

Scale 1:50,000

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

Printed by the Surveys and Mapping Branch, 1980

*Geology by H.R. Bawkill, R.A. Price, D.G. Cook and E.W. Mountjoy based on studies of vertical air photographs, and on air and ground observations by J.D. Atkies, H.R. Bawkill, D.G. Cook, E.W. Mountjoy and R.A. Price (1964-1967) in northeastern part of area, modified after Cook (1975); in vicinity of Mount Burgess, modified after McIlreath (1977); in remainder of area, modified after Bawkill (1969)*

Cook, D.G.: Geology of the Main Ranges of the Rocky Mountains from Vermilion Pass to Blaeberry River and Bow Lake, British Columbia-Alberta; Geological Survey of Canada, Map 1368A (1975).

McIlreath, I.H.: Stratigraphic and sedimentary relationships at the western edge of the Middle Cambrian Carbonate facies belt, Field, British Columbia; unpublished Ph.D. thesis, The University of Calgary, Calgary, Alberta (1977).

LEGEND

EASTERN MAIN RANGES ONLY

PLEISTOCENE AND RECENT	
Qsi	Snowfields and glaciers (boundaries replotted from vertical air photographs)
Qd	Till, alluvium, colluvium; gravel, sand, silt (shown only where bedrock is extensively reworked)

CAMBRIAN AND ORDOVICIAN	
UPPER CAMBRIAN AND LOWER ORDOVICIAN	
McKAY GROUP (Є0mk1 - Є0mk5)	
Є0mk5	<i>Slate and calcareous slate, grey and pale greenish grey; nodules and thin interbeds of micritic limestone</i>
Є0mk4	<i>Limestone, medium grey, micritic; dolomitized equivalents; interbeds of greenish-grey slate and calcareous slate</i>
Є0mk3	<i>Slate and calcareous slate, green to medium grey-green; sparse nodules and interbeds of grey micritic limestone</i>
Є0mk2	<i>Limestone, medium grey, micritic, partly dolomitic; interbedded with greenish-grey slate and calcareous slate</i>
Є0mk1	<i>Slate and calcareous slate, light to medium grey; sparse limestone nodules; orange weathering</i>

CAMBRIAN	
UPPER CAMBRIAN	
Go	<p><b>OTTERTAIL FORMATION:</b> limestone, medium dark grey, micritic; very finely crystalline dolomite bands and laminations; locally arenaceous (quartz); thick bedded</p>
Echu	<p><b>CHANCELLOR FORMATION (upper part):</b> transitional unit: limestone, medium to dark grey, micritic, interbedded with light green to yellowish green slate and calcareous slate</p>
Echuu	<p>Upper unit: slate, and calcareous slate, yellowish grey to greenish grey, sparse nodules and thin interbeds of grey micritic and oomicritic limestone</p>
Echum	<p>Middle unit: slate and calcareous slate, greenish grey, interbedded with limestone, grey, micritic, oolitic and calcarenite</p>
Echui	<p>Lower unit: slate and calcareous slate, yellowish grey to greenish grey, sparse nodules and thin interbeds of micritic and oomicritic limestone</p>

**Echm** MIDDLE AND UPPER CAMBRIAN  
CHANCELLOR FORMATION (middle part): slate  
medium green; sparse calcareous laminations;  
reddish brown weathering

CAMBRIAN AND ORDOVICIAN  
UPPER CAMBRIAN AND LOWER ORDOVICIAN

60mk McKAY GROUP: undivided

CAMBRIAN  
UPPER CAMBRIAN  
Cebu CHANCELLOR FORMATION (upper part): undivided

MIDDLE AND UPPER CAMBRIAN

€chm	CHANCELLOR FORMATION (middle part): undivided
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Upper unit: cleaved argillaceous limestone  
some shale

Lower unit: slate with thin beds of silty dolomite

**MIDDLE CAMBRIAN**

**Chl** **CHANCELLOR FORMATION** (lower part): cleaved argillaceous limestone with irregular interbeds of brown and greenish brown shale and brown argillaceous dolomite

LOWER CAMBRIAN

Egg GOG GROUP: in structure section only

UPPER PROTEROZOIC (HADRYNIAN)  
WINDERMERE SUPERGROUP

Facies change (assumed) .....	
Facies change (assumed projection under cover of younger deposits) .....	
Rock outcrop studied in field .....	
Geological boundary (defined, approximate, assumed) .....	
Geological boundary (assumed projection under cover of younger deposits) .....	
Bedding, tops known (inclined, overturned) .....	
Bedding, tops unknown (inclined, vertical) .....	
Cleavage (inclined, vertical) .....	
Thrust fault (teeth on overthrust side; approximate, assumed) .....	
Thrust fault (assumed projection under cover of younger deposits) .....	
Thrust fault (overturned, teeth on overthrust side; approximate, assumed) .....	
Gravity fault (solid circle indicates downthrow side; approximate, assumed) .....	
Gravity fault (assumed projection under cover of younger deposits) .....	
Deformed sills and/or dykes of syenite and pyroxenite .....	
Anticline trace of axial surface, defined, approximate .....	
Anticline (assumed projection under cover of younger deposits) .....	
Syncline (overturned, trace of axial surface, defined, approximate) .....	
Syncline (trace of axial surface, defined, approximate) .....	
Syncline (assumed projection under cover of younger deposits) .....	
Syncline (overturned, trace of axial surface, defined, approximate) .....	
Fossil locality, GSC catalogue number .....	
Line of section .....	
Low-grade hornfels metamorphism .....	

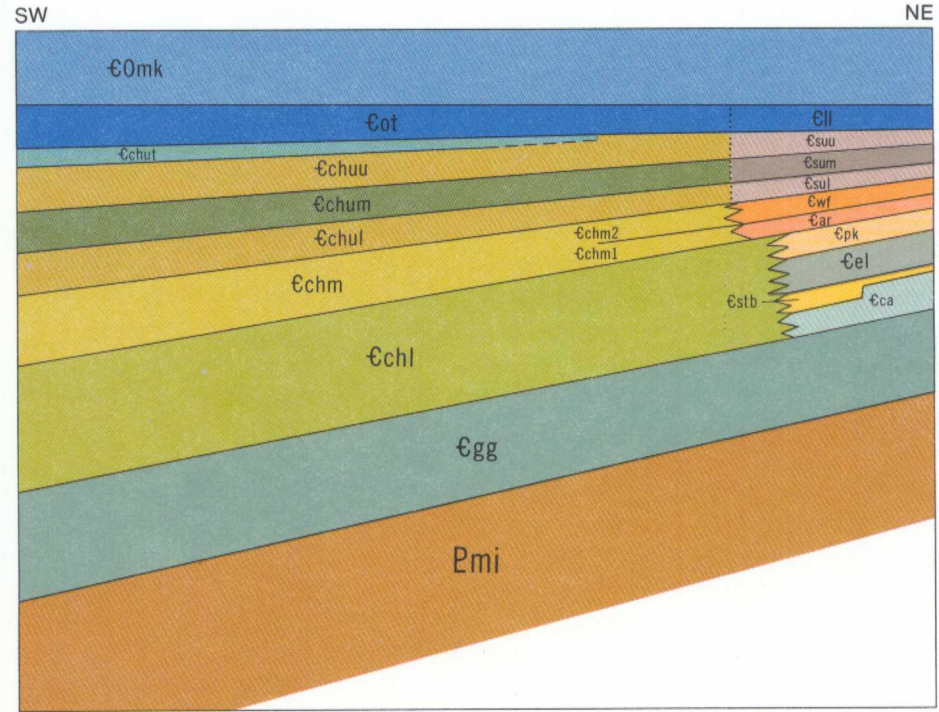
## REFERENCES

Balkwill, H.R.: Structural analysis of the Western Ranges, Rocky Mountains, near Golden, British Columbia; unpublished Ph.D. thesis; The University of Texas, Austin, Texas (1969).

Cook, D.G.: Geology of the Main Ranges of the Rocky Mountains from Vermilion Pass to Blaeberry River and Bow Lake, British Columbia-Alberta; Geological Survey of Canada, Map 1368A (1975).

McIlreath, I.H.: Stratigraphic and sedimentary relationships at the western edge of the Middle Cambrian Carbonate facies belt, Field, British Columbia; unpublished Ph.D. thesis, The University of Calgary, Calgary, Alberta (1977).

## SCHEMATIC STRATIGRAPHIC RELATIONSHIPS



Geological cartography by G.S. Whitman, Institute of Sedimentary and Petroleum Geology, Geological Survey of Canada

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

Base map at the same scale published by the Surveys and Mapping Branch in 197

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Elevations in feet above mean sea level

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MAP 1496A  
**GOLDEN**  
(East Half)  
**BRITISH COLUMBIA**

1496A