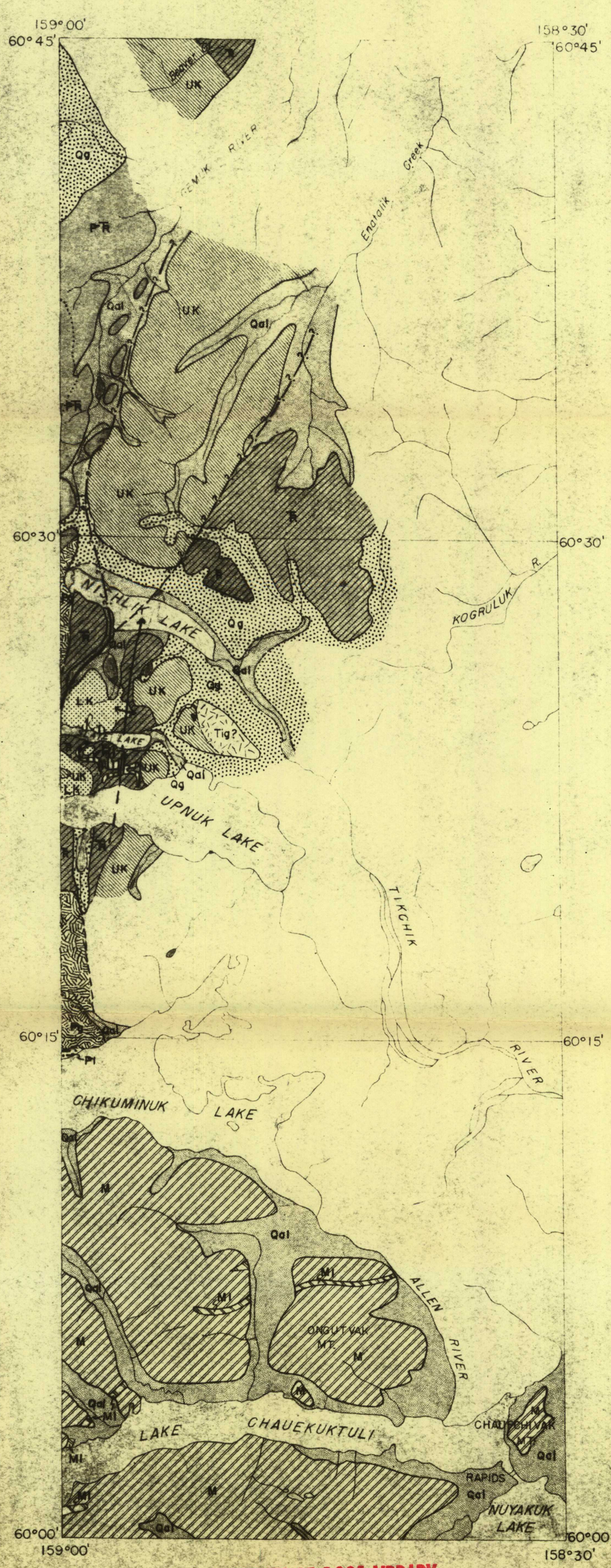
RECONNAISSANCE GEOLOGIC MAP OF THE LOWER KUSKOKWIM REGION, ALASKA



GENERALIZED DESCRIPTION OF STRATIGRAPHIC UNITS
LOWER KUSKOKWIM REGION, ALASKA

Time Unit	Generalized Map Unit	Estimated thickness (feet)	Description of Rocks
Quaternary	Qal	0' to 300'?	Largely fluvial, but some eolian deposits. Well-sorted to poorly sorted silt, sand, gravel, and boulders.
	Qg	0' to 200'	Unsorted silt, sand, gravel, and boulders constituting various types of moraines.
	Unconformity		
Pliocene or Pleistocene	Plv	50' to 500'	Fresh, black vesicular and amygdaloidal basalt with minor amount of obsidian and tuff. Occurs locally beneath glacial deposits on valley floors.
	Unconformity		
Miocene (?)	Teb	300' to 600'	Andesite and basalt lava, somewhat altered. Gently folded. Lies unconformably on middle Upper Cretaceous sedimentary rocks and late Cretaceous or early Tertiary intrusive rocks.
	Unconformity		
Upper Cretaceous	UK	Sediments 15,000' to 25,000'	Kuskokwim group. Interbedded graywacke and siltstone. Toward the base the graywacke is more massive, commonly conglomeratic and interbedded with slaty black siltstones. These rocks are locally unconformable upon older rocks. In places the interbedded graywacke and siltstones overlie 2000 to 5000 feet of shaly siltstone, part of which is probably Upper Cretaceous and the rest Lower Cretaceous.
		Andesite 1,500' to 3,000'	Andesitic lava, tuffs, breccia with interbedded clastic and calcareous sediments. Are same age as interbedded graywacke and siltstone listed above.
	Probable local erosional breaks		
Lower Cretaceous	largely LK; in part UK and RLK	2000' to 5000' (?)	Black shaly siltstone overlying massive graywacke and conglomerate. In most places ten to 30 feet of impure fossiliferous limestone at base of conglomerate. Conglomerate and limestone may be unconformable upon all older rocks or may rest on several hundred feet of black and gray slaty siltstones which are also probably Lower Cretaceous. Abrupt changes in thickness and lithology typical of formation.
	Unconformity		
Upper Jurassic Possibly Middle or Lower Jurassic	largely LK;	2000' to 5000' (?)	(Rocks known and thought to be of Upper Jurassic age) Massive and thin-bedded graywacke, tuffaceous graywacke, and crystal tuff interbedded with massive and thin-bedded siliceous siltstone and fine-grained tuff. Andesitic lava and flow breccia occurs locally.
	in part RLK and R		Middle and Lower Jurassic rocks occur on Hagemeister Island, south of the area covered by the map. They consist of fine to medium grained siliceous sediments interbedded with andesitic lava and breccia. Some of the rocks of similar lithology within the map area may be of comparable age.
	No apparent stratigraphic break		
Upper Triassic (Karnic and Noric)	largely R	3000' to 6000' (?)	Massive siliceous argillite, massive and thin-bedded varicolored chert, greenstone, well-bedded silty argillite, few thin beds impure limestone.
	in part PR	1000' to 2000' (?)	(Identified only between Upnuk and Slate lakes) Calcareous siltstone with thin beds of impure limestone, massive silty graywacke, 80 to 120 feet crystalline limestone.
	No apparent stratigraphic break		
Permian	P, Pg, and P1	4000' to 8000' (?)	Tikchik Lakes Area:--1000 to 2000 feet of vari-colored fine-grained, slaty tuffs and/or siliceous sediments (P) overlying 1000 to 3000 feet of massive greenstone (Pg). Greenstone grades downward into about 1000 feet of fossil-bearing limestone on Lake Chauekuktuli (P1). On Chikuminuk Lake the P1 formation consists of interbedded calcareous sandstone, argillaceous limestone, thin beds of relatively fine crystalline limestone and a minor amount of volcanic tuff and breccia.
			Kwethluk-Kisaralik Rivers Area:--2000 to 4000 feet massive-bedded schistose greenstone with interbedded chert overlain by 1000 to 2000 feet interbedded greenstone, limestone, quartzite, and chert.
			Kanektok River Area:--1000 to 2000 feet thin-bedded tuffaceous limestone, 2000 to 4000 feet massive argillite greenstone and chert.
	No apparent stratigraphic break		
Mississippian (?)	M and M1	Several thousand feet	Vari-colored chert, cherty grit, calcareous and quartzitic sandstone, impure limestone, minor amount of volcanic flows and tuffs.
			Mertie, J. B. Jr., The Nushagak District, Alaska, U. S. Geol. Survey Bull. 903, 1938, pp 37-42 recognizes an unconformity between these rocks and the overlying Permian limestone. The writer found that the Permian limestone graded downward into this group of rocks.
	Probable unconformity		
Devonian	D1	800' to 1200'	Massive and thin-bedded gray limestone, possibly a small amount of green schist.
	Unconformity		
Pre-Cambrian (?)	Um	5000'+	Pink and gray gneiss apparently grading upward into schist, quartzite, crystalline limestone. Gneiss is both massive and well-foliated (bedded). Contains both orthoclase and plagioclase, quartz, biotite, muscovite, epidote, and accessories. Shows mortar structure. Quartz-muscovite, quartz-biotite, and garnetiferous hornblende schists are common. Highly recrystallized limestone and volcanic rocks form a minor part of the section.