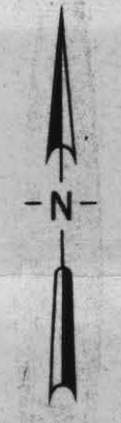




EXPLANATION

- ALLUVIAL SOILS
 - Rr Recent Alluvial
 - Ai Alluvial Terrace
 - Ao Alluvial Outwash
- WIND BLOWN SOILS
 - L Loess
 - Es Eolian Sand
- INTERMIXED SOILS
 - Ai Alluvial with Loess
 - Ae Alluvial with Eolian Sand
 - Rr Reworked Residual (Residual with Alluvial)
 - Rsi Residual on Sandstone with Loess
- RESIDUAL SOILS
 - Rs On Sandstone
 - Rsh On Shale
 - Rc On Calcareous Rocks



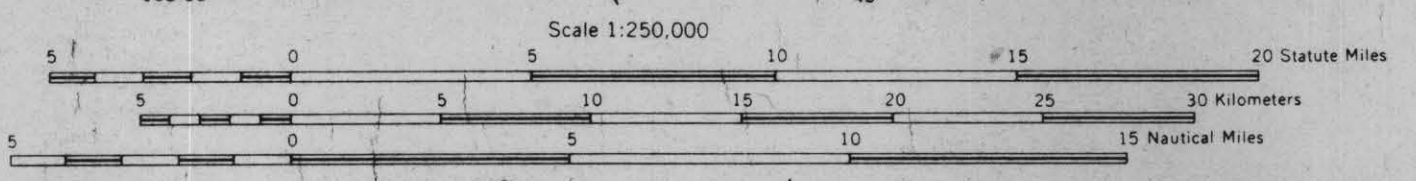
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SURFICIAL DEPOSITS

SOURCE: The Soils of Eastern Colorado,
Their Origin, Distribution And
Engineering Characteristics
Quarterly of the Colorado School
of Mines, 1962

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PLATE 1



CONTOUR INTERVAL 100 FEET
WITH SUPPLEMENTARY CONTOURS AT 50 FOOT INTERVALS



EXPLANATION

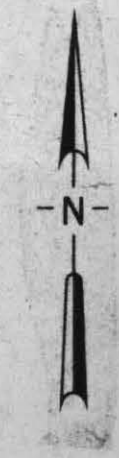
- Qal Quaternary Alluvium: Composed, in part, of gravel, sand, silt, and clay-size particles. Mineral composition varies with source of sediments. Yields large quantities of water to wells along major rivers.

- Ta Alluvium and Windblown Deposits: Composed, in part, of gravel, sand, silt, and clay-size particles. Mineral composition varies with source of sediments. Includes the following deposits:
 Dune Sand
 Broadway Alluvium
 Louviers Alluvium
 Slocum Alluvium
 Rocky Flats Alluvium
 Undifferentiated Deposits
 Not an important source of ground water.

- To Ogallala Formation: Composed of gravel, sand, clay, and silt, in part cemented by calcium carbonate. Yields large quantities of water to irrigation wells in High Plains area.

- Su Bedrock Formations Undivided: Composed, in part, of limestone, conglomerate, sandstone, shale, and siltstone, including heterogeneous mixtures of these basic rock types. Includes the following formations:
 Niobrara
 Carlile
 Greenhorn
 Graneros
 * Dakota
 * Purgatoire
 * Morrison
 * Ralston Creek
 Entrada
 * Dockum
 Toloago
 Day Creek
 White Horse
 * Important sources of ground water.

- Te Extrusive Rocks: Finely crystalline flows of olivine basalt. Not known to yield water to wells.



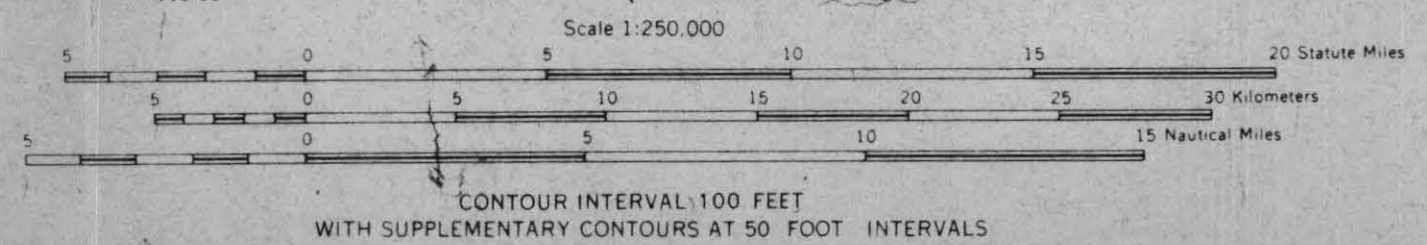
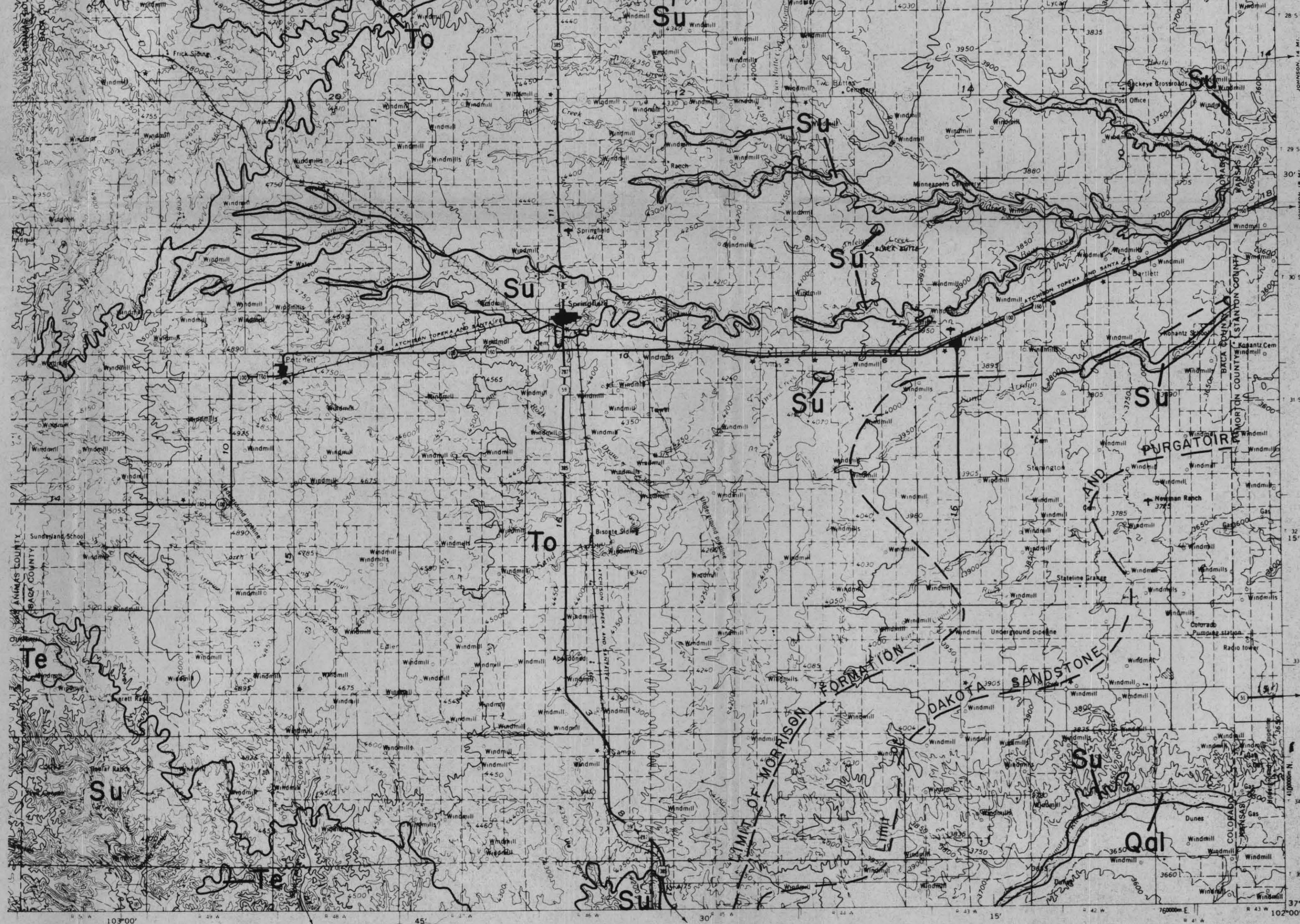
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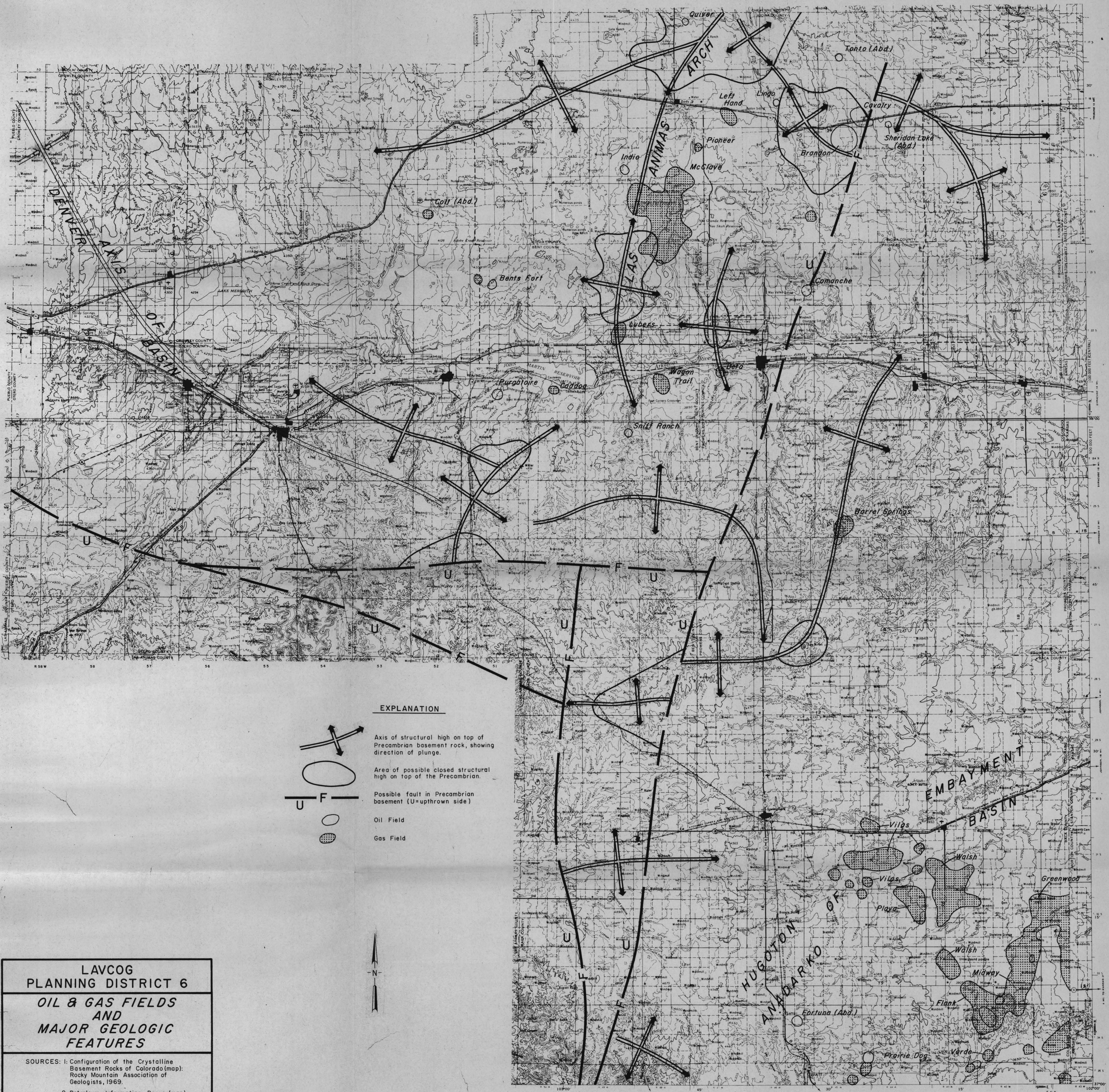
**GROUND WATER
RESOURCES**

SOURCE: USGS water supply papers.
USGS geological quadrangle maps.
Geological map of Colorado

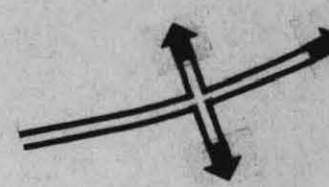


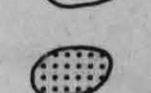
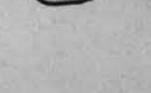
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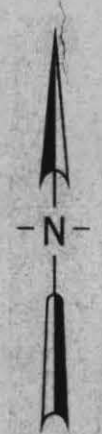
PLATE 2





EXPLANATION

-  Axis of structural high on top of Precambrian basement rock, showing direction of plunge.
-  Area of possible closed structural high on top of the Precambrian.
-  Possible fault in Precambrian basement (U=upthrown side)
-  Oil Field
-  Gas Field

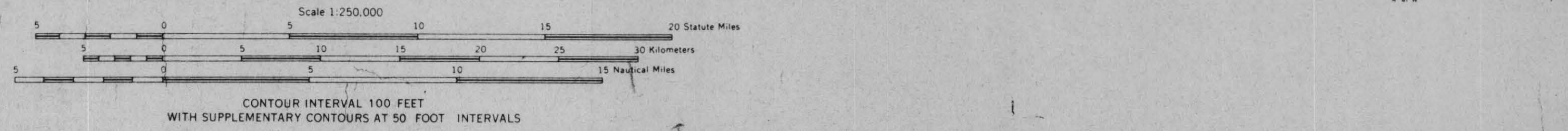


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OIL & GAS FIELDS
AND
MAJOR GEOLOGIC
FEATURES

SOURCES: 1. Configuration of the Crystalline Basement Rocks of Colorado (map): Rocky Mountain Association of Geologists, 1969.
2. Petroleum Information, Denver (map)
3. Colorado Oil & Gas Conservation Commission.

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PLATE 3





EXPLANATION

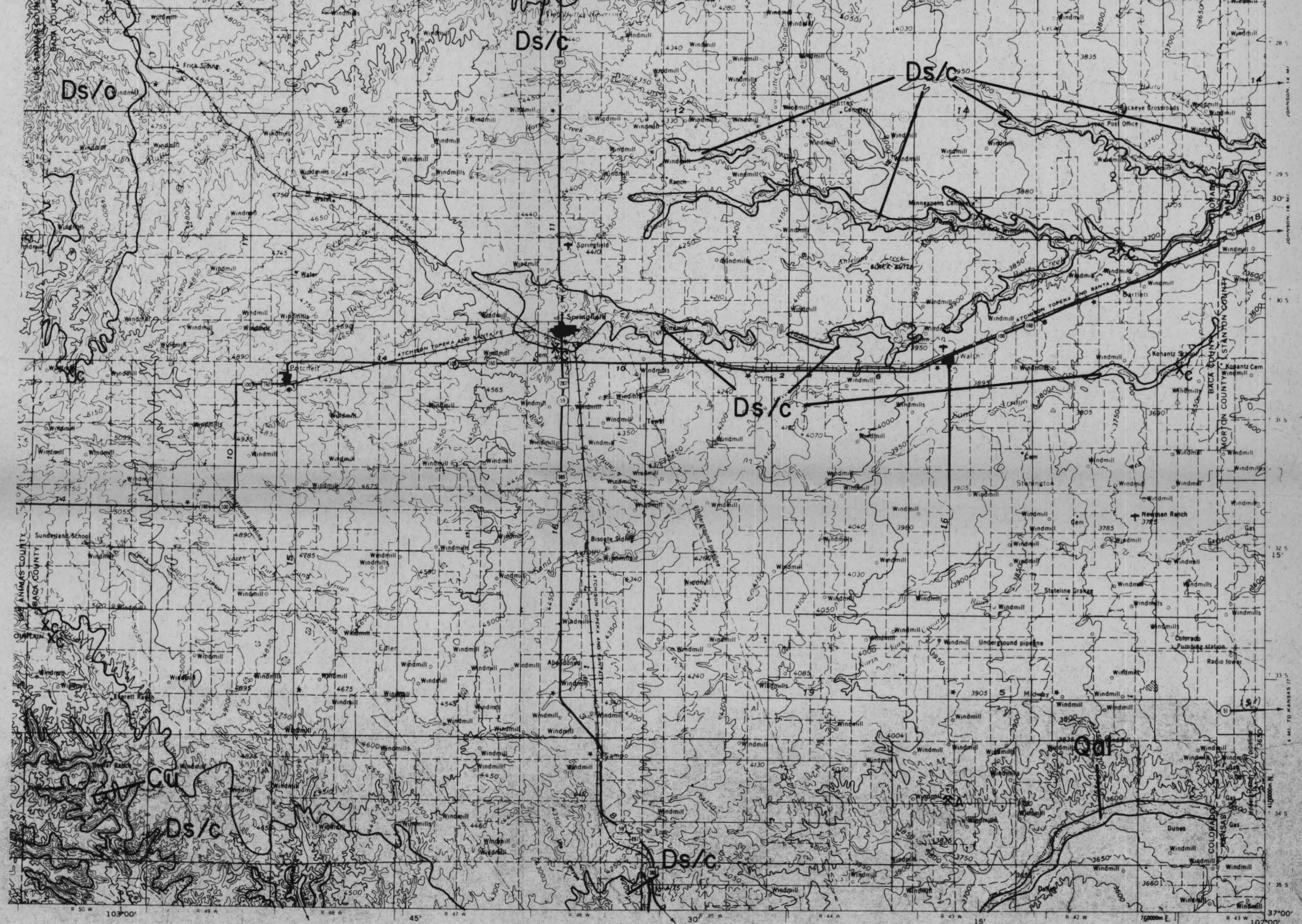
SAND AND GRAVEL

- Qal Recent stream alluvium. Generally a source of high quality sand and gravel.
- Tg Terrace deposits. Usually high quality.
- Ug Upland gravel deposits. Generally remnants on hills and ridges, quality fair to good.

- ▲ Active sand and gravel pit.
- ▲ Sand and gravel pit.

MISCELLANEOUS MINERAL RESOURCES

- ▲R Rock quarries. Generally inactive or abandoned.
- ▲Sh Shale pit. Abandoned-used for brick manufacturing.
- XB Bentonite deposit.
- Cu Copper deposit.
- ML/Ls Marl and Limestone. Possible cement quality.
- Ds/c Dakota sandstone and interbedded clay. Some high-duty refractory clay.
- XC Abandoned clay pit or location.



**LAVCOG
PLANNING DISTRICT 6
MINERAL RESOURCES**

SOURCE: USGS Water Supply Papers
USGS Miscellaneous Geological
Investigations.
Colorado Geologic Map

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PLATE 4

