

Five Preliminary Maps of Kit Carson County, Colorado
Showing the Depth to the Water Table in the Principal Aquifer,
Altitude of the Water Table, Saturated Thickness of the Principal Aquifer,
Altitude of the Surface of the Pierre Shale, and Depth to the Pierre Shale

by
G.H. Chase

U.S. Geological Survey
Open-File Report 56-25

Kit Carson County, Colorado

Suggested title, explanation, credit lines etc. for preliminary map No. 1

Upper left-hand corner: UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Lower left-hand corner: Base modified from maps prepared by the Soil
Conservation Service

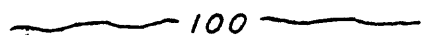
Lower right-hand corner: Hydrology by George H. Chase
Compiled by Verle M. Burtis

Upper right-hand corner: Preliminary Map No. 1

Top center: PREPARED IN COOPERATION WITH THE COLORADO WATER
CONSERVATION BOARD

Title: PRELIMINARY MAP NO. 1 OF KIT CARSON COUNTY, COLORADO, SHOWING DEPTH TO
WATER TABLE IN PRINCIPAL AQUIFER, 1954-55, AND LOCATION OF WELLS AND
SPRINGS FOR WHICH DATA WERE OBTAINED (Subject to revision)

EXPLANATION



Isobath lines drawn through points of equal
depth to water, 1954-55. Contour interval
50 feet.

○
Domestic or stock well

⊕
Municipal well

⊙
Irrigation well

⊕ ⊕
Observation wells

○
Cased test well



Uncased test hole, temporary test or supply well

○ 155.7 ○ 155.7
[305.1] 305.1K

Upper number indicates depth to water; lower number indicates total depth of well, in feet. Brackets indicate that analysis of water from well was made: "K" indicates that only electrical conductivity and concentration of chloride were determined.

○ 150.1 (Dry)

Dry or obstructed well, 1954-55. Number indicates greatest depth reached.



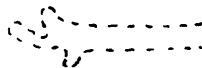
Wells destroyed after measurements or other data were obtained.



Spring



Oil test



Outcrop of Pierre shale in sides of valleys of South Fork of Republican River and Big Sandy Creek



Depression in land surface, usually solution hollow.



Scale

Suggested title, explanation, credit lines etc. for preliminary map No. 2

Upper left-hand corner: UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Lower left-hand corner: Base modified from maps prepared by the Soil
Conservation Service

Lower right-hand corner: Hydrology by James H. Irwin and George H. Chase.
Compiled by Woodrow W. Wilson

Upper right-hand corner: Preliminary Map No. 2

Top center: PREPARED IN COOPERATION WITH THE COLORADO WATER CONSERVATION BOARD

Title: PRELIMINARY MAP NO. 2 OF KIT CARSON COUNTY, COLORADO, SHOWING CONTOURS ON THE
WATER TABLE, 1954-55, AND LOCATION OF WELLS AND SPRINGS FOR WHICH DATA
WERE OBTAINED (Subject to revision)

EXPLANATION

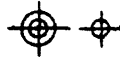


Contour line on water table, 1954-55
Numbers indicate altitude of water
table above mean sea level. Contour
interval 20 feet.

○
Domestic or stock well

⊕
Municipal well

⊙
Irrigation well



Observation wells



Cased test well



Uncased test hole, temporary
test or supply well

○ 4553.1

Number indicates altitude
of water table above mean
sea level.

○ 4555(Dry)

Dry or obstructed well, 1954-55.
Number indicates altitude above
mean sea level of greatest depth
reached.



Wells destroyed after measurements
on other data were obtained.



Spring



Oil test



Depression in land surface,
usually solution hollow



Scale

Suggestions for title, explanation, credit lines etc. for Preliminary Map No. 3

Upper left-hand corner: UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Lower left-hand corner: Base modified from maps prepared by the Soil
Conservation Service

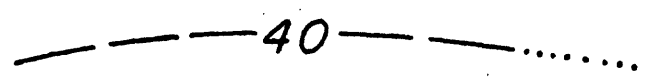
Upper right-hand corner: Preliminary Map No. 3

Lower right-hand corner: Hydrology by George H. Chase
Compiled by Woodrow W. Wilson

Top center: PREPARED IN COOPERATION WITH THE COLORADO WATER
CONSERVATION BOARD

Title: PRELIMINARY MAP NO. 3 OF KIT CARSON COUNTY, COLORADO, SHOWING SATURATED
THICKNESS OF PRINCIPAL AQUIFER, 1954-55 (Subject to revision)

EXPLANATION



Isopach lines drawn through points of equal saturated thickness above Pierre shale, 1954-55, dashed where approximate, dotted where inferred. Contour interval 20 feet.

○
Domestic or stock well

⊗
Municipal well

⊙
Irrigation well

⊖
Cased test well

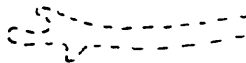
●
Uncased test hole, temporary test or supply well

○₁₀

Number indicates saturated thickness above Pierre shale, in feet, 1-50-55.

⊕ ⊕

Wells destroyed after measurements or other data were obtained.



Outcrop of Pierre shale in sides of valleys of South Fork of Republican River and Big Sandy Creek. Saturated thickness of the valley alluvium is variable but generally less than 20 feet.



Depression in land surface, usually solution hollow



Scale

Kit Carson County, Colorado

Suggestions for title, explanation, credit lines, etc. for Preliminary Map No. 4

Upper left-hand corner:

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Lower left-hand corner:

Base modified from maps prepared by the Soil
Conservation Service

Upper right-hand corner:

Preliminary Map No. 4

Lower right-hand corner:

Control plotted by Harold E. McGovern and
George H. Chase. Contours by George H. Chase.
Compiled by Woodrow W. Wilson.

Top center: PREPARED IN COOPERATION WITH THE COLORADO WATER CONSERVATION BOARD

Title: PRELIMINARY MAP NO. 4 OF KIT CARSON COUNTY, COLORADO, SHOWING CONTOURS
ON THE SURFACE OF THE PIERRE SHALE AND CONTROL POINTS USED
(Subject to revision)

EXPLANATION

————— 3800 —————

Contour line drawn through points of
equal altitude on the uppermost sur-
face of the Pierre shale, weathered
or unweathered, dashed where approximate.
Datum is mean sea level. Contour interval
20 feet.

○
Domestic well, stock well, or seismo-
graph shot hole, for which depth to
shale is known.



Municipal well



Irrigation well



Cased test well



Uncased test hole, temporary test
or supply well

⊙ $\frac{3800}{3820}$ ○ 3800e

Number above line indicates altitude of unweathered or "blue" shale; number below line indicates altitude of weathered or "yellow" shale. Number without line indicates uppermost shale surface reported or noted, whether weathered or unweathered. An "e" after number indicates that exact depth to shale is not known but bottom of well is believed to be at or slightly below shale surface.



Depression in land surface, usually
solution hollow.



Oil test



Scale

Suggestions for title, explanation, credit lines, etc. for Preliminary Map No. 5

Upper left-hand corner: UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Lower left-hand corner: Base modified from maps prepared by the Soil
Conservation Service

Upper right-hand corner: Preliminary Map No. 6

Lower right-hand corner: Lines of equal depth to bedrock by
George H. Chase. Compiled
by Woodrow W. Wilson.

Top center: PREPARED IN COOPERATION WITH THE COLORADO WATER CONSERVATION BOARD

Title: PRELIMINARY MAP NO. 6 OF KIT CARSON COUNTY, COLORADO, SHOWING DEPTH
TO THE SURFACE OF THE PIERRE SHALE (Subject to revision)

EXPLANATION

— — 200 — —

Lines drawn through points of
equal depth to the uppermost
surface of the Pierre shale,
weathered or unweathered. Contour
interval 50 feet.



Domestic well, stock well, or seismo-
graph shot hole.



Municipal Well



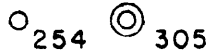
Irrigation well



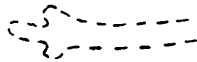
Cased test well



Uncased test hole, temporary test
or supply well



Number indicates depth, in feet,
to uppermost surface of the
Pierre shale



Outcrop of Pierre shale in sides of
valleys of South Fork of Republican
River and Big Sandy Creek



Depression in land's surface,
usually solution hollow.



Scale