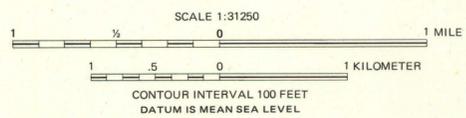


EXPLANATION

	MORAINAL DEPOSITS (QUATERNARY) - Glacial gravels, unstratified; in mounds and ridges		EOLUS GRANITE (PRECAMBRIAN Y) - Mostly medium- to coarse-grained porphyritic biotite-hornblende quartz monzonite
	LATE DIKE (TERTIARY) - Small mafic(?) dike		IRVING FORMATION (PRECAMBRIAN X) - Mostly amphibolite, quartzofeldspathic gneiss, and biotite schist
	INTRUSIVE BODIES AND RELATED ROCKS (TERTIARY) - Intrusions are hypabyssal Tiy Younger body - Rhyolite porphyry Tio Older body and related rocks - Granite porphyry (quartz porphyry) and related brecciated rocks in stock, and related dikes		CONTACT - Long dashed where approximately located; short dashed where inferred
	SEDIMENTARY ROCKS (PALEOZOIC) - Pennsylvanian Hermosa and Molas Formations, Devonian Duray Limestone and Elbert Formation, and Cambrian Ignacio Quartzite		FAULT - Dashed where approximately located; dotted where concealed
	MAFIC DIKES (PRECAMBRIAN?) - Younger than Eolus Granite		FRACTURES AND VEINS - Showing dip. Dashed where approximately located
	TRIMBLE GRANITE (PRECAMBRIAN Y) - Mostly fine- to medium-grained porphyritic biotite granite		SAMPLE LOCALITY AND NUMBER - All samples have prefix CB-, omitted here for brevity

Base from U.S. Geological Survey
Needle Mountains, 1:62,500, 1900



Precambrian and sedimentary geology by
Whitman Cross and Ernest Howe, 1900, 1901, and
1903 (Cross and others, 1905). Tertiary geology
by L. J. Schmitt and W. H. Raymond, 1967-1968

GEOLOGIC MAP OF THE NEEDLE MOUNTAINS DISTRICT, SOUTHWESTERN COLORADO