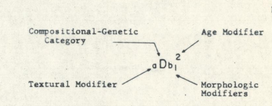
MAP 2.4

SURFICIAL GEOLOGY AND GEOMORPHOLOGY

DEMPSTER HIGHWAY PLANNING AREA

LEGEND

EXPLANATION OF LANDFORM UNIT NOTATIONS



Stratigraphic relationships given where thickness of upper unit is irregular and where underlying unit is a known compositional-genetic unit other than bedrock.

Compositional-Genetic Category[1]

- A- Alluvial Deposits: sand and gravel with veneer of fine sediment and organics; mainly Pleistocene, floodplain (Ap) modern.
- C- Colluvial Deposits: various materials, mainly rock; includes landslides (¿); undifferentiated age.
- D- Drift: undifferentiated till, sand and gravel.
- E- Eolian Deposits: fine sand and silt; pre-Wisconsinan (pre-Reid).
- G- Glaciofluvial Deposits: sand and gravel with veneer of fine sediment.
- L- Lacustrine Deposits: mainly silt and clay with little fine sand; Late Wisconsin (McConnell).
- M- Morainal Deposits: till, silty/sandy diamicton; rock glaciers (MR), rubble, modern.
- O- Organic: mainly peat; Postglacial.
- R- Bedrock: various types; pre-Pleistocene.

Textural Modifiers

- a- sand or gravel
- b- boulders, blocks, bouldery
- c- clay, clayey
- f- fine sand, silt and clay; commonly with high organic content
- g- gravel, gravelly
- r- rubble; predominantly sand to boulder-sized fragments
- s- sand, sandy

1. General descriptions of texture and age are given in the legend. Where texture and age differ from the general description are texture and age modifiers used.

Age Modifier

- 1- Late Wisconsin (McConnell)
- 2- Early Wisconsin or Illinoian (Reid)
- 2a- Early Wisconsin or Illinoian (Laurentide Glaciation)
- 3- Illinoian or pre-Illinoian (pre-Reid)

Morphologic Modifiers

- a- apron
- b- blanket[2]
- f- fan
- h- hummocky
- m- undulating, rolling
- n- nondescript sloping, bedrock controlled
- p- plain, floodplain
- r- ridge, ridged
- s- steep slope (greater than 35°); cliff
- t- terrace, terraced
- v- veneer[3]
- 1- gentle to moderate slope (5 - 15°)
- 2- moderate to steep slope (15 - 35°)

Process - Form Modifiers

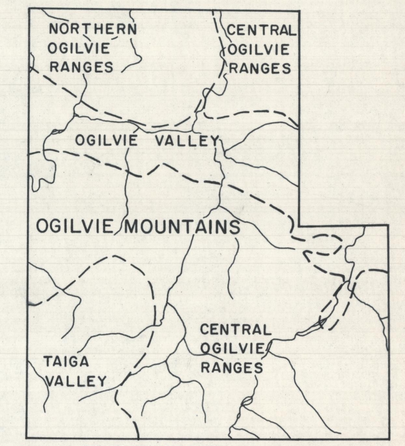
- Δ- Active deposition
- P- Thermokarst, modified by thermokarst
- #- Rilled

2. Blanket indicates category forms nearly continuous cover greater than 1 m thick, generally 0.5 to 3 m thick, over underlying unit, commonly rock.
3. Veneer indicates category forms broken thin cover, usually less than 1 m thick, but averaging 0.5 m thick, over underlying unit, commonly rock.

SYMBOLS

- Fault Scarp
- Landslide Scar
- Stream-trimmed Scarp (unconsolidated material, bedrock in part)
- Stream-cut Ravines and Canyons (unconsolidated material, bedrock in part)
- Geologic Boundary (defined, approximate, assumed)
- Limit of Mapping
- Moraine Ridges (ages as given by modifier)
- Meltwater Channel (ages as given by modifier)
- Kivalon Terrace
- Pingo
- Thermokarst Depression

PHYSIOGRAPHY



- BOUNDARY BETWEEN PHYSIOGRAPHIC SYSTEMS
- BOUNDARY BETWEEN MAJOR PHYSIOGRAPHIC SUBDIVISIONS

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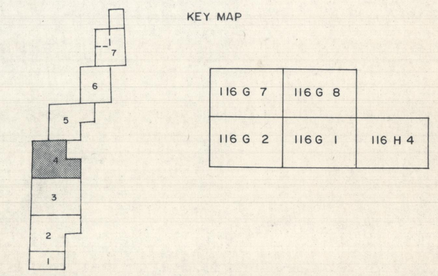
Terrain Analysis and Mapping Services Ltd.
1981

KEY MAP



Scale 1:100,000

miles 0 1 2 3 4 5 miles
metres 1000 0 1000 2000 3000 4000 5000 6000 7000 metres

GEOLOGIC INTERPRETATIONS AND EVALUATIONS OF THE DEMPSTER HIGHWAY AREA
SHEET 4 (7 MAPS and FIGURE 23)