

PLE Pb TERTIARY (?)P Tmg PLIC PMV CRETACEC	Glacial till, alluvium, and colluvium; unit designators in parentheses are the inferred underlying bedrock units. ISTOCENE Basaltic (basanite) intrusion east of Spatsizi River (1.3 Ma, K-Ar); pillow basalt in Nass River valley. PLIOCENE Microgabbro dyke, possibly correlative with Maitland Volcanics. DCENE MAITLAND VOLCANICS: olivine basalt and minor trachyte necks (shown as coloured +) and flows; columnar jointed, with rare pillows and breccia; 5.2 to 4.6 Ma (K-Ar; dated rocks are in 104 H/5, /12, /13).		JHv JHsu JHcu	R AND LOWER MIDDLE JURASSIC HAZELTON GROUP (units JHgf–JHv) Undivided volcanic and intercalated clastic rocks of the Hazelton Group; includes units JHcu, JHmu, JHgm, JHgf. Undivided Mount Brock volcanics (units JHmm and JHmf). Undivided Spatsizi Formation. Undivided Cold Fish Volcanics.	ZOIC
PLE Pb TERTIARY (?)P Tmg PLIC PMV CRETACEC UPP	Underlying bedrock units. EISTOCENE Basaltic (basanite) intrusion east of Spatsizi River (1.3 Ma, K-Ar); pillow basalt in Nass River valley. PLIOCENE Microgabbro dyke, possibly correlative with Maitland Volcanics. DCENE MAITLAND VOLCANICS: olivine basalt and minor trachyte necks (shown as coloured +) and flows; columnar jointed, with rare pillows and breccia; 5.2 to 4.6 Ma (K-Ar; dated rocks are in 104 H/5, /12, /13).		JHsu	units JHcu, JHмu, JHgm, JHgf. Undivided Mount Brock volcanics (units JHмm and JHмf). Undivided Spatsizi Formation.	ZOIC
Pb TERTIARY (?)P Tmg PLIC PMV CRETACEC UPP	Basaltic (basanite) intrusion east of Spatsizi River (1.3 Ma, K-Ar); pillow basalt in Nass River valley. PLIOCENE Microgabbro dyke, possibly correlative with Maitland Volcanics. DCENE MAITLAND VOLCANICS: olivine basalt and minor trachyte necks (shown as coloured +) and flows; columnar jointed, with rare pillows and breccia; 5.2 to 4.6 Ma (K-Ar; dated rocks are in 104 H/5, /12, /13).		JHsu	Undivided Spatsizi Formation.	ZOIC
TERTIARY (?)P Tmg PLIC PMV CRETACEC UPP	Nass River valley. PLIOCENE Microgabbro dyke, possibly correlative with Maitland Volcanics. DCENE MAITLAND VOLCANICS: olivine basalt and minor trachyte necks (shown as coloured +) and flows; columnar jointed, with rare pillows and breccia; 5.2 to 4.6 Ma (K-Ar; dated rocks are in 104 H/5, /12, /13).		JHsu	Undivided Spatsizi Formation.	ZOIC
PMV CRETACEC UPP	Microgabbro dyke, possibly correlative with Maitland Volcanics. DCENE MAITLAND VOLCANICS: olivine basalt and minor trachyte necks (shown as coloured +) and flows; columnar jointed, with rare pillows and breccia; 5.2 to 4.6 Ma (K-Ar; dated rocks are in 104 H/5, /12, /13).			,	ZOIC
PMV CRETACEC UPP	Microgabbro dyke, possibly correlative with Maitland Volcanics. DCENE MAITLAND VOLCANICS: olivine basalt and minor trachyte necks (shown as coloured +) and flows; columnar jointed, with rare pillows and breccia; 5.2 to 4.6 Ma (K-Ar; dated rocks are in 104 H/5, /12, /13).		JHcu	Undivided Cold Fish Volcanics.	ZOIC
PLIC PMV CRETACEC UPP	DCENE MAITLAND VOLCANICS: olivine basalt and minor trachyte necks (shown as coloured +) and flows; columnar jointed, with rare pillows and breccia; 5.2 to 4.6 Ma (K-Ar; dated rocks are in 104 H/5, /12, /13). OUS		JHcu	Undivided Cold Fish Volcanics.	
PMV CRETACEC UPP	MAITLAND VOLCANICS: olivine basalt and minor trachyte necks (shown as coloured +) and flows; columnar jointed, with rare pillows and breccia; 5.2 to 4.6 Ma (K-Ar; dated rocks are in 104 H/5, /12, /13).				MESOZOIC
CRETACEC	dated rocks are in 104 H/5, /12, /13). OUS		LO	WER TO MIDDLE TOARCIAN	2
UPP			JНмm	MOUNT BROCK VOLCANICS (units JHMf and JHMm) Mafic to intermediate lava flows, mainly subaerial, and minor felsic volcanic rocks,	
C	DED LOWED AND LIDDED ODETAGEOUS		OTHVIII	limestone, and sandstone.	
	PER LOWER AND UPPER CRETACEOUS SUSTUT GROUP (units KBP and KTC) CAMPANIAN AND MAASTRICHTIAN		JHмf	Felsic volcaniclastic rocks, including welded ignimbrite, with minor mafic volcanic rocks.	
	BROTHERS PEAK FORMATION: sandstone, siltstone, conglomerate, and tuff; sandstone and siltstone are cream- and grey-weathering; tuff is cream-weathering;		PLI	IENSBACHIAN TO BAJOCIAN	
/	conglomerate in laterally continuous sheets is most common near base.			SPATSIZI FORMATION (units JHsJ-JHsQ) QUOCK MEMBER: siliceous, well bedded, (?)tuffaceous siltstone, siltstone, and limy	
KTC	APTIAN OR ALBIAN TO CAMPANIAN TANGO CREEK FORMATION: micaceous sandstone, siltstone, mudstone, and minor quartz grit and pebble conglomerate; sandstone is grey- and green-weathering,		JHSQ	siltstone; black-, cream-, rusty-, and pink-weathering.	
	occurring as laterally continuous sheets and as lenses; siltstone and mudstone are grey-, black-, and maroon-weathering.		JHSA JHSM	Lower members of Spatsizi Formation. ABOU MEMBER (JHSA): calcareous to siliceous organic shale, laminated, light-weathering. MELISSON MEMBER (JHSM):	
LOV	VER CRETACEOUS BOWSER LAKE GROUP		JHsw JHsJ	siliceous and calcareous siltstone and fine-grained sandstone. WOLF DEN MEMBER (JHsw): shale, dark grey- to black-weathering, with minor calcareous concretionary	
IKBDC	DEVILS CLAW FORMATION: conglomerate, sandstone, and siltstone; high proportion of pebble conglomerate (30–80%) in laterally continuous, grey-weathering			beds. JOAN MEMBER (JHsJ): siltstone, with minor mudstone, limestone, and local basal conglomerate.	
	sheets with large-scale crossbedding; conglomerate forms bases of fining-upward cycles with medium-grained sandstone, fine-grained sandstone, carbonaceous siltstone, and minor coal; sandstone is dark green- and grey-weathering with platy		JURASSIC TO	O TERTIARY CARTMEL STOCK	
	and trough crossbedding; fossil plants common; marine fossils absent.		JTg	Fine-grained hornblende granite, fine-grained hornblende±pyroxene quartz diorite, and medium-grained biotite-hornblende quartz monzonite.	SOIC
	AND CRETACEOUS PER JURASSIC AND LOWER CRETACEOUS BOWSER LAKE GROUP (units JKBu-JKBJc)		EARLY	Y JURASSIC	PALEOZOIC
JKBJC	JENKINS CREEK ASSEMBLAGE (nonmarine assemblage): mudstone, siltstone, fine-grained sandstone, medium-grained sandstone, and rare conglomerate and coal,		E lon	SPATSIZI RIVER STOCK	Δ.
	commonly arranged in fining-upward cycles; sandstone is grey-, green-, and brown-weathering, and occurs as laterally continuous sheets, discontinuous sheets, and lenses; lenses are planar and trough crossbedded; fossil plants abundant,		EJSR	Fine-grained alkali-feldspar granite; 190.7 +7.0/-7.8 Ma (U-Pb).	
	including in situ roots, and plants with delicate structure; marine fossils absent.			R JURASSIC HAZELTON GROUP	
JKBGG	GROUNDHOG-GUNANOOT ASSEMBLAGE (deltaic assemblage): sandstone, siltstone, and carbonaceous and calcareous mudstone, with minor conglomerate and		LO	WER PLIENSBACHIAN COLD FISH VOLCANICS (units JHce–JHcs) Subaerial mafic lava flows interbedded with felsic air-fall tuff and nonwelded	
	coal, locally arranged in fining-upward cycles; sandstone is fine- to medium-grained with planar bedding and planar-tabular crossbedding; large proportion of sandstone is thin- and thick-bedded, medium-grained, recessive drab green- or brown-weathering		JHCs	ignimbrite, minor felsic sills, welded ignimbrite, conglomerate, sandstone, shale, and subaqueous mafic lava.	
	wacke; resistant and light grey-weathering arenite is less common and forms discontinuous sheets and lenses; finer grained strata are thinly bedded and locally			Marine mafic lava and minor sandstone, shale, limestone, tuff, and subaerial mafic	
	include densely packed plant fossils; conglomerate sheets and lenses, which constitute 10% of the unit, are light grey-weathering, with large-scale crossbedding; plant fossils common and include in situ trees; marine fossils rare.		JHcm	lava. Thin units of limestone, minor siltsone, and shale are displayed on Map 2030A as JHcl.	
	SKELHORNE ASSEMBLAGE (deltaic assemblage): thinly intermixed and		JHcf	Felsic volcanic rocks, including sills, dykes, welded and nonwelded ignimbrite, air-fall tuff-breccia, and lava, with minor mafic lava and epiclastic rocks.	
JKBs	varicoloured siltstone, sandstone, and conglomerate (with or without coal), commonly arranged in coarsening- and thickening-upward cycles; common features of sandstone are parallel bedding, crossbedding, ripples, burrows, bivalve coquina, and	ZOIC		tun-breccia, and lava, with millior malic lava and epiciastic rocks.	
	brown-, green-, and grey-weathering; conglomerate is rusty- and grey-weathering, but constitutes a lower proportion (15–30%) of the unit than in the Eaglenest assemblage;	ESO	JHCe	Epiclastic and bioclastic rocks: lahar, breccia, conglomerate, sandstone, siltstone, shale, and limestone, with minor tuff and lava.	
	conglomerate units, up to 50 m thick, cap cycles up to 70 m thick, and tops locally have megaripples; plant and marine fossils are ubiquitous, and trace fossils including Skolithus and Diplocraterion are present, as are tree fragments several metres long.	Σ	PLI	IENSBACHIAN TO TOARCIAN	
			JHfv	Felsic volcanic, volcaniclastic, and epiclastic rocks: includes breccia, conglomerate, feldspathic wacke, felsic volcanic sandstone, dark mudstone, and welded lapilli, ash and dust tuffs; volcanic rocks aphyric to locally quartz-feldspar-phyric, locally	
JKBu	Undivided Bowser Lake Group.			flow-banded (ca. 183 Ma).	
JURASSIC UPP	PER MIDDLE TO UPPER JURASSIC		JHav	Andesitic volcanic breccia and conglomerate: feldspar-hornblende–porphyritic, andesitic to dacitic debris flows and lahars, with minor flows; includes intercalated green and maroon epiclastic conglomerate and crystal lithic wacke; locally altered to	
JBE	BOWSER LAKE GROUP (units JBRA-JBE) EAGLENEST ASSEMBLAGE (deltaic assemblage): conglomerate, sandstone, siltstone, mudstone, and rare coal, arranged in coarsening- and fining-upward cycles			epidote-chlorite-calcite or chlorite-calcite.	
ODE	of mudstone to pebble or cobble conglomerate; prominently rusty-weathering and 30 to 80% conglomerate; sheets of conglomerate, up to 50 m thick, include planar beds,		JHmv	Mafic to intermediate volcanic rocks: plagioclase microphyric amygdaloidal flows and pillow breccias; massive and columnar-jointed flows; local pillowed flows; includes intercalations of feldspathic wacke and siltstone.	
	tabular-planar cross-stratification and trough cross-stratification, with sets locally up to tens of metres thick; sandstone is green-, brown-, and grey-weathering, and has planar cross-stratification and hummocky cross-stratification; sparse marine fossils,		EARLY	Y JURASSIC	
	but abundant plant fossils, including silicified tree fragments.		EJd	RED STOCK AND RELATED INTRUSIONS (INCLUDES EALUE STOCK) Massive, equigranular pyroxene diorite.	
Јвмс	MUSKABOO CREEK ASSEMBLAGE (shelf assemblage): sandstone, siltstone, and conglomerate; primary lithofacies is sandstone, forming laterally continuous thin- to thick-bedded sheets; less common are siltstone interbedded with sandstone, and		Lou	wassive, equigi andiai pyroxene dionite.	
	lenses of conglomerate; sandstone is green-, brown-, and grey-weathering, thin- to thick-bedded, and locally arranged in coarsening-upward cycles; includes burrows,		EJRmd	Red Stock and related intrusions: hornblende monzonite, quartz monzonite porphyry; 203.8 ± 1.3 Ma (U-Pb); dykes (197.9 Ma, U-Pb) are hornblende-quartz diorite,	
	bivalve coquina, and other marine fossils, common ripple marks and crossbedding, and local hummocky cross-stratification; conglomerate increases in proportion and thickness upsection.		LOWE	monzodiorite, and monzonite.	
	TODAGIN ASSEMBLAGE (slope assemblage): siltstone, fine-grained sandstone, and			TTANGIAN GRIFFITH CREEK VOLCANICS (units JHgf and JHgm)	
ЈВт	conglomerate; mainly laminated siltstone and/or fine-grained sandstone, which is dark grey- to black-weathering and includes thin, orange-weathering claystone beds and syndepositional faults and folds; chert-pebble conglomerate occurs as lenses;		JHGm	Mafic lava flows, mainly with phenocrysts of plagioclase and augite or hornblende; minor welded ignimbrite and felsic sills, some hosting grains of feldspar, biotite, quartz, or hornblende.	
	marine fossils.				
JBRA	RITCHIE-ALGER ASSEMBLAGE (submarine fan assemblage): sandstone, siltstone, and rare conglomerate; approximately equal proportions of sheet-like intervals, up to		JHGf	Felsic to intermediate sills, ignimbrite and air-fall tuff, some units rich in plagioclase, biotite, hornblende, or quartz; minor epiclastic rocks and mafic lava.	
	50 m thick, dominated either by siltstone and very fine-grained sandstone, or by medium-grained sandstone; siltstone and/or fine-grained sandstone is dark grey- and black-weathering, sandstone is medium- and light-grey-weathering; abundant		LATE -	TRIASSIC TO TERTIARY	
	turbidite features (e.g. Bouma cycles, flame structures, flute-and-groove casts); conglomerate includes debris-flow units; marine fossils.		ттд	Felsic to intermediate, fine- to coarse-grained intrusive rocks.	
MID	DLE JURASSIC			R TRIASSIC TO LOWER JURASSIC	
	Grey-green metadiabase.		TJc, TJcl	CARNIAN AND (?)NORIAN TO HETTANGIAN AND/OR LOWER SINEMURIAN Conglomerate, sandstone, shale, mafic to intermediate volcanic breccia, and olistostrome; conglomerate clasts are mainly hornblende and plagioclase porphyry	
mJd	VER MIDDLE JURASSIC		NOC, NOCI	andesite, but include augite-phyric mafic lava and other volcanic rocks, felsic to intermediate granitoid rocks, and limestone (unit \(\T\)Jcl).	
			The	Undivided Hazelton Group, unit JHcu, Griffith Creek volcanics, unit TJc, and Stuhini	
LOW	BOWSER LAKE GROUP (units mJBs and mJBv) Maroon plagioclase porphyry flows and breccia, green and grey-green aphyric and		⊼Ju	Group.	
	BOWSER LAKE GROUP (units mJBs and mJBv)				
LOW	BOWSER LAKE GROUP (units mJBs and mJBv) Maroon plagioclase porphyry flows and breccia, green and grey-green aphyric and		ונד נד	Undivided Stuhini Group, unit TJc, Griffith Creek volcanics, and rare beds of limestone (unit TJI)	
LOW mJBv	BOWSER LAKE GROUP (units mJBs and mJBv) Maroon plagioclase porphyry flows and breccia, green and grey-green aphyric and plagioclase porphyry flows, breccia and tuff. Maroon sandstone and siltstone, chert-pebble conglomerate, local grey and green			Undivided Stuhini Group, unit TJc, Griffith Creek volcanics, and rare beds of limestone (unit TJI).	
LOW mJBv	BOWSER LAKE GROUP (units mJBs and mJBv) Maroon plagioclase porphyry flows and breccia, green and grey-green aphyric and plagioclase porphyry flows, breccia and tuff. Maroon sandstone and siltstone, chert-pebble conglomerate, local grey and green sandstone. HOTAILUH BATHOLITH THREE SISTERS PLUTON: mJTsg: hornblende-biotite granite. mJTsdi: hornblende		TRIASSIC UPPER		
mJBv mJBs mJTs	BOWSER LAKE GROUP (units mJBs and mJBv) Maroon plagioclase porphyry flows and breccia, green and grey-green aphyric and plagioclase porphyry flows, breccia and tuff. Maroon sandstone and siltstone, chert-pebble conglomerate, local grey and green sandstone. HOTAILUH BATHOLITH THREE SISTERS PLUTON: mJTsg: hornblende-biotite granite. mJTsdi: hornblende diorite and gabbro; 170 ± 1 Ma (U-Pb; sample site from north of map area).		TRIASSIC UPPER (?)(Ilmestone (unit TJI). R TRIASSIC CARNIAN TO NORIAN STUHINI GROUP (units uTsv, uTss, uTsl, and lmTs)	
mJBv mJBs mJTs	BOWSER LAKE GROUP (units mJBs and mJBv) Maroon plagioclase porphyry flows and breccia, green and grey-green aphyric and plagioclase porphyry flows, breccia and tuff. Maroon sandstone and siltstone, chert-pebble conglomerate, local grey and green sandstone. HOTAILUH BATHOLITH THREE SISTERS PLUTON: mJTsg: hornblende-biotite granite. mJTsdi: hornblende diorite and gabbro; 170 ± 1 Ma (U-Pb; sample site from north of map area). RLY JURASSIC EDON, ROSE, AND RELATED INTRUSIONS		TRIASSIC UPPER	R TRIASSIC CARNIAN TO NORIAN	
mJBv mJBs mJTs	BOWSER LAKE GROUP (units mJBs and mJBv) Maroon plagioclase porphyry flows and breccia, green and grey-green aphyric and plagioclase porphyry flows, breccia and tuff. Maroon sandstone and siltstone, chert-pebble conglomerate, local grey and green sandstone. HOTAILUH BATHOLITH THREE SISTERS PLUTON: mJTsg: hornblende-biotite granite. mJTsdi: hornblende diorite and gabbro; 170 ± 1 Ma (U-Pb; sample site from north of map area). BLY JURASSIC		TRIASSIC UPPER (?)0 u\text{TSV}	Ilimestone (unit TJI). R TRIASSIC CARNIAN TO NORIAN STUHINI GROUP (units uTsv, uTss, uTsl, and ImTs) Mafic lava flows, mainly aphyric to augite phyric, minor conglomerate, sandstone, mudstone, limestone, and olistostrome. Mudstone, shale, sandstone and olistostrome, with minor conglomerate, mafic lava	
mJBs mJTS	BOWSER LAKE GROUP (units mJBs and mJBv) Maroon plagioclase porphyry flows and breccia, green and grey-green aphyric and plagioclase porphyry flows, breccia and tuff. Maroon sandstone and siltstone, chert-pebble conglomerate, local grey and green sandstone. HOTAILUH BATHOLITH THREE SISTERS PLUTON: mJTsg: hornblende-biotite granite. mJTsdi: hornblende diorite and gabbro; 170 ± 1 Ma (U-Pb; sample site from north of map area). RLY JURASSIC EDON, ROSE, AND RELATED INTRUSIONS Hornblende-quartz monzonite (Edon and Rose intrusions) and		TRIASSIC UPPER (?)(R TRIASSIC CARNIAN TO NORIAN STUHINI GROUP (units uTsv, uTss, uTsl, and ImTs) Mafic lava flows, mainly aphyric to augite phyric, minor conglomerate, sandstone, mudstone, limestone, and olistostrome.	

HOTAILUH BATHOLITH

monzodiorite and granodiorite; 184 ± 8 Ma (U-Pb).

McBRIDE RIVER PLUTON: massive to weakly foliated biotite-hornblende-quartz

LEGEND HOTAILUH BATHOLITH (units LTCH, LTBCs, and LTBCd) BEGGERLAY CREEK PLUTON: LTBCs: massive biotite metasyenite. LTBCd: massive hornblende-augite metadiorite and metagabbro; 218 \pm 29 Ma (K-Ar). CAKE HILL PLUTON: foliated hornblende-quartz monzodiorite, granodiorite, monzodiorite, and quartz monzonite; 221 \pm 3 Ma (U-Pb; sample site is north of map STIKINE BATHOLITH Undivided rocks of the Stikine Batholith. LTsm: biotite-hornblende-quartz monzodiorite, monzodiorite, and diorite. LTsq: biotite-hornblende-quartz monzonite MIDDLE TO LATE TRIASSIC RAILWAY PLUTON AND RELATED INTRUSIONS Biotite-augite metamonzodiorite; 227 \pm 9 Ma (U-Pb). LOWER AND MIDDLE TRIASSIC STUHINI GROUP Metabasalt, meta-andesite, breccia, tuff, flows, phyllite, and argillite. CARBONIFEROUS TO PERMIAN CPm White marble. CPc Massive, white and grey, bedded limestone. EARLY CARBONIFEROUS MISSISSIPIAN Granodiorite, quartz diorite, diorite, quartz monzonite, and tonalite; ca. 353–342 Ma Metavolcanic and metasedimentary rock: includes green chlorite phyllite, brown IMvs phyllitic argillite, and grey-green to tan quartz-sericite schist (felsic metavolcanic rocks are ca. 342 Ma U-Pb). CARBONIFEROUS AND (?)OLDER Dark and light green phyllitic greenstone, light green and grey phyllite, minor chert, and rare limestone (may include unit IMvs). Mylonitic to massive biotite-muscovite leucogranite, leucogranodiorite, biotite-hornblende quartz diorite, and tonalite with minor hornblende-augite gabbro. Ages of tops and bottoms of JKBJC, JKBGG, and KBDC uncertain but bases of JKBJC and JKBGG are likely latest Jurassic or Early Cretaceous Hauterivian Valanginian Oxfordian Callovian 157 1 ଞ୍ଚ ∣Bathonian Bajocian Figure 1. Approximate ages and relationships of units in the Bowser Lake Group Geological boundary (defined, approximate, assumed or inferred beneath Trace of individual beds from ground observation and airphoto interpretation Fault, unknown displacement (defined, approximate, assumed or inferred beneath unit Q) . . -----Thrust fault (defined, approximate, assumed or inferred beneath unit Q); symbol on hanging-wall side Normal fault (defined, approximate, assumed or inferred beneath unit Q); symbol on downthrown side . · -----Steeply dipping fault, dip unknown (defined, approximate, assumed or inferred beneath unit Q); U on upthrown side, D on downthrown side . . . · —————— Anticline, trace of axial surface (defined, approximate, overturned); arrow on line indicates direction of plunge . Syncline, trace of axial surface (defined, approximate); arrow on line indicates direction of plunge Syncline, overturned, trace of axial surface (defined, approximate); arrow on line indicates direction of plunge Open, inclined anticline, trace of axial surface (defined, approximate); long arrow points in direction of dip of axial surface . Open, inclined syncline, trace of axial surface (defined, approximate); long arrow points in direction of dip of axial surface Bedding (horizontal, inclined, vertical, overturned) Cleavage (inclined) Maitland Volcanics necks (Pliocene) Spatsizi Plateau Wilderness Provincial Park boundary

Road, track, trail .

Previous map of entire area was by Geological Survey of Canada (1957). Eisbacher (1974) Gabrielse and Tipper (1984) Thomson et al. (1986) Koo (1986) Moffat (1985); includes many of the sections studied by MacLeod (1991), and Cookenboo (1989, 1993) Read and Psutka (1990), Read (1984) Thorkelson (1992) Ash et al. (1997) Sources of information for this compilation are mapping by C.A. Evenchick, 1985–1990, 1992; D.J. Thorkelson, 1986, 1987; P.S. Mustard, 1988, 1992; C.F. Roots, 1988; G.M. Green, 1989, 1990, (1992); and maps of the areas shown above. See Evenchick and Thorkelson (in press) for details of U-Pb and K-Ar ages. Dates in parentheses are years of publications. Other dates are years of fieldwork from which fieldnotes are the source of information. Figure 2. Sources of information REFERENCES Ash, C.H., Macdonald, R.W.J., Stinson, P.K., Fraser, T.M., Read, P.F., Psutka, J.F., Nelson, K.J., Arden,

K.M., Friedman, R.M., and Lefebure, D.V. 1997: Geology and mineral occurrences of the Tatogga Lake area; British Columbia Ministry of Energy and Mines, Open File 1997-3 (June 1998 digital version). Cookenboo, H.O. 1989: Lithostratigraphy, palynostratigraphy, and sedimentology of the northern Skeena Mountains and their implications to the tectonic history of the Canadian Cordillera: M.Sc. thesis, Univers

Columbia, Vancouver, British Columbia, 131 p. 1993: Lithofacies, provenance, and diagenesis of Jura-Cretaceous strata of the northern Bowser Basin, British Columbia; Ph.D. thesis, University of British Columbia, Vancouver, British Columbia, 216 p.

1974: Sedimentary history and tectonic evolution of the Sustut and Sifton Basins, north-central British Columbia; Geological Survey of Canada, Paper 73-31, 57 p. Evenchick, C.A. and Thorkelson, D.J.

In press: Geology of the Spatsizi River map area, north-central British Columbia; Geological Survey of Canada, Bulletin 577. Gabrielse, H. and Tipper, H.W.

1984: Bedrock geology of Spatsizi map area (104 H); Geological Survey of Canada, Open File 1005, scale Geological Survey of Canada 1957: Stikine River area, Cassiar District, British Columbia; Geological Survey of Canada, Map 9-1957, scale

Green, G.M. 1992: Detailed sedimentology of the Bowser Lake Group, northern Bowser basin, north-central British

Columbia; M.Sc. thesis, Carleton University, Ottawa, Ontario, 197 p. 1986: Geology of the Klappan coalfield in northwest British Columbia; British Columbia Ministry of Energy, Mines, and Petroleum Resources, Open File Map 1986-3, scale 1:50 000.

MacLeod, S.E. 1991: Sedimentology and paleontology of an Upper Jurassic-Lower Cretaceous shelf to alluvial plain, coalbearing sequence, northwest British Columbia, Canada; Ph.D. thesis, University of Calgary, Calgary, Alberta, 357 p.

mJBs mJBv

1985: Nature and timing of deformational events and organic-inorganic metamorphism in the Northern Groundhog coalfield: implications for the tectonic history of the Bowser Basin; Ph.D. thesis, University of

British Columbia, Vancouver, British Columbia, 204 p. 1984: Geology Klastline River (104G/16E), Ealue Lake (104 H/13W), Cake Hill (104 I/4W), and Stikine Canyon (104 J/1E), British Columbia; Geological Survey of Canada, Open File 1080, scale 1:50 000. Read, P.B. and Psutka, J.F.

1990: Geology of Ealue Lake east-half (104 H/13E) and Cullivan Creek (104 H/14) map areas, British Columbia; Geological Survey of Canada, Open File 2241, scale 1:50 000. Thomson, R.C., Smith, P.L., and Tipper, H.W. 1986: Lower to Middle Jurassic (Pliensbachian to Bajocian) stratigraphy of the northern Spatsizi area, north-central British Columbia; Canadian Journal of Earth Sciences, v. 23, p. 1963–1973.

1992: Volcanic and tectonic evolution of the Hazelton Group in Spatsizi River (104 H) map area, northcentral British Columbia; Ph.D. thesis, Carleton University, Ottawa, Ontario, 299 p.

> Recommended citation: Evenchick, C.A. and Thorkelson, D.J. 2004: Geology, Spatsizi River, British Columbia; Geological Survey of

Canada, Map 2040A, scale 1:250 000.

