GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF MINES AND TECHNICAL SURVEYS

DESCRIPTIVE NOTES

Most of the map-area is less than 500 feet above sea-level. The surface is flat to rolling, sloping gently to the southeast, and shows local, broad, fairly even-topped ridges separated by wide valleys. Over much of the area rock outcrops are few.

The oldest rocks are those of the Charlotte group, an assemblage of altered clastic sediments with minor amounts of associated volcanic rocks. The group underlies unconformably beds of Silurian age, and hence is pre-Silurian, probably Ordovician. It comprises two divisions, for which the names "dark argillite" and "pale argillite" have been retained. The former (1) consists chiefly of dark, argillitic and quartzitic beds locally metamorphosed into slates, schists carrying garnet, staurolite, and other secondary minerals, and sedimentary gneiss. The pale argillite division (2) is made up chiefly of light-coloured arkose with some argillite, slate, and schist. The two divisions appear to grade into each other. In both the bedding planes are for the most part well marked, even where secondary cleavage has been developed; dips are commonly high; drag-folds and reverse faults are apparent locally; and the major structural trends are northeast.

The Silurian succession, represented by the Mascarene group, has at its base the Oak Bay formation (3) composed of conglomerate, with some arkose. The conglomerate boulders are well rounded, and consist of volcanic rocks, quartz, quartzite, granite, and other varieties of pre-Silurian age. The formation serves to differentiate the Silurian from the pre-Silurian rocks. It is succeeded by an assemblage (4) of finer grained, clastic Silurian sediments consisting of argillite, arkose, and quartzite, and associated with subordinate amounts of volcanic rocks.

The Silurian strata and the adjacent rocks of the dark argillite division of the Charlotte group are intruded by masses of plutonic rock ranging from light-coloured granite (6) to dark, dioritic and gabbroic types (5). The basic varieties are commonly cut by lighter coloured, acid intrusions. The darker rocks lie for the most part along the borders of the granite and are evidently due in part to differentiation, and in part to assimilation, by the granite, of varying amounts of the older, intruded formations.

The youngest consolidated formation in the area (7) consists of beds of flat-lying, coarse, red conglomerate of Mississippian, probably Moncton, age. It occupies a small part of the northern border of the map-area, and has a wide development to the north.

The region has been heavily glaciated in a southeast direction. Glacial deposits, consisting of boulder clay and stratified outwash sands and gravels cover most of the map-area.

The chief evidence of mineralization in the area consists of quartz veins and schists carrying sulphides. At the Blakeney property on Basswood Ridge a vein is exposed continuously for 700 feet. Other quartz outcrops along the same strike are probably parts of the same vein, which strikes north 60 degrees east, has vertical walls, and shows widths of as much as 50 feet. The country rock is dark graphitic schist and arkose of the pale argillite division of the Charlotte group. Locally associated with the quartz is some pyrite. Gold values are very low. Work has also been carried out at Scotch Ridge on a vein in sericitized arkose of the pale argillite division. In the region between Moores Mills and Foster Lake work was done to develop a quartz vein in schist mineralized with sulphides.

LEGEND

PALÆOZOIC

CARBONIFEROUS
MISSISSIPPIAN
- 7 — *Conglomerate*

DEVONIAN
MIDDLE DEVONIAN
ST. GEORGE INTRUSIONS (5,6)
- 6 — *Granite and allied rocks*
- 5 — *Gabbro, diorite, and allied rocks*

SILURIAN
MASCARENE GROUP (3,4)
- 4 — *Argillite, arkose, quartzite; minor volcanic rocks*
- 3 — *OAK BAY FORMATION: conglomerate, minor arkose*

ORDOVICIAN OR EARLIER
CHARLOTTE GROUP (1,2)
- 2 — *PALE ARGILLITE DIVISION: arkose, quartzite, mica schist, argillite, slate*
- 1 — *DARK ARGILLITE DIVISION: argillite, slate, quartzite mica schist, gneiss; minor volcanic rocks and undifferentiated intrusions*

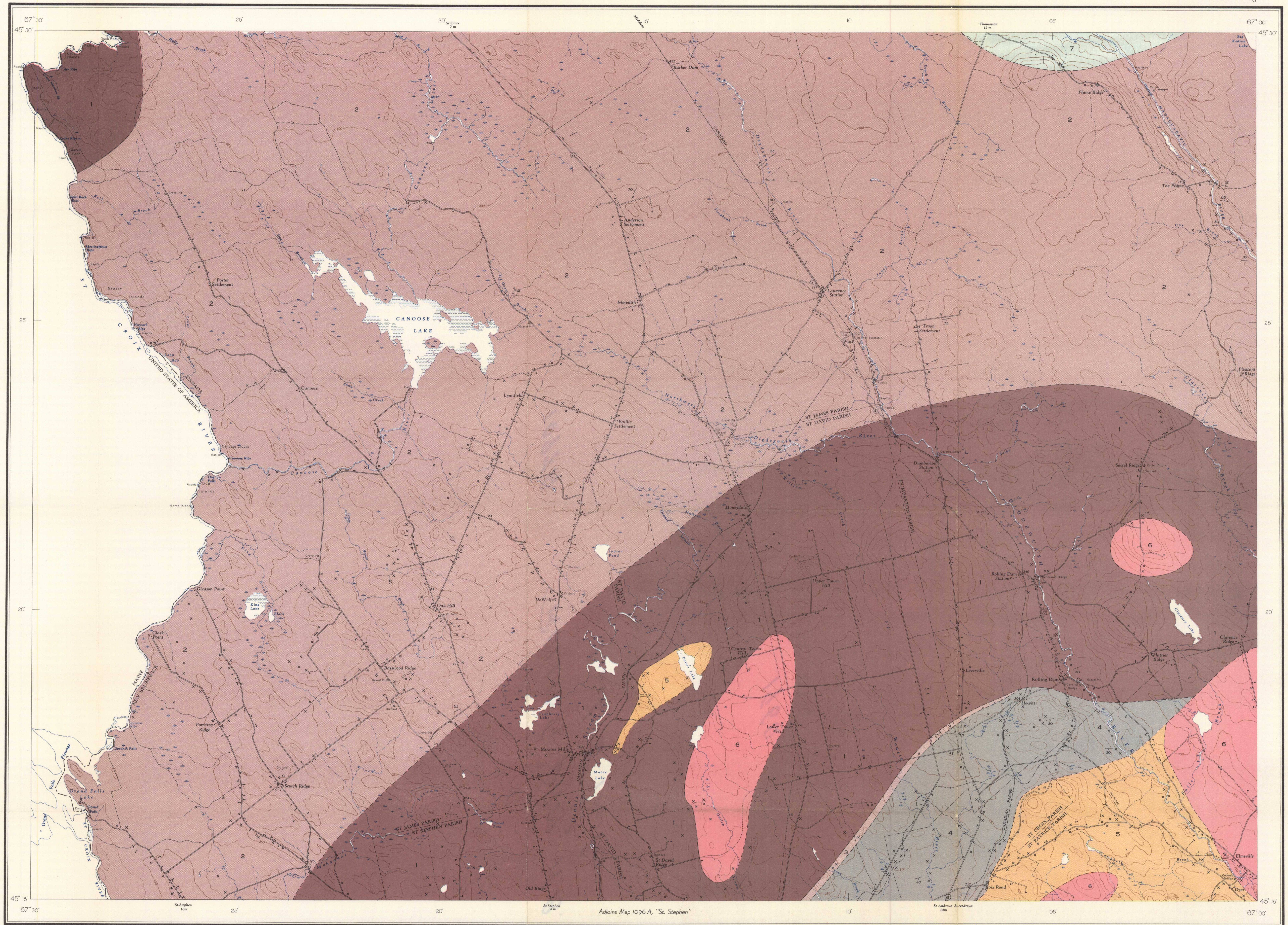
Observed rock outcrop . . . . . . ×
Bedding (horizontal, inclined, vertical, overturned, dip unknown)
Glacial striæ
Pits

Geology by G. S. MacKenzie, 1939; F. J. Alcock, 1945, using base-map without contours. Descriptive notes by F. J Alcock

Base-map compiled and drawn by the Surveys and Mapping Branch

Air photographs covering this map-area may be obtained through the National Air Photographic Library, Topographical Survey, Ottawa, Ontario

Approximate magnetic declination, 21° 04' West



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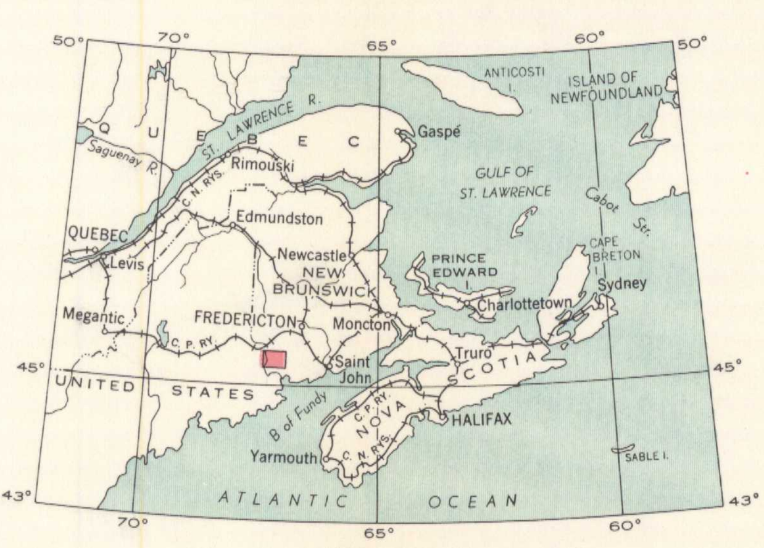

MAP 1097 A

GEOLOGY

ROLLING DAM

CHARLOTTE COUNTY

NEW BRUNSWICK

Scale: One Inch to One Mile = 1/63,360

Miles 1 ½ 0 1 2 3

COPIES OF THIS MAP MAY BE OBTAINED FROM THE DIRECTOR, GEOLOGICAL SURVEY OF CANADA, OTTAWA

REFERENCE

Main highway	*Cemetery*
Road and buildings	*Lighthouse*
Road not well travelled	*Bench-mark* B.M. 86.9
Cart track	*International boundary*
Trail	*Parish boundary*
Bridges (road, railway)	*Intermittent stream*
Power transmission line	*Marsh*
Church	*Inundated land (seasonal)*
School	*Contours (interval 50 feet)*
Post Office	*Height in feet above mean sea-level* 197

1097A