

## Holocene earth materials and landforms REFERENCES

39	10	Organic Deposits					REFERENCES
		<b>Peat bogs:</b> fine to humic organic matter; massive to stratified accumulations; generally greater than 2 m thick; confined to topographic depressions or level areas; underlain by poorly drained till, glaciolacustrine and other unconsolidated sediments; formed by decomposition of plant material in wetland areas; bogs with sporadically discontinuous permafrost are thermokarst depressions potentially unstable if organic material is disturbed or removed.					Bednarski, J.M., 2003a. Belataneau Lake, Northwest Territories – Yukon Territory – British Columbia (NTS 9584): Geological Survey of Canada, Open File 4502, scale 1:50,000.
							Bednarski, J.M., 2003b. Surficial geology of Fort Liard, Northwest Territories – British Columbia. Geological Survey of Canada, Open File 1760, scale 1:50,000.
							Bednarski, J.M., 2002c. Surficial geology of Lake Bovin, Northwest Territories – British Columbia. Geological Survey of Canada, Open File 1051, scale 1:50,000.
							Bednarski, J.M., 2003d. Surficial geology of Celbetta Lake, Northwest Territories – British Columbia. Geological Survey of Canada, Open File 1754, scale 1:50,000.
		<b>Fans:</b> fluvic organic matter; massive to stratified; generally greater than 2 m thick; confined to topographic depressions and areas and multibelt channels; underlain by poorly drained till, glaciolacustrine and other					
94	10						

unconsolidated sediments; formed by decomposition of plant material in

wetland areas; fens are prone to flooding following drainage damming by beaver activity

10 **Undifferentiated peat bogs and fens:** humic to fibric organic matter; massed stratified accumulations, generally greater than 2 m thick, confined by topographic depressions, level areas or channels; underlain by poorly drained till, glaciolacustrine deposits or bedrock; may contain sporadically decomposed plant material in wetland areas; may contain sporadically discontinuous permafrost and biomorphic depressions; potentially unstable if disturbed or removed of surface vegetation

Benjamin, J. M. 2006. *Surficial Geology of Gole Creek, British Columbia*. Geological Survey of Canada, Open File 4646, scale 1:50,000.

Clément, C., Kowal, R., Hurley, D. and Delisle, R. 2004. Ecosystem units of the Slocan area. *Slocan Forest Products Ltd./Nelson Forest, 38 pages* and appendices.

Dehnbach, C., Pfau, A., Bolzert, E., Bülfer, G., Schöpp, P., Fowett, D., Hurley, D., Ingles, E., Kent, D., Moore, A., Planius, S., Planius, M., Smith, R., Davogen, D., and Wehrhenn, A. 2012. *Soils of Europe*. Springer, 600 pp.

disturbed or removed during development.

92		<p><b>Alluvial deposits</b></p> <p><b>Alluvial fan sediments:</b> boulders, gravel, sand and silt; generally massive to planar stratified; well to rapidly drained; greater than 2 m thick; fan morphology with slopes up to 15°; may contain interbedded debris flows and buried</p>	<p>7003; 237 pages.</p> <p>Demchuk, T., 2010. Surficial geology of the Komie Creek area (NTS 064905). British Columbia Ministry of Energy, Mines and Petroleum Resources. Open File 2010-03. Geological Survey of Canada Open File 6568, scale 1:50,000.</p>
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organic material; transported and deposited by modern rivers, streams and

At	<p><b>Alluvial terraced sediments:</b> boulders, gravel, sand and silt; generally massive to planar stratified; well to rapidly drained; greater than 2 m thick; may contain interbedded debris flows and buried organic material; underlain by outwash, till or bedrock; transported and deposited by modern rivers, streams</p>	<p>Huntley, D.H. and Hickin, A.S.: 2010, 'Surticial deposits, landforms, glacial history and potential for granular aggregate and frac sand: Maxhamish Lake Map Area (NTS 94-0)', British Columbia, Geological Survey of Canada, Open File 6430, 17 pages.</p> <p>Huntley, D., Hickin, A. and Chow, W.: 2011a, 'Surticial geology, geomorphology, granular resource evaluation and geohazard assessment for the Maxhamish Lake map area (NTS 94-0)', northeastern British Columbia, Geological Survey of Canada, Open File 6683, 20 pages.</p>
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90		and creeks, subject to rare flooding; potential source of aggregate; land use activities may adversely affect stream courses and conditions, and impact fish and wildlife resources.	Hurlley, D.H., Hicks, A.S. and Fort, L.: 2019, <i>Provisional paleogeographic, glacial history and paleontological reconstructions of the Late Devonian (Fraser) and Matheson Lake map areas (Fraser I.S.A.)</i> , British Columbia, Geological Survey of Canada, Open File 2019-01, 64 p.
91	Ap	<b>Aluvial floodplain deposits:</b> gravel, sand and silt; massive, trough crossbedded, ripple-bedded, planar stratified, wet to rapidly drained; greater than 2 m thick, underlain by claystone and siltstone and deposited in modern rivers, streams and creeks; subject to seasonal flooding; land use activities may adversely affect stream courses and conditions, and impact fish and wildlife resources.	Hurlley, D.H. and Schwell, C.F.: 2010, <i>Application of the GEM3 spatial data model to resource evaluation and geohazard assessment for the Matheson Lake map area (Fraser I.S.A.)</i> , British Columbia, Geological Survey of Canada, Open File 6553, 22 p.
92			Stett, D.J. and Taylor, G.K.: 1963, <i>Geology of Matheson Lake. Geological Survey of Canada, Map 2-1968</i> , 1:250,000.

**Colluvial deposits**

**Colluvial veneer** - clast-supported diamictics and rubble; massive to stratified, poorly-sorted; but to rapidly drained; deposits less than 2-m thick; landslide headscarpers range from 300 m to 10.5 km; formed by the weathering and down-slope movement of earth materials by gravitational processes; bedrock and unconsolidated debris on slopes above 10-15° with greater than 5 m relief prone to mass-weathering; rock falls, topples, rock slides and debris flows occur where shale, sandstone and carbonate strata is exposed close to the surface; retrogressive rotational debris slides, debris flows and slumps occur in glaciolacustrine sediments and outwash containing sporadically discontinuous noncohesion; where ground ice is found snowfalls can occur on surface less

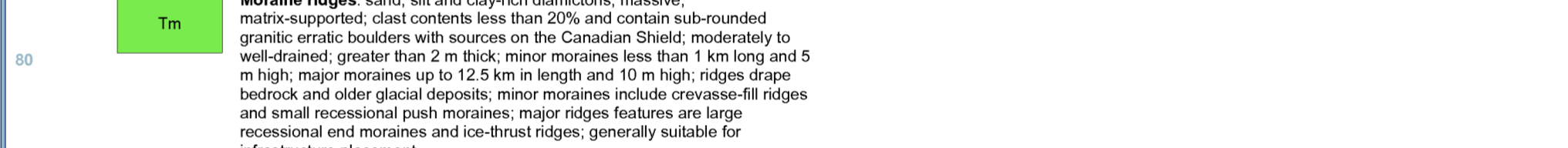
than 5°; slope instability could present major problems for construction in some areas.

**Colluvial blanket:** dust-supported dominions and rubble, massive to stratified, poorly-sorted, well to rapidly drained; deposits greater than 2 m thick; landslide headscarpes range from 300 m to 10.5 km, formed by the weathering and down-slope movement of earth materials by gravitational processes; bedrock and unconsolidated debris on slopes above 10°-15° will greater than 5 m relief prone to mass-wasting; rock falls, boulders, rock slides and debris flows occur where shale, sandstone and carbonate strata is

exposed close to the surface; retrogressive rotational debris slides, debris

flows and slumps occur in glaciolacustrine sediments and outwash containing sporadically discontinuous permafrost; where ground ice is found slope failure can occur on surfaces less than 5°, slope instability could present major problems for construction in some areas.

Late Pleistocene earth materials and landforms	
	<p><b>Glacioclastic deposits</b></p> <p><b>GLB</b> <b>Glacioclastic blanket:</b> silt and clay with subordinate sand, gravel and diamict; massive or rhythmically interbedded; slump structures and drapelines locally present; poor to moderately drained; generally greater than 2 m thick. Kettle lakes and irregular topography underlain by bedrock, tills and outwash, transported by and deposited from sediment-laden meltwater. Subaqueous gravity flows and melting of ice in proglacial lakes, where sporadically discontinuous permafrost is, or was present, glacioclastic sediments may be subject to thermokarst processes; slopes less than 5° are potentially unstable and prone to landslides and debris flows.</p> <p><b>Glaciofluvial deposits</b></p> <p><b>GFI</b> <b>Outwash fans:</b> boulders, cobbles, pebble-gravel, sand, silt and matrix-supported diamict; generally massive to stratified, some slump structures, moderately to well-drained; greater than 2 m thick. Terrace scarpis range from 100 m to 6 km in length, in contact with, and overlying other till units, outwash and glacioclastic sediments; deposited by meltwater confined to proglacial channels and spillways; potential source of groundwater and granular aggregate when material is gravel rich.</p> <p><b>Till deposits</b></p> <p><b>GLT</b> <b>Hardpan:</b> dense, sand, silt and clay-rich diamict; massive</p>



infrastructure placement.

78	20'	Ts	<p><b>Streamlined till:</b> silt and clay-rich diamictites; massive, matrix-supported and compact; dust contents less than 20% and contain silt-rounded granitic erratic boulders with sources on the Canadian Shield; moderately well-drained; greater than 2 m thick mantling bedrock and older glacial deposits; drumlins and fluted till ridges typically under 1 km long but can exceed 9 km in length; generally less than 50 m wide and 20 m high, formed beneath the Laurentide ice Sheet directly through lodgement, basal meltout, glaciogenic deformation of sediment beneath rapidly-flowing warm-based ice; generally suitable for infrastructure placement.</p>
20'		Tv	<p><b>Till veneer:</b> sand, silt and clay-rich diamictites; massive, matrix-supported and compact; dust contents less than 20% and contain silt-rounded granitic erratic boulders with sources on the Canadian Shield; moderately well-drained; less than 2 m thick draping bedrock and older glacial deposits; transported and deposited by the Laurentide ice Sheet directly through lodgement, basal meltout, glaciogenic deformation beneath active, warm-based</p>

ice and in situ melting from stagnant cold-based ice; generally suitable for

		infrastructure placement.
76		<b>Pre-Quaternary earth materials and landforms</b>
		<b>Bedrock</b>
	R	<b>Undifferentiated bedrock:</b> conglomerate, sandstone, siltstone, shale and limestone; exposed in escarpments between 300 m and 80 km in length; slopes above 10-15° with greater than 5 m relief prone to rock falls, topples, rock slides and debris flows. Paleozoic unconformably overlain by Mesozoic sedimentary rocks; limestone and clastic sedimentary rocks are a potential
75		


----- Geological boundary (Confidence: approximate)

74

Seabrock scarp

Major moraine ridge (unspecified)

Other moraine ridge (unspecified)

73  Lumin ridge

 Major meltwater channel scarp

 Minor meltwater channel central axis (unspecified; sense: known)

72  Terrace scarp (environment: glaciofluvial)

 Terrace scarp (environment: fluvial)

 Terrace scarp (environment: glaciolacustrine)  
 Station location (ground observation)

**Recommended citation**

59°15' Huntley, D.H., Hickin, A.S., Chow, W., and Mirmohammadi, M., 2013. Surficial geology, Capot-Blanc Creek, British Columbia; Geological Survey of Canada, Canadian Geoscience Map 109 (preliminary).

scale 1:50 000. doi:10.4095/292001

Primary Preliminary

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Preliminary publications in this series have not been

scientifically edited.

CANADIAN GEOSCIENCE MAP 109  
SURFICIAL GEOLOGY

CAPOT-BLANC CREEK  
British Columbia

**CAPOT-BLANC CREEK**  
British Columbia