

LEGEND

This legend is common for maps 1847A to 1851A
 * Some units or symbols may not appear on this map

QUATERNARY

Holocene

14 ALLUVIUM: sand and gravel with detrital organic beds; commonly less than 5m thick; occurs as braided floodplains

13 MARINE SEDIMENTS: gravel, sand, silt and clay in coarsening upward sequences; 1-30m thick; deposited in littoral, deltaic and offshore environments during regression of the postglacial sea

12 Littoral deposits: bouldery and flaggy gravel; 2-6m thick; occurs as flights of emerged beach ridges. West coast flights of boulder beaches developed on end moraines; some east coast flights of gravel and shingle beaches are derived from shattered limestone

11a 11b Deltaic deposits: planar- and cross-bedded sand and silt locally containing organic detritus and algal mats; occurs as a coarsening upwards sequences 5-30m thick; fossiliferous; forms terraces where debris from the glacier snout and glaciofluvial sediments emptied into the sea

11a 11b Offshore and sub-littoral deposits: stratified sand and silt with few ice rafted boulders and dropstones, in some places gravelly near the surface; sparsely fossiliferous. 11a, blanket deposits, 1-10m thick; forming plains, extensively covered by mudboils. 11b, veneer deposits, less than 1m thick, mimicking the surface form of underlying rock

PROGLACIAL AND GLACIAL ENVIRONMENT

10 GLACIOMARINE DEPOSITS and MARINE VENEER/TILL: stony sandy silt or stony clay with ice rafted boulders and dropstones; poorly sorted, locally massive; contains shell fragments; 1-5m thick; mantles and mimics underlying till surfaces over till

9 GLACIOLACUSTRINE DEPOSITS: silt and fine sand; 1-3m thick; deposited in valleys occupied by temporary glacier- or moraine-dammed lakes; forms veneers over till

8 GLACIOFLUVIAL DEPOSITS: poorly stratified sand and gravel; 1-10m thick; deposited behind, at, and in front of the ice margin by glacial meltwater

6 Outwash: cross-stratified sand and rounded gravel; 1-10m thick; occurs as kettled terraces and braided fans

7 Kame and esker deposits: poorly sorted sand and gravel with rounded boulders; 5-15m thick; forms isolated hummocks and sinuous ridges. Below marine limit, eskers have been intensively modified by wave action

EARLY HOLOCENE AND LATE PLEISTOCENE (WISCONSINAN)

GLACIAL ENVIRONMENT

TILL: chiefly unsorted glacial debris (diamiction); 1-30m thick; deposited by basal meltout and lodgment. Bouldery till deposited by local ice caps covers much of the area, and merges with the sandy till of the Laurentide (Foxe) ice regime

Sandy Laurentide till: olive grey stony granitic till with a sandy matrix; up to 20m thick; occurs as veneers, blankets, and hummocky deposits

Hummocky till: chiefly granitic till; 5-30m thick; forms a prominent hummocky ridge marking a major recessional ice margin, and diffuse zones marking boundaries between ice regimes

5 Till blanket: 1-10m thick; forms gently rolling plains; some areas have large frost fissures

4 Till veneer: less than 1m thick; occurs in patches over rock and is interspersed with rock outcrop; deposits are thin enough to reveal details of underlying rock structure

Bouldery local till: bouldery till consisting of blocky clasts in a sandy granitic matrix, together with a small number of far-travelled erratics

3 Till blanket: 1-5m thick; forms a nearly flat plain with zones of shallow, ephemeral ice-marginal channels

2 Till veneer: less than 1m thick; overlies bedrock as a distinct unit, or grades laterally and vertically into outcrop and broken rock

PERIGLACIAL AND GLACIAL ENVIRONMENT

1 BROKEN ROCK/FELSENMEER: blocky rubble derived from the disaggregation of bedrock by frost riving and by hydration or chemical weathering along microfractures; blocks are 0.5-2m across and have unweathered surfaces; unit grades downwards into coherent bedrock

PRE-QUATERNARY

ROCK, Precambrian: bare, coherent outcrop of various lithologies and ages; locally glacially polished and striated, scoured into streamlined bedforms, and deeply eroded into U-shaped troughs in the western highlands

A Alphebian deformed and metamorphosed sedimentary rocks of the Penryn Group, including marble, quartzite, and pelitic gneiss; forms glacially eroded valleys

A Archean granitoid and other rocks including tonalite, granite, gneiss, metacalcane, and banded iron formations; forms rugged highlands and uplands

Geological boundary
 Gossan
 Small outcrop
 Striation (ice flow direction known, unknown)
 Crag and tail
 Till flute, drumlin
 Roche moutonnée
 Moraine (end, lateral, minor)
 * Drift dispersal plume
 * Outcrop scoured by meltwater
 Esker, (direction of flow known, unknown), washed esker
 Shallow, subglacial drainageway
 * Lateral meltwater channel
 * Glacial lake terrine
 Beach ridge
 Marine limit
 Delta
 * Solifluction megalobes
 Large ice wedge polygons
 * Frost-heaved joint lineation
 Sample site
 Fossil locality
 * Archaeological sites
 * Radiocarbon date locality
 Date Material Elevation (m)
 Lab no.

Geology by L.A. Dredge, 1990, 1991

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Geological cartography by E. Everett, Geological Survey of Canada

Colour separations were produced using digital methods

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

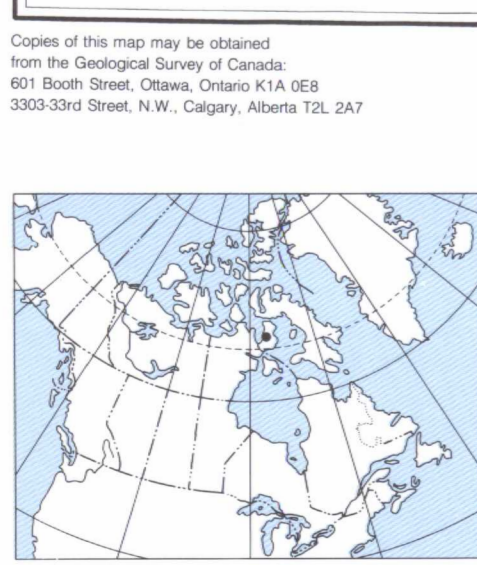
Base map assembled by the Geological Survey of Canada from parts of maps 46M (1979), 47B (1980), at 1:250 000 scale by the Army Survey Establishment R.C.E. and the Mapping and Charting Establishment, Department of National Defence

Copies of the topographical editions of this map may be obtained from the Canada Map Office, Department of Natural Resources Canada, Ottawa, Ontario, K1A 0E9

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

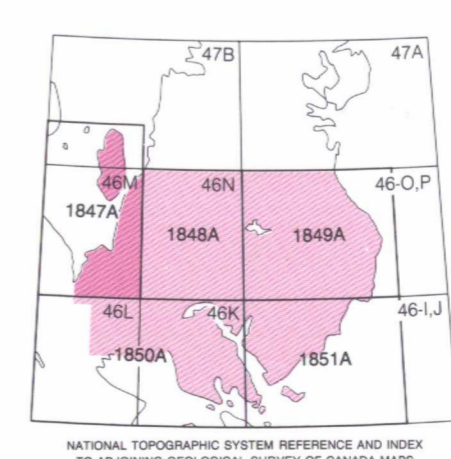
Mean magnetic declination 1994, 31°21' W, decreasing 10.6' annually. Readings vary from 27°05' W in the SW corner to 35°37' W in the NE corner of the map

Elevations in feet above mean sea level



MAP 1847A
 SURFICIAL GEOLOGY
LEFROY BAY - COMMITTEE BAY
 DISTRICTS OF FRANKLIN AND KEEWATIN
 NORTHWEST TERRITORIES
 Scale 1:200 000 - Échelle 1/200 000

GEOLOGICAL SURVEY OF CANADA
 COMMISSION GÉOLOGIQUE DU CANADA
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1847A

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