RESULTS OF PRODUCTION TEST MADE ON WODEN TOWN WELL NO. 1

Woden, Iowa

May 28, 1948

NAME: Woden Town Well No. 1.

LOCATION: SW NW SW Sec. 10, T. 97 N., R. 26 W., Bingham Twp., Hancock Co.

ELEVATION: Top of 8-inch casing is .3 feet below top rail at station and about 1235 feet above sea level.

OWNER: Town of Woden.

CONTRACTOR: Hoeg and Ames, Lincoln, Iowa.

DRILLER: Ed. Martin.

DRILLING DATES: Started May 6, 1948. Finished May 27, 1948.

TOTAL DEPTH: 530 feet.

CASING AND HOLE SIZE: 270'3" of 8-inch pipe from .5' to 269'9". 200 feet of 6-inch pipe set at 458 feet. Perforated between 392 feet and 402 feet. 458 feet to 531 feet open 6-inch hole.

TEST PUMP: Turbine setting 125 feet.

WATER LEVEL MEASUREMENTS: Measurements by electric line below top of 8-inch casing, 0.5 foot above land-surface datum.

PRODUCTION RATE: Discharge measured by means of stock tank of known capacity.

TEMPERATURE: Water temperature measured at end of 10 feet of 4-inch pipe.

REMARKS: Nearby creamery well drilled to about same depth and pumped continuously at unknown rate during production test period.

RESULTS OF PRODUCTION TEST WODEN TOWN WELL, WODEN, IOWA May 28, 1948

Time	Depth to Water (feet)	Discharge Rate G.P.M.	Temp. °F.	Remarks
May 28				
7:30 am	39±			Non-pumping water level.
7:35				Pump started.
7:43	62.0			
7:45	66.0			
7:48	68.3			
7:50	69.6			
7:54	71.3			
8:01	73.18			
8:15	72.6	150	48	
8:25	72.8			Water dirty gray.
8:33	73.3			
8:35		151	48	Water dirty gray.
8:41	73.7			
8:52	74.2			
9:00	74.45	151	48	Water cloudy gray.
9:11	74.80			
9:21	74.80	153		Water cloudy gray.
9:26	74.85			
9:45	75.00			
9:52	75.20	150	48	Water cloudy gray.
10:03	75.50			
10:20	75.90			
10:30	76.35			
10:50	76.25	150	48	Water cloudy.
11:00	75.85			
11:10	76.00			
11:15	76.45			
11:28	76.15	144±		Water cloudy.
11:42	75.97			
11:55	75.62	139		
12:00 N		154		Pumping rate increased.
12:03 pm	78.45			
12:55	78.20			
1:06	79.10	153		Water slightly cloudy.
1:17	79.40			
1:33	79.60			
1:42		153		Water slightly cloudy.
1:53	79.32			
2:00	79.70			Water cloudy.
2:12	79.70			
2:17		151		Water cloudy.
2:23	79.65			
2:33	79.50			Water cloudy.
2:38		100±		Decrease discharge rate.
2:42	68.00	91		
2:49	66.55			
3:04	65.80	91		Water cloudy.
3:19	65.40			Water slightly cloudy, slight H_2S odor.

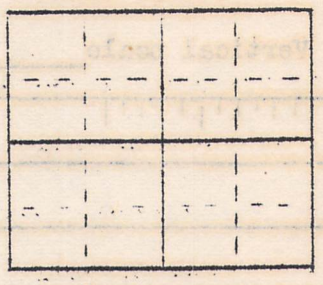
Time	Depth to Water (feet)	Discharge Rate G.P.M.	Temp. °F.	Remarks
May 28				
3:26 pm	65.30	91	48	Water sample collected. Water cloudy.
3:33	65.25			
3:35				Pumping stopped.
3:36	53.30			Recovery measurements.
3:37	52.75			
3:38	52.05			
3:39	51.57			
3:40	51.10			
3:45	49.70			
3:50	48.85			
3:55	48.29			Start removing pump.
4:10	47.20			
4:21	46.65			
4:30	46.25			
4:40	45.88			

7½' Woden Quad
43/358 093543
097-26W-10 CBBD
1980 field located by D. Karsten

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

W-3217

RECORD OF WELL



Location:

Town: WODEN (N E / S W): County Hancock

SW NW SW sec. 10 T 97 N., R. 26 E. W. Bingham Twp.

Well name and number Woden Town Well No. 1 (1948)

Owner Town of Woden Address

Tenant Address

Contractor Hoeg and Ames Address Lincoln, Iowa

Drillers Ed Martin

Drilling dates Started Finished

Well data:

Elevations: Drilling curb 1235± feet; Land surface feet

Drilling curb is about .3' below top of rail at C.R.I.&P. Sta by Hand level

Determined by W.E. Hale, May 28, 1948

Topographic position Upland

Total depth: Reported 531 feet, Measured feet

Drilling method Cable

Hole and casing date 270'3" of 8" pipe from +.5' to 269'9"

200 feet of 6" pipe set at 458'. (Perforated between 392' and 402'

Open 6" hole from 458 to 531 feet

Original depth to water 39.0 ft. below above top 8" casing Date May 28, 1948

Original elevation of water level 1196 ft.; Source of data

Sources of water: Principal Not known ; Others

Production data: Date May 28, 1948

Static depth to water 38 Measuring point top 8" casing 0.5' above l.s.
Pumping level See pump test at _____ g.p.m.

79.5	151
65.0	91

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 AIALYSES (in parts per million)

Date samples	5/28/48			
Sampled by	W F Hale			
Total solids	429.			
Insoluble matter	42.5			
Alkalinity (Meo)	336			
Alkalinity (Phn)	None			
pH	7.4			
Fe_2O_3- Mn_2O_3-Al_2O_3	6.			
Alkali as sodium	16.6			
Calcium	81.8			
Magnesium	26.4			
Iron (unfiltered)	1.16			
Manganese	None			
Nitrate	None			
Fluoride	0.3			
Chlordie	None			
Sulfate	19.1			
Bicarbonate	409.9			
Hardness (ppm)	315.			
Hardness (gpg)	17.8			

Remarks _____

Laboratory data: Sample storage location CD1-5,6

Sample range 0-530 No. spls. 82 No. dupls. & cond. 82 Fair-Good
Spls. prepared by RKS & WJB Washed range 165-530 by Wenger, RKS & WJB
Driller's log and cond. _____

Insoluble residues: Prepared by _____ Studied by _____ Strip log _____
Microscopic study 0-530 strip log 6-10-48
Gen. log _____ Correl. by R. Wehrer