WELL RECORD FORM

PWSID# *or* PWTS No. _____ PWTS Permit No. _____ GeoSam WNumber *(IGS use only)* 100971

Site Identification

Property owner City of Ruthven, IA Other ID #4

Address 1305 Gowrie St. City Ruthven

Tenant _____

Well depth 481 ft Date completed 9 / 19 / 2022

Location

County Palo Alto

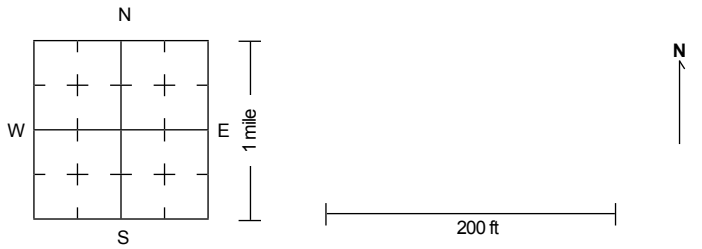
GPS coordinates (NAD83 datum)

43.1261023 Latitude -94.8553029 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.



Drill Method

☑ Rotary ☐ Auger ☐ Cable ☐ Other _____

Hole size

24 inch from 0 ft to 481 ft

_____ inch from _____ ft to _____ ft

hole size continued

_____ inch from _____ ft to _____ ft

_____ inch from _____ ft to _____ ft

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
14	Stainless Steel	0	450	☑	☐	☐ slot size _____
14	Johnson SS	450	481	☐	☑	☑ slot size .035
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
☑ Gravel packed		400	481	amount 21 yds variety _____		
☐ Seals/packers				type _____		

☐ Bottom capped with _____

Formation Log

From	To	Color	Hardness	Formation description
0	14	Brown		Top soil and brown clay with sand
				and gravel and rock layers
14	20	Gray		Clay with rocks
20	40	Gray		Clay with rocks and sand layer
40	120	Gray		Clay with rocks
120	140	Gray		Clay with rocks and gravel layer
140	158	Gray		Clay with rocks
158	165			Rocks with gravel
165	180	Gray		Clay with rocks
180	190			Fine med coarse gravel and rocks
				with clay strip
190	219	Gray		Clay with rocks
219	220			Rocks and gravel
220	224			Med coarse sand and fine med
				coarse gravel and rocks
224	240	Gray		Clay with rocks and sand and
				(use additional sheets as needed)

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

Casing Grout

Placement method _____

Type	Depth Top	Depth Bottom	Amount (vol/wt)
Cement Grout	0	360	16 yds
Bentonite Steal	360	400	22 SS

Pump Installation

Date 10 / 24 / 2022

Type of pump Franklin Depth to intake 346 ft

Pump diameter 6 in Rated capacity 250 GPM

Water Information

Date 09 / 20 / 2022

Static Water Level	Pumping Water Level	Yield	Duration
226 ft	266 ft	330 GPM	24.00 hrs

Water level measurement: ☑ Sonic ☐ Tape ☐ Airline ☐ E-line ☐ Estimate

Water yield measurement: ☑ Orifice ☐ Volumetric ☐ Estimate

Main water-supply zone from 450 ft to 481 ft below GL

Well Development

☑ Physical explain: Double disk surge block piping

☐ Chemical explain: _____

Contractor

Company Sargent Drilling

Address 2016 Industrial Park Road, Carroll, IA 51401

Driller Derek Schweitzer Certification no. 8338

Well Use

☐ Domestic ☑ Public supply ☐ Livestock

☐ Heat pump ☐ Commercial ☐ Irrigation

# of borehole(s) ____ ☐ Monitoring ☐ Other _____

IGS IIHR Hydroscience & Engineering The University of Iowa

Mail form to **Iowa Department of Natural Resources**: 502 E. 9th St., Des Moines, IA 50319-0034

Or click here to e-mail form to: well.records@dnr.iowa.gov

Make copies for: **well contractor, customer, and county health department**

DNR

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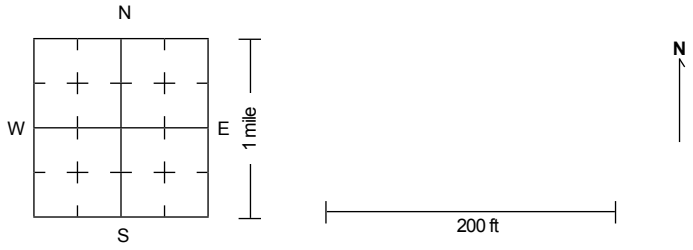
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_____ 1/4 of the _____ 1/4 of the _____1/4 of Sec _____ TWP _____ RNG _____ E W

Show exact location of well in section grid with a dot (•). Sketch map of well location on property.



Formation Log

From	To	Color	Hardness	Formation description
240	251	Gray		Clay with rocks
251	260			Fine med coarse sand and fine
				gravel with rocks
260	300	Gray		Clay with rocks
300	313	Gray		Clay
313	315			Rock
315	317			Rocks and gravel
317	320	Gray		Clay
320	340	Gray		Clay with rocks
340	380	Gray		Clay
380	388			Fine med coarse sand and fine
				med gravel
388	394	Gray		Clay
394	400			Fine med coarse sand and fine
				med gravel
				(use additional sheets as needed)

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

Well Use

☐ Domestic ☑ Public supply ☐ Livestock

☐ Heat pump ☐ Commercial ☐ Irrigation

# of borehole(s) ____ ☐ Monitoring ☐ Other _____

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

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
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
☐ Gravel packed				amount _____ variety _____		
☐ Seals/packers				type _____		

☐ Bottom capped with _____

Casing Grout

Placement method _____

Type	Depth Top	Depth Bottom	Amount (vol/wt)

Pump Installation

Date ____/____/_____

Type of pump _____ Depth to intake _____ ft

Pump diameter _____ in Rated capacity _____ GPM

Water Information

Date ____/____/_____

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: Double disk surge block piping

☐ Chemical explain: _____

Contractor

Company Sargent Drilling

Address 2016 Industrial Park Road, Carroll, IA 51401

Driller Derek Schweitzer Certification no. 8338

IGS IIHR Hydroscience & Engineering The University of Iowa

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DNR

Rev. 2017 DNR Form 542-8170

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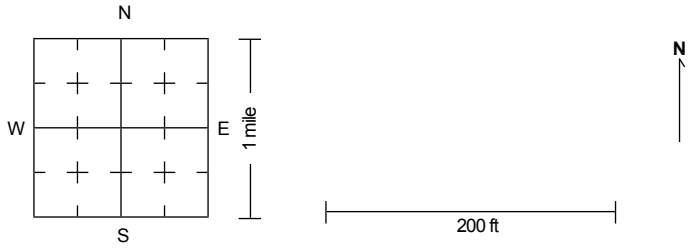
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Show exact location of well in section grid with a dot (•). Sketch map of well location on property.



Formation Log

From	To	Color	Hardness	Formation description
400	409			Fine med coarse sand and fine
				gravel and rocks
409	440			Fine med coarse sand and fine
				gravel
440	480			Fine med coarse sand and fine
				gravel with some rocks and gray
				clay strip
480	500			Fine med to coarse sand with
				some fine gravel
				(use additional sheets as needed)

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

Well Use

☐ Domestic ☑ Public supply ☐ Livestock

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# of borehole(s) ____ ☐ Monitoring ☐ Other _____

Drill Method

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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

Casing or Loop Pipe

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Size (in)	Material	Depth Top	Depth Bottom	Perforated	Slotted	Screen
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
☐ Gravel packed				amount _____ variety _____		
☐ Seals/packers				type _____		

☐ Bottom capped with _____

Casing Grout

Placement method _____

Type	Depth Top	Depth Bottom	Amount (vol/wt)

Pump Installation

Date ____/____/_____

Type of pump _____ Depth to intake _____ ft

Pump diameter _____ in Rated capacity _____ GPM

Water Information

Date ____/____/_____

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

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