

CENOZOIC

TERTIARY

Tertiary

Tph PORCUPINE HILLS FORMATION - thick, cross-bedded, fine- to medium-grained, buff-weathering, grey sandstone; cross-bedded, friable, medium to dark grey mud shale; minor fine-grained pedogenic limestone (non marine).

MESOZOIC AND CENOZOIC

CRETACEOUS AND PALEOGENE

UPPER CRETACEOUS AND PALEOGENE

KTwc WILLOW CREEK FORMATION - soft, massive to crossbedded grey lithic wacke; mudshale grey, green, medium to very thickly bedded, multistoried, fine grained, massive to crossbedded sandstone; massive, rubbly shale; carbonaceous shale.

MESOZOIC

CRETACEOUS

MAASTRICHTIAN

Ksmr ST. MARY RIVER FORMATION - sandstone, rootlets common; grey to greenish grey silty shale and shale; carbonaceous shale; limestone ("ironstone"); coal.

Kbp BEARPAW FORMATION - dark, rubbly, grey-brown shale; fine to very fine grained sandstone; bentonite.

CAMPANIAN

Belly River Group (Kcc, Klb and Kdw)

Kbr BELLY RIVER GROUP (undivided)

Kdw DRYWOOD CREEK FORMATION - rubbly grey shale; fine grained flaser to wavy bedded sandstone; carbonaceous shale; coal.

Klb LUNDBRECK FORMATION - medium to very thickly bedded, multistoried, medium to coarse grained, light to very light grey sandstone; grey to light green shale, calcite nodules common; granule conglomerate; calcite harpans; dark grey carbonaceous shale.

Kcc CONNELLY CREEK FORMATION - medium bedded, multistoried, current rippled, fine grained, dark grey sandstone; grey to olive green shale; basal sandstone is medium to fine grained, massive to very thickly crossbedded quartz arenite.

SANTONIAN

Kdhc PAKOWKI FORMATION - coarsening and thickening upward, dark grey shale with black chert pebbles to shale interbedded with thin to medium bedded, fine to very fine grained, parallel to current rippled to hummocky cross-stratified sandstone, trace fossils common.

MILK RIVER GROUP (Ktc to Kdhc)

Kvr DEADHORSE COULEE FORMATION - thinly to thickly interbedded, medium grained, massive and crossbedded greenish-grey sandstone; fine grained current rippled sandstone; rubbly, greenish, silty shale; plant debris.

Ktc VIRGELLE FORMATION - massive to very thickly crossbedded, fine to medium grained, light grey sandstone, prominent cliff and ridge former.

TELEGRAPH CREEK FORMATION - coarsening and thickening upward, fine to very fine grained sandstone; siltstone, occasionally nodular; dark grey shale.

TURONIAN TO SANTONIAN

ALBERTA GROUP (Kbk to Kwp)

Kwp WAPIABI FORMATION - dark grey shale; silty shale; calcareous shale; concretions, minor benthonic shale.

Kcr CARDIUM FORMATION - basal granule conglomerate; fine to coarse grained quartz sandstone; sandy to silty shale; fossil burrows; minor limestone concretions.

Kbk BLACKSTONE FORMATION - dark grey shale; silty shale; very fine grained tufaceous sandstone, minor limestone.

BLAIRMORE GROUP (Kda to Kcv)

Kcv CROWNSNEST FORMATION - agglomerate; red, green, yellow, and brown shale; green and grey tufaceous sandstone; minor trachytic flows.

Kmc MILL CREEK FORMATION - grey arenite and shale.

Kbm BEAVER MINES FORMATION - grey and greenish grey sandstone; green, silty mudstone; minor red mudstone.

Kgd GLADSTONE FORMATION - grey quartz arenite and shale; calcareous member at top.

Kda DALHOUSIE FORMATION - Basal sandstone member: light grey, medium to very coarse grained quartz arenite.

UPPER JURASSIC AND LOWER CRETACEOUS

KOOTENAY GROUP

JKmm MIST MOUNTAIN FORMATION - dark grey and black carbonaceous shale; fine to coarse grained, dark grey, carbonaceous quartz arenite; coal.

MAP SYMBOLS

Outcrop (small, large, scattered, debris)

Geological boundary (defined, approximate, assumed)

Change in stratigraphic nomenclature

LOCAL STRUCTURES (see Note)

PLANAR STRUCTURES

Bedding, tops known (inclined, overturned, upright)

Bedding, tops unknown (inclined, vertical, horizontal)

Bedding from Hage (1945)

Cleavage, first phase (inclined)

Minor reverse motion fault (inclined)

Fold axial plane (inclined)

Joint (inclined)

Vein (inclined)

LINEAR STRUCTURES

Fold axis (anticline, syncline)

REGIONAL STRUCTURES

Thrust fault (teeth indicate dip direction, east-directed)

Backthrust fault (teeth indicate dip direction, west-directed approximate) (defined, approximate, assumed)

Backthrust shear zone (teeth indicate dip direction, west-directed)

Anticline (defined, approximate, assumed)

Syncline (defined, approximate, assumed)

Overturned anticline (defined, approximate, assumed)

Overturned syncline (defined, approximate, assumed)

Overturned syncline, limbs dip in different directions (approximate)

OTHERS

Well, dry and abandoned

Sand and gravel pits

Fossil locality

Note: Local structures (this study, in black) measured at nearest locations indicated by "small outcrop" symbols. Structures taken from Hage (1945), in purple color, are plotted directly at outcrop locations.

LIST OF WELLS

UWID	FULL NAME	RIG RELEASE	SURFACE LOCATION (Easting, Northing)
1 100063000801W500	CALSTAN C&E COW CREEK 6-30-8-1	31 Jul 1985	707011, 5506475

REFERENCES

Hage, C.O. 1950. Cowley, Alberta. Geological Survey of Canada, Map B16A, scale 1:63,360.

Geology by G.S. Stockmal and D. Lebel, based on fieldwork and studies of vertical air photographs, 1966, 1967, 2002. Contribution to the Eastern Cordillera NATMAP project

Contributions by D. Kisilevsky

Geological cartography by S. J. Hinds and G.S. Stockmal

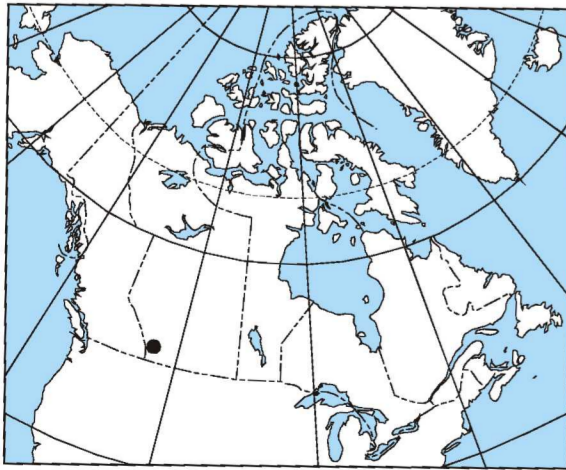
Any revisions or additional geological information from the user would be welcomed by the Geological Survey of Canada

Base map at the same scale published by Surveys and Mapping Branch in 1978

Copies of the topographical edition of this map area may be obtained from the Canada Map Office, Department of Natural Resources, Ottawa, Ontario

Recommended citation:

Stockmal, G.S., and Lebel, D. 2003. Geology, Blairmore (East Half - 82G/9E). Geological Survey of Canada, Open File 1653, scale 1:50 000.



NATMAP CARTNAT
Canada's National Geoscientific Mapping Program
Le Programme national de cartographie géoscientifique du Canada

GEOLOGY
BLAIRMORE
(EAST HALF - 82G/9E)
ALBERTA

Scale 1:50 000 Échelle 1/50 000

Kilometres 1 2 3 Kilometres
Universal Transverse Mercator Projection
Projection transverse universelle de Mercator
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1653
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2003

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82G/7 FLATHEAD RIDGE MAP 1154A MAP 1898A OF 4924 82G/8	82G/8 BEAVER MINES OF 1653 82G/8	82H/15 BROCKET GSC Open File 3289 82H/15

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX TO ADJOINING GEOLOGICAL SURVEY OF CANADA MAPS

