CONTOUR INTERVAL 100 FEET

North American Datum 1983

Elevations in feet above Mean Sea Level

Transverse Mercator Projection

APPROXIMATE MEAN DECLINATION 1972 FOR CENTRE OF MAP Annual change decreasing 4.0'

ZONE 8

LEGEND

CRETACEOUS ANVIL PLUTONIC SUITE Grey, resistant, generally medium- to coarse-grained, locally megacrystic, undifferentiated granite to granodiorite Marjorie phase - biotite \pm hornblende granite to granodiorite. Characterized by phenocrysts of smokey grey quartz and white feldspar. Orchay phase - biotite ± hornblende granite to granodiorite. Mount Mye phase - biotite-muscovite granite. Locally foliated.

 $White-weathering, a phanitic to fine-grained, locally flow-banded \underline{\textit{quartz-feldspar porphyry.}}\\$

Resistant, massive, polymictic <u>conglomerate</u>. Clasts include quartzite, chert, limestone, and serpentinite. Matrix contains detrital muscovite. Dark grey carbonaceous, locally calcareous <u>shale or siltstone</u> interbedded with medium to dark grey, fine-grained <u>limestone</u>. Grey, green, red, or black bedded chert.

Interbedded cherty argillite, chert, sandstone, and mafic greywacke or conglomerate. Massive, dark green, fine-grained to aphanitic <u>basalt</u>. Occurs within Vangorda Creek fault zone; may be equivalent to Anvil Range Group basalt.

PALEOZOIC

TERTIARY

4000

3000

- 2000

YUKON-TANANA COMPLEX

Medium to dark grey, locally gritty, <u>muscovitic meta-quartzite to quartzose schist.</u> Contains bands of greywacke, gabbro, phyllite. Rarely contains eclogite lenses.

Grey to tan, massive limestone or dolostone. Medium to dark olive green, chloritic phyllite to amphibolite. Locally displays relict equigranular igneous texture. Locally includes ultramafic and/or eclogite (PYgre). Contains lesser beds of medium to dark grey muscovitic quartzite to quartzose schist.

Mafic and ultramafic rocks of the Vangorda Creek fault zone. Locally extensively PZs - serpentinite; PZh - harzburgite; PZe - eclogite; PZg - gabbro; PZd - diabase;

Granitic orthogneiss, locally with feldspar augen.

PERMIAN

ANVIL RANGE GROUP

Epidotized, locally hematitic, dark green, resistant, massive, poorly foliated <u>basalt or</u> brecciated basalt. Contains lesser grey, green, red, and black bedded chert and pale green epivolcaniclastic sandstone or conglomerate.

PENNSYLVANIAN

MOUNT CHRISTIE FORMATION? Pale green, tan-weathering, bedded phyllitic chert interbedded with lesser maroon chert and argillite, especially near top of unit. Also contains minor black bedded chert, black chert pebble conglomerate, siltstone, limestone and argillite. May be broadly similar to

DEVONIAN-PENNSYLVANIAN

UNDIVIDED MOUNT CHRISTIE FORMATION and EARN GROUP

Dark grey to black, pale green, and maroon, noncalcareous argillite and bedded chert with lesser grey siltstone, sandstone, chert pebble conglomerate, and limestone.

DEVONIAN-MISSISSIPPIAN

EARN GROUP

Dark grey to black, noncalcareous, siliceous <u>argillite and bedded chert</u> with lesser grey siltstone, sandstone, chert pebble conglomerate, and rhythmically bedded limestone.

Silvery cream, tan-weathering, bedded phyllitic chert with light grey barite beds. Pale green, noncalcareous <u>argillite and bedded chert</u> with lesser pale green shale chip and siltstone breccia, medium to dark grey sandstone, and grey to green chert pebble conglomerate. Locally contains maroon argillite and bedded chert, especially near bottom and top of unit.

ORDOVICIAN-DEVONIAN

UNDIVIDED ROAD RIVER GROUP Dark grey to black argillite with lesser medium to pale grey siltstone and fine sandstone, medium grey limestone, and basalt flows. Upper part of unit locally contains middle Devonian limestone beds with 2-hole crinoid macrofossils. Includes Duo Lake Formation and unnamed Devonian sedimentary rocks. Steel Formation is not present. QUARTZ ARENITE and DOLOSTONE

Massive, medium-grained, <u>quartz arenite</u> interbedded with pale tan-weathering limestone or dolostone. Interbedded with units OSDL, ODRRal, and OSMCb.

ORDOVICIAN-SILURIAN

ROAD RIVER GROUP STEEL FORMATION

Tan- to orange-weathering, dolomitic, bioturbated, <u>silty mudstone</u>. Not differentiated southwest of the Anvil Batholith. DUO LAKE FORMATION

Dark grey to black, graptolitic <u>argillite</u>. Contains lesser medium to pale grey siltstone and fine sandstone, medium grey limestone, and basalt flows.

MENZIE CREEK FORMATION

Undivided dark grey green, foliated <u>basalt</u>. Includes massive and pillowed, locally amygdaloidal flows and heterolithic or monolithic breccias with lesser limestone, argillite, and tuff. Interbedded with undivided Road River Group (ODRRal), Duo Lake Formation (OSDL), ODqd, and Vangorda formation (COV). Dark grey green, locally amygdaloidal, <u>massive and pillowed basalt</u> with minor monolithic basalt breccia, volcaniclastic sandstone, siltstone, and tuff. Interbedded with undivided

Road River Group (ODRRal), Duo Lake Formation (OSDL), ODqd, and Vangorda Dark grey green, monolithic <u>basalt breccia</u> with lesser volcaniclastic sandstone, siltstone and tuff, and massive and pillowed flows. Interbedded with undivided Road River Group (ODRRal), Duo Lake Formation (OSDL), ODqd, and Vangorda formation (COV).

Grey to off-white $\underline{\text{limestone}}$ locally interbedded with orange-weathering $\underline{\text{dolostone}}.$ Dark green, locally magnetic, coarse- to fine-grained, massive to foliated gabbro. Subvolcanic dykes and sills to Menzie Creek basalts (OSMCb) in Vangorda (COV) and Mount Mye (uPCMM) formations. Enclosing phyllites locally display thin contact

Dark green, locally magnetic, coarse-grained, massive to foliated, variably serpentinized pyroxenite. Subvolcanic dykes and sills to Menzie Creek basalts (OSMCb) in Vangorda (COV) and Mount Mye (uPCMM) formations. Enclosing phyllites locally display thin

CAMBRIAN-ORDOVICIAN

VANGORDA FORMATION

Soft, silvery grey, <u>calcareous phyllite</u> with lesser medium crystalline grey marble (COVI), dark grey to black phyllite (COVg), and dark green gabbro sills and dykes (OSMCg). Greenstot facies equivalent of calc-silicate (COVcs). Regionally correlated with Pale green and dark purplish brown, thinly banded <u>calc-silicate</u> with lesser black schist (COVg), marble (COVI), and dark green gabbro dykes and sills (OSMCg). Amphibolite

facies equivalent of calcareous phyllite (COVp). Regionally correlated with Rabbitkettle Black, locally calcareous, <u>carbonaceous phyllite or schist</u>. Commonly contains thin quartzose siltstone interbeds. Interbanded with dark green gabbro dykes and sills €OVg

Pale to dark grey, foliated limestone to marble.

UPPER PROTEROZOIC-CAMBRIAN

MOUNT MYE FORMATION

105K/2

Brownish grey, noncal careous, pervasively foliated $\underline{\mbox{phyllite}}.$ Locally in distinctly bedded. Contains minor siltstone, limestone/marble, calc-silicate, and carbonaceous phyllite beds and dark green gabbro dykes and sills. Regionally correlated with Gull Lake Formation.

Brownish grey, noncalcareous, pervasively foliated <u>muscovite-biotite schist</u>. May contain staurolite, garnet, andalusite, or fibrolite. Locally indistinctly bedded. Contains minor siltstone, limestone/marble, calc-silicate, and carbonaceous phyllite beds and dark green gabbro dykes and sills. Regionally correlated with Gull Lake Formation. Interbanded pale green <u>calc-silicate</u> and purplish brown biotite phyllite. Contains thin,

sills. Lithologically similar to Vangorda calc-silicate. Dark to pale grey, medium crystalline <u>marble</u>. Typically contains abundant boudins of calc-silicate and/or quartz. Locally contains coarsely crystalline garnet-pyroxene skarn.

medium to dark grey marble and silicated marble beds and dark green gabbro dykes and

Black phyllite to schist. Locally contains lenses and beds of black carbonaceous ∪Р€мм₃

mestone and dark green gabbro dykes and sills.

COMPILATION SOURCES 8,14

105K/5 NE

Fault plane orientation, shear band (C-bands) orientation....... Shear band plane of flattening (S bands)...... Mineral lineation/rodding 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 resource... Isotopic age determination sample location and age includes radiometric age, 2 sigma error, and sample number.... Geochemical sample-whole rock with major oxides, minor A098, (1) and trace elements, includes assay number and Survey control station with station name and elevation (in Diamond drill hole collar (overburden depth/ total depth) in metres..... (overburden depth/ total depth) in metres..... Line of cross-section...

SYMBOLS

Geological contact

Thrust fault

Strike-slip fault

Fold surface axial trace

(defined, approximate, assumed).

(defined, approximate, assumed).

Fault or vein-fault, displacement unknown (defined, approximate, assumed)

(defined, approximate, assumed, teeth on hanging wall).

(defined, approximate, assumed, dot on downthrown side).

(upright anticline, syncline, overturned anticline, syncline).

Bedding (tops not known).....

Foliation (one tick indicates earliest phase of deformation,

Lineation (one arrow indicates earliest phase of deformation,

Metamorphic boundary (symbol on higher grade

two or more indicates subsequent phase(s) of

Foliation (phase of deformation unknown)......

two or more indicates subsequent phase(s) of

Igneous compositional banding.....

Igneous mineral lineation......

105K 65

105K 66

105K 70

MINERAL OCCURRENCES Yukon MINFILE (1997) **Exploration Target** CROWN Exploration Target

Exploration Target

Exploration Target

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RECOMMENDED CITATION

Pigage, Lee. C., 2000. Geological map of Rose Mountain (NTS 105K/5 NE), central Yukon (1:25 000 scale). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open File 2000-13.

Digital cartography and drafting by Lee C. Pigage, Yukon Geology Program. Any revisions or additional geological information known to the user would be welcomed by the Yukon Geology Program.

Copies of this map, the accompanying report and Yukon Minfile may be purchased from the Geoscience Information and Sales, c/o Whitehorse Mining Recorder, Indian and Northern Affairs Canada, Room 102-300 Main St. Whitehorse, Yukon, Y1A 2B5. Ph. 867-667-3266, Fx. 867-667-3267.

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

Indian and Northern Affairs Canada Exploration and Geological Services Division

Yukon Region Open File 2000-13

Geological Map of Rose Mountain (NTS 105K/5 NE),

Central Yukon (1:25 000 scale)

compiled by Lee C. Pigage Yukon Geology Program