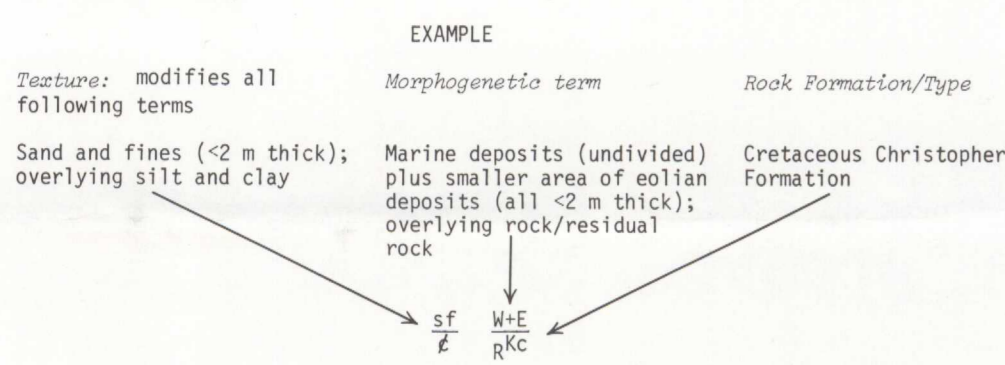


LEGEND

MORPHOGENETIC

Morphogenetic units, shown in black, generally provide detail. The Morphogenetic term forms the core of the unit designation and describes a certain range of landforms and materials.



TEXTURE OF SURFACE MATERIALS

The textural description of a map unit is drawn from scattered field observations, shallow drill cores, and semi-silt/clay grain size analyses of samples from estimates of the composition of depositional landforms identified on air photographs and from estimates of the weathering products of source rocks.

MORPHOGENETIC UNIT

Morphogenetic core terms are listed below.

SURFICIAL UNITS

Used only as secondary unit.

FLUVIAL DEPOSITS AND LANDFORMS

FLU: Fluvial plain: active channel zone and floodplain; gravel to fines; only deposits >100 m wide mapped

FT: Fluvial terrace: ignitive fluvially worked surface; gravel to fines

FPT: Undivided fluvial plain and terrace: combined unit, indivisible at scale of map

FF: Fluvial fan: active gently inclined fan; sand

FD: Delta: gravel to fines; Fd active delta; Fd relict raised delta

COLLUVIAL DEPOSITS

C: Colluvium: material displaced or altered by slope processes to such a degree that it markedly differs from subadjacent source materials; rubble to fines

CV: Colluvial veneer: deposit <2 m thick overlying rock

MARINE DEPOSITS AND LANDFORMS

M: Undivided marine sediments: nearshore and offshore relict marine sediments plus small areas of beach, fluvial and alluvial sediments, and rock; fine gravel to clay

MS: Marine sediment veneer: deposit <2 m thick overlying rock

WS: Strandline flat: relict intertidal and beach zone; level to gently inclined; dominantly sand

MB: Beach bars and swales: modern and raised beaches with measurable microrelief; sand or gravel

DIAMICTON DEPOSITS

D: Diamicton: silt or silt-like deposits; varies from gravel to fines

RELICT FLUVIAL(?) DEPOSITS

QR: Gravel ridges: mid-Quaternary eskers(?); sand, minor gravel to fines

TR: Plateau gravel: remnant capping gravel, from formerly extensive fluvial(?) deposit; gravel to fines

ROCK/RESIDUAL ROCK

R: Rock/Residual Rock: bedrock commonly mantled by residual weathered rock except for most resistant lithologies. Composition indicated by textural modifier and rock formation/type

ROCK FORMATION/TYPE

I: Igneous rock: gabbro to quartz diorite; weathers to rubble, minor sand, fines

KE-u: Eureka Sound Formation (informal upper member): chiefly poorly to noncemented; weathers to sand, silt

KE-l: Eureka Sound Formation (informal lower member): sandstone siltstone, shale; weathers to fine sand to silty clay

KK: Kanguk Formation: flaky to soft, highly acidic shale, minor siltstone; weathers to clayey silt and shale fragments

KH: Hassel Formation: sandstone, minor siltstone, commonly poorly cemented; weathers to sand, silt, clay; basalt breccia

KC: Christopher Formation: soft sapey shale, minor siltstone, weathers to silty clay or clay, shale fragments

KI: Isachsen Formation: sandstone, minor siltstone, minor shale, noncemented to well cemented; weathers to sand, minor silt and clay

K: Cretaceous (undivided): probably Hassel and Kanguk formations

JKd: Deer Bay Formation: sapey shale; weathers to clayey silt, shales: interformational sandstone

Jk: Helmsdal Formation: sandstone, poorly to well cemented; weathers to sand, minor silt, rubble

Jr: Ringnes Formation: sapey shale, minor sandstone; weathers to clayey silt, minor sandstone rubble

Js: Savit Formation: shale, minor sandstone; weathers to silty clay, silt, shale fragments

JL: Jaeger Formation, Borlen Island Formation (undivided): sandstone, poorly to well cemented; weathers to silty sand, gravel, sandstone rubble

Th: Helberg Formation (Upper Member): sandstone, poorly cemented, minor indurated outcrop; weathers to sand, sandstone rubble

Thl: Helberg Formation (Lower Member): sandstone and shale, poorly cemented; weathers to sand, fines, rubble; invaded by dykes and sills

Ds: Illa Mountain Formation: shale, siltstone; weathers to clayey silt; invaded by dykes and sills, numerous dykes

S: Schei Point Formation: siltstone and sandstone, indurated; weathers to rubble, minor silt and sand

B: Bjorne Formation: sandstone, poorly to well cemented; weathers to sand and rubble

Po: Diapiric dome: gypsum, anhydrite, minor limestone, dykes and sills; weathers to rubble, minor sand and fines

Geological boundary (defines, approximate, assumed)

Gravel knoll

Composition of material largely uncertain

LITHOGENETIC

Lithogenetic units, shown in red, give an overview. Small units have been combined with adjacent larger units of similar texture.

Used only as secondary unit.

14: Coarse grained sediments: dominantly sand, locally gravel

13: Fine grained sediments: very fine sand, silt; minor clay, gravel

12: Deltaic sediments - coarse over fine: sand; minor fines, gravel; overlies fines

11: Colluvial deposits: rubble to fines

10: Thick coarse grained sediment: sand, minor gravel, >2 m thick

9: Coarse grained veneer over coarse or fine grained marine-reworked rock; sand, minor gravel, <2 m thick, overlies unit 6 or 5

8: Thick fine grained sediment: clay to fine sand, <2 m thick

7: Fine grained veneer over fine rock: clay to fine sand, <2 m thick, overlies units 6 or 5

6a: Cornwall and Graham diamicton: fines and gravel, 1-2 m thick overlying plateau gravel (unit 7)

6b: Anund Ringnes diamicton: thick silty stony clay

7b: Gravel ridges: sand, minor gravel to fines

7a: Plateau gravel: gravel to fines

6: Coarse grained marine-reworked rock: marine-reworked form of clastic rock units described under unit 3

5: Fine grained marine-reworked rock: marine-reworked form of clastic rock units described under unit 2

3: Coarse grained rock/residual rock: dominantly sandstone, cemented to indurated

2: Fine grained rock/residual rock: shale, siltstone, minor sandstone

4: Dykes and sills

1: Diapiric dome: gypsum, anhydrite, igneous rocks

Surficial geology by D.A. Hodgson, 1976, 1977. Geology of Cretaceous and older rocks after Tozer (1961), Greiner (1963), Scott (1969), Ballwail and Roy (1977), and Ballwail (in press). To accompany Paper B1-9 by D.A. Hodgson. Thematic information on this map is, in part, reproduced directly from author's copy. Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada. Base map assembled by the Geological Survey of Canada from maps published at the same scale by the Army Survey (Establishment, R.C.I.). Copies of the topographical edition of this map may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa. Geographical names subject to revision. Magnetic declination 1981 varies from 84°34' westerly at centre of west edge to 110°44.6' westerly at centre of east edge. Mean annual change -55.7". Elevation in feet above mean sea level.

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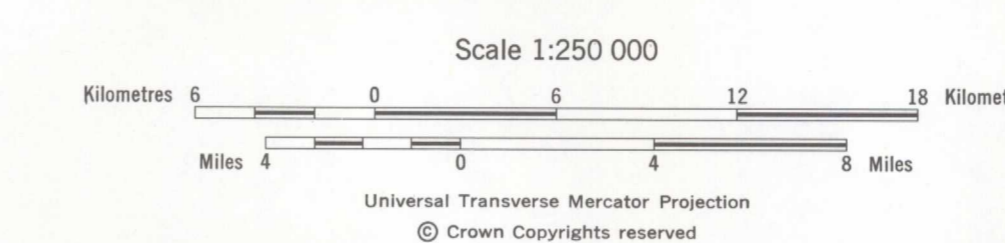


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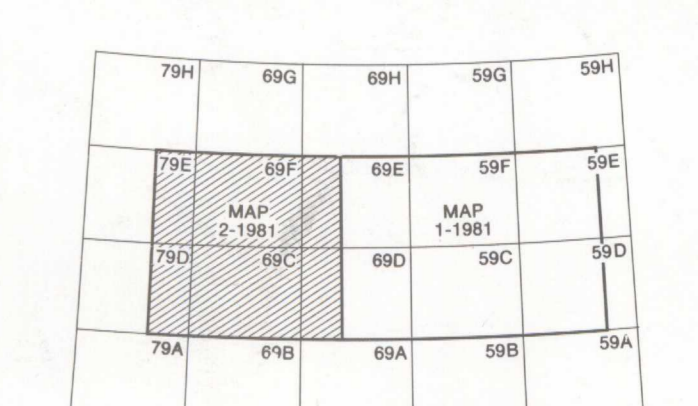
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