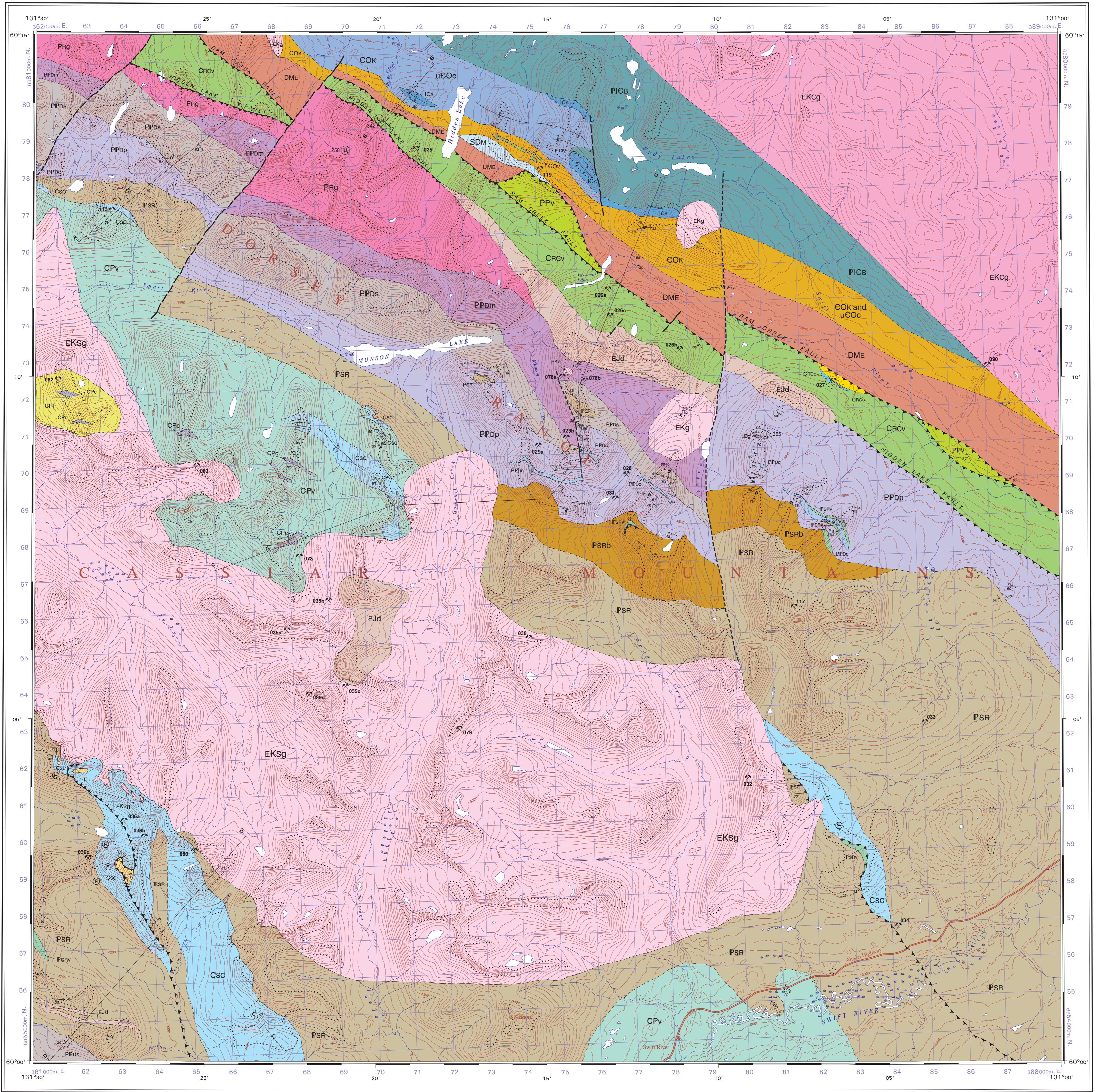


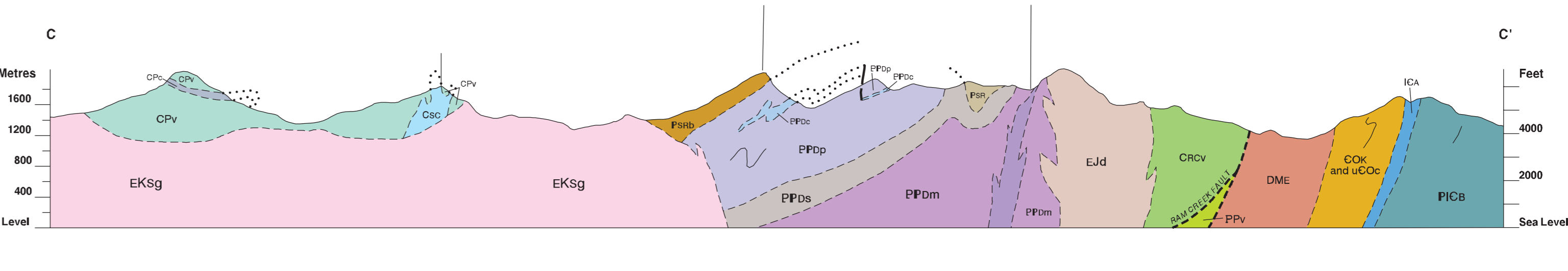
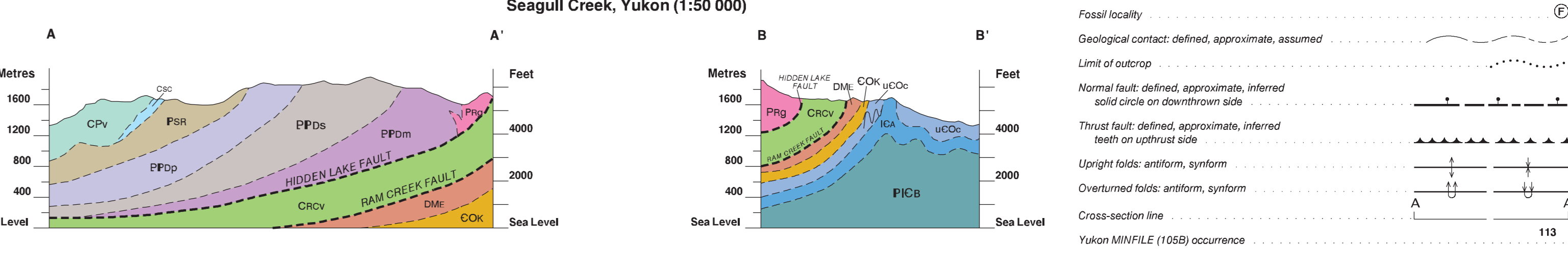
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LEGEND
SYN- AND POST-OROGENIC INTRUSIVE ROCKS
EARLY CRETACEOUS: EKg Biotite granite, granodiorite, leuco-quartz monzonite, alkaliite
EKSg Seagull Batholith
EKKg Cassiar Batholith: Granite, granodiorite, quartz monzonite, diorite, granite, protomylonite and mylonite within 2 km of Cassiar Fault
EARLY JURASSIC: EJd Hornblende diorite and quartz diorite, minor biotite hornblende quartz monzonite
OVERLAP ASSEMBLAGES LAYERED ROCKS
LOWER TO MIDDLE TRIASSIC: TL Black granitic alluvial phyllite, phyllite, chert-gran gneiss, sandstone and conglomerate
PERMANIAN AND OLDER: KIKITA GROUP: CPI Upper glaucophane member: Brown weathering indurated meta-siltstone and sandstone, interbedded chloritic meta-silt, quartzose grit and light grey marl
CPC Beige-weathering marl, locally silicified, rare chloritic interbeds
CPV Volcanic fragmental marl; Undifferentiated meta-tuff and volcanic breccia of intermediate composition; minor chloritic meta-sandstone and meta-siltstone 'sand-tuffs'
MIDDLE MISSISSIPPIAN TO LOWER PENNSYLVANIAN: CSC Black Limestone: Thin-to thick-bedded, light grey weathering, commonly biotitic limestone and dolomitic marble, minor marl to phyllite and bedded green chert.
PERMANIAN: Pkg Ram Stock: Coarse-grained monzonite, granodiorite (intrudes Dorsey Complex)
LOWER CARBONIFEROUS AND OLDER SWIFT RIVER GROUP: PSR Dark coloured quartz-phyllite gneiss, meta-sandstone; minor phyllitic argillite, quartzite, conglomerate, limestone and chloritic meta-silt; carbonaceous siltstone, grey chert and volcanic breccia (intermediate composition)
PSRv Chloritic andesitic intrusions, breccia and tuff; green siliceous argillite
PSRb Black to grey, thin-to thick-bedded chert and siliceous phyllite with prominent grey to white chert quartzite
CARBONIFEROUS AND OLDER DORSEY COMPLEX: PPDp Upper Dorsey unit: Red-brown weathering phyllite, grey pelite and quartzite, grey meta-silt and felsic meta-silt (355.6 ± 2.7 Ma U-Pb zircon; Roots and Heaman, 2001)
PPDc Beige-weathering marble and limestone, brown calc-alkalic rock
PPDs Biotite ± garnet schist, quartz meta-gneiss, minor marble
LDg Foliated tonalite dyke (353 Ma on discordant U-Pb zircon; Roots et al., 2003)
PPDm Lower Dorsey unit: Hornblende schist and gneiss, locally contains felsic leucosome with amphibolite
Hidden Lake Fault: Carboniferous (?) and Older: CRCv Chloritic meta-basalt and meta-tuff of intermediate to mafic composition; minor volcanic meta-sandstone; typically sheared
CHCs Quartzite, phyllite, biotite-muscovite-garnet schist; minor quartz-sericite schist (felsic meta-tuff)
CRCC Beige-weathering limestone and marl
Ram Creek Fault: Carboniferous (?) and Older: Ram Creek Limestone: Thin-to thick-bedded, light grey weathering, commonly biotitic limestone and dolomitic marble, minor marl to phyllite and bedded green chert.
CRCCv Chloritic meta-basalt and meta-tuff of intermediate to mafic composition; minor volcanic meta-sandstone; typically sheared
CHCs Quartzite, phyllite, biotite-muscovite-garnet schist; minor quartz-sericite schist (felsic meta-tuff)
CRCC Beige-weathering limestone and marl

SLIDE MOUNTAIN TERRANE (?)
PENNSYLVANIAN TO LOWER PERMANIAN (?)
PPV Grey-brown andesitic basalt breccia and tuff, locally sandy with argillite chert; unshaped
ANCESTRAL NORTH AMERICA (CASSIAR TERRANE) LAYERED ROCKS
LOWER DEVONIAN TO LOWER MISSISSIPPIAN EARM GROUP: DME Resessive, carbonaceous shale and slate, locally phyllitic
SLURIAN TO UPPER CARBONIFEROUS: SDM Madame Formation: Grey to black, laminated and thin-bedded text limestone
UPPER CAMBRIAN TO LOWER OROVICIAN KETCHIKA GROUP: COK Chloritic volcanic fragmental rocks, limestone lenses
COV Orange-weathering, brown and green, lime-cemented volcanoclastic rocks
UPPER CAMBRIAN: uCOC Resessive buff weathering, thin bedded grey slate and argillaceous limestone
LOWER CAMBRIAN ATAN GROUP: ICA Roseate Formation: Grey, buff and orange massive dolostone, limestone and calc-alcalitic rock
LOWER CAMBRIAN AND OLDER INGENKA GROUP: PICB Baya Formation: Biotite schist, carbonaceous schist, quartzite



ACCESS: Southwest of, and above the Hidden Lake Fault is a southeast dipping accretion called the Dorsey Complex. It includes elastic, sedimentary beds derived from a continental margin (Brennan, 2003; amphibolite, Nelson and Friedman, in press), deformed granitoid, alkali basalt and felsic successions (372 ± 14 Ma U-Pb zircon; Roots et al., 2003), overthrust by the Devonian to Mississippian (355.6 ± 2.7 Ma U-Pb zircon; Roots and Heaman, 2001). Upper amphibolite-grade metamorphism indicates a burial history consistent with the Dorsey Complex. The Dorsey Complex is overlain by the Permian Ram Stock (355 ± 2 Ma U-Pb zircon; Mortensen, 1999). The maximum width of this stack in the field suggests a seaward-sloping geometry. Correlative basement is found in northern BC (including the highest structural floor of the Seagull accretion; Nelson and Friedman, in press), and in central Yukon (Dorsey assemblage; Colborn et al., 2003).
PHYSIOGRAPHY: The map area encompasses the northern edge of the Cassiar Mountains. The high angular ridges are underlain by metamorphic rocks, 'trough' granite bedrock, productive boulder creeks, cliffs and boulder ridges. Thick glacial till mantles the L-shaped valley bottoms, with extensive sand deposits where Pleistocene ice stagnated (Klassen, 1985). Tectonic uplift is approximately 1500 m elevation.
PREVIOUS WORK: Reconnaissance surveys by Lord (1944) and Poole et al. (1960) provided detailed mapping (Abbott, 1981; Stevens and Harris, 1998; 2000). This map results from fieldwork in 1999-2001, new isotopic dates and companion investigations (see Roots et al., 2000; Roots and Heaman, 2001; Colborn and the Yukon-Tanana Working Group, 2001).
REGIONAL GEOLOGY: The map area spans the western edge of the old North American continent and the terranes that accreted to it in Mesozoic time, which together form a generally west-dipping structural stack, separated by layer-parallel thrust faults. The Dorsey Complex (Brennan, 1988) represents sedimentation during the Late Devonian to Cambrian continental extension. Overlying rocks reflect subsequent sedimentation and slates metamorphism in a marginal basin (e.g., Colborn, 1982; Carbonaceous siltstone and argillite, here correlated with Earm Group and underlying locally deposited mafic units). The Dorsey Terrane is separated from adjacent parautochthonous terranes by the Ram Creek and underlying thrust faults (Poole, 1956), which merges with Cassiar Fault to the southwest of the map area.
ECONOMIC MINERALIZATION: The Dorsey Terrane contains several mineral occurrences (see table). BGM and 104/9 have been inventoried, drilled and sampled (e.g. Brenner and Laverton, 1991; D'Arcy Silva et al., 2002; Roots et al., 2003). Lead isotopes from galena samples indicate a mid-Pennsylvanian to mid-Mississippian age (Gladwin, 2003). The Spring (STQ) structure contains a gneiss encrusting a small 100 Ma quartz monzonite stock (Hart and Rodick, 1987, p. 165). The lithology consists of monzonite felsic gneiss with locally abundant biotite and quartz. Biotite and quartz crystals have been found in many localities near the margin of the Seagull batholith (e.g. Logging, 6 km west of the southwest corner of the map area).

Scale 1:50 000 / Échelle 1/50 000
Mètres / Feet
Scale bar showing 0 to 1000 meters and 0 to 1000 feet.

GS OPEN FILE 4632
YGS OPEN FILE 2004-1
BEDROCK GEOLOGY
SEAGULL CREEK
YUKON TERRITORY
Scale 1:50 000 / Échelle 1/50 000
Mètres / Feet
Scale bar showing 0 to 1000 meters and 0 to 1000 feet.

MINERAL OCCURRENCES 105B/3
Yukon MIMFILE (Deleker, 2003)
Table with columns: No., Name, Minerals, type
105B 026 Alton (Crescent) Zn-skarn
105B 027 Bar (Dan) Zn-skarn
105B 028 Born Pb, Zn, Ag-skarn
105B 029 Mushens (TMBB) Zn-skarn
105B 030 Partridge Sn, Zn-skarn
105B 031 Mod Pb, Zn-skarn
105B 032 Gem Topaz - vein
105B 033 Reggle type unknown
105B 034 Plate type unknown
105B 035 Goddard Sn - vein
105B 036 Screw Pb, Zn, Ag, Sn - vein
105B 073 Current Sn - skarn
105B 078 Velux (STQ) W, Sn - skarn
105B 079 Sisk Sn - skarn
105B 080 Sherry Sn, Cu-skarn
105B 082 Pin Sn - skarn
105B 083 Sont Sn - skarn
105B 090 Swift Mo - type unknown
105B 113 Stephens Sn - skarn
105B 117 Hagerman type unknown
105B 119 Crescent type unknown