUNDATION CORPORATION

### LEGEND

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

### DESCRIPTIVE NOTES

**GENERAL**  
In the Merigomish area there are three main outwash areas, or outwash axes for the glacial outwater. These three being the Piedmont Valley, the valley running northwards from Kenzieville, and the valley running through Barney River Station to Avondale Station. These three valleys meet at Avondale Station and emerge as an outwash plain extending from Lower Barney River to Lisimore.

The material found in this area consists mainly of well-to-poorly washed sands and gravels in the form of kames, eskers and outwash bodies. There is also a number of drumlins, many of which are quite sandy and gravelly.

**PIEDMONT VALLEY**  
The Piedmont Valley extends from French River in a northeasterly direction to Avondale Station. The material or drift covering this valley contains much sand and gravel. Beginning at French River, there is a large outwash body, deltaic in form. The material in it is a well-washed and sorted sand and gravel, and consists of subangular to subrounded fragments of shale, volcanic, granite, sandstone and quartzite. Bedding or stratification is present, with topset and foreset beds being visible. The bedding dips to the north-northeast. On top of this delta several small kames are present which contain much the same material as the delta, but with no visible stratification. The bedrock is near the surface and the kames contain angular fragments of this bedrock.

The remainder of the valley is covered with generally non-stratified sands and gravels in the form of kames. The area of the valley not covered with kames is a gravelly drift in the form of small drumlins. The rock fragments in the kames are granites, shales, volcanics, sandstones and quartzites, and range in outline from angular to sub-rounded, although they are generally sub-angular to subrounded. There is very little stratification present in any of the outwash bodies, but when present, dips to the north-northeast. The drumlins and till consist of a sandy to gravelly clay type of till containing subangular fragments of shale, granite and volcanics.

**KENZIEVILLE TO AVONDALE STATION VALLEY**  
This valley extends from Kenzieville to Avondale Station, where it meets the Piedmont Valley, and southwards from Kenzieville along the West Barney River to the Marsh (Riverside). This is generally an area of kames and outwash, with areas of till cover being found south of Kenzieville.

In general, the outwash materials are well-washed, with some stratification present which dips to the north. The rock fragments in the area consist of sandstones, some conglomerates, shales, volcanics and granites, which are sub-angular to subrounded in outline. Lenses and beds of sand are found in some of the kames. One small esker lies 2 1/2 to 3 miles north of Kenzieville.

The till cover and drumlins in the area are generally a red, medium to hard-packed, clay and silt which contain numerous fragments of shale, volcanics and granites, (angular to subangular in outline). The cover here, as in the Piedmont Valley, is a sandy, gravelly till.

**BARNEY RIVER STATION TO AVONDALE STATION VALLEY**  
This is the third main drainage-way for glacial meltwater. It extends in a north-northeast direction from Barney River Station to Avondale Station, where it joins with the Piedmont and Kenzieville valleys. This valley area is covered mainly by kames, outwash bodies, which are not deltaic in form, one small esker, and sandy to gravelly tills. At Barney River Station there is a large outwash body of well-washed and partially sorted sand and gravel. The material is non-bedded, the rock fragments are subrounded in outline, and range from pebbles to cobbles in size with few or no boulders

The rock types represented are: sandstone, shale, granite, volcanics and conglomerate. Also at Barney River Station there is a small esker, approximately 1/2 mile long, 30 to 40 feet high and 50 to 60 feet wide. The material in the esker ranges in size from sand and pebbles to boulders and the rock fragments represented are granite, sandstone, conglomerate, volcanics and some shales. Bedding is slight or not visible.

The remainder of the material in the valley is in the form of kames, drumlins, and tills. The kames become more and more sandy as Avondale Station is approached from the southward, and several of these are sand kames. The kame material is generally a well-washed and well-to-poorly sorted sand and gravel. Bedding or stratification is either not prominent or entirely absent, and the strati-

tification that is present dips to the north-northeast.

The tills are a sandy to gravelly, medium-packed clay type of till, which contains subangular fragments of sandstones, volcanics and shales, with granite being scarce or absent.

**SOUTH EAST QUADRANT**  
This is the area of the map covered by the Rossfield, Lagan and Middle Barney River settlements. It is in general a till-covered area with several small kames being present. The area is shallowly underlain by an intermediate to basic volcanic and local small bodies of granite. The tills represented here, especially in the Rossfield area, are a fragmental type of till composed of a small amount of clay and silt, with angular bedrock fragments and some subangular to round ones. This large amount of angular fragments gives the till the appearance of being a gravel.

In the Lagan area the tills are a medium-to-hard-packed red clay and silt, containing rock fragments of volcanics and granites which are subangular in outline.

The kames in the area are generally a well-to-poorly sorted material. Bedding, or stratification, is poor or absent, but when present, dips to the north or north-northeast. The fragments of shale, granites, and volcanics, that are found in the kames, are subangular to subrounded in outline and range in size from sand and pebbles to cobbles, with few or none of boulder size.