QW lat-long. 431042N 0952832 - Aug. 03

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

No samples

RECORD OF WELL 40188



Location:

Town: HARTLEY (N E / S W); County O'BRIEN

SW - SW - NE sec. 32 T. 97 N., R. 39 ~~W~~ E. Hartley Twp.

Well name and number Town of Hartley (East)

Owner _____ Address _____

Tenant _____ Address _____

Contractor Thorpe Well Co Address Des Moines

Drillers _____

Drilling dates Aug 4, 1933 - Aug. 6, 1934

Well data:

Elevations: Drilling curb _____ feet; Land surface _____ feet

Determined by _____

Topographic position Upland plain

Total depth: Reported 471' 11" feet, Measured _____ feet

Drilling method cable tool

Hole and casing data Gravel pack 16" hole started
(Give amount, size, kind, and depth of all casing; type and position of seals and packers; cementing; how finished--perforated pipe, screen, gravel pack, open hole, etc.)
342'2" of 16" casing
61'4" of 14" casing from 321' to 382'4"
83'11" of 12" casing from 319' to 402' 11"
63'6" of 6" casing on top of screen - 70' of 8" screen 1/8" slot from 401'11" to 471'11"

Original depth to water 247 ft. ~~above~~ below curb Date _____

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

Sources of water: Principal Sandstone Dakota 396-472; Others Nebraskan sd.

Production data: Date Nov. 12, 1938

Static depth to water 247 Measuring point

Pumping level 300 at 200 g.p.m.

257 60

Specific capacity 4 g.p.m. per ft. drawdown; Temperature 49 1/2 °F.

Pump data; Type pump Turbine Column Dia. Length 300

Cylinder or bowls: Dia. Length Suction pipe 163

Power Electricity Airline

Estimated rate of production: g.p.m. for hrs. a day

Use of water city supply

WATER ANALYSES (in parts per million)

Date sampled	Nov. 12, 1938	May 15, 1946		
Sampled by	H.G. Henshey	W.E. Hale		
Total solids	2019.0	2037		
Insoluble matter	19.0	28		
Alkalinity (Meo)	360.0	378		
Alkalinity (Phn)	0.0	0		
pH	7.2	7.2		
$Fe_2O_3 + Mn_2O_3 + Al_2O_3$	11.0	9		
Alkali as sodium	98.4	140		
Calcium	332.3	333		
Magnesium	93.0	105		
Iron (unfiltered)	0.4	1.0		
Manganese	0.50	0.4		
Nitrate	0.44	3.5		
Fluoride	trace	0.4		
Chloride	38.0	37		
Sulfate	1020.3	1093		
Bicarbonate	439.2	461		
Hardness (ppm)	1214	1266		
Hardness (gpg)	70.99	74		

Remarks

Laboratory data: Sample storage location

Sample range No samples No. spls. No. dupls. & cond.

Spls. prepared by Washed range by

Driller's log and cond. Yes fair

Insoluble residues: Prepared by Studied by Strip log

Microscopic study strip log

Gen. log Correl. by