



LEGEND

This legend is common to Open Files 4683 to 4701. Coloured legend blocks indicate map units that appear on this map. Not all map symbols shown in the legend necessarily appear on the map.

SURFICIAL DEPOSITS

QUATERNARY

HOLOCENE

- Ca** Colluvium: block and rubble accumulations, 1–50 m thick.
- Ta** Talus: active block and rubble accumulations as much as 50 m thick forming talus (stone) aprons and fans below cliffs resulting from rock fall and debris flow; commonly crossed by debris flow channels and levees.
- Cr** Rock glacier debris: talus, generally 10–50 m thick, deformed by active flow of interstitial or buried ice to form rock (debris) glaciers with transverse ridges and furrows, and pits, and with steep, unstable sides and fronts.
- FLUVIAL SEDIMENTS: alluvium: gravel and sand, 2–20 m thick.**
- Ap** Alluvial plains: active braided floodplains; includes active proglacial outwash.
- At** Alluvial terraces: gravel and sand, 2–20 m thick.
- Af** Alluvial fans: gravel and sand, 2–20 m thick.

MARINE AND GLACIAL MARINE SEDIMENTS: gravel, sand, silt, and clay, 1–20 m thick, deposited in deltaic and beach environments during regression of the proglacial sea.

- Mr** Beach sediments: gravel and sand, 1–5 m thick, forming ridges and swales.
- Mt** Deltaic sediments: clay, silt, sand, and gravel 5–20 m thick, forming coarsening upward sequences under dissected terraces.
- Mv** Deepwater proglacial silt veneers: silt, clay silt, and fine sand with dropstones, 1–2 m thick.
- Mb** Deepwater proglacial silt blankets: silt, clay silt, and fine sand with dropstones and minor gravel, 2–10 m thick.

GLACIAL LACUSTRINE SEDIMENTS: clay, silt, sand, and gravel deposited in glacier dammed lakes in deepwater, beach, and deltaic environments.

- Lt** Deltaic sediments: clay, silt, sand, and gravel, 6–20 m thick, forming coarsening upward sequences under dissected terraces.
- Lv** Deepwater proglacial silt veneers: silt, clay silt, and fine sand with dropstones, 1–2 m thick.
- Lb** Deepwater proglacial silt blankets: silt, clay silt, and fine sand with dropstones, 2–5 m thick.

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

- Gp,t,f** Proglacial outwash: gravel and sand, 1–10 m thick, forming braided floodplains, Gp; terraces, Gt; and fans, Gf.
- Gr,h** Ice contact stratified drift: gravel and sand, 1–5 m thick, forming eskers, Gt; and kames, Gh.

EARLY HOLOCENE AND WISCONSINAN

- Tm** End moraine: 5–60 m high, composed of or mantled by till, extensively kettled in places; large features many cores by debris-rich meltwater ice.
- Tv** Till veneer: 0.5–2 m thick and discontinuous.
- TW** Washed till veneer: 0.5–2 m thick, surface armored by stones due to washing by subglacial meltwater.
- Tb** Till blanket: 2–10 m thick forming an undulating blanket with drumlins and ribbed moraines in places.
- Tbr** Ribbed till blanket: 2–10 m thick forming ribbed (Rogen) moraines.

BEDROCK

PRE-QUATERNARY

- R** **ROCK:** rock of various compositions and ages (Jackson and Sangster, 1987) variously modified by glacial erosion during the Quaternary and with patchy till cover; till and hummocky surfaces, ice moulded in places, with lake basins in topographically recessed regions; smooth surfaces exhibiting little or no sign of glacial erosion in peninsular interiors (Dyke, 1983); cliffs resulting from glacial over-steepening; in places veneered by thin till, commonly bouldery.

Geological boundary (defined, assumed)
 Areas covered by periglacial icefields during the Little Ice Age (indicated by a white pattern)
 Glacial lake spillway
 Glacial lake limit
 Marine limit
 Marine limit elevation in metres 80
 Weakly developed strandline
 Cliff in bedrock
 Lateral meltwater channel: bard on upslope side
 Subglacial and proglacial meltwater channel (large, small)
 Esker
 Kame
 Ice contact face
 Ribbed moraine
 Lateral moraine
 End moraine
 Margin of glacial dispersal train: teeth toward axis, steep side of teeth face down ice
 Lateral sliding boundary: teeth on sliding side, cold-based ice on other side; steep sides of teeth face down ice
 Iceberg scour
 Drumlinoid hill
 Crap-and-fall
 Ice moulded bedrock
 Strike (ice flow direction, unknown)
 Crossed strike (numbers indicate relative age, 1 being the oldest)
 Field observation site: bouldery dissection (rd), bouldery gravel (bg), dissection (fg), gravel (g), muddy sand (gm), muddy sand (ms), rock (r), sand (s), sand gravel (sg), story mud (sm), st (f) 1
 Field observation site: material as above near rock outcrop 10
 Radiocarbon date
 Date Lab no Elevation (m) 10



Author: A.S. Dyke
 Geology by A.S. Dyke, 2004
 Field data provided by De Beers Canada Corporation, 2003
 A photograph of the southeast part of this map area was flown at a time of extensive snow cover. The photograph interpretation is therefore less reliable than it is elsewhere.
 Digital cartography by M.M. Proulx, Earth Sciences Sector Information Division (ESS Info)
 This map was produced from processes that conform to the ESS Info Publishing Services Subdivision Quality Management System, registered to the ISO 9001:2000 standard.

OPEN FILE 4684
SURFICIAL GEOLOGY
WINDLESS LAKE
BAFFIN ISLAND
NUNAVUT
 Scale 1:50 000/Échelle 1/50 000
 Universal Transverse Mercator Projection
 North American Datum 1983
 © Her Majesty the Queen in Right of Canada, 2005
 Projection transverse universelle de Mercator
 Système de référence géodésique nord-américain, 1983
 © Sa Majesté la Reine en chef du Canada, 2005

Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada.
 Digital base map from data compiled by Geomatics Canada, modified by ESS Info.
 Locational accuracy of the base appears to be ±150 m based on plotting of GPS measured field site locations.
 Proximity to the North Magnetic Pole causes the magnetic compass to be erratic in this area. Mean magnetic declination 2005, 42°31'W, decreasing 40.2' annually.
 Elevations in metres above mean sea level. Contour interval 20 m.
 Field altimetry and the placement and trend of raised shorelines may conflict significantly with the contours.

37 F13 OF4685	37 F14 OF4686	37 F15 OF4687	37 F16 OF4688
37 F17 OF4689	37 F18 OF4690	37 F19 OF4691	37 F20 OF4692
37 F21 OF4693	37 F22 OF4694	37 F23 OF4695	37 F24 OF4696
37 F25 OF4697	37 F26 OF4698	37 F27 OF4699	37 F28 OF4700
37 F29 OF4701	37 F30 OF4702	37 F31 OF4703	37 F32 OF4704
37 F33 OF4705	37 F34 OF4706	37 F35 OF4707	37 F36 OF4708
37 F37 OF4709	37 F38 OF4710	37 F39 OF4711	37 F40 OF4712

REFERENCES

Dyke, A.S., 1965. Landscapes of cold-centred Late Wisconsinan ice caps, Canadian Arctic. *Progress in Physical Geography*, v. 17, p. 223–247.
 Jackson, G.D. and Sangster, D.F., 1987. Geology and resource potential of a proposed national park, Bylot Island and northwest Baffin Island, Northwest Territories. Geological Survey of Canada, Paper 87-17, 31 p.

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