



1:50000 SURFICIAL GEOLOGY MAP SERIES - ISLAND OF NEWFOUNDLAND
D.R. Grant
Geological Survey of Canada

GENETIC OR PROCESS/ENVIRONMENT CATEGORIES OF TERRAIN CLASSIFICATION

	R ROCK	C COLLUVIAL	M MARINE	F FLUVIAL	GL GLACIOLUVIAL	L LACUSTRINE	M MARINE	O ORGANIC	E EOLIAN
c consolidated	observed only by vegetation	-	-	-	-	-	-	-	-
w weathered	front-broken (talus)	-	winnowed, "washed" and subdued by wave action	-	-	-	-	blowouts	-
e eroded	-	-	channeled by former streams of glacial meltwater, in a braided or parallel pattern	-	-	-	-	-	-
g gullied	-	-	dissected by modern ravines in a dendritic pattern	-	-	-	-	-	-
k 'collapsed'	karst	-	kettled	-	kettled	kettled	kettled	-	-
p plain	plain	plain	floodplain	outwash plain	plain	plain	plain	'high bog' plain	plain
v veneer	-	-	thin enough - usually less than 10 feet thick - to reveal geomorphic fabric of underlying formation	-	-	-	-	-	-
r ridged	corrugated with parallel stratification ridges, igneous and tectonic foliation	terraces	transverse elements: end, recessional, ribbed, De Geer moraines	point bars	eskerline complex	beach berms, strand-lines and wave-cut benches	string bog	dunes	-
h hummocky	-	-	ablation and chaotic disintegration moraine	-	kames	-	-	palsa	dunes
d drumlind	-	-	longitudinal elements: drumlins, flutings, drag-and-tail hills	-	-	-	-	-	-
l lineated	fractured	solifluction lines	-	meander scars	-	-	-	vegetation stripes	-
d delta	-	-	-	delta	-	delta	delta	-	-
f fan	-	talus cone	-	-	-	-	-	-	-
a apron	-	scree slope	-	-	-	apron	apron	-	-
t terrace	-	entailment terrace; bench	-	terrace; beach	kame terrace	terrace; bench	terrace; bench	-	-

SYMBOLS EXPLANATORY NOTES

Boundary of terrain units: defined, approximate, transitional

Longitudinal ice-flow features

Drumlin, drumlind, fluting

Trag-and-tail hill

Wide outwash

Striation

Transverse ice-flow features

Crestline of end moraine: prominent and continuous, subdued and broken

Ribbed moraine, De Geer moraine, minor moraine

Esker, crevasse filling

Solifluction lines in colluvial and organic terrain

Stratification ridges in sedimentary and volcanic rocks; igneous and tectonic foliation

Depressional lineament along fracture or fault trace

Abandoned channel of former meltwater stream

Emerged shorelines of former proglacial lake or marine submergence

Landslide scar

Scarp of terrace, bench, delta

Marl sediment in lake or pond

Location of sample

Spring

Stagnole, pond

Location of radiocarbon-dated organic material

COMPLEXES
Where two or more classes of terrain are interspersed in a mosaic or repeating pattern on a scale too small to warrant meaningful differentiation, the properties of each component in the combination is given in a three-position designation set off by slashes denoting arbitrary percentage limits. For example "Mv/O" means that at least 50% of the area is underlain by this till, with up to 40% boggy areas, and less than 10% scattered rock outcrops. Mv/O indicates more than 50% bedrock concealed by vegetation and less than 10% outcrop.

MORPHOLOGIC OVERPRINT
Where a sequence of geomorphic processes has produced a multi-aspect or compound terrain fabric, the geomorphic modifier suffixes are appended in the inferred order of superposition. "Mv/O" means that a veneer of till has been moulded into a meander or drumlind form, then scarred with hummocky till during ablation, and finally channeled by former meltwater streams.

TRANSITIONAL ASSOCIATIONS
Locally, two or more terrain units are juxtaposed by reason of related origin, temporal sequence, or ambiguous geomorphic distinction. Such situations are identified by a compound designation marked by a hyphen. Examples are: an outwash plain that slopes down and is transitional to a marine terrace ("Gp - M") or kame and kettle pliocenoluvial topography that blends with hummocky disintegration moraine ("Th - M").

STRATIGRAPHIC SEQUENCE
Natural exposures are rare, except along coasts, and are minimally shallow along roads, but where materials of different origin or texture are known to be superposed, or can be reasonably confidently inferred, the sequence is indicated in conventional order using horizontal separators, such as:
Mv/O, which indicates that thin muskeg has developed over a marine mantle on drumlind till.

TEXTURAL MODIFIER
Ordinarily, textural characteristics are implied by the genetic or morphologic assignment, but occasionally more specific granular information is available either from ground observation or by inference from distinctive morphology, or where texture differs significantly from that usually associated with a particular process, as in the case of a poorly sand ester, or a gravely alluvial plain. Textural designations are: "s" for rocks and rubble; "g" for gravel and sand; "a" for sand; "st" for fine sand and silt; "c" for silt and clay. Combinations such as "gs" signify a stony pelite, like the sort of "till" produced by the accumulation of ice-rafted debris at the terminus of a floating glacier.

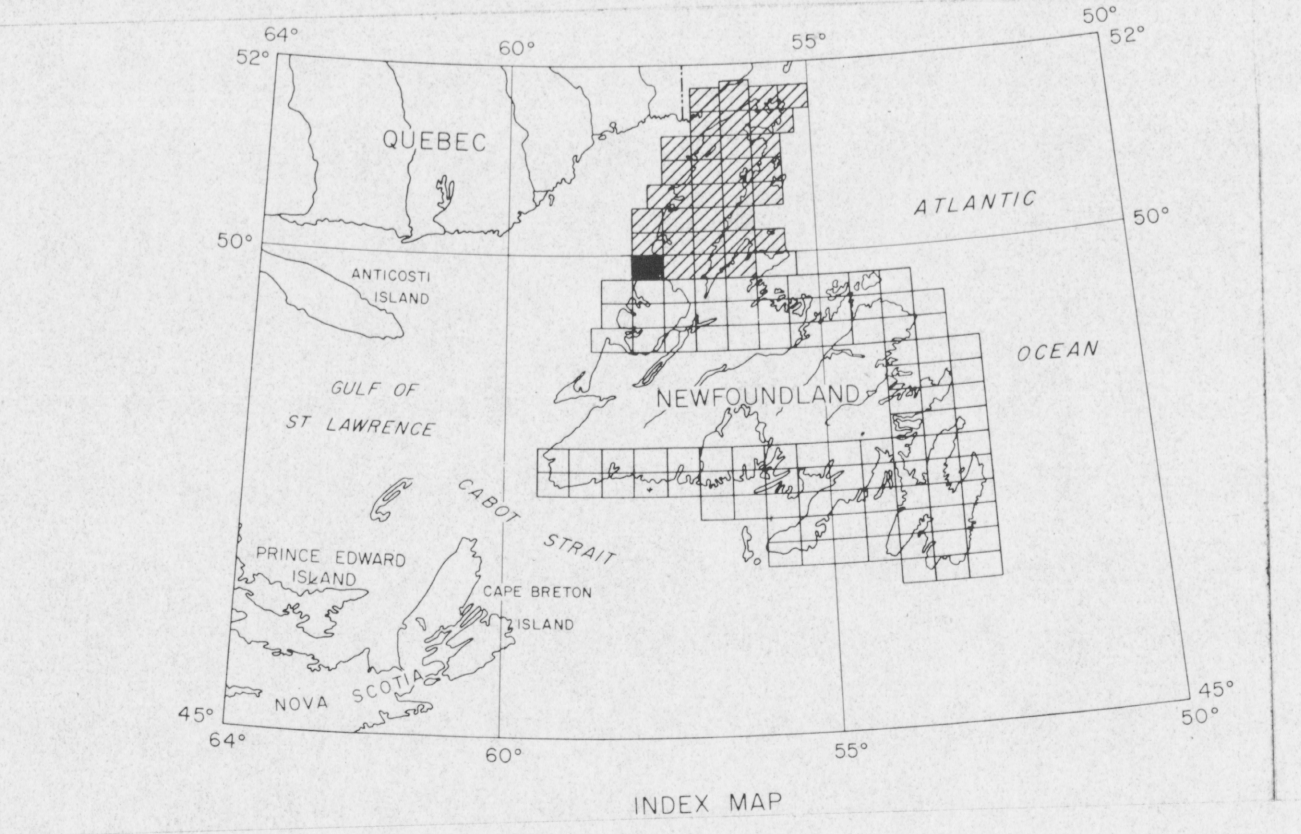
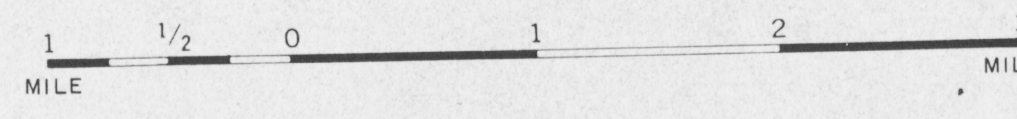


SURFICIAL GEOLOGY

ST. PAUL'S INLET

NEWFOUNDLAND

D. R. GRANT
1973



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GEOLOGICAL SURVEY
OTTAWA

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