88845

WELL RECORD FORM

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

Site Identification

Property owner Southern Sioux RWS | Other ID Well D-4

Address PO Box 8 | City Ireton

Tenant _____

Well depth 430 ft | Date completed 10 / 26 / 17

Location

County Plymouth

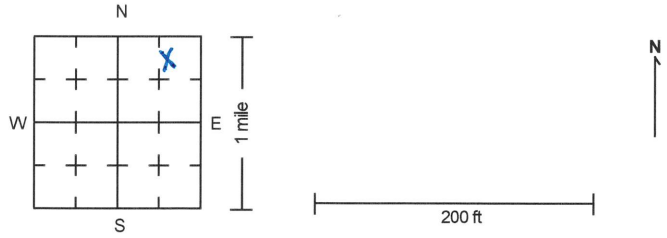
GPS coordinates (NAD83 datum)

42.9080000 Latitude | 96.1790500 Longitude

☑ Decimal Degrees ☐ Degrees, Decimal Minutes ☐ Degrees, Minutes, Seconds

____ 1/4 of the NE 1/4 of the NE 1/4 of Sec 5 TWP 93 RNG 45 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

23 inch from 0 ft to 430 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	Steel	0	270	☐	☐	☐ slot size _____
12	Stainless steel	270	430	☐	☑	☑ slot size .025
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
				☐	☐	☐ slot size _____
☑ Gravel packed		230	430	amount 200 variety _____		
☐ Seals/packers				type _____		

☐ Bottom capped with _____

Casing Grout

Placement method _____

Type	Depth Top	Depth Bottom	Amount (vol/wt)
Cement grout	0	210	
Bentonite seal	210	230	

Formation Log

From	To	Color	Hardness	Formation description
0	8	brown	dense	Top soil
8	20	brown	dense	Fine, medium, coarse sand
20	40	gray	dense	Fine, medium, coarse sand and
				fine gravel and medium, coarse
				gravel and rocks with clay layer
40	49	gray	dense	Fine, medium, coarse sand and
				fine,medium, coarse gravel, rocks
49	60	tan	dense	Clay
60	80	tan	dense	Sandy clay and clay with rocks
80	102	gray	dense	Clay with rocks
102	155	brown	dense	Fine, medium, coarse sand and
				fine gravel
155	157	gray	dense	Shale
157	158	gray	hard	Rock
158	160	gray	hard	Shale and rock strips
160	180	gray	hard	Shale and hard strips
				(use additional sheets as needed) on next sheet

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
104 ft	150 ft	1330 GPM	40.00 hrs

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

Water yield measurement: ☑ Orifice ☐ Volumetric ☐ Estimate

Main water-supply zone from 270 ft to 430 ft below GL

Well Development

☑ Physical explain: Surge blocked and pumped for 6 hours

☐ Chemical explain: _____

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 _____

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

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

Rev. 2017 DNR Form 542-8170

88845

WELL RECORD FORM

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

Site Identification

Property owner Southern Sioux RWS Other ID Well D-4

Address _____ City _____

Tenant _____

Well depth _____ ft Date completed ____/____/____

Location

County _____

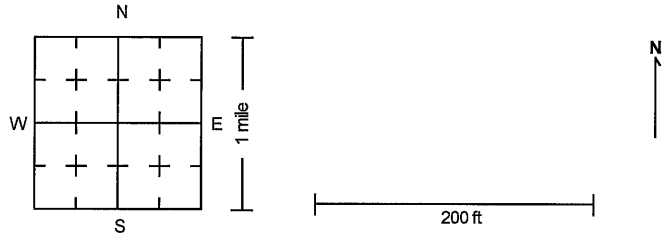
GPS coordinates (NAD83 datum)

_____ 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.



Formation Log

From	To	Color	Hardness	Formation description
180	200	gray	hard	Shale with hard strips and black
				shale layers
200	216	gray	hard	Shale with hard strips
216	220	brown	dense	Sandstone
220	240	brown	dense	Sandstone with shale strip
240	251	brown	dense	Sandstone
251	254	gray	dense	Shale
254	260	gray	dense	Sandstone with shale strip
260	280	brown	dense	Sandstone
280	300	gray	dense	Sandstone with shale layer and
				shale strips
300	320	gray	dense	Sandstone with hard strips
320	330	brown	dense	Sandstone
330	380	gray	dense	Shale with sandstone layer
380	404	brown	dense	Fine,medium,to coarse sandstone
404	405	brown	hard	Cemented sandstone (PD)
				(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: _____

☐ Chemical explain: _____

Contractor

Company Sargent Drilling

Address 2016 Industrial Park Road, Carroll, IA 51401

Driller Derek Schweitzer Certification no. 8338

IGS IHR Hydroscience & Engineering THE UNIVERSITY OF IOWA

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WELL RECORD FORM

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

Site Identification

Property owner Southern Sioux Co. RWS Other ID Well D-4

Address _____ City _____

Tenant _____

Well depth _____ ft Date completed ____/____/____

Location

County _____

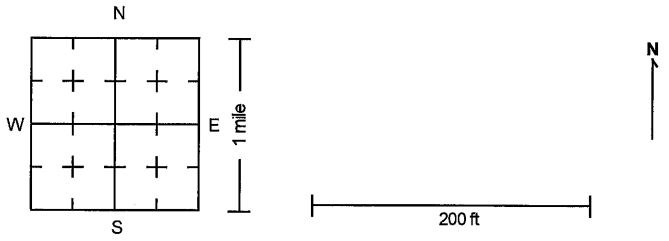
GPS coordinates (NAD83 datum)

_____ 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.



Formation Log

From	To	Color	Hardness	Formation description
405	420	gray	hard	Sandstone with shale layer
420	422	brown	dense	Sandstone
422	427	gray	hard	Shale
427	432	brown	dense	Sandstone
432	437	gray	hard	Shale
				(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: _____

☐ Chemical explain: _____

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

Site Identification

Property owner Southern Sioux RWS Other ID Well D-4

Address PO Box 8 City Ireton

Tenant _____

Well depth 430 ft Date completed 10 / 26 / 17

Location

County Plymouth

GPS coordinates (NAD83 datum)

42.9080000 Latitude 96.1790500 Longitude

☑ Decimal Degrees ☐ Degrees, Decimal Minutes ☐ Degrees, Minutes, Seconds

_____ 1/4 of the NE 1/4 of the NE 1/4 of Sec 5 TWP 93 RNG 45 E W

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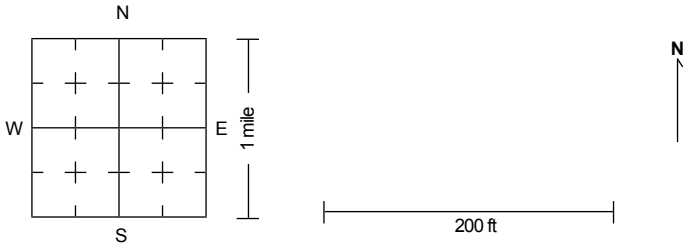

Formation Log

From	To	Color	Hardness	Formation description
				(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 7 / 19 / 2018

Type of pump Grundfos Depth to intake 205 ft

Pump diameter 8 in Rated capacity 1100 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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