



EXPLANATION

Geologic Period	Symbol/Color	Description	
Quaternary	Qs	Stream gravels, sand, and silt, glacial moraine deposits, and outwash gravels	
	Qgl	Older glacial deposits (Occurs only near the head of White River)	
	Ts	Sandstone, conglomerate, shale, and clay, with thin beds of coal	
	Unconformity	Unconformity	Unconformity
Tertiary	Tr	Lava flows and associated rocks	
	Tr	Slate and graywacke (With quartz veins and numerous dikes of porphyritic granite and quartz diorite. Probably in part Upper Cretaceous. Includes the Tule group and the Tule group and possibly some Paleocene)	
	Tr	Sandstone, shale, conglomerate, and limestone (In part Jurassic; includes some undifferentiated Cretaceous)	
	Tr	Black shale of Nakavik age (Characterized by the presence of brachiopods, corals, and other fossils. Occurs only at mouth of Chitina River)	
Jurassic	Ju	Black shale of Nakavik age (Characterized by the presence of brachiopods, corals, and other fossils. Occurs only at mouth of Chitina River)	
	Ju	Tuffaceous conglomerate (Occurs only at mouth of Chitina River)	
	Ju	Tuffaceous shale of Tuxedni age (Occurs only at mouth of Chitina River)	
	Ju	Unconformity	Unconformity
Triassic	Tri	Shale or slate with thin-bedded calcareous argillite in the lower part; also occasional thin limestone beds (Includes the McCall formation and upper part of Kuskokwim formation)	
	Tri	Limestone	Limestone
	Tri	Shale or slate with thin-bedded calcareous argillite in the lower part; also occasional thin limestone beds (Includes the McCall formation and upper part of Kuskokwim formation)	
	Tri	Unconformity	Unconformity
Permian	Per	Nikolai gneiss (Thick series of basic igneous rocks: Permian and Triassic)	
	Per	Volcanic rocks, tuff, and lava flows, with subordinate shale (In White River and Chitina districts volcanic rocks are present and some Cretaceous and possibly Mesozoic shale and limestone)	
	Per	Limestone	Limestone
	Per	Unconformity	Unconformity
Carboniferous	Car	Rocks of Mississippian and Carboniferous(?) age (In Tuxedni district, dominantly bedded argillite and quartzite, conglomerate, and calcareous sandstone in part of and some from all randomly altered. In Chitina Valley, Devonian formation, calcareous sandstone, massive of bedded sand and dense fine-grained basalt with conglomerate sandy shale and thin bedded shales. Locally cut by narrow dikes and veins. In place contains limestone layers or thin shales)	
	Car	Limestone locally fossiliferous	Limestone locally fossiliferous
	Car	Igneous rocks	Igneous rocks
	Car	Granitic and light-colored porphyritic rocks	Granitic and light-colored porphyritic rocks
Fault	Fault	Fault	Fault

Compiled by Alaskan Branch.
Topography by J. W. Bagley, C. F. Fuchsel, T. G. Gerdine,
C. E. Griffin, and D. C. Witherspoon, Topographic Engineers.
Areas adjacent to the International Boundary
from surveys by International Boundary Commission.
Control by triangulation and traverse based on position of astronomic
stations at Valdez and Copper Center, data by International Boundary
Commission in the eastern portion, and surveys by the Copper River and
Northwestern Railway.
Surveyed in 1900, 1905, 1908, 1911, 1912, 1913, 1914, 1915, and
1921.

Geology from original surveys by the
Alaskan Branch from 1900 to 1932, revised
and coordinated through field studies by
Fred H. Moffit at intervals from 1907 to
1932, inclusive.

GEOLOGIC RECONNAISSANCE MAP OF THE CHITINA VALLEY AND ADJACENT AREAS, ALASKA
By Fred H. Moffit
Scale 1:62,500
Contour interval 200 feet.
Datum is mean sea level.
Dotted lines represent probable topography unsurveyed.
1939