

References

Cooking, R.B., Deblonde, C., Kerr, D.E., Campbell, J.E., Eagles, S., Everett, D., Huntley, D.H., Inglis, E., Laviolette, A., Parent, M., Proulx, A., Robertson, L., St-Onge, D.A., and Weatherston, A., 2015. Surficial Data Model, version 2.1.0. Revisions to the science language of the integrated Geological Survey of Canada data model for surficial geology maps. Geological Survey of Canada, Open File 7741, 276 p. doi:10.4095/296568

Kerr, D.E., Dredge, L.A., and Ward, B.C., 1997. Surficial geology, Coppermine (east half), District of Mackenzie, Northwest Territories. Geological Survey of Canada, Map 1910A, scale 1:125 000. doi:10.4095/209595

- QUATERNARY**
- HOLOCENE**
- POSTGLACIAL ENVIRONMENT**
- O** **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 fine-grained glaciomarine 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.
- A** **Alluvial sediments, undifferentiated:** gravel to silt-sized sediment; generally stratified and moderately sorted; 1 to 5 m thick; deposited by modern streams and rivers as floodplains and alluvial fans.
- Mn** **Littoral 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 overlie fine-grained sediments; may contain beach ridges and ice-wedge polygons indicated by symbols.
- Mv** **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.
- Mb** **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)**
- GMd** **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**
- GLACIOFLUVIAL 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.
- GFp** **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 braided fans and outwash plains with ice-wedge polygons.
- GFt** **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 well-sorted channels.
- GLACIAL SEDIMENTS (TILL):** unsorted glacial debris (diamictic) 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.
- Tv** **Till veneer:** diamictic; 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.
- Tb** **Till blanket:** diamictic; from 2 to 10 m thick; occurs as till plains mimicking bedrock topography or as drumlins; small rock outcrops in this unit are shown by symbols.
- PRE-QUATERNARY**
- SEDIMENTARY 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.
- R1** **Sedimentary bedrock.**
- R2** **Igneous bedrock.**
- R3** **Metamorphic bedrock.**
- Felsenmeer, 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**
- Direction known**
- Drumlinoid:**
- Large, length mapped to scale**
- Small**
- Crag-and-tail:**
- Large, length mapped to scale**
- Small**
- Fluted bedrock, roche moutonnée or whaleback, direction known**
- Retrogressive thaw flow slide**
- Thermokarst depression**
- Patterned ground, ice wedge polygon**
- Scollification lobe**
- Delta, paleocurrent unknown, observed in stratigraphic section, with little or no surficial expression**
- Kame**
- Striation:**
- Ice flow direction known**
- Crossed (1 = oldest, 2 = youngest)**
- Gossan observation**
- Small outcrop**
- Dated sample location (see Table 1)**
- Sample location**

Map ID	Sample ID	Latitude	Longitude	Elevation (m a.s.l.)	Material	Radiochron Age
1	GSC-6057	67°29'55"	114°27'20"	95	shells	6580 ± 90 BP
2	GSC-6058	67°29'50"	114°27'20"	95	shells	7860 ± 80 BP
3	GSC-6059	67°29'50"	114°27'20"	95	shells	9370 ± 100 BP
4	GSC-6060	67°29'50"	114°27'20"	95	shells	9560 ± 100 BP
5	AEOU-4720	67°29'50"	114°27'20"	120	shells	9560 ± 130 BP
6	GSC-6061	67°29'50"	114°27'20"	15	shells	6170 ± 90 BP
7	GSC-6062	67°29'50"	114°27'20"	120	shells	8270 ± 220 BP
8	GSC-6063	67°29'50"	114°27'20"	140	shells	10100 ± 100 BP
9	GSC-6071	67°29'50"	114°27'20"	20	shells	7540 ± 80 BP
10	AEOU-4845	67°29'50"	114°27'20"	120	shells	9080 ± 150 BP

Table 1. Radiocarbon age.

Author: Geological Survey of Canada

Geology based on airphoto interpretation and field observations by D.E. Kerr, L.A. Dredge, and B.C. Ward, with assistance from R. Roberts, P. Wilson and S.A. Wolfe, 1995.

Geology conforms to Surficial Data Model v. 2.1

Data conversion by D.E. Kerr, 2015

Geomatics and cartography by S. Eagles and D. Viner

Initiative of the Geological Survey of Canada, conducted under the auspices of Natural Resources Canada's Geo-mapping for Energy and Minerals (GEM) Program.

Map projection Universal Transverse Mercator, zone 11, North American Datum 1983

Base map at the scale of 1:250 000 from Natural Resources Canada, with modifications.

Elevations in metres above mean sea level

Mean magnetic declination 2016, 17°29'E decreasing 30.3' annually. Readings vary from 17°50'E in the NW corner to 17°06'E in the SE corner of the map.

This map is not to be used for navigational purposes.

The Geological Survey of Canada welcomes corrections or additional information from users.

Data may include additional observations not portrayed on this map. See map info document accompanying the downloaded data for more information about this publication.

This publication is available for free download through GEOCAN (<http://geocan.nrcan.gc.ca/>).

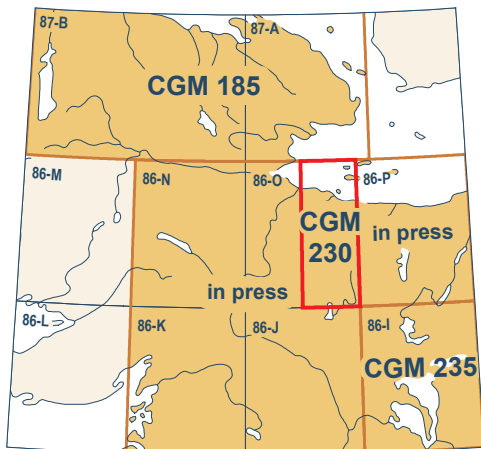
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Abstract

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 géodatabase qui pourra évoluer suivant le type d'information à paraître sur les nouvelles cartes des formations superficielles.



National Topographic System reference and index to adjoining published Geological Survey of Canada maps

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

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Preliminary publications in this series have not been scientifically edited.

CANADIAN GEOSCIENCE MAP 230

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