

LEGEND
 Note: some map units and symbols shown in the legend may not appear on this map

SURFICIAL DEPOSITS

QUATERNARY

ALLUVIAL DEPOSITS: stream deposited material within modern active drainage systems; "modern" is defined as the period since retreat of the sea, periglacial lakes, or glacial.

Aa Alluvium, silt, sand, and gravel deposited in channels and on floodplains may include siltstone in terraces which formed as streams cut to present level in glacial and marine sedimentary till.

As Deltic sediments sand, gravel, and boulders deposited where modern streams enter lakes or Hudson Bay.

AMF/Ms Alluvium and marine sand or silt, and intertidal silt as flat areas consisting of modern alluvium mixed with silt and sand that was washed from slopes by wave action or deposited in the sea by meltwater streams. R/Ms deposit veneers bedrock or surface comprises 20 to 80% bedrock outcrop.

AMF/Ms Alluvium and outwash gravel, undifferentiated; occurs as flat areas in stream valleys or abandoned channels above marine limit. R/Ms deposit veneers bedrock or surface comprises 20 to 80% bedrock outcrop.

LACUSTRINE DEPOSITS: materials deposited in glacial lake ponds on the western side of the Keewatin Ice Divide, and glacial deposits modified by lacustrine processes.

Ls Nearshore sediments generally well sorted sand, gravel, cobbles, or boulders deposited as beaches, bars, spits, and ice-protected ridges.

MARINE DEPOSITS: materials deposited in the Tyrrell Sea and glacial deposits modified by marine processes.

Md Deltic sediments sand, pebbly sand, and gravel deposited in the Tyrrell Sea by glacial or meltwater streams.

Me/Ms Nearshore sediments generally well sorted sand, gravel, cobbles, or boulders deposited as beaches, bars, spits, and ice-protected ridges. R/Ms deposit veneers bedrock or surface comprises 20 to 80% bedrock outcrop.

Ms Outlap sediments thin sheet of sand deposited in a migrating, shoreward prograding delta developed by wave reworking of marine clayey sand or silt and glacial till.

Ms/Ms Offshore sediments: clay-silt and silty sand deposited in a deep water environment may occur anywhere below marine limit, but distribution is patchy above 60 m a.s.l. thick deposits generally occur in water river valleys or valleys with major eiders. R/Ms deposit veneers bedrock or surface comprises 20 to 80% bedrock outcrop. Ms prominent striped pattern on airphoto. Ms, mottled pattern on airphoto.

GLACIOFLUVIAL DEPOSITS: water-sorted sediments deposited in, around, and near a glacier, largely as a result of meltwater stream flow.

Sc Ice-contact stratified drift: sand and gravel deposited near ice margins in, over, or around ice or in ice tunnels, commonly as eskers but includes isolated hummocky deposits of uncertain origin.

Sc/Sc Outwash sand, gravel, and silt with terraced, hummocky, and knotted surfaces. Co, sand and gravel deposited by subglacial meltwater streams in areas above local sea level or level of periglacial lakes includes 1) bedrock deposited between the water ridge and waterline, commonly over terraced ice that forms temporary floor; 2) outwash fans; 3) outwash plains; and 4) materials on the floor or at the mouth of meltwater channels.

Sc Co, silt, sand, and fine gravel; distal fine sediment deposited from the subglacial margin of an ice lobe; material sorted preferentially on ice margins between the esker ridge and waterline.

Sc Disintegration moraine till, sand, and gravel, undifferentiated; occurs as short ridges or hummocks, probably deposited in holes and crevasses in stagnant sea-ridge extension may form a reticulate pattern.

TILL DEPOSITS: poorly sorted sediments with distinctive forms deposited directly by glacial ice.

Tp/Tp Till plains generally silty, noncalcareous grey till with 25% clay sized particles includes areas of clay-rich red till. T_s prominent striped pattern on airphoto.

Tp/Tp Ribbed (Roggen) moraine generally bouldery till, in places sand and gravel, forming hummocks and straight to sinuous ridges, generally less than 1 km long and 2 to 10 m high; ridges generally oriented at right angles and form transverse parallel to direction of ice flow. R/T_s deposit veneers bedrock or surface comprises 20 to 80% bedrock outcrop.

Tp Hummocky till without significant boulder cover occurs as hummocks, ridges or ridges that are minor or moraines or erosion remnants between separated meltwater channels.

Tm Till and marine silt, undifferentiated; till-cored landforms blanketed by marine sediments or marine deposits in depressions among till landforms.

ROCK PRE-QUATERNARY

R/R Precambrian intrusive igneous and metamorphic rocks, red volcanic rocks, and unmetamorphosed sediments.

R/R Surface comprises more than 80% outcrop. R/T surface completely covered by talus.

R/T Surface comprises 20 to 80% outcrop, or bedrock is mantled with an average of less than 1 m of the surficial deposit indicated.

Geological boundary
 Small bedrock outcrop
 Drumlin or fluting (direction of ice flow known, unknown)
 Crag and tail (direction of ice flow known)
 Glacial striae (direction of ice movement known, unknown) location of measurement at centre of stria; color or striation drawn with broken staff
 Linear feature related to ice flow but obscured by sedimentation processes, water-laid deposits, wave reworking, or trees
 Deltic moraine: straight, approximately 2 m-high end moraine ridge built parallel to an ice front possibly deposited annually by fluvial ice submerged in a sea or lake
 Hummocky moraine
 Fluvial direction of flow known, unknown may be indicated with an obscured by nearshore features projected beneath water surfaces where known or inferred
 Meltwater channel: steep-sided channel commonly cut in bedrock or till
 Limit of marine submergence
 Trend of nearshore ridges originating as beaches, bars, megaripples, and ice-shoed ridges
 Escarpment generally in unconsolidated sediments
 Area of ridges formed by packice shove
 Permanently drained periglacial lake basins may include deposits of silty sediment with up to 15% organic carbon
 Turbid lakes contains continual load of suspended sediment during ice-free periods rarely occur above marine limit and indicate instability or alteration of the active layer due to wave washing or siltification processes
 Eolian deposits commonly formed where ice shove or bank failures have disrupted the vegetation mat over alluvial sand
 Baseline date

Geology by J.M. Aylsworth, A.N. Rossell, and W.B. Shill, based on air photo interpretation with field observations and sampling, 1973.

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Colour separation by camera of hand coloured manuscript.

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

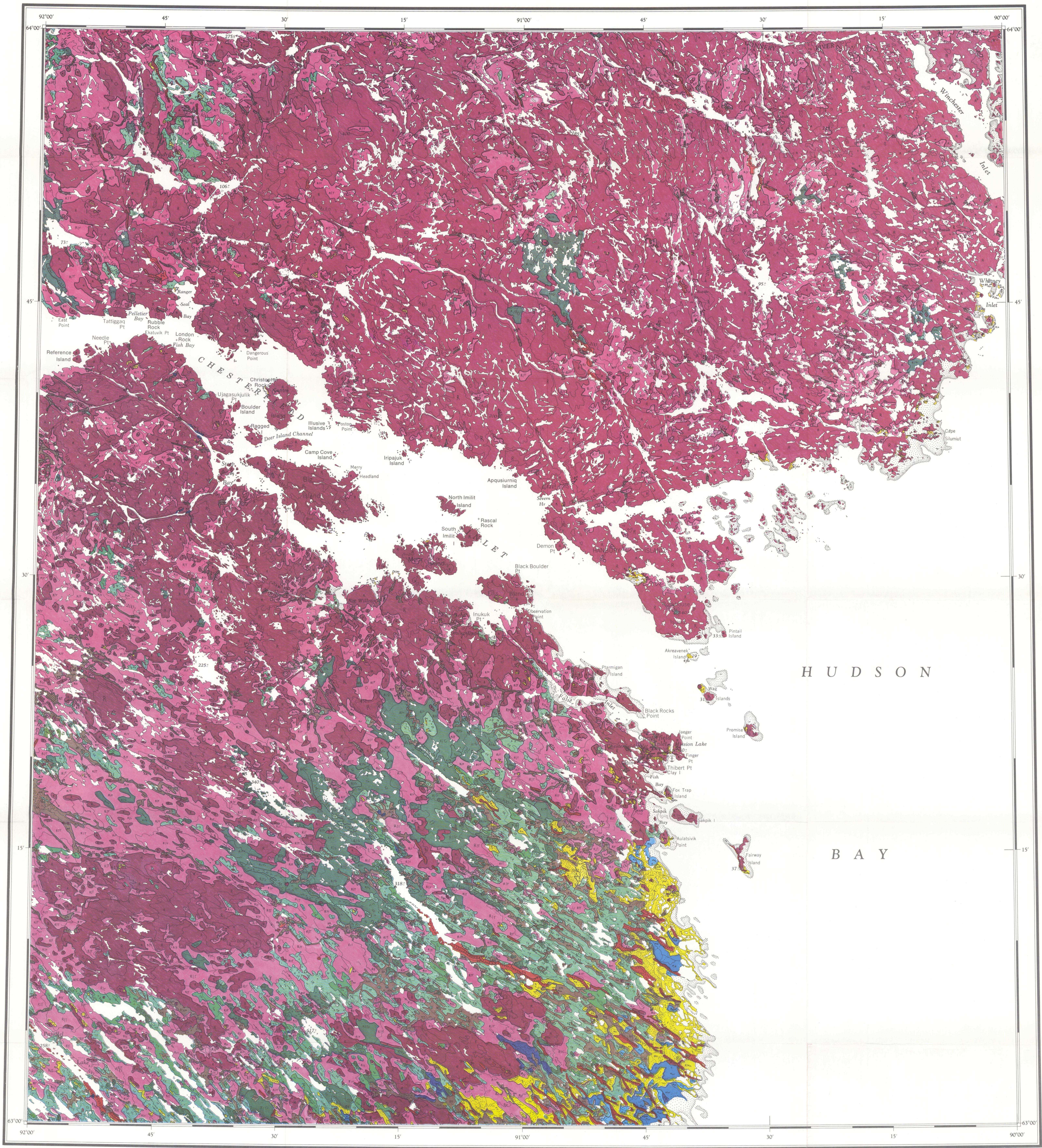
Base map, enlarged from 1:250 000 scale, published by the Mapping and Charting Establishment, Department of National Defence in 1962.

Copies of the topographical edition of this map may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa, K1A 0E9.

Mean magnetic declination 1985, 9°12' West, decreasing 0' annually. Readings vary from 3°57' in the SW corner to 12°09' in the NE corner of the map area.

Elevations in feet above mean sea level

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 Aylsworth, J.M., Boyett, A.N. and Shill, W.B., 1986. Surficial geology, Chesterfield Inlet, District of Keewatin, Northwest Territories. Geological Survey of Canada, Map 1-1986, scale 1:125 000.



MAP 1-1986
 SURFICIAL GEOLOGY
CHESTERFIELD INLET
 DISTRICT OF KEEWATIN
 NORTHWEST TERRITORIES
 Scale 1:125 000

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INDEX MAP