Natural Resources Canada | Ressources naturelles Canada

GEOLOGICAL SURVEY OF CANADA | COMMISSION GÉOLOGIQUE DU CANADA

117°30' 20' 117°00' 40' 20' 116°00'

69°45' 40' 30' 20' 69°15'

LEGEND

This legend is common to Open Files 3899 and 3900.
Coloured legend blocks indicate map units that appear on this map.
Not all map symbols shown in the legend necessarily appear on this map.

SURFICIAL DEPOSITS
QUATERNARY
HOLOCENE

FLUVIAL SEDIMENTS: *alluvium; gravel and sand, 2-20 m thick, forming active and relict deposits*

Ap — ***Alluvial plains:*** *gravel and sand, 2-10 m thick, forming braided floodplains, submerged at peak nival flood*

At — ***Alluvial terraces:*** *gravel and sand, 5-20 m thick, forming terraces above modern flood levels*

Af — ***Alluvial fans:*** *gravel and sand, 2-5 m thick; intermittently active surfaces*

HOLOCENE AND LATE WISCONSINAN

MARINE AND GLACIAL MARINE SEDIMENTS: *gravel, sand, silt, and clay, 1-20 m thick, deposited in offshore, deltaic and beach environments during deglaciation and during regression of the postglacial 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 terraces*

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

Mb — ***Offshore proglacial silt blankets:*** *silt, clay silt, and fine sand with dropstones and minor gravel, 2-10 m thick, deposited in part as morainal banks and comprising parts of end moraine systems*

LATE WISCONSINAN

GLACIAL LACUSTRINE SEDIMENTS: *clay, silt, sand, and minor gravel, 1-2 m thick, deposited in small glacier dammed lakes*

Lv — *Proglacial silt veneers*

GLACIOFLUVIAL SEDIMENTS: *gravel and sand, 1-60 m thick, deposited behind, at, and in front of the ice margin*

Gp,t,f — ***Proglacial outwash:*** *gravel and sand, 1-30 m thick, forming braided, relict floodplains,* Gp; *terraces,* Gt; *and fans,* Gf

Gr,h — ***Ice contact stratified drift:*** *gravel and sand, 2-60 m thick, possibly ice cored, forming individual conical kames and large, kettled kame complexes comprising parts of end moraine belts,* Gh; *and sharp-crested end moraine ridges,* Gr; *deposited contemporaneously with contiguous* Tmp *units*

TILL: *nonsorted stony muds, 0.5-60 m thick, deposited in subglacial and ice marginal environments; lithic composition generally reflects underlying carbonate bedrock but shield erratics common*

Tmp — ***End moraines:*** *5-60 m high ridges and hummocks; comprised of debris-rich, relict glacier ice mantled by till, extensively kettled and characterized by large ice-wedge polygons; in places overridden and partly remoulded by glacier ice during a readvance,* TmpO; *probably interfingered with* Gh *and* Mb, *the other major components of end moraine systems*

Tb — ***Till blanket:*** *2-20 m thick forming an undulating blanket, commonly drumlinized or fluted*

Tv — ***Till veneer:*** *0.5-2 m thick and discontinuous*

BEDROCK
PRE-QUATERNARY

R — ***ROCK:*** *Paleozoic carbonate rocks, glacially scoured during the Quaternary and frost shattered during postglacial time; outcropping mainly on hilltops, on slopes stripped bare by ice marginal meltwater streams, and in low, relict, sea cliffs in raised beach terrains*

Geological boundary (defined, approximate)
Pingo
Marine limit shoreline with elevation (defined, approximate) — 121m
Marine limit elevation (without shoreline feature) — • 112m
Lateral meltwater channel; barb on upslope side
Subglacial and proglacial meltwater channel
De Geer moraines
Kame
Ice contact face
Lateral moraine
End moraine
Drumlin and fluting
Ice moulded bedrock
Cliff in bedrock

Date	Material
Lab no	Elevation (m)

Radiocarbon date (location known, approximate)

Fossil collection of marine shells (s), bowhead whale bone (b), driftwood (w), hearth charcoal (c) or archaeological faunal remains (a), with field number — 58c

Naoyat Cliff

BELL ISLAND

PENNY BAY

Cape Ernest Kendall

DOLPHIN AND UNION STRAIT

SIMIALIAK PENINSULA

LADY RICHARDSON BAY

Cape Hamilton

Numerous Paleoeskimo features 10-20 m a.s.l. on several beach levels. Probably >30 dwelling features, most well vegetated on barren beaches. Largest concentration of Paleoeskimo features seen in Penny Bay camp area 1998. A.S. Dyke and J.M. Savelle.

Williams Point

Kûgaluk River

Boffin Lake

9300±80	bone	TO-7758	41.5
8830±80	bone	TO-7760	28
9020±80	bone	TO-7757	29
9340±70	bone	TO-7756	41
1260±70	wood	GSC-6324	3
7400±180	shells	GSC-6325	5.5
2020±100	wood	GSC-6368	4.5
1200±80	wood	GSC-6367	2.5
8310±80	shells	GSC-6290	8
modern	wood	GSC-6361	12.5
1030±80	wood	GSC-6326	2.5
570±70	wood	GSC-6389	16.5
1190±60	wood	GSC-6334	1.5
1340±70	wood	GSC-6359	1
490±50	wood	GSC-6310	5
9250±90	shells	GSC-6294	30.5
10700±120	shells	GSC-6277	95
9740±130	shells	GSC-6282	69
9390±90	shells	TO-8540	50
9360±110	Salix	GSC-4622	75
8870±100	shells	GSC-4616	36
9280±80	shells	GSC-4537	46
9020±80	shells	GSC-4606	50
9180±110	shells	GSC-6390	53
9450±90	bone	TO-8446	57.5
2240±70	charcoal	TO-8539	9.5
460±50	wood	GSC-4648	27
3950±70	charcoal	TO-8533	12.75
4410±70	charcoal	TO-8534	12.75
740±50	wood	GSC-4504	3
1390±70	bone	S-2995	4
9380±120	shells	GSC-4519	69
7350±90	shells	GSC-4643	19
9190±135	bone	S-2993	51
9600±145	bone	S-2994	57
7440±90	shells	GSC-4579	15
7920±100	shells	GSC-6400	6

Geology based on field work by A.S. Dyke and J.M. Savelle, 1998 and on airphoto interpretation by A.S. Dyke; some radiocarbon dates from Sharpe (1992; GSC Memoir 434)

Digital cartography by M.M. Proulx, Earth Sciences Sector Information Division (ESS Info)

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

Proximity to the North Magnetic Pole causes the magnetic compass to be erratic in this area Magnetic declination 2000, 32°38'E, decreasing 43.5' annually. Readings vary from 31°45'E in the SE corner to 33°28'E in the NW corner of the map

Elevations in feet above mean sea level

Radiocarbon dates are reported according to the reporting protocols of the various laboratories. All dates on terrestrial materials are normalized to the -25 per mil PDB standard. However, dates on marine materials are reported inconsistently. GSC marine dates are reported with a 400 year reservoir correction. TO and CAMS dates are reported without a reservoir correction. S dates are reported without normalization and without a reservoir correction.

LOCATION MAP

OPEN FILE 3900

SURFICIAL GEOLOGY

LADY RICHARDSON BAY AREA

VICTORIA ISLAND

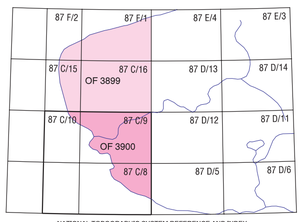
NUNAVUT

Scale 1:100 000/Échelle 1/100 000

kilometres 2 0 2 4 6 8 kilomètres

Universal Transverse Mercator Projection
North American Datum 1983
© Her Majesty the Queen in Right of Canada, 2000

Projection transverse universelle de Mercator
Système de référence géodésique nord-américain, 1983
© Sa Majesté la Reine du chef du Canada, 2000



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

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2000: Surficial geology, Lady Richardson Bay area, Victoria Island, Nunavut; Geological Survey of Canada, Open File 3900, scale 1:100 000.