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

GEOLOGICAL SURVEY OF CANADA | COMMISSION GÉOLOGIQUE DU CANADA

LEGEND

This legend is common to maps 1689A and 1690A, coloured legend blocks indicate map units that appear on this map

SURFICIAL DEPOSITS

QUATERNARY

POST-LAST GLACIATION

NONGLACIAL ENVIRONMENT

Ap,At,Af — *FLUVIAL SEDIMENTS: alluvium; gravel and sand, 2-20 m thick, forming braided floodplains,* **Ap**; *low terraces,* **At**; *and fans,* **Af**

MARINE SEDIMENTS: gravel, sand, silt, and clay, 1-20 m thick, deposited in deltaic and beach environments during regression of the postglacial sea

Mr — *Beach sediments: gravel and sand, 1-5 m thick, forming ridges and swales*

Mt — *Deltaic sediments: coarsening upward sequences of clay, sand, silt, and gravel, 5-20 m thick, forming dissected terraces*

LAST GLACIATION

PROGLACIAL AND GLACIAL ENVIRONMENTS

GLACIAL MARINE SEDIMENTS: clay, silt, sand, and gravel, 1-30 m thick deposited in deepwater ice marginal and proglacial environments while the sea stood at or near marine limit

Mv — *Deepwater proglacial silt veneers: silt, clay silt, and fine sand, 1-2 m thick*

Mb — *Deepwater proglacial silt blankets and plains: silt, clay silt, and fine sand with minor gravel, diamicton beds, and dropstones, 2-30 m thick, forming plains and blanketing low angle slopes, extensively disrupted by thermokarst in places*

Mm — *Ice contact glaciomarine sediment: clay, silt, sand, and minor gravel, 10-30 m thick, forming end moraine ridges, extensively kettled and dissected in places*

Lv,Lb — *GLACIAL LACUSTRINE SEDIMENTS: silt and sand deposited in glacier dammed lakes, forming veneers less than 1 m thick,* **Lv**; *blankets 1-2 m thick,* **Lb**

GLACIOFLUVIAL SEDIMENTS: gravel and sand, 1-10 m thick, deposited behind, at, and in front of the ice margin

Gp,Gt,Gf — *Proglacial outwash: gravel and sand, 1-5 m thick, forming braided floodplains,* **Gp**; *terraces,* **Gt**; *and fans,* **Gf**

Gr,Gh — *Ice contact stratified drift: gravel and sand, 5-10 m thick, deposited as esker ridges,* **Gr**; *and kames;* **Gh**

GLACIAL ENVIRONMENT

TILL: nonsorted stony muds, 0.5-60 m thick, deposited or remoulded during three main regional ice flow phases, occurring as six distinct morphological facies. Main flow phases are north-northwestward, 1; northward curving to northwestward, 2; and eastward, 3

Tm — *End moraines: ridges, 5-60 m high, composed of or mantled by till, extensively kettled in places, formed during deglaciation after third phase of regional ice flow*

ICE FLOW

PHASE 3 AND LATER

T3b — *Till blanket and streamlined till plain: 2-5 m thick, forming a blanket on broad interfluves and fields of drumlinoid ridges a few metres high in lower areas*

T3r — *Ribbed moraine fields: short, sinuous, subparallel ridges, 2-5 m high, composed of or mantled by till*

PHASE 2

T2d — *Drumlin field: drumlinoid ridges, 5-30 m high, composed of or mantled by till*

T12r — *Ribbed moraine fields: short, sinuous, subparallel ridges, 2-5 m high, composed of or mantled by till, associated with northwestward ice flow of phases 1 and 2*

PHASE 1

T1d — *Drumlin field: drumlinoid ridges, 5-30 m high, composed of or mantled by till*

T1p — *Till plain with megaflutings, kilometres wide, 5-10 km long, and only a few metres high*

Tv — *Till veneer: 0.5-2 m thick and discontinuous, surface mimics form of underlying rock surface, associated with various regional ice flow phases*

PRE-LAST GLACIATION

NONGLACIAL (PERIGLACIAL) ENVIRONMENT

Cv — *COLLUVIUM and RESIDUUM: stony mud and muddy rubble, 1-2 m thick, formed by weathering of carbonate bedrock and mass movement of weathered mantle on smooth solifluction graded slopes; protected by cold-based ice during last glaciation*

ROCK

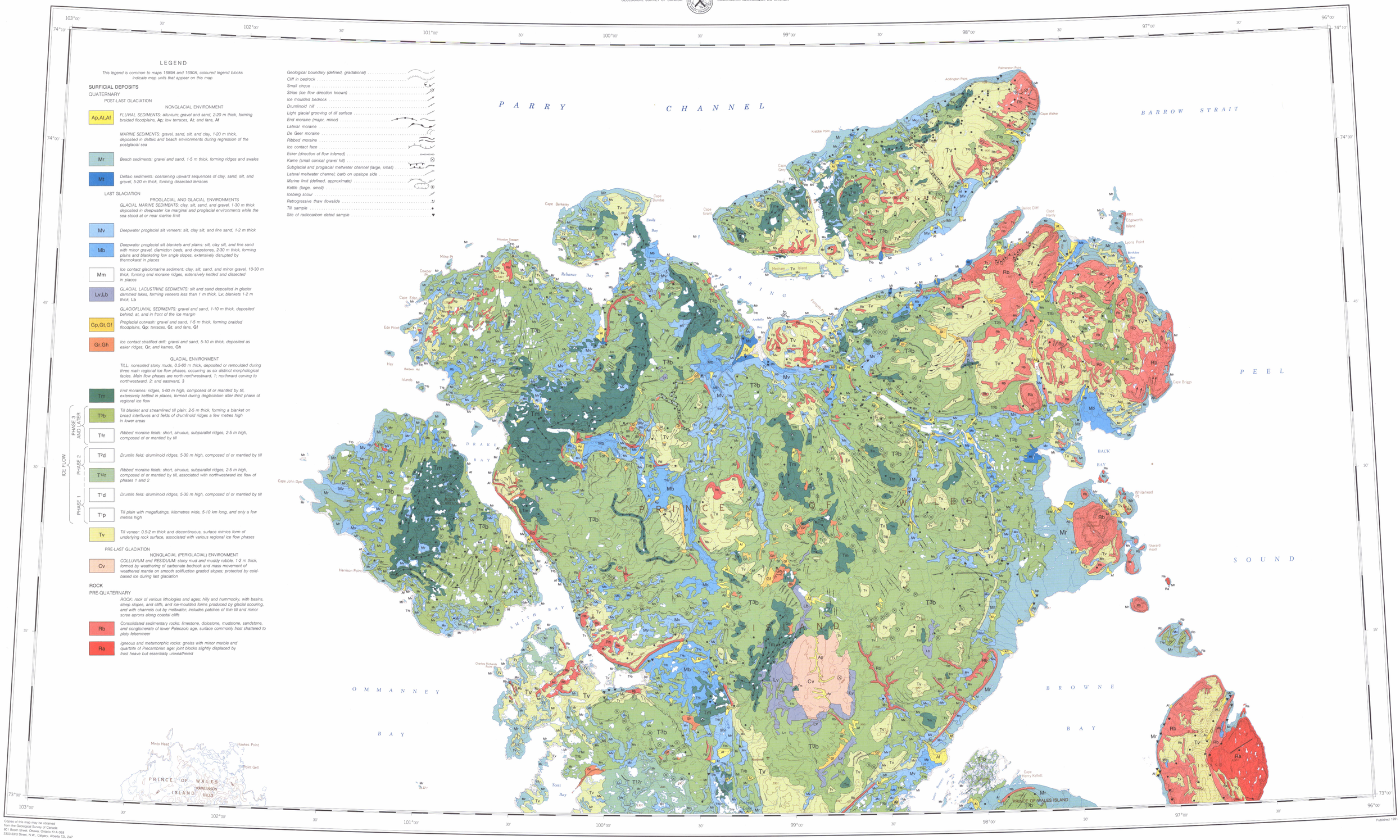
PRE-QUATERNARY

ROCK: rock of various lithologies and ages; hilly and hummocky, with basins, steep slopes, and cliffs, and ice-moulded forms produced by glacial scouring, and with channels cut by meltwater; includes patches of thin till and minor scree aprons along coastal cliffs

Rb — *Consolidated sedimentary rocks: limestone, dolostone, mudstone, sandstone, and conglomerate of lower Paleozoic age, surface commonly frost shattered to platy felsenmeer*

Ra — *Igneous and metamorphic rocks: gneiss with minor marble and quartzite of Precambrian age; joint blocks slightly displaced by frost heave but essentially unweathered*

Geological boundary (defined, gradational)
Cliff in bedrock
Small cirque
Striae (ice flow direction known)
Ice moulded bedrock
Drumlinoid hill
Light glacial grooving of till surface
End moraine (major, minor)
Lateral moraine
De Geer moraine
Ribbed moraine
Ice contact face
Esker (direction of flow inferred)
Kame (small conical gravel hill)
Subglacial and proglacial meltwater channel (large, small)
Lateral meltwater channel; barb on upslope side
Marine limit (defined, approximate)
Kettle (large, small)
Iceberg scour
Retrogressive thaw flowslide
Till sample
Site of radiocarbon dated sample



Copies of this map may be obtained from the Geological Survey of Canada 601 Booth Street, Ottawa, Ontario K1A 0E8 3303-33rd Street, N.W., Calgary, Alberta T2L 2A7

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INDEX MAP

Canada

Geology by A.S. Dyke and D.E.C. Green, 1984, and A.S. Dyke, 1985, 1986

Geological cartography by S.J. Frohberg, Geological Survey of Canada

Colour separations were produced using digital methods

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

MAP 1689A

SURFICIAL GEOLOGY

NORTHERN PRINCE OF WALES AND RUSSELL ISLANDS

DISTRICT OF FRANKLIN

NORTHWEST TERRITORIES

Scale 1:250 000 - Échelle 1/250 000

Kilometres 5 0 5 10 15 20 Kilometres

Universal Transverse Mercator Projection

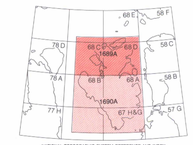
Projection transverse universelle de Mercator

Base map assembled by the Geological Survey of Canada from maps published at the same scale by the Army Survey Establishment, R.C.E. in 1966, and by the Surveys and Mapping Branch in 1981,1985

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

Elevations in feet above mean sea level



NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX TO ADJOINING GEOLOGICAL SURVEY OF CANADA MAPS

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