THORPE WELL COMPANY

2340 SIXTH AVENUE
DES MOINES, IOWA

R-T-B

Douglas Coulter

Drilled for Water Works at Garner, Iowa

Well is located ____ miles N-E-S-W and ____ miles N-E-S-W from 9' West of north well - Note-Foo Loc

in the ____ ¼ ____ ¼ Section 30 Township 96N Range 23W

Drilling started ____ 19__ Completed June 18, 19 57

Well No. ____ Kind of Well ____ Depth 325 Size hole started 16 in.

Finish 8" G. P. M. 270 Static Head 16' 6" Pumping level from surface 77'

Water was first encountered at 165 in lime rock Approx. Amt. ____ Temp. 50

Remarks ____

(GIVE DETAILS OF PERFORATED PIPE AND SEALS)

RECORD OF PERMANENT PIPE					TEMPORARY PIPE	
SIZE PIPE	AMOUNT OF PIPE	DEPTH TO BOTTOM OF PIPE	DEPTH TO TOP OF PIPE	MAKE OF PIPE	SIZE PIPE	AMOUNT
10"	82	82	0	40# P.E.	16"Z	19' 6"
8"	70'	147'	77'	Threaded &coupled		

Driller ____ From Surface to ____ feet

Driller ____ From ____ feet to ____ feet

Driller ____ From ____ feet to ____ feet

AMOUNT IN FEET	KIND OF SOIL OR FORMATION (BE SPECIFIC)	TOTAL DEPTH FEET
3	Fill dirt	3
20	Sandy yellow clay	23
25	Shale	48
7	Fine sand & gravel	55
24	Shale	79
14	Lime rock	93
3	Lime rock & shale	96
14	Lime rock	110
10	Shale & lime rock	120
21	Shale	141
24	Lime rock	165
18	Lime rock - sandy	183
22	Lime rock	205
15	Lime rock - sandy	220
10	Brown lime rock	230

--Over--

14	Brown lime -hard	270
3	Very few cuttings	273
24	Brown lime - hard	297
13	Gray lime	310
7	Gray lime - hard	317
8	Lime & shale	325

IOWA GEOLOGICAL SURVEY

In Cooperation with U. S. Geological Survey

RECORD OF WELL

8640

Location: 9' W. OF NORTH WELL

(N E)

Town: GARNER (S W) :County HANCOCK

E.

sec. 30 T. 96 N., R. 23 W. CONCORD Twp.

Well name and number

Owner GARNER CITY WELL (1957) Address

Tenant Address

Contractor THORPE WELL CO. Address DES MOINES, IOWA

Drillers

Drilling dates COMPLETED JUNE 18, 1957

Well data:

Altitudes: Drilling curb feet; Land surface feet

Determined by

Topographic position

Total depth: Reported 325 feet, Measured feet

Drilling method

Hole and casing data 82' OF 10" CASING 0-82'

70' OF 8" CASING 70-147'

Original depth to water 16'6" ft. above below Date

Source of data

Sources of water: Principal

Others

Production Data

Date				
Static water level	16'6"			
Measuring point				
Pumping water level	77			
Yield (g. p. m.)	270			
Duration of pumping				
Specific capacity				

Pump Data

Type pump _____ Column diameter and length _____

Cylinder or bowls diameter and length _____

Suction pipe _____ Airline _____

Power _____ Production _____ g. p. m. for _____ hours per day

Use of water _____

Dissolved constituents and properties (in parts per million except as indicated)

Date sampled				
Sampled by				
Silica (SiO_2)				
Iron (Fe)				
Manganese (Mn)				
Calcium (Ca)				
Magnesium (Mg)				
Potassium (K)				
Sodium (Na)				
Carbonate (CO_3)				
Bicarbonate (HCO_3)				
Sulfate (SO_4)				
Chloride (Cl)				
Fluoride (F)				
Nitrate (NO_3)				
Dissolved solids				
Hardness (as $CaCO_3$)				
Total				
Grains per gallon				
Noncarbonate				
Alkalinity (as $CaCO_3$)				
pH				
Specific conductance (micromhos at 25°C)				
Temperature (°F)				
Analysis No.				

Laboratory Data

Well No. W 8640 Sample range 0 - 325 No. of samples 68 EM9-3

No. of dupls. and cond. 60 Fair Washed range 79 - 325

Samples prepared by R Valentine Date 15/8/57

Logged by NORTHUP Date 10/16/57

Correlations by _____ Date 10/16/57

Log of Farmer Town Well (1932) 225' and additional anticipated strata through the Maquoketa fm.

Formation	Thickness (ft.)	Depth Range (ft.)
No samples		0 - 79
Devonian system		
Lime Creek formation (dolomite)		79 - 125
Shell Rock formation		
No samples		125 - 139
dolomite and limestone		139 - 155
Cedar Valley formation (mostly dolomite, some limestone		155 - 225 T.D.
Additional anticipated strata -		
Cedar Valley formation		
(same as above)		225 - 315
Ordovician system		
Maquoketa formation		
Ft. Atkinson dolomite	20	315 - 335
Elgin cherty dolomite	110	335 - 445
Galena formation (dolomite in upper part, limestone in lower part)		445 -

BH 1957

Hancock

6/6/57

MEMORANDUM

To: H. G. Hershey
From: C. N. Brown
Re: Garner well and call from young Tom Thorpe

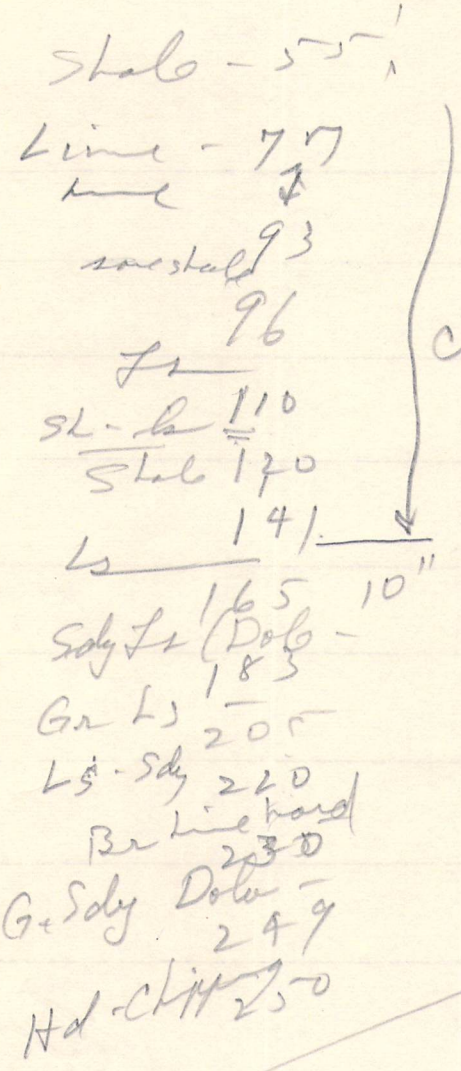
He called with reference to going to top of Maquoketa (65 feet deeper) to get more water. I told him that this was a possibility.

Tom Thorpe

6-6-1957

11:30

Garner:



21' Static

160 gpm

@ pl. 197

SSE

(-311' : Top Mayerick to from our forecast)

CLIPPING BUREAU
Des Moines, Iowa

Leader
Garner, Iowa

MAY 22 1957

Garner Is Getting New Well

Yes, Garner is getting a new well, and as pictured above the well-digging firm is in the process of getting it dug — two employees of the firm are checking some part of the diggings along with Art Jass, waterworks commissioner. The cost of the well is estimated somewhere in the neighborhood of $4,000 — as the cost per foot till they hit rock is $14.00; then it will be $9.00 per foot thereafter. They will have to continue their digging until they strike a good water vein — at least, one that will produce 300 gallons per minute.

The present well provides 265 gallons per minute, so as soon as the new well is completed, the town of Garner will be adequately supplied with water — it is felt it will take another week or so to get the new well in production.

The town of Garner uses on the average (winter days and all), 225,000 to 250,000 gallons of water. When it is hot and dry; then this goes up to 325,000 to 350,000 used in a day. So you can determine how long the one pump must run to keep the town supplied for just one day — so please use the water conservatively until the other pump goes into operation. The standpipe and tower of our town has a capacity of some 100,00 gallons.