



LEGEND

QUATERNARY

- Qal Recent alluvium, silt

LOWER CRETACEOUS

VALANGINIAN TO TAPTIAN
MCHARCH ASSEMBLAGE (KAr ca. 124 Ma)

- IKMv >50% volcanic rocks; amorphous olive green amygdaloidal basalt and basaltic andesite and associated breccia, tuff, and tuff breccia; locally intercalated with thin bedded siltstone, black argillite to slate

LOWER TO MIDDLE JURASSIC

SNEUMURIAN TO BATHONIAN
HAZELTON GROUP (LUPb ca. 171-191 Ma)

- ImJhs Sedimentary facies: >50% sedimentary rocks; feldspathic sandstone and siltstone; black argillite, locally with thin cross stratified calcareous sandstone to sandy limestone containing shallow water fauna; pebbles to cobble conglomeratic lapilli tuff and welded ash-flow tuff; lesser basaltic andesite and basalt flows and breccias; rare intraformational conglomerates within sedimentary sequences; rare pillow basalt; complexly interdigitated with ImJhv
- ImJhv Volcanic facies: >50% volcanic rocks; amorphous olive green amygdaloidal basalt and basaltic andesite and associated breccia, tuff, and tuff breccia; locally intercalated with thin bedded siltstone, black argillite to slate; complexly interdigitated with ImJhs includes layered mafic complex, of distally layered plagioclase and clinopyroxene rich layers, lesser pyroxene-olivine-magnetite cumulates, and abundant gabbro and aphanitic basalt
- ImJhp Volcano-plutonic complex: Characterized by 40-50% volcanic and volcanoclastic sedimentary rocks as large (0.5-10m) screens with hornblende-hornblende-biotite-bastardine pyroxene dikes to quartz dikes; locally foliated diorite and variations in texture (fine to coarse grained) and composition
- ImJhr Rhyolitic facies: Light purple to red, well stratified, thin to medium bedded, locally thick bedded to massive, rhyolitic tuff breccia, light tuff with ash and associated volcanoclastic conglomerates, sandstone, siltstone and lesser mudstone; includes rare pillow basalt
- LJhc Chatsquot layered mafic intrusion: Compositionally layered clinopyroxene gabbro, olivine gabbro, anorthositic and lesser magnetite-olivine websterite; compositionally layered >10m thick and alternate between light colored anorthositic and darker gabbro and ultramafic layers, cut by numerous andesite porphyry and rhyolite dykes with associated intrusion breccias; locally mineralized with Cu-Ni-sulfides

INTRUSIVE ROCKS

PALEOGENE

Eocene

- Erp Light pink to light grey K-spar porphyritic/megacrystic to equigranular coarse grained pink hornblende diorite to diorite granite; intrusive contacts sharp; forms prominent outcrops with distinct exfoliation planes; yields abundant white mylonite porphyry dikes

LATE CRETACEOUS TO PALEOGENE

FOUR MILE PLUTONIC SUITE (LUPb ca. 62-73 Ma)

- LKFM Muscovite-biotite granite, coarse-grained, equigranular; muscovite 0.8%; locally contains garnet, pink orthoclase megacrysts; aplitic dykes with pyramidal segregations bearing garnet and orthoclase; unfoliated except possibly at margins; forms prominent cliffs characterized by 'onion-skin' exfoliation joints

LATE CRETACEOUS

FOUNDER PLUTONIC SUITE (LUPb ca. 68 Ma)

- LKF Pyroxene-hornblende-biotite quartz diorite to granodiorite, medium to coarse-grained, equigranular to locally inequigranular with potassium feldspar megacrysts; homogeneous, distinct salt and pepper fresh appearance with conspicuous sphene

LATE JURASSIC

STICK PASS PLUTONIC SUITE (LUPb ca. 148-156 Ma)

- LJSP Hornblende-biotite quartz monzonite to granite, medium to coarse-grained; equigranular to inequigranular; distinctive mottled dark pink and light green appearance; abundant quartz, epidote veining

MIDDLE JURASSIC

TRAPPER PEAK PLUTON (LUPb ca. 170 Ma)

- MJTP Hornblende-granite to lesser biotite hornblende granite, medium to coarse-grained, equigranular to inequigranular; distinct light purple to medium pink color; coarse grained quartz, hornblende and plagioclase; plagioclase locally saussuritized to light green color; pluton locally cut by small epidote veins and numerous hornblende-andesite, basalt, and rhyolite dykes

EARLY JURASSIC

TENAIKE PLUTONIC SUITE

- JT Compositionally and texturally heterogeneous assemblage of coarse-grained pyroxene-hornblende gabbro to medium to coarse grained hornblende diorite to quartz diorite; lesser hornblende granodiorite; locally contains abundant mafic and ultramafic xenoliths and melanocratic screens ranging from a few centimetres to 10s of metres in length

SYMBOLS

- Geological contact (defined, approximate, assumed)
- Facies boundary (approximate)
- Fault, normal (defined, approximate, assumed)
- Fault, normal, down dropped on side with balls (defined, approximate, assumed)
- Fault, compressional, assumed (teeth on upthrust side)
- Shear zone boundary
- Shear zone (inclined)
- Fold axis
- Bedding (tops unknown inclined, tops known inclined, overturned)
- Igneous layering
- Flow contact
- Foliation (inclined, vertical)
- Joint (inclined, vertical)
- Dyke (inclined, vertical)
- Gossan
- Landslide scarp
- Ki-Ar age determination locality with ID number
- U-Pb age determination locality with ID number
- MINFILE occurrence with ID number
- Park boundary

MAP #	MINFILE NO	NAME	COMMODITY	STATUS	DEP CODE
1	0936 015	EARLAKE	AU, AG, CU	Showing	005.02
2	0936 010	KIM	CU, MO	Showing	L06
3	0936 117	POCOR SAM DICK	CU	Showing	006.L01
4	0936 118	POCOR SAM DISCOVERY	Zn, CU, AU	Showing	006.L01

MAP #	FIELD #	LOCATION	AGE (Ma)	MINERAL	METHOD	REFERENCE
1	85-WV-TRAP	Trapper Mtn	177.4 ± 0.7	Zircon	LUPb	1
2	HFB-05-52	Ear Lake North	170.3 ± 1.0	Zircon	LUPb	This report
3	88-BM-04	Gable Mtn West	177.1 ± 1.3	Zircon	LUPb	This report
4	85-WV-WHET	Whitcomb Peak	75.6 ± 1.1	Zircon	LUPb	1
5	78-WV-217	George Peak	124 ± 8	Hornblende	KAr	2
6	71-BM-04	Trapper Mtn	170.5 ± 0.7	Zircon	LUPb	This report
7	85-BM-04	Crested Peak	150.4 ± 0.8	Zircon	LUPb	This report
8	111-BM-04	Chatsquot Mtn	210.6 ± 1.3	Zircon	LUPb	This report

* Data from British Columbia Geological Survey Branch MINFILE Mineral Inventory
 COMMODITY abbreviations: AU = gold, AG = silver, CU = copper, PB = lead
 DEP_CODE abbreviations: 006 = Nevada/Kuroko measure type Cu-Pb-Zn, 02 = Intrusion-related Au pyrrhotite veins, 05 = Polymetallic veins Ag-Pb-Zn-Au, L01 = Subvolcanic Cu-Ag-Au (Au-Sr), L04 = Porphyry-Cu-Mo-Au
 REFERENCES
 1. van der Herten, P., 1989. U-Pb and K-Ar geochronology of the Coast Plutonic Complex, 53°N to 54°N, British Columbia, and implications for the Inular-Intermontane superterrane boundary. University of British Columbia, Ph.D. thesis, 302 p.
 2. Stevens, D.D., Debas, R.N., and Lachance, G.R., 1982. Age determinations and geological studies, K-Ar isotopic age. Report 10, Geological Survey of Canada, Paper 81-2, 96 p. (Date 85-36)

MAP #	GSC #	FIELD #	COLLECTOR	DATE	FOSSILS	AGE	IDENTIFIER	REFERENCE**
1	98207	78-WV-247	G.J. Woodsworth	1978	Bivalves, indet., Brachiopods, indet.	Triassic? Jurassic?	H.W. Tipper	This report
2	C-307252	HFB-04-Smoky Falls East	J.W. Haggart	2004	Bivalves, indet.	Jurassic?	J.W. Haggart	This report
3	C-307256	148-BM-04	J.B. Mahoney	2004	Probable holocoincidal ammonite of <i>Dumortiera</i> sp., <i>Phuronyia</i> sp., <i>Brachiopods</i> , indet.	Early Jurassic, possibly Toarcian	J.W. Haggart	JWH-2005-01
4	C-307257	HFB-04-Smoky Falls West	J.W. Haggart	2004	Bivalves, indet., <i>Phuronyia</i> (?) sp., <i>Brachiopods</i> , indet.	Jurassic?	J.W. Haggart	This report

** unpublished GSC Paleontological Report numbers

Geology by J.B. Mahoney (2004), R.L. Hooper (2004), S.M. Gordiee (2004), and J.W. Haggart (2004)

Geological compilation by J.B. Mahoney, R.L. Hooper, S.M. Gordiee, and J.W. Haggart

Digital cartography by M. Oeh and N.L. Hastings

Contribution of Geological Survey of Canada's Bella Coola Targeted Geoscience Initiative, Coalfield Energy and Minerals Project Number Y15 and British Columbia Rocks to Riches Program, Project Number 2005-032

GSC OPEN FILE 5386
GEOLOGY
FORESIGHT MOUNTAIN
(93E/03)
BRITISH COLUMBIA
 Scale 1:50 000/Echelle 1/50 000

Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

Digital base map from data compiled by Geomatics Canada modified by Geological Survey of Canada

Mean magnetic declination 2006, 20° 32' E, decreasing 15.0" annually. Readings vary from 20° 37' E in the northwest to 20° 26' E in the southeast corner of the map

Universal Transverse Mercator Projection
 North American Datum 1983
 © Her Majesty the Queen in Right of Canada 2006

Projection Transverse universelle de Mercator
 Système de référence géodésique nord américain, 1983
 © Sa Majesté la Reine du chef du Canada 2006

Elevations in metres above mean sea level
 Contour interval 100 feet

Geological contact (defined, approximate, assumed)

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Ki-Ar age determination locality with ID number

U-Pb age determination locality with ID number

MINFILE occurrence with ID number

Park boundary

93 E06	93 E08	93 E07
93 E04	93 E03	93 E02
	OF5386	OF5387
93 013	93 014	93 015



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