

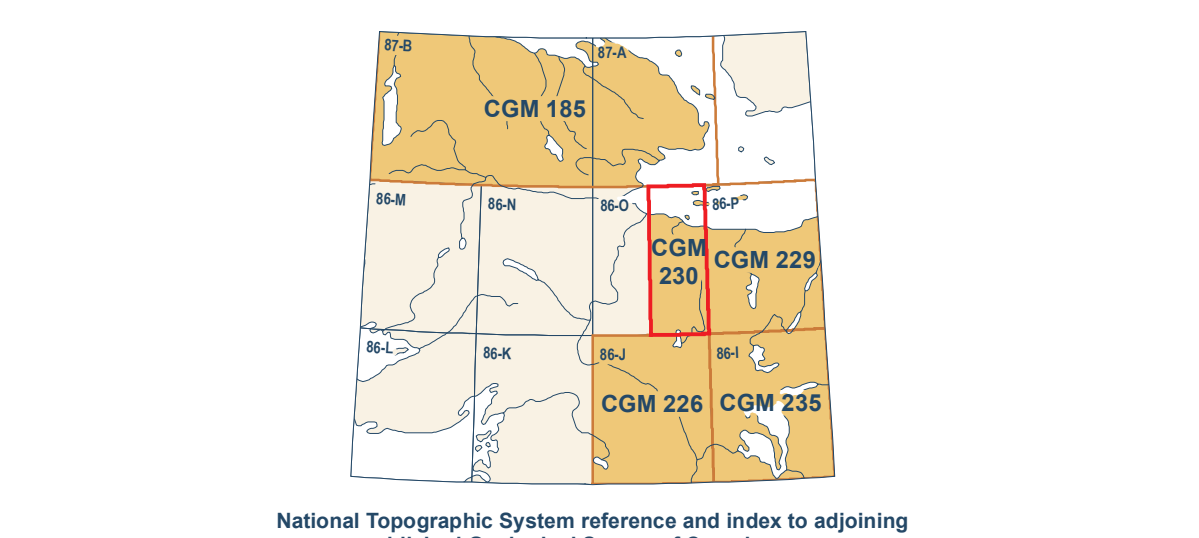
References
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Kerr, D.E., Dredge, L.A., and Ward, B.C., 1997. Surficial geology, Copernicus (east half), District of Mackenzie, Northwest Territories. Geological Survey of Canada, Map 1910A, scale 1:125 000, doi:10.4095/209395



QUATERNARY
HOLOCENE
POSTGLACIAL ENVIRONMENT
Organic deposits, undifferentiated: peat and muck; up to 2 m thick but commonly less than 1 m thick; formed predominantly by the accumulation of vegetative material in bogs; occurs in depressions, along valley bottoms and on marine silt and clay; frozen ground is commonly present at depths greater than 30 cm; may contain ice-wedge polygons and thermokarst collapse structures; small unmapped organic deposits occur in most terrain units.
Alluvial sediments, undifferentiated: gravel- to silt-sized sediment; generally stratified and moderately sorted; 1 to 5 m thick; deposited by modern streams and rivers.
MARINE SEDIMENTS: clay, silt, sand, and gravel; massive to well laminated silt and clay, and massive to cross-stratified and planar bedded sands; 1 to 20 m thick; deposited during marine regression resulting in a coarsening-upward sequence; may include fine-grained glauconitic sediments exposed at the base of stratigraphic sections; unit may contain segregated and disseminated ground ice; rounded pebbles and cobble gravel form raised beaches and deltas indicated by symbols.
LITORAL SEDIMENTS: medium- to coarse-grained sand with pebbles; may also consist of small cobbles and shingles; 1 to 3 m thick; blanket deposits with flat to gently undulating surface which in places overlies fine-grained sediments; may contain beach ridges and ice-wedge polygons indicated by symbols.
MARINE VENEER: undifferentiated sand, silt, and clay, but predominantly silt and clay; less than 2 m thick; occurs as sediments infilling depressions between bedrock outcrops and as a lag on washed bedrock and till surfaces below marine limit.
MARINE BLANKET: undifferentiated silt and clay with minor sand; commonly occurs as coarsening-upward sequence; from 2 to 30 m thick; flat to gently undulating surface; may contain segregated ice; may be extensively gullied and exhibit retrogressive thaw slumps; some pebbles to cobble lag on surface.
PLEISTOCENE (WISCONSIN GLACIATION)
GLACIAL AND NONGLACIAL ENVIRONMENT
Glaciomarine and marine deltaic sediments: sand, gravel, and cobbles; massive to cross-stratified; 5 to 20 m thick; exhibits channelled surfaces, ice-wedge polygons, and more rarely, kettle lakes; commonly associated with the distal end of glacioluvial complexes terminating at, or directly below, marine limit.
GLACIAL ENVIRONMENT
GLACIOLUVIAL SEDIMENTS: sand, gravel and minor silt; sorting ranges from good to poor; and stratification from massive or cross-stratified to planar bedded; more than 1 m thick; deposited by water flowing from, or in contact with, glacier ice; zones of washed bedrock (meltwater scours), isolated kame deposits, and boulder lags shown by symbols.
OUTWASH PLAIN SEDIMENTS: rounded gravel and sand; massive to cross-stratified; 2 to 20 m thick; deposited at, or beyond, the ice margin; occurs as graded fans and outwash plains with ice-wedge polygons.
ESKER SEDIMENTS: sand, silt, and gravel; in planar, cross-stratified, and massive beds; 1 to 20 m thick; forms ridges with both sharp-crested and flat-topped segments, mounds, and flanking aprons; formed subglacially or in subaerially exposed ice-walled channels.
GLACIAL SEDIMENTS (TILL): unsorted glacial debris (diamict); consisting of a silt to sand matrix containing pebbles, cobbles, and boulders; deposited beneath, or along the margin of, glaciers as lodgement till, meltout till, and gravity flow deposits.
Till veneer: diamict; less than 2 m thick; rock structure is generally visible on airphotos; unit includes patches of bedrock, till blanket, and marine sediments below the marine limit.
Till blanket: diamict; from 2 to 10 m thick; occurs as till plains mimicking bedrock topography or as drummoids; small rock outcrops in the unit are shown by symbols.
PRE-QUATERNARY
BEDROCK: Archean metasedimentary and metavolcanic rocks, Proterozoic sedimentary rocks, mafic dykes, and sills; may include patches of till and marine veneer; areas of shattered and frost-heaved rock are shown by symbols.
Bedrock, undifferentiated: barren outcrop exposures almost or completely (greater than 75%) deprived of surficial deposits; routes, moutonnées.
Till, undifferentiated: sand, gravel, clay and cobble rich diamict; poorly sorted; loose, permeable; deprived of silt and clay; variable thickness; abrasion till. Where overlain by reworked sediment symbol, till is poorly to moderately sorted; loose to moderately compact sandy-gravelly diamict; derived from reworked (post-depositional) till veneer, till blanket, and hummocky till; less than 2 to 10 m thick; commonly associated with boulder lag deposits and minor lenses of stratified and sorted sand.
Differentiated deposits (boulder fields and felsensmer): continuous patches of large boulders (0.5 to 3 m); locally derived (frost-heaved) or glacially derived (post-depositional concentration).
Felsensmer, frost-heaved and shattered rock
Area of meltwater scour (washed scoured lag)
Concentration of glacially abraded boulders
Geological contact, defined
Terrace scarp
Beach crest
Minor meltwater channel, subglacial or proglacial, direction known
Minor moraine ridge
Esker, direction unknown
Esker, direction known
Drumlinoid, large
Drumlinoid, small
Crag-and-tail, large
Crag-and-tail, small
Fluted bedrock, roche moutonnée or whaleback, direction known
Retrospective thaw flow slide
Thermokarst depression
Patterned ground, ice wedge polygon
Solifluction lobe
Delta, paleocurrent unknown, observed in stratigraphic section, with little or no surficial expression
Kame
Station, ice flow direction known
Crossed stratification (1 = oldest, 2 = youngest)
Gossan observation
Small outcrop
Dated sample location (see Table 1)
Sample location

Table 1. Radiocarbon age.
Table with columns: Web ID, Sample ID, Latitude, Longitude, Elevation (m a.s.l.), Material, and Radiocarbon Age.

Abstract
This new surficial geology map product represents the conversion of Map 1910A and its legend only, using the Geological Survey of Canada's Surficial Data Model (SDM version 2.1) which can be found in Open File 7741. All geoscience knowledge and information from map 1910A that conformed to the current SDM were maintained during the conversion process. The purpose of converting legacy map data to a common science language and common legend is to enable and facilitate the efficient digital compilation, interpretation, management, and dissemination of geologic map information in a structured and consistent manner. This provides an effective knowledge management tool designed around a geo-database which can expand following the type of information to appear on new surficial geology maps.
Résumé
Ce nouveau produit cartographique de la géologie des formations superficielles correspond uniquement à la conversion de la Carte 1910A et de sa légende, en se servant du Modèle de données pour les formations superficielles (MDFS version 2.1) de la Commission géologique du Canada, lequel peut être consulté dans le Dossier public 7741. Toutes les connaissances et l'information de nature géoscientifique de la Carte 1910A qui sont en conformité avec le modèle de données ont été conservées pendant le processus de conversion. Le but de cette conversion de cartes publiées antérieurement suivant un langage scientifique commun et une légende commune est de permettre et de faciliter la compilation, l'interprétation, la gestion et la diffusion efficaces de l'information géologique cartographique en mode numérique de façon structurée et cohérente. Cette façon de faire offre un outil efficace de gestion des connaissances élaboré à l'aide d'une géobase qui pourra évoluer suivant le type d'information à paraître sur les nouvelles cartes des formations superficielles.



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CANADIAN GEOSCIENCE MAP 230
SURFICIAL GEOLOGY
KUGLUKTUK
Nunavut
NTS 86-O east half
1:125 000

