WASHINGTON STATE DEPARTMENT OF
Natural Resources
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DIVISION OF GEOLOGY AND EARTH RESOURCES
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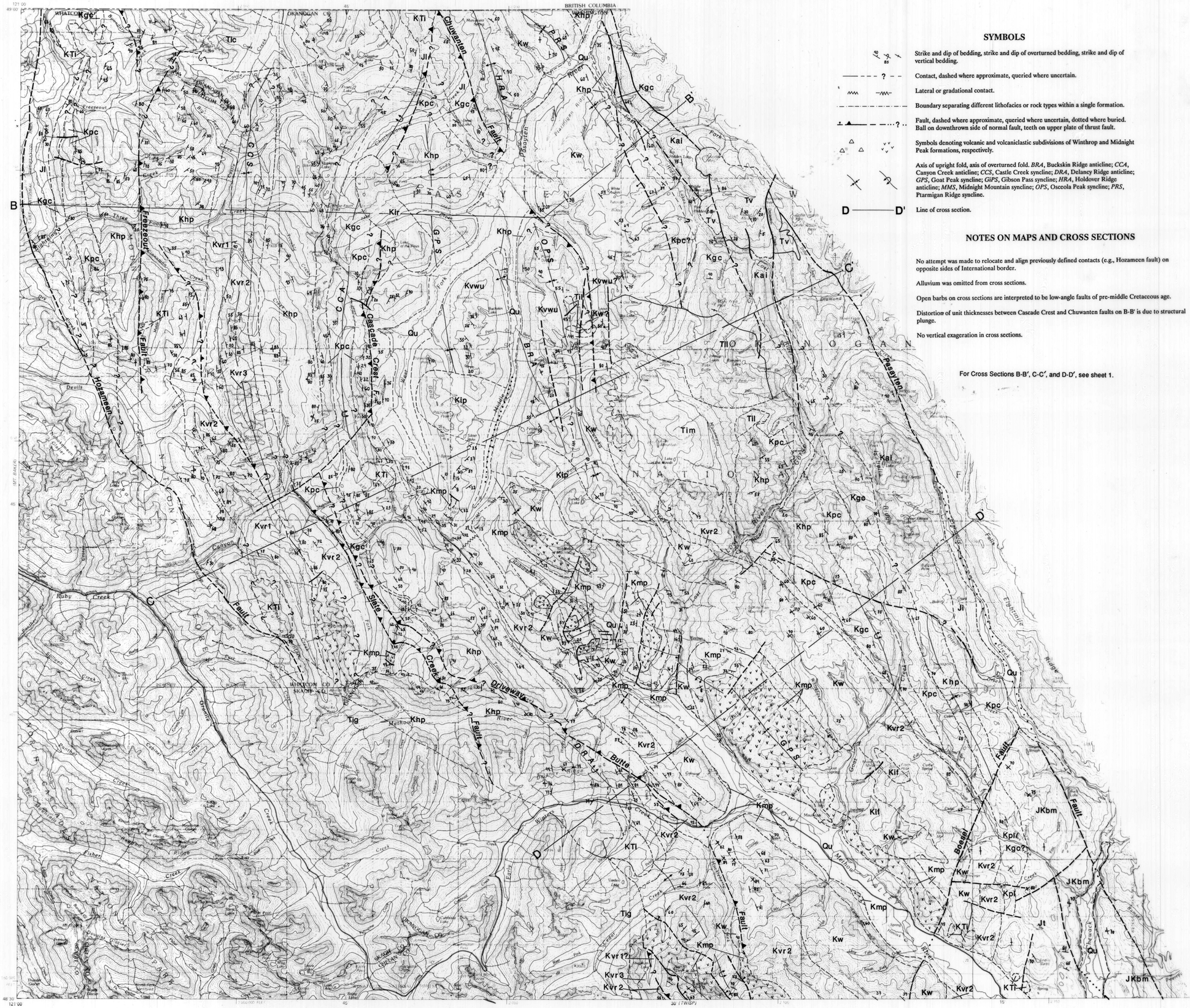
OPEN FILE REPORT 90-19
Map Sheet 2 of 3



GEOLOGIC MAP OF THE METHOW BASIN FROM 48°30′N TO 49°N

by
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1988

SYMBOLS

Strike and dip of bedding, strike and dip of overturned bedding, strike and dip of vertical bedding.

Contact, dashed where approximate, queried where uncertain.

Lateral or gradational contact.

Boundary separating different lithofacies or rock types within a single formation.

Fault, dashed where approximate, queried where uncertain, dotted where buried. Ball on downthrown side of normal fault, teeth on upper plate of thrust fault.

Symbols denoting volcanic and volcaniclastic subdivisions of Winthrop and Midnight Peak formations, respectively.

Axis of upright fold, axis of overturned fold. *BRA*, Buckskin Ridge anticline; *CCA*, Canyon Creek anticline; *CCS*, Castle Creek syncline; *DRA*, Delancy Ridge anticline; *GPS*, Goat Peak syncline; *GIPS*, Gibson Pass syncline; *HRA*, Holdover Ridge anticline; *MMS*, Midnight Mountain syncline; *OPS*, Osceola Peak syncline; *PRS*, Ptarmigan Ridge syncline.

Line of cross section.

NOTES ON MAPS AND CROSS SECTIONS

No attempt was made to relocate and align previously defined contacts (e.g., Hozameen fault) on opposite sides of International border.

Alluvium was omitted from cross sections.

Open barbs on cross sections are interpreted to be low-angle faults of pre-middle Cretaceous age.

Distortion of unit thicknesses between Cascade Crest and Chuwanten faults on B-B′ is due to structural plunge.

No vertical exaggeration in cross sections.

For Cross Sections B-B′, C-C′, and D-D′, see sheet 1.

STRATIFIED ROCKS

Overlap Assemblage

QUATERNARY

Qu — Quaternary alluvium, undifferentiated

TERTIARY

Tv — Island Mountain volcanics *(Eocene)*

Tp — Pipestone Canyon Formation *(Paleocene?)*

UPPER CRETACEOUS

UPPER PASAYTEN GROUP

K13 — Unit 13 *(Age unknown)*

Kmp — Midnight Peak Formation *(Cenomanian?)*

LOWER CRETACEOUS

LOWER PASAYTEN GROUP

Kw — Winthrop Sandstone *(Middle to upper Albian)*

Kvr — Virginian Ridge Formation *Kvr1*, 0-10% conglomerate; *Kvr2*, 10-40% conglomerate; *Kvr3*, >40% conglomerate. *(Middle to upper Albian)*

Kvwu — Virginian Ridge-Winthrop, undifferentiated *(Middle to upper Albian)*

Northern Methow Subterrane

LOWER CRETACEOUS

JACKASS MOUNTAIN GROUP

Khp — Harts Pass Formation *(Upper Aptian to upper Albian)*

Kpc — Panther Creek Formation *(Lower Albian)*

Kgc — Goat Creek Formation *(Barremian to lower Albian)*

K7 — Unit 7 *(Hauterivian to lower Barremian)*

Kia — Andesite of Isabella Ridge *(Age unknown)*

IKu — Lower Cretaceous, undivided *(Age unknown)*

JURASSIC

Jtl — Thunder Lake sequence *(Oxfordian to Tithonian)*

Jl — Ladner Group *(Sinemurian to Bajocian)*

Southern Methow Subterrane

JURASSIC AND CRETACEOUS

Kpl — Patterson Lake conglomerate *(Middle to upper Albian)*

JKbm — Buck Mountain Formation *(Tithonian? to Barremian)*

JKn — Newby Group *(Age unknown)*

Jt — Twisp Formation *(Age unknown)*

Other

MESOZOIC?

Mnc — North Creek Volcanics *(Age unknown)*

PERMIAN-JURASSIC

PJh — Hozameen Group *(Permian to Jurassic)*

INTRUSIVE ROCKS

TERTIARY

Ti — *Tic*, Castle Peak stock; *Tig*, Golden Horn batholith; *Til*, Lost Peak stock; *Tim*, Monument Peak stock

CRETACEOUS AND TERTIARY, UNDIVIDED

KTi — Unnamed stocks

CRETACEOUS

Ki — *Kibp*, Black Peak batholith; *Kif*, Fawn Peak stock; *Kip*, Pasayten stock; *Kir*, Rock Creek stock; *Kifc*, Fraser Creek complex

JURASSIC

Ji — Button Creek stock

ROAD CLASSIFICATION

Primary highway, hard surface
Secondary highway, hard surface
Light-duty road, hard or improved surface
Unimproved road or street
Trail
Interstate Route · U.S. Route · State Route

ROBINSON MTN., WASH.
NE/4 CONCRETE (NM 10-12) 1:250 000-SCALE MAP
N4830—W12000/30X60