PRELIMINARY BEDROCK GEOLOGIC MAP
OF THE EAST HALF OF THE CHIWAUKIM 4 SW QUADRANGLE
CHIWAUKIM GRABEN, WASHINGTON

By

John T. Whetten

Open-File Report 80-616

This report is preliminary and has not been reviewed or edited for conformity with Geological Survey standards or nomenclature
INDEX TO GEOLOGIC MAPPING

Geologic mapping available on a scale of 1:24,000 in the Chiwaukum graben, Chelan County, Washington.
CORRELATION OF MAP UNITS

QUATERNARY

TERTIARY

PRE-TERTIARY
DESCRIPTION OF MAP UNITS

Qa1 ALLUVIUM - Gravel, sand, and silt in channels and underlying floodplains of the Wenatchee River and tributaries. Unit also includes colluvium near valley margins.

Qls LANDSLIDE DEPOSITS - Locally derived materials downslope from source-area scar. Arrow indicates general direction of movement.

Qg GLACIAL DEPOSIT - Mostly bouldery deposit occurring on Wenatchee River floodplain and on hillslope east of Icicle Creek. Angular to rounded boulders consist mostly of granodiorite, and are up to several m in maximum diameter. Unit east of Icicle Creek is a succession of moraines deposited by the Icicle Creek glacier (Page, 1939).

Ti INTRUSIVE ROCK - Commonly basalt or basaltic andesite.

Tcs CONGLOMERATIC SANDSTONE - Main part of the Chumstick Formation of Gresens and others (in press), composed of thick-bedded, light colored sandstone beds, commonly channeled and cross-bedded with minor shale. Pebbles of dacite, schist, gneiss, and rhyolite commonly occur near base of beds. Unit is thousands of meters thick.

Tse TUFFACEOUS SANDSTONE - Mappable bed occurring within unit Tcs, up to three m thick. Zeolitized to clinoptilolite, which causes the bed to weather in thin slabs. Unit indicated by a single line on the map.

Tc CONGLOMERATE - Boulders, cobbles, and pebbles interbedded with sandstone. Unit trends parallel with Leavenworth fault and also occurs along fault in Icicle Creek. Clasts consist of unit pTu, including schist, granodiorite, and quartz, with minor amounts of volcanic and gneiss pebbles such as are found in unit Tcs. Unit probably deposited by streams and debris flows on fans grading eastward from a highland west of the faults. Contact is gradational between units Tc and Tcs.

pTu PRE-TERTIARY ROCKS, UNDIFFERENTIATED - Includes schist, granodiorite, quartz diorite, and serpentinite, and occurs on the west side of the Leavenworth fault.

Contact - Dashed where inferred; dotted where concealed. Thin tuffaceous sandstone and tuff beds are shown by a single line
Fault - Dashed where inferred; dotted where concealed. Ball and bar on downthrown side; arrows indicate inferred direction of movement on postulated strike-slip fault.

Anticline - Showing crestline; dashed where approximately located, dotted where concealed.

Syncline - Showing troughline; dashed where approximately located, dotted where concealed.

Strike and dip of beds

Vertical beds

Strike and dip of foliation in metamorphic rocks
SELECTED REFERENCES


