

**RESULTS OF PRODUCTION TEST**

**ON**

**GARRISON TOWN WELL NO. 2**

**July 6, 7, 1948**

**NAME:** Garrison Town Well No. 2.

**LOCATION:** NW NE SE Sec. 29, T. 85 N., R. 11 W.

**ELEVATION:** 867.5 feet at land surface.

**OWNER:** Town of Garrison.

**CONTRACTOR:** Hoeg and Ames, Lincoln, Iowa.

**DRILLER:** Ervel Fink

**DRILLING DATES:** May, 1948 to June, 1948.

**TOTAL DEPTH:** 528 feet.

**CASING AND HOLE DATA:** 70 feet of 10-inch casing cemented in 15-inch hole from 70 feet up to land surface. 10-inch open hole from 70 feet to 528 feet.

**TEST PUMP:** 6-inch turbine pump setting at 225 feet, 215 feet of 4-inch pump column and 10 feet of bowls, driven by belt from gasoline engine.

**WATER LEVEL MEASUREMENTS:** Water level referred to top of 10-inch casing 2.5 feet above land surface.

**DISCHARGE MEASUREMENTS:** Discharge rate obtained by discharging water into tank of known capacity.

**TEMPERATURE MEASUREMENTS:** Water temperature measured at end of 13.5 feet of discharge pipe.

**REMARKS:** Observations made by J. B. Cooper and C. W. Lane.

# RESULTS OF PUMPING TEST ON GARRISON CITY WELL NO. 2 - JULY 6, 7, 1948

| TIME     | DEPTH<br>TO<br>WATER | G.P.M. | TEMP.<br>°F. | REMARKS                        |
|----------|----------------------|--------|--------------|--------------------------------|
| July 6   |                      |        |              |                                |
| 7:30 pm  | 20.5                 |        |              | Measured with no pump in well. |
| 10:30    | 20.0                 |        |              | Pump in well.                  |
| 10:45    |                      |        |              | Pump started.                  |
| 10:46    | 30.0                 |        |              | Pump stopped.                  |
| 11:02    |                      |        |              | Pump started.                  |
| 11:03    | 30.0                 |        |              |                                |
| 11:03:30 | 40.0                 |        |              |                                |
| 11:04    | 50.0                 |        |              |                                |
| 11:04:30 | 60.0                 |        |              |                                |
| 11:04:45 | 70.0                 |        |              |                                |
| 11:05    | 80.0                 |        |              |                                |
| 11:05:30 | 90.0                 |        |              |                                |
| 11:06:30 | 100.0                |        |              |                                |
| 11:07    | 110.0                |        |              |                                |
| 11:08    | 120.0                |        |              | Water dirty gray.              |
| 11:08:30 | 130.0                |        |              |                                |
| 11:09:30 | 140.0                |        |              |                                |
| 11:11    | 150.0                |        |              |                                |
| 11:12    | 160.0                |        |              |                                |
| 11:13    | 170.0                |        |              |                                |
| 11:20    | 200.0                | 70     |              |                                |
| 11:22    | 205.0                |        |              | Water dirty gray.              |
| 11:26    | 210.0                |        |              |                                |
| 11:27    |                      |        |              | Pump stopped.                  |
| 11:28    | 180.0                |        |              |                                |
| 11:29    | 170.0                |        |              |                                |
| 11:29:30 | 160.0                |        |              |                                |
| 11:30    | 150.0                |        |              |                                |
| 11:31    | 140.0                |        |              |                                |
| 11:32    | 130.0                |        |              |                                |
| 11:33    | 120.0                |        |              |                                |
| 11:33:30 | 110.0                |        |              |                                |
| 11:35    | 100.0                |        |              | Pumping resumed.               |
| 11:37:15 | 110.0                |        |              |                                |
| 11:38    | 120.0                |        |              |                                |
| 11:39    | 130.0                |        |              |                                |
| 11:40    | 140.0                |        |              |                                |
| 11:41    | 150.0                | 84     |              |                                |
| 11:42:30 | 160.0                |        |              |                                |
| 11:44    | 170.0                |        |              |                                |
| July 7   |                      |        |              |                                |
| 12:01 am | 202.25               |        |              |                                |
| 12:07    | 197.8                | 63     |              |                                |
| 12:10    | 195.8                |        |              |                                |
| 12:15    | 193                  |        |              |                                |
| 12:20    | 190.45               |        |              |                                |
| 12:25    | 188.25               |        |              |                                |
| 12:30    | 187.15               | 60     | 52           |                                |
| 12:35    | 184.55               |        |              | Water cloudy gray.             |

JULY 6, 7, 1948

| TIME     | DEPTH<br>TO<br>WATER | G.P.H. | TEMP.<br>° F. | REMARKS                          |
|----------|----------------------|--------|---------------|----------------------------------|
| July 7   |                      |        |               |                                  |
| 12:45 am | 179.8                |        |               |                                  |
| 12:55    | 178.5                | 60     |               |                                  |
| 1:05     | 176.9                |        |               |                                  |
| 1:15     | 176.15               |        |               |                                  |
| 1:25     | 176.1                |        |               | Water clearing.                  |
| 1:30     |                      | 60     | 52            |                                  |
| 1:35     | 173.5                |        |               |                                  |
| 1:50     | 172.8                |        |               |                                  |
| 2:05     | 172.4                |        |               |                                  |
| 2:20     | 171.0                | 60     |               |                                  |
| 2:35     | 170.0                |        |               |                                  |
| 2:45     | 169.6                |        |               |                                  |
| 2:47     |                      |        |               | Pump off.                        |
| 2:48     | 140.0                |        |               | Recovery measurements.           |
| 2:50     | 120.0                |        |               |                                  |
| 2:51     | 110.0                |        |               |                                  |
| 2:52     | 100.0                |        |               |                                  |
| 2:52:30  | 90.0                 |        |               |                                  |
| 2:55     | 70.0                 |        |               |                                  |
| 2:57     | 60.0                 |        |               |                                  |
| 2:58     | 55.0                 |        |               |                                  |
| 2:59     | 50.0                 |        |               |                                  |
| 3:03     | 40.0                 |        |               |                                  |
| 3:06     | 35.0                 |        |               |                                  |
| 3:12     | 32.2                 |        |               |                                  |
| 3:15     | 31.4                 |        |               |                                  |
| 9:57     | 28.0                 |        |               |                                  |
| 10:24    |                      |        |               | Pump on.                         |
| 10:24:30 | 40.0                 |        |               |                                  |
| 10:25    | 50.0                 |        |               |                                  |
| 10:26    | 60.0                 |        |               | Water clear.                     |
| 10:27    | 70.0                 |        |               | Pumping rate increased slightly. |
| 10:27:30 | 80.0                 |        |               |                                  |
| 10:28:30 | 90.0                 |        |               |                                  |
| 10:29:30 | 100.0                | 98     |               |                                  |
| 10:30:30 | 110.0                |        |               |                                  |
| 10:32    | 120.0                |        |               |                                  |
| 10:33:30 | 130.0                |        |               |                                  |
| 10:35    | 140.0                |        |               |                                  |
| 10:36    |                      |        |               | Pump off.                        |
| 10:41    |                      |        |               | Pump on.                         |
| 10:47    |                      |        |               | Water slightly cloudy.           |
| 10:51    | 150.0                | 84     |               |                                  |
| 10:53    | 160.0                |        |               |                                  |
| 10:55    | 171.3                |        | 52            |                                  |
| 11:01    | 180.0                | 84     |               |                                  |
| 11:05    | 183.15               |        |               | Water very slightly cloudy.      |
| 11:10    | 184.60               |        |               |                                  |

| TIME     | DEPTH<br>TO<br>WATER | G.P.M. | TEMP.<br>°<br>F. | REMARKS  |
|----------|----------------------|--------|------------------|--|
| July 7   |                      |        |                  |  |
| 11:15 am | 187.70               |        |                  |  |
| 11:25    | 192.40               |        |                  |  |
| 11:35    | 194.70               |        |                  |  |
| 11:50    |                      | 70     |                  |  |
| 12:00    | 196.0                |        |                  |  |
| 12:15 pm | 196.2                | 70     |                  |  |
| 12:30    | 194.1                | 70     |                  |  |
| 12:45    | 193.7                |        |                  |  |
| 12:50    |                      | 70     |                  |  |
| 12:51    |                      |        |                  | Speeded pump slightly.   |
| 12:57    | 196.1                | 70     |                  |  |
| 1:10     | 198.0                | 70     | 52               |  |
| 1:17     | 199.0                | 70     |                  |  |
| 1:30     | 198.9                |        |                  | Water level at Canning Co. 19.8 feet<br>measuring point at top of 4-inch<br>casing 2½ feet below ground surface. |
| 1:45     | 198.7                |        |                  |  |
| 1:50     |                      |        |                  | Sample taken, water almost clear.  |
| 1:51     |                      |        |                  | Pump off, recovery measurements.   |
| 1:54     | 130.0                |        |                  |  |
| 1:55     | 120.0                |        |                  |  |
| 1:55:30  | 110.0                |        |                  |  |
| 1:56:30  | 100.0                |        |                  |  |
| 1:57:30  | 90.0                 |        |                  |  |
| 1:59     | 80.0                 |        |                  |  |
| 2:00     | 70.0                 |        |                  |  |
| 2:02     | 60.0                 |        |                  |  |
| 2:05     | 50.0                 |        |                  |  |
| 2:08     | 40.0                 |        |                  |  |
| 2:13     | 35.0                 |        |                  |  |
| 2:17     | 33.0                 |        |                  |  |
| 2:20     | 32.4                 |        |                  |  |
| 2:22     | 31.95                |        |                  |  |
| 2:27     | 31.5                 |        |                  |  |