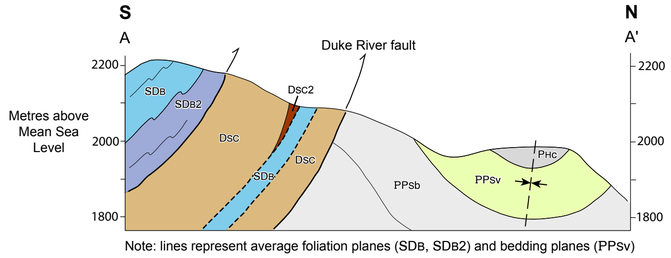
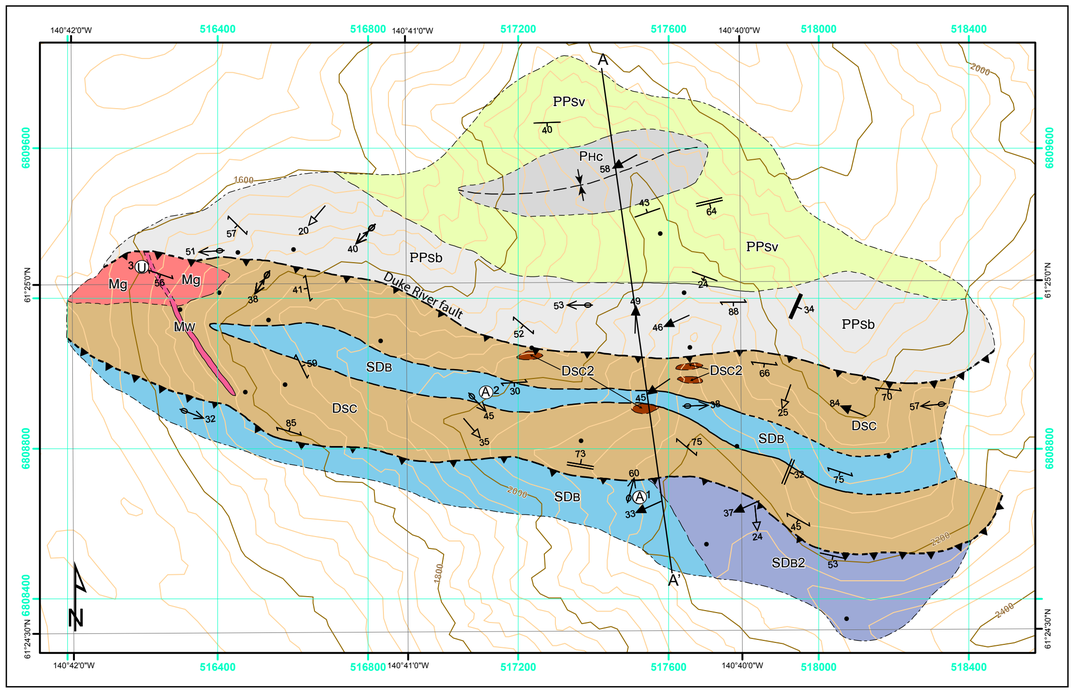
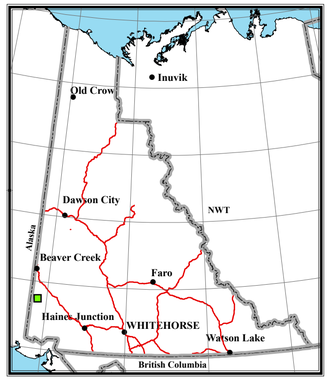
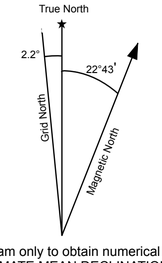



Note: lines represent average foliation planes (SDB, SDB2) and bedding planes (PPSv)




Use diagram only to obtain numerical values
APPROXIMATE MEAN DECLINATION 2008
FOR CENTRE OF MAP

| | | |
|---|---|---|
| ALASKA | 115F/10 BROOKE CREEK | 115F/09 TEEPEE LAKE |
| ALASKA | 115F/07 **THIS MAP** | 115F/08 TEMPEST MOUNTAIN |
| ALASKA | 115F/02 MOUNT MCAULAY | 115F/01 MOUNT MCBRIDE |

*1:50 000-scale topographic base data produced by CENTRE FOR TOPOGRAPHIC INFORMATION, NATURAL RESOURCES CANADA*

FOUR HUNDRED METRE GRID
Universal Transverse Mercator Projection
North American Datum 1983
Zone 7

CONTOUR INTERVAL 40 Metres
Elevations in metres above Mean Sea Level

# BEDROCK GEOLOGY
# DUKE RIVER FAULT NEAR KLUTLAN GLACIER
## YUKON

SCALE 1:10 000

0 100 200 400
Metres

# LEGEND

## INTRUSIVE ROCKS

*Kluane Ranges suite*

MW — purple, fine to medium-grained, felsic intrusive rock

DEVONIAN

*Mount Constantine Complex*

DSC — massive, locally foliated, grey-green hornblende-pyroxene gabbro; minor medium-grained gabbro diabase; locally leucocratic gabbro

Dsc2 — dark green to black, serpentinized ultramafic

MISSISSIPPIAN

Mg — fine to medium-grained granite

## LAYERED ROCKS

### WRANGELLIA

MISSISSIPPIAN - PERMIAN

*Skolai Group*

*Hasen Creek Formation*

PHc — grey to brown, fine-grained sandstone interbedded with medium to coarse-grained sandstone; locally contains beds of conglomerate

*Station Creek Formation*

PPSv — dark grey to green, very fine grained tuffaceous siltstone, vitric tuff and banded tuff

PPSb — dark green, fine-grained basalt; rare pillow basalt

### ALEXANDER TERRANE

*Bullion Creek Limestone*

SDB — fine-grained, carbonaceous mica schist; fine to medium-grained greenschist; rare muscovite-bearing quartzite

SDB2 — biege to grey fresh, orange weathered, thin-bedded to brecciated marble

Note: Legend units are from Cobbett, 2011 and Dodds and Campbell, 1992

**Isotopic Age Determinations**

| | Type | Station # | Age (Ma) | Mineral | Interpretation | Reference |
|---|---|---|---|---|---|---|
| 1 | Ar-Ar | 08-RC-060-1B | 267.5 ±6.4 | muscovite | cooling age | Cobbett, 2011 |
| 2 | Ar-Ar | 08-RC-071-1 | 256.8 ±6.6 | muscovite | cooling age | Cobbett, 2011 |
| 3 | U-Pb(LA-ICPMS) | 08-RC-076-1 | 351 ± 2.8 | zircon | crystallization | Cobbett, 2011 |

## SYMBOLS

geologic contacts (defined, approximate, inferred)
thrust fault (approximate, inferred)
fault (movement unknown)
fold axial surface trace
upright - syncline
mapping limit
bedding (inclined, tops known)
foliation (dominant)
stretching lineation, mineral lineation
intersection lineation,
fold axis (dominant phase)
vein, dyke
isotopic age sample locations (Ar-Ar, U-Pb)
cross section line (A — A')
field station

## REFERENCE


Cobbett, R.N., 2011. Timing and kinematics of the Duke River fault: insights into the evolution of the Insular terrane, southwest Yukon. Unpublished MSc thesis, University of British Columbia, 140 p.

Dodds, C.F. and Campbell, R.B., 1992. Geology of Mount St. Elias map area (115G and F[E1/2]), Yukon Territory. Geological Survey of Canada, Open File, 2188, 1:25 000 scale.


## RECOMMENDED CITATION

Cobbett, R., 2013. Bedrock geology along the Duke River fault near Klutlan Glacier, Yukon (part of NTS 115F/07) (1:10 000 scale). Yukon Geological Survey, Open File 2013-4.

Digital cartography and drafting by Rosie Cobbett, Yukon Geological Survey.

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

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Yukon Geological Survey
Government of Yukon
Energy, Mines and Resources

Open File 2013-4


**Bedrock geology along the Duke River fault near Klutlan Glacier, Yukon (part of NTS 115F/07) (1:10 000 scale)**


by
Rosie Cobbett