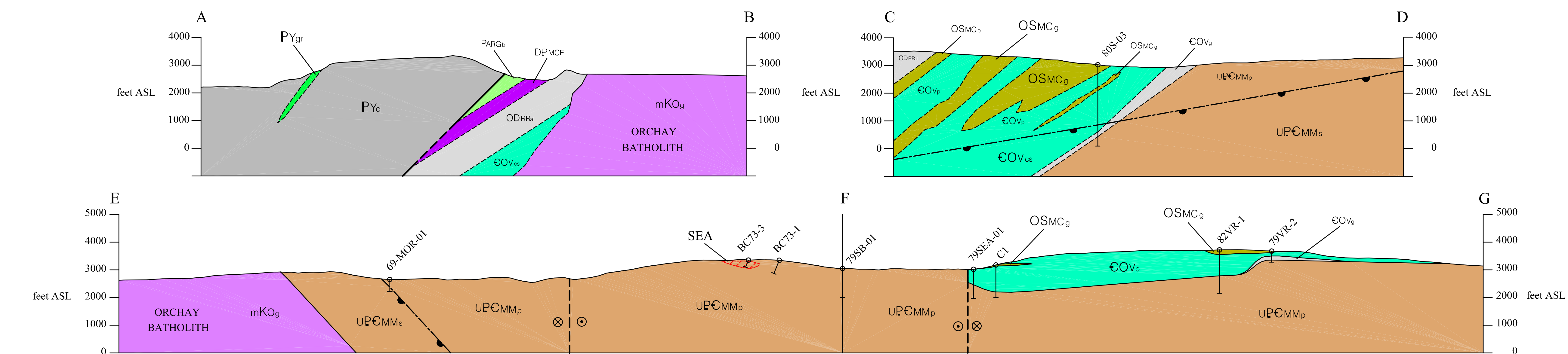




LEGEND

TERTIARY

Tertiary

White-weathering, aphanitic to fine-grained, locally flow-banded *quartz-feldspar porphyry*.

CRETACEOUS

ANVIL PLUTONIC SUITE

Grey, resistant, generally medium- to coarse-grained, locally megacrystic, undifferentiated *granite to granodiorite*.Majority phase - *basaltic to hornblende granite to granodiorite*. Characterized by phenocrysts of ash-grey quartz and white feldspar.Orchay phase - *basaltic to hornblende granite to granodiorite*.Mount Myle phase - *basaltic to hornblende granite*. Locally foliated.

TRIASSIC

Resistant, massive, polymorphic *conglomerate*. Clasts include quartzite, chert, limestone, and serpentinite. Matrix contains detrital muscovite.Dark grey carbonaceous, locally calcareous *shale or siltstone*. Interbedded with medium to dark grey fine-grained *sandstone*.Grey, green, red, or black *bedded chert*.Interbedded cherty *argillite*, chert, sandstone, and mafic greywacke or conglomerate.Massive, dark green, fine-grained to aphanitic *basalt*. Occurs within Vangorda Creek fault zone; may be equivalent to Anvil Range Group basalt.

PALEOZOIC

YUKON-TANANA COMPLEX

Medium to dark grey, locally gritty, *muscovite meta-quartzite to quartzite schist*. Contains bands of greywacke, gabbro, phyllite. Rarely contains eclogite lenses.Grey to tan, massive *limestone or dolomite*.Medium to dark olive green, *phyllite* *grade to amphibolite*. Locally displays well-equigranular igneous texture. Locally includes ultramafic and/or eclogite (PYgr). Contains lesser beds of medium to dark grey muscovite-quartzite to quartzite schist.Granitic *orthogneiss*, locally with feldspar augen.

PERMIAN

ANVIL RANGE GROUP

Euphotic, locally hematitic, dark green, resistant, massive, poorly foliated *basalt or basaltic andesite*. Contains lesser grey, green, red, and black bedded chert and pale green *olivine-clinopyroxene* sandstone or conglomerate.

PENNSYLVANIAN

MOUNT CHRISTIE FORMATION ?

Pale green, tan-weathering, *bedded phyllite to argillite*. Interbedded with lesser maroon chert and argillite, especially near top of unit. Also contains minor black bedded chert, black chert, and argillite, especially near top of unit. May be broadly similar to and lithologically equivalent to Mount Christie Formation.

DEVONIAN-PENNSYLVANIAN

UNDIVIDED MOUNT CHRISTIE FORMATION and EARN GROUP

Dark grey to black, pale green, and maroon, nonconformable *argillite and bedded chert* with lesser grey siltstone, sandstone, chert pebble conglomerate, and phyllite.

DEVONIAN-MISSISSIPPIAN

EARN GROUP

Dark grey to black, nonconformable, siliceous *argillite and bedded chert* with lesser grey siltstone, sandstone, chert pebble conglomerate, and phyllite.Silty cream, tan-weathering, *bedded phyllite to argillite* with light grey *bedded beds*.Pale green, nonconformable *argillite and bedded chert* with lesser pale green shale chip and argillite, especially near top of unit. Also contains minor black bedded chert and argillite, especially near top of unit. May be broadly similar to and lithologically equivalent to Earn Group.

ORDOVICIAN-DEVONIAN

UNDIVIDED ROAD RIVER GROUP

Dark grey to black, argillite, *bedded chert* with lesser grey siltstone and sandstone, medium grey limestone, and basalt flows. Upper part of unit locally contains middle Devonian limestone beds with 2-inch oriented microfossils. Includes Duo Lake Formation and unnamed Devonian sedimentary rocks. Steel Formation is not present.

QUARTZ ARENITE and DOLOSTONE

Massive, medium-grained, *quartz arenite*, interbedded with pale tan-weathering limestone or dolomite. Interbedded with units OSCL, ODRR, and OSMC.

ORDOVICIAN-SILURIAN

ROAD RIVER GROUP

STEEL FORMATION

Tan- to orange-weathering, diatomitic, bioturbated, *shy mudstone*. Not differentiated south of the Anvil batholith.

DUO LAKE FORMATION

Dark grey to black, *argillite to argillite*. Contains lesser medium to pale grey siltstone and sandstone, medium grey limestone, and basalt flows.

MENZIE CREEK FORMATION

Undivided dark grey green, *bedded basalt*. Includes massive and allowed, locally amygdaloidal flows and tuffaceous or monolithic breccias with lesser limestone, argillite, and silt. Interbedded with undivided Road River Group (ODRR), Duo Lake Formation (OSCL), and Vangorda formation (COV).Dark grey green, locally amygdaloidal, *basaltic and argillite* with minor monolithic basalt breccias, volcanoclastic sandstone, siltstone, and silt. Interbedded with undivided Road River Group (ODRR), Duo Lake Formation (OSCL), ODRR, and Vangorda formation (COV).Dark grey green, monolithic *basaltic breccia* with lesser volcanoclastic sandstone, siltstone and silt, and massive and allowed flows. Interbedded with undivided Road River Group (ODRR), Duo Lake Formation (OSCL), ODRR, and Vangorda formation (COV).Grey to off-white *limestone* locally interbedded with orange-weathering *dolomite*.Dark green, locally magnetic, coarse- to fine-grained, massive to foliated *gabbro*. Subvolcanic dikes and sills to Menzies Creek basalt (OSMC) in Vangorda (COV) and Mount Myle (UPCMM) formations. Enclosing phyllites locally display thin contact metamorphic aureoles.Dark green, locally magnetic, coarse-grained, massive to foliated, variably sericitized *gabbro*. Subvolcanic dikes and sills to Menzies Creek basalt (OSMC) in Vangorda (COV) and Mount Myle (UPCMM) formations. Enclosing phyllites locally display thin contact metamorphic aureoles.

CAMBRIAN-ORDOVICIAN

VANGORDA FORMATION

Dark, silty grey, *calcareous phyllite* with lesser medium crystalline grey marble (COV), dark grey to black phyllite (COV), and dark green gabbro sills and dikes (OSMC).Brownish grey, nonconformable, pervasively foliated *metagabbro*. May contain staurolite, garnet, andalusite, or kyanite. Locally in disconformity bedded. Contains minor dolomite, limestone, calc-siltstone, and calcareous phyllite beds and dark green gabbro sills and dikes. Regionally correlated with Rabbitkettle Formation.Black, locally calcareous, *carbonaceous phyllite or schist*. Commonly contains thin quartzite siltstone interbeds. Interbedded with dark green gabbro sills and dikes (OSMC).Pale to dark grey, foliated *limestone to marble*.

UPPER PROTEROZOIC-CAMBRIAN

MOUNT MYLE FORMATION

Brownish grey, nonconformable, pervasively foliated *argillite*. Locally indistinctly bedded. Contains minor siltstone, limestone, calc-siltstone, and calcareous phyllite beds and dark green gabbro sills and dikes. Regionally correlated with Gull Lake Formation.Brownish grey, nonconformable, pervasively foliated *metagabbro*. May contain staurolite, garnet, andalusite, or kyanite. Locally in disconformity bedded. Contains minor dolomite, limestone, calc-siltstone, and calcareous phyllite beds and dark green gabbro sills and dikes. Regionally correlated with Gull Lake Formation.Interbedded pale green *calc-siltstone* and purplish brown *bedded phyllite*. Contains thin, medium to dark grey marble and foliated marble beds and dark green gabbro dikes and sills. Lithologically similar to Vangorda calc-siltstone.Dark to pale grey, medium crystalline *marble*. Typically contains abundant boudins of calc-siltstone and/or quartz. Locally contains coarse crystalline garnet-gneiss strom.Black *phyllite to schist*. Locally contains lenses and beds of black carbonaceous limestone and dark green gabbro sills and dikes.

RECOMMENDED CITATION

Pigage, Lee, C. 2000. Geological map of Swim Lakes (NTS 105K/2 W), central Yukon (1:250,000 scale). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open File 2000-6.

Digital cartography and drafting by Lee C. Pigage, Yukon Geological Program.

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

Copies of this map, the accompanying report and Yukon Mintle may be purchased from the Geoscience Information and Sales, c/o Whitehorse Mining Recorder, Indian and Northern Affairs Canada, Room 100-300 Main St., Whitehorse, Yukon, Y1A 2B5. Ph: 867-667-3268, Fx: 867-667-3267.

Keep this map in a dark area to keep colours from fading.

COMPILED SOURCES

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

Open File 2000-6

Geological Map of Swim Lakes
(NTS 105K/2 W),
Central Yukon (1:250,000 scale)compiled by
Lee C. Pigage
Yukon Geological Program

SYMBOLS

Geological contact
(defined, approximate, assumed)Fault or vein-fault, displacement unknown
(defined, approximate, assumed)Thrust fault
(defined, approximate, assumed, teeth on hanging wall)Normal fault
(defined, approximate, assumed, teeth on downthrown side)Strike-slip fault
(defined, approximate, assumed)Fault surface and trace
(straight line, curved, overturned, syndinal, etc.)

Metamorphic boundary (symbol on higher grade side)

Bedding (dips not known)

Foliation (one tick indicates surface phase of deformation, two or more indicates subsequent phase(s) of deformation)

Foliation (phase of deformation unknown)

Lineation (one arrow indicates earliest phase of deformation, two or more indicates subsequent phase(s) of deformation)

Joint

Igneous compositional banding

Igneous mineral lining

Fault plane orientation, shear band (C-bands) orientation

Shear band plane of flattening (S bands)

Mineral lineation/banding associated with shear bands

Apparent dip of measured bedding, foliation (in cross-section)

Foliation form lines in cross-section

Limit of outcrop, subcrop

Projection to surface of mineral resources

Limit of mapping

Isotopic age determination sample location and age includes radiometric age, 2 sigma error, and sample number

Fossil sample, includes sample number and reference

Survey control station with station name and elevation (in metres)

Diamond drill hole collar (overburden depth total depth) in metres

Rotary drill hole collar (overburden depth total depth) in metres

Field station

Trench

Line of cross-section

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