

WELL RECORD

63983

PWTS Permit No. _____

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

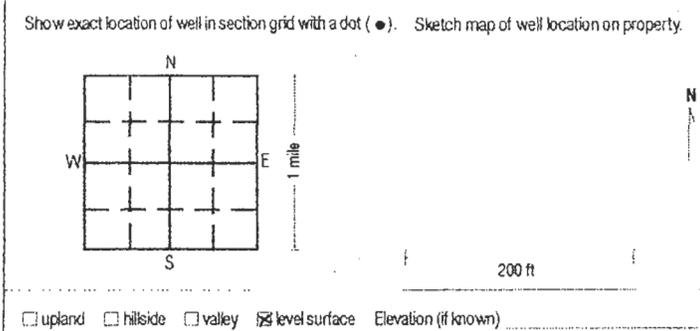
PWTS Well No. _____

County Permit No. _____

Site identification City of Shenandoah, Iowa Well # 07-1
 Property Owner Shenandoah, Iowa Other ID 51601
 Address 500 West Clarinda, Shenandoah, Iowa
 Tenant N/A
 Well Depth 37 (See Remarks) Date completed 7/20/07

Location County Fremont
 _____ mi. ^N and _____ mi. ^E of intersection of _____ and _____
 _____ 1/4 of the SE 1/4 of the SE 1/4 of Sec 23 TWP 69 RNG 40 ^E

GPS Coordinates (NAD83 datum only) decimal degrees:
40° 45' 47.79" N. Latitude 95° 24' 28.40" W. Longitude.



Formation log

From	To	Color	Hardness	Formation description
0	4	Black		Clay (gumbo)
4	10	Black		Clay (sticky)
10	15	Blue/Gray		Clay (soft)
15	18			Clay
18	21			Coarse sand
21	28			Medium coarse sand
28	31			Fine sand
31	34			Medium sand / large boulder
34	37			Coarse sand/cobbles / large cobbles
37	38			Shale

use additional sheets as needed

Remarks (including depth of lost drilling fluids, materials, or tools)
 Depths shown were at time of drilling; Later addition of approximately 8' of fill will result in increase in depth measurements

Well use

<input type="checkbox"/> Domestic	<input type="checkbox"/> Heat pump	<input type="checkbox"/> Commercial
<input type="checkbox"/> Livestock	<input checked="" type="checkbox"/> Municipal	<input type="checkbox"/> Monitoring
<input type="checkbox"/> Test well	<input type="checkbox"/> Public supply	<input type="checkbox"/> Other
	<input type="checkbox"/> Irrigation	

Drill method rotary auger cable other _____

Hole size 36 inch from 0 ft to 38 ft hole size continued _____ inch from _____ ft to _____ ft

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

Casing Drive shoe (yes/no) Pitless adapter (yes/no)

Size (ID/OD)	Type / Wt	Depth top	Depth bottom	Amount (length)
20" O.D.	A53B Steel	+9	32	41
(See "Remarks" Below)				

Perforated or slotted casing? (yes/no)

Perforated / slotted from _____ ft to _____ ft

Casing grouted? (yes/no) Placement method Tremie

Type	Depth top	Depth bottom	Amount (vol/wt)
Neat Cement	1	18	3 cu. yds.
Bentonite Seal	18	22	1,950 lbs.

Well screen? (yes/no)

Diameter	Slot size	Depth top	Depth bottom	Length	Material
20"	0.060	32	37	5'	Stainless Steel
Bottom capped (yes/no) <input checked="" type="checkbox"/> with <u>Stainless Steel Plate</u>					
Seals / Packers (yes/no) <input checked="" type="checkbox"/> kind _____ depth _____ ft					
Gravel packed (yes/no) <input checked="" type="checkbox"/> from <u>22</u> ft to <u>37</u> ft					
type <u>Red Flint #60</u> amount <u>19,000 lbs.</u>					

Well developed? (yes/no)

Explain Air-lifted for 2 1/2 hrs.; test-pumped for 24 hrs.
 (pumped airlifted bailed) for 2 1/2 hrs. at 200 GPM

Pump installed? (yes/no) Date 8/20/07

Installer's name Cahoy Pump Service

Type of pump Submersible Depth to intake 35 ft

Pump diameter 7" Rated capacity 350 GPM

Water information Aquifer: sand/gravel limestone sandstone

Main water-supply zone from 18 ft to 37 ft seepage well

Static water level 3' ft (below/above) GL: tape airline E-line estimate

Pumping water level 24 ft below GL: tape airline E-line estimate

At yield of 329 GPM: orifice volumetric estimate for 24 hours

Measurements taken at 5:00 (AM/PM) Date 7/24/07

Water quality test? (yes/no) Date tested 7/24/07

Tested by Cahoy Pump Service

Contractor Cahoy Pump Service

Address 411 E. Main St. Frederick'sburg, Iowa 50630

Driller Mark Classen Certification no. 1899