

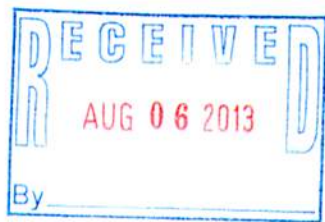
First Half of well

75993

Shawver Well Company, Inc.
2700 Stanley Avenue
Fredericksburg, IA 50630

(563) 237-5341
(800) 568-4449

Location of Well		Well Site Information	
Well #6 Cascade, IA 52033 T87N R1W	County Dubuque Township Whitewater Section 32 Quarters NW	Actual Size 8" Depth 636' Elevation SWL 336' RPS Max GPM	Pump Inst -- Liner--ft Sulflide -- Screen--
Customer Information		Made Water 114', 418', 432', 494', 524'	
City of Cascade Well #6 Cascade, IA 52033		Air Lift Exploratory -- To Ft Mock Rock -- Acidize - Well Use	Screen Size Slot Size Riser Pipe Set From Perforated From Tail Pipe
Job Information		Driller Dave Halweg ; Cert #: 2814	
Area FB T87N R1W	Confirmation Start Date 3/14/2013 End Date 4/12/2013	Remarks:	
Latitude Longitude PWTS # Permit Number	Warranty Date Warranty		

Well Formation Log			Bore Log		
From-To	Color	Formation	From-To	Bit Size - Number	
0 - 1		Gravel	0 - 107	28 1/2"	Hole Opener
1 - 5	Brown	Clay	107 - 109	23"	
5 - 19	Brown - Tan	Clay - Soft	109 - 413	22"	Hole Opener
19 - 30		Sand - Medium	413 - 417	17"	
30 - 40	Tan	Sand - Clay	417 - 636	7 7/8"	
40 - 47	Yellow - Red	Clay	Well Casing Log		
47 - 102	Blue	Clay & Gravel	From-To	Casing	
102 - 103	Yellow	Limestone & Clay	0 - 413	18 5/8" x Steel	
103 - 114	Creame	Limestone	0 - 417	8 5/8" x Steel	
114 - 117	Yellow - Orange	Limestone	2 - 0	18 5/8" x Steel	
117 - 132	Yellow - Creame	Limestone	4 - 0	8 5/8" x Steel	
132 - 158	Gray - Brown	Limestone with Chert	Screen Size		
158 - 183	Creame	Limestone	Slot Size		Set From
183 - 258	Gray - Brown	Limestone	Riser Pipe		Tail Pipe
258 - 267	Dark Gray	Shale Rock	Well Grout Used		
267 - 357	Blue - Green	Shale - Soft	Amount	Type	
357 - 395	Dark Brown	Shale Rock	500 sacks	Neat Cement	
395 - 409	Creame	Limestone with Dark Brown Streaks			
409 - 417	Creame	Limestone			
417 - 432	White - Cream - Dark Brown	Limestone			
432 - 494	Lt. Brown - Cream	Limestone			
494 - 524	Lt. Brown	Limestone with Chert			
524 - 547	Lt. Brown	Limestone			
547 - 558	Gray	Limestone			
558 - 610	Gray - Brown	Limestone			
610 - 618	Gray	Limestone with Shale Seams			
618 - 636	Brown - Tan	Limestone			

WELL RECORD

PWTS Permit N

W# 75993

Iowa Department of Natural Resources Geological Survey Bureau
109 Trowbridge Hall Iowa City, Ia. 52242-1319 PH (319) 335-1575

PWTS Well No.:

County Permit No.

Site identification Property Owner: <u>CASCADE CITY OF</u> Other ID: _____ Address _____ Tenant _____ Well Depth: <u>1018</u> ft Date Completed: <u>8/1/2013</u>		Drill method <input checked="" type="checkbox"/> rotary <input type="checkbox"/> auger <input type="checkbox"/> cable other _____ Hole size <u>17.5</u> inch from <u>417</u> ft to <u>795</u> ft inch from ft t ft <u>12.875</u> inch from <u>795</u> ft to <u>1018</u> ft inch from ft t ft																																																				
Location County _____ _____ mi. ^N / _S and _____ mi. ^E / _W of intersection of _____ and _____ 1/4 of the 1/4 of the 1/4 of Sec TW RN ^E / _W GPS Coordinates (NAD83 datum only) decimal degrees: _____ N. Latitude _____ W. Longitude. Show exact location of well in section grid with a dot (+), sketch map of well location on property.		Casing <input checked="" type="checkbox"/> Drive shoe <input type="checkbox"/> Pitless adaptor <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Size (ID/OD)</th> <th>Type/Wt</th> <th>Depth top</th> <th>Depth bottom</th> <th>Amount (length)</th> </tr> </thead> <tbody> <tr> <td>14" - .375</td> <td>STEEL</td> <td>+1</td> <td>795</td> <td>796</td> </tr> </tbody> </table>		Size (ID/OD)	Type/Wt	Depth top	Depth bottom	Amount (length)	14" - .375	STEEL	+1	795	796																																									
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<input checked="" type="checkbox"/> upland <input type="checkbox"/> hillside <input type="checkbox"/> valley <input type="checkbox"/> level surface Elevation (if known) _____		Casing grouted? <input checked="" type="checkbox"/> Grouted Placement method: <u>CEMENT</u> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Type</th> <th>Depth top</th> <th>Depth bottom</th> <th>Amount (vol/wt)</th> </tr> </thead> <tbody> <tr> <td>CEMENT</td> <td>0</td> <td>795</td> <td>600 BAGS</td> </tr> </tbody> </table>		Type	Depth top	Depth bottom	Amount (vol/wt)	CEMENT	0	795	600 BAGS																																											
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<div style="border: 2px solid blue; padding: 5px; width: fit-content; margin: 0 auto;"> <p style="font-size: 2em; margin: 0;">RECEIVED</p> <p style="color: red; font-weight: bold; margin: 0;">AUG 06 2013</p> <p style="margin: 0;">By _____</p> </div>		Well developed? <input checked="" type="checkbox"/> Well Developed Explain <u>WITH AIR</u> <input type="checkbox"/> pumped <input checked="" type="checkbox"/> airlifted <input type="checkbox"/> bailed for <u>4</u> hrs at <u>700</u> GPM																																																				
Remarks (including depth of lost drilling fluids, materials, or tools) <u>THIS IS THE SECOND HALF OF A TEST HOLE.</u> <u>*PUBLIC SUPPLY</u>		Pump installed? <input type="checkbox"/> Pump Installed Date _____ Installer's Name _____ Type of Pump _____ Depth to Intake _____ ft Pump diameter _____ Rated Capacity GPM _____ GPM																																																				
Well use <input type="checkbox"/> Domestic <input type="checkbox"/> Heat Pump <input type="checkbox"/> Commercial <input type="checkbox"/> Livestock <input type="checkbox"/> Municipal <input type="checkbox"/> Monitoring <input type="checkbox"/> Test Well <input checked="" type="checkbox"/> Public Supply <input type="checkbox"/> Other <input type="checkbox"/> Irrigation		Water information <input type="checkbox"/> Sand/gravel <input checked="" type="checkbox"/> Limestone <input type="checkbox"/> Sandstone Main water-supply zone 1 from <u>900</u> ft to <u>1000</u> ft <input type="checkbox"/> seepage well Main water-supply zone 2 from _____ ft to _____ ft Static water level _____ ft (below/above) G <input type="checkbox"/> tap <input type="checkbox"/> airline <input type="checkbox"/> E-line <input checked="" type="checkbox"/> estimate Pump water level _____ ft (below GL) <input type="checkbox"/> tape <input type="checkbox"/> airline <input type="checkbox"/> E-line <input checked="" type="checkbox"/> estimate At yield of _____ GPM; <input type="checkbox"/> Orifice <input type="checkbox"/> Volumetric <input checked="" type="checkbox"/> Estimate for _____ hours Measurement taken at _____ Date _____																																																				
Water quality test? <input type="checkbox"/> Date _____ Tested by _____		Contractor name <u>G GERICH WELL PUMP SERVICE, LLC</u> Address <u>1331 HWY 1, KALONA, IA 52246</u> Driller <u>Klint Gigerich</u> Certification no. <u>2639</u>																																																				