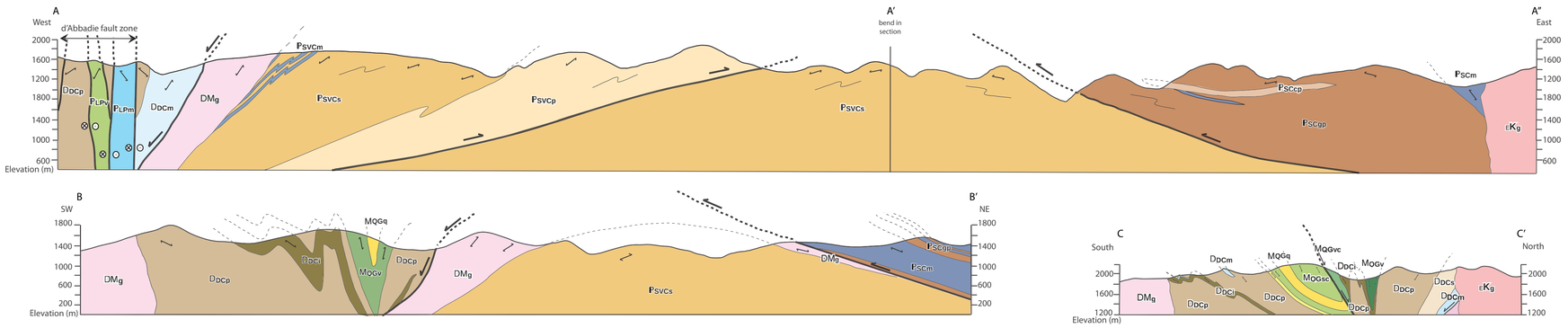

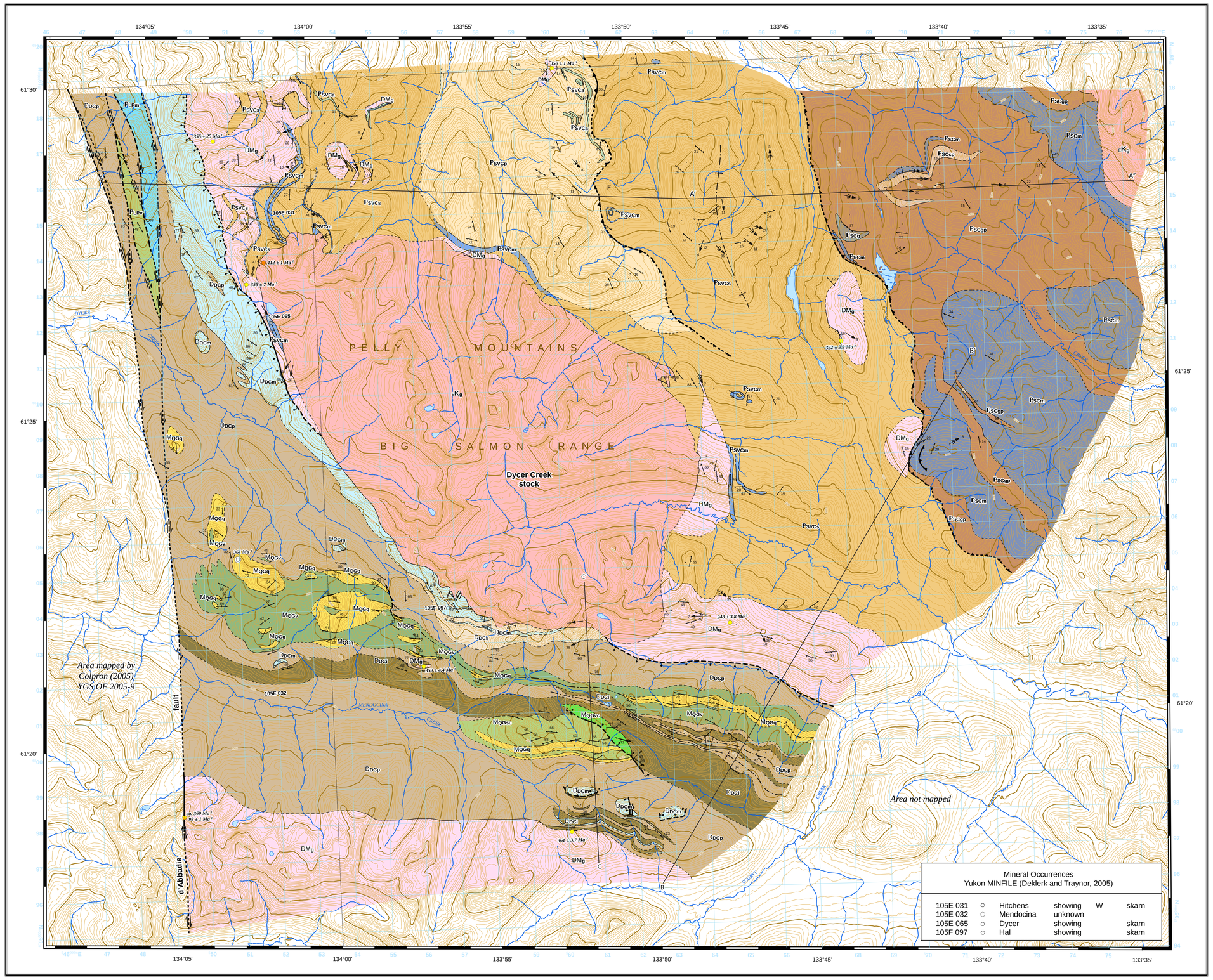

LEGEND

INTRUSIVE ROCKS

EARLY CRETACEOUS

EKg — DYCER CREEK STOCK: medium- to coarse-grained, unfoliated, biotite quartz monzonite (U/Pb monazite - 112 ± 1 Ma)

LATE DEVONIAN-EARLY MISSISSIPPIAN

DMg — moderately to strongly foliated, K-feldspar augen, two-mica granite; protomylonitic to mylonitic near d'Abbadie fault. South of Mendocina Creek, variably foliated, fine- to coarse-grained, hornblende-biotite diorite, locally K-feldspar porphyritic granodiorite (U-Pb zircon ages of ca. 360-346 Ma)

LAYERED ROCKS

YUKON-TANANA TERRANE

MISSISSIPPIAN AND YOUNGER?

Quartzite-Greenstone succession

MQGvc — dark green, fine-grained amphibolite

MQGq — white to light geen, fine- to medium-grained quartzite and micaceous quartzite

MQGv — green weathering chloritic phyllite and schist; locally dolomitic

MQGsc — intercalated, tan weathering, quartz-muscovite schist and green, locally dolomitic, variably siliceous, chloritic schist

UPPER DEVONIAN AND OLDER?

Dycer Creek succession

DDCp — black, fine- to medium-grained graphitic phyllite and quartzite; locally contains layers of medium to light grey, quartz-muscovite schist and black, calcareous, fine-grained metasiltstone and marble

DDCl — grey and buff weathering, variably calcareous, quartz-biotite-muscovite ± garnet schist

DDCs — rusty-brown weathering, medium-grained biotite-plagioclase-quartz schist; locally garnet-andalusite schist

DDCm — light grey to white, medium- to coarse-grained marble; locally garnet-diopside-epidote skarn

Last Peak succession (Colpron, 2005)

PLPm — light grey to white marble

PLPv — strongly foliated and lineated siliceous chloritic phyllite, quartzofeldspathic and epidote layers along foliation

Scurvy Creek succession

PSVCa — dark grey to black, coarse-grained amphibolite; locally garnet-rich

PSVCp — intercalated grey and brown weathering, medium- to coarse-grained quartz-plagioclase-biotite-muscovite-garnet schist, micaceous quartzite; quartzite, and calc-silicate schist; locally contains coarse-grained amphibolite

PSVCs — rusty-brown weathering, medium- to coarse-grained, variably calcareous, quartz-plagioclase-muscovite-biotite schist; micaceous quartzite; locally contains white and black banded, fine-grained quartzite; tan-weathering dolomitic marble; light grey, coarse-grained marble; tremolite-garnet-diopside-epidote skarn; contains layers of amphibolite and K-feldspar augen granite

PSVCm — buff and grey weathering, coarse-grained marble

CASSIAR TERRANE

PALEOZOIC?

Sheep Creek succession

PSCm — light grey and orange-buff weathering dolomitic marble; intercalated with garnet-muscovite-biotite schist

PSCgp — fine-grained, silvery-grey weathering, variably siliceous phyllite/schist; locally contains garnet and light grey to white, fine-grained quartzite and medium green, chloritic schist

PSCg — black, fine-grained, carbonaceous phyllite and fine- to medium-grained, black carbonaceous marble

PSCcp — tan weathering, fine-grained, calcareous, quartz-muscovite schist

SYMBOLS

geologic contacts (defined, approximate, inferred)

fault, movement unknown (defined, approximate, inferred)

thrust fault (defined, approximate, inferred)

dextral strike-slip fault (defined, approximate, inferred)

normal fault (defined, approximate, inferred)

fold axial surface trace (synform, anform)

radiometric date (U/Pb, U/Pb detrital zircons, Ar/Ar) (number in superscript refers to Geochronology Note below)

359 ± 1 Ma [3] U/Pb zircon

112 ± 1 Ma [2] U/Pb monazite

361 Ma [4] youngest detrital zircon (U/Pb)

98 ± 1 Ma [1] Ar/Ar biotite

field station

bedding

foliation (dominant)

elongation or mineral lineation

fold axis (dominant phase)

GEOCHRONOLOGY NOTES

1) U-Pb zircon and $^{40}Ar/^{39}Ar$ biotite dates from Devonian-Mississippian granitoids along the western edge of the study area are from Hansen et al. (1989).

2) U-Pb monazite age for the Dycer Creek stock and U-Pb zircon age (ca. 355 Ma) for augen granite to the west are from Gallagher (1999).

3) All other U-Pb zircon dates for Devonian-Mississippian granitoids are unpublished data of E. Westberg.

4) Youngest detrital zircon U-Pb age for the Quartzite-Greenstone succession is unpublished data of M. Colpron.

REFERENCES

Colpron, M., 2005. Geological map of Livingstone Creek area (NTS 105E/8), Yukon (1:50 000 scale). Yukon Geological Survey, Open File 2005-9.

Deklerk, R. and Traynor, S. (compilers), 2005, Yukon MINFILE 2005 - A database of mineral occurrences: Yukon Geological Survey, CD-ROM.

Gallagher, C.S., 1999. Regional-scale transposition and late large-scale folding in the Teslin Zone, Pelly Mountains, Yukon. Unpublished M.Sc. thesis. Carleton University, Ottawa, Ontario.

Hansen, V.L., Mortensen, J.K. and Armstrong, R.L., 1989. U-Pb, Rb-Sr and K-Ar isotopic constraints for ductile deformation and related metamorphism in the Teslin suture zone, Yukon-Tanana terrane, south-central Yukon. Canadian Journal of Earth Sciences, vol. 26, p. 2224-2235.

RECOMMENDED CITATION

Westberg, E., 2009. Geological map of the 'Mendocina Creek' area (parts of 105E/8 and 105F/5) (1:50 000 scale). Yukon Geological Survey, Open File 2009-44.

Digital cartography and drafting by Elizabeth Westberg, Simon Fraser University, and Maurice Colpron, 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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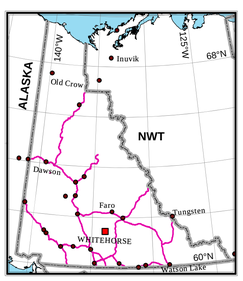
A digital PDF (portable document file) file of this map may be downloaded free of charge from the Yukon Geological Survey website: http://www.geology.gov.yk.ca.



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

ONE THOUSAND METRE GRID
Universal Transverse Mercator Projection
North American Datum 1983
Zone 8

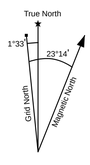
CONTOUR INTERVAL 20 METRES
Elevations in metres above Mean Sea Level
(for 105E/8 and 105F/5)

CONTOUR INTERVAL 100 FEET
Elevations in feet above Mean Sea Level
(for 105E/9 and 105F/12)
(north of 61°30'N)

BEDROCK GEOLOGY
MENDOCINA CREEK
YUKON

SCALE 1:50 000

0 1 2 3 4 5
kilometres



Use diagram only to obtain numerical values
APPROXIMATE MEAN DECLINATION 2009
FOR CENTRE OF MAP

105E/9 TERAKTU CREEK	105F/12 SOUCH CREEK	105F/11 PONY CREEK
105E/8 LIVINGSTONE CREEK	105F/5 ***MENDOCINA CREEK***	105F/6 MT ST CYR
105E/1 BOSWELL MOUNTAIN	105F/4 FALLS CREEK	105F/3 CRATER CREEK

Yukon Geological Survey
Energy, Mines and Resources
Government of Yukon

Open File 2009-44

Geological map of the 'Mendocina Creek' area (parts of NTS 105E/8 and 105F/5) (1:50,000 scale)

by

Elizabeth Westberg
Simon Fraser University