

LEGEND

- QUATERNARY**
- Ap** Alluvial plain; flat to undulating, commonly meander scrolled, typically organic silty sand accumulations on top of sand and gravel.
 - At** Alluvial terrace, flat to undulating, minor channeling, gravel and sand on top of elevated bedrock terraces. May include glaciofluvial and nonglacial deposits.
 - Af** Alluvial fan; sloping aggregate of sorted and unsorted sediment from tributary streams. Composed of mixture of alluvial and colluvial deposits merging with other deposits.
 - Gt** Glaciofluvial terrace; flat to undulating, braided channel patterns, composed of mixture of loess overlying sand and gravel. Ventifacts and sand wedges locally present.
 - PRGt** Glaciofluvial terrace related to pre-Reid glaciations. Soils developed are red with strong chemical weathering and clay skins correlated to Wounded Moose paleosol. Sand wedges and ventifacts common.

SYMBOLS

- Geological contact
- Glacial limit
- Terrace scarp
- Meltwater channel (small)

SURFICIAL GEOLOGY AND GEOMORPHOLOGY DESCRIPTIVE NOTES

This preliminary map is based on 1993 mapping and airphoto interpretation. Lower Stewart River valley was mapped by inspection of soil pits, sporadic natural exposures, and a few mining cuts.

This area of the Klondike Plateau is largely unglaciated. However, outwash from multiple Pleistocene glaciations occurred in Stewart River valley, and are referred to as McConnell, Reid, and pre-Reid (Bostock 1966; Hughes et al. 1969). Stewart River valley shows several terrace remnants, some can be related to these glaciations.

The Stewart River valley is dominated by valley bottom alluvium and elevated terraces. Alluvial plain refers to the modern floodplain and low-lying valley flats. Alluvial terraces refer to those which are commonly lying on elevated bedrock terraces along the valley sides. Glaciofluvial terraces occur at various elevations in the valley and are more prominent in the upper reaches. These terraces consist of gravel overlying an elevated bedrock surface, kame terraces along the valley margins, and valley fill. A thin capping of aeolian silt and sand overlies the gravel deposits.

Soil development on high level terraces was used to assign designations as McConnell, Reid, and pre-Reid terraces using the criteria of soil colour, clay skins, thickness, and periglacial features (Morrison and Smith 1967). Some terraces are uncorrelated and may be as old as Tertiary.

Placer gold occurs within the alluvial terraces, alluvial plain deposits and in glaciofluvial terrace sediments. It is typically fine-grained, flat, bright, and inclusion free. Other heavy minerals include magnetite, red garnet, and hematite.

REFERENCES

BOSTOCK, H.S., 1966. Notes on glaciation of central Yukon Territory; Geological Survey of Canada, Paper 65-36, 18 p.

FULLER, E.A. and ANDERSEN F.J., 1993. Placer geology of Black Hills Creek (parts of 1150/7 & 10), Yukon Exploration and Geology 1992, Exploration and Geological Services Division, Indian and Northern Affairs Canada, p. 33-38.

HUGHES, O.L., CAMPBELL, R.B., MULLER, J.E. and WHEELER, J.O., 1969. Glacial limits and flow patterns, central Yukon Territory south of 65 degrees north latitude; Geological Survey of Canada, Paper 68-34, 9 p.

MORISON, S.R. and SMITH, C.A.S. (eds), 1967. Guidebook to Quaternary Research in Yukon; XII INQUA Congress, Ottawa, National Research Council of Canada.

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

Open File 1994-8(G)

SURFICIAL GEOLOGICAL MAP OF STEWART RIVER VALLEY
PARTS OF 1150/2, 1150/3, 1150/6 AND 1150/7
1:50,000 SCALE

by

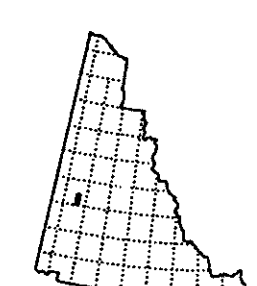
Edward A. Fuller
Canada/Yukon Mineral Development Agreement
Geoscience Office

SHEET 1 OF 2

Copies of this map and the accompanying report (in Yukon Exploration and Geology, 1993), may be obtained at Canada Map Office, Exploration and Geological Services Division, Indian and Northern Affairs Canada, 200 Range Road, Whitehorse, Yukon Y1A 3V1 (403-667-3204; FAX: 403-668-2176).

SCROGGIE CREEK (1150/2) and BLACK HILLS CREEK (1150/7)
YUKON TERRITORY

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1150/11	1150/10	1150/9
1150/6	1150/7	1150/8
1150/3	1150/2	1150/1

GRID ZONE DESIGNATION
7V
E.A.A.

TO ONE A REFERENCE TO NEAREST 500 METRES
EXAMPLE: STREAM JUNCTION
Easting: 150
Northing: 27

VERTICAL DATUM
1150/27
Mean sea level and reference (MSL) datum (about 13 m)

- | | |
|--|--|
| Route | Route |
| Dr. weather | Dr. weather |
| Dr. weather | Dr. weather |
| Trail or path | Trail or path |
| Power transmission line | Power transmission line |
| Wire or open cut | Wire or open cut |
| Horizontal control point, with elevation | Horizontal control point, with elevation |
| Beach mark, with elevation | Beach mark, with elevation |

SCALE 1:50,000 ÉCHELLE

Meters 0 500 1000 2000 3000 4000 5000
Yards 0 500 1000 2000 3000 4000 5000

CONTOUR INTERVAL 100 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

ÉQUIDISTANCE DES COURBES: 100 PIEDS
Élévations en pieds au-dessus du niveau moyen de la mer
Réseau géodésique nord-américain unifié (1927)
Projection Transverse de Mercator

MAGNETIC DECLINATION 31°44' EAST
AT CENTRE OF MAP 1961
Annual change (decreasing): 3.7

DÉCLINAISON MAGNÉTIQUE AU CENTRE DE LA FEUILLE EN 1961: 31°44' EST
Variation annuelle (décroissante): 3.7

- | | | | |
|--------------------------------|-------------------------------------|-------------|-----------------|
| Building | Building | Bar | Grange |
| School | Loft | Post Office | Bureau de poste |
| Church | Église | Cemetery | Cimetière |
| Lighthouse | Phare | | |
| River with bridge | Rivière avec pont | | |
| Stream, intermittent or dry | Cours d'eau intermittent ou sec | | |
| Lake, intermittent, ice-filled | Lac intermittent, avec imprégnation | | |
| Marsh or Swamp | Marais ou tourbière | | |
| Depression contour | Courbes de creux | | |

CONVERSION SCALE FOR ELEVATIONS

30 20 10 0 10 20 30 40 50 60 70 80 90 100
100 50 0 50 100 150 200 250 300 350 400 450 500
Metres Feet

NATIONAL TOPOGRAPHIC SYSTEM
SYSTÈME DE RÉFÉRENCE CARTOGRAPHIQUE NATIONAL

EDITION 1

