Energy, Mines and Resources Canada
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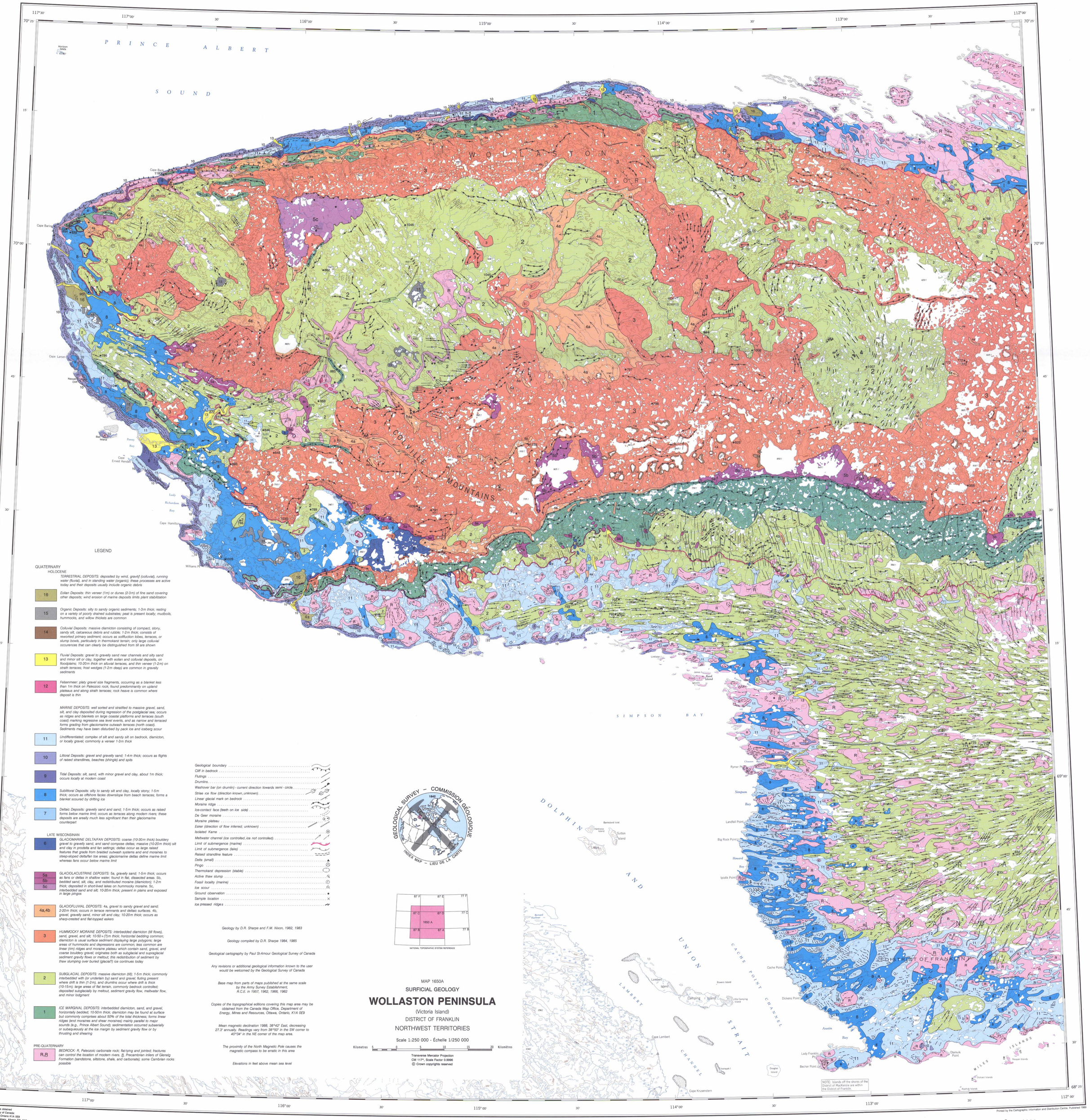
Geological Survey of Canada
Commission géologique du Canada



LEGEND

QUATERNARY

HOLOCENE

TERRESTRIAL DEPOSITS: deposited by wind, gravity (colluvial), running water (fluvial), and in standing water (organic); these processes are active today and their deposits usually include organic debris

16 — *Eolian Deposits: thin veneer (1m) or dunes (2-3m) of fine sand covering other deposits; wind erosion of marine deposits limits plant stabilization*

15 — *Organic Deposits: silty to sandy organic sediments; 1-3m thick; resting on a variety of poorly drained substrates; peat is present locally; mudboils, hummocks, and willow thickets are common*

14 — *Colluvial Deposits: massive diamicton consisting of compact, stony, sandy silt, calcareous debris and rubble; 1-2m thick; consists of reworked primary sediment; occurs as solifluction lobes, terraces, or slump bowls, particularly in thermokarst terrain; only large colluvial occurences that can clearly be distinguished from till are shown*

13 — *Fluvial Deposits: gravel to gravelly sand near channels and silty sand and minor silt or clay, together with eolian and colluvial deposits, on floodplains; 10-20m thick on alluvial terraces, and thin veneer (1-2m) on strath terraces; frost wedges (1-2m deep) are common in gravelly sediments*

12 — *Felsenmeer: platy gravel size fragments, occurring as a blanket less than 1m thick on Paleozoic rock; found predominantly on upland plateaus and along strath terraces; rock heave is common where deposit is thin*

MARINE DEPOSITS: well sorted and stratified to massive gravel, sand, silt, and clay deposited during regression of the postglacial sea; occurs as ridges and blankets on large coastal platforms and terraces (south coast) marking regressive sea level events, and as narrow and terraced forms grading from glaciomarine outwash terraces (north coast). Sediments may have been disturbed by pack ice and iceberg scour

11 — *Undifferentiated: complex of silt and sandy silt on bedrock, diamicton, or locally gravel; commonly a veneer 1-3m thick*

10 — *Littoral Deposits: gravel and gravelly sand; 1-4m thick; occurs as flights of raised strandlines, beaches (shingle) and spits*

9 — *Tidal Deposits: silt, sand, with minor gravel and clay, about 1m thick; occurs locally at modern coast*

8 — *Sublittoral Deposits: silty to sandy silt and clay, locally stony; 1-5m thick; occurs as offshore facies downslope from beach terraces; forms a blanket scoured by drifting ice*

7 — *Deltaic Deposits: gravelly sand and sand; 1-5m thick; occurs as raised forms below marine limit; occurs as terraces along modern rivers; these deposits are areally much less significant than their glaciomarine counterpart*

LATE WISCONSINAN

6 — *GLACIOMARINE DELTA/FAN DEPOSITS: coarse (10-30m thick) bouldery gravel to gravelly sand, and sand compose deltas; massive (10-20m thick) silt and clay in prodelta and fan settings; deltas occur as large raised features that grade from braided outwash systems and end moraines to steep-sloped delta/fan toe areas; glaciomarine deltas define marine limit whereas fans occur below marine limit*

5a, 5b, 5c — *GLACIOLACUSTRINE DEPOSITS: 5a, gravelly sand; 1-5m thick; occurs as fans or deltas in shallow water; found in flat, dissected areas. 5b, bedded sand, silt, clay, and redistributed moraine (diamicton); 1-2m thick; deposited in short-lived lakes on hummocky moraine. 5c, interbedded sand and silt; 10-20m thick; present in plains and exposed in large pingos*

4a,4b — *GLACIOFLUVIAL DEPOSITS: 4a, gravel to sandy gravel and sand; 2-20m thick; occurs in terrace remnants and deltaic surfaces. 4b, gravel, gravelly sand, minor silt and clay; 10-20m thick; occurs as sharp-crested and flat-topped eskers*

3 — *HUMMOCKY MORAINE DEPOSITS: interbedded diamicton (till flows), sand, gravel, and silt; 10-50+(?)m thick; horizontal bedding common; diamicton is usual surface sediment displaying large polygons; large areas of hummocks and depressions are common; less common are linear (rim) ridges and moraine plateau which contain sand, gravel, and coarse bouldery gravel; originates both as subglacial and supraglacial sediment gravity flows or meltout; this redistribution of sediment by thaw slumping over buried (glacial?) ice continues today*

2 — *SUBGLACIAL DEPOSITS: massive diamicton (till); 1-5m thick; commonly interbedded with (or underlain by) sand and gravel; fluting present where drift is thin (1-2m), and drumlins occur where drift is thick (10-15m); large areas of flat terrain, commonly bedrock controlled; deposited subglacially by meltout, sediment gravity flow, meltwater flow, and minor lodgment*

1 — *ICE MARGINAL DEPOSITS: interbedded diamicton, sand, and gravel, horizontally bedded; 10-50m thick; diamicton may be found at surface but commonly comprises about 50% of the total thickness; forms linear ridges (end moraines and shear moraines) mainly parallel to major sounds (e.g., Prince Albert Sound); sedimentation occurred subaerially or subaqueously at the ice margin by sediment gravity flow or by thrusting and shearing*

PRE-QUATERNARY

R,R̲ — *BEDROCK: R, Paleozoic carbonate rock; flat-lying and jointed; fractures can control the location of modern rivers. R̲, Precambrian inliers of Glenelg Formation (sandstone, siltstone, shale, and carbonate); some Cambrian rocks possible*

Geological boundary
Cliff in bedrock
Flutings
Drumlins
Washover bar (on drumlin) - current direction towards semi - circle
Striae ice flow (direction known ,unknown)
Linear glacial mark on bedrock
Moraine ridge
Ice-contact face (teeth on ice side)
De Geer moraine
Moraine plateau
Esker (direction of flow inferred; unknown)
Isolated Kame
Meltwater channel (ice controlled, ice not controlled)
Limit of submergence (marine)
Limit of submergence (lake)
Raised strandline feature
Delta (small)
Pingo
Thermokarst depression (stable)
Active thaw slump
Fossil locality (marine)
Ice scour
Ground observation
Sample location
Ice pressed ridges

Geology by D.R. Sharpe and F.M. Nixon, 1982, 1983

Geology compiled by D.R. Sharpe 1984, 1985

Geological cartography by Paul St-Amour 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 the same scale by the Army Survey Establishment, R.C.E. in 1957, 1962, 1966, 1982

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

Mean magnetic declination 1988, 38°42' East, decreasing 27.3' annually. Readings vary from 38°50' in the SW corner to 40°34' in the NE corner of the map area.

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

Elevations in feet above mean sea level

MAP 1650A

SURFICIAL GEOLOGY

WOLLASTON PENINSULA

(Victoria Island)

DISTRICT OF FRANKLIN

NORTHWEST TERRITORIES

Scale 1:250 000 - Échelle 1/250 000

Kilometres 5 0 5 10 15 20 Kilomètres

Transverse Mercator Projection
CM 117°, Scale Factor 0.9996

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Copies of this map may be obtained from the Geological Survey of Canada:
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Canada