Energy, Mines and Resources Canada
Énergie, Mines et Ressources Canada

GEOLOGICAL SURVEY OF CANADA
COMMISSION GÉOLOGIQUE DU CANADA

QUATERNARY

POST-LAST GLACIATION

NONGLACIAL ENVIRONMENT

COLLUVIAL DEPOSITS: Materials accumulated on lower slopes, valley floors, and the base of cliffs as a result of rill wash or slope wash, solifluction or mass wasting, landslide or rock fall.

5a *Fine grained deposits: loam or silty loam with few carbonate clasts; commonly less than 2m thick, mantling lower slopes and valley floors; generally derived from deeply weathered upslope bedrock by solifluction, rill wash, and slope wash.*

5b *Talus: coarse rock debris with a variable amount of matrix; less than 1m to several metres thick; occurs at the base of cliffs.*

FLUVIAL DEPOSITS: coarse, stratified gravels with minor sand and silt; less than 1m to tens of metres thick.

4a *Modern floodplain deposits: stratified gravel with local sand and silt; includes active braided channels and adjacent terraces, flooded each year.*

4b *Older terrace deposits: stratified gravels with minor interbedded sand and silt; terrace surface commonly patterned with high or low centre polygons; includes raised marine deltas.*

MARINE ENVIRONMENT

MARINE DEPOSITS: gravel, with varying amounts of sand silt, 0.5-2m thick; deposited during periods of marine overlap in beach and nearshore environments.

3a *Raised beach deposits: coarse gravel, with varying amounts of sand and silt, forming a series of ridges and swales; generally less than 2m thick;* **3a1**, *clasts predominantly carbonate;* **3a2**, *clasts, predominantly sandstone, siltstone, and shale.*

3b *Undifferentiated shore and nearshore deposits: fine sand and silt in a discontinuous veneer generally less than 1m thick; generally derived from Eureka Sound sandstone.*

LAST GLACIATION AND PRE-LAST GLACIATION

GLACIAL ENVIRONMENT

TILL: silty or loamy diamicton generally found as a discontinuous veneer less than 2m thick on uplands and plateaus.

2a *Till, locally derived: silty or loamy, carbonate-rich diamicton clasts derived mainly from carbonates; locally includes shale and siltstone clasts and few erratics of southern provenance.*

2b *Till with abundant shield erratics: clayey silt or sandy silt diamicton with abundant shield erratics as well as locally derived clasts*

PRE-LAST GLACIATION AND POST-LAST GLACIATION

RESIDUUM: diamicton, generally less than 1m thick, derived from weathering of sedimentary rocks; bedding patterns generally preserved; slopes are smooth and gentle; bedrock exposed only in cuestas and tors. Drainage well integrated; no lakes or ponds. At least part of the residuum probably dates from before the last glaciation of the area.

Residual veneer: veneer of silty to gravelly diamicton generally less than 1m thick.

1a1 *Derived from clastic rocks: sandy silt diamicton, derived from weathered sandstone siltstone, and shale of Ordovician to Devonian age.*

1a2 *Derived from carbonate and evaporite: thin veneer of platy felsenmeer and gravel with small amounts of silt, derived from frost shattering of carbonate and evaporite of Ordovician to Devonian age.*

1b *RESIDUAL BLANKET: sandy silt and loamy diamicton with varying amounts of gravel, at least 1m thick; probably the result of more complete weathering of the carbonate and evaporite, but may include some locally derived till.*

PRE-QUATERNARY

ROCK: consolidated and poorly consolidated sedimentary rock of Ordovician to early Tertiary age which rarely outcrops (at the surface); bedding patterns obscured by thin, discontinuous veneer of frost shattered debris, pockets of till, and raised beach deposits. ***R**, *terrain characterized by irregular, low hummocky terrain, numerous lakes and ponds, and deranged drainage resulting from glacial scouring*

R1 *UNCONSOLIDATED CLASTIC ROCK: quartz sandstone of Cretaceous to Tertiary age.*

R2 *CONSOLIDATED CLASTIC ROCK: sandstone, siltstone, shale, local argillaceous limestone of Ordovician to Devonian age.*

R3 *CARBONATE AND EVAPORITE: limestone, dolomite, gypsum, and anhydrite of Ordovician to Devonian age.*

Geological boundary
Tors
Striation
Moraine-like ridge
Esker-like ridge
Organic deposits

Geology by S.A. Edlund, 1975, 1977, 1979, 1980; D.M. Barnett, 1975, 1977; L.A. Dredge 1975

Compilation by S.A. Edlund, 1982

Geological cartography by J.D. Narraway, Geological Survey of Canada

Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

Base map from parts of maps published at 1:250 000 scale by the Surveys and Mapping Branch in 1980, 1984, 1985 and by the Army Survey Establishment in 1980

Copies of the topographical editions covering this map area may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa, Ontario, K1A 0E9

The proximity of the North Magnetic Pole causes the magnetic compass to be erratic in this area

Mean magnetic declination 1990, 66°22′West, decreasing 21.1′ annually. Readings vary from 36°08′W in the SW corner to 78°07′W in the NE corner of the map area

Elevations in feet above mean sea level

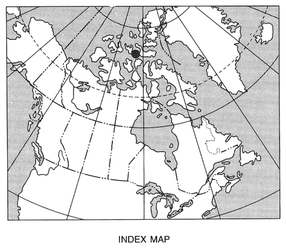
Printed by the Cartographic Information and Distribution Centre. Published 1990

Figure 5. Preliminary map of surficial materials of the Cornwallis Island area, Northwest Territories

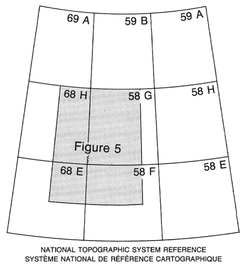
Kilometres 5 0 5 10 15 20 Kilomètres

Universal Transverse Mercator Projection
Projection transverse universelle de Mercator

© Crown copyrights reserved
© Droits de la Couronne réservés



INDEX MAP



NATIONAL TOPOGRAPHIC SYSTEM REFERENCE
SYSTÈME NATIONAL DE RÉFÉRENCE CARTOGRAPHIQUE

Figure 5
GSC PAPER 89-12

Canada

This document was produced by scanning the original publication.

Ce document est le produit d'une numérisation par balayage de la publication originale.