

GEOLOGY OF THE SHERMAN PEAK
AND WEST HALF OF THE KETTLE FALLS QUADRANGLES,
FERRY COUNTY, WASHINGTON
by
Charles D. Campbell and Gerald W. Thorsen

Explanation

Tertiary	T	Igneous rock
Mesozoic	K	Gneiss
	Kmig	Migmatite
Permian	ls	Limestone
	sl	Slate
	arg	Argillite
	gr	Greenstone
Precambrian	q	Quartzite
	qs	Quartz biotite schist
	hs	Hornblende schist
	m	Marble

MAP SYMBOLS

- \searrow_{20} strike and dip of beds
- \searrow_{65} strike and dip of overturned beds
- \searrow_{20} strike and dip of beds and plunge of slickensides
- \oplus horizontal beds
- \searrow_{10-20} generalized strike and dip of beds
- \searrow_{10} strike and dip of foliation
- \searrow_{10-20} strike and dip of foliation and plunge of lineation
- \times vertical foliation
- \searrow_{10-20} generalized strike and dip of foliation
- \oplus horizontal foliation
- \searrow_{10} strike and dip of cleavage
- \oplus horizontal cleavage
- \searrow_{FA} plunge of fold axis
- \curvearrowright overturned anticline showing plunge of fold axis
- \times anticline
- \curvearrowleft syncline
- $\searrow_{/}$ fault, showing relative movement

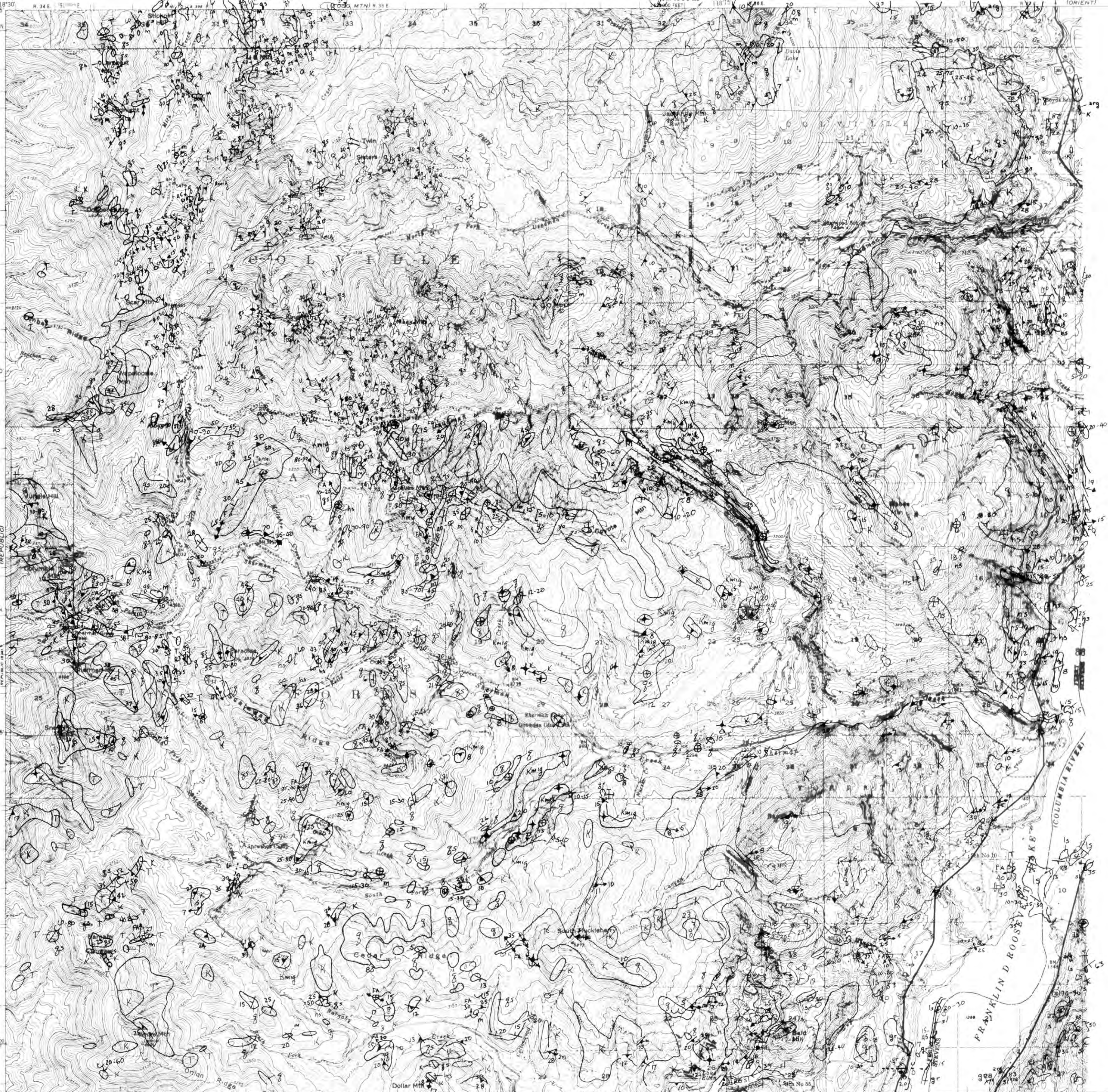
FIELD WORK AND MAPPING

The description of map units shown in the explanation are simplified from field notes and represent the predominant lithology of the outcrop or area. Because at least three people did independent mapping in the area, there may be some inconsistencies in lithologic designations; for example, some areas shown as K (gneiss) may actually be migmatite (Kmig).

The mapping technique used is generally that of outlining outcrops. No attempt has been made to put together an organized bedrock map. Areas without geologic symbols are considered as being covered by glacial drift or alluvium.

The mapping was done in three phases from 1935 through 1966 by Dr. Charles D. Campbell of Washington State University and several field assistants. The first work was done from 1935 through 1940 when the Sherman Peak-Scalawag Ridge-South Huckleberry Mountain area was covered. In 1946 the area between 118°15' west longitude and the Columbia and Kettle Rivers was mapped. In 1966 the remaining unmapped areas were finished with the aid of Bert Woodland of Centralia Community College and Gerald W. Thorsen of the Washington State Division of Geology and Earth Resources. Woodland worked with Campbell south of the north line of township 36 North, and Thorsen mapped the area north of the line except for a small portion in the extreme northeast corner of the map that was done by David J. Lyons as part of a Ph.D. thesis at Washington State College.

The field notes prepared during the course of the field work are kept in the Division of Geology and Earth Resources library. They consist of 360 typewritten pages and cover all three periods of mapping. The field notes are of reference to the map by an index number and enable one to find the location on the map of where the data was gathered. The index numbers are only in the field notes and do not appear on the maps.



Maped and edited by the U.S. Forest Service.
Published by the Geological Survey.
Control by U.S. Forest Service, Bureau of Reclamation,
International Boundary Commission, USGS, and USC&GS
Topography from aerial photographs by KEK Plotter
Aerial photographs taken 1944. Field check 1948
Polyconic projection. 1927 North American datum.
10,000-foot grid based on Washington coordinate system,
north zone.
Dashed lines indicate approximate location
1000-meter Universal Transverse Mercator grid ticks,
zone 11, shown in blue

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