



Natural Resources
Canada

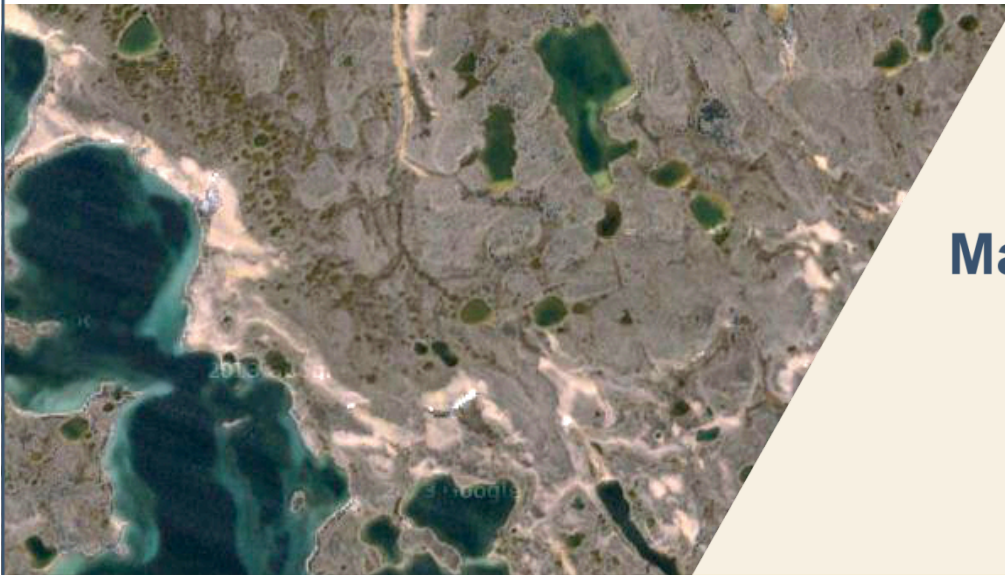
Ressources naturelles
Canada

CANADIAN GEOSCIENCE MAP 274

RECONNAISSANCE SURFICIAL GEOLOGY

ARMARK LAKE

Nunavut
NTS 66-K south



Map Information
Document

Preliminary

Geological Survey of Canada
Canadian Geoscience Maps

2016

Canada 



MAP NUMBER

Natural Resources Canada, Geological Survey of Canada
Canadian Geoscience Map 274 (Preliminary)

TITLE

Reconnaissance surficial geology, Armark Lake, Nunavut, NTS 66-K south

SCALE

1:125 000

CATALOGUE INFORMATION

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ABSTRACT

Preliminary surficial geology studies, based on air photo interpretation and limited recent field data, were undertaken in the south half of the Armark Lake map area to

provide an understanding of surficial materials and regional glacial history. Much of the map area is covered by till veneer and swaths of sandy till with streamlined forms indicating ice flow to the NNW. Till blankets contain material derived from Thelon sandstone bedrock south of the map area, although till veneers are derived from more local bedrock. Subglacial meltwater corridors, spaced across the area, are also oriented NNW. An extensive, sandy kame moraine, characterized by kettle topography and kame terraces, marks a recessional ice margin on the north side of Garry Lake. Short-lived ice-marginal and proglacial lakes covered much of the terrain below an elevation of 220 m, leaving flat sandy deposits with thermokarst depressions and tundra ponds. The most extensive glacial lake deposits lie north of the kame moraine.

RÉSUMÉ

Afin d'acquérir une meilleure compréhension des matériaux superficiels de la demie sud de la région cartographique d'Armark Lake et de l'histoire glaciaire régionale, nous avons entrepris des études préliminaires de la géologie des formations superficielles en se fondant sur l'interprétation de photos aériennes et d'une quantité limitée de données de terrain récentes. Une grande partie de la région est couverte d'un placage de till et de bandes de till sableux avec des formes profilées indiquant un écoulement glaciaire vers le nord-nord-ouest. Les nappes de till contiennent des matériaux dérivés du grès de Thelon, présent dans le socle au sud de la région cartographique, bien que les matériaux des placages de till proviennent de sources plus locales dans le socle. Des chenaux d'eau de fonte sous-glaciaires, dispersés dans la région, sont également dirigés vers le nord-nord-ouest. Une vaste moraine de kame sableuse, caractérisée par une topographie de kettles et la présence de terrasses de kame, constitue la trace d'une marge glaciaire de retrait du côté nord du lac Garry. Des lacs juxtaglaciaires et proglaciaires de courte durée couvraient une grande partie du terrain au-dessous de 220 m d'altitude et ont laissé des dépôts plats sableux marqués de dépressions thermokarstiques et d'étangs de toundra. Les dépôts de lac glaciaire les plus étendus se trouvent au nord de la moraine de kame.

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SHEET 1 OF 1, SURFICIAL GEOLOGY

GENERAL INFORMATION

Authors: L.A. Dredge and D.E. Kerr

Geology based on aerial photograph interpretation by L.A. Dredge, 2015, with minor revisions by D.E. Kerr, 2015.

Geology conforms to Surficial Data Model v. 2.1

Geomatics by L. Robertson

Cartography by M.J. Baldock

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 14.
North American Datum 1983

Base map at the scale of 1:50 000 from Natural Resources Canada, with modifications.
Elevations in metres above mean sea level

Proximity to the North Magnetic Pole causes the magnetic compass to be erratic in this area.

Mean magnetic declination 2016, 3°00'E, decreasing 10.1' annually. Readings vary from 4°35'E in the SW corner to 1°21'E in the NE corner of the map.

This map is not to be used for navigational purposes.

Title photograph: Sandy kame moraine, glacial lake deposits with tundra ponds, and till blanket. Photograph by NAPL 15050-89

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 GEOSCAN (<http://geoscan.nrcan.gc.ca/>).

Preliminary publications in this series have not been scientifically edited.

MAP VIEWING FILES

The published map is distributed as a Portable Document File (PDF), and may contain a subset of the overall geological data for legibility reasons at the publication scale.

REFERENCES

Cocking, R.B., Deblonde, C., Kerr, D.E., Campbell, J.E., Eagles, S., Everett, D., Huntley, D.H., Inglis, E., Laviolette, A., Parent, M., Plouffe, 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

McMartin, I., Berman, R.G., Normandeau, P.X., and Percival, J.A., 2013. Till composition of a transect across the Thelon tectonic zone, Queen Maud block, and adjacent Rae craton: results from the Geo-Mapping Frontiers' Chantrey project; Geological Survey of Canada, Open File 7418. doi:10.4095/292801

AUTHOR CONTACT

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COORDINATE SYSTEM

Projection: Universal Transverse Mercator
Units: metres
Zone: 14
Horizontal Datum: NAD83
Vertical Datum: mean sea level

BOUNDING COORDINATES

Western longitude: 102°00'00"W
Eastern longitude: 100°00'00"W
Northern latitude: 66°30'00"N
Southern latitude: 66°00'00"N

SOFTWARE VERSION

Data has been originally compiled and formatted for use with ArcGIS™ desktop version 10.2.2 developed by ESRI®.

DATA MODEL INFORMATION

Surficial

The Geological Survey of Canada (GSC) through the Geo-mapping for Energy and Minerals Program (GEM) has undertaken the Geological Map Flow to develop protocols

for the collection, management (compilation, interpretation), and dissemination of surficial and bedrock geology data and map information. To this end, a data model has been created.

The Surficial Data Model (SDM) was designed using ESRI geodatabase architecture. The XML workspace document provided can be imported into a geodatabase, and the geodatabase will then be populated with the feature datasets, feature classes, tables, relationship classes, subtypes, and domains.

Shapefile and table (.dbf) versions of the data are included within the data. Column names have been simplified and the text values have been maintained within the shapefile attributes. The direction columns are numerical, to display rotation for points, and the symbol fields will hold the correct values to be matched to the appropriate style file.

For a more in depth description of the data model please refer to the official publication:

Cocking, R.B., Deblonde, C., Kerr, D.E., Campbell, J.E., Eagles, S., Everett, D., Huntley, D.H., Inglis, E., Laviolette, A., Parent, M., Plouffe, 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.
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