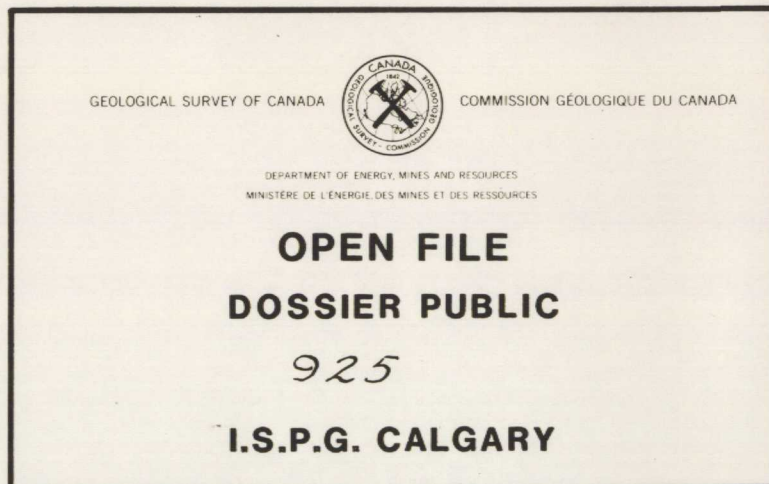


LEGEND: PINE PASS (93-0) MAP AREA



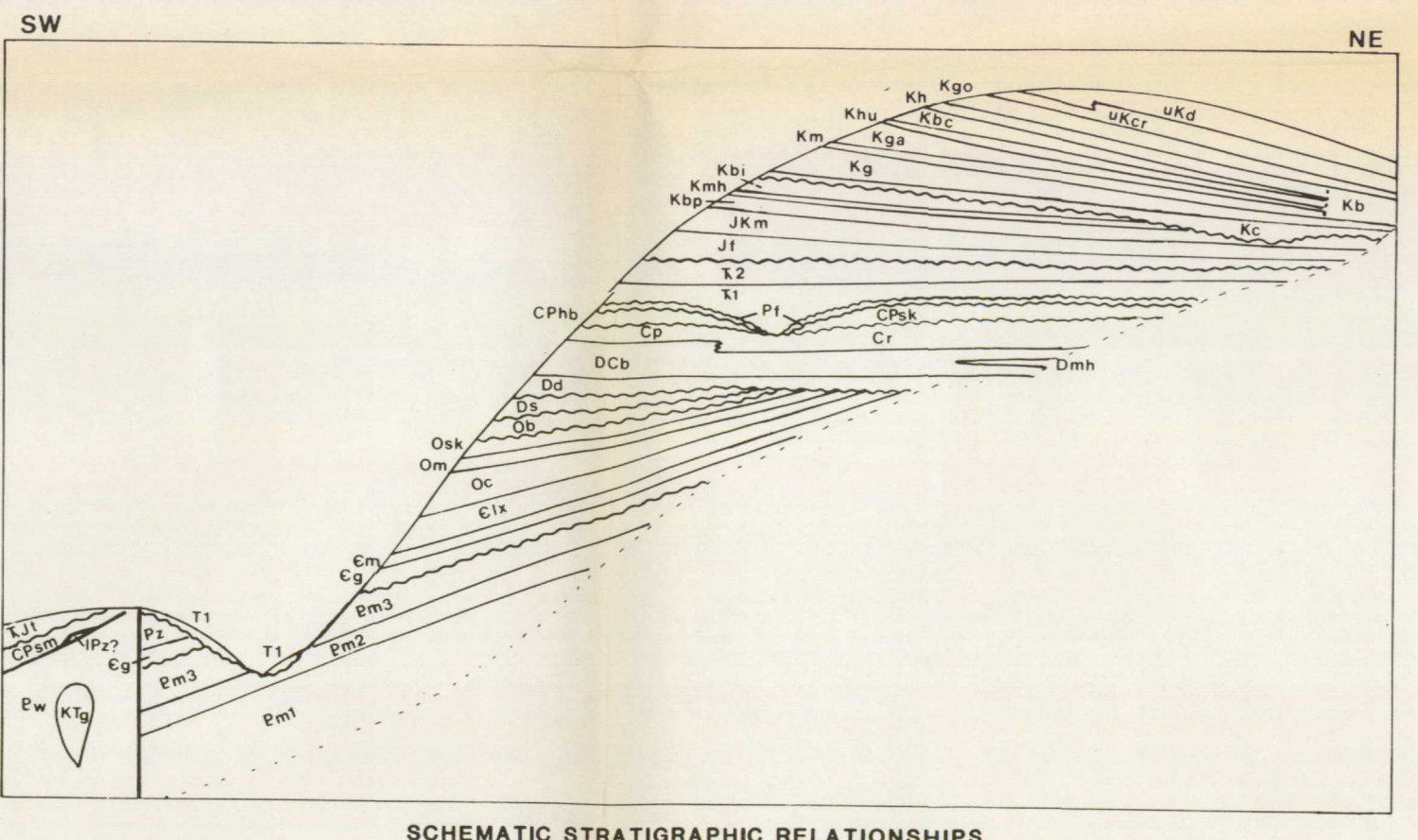
- CENOZOIC**
- QUATERNARY PLEISTOCENE AND RECENT**
 - Qal** Gravel, sand, silt, clay, till
 - TERTIARY EOCENE AND YOUNGER**
 - T1** UNNAMED MAP UNIT T1: siltstone, mudstone, sandstone, granite conglomerate, minor coal
 - CRETACEOUS AND TERTIARY UPPER CRETACEOUS AND PALEOCENE**
 - uKtS** SIFTON FORMATION: conglomerate, minor sandstone
 - CRETACEOUS AND/OR TERTIARY**
 - Ktg** Granite, granodiorite
 - CRETACEOUS UPPER CRETACEOUS**
 - uKd** DUNVEGAN FORMATION: sandstone, shale; minor conglomerate
 - uKcr** FORT ST. JOHN GROUP (uKcr-Km) CRUISER FORMATION: dark grey sideritic shale
 - LOWER CRETACEOUS**
 - Kgo** GOODRICH FORMATION: sandstone; minor shale
 - Kh** HASLER FORMATION: dark grey sideritic shale
 - Kbc** BOULDER CREEK FORMATION: sandstone, conglomerate
 - Khu** HULCROSS FORMATION: dark grey sideritic shale
 - Kga** GATES FORMATION: sandstone; shale; mudstone; coal
 - Km** MOOSEBAR FORMATION: dark grey sideritic shale
 - Kg** BULLHEAD GROUP (Kg-Kcd) GETHING FORMATION: sandstone; shale; conglomerate; coal
 - Kcd** CADOMIN FORMATION: conglomerate; sandstone
 - Kbi** MINNES GROUP (Kbi-Kmt) BICKFORD FORMATION: sandstone; silty mudstone
 - MESOZOIC**
 - JURASSIC AND CRETACEOUS UPPER JURASSIC AND LOWER CRETACEOUS**
 - Jkm** MONTEITH FORMATION: fine grained sandstone; minor shale
 - JURASSIC**
 - Jf** FERNIE FORMATION: shale; siltstone; minor sandstone
 - TRIASSIC AND JURASSIC**
 - KJt** TAKLA GROUP: basic tuffs; breccias; agglomerates; flows
 - TRIASSIC UPPER TRIASSIC**
 - Kp** PARDONET FORMATION: carbonaceous-argillaceous limestone; calcareous and dolomitic siltstone; minor shale
 - K2** CHARLIE LAKE, BALDONNEL, PARDONET AND BOCOCK (north of Pine River) FORMATIONS: carbonaceous-argillaceous limestone, limestone; dolomite; calcareous and dolomitic siltstone; minor sandstone
 - MIDDLE AND UPPER TRIASSIC**
 - Klu** LUDINGTON FORMATION: dolomitic and calcareous siltstone; sandstone; silty to sandy bioclastic limestone
 - LOWER, MIDDLE AND UPPER TRIASSIC**
 - Kl** TOAD, GRAYLING AND LIARD FORMATIONS (north of Pine River); SULPHUR MOUNTAIN FORMATION (south of Pine River): dolomitic and calcareous siltstone; silty shale; silty limestone; dolomitic and calcareous sandstone; minor silty dolomite
 - LOWER AND MIDDLE TRIASSIC**
 - Ktg** TOAD AND GRAYLING FORMATIONS: dolomitic and calcareous siltstone; silty shale; silty limestone; minor silty dolomite and calcareous sandstone
 - PERMIAN**
 - Pf** FANTASQUE FORMATION: bedded chert; minor lenses of cherty phosphatic dolomite
 - CARBONIFEROUS AND PERMIAN**
 - Cphb** HANINGTON FORMATION (LOCALLY) AND BELCOURT FORMATION: limestone; dolomite; conglomerate
 - CPsk** STODDART GROUP AND KINDLE FORMATIONS: shale sandstone; siltstone; limestone
 - Cpsm** SLIDE MOUNTAIN GROUP: greenstone; argillite; limestone; slate; banded quartzite
 - CARBONIFEROUS LOWER CARBONIFEROUS**
 - Cr** RUNDLE GROUP: skeletal limestone; dolomite; lime mudstone; chert nodules; minor shale, spiculite
 - Cp** PROPHET FORMATION: limestone; skeletal limestone; calcareous mudstone; spiculite; chert nodules in upper part
 - UPPER DEVONIAN**
 - Dmh** MOUNT HAWK FORMATION: argillaceous limestone; nodular limestone; calcareous shale
 - DEVONIAN AND CARBONIFEROUS UPPER DEVONIAN AND LOWER CARBONIFEROUS**
 - DCb** BEBA RIVER FORMATION: dark grey argillite, calcareous shale; minor limestone, spiculite
 - DEVONIAN MIDDLE DEVONIAN**
 - Dd** DUNEDIN FORMATION: limestone; argillaceous limestone; massive secondary dolomite locally; calcareous shale; minor quartz sandstone at base
 - LOWER DEVONIAN**
 - Ds** STONE FORMATION: silty dolomite; quartz sandstone, dolomitic sandstone
 - ORDOVICIAN, SILURIAN AND DEVONIAN MIDDLE AND UPPER ORDOVICIAN UPPER SILURIAN AND LOWER DEVONIAN**
 - OSD** UNNAMED LIMESTONE AND SHALE UNIT, UNNAMED QUARTZITE AND DOLOMITE UNIT, AND BEAVERFOOT, NONDA AND MUNCHO-McCONNELL FORMATIONS: dolomite, silty, argillaceous, sandy dolomite; limestone, quartzite
 - ORDOVICIAN MIDDLE AND UPPER ORDOVICIAN**
 - Oqb** UNNAMED QUARTZITE AND DOLOMITE UNIT AND BEAVERFOOT FORMATION: dolomite; silty dolomite; quartzite, dolomitic quartzite
 - MIDDLE ORDOVICIAN**
 - Osk** SKOKI FORMATION: dolomite; oncolitic dolomite; minor sandstone
 - LOWER AND MIDDLE? ORDOVICIAN**
 - Ok3** KECHIKA GROUP (Ok3-Ok1) UNNAMED UPPER UNIT: argillaceous, silty nodular to wavy bedded limestone; minor calcareous argillite
 - Ok2** UNNAMED MIDDLE UNIT: wavy bedded silty limestone; minor quartz sandstone
 - Ok1** UNNAMED LOWER UNIT: cleaved argillaceous silty limestone; nodular silty limestone
 - LOWER ORDOVICIAN**
 - Om** MONKMAN QUARTZITE: orthoquartzite
 - Oc** CHUCHINA FORMATION: limestone; argillaceous limestone; calcareous mudstone
 - CAMBRIAN UPPER CAMBRIAN**
 - Cl2** LYNX FORMATION: Unnamed Upper Unit; calcareous argillite and argillite with limestone nodules; silty argillaceous nodular to wavy bedded limestone; minor limestone
 - Cl1** LYNX FORMATION: Unnamed Lower Unit; dolomite; sandy to silty dolomite; minor quartz sandstone at base
 - MIDDLE CAMBRIAN**
 - Cm** SNAKE INDIAN, TITKANA AND ARCTOMYS FORMATIONS: silty, sandy and argillaceous dolomite; varicoloured shale; dolomite; minor quartz sandstone
 - LOWER CAMBRIAN**
 - Cg** COG GROUP: quartzite; dolomitic and argillaceous quartzite; shale; pebble conglomerate; dolomite, Cgm-sandy limestone; limestone
 - LOWER PALEOZOIC(?)**
 - IPz?** UNNAMED MAP UNIT IPz?: chlorite and sericite schist; phyllite; schistose grit; quartz-pebble conglomerate
 - UPPER PROTEROZOIC**
 - Pm3** MISINCHINKA GROUP (Pm3-Pm1) UNNAMED UPPER CLASTIC UNIT: grey silty argillite; quartzite; siltite
 - Pm2** UNNAMED MIDDLE CARBONATE UNIT: limestone; dolomite; sandy limestone and dolomite; quartzite; minor argillite
 - Pm1** UNNAMED LOWER CLASTIC UNIT: phyllite; siltite; diamictite; feldspathic quartzite; minor carbonate
 - Ewa** WOLVERINE COMPLEX Quartz mica schist, granitoid gneiss; granite-pegmatite
 - Ewb** Amphibolite; pseudodiorite

Kb BUCKINGHORSE FORMATION: sideritic shale; siltstone; minor sandstone

Ok KECHIKA GROUP (undivided)

Clx LYNX FORMATION: (undivided)

Pz Undivided
CAMBRIAN TO DEVONIAN
UPPER CAMBRIAN TO MIDDLE DEVONIAN



SCHEMATIC STRATIGRAPHIC RELATIONSHIPS

- EXPLORATORY WELLS**
1. TGS Sun Falls a-64-B 9309
 2. Hunt Sands Sun Boulder b-74-D 9309
 3. Hunt Sands Sun Falls C-18-G 9309
 4. TGS Falls b-39-G 9309
 5. TGS Falls c-32-F 9309
 6. CCS et al Hulcross a-58-I 9309
 7. Triad BP Bush Mountain b-23-A 93010
 8. Triad BP Bush Mountain a-13-A 93010
 9. Clark Can Elcan TGS Pine c-29-B 93010
 10. Quasar et al Carbon d-48-I 93015

- Geological boundary (defined, approximate, assumed)
- Bedding (inclined, vertical)
- Schistosity or gneissosity (inclined, vertical)
- Fault, normal (defined, approximate, assumed, solid circle indicates downthrown side)
- Fault, strike slip or sense of displacement unknown (defined, approximate, assumed)
- Fault, reverse or thrust (defined, approximate, assumed, teeth on upthrust side)
- Anticline upright (defined, approximate)
- Syncline upright (defined, approximate)
- Syncline overturned (defined, approximate)
- Exploratory well

Geological map compilation by D.F. Stott (1982), M.E. McMechan (1982), G.C. Taylor (1981) and J.E. Muller (1961) based on geological mapping by D.F. Stott (1969 to 1981), M.E. McMechan (1980), G.C. Taylor (1969, 1981), east of Rocky Mountain Trench, and J.E. Muller (1959, 1960) west of Rocky Mountain Trench, and on published maps of the Geological Survey of Canada by Wickenden and Shaw (1943).