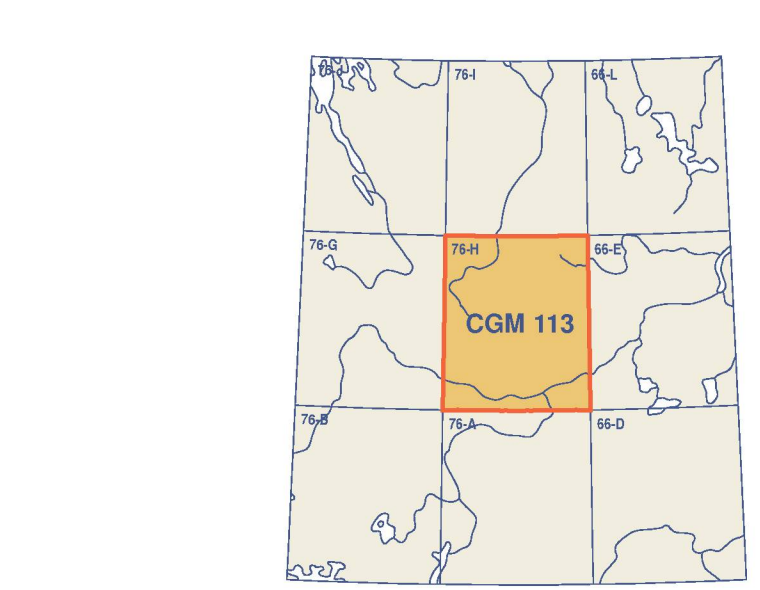


QUATERNARY	
HOLOCENE	
NONGLACIAL ENVIRONMENT	
Ca	Colluvial apron or talus cone deposits: sand to boulders, unsorted debris, variable thickness, occurs at the base of steep slopes, commonly involves surficial.
Cv	Colluvial veneer: debris, unsorted, <2 m thick.
Cf	Colluvial fan deposits: debris, variable thickness, fan shaped, unsorted, moulting from debris flows in gullies.
Cb	Colluvial blanket: debris, >2 m thick, on steep slopes completely masking underlying bedrock.
C	Colluvial deposits, undifferentiated: debris, variable thickness, generally derived from glacial sediments (R).
Cwb	Bog deposits: peat and low vegetation, standing water, variable thickness, generally overlies R; glaciofluvial or alluvial sediments.
O	Organic deposits, undifferentiated: bog, swamp and shallow lake deposits; variable thickness, generally overlies R or glaciofluvial sediments.
E	Estuarine sediments, undifferentiated: sand, variable thickness, commonly in the form of till top durums, generally associated with fluvial, glaciofluvial and lacustrine sediments.
Ap	Alluvial floodplain sediments: coarse sand and gravel, variable thickness, occur within the floodplain or river.
Ai	Alluvial terraced sediments: sand and gravel, variable thickness, surface commonly gullied and channelled, occurs above the floodplain as a result of stream capture.
Af	Alluvial fan sediments: sand and gravel, variable thickness, deposited in fan shape by stream exiting a narrow gully.
A	Alluvial sediments, undifferentiated: sand and gravel, variable thickness.
Lr	Lacustrine nearshore sediments: sand and gravel, flat, terraced and commonly dissected, variable thickness, may be partly covered with dunes.
L	Lacustrine sediments, undifferentiated: sand and gravel, variable thickness.
GLACIAL ENVIRONMENT	
GLr	Glacio-lacustrine beach sediments: sand and gravel, terraced, ridged and commonly gullied, variable thickness, formed along the margins of a glacial lake.
GLv	Glacio-lacustrine veneer: silt and sand, <2 m thick, too thin to mask underlying material.
GLd	Glacio-lacustrine deltaic sediments: sand and gravel, surface flat or channelled, variable thickness, deposited in a glacial lake by meltwater.
GLs	Glacio-lacustrine nearshore sediments: silt and sand, uniform cover, variable thickness, masking underlying sediments or bedrock, deposited in a glacial lake.
GL	Glacio-lacustrine sediments, undifferentiated: silt, sand, gravel, variable thickness.
GFv	Glaciofluvial veneer: sand, gravel and boulders, <2 m thick, deposited by meltwater streams, too thin to mask underlying material.
GFr	Glaciofluvial terraced sediments: sand, gravel and boulders, variable thickness, in ravelled terraces as a result of denudation by meltwater streams.
GFp	Glaciofluvial outwash plain sediments: sand, gravel and boulders, variable thickness, deposited by meltwater streams at the ice front.
GFr	Glaciofluvial esker sediments: sand, gravel and boulders, variable thickness, forming ridges, deposited by meltwater streams flowing within ice tunnels.
GFc	Glaciofluvial ice-contact sediments: sand, gravel and boulders, variable thickness, fan topped or ridged, deposited by meltwater streams in contact with glacier ice, may include kames.
GFr	Glaciofluvial hummocky sediments: sand, gravel and boulders, variable thickness, forming irregular ridges, deposited by meltwater streams in contact with inactive glacier ice.
GFb	Glaciofluvial blanket: sand, gravel and boulders, <2 m thick, deposited by meltwater streams, completely masking underlying material and bedrock structure.
GF	Glaciofluvial sediments, undifferentiated: sand, gravel and boulders, variable thickness.
TV	TR veneer (moraine): <2 m thick, lodgement and ablation till to thin that the surface mimics underlying rock; unit may include small isolated patches of bedrock, glaciofluvial deposits and silt blanket; may have been reworked by meltwater.
Tr	TR ridged (moraine): drumlin, variable thickness, may contain small isolated ridges, lodgement or basal meltwater till deposited at or near the ice front.
Tr	Streamlined TR: drumlin, variable thickness, extensively fluted till, individual ridges (streamlined) seldom exceed 1 km in length, may contain drag and tail.
Tr	Streamlined TR: drumlin, variable thickness, lodgement or basal meltwater till forming hillocks, includes patches of outwash and gravel; may exhibit large ice-wedge polygons.
Tr	TR blanket (moraine): <2 m thick, lodgement or basal meltwater till, surface commonly gently rolling; masks underlying bedrock topography, may contain smaller areas of TR veneer.
Tr	TR, undifferentiated: drumlin, variable thickness.

PRE-QUATERNARY	
R	Bedrock, undifferentiated: may include patches of TR veneer and glaciofluvial sediments, areas of meltwater washed scoured lag are shown by quarry symbols.
<p>Note</p> <p>Washed scoured lag, boulders, gravel and diastem resulting from the removal of silt and sand by meltwater</p> <p>Geological contact, defined</p> <p>Geological contact, inferred</p> <p>Terrace scarp, glaciofluvial</p> <p>Terrace scarp, fluvial</p> <p>Meltwater channel scarp</p> <p>Major moraine ridge</p> <p>Esker, sense known</p> <p>Esker, sense unknown</p> <p>Large groove, sense unknown</p> <p>Drumlin ridge</p> <p>Drumlinoid ridge</p> <p>Shallow, sense known</p> <p>Shallow, sense unknown</p> <p>Kame</p> <p>Paterned ground (ice wedges)</p>	


Abstract
 Preliminary surface geology studies, based on aerial photograph interpretation and limited legacy data, were conducted in the Duggan Lake area to provide an improved understanding of distribution and nature of surficial sediments and regional glacial history. Much of the area is extensively covered by a variety of glacial deposits and landforms, though bedrock outcrop can be found throughout the region. Widespread TR veneer blanket and streamlined TR are common in the central and eastern areas whereas hummocky TR occurs in the west. TR-associated terraces, scarp, ridges, and sediment southward trending glaciofluvial corridors consisting of esters, ice-outlined glacial lakes were formed by terraces, and locally elongated zones of scoured bedrock. Small isolated glacial lakes were formed by ponding of meltwater. In the northwest, a discontinuous moraine complex, consisting of glaciofluvial sediments and ridged TR segments, limits the western extremity of an esker and moraine system related to the Mackenzie-Boreal. Drumlins and streambeds record a regional northward ice flow during the last glaciation.

Résumé
 Pour améliorer les connaissances de la distribution et nature des sédiments de surface, et de l'histoire glaciaire de la région de la cote-Duggan Lake, on a réalisé des études préliminaires de la géologie et des processus de dépôt sédimentaire et du enregistrement de déformations locales. La région est composée de divers sédiments glaciaires et formes de relief, avec des affleurements rochers. Dans les régions du centre et de l'est, on trouve du plateau TR et des zones de sédiments sud-sud-est de tendance glaciofluviale constituées de esters, de lignes de crête bordées de lacs glaciaires, et de zones allongées de substratum rocheux découpé, sont orientés du nord-ouest vers le sud-est. De petits lacs glaciaires ont été formés par des sauts de bords. Au nord-ouest, un complexe morainique discontinu, composé de sédiments glaciofluviaux et de segments de TR segmentés, limite l'extrémité occidentale d'un système de esker et de moraines lié au Mackenzie-Boreal. Des drumlinoïdes et des lits indiquent que la glace se déplaçait vers le nord-ouest au cours de la dernière glaciation.




Cover illustration:
 Vegetated alluvial and glaciofluvial sediments, 76-H NTS, © 2013. Photograph by Philippe Normand (2012-181).

Catalogue No. N113-113,2013-PDF
 ISBN 978-1-100-21724-1
 978-1-100-21724-1
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**CANADIAN GEOSCIENCE MAP 113
 RECONNAISSANCE SURFICIAL GEOLOGY
 DUGGAN LAKE**
 Nunavut
 NTS 76-H
 1:125 000

Preliminary Preliminary Preliminary Preliminary CANADIAN GEOSCIENCE MAP 113 Preliminary Preliminary Preliminary Preliminary Preliminary

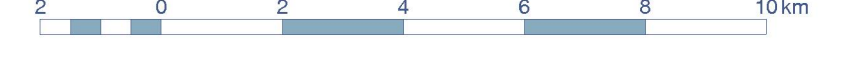


**Canadian
 Geoscience Maps**



Authors: D.A. St-Onge and B.E. Kerr
 Geology based on aerial photograph interpretation by D.A. St-Onge, with minor additions and compilation by D.E. Allen, 2013.
 Graphics and cartography by L. Rubenstein
 Initiative of the Geological Survey of Canada, conducted under the auspices of the Geo-mapping Priority Program as part of Natural Resources Canada's Geo-mapping for Energy and Minerals (GEM) Program.

**RECONNAISSANCE SURFICIAL GEOLOGY
 DUGGAN LAKE**
 Nunavut
 NTS 76-H
 1:125 000



Map projection:
 Universal Transverse Mercator, zone 13,
 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.
 Mean magnetic declination 2013,
 92.4°E (decreasing 2° annually).
 Readings vary from 10' (S) in the SW corner
 to 752' (E) in the NE corner of the map.

The Geological Survey of Canada welcomes
 corrections or additional information from users.
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Preliminary publications in
 this series have not been
 scientifically edited.

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