

Has Sample

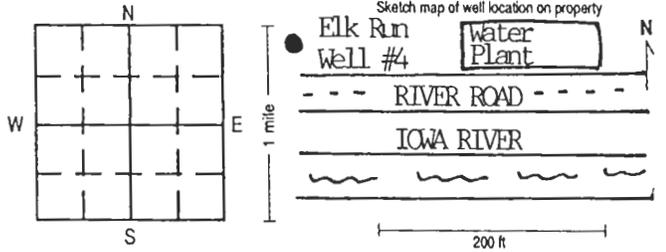
63841

WELL RECORD

Permit No. 2007-019W

**Site identification**  
 Property Owner Iowa Falls Well Number 4  
 Address PO Box 698 / 315 Stevens Street  
 Tenant City Of Iowa Falls, Iowa  
 Well Depth 228 ft Date Completed 4 / 10 / 07

**Location** County Hardin  
 \_\_\_ mi. N and \_\_\_ mi. E of intersection of \_\_\_ and \_\_\_  
NE 1/4 of the SW 1/4 of the SE 1/4 of Sec 13 TWP 89 RNG 21 <sup>E</sup> <sub>W</sub>



upland  hillside  valley Elevation (if known) \_\_\_\_\_

**Formation log**

From	To	Color	Hardness	Formation description
0	2	Br.		Sand
2	7	Bl.		Sandy Clay
7	28	Br.		Limerock
28	42	Br. & Gr.		Limerock
42	54	Br.	Light	Limerock
54	57	Br.	Hard	Limerock
57	58	Gr.		Limerock
58	81	Br.	Hard	Limerock
81	87	Br. & Gr.		Limerock
87	99	Br. & White		Limerock
99	108	Gr.	Hard	Limerock
108	172	Br. & Gr.		Limerock
172	182	Br.		Shale and Limerock
				Crevice
182	220	Br. & Gr.		Limerock
220	228	Br. & Blue		Limerock and Shale

use additional sheets as needed

**Remarks** (including depth of lost drilling fluids, materials, or tools)

**Well use**

Domestic  Municipal  Industrial  
 Livestock  Public Supply  Monitoring  
 Test Well  Irrigation  Other \_\_\_\_\_

**Drill method**  rotary  auger  cable other \_\_\_\_\_

**Hole size**  
 20 inch from 0 ft to 7 ft hole size continued 13 inch from 165 ft to 228 ft  
 18 inch from 7 ft to 165 ft \_\_\_\_\_ inch from \_\_\_\_\_ ft to \_\_\_\_\_ ft

Record all depth measurements from ground level (GL). Use (+) for above GL measurements.

**Casing** Drive shoe (yes / no) Pitless adaptor (yes / no)

Size (ID/OD)	Type / Wt	Depth top	Depth bottom	Amount (length)
14"	.375/54.62	+2	168'6"	168' 6"

**Perforated or slotted casing?** (yes  no)

Perforated / slotted from \_\_\_\_\_ ft to \_\_\_\_\_ ft  
 Perforated / slotted from \_\_\_\_\_ ft to \_\_\_\_\_ ft

**Casing grouted?** (yes  no)

Type	Depth Top	Depth Bottom	Amount
Cement	7	165	158

**Well screen?** (yes  no)

Diameter	Slot size	Depth Top	Depth Bottom	Length	Material

Bottom capped (yes / no) with \_\_\_\_\_  
 Seals / Packers (yes / no) kind \_\_\_\_\_ depth \_\_\_\_\_ ft  
 Gravel packed (yes / no) from \_\_\_\_\_ ft to \_\_\_\_\_ ft  
 type \_\_\_\_\_ amount \_\_\_\_\_

**Well developed?** (yes  no)  
 Explain Acidized with 800 gallons and air lifted

**Pump installed?** (yes  no) Date 7 / 28 / 2007  
 Installer's name Northway Well & Pump Company  
 Type of pump Submersible Depth to intake 168 ft  
 Pump diameter 10" Rated capacity 330 GPM

**Water information** Aquifer:  sand/gravel  limestone  sandstone  
 Main water-supply zone from 172 ft to 220 ft  
 Final water level (static water level) 25'7" ft (below above) GL.  
 Pumping water level 111 ft below GL:  tape  airline  E-line  
 At yield of 410 GPM;  orifice  volumetric  estimate Date 4-10-07

**Water quality test?** (yes  no) Date tested 4 / 14 / 07  
 Tested by Iowa Hygenic Lab  
 Test results \_\_\_\_\_

Contractor Northway Well and Pump Company  
 Address 4895 8th Avenue - Marion, Iowa  
 Driller Frank Caes Certification no. 1784

# Northway Well and Pump Co.

4895 8th Avenue  
Marion, Iowa 52302  
319-377-6339  
1-800-747-6339

100 North 6th Street  
Waukee, Iowa 50263  
515-987-4575  
1-800-747-4575

## WELL TEST DATA REPORT

Customer Fox Engineering & Water Works Dept. City Iowa Falls, Iowa  
Location West of Elk Run Well No. Elk Run Well #4  
Size Casing 14" Total Depth 228' Construction Steel  
Make Pump Sumo Model No. F31-50hp No. of Stages 4  
Diameter 8" Total Setting 173 Air Line Length Electronic Tape  
Meter Used 6" Static Level 25' 7"

DATE	TIME	GPM	P.L.	D.D.	S.C.	P.S.I.	TEMP DISCHARGE DESCRIPTION
4-19-07	1:05pm	360	39	13.3	27.06	133	Cloudy
	1:06	200	50	24.3	10.69	133	Cloudy
	1:07	260	50.5	24.8	10.48	133	Cloudy
	1:08	240	51.6	25.9	9.26	133	Clearing
	1:09	410	60.2	34.5	11.88	90	Clearing
	1:10	410	66.15	40.45	10.13	90	Clearing
	1:15	410	75.3	49.6	8.26	90	Clear
	1:20	410	79.85	54.15	7.57	90	Clear
	1:25	410	81.8	56.1	7.30	90	Clear
	1:30	410	84.1	58.4	7.02	90	Clear
	1:35	410	86.2	60.5	6.77	90	Clear
	1:40	410	88.2	62.5	6.56	90	Clear
	1:45	410	90.1	64.4	6.36	90	Clear
	2:00	410	94.35	68.65	5.97	87	Clear
	2:15	410	97.3	71.6	5.72	87	Sand Content 220 ppm
	2:30	410	99.55	73.85	5.55	86	Clear
	2:45	410	101.9	76.2	5.38	85	Clear
	3:00	410	102.4	76.7	5.34	85	Clear
	4:00	410	105	79.3	5.17	85	Sand Content 20 ppm
	5:00	410	106.3	80.6	5.08	85	Clear
	6:00	410	107.1	81.4	5.03	84	Clear
	7:00	410	107.3	81.6	5.02	84	Sand Content 10.5 ppm
	8:00	410	107.55	81.85	5.0	83	Clear
	9:00	410	107.95	82.25	4.98	84	Clear
	10:00	410	108.45	82.75	4.95	82	Sand Content 3.4 ppm
	11:00	410	108.50	82.8	4.95	82	Clear
	12:00am	410	111.60	85.9	4.77	80	Clear

