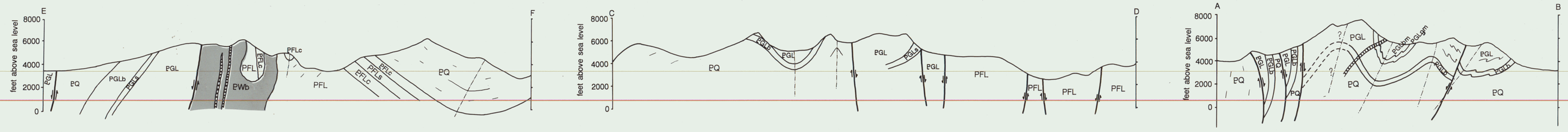

Canada

canada/yukon economic development agreement

Yukon Government

Military users, refer to this map as: Référence de la carte pour usage militaire: SERIES A722 SÉRIE MAP 1060/16 CARTE EDITION 1 MCE ÉDITION

LEGEND

STRATIFIED ROCKS

Quaternary

Q — *Alluvium, colluvium, and glacial deposits*

Cambrian to Devonian

CDc — *Resistant, crudely stratified, light grey weathering dolostone*

Middle to Late Proterozoic
Pinguicula Group(?)

PPv — Northeast of Bonnet Plume River, *grey to maroon, dense to amygdaloidal lava flows*

PPs — Southwest of Bear River, *maroon to green weathering siltstone, maroon weathering quartzite-clast conglomerate, and buff weathering carbonate*

Middle Proterozoic
Gillespie Lake Group

PGL — *Undivided Gillespie Lake Group: orange, brown and grey weathering dolostone and silty dolostone, locally stromatolitic, locally hosting chert nodules and sparry karst infillings, interbedded with subordinate black weathering siltstone and shale, green, grey and brown weathering laminated mudstone, and grey to white weathering quartzose sandstone. Locally developed slaty cleavage in shaley beds*

PGLbm — Southwest of Bear River, *brown to black weathering laminated mudstone and shale*

PGLgm — Southwest of Bear River, *green, grey and brown weathering laminated mudstone*

PGLs — *Black weathering siltstone and shale*

PGLb — *Basal Gillespie Lake Group: cross laminated, orange weathering silty to sandy dolostone interbedded with black weathering shale and grey to white weathering, quartzose, fine grained sandstone*

Quartet Group

PQ — *Black weathering shale, finely laminated dark grey weathering siltstone, and planar to cross laminated light grey weathering siltstone and fine grained sandstone. In upper part of succession, siltstone and fine grained sandstone interbedded with subordinate orange weathering dolostone grades upward into basal Gillespie Lake Group. Slaty cleavage and microfolds locally present in shaly units*

Fairchild Lake Group

PFL — *Undivided Fairchild Lake Group: green to grey weathering siltstone, fine grained sandstone, and laminated limy siltstone. In upper part of succession, interbeds of grey, brown and white weathering carbonate are interbedded with dark grey weathering shale and siltstone, below conformable contact with Quartet Group. Silty and shaly units locally cleaved and kink banded*

PFLc — *Grey, brown and white weathering carbonate with minor interbeds of dark siltstone and shale*

PFLs — *Black and dark grey weathering shale and siltstone with minor interbeds of carbonate*

INTRUSIVE ROCKS

Middle Proterozoic to Mesozoic

gr — *Fine to medium grained granite to granodiorite; local rhyolitic border phase*

Fine to medium grained gabbro, diorite and basalt

Middle to Late Proterozoic
Wernecke breccia

PWb — *Mottled red, green and grey weathering hematitic and dolomitic siltstone- and dolostone-clast breccia, and related metasomatized country rock. Breccia and metasomatites host copper, uranium, cobalt, silver and gold mineralization*

SYMBOLS

stratigraphic or intrusive contact known, approximate, assumed

normal fault (pegs on hanging wall) known, approximate, assumed

reverse fault (teeth on hanging wall)

bedding inclined, overturned, vertical
horizontal, facing unknown
estimate from airphoto or distant sighting

slaty cleavage inclined, vertical

minor fold axis

fold syncline: inclined; overturned
anticline: inclined; overturned

line of cross section A — B

Mineral Occurrences from Yukon Minfile

● Wernecke breccia
Cu and/or U (+/− Co, Au, Mo, Ba, Ag)
49 PAGISTEEL
52 FORD
61 FOUND
62 GNUCKLE
70 SLAB
75 BLAND
76 FACE
78 PITCH
79 CHIEFTAIN
87 SNOWSTAR

▲▽ Vein
Cu (+/−Au, Ag, Pb, Zn, Ba, Mo, W, Co, Ni)
47 GRAY
48 NEW JERSEY
53 SLATS
89 ZELON

◆ Stratabound concordant
Pb−Zn (+/−Au, Ag, Ba, Cu)
74 CORD

REFERENCES

BELL, R.T., 1986a. Geological map of northeastern Wernecke Mountains, Yukon Territory. Geological Survey of Canada, Open File 1207.

DELANEY, G.D., 1981. The mid-Proterozoic Wernecke Supergroup, Wernecke Mountains, Yukon Territory. In: Proterozoic Basins of Canada, F.H.A. Campbell, (ed.). Geological Survey of Canada Paper 81-10, p.1-23.

EISBACHER, G.H., 1978. Two major Proterozoic unconformities, Northern Cordillera. In: Current Research, Part A, Geological Survey of Canada, Paper 78-1A, p.53-58.

GREEN, L.H., 1972. Geology of Nash Creek, Larsen Creek, and Dawson Creek map-areas, Yukon Territory. Geological Survey of Canada, Memoir 364, 157 p.

INAC, 1992. Yukon MINFILE, 1992. Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada.

This map accompanies the following report:

THORKELSON, D.J. and WALLACE, C.A., 1993. Development of Wernecke breccia in Slats Creek (106D/16) map area, Wernecke Mountains, Yukon. In: Yukon Exploration and Geology, 1992. Exploration and Geological Services Division, Indian and Northern Affairs Canada.

Recommended citation:

THORKELSON, D.J. and WALLACE, C.A., 1993. Geological map of Slats Creek (106D/16) map area, Wernecke Mountains, Yukon. Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open File 1993-2.

Acknowledgments

The authors thank Grant Abbott, Don Murphy, Charlie Roots and Steve Johnston for constructive comments, and Will van Randen for drafting and layout.

PRODUCED BY SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND RESOURCES, OTTAWA, 1973.

CONTOUR INTERVAL 100 FEET

© CROWN COPYRIGHTS RESERVED 1973.

COPIES MAY BE OBTAINED FROM THE MAP DISTRIBUTION OFFICE, DEPARTMENT OF ENERGY, MINES AND RESOURCES, OTTAWA

NORTH AMERICAN DATUM 1927

TRANSVERSE MERCATOR PROJECTION

SLATS CREEK

YUKON TERRITORY

Scale 1:50,000 Échelle

Miles 1 0 1 2 3 Miles

Metres 1000 0 1000 2000 3000 4000 Mètres

Yards 1000 0 1000 2000 3000 4000 Verges

CONVERSION SCALE FOR ELEVATIONS
ÉCHELLE DE CONVERSION DES ÉLÉVATIONS

Metres 30 20 10 0 50 100 150 200 250 300 Mètres

Feet 100 50 0 100 200 300 400 500 600 700 800 900 1000 Pieds

106E/2	106E/1	106F/4
106D/15	106D/16	106C/13
106D/10	106D/9	106C/12

ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 8
QUADRILLAGE DE MILLE MÈTRES
UNIVERSEL TRANSVERSE DE MERCATOR

The 1973 MAGNETIC BEARING is 34°24′ (612 mils) EAST of GRID NORTH.

ANNUAL CHANGE DECREASING 4.9′

GRID NORTH is 0°41′ (12 mils) EAST of TRUE NORTH for centre of map.

Le REPÈRE MAGNETIQUE en 1973 est à 34°24′ (612 mils) EST du NORD DU QUADRILLAGE

VARIATION ANNUELLE DECROISSANTE 4.9′

NORD DU QUADRILLAGE est 0°41′ (12 mils) à l'est du NORD GÉOGRAPHIQUE au centre de la carte

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

Open File 1993-2 (G)

GEOLOGICAL MAP OF SLATS CREEK (106D/16) MAP AREA, WERNECKE MOUNTAINS, YUKON
1:50 000 scale

by

Derek J. Thorkelson and Carol A. Wallace
Canada/Yukon Mineral Development Agreement
Geoscience Office