

QUATERNARY HOLOCENE

ORGANIC DEPOSITS - peat and woody material, occurring as a flat to gently sloping plain, overlie lacustrine, till, or poorly drained glacioluvial and alluvial deposits but rarely form a dominant geologic unit. Most common in the back-swing of the Pelly River valley and near Rose Creek. Permafrost is commonly present within 1 m of the surface. Localized palisade development occurs in more poorly drained organic deposits.

ALLUVIAL DEPOSITS - sand, silt and pebbles with minor cobbles deposited in modern drainages. Common in all drainages in the map area and may intermix with alluvial fan sediments in areas of higher relief.

Ap - alluvial plain - silt, sand and pebbles with reworked cobbles and boulders occurring as bars or overbank floodplain deposits, 0 - 10 m thick. Floodplain subject to periodic floods. Small valley alluvial plains may not be mapped at this scale.
Ap (active) - alluvial plain - area of Pelly River floodplain that has been recently active.
Al - alluvial terrace - silt, sand and pebbles with reworked cobbles and boulders occurring as terrace deposits, 0 - 10 m thick.
Al (active) - alluvial fan - coarse sand, pebbles, cobbles and mudflow deposits, up to or > 10 m thick. Appear as vegetated, often peat covered, landforms developed during post-glacial sedimentation.
Al - complexes of Ap and Al undivided. Common when a stream is unconfined and also in narrow valleys where side-entry alluvial fans cannot be differentiated from an alluvial plain.

PLEISTOCENE AND HOLOCENE (UNDIVIDED)

COLLUVIAL DEPOSITS - diamiction, gravel, shattered bedrock, and lenses of sand and silt derived from bedrock and surficial sediments by physical and chemical weathering processes. Transport of dislodged debris occurs as surface creep or by mass wasting processes. Permafrost and seasonal freeze-thaw processes often initiate and enhance colluviation. Common on the northeast side of Tintina Trench and slopes above tree-line.

Cv - colluvium veneer - conforms to bedrock topography, < 1 m thick.
Ca - colluvium apron - coarsening colluvial fans at the base of a slope, > 1 m thick.

Cz - mass wasting - includes slumping, debris slides and rockfalls.

LATE PLEISTOCENE (WISCONSINAN) - McCONNELL GLACIATION

GLACIOLACUSTRINE DEPOSITS - well-stratified sand, silt and minor clay deposited in lakes impounded by glacial ice; may have a smooth or keeled surface pattern due to melting of buried glacial ice. Sediments form poorly drained areas with peaty blankets. Thermokarsting is common. Glaciolacustrine sediments are exposed at depth in the Tintina Trench and along the Pelly River.

Lb - glaciolacustrine blanket - 1 - 40 m thick.

GLACIOLUVIAL DEPOSITS - stratified to massive, poorly to well sorted, gravel and sand with minor silt and cobbles, deposited by meltwater originating from glacial ice. Common in Tintina Trench and the Vangorda Creek drainage.

Gp - glacioluvial plain - 3-10 m thick.
Gt - glacioluvial terrace - < 10 m thick.
Gx - glacioluvial complex - composed of deposits of outwash, glaciolacustrine and minor till deposited in an ice contact environment. Hummocky topography is associated with this depositional setting, 1 - 40 m thick.

GLACIAL DEPOSITS (NW) - unsorted clay, silt, sand, pebbles and cobbles with minor boulders; deposited by or from glacial ice and occurs as subglacial veneer and blanket deposits. Till is common as a veneer over much of the map area and grades into blanket deposits on more gentle slopes and valley bottoms.

Tv - till veneer - conforms to underlying topography, < 1 m thick.

Tb - till blanket - gently to moderately sloping plain controlled by bedrock or underlying surficial deposits, > 1 m thick.

Tx - till complex - till blanket or veneer composed of meltout till and minor ice contact glacioluvial deposits.

LOWER CAMBRIAN TO CRETACEOUS

BEDROCK - The map area is underlain by rocks of North American affinity, Yukon Tanana terrane and the Anvil Plutonic Suite. North American rocks underlie the northeast part of the map area and consist of Lower Cambrian-Mt. Mye formation, the Cambrian to Lower Ordovician Vangorda formation, the Lower Ordovician to Silurian Merle Creek formation, Ordovician to Devonian rocks of possible Earm Group affinity, and the post-Mississippian Anvil Range Group basalts. The southwest part of the map consists of Permian and other accreted rocks of Yukon-Tanana terrane. The accreted terranes are split by the Tintina Fault. Late- and post-metamorphic Cretaceous intrusions of the Anvil Plutonic Suite cut the metamorphic stratigraphy north of Rose Creek (Jennings and Jilson, 1986).

R - bedrock - common on plateau summits and slopes bordering the Tintina Trench.

COMBINED MAP UNITS

The surficial geology unit(s) are shown first followed by the terrain modifiers. Combined surficial geology units are used where, for reasons of scale, two or more deposits cannot be delineated individually. The dominant unit (>50 % of polygon coverage) is shown first and the subordinate units (<50 % of polygon coverage) are shown second and third. A dot separates the surficial units and a dash separates the terrain modifier from the surficial geology.

TERRAIN MODIFIERS

SUB-ARCTIC, ALPINE AND PERIGLACIAL PROCESSES

Pr - permafrost - within 1 m of surface
K - thermokarst
S - soilfuction

FLUVIAL PROCESSES

Active - recently active part of floodplain

EROSIONAL PROCESSES

G - gullying - areas of rapid erosion

SYMBOLS

Geological boundary (defined, assumed).....
Glacial meltwater channel.....
Moraine ridge.....
Escher.....
Aligned landform.....

REFERENCES

JENNINGS, D.S. and JILSON, G.A., 1986. Geology and sulphide deposits of Anvil Range, Yukon. In: Mineral Deposits of Northern Cordillera. Proceedings of the Mineral Deposits of Northern Cordillera Symposium, M.D.N., J.A. (Ed.), Canadian Institute of Mining and Metallurgy, Special Volume 31, p. 319-361.

RECOMMENDED CITATION

BOND, J.D., 1999. Surficial geology map of Mount Mye and Faro (105K/3&6 W), central Yukon (1:25,000 scale). Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs, Canada, Open File 1999-8.

Digital cartography and drafting by P.S. Lipovsky, Yukon Geology Program.

Any revisions or additional geological information known to the user would be welcomed by the Yukon Geology Program.

Copies of this map may be purchased from Geoscience Information and Sales, c/o the Whitehorse Mining Recorder, Indian and Northern Affairs Canada, Room 102-300 Main St., Whitehorse, Yukon, Y1A 2B5, PH 867-667-3266 Fax 867-667-3267.

Keep this map stored in a dark area to prevent map colours from fading.

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Indian and Northern Affairs Canada
Exploration and Geological Services Division
Yukon Region

Open File 1999-8

SURFICIAL GEOLOGY MAP OF MOUNT MYE AND FARO (105K/3&6 W), CENTRAL YUKON

by

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SURFICIAL GEOLOGY MAP OF MOUNT MYE AND FARO (105K/3&6 W), CENTRAL YUKON SCALE 1:25 000

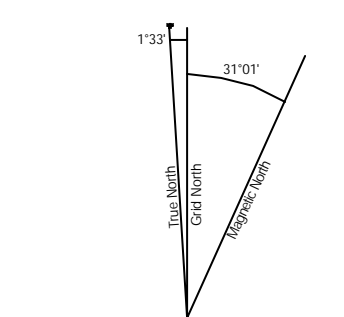
CONTOUR INTERVAL 100 FEET

Elevations in Feet above Mean Sea Level

North American Datum 1983

Transverse Mercator Projection

1000 0 1000 2000 3000 4000 Metres



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ONE THOUSAND METRE
Universal Transverse Mercator Grid
ZONE 8

