Canada

canada/yukon economic development agreement

Refer to this map as: 115 O/8 EDITION 1 ASE SERIES A 722

1:50,000

EDITION 1

Yukon Government

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 channelling, 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.
- **MGt** — Glaciofluvial terrace related to McConnell glaciation. Weak soil development correlated to Stewart soils. Sand wedges lacking in surface deposits. Overlain by loess.
- **RGt** — Glaciofluvial terrace related to Reid glaciation. Soils developed in sand and gravel are brown with weak chemical weathering and are correlated to Diversion Creek paleosols. Ventifacts present locally.
- **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)
- Meltwater channel (large)
- Abandoned channel
- Pingo (open-system)

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 (Morison and Smith 1987). 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 115O/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), 1987. Guidebook to Quaternary Research in Yukon; XII INQUA Congress, Ottawa, National Research Council of Canada.

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This map accompanies the following report:

FULLER, E.A., 1994. High level terraces along lower Stewart River and parts of Yukon River. In: Yukon Exploration and Geology, 1993. Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada.

Recommended citation:

FULLER, E.A. 1994. Surficial geological map of Stewart River valley, parts of 115O/8, 115P/5, and 115P/12, central Yukon. Exploration and Geological Services Division. Yukon, Indian and Northern Affairs Canada, Open File 1994-7(G), 1:50 000.

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

Open File 1993-7(G)

SURFICIAL GEOLOGICAL MAP OF STEWART RIVER VALLEY PARTS OF 115O/8, 115P/5, AND 115P/12
1:50,000 SCALE

by

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

SHEET 2 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).

115O/10	115O/9	115P/12
115O/7	115O/8	115P/5
115O/2	115O/1	115P/4

ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 7

Produced and printed by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF MINES AND TECHNICAL SURVEYS, 1961, from air photographs taken in 1949 and 1954.

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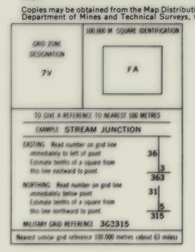


Roads: Routes:
all weather ..... toute saison
dry weather ..... période sèche
cart track ..... de ferre
trail or portage ..... sentier ou portage
Railway, normal gauge, single track ..... Chemin de fer, voie unique écartement normal
Power transmission line ..... Ligne de transport d'énergie
Mine or Open cut ..... Mine ou fosse à ciel ouvert
Horizontal control point, with elevation ..... Point géodésique avec cote 454 Δ
Bench mark, with elevation ..... Repère de nivellement avec cote BM 157

ROSEBUD CREEK
YUKON TERRITORY

Établie et imprimée par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DES MINES ET DES RELEVÉS TECHNIQUES en 1961, d'après les photographies aériennes prises en 1949 et 1954.

Ces cartes sont en vente au Bureau de distribution des cartes, ministère des Mines et des Relevés techniques, Ottawa.

SCALE 1:50,000 ÉCHELLE

Miles 1 0 1 2 3 Miles
Metres 1000 500 0 1000 2000 3000 4000 Mètres
Yards 1000 500 0 1000 2000 3000 4000 Verges

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 32°05' EAST
AT CENTRE OF MAP 1961
Annual change (decreasing) 3.5'

DÉCLINAISON MAGNÉTIQUE AU CENTRE
DE LA FEUILLE EN 1961: 32°05' EST
Variation annuelle (décroissante) 3.5'

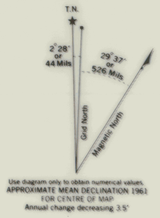
The nomenclature on this map has not been submitted to the Canadian Board on Geographical Names and may be subject to revision. Information on names is invited by the Surveys and Mapping Branch.

La nomenclature de la présente carte n'a pas été soumise à la Commission canadienne des noms géographiques et, par conséquent, elle pourrait faire l'objet d'une révision. Tous renseignements sur les noms seront bien accueillis par la Direction des levés et de la cartographie.

CONVERSION SCALE FOR ELEVATIONS
30 20 10 0 50 100 150 200 250 300 Metres
100 50 0 100 200 300 400 500 600 700 800 900 1000 Feet

Building ..... Bâtiment
School ..... École
Church ..... Église
Lighthouse ..... Phare
River with bridge ..... Rivière avec pont
Stream, intermittent or dry ..... Cours d'eau intermittent ou à sec
Lake intermittent, indefinite ..... Lac intermittent, rive imprécise
Marsh or Swamp ..... Marais ou marécage
Depression contours ..... Courbes de cuvette
Barn ..... Grange
Post Office ..... Bureau de poste
Cemetery ..... Cimetière

NATIONAL TOPOGRAPHIC SYSTEM
SYSTÈME DE RÉFÉRENCE CARTOGRAPHIQUE NATIONAL



115 O/8
EDITION 1