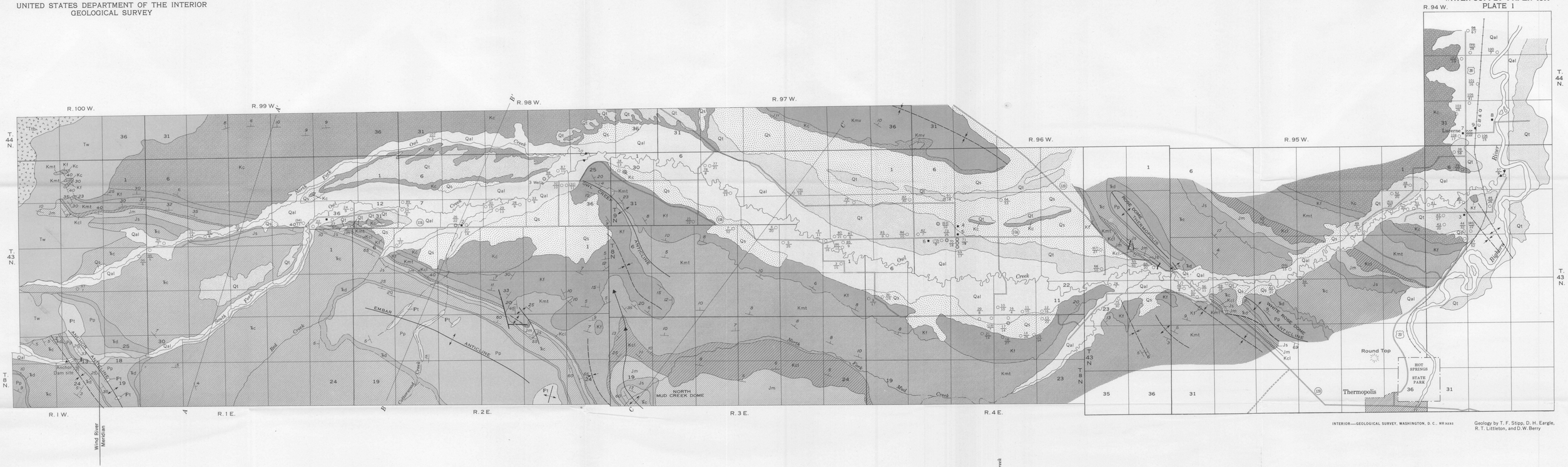
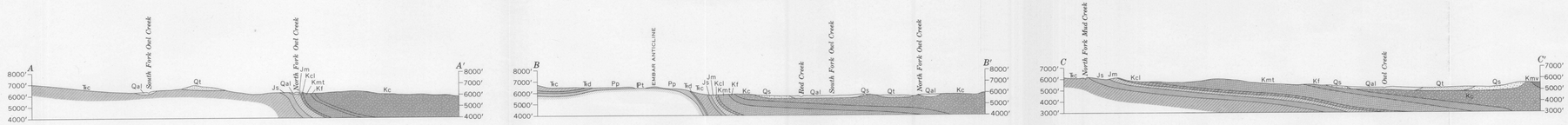
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WATER-SUPPLY PAPER 1519
PLATE 1





EXPLANATION

QUATERNARY

Recent and Pleistocene

Qal — Alluvium
Boulders, cobbles, pebbles, gravel, and sand, locally admixed with silt and clay. Yields water for domestic and stock use

Qs — Slope deposits
Locally derived gravel, sand, silt, and clay. Generally lie above the water table, but serve as a catchment area for precipitation

Qt — Terrace deposits
Gravel, sand, and silt; contain some cobbles and pebbles. Locally, yield water for domestic, stock, and limited irrigation uses

TERTIARY

Eocene

Ttb — Volcanic tuff and breccia
Hardened pyroclastic material. Yields no water to wells

Tw — Willwood formation
Claystone, sandstone, and conglomerate. Groundwater possibilities not known

CRETACEOUS

Upper Cretaceous

Kmv — Mesaverde formation
Buff sandstone and gray carbonaceous shale; contains some coal. Too small in areal extent to yield much water in report area

Kc — Cody shale
Gray shale; contains thin limy sandstone beds in upper part, locally contains zones of limy concretions. Yields water for domestic and stock use

Kf — Frontier formation
Lenticular sandstone interbedded with shale; contains thin bentonite beds. Thin coal beds occur in lower part. Sandstone beds yield water under artesian pressure

Lower and Upper Cretaceous

Kmt — Mowry and Thermopolis shales, undifferentiated
Gray siliceous shale; contains fossil fish scales and thin sandstone and bentonite beds. Black soft shale; contains 40 feet of gray to brown sandstone (Muddy sandstone member of Thermopolis shale) about 200 feet above base. Yields no fresh water

Lower Cretaceous

Kcl — Cloverly formation
Silt and sandstone, shale, and basal sandstone. Basal sandstone yields small quantities of water for domestic and stock use

JURASSIC

Upper Jurassic

Jm — Morrison formation
Variegated shale; contains lenticular conglomerate near the middle. Yields little or no fresh water

Js — Sundance formation
Thin brown fossiliferous limestone, greenish-gray sandstone, and shale; contains red shale and gypsum. Yields little or no fresh water

TRIASSIC

Tkc — Chugwater formation
Red shaly siltstone; contains red sandstone and, locally, limestone. Yields small quantities of water

Tkd — Dinwoody formation
Thin-bedded yellow silty shale; contains gypsiferous limestone bed at top. Yields little or no fresh water

PERMIAN

Pp — Phosphoria formation
Tan and gray limestone; contains thin siltstone beds and, locally, red shale beds. Yields hydrogen sulfide water

PENNSYLVANIAN

Pt — Tensleep sandstone
Tan, buff, gray, and white crossbedded sandstone. Yields water under artesian pressure

Contact
Dashed where approximately located

Fault
Dashed where approximately located

Anticline
Showing plunge of axis; dashed where approximately located

Syncline
Dashed where approximately located

27 — Strike and dip of beds

Domestic, stock, or unused well

Irrigation well

Upper number denotes well number; lower number denotes depth to water, in feet, below land surface; + indicates distance, in feet, of water level above land surface; parentheses indicates chemical analysis given in table 3. Dates of measurements of water levels given in text table 6

■6 — Test hole and number

▲ — Creek sampling site
Chemical analyses given in table 4

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MAP AND SECTIONS SHOWING THE GEOLOGY AND THE LOCATION OF WELLS AND TEST HOLES IN THE OWL CREEK AREA, HOT SPRINGS COUNTY, WYOMING

SCALE 1:63 360
1 ½ 0 1 2 3 4 MILES

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C., MR 3233

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