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GEOLOGICAL SURVEY OF CANADA | COMMISSION GÉOLOGIQUE DU CANADA

YUKON GEOLOGY PROGRAM

SOUTHWEST — NORTHEAST

A

Qs — QUATERNARY
- Q — ***QUATERNARY:*** *unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluviatile silt, sand, and gravel, and local volcanic ash, in part with cover of soil and organic deposits*

Tvs — MIOCENE TO PLIOCENE AND(?) YOUNGER
- NW — ***WRANGELL LAVAS:*** *mafic to felsic volcanic rocks (1) with local conglomerate (2) **1**, rusty red-brown, phyric and non-phyric basaltic andesite flows (minor pillow lava), interbedded with felsic tuff, volcanic sandstone and conglomerate; acid pyroclastics related to intra-Wrangell intrusions; thin basaltic andesite and andesite flows **(Wrangell Lavas)** **2**, volcanic conglomerate; clasts all Wrangell derived **(Wrangell Lavas)***

Np — MID TO LATE MIOCENE
- MW — ***WRANGELL SUITE:*** *fine to medium grained, hornblende +/- biotite granodiorite and porphyritic (K-feldspar) hornblende granodiorite; medium grained, uniform biotite diorite and pyroxene gabbro; subvolcanic hornblende +/- biotite rhyolite, rhyodacite, dacite, and trachyte **(Wrangell Suite)***

Np — OLIGOCENE
- OT — ***TKOPE SUITE:*** *light pinkish-grey, medium- to coarse-grained, homogeneous, biotite and/or hornblende granite (locally miarolitic); lesser light creamy-grey biotite hornblende granodiorite, dark grey biotite hornblende quartz diorite and gabbro-diorite **(Tkope Suite)***

Tvs — PALEOCENE TO OLIGOCENE
- OA — ***AMPHITHEATRE:*** *yellow-buff to grey-buff sandstone, pebbly sandstone, polymictic conglomerate, siltstone, mudstone; minor brown-grey carbonaceous shale and thin lignitic coal; mostly fluvial and lacustrine deposits, local debris-flow deposits; some shallow marine **(Amphitheatre, Kultheith)***

Pp — EOCENE
- ES — ***SEWARD SUITE:*** *non- to weakly foliated, light to mid-brownish-grey, medium grained, biotite and hornblende-biotite tonalite and granodiorite; rarer granite and quartz diorite **(Seward Suite)***

mKp — LATE EARLY CRETACEOUS
- EKK — ***KLUANE RANGES SUITE:*** *mid-grey, medium to coarse grained, biotite hornblende granodiorite, quartz diorite, quartz monzonite, and hornblende diorite **(Kluane Ranges Plutonic Suite)***
- EKP — ***PYROXENITE CREEK ULTRAMAFIC:*** *medium grained hornblende pyroxene gabbro, and biotite hornblende diorite; olivine and hornblende clinopyroxenite **(Pyroxenite Creek Ultramafic)***

JKs — UPPER JURASSIC TO LOWER CRETACEOUS
- JKD — ***DEZADEASH:*** *clastic succession (1) but locally including undifferentiated younger strata (2) **1**, interbedded light to dark buff-grey lithic greywacke, sandstone, siltstone, thin dark grey shale, argillite, phyllite and conglomerate; rare tuff **(Dezadeash)** **2**, sandstone, conglomerate, shale, siliceous tuff; shallow-marine shelf deposits*

JKp — LATE JURASSIC TO EARLIEST CRETACEOUS
- JKS — ***SAINT ELIAS SUITE:*** *nonporphyritic and porphyritic (K-feldspar), biotite hornblende granodiorite; lesser nonporphyritic biotite and/or hornblende tonalite; locally includes biotite hornblende quartz monzodiorite, quartz diorite, granite, and quartz monzonite **(Saint Elias Suite)***

YA (YAKUTAT) — CRETACEOUS AND (?) OLDER
- KY — ***YAKUTAT:*** *greywacke and conglomerate in thick members or interbedded with siltstone, argillite, or slate; melange with blocks (to several km) of greenstone, limestone, marble, granitic rocks, chert, and greywacke in a matrix of cherty and tuffaceous pelite **(Yakutat Gp.)***

CG (CHUGACH)
- KV — ***VALDEZ:*** *dark grey argillite and greywacke: includes granitoid dykes, sills, and locally plugs, green pillow lava, breccia, and tuff; metamorphosed equivalents include brown schists, granitoid gneisses and dark green amphibolite **(Valdez Gp.)***

WR (WRANGELLIA) — UPPER TRIASSIC
- uTc — ***CHITISTONE:*** *thin interbedded light to dark grey argillaceous limestone and dark grey argillite; massive light grey limestone, limestone breccia and darker grey, well-bedded limestone; white to creamy-white gypsum and anhydrite **(McCarthy, Chitistone and Nizina limestones)***
- uTn — ***NICOLA:*** *amygdaloidal basaltic and andesitic flows, with local tuff, breccia, shale and thin-bedded bioclastic limestone; volcanic breccia, pillow lava and conglomerate at base; locally includes dark grey phyllite and minor thin grey limestone of Middle Triassic **(Nicolai Greenstone)***

PENNSYLVANIAN TO (?) LOWER PERMIAN
- CPs — ***SKOLAI:*** *volcanics succeeded upward by clastic strata (1) and including minor limestone (2) **1**, tuff, breccia, argillite, agglomerate, augite-phyric basaltic to andesitic flows (Station Cr. Fm); succeeded by thin-bedded argillite, siltstone, minor greywacke and conglomerate and local thin basaltic flows, breccia and tuff (Hasen Cr. Fm) **(Skolai Gp., Station Creek and Hasen Creek)** **2**, buff bioclastic limestone, calcarenite*

LATE TRIASSIC AND (?) OLDER
- P'Tk — ***KLUANE ULTRAMAFIC SUITE:*** *mafic to ultramafic intrusions in (?) Wrangellia terrane and (2) Alexander terrane **1**, medium grey-green, massive, medium grained, pyroxene gabbro and greenstone sills; sheeny black peridotite, rare dunite **(Kluane-type Mafic-Ultramafics, Squaw Dataseka Ranges Gabbro-Diabase Sills)** **2**, medium grey-green, massive, medium grained, pyroxene gabbro and greenstone sills; sheeny black peridotite, rare dunite **(Kluane-type Mafic-Ultramafics, Squaw Dataseka Ranges Gabbro-Diabase Sills)***

LATE PENNSYLVANIAN TO EARLY PERMIAN
- CPi — ***ICEFIELD RANGES SUITE:*** *mid- to dark greenish-grey, medium grained, nonfoliated and foliated, biotite hornblende quartz monzodiorite-quartz diorite-diorite, veined and intruded by leucocratic granodiorite and quartz syenite (agmatite); pink hornblende syenite **(Icefield Ranges Suite)***

AXp — PALEOZOIC, (?) DEVONIAN AND/OR YOUNGER
- PSC — ***STEEL CREEK SUITE:*** *massive medium- to coarse-grained, rusty grey-green hornblende pyroxene gabbro, minor medium grained gabbro-diabase and gabbro-pegmatite intrusions; rare pods of black peridotite; screens of flows, volcaniclastics, minor argillite, and rare chert **(Mt. Cairnes Gabbro-Greenstone Complex, Steel Ck-Mt Constantine Gabbro Complex)***

DEVONIAN TO UPPER TRIASSIC AND (?) OLDER
- DTi — ***ICEFIELD:*** *a grouping of diverse, dominantly upper Paleozoic partly equivalent strata subdivided into three dominant facies including pelitic rocks (1), carbonate (2) and volcanics (3) **1**, thin to medium-bedded, fine- to medium-grained, quartz-rich, micaceous, calcareous siltstone to sandstone, mica quartzite, or schist; minor interbedded phyllite, argillite and schist; rare limestone, marble, basic volcanics, and gypsum-anhydrite **2**, white to creamy-white gypsum and anhydrite; thin-bedded to massive, light grey to dark bluish-grey limestone or marble; minor dark grey calcareous argillite, calcareous siltstone-sandstone; local buff-grey crinoidal limestone **3**, dark green (locally purple), porphyritic (augite) and non-porphyritic basaltic to andesitic flows and pillow lava; local volcaniclastic sediments, agglomerate, breccia, cherty tuff, grey limestone or marble, gypsum and basic intrusions*
- DTr2

AX (ALEXANDER) — SILURIAN AND DEVONIAN
- SDB — ***BULLION:*** *a grouping of carbonate (1) and clastic (2) strata that may be in part equivalent **1**, massive to well-bedded light grey limestone or marble, thin-bedded dark grey limestone or marble; minor dark blue-grey calcareous argillite or phyllite **(Bullion Creek Limestone)** **2**, dark blue-grey argillite, phyllite, and minor greywacke siltstone-sandstone; upper part more calcareous, lower part more greywacke; locally may include massive limestone and greenstone*

LOWER ORDOVICIAN TO DEVONIAN AND (?) OLDER
- ODG — ***GOATHERD:*** *a grouping of carbonate (1) and clastic (2) strata that may be in part equivalent **1**, yellow to ochre-buff calcareous mudstone-siltstone, grey silty limestone and platy to thick bedded, cryptocrystalline limestone; local well-bedded, limestone; thick to massive-bedded limestone in upper parts of unit probably equivalent to SDb1 **(Goatherd Mtn. assem.)** **2**, dull rusty-buff or green-grey greywacke siltstone-sandstone, and argillite or phyllite; minor grit; rare limestone, pebble conglomerate; locally includes quartzite*

CAMBRIAN TO ORDOVICIAN AND (?) YOUNGER
- COD — ***DONJEK:*** *greywacke greenstone assemblage (1) with minor carbonate (2) **1**, massive to well-bedded, coarse- to medium-grained greywacke; minor siltstone-sandstone, argillite, phyllite or schist, and basic intrusions; conglomerate, basic flows (some pillowed), pyroclastics(?), and volcanic breccia; greenstone, amphibolite **(N. Alsek Ranges Greywacke-Gabbro assem., Donjek Range Greywacke-Greenstone assem., Field Creek Volcanics)** **2**, light grey to rusty brown laminated silty limestone and limy siltstone, and well-bedded limestone or marble; minor greenstone*
- COD2

B

Qs — QUATERNARY
- Q — ***QUATERNARY:*** *unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluviatile silt, sand, and gravel, and local volcanic ash, in part with cover of soil and organic deposits*

TQv — TERTIARY(?) AND QUATERNARY
- TQs — ***SELKIRK:*** *resistant, brown weathering, columnar jointed, vesicular to massive basalt flows; minor pillow basalt; basaltic tuff and breccia **(Selkirk Volcanics)***

Tvs — PLIOCENE
- Pw — ***WALSH:*** *undivided felsic volcanics (1) and conglomerate, sandstone, and mudstone (2) **1**, resistant, white weathering, massive rhyolite. **(Walsh Creek)** **2**, resistant, thick bedded to massive, well-indurated conglomerate with minor interbedded sandstone; white mudstone with interbedded gritty sandstone and minor coal **(Walsh Creek)***

Tvs — MIOCENE TO PLIOCENE
- MPMc — ***MILES CANYON:*** *dark red to brown weathering, columnar jointed pilotaxitic basalt flows, commonly amygdaloidal and vesicular; ultramafic xenoliths **(Miles Canyon Basalt)***

Tvs — LOWER EOCENE
- lES — ***SKUKUM:*** *various felsic volcanic dykes, plugs, domes, laccoliths and flows (1) and (2) **1**, flow banded rhyolite flows and breccia, andesite flows and breccia, tuff, pyroclastic and epiclastic rocks, granite conglomerate; rhyolite feldspar porphyry domes, plugs and laccoliths; feldspar +/- hornblende +/- quartz-phyric felsite dykes and plugs **(Skukum Gp. including Boudette Creek, Butte Creek, Cleft Mountain, Crozier Breccia, Crozier Tuff and Lava, Gault, Jones Creek, Lemieux Creek, MacCauley Creek, Mount Reid, Partridge Lake, Vesuvius and Watson River)** **2**, heterogeneous intermediate to felsic, hornblende-feldspar porphyritic tuff, flow breccia; volcaniclastic mudstone, sandstone and conglomerate; aphanitic to feldspar porphyritic dacite flows and dykes; flow-banded rhyolite and felsic dykes and sills **(Mount Creedon Volcanics, some strata formerly mapped as Mt. Nansen Gp.)***

Pp — EARLY TERTIARY
- ETN — ***NISLING RANGE SUITE:*** *medium to coarse grained equigranular to porphyritic rocks of intermediate composition (g), fine to coarse grained, equigranular and porphyritic granitic rocks of felsic composition (q) and felsic dyke rocks (f) **f**, orange and buff weathering light-coloured feldspar porphyry dyke and flow rocks of intermediate to acid composition **g**, biotite-hornblende granodiorite (locally K-feldspar megacrysts), quartz monzonite, quartz diorite; minor granodiorite-gneiss; hornblende and biotite hornblende diorite; biotite quartz feldspar porphyry and porphyritic biotite quartz monzonite **(Ruby Range Suite)** **q**, leucocratic, biotite granite; miarolitic alaskite; saccharoidal textured, mafic-poor biotite granite; biotite-hornblende granite to leucocratic granodiorite with sparse, white, alkali feldspar phenocrysts; biotite quartz monzonite **(Nisling Range Suite, Nisling Range Alaskite, Coffee Creek Granite, Annie Ned Granite)***

UPPER CRETACEOUS
- uKc — ***CARMACKS:*** *a volcanic succession dominated by basic volcanic strata (1), but including felsic volcanic rocks dominantly (?) at the base of the succession (2) and locally, basal clastic strata (3) (70 ma approx) **1**, augite olivine basalt and breccia; hornblende feldspar porphyry andesite and dacite flows; vesicular, augite phyric andesite and trachyte; minor sandy tuff, granite boulder conglomerate, agglomerate and associated epiclastic rocks **(Carmacks Gp., Little Ridge Volcanics, Casino Volcanics)** **2**, acid vitric crystal tuff, lapilli tuff and welded tuff including feeder plugs and necks; felsic volcanic flow rocks and quartz feldspar porphyries; green and purple massive tuff breccia with feldspar phyric fragments **(Carmacks Gp., Donjek Volcanics, some rocks formerly mapped as Mt. Nansen Gp.; the felsic part of the Carmacks Gp. is difficult to distinguish from similar Tertiary and mid-Cretaceous (Mt. Nansen) felsic volcanic strata) 3**, medium-bedded, poorly sorted, coarse- to fine-grained sandstone, pebble conglomerate, shale, tuff, and coal; massive to thick bedded locally derived granite or quartzite pebble to boulder conglomerate **(Carmacks Gp.)***
- uKW — ***WINDY-TABLE:*** *assemblage of nonmarine, coarse-grained, quartz-phyric dacite flows, ash and lapilli tuff; maroon weathering, basal sedimentary and epiclastic rocks; dacite flows and flow breccia; brown basalt flows; includes dykes of quartz feldspar porphyry (80 ma approx) **(Open Creek Volcanics)***

LATE CRETACEOUS TO TERTIARY
- LKP — ***PROSPECTOR MOUNTAIN SUITE:*** *grey, fine to coarse grained, massive, granitic rocks of felsic (q) intermediate (g) rarely mafic (d) composition and related felsic dykes (f) **d**, coarsely crystalline gabbro and diorite **f**, quartz-feldspar porphyry **q**, hornblende-biotite granodiorite, hornblende diorite, quartz diorite **(Wheaton Valley Granodiorite)** **q**, quartz monzonite, biotite quartz-rich granite; porphyritic alaskite and granite with plagioclase and quartz-eye phenocrysts; biotite and hornblende quartz monzodiorite, granite, and leucocratic granodiorite with local alkali feldspar phenocrysts **(Prospector Mountain Suite, Carcross Pluton)** **y**, syenite*

mKv — MID-CRETACEOUS
- mKN — ***MOUNT NANSEN:*** *massive aphyric or feldspar-phyric andesite to dacite flows, breccia and tuff; massive, hematitic, quartz and feldspar-phyric felsic lapilli tuff; flow-banded quartz-phyric rhyolite and quartz-feldspar porphyry plugs, dykes, sills and breccia **(Mount Nansen Gp., Byng Creek Volcanics, Hutshi Gp.)***

mKp
- mKW — ***WHITEHORSE SUITE:*** *grey, medium to coarse grained, generally equigranular granitic rocks of felsic (q), intermediate (g), locally mafic (d) and rarely syenitic (y) composition **d**, hornblende diorite, biotite-hornblende quartz diorite and mesocratic, often strongly magnetic, hypersthene-hornblende diorite, quartz diorite and gabbro **(Whitehorse Suite, Coast Intrusions)** **g**, biotite-hornblende granodiorite, hornblende quartz diorite and hornblende diorite; leucocratic, biotite hornblende granodiorite locally with sparse grey and pink potassium feldspar phenocrysts **(Whitehorse Suite, Casino granodiorite, McClintock granodiorite, Nisling Range granodiorite)** **q**, biotite quartz-monzonite, biotite granite and leucogranite, pink granophyric quartz monzonite, porphyritic biotite leucogranite, locally porphyritic (K-feldspar) hornblende monzonite to syenite, and locally porphyritic leucocratic quartz monzonite. **(Mt. McIntyre Suite, Whitehorse Suite, Casino Intrusions, Mt. Ward Granite, Coffee Creek Granite)** **y**, hornblende syenite, grading to granite or granodiorite **(Whitehorse Suite)***

EARLY CRETACEOUS
- EKgT — ***TESLIN SUITE:*** *leucocratic, fine to coarse-grained, equigranular, hornblende- biotite granite, granodiorite, quartz monzonite and quartz monzodiorite, locally with sparse grey and pink potassium feldspar phenocrysts; associated aplitic phases and dykes **(Teslin Suite)***

JKs — UPPER JURASSIC AND LOWER CRETACEOUS
- uJK1 — ***TANTALUS:*** *massive to thickly bedded chert pebble conglomerate and gritty quartz-chert-feldspar sandstone; interbedded dark grey shale, argillite, siltstone, arkose and coal; at one locality, coal has yielded red-weathering dacite to andesite flows at base **(Tantalus)***

MJp — MID-JURASSIC
- MJB — ***BRYDE SUITE:*** *undeformed granitic rocks from two plutonic bodies one of predominantly felsic (q) and the other of intermediate composition (g) **q**, medium grained, hornblende monzodiorite, hornblende-biotite quartz monzodiorite and minor hornblendite; pink, potassium feldspar megacrysts, hornblende granite to granodiorite and associated easterly trending mafic dyke swarms **(Mt. Bryde Pluton, Bennett Granite)** **g**, medium to fine grained, equigranular, leucocratic monzonite, syenite and granite and related dykes of dacite to andesite porphyry with euhedral andesine, hornblende and locally quartz in aphanitic greenish, or grey groundmass **(Teslin Crossing Stock)***

EARLY JURASSIC
- EJGA — ***AISHIHIK SUITE:*** *medium- to coarse- grained, foliated biotite-hornblende granodiorite; biotite rich screens and gneiss schlieren; foliated hornblende diorite to monzodiorite with local K-feldspar megacrysts; may include unfoliated monzonite of the Long Lake Suite **(Aishihik Suite)***
- EJL — ***LONG LAKE SUITE:*** *mostly felsic granitic rocks (q) but locally grading to syenitic (y) **q**, massive to weakly foliated, fine to coarse grained biotite, biotite-muscovite and biotite-hornblende quartz monzonite to granite, including abundant pegmatite and aplite phases; commonly K-feldspar megacrystic **(Long Lake Suite, Little River Batholith)** **y**, resistant, dark weathering, massive, coarse- to very coarse- grained and porphyritic, mesocratic hornblende syenite; locally sheared, commonly fractured and saussuritized; locally has well developed layering of aligned pink K-feldspar tablets **(Big Creek Syenite)***

LOWER AND MIDDLE JURASSIC, HETTANGIAN TO BAJOCIAN
- JL — ***LABERGE:*** *poorly jointed, medium bedded to massive arkosic sandstone and minor shale with interbeds and thick members of resistant heterolithic pebble and boulder conglomerate; recessive, dark brown weathering, thin bedded, dark brown to greenish, silty shale **(Laberge Gp.)***

LOWER JURASSIC, PLIENSBACHIAN TO TOARCIAN
- lJN — ***NORDENSKIOLD:*** *resistant, reddish brown weathering, massive, khaki-green dacite tuff with fresh plagioclase, hornblende and biotite; grades locally to pale green, punky weathering, salt and pepper textured, massive sandstone; interbedded conglomerate **(Nordenskiold Dacite)***

MESOZOIC
- Mg — ***MESOZOIC GRANITIC ROCKS UNDIVIDED:*** *poorly described granitic rocks of uncertain age including diorite, quartz monzonite, and monzonite; also in Quesnellia terrane (QN)*

LATE TRIASSIC
- LTgS — ***STIKINE SUITE:*** *coarse-grained, foliated, gabbroic hornblende orthogneiss; coarse-grained hornblende-biotite granite and granodiorite with K-feldspar megacrysts; foliated, fine- to medium-grained hornblende quartz diorite to diorite with minor biotite **(Tally Ho Leucogabbro, Friday Creek diorite)***

UPPER TRIASSIC, CARNIAN TO NORIAN
- uTAK — ***AKSALA:*** *mixed clastic-carbonate assemblage divisible into three dominant facies including calcareous greywacke (1), locally thick carbonate (2) and red-coloured clastics (3) **(Aksala)***
- uTAK2 — ***1**, brown shale, black and minor red siltstone, greenish, calcareous greywacke and interbedded bioclastic, argillaceous limestone; igneous- or limestone-clast pebble and cobble conglomerate; lahaaric debris flows; rare feldspar-augite porphyry flows **(Casca mb. of Aksala)** **2**, massive to thick bedded limestone; minor thin bedded argillaceous to sooty limestone; coarsely crystalline, massive dolostone; minor laminated chert; massive to poorly bedded, limestone conglomerate debris flows and fanglomerate **(Hancock mb. of Aksala)** **3**, red weathering, medium bedded, green and red greywacke and pebble conglomerate; red shale partings and minor interbedded, red, bioturbated siltstone; crystal-rich greywacke and shale; coarse-grained, tan to brown, massive, lithic arenite **(Mandanna mb. of Aksala)***

UPPER TRIASSIC, CARNIAN AND OLDER (?)
- uTP — ***POVOAS:*** *augite or feldspar phyric, locally pillowed andesitic basalt flows, breccia, tuff, sandstone and argillite; local clastic breccia and tuff with minor limestone; greenschist, chlorite schist, chlorite-augite-feldspar gneiss, amphibolite **(Povoas)***

MIDDLE TRIASSIC
- mTJ — ***JOE MOUNTAIN:*** *massive basalt flows; fine- to locally medium-grained feldspar and pyroxene?-phyric, pillowed andesite; variably altered massive microdiorite; heterolithic diamictite; coarse-grained and locally pegmatitic, hornblende gabbro and diorite **(Joe Mountain Volcanics)***

UPPER PALEOZOIC
- uPT — ***TAKHINI:*** *variably sheared and metamorphosed metabasite, amphibolite gneiss, tuff, wacke and marble with minor quartz mica schist and orthogneiss*

m — PROTEROZOIC TO MESOZOIC
- PMm — ***UNDIVIDED METAMORPHICS:*** *dark purplish brown staurolite cordierite biotite hornfels with relict schistose texture; quartz-sericite-chlorite schist; minor quartzite **(metamorphosed Jura-Cretaceous Dezadeash Gp.? and undivided Nisling assem.)***

WM (WINDY-McKINLEY) — DEVONIAN TO CRETACEOUS?
- PMW — ***WINDY:*** *oceanic assemblage of ultramafic rocks (1), greenstone (2), chert (3) and carbonate (4) and metamorphosed equivalents? (5)*
- PMW4 — ***1**, dun-brown weathering, dark green to black, partly serpentinized massive harzburgite and dunite **2**, sheared and foliated greenstone and related volcanic rocks; minor cherty tuff **3**, interbedded brown argillite, cherty slate and quartzite **4**, thin-bedded limestone and marble **5**, quartz-chlorite-sericite schist, epidote-actinolite greenschist, quartzite, slate, quartz-mica schist, limestone*

YTp — MIDDLE PERMIAN
- PQS — ***SULPHUR CREEK SUITE:*** *moderately to strongly foliated biotite quartz monzonite gneiss, the Sulphur Creek Orthogneiss; coarse grained, homogeneous, hornblende-biotite-bearing granite, granodiorite and quartz-monzonite with narrow foliated and mylonitic zones of the Ram Stock **(Sulphur Creek Orthogneiss, Ram Stock)***

YTKS (Klondike Schist) — CARBONIFEROUS AND PERMIAN
- CPK — ***KLONDIKE SCHIST:*** *poorly understood assemblage of metamorphosed pelitic/volcanic rocks (1) and minor marble (2), including phyllite of uncertain association (3) **1**, tan to rusty and black weathering muscovitic and/or chloritic quartzite and quartz-muscovite-chlorite schist; quartz and/or feldspar augen-bearing quartz-muscovite (+/-chlorite) schist; includes augen gneiss and amphibolite **(Klondike Schist)** **2**, resistant, white weathering, white sugary marble with a ductile flow fabric; crystalline marble **(Klondike Schist)** **3**, silvery grey muscovite chlorite quartz phyllite*
- CPK2

YTa (amphibolite) — PROTEROZOIC AND PALEOZOIC
- PPa — ***AMPHIBOLITE:*** *metamorphosed mafic rocks including amphibolite (1) and ultramafic rocks (2) of unknown association; i.e.) may belong in part or entirely to Nisling, Nasina, and Slide Mountain assemblages and (3), mafic-ultramafic intrusions within Nasina assemblage **1**, medium to dark green weathering chlorite (+/-biotite) schist, amphibolite, banded amphibolite gneiss, garnet amphibolite; minor chloritic quartz-mica schist, graphitic quartz-mica schist, quartzite, and limestone **2**, variably altered and serpentinized ultramafic rocks **3**, calcareous actinolite-plagioclase-chlorite-biotite schist, plagioclase-actinolite-chlorite schist, and lesser carbonaceous phyllite and quartzite; metamorphosed ultramafic rocks including dunite and pyroxenite, locally serpentinized*

YTp (plutonic) — LATE DEVONIAN TO MISSISSIPPIAN
- DMPE — ***PELLY GNEISS SUITE - NORTHEAST:*** *variably deformed granitic rocks of predominantly felsic (q) to intermediate composition (g) northeast of Tintina Fault **(Simpson Range Suite)** **g**, massive, resistant, medium grey weathering, blocky, dark green protomylonite and mylonite derived from hornblende granodiorite to quartz diorite; granite gneiss; **q**, resistant, medium grey weathering, porphyritic (pink K-feldspar) biotite quartz monzonite; generally fresh to weakly saussuritized, locally shattered and recemented*
- DMPW — ***PELLY GNEISS SUITE - SOUTHWEST:*** *variably deformed granitic rocks of predominantly felsic (q) to intermediate composition (g) southwest of Tintina Fault **q**, foliated medium grained, homogeneous biotite granite gneiss to biotite or hornblende granodiorite gneiss; massive to strongly foliated diorite to granodiorite gneiss; includes interfoliated amphibolite, quartz-mica schist and phyllite **(Selwyn Gneiss, Pelly Gneiss, N. Fiftymile Batholith, Moose Creek Orthogneiss)** **q**, foliated equigranular medium-grained muscovite quartz monzonite; moderately to strongly foliated K-feldspar augen-bearing quartz monzonite to granitic gneiss **(S. Fiftymile Batholith, Mt. Burnham Orthogneiss.)***

YT (YUKON-TANANA) — DEVONIAN, MISSISSIPPIAN AND(?) OLDER
- DMN — ***NASINA:*** *graphitic quartzite and muscovite quartz-rich schist (1), (3)-(5), and(?) (6) with interspersed marble (2) and probable correlative successions (7) - (9); eclogite occurrences (10) **1**, dark grey to black, fine grained graphitic and non-graphitic quartzite, grey micaceous quartzite and quartz muscovite (+/-chlorite; +/- feldspar augen) schist, locally garnetiferous; minor graphitic stretched metaconglomerate and metagrit **(Nasina assem.)** **2**, marble **(Nasina assem.)***
- DMN2 — ***3**, quartzite, micaceous quartzite, quartz muscovite (+/-chlorite; +/- feldspar augen) schist, and minor metaconglomerate and metagrit as in (1), but may locally include significant Nisling Assemblage **4**, quartzite, micaceous quartzite, quartz muscovite (+/-chlorite; +/- feldspar augen) schist, and minor metaconglomerate and metagrit as in (1), but may locally include significant Klondike Schist Assemblage **5**, black-weathering, massive, dark grey to black strongly graphitic quartzite with lesser grey micaceous quartzite and quartz mica schist; commonly shows alternating light and dark grey colour lamination **(Nasina quartzite)** **6**, biotite schist or gneiss; association uncertain, may belong to Nisling Assemblage **7**, medium green to yellow green muscovite-chlorite-actinolite-epidote-albite +/-biotite schist to quartz-rich schist, local albite porphyroblasts; green and yellow banded biotite +/-magnetite schist (metatuff?); micaceous quartzite; minor metachert **(Hazel)** **8**, hornblende-oligoclase-quartz +/-biotite +/-actinolite mafic gneiss and schist; hornblende amphibolite; sheared metaplutonic rock with interleaved quartzite and muscovite +/- biotite +/-oligoclase +/-garnet schist; bands of quartzofeldspathic melt **(Dorsey)** **9**, fine grained actinolite +chlorite-muscovite +/-epidote phyllite and schist; calcareous metavolcanic rocks; quartzite; marble; sheared felsic to intermediated metaplutonic rocks; minor calcareous green metasiltstone or metatuff and sandy metacarbonate **(Ram Creek)** **10**, eclogite*

YTNA (Nasina) — LATE PROTEROZOIC AND PALEOZOIC
- PPN — ***NISLING:*** *assemblage characterized by mica quartz feldspar schist (1) and abundant locally thick limestone members (2); (3) includes possibly equivalent strata northeast of Tintina fault **1**, dark grey to brown, biotite-muscovite-quartz-feldspar schist, quartzite and micaceous quartzite, garnetiferous; felsic chlorite-biotite orthogneiss; rare amphibolite; minor(?) two-mica gneiss and hornblende diorite gneiss; may include Nasina Assem. **(Nisling assem.)** **2**, bleached white-weathering, white to grey, coarsely crystalline, flow banded, fetid marble; graphite, chert, metabasite and calc-silicate lamina are common **(Nisling assem.)** **3**, calcareous quartz psammite, marble, calcareous chlorite-biotite schist and calcsilicate; calcareous garnet-biotite-muscovite schist, rare amphibolite; biotite-quartz-muscovite schist and lesser quartz-feldspar-muscovite augen schist (may be DMN (Nasina))*
- PPN2

C

Qs — QUATERNARY
- Q — ***QUATERNARY:*** *unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluviatile silt, sand, and gravel, and local volcanic ash, in part with cover of soil and organic deposits*

?SM? — UPPER TRIASSIC
- uTS — ***SYNOROGENIC CLASTICS:*** *resistant, massive, poorly sorted, conglomerate with pebble to cobble size clasts varying locally but including basalt, chert, mylonite, limestone, foliated hornblende granodiorite and quartz monzonite*

TRIASSIC
- uTA — ***ANVIL:*** *weakly deformed, thin bedded argillite, fine grained quartz sandstone and argillaceous limestone*

SM (SLIDE MOUNTAIN) — CARBONIFEROUS AND PERMIAN
- CPA — ***ANVIL:*** *dominantly oceanic assemblage of mafic volcanics (1), ultramafics (4), chert and pelite (2), limestone (3) and gabbroic rocks (5) **1**, variably altered and foliated, locally augite-phyric basalt (local pillows), diorite and gabbro, chloritic greenstone, amphibolitic greenstone and amphibolite; minor metachert, siliceous argillite or siltstone, greywacke, tuff, and siliceous limestone **2**, varicoloured metachert with partings or interbeds of phyllite and tuffaceous argillite; interbedded jasper red and apple green chert and cherty tuff; chert breccia; shale, minor greenstone, agglomerate, limestone, quartzite(?) and greywacke*
- CPA3 — ***3**, light grey to buff weathering, massive fine crystalline, light to dark grey limestone and minor dolomite; light grey, massive, crinoidal limestone; limestone and polymictic conglomerate; sandy limestone, cherty limestone, marble, phyllite, meta-siltstone **4**, dunite, peridotite, gabbro, pyroxenite, harzburgite and minor diorite, hornblendite and diabase; serpentinite, orange weathering quartz carbonate rock with minor green chromian muscovite, talc-carbonate schist and carbonatized ultramafic rocks **5**, dominantly diorite, quartz diorite, and gabbro with lesser pyroxene or other ultramafic rocks; variably altered and foliated; local dioritic orthogneiss **6**, eclogite*
- CPA4

CARBONIFEROUS TO PERMIAN
- CPSR — ***SWIFT RIVER:*** *black to rusty-red siliceous graphite-muscovite phyllite and interlayered black ribbon chert and black massive chert; white to black quartzite (metachert?); minor quartz-feldspar grit and sandstone; minor matrix supported chert-pebble conglomerate*

QN — UPPER TRIASSIC TO LOWER JURASSIC
- uTJS — ***SHONEKTAW:*** *augite-bearing greywacke and lesser siltstone and shale, possibly resedimented pyroclastic deposits; minor(?) augite-feldspar crystal tuff; minor volcanic breccia with clasts of augite (+/- feldspar) porphyry **(equivalent to Shonektaw, northern B.C.)***

CARBONIFEROUS
- CK — ***KLINKIT:*** *little metamorphosed assemblage divided into dominant lithologies including mafic volcanics (1), epiclastics (5), phyllite and quartzite (4) and carbonate lenses and horizons (2) dispersed within these **1**, medium to dark green to purple-grey, locally amygdaloidal or vesicular intermediate to mafic volcanic flows, flow breccias, volcanic fragmentals and tuffs; blocks of calc-silicate common in the breccias and fragmentals **2**, grey to black, fine crystalline to recrystallized, bedded, locally crinoidal and coralline, limestone and reddish dolostone with beds, lenses and nodules of white to green chert; beds and lenses of volcanic rocks; cherty limestone; **3**, epiclastic siltstone, sandstone and conglomerate; welded and siliceous, tuffaceous siltstone, sandstone and conglomerate; banded tuff and cherty tuff; ribbon chert, calc-silicate; glassy quartz grit, quartzite, shale, slate; local rapid facies changes **4**, muscovite-chlorite phyllite; impure, fine-grained quartzite and siltstone, locally limey; local massive, sheared, dark, fine grained quartzite; limestone lenses (2); in uncertain contact overlying(?) lithologically similar Road River Cassiar (Nasina)*
- CK2
- CK4

UPPER CARBONIFEROUS, LOWER AND MIDDLE PENNSYLVANIAN
- uCS — ***SEMENOF:*** *resistant, massive, dark green, altered basalt, volcanic breccia, tuff and greywacke; minor rhyolite breccia and argillite; possibly equivalent to the Klinkit assemblage? **(Semenof)***
- uCB — ***BOSWELL:*** *assemblage of recessive mixed clastic strata and minor greenstone (1), altered mafic volcanics (2), gabbro (3) and limestone (4); possibly equivalent to the Klinkit assemblage? **(Boswell)** **1**, recessive, dark weathering, slate, phyllite, greywacke chert, chert conglomerate and breccia, volcanic breccia, greenstone and limestone **(Boswell)** **2**, resistant, massive, dark green, altered basalt, volcanic breccia and greenstone; distinguished from Semenof volcanics by stratigraphic context. **(Boswell)** **3**, massive, dark weathering, coarse to medium grained, hornblende-gabbro **(Boswell)** **4**, white weathering, massive to thick bedded, resistant, grey, micritic limestone **(Boswell)***
- uCB4

MIDDLE TRIASSIC TO LOWER JURASSIC
- mTLJc — ***CACHE CREEK:*** *well bedded ribbon chert interbedded with shale, siltstone and greywacke **(Cache Creek Gp.)***

CARBONIFEROUS TO JURASSIC
- CTC — ***CACHE CREEK:*** *oceanic assemblage of ultramafic rocks (1), volcanics (2), carbonate (3) and ribbon chert (4) **1**, dark rusty to dun brown weathering, strongly magnetic, variably tectonized, serpentinized and chloritized ultramafic rocks including medium to coarse grained hornblende-pyroxene diorite gabbro, peridotite, dunite, serpentinite, and pyroxenite **(Cache Creek Gp.)** **2**, andesitic and basaltic spherulitic greenstone, locally pillowed; aphanitic, tuffaceous(?) greenstone with clasts of limestone and chert; altered volcanic rocks with numerous serpentine bodies; massive, fine grained metabasite and hornblende diorite **(Cache Creek Gp., Nakina)** **3**, massive, finely crystalline, locally crinoidal and fusiline grey limestone; limestone, limestone breccia; massive to poorly bedded, medium-grained, recrystallized white to pale yellow limestone and crinoidal bioclastic limestone; rare dolostone **(Cache Creek Gp., Horsefeed)** **4**, resistant, well-bedded, thin bedded, grey, black, red and brown chert, with lesser cherty sandstone and siltstone; minor thin limestone beds and pillow lava **(Cache Creek Gp., Kedahda)***
- CTC1
- CTC3

CC (CACHE CREEK) — DEVONIAN AND MISSISSIPPIAN
- DME — ***EARN:*** *complex assemblage of submarine fan and channel deposits (1), (5) within black siliceous shale and chert (2), (4) and including separated small occurrences of felsic volcanic rocks (3); barite cherty exhalite; and many occurrences of intrafoliform Pb-Zn **1**, thin bedded, laminated slate with thin to thickly interbedded fine to medium grained chert-quartz arenite and wacke; thick members of chert pebble conglomerate; black siliceous siltstone; nodular and bedded barite; rare limestone **(Earn Gp., Portrait Lake and Prevost)** **2**, silvery blue weathering black shale, argillite, cherty argillite and thin bedded chert; nodular and bedded barite;