

Site identification

Property Owner Regional Water Other ID Well # 15-R

Address 108 Highway 59, Avoca, Iowa 51521

Tenant N/A

Well Depth 30 ft Date completed 6/21/07

Drill method rotary auger cable other _____

Hole size

32 inch from 0 ft to 31 ft hole size continued _____ inch from _____ ft to _____ ft

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

Location County Shelby

_____ mi. N and _____ mi. E of intersection of _____ and _____

_____ 1/4 of the _____ 1/4 of the _____ 1/4 of Sec. _____ TWP _____ RNG _____ E W

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

Size (ID/OD)	Type / Wt	Depth top	Depth bottom	Amount (length)
<u>8" I.O.</u>				<u>24</u>
<u>16"-8" Reducer</u>		<u>24</u>		<u>25</u>

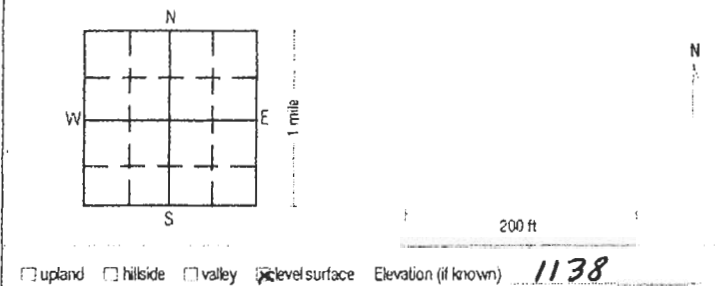
GPS Coordinates (NAD83 datum only) decimal degrees:

41° 30.318 N. Latitude 95° 20.750 W. Longitude.

Perforated or slotted casing? (yes/no) no

Perforated / slotted from _____ ft to _____ ft

Perforated / slotted from _____ ft to _____ ft



Casing grouted? (yes/no) yes Placement method _____

Type	Depth top	Depth bottom	Amount (vol/wt)
<u>Cement Grout</u>			<u>15</u>
<u>Bentonite Seal</u>	<u>15</u>	<u>18</u>	<u>750 lbs.</u>

Formation log

From	To	Color	Hardness	Formation description
<u>0</u>	<u>4</u>			<u>Topsoil</u>
<u>4</u>	<u>7</u>	<u>Gray</u>		<u>Clay</u>
<u>7</u>	<u>10</u>	<u>Brown</u>		<u>Clay</u>
<u>10</u>	<u>15</u>			<u>Fine to medium sand + gravel</u>
<u>15</u>	<u>19</u>	<u>Gray</u>		<u>Fine sand</u>
<u>19</u>	<u>20</u>			<u>Fine sand + gravel</u>
<u>20</u>	<u>24</u>			<u>Medium to coarse sand + gravel</u>
<u>24</u>	<u>28</u>			<u>Medium to coarse sand + gravel; cobbles</u>
<u>28</u>	<u>30</u>			<u>Fine to medium sand + gravel; cobbles</u>
<u>30</u>	<u>31</u>	<u>Gray</u>		<u>Clay</u>

use additional sheets as needed

Well screen? (yes/no) yes

Diameter	Slot size	Depth top	Depth bottom	Length	Material
<u>16"</u>	<u>0.100</u>	<u>25</u>	<u>30</u>		
<u>0</u>					

Bottom capped (yes/no) yes with Stainless Steel Plate

Seals / Packers (yes/no) no kind _____ depth _____ ft

Gravel packed (yes/no) yes from 30 ft to 18 ft type Red Flat #90 amount 9,000 lb.

Well developed? (yes/no) yes

Explain Air-lifted for 1 hour; test-pumped for 48 hrs

(pumped, airlifted, bailed) for 48 hrs at 70 GPM

Pump installed? (yes/no) yes Date 8/15/07

Installer's name Cahoy Pump Service

Type of pump Submersible Depth to intake 29 ft

Pump diameter 4" Rated capacity 84 GPM

Water information Aquifer: sand / gravel limestone sandstone

Main water-supply zone from 25 ft to 30 ft seepage well

Static water level 12 ft (below above) GL: tape airline E-line estimate

Pumping water level 17 ft below GL: tape airline E-line estimate

At yield of 70 GPM: orifice volumetric estimate for 48 hours

Measurements taken at 2:30 (AM/PM) Date 6/27/07

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

Drilled reverse-circulation rotary

Water quality test? (yes/no) no Date tested _____ / _____ / _____

Tested by _____

Well use

Domestic Heat pump Commercial

Livestock Municipal Monitoring

Test well Irrigation Public supply Other _____

Contractor Cahoy Pump Service

Address 411 E. Main St., Fredericksburg, Iowa 50630

Driller Mark Classen Certification no. 1899