

STEAMBOAT ROCK

Sections 27 and 28; T. 88 N.; R. 19 W.; Clay Township; Hardin County
Steamboat Rock, situated on the Iowa River,
contains terrain of variable elevation. The State Department of Health
has approved locations for a town well at an approximate elevation of
1017 feet above sea level, and the following discussion is based on that
elevation.

Anticipated generalized log:

	Thick	From	To
Sand and gravel	13'	0	13'
Yellow and blue clay	46'	13'	59'
Sand (water)	10	59'	69'
Limestone (water at variable depths probably from crevices)	31'+	69'	140'+

The limestone has not been drilled through in this
area but undoubtedly continues below 140 feet.

There are numerous privately owned wells in town.
Many of these are in the upper water-bearing zone and in at least one
case an abandoned well of this type is being used as a cesspool.
Undoubtedly a well into the upper horizon would be subject to
contamination. Furthermore, there is no assurance that it will produce
a sufficient supply for the town.

It is suggested, therefore, that the deeper source
be utilized. If this is done it will be necessary to case into the
solid portion of the limestone. The static water level will be about
60 feet.

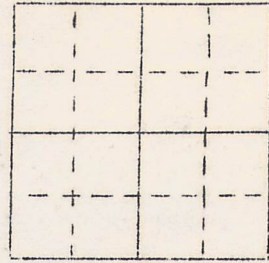
IOWA GEOLOGICAL SURVEY
In Cooperation with U. S. Geological Survey

W-1055

RECORD OF WELL

Location:

Town: Steamboat Rock (N E)
(S W); County Hardin
SW-NE sec. 28 T. 88 N., R. 19 W. Clay Twp.



Well name and number Town Well #1

Owner _____ Address _____

Tenant _____ Address _____

Contractor Thorpe Bros. Well Co. Address Des Moines

Drillers P. West

Drilling dates 10/16/39 to 12/20/39

Well data:

Elevations: Drilling curb 1020 feet; Land surface _____ feet

Determined by _____

Topographic position Upland

Total depth: Reported 150 feet, Measured _____ feet

Drilling method Drilled

Hole and casing data 8" pipe cemented inside of 12 1/2" pipe
(Give amount, size, kind, and depth of all casing; type and
77' of 12 1/2" std black pipe from +2 to +75. 91' of 8" std pipe +3 to +88'
position of seals and packers; cementing; how finished - perforated pipe, screen,
gravel pack, open hole, etc.)

Original depth to water _____ above
ft. below _____ Date _____

Original elevation of water level _____ ft.; Source of data _____

Sources of water: Principal Hampton; Others _____

Production data: _____ Date _____
 Static depth to water 53 Measuring point _____
 Pumping level 67 at 17 g.p.m.

Specific capacity _____ g.p.m. per ft. drawdown; Temperature _____ °F.

Pump data; Type pump _____ Column Dia. _____ Length _____
 Cylinder or bowls: Dia. _____ Length _____ Suction pipe _____
 Power _____ Airline _____
 Estimated rate of production: _____ g.p.m. for _____ hrs. a day
 Use of water _____

WATER ANALYSES (in parts per million)

Date sampled	<u>July 19, 1940</u>	_____	_____	_____
Sampled by	<u>E.G. Fiala</u>	_____	_____	_____
Total solids	<u>250</u>	_____	_____	_____
Insoluble matter	<u>10.0</u>	_____	_____	_____
Alkalinity (Meo)	<u>328.0</u>	_____	_____	_____
Alkalinity (Phn)	<u>0.0</u>	_____	_____	_____
pH	<u>7.3</u>	_____	_____	_____
Fe ₂ O ₃ + Mn ₂ O ₃ + Al ₂ O ₃	<u>3.2</u>	_____	_____	_____
Alkali as sodium	<u>13.4</u>	_____	_____	_____
Calcium	<u>78.9</u>	_____	_____	_____
Magnesium	<u>30.5</u>	_____	_____	_____
Iron (unfiltered)	<u>0.5</u>	_____	_____	_____
Manganese	<u>0.20</u>	_____	_____	_____
Nitrate	<u>11.0</u>	_____	_____	_____
Fluoride	<u>TR.</u>	_____	_____	_____
Chloride	<u>8.0</u>	_____	_____	_____
Sulfate	<u>22.2</u>	_____	_____	_____
Bicarbonate	<u>400.2</u>	_____	_____	_____
Hardness (ppm)	<u>324.</u>	_____	_____	_____
Hardness (gpg)	<u>19.0</u>	_____	_____	_____

Remarks _____

Laboratory data: _____ Sample storage location _____
 Sample range 0-150 No. spls. 30 No. dupls. & cond. 29 Good
 Spls. prepared by Summerfield Washed range _____ by _____
 Driller's log and cond. _____
 Insoluble residues: Prepared by _____ Studied by _____ Strip log _____
 Microscopic study _____ strip log 6140 Conselman.
 Gen. log _____ Correl. by _____