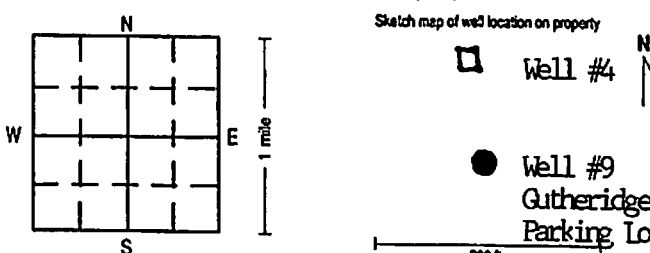


Site Identification
 Property Owner City of Hiawatha Well Number 9
 Address Guthridge Park
 Tenant Hiawatha, Iowa Water Department
 Well Depth 503 ft Date Completed 2 / 27 / 08

Location County Linn
 _____ mi. ^N and _____ mi. ^E of intersection of _____ and _____
 _____ mi. ^S and _____ mi. ^W
SE 1/4 of the NE 1/4 of the SW 1/4 of Sec 32 TWP 84 RNG 7 ^E _W
 Show exact location of well in section grid with a dot (•).
 Sketch map of well location on property

 Well #4
 Well #9
 Guthridge Parking Lot
 200 ft scale bar

upland hillside valley Elevation (if known) 845

Formation log

From	To	Color	Hardness	Formation description
0	3			Top Soil
3	16	Br.		Clay
16	51	Br.	Soft	Broken Lime Rock with clay seams
51	89	Br.	Hard	Lime rock
89	107	Gr.	Hard	Dolomite
107	112	Gr.		Shale
112	131	Gr.	Hard	Dolomite
131	142	Br.	Hard	Dolomite
142	179	Gr.	Hard	Dolomite
179	201	Gr./Green		Dolomite
201	258	Br.		Dolomite with Shale
				Seam @ 253
258	290	Gr. & Tan		Dolomite
290	415	Br.	Hard	Dolomite
415	444	Gr. & Tan		Dolomite
444	501	Gray	Hard	Dolomite
501	503	Gray to Green		Shale

use additional sheets as needed

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

Well use
 Domestic Municipal Industrial
 Livestock Public Supply Monitoring
 Test Well Irrigation Other _____
 (explain)

Drill method rotary auger cable other _____
Hole size
 16 inch from 0 ft to 253 ft hole size continued _____ inch from _____ ft to _____ ft
 11 3/4 inch from 253 ft to 503 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)
17 3/4 od	.375/49.61	+3	253	250

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	8'	250	61.5CY

Well screen? (yes/no)

Diameter	Slot size	Depth Top	Depth Bottom	Length	Material
8"	.125	250	300	50	SS

Bottom capped (yes/no) with Stainless steel plate
 Seals / Packers (yes/no) kind _____ depth _____ ft
 Gravel packed (yes/no) from _____ ft to _____ ft
 type _____ amount _____

Well developed? (yes/no)
 Explain Air lift/air surged

Pump installed? (yes/no) Date April / 2009
 Installer's name Northway Well and Pump Company
 Type of pump Submersible Depth to intake 154 ft
 Pump diameter 10" Rated capacity 800 GPM

Water information Aquifer: sand/gravel limestone sandstone
 Main water-supply zone from 250 ft to 300 ft
 Final water level (static water level) 57 ft (below/above) GL.
 Pumping water level 62 ft below GL; tape airline E-line
 At yield of 800 GPM; orifice volumetric estimate Date _____
 Flow Meter

Water quality test? (yes/no) Date tested 4 / 3 / 08
 Tested by Iowa Hygienic Laboratory
 Test results on file

Contractor Northway Well and Pump Company
 Address 4895 8th Avenue - Marion, Iowa 52302
 Driller Leon Carpenter Certification no. 1822

67029

Note: This well has a large crevice from 255 to 270 feet. During the pump test the well caved in at 258 feet. The well was reopened by cable tool drilling rig. The well had filled in from 503 to 453. The well was air surged and material from the crevice filled the well to 418 feet. The well was then back filled from 418 to 300 feet and an 8" diameter wire wrapped screen was installed.

A bailer is lost in the well from 418 feet to 402 feet due to loose material caving in during the cleaning process. The well was then tested again for production.