

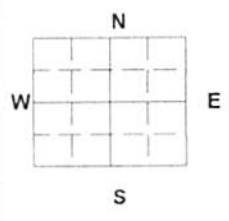
62001

Greiner Drilling ID 646 To Rock: 40 Well Record Permit No. Well Size: 6

Site Identification
Property Owner: Bertram, City of Well Number: 1
Address:
Tenant Same

Well Depth: 446 Date Completed: 5/26/2006
County: Linn

Location
1/4 of the 1/4 of the 1/4 of Sec: Twp: Rng:



Setting Upland Elevation

Formation Notes
Formation Log

Table with 5 columns: From, To, Color, Hardness, Formation Description. Rows include Sand, Clay, Gravel (Small), Rock, and Rock with Shale.

Empty table rows for additional formation log entries.

Remarks: Gray & Green Shale Patches-74'-91' Hard to sample @ end of well

Well Use Public Supply

Drill Method Rotary
Hole Size 6 Inch From 26.5 to 446
12.5 Inch From 0 to 40
12 Inch From 40 to 26.5

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

Table with 5 columns: Casing, ID, Size/type, Wt, Depth top, Depth Bottom, Amount. Rows for Casing 1, 2, 3, and 4.

Perforated or slotted casing: [checked]
Slotted from: 346 Slotted to: 446
Slotted From: Slotted To:

Casing Grouted: [checked]
Type: 20% Solids Bentonite Slurry
Grout depth top: 0
Grout depth bottom: 326
Amount: 1220 Gallons

Grout Placement Halliburton & Tremmie

Well Screen? []
Diameter Slot Size Depth Top Depth Bottom Length Material

Screen 1
Screen 2
Bottom Capped: [] With:
Seals/packers: [checked] kinds: Rubber K Shale Traps
Depths: 307 & 336 337
Gravel Packed [] From To
Type Amount

Well developed? [checked]
Explain Aired for 1 hour

Pump Installed? [] Pump Installation Date
Installers Name
Type of Pump Depth 0

Recommended Pump Setting 280

Water Information Sand / Gravel Limestone Sandstone
Aquifer
Main Water Supply From: 330 to 446
Static: 58
Pumping Water Level: 446 Date Completed: 5/26/2006

Gpm: 150 Volumetric Estimat
Water Quality Test? [] Test Date

Tested By
Test Results

Contractor Greiner Drilling
Address 8100 Wildwood Ln. Toddville, Ia. 52341
Driller Bradley T. Greiner
Certification No. 40272

Greiner Drilling ID _____ To Rock: 40 Well Record _____ Permit No. _____ Well Size: 6"

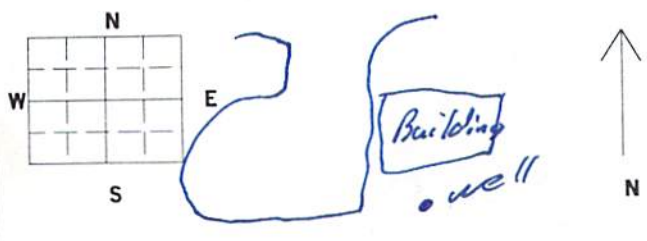
Site Identification
 Property Owner: Bertram, City of Well Number: 1

Address: _____
 Tenant: _____

Well Depth: 446 Date Completed: 5/26/06
 County: Linn

Location
 1/4 of the _____ 1/4 of the _____ 1/4 of Sec: _____ Twp: _____ Rng: _____

Lat. 41° 56.8431' Long. 91° 32.3178'



Setting _____ Elevation 802.3

Formation Notes
 Formation Log _____

From	To	Color	Hardness	Formation Description
0	24		5	Sand
24	27	Gray	5	Clay
27	40		5	Gravel (Small)
40	70	Tan/Yellow	H	Rock
70	88	tan/gray	H	Rock w/ Shale
88	130	Tan	H	Rock
130	282	Gray/tan	H	Rock
282	334	tan/gray	H	Rock
334	445	Gray/tan	H	Rock
445	446	Green	H	Rock

Remarks: Gray + Green shale patches 74'-91'
Hard to sample @ end of well

Well Use Public Water Supply

Drill Method _____
Hole Size
6 Inch From 38.5 to 446
12 1/2 Inch From 0 to 40
12 Inch From 40 to 36.5

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

Casing	ID	Drive Shoe	Pitless Adapter	Size/type	Wt	Depth top	Depth Bottom	Amount
Casing 1				6" steel	Sch 40	-3	326.4	329.5
Casing 2				4 1/2" PVC	Sch 40	306	446	140
Casing 3								
Casing 4				12" steel		0	40	40

Perforated or slotted casing:
 Slotted from: 346 Slotted to: 446
 Slotted From: _____ Slotted To: _____

Casing Grouted:
 Type: 20% Solids Bentonite slurry
 Grout depth top: _____
 Grout depth bottom: 326
 Amount: 1220 Gallons

Grout Placement Halibarton + Tremmic

Well Screen?
 Filter Slot Size _____ Depth Top _____ Depth Bottom _____ Length _____ Material _____

Screen 1 _____
 Screen 2 _____

Bottom Capped: With: _____
 Seals/packers: kinds: Rubber K Shale Traps
 Depths: 307, 336 337
 Gravel Packed: From _____ To _____
 Type _____ Amount _____

Well developed?
 Explain Aired 1hr

Pump Installed? Pump Installation Date _____
 Installers Name _____
 Type of Pump _____ Depth _____

Recommended Pump Setting 280

Water Information Sand / Gravel _____ Limestone Sandstone _____
 Aquifer _____

Main Water Supply From: 330 to 446

Static: 58 Date Completed: 5/26/06
 Pumping Water Level: 446

Gpm: 150 Estimate
 Water Quality Test? Test Date _____

Tested By _____
 Test Results _____

Contractor Greiner Drilling
 Address 8100 Wildwood Ln. Toddville, Ia. 52341
 Driller Brad Greiner
 Certification No. 2729