EXPLANATION FOR PLATES 1, 2, AND 3

CORRELATION OF MAP UNITS

Qal, Qs, Qt	Holocene and Pleistocene	QUATERNARY
unconformity		
Tb	Miocene and Pliocene (?)	TERTIARY
unconformity		
Km	Upper Cretaceous	CRETACEOUS
Kmf		
Kmm	Lower Cretaceous	
Kd		
unconformity		
Jm	Upper Jurassic	JURASSIC
Jcu		
Je		
Jca	Upper and Middle Jurassic	
JTRg	Lower Jurassic and Upper Triassic	
TRc	Upper Triassic	TRIASSIC
unconformity		
TRm	Lower Triassic	
Ppu		PERMIAN
Ppl, Ppm, Ppp		
unconformity		
PPw		PENNSYLVANIAN

DESCRIPTION OF MAP UNITS

Qal — **ALLUVIUM (HOLOCENE)**--Includes some dune sand

Qs — **SLOPE WASH (HOLOCENE)**--Mostly debris from Browns Park Formation; includes material from adjacent sedimentary rocks

Qt — **TERRACE DEPOSITS (PLEISTOCENE)**

unconformity

Tb — **BROWNS PARK FORMATION (MIOCENE AND PLIOCENE?)**--Fine-to cearse-grained sandstone and conglomerate, as much as 400 feet thick

unconformity

MANCOS SHALE (CRETACEOUS)

Km — **MAIN PART (UPPER CRETACEOUS)**

Kmf — **FRONTIER SANDSTONE MEMBER (UPPER CRETACEOUS)**

Kmm — **MOWRY SHALE MEMBER (LOWER CRETACEOUS)**

Kd — **DAKOTA SANDSTONE (LOWER CRETACEOUS)**

unconformity

Jm — **MORRISON FORMATION (UPPER JURASSIC)**

Jcu — **CURTIS FORMATION (UPPER JURASSIC)**

Je — **ENTRADA SANDSTONE (UPPER JURASSIC)**

Jca — **CARMEL FORMATION (UPPER AND MIDDLE JURASSIC)**

JTRg — **GLEN CANYON SANDSTONE (LOWER JURASSIC AND UPPER TRIASSIC)**

TRc — **CHINLE FORMATION (UPPER TRIASSIC)**

unconformity

TRm — **MOENKOPI FORMATION (LOWER TRIASSIC)**--Reddish-brown and light-gray siltstone and fine-grained sandstone; 900-1,000 feet thick

PARK CITY AND PHOSPHORIA FORMATIONS (PERMIAN)

PARK CITY FORMATION, FRANSON MEMBER

Ppu — **UPPER PART**--Light-gray limestone and dolomite. On plates 1 and 2 unit includes 15-25 feet of reddish-brown siltstone, limestone, and sandstone at base (Mackentire Red Beds Tongue of Phosphoria Formation of Williams, 1939). Grades eastward and southward into tawny-colored rocks. About 95-145 feet thick in western part of area and 35-67 feet thick in eastern part

Ppl — **LOWER PART**--Light-gray cherty limestone, dolomite, and sandstone; about 35 feet thick. Mapped in western part of area (pl. 1)

Ppm — **PHOSPHORIA FORMATION, MEADE PEAK PHOSPHATIC SHALE MEMBER**--Light greenish-gray and olive-gray phosphorite, mudstone, chert, limestone, and dolomite; about 25 feet thick. Mapped in western part of area (pl. 1)

Ppp — **PARK CITY AND PHOSPHORIA FORMATIONS, LOWER PART OF FRANSON MEMBER AND UNDERLYING MEADE PEAK MEMBER**--Light-gray dolomite, limestone, chert, sandstone, mudstone, and thin phosphorite beds; 33-46 feet thick. Mapped in eastern part of area (pl. 2 and 3)

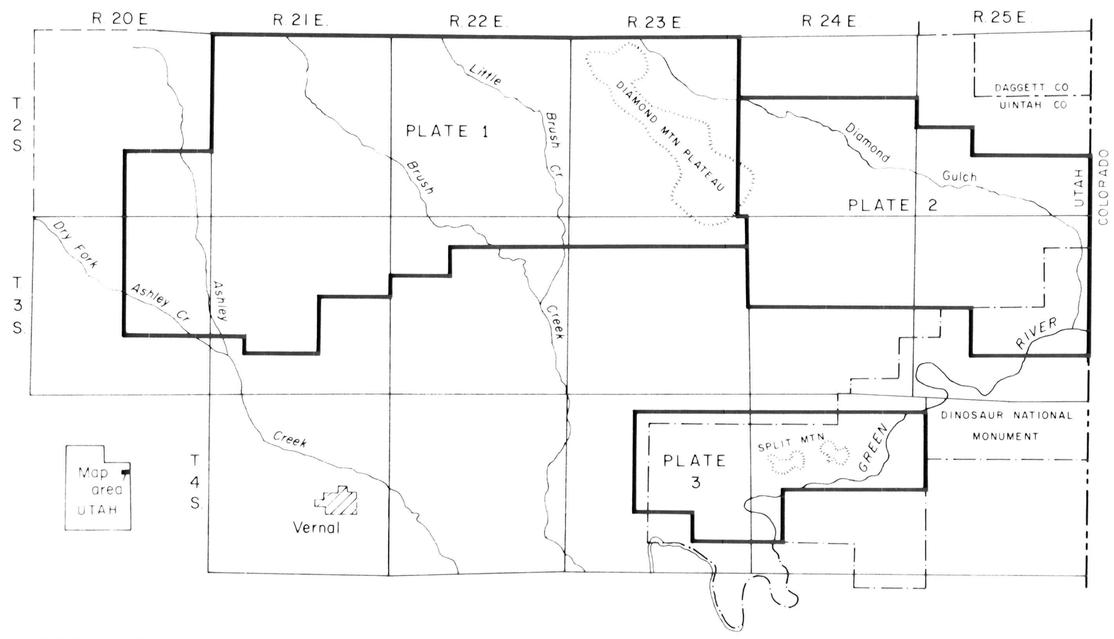
unconformity

PPw — **WEBER SANDSTONE (PERMIAN AND PENNSYLVANIAN)**--Yellowish-gray to pale-brown calcareous sandstone; includes older rocks; about 1,150 feet thick

REFERENCE CITED

Williams, J. Stewart, 1939, "Park City" beds on southwest flank of Uinta Mountains, Utah: Am. Assoc. Petroleum Geologists Bull., v. 23, no. 1, p. 82-100

- Contact--Dashed where approximately located
- U 10 / 70 D — Fault--Showing dip. Dashed where approximately located, dotted where concealed by Quaternary deposits. U, upthrown side; D, downthrown side. Displacement shown in feet
- Anticline--Approximately located. Showing trace of axial plane and direction of plunge
- 7 — Strike and dip of beds
- 70 — Strike and dip of overturned beds
- Horizontal beds
- 6400 — Structure contours--Drawn on top of Meade Peak Member of Phosphoria Formation. Dashed where approximately located. Datum is mean sea level
- ? — Inferred basal contact of Meade Peak Member beneath Browns Park Formation
- Measured section
- CP-31 / Lot 1219 — Numbered trench locality--CP, U. S. Geological Survey trench excavated, logged, and sampled in 1964; Lot, trench described in U. S. Geological Survey Bull. 1007
- X — Prospect pit
- Fossil collection



INDEX MAP OF THE VERNAL PHOSPHATE AREA SHOWING LOCATIONS OF GEOLOGIC STRIP MAPS