

WELL RECORD

1 of 4

PWTS Permit No. 85968

County Permit No. 2017-0134W

Iowa Department of Natural Resources - Geological Survey
109 Trousdale Hall, Iowa City, IA 52242-1319 PH (515) 335-1575

PWTS Well No. _____

COPY

Site Identification

Property Owner CAT-Ziegler Other ID 1750203

Address 11490 265th St Mason City

Tenant _____

Well Depth 360 ft Date completed 3/16/17

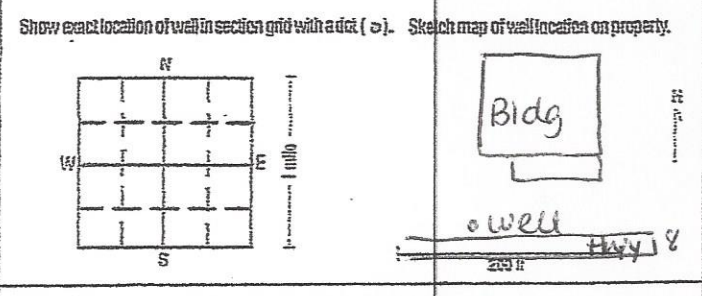
Location County Cerro Gordo

mi. ¹/₄ and mi. ²/₄ of intersection of _____ and _____

1/4 of the 1/4 of the 1/4 of Sec 11 TWP 9b R 2E

GPS Coordinates (NAD83 datum only) decimal degrees:

N. Latitude _____ W. Longitude _____



upland inside valley level surface Elevation (ft/m) _____

Formation log					
From	To	Color	Hardness	Formation description	
0	2	black	S	Topsoil	
2	16	yellow	S	Clay	
16	22	gray green	S	Shale	
22	24	white	S	Sand	
24	33	gray	S	Clay	
33	42	yellow	S	Clay	
42	44	yellow	MH	limestone	
44	45	white	S	shale	
45	49	gray	MH	limestone & shale	
49	60	brown	MH	limestone	
60	64	gray	MH	limestone	
64	69	gray	MH-S	shale & limestone	
69	102	gray	S	shale	
102	106	gray	MH	limestone	

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

use additional sheets as needed

Well use

Domestic Heat pump Commercial Monitoring

Livestock Municipal Public supply Other

Test well Irrigation

Drill method rotary auger cable other

hole size

1 1/4 inch from 0 ft to 48 ft 5/8 inch from 181 ft to 300 ft

9/8 inch from 48 ft to 174 ft _____ inch from _____ ft to _____ ft

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

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

Size (ID/OD)	Type / Vt	Depth top	Depth bottom	Amount (length)
6"	Steel	+16"	184	185 1/2'

Perforated or slotted casing? (yes/no) _____

Perforated / slotted from _____ ft to _____ ft

Perforated / slotted from _____ ft to _____ ft

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

Type	Depth top	Depth bottom	Amount (vol/wt)
Cement	0	184	18000 lbs

Well screen? (yes/no) _____

Diameter	Slot size	Depth top	Depth bottom	Length	Material
0					
0					

Bottom capped (yes/no) _____ with _____

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

Gravel packed (yes/no) _____ from _____ ft to _____ ft

type _____ amount _____

Well developed? (yes/no) _____

Explain _____

(pumped, drilled, bailed) for 1/2 hrs at 30 GPM

Pump installed? (yes/no) _____ Date _____ / _____ / _____

Installer's name _____

Type of pump _____ Depth to intake _____ ft

Pump diameter _____ Rated capacity _____ GPM

Water information Aquifer: sand / gravel limestone sandstone

Main water supply zone from 268 ft to 360 ft casing well

Static water level 42 ft (below/above) GL; tape airline E-line estimate

Pumping water level 80 ft below GL; tape airline E-line estimate

A yield of 25 GPM; orifice volumetric estimate for _____ hours

Measurements taken at _____ : _____ (AM/PM) Date _____ / _____ / _____

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

Tested by County Sanitarian

Contractor Schumacher Well Drilling

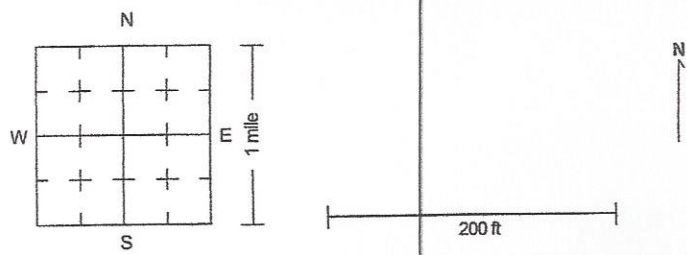
Address 2201 Slagle Dr Algona

Driller Jeremy Walker Certification no. 6087

PWTS No. or PWS No. _____ PWTS Permit No. 2017-0154W GEOSAM Well No. (IGS use only) _____

Site Identification
 Property owner DAT-Ziegler Other ID 1750203
 Address _____ City _____
 Tenant _____
 Well depth _____ ft Date completed ____/____/____

Drill Method Rotary Auger Cable Other _____
Hole size _____ inch from 0 ft to _____ ft hole size continued
 _____ inch from _____ ft to _____ ft

Location County _____
 GPS coordinates (NAD83 datum)
 _____ Latitude _____ Longitude _____
 Decimal Degrees Degrees, Decimal Minutes Degrees, Minutes, Seconds
 _____ 1/4 of the _____ 1/4 of the _____ 1/4 of Sec _____ TWP _____ RNG _____ W
 Show exact location of well in section grid with a dot (.). Sketch map of well location on property.


Casing or Loop Pipe
 Record all depth measurements from ground level (GL). Use + for above GL measurements.

Size (in)	Material	Depth Top	Depth Bottom	Perforated	Slotted	Screen
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> slot size _____
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> slot size _____
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> slot size _____
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> slot size _____

Casing Grout Placement method _____

Type	Depth Top	Depth Bottom	Amount (vol/wt)

Gravel packed variety _____
 Seals/packers

Formation Log

From	To	Color	Hardness	Formation description
106	124	brown	MH	Limestone
124	132	white	MH	Limestone
132	144	gray	MH	Limestone
144	146	light blue	S	Shale
146	152	white	MH	Limestone
152	162	white brown	MH	Limestone quartz
162	164	brown	MH	Fracture Limestone
164	173	brown	MH	Dolomite
173	204	brown	MH	Limestone
204	205	gray	MH	Limestone
205	213	tan	MH	Limestone
213	217	white	MH	Limestone
217	223	brown	MH	Dolomite
223	224	gray	M-MH	Shale
224	228	gray	MH	Limestone
228	233	light gray	MH	Limestone

(use additional sheets as needed)

Pump Installation Date ____/____/____
 Type of pump _____ Depth to intake _____ ft
 Pump diameter _____ in Rated capacity _____ GPM

Water Information Date ____/____/____
 Use + for above GL measurements.

Static Water Level	Pumping Water Level	Yield	Duration
_____ ft	_____ ft	_____ GPM	_____ hrs

Water level measurement: Sonic Tape Airline E-line Estimate
 Water yield measurement: Orifice Volumetric Estimate
 Main water-supply zone from _____ ft to _____ ft below GL

Well Development
 Physical explain: _____
 Chemical explain: _____

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

Contractor
 Company Schumacher well
 Address _____
 Driller J Walker Certification no. 6087

Well Use
 Domestic Public supply Livestock
 Heat pump Commercial Irrigation
 # of borehole(s) _____ Monitoring Other _____

WELL RECORD FORM

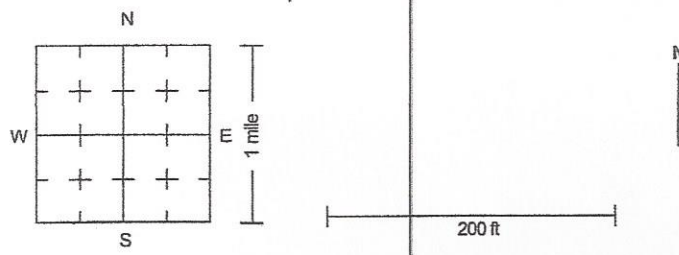
3064

85968

PWTS No. or PWS No. _____ PWTS Permit No. 2017.0154 W GEOSAM Well No. (IGS use only) _____

Site Identification
 Property owner CAT-Ziegler Other ID 175 0203
 Address _____ City _____
 Tenant _____
 Well depth _____ ft Date completed ____/____/____

Drill Method Rotary Auger Cable Other _____
Hole size _____ inch from 0 ft to _____ ft
 _____ inch from _____ ft to _____ ft
 hole size continued
 _____ inch from _____ ft to _____ ft
 _____ inch from _____ ft to _____ ft

Location County _____
 GPS coordinates (NAD83 datum)
 _____ Latitude _____ Longitude _____
 Decimal Degrees Degrees, Decimal Minutes Degrees, Minutes, Seconds
 _____ 1/4 of the _____ 1/4 of the _____ 1/4 of Sec _____ TWP _____ RNG _____ E _____ W _____
 Show exact location of well in section grid with a dot (.). Sketch map of well location on property.


Casing or Loop Pipe
 Record all depth measurements from ground level (GL). Use + for above GL measurements.

Size (in)	Material	Depth Top	Depth Bottom	Perforated	Slotted	Screen
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> slot size _____
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> slot size _____
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> slot size _____
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> slot size _____

Casing Grout Placement method _____

Type	Depth Top	Depth Bottom	Amount (vol/wt)

Gravel packed variety _____
 Seals/packers

Formation Log

From	To	Color	Hardness	Formation description
233	234	gray	M-MH	Shale
234	237	brown	MH	limestone
237	238	gray	MH	
238	250	broken gray	MH	Dolomite
250	251	green gray	S-M	Shale
251	254	gray	MH	limestone
254	255	black gray	MH-M	Shale
255	258	broken gray	MH	limestone
258	260	white	MH	limestone
260	261	green	M	Shale
261	264	gray	MH	limestone & Shale
264	268	brown	MH	limestone
268	299	brown	MH	Dolomite ^{little water}
299	301	gray	M	Shale
301	310	brown	MH	Dolomite
310	312	green white	MH	limestone Shale

(use additional sheets as needed)

Pump Installation Date ____/____/____
 Type of pump _____ Depth to intake _____ ft
 Pump diameter _____ in Rated capacity _____ GPM

Water Information Date ____/____/____
 Use + for above GL measurements.

Static Water Level	Pumping Water Level	Yield	Duration
_____ ft	_____ ft	_____ GPM	_____ hrs

Water level measurement: Sonic Tape Airline E-line Estimate
 Water yield measurement: Orifice Volumetric Estimate
 Main water-supply zone from _____ ft to _____ ft below GL

Well Development
 Physical explain: _____
 Chemical explain: _____

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

Contractor
 Company Schumacher Well
 Address _____
 Driller JWalker Certification no. 6087

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 Heat pump Commercial Irrigation
 # of borehole(s) _____ Monitoring Other _____



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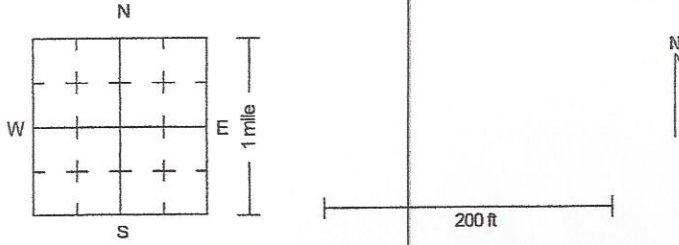
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 Property owner CAT-Ziegler Other ID 1756203
 Address _____ City _____
 Tenant _____
 Well depth _____ ft Date completed / /

Drill Method Rotary Auger Cable Other _____
Hole size
 _____ inch from 0 ft to _____ ft
 _____ inch from _____ ft to _____ ft
 hole size continued
 _____ inch from _____ ft to _____ ft
 _____ inch from _____ ft to _____ ft

Location County _____
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				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> slot size _____
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> slot size _____
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> slot size _____
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> slot size _____

Casing Grout Placement method _____

Type	Depth Top	Depth Bottom	Amount (vol/wt)

Gravel packed variety _____
 Seals/packers

Formation Log

From	To	Color	Hardness	Formation description
312	324	brown	MH	Dolomite
324	327	gray	MH	Limestone Shale
327	336	brown	MH	Limestone
336	345	brown	MH	Dolomite
345	354	brown	MH	Limestone
354	355	gray	MH	Limestone
355	357	white	H	Limestone
357	358	white gray	MH	Limestone Shale

(use additional sheets as needed)

Pump Installation Date / /
 Type of pump _____ Depth to intake _____ ft
 Pump diameter _____ in Rated capacity _____ GPM

Water Information Date / /
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