



GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF ENERGY, MINES AND RESOURCES

117 C

TERRAIN CLASSIFICATION
AND SENSITIVITY SERIES (PRELIMINARY)

LEGEND

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|-------|--|---|
| I | ORGANIC TERRAIN
(including muskeg) | Peat, fen peat-fen complex; commonly occurring as a cover on Units II, IX and X; flat to moderately sloping. |
| II | SILT-CLAY PLAINS
(marine and lake deposits) | Clay and silt, commonly surfaced by sand or silty sand, with discontinuous organic cover (see Unit I). Principally forming plains bordering rivers and coastal areas. Highly unstable in eroded slopes. |
| III | THERMOKARST LAKE BEDS | Clay, silt, peat, and local sand on low flat areas formerly occupied by tundra ponds. These materials generally less than ten feet thick over till or sand. Pings generally confined to this unit. |
| IV | BEACHES
(marine and lake) | Gravel and/or sand ridges or flat areas along present or former shorelines. |
| V | RIVER DEPOSITS-FINE | Silt and silty sand in river channels, floodplains, low terraces adjoining rivers, and alluvial fans; includes organic silt, peat and minor gravel. |
| VI | RIVER DEPOSITS-COARSE | Gravel and sand in river channels, floodplains, low terraces adjoining rivers and alluvial fans. Includes some silt, peat, and organic silt. |
| VII | GRAVEL-SAND HILLS,
RIDGES AND TERRACES | Gravel, sand and some silt. Includes eskers, and other glaciofluvial deposits, river terraces, sand dunes, and moraines consisting of deformed gravelly-sandy strata. |
| VIII | SILT-CLAY HILLS AND RIDGES | Mainly silt and clay with minor sand and gravel in moraines, strata tilted and folded. |
| IX | TILL PLAIN | Till, occurring as ground moraine with low rolling relief or parallel drumlin ridges. Large areas are clayey to silty till as a thin veneer on shale; locally forms a thin veneer on other kinds of bedrock. Includes undifferentiated areas of Unit I. |
| X | HUMMOCKY TILL | Clayey to gravelly-sand till, local gravel, forming rolling to hilly moraine composed of individual and coalescent hummocks. Local contrasts in material and ground ice between well drained hills and poorly drained depressions. Includes small undifferentiated areas of Unit I. |
| XI | UPLAND AND PIEDMONT COMPLEXES | Areas of moderate to low slope, in part hilly, surfaced by till, disintegrated bedrock, and local clay, silt, sand, or gravel. Unconsolidated deposits generally form a thin veneer over rock but in places they are thick (>100 feet). |
| XII | MOUNTAINOUS AND ROCKY AREAS | Rock outcrop or rock thinly covered by rubble or drift. Moderate to steep slopes. |
| XIII | ERODED AND/OR ERODING RIVER
BANKS, COASTAL CLIFFS, AND
VALLEY WALLS (UNCONSOLIDATED
MATERIAL) | Various unconsolidated materials on moderate to steep slopes, generally with surface veneer of slope debris; includes unstable areas. |
| XIII* | ERODED AND/OR ERODING RIVER
BANKS, COASTAL CLIFFS, AND
VALLEY WALLS (BEDROCK) | Bedrock outcrops or bedrock partly covered by rock detritus or unconsolidated materials; slopes commonly steep; includes unstable areas. |

Note: Detailed unit descriptions of terrain sensitivity and the performance rating table are presented on a separate sheet which accompanies this map.

SOURCES OF INFORMATION

- Hampton, V.K., 1970: Surficial Geology Maps of Demarcation Point (1170), Herschel Island (1178), Blow River (1174), and Alavik West (1078), Geological Survey of Canada Open File 21.
- Bamber, E.W., Waterhouse, J.B., 1971: "Carboniferous and Permian Stratigraphy and Paleontology, northern Yukon Territory Canada"; Bull. Can. Petrol. Geol. v. 19, no. 1 pp. 29-250.
- Douglas, R.J.W., MacLean B., 1963: "Geology, Yukon Territory and Northwest Territories" Map 30-1963, Geological Survey of Canada.
- Norris, D.K., 1972: "Structural and Stratigraphic Studies in the Tectonic Complex of Northern Yukon Territory, North of Porcupine River", Report of Activities, Part B, 1972 Geological Survey of Canada.
- Jelefsky, J.A., 1958: "Uppermost Jurassic and Cretaceous Rocks of Alavik Range, Northwestern Richardson Mountains N.W.T.", Geological Survey of Canada Paper 58-2.
- Unpublished bedrock geology maps and data by D.K. Norris Institute of Sedimentary and Petroleum Geology, Geological Survey of Canada, 1972.

Compiled by R.L. Monroe 1972

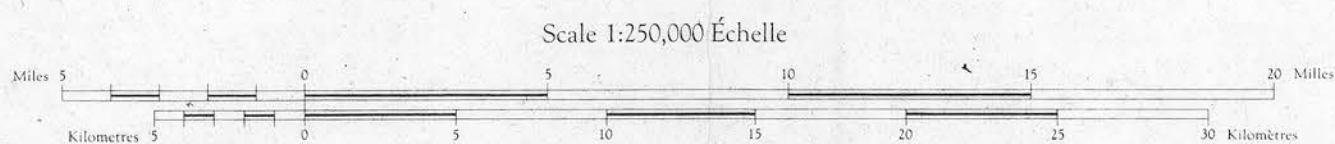
Preliminary map prepared for open file, October, 1972.
Subject to revision and correction.

TERRAIN CLASSIFICATION AND SENSITIVITY SERIES

Produced for
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|-----------------------|-----------------------------|
| Road, all weather | Chemin, route saison. |
| Wagon or winter road | Chemin de terre ou d'hiver. |
| Trail or portage | Sentier ou portage. |
| Town | Ville. |
| Village or settlement | Village ou hameau. |
| Post office | Bureau de poste. |
| Building | Bâtiment. |

DEMARCATION POINT
CANADA-UNITED STATES OF AMERICA



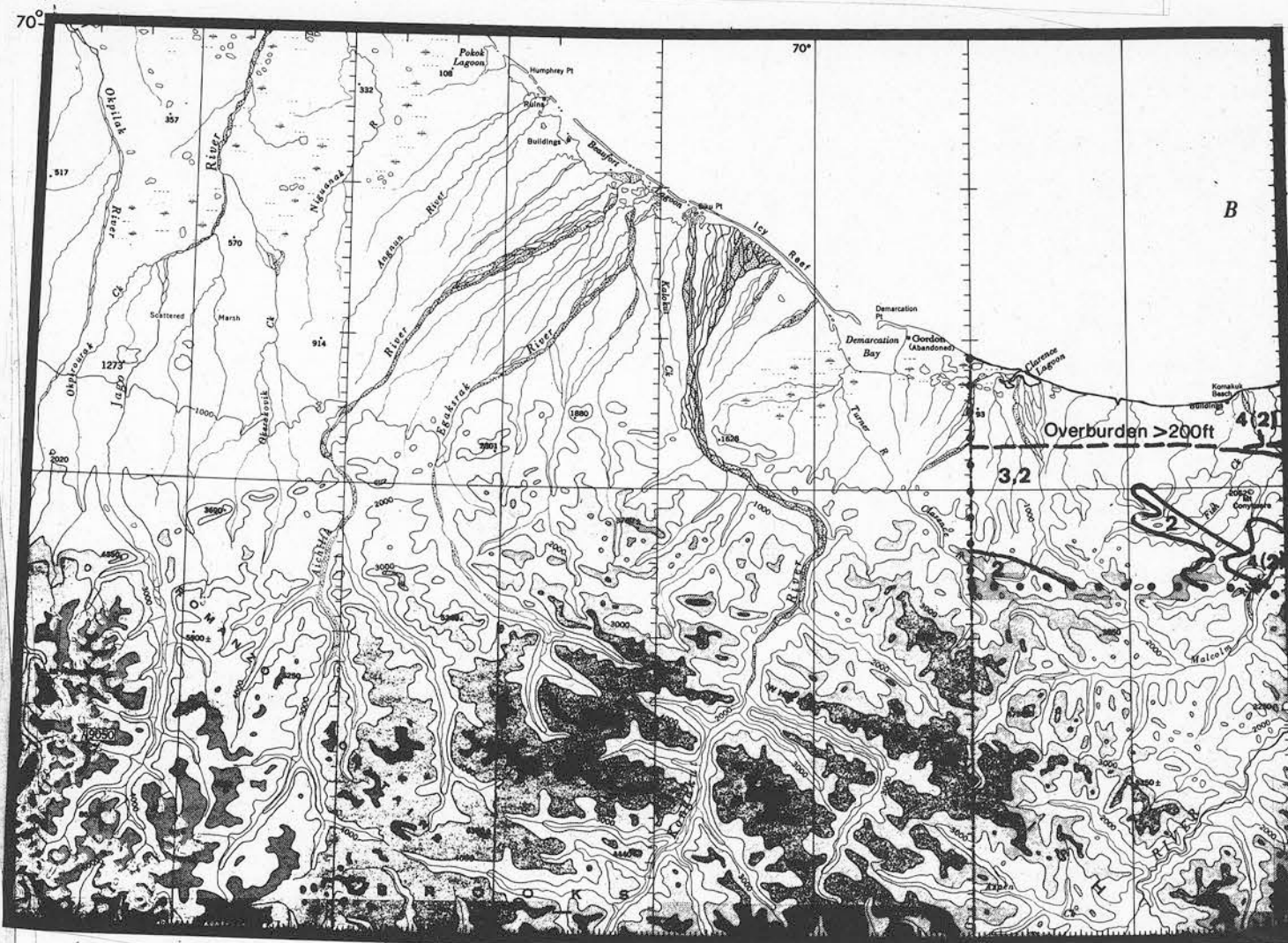
Projection Transverse de Mercator
Réseau géodésique nord-américain unifié (1927)
Équidistance 500 yards (Canada), 200 yards (États-Unis)
Élévation en pieds au-dessus du niveau moyen de la mer
Déclinaison magnétique au centre de la feuille en 1963: 39°45' Est
Variation annuelle (déclinante) 5'

- | | |
|--------------------------|--------------------------------|
| Horizontal control point | Point géodésique |
| Boundary monument | Borne frontière |
| Spot elevation, in feet | Régime de nivellement en pieds |
| Rapids, falls | Rapides, chutes |
| Marsh or swamp | Marais ou marécage |
| Depression contour | Courbes de nivellement |
| Surveyed line | Ligne arpentée |

117 C

BEDROCK LEGEND

- 1 Resistant, competent quartz sandstone, and volcanic rocks, potentially suitable for use as rip-rap. Mid Jurassic Bag Creek Formation, and Lower Cretaceous Upper Berriasian and Valanginian formation, both comprise resistant quartz sandstone units in the Richardson Mts.
- 2 Coherent or moderately competent rocks; fairly resistant to erosion but not strongly cemented; probably would break down under heavy traffic (i.e. if crushed and used for road surfacing). In British Mts. includes Carboniferous Lisburne Group consisting of limestone and dolomitic limestone with highly shattered beds.
- 3 Moderately coherent rocks; more resistant than 4 and less easily eroded; capable of maintaining a steep face 150 ft. high. Includes Precambrian argillite as found in the Neruokpak Formation. For the most part the argillite is interbedded with limestone, dolomite and/or sandstone.
- 4 (2) Mainly incoherent rocks; soft easily eroded, subject to slumping. Includes Jurassic Kingsk Formation which is highly fissile, soft and recessive shale and siltstone, and the Cretaceous shale and siltstone recessive units of the Richardson Mts. and the Arctic Coastal Plain. Bedrock highly commonly of fine-grained sandstone occur interspersed within this unit and display a coherence rating of 2.
- 3,2 Undivided Precambrian Neruokpak Formation. Argillite interbedded with limestone, dolomite and/or sandstone.
- 4,2 Undivided shale, sandstone and/or limestone. This unit includes the Permian Sadlerochit Formation and the Jurassic Husky Formation in the Richardson Mts., and the undivided Jurassic unit in the British Mts.



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Miles
DEMARCATION POINT
BEDROCK GEOLOGY

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