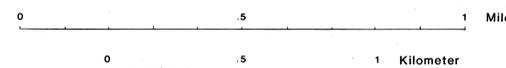


GEOLOGIC MAP OF THE NORTHWEST GRANITE WASH MOUNTAINS LA PAZ COUNTY, ARIZONA

BY W. DICKSON CUNNINGHAM 1985

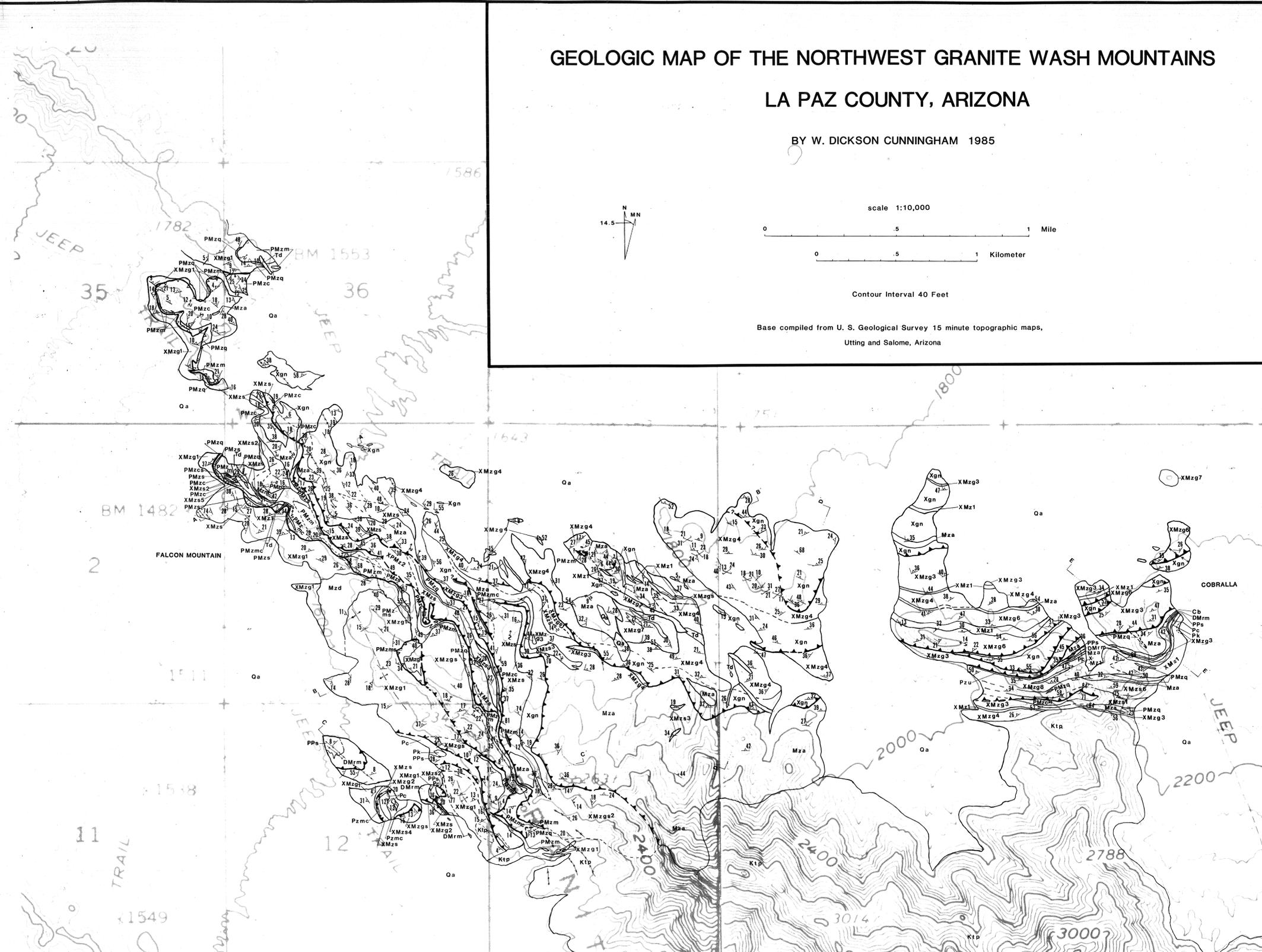


scale 1:10,000



Contour Interval 40 Feet

Base compiled from U. S. Geological Survey 15 minute topographic maps,
Utting and Salome, Arizona



CORRELATION OF MAP UNITS								
Qa								CENOZOIC
Td								MESOZOIC
Ktp								
Mzd	Mza							
Mzm								MESOZOIC OR PALEOZOIC
PMzc	PMzm	PMzq	PMza	PMzms	PMzmc	PMzca	PMzcs	PERMIAN PERMIAN PERMIAN - PENNSYLVANIAN MISSISSIPPIAN - DEVONIAN CAMBRIAN
								PRECAMBRIAN OR MESOZOIC
								PRECAMBRIAN
								PRECAMBRIAN OR PALEOZOIC OR MESOZOIC

DESCRIPTION OF MAP UNITS	
Cenozoic Units	<p>Qa ALLUVIUM - sands, silts, and gravels</p> <p>Td DIKES - rhyolitic to basaltic composition, very resistant, more numerous than mapped</p> <p>Ktp TANK PASS GRANITE - massive, undeformed, dated at 85 m.y. old (Rehrig and Reynolds, 1980)</p>
Mesozoic Plutons and Tectonic Chaos	<p>Mzd DIORITE - hornblende and plagioclase rich, foliated only near borders</p> <p>Mza ALASKITE - medium to fine grained, 2 mica bearing, unfoliated to mylonitic</p> <p>Mzm TECTONIC CHAOS - thrust zone chaos of slices and pods of PMzc, PMzm, PMzq, XMzg1, XMzs, XMza2, and possibly Xgn</p> <p>PMzc CALC-SILICATES - calcareous quartzites, quartzites, calcareous schists, and quartzose dolomites</p> <p>PMzm MARBLE - dolomitic with tremolite rich zones</p> <p>PMzq QUARTZITE - massive, recrystallized, dark grey to white colored</p> <p>PMzs PHYLLITE - principally composed of biotite, quartz and chlorite, grey - blue toned</p> <p>PMzms PMzm / PMzs undifferentiated, marble and phyllite</p> <p>PMzmc PMzm / PMzc undifferentiated, marble and calc-silicates</p> <p>PMzca PMzc / Mza undifferentiated, calc-silicates and alaskite</p> <p>PMzca PMzc / PMzs undifferentiated, calc-silicates and phyllite</p>
Paleozoic or Mesozoic Metasediments	<p>Pk KAIBAB LIMESTONE - light dolomitic marble with distinctive grey layering</p> <p>Pc COCONINO SANDSTONE - massive medium brown to white vitreous quartzite</p> <p>PPa SUPAI FORMATION - calc-silicates, gritty calcareous quartzites, massive quartzites and minor dolomites</p> <p>DMrm REDWALL / MARTIN FORMATIONS - brown, grey and white dolomitic marbles, occasionally tremolitic</p> <p>Cb BOLSA QUARTZITE - dark quartzite, slightly feldspathic</p> <p>Pzmc REDWALL / MARTIN and SUPAI FORMATIONS undifferentiated</p> <p>Pzu PALEOZOIC METASEDIMENTS undifferentiated</p>
Paleozoic Metasediments	<p>XMzg1 FOLIATED GRANITE - coarse grained, undeformed to mylonitic</p> <p>XMzg2 QUARTZOSE GRANITE GNEISS - well foliated, almost a quartzite in places</p> <p>XMzg3 FOLIATED GRANODIORITE - medium grained, blue - grey toned, becomes mylonitic</p> <p>XMzg4 QUARTZ DIORITE GNEISS - dark green orthogneiss with white streaked appearance, becomes a schist</p> <p>XMzg6 XMzg3 / XMzg4 undifferentiated, foliated granodiorite and quartz diorite gneiss</p> <p>XMzg7 XMzg4 / Mza undifferentiated, quartz diorite gneiss and alaskite</p> <p>XMzg8 XMzg3 / Mza undifferentiated, foliated granodiorite and alaskite</p> <p>XMzs QUARTZ BIOTITE SCHIST - blue-grey color, becomes gneissic, large feldspar phenocrysts fairly common</p> <p>XMzs1 QUARTZ MICA SCHIST - glittery white to grey to rusty appearing</p> <p>XMzs2 QUARTZ MICA TECTONITE - grades from schist to gneiss to foliated granite</p> <p>XMzs3 GREENSCHIST - biotite - quartz - augite - chlorite schist</p> <p>XMzs4 MUSCOVITE QUARTZ SCHIST - red stained, crenulated</p> <p>XMzs5 XMzs / PMzs undifferentiated, quartz biotite schist and phyllite</p> <p>XMzs6 QUARTZ BIOTITE SCHIST - blue-grey schist with gritty foliated granodiorite layers</p> <p>XMzgs XMzg3 / XMzs undifferentiated, foliated granodiorite and quartz biotite schist</p> <p>XMzgs1 XMzg4 / XMzs / Mza undifferentiated, quartz diorite gneiss, quartz biotite schist and alaskite</p> <p>XMzgs2 Xgn / XMzs / Mza undifferentiated, basement complex, quartz biotite schist and alaskite</p> <p>Xgn BASEMENT COMPLEX - interlayered quartzofeldspathic gneisses, migmatites, schists, dikes, and amphibolites</p> <p>XMz1 AMPHIBOLITE - massive to schistose, hornblende and biotite rich</p> <p>XPMz2 PMzc / PMzm / XMzs undifferentiated, calc-silicates, marble and quartz biotite schist</p>
Precambrian or Mesozoic Foliated Plutons	
Precambrian or Mesozoic Schists	
Precambrian or Mesozoic Schists and Foliated Plutons Combined	
Precambrian Basement	
Precambrian, Paleozoic or Mesozoic Units Combined	

GEOLOGIC SYMBOLS			
CONTACT	THRUST FAULT	FOLIATION	FOLIATION AND STRETCHING LINEATION LYING IN PLANE OF FOLIATION
dashed where located approximately	teeth on upper plate dashed where located approximately queried where location uncertain	VERTICAL FOLIATION	FOLIATION AND STRETCHING LINEATION SHOWING DIRECTION OF SHEAR
SHEARED CONTACT	NORMAL FAULT	CROSSCUTTING CLEAVAGES	MINOR FOLD showing trend of axial plunge
possible thrust fault	ball on downdropped block	location of cross section	FOLIATION ANTIFORM
			DIKE