DEPARTMENT OF ENERGY, MINES AND RESOURCES MINISTÈRE DE L'ÉNERGIE. DES MINES ET DES RESSOURCES

LEGEND

SOUTHWEST OF TINTINA FAULT

MID-CRETACEOUS

resistant, grey weathering, locally foliated, biotite + hornblende diorite, granodiorite, Kg and granite

Between St.Cyr and Tintina Faults

TERTIARY

- Tv, undivided; Tv1, small stocks and necks of white weathering, flow-banded, rhyolitic, quartz-sanidine porphyry; Tv2, laminated rhyolitic ash-flow tuffs and flows; Tv3, dark grey weathering, locally amygdaloidal, dark grey-green basalt necks and flows; Tv4, massive quartz-feldspar porphyry
- recessive, thick bedded to massive, pebble to boulder chert-quartz conglomerate, chert sandstone and thin bedded, dark brown siltstone and shale

recessive, dark grey weathering, thin bedded, interlaminated, buff-yellow siltstone and brown argillite, strongly bioturbated

MISSISSIPPIAN

resistant, rusty-orange weathering, thin bedded, apple green and dark grey chert and _ cherty tuff

DEVONIAN AND MISSISSIPPIAN

- recessive, black weathering with rusty streaks, thin bedded, black siliceous slate and minor interbedded, chert wacke and chert-granule grit
- DMcsi buff-orange weathering <u>phyllite</u>, calcareous phyllite and phyllitic, platy <u>limestone</u>; minor buff weathering dolomitic <u>siltstone</u>, black very finely crystalline limestone, <u>black</u> pyritic slate, and fine grained quartz arenite; DMcsl1, blue-grey weathering, calcareous, medium grained quartz arenite
- resistant, grey-orange weathering, massive, <u>limestone conglomerate</u> (not shown on uDcg resistant, grey-orange weathering, indoors, stratigraphic cross-section; relations to other map units uncertain)

ORDOVICIAN TO DEVONIAN

moderately resistant, black weathering, siliceous, graphitic, black siliceous and pyritic

CAMBRO-ORDOVICIAN

buff, orange and orange-brown weathering, thinly interlaminated calcareous shale and silty limestone

Southwest of St. Cyr Fault

UPPER DEVONIAN AND? MISSISSIPPIAN

recessive, black weathering with rusty streaks, thin bedded, black siliceous slate and minor interbedded chert wacke and chert-granule grit

SILURIAN AND DEVONIAN

ASKIN GROUP (SDdq, Sst)

- SDdq resistant, medium grey to buff weathering, medium to thick bedded dollomite, sandy dolomite and quartz arenite
- Sst tan weathering, thin bedded, dolomitic, platy siltstone

CAMBRO-ORDOVICIAN

KECHIKA GROUP (OSs, uEOsl)

- OSs black weathering, thin bedded, black graptolitic shale (only preserved locally)
- ueosi grey-orange weathering, finely interlaminated, calcareous phyllite and grey limestone; abundant quartz-carbonate veins and pods

PRECAMBRIAN AND LOWER CAMBRIAN

PEp dark brown weathering, non-calcareous, dark blue-grey slate, siltstone and minor limestone; metamorphosed equivalents near Glenlyon Batholith are biotite-muscovite-quartz schist and minor marble; PCp1, buff-orange to light grey weathering, thin bedded, argillaceous limestone and calcareous phyllite

	Limit of outcrop
	Geological boundary (defined, approximate, assumed, extrapolated beneath overburden where exposure warrants)
+-+	Bedding (horizontal, inclined, vertical, overturned, tops unknown)
al- al-	Foliation (inclined, vertical)
← ↔	Wrinkle lineation, axis of small scale fold (inclined, horizontal)
•	Fault, steeply dipping (defined, approximate, assumed, extrapolated beneath overburden; barb on downthrown side)
	Fault, thrust (defined, approximate, assumed, extrapolated beneath overburden, overturned; teeth on upper plate)
→	Fault, transcurrent (defined, approximate, assumed, extrapolated beneat overburden; arrows indicate slip)
	Anticline (defined, approximate, assumed, extrapolated beneath overburden)
	Syncline (defined, approximate, assumed, extrapolated beneath overburden)
-	Anticline, syncline (overturned)
*	Mineral occurrence (showing, work target)

NOTES

Outcrop not present, map unit inferred (italic map unit symbols)

- 1) contacts are extrapolated, where exposure warrants, on basis of assumed simple structure 2) mineral occurrence numbers follow convention in Yukon Exploration 1987, Exploration and
- Geological Services Division, Dept. Indian and Northern Affairs, Yukon 3) Jones Lake, Mt. Christie, Prevost, Portrait Lake, Steel, Gull Lake, Narchilla and Yusezyu formations and Hyland Group are new lithologic names approved and accepted for publication by the Geological Survey (Gordey, in press).

LEGEND FOR OPEN FILES 2249, 2250, 2251

+ Fossil locality

NORTHEAST OF TINTINA FAULT

TERTIARY

- Tv. undivided; Tv1, small stocks and necks of white weathering, flow-banded, rhyolitic, quartz-sanidine porphyry; Tv2, laminated rhyolitic ash-flow tuffs and flows; Tv3, dark grey weathering, locally amygdaloidal, dark grey-green basalt necks and flows; Tv4, massive quartz-feldspar porphyry
- recessive, thick bedded to massive, pebble to boulder chert-quartz conglomerate, chert sandstone and thin bedded, dark brown siltstone and shale

MID-CRETACEOUS

- South Fork Volcanics: dark brown weathering, locally columnar jointed, massive, densely welded, biotite-quartz-hornblende-feldspar crystal tuff
- Selwyn Plutonic Suite: grey weathering, resistant, medium- to coarse grained, locally megacrystic (K-spar), biotite + hornblende + muscovite granite, quartz monzonite and granodiorite; Ks1, plutons without hornblende; Ks2, plutons with hornblende; Ks3, porphyritic biotite + hornblende granite characterized by large smokey grey quartz phenocrysts and locally K-feldspar phenocrysts; Ks4, fine grained, mafic free, granite with disseminated pyrite

ALLOCHTHONOUS ASSEMBLAGES

PENNSYLVANIAN AND PERMIAN

Anvil Allochthonous Assemblage: CPav, resistant, dark weathering dark grey-green basalt, tuff, and breccia; CPat, thin bedded, grey-green, jasper-red and apple-green chert and siliceous tuff, and minor quartz-chert sandstone and shale; CPal, light grey weathering, massive, finely crystalline, dark grey limestone; CPaub, recessive, green weathering serpentinite

CARBONIFEROUS TO TRIASSIC

Nisutlin Allochthonous Assemblage: CInm, grey weathering, muscovitic, quartz blastomylonite; recessive, muscovitic quartzite and quartz-muscovite-biotite+ glaucophane schist with local pods of eclogite; Ckncg, resistant, massive, poorly sorted, conglomerate with pebble to cobble size clasts of basalt, chert, mylonite, and

ALLOCHTHONS EMPLACED JURA-CRETACEOUS IN

AUTOCHTHON

Jones Lake Formation: brown weathering, medium- to thick-bedded, calcareous siltstone, sandstone and shale, ripple cross-laminated; massive light grey weathering, finely crystalline, dark grey limestone;

PERMIAN

Mount Christie Formation: resistant, orange to buff weathering, thin- to medium-bedded, light grey-green to black chert

DEVONO-MISSISSIPPIAN

EARN GROUP (Mc, Ms, DMp, Dp, DMe)

undivided Mc, DMp, minor Dp

- recessive, dark brown weathering, thin- to medium-bedded, calcareous, dark grey to brown siltstone, sandstone and shale; thin to thick interbeds of finely crystalline, dark grey limestone; local light grey weathering, thick bedded to massive, dark grey,
- Crystal Peak Formation: resistant, dark grey weathering, massive chert-pebble conglomerate and chert quartz sandstone; minor brown weathering, dark blue-grey
- DMp Prevost Formation: recessive, brown weathering, thin bedded, laminated, dark blue-grey to black slate and thin to thickly interbedded fine- to medium-grained chert-quartz arenite and wacke, and chert-pebble conglomerate; DMp1, resistant,
- Portrait Lake Formation: black, gun-blue or silvery white weathering, thin bedded, siliceous, black siltstone, slate and chert; minor quartz arenite

SILURIAN AND DEVONIAN

- Dc1, massive, medium grained quartz arenite; Dc2, light grey weathering, massive to thick bedded, finely crystalline limestone and dolostone, locally cherty
- Ssp tan weathering, thin bedded, dolomitic, platy siltstone

ORDOVICIAN AND SILURIAN

ROAD RIVER GROUP (Ss. OSd)

- OSr undivided Duo Lake and Steel formations (may include infolds of €Or and Dp)
- Steel Formation: orange weathering, thin bedded, burrowed, dolomitic, grey-green mudstone, siltstone and chert; thin bedded black chert; rare black graptolitic shale
- OSd Duo Lake Formation: resistant, grey weathering, thin- to medium-bedded, light grey to black chert; recessive, gunsteel weathering, black graptolitic shale

CAMBRO-ORDOVICIAN

- resistant, dark weathering, massive, locally pillowed, dark grey-green basalt, tuff and
- resistant, dark grey weathering, massive to laminated, blocky, white to light grey quartzose siltstone and chert and rare black slate; strikingly laminated, very fine grained tuffaceous siltstone and chert; minor grey phyllitic limestone, calcareous phyllite, and greenstone
- Rabbitkettle Formation: grey-buff weathering, laminated to thin bedded, locally nodular, shaly limestone to calcareous phyllite (includes tuffaceous phyllite and greenstone on south flank of Anvil Batholith)

LOWER CAMBRIAN

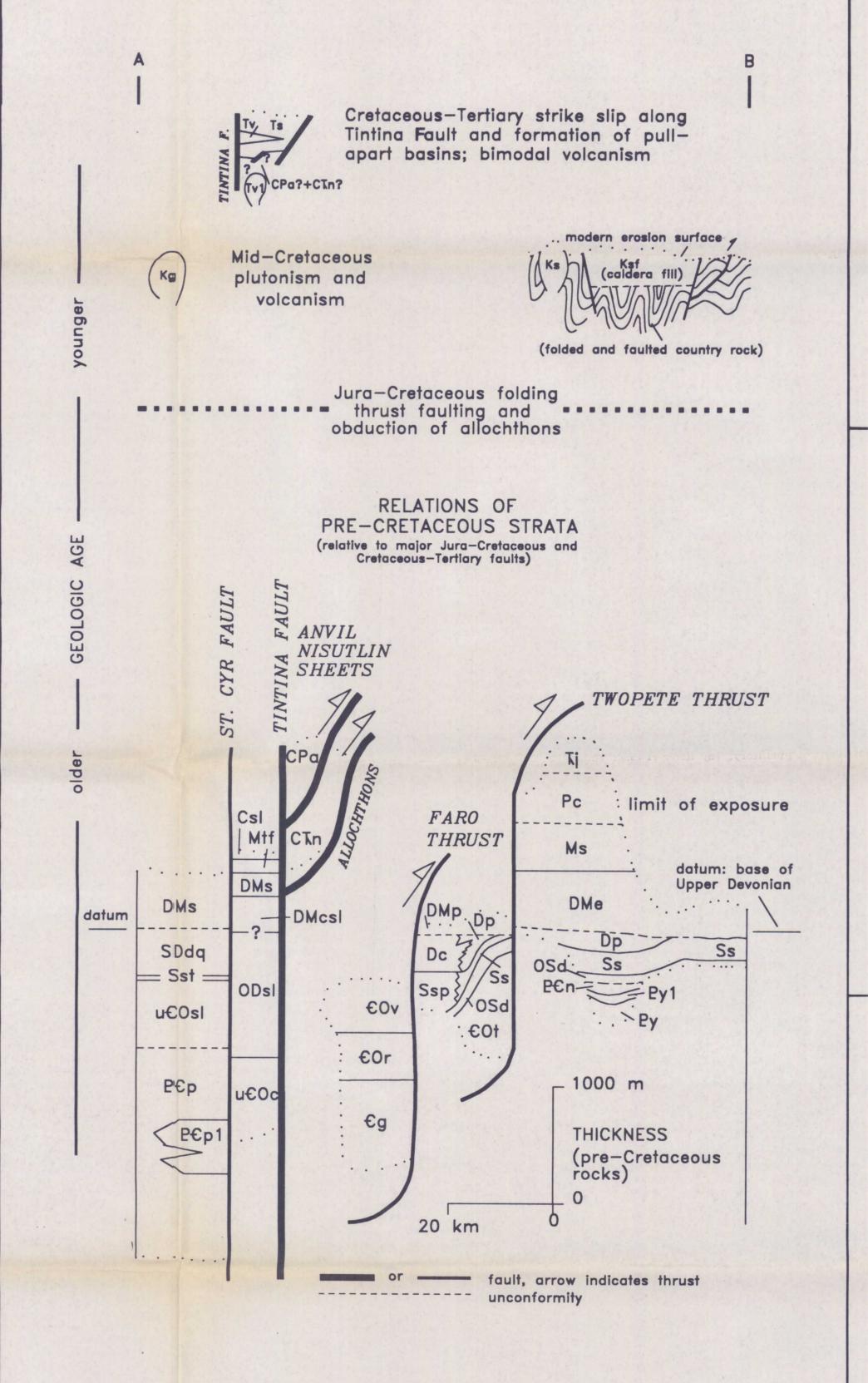
Gull Lake Formation: recessive, brown weathering, non-calcareous, dark grey to black slate and siltstone; metamorphosed equivalents near Anvil and Orchay batholiths include quartz-muscovite-biotite schist (+garnet, +sillimanite, +staurolite, +andalusite) and minor marble

PRECAMBRIAN AND LOWER CAMBRIAN

HYLAND GROUP (PEn, Py)

- Narchilla Formation: recessive, maroon weathering, interbedded maroon and apple-green slate; grey-brown weathering, medium to thick-bedded quartz sandstone and quartz- pebble conglomerate
- Yusezyu Formation: grey brown weathering, thin- to thick bedded, interbedded, quartz sandstone, local quartz pebble conglomerate, and grey-green to dark grey slate; Py1, grey-white weathering, finely crystalline, dark grey limestone

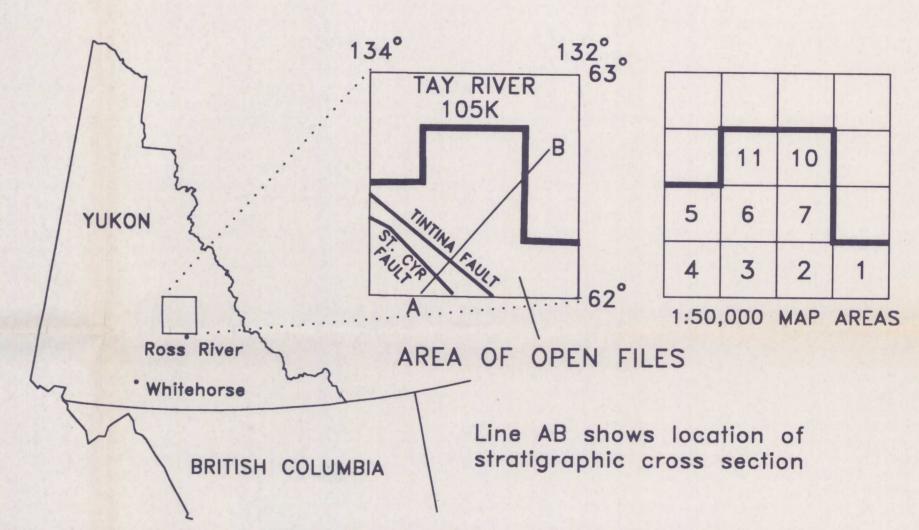
STRATIGRAPHIC RELATIONS AND GEOLOGIC HISTORY



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LOCATION



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COMPOSITE LEGEND GSC OPEN FILES 2249, 2250, AND 2251

Open File 2249: Geology of Tenas Creek (105K/1), Swim Lakes (105K/2), and Faro (105K/3) map areas, Yukon Territory

Open File 2250: Geology of Mount Atherton (105K/4), Rose Mountain (105K/5), and Mount Mye (105K/6) map areas, Yukon Territory

Open File 2251: Geology of Blind Creek (105K/7), Teddy Creek (105K/10), and Barwell Lake (105K/11) map areas, aYukon Territory

S.P. Gordey

June, 1990

(Nine 1:50,000 scale maps for the Tay River area (105K); information on

these maps locally differs from and supercedes that on the preliminary 1:250,000 scale map of the Tay River area (Gordey and Irwin, 1987))

SHEET 1 OF 4 (\$12.00/SET)