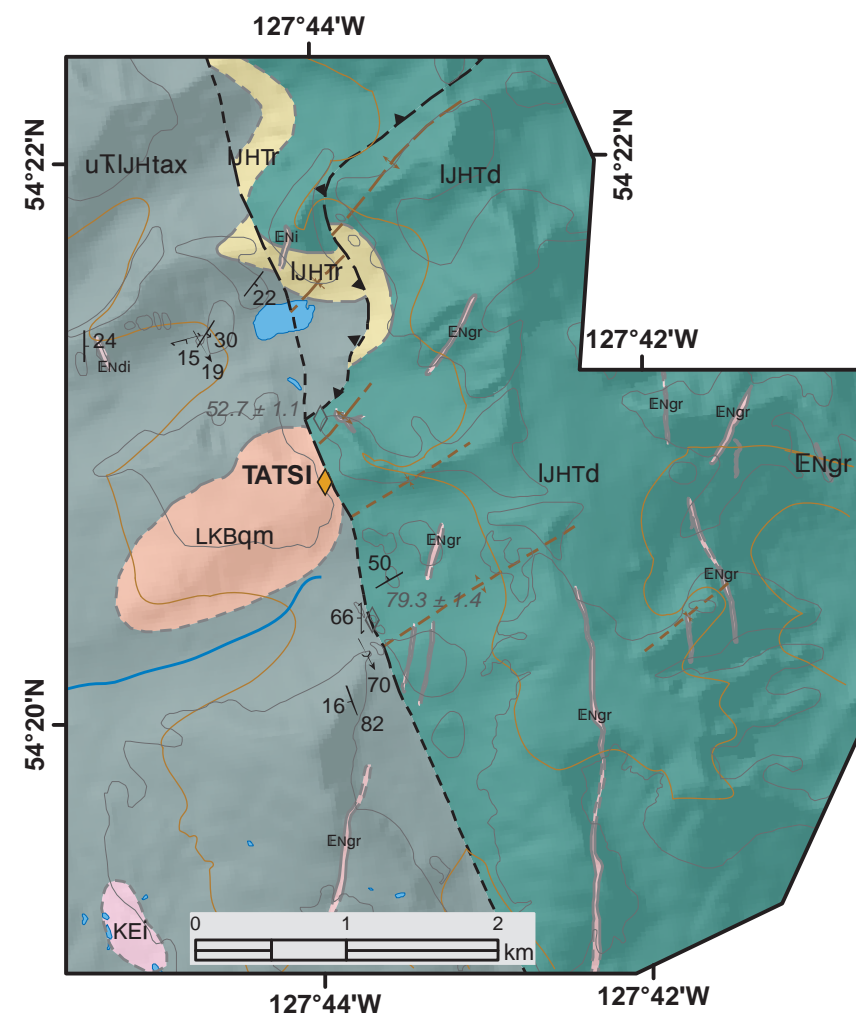


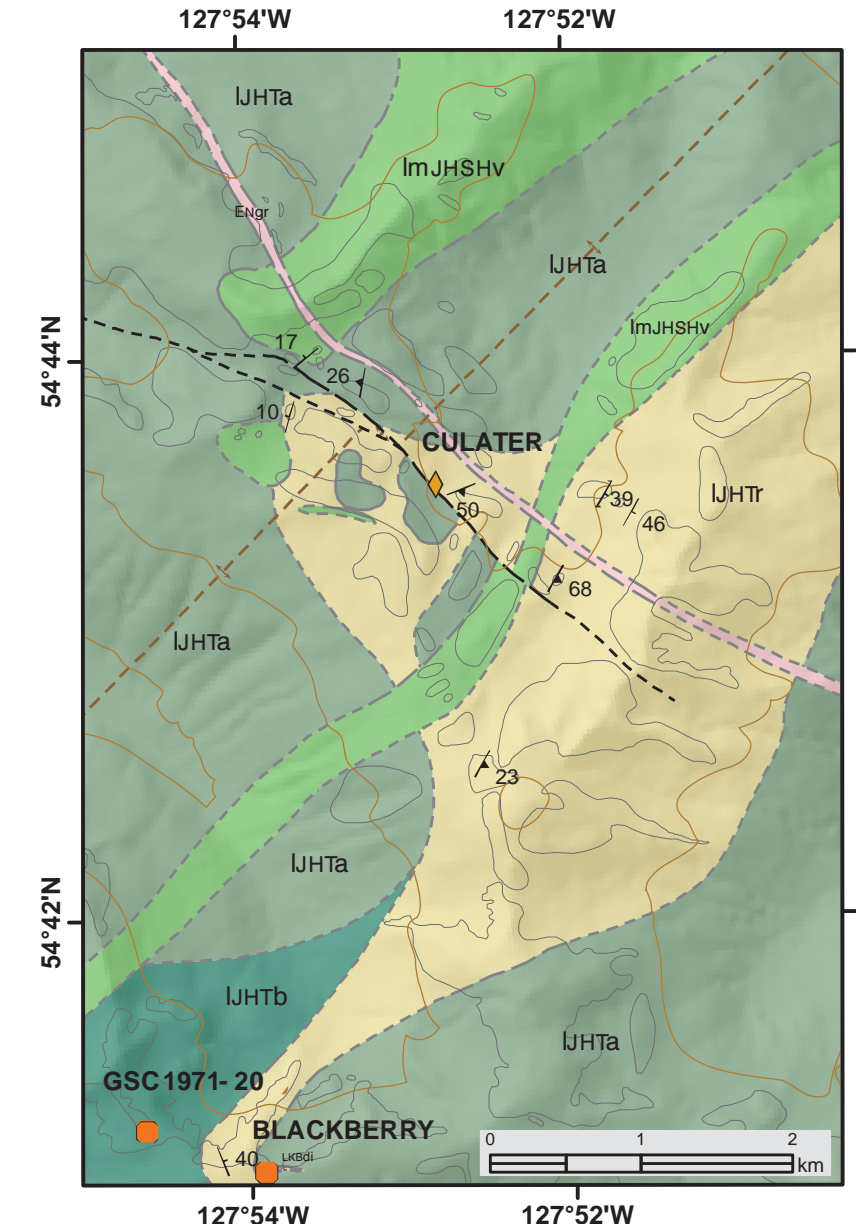


BEDROCK GEOLOGY, SEARCH PHASE I PROJECT AREA, WESTERN SKEENA ARCH, WEST-CENTRAL BRITISH COLUMBIA

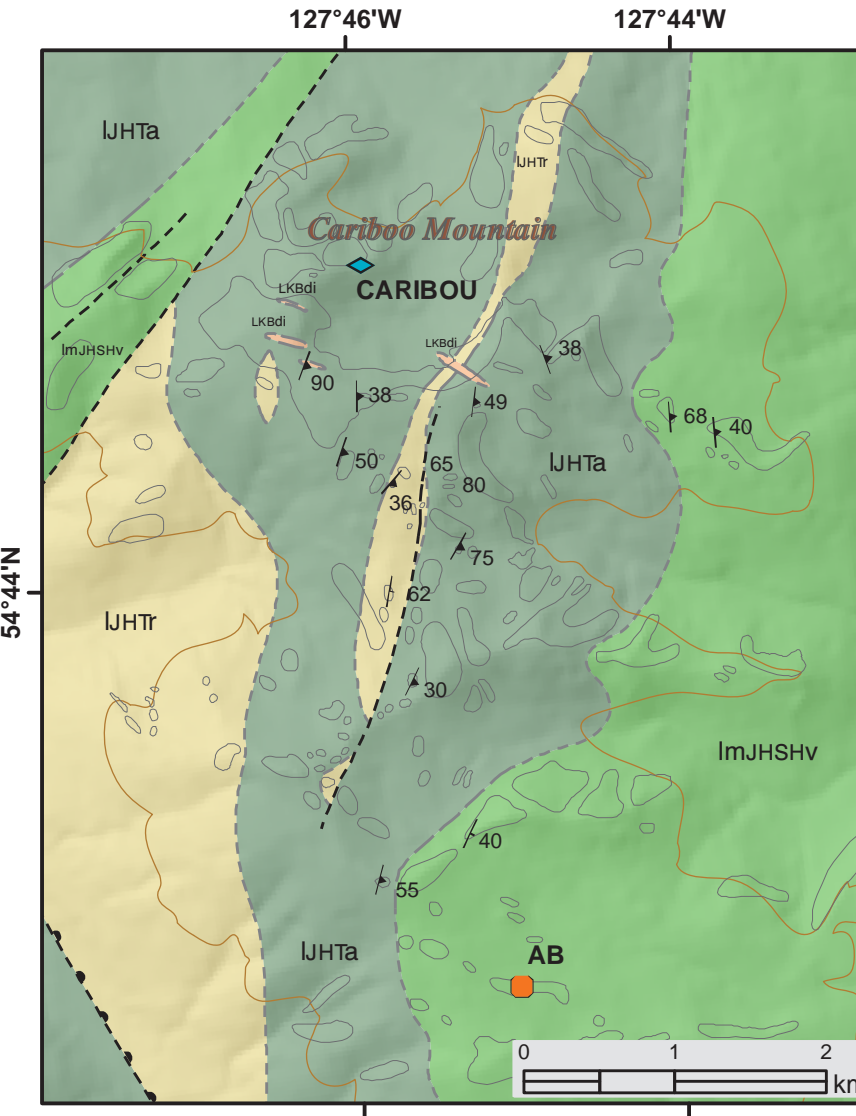
Detailed Geology of the Tatsi Creek Area



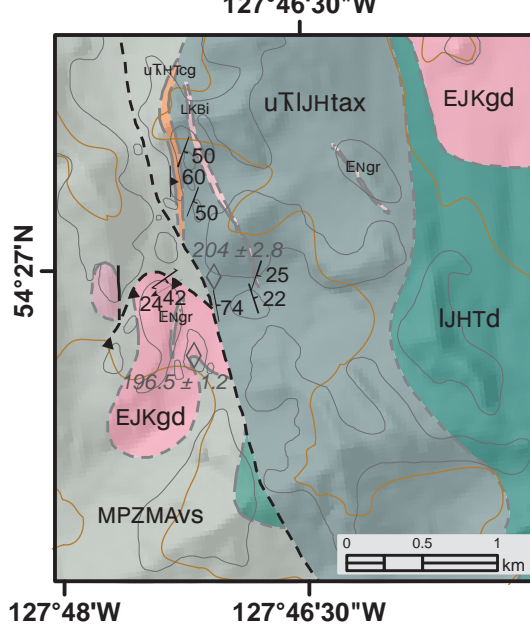
Detailed Geology of the Venture Peak Area



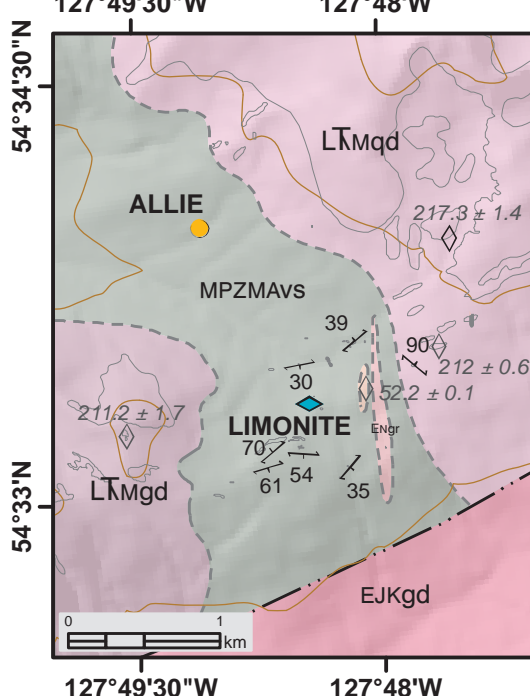
Detailed Geology of the Cariboo Mountain Area



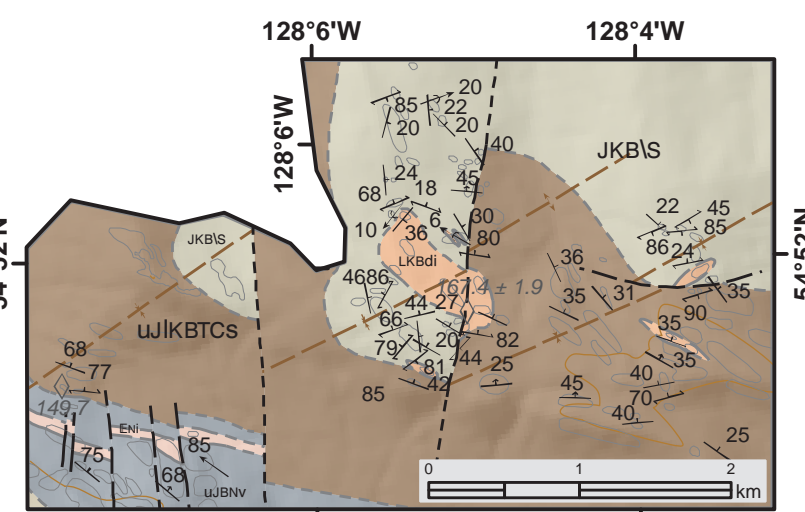
Detailed Geology of the South Outcast Peak Area



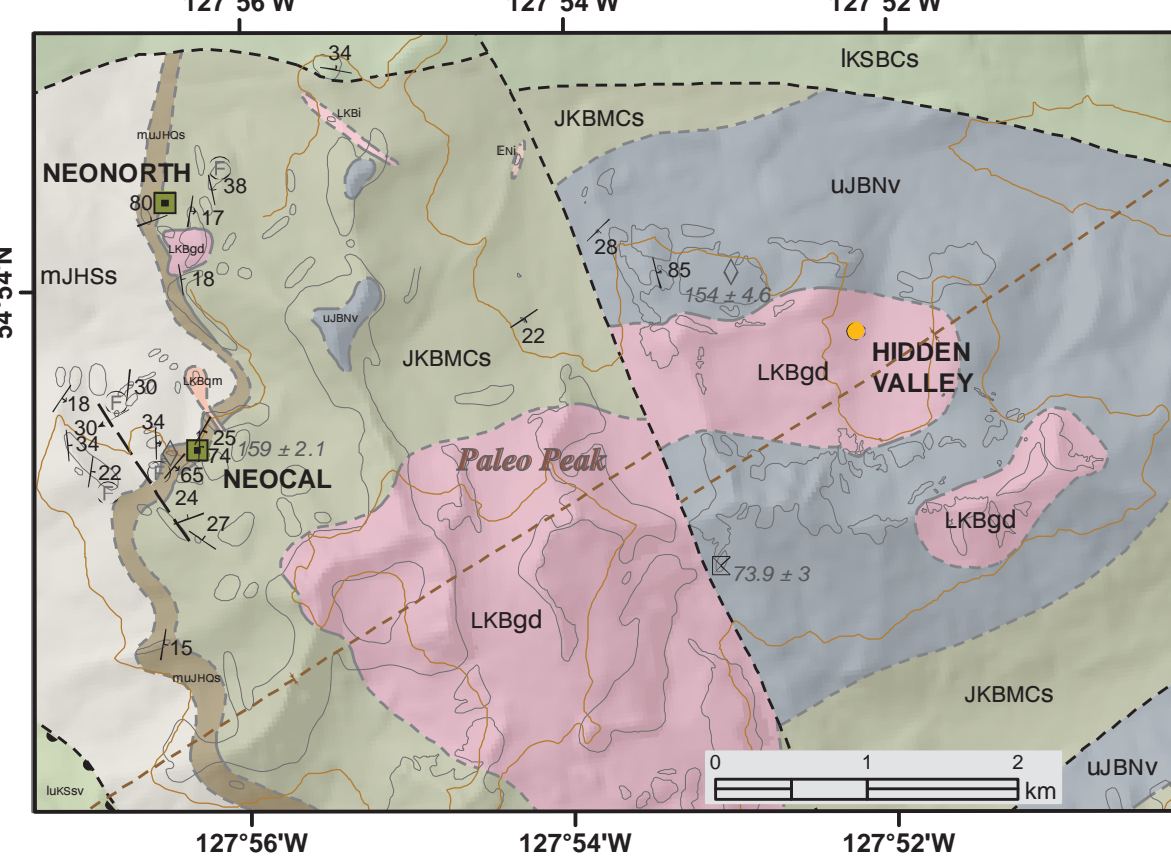
Detailed Geology of the Limonite Creek Area



Detailed Geology of the Zymo Ridge Area



Detailed Geology of the Paleo Peak Area



VOLCANIC AND SEDIMENTARY ROCKS

Lower to Upper Cretaceous

Skeena Group

Rocky Ridge Formation

Dark green-grey to brown basalt to basaltic andesite flows and breccia; augite-, plagioclase- and hornblende-phyric to aphanitic; flow-banded rhyolite to dacite domes, breccia and lapilli tuff; intercalated sedimentary rocks including sandstone, siltstone and shale

Bulkley Canyon Formation

Sandstone, siltstone, mudstone and coal; sandstone is typically medium- to thick-bedded; local flaser bedding, laminated siltstone and sandstone; abundant plant fossils; ubiquitous detrital muscovite; local chert pebble and volcanic-derived conglomerate and tuff

Bulkley Group

Undivided Bulkley Group sedimentary and volcanic rocks

Jurassic to Cretaceous

Upper Jurassic to Lower Cretaceous

Undivided Bowser Lake Group and Skeena Group sedimentary rocks

Bowser Lake Group

Trout Creek assemblage

Thick-bedded granule to boulder conglomerate, sandstone, calcareous sandstone, siltstone and shale; thick-bedded conglomerate with volcanic, plutonic and sedimentary rock derived clasts including sandstone and chert predominates; contains marine and nonmarine fossils

Natalzof volcanics

Dark grey to green feldspar- and hornblende-phyric andesite flows, breccia and tuff; intercalated mudstone, sandstone and pebble conglomerate; minor marine fossils

Muskaboo Creek assemblage

Sandstone, siltstone, and conglomerate; fine- to medium-grained, grey to brown to green sandstone in thin to thick planar beds predominates; interbedded with dark grey siltstone; rare granule to pebble conglomerate; common ripple marks, trough and hummocky cross-bedding, bivalve coquina and trace fossils

Bulkley Group

Undivided Bulkley Group sedimentary rocks

Triassic to Jurassic

Hazelton Group

Quick Formation

Thin-bedded dark grey siliceous mudstone and tan to pale pink tuff with feldspar fragments; locally massive mudstone and lapilli tuff

Smithers Formation

Tuffaceous sandstone, siltstone, shale and granule conglomerate; thin to thick planar beds of green to grey to brown sandstone and dark grey to black shale; abundant marine fossils

Saddle Hill Formation

Maroon to brick-red tuff; well-bedded crystal-lithic, ash and lapilli tuff and breccia; locally contains limestone fragments that weather recessively; minor aphanitic basalt

Nilkitkwa Formation

Well-bedded tuffaceous shale, siltstone, greywacke and limestone

Upper Telkwa Formation

Flow-banded rhyolite and dacite domes, lapilli tuff, and crystal tuff; beige, cream, red, maroon, lavender and pink; spherulites locally up to 3 cm in diameter

Lower Telkwa Formation

Red dacite tuff; well-bedded ash and lapilli tuff and breccia, rare coherent flows and welded tuff; minor rhyolite and aphanitic, vesicular basalt

Bulkley Group

Black to dark green basalt flows and breccia; pyroxene- and plagioclase-phyric

Andesitic breccia, lapilli-tuff, crystal tuff and flows; maroon to purple and plagioclase-phyric; minor basalt, dacite, rhyolite and volcanic derived sedimentary rocks

Bulkley Group

Coherent andesite flows; variably amygdaloidal and plagioclase-phyric, locally megacrystic; minor basalt and dacite

Bulkley Group

Andesitic breccia and lapilli tuff; monomict to polyomict; minor flows

Bulkley Group

Rhyolite flows and tuff; flow-banded coherent and lesser thin-bedded tuff

Bulkley Group

Polymictic conglomerate, sandstone, siltstone and lapilli tuff

Bulkley Group

Volcanic-derived sandstone, siltstone, minor conglomerate and tuff; well-bedded, green to maroon; includes well-bedded and massive reef limestone and calcareous sandstone and conglomerate

Bulkley Group

Undivided Telkwa Formation volcanic and sedimentary rocks

Upper Triassic

Stuhini Group

Argillite, siltstone and chert; black to dark grey and light grey to beige; typically thin-bedded

Mississippian to Permian

Zymoetz Group

Ambition Formation

Limestone, marble, silty limestone, calcareous mudstone, minor green and pink lapilli tuff and volcanic sandstone; locally fossiliferous

Bulkley Group

Dark green andesitic to basaltic breccia, tuff and flows; aphyric to plagioclase- and augite-phyric; minor rhyolitic and dacitic breccia and tuff; intercalated with thin-bedded limestone, marble, calc-silicate, conglomerate, sandstone and mudstone

INTRUSIVE ROCKS

Ecocene

Carpenter intrusive suite

Granodiorite to granite; coarse-grained and equigranular; titanite-, hornblende-, and biotite-bearing; minor rhyolite and andesite dyke complexes; undeformed to foliated

Nanika intrusive suite

Granite; fine-grained, plagioclase-, K-feldspar-, quartz-, biotite- and hornblende-porphyrific; beige to pale pink

Bulkley Group

Diorite to gabbro; medium- to coarse-grained, equigranular; black and white; locally pegmatitic

Undivided Nanika intrusive suite; granite, granodiorite and quartz monzonite; fine- to medium-grained, equigranular to hornblende-, biotite-, plagioclase- and/or quartz-porphyrific

Bulkley Group

Undivided Bulkley Group sedimentary and volcanic rocks

Late Cretaceous

Bulkley intrusive suite

Granodiorite and quartz diorite; fine-grained, plagioclase- and hornblende-porphyrific; light to dark grey

Diorite; fine-grained, equigranular to plagioclase-, hornblende- or pyroxene-porphyrific; typically biotite-bearing; dark green to grey

Quartz monzonite, granite, quartz diorite and diorite; equigranular, medium- to coarse-grained; white, pink and black

Undivided Bulkley intrusive suite; granodiorite, quartz diorite, quartz monzonite, granite, and diorite; fine- to medium-grained, equigranular to plagioclase-, hornblende-, biotite-, quartz-, and/or K-feldspar-porphyrific

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