

LEGEND

QUATERNARY
PLEISTOCENE AND RECENT
Q
Glacial till, alluvium, and colluvium; unit designators in parentheses are the inferred underlying bedrock units.

CRETACEOUS
UPPER LOWER AND UPPER CRETACEOUS
SUSTUT GROUP (units KTC-KBP)
CAMPANIAN AND MAASTRICHTIAN
KBP
BROTHERS PEAK FORMATION: sandstone, siltstone, conglomerate, and tuff; sandstone and siltstone are cream- and grey-weathering; tuff is cream-weathering; conglomerate in laterally continuous sheets is most common near base.
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, occurring as laterally continuous sheets and as lenses; siltstone and mudstone are grey-, black-, and maroon-weathering.

JURASSIC
UPPER MIDDLE TO UPPER JURASSIC
BOWSER LAKE GROUP (units JBT-JBc)
EAGLENEST ASSEMBLAGE (deltaic assemblage): conglomerate, sandstone, siltstone, mudstone, and rare coal, arranged in coarsening- and fining-upward cycles 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, 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, but abundant plant fossils, including silicified tree fragments.
JBc
MUSKAROO 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 lenses of conglomerate; sandstone is green-, brown-, and grey-weathering, thin- to thick-bedded, and locally arranged in coarsening-upward cycles; includes burrows, biotite oolites, and other marine fossils; common ripple marks and crossbedding and local hummocky cross-stratification; conglomerate increases in proportion and thickness upsection.
JBT
TODAGIN ASSEMBLAGE (slope assemblage): siltstone, fine-grained sandstone, and 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; marine fossils.

LOWER AND LOWER MIDDLE JURASSIC
HAZELTON GROUP
PLEIENSCHIAN TO DALJOJIAN
SPATSIZI FORMATION (unit JHsu)
Undivided Spatsizi Formation: siltstone, siliceous siltstone, calcareous siltstone, mudstone, fine-grained sandstone.

LOWER JURASSIC
HETTANGIAN
GRIFITH CREEK VOLCANICS (units JHm-JHc)
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.
JHm
Felsic to intermediate sills, ignimbrite, and air-fall tuff, some units rich in plagioclase, biotite, hornblende, or quartz; minor epiclastic rocks and mafic lava.
JHc

UPPER TRASSIC TO LOWER JURASSIC
Undivided Stuhni Group, Griffith Creek volcanics, and coarse clastic rock; the latter is primarily volcanic and granitoid conglomerate, but includes sandstone, shale, and volcanic breccia (unit TJc on adjoining maps); full description provided in Evenchick and Thorkelson (in press a).
TJ
Undivided Stuhni Group, Griffith Creek volcanics, Cold Fish Volcanics, and coarse clastic rock; the latter is primarily volcanic and granitoid conglomerate, but includes sandstone, shale, and volcanic breccia (unit TJc on adjoining maps); full description provided in Evenchick and Thorkelson (in press a).
TJu

MESOZOIC

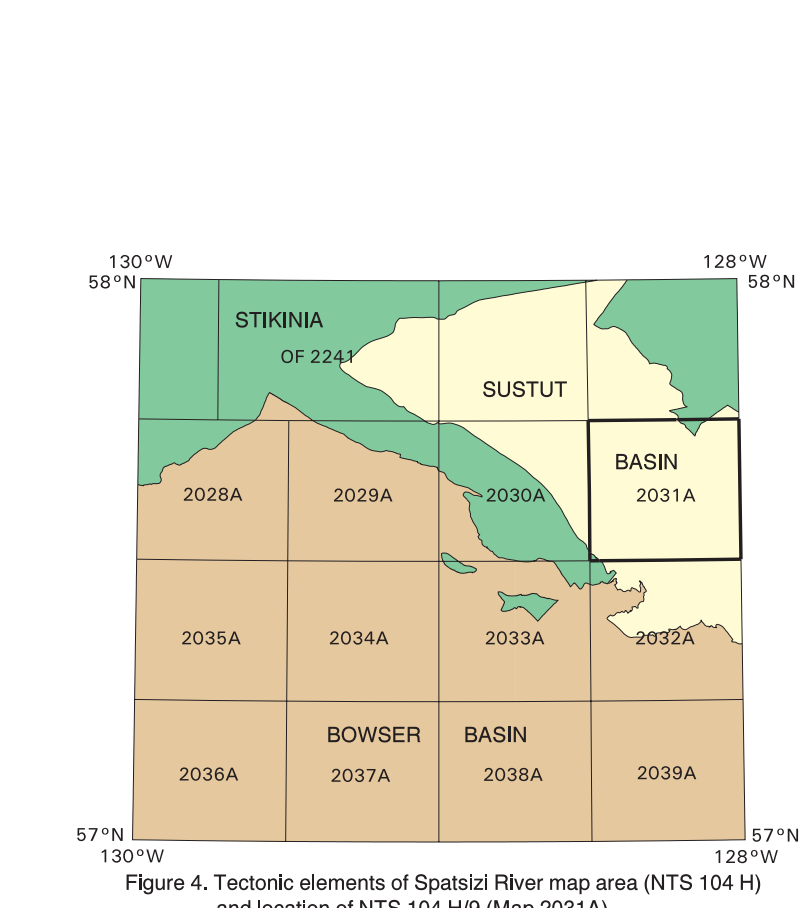
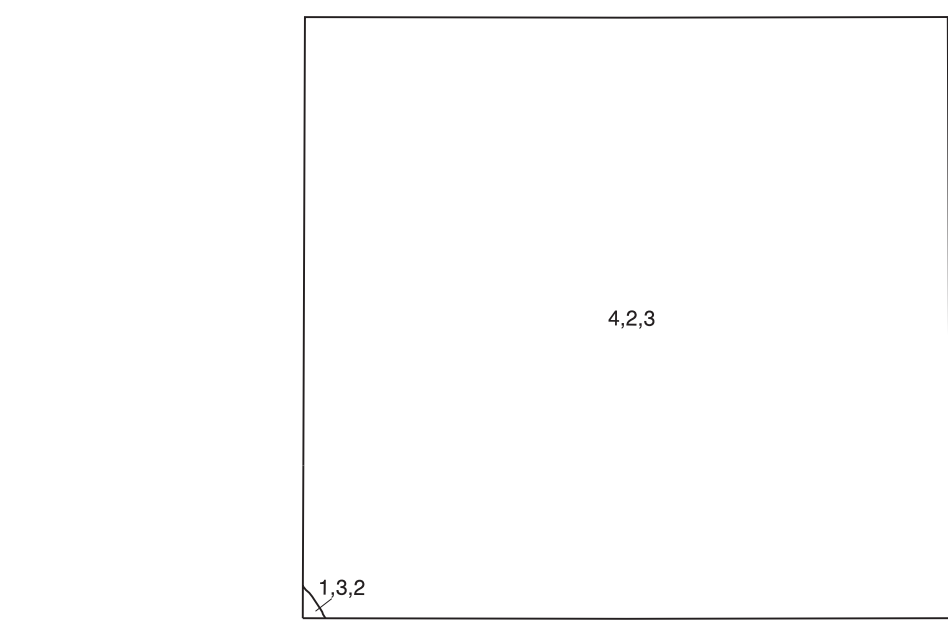
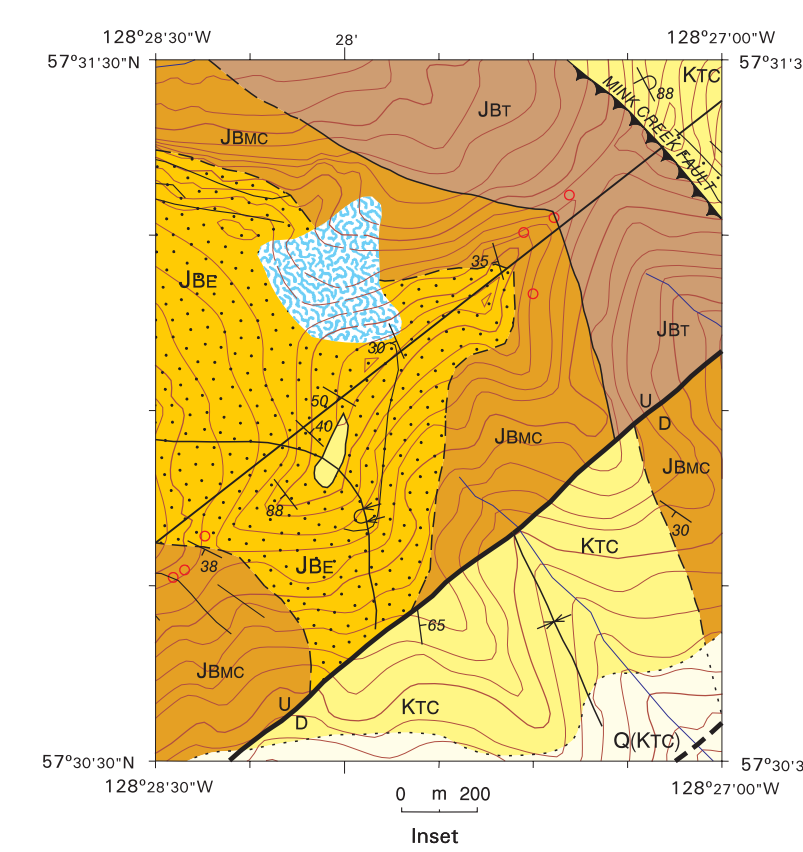
CROSS-SECTION LOCATION
The cross-sections for this map area are shown in Figures 171 and 172 of GSC Bulletin 577 (Evenchick and Thorkelson, in press b).

Bedding (inclined, overturned)
Cleavage (inclined)
Fault
Fossil location
Conglomerate
Icefield

Figure 1. Approximate ages and relationships of units in the Bowser Lake Group

Group	Unit	Age (Ma)	Southwest	Northeast
Cretaceous	Upper	97	Jenkins Creek assemblage	Jenkins Creek assemblage
	Lower	97	Devils Claw Formation	Devils Claw Formation
	Lower	145.6	Groundhog-Guanaco assemblage	Groundhog-Guanaco assemblage
	Lower	145.6	Facies relations uncertain	Facies relations uncertain
Jurassic	Upper	157.1	Muskaroo Creek assemblage	Skelthorne assemblage
	Upper	157.1	Todagin assemblage	Todagin assemblage
	Upper	157.1	Ritchie-Algar assemblage	Ritchie-Algar assemblage
	Upper	157.1	JBT	JBT

Note: not all units on this figure appear on this map; refer to Evenchick and Thorkelson (in press) for descriptions



Sources of information for this compilation are geological mapping by 1) D.J. Thorkelson, 1986, 1987, 1992; 2) C.A. Evenchick, 1985, 1988, 1989; 3) H. Gabrielse and H.W. Tipper, 1983, 1984; and 4) Eisbacher (1974). Dates in parentheses are years of publications. Other dates are years of footwork from which tectonics are the source of information.

Previous geological maps of the region are by Geological Survey of Canada (1957), Eisbacher (1974), Gabrielse and Tipper (1984), and Thorkelson (1992).

Geology of the surrounding region (NTS 104 H) and descriptive notes are given by Evenchick and Thorkelson (in press).

REFERENCES

Eisbacher, G.H.
1974: Sedimentary history and tectonic evolution of the Sustut and Sitton basins, north-central British Columbia. Geological Survey of Canada, Paper 725, 51 p.

Evenchick, C.A. and Thorkelson, D.J.
In press a: Geology of Spatsizi River, British Columbia. Geological Survey of Canada, Map 2040A, scale 1:250 000.
In press b: Geology of the Spatsizi River map area, north-central British Columbia. Geological Survey of Canada, Bulletin 577.

Gabrielse, H. and Tipper, H.W.
1984: Struc-tural geology of Spatsizi map area (104 H). Geological Survey of Canada, Open File 105, scale 1:125 000.

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1957: Spatsizi River area, Cassiar District, British Columbia. Geological Survey of Canada, Map 9-1957, scale 1:253 440.

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

Circle of this map may be obtained from the Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario K1A 0E8, 3303-3366 Street, N.W., Calgary, Alberta T2S 2A7, 101-605 Robson Street, Vancouver, B.C. V6B 5Z3

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

LOCATION MAP

MAP 2031A
GEOLOGY
DAWSON RIVER
BRITISH COLUMBIA
Scale 1:50 000/Echelle 1/50 000

Universal Transverse Mercator Projection
North American Datum 1927
© Her Majesty the Queen in Right of Canada 2004

Projection transverse universelle de Mercator
Système de référence géodésique nord-américain, 1927
© Sa Majesté la Reine du chef du Canada 2004

Mean magnetic declination 2004, 23°47' E, decreasing 15.6' annually

Elevations in feet above mean sea level

Contour interval 100 feet

Digital base map from data compiled by Geomatics, modified by ESS info

104 H15	104 H16	94 E13
104 H10	104 H9	94 E12
2030A	2031A	
104 H7	104 H8	94 E5
2033A	2032A	