OUP/UNIT ¹	MATERIALS DE	ESIGNATOR		DRAINAGE, ACTIVE LAYER PROCESSES AND MICRORELIEF 4	SURFICIAL MATERIALS ⁵	GROUND ICE ⁶	VEGETATION 7	SENSITIVITY ⁸ Magnitude Form	TRAFFICABILITY 9			
5.4	\$,sg C		400-1200' (120-360 m) Steep to gentle slopes, commonly 20-100 m high, borderin pre-Pleistocene gravels. Commonly part of a valley wall incised into group. Mass wasting processes highly active.	Generally well drained, though seepage may continue through summer in numerous subparallel seepage lines, and in partially incised runnels. Solifluction lobes widespread. Colluvial and fluvial fans towards base of slopes. Gravel talus on upper slopes. Ice-wedge troughs only on gentle slope segments.	Colluvium: gravel, and sand or silt o upper slopes; sand or silt and gravel elsewhere.		* 20% Salix-Dryas 20% moss Dense vegetation restricted to runnels troughs, (wet sedge meadow). Well drained stripes & talus may be unvegetated & support a sparse Saxifraga oppositifolia barrens.	2 AbC	3 2/1			
5.5	sg, \$g C+	+ P	400-1000' (120-300 m) Level to knobby areas of pre-Pleistocene gravels, to 1 km' separated by moderate to gentle, locally steep, slopes eroded by fluvial or glaciofluvial drainage. Gravel surfaces lie at a variety of elevations, indicating that the fluvial processes which developed them during original deposition or in the Pleistocene, were adjusted to a variety of base levels. Colluvium covers >50% of unit.		Pre-Pleistocene gravel residuals Colluvium: chiefly gravel, and sand or silt on upper slopes; sand or silt, and gravel else- where.	. See 5.	* 20% Salix-Dryas 10% moss < 5% Saxifraga oppositifolia barrens on well drained sites.	2 ab	2 2/2			
5.6	g, si, s Ft	, Fp, P, C	400-600' (120-180 m) Fluvial and colluvial sediments, commonly located where main drainage lines cross the edge of group 5 gravels, into adjacent finer grained materials. Level terraces or deltas of sand and gravel are adjusted to high (ca. 150 m) Holocene or earlier sea level stand. Partial dissection during lowering of sea level has left gentle to moderate slopes between terraces and active channel zone.	See 5. Generally well drained.	Chiefly sand, lesser gravel and silt, derived from pre-Pleistocene gravels.	See 5.	5-10% <u>Saxifraga</u> <u>oppositifolia</u> barrens. Some areas unvegetated.	2 ab	2 2/2			
P/UNIT ¹	MATERIALS DE	esignator ²	TOPOGRAPHY, LANDFORM GENESIS ³	DRAINAGE, ACTIVE LAYER PROCESSES AND MICRORELIEF ⁴	SURFICIAL MATERIALS ⁵	GROUND 1CE ⁶	VEGETATION ⁷	SENSITIVITY ⁸	TRACE I CARL I I I I I I I I I I I I I I I I I I I			
,	PATENTALO		Altitude 0-1500', (0-460m).		Group developed on generally poorly consolidated, fine to medium grained	Few observations of other excess ice.	Well drained materials 1. Fine grained materials: Salix-grass barrens		TRAFFICABILITY 9 Roughness Traction			
6			Group developed on low rolling or plateau landscape similar to groups 4 and 5, but subsequently dissected by two major and numerous minor fluvial valley systems. The group has been marine washed below ca. 150m, and there is a discontinuous veneel of marine sediments below 100m. Bedrock is Cretaceous clastics, generally poorly consolidated, medium to fine grained; strata gently to steeply dipping. The highly variable lithologies, genesis and relief lead	groups.	Cretaceous clastics (KTe, Kk, Kh, Kc, Ki), folded so that beds gently to steeply inclined. Coarser material enters group from adjacent resistant sandstones and siltstones of Sawtooth Range and of group 1, and from pre-Pleistocene gravels. by Subgroups:	Values suggested 25-75%, with very local massive ice indicated by the few retrogressive thaw flowslides. Ice wedge networks general in sub-groups a and c, variable in d, rare in b other that on gently inclined	similar to 3a. 2. Sands & gravels: Salix-herb barrens. Willow is the dominant vascular plant (5-10%). Saxifraga oppositifolia, S. caespitosa, Papaver radicatum and Caryophyllaceae are common associates. 3. Some areas that are extremely dry are devoid of vegetation.					
			to a large number of small units in this group. However four sub-groups of units can be recognised. a) Units 6.1-6.2:remnants of level to gently sloping pre-dissection plateau surface, truncating inclined rock strata, and mantled with a thick cover of residual material or pre-Pleistocene fluvial gravels.	a) Drainage poor on the (extensive) level areas, fair to good elsewhere. Little mass wasting. Ice-wedge polygons general.	a) Sand and (or) fines, minor gravel, residual material.	slope segments.	Moderately drained materials: Dwarf shrub community consisting primarily of <a (many<="" and="" colluvial="" deposition,="" development,="" downslope="" fluvial="" gullying,="" href="https://press.org/linearing-new-normal-new-new-new-new-new-new-new-new-new-new</td><td>sh 2-3 aB</td><td>1 3/2</td></tr><tr><td></td><td></td><td></td><td>b) Units 6.3-6.4:sides of valleys incised to 300m below original surface; and other moderate to steep slopes or which mass wasting and(or) gullying is highly active. Material chiefly colluvium, derived not only from under lying Cretaceous clastics, but frequently from upslope more resistant Mesozoic formations, or from capping of pre-Pleistocene gravels.</td><td>b) Drainage fair to good on moderate and steep slopes, through gullies, runnels, seepage lines. Gentle slope particularly towards the base of long slopes, may be poorly drained due to continual seepage. Mass wasting highly active, with solifluction lobes often over >50% of sub-group.</td><td>Tubble, depending on underlying</td><td></td><td>Poorly drained areas: Dominated by Sedge-Cotton grass wet meadow vegetation, with <u>Carex stans</u> and <u>Eriophorum triste & E. Scheuchzeri present up to</u> 50% usually 20-30%. <u>Eriophorum sp. usually associated with standing water.</u> Associates & Stratification as in 5c.</td><td>-</td><td>3 3/2</td></tr><tr><td></td><td></td><td></td><td>c) Units 6.5-6.8: broad, gently inclined floors of two major valleys, and narrow coastal lowland. Massive fill of sand or finer fluvial, deltaic, estuarine, minor marine, sediments; deposited in Holocene and earlier, when sea level first lower, then higher, than present.</td><td>c) Drainage good to fair where surfaces inclined; poor on level, with ponding in wedge troughs. Ice-wedge polygons over most of sub-group.</td><td>marine sediments. Chiefly sand
size material in upper and mid
valley sections with increasing
fines towards shoreline (though
sand continues dominent in upper</td><td>r</td><td>Polygon trough & some high gradient seepage areas usually lack <u>Salix arctica</u> and have a higher percentage of <u>Alopecurus</u> than on more level ground.</td><td></td><td>1-2 2/2</td></tr><tr><td></td><td></td><td></td><td>d) Units 6.9-6.13: level to moderately sloping, locally steep or knobby surfaces developed on folded Cretaceou clastics, with variety of lithologies. Heterogeneous; includes areas of thick, possibly marine washed or glacially reworked material, soliflucting minor valley slopes, and outcrop of better consolidated lithologies</td><td>and vice versa.</td><td>sections commonly >10m thick. d) Residual, lesser colluvium, Varies from sandstone, siltstone rubble over more resistant lithologies, to thick mantle of silty clay over poorly consolidated shale.</td><td></td><td></td><td>2 abc</td><td>2-3 3/2</td></tr><tr><td>6.1</td><td>s,f,g K</td><td>R + C</td><td>700-1500' (210-460m). Level to gently sloping smooth surfaced plateaus between deeply incised valleys.</td><td></td><td>Possibly reworked by glacial processes, overlying planed, inclined clastics</td><td></td><td>Moderately drained materials: * 20-40% <u>Dryas-Salix</u> 30% moss</td><td>2 aB 3 on flats</td><td>1 3/2</td></tr><tr><td>. 2</td><td>f,s Kc,K</td><td>R,RC</td><td>Surficial material derived from underlying clastics, possibly reworked by glacial processes. Cover sufficientl thick (> 2m?) to mask bedrock structure. Discontinuous cover of pre-Pleistocene gravels (see group 5).</td><td>Ice-wedge polygon network over entire unit. Wedges generally wide, high amplitude, with ponding common on level areas Scattered small thaw lakes.</td><td>(see materials underlay). Thickness</td><td>No observations of other excess ice; probably 25-75%.</td><td>30% moss sedge-willow wet meadows in polygon troughs & other poorly drained areas. * similar to 6.1</td><td>2 aB</td><td>1 3/2</td></tr><tr><td></td><td></td><td></td><td>Level to gently sloping plateau remnant. Sand, fines, gravel; probably morainal and residual material, with remnants of pre-Pleistocene gravel. Thick residual material derived from underlying clastics; little or no gravel.</td><td></td><td>from mainly lithologies, mainly Kc Formation.</td><td></td><td>local <u>Salix</u>-grass barrens.</td><td>3 on flats</td><td></td></tr><tr><td>.3</td><td>s,f,o,r</td><td>Te, CR, Cf</td><td>Steeply inclined valley sides; rectalinear to concave slopes commonly >1km long, 150-300m high. Fluted by close-spaced gullies and ravines. Pre-Pleistocene gravels to 50m thick commonly exposed at</td><td>Generally well drained, though seepage may continue beyond snowmelt, especially on fans. Fluvial processes and mass wasting highly active. On upper, steeper slopes" lobes.="" long="" lower="" on="" slopes"="" solifluction="" talus="" td="" with=""><td>Colluvium of heterogeneous mixture of materials, plus outcrop of variety of lithologies. Approximate divisions downslope.Top: gravel, boulders, sand. Middle:outcrop of more consolidated clastics, i.e.</td><td>Ice wedge troughs visable <10% unit. Wedges possibly more extensive, obscured by mass wasting. No observations of</td><td>* much of area devoid of vegetation some Salix-herb barrens.</td><td>3 abc</td><td>3 3/2</td>	Colluvium of heterogeneous mixture of materials, plus outcrop of variety of lithologies. Approximate divisions downslope.Top: gravel, boulders, sand. Middle:outcrop of more consolidated clastics, i.e.	Ice wedge troughs visable <10% unit. Wedges possibly more extensive, obscured by mass wasting. No observations of	* much of area devoid of vegetation some Salix-herb barrens.	3 abc	3 3/2
٠			top of slopes. Outcrop and colluvium on upper and mid slopes. Lower slopes generally an apron of coalescing colluvial and fluvial fans.	lobes).	sandstone, siltstone; plus colluvium of rubble, sand, fines. Base: sand, fines, gravel.	other excess ice. Probably to 50% in lower slopes, with locally higher values where						
6.4	s,f,r,o Kle _{CR}	R,Cf	100-1500' (30-460 m) Steeply to gently inclined valley sides and scarp faces, 50-200 m high. Lightly indented by runnels and gullies. Less rugged than 6.3.	Drainage generally good to fair, via seepage lines, runnels; minor gullying. Commonly fair to poor on lower elevation gentle slope segments, as seepage continues through summer. Mass wasting highly active. Chiefly solifluction; numerous lobes. Colluvial fans, some fluvial fans, near base of slopes. Ice-wedge troughs only where slopes stable (<50% unit).	Colluvium of heterogeneous mixture of materials, derived from underlying Cretaceous clastics and less commonly, upslope pre-Pleistocene gravels. Chiefly sand and fines, lesser gravel, rubble, minor outcrop of friable sandstone and siltstone (see materials underlay).	Ice wedge troughs visable over <50% unit. Wedges possibly more extensive, obscured by mass wasting.	* 10-20% Salix-Dryas 10-20% moss local sedge-grass wet meadows on poorly drained materials. Other local areas devoid of vegetation.	3 AbC	2 3/2			
.5	s,g Ff,Ft		0-500' (0-150 m) Level to gently sloping valley floors, 0.5 to 2 km wide. Much of valley floor of sand. Landforms include terraces, low angle fluvial and colluvial fans, estuarine/marine sediments, all coalescing on an overall smooth surface, generally <3 inclination. Sand and gravel channel zone 100-300 m wide, with banks 0-5 m high.	Drainage on inclined surfaces good to fair, mainly via wedge troughs (minor gullying), some seepage lines, runnels. Fan distributaries locally. Drainage on level areas (ca. 25% unit) poor, with ponding in wedge troughs. Ice-wedge trough network general. Many wide, high amplitude troughs. Low centre polygons where drainage impeded.	Fluvial sediments, including fans; estuarine or marine sediments, minor colluvium. Chiefly massive to finely laminated, fine and medium grained sand; discontinuous lag gravel; minor silt, peat. Sand and gravel in channel zone. Thickness >2m. Thin organic cover where drainage impeded.	where seepage active. Ice wedge network general. No observations of	* <20% Salix-grass barrens. local sedge-grass wet meadows in troughs & seepage slopes stream channels not vegetated.	2 ab	1 2/2			
6.6	s,g,f Fd,N	ηv	0-150' (0-45m) Level to gently sloping; steep to cliffed bluffs 5-20 m high where modern channel zone incised. Unit composed of massive fill of deltaic or estuarine sediment; chiefly sand. Deposited during higher Holocene (or earlier?) sea level, and washed or possibly planed by marine processes.		Deltaic or estuarine sediments. Chiefly sand; lesser silt, clay; minor gravel, organics; thickly to thinly bedded. Surface has discontinuous thin gravel cover; thin peat where drainage poor. Thickness >10 m in valley centre.	Ice wedge network general. No other observations of excess ice. Strata and lenses to 50% expected; possibly massive ice locally.	Poorly drained materials: * 20-30% Carex stans - Eriophorum (Salix) 90% moss moderately drained materials: Salix-Dryas dwarf shrub community as in 6.1	2 aB	2 3/2 Channel zone bluffs repre- sent the only difficulty.			
.7	f,s Fd+C+ M		valley fill, predominantly silt. Dissected by meandering	Drainage good to fair on slopes, via wedge troughs, seepage lines, or fine gully network. Drainage impeded on terraces (<5% unit), with ponding in wedge troughs. Solifluction evident over 50% unit. Ice wedge troughs over >50% unit.	Deltaic or fluvial sediments, chief- ly silt, >10m thick, and colluvium.l Modern channel zone of sand, gravel, fines.	Ice wedges probably over 75% unit. No observations of other excess ice; 25-75%?	* 20-40% <u>Dryas-Salix</u> 30% moss local sedge-willow wet meadows in poorly drained materials.	3 ABC .	3 3/2			
.8	S,g Mb,Fd	d c		Drainage good to fair.		Ice wedges over most of unit.	* <10% Salix-herb barrens.	2 ь	2 2/2			
		t M h	Level to gently inclined; locally, cliffed bluffs adjacent to modern stream channels. Modern shoreline and raised beach deposits; ridges <50 cm nigh. Raised and modern deltas. Much of both beach and fluvial sediment concentrated where coast intersects main valleys; discontinuous narrow (<5m) beach elsewhere.	Ice-wedge troughs over most of unit, except active surfaces	Surface (to lm±) commonly sand, lesser silt and gravel; underlain by interbedded silt, clay, sand. Intertidal zone chiefly silt.	No observations of other excess ice.	local <u>Dryas-Salix</u> dwarf shrub communities on moderately drained materials.					
e f	,s,g Kc,K		O-1000' (O-300 m). Gentle and moderate minor valley slopes, with thick (> 2m?) mantle of colluvium.	Drainage fair, locally poor where seepage continues through summer. Via seepage lines, runnels, lightly incised gullies. Mass wasting active. Solifluction lobes over much of unit; scattered flowslides. Ice-wedge troughs over 50% unit, chiefly towards base	Colluvium, depedent on lithology of underlying and upslope clastics (see materials underlay). Chiefly fine grained. Locally reworked by marine processes below ca. 100 m elevation.	red retrogressive thaw	20-40% <u>Dryas-Salix</u> 30-50% moss-patina local sedge- <u>Salix</u> wet meadow where drainage is poor.	3 ABC	2 3/3			
				of slopes where inclinations lowest. In latter areas troughs may be wide, high amplitude, with minor gullying along troughs.		flowslides observed.						
) s	,f,gr ^K F		areas. Rolling to knobby terrain, residual material, colluvium, minor outcrop. Some gravel residuals within unit.	Drainage fair, locally poor, via seepage lines and shallow runnels. Solifluction locally sufficiently active to obscure wedge troughs; minor areas of lobes. Ice-wedge troughs widespread; low amplitude except in poorly drained areas, where some ponding and thaw enlargement occurs.	material and colluvium derived from underlying clastics (see material e underlay for textures). Outcrop of	Ice wedges widespread. No observations of other excess ice. Probably 25-75%.	20-40% <u>Dryas-Salix</u> 30% moss local sedge- <u>Salix</u> wet meadows where troughs & ponding occur.	2 àBC	2 3/2			
11 f	fs KRM,	S U	Sentle, some moderate, slopes' local level areas. Surface generally smooth, except for microrelief. Underlying cretaceous clastics folded, however structure	Drainage fair to poor, chiefly via ice-wedge troughs, seepage lines, runnels, gullies on moderate and steep slopes. Drainage impeded, with some ponding, on the few level areas. Little evidence of mass wasting, other than solifluction on (few) steep slopes. High amplitude hummocks general.	Chiefly silt and clay, lesser sand, minor gravel. Derived from underlying poorly lithified Cretaceous clastics, mainly Kc shale.	Ice wedges general. No observations of other excess ice; probably 25-75%. Despite fine textures, no flowslides noted, indicating probably	20-40% Dryas-Salix 30-50% moss local sedge-grass wet meadows in poorly drained areas, such as polygon troughs & seepage lines.	3 aBc	2 3/2			
s,	,¢,r,o RC	C 56	00-1200' (150-365 m).	ctreams, gullies. Solifluction widespread.	Sand, silt, rubble; minor silty clay; outcrop. Chiefly residual material, lesser colluvium, derived from under- lying gently to steeply inclined, poorly	Ice wedges over 50% wnit; possibly more if wedge troughs obscured by solifluc-	20-40% <u>Dryas-Salix</u> 30% moss local sedge-grass wet meadow on seepage lines and	2 abc	2 3/2			
			nterfluves;developed on sandstones and siltstones.	ce-wedge troughs over <50% unit, generally on gently	to well consolidated. Cretaceous sandstone, siltstone, minor shale, (Ki, Kh, KTe).	No observations of other excess ice; possibly high values (>50%) in fine grained materials.	polygon troughs.					
si	,s,r,o K R	Sc	carps and hogsback ridges, with steep to gentle slopes,	lose network of streams; some seepage lines, gullies. andstone and siltstone well drained; shale and coal air to poor though slopes sufficient to prevent ponding.	Residual material, outcrop, colluvium. Unit developed on range of gently to steeply inclined differentially erod-	of unit.	local grass-herb barrens on fine grained materials. Some moderately drained materials support a Salix-	2 abc 3 on fine grained	3 3/2			
		Si Di	observed by differential erosion of generally poorly con- olidated, locally resistant. Cretaceous clastics. ssected by stream channels, locally gullied particularly	ffects of mass wasting not so evident as in adjacent loping units, possibly because differential weathering	ed Cretaceous clastics (KTe, Kk, Kh, Kc, Ki; see materials legend). Surf- icial materials include residual sand-	other excess ice; possibly high values	Dryas dwarf shrub community。	colluvium.	OPE DOSSIE			
٠		Su	urficial materials, in strike-oriented bands, reflect derlying lithologies. Chiefly residual material (rubble local price)	reaks slopes into short segments. ce-wedge troughs general on fine grained materials, and n level to gently inclined medium to coarse grained aterials, i.e. over >50% unit.		(>50%) in fine grained materials.		This map has been scanned version of Reproduction par no carte sur papier	reprinted from a the original map			

			i .			—————————————————————————————————————		
GROUP/UNIT ¹	MATERIALS DESIGNATO	TOPOGRAPHY, LANDFORM GENESIS ³ 0-600' (0-180 m)	DRAINAGE, ACTIVE LAYER PROCESSES AND MICRORELIEF ⁴ Drainage generally fair to poor on level residual	SURFICIAL MATERIALS ⁵	GROUND 1CE ⁶	VEGETATION ⁷	SENSITIVITY ⁸ Magnitude Form	TRAFFICABILITY ⁹ Roughness Traction
7		Margin of Cañon Fiord and Greely Fiord glacial troughs, cut chiefly into poorly consolidated KTe clastics filling the downwarp between Blacktop Ridge-Mount Lockwood and the Sawtooth Range (See group 4). Overall slope to sea is gentle to moderate, but greatly indented by valleys of numerous minor streams (< 5 km long 0.5 to 1 km spacing), and a few major streams. Slopes are topped by a belt of level terrain, paralleling the coast at an elevation of ca 150 m, and abruptly terminating inland against dissected and hummocky pre-Pleistocene gravels of group 5. This flat surface is probably a result of planing of deposits similar to group 5 by high Pleistocene sea levels. Submerged to at least 130 m in Holocene, but deposition and reworking, rather than erosidominant.	Solifluction lobes common on slopes, but only sufficiently active to obscure wedge troughs on steeper slopes. Ice-wedge troughs over much of group.	Residual material, colluvium, minor outcrop. Underlain chiefly by poorly consolidated KTe clastics, smaller areas of Kc shale. Fine grained residual material reworked by glacial and marine processes, and incorporates varying quantities of sand to boulder size material. Colluvium generally of similar character. Fluvial and marine sediment within the group chiefly sand and gravel,	Ice wedge networks over all unit except small area of moderate to steep slopes. Few observations of other excess ice. Probably 25-75%; locally massive ice, especially over Kc shale.	a. Well drained materials: <20% Saxifraga oppositifolia herb barrens. Salix arctica may be locally present. Papaver radiatum & caryophyllaceae common associates (1-2%). Alopecurus, Festuca, Oxyria digyna, Saxifraga flagellaris, S. cernua, S. caespitosa also present. Thamnolia sp. & Cetraria sp. lichens may occur, sometimes in local abundance. b. moderately drained materials: Dominated by Salix arctice for Dryas integrifolia dwarf shrubs (20-40%); Salix is slightly more abundant. Saxifraga oppositifolia often present to 5%, especially on drier gradients. Vascular plant associates & stratification as in 5b. c. poorly drained materials: Dominated by sedge-cotton grass wet meadow vegetation as in 6c.	3 аВс	2 3/2
7.1	κ (%, κ s, \$, g, f RM + ρ	200-600' (60-180 m) Level to gently sloping. Marine planed KTe clastics and Pre-Pleistocene gravels, with cover of residual material and marine and glacial deposits.	Drainage fair to poor, chiefly via wedge troughs; seepage lines on slopes. Numerous shallow depressions, together with wedge troughs, impede drainage and create small lakes or saturated ground over 10% unit, and discontinuous ponding in wedge troughs over at least 50% unit. Ice-wedge troughs over whole unit. Generally wide and deep (2-10 m x 0.5-2 m)	Glacially and marine reworked residual material, over poorly consolidated KTe clastics. Chiefly fine sand, silt, clay, with stones; intermixed, or in discrete areas. Thickness >2m. Some remnants of pre-Pleistocene gravels. Thin organic cover where drainage poor.	Ice wedge network over whole unit. No other observations of excess ice. Values 25-75% expected.	* 30% Carex stans - Eriophorum (+Salix) 90% moss moderately drained materials: Dryas-Salix dwarf shrub community as in 5b.	3 aB	2 3/2 Difficulty: wedge troughs.
7.2	fs,f CR,RC,RM	0-500' (0-150 m). Gentle and moderate slopes, between the elevated flat lyin terrain of unit 7.1, and the modern shoreline. Chiefly colluvium, of similar texture to 7.1	Drainage fair, locally poor on gentle slopes, via seepage lines and runnels. Solifluction lobes widespread, but generally not active enough to obscure wedge troughs. Ice-wedge troughs over much of unit; variable from high to low amplitude.	Colluvium, derived from modified residual material similar to unit 7.1.	Ice wedge network over most of unit. No other observations of excess ice. Values 25-75% expected.	50% moss	3 ABC	2 3/2
7.3	f,≰,s,o C,CR, RM	O-500' (O-150 m). Moderate and steep slopes, cliffed segments common. Developed where streams deeply incised into group 7, or where (original?) margins of fiords not greatly indented by streams. Commonly fluted by gullies. Materials variable: include thick fine to coarse grained unconsolidated deposits, and bedrock outcrop.	Drainage good to fair, locally poor on lesser slopes; via gullies, seepage lines, runnels. Fluvial processes and mass wasting highly active: gullies, small fluvial and colluvial fans, solifluction lobes and flows. Flowslides common in fines overlying Kc shale, at west end of group. Scattered areas of wedge troughs where slope processes less active.	Materials highly variable, including outcrop of poorly lithified sandstone siltstone, shale, coal of KTe Formation; silty clay colluvial and residual material over Kc shale; fine to coarse grained colluvium derived from glacial and marine reworked clastics.	Other excess ice content variable: from	20% moss local sedge wet meadows on poorly drained areas, steep slopes sparsely vegetated (like 5a) or devoid	3 Abc	3 3/2
7.4	s,g,f Mb, Fd	0-300' (0-90 m). Modern and raised beaches and deltas. A narrow modern beach is present along the shoreline of much of the group. Gently inclined flights of raised beaches (ridges < lm) common to ca. 20m, locally higher, however soliflucting colluvium is steadily overlapping these deposits. Deltas, and delta terraces dissected by modern channels, are common at mouths of major streams.	Drainage good. Ice-wedge troughs general.	Chiefly sand and (or) gravel.	Ice wedge networks general	* <20% Saxifraga oppositifolia barrens. local Dryas-Salix shrub communities & sedge wet meadows on moderately & poorly drained materials.	1 ab	1 2/1
GROUP/UNIT ¹	MATERIALS DESIGNATOR	TOPOGRAPHY, LANDFORM GENESIS ³	DRAINAGE, ACTIVE LAYER PROCESSES AND MICRORELIEF 4	SURFICIAL MATERIALS ⁵	GROUND 1CE ⁶	VEGETATION 7	SENSITIVITY 8	TRAFFICABILITY9
8		Altitude: 0-600' (0-180 m). This group has similarities with 3,however is treated separately as there are fewer ground observations, making correlation with group 3 units difficult. Low rolling gently sloping to level terrain is in part dissected with moderate to steep slopes. Developed in two broad shallow topographic basins, partly drowned, each aligned along the axis of a N-S trending syncline. Bedrock chiefly poorly consolidated clastics with more competent beds on the margins of the basins. Rock appears to have been planed during Pleistocene high sea levels (to 150 m). Subsequently (Holocene and earlier), residual materials reworked, and marine and deltaic sediments deposited. As with group 3, little evidence of glaciation, other than scattering of exotic rocks.	local (<10% group) areas of poor drainage. Eolian processes probably active in unit 8.1 Mass wasting active locally throughout group where streams	Chiefly sand to silt size marine washed residual material, lesser colluvium (dominant in dissected units), with silty clay predominant over shale formations. Underlain by poorly consolidated fine to medium grained Cretaceous clastics, with better lithified Jurassic and Triassic formations on the margins of the group.		a. Well drained materials: 1. Very dry: devoid of vegetation. * 2. Salix - Alopecurus barrens, Salix arctica is the domin-	Magnitude Form	Roughness Traction 2 3/2
8.1	\$ M Fd Fd	I km apart incised into unit, with associated steep and gullied valley slopes. Mainly sand and silt; marine reworked residual material overlying and masking Mesozoic clastics. Includes areas of stratified deltaic sediments superficially indistinguishable from residual material; plus some beach deposits	Drainage good, generally unconfined. Low density of shallow wadis. Small, areas (<5% unit) of poor drainage, including ponding in wedge troughs, where streams from group 1 uplands enter this unit. Probable eclian erosion and deposition. Ice-wedge polygons probable over most of unit, but troughs narrow, low amplitude and inconspicuous.	Mainly sand and silt, discontinuous thin gravel cover. Residual material sufficiently reworked by marine processes to mask variations in lithology of underlying Mesozoic clastics. Unconsolidated cover > 1 m thick over J, JKd, Ki, Kc, KTe generally poorly consolidated sandstone, siltstone, shale. Small areas of gravel and sand low amplitude beach ridges. A few exposures of thick (>10 m) interbedded sand and silt deltaic sediments, areal extent unknown.	Ice wedgesprobably over much of unit. No other observations of excess ice; values probably 25-50%; higher values below poorly drained peaty areas.	* <10% <u>Saxix-Alopecurus</u> barrens Eolian modified communities as in 3.d. at coast.	2 b	1 3/1 3 locally at main streams
8.2	Th, J, Ki d, s, g RM, RC	0-800' (0-240 m) Gentle, locally moderate to steep slopes, some level areas; low rolling to knobby terrain. Local dissection to 20 m by streams and gullies. Deeply weathered, partially marine or glacially reworked sand, silt and minor gravel residual material masking structure of underlying arenaceous Mesozoic clastics.	Drainage good to fair via wedge troughs, seepage lines, local gully systems. Drainage poor over Ca. 5% unit. Ice-wedge troughs general. Trough si e variable, but broad and deep over 25% unit, with local ponding and thermokarst enlargement.	Mainly silt, sand, minor rubble, gravel, boulders, >2 m thick. Underlain by well to poorly consolidated Th, J and Ki sandstone, siltstone, minor shale. Minor outcrop, especially in gullies. Minor peat deposits.	See 8.1	* <10% <u>Salix-Alopecurus</u> barrens. Major areas devoid of vegetation.	2 ab .	2 3/1-2
8.3	fso, f RC + $\frac{m}{R}$	50-300' (20-90 m) Gently sloping, to level. Marine washed residual material, lesser colluvium, over poorly consolidated Cretaceous clastics.	Drainage fair, via wedge troughs, seepage lines, local shallow gullies. Local ponding on flats on Kc shale. Solifluction lobes on slopes over ca. 25% unit. Ice wedges over much of unit.	Residual material marine washed and (or) glacially reworked, colluvium. Poorly lithified Kc shale overlain by silty clay with to 10% stones. Poorly lithified KTe sandstone, siltstone, shale, overlain by silt, fine sand, clay, minor rubble; minor outcrop.	Ice wedges over much of unit. No other observations of excess ice; values probably 25-75%	<10% Salix-Alopecurus barrens. Local ponding & seepage areas have a sedge-grass wet meadows.	2 aBc	1 3/2
8.4	{ M? + Μ? + Ř, ζ, Κ;	glacial and (or) marine processes. Genesis possibly same as unit 8 5	Drainage fair over the 50% of unit which slopes, via wedge troughs and seepage lines. Fair to poor over rest of unit, which impeded drainage and ponding in wedge troughs over 15% of area. Some solifluction on slopes, but wedge troughs undisturbed. Ice-wedge troughs over entire unit; generally wide, low to high amplitude.	Silt, clay, sand, minor stones over much of unit; fine sand dominant over Ki and J rocks at north end of unit. Residual material, probably glacially or marine reworked, of unknown thickness overlying Ki, Kc, minor JKd, J clastics.	Ice wedges over entire unit. Other excess ice probably 25-75%.	* 10-20% Salix-Dryas 20% moss Major areas with sedge-grass wet meadows on poorly drained materials.	3 aB.	1 3/2
8.5	f ´M ?+M? + CR	Gently sloping, locally level or moderately sloping. Interfluves of valley system cut in predominantly fine grained and poorly consolidated clastics. Residual material reworked by marine and possibly glacial processes, and subsequently colluviated.	Drainage fair, via seepage lines, runnels; via wedge troughs on level areas. Main streams partly incised. Mass wasting highly active locally. Solifluction flows over 20% unit. Shallow detachment or retrogressive thaw flowsildes scattered over moderate slopes throughout unit, but particularly adjacent to 8.6. Ice-wedge troughs general. Low to high amplitude.	Silt, clay; minor fine sand, stones. Mantle at least 2 m thick over poorly consolidated Kc and JKd shale minor J and Ki sandstone siltstone. Minor outcrop, where streams incised.	Ice wedges general. Flowslides indicate massive ice at least locally. Excess ice probably >50% on average.	* 20% Salix-Dryas 20% moss Polygon troughs & seepage areas may have sedge-grass wet meadows.	3 ABC	2 3/2
8.6	See 8.5	0-500' (0-150 m) Overall gentle and moderate, locally steep cliffed, rectalinear or concave valley slopes, commonly 0.5-2 km long. Surface rough, due to fine gully dissection, or	Drainage fair, locally poor. Fine pattern of subparallel to dendritic gullies, runnels, seepage lines. Seepage and ice melt from flowslides saturates parts of unit well beyond snowmelt. Fluvial processes active; mainly gullying (to 5 m deep), with small fluvial fans at base of slopes. Mass wasting highly active. Solifluction flows and lobes over much of unit. Numerous flowslides (detachment of retrogressive). Possibly nivation hollows. Ice-wedges in small areas not subject to mass wasting.	Chiefly silt and clay colluvium, derived from underlying poorly consolidated Kc and JKd shale. Outcrop in deeper gullies.	Small areas of ice wedges. Flowslides indicate massive ice common in unit. Excess ice probably generally > 50%.	* <10% Salix-Alopecurus barrens. Major areas devoid of vegetation.	3 ABC	3 3/3-2
8.7	g m, cr	Gentle to steep slopes, locally cliffed. Surface gullied. Silt and fine sand residual material, probably marine reworked, overlying arenaceous Mesozoic clastics.	Drainage good to fair, locally poor, via gullies. Mass wasting active; solifluction flows and lobes over part of unit. Number of flowslides and (or) nivation hollows. Ice wedge troughs visable over 25% unit.	Silt and fine sand, minor rubble, of unknown thickness, overlying poorly to well lithified J and Ki sandstone and siltstone Outcrop in deeper gullies.	Ice wedges over 25-50% unit. Few observations of other excess ice. Probably 25-50%; locally massive ice possible.	* <10% Salix-Alopecurus barrens. Gullied areas generally unvegetated.	3 abC	3 3/2
8.3	мь	O-400' (0-120 m). Marine of fluvial-marine landforms, adjacent to tidewater, which may be complexed or mapped out individually on materials underlay. a) Modern and raised beaches: overall inclination gentle. May be near level where beach and underlying material predominantly sand or finer (e.g. adjacent to 8.1); or have moderate sloping segments where adjacent to group 1. Main streams crossing this sub-unit commonly incised. Beach ridges, where present, rarely > 50 cm high.	a) Drainage generally good, via wedge troughs and subsurface seepage. Locally poor drainage in swales, where beach ridges pronounced. Ice-wedge troughs general.	Gravel, sand, minor fines: over- lying marine fines or Mesozoic clastics.	Ice wedges general in a and c; over 50% b?	* Large areas devoid of vegetation. Eolian modified communities (see 3.d.) at coast.	2 ab	2 3-2/2-1
	M Fd	b) Marine nearshore or lagoonal sediments, usually fine sand or finer. Level to moderately sloping; smooth featureless surface to partially gullied.	 b) Drainage fair to poor on level and gently sloping areas. Local ponding in wedge troughs. Gentle to moderate slopes commonly gullied, and subject to solifluction, as with unit 8.9. c) Drainage good, via wedge troughs and subsurface seepage. Ice-wedge troughs general. 	Fine sand, lesser silt of clay thickness uniknown. gravel, sand, minor fines; topset beds overlying fines.	No observations of other excess ice. Probably 0-50% in sand or coarser materials; 25-75% in fines.			
8.9	F	0-500' (0-150 m). Level to gently sloping channel zones, terraces and fans of major streams and rivers in group 8. Low bluffs rarely > 2m high may separate surfaces. Drainage basins usually include parts of group 1 uplands, hence fluvial sediments predominantly medium to coarse grained.	Drainage generally good on inactive surfaces, with locally poor areas where ponding in wedge troughs occurs. Ice-wedge troughs general on inactive surfaces.	See materials underlay for detail. Chiefly sand and gravel, lesser fines.	surfaces. No observations of other excess ice values 0-50%?	* Active channels & fans devoid of vegetation. on some stabilized terraces, <u>Dryas-Salix</u> dwarf shrub and sedge-grass wet meadows on moderately to poorly drain- ed materials.	2 ab	1 2-3/1-2
8.10	Sg, gs Fd	Level, to rolling with gentle slopes. Locally: hummocky (relief to 10 m) with steep slopes; dissected by steep sided channels. Unit in part bordered by steep to cliffed bluffs to 20 m high. Surface generally rough due to large ice-wedge troughs. Unit formed of medium and coarse grained fluvial fans or	Drainage generally good; unconfined or via wedge troughs. However, drainage locally impeded by troughs, with local ponding, and thermokarst takes to 100 m diam. Seepage lines locally on slopes. Ice-wedge troughs wide, high-amplitude, over much of unit.	Fluvially deposited sand and gravel (see materials underlay for dominant grain size). No underlying fine grained sediments noted. Thickness > 2m.	Ice wedge network over entire unit. No observations of other excess ice.	*<10% Salix-Alopecurus barrens. Some very dry areas devoid of vegetation. Sedge-grass wet meadows on troughs and seepage slopes.	1 b	2 2/1
		deltas, constructed by rivers originating in group 10 probably in late-glacial times, and adjusted to a high sea level (> 100 m).	· ·				·	

This map has been reprinted from a scanned version of the original map Reproduction par numérisation d'une carte sur papier

OPEN FILE
DOSSIER PUBLIC
5 0 1
JAN 1977
GEOLOGICAL SURVEY
COMMISSION GÉOLOGIQUE
OTTAWA