

WELL RECORD

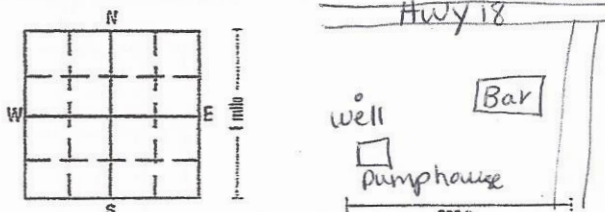
PWTS Permit No. _____

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

PWTS Well No. _____

County Permit No. _____

COPY

Site identification Property Owner <u>Racers</u> Other ID _____ Address _____ Tenant _____ Well Depth <u>350</u> ft Date completed <u>11 / 11 / 13</u>					Drill method ☒ rotary ☐ auger ☐ cable ☐ other _____ Hole size <u>1 3/4</u> inch from <u>0</u> ft to <u>21</u> ft <u>9 7/8</u> inch from <u>21</u> ft to <u>243</u> ft hole size continued <u>5 3/4</u> inch from <u>243</u> ft to <u>337</u> ft <u>4 1/2</u> inch from <u>337</u> ft to <u>350</u> ft																																																																																																	
Location County <u>Kossuth</u> _____ mi. N and _____ mi. E of intersection of _____ and _____ _____ 1/4 of the _____ 1/4 of the _____ 1/4 of Sec _____ TWP _____ RNG _____ E _____ GPS Coordinates (NAD83 datum only) decimal degrees: _____ N. Latitude _____ W. Longitude _____ Show exact location of well in section grid with a dot (•). Sketch map of well location on property.					Record all depth measurements from ground level (GL). Use (+) for above GL measurements. Casing Drive shoe (yes/no) _____ Pileless adapter (yes/no) _____ <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Size (ID/OD)</th> <th>Type / Wt</th> <th>Depth top</th> <th>Depth bottom</th> <th>Amount (length)</th> </tr> </thead> <tbody> <tr> <td>10"</td> <td>Steel</td> <td>0</td> <td>21</td> <td>21'</td> </tr> <tr> <td>6"</td> <td>Steel</td> <td>+1</td> <td>243</td> <td>244'</td> </tr> <tr> <td>5"</td> <td>Steel</td> <td>232</td> <td>337</td> <td>105'</td> </tr> </tbody> </table>					Size (ID/OD)	Type / Wt	Depth top	Depth bottom	Amount (length)	10"	Steel	0	21	21'	6"	Steel	+1	243	244'	5"	Steel	232	337	105'																																																																									
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☐ upland ☐ hillside ☐ valley ☐ level surface Elevation (if known) _____					Casing grouted? (yes/no) ☒ Placement method <u>pumped</u> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Type</th> <th>Depth top</th> <th>Depth bottom</th> <th>Amount (vol/wt)</th> </tr> </thead> <tbody> <tr> <td>Benseal</td> <td>0</td> <td>21</td> <td>20% solids</td> </tr> <tr> <td>rat cement</td> <td>0</td> <td>243</td> <td>56 bags</td> </tr> </tbody> </table>					Type	Depth top	Depth bottom	Amount (vol/wt)	Benseal	0	21	20% solids	rat cement	0	243	56 bags																																																																																	
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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, airlifted, bailed) for _____ hrs at _____ GPM																																																																																																	
Remarks (including depth of lost drilling fluids, materials, or tools)					Pump installed? (yes/no) ☒ Date _____/_____/_____ Installer's name _____ Type of pump _____ Depth to intake _____ ft Pump diameter _____ Rated capacity _____ GPM																																																																																																	
Well use ☐ Domestic ☐ Heat pump ☐ Commercial ☐ Livestock ☐ Municipal ☐ Monitoring ☐ Test well ☐ Public supply ☐ Other _____ ☐ Irrigation					Water information Aquifer: ☐ sand / gravel ☐ limestone ☒ sandstone Main water-supply zone from <u>337</u> ft to <u>346</u> ft ☐ seepage well Static water level <u>82</u> ft (below / above) GL; ☒ tape ☐ airline ☐ E-line ☐ estimate Pumping water level <u>120</u> ft below GL; ☐ tape ☒ airline ☐ E-line ☐ estimate At yield of <u>20</u> GPM; ☐ orifice ☐ volumetric ☒ estimate for _____ hours Measurements taken at _____ : _____ (AM / PM) Date _____/_____/_____ Water quality test? (yes/no) _____ Date tested _____/_____/_____ Tested by _____																																																																																																	
Contractor <u>Schumacher Well Drilling</u> Address <u>2201 Siagle Dr Algona</u> Driller <u>Jeremy Walker</u> Certification no. <u>6087</u>																																																																																																						

2 of 2

PWTS No. or PWS No. _____		PWTS Permit No. _____		GEOSAM Well No. (DNR use only) _____	
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Site Identification

Property owner Racers Other ID _____

Address _____ City _____

Tenant _____

Well depth _____ ft Date completed ____/____/____

Drill Method

☐ Rotary ☐ Auger ☐ Cable ☐ Other _____

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.

Hole size

____ inch from ____ ft to ____ ft	hole size continued
____ inch from ____ ft to ____ ft	____ inch from ____ ft to ____ ft
____ inch from ____ ft to ____ ft	____ inch from ____ ft to ____ ft

Formation Log

From	To	Color	Hardness	Formation description
214	232	red	S	Clay
232	241	white	S	Clay
241	246	brown	MH-M	Sandstone
246	251	white	S	Sandstone: Shale
251	253	Gray	MH	Dolomite
253	291	white	S	Sandstone: Shale
291	294	white	MH	Limestone
294	296	brown	S	Sandstone
296	315	yellow white	MH	Dolomite
315	318	white	MH	Limestone
318	323	red	S	Clay
323	333	green	S	Shale
333	335	tan	MH	Dolomite
335	336	green	S	Shale
336	340	tan	MH	Dolomite broken limestone shale water
340	346	brown	MH	Dolomite
346	350	white	MH	(use additional sheets as needed) Limestone

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	Tees	Screen
				☐	☐	slot size _____
				☐	☐	slot size _____
				☐	☐	slot size _____
				☐	☐	slot size _____
				☐	☐	slot size _____

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

Casing Grout

Placement method _____

Type	Depth top	Depth bottom

Well Use

☐ Domestic ☐ Public supply ☐ Livestock

☐ Heat pump ☐ Commercial ☐ Irrigation

of borehole(s) _____ ☐ Monitoring ☐ Other _____

Pump Installation

Date ____/____/____

Type of pump _____ Depth to intake _____ ft

Pump diameter _____ in Rated capacity _____ GPM

Water Information

Use + for above GL measurements.

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

Water level measurement:

☐ Sonic ☐ Tape ☐ Abline ☐ 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: _____

Contractor

Company Schumacher Well

Address _____

Driller J Walker Certification no. 6087