

Proiection transvers universelle de Mercator

Système de référence géodésique nord-américain, 1983

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Universal Transverse Mercator Projection North American Datum 1983

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HOLOCENE ORGANIC DEPOSITS: peat and muck, occurring as flat to gently sloping plains FENLAND: woody sedge peat; 0.5-2 m thick, (ground observation); 3-5 m thick, (shothole data) PEATLAND: saturated sphagnum peat generally underlain by woody sedge peat; 0.5-2 m thick, (ground observation); 3-5 m thick, (shothole data) PEATLAND: containing thermokarst depressions

fpO FENLAND (> 50%) and PEATLAND ALLUVIAL DEPOSITS: sand, silt and minor gravel in association with modern and post-glacial ALLUVIAL PLAIN: coarse sand and gravel with silt, fine sand and some organic

PEATLAND (> 50%) and FENLAND

local topography; < 1 m thick

ALLUVIAL FAN: mainly sand and silt with minor gravel and discontinuous layers of organic detritus occurring as fan deposits

detritus, occurring as channel and overbank floodplain sediments or in-channel bars;

COLLUVIAL VENEER: discontinuous veneer of diamicton and rubble that conforms to

ALLUVIAL COMPLEX: floodplain and fan deposits; may contain small areas of COLLUVIAL AND LANDSLIDE DEPOSITS: diamicton and rubble derived from bedrock and/or surficial material through a variety of colluvial and landslide processes

ROCK GLACIER: a multi-lobate tongue of frozen colluviated debris with interstitial ice, ice lenses and/or massive ice; maybe active or be a relic form

COLLUVIAL COMPLEX: slope complex (veneer to blanket) consisting of diamicton and rubble; may include minor landslides (Cz) and/or alluvial fan (Af) units; > 2 m thick COLLUVIAL COMPLEX, CHANNELLED: slope complex consisting of diamicton and rubble; may include minor landslides (Cz) and/or alluvial fan (Af) units, affected by

COLLUVIAL COMPLEX, GULLIED: slope complex consisting of diamicton and rubble; may include minor landslides (Cz) and/or alluvial fan (Af) units, affected by modern gullying processes; > 2 m thick ANDSLIDE: bedrock, rubble, diamicton and/or other unconsolidated materials occurring

as stepped or tongue-shaped deposits; formed by rotational slumping, commonly present along lower Root River involving till and glaciolacustrine deposits; retrogressive thaw flow, debris flow, rock topple and translational slides in surficial sediments and/or bedrock; they are prominent along former meltwater channels; maximum area 24.8 km²

LATE PLEISTOCENE EOLIAN DEPOSITS: fine to medium sand, minor silt derived from deltaic or glaciolacustrine

EOLIAN VENEER: discontinuous cover of mainly fine sand and silt over other surficial units and bedrock; < 1 m thick

EOLIAN BLANKET: continuous cover of mainly fine sand and silt most commonly over lacustrine and till plains; 2-10 m thick

GLACIOLACUSTRINE DEPOSITS: silt and clay with minor sand and diamicton; sediments deposited in a proglacial lake

EOLIAN COMPLEX: veneer to blanket; includes parabolic dunes

LACUSTRINE PLAIN: flat to gently sloping cover; locally overlain by eolian sand; 1-10 m thick; subject to rotational slumping where it is interbedded with gravel units LACUSTRINE PLAIN, CHANNELLED: flat to gently sloping cover, affected by

glacialfluvial channelling; locally overlain by eolian sand; 1-10 m thick; subject to otational sliding where it is interbedded with gravel units LACUSTRINE PLAIN WITH THERMOKARST DEPRESSIONS: flat to gently sloping

slides, retrogressive thaw flow slides and debris flows LACUSTRINE PLAIN, GULLIED: flat to gently sloping cover affected by modern

locally overlain by eolian sand; 2-10 m thick

gullying processes; locally overlain by eolian sand; 1-10 m thick LACUSTRINE BLANKET: deposit conforms to local topography up to 8 m of relief;

cover; locally overlain by eolian sand; 1-10 m thick; subject to active layer detachment

LACUSTRINE BLANKET TO VENEER; locally overlain by eolian sand; < 3 m thick

LACUSTRINE PLAIN, ROLLING: rolling, occurring as low ridges; locally overlain by GLACIOLACUSTRINE PLAIN, ROLLING WITH THERMOKARST DEPRESSIONS: rolling, occurring as low ridges, containing thermokarst depressions; locally overlain by

eolian sand; subject to active layer detachment slides, retrogressive thaw flow slides

and debris flows.; 2-15 m thick SHORELINE DEPOSITS: low, ridged beach deposits of sand and gravel; < 5 m thick

SHORELINE DEPOSITS, CHANNELLED: low ridged beach deposits of sand and gravel, incised by glaciofluvial channelling; the deposits maybe intercalated with till

LACUSTRINE COMPLEX: deltaic sediments transitional between glaciofluvial and glaciolacustrine deposits with upper 0-5 m consisting of sand; locally re-worked by eolian rocesses; subject to active layer detachment slides, retrogressive thaw flow slides and debris flows; may contain thermokarst depressions; up to 20 m thick

GLACIOFLUVIAL DEPOSITS, OUTWASH: sand and gravel locally with a veneer of eolian silt and/or sand; deposited by glacial meltwater in the distal proglacial environment

GLACIOFLUVIAL PLAIN: flat to gently sloping; 2-20 m thick

LACUSTRINE PLAIN: highly modified by landsliding

GLACIOFLUVIAL PLAIN WITH THERMOKARST DEPRESSIONS: flat to gently

GLACIOFLUVIAL PLAIN: highly modified by slope processes, particularly landslides;

GLACIOFLUVIAL TERRACE TO PLAIN: glaciofluvial terraces predominante; flat to gently sloping, with no visible boundaries between them; these units occur only along major rivers or interbedded with other drift types; 3-50 m thick

GLACIOFLUVIAL TERRACE; 10-50 m thick

GLACIOFLUVIAL TERRACE, CHANNELLED: affected by glaciofluvial channelling;

GLACIOFLUVIAL TERRACE WITH THERMOKARST DEPRESSIONS: affected by thermokarst depressions; 2-30 m thick

GLACIOFLUVIAL TERRACE, GULLIED: affected by modern gullying processes;

LACIOFLUVIAL DELTA: gently sloping, abrupt scarp; deposited in a glacial lake;

GLACIOFLUVIAL DELTA WITH THERMOKARST DEPRESSIONS: gently sloping,

UNDERSTANDING THE LEGEND

category, e.g., Gp (glaciofluvial plain). The modifying processes are indicated in lower case

The genetic category of surficial material is indicated by the first upper case letter, e.g., G (glaciofluvial). The morphologic category is indicated in lower case following the genetic

Combined units are used where, for reasons of scale, the units cannot be separated. The

secondary unit, e. g., Gp-k.Lp. In cases where the polygon has a third unit it is represented

main unit, covering over 50% of the geologic polygon, is separated by a (.) from the

by a pattern, e.g., eolian sand cover, peatlands or fenlands.

separated from the morphologic category by a (-) e.g., Gp-k (glaciofluvial plain with

thermokarst depressions).

GLACIOFLUVIAL FAN: mainly coarse gravel with minor sand, locally with mudflow deposits; commonly deposited in a meltwater channel or glacial lake; 5-7 m thick

GLACIOFLUVIAL DEPOSITS, ICE CONTACT: sand and gravel locally with a veneer of eolian silt and/or sand; deposited as ice-contact sediment by glacial meltwater

GLACIOFLUVIAL ESKER RIDGES: 2-15 m thick

GLACIOFLUVIAL HUMMOCKS: kames; < 5 m thick

GLACIOFLUVIAL COMPLEX: includes eskers, kames and plains, commonly with thermokarst ponds in places; 2-50 m thick

GLACIOFLUVIAL COMPLEX, CHANNELLED: containing ridges, kames and kettled plains, affected by glaciofluvial channelling; 2-50 m thick

TILL DEPOSITS: unsorted silt, sand, and clay with clasts (pebbles, cobbles, boulders)

GLACIOFLUVIAL COMPLEX, GULLIED: containing ridges, hummocky and kettled plains, affected by modern gullying; 2-50 m thick

deposited by glaciers in a variety of landforms

TILL PLAIN: flat to gently sloping; 3-10 m thick

TILL PLAIN, CHANNELLED: till plain affected by glacial meltwater; 3-10 m

TILL BLANKET: gently to moderately sloping plain conforming to underlying topography; 2-6 m thick

TILL BLANKET TO VENEER, CHANNELLED: conforming to underlying topography, incised by glaciofluvial channels; up to 8 m thick

TILL BLANKET TO VENEER: conforming to underlying topography; < 8 m thick

TILL BLANKET TO VENEER, CHANNELLED: conforming to underlying topography, incised by glaciofluvial channels; < 8 m thick TILL BLANKET TO VENEER, GULLIED: conforming to underlying topography,

affected by modern gullying processes; up to 6 m thick

TILL VENEER TO BLANKET: conforming to underlying topography; 1-8 m thick

TILL VENEER TO BLANKET: conforming to underlying topography, affected by glaciofluvial channelling; up to 8 m thick

TILL VENEER TO BLANKET, GULLIED: affected by modern gullying processes; conforming to underlying topography; up to 8 m thick

TILL VENEER: conforming to underlying topography; < 1 m thick

TILL, DRUMLINOID: hilly plain with individual drumlins or flutings; 3-15 m thick

FILL, RIDGED: surface of generally coarse till (20-50% pebbles) deposited as ridges; commonly lateral and frontal moraines; 5-15 m thick

TILL, HUMMOCKY: generally coarse diamicton (20-50% pebbles) deposited as

Cretaceous shale and limestone mostly in plains area; Upper and middle Devonian limestone, dolomite, shale, siltstone, mudstone and sandstone mostly in mountainous

TILL COMPLEX: largely hummocky, ridged, and/or hilly with patches of gravel; in some places Tx forms a veneer over bedrock; elsewhere it is up to 25 m thick

TILL, PLAIN: irregular gently to moderately sloping plain, highly modified by landsliding

hummocks; may contain thermokarst ponds

PALEOZOIC TO MESOZOIC BEDROCK: primarily prominent ridges, escarpments and hills associated with Devonian rocks Upper Devonian limestone, dolomite, shale, siltstone, mudstone and sandstone and

Karsted carbonate rocks affected by solution and collapse; karst forms expressed as sinkholes and channels commonly developed in Campsell Range

ORGANIC DEPOSITS: as patterns

This pattern is used when organic deposits appear as a second or third order component in a polygon, e.g. Tp.fO

Peatland constituting 10 - 49% of the map unit

Fenland constituting 10 - 49% of the map unit

Peatlands and fenlands undivided constituting 10 - 49% of the map unit

EOLIAN DEPOSITS: as pattern This pattern is used when eolian sand veneer would appear instead as a third order component

Discontinous veneer (<1m) mainly fine sand and silt covering other surficial units and

COLLUVIAL DEPOSITS: as pattern This pattern is used when colluvial veneer and sheetwash deposits would appear instead as a third order component in a polygon, e.g. Tv.Lb.Cx

Discontinous veneer (<1m) colluvium and sheetwash deposits

Geological boundary (defined)

Moraine ridge: unconsolidated sediments (till, sand and gravel) deposited in ridges at terminal, recessional, lateral and medial positions with respect to former ice margins Drumlin, drumlinoid ridge or flute (direction unknown): streamlined hill or ridge of till or

bedrock with long axis parallel to direction of iceflow Drumlin, drumlinoid ridge or flute (direction known): streamlined hill or ridge of till or bedrock with long axis parallel to direction of iceflow; elliptical base and arched profile

with long gentle slope pointing in downstream direction Cirque (Late Pleistocene): steep-walled, half bowl-like basins situated high on mountainsides; horseshoe or semi-circular in planform and produced by glacial erosion of valley headwalls

Meltwater channel (major): erosion and channel formation by meltwater flow along, beneath or in front of a glacier or ice sheet; range from broad, shallow channels to deeply incised, steep-sided, flat-bottomed valleys; channels may run across or along slope contours; may be presently dry, poorly drained or contain an underfit stream or small lakes. 10-30 km in length, some of these channels may extend to or from

adjacent map areas Meltwater channel (minor): erosion and channel formation by meltwater flow along, beneath or in front of a glacier or ice sheet; range from broad, shallow channels to deeply incised, steep-sided channels, may run across or along slope contours; may be

presently dry; 0.5-3 km in length >>>>>>> Esker (direction known): sinuous, low ridge composed of sand and gravel; formed by deposition from meltwater running through a channel beneath or within glacier ice

Shoreline of former lake: low, ridged beach deposits of sand and gravel

Tension cracks

Shield erratic

Ground observation

Current project Surficial Geology Location Map, Southern Mackenzie Corridor

Geology by D. Huntley, 2005-2006

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Airphoto interpretation and compilation by A. Duk-Rodkin Digital cartography by D.A. Lemay

Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada Digital base from Geomatics Canada, modified by the Geological Survey of Canada Mean magnetic declination 2012, 22°00'E, decreasing 26.7' annually. Readings vary from 22°13'E in the NW corner

to 21°47'É in the SE corner of the map Elevations in metres above mean sea level

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