UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WATER-SUPPLY PAPER 1809-L
PLATE 1

Base from U.S. Geological Survey 250,000 series:
Greeley and Sterling, 1954

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Weist (1964)	Bjorklund and Brown (1957)	Burbank and others, (1935)	N.M.Denson (written commun.,1962)	Galbreath (1953)

0 25 MILES

INDEX MAP SHOWING SOURCES OF GEOLOGIC DATA

EXPLANATION

QUATERNARY — *Pleistocene and Recent*

Qd
Dune sand
Not known to yield water to wells. Acts as infiltration area

Qv **Qt**
Valley-fill and terrace deposits
Clay, silt, sand, and gravel. Yield large quantities of water to irrigation wells
Qv, *valley-fill deposits*
Qt, *terrace deposits*

TERTIARY — *Pliocene*

To
Ogallala Formation
Clay, silt, sand, and gravel partly cemented by calcium carbonate. Yields small to moderate quantities of water

Miocene

Ta
Arikaree Formation
Fine- to medium-grained sand loosely to moderately cemented. May yield small amounts of water

Oligocene

Tw
White River Group
Clay and siltstone containing lenses of sandstone and hard channel sandstone. Yields small to moderate quantities of water, and large quantities of water from fractured zones

CRETACEOUS — *Upper Cretaceous*

Kl
Laramie Formation
Clay, shale, sandstone, and coal. Yields small to moderate quantities of water

Kf
Fox Hills Sandstone
Sandstone and sandy shale. Yields small to moderate quantities of water

Kp
Pierre Shale
Shale containing lenses of sandstone. Yields small to moderate quantities of water.

MzPz
Undifferentiated Mesozoic and Paleozoic rocks
Sandstone, limestone, siltstone, and shale. Some units yield small quantities of water

▨
Approximate area overlain by unmapped unconsolidated deposits
Clay, silt, sand, and gravel. In places yield large quantities of water

—— Approximate contact

Wells

○	◎	⊕	ɸ
Domestic or stock	Irrigation	Public supply	Industrial

♀	●
Spring	Test hole

ws
Water sample collected for chemical analysis

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GEOLOGIC MAP OF A PART OF NORTHEASTERN COLORADO SHOWING LOCATION OF SELECTED WELLS, SPRINGS, AND TEST HOLES