

WATER PERMIT NO. 8236-3

Name of Applicant: Arnie Beisch

Address: 44877 142nd St, Waubay SD 57273 Phone: 605 881-4128

Amount of Water Claimed: 2.2 cfs Total Acres: 180 acres

Source of Water Supply: groundwater (2 wells)

Water to be used for: irrigation County: Day

Type of Waste Disposal System:

Location: 2 miles SE of Waubay

Appl. Amended - 12-8-16

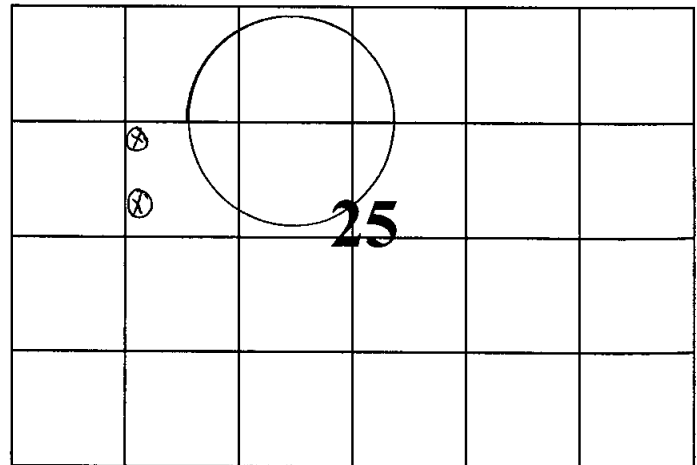
PRIORITY Date Received: 8-24-16 Application/License Fee: \$ 1050

Corrected Application Received: Period of Annual Use: May 1 – Oct 31

Remarks:

Diversion Point: SW 1/4 NW 1/4 Sec 25-T122N-R53W

Land to be Irrigated: NW 1/4, W 1/2 NE 1/4 Sec 25-T122N-R53W



Depth of Well: 50
~~140~~ feet deep

Well Driller: Wieber Well Drilling

Remarks:

Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 8-24-16

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

amended 12/8/16

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	(office use only)	
	No. <u>8236-3</u>	Hydrologic Unit <u>10160010</u>
	Basin <u>James River</u>	
	Newspaper <u>Reporter & Farmer - Waterton</u>	<u>605-345-3356</u>
	<u>Public Opinion - Waterton</u>	<u>605-886-6901</u>

RECEIVED

AUG 24 2016

WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water For Irrigation

Type of Application: ☒ New ☐ Vested Right ☐ Amendment/Correction to Permit No. _____
(Use predates Mar 2, 1955)

Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.)

1. Name of Applicant ARNIE BEISCH Phone 881-4128
(check one) Owner ☒ Tenant/lessee
Mailing Address 44877 142nd STREET WAUBAY SD 57273
(Address) (City) (State) (Zip Code)
2. Amount of water claimed 2.2 *CFS or **GPM ***AF Total Acreage 180
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)
3. Source of water supply WELLS
4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County DAY
3 wells with pumps 5 1/2 OF NW 1/4 SEC 25-122-53
5. County or counties where water will be used DAY
6. Annual period during which water is to be used MAY - OCTOBER 31
7. List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
NW 1/4 NE 1/4 25-122-53	40	W 1/4 SW 1/4 NW 1/4 25-122-53	10
SW 1/4 NE 1/4 25-122-53	40	W 1/4 NW 1/4 25-122-53	10
SE 1/4 NW 1/4 25-122-53	40	NW 1/4	
NE 1/4 NW 1/4 25-122-53	40		

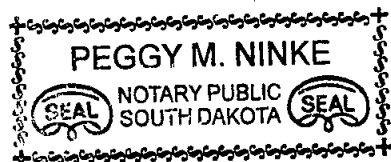
8. Give a description of the project. (Attach sheet if more space is needed)

3 wells with pumps supply water through pipe
TO A CENTER PIVOT

STATE OF SOUTH DAKOTA)
County of Day) SS

Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Also, attach map and any other technical information. (see instructions)

I, ARNIE BEISCH, the applicant, certify that I have read this application, have examined the attached map and that the matters stated are true and that I intend, and am able to complete the necessary construction.

Applicant's signature Arnie BeischSubscribed and sworn to before me this 23rd day of August 20 16

Peggy M. Ninke
Notary Public signature

My Commission Expires October 23, 2017

10-20-2017

**SOUTH DAKOTA
WATER PERMIT NO. 8236-3**

Date of first receipt of application August 24, 2016.

Date of receipt of amended application December 8, 2016.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8236-3 to Arnie Beisch, 44877 142nd St, Waubay SD 57273 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 8236-3 appropriates 2.2 cubic feet of water per second from up to three wells to be completed into the Coteau Lakes Aquifer (50 feet deep) located in the S 1/2 NW 1/4 Section 25 for irrigation of 180 acres located in the NW 1/4, W 1/2 NE 1/4 Section 25; all in T122N-R53W within the former boundaries of the Sisseton Wahpeton Indian Reservation.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: May 1 – October 31.
3. The date from which applicant may claim right is August 24, 2016.
4. The date of approval of Permit No. 8236-3 is February 13, 2017.
5. One-fifth of the construction is to be completed on or before August 13, 2019.
6. All construction is to be completed on or before February 13, 2022.
7. Water is to be put to beneficial use on or before February 13, 2026.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The wells authorized by Permit No. 8236-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

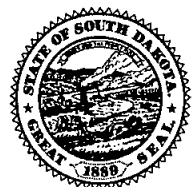
WATER MANAGEMENT BOARD

By: Jeanne Goodman

Jeanne Goodman, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

MAR 06 2017

date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 16" Depth _____
- b) Casing Type PVC Diameter 12 Thickness _____
- c) Screen Type SS Diameter 12 Thickness _____
- d) Gravel Pack _____ Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material 90
- f) Depth to Water (ground surface to water level) 13
- g) Distance to nearest existing domestic well:
On applicant's property 800' On property owned by others 3600'

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) _____
- b) System Capacity (gallons) _____ Year Constructed _____
- c) Connected to the City of _____ Sanitary System

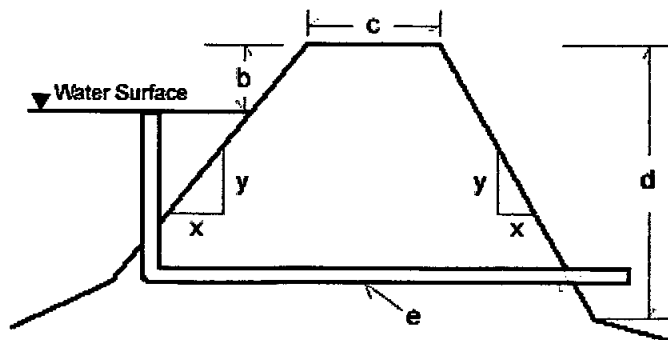
3. Dugout Information

- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

- a) If a private engineering firm or government agency was involved in the design of this dam, please give their name and address:

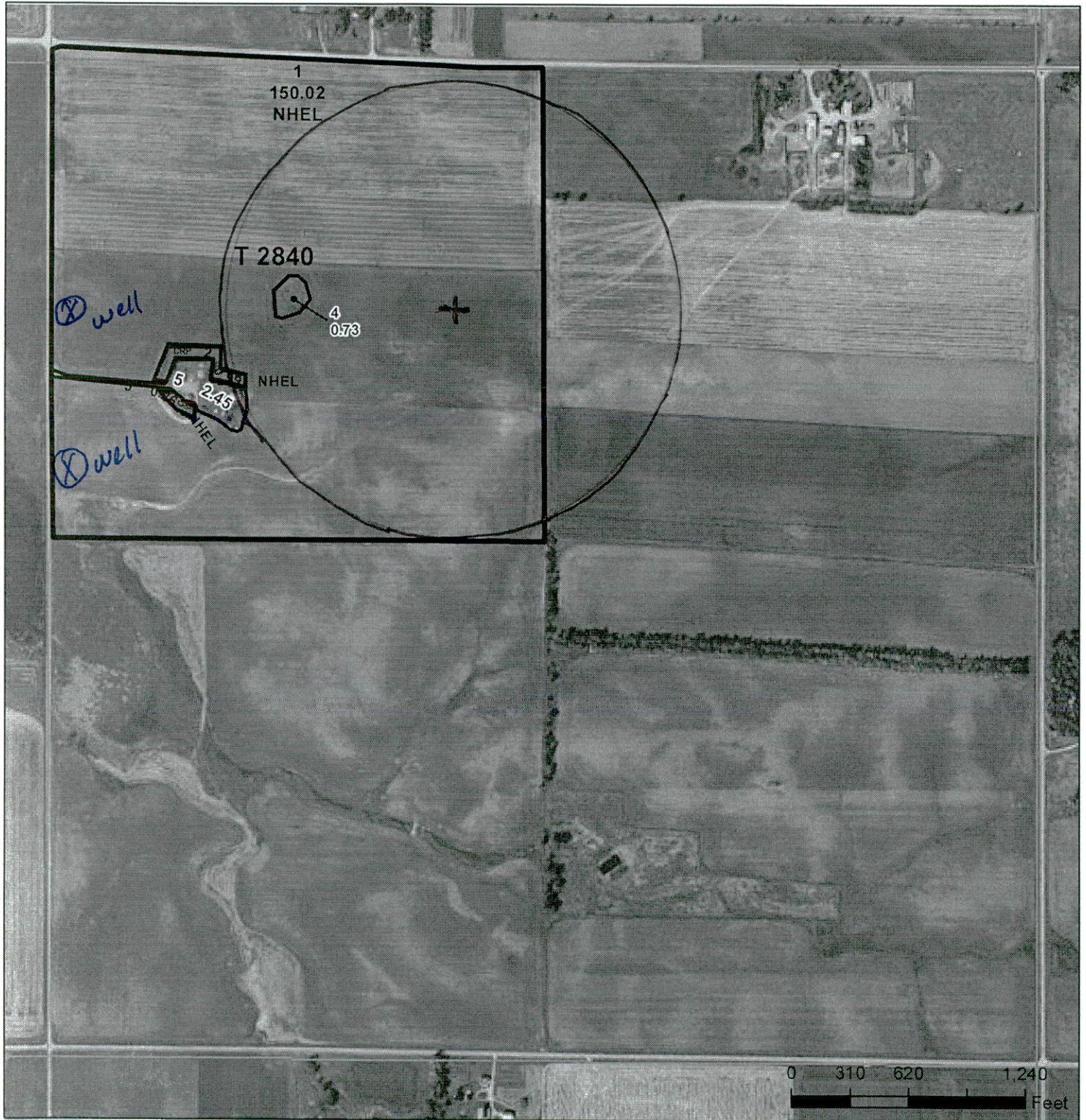


- b) Freeboard _____
- c) Crest Width _____
Crest Length _____
- d) Height _____
- e) Primary Outlet Capacity _____
If pipe, diameter _____
- f) Secondary Spillway Capacity _____
Spillway Width _____
- g) X & Y Slope (e.g. 3 to 1 is a typical slope)
Upstream _____
Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres



United States
Department of
Agriculture

Day County, South Dakota



Common Land Unit ☐ Other Ag ☐ Cropland ☐ CRP ☐ Tract Boundary

Wetland Determination Identifiers

- Restricted Use
- ▽ Limited Restrictions
- Exempt from Conservation
- Compliance Provisions

Barbara Jakheim



RECEIVED

AUG 24 2016

WATER RIGHTS
PROGRAM

2016 Program Year

Map Created February 01, 2016

Farm 5248

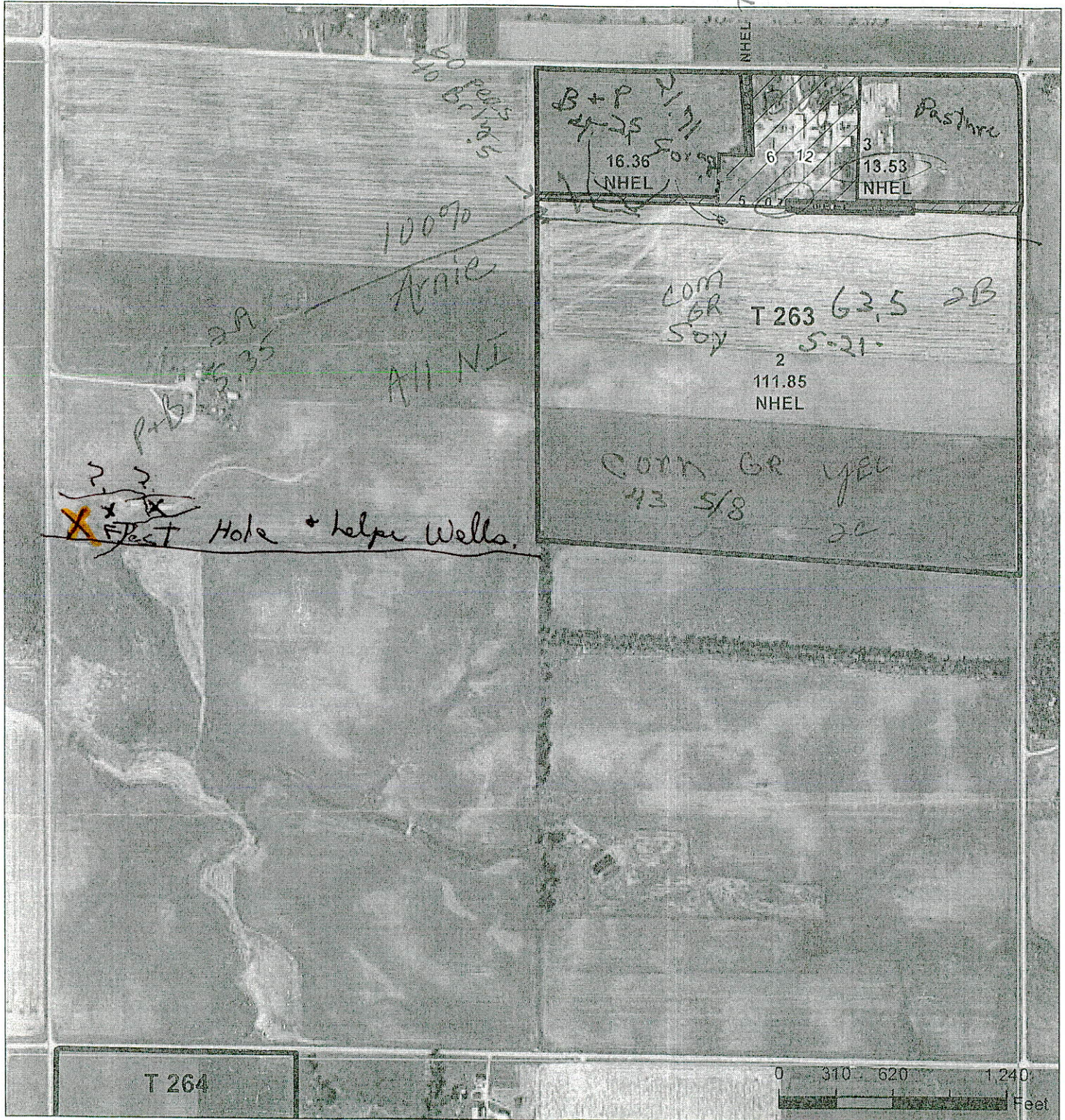
25 -122N -53W

United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (NAIP) imagery. The producer accepts the data 'as is' and assumes all risks associated with its use. USDA-FSA assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside FSA Programs. Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact boundaries and determinations or contact USDA Natural Resources Conservation Service (NRCS).



United States
Department of
Agriculture

Day County, South Dakota



Common Land Unit

Common Land Unit

Cropland

Rangeland

CRP

Tract Boundary

PLSS

Wetland Determination Identifiers

● Restricted Use

▽ Limited Restrictions

□ Exempt from Conservation

□ Compliance Provisions

RECEIVED

DEC - 8 2016

WATER RIGHTS
PROGRAM



2016 Program Year

Map Created May 09, 2016

Farm 294

25 -122N -53W

United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (NAIP) imagery. The producer accepts the data 'as is' and assumes all risks associated with its use. USDA-FSA assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside FSA Programs. Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact boundaries and determinations or contact USDA Natural Resources Conservation Service (NRCS).

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 8/24, 20 16

RECEIVED OF Arnie Beisch 44877 142nd St Waubay SD 57273

The following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. <u>8236-3</u> to Appropriate Water, to construct and to put water to beneficial use	850	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>8236-3</u>	200	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	1050 00

No. **07960**

By

J. Sam Hoelman
Chief Engineer

SOUTH DAKOTA WATER WELL COMPLETION REPORT

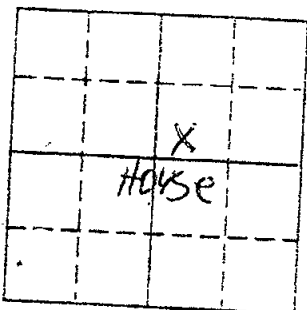
Phone 605-881-4128

11-02

Location SW 1/4 NE 1/4 Sec 25 Twp 121 - Rg 53

County DAY

North



Please mark well location with an "X"

MAD ATTACHED

Well completion Date

8-20-2016

SAME MAP 4 Test Holes

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)
? ft. from IN Field CROPS ONLY (Identify source)

PROPOSED USE:

- ☒ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

ROTARY

CASING DATA:

If other describe ☐ Steel ☒ Plastic 43 1/2 Test Hole ☐ Other

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>7</u> LB/FT	<u>4 3/4</u> IN	<u>0</u> FT	<u>120</u> FT	<u>1</u> IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type 7 X Wyo BEN No. of Sacks 0 Grout Weight 0 Lb/gal From 0 Ft To 120 Ft

Describe grouting procedure

Tremie line to 120'

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 5" Inches Length Feet

Material DVC
Slot Size 2040 Set From 120 Feet to 140 Feet
Other information

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? chlorine IN

☐ No, Why Not?

Lab sample sent to for water quality analysis

Please return White Conv to DEED

Well Owner: ARNIE

Business Name: FARM

Address1: 44877 143rd ST

Address2:

City, State, Zip: WAUBAY, S. DAK 57273

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>TOP SOIL</u>	<u>0</u>	<u>2</u>
<u>CLAYS</u>	<u>2</u>	<u>163</u>
<u>WATER BEARING SAND .015-.020</u>	<u>163</u>	<u>173</u>

STATIC WATER LEVEL

If flowing: closed in pressure

FEET ?

GPM flow

through

PSI

Controlled by

☐ Valve

☐ Reducers

☐ Other

Inch pipe

Reduced flow rate

GPM

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped

Describe:

AIR

☐ Bailed

☐ Other

Pumping Level Below Land Surface

60'

Ft After

1

Hrs. pumped

100

GPM

Ft After

Hrs. pumped

GPM

If pump installed, pump rate:

GPM

REMARKS

RECEIVED

AUG 24 2016

WATER RIGHTS PROGRAM

This well was drilled under license #

And this report is true and accurate.

Drilling firm:

Wieber Well Drilling

Signature of License Representative:

Jerry Wieber

Signature of Well Owner or Equitable Property Holder:

Date:

8-21-2011

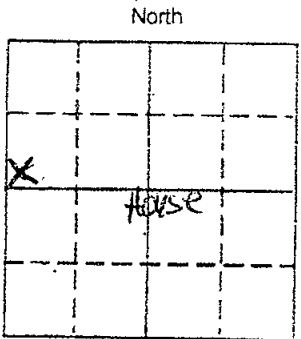
SOUTH DAKOTA WATER WELL COMPLETION REPORT

Phone 605-881-4128

11-02

Location SW 1/4 NW Sec 25 Twp 181 - Rg 53
122 54

County DAK
#2 of 4



Please mark well location with an "X"
MAP ATTACHED
Completion Date
8-20-2016

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)
ft. from IN Field CROPS ONLY (identify source)

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:
ROTARY

PIPE DATA: ☐ Steel ☒ Plastic 4 3/4 ☐ Other
or describe TEST HOLE

WEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

ROUTING DATA:

Type	No. of Sacks	Grout Weight	From	To
		Lb/gal	FT	FT
<u>Wyo Ben</u>		Lb/gal	<u>0</u>	<u>90</u>

Grouting procedure

SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 5 inches Length Feet

Size 0040 Set From 120 Feet to 140 Feet

Information

A PACKER OR SEAL USED? ☐ Yes ☒ No

What material?

Where packer(s) and location

DISINFECTION: Was well disinfected upon completion?
☒ Yes, How? chlorine in
☐ No, Why Not? WATER TRUCK

Sample sent to for quality analysis

Well Owner: ARNIE BEISCHE
Business Name: FARM
Address 1: 44877 143rd ST
Address 2:
City, State, Zip: WAUBAY, S. DAK 57273

FORMATION	DEPTH	
	FROM	TO
<u>BLACK TOP SOIL</u>	<u>0</u>	<u>2</u>
<u>CLAYS</u>	<u>2</u>	<u>60</u>
<u>RED CLAYS</u>	<u>60</u>	<u>113</u>
<u>GOOD WATER BEARING SAND .015-.020</u>	<u>113</u>	<u>153</u>

STATIC WATER LEVEL FEET ?
If flowing: closed in pressure PSI
GPM flow through inch pipe
Controlled by ☐ Valve ☐ Reducers ☐ Other
Reduced flow rate GPM
Can well be completely shut in?

WELL TEST DATA:
☐ Pumped Describe: AIR
☐ Bailed
☐ Other

Pumping Level Below Land Surface
60 Ft. After 1 Hrs. pumped 100 GPM
 Ft. After Hrs. pumped GPM
If pump installed, pump rate: GPM

REMARKS

This well was drilled under license # 480
And this report is true and accurate.
Drilling firm: Weber Well Drilling
Signature of License Representative: Jerry Weber
Signature of Well Owner or Equitable Property Holder:

RECEIVED
AUG 24 2016
WATER RIGHTS PROGRAM

SOUTH DAKOTA WATER WELL COMPLETION REPORT

Phone 605-881-4128

11-02

Location SW 1/4 SW 1/4 Sec 25 Twp 121 - Rg 53

County DAY

North

Hole # 44

Please mark well location with an "X"

MAD ATTACHED

Well completion Date

8-20-2016

SAMP MAP 4 TEST

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)

IN Field (CROPS ONLY) (identify source)

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

ROTARY

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
200 LB/FT	5" IN	120 FT	140 FT	8 3/4 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
8-Wyo		Lb/gal	0 FT	120 FT
		Lb/gal	FT	FT

Describe grouting procedure

Tremie line to sand pack
Full hole grout TOP

SCREEN:

☐ Perforated pipe ☒ Manufactured

Diameter 5" Inches Length 20' Feet

Slot Size #20 Set From 120 Feet to 140 Feet

Other information

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? chlorine in

☐ No, Why Not? WATER TRUCK

Lab sample sent to for water quality analysis

Please return White Copy to DWR

Well Owner:

ARNIE

Beisch

Business Name:

FARM

Address1:

44877 143rd ST

Address2:

City, State, Zip:

WAUBAY, S.DAK 57273

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>BLACK TOP SOIL</u>	<u>0</u>	<u>2</u>
<u>CLAYS</u>	<u>2</u>	<u>50</u>
<u>CLAYS</u>	<u>50</u>	<u>90</u>
<u>GOOD WATER BEARING SAND</u>	<u>90</u>	<u>140</u>
<u>0.15-0.20</u>		

STATIC WATER LEVEL

If flowing: closed in pressure

13

FEET

GPM flow

through

PSI

Controlled by

☐ Valve

☐ Reducers

☐ Other

Inch pipe

Reduced flow rate

GPM

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped

Describe:

AIR

☐ Bailed

☐ Other

Pumping Level Below Land Surface

60'

Feet After

1

Hrs. pumped

50

GPM

Feet After

1

Hrs. pumped

50

GPM

If pump installed, pump rate:

GPM

REMARKS

RECEIVED

AUG 24 2016

WATER RIGHTS PROGRAM

This well was drilled under license #

480

And this report is true and accurate.

Drilling firm:

Weber Well Drilling

Signature of License Representative:

Gerry Weber

Signature of Well Owner or Equitable Property Holder:

Date:

8-20-2016

SOUTH DAKOTA WATER WELL COMPLETION REPORT

Phone 605-881-4128
11-02

Location SW 1/4 NW 1/4 Sec 25 Twp 121 - Rg 53
122 54

County DAY

#3 of 4

Please mark well location with an "X"

MAP ATTACHED

Well completion Date

8-20-2016

SAMP MAD 4 TEST HOLES

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)
? ft. from IN Field (CROPS ONLY) (Identify source)

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

ROTARY

CASING DATA:

☐ Steel ☒ Plastic ☐ Other
If other describe 4 1/2" TEST HOLE

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type Wyo- No. of Sacks 7 Grout Weight 0 Lb/gal 120 Ft 0 To 120 Ft

Describe grouting procedure 1-WYO-1STER

FULL HOLE GROUT TOP

SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 4 Inches Length 2 Feet

Material NO PIPE SET

Slot Size 4 Set From 2 Feet to 2 Feet

Other information NO PIPE SET

WAS A PACKER OR SEAL USED? ☐ Yes ☒ No

If so, what material? NO

Describe packer(s) and location NO

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? CHLORINE IN

☐ No, Why Not? WATER TRUCK

Lab sample sent to for water quality analysis NO

Please return White Copy to DEED

Well Owner: ARNIE

Business Name: FARM

Address 1: 44877 143rd ST

Address 2: WAUBAY, S. DAK

City, State, Zip: 57273

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
BLACK TOP SOIL	0	2
CLAYS	2	40
CLAYS	40	120
GRAY CLAYS	120	150
(POOR)		
NOT GOOD SAND	150	160

STATIC WATER LEVEL

If flowing: closed in pressure ? FEET

GPM flow ? through ? inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate ? GPM

Can well be completely shut in? ?

WELL TEST DATA:

☐ Pumped Describe: ?

☐ Bailed ?

☐ Other ?

Pumping Level Below Land Surface

? Ft. After ? Hrs. pumped ? GPM

? Ft. After ? Hrs. pumped ? GPM

If pump installed, pump rate: ? GPM

REMARKS

RECEIVED

AUG 24 2016

WATER RIGHTS PROGRAM

This well was drilled under license # 480

And this report is true and accurate.

Drilling firm: Wheeler Well Drilling

Signature of License Representative: Gerry Wheeler

Signature of Well Owner or Equitable Property Holder: ?

Date: 8-20-2016

NW qter

RECEIVED
RECEIVED

8-20-201

AUG 24 2016

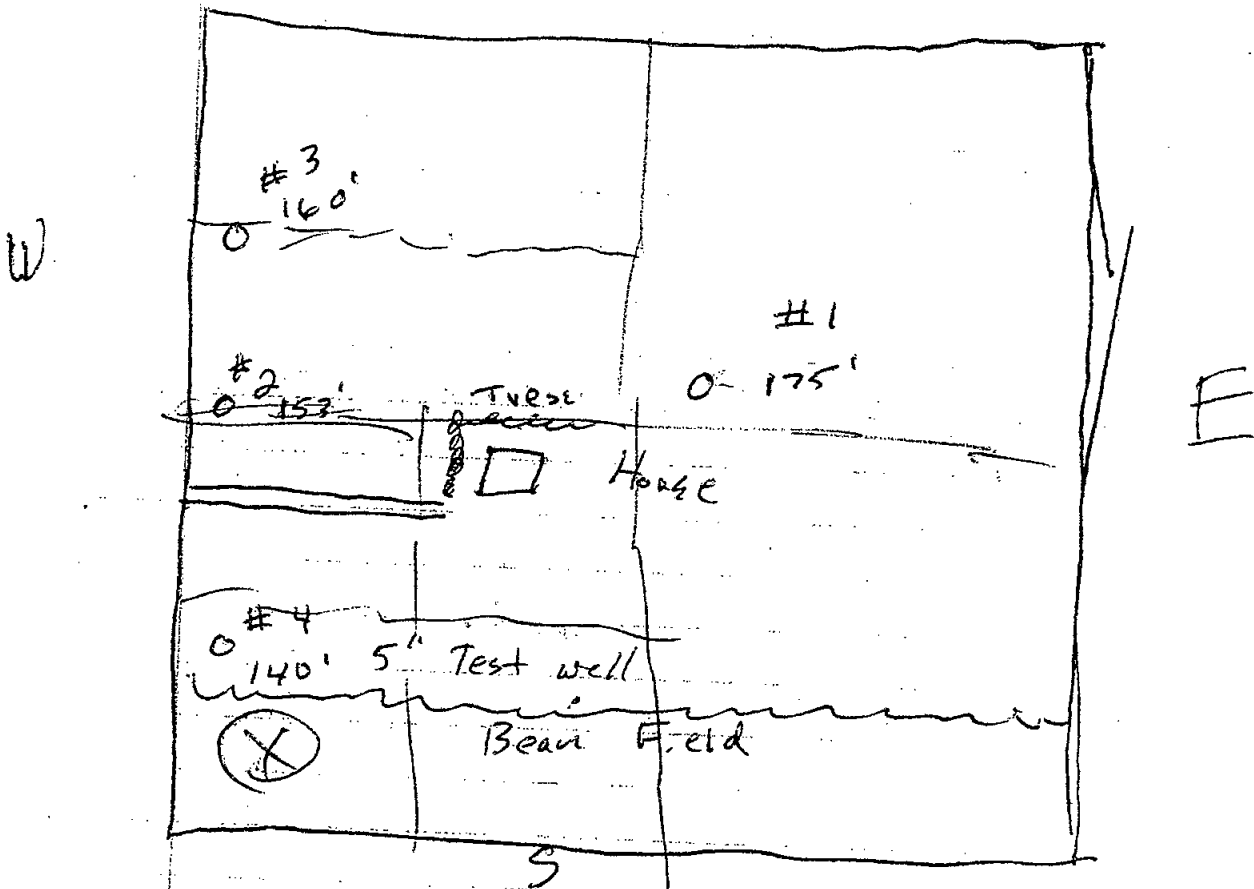
WATER RIGHTS
PROGRAM

1-Well (5")
3-Test Holes

Arnie Beisch

605-881-4128

N QUARTER



#1 clay 163' - 175' sand

#2 clay 113' - 153' good sand 0.15

#3 clay 150 - 160' sand not good

#4 clay 90 - 140' good sand 0.15 5" Test well

DAVID Whobon

test hole

SEE 30 DEC 16
FILE DOC
KB

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

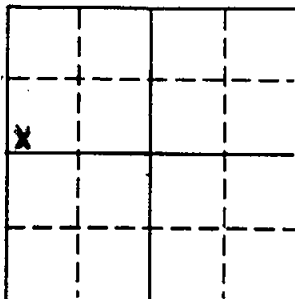
Location SW 1/4 NW 1/4 Sec 25 Twp 131 Rg 53
122R

County Day North

Please mark well location with an "X"

Well completion Date 11/21/16

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)
? 100 ft from in field (identify source)



Well Owner: Arnie Biesch

Business Name: _____

Address1: 448 142nd St

Address2: _____

City, State, Zip: Waubay, SD.

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>top soil</u>	<u>0</u>	<u>2</u>
<u>sandy clay</u>	<u>2</u>	<u>10</u>
<u>clay</u>	<u>10</u>	<u>20</u>
<u>clay</u>	<u>20</u>	<u>33</u>
<u>course gravel</u>	<u>33</u>	<u>44</u>

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☒ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING: Forward Rotary

CASING DATA: ☐ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type wyp-ben No. of Sacks 2 Grout Weight 10 Lb/gal From 0 Ft To 44 Ft

Describe grouting procedure Full hole grouting
from 0 to 44

SCREEN: ☐ Perforated pipe ☐ Manufactured

Diameter _____ Inches Length _____ Feet

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other information _____

WAS A PACKER OR SEAL USED? ☒ Yes ☐ No

If so, what material? _____

Describe packer(s) and location _____

DISINFECTION: Was well disinfected upon completion?

☐ Yes, How? _____

☒ No, Why Not? _____

Lab sample sent to for water quality analysis _____

STATIC WATER LEVEL _____ FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☒ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ Pumped Describe: _____

☐ Bailed _____

☐ Other _____

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS test hole in SW corner

This well was drilled under license # 480

And this report is true and accurate.

Drilling firm: Wieber Well Drilling

Signature of License Representative: Jerry Wieber

Signature of Well Owner or Equitable Property Holder: _____

Date: _____

RECEIVED
DEC - 8 2016

WATER RIGHTS
PROGRAM

Please return White Copy to DENR Water Rights

523 E. Capitol Ave., Pierre SD 57501



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

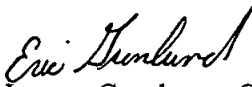
denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8236-3, Arnie Beisch**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 8236-3, Arnie Beisch, 44877 142nd Street, Waubay SD 57273

The Chief Engineer is recommending DEFERRAL of Application No. 8236-3 for up to one year for the applicant to provide information necessary to determine if there is a reasonable probability that there is unappropriated water available for the proposed irrigation use and that the proposed diversion can be developed without unlawful impairment of existing rights.

See report on application for additional information.


for Jeanne Goodman, Chief Engineer

NOTE: Please review the staff report on your application. For further explanation of what is necessary for DENR to evaluate this application, please contact Ken Buhler at (605) 773-3352.

**REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 8236-3
ARNIE BEISCH
SEPTEMBER 14, 2016**

Water Permit Application No. 8236-3 proposes to appropriate water from a glacial outwash deposit for the irrigation of 180 acres located in the NW¼ and the W½ NE¼ of Sec. 25, T122N-R53W. This application proposes to divert water from two wells at a maximum rate of 2.2 cubic feet of water per second (cfs). The wells are to be located in the SW¼NW¼ Sec. 25, T122N-R53W and are expected to be approximately 140 feet deep. The well sites and the lands to be irrigated are all located within the former boundaries of the Sisseton Wahpeton Indian Reservation.

AQUIFER: UNKNOWN

GEOLOGY AND AQUIFER CHARACTERISTICS:

Driller's logs for four test holes were submitted with this water permit application. The approximate location of the test holes are shown in Figure 1, and a schematic for the logs is shown in Figure 2.



Figure 1. Location of test holes with driller's logs submitted with this application.

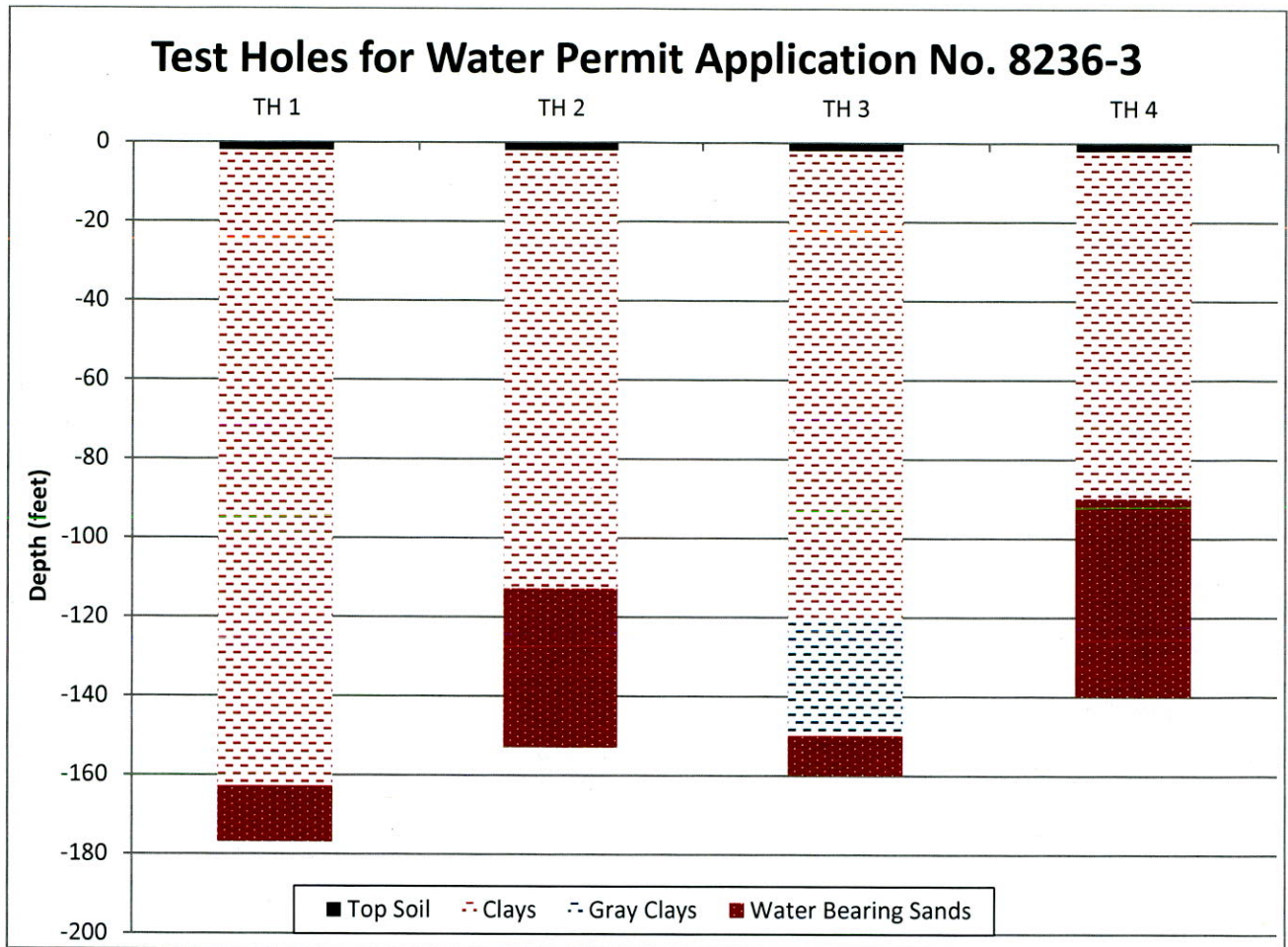


Figure 2. Schematic of test hole logs submitted with Water Permit Application No. 8236-3

The logs for the test holes indicate the aquifer materials vary considerably in depth and thickness within short distances. The aquifer materials encountered in the test holes occur between the approximate altitudes of 1,707-1,763 feet above mean sea level elevation (fmsl) and could be classified an intermediate aquifer. Hedges and others, (1982) mapped an intermediate aquifer, the **Prairie Coteau**, covering large portions of Marshall, Day, Roberts, Grant, Codington and Clark Counties, including the project area proposed by this application. Subsequently, more detailed mapping of this area, done for the *Geology and Hydrology of Day County South Dakota*, did not identify an aquifer in this vicinity at the altitude of the sand and gravel reported on the test holes drilled for Water Permit Application No. 8236-3 (Leap,1988). The **Prairie Coteau** aquifer was mapped by Hansen (1990) and Hansen (1994) in nearby north-central Codington County and north-western Grant County, and akin to Hedges and others (1982), the aquifer was represented as a single, contiguous outwash deposit. The **Prairie Coteau** aquifer in Codington and Grant Counties was portrayed as being approximately between the elevations of 1,700-1,750 fmsl (Hansen, 1990). As part of *Water Resources of the Lake Traverse Reservation, South and North Dakota, and Roberts County, South Dakota*, a study area including the well sites proposed by this application was examined (Thompson, 2001). Thompson states:

“... current interpretation of test-hole and water-level data indicates that the Prairie Coteau is not a continuous aquifer, but a group of discontinuous outwash deposits found in the 1,610 to 1,800 foot altitude interval.”

Thompson (2001) presented a map of the Prairie Coteau outwash group at a scale of 1:576,000 using a “likelihood boundary, where sand and gravel deposits are more likely to be found at the specified depths inside the estimated boundary than outside.” Although Thompson represented the “likelihood boundary” of the Prairie Coteau outwash group to include the area of the test holes submitted in Application No. 8236-3, the well sites proposed by this application are located near the edge of the boundary (Thompson, 2001).

Hydrogeologic data for this area is sparse. There are only records of 26 borings located within approximately 17.5 square miles of the well sites proposed by this application to aid in the evaluation of the areal extent and continuity of the outwash deposit this application proposes as a water source. Data is available through 17 domestic wells on file (Water Rights, 2016c), 7 SD Geological Survey test holes (Lithologic Logs Database), 1 observation well (Water Rights, 2016a), and 1 well that supplies an appropriative right (WR No. 1435-3) (Water Rights, 2016b).

Nearby available data confirms that the outwash is variable, and this area may be near the edge of the Prairie Coteau aquifer. A completion report for a domestic well installed for Gary Beisch that is in the immediate vicinity of the test holes described above, reported only 20 feet of discontinuous aquifer material (at 115-125 feet below grade and at 155-165 feet below grade) encountered in the wellbore (Water Rights, 2016c). The log for a domestic well completed approximately one-half mile northeast of the applicant’s test hole No.3 reported aquifer material (sand) between 165-175 feet below grade, and only sand streaks between 175-200 feet below grade (Water Rights, 2016c).

Based on this information, it cannot be determined if the proposed source of water for this application is the Prairie Coteau, a discontinuous portion of it, or an isolated and limited water bearing sand and gravel.

SOUTH DAKOTA CODIFIED LAW (SDCL) 46-2A-9:

South Dakota Codified Law (SDCL) 46-2A-9 requires “A permit to appropriate water may be issued only if there is reasonable probability that there is unappropriated water available for the applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest.” This report will address the availability of unappropriated water from the aquifer and existing water rights.

Water Availability:

Water Permit Application No. 8236-3 proposes to appropriate water for the irrigation of 180 acres. The average annual withdrawal rate that would be associated with this irrigation project was estimated using the average annual irrigation application rate from groundwater supplied systems located within approximately 15 miles of this proposed site, based on irrigation questionnaire reports from the appropriators. The average annual groundwater sourced irrigation application rate for this area is shown in Table 1.

questionnaire reports from the appropriators. The average annual groundwater sourced irrigation application rate for this area is shown in Table 1.

Table 1. Average annual application rate, in inches per permitted acre per year, based on irrigation questionnaire reports from the groundwater appropriators within approximately 15 miles of the well sites proposed by this application.

YEAR	APPLICATION RATE (IN/PRMT'D AC/YR)
2015	6.23
2014	5.45
2013	6.67
2012	8.01
2011	6.15
2010	4.40
2009	4.67
2008	5.62
2007	7.32
2006	11.62
<i>Minimum</i>	<i>4.40</i>
<i>Maximum</i>	<i>11.2</i>
<i>Average</i>	<i>6.61</i>

Based on the last ten years of data from the area, the irrigation of 180 acres is expected to use an average of approximately 99 acre-feet of water per year.

The probability that 99 acre-feet of unappropriated water is available annually for this proposed permit can be evaluated by considering SDCL 46-6-3.1 which requires "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source." If the source of the water is older or lower than the Greenhorn Formation and a water distribution system has applied for a permit, the Board need not consider the recharge/withdrawal issue. In the case of Water Permit Application No. 8236-3, the outwash deposit is younger or higher than the Greenhorn Formation and the water use is not for a water distribution system. Therefore, the exception to the recharge/withdrawal consideration in SDCL 46-6-3.1 is not applicable in this case.

Recharge to intermediate outwash deposits like the one this applicant proposes as a source, is likely through direct infiltration of precipitation in areas where the aquifer is near ground surface. Recharge may also be by leakage from adjacent aquifers and by leakage from the till. Data is not available to determine the source of recharge to this outwash deposit or to quantify average annual recharge to the deposit. Hedges and others (1985) conclude that "for management and development programs the minimum recharge rate to confined aquifers is estimated to be 0.15 inches per year and the maximum rate is 0.60 inches per year." The DENR-Water Rights Program has regularly used, and the Water Management Board has accepted, the Hedges and others' recharge rate range for confined glacial outwash aquifers where specific recharge estimates are not available. The areal extent and continuity of the outwash deposit this application proposes as a water source has not been delineated, and as stated earlier, hydrogeologic data for this area is sparse.

Assuming this appropriation were to be the only well withdrawal from this outwash deposit (i.e. total average annual withdrawal equals 99 acre-feet/year), based on the range of recharge rates recommended by Hedges and others (1985), the outwash this applicant proposes as a water source must have an areal extent of between 1,980-7,920 acres. An alternative to the assumption that Permit No. 8236-3 (if approved) would be the only well withdrawal from this outwash deposit, is the assumption that the areal extent of the outwash deposit is large enough to encompass the nearest appropriation that may also be supplied from the same outwash, Vested Water Right Claim No. 1435-3, held by the City of Waubay. The well associated with Vested Right Claim No. 1435-3 is located approximately two and one-quarter miles west-northwest of the well sites proposed by Application No. 8236-3. Vested Water Right Claim No. 1435-3 appropriates 0.24 cfs which would equal an annual rate of approximately 100 acre-feet annually if usage is assumed to be 60 percent of full time pumping. Assuming Vested Water Right Claim No. 1435-3 is supplied water from the same outwash as Application No. 8236-3 proposes as a source, the total well withdrawal from the outwash (199 acre-feet/year) would require an aquifer underlying 3,980-15,920 acres based on the recharge rate range recommended by Hedges and others, (1985). Hydrogeologic data is not available to assert with reasonable certainty that the outwash deposit this application proposes as a water source is large enough to have an average annual recharge sufficient to exceed potential well withdrawals from the outwash based on the recharge rate range recommended by Hedges and others. Therefore, there is not a reasonable probability that unappropriated water is available for this proposed appropriation based on the best information currently available.

Observation wells

The DENR-Water Rights Program monitors one observation well, located approximately 1.6 miles south of the well sites proposed by this application. The outwash deposit monitored by the observation well is at an altitude of 1,781-1,831 fmsl (Water Rights, 2016a). The potentiometric surface of the aquifer, measured in the observation well on August 31, 2016, was 1,860.28 fmsl. The outwash deposit encountered in the test holes submitted with this application is at an altitude of 1,707-1,763 fmsl or at least 18 feet lower than the outwash monitored by the observation well. The potentiometric surface reported for applicant's test well #4 on August 20, 2016, was approximately 1,849 fmsl, or approximately 11 feet lower than at the observation well. Although a groundwater gradient of 6.9 feet per mile may be reasonable for a confined aquifer, without additional data points it is not possible to confirm the different water levels is due to a groundwater gradient or because the outwash deposits are not connected.

The difference of the altitude of the outwash and of the potentiometric surface between the well sites proposed and the observation well may or may not be significant but there is insufficient hydrogeologic data between the sites to allow a conclusion that they are actually the same outwash deposit. Therefore, observation well data is not available to evaluate the availability of unappropriated water from the outwash deposit this application proposes to use.

CONCLUSIONS:

1. This application proposes to appropriate water from a glacial outwash deposit of unknown size.
2. Hydrogeologic data for the area indicates the outwash deposit is variable in thickness and altitude within short distances.
3. Approval of this permit will likely result in an average annual withdrawal rate of 99 acre-feet/year.
4. The source and quantity of recharge to the outwash deposit has not been identified.
5. The DENR-Water Rights Program does not monitor any observation wells that are definitely in the same outwash deposit this application proposes for a water source.



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Hansen, D.S., 1990, Water Resources of Codington and Grant Counties, South Dakota: U.S. Geological Survey Water-Resources Investigations Report 96-4056, 68 p.
- Hansen, D.S., 1994, Major Aquifers in Codington and Grant Counties, south Dakota: South Dakota Geological Survey Information Pamphlet No. 47, 16 p.
- Hedges, L.S., Burch, S.L., Iles, D.L., Barari, R.A., and Schoon, R.A., 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 1: Bedrock Topography [Sic.] and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base. Prepared for U.S. Army Corps of Engineers, contract DACW 45-80-C-0185
- Hedges, L.S., Allen, J., and Holly, D.E, 1985, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 7: Ground Water Recharge, South Dakota DENR-Geological Survey, Vermillion, SD
- Leap, D.I., 1988, Geology and Hydrology of Day County, South Dakota: South Dakota Geological Survey Bulletin 24, 117 p.
- Lithologic Logs Database*. SD DENR-Geological Survey, n.d. Web. 14 Sept. 2016.
- Thompson, R.F., 2001, Water Resources of lake Traverse Reservation, South and North Dakota, and Roberts County, South Dakota: U.S. Geological Survey Water-Resources Investigation Report 01-4219, 105 p.
- Water Rights, 2016a, Observation well Records, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota

Water Rights, 2016b, Water Right/Permit Records, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota

Water Rights, 2016c, Well Completion Report Records, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

October 17, 2016

Arnie Beisch
44877 142nd Street
Waubay SD 57273

Dear Mr. Beisch:

Enclosed is the staff report and recommendation for Water Permit Application No. 8236-3. The application proposes appropriating water from two wells for irrigation of 180 acres in the NW $\frac{1}{4}$ and W $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 25, T122N, R53W in Day County. The Chief Engineer is recommending deferral of the application for the applicant to provide information necessary to evaluate the application. As we discussed on the phone, the application will not be public noticed until you have had a chance to review this material, ask questions and decide how you want to proceed.

DENR will not proceed to public notice of the application until such time as you give the go ahead to public notice your application.

The staff engineer who reviewed the application is Ken Buhler. If you have questions, Mr. Buhler can be reached at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

enclosures

No. 8236-3

Water Rights Program - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: Application No. 8236-3, Arnie Beisch

ADDRESS: 44877 142nd Street, Waubay SD 57273 COUNTY Day County

DATE: October 19, 2016 TELEPHONE: 881-4128

RE: deferral recommendation

Mr. Beisch requested that Application No. 8236-3 be put on hold while he investigates getting information necessary for the Water Rights Program to evaluate the application. He does not want to proceed to public notice at this time.

NAME: Eric Hamlin



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
www.denr.sd.gov

November 15, 2016

Arnie Beisch
44877 142nd St
Waubay, SD 57273

Dear Mr. Beisch:

As requested, pursuant to South Dakota Well Construction Standard 74:02:04:21, you are authorized to have a licensed well driller construct a test well approximately 50 feet deep prior to approval of a water permit. The test well will be located in the NW ¼ Section 25-T122N-R53W within the former boundaries of the Sisseton-Wahpeton Reservation. All test wells must be constructed in accordance with the SD Well Construction Standards. Any test holes that are abandoned must be plugged pursuant to the SD Well Construction Standards.

Authorization must be obtained before water from the well can be used. Approval of this test well does not assure issuance of a water permit. Following review of a Water Permit Application and assessing the availability of water, the potential impacts to existing users, the beneficial use, and the public interest of a permit, the Chief Engineer will make a recommendation to the Water Management Board regarding the application. The recommendation to approve, deny, or defer the application will be publicly noticed and an opportunity afforded for the public to intervene. A public hearing may be required to consider the water permit. If you have questions, call Eric Gronlund at (605) 773-3352.

Sincerely,

Eric Gronlund
for Jeanne Goodman, Chief Engineer
Water Rights Program
(605) 773-3352

Request to Amend water permit application No. 8236-3

Dear Sir

I would like to amend my water permit application no. 8236-3 to a shallow well ~~deep to 50' deep~~ to less than 50' deep. with possible 1-2-3 helper wells with a total of possible 3 wells

Am sending a map with test hole & area of helper wells and a water log of test well

Thank you

Annie Bessel

RECEIVED

DEC - 8 2016

WATER RIGHTS
PROGRAM

**Water Rights Program
File Documentation**

NAME OF PERSON OR FILE: Arnie Beisch

DATE: December 30, 2016 TELEPHONE: 605.881.4128

RE: Location of test hole

COMMENTS:

I contacted Mr. Beisch regarding the test hole report submitted with Application No.8236-3. The test hole was drilled on November 21, 2016, by Wieber Well Drilling. Wieber listed the location of the well as the SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 25, T121 R53. Mr. Beish confirmed the test hole was actually completed in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 25, T122R-R53W.



Ken Buhler



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8236-3, Arnie Beisch**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 8236-3, Arnie Beisch, 44877 142nd Street, Waubay SD 57273.

The Chief Engineer is recommending APPROVAL of Application No. 8236-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The wells authorized by Permit No. 8236-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Jeanne Goodman, Chief Engineer
January 18, 2017

**REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 8236-3
ARNIE BEISCH
DECEMBER 30, 2016**

Water Permit Application No. 8236-3 proposes to appropriate water from a portion of the Coteau Lakes aquifer for the irrigation of 180 acres. This application proposes to divert water from up to three wells, approximately 50 feet deep, at a maximum rate of 2.2 cubic feet of water per second (cfs). The acreage to be irrigated is located in the NW¼ and the W½NE¼ of Section 25, T122N-R53W, and the proposed well sites are located in the S½ NW¼ of Sec. 25, T122N-R53W, all located within the former boundaries of the Sisseton Wahpeton Indian Reservation in Day County.

AQUIFER: COTEAU LAKES (COL)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The test hole log included with this application reports that aquifer material (course gravel) was encountered in the borehole from 33-44 feet below grade. In this immediate area (i.e. NW¼ Sec. 25, T122N-R53W) aquifer material at this altitude has been elusive in other borings. The completion report for a domestic well for Gary Beisch, located in the SW¼ NW¼ Sec. 25, T122N-R53W did not report any aquifer materials at the same altitude (Water Rights, 2017c). Four test holes drilled in August 2016, located in the S½ NW¼ Sec. 25, T122N-R53W also did not report any aquifer materials at a similar altitude as the aquifer material this application proposes as a source. A test hole drilled by the SD Geological Survey, located in the southwest corner of Sec. 24, T122N-R53W did not identify any aquifer materials to a depth of 140 feet (Lithologic Logs Database). However, within approximately one-half mile northeast of the well sites proposed by this application, sand was encountered in the borehole at approximately the same altitude as the aquifer material proposed as a source by this application (Water Rights, 2017c). It is assumed that the outwash deposit this application proposes as a water source is not an isolated lens but rather the location is near the aquifer boundary.

In *Ground-Water Supply for the City of Waubay, South Dakota*, by Beffort and Hedges (1967), a surface outwash was identified near the well sites proposed by this application (see Figure 1). This glacial outwash deposit appears to be a member of what was later named the Eastern Lakes Subsystem (Leap, 1972 and Leap, 1988). The Eastern Lakes Subsystem is a “complex system of several aquifers of varying thicknesses and elevations” (Leap, 1972). Hedges and others (1982) subsequently identified the surficial deposits in this area as part of the Coteau Lakes aquifer [system] which underlies approximately 58,200 acres of Day County, an estimated 32,000 acres of Marshall County, and parts of Roberts County. Leap (1988) identified the thickest part of his Eastern Lakes Subsystem as the Waubay aquifer and mapped a separate surficial outwash deposit approximately two miles east of the Waubay aquifer (see Figure 2). The surface outwash in this area is likely hydraulically connected to Blue Dog Lake and possibly Bitter Lake. Leap (1988) suggests groundwater flow occurs between Blue Dog Lake and Bitter Lake through the Waubay aquifer.

For appropriative purposes the SD Department of Environment and Natural Resources and the Water Management Board have adopted the “Coteau Lakes aquifer” designation for the surficial aquifer in this area. The individual outwash deposits of the Coteau Lakes aquifer system often connect with each other; however detail of subsurface data is not available to identify individual aquifers within the system on a county wide scale.

Mathiowetz (2014) delineated the areal extent of the portion of the Coteau Lakes in this area by examining previous studies including Thompson (2001), Leap (1972) and Leap (1988); SD DENR-Geological Survey Test hole logs, SD DENR-Water Rights Program observation well records and well completion reports on file with the Water Rights Program. Mathiowetz concluded that this portion of the Coteau Lakes aquifer underlies approximately 32,660 acres of Day and Roberts Counties.

In the evaluation of Water Permit Application No. 8075-3, Kilts (2015) attempted to define the surficial outwash aquifer in the vicinity of Waubay, SD, (approximately two and three-quarter miles northwest of the well sites proposed by this application). Kilts’ study area did not include the well sites proposed by Application No. 8236-3, and Kilts did not represent aquifer material extending east from Blue Dog Lake within the study area for Application No. 8075-3.

Aquifer delineation conducted for the assessment of Water Permit Application No. 8238-3 based on SD DENR-Geological Survey test hole logs, SD DENR-Water Rights Program observation well records, water right/permit files, and the water well completion reports database suggested that the areal extent of this portion of the Coteau Lakes aquifer as delineated by Mathiowetz was conservative, and additional aquifer material occurs between Waubay, SD and Ortley, SD, in the vicinity of the well sites proposed by this application (Buhler, 2016). Therefore, the best information available indicates the wells this application proposes will be completed into a portion of the Coteau Lakes aquifer that is an extension of the aquifer defined by Mathiowetz. The Coteau Lakes aquifer is under unconfined conditions in this area and based on observation well data, groundwater movement in the Coteau Lakes aquifer in this area is from the northeast to the southwest (Buhler, 2016).

SDCL 46-2A-9

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for the applicant’s proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest. This report will address the availability of unappropriated water from the aquifer and the potential for impairment of existing rights.

WATER AVAILABILITY:

Water Permit Application No. 8236-3 proposes to appropriate water for the irrigation of 180 acres. The average annual withdrawal rate that would be associated with this irrigation project is estimated to be 6.61 inches per permitted acre per year, using the average annual irrigation application rate from groundwater supplied systems located within approximately 15 miles of this proposed site, based on irrigation questionnaire reports from the water right/permit holders

(Buhler, 2016). Therefore, the irrigation of 180 acres is expected to use an average of approximately 99 acre-feet of water per year.

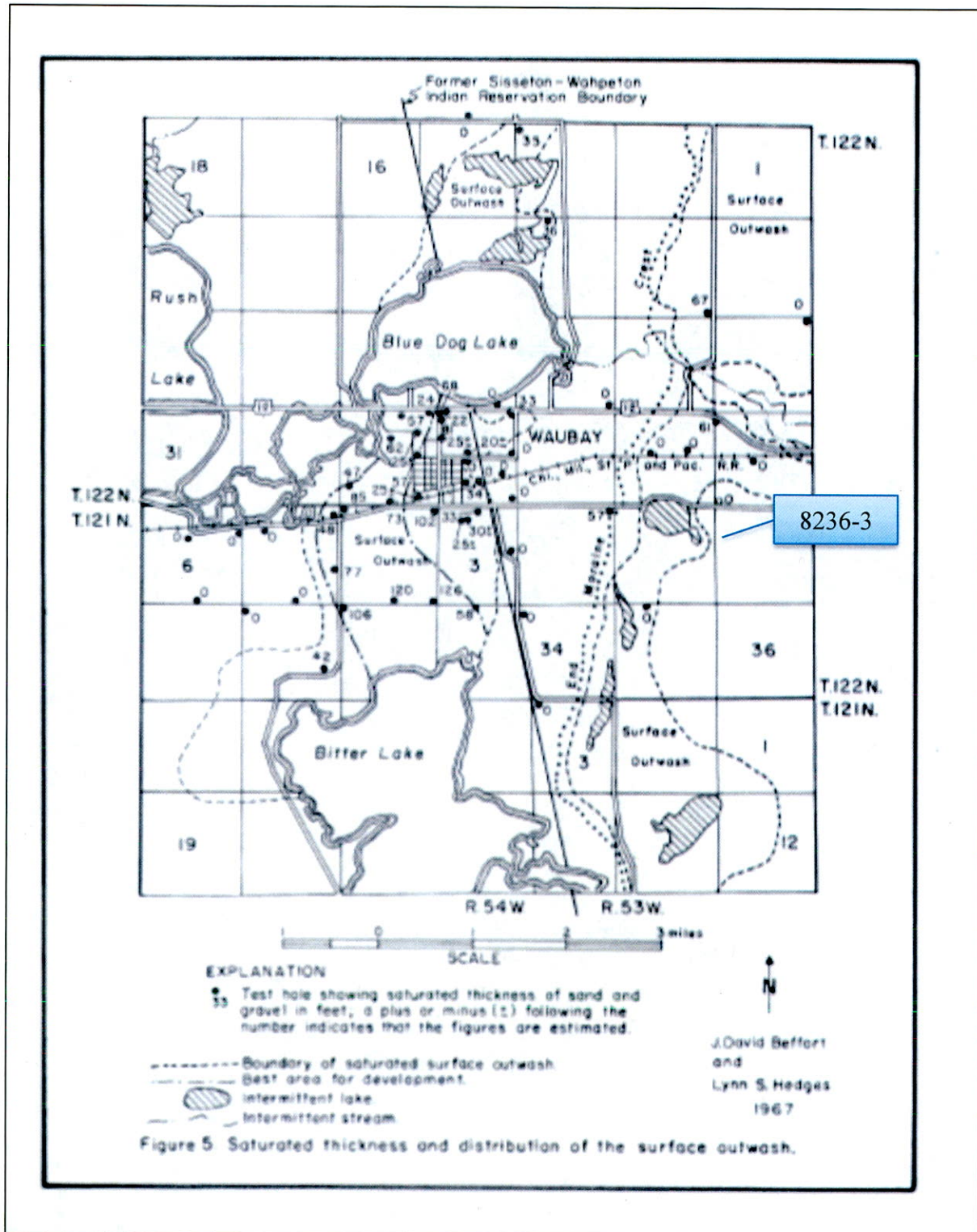


Figure 1. Map showing the areal extent of the Surface Outwash in the *Ground-Water Supply for the City of Waubay, South Dakota* study area (modified from Beffort and Hedges, 1967).

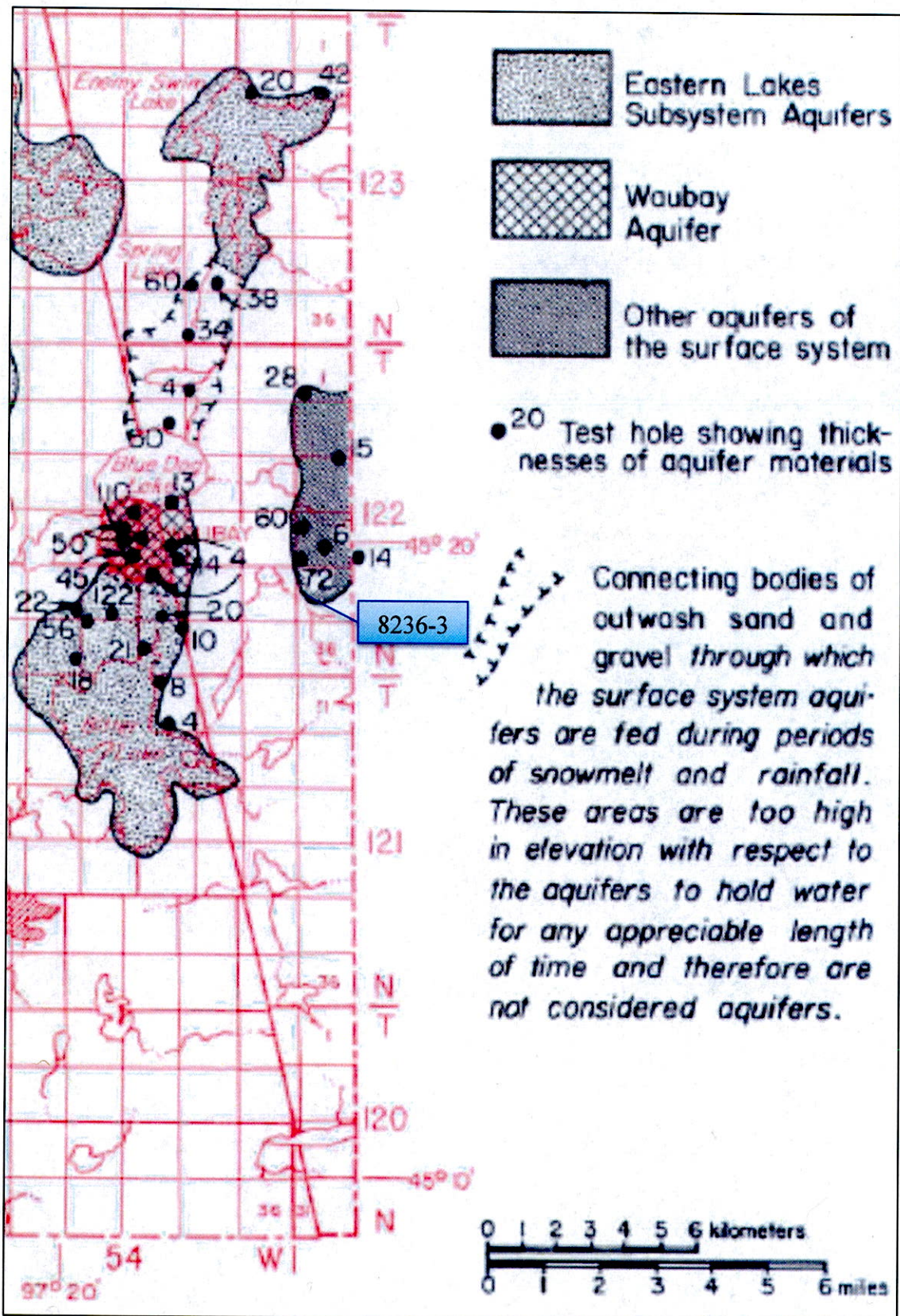


Figure 2. The location of the Waubay aquifer and well sites proposed by this application (modified from Leap, 1988)

The probability that 99 acre-feet of unappropriated water is available annually for this permit can be evaluated by considering SDCL 46-6-3.1, which requires "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source." If the source of the water is older or lower than the Greenhorn Formation and a water distribution system has applied for a permit, the Board need not consider the recharge/withdrawal issue. Here, a water distribution system is not involved and the aquifer is not older or lower than the Greenhorn Formation therefore withdrawal/recharge issue must be considered.

Recharge versus Discharge:

Recharge to the Coteau Lakes aquifer system is primarily through infiltration of precipitation where the aquifer material is at or near ground surface. Recharge to the aquifer also occurs when hydrologically connected bodies of surface water have higher water levels than the water table of the aquifer. The average annual recharge rate to the Coteau Lakes aquifer system was estimated to be 4.5 inches per year through analysis of observation well data (Hedge and others, 1985). Assuming an areal extent of the outwash deposit this application proposes to appropriate water from to be at least 32,660 acres; the average annual recharge to the deposit is estimated to be a least 12,247 ac-ft/yr.

Since the direction of groundwater flow in Coteau Lakes aquifer east of Blue Dog Lake is from east-northeast to west-southwest, recharge occurring north or south of Blue Dog Lake will not contribute to the portion of the aquifer east of the lake. Therefore, for water management purposes, the Coteau Lakes aquifer east of Blue Dog Lake should be considered separately. The areal extent of the Coteau Lakes aquifer system in the area this application proposes to appropriate water from is assumed to be at least 14,500 acres. Therefore, given the average annual recharge rate estimate of 4.5 inches per acre per year, the average annual recharge to the aquifer is estimated to be approximately 5,440 acre-feet annually.

Discharge from the Coteau Lakes aquifer system occurs through evapotranspiration when the aquifer is near ground surface, seepage to lakes when the water level of the aquifer is higher than that of hydrologically connected lakes, and well withdrawals. Well withdrawals are for domestic use, commercial and irrigation use. Domestic use from the aquifer is not significant to its hydrologic budget. There are 28 water permits/rights appropriating water from the Coteau Lakes aquifer defined by Mathiowetz (2014). Twenty one of the appropriations are within the portion of the aquifer east of Blue Dog Lake. They are shown in Table 1.

Table 1. Water rights/permits appropriating water from the same portion of the Coteau Lakes aquifer as Application No. 8236-3 proposes as a supply (Water Rights, 2017b).

PERMIT NO	NAME	PRIORITY DATE	STATUS	USE	CFS	ACRES
2662-3	CURTIS L HANSSEN	03/03/1976	LC	IRR	2	267
2795-3	EARL ALTHOFF	06/29/1976	LC	IRR	1.33	193
3931-3	DORSETT	04/25/1977	LC	IRR	1.89	132
4041-3	JAMES N ENDRES TRUSTEE	06/20/1977	PE	IRR	5.6	393
4041A-3	JAMES N ENDRES TRUSTEE	06/20/1977	PE	IRR	0	0
4649-3	CURTIS HANSSEN	01/28/1980	LC	IRR	0.99	69
4604-3	JAMES N ENDRES TRUSTEE	12/16/1980	PE	IRR	2.1	156
4886-3	GREGORY ENDRES	04/24/1981	LC	IRR	1.78	136
5723-3	ENDRES FAMILY TRUST	10/13/1992	LC	IRR	1.89	132
5724-3	ENDRES FAMILY TRUST	10/13/1992	LC	IRR	1.89	132
6029-3	ENDRES FAMILY TRUST	12/22/1997	LC	IRR	1.78	136
7073-3	DUANE J GAIKOWSKI	09/16/2008	PE	IRR	5.13	359.5
7243-3	ROLLIN J MOREHOUSE	04/01/2011	PE	IRR	2.28	160
6835A-3	BLOOMING VALLEY GRAIN FARMS INC	08/08/2012	PE	IRR	2.22	130
7832-3	WOHLLEBER BROTHERS	04/15/2013	PE	IRR	1.86	130
7874-3	ARNIE BEISCH	07/22/2013	PE	IRR	1	60
8000-3	EARL ALTHOFF	04/11/2014	PE	IRR	1.22	75
8028-3	WOHLLEBER BROTHERS	06/05/2014	PE	IRR	2.21	155
8036-3	WOHLLEBER BROS	07/02/2014	PE	IRR	0.24	17.3
8063-3	ROLLIN J MOREHOUSE	11/19/2014	PE	IRR	2.28	160
8238-3	NEIL HOLSCHER	08/13/2016	PE	IRR	1.67	120
LC= Water Right, PE= Water Permit, IRR= Irrigation						

The appropriations shown in Table 1 authorize the irrigation of 3,112.8 acres from this portion of the Coteau Lakes aquifer. Assuming an average application rate equal to the 2006-2015 average for groundwater appropriations in the area (6.61 inches per acre per year) the average annual irrigation withdrawal from this portion of the Coteau Lakes aquifer is expected to be approximately 1,715 acre-feet per year.

A comparison of estimated average annual withdrawals from this portion of the Coteau Lakes aquifer (1,715 acre-feet/year) to the estimated average recharge (5,440 acre-feet/year) indicates there is a reasonable probability that unappropriated water is available for this proposed appropriation.

Observation Well Data:

Administrative Rule of South Dakota Section 74:02:05:07 requires that the Water Management Board shall rely upon the record of observation well measurements in addition to other data to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge of the aquifer.

The DENR-Water Rights Program monitors eight observation wells completed into the outwash deposit this application proposes to appropriate water from (Water Rights, 2017a). Hydrographs for the observation wells are shown in Figures 3-10.

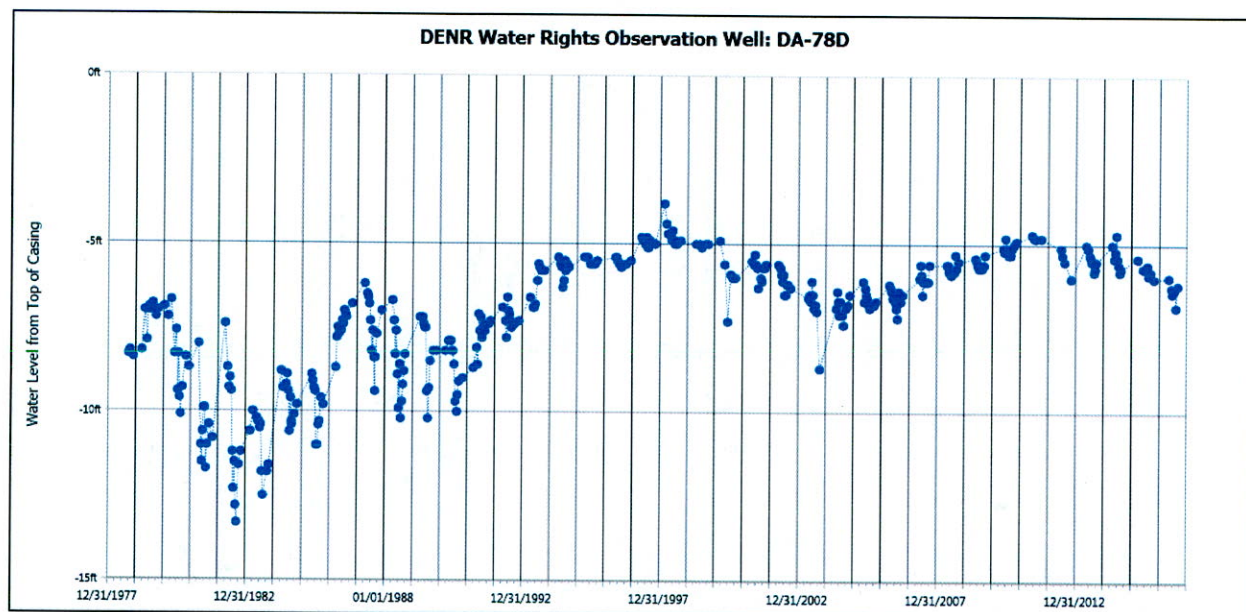


Figure 3. Hydrograph for DENR-Water Rights Observation well completed into the same aquifer Application No. 8236-3 proposes to appropriate water from, located approximately 2.5 miles north of the well sites proposed by this application.

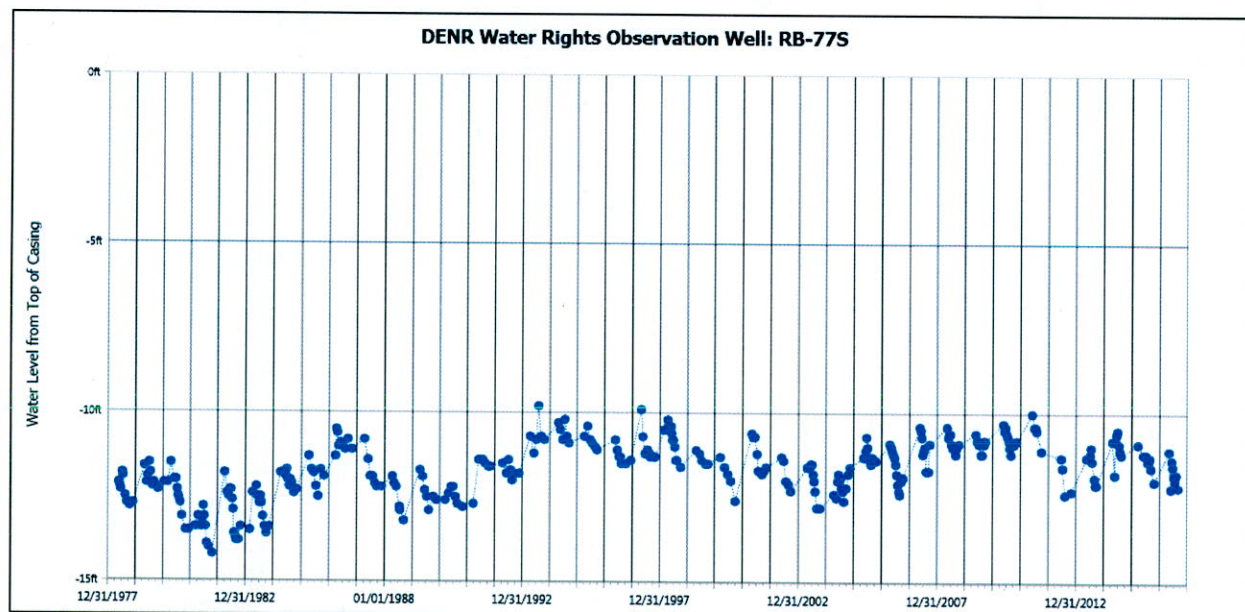


Figure 4. Hydrograph for DENR-Water Rights Observation well completed into the same aquifer Application No. 8236-3 proposes to appropriate water from, located approximately 3 miles east of the well sites proposed by this application.

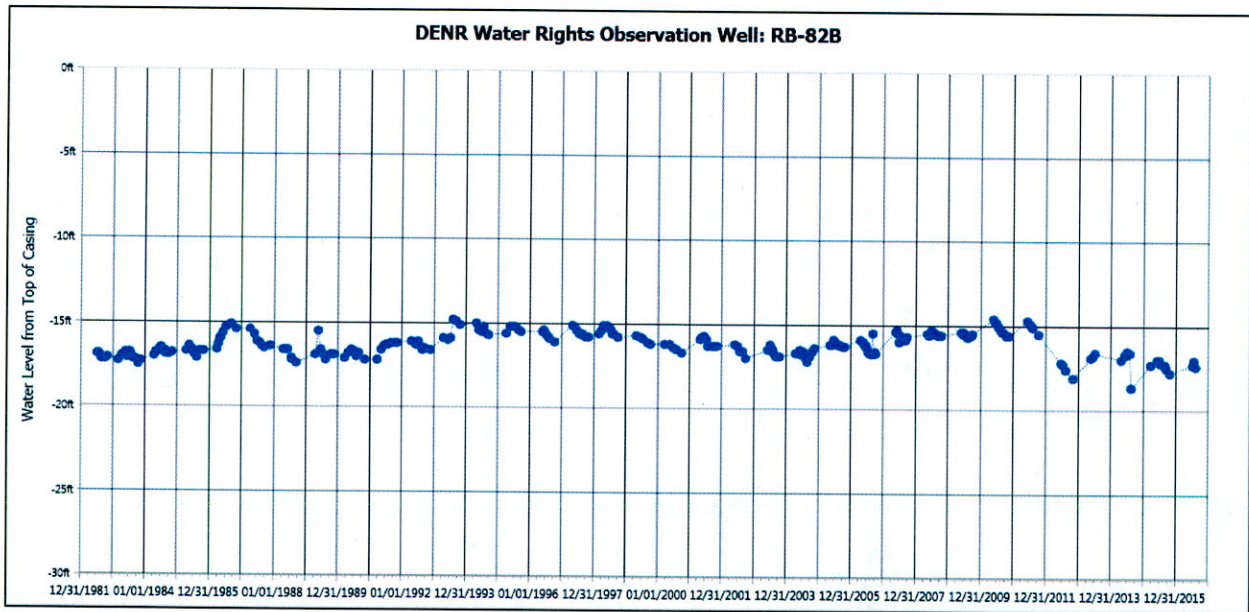


Figure 5. Hydrograph for DENR-Water Rights Observation well completed into the same aquifer Application No. 8236-3 proposes to appropriate water from, located approximately 3.75 miles northeast of the well sites proposed by this application.

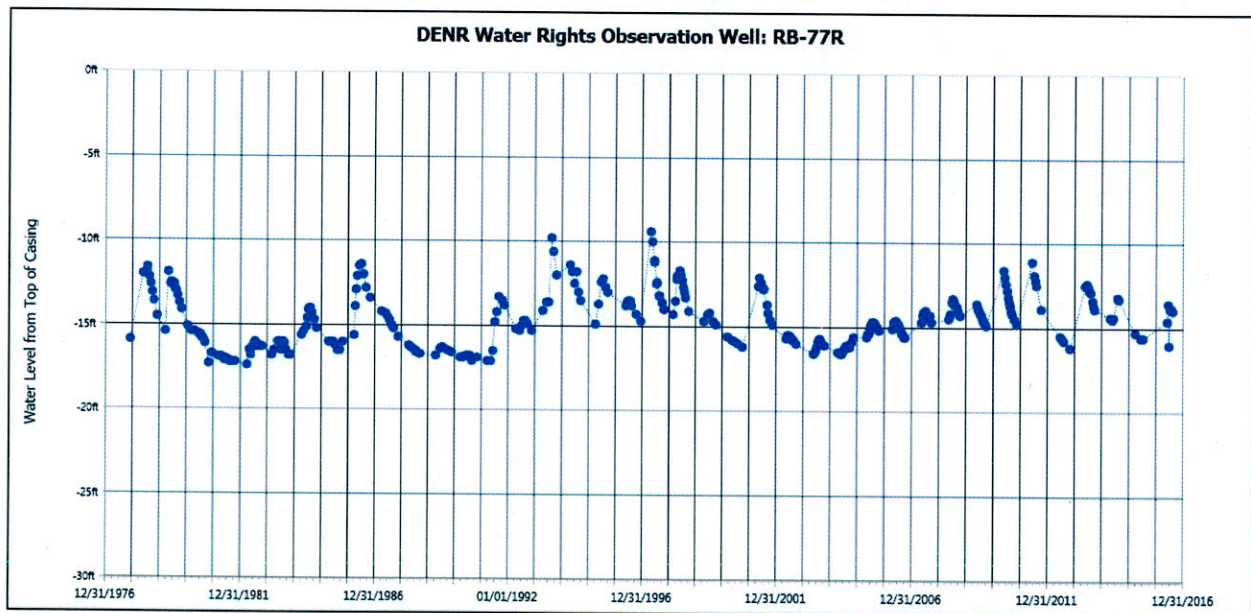


Figure 6. Hydrograph for DENR-Water Rights Observation well completed into the same aquifer Application No. 8236-3 proposes to appropriate water from, located approximately 4 miles northeast of the well sites proposed by this application.

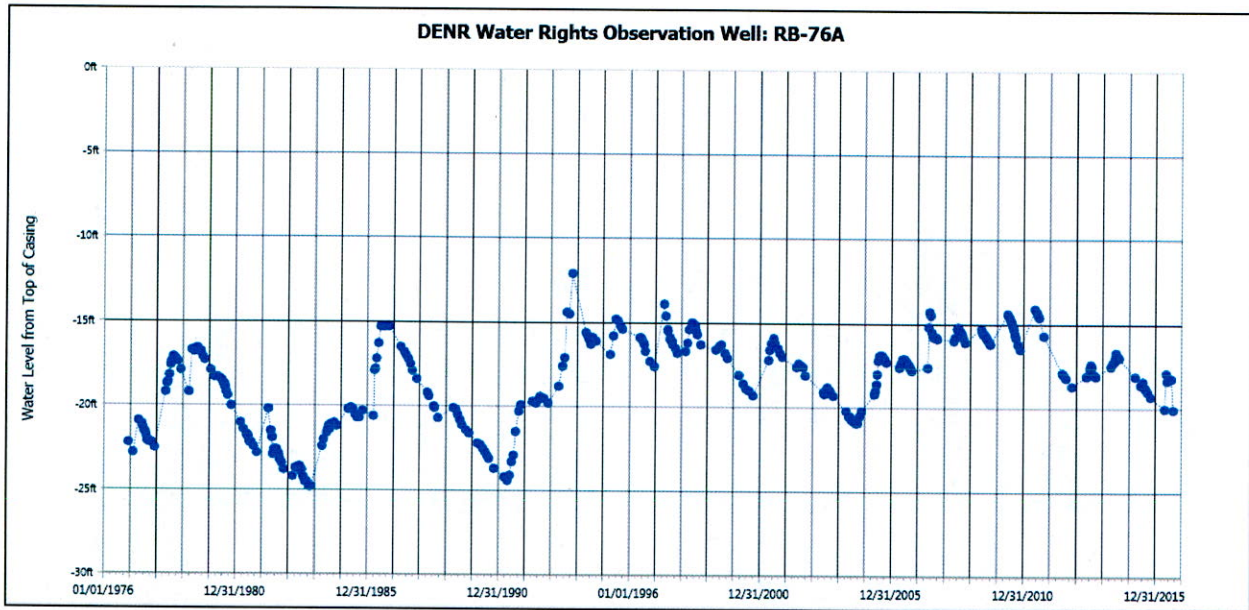


Figure 7. Hydrograph for DENR-Water Rights Observation well completed into the same aquifer Application No. 8236-3 proposes to appropriate water from, located approximately 4 miles northeast of the well sites proposed by this application.

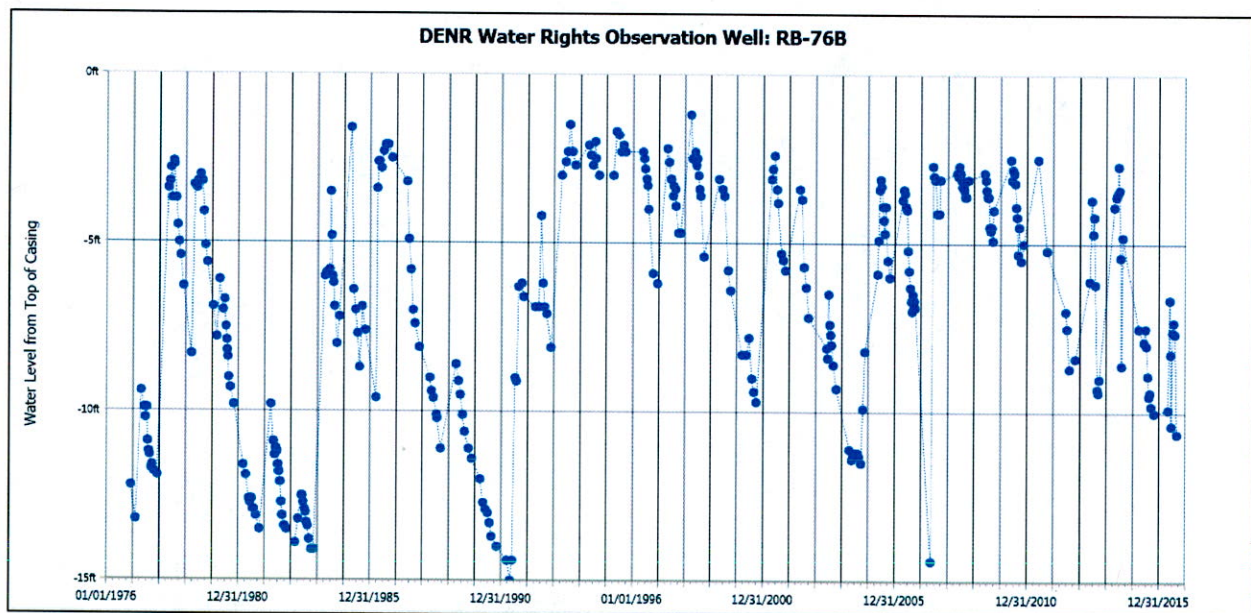


Figure 8. Hydrograph for DENR-Water Rights Observation well completed into the same aquifer Application No. 8236-3 proposes to appropriate water from, located approximately 6.4 miles northeast of the well sites proposed by this application.

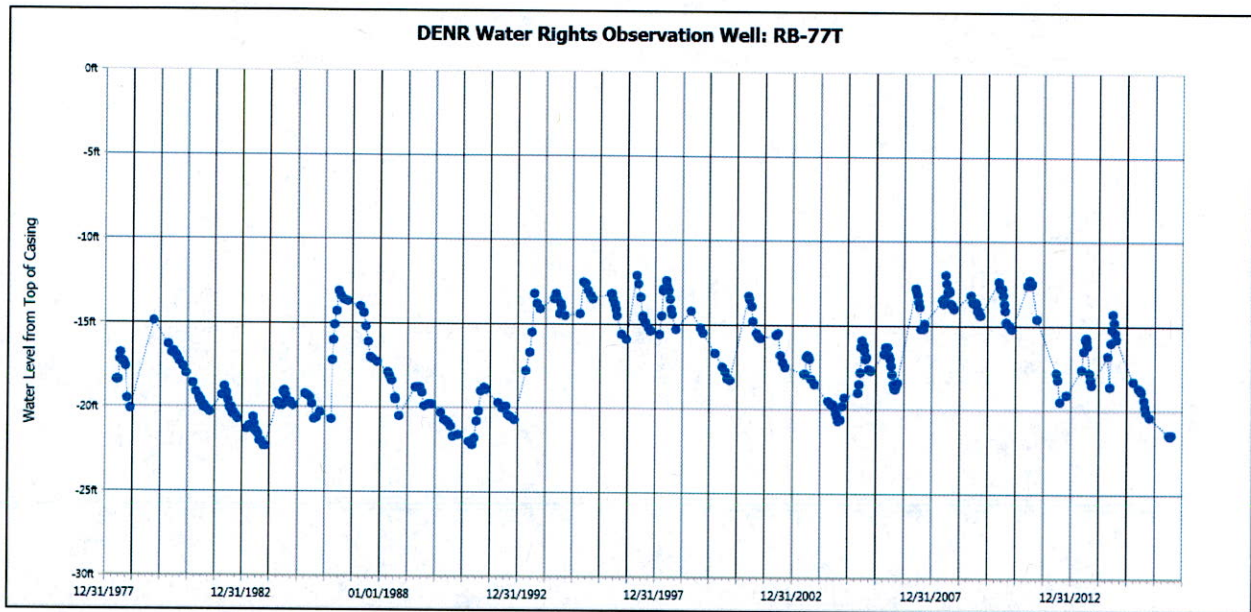


Figure 9. Hydrograph for DENR-Water Rights Observation well completed into the same aquifer Application No. 8236-3 proposes to appropriate water from, located approximately 6.6 miles northeast of the well sites proposed by this application.

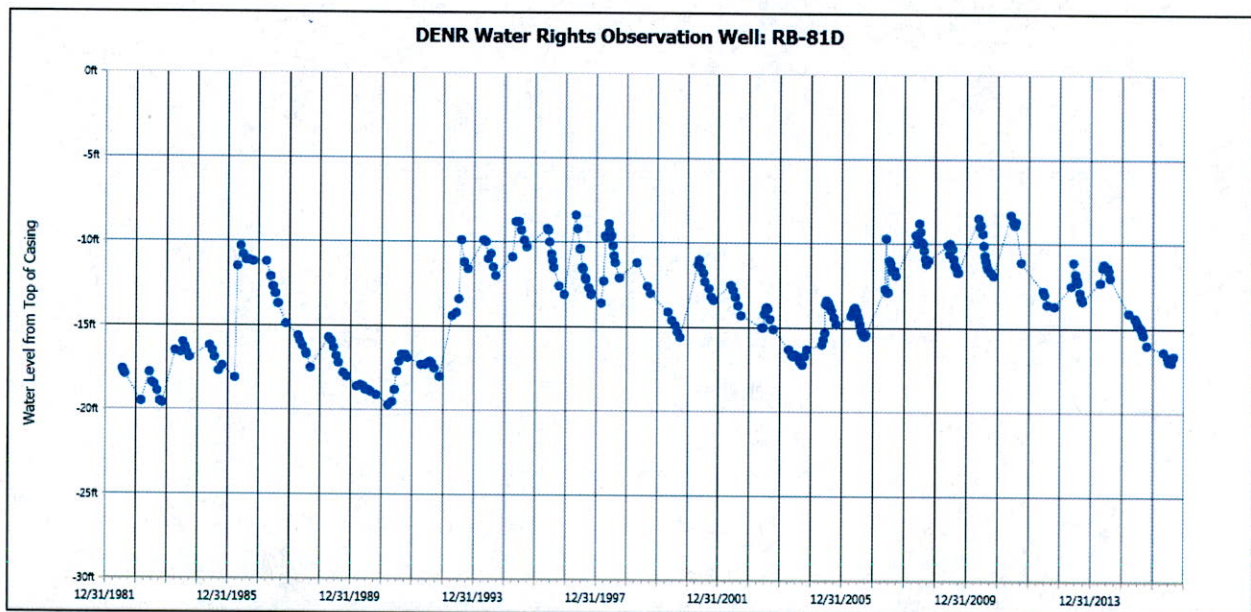


Figure 10. Hydrograph for DENR-Water Rights Observation well completed into the same aquifer Application No. 8236-3 proposes to appropriate water from, located approximately 8 miles northeast of the well sites proposed by this application.

The hydrographs show that the water level of the aquifer responds to climatic conditions with rising water levels during periods when recharge exceeds withdrawals, and declining water levels during periods when withdrawals exceed recharge. Some of the hydrographs document a total amplitude of water level fluctuation in excess of 13 feet (see Figure 8) while in other portions of the aquifer the amplitude has been around four feet (see Figure 5). Although annual

seasonal fluctuations, representing periods when discharge from the aquifer, including well withdrawals, exceeds recharge are apparent on the hydrographs, this temporal condition is dominated by climatic conditions. Therefore, recharge to and natural discharge from the aquifer greatly exceeds well withdrawal, so water is available to capture for additional well withdrawals from the aquifer. The observation well data documents that unappropriated water is available from the portion of the Coteau Lakes aquifer this application proposes to use to support the proposed appropriation.

EXISTING WATER RIGHTS:

As stated above, there are 21 existing water rights/permits that divert water from the same portion of the Coteau Lakes aquifer that this application proposes to appropriate from. The nearest appropriation from the Coteau Lakes aquifer, Water Permit No. 8238-3, Neil Holscher, is located approximately three-quarters of a mile to the north. The next nearest appropriative use well, authorized by Water Right No. 3931-3, Maurice S. Dorsett, is located approximately 1.3 miles to the northeast.

Since the Coteau Lakes aquifer is under unconfined conditions, drawdown created by pumping is not likely to be significant far from a pumped well. Observation well data documents that the impacts of pumping are minimal.

There are five domestic wells on file within approximately one mile of the well sites proposed by this application. One of these domestic use wells appears to be completed into the Coteau Lakes aquifer (Water Rights, 2017c). The precise extent of the drawdown cannot be quantified without aquifer testing. The Water Management Board has consistently recognized that to place water to maximum beneficial use, drawdown will occur. The Water Management Board has adopted minimum construction standards based upon the ability of a well to produce water independent of artesian pressure. South Dakota Well Construction Standard (ARSD) 74:02:04:20(7) defines an adversely impacted domestic well as:

“a well in which the pump intake was set at least 20 feet below the top of the aquifer at the time of construction or, if the aquifer is less than 20 feet thick, is as near to the bottom of the aquifer as is practical and the water level of the aquifer has declined to a level that the pump will no longer deliver sufficient water for the well owner’s needs”

Depending on the characteristics of the Coteau Lakes aquifer at this proposed well site, and the distances involved, some existing well owners may need to lower their pumps. There is a reasonable probability that any well interference experienced in adequate domestic wells will not be adverse or unlawful.

The portion of the Coteau Lakes aquifer that this application is proposing to divert from is a relatively thin aquifer with a limited amount of water in storage. While the average annual withdrawal would not exceed average annual recharge to the aquifer, conditions may occur when withdrawals exceeds recharge. When this occurs, water will be removed from storage, consequently reducing the saturated thickness of the aquifer. If the saturated thickness is reduced to the extent that the water rights/permits can no longer pump at their developed or “historically established” rates, this may be considered an adverse impact.

CONCLUSIONS:

1. Water Permit Application No. 8236-3 proposes to withdraw groundwater at a maximum diversion rate of 2.2 cfs from up to three wells to be completed into the Coteau Lakes aquifer for the irrigation of 180 acres.
2. The Coteau Lakes aquifer is a complex system of several aquifers of varying thicknesses and elevations.
3. There is a reasonable probability that the aquifer material targeted as a source for this application is a portion of an aquifer in the Coteau Lakes aquifer system with an areal extent of at least 14,500 acres.
4. There is a reasonable probability that unappropriated water is available from the Coteau Lakes aquifer to supply the proposed appropriation.
5. There is a reasonable probability that any possible well interference due to the proposed appropriation will not adversely or unlawfully impair existing users.



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Beffort, J.D. and Hedges, L.S., 1967, Ground-water Supply for the City of Waubay, South Dakota: South Dakota Geological Survey Special Report 40, 40p, 8 figs., 1 table, 2 app
- Buhler, K.A., 2016, Report to the Chief Engineer on Water Permit Application No. 8238-3, Neil Holscher, October 19, 2016, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota
- Hedges, L.S., Burch, S.L., Iles, D.L., Barari, R.A., Schoon, R.A., 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185
- Hedges, L.S., Allen, J., Holly, D.E., 1985, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 7: Ground Water Recharge, Final Report; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185
- Kilts, W., 2015, Report to the Chief Engineer, Application no. 8075-3, LaBolt Farmers Grain Co., February 18, 2015, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota
- Leap, D.I., 1988, Geology and Hydrology of Day County, South Dakota: South Dakota Geological Survey Bulletin 24, 117 p., 2 pls, 53 figs. 7 tables, 10 app.

Leap, D.I., 1972, Major Aquifers and Sand and Gravel Resources in Day County, South Dakota: South Dakota Geological Survey Information Pamphlet 03, 7 p., 4 fig. 1 table

Lithologic Logs Database. SD DENR-Geological Survey, n.d. Web. 4 Jan.2017.

Mathiowetz, A., 2014, Report on Water Permit Application No. 8000-3, Earl Althoff, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota

Thompson, R.F., 2001, Water Resources of Lake Traverse Reservation , South and North Dakota, Roberts County, South Dakota, U.S. Geological Survey Water Resources Investigations Report 01-4219, 105 p.

Water Rights, 2017a, Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

Water Rights, 2017b, Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

Water Rights, 2017c, Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

AFFIDAVIT OF PUBLICATION

County of Day
State of South Dakota,

SS.

RECEIVED

FEB - 3 2017

WATER RIGHTS
PROGRAM

John Suhr, of said county and state being duly sworn on oath, says: That the Reporter & Farmer is a legal weekly newspaper of general circulation, and an official newspaper as required by Session Laws of 1893, printed and published in Webster, in said county and state, by the Day County Printing Company and has been such newspaper during the time hereinafter mentioned, that I, John Suhr, the undersigned, am publisher of said newspaper, and have personal knowledge of all facts stated in this affidavit and that the advertisement headed Water application, a printed copy of which is hereunto attached, was printed and published in the said newspaper one successive and complete issues as follows:

First Publication	January 30, 2017;
Second Publication	;
Third Publication	;
Fourth Publication	;
Fifth Publication	;

That the full amount of fees for publication of the annexed notice is \$31.34 and inures solely to the Reporter & Farmer, published by The Day County Printing Company, that no arrangement or understanding for a division thereof has been made with any other person, and that no part thereof has been agreed to be paid any person whomsoever.

Subscribed and sworn to before me this 30th day of January, 2017.



Notary Public, Day County, South Dakota

LeAnn M. Suhr
Day County South Dakota
My Commission Expires November 2, 2017

Application for water

NOTICE OF APPLICATION NO. 8236-3 TO APPROPRIATE WATER

Notice is given that Arnie Beisch, 44877 142nd St, Waubay, SD 57273 has filed an application for a water permit to appropriate 2.2 cubic feet of water per second from up to three wells to be completed into the Coteau Lakes Aquifer (50 feet deep) located in the S1/2NW1/4 Section 25 for irrigation of 180 acres located in the NW1/4, W1/2NE1/4 Section 25; all in T122N-R53W within the former boundaries of the Sisseton Wahpeton Indian Reservation.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8236-3 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E. Capitol, Pierre, SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by February 13, 2017.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing the application or contesting the recommendation is filed, then a

hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Steven M. Pirner,
Secretary,
Department of
Environment and
Natural Resources

Published once at the total approximate cost of \$31.34.

RECEIVED

FEB - 6 2017

Form 8

WATER RIGHTS
PROGRAM

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Codington) SS

I, Jackie Wettestad

certify that the attached printed Notice was taken

from the Watertown
Public Opinion

printed and published in Watertown

County of Codington and

state of South Dakota. The notice was published

in the newspaper on the following date:

January 30, 2017

Cost of Printing \$50.96

Jackie Wettestad
(Signature)

Accounting Clerk
(Title)

2-2-2017
(Date Signed)

DEPARTMENT OF ENVIRON- MENT AND NATURAL RE- SOURCES

NOTICE OF APPLICATION NO.

8236-3 to Appropriate Water
Notice is given that Annie Belsch, 44877 142nd St, Waubay SD 57273 has filed an application for a water permit to appropriate 2.2 cubic feet of water per second from up to three wells to be completed into the Coteau Lakes Aquifer (50 feet deep) located in the S 1/2 NW 1/4 Section 25 for irrigation of 180 acres located in the NW 1/4, W 1/2 NE 1/4 Section 25; all in T122N-R53W within the former boundaries of the Sisseton Wahpeton Indian Reservation.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8236-3 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are avail-

able at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by February 13, 2017.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Steven M. Pimer, Secretary, Department of Environment and Natural Resources.

Published once at the total approximate cost of \$48.92.

(January 30, 2017) \$50.96

All legal notices in the Public Opinion and other South Dakota newspapers can be found at
sdpublicnotices.com

Schlaak, Karen

From: Schlaak, Karen
Sent: Thursday, January 19, 2017 8:12 AM
To: news@reporterandfarmer.com
Subject: 8236-3, Arnie Beisch
Attachments: 8236-3public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on January 30, 2017.

Arnie Beisch, 44877 142nd St, Waubay SD 57273 (605 881-4128) has been notified to contact you to authorize publication and arrange for payment.

Please send the affidavit or return the attached Proof of Publication form ASAP.

Let me know if you have questions. Please acknowledge receipt of this email.

Karen Schlaak
Water Rights Program
523 E Capitol Ave
Pierre SD 57501
Phone: 605 773-3352

Schlaak, Karen

From: Schlaak, Karen
Sent: Thursday, January 19, 2017 8:12 AM
To: legals@thepublicopinion.com
Subject: 8236-3, Arnie Beisch
Attachments: 8236-3public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on January 30, 2017.

Arnie Beisch, 44877 142nd St, Waubay SD 57273 (605 881-4128) has been notified to contact you to authorize publication and arrange for payment.

Please send the affidavit or return the attached Proof of Publication form ASAP.

Let me know if you have questions. Please acknowledge receipt of this email.

Karen Schlaak
Water Rights Program
523 E Capitol Ave
Pierre SD 57501
Phone: 605 773-3352



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

**NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATES, CONTACT
THE NEWSPAPER(S) RIGHT AWAY.**

January 18, 2017

Arnie Beisch
44877 142nd St
Waubay SD 57273

Dear Mr. Beisch:

Water Permit Application No. 8236-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Reporter & Farmer printed at Webster SD (Ph # 605-345-3356) and the Public Opinion printed at Watertown SD (Ph # 605-886-6901). You will need to contact the newspaper(s) and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper(s) to authorize publication of your Notice and to arrange for payment. Early contact with the paper(s) can eliminate delays. Upon receiving authorization from you, the publisher has been instructed to publish your notice. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the application.

NOTICE OF APPLICATION NO. 8236-3 to Appropriate Water

Notice is given that Arnie Beisch, 44877 142nd St, Waubay SD 57273 has filed an application for a water permit to appropriate 2.2 cubic feet of water per second from up to three wells to be completed into the Coteau Lakes Aquifer (50 feet deep) located in the S 1/2 NW 1/4 Section 25 for irrigation of 180 acres located in the NW 1/4, W 1/2 NE 1/4 Section 25; all in T122N-R53W within the former boundaries of the Sisseton Wahpeton Indian Reservation.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8236-3 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by February 13, 2017.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once at the total approximate cost of _____.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

MAR 06 2017

Arnie Beisch
44877 142nd St
Waubay SD 57273

Dear Mr. Beisch:

Enclosed is Water Permit No. 8236-3 authorizing construction of the water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Form 10, *Notice of Completion of Works and Application of Water to Beneficial Use*, is enclosed. Please return this completed form after you have finished the system and have put the water to beneficial use. An investigation can then be scheduled so the water license may be issued, thus completing the acquisition of a water right.

An informational sheet *Common Water Right Questions?* is also enclosed. This sheet is intended to answer some of the questions associated with obtaining and keeping a water right.

Sincerely,

Jeanne Goodman, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

**REISSUED
SOUTH DAKOTA
WATER PERMIT NO. 8236-3**

Date of first receipt of application August 24, 2016.

Date of receipt of amended application June 28, 2017.

The Chief Engineer, on behalf of the Water Management Board, reissues Water Permit No. 8236-3 to Arnie Beisch, 44877 142nd St, Waubay SD 57273 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Reissued Water Permit No. 8236-3 appropriates 2.2 cubic feet of water per second from up to three wells to be completed into the Prairie Coteau Aquifer located in the S 1/2 NW 1/4 Section 25 for irrigation of 180 acres located in the NW 1/4, W 1/2 NE 1/4 Section 25; all in T122N-R53W within the former boundaries of the Sisseton Wahpeton Indian Reservation.

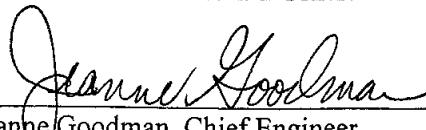
Water Permit No. 8236-3 is being reissued after the permit was readvertised to identify the correct water source.

2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: May 1 – October 31.
3. The date from which applicant may claim right is June 28, 2017.
4. The date of approval of Reissued Permit No. 8236-3 is November 16, 2017.
5. One-fifth of the construction is to be completed on or before May 16, 2020.
6. All construction is to be completed on or before November 16, 2022.
7. Water is to be put to beneficial use on or before November 16, 2026.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The wells authorized by Permit No. 8236-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. The wells shall be completed into the Prairie Coteau aquifer at a depth between approximately 150-200 feet.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: 
Jeanne Goodman, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

DEC 19 2017

date





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
www.denr.sd.gov

June 7, 2017

Jerry Wieber
Wieber Well Drilling
PO Box 157
Lidgerwood, ND 58053

Dear Mr. Wieber:

As requested, pursuant to South Dakota Well Construction Standard 74:02:04:21, Wieber Well Drilling is authorized to construct a test well for Arnie Beisch approximately 200 feet deep prior to approval of a water permit. The test well will be located in the NW ¼ Section 25-T122N-R53W within the former boundaries of the Sisseton-Wahpeton Reservation. All test wells must be constructed in accordance with the SD Well Construction Standards. Any test holes that are abandoned must be plugged pursuant to the SD Well Construction Standards.

Authorization must be obtained before water from the well can be used in excess of domestic use as defined by South Dakota Codified Law 46-1-6(7). Approval of this test well does not assure issuance of a water permit. Following review of a Water Permit Application and assessing the availability of water, the potential impacts to existing users, the beneficial use, and the public interest of a permit, the Chief Engineer will make a recommendation to the Water Management Board regarding the application. The recommendation to approve, deny, or defer the application will be publicly noticed and an opportunity afforded for the public to intervene. A public hearing may be required to consider the water permit. If you have questions, call Eric Grönlund at (605) 773-3352.

Sincerely,

A handwritten signature in black ink, reading "Jeanne Goodman". The signature is fluid and cursive, with the first name "Jeanne" being more prominent than the last name "Goodman".

Jeanne Goodman, Chief Engineer
Water Rights Program
(605) 773-3352

CC:

Arnie Beisch
44877 142nd St
Waubay, SD 57273

Dear Eric

1 Would like to amend permit
no. 8236-3 to be able to drill
up to 200' deep wells may
take up to 3 wells

Weiber Well drilling feels
confident that the material & water
is a lot better & a lot more water
at that level

Thank Arnie

They left 2 well logs
I'm also ~~some~~ sending

Arnie

Please return answer
to Arnie's email

arniebeisch@yahoo.com

RECEIVED

JUN 28 2017

WATER
PROGRAM

A AND B STATE TEST HOLES COUNTY ROAD

6-8-2017

SD
WATER
COMMISSION
JUNE
2017
~~150-190~~
SAND
yellow
sand
FINE SAND

#12 160'
No good
"MAYBE NOT
Deep enough"

80 ACRES

2016
AND
2017
Well log

SD
WATER
2800'
EAST
N. SAND
STATE
CREW

compitation
"Wells ARE
Re Numbered"

#11 125-157
"FINE SAND"
yellowish

#8 113-153
GOOD SAND
"FINE SAND"
yellowish

#9 152-164 C GRAVEL
164-171 CLAY
171-190 "COARSE SAND"
GRAVEL

DASSE & CP
163-175
NOT GOOD

450' Between 8 & 9

600' GRAVEL DRIVEWAY

HOUSE ARNIE
Buildings Beisch
YARD SON'S
HOUSE

MOVE
400' SE DIRT
PAPER HAD
NOT ENOUGH ROOM

County Road

#7 "FINE
Yellowish SAND" 5" PVC
5" Well 11' elevation Test Well
90-140 Rise Water level (Static)
used AS observation 15.5
When pump test on
Well (hole) #5 WAS
pump Tested. DRAWDOWN (16')

Test
Hole, (#1)
150'
NOT GOOD
AT ALL -
POOR SAND
between 25-36'
SAND 39-54'

#13 35-43
SAND
COARSE
yellow SAND

#4 Test Hole
70-134
SAND

RECEIVED
JUN - 7 2017

PAGE
1 of 17

WATER RIGHTS
PROGRAM
WIEBER WELL DRILLING
BOX 157
LIDGERWOOD, ND 58053

"Test
5" Well
43' Deep 8" Test Well
137' Deep
150-180
gpm

COARSE
Yellow
GRAVEL

500'

Section line

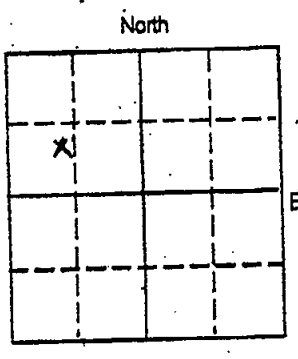
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

2017

Location SW 1/4 NE 1/4 Sec 25 Twp 125 Rg 53
61719 AM

County Day



Please mark well location with an "X"

Well completion Date

4/4/17

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)

? ft. from 100 Field (Identify source)

PROPOSED USE:

- ☐ Domestic/Stock ☐ Municipal ☐ Business ☒ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

Rotary

CASING DATA:

- ☐ Steel ☐ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Wys. Ben</u>	<u>4</u>	<u>12</u> Lb/gal	<u>0</u> Ft	<u>150</u> Ft
		Lb/gal	Ft	Ft

Describe grouting procedure grout line to 150

SCREEN:

- ☐ Perforated pipe ☐ Manufactured

Diameter _____ Inches Length _____ Feet

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other Information _____

WAS A PACKER OR SEAL USED?

- ☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

- ☒ Yes, How? chlorine in water

Lab sample sent to for water quality analysis

- ☐ No, Why Not? tank

Well Owner:

Aemie Beisch Beisch

Business Name:

Address1:

44877 - 143 st

Address2:

City, State, Zip:

Waubay, SD 57273

WELL LOG:

DEPTH

FORMATION	FROM	TO
<u>top soil Black</u>	<u>0</u>	<u>2</u>
<u>yellow clay</u>	<u>2</u>	<u>20</u>
<u>Blue clay</u>	<u>20</u>	<u>25</u>
<u>yellow sand</u>	<u>25</u>	<u>36</u>
<u>clay</u>	<u>36</u>	<u>39</u>
<u>sand</u>	<u>39</u>	<u>54</u>
<u>clay</u>	<u>54</u>	<u>150</u>

STATIC WATER LEVEL

FEET

If flowing: closed in pressure

PSI

GPM flow

through

Inch pipe

Controlled by

☐ Valve

☐ Reducers

☐ Other

Reduced flow rate

GPM

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped Describe:

☐ Bailed

☐ Other

Pumping Level Below Land Surface

Ft. After

Hrs. pumped

GPM

Ft. After

Hrs. pumped

GPM

If pump installed, pump rate:

GPM

REMARKS

2017 test hole

#1

This well was drilled under license #

480

And this report is true and accurate.

Drilling firm:

Wieber Well Drilling

Signature of License Representative:

Jessy Wieber

Signature of Well Owner or Equitable Property Holder:

Aemie Beisch

Date:

4-14-17

Please return White Copy to DENR Water Rights

RECEIVED

555 E. Capitol Ave., Pierre SD 57501

JUN - 7 2017

WATER RIGHTS PROGRAM

Page 2 of 17

2016

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 NE 1/4 Sec 25 Twp 122 R953
617/17 AM

County Day North

Please mark well location with an "X"

Well completion Date 2016

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)
2 ft. from 1st Field (Identify source)

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☒ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:
Rotary

CASING DATA: ☐ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
		Lb/gal	FT	FT
<u>140-Ben</u>	<u>2</u>	<u>10</u>	<u>0</u>	<u>60</u>
		Lb/gal	FT	FT

Describe grouting procedure _____

SCREEN: ☐ Perforated pipe ☐ Manufactured

Diameter _____ Inches Length _____ Feet

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other information _____

WAS A PACKER OR SEAL USED? ☐ Yes ☒ No

If so, what material? _____

Describe packer(s) and location _____

DISINFECTION: Was well disinfected upon completion?
☒ Yes, How? chlorine in tank
☐ No, Why Not? _____

Lab sample sent to for water quality analysis _____

Well Owner: Arnie Beisch

Business Name: _____

Address1: 44877 143 St.

Address2: _____

City, State, Zip: Waubay, SD 57273

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>top soil</u>	<u>0</u>	<u>2</u>
<u>yellow clay</u>	<u>2</u>	<u>35</u>
<u>steeps sand dirty</u>	<u>35</u>	<u>40</u>
<u>clay</u>	<u>40</u>	<u>60</u>

STATIC WATER LEVEL _____ FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☒ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in? _____

RECEIVED

WELL TEST DATA: JUN - 7 2017

☐ Pumped Describe: _____

☐ Bailed _____

☐ Other _____

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM
_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

2016 test hole #2
East of 8" x 5" in corner

This well was drilled under license # 480

And this report is true and accurate.

Drilling firm: Wieber Well Drilling

Signature of License Representative: [Signature]

Signature of Well Owner or Equitable Property Holder: _____

Date: 2016

Please return White Copy to DENR Water Rights

523 E. Capitol Ave., Pierre SD 57501

30617

2017

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 NE 1/4 Sec 25 Twp 25N R95W
617/17 NW

County

Day

North

Please mark well location with an "X"

W

E

Well completion Date

5/22/17

1 Mile

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)

? ft. from 1st Field (Identify source)

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☒ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

Rotary

CASING DATA:

☐ Steel ☐ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
		Lb/gal	0 Ft	160 Ft
<u>Wye-ben</u>	<u>4</u>	<u>10</u>		

Describe grouting procedure Grout mix to 160

SCREEN:

☐ Perforated pipe ☐ Manufactured

Diameter _____ Inches Length _____ Feet

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other information _____

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? chlorine in water

Lab sample sent to for water quality analysis

☐ No, Why Not? Low

Well Owner:

Arnie Beisch

Business Name:

Address1:

44877 143 st.

Address2:

City, State, Zip:

Waubay, SD 57273

WELL LOG:

DEPTH

FORMATION	FROM	TO
top soil	0	2
yellow clay	2	10
yellow clay	10	45
Blue clay	45	80
clay	80	160

STATIC WATER LEVEL

FEET

If flowing: closed in pressure

PSI

GPM flow

through

inch pipe

Controlled by

☐ Valve☐ Reducers☐ Other

Reduced flow rate

GPM

Can well be completely shut in?

RECEIVED

WELL TEST DATA:

JUN - 7 2017☐ Pumped Describe:**WATER RIGHTS PROGRAM**☐ Bailed☐ Other

Pumping Level Below Land Surface

Ft. After

Hrs. pumped

GPM

Ft. After

Hrs. pumped

GPM

If pump installed, pump rate:

GPM

REMARKS

2017 test hole#3

This well was drilled under license #

480

And this report is true and accurate.

Drilling firm:

Wieber Well Drilling

Signature of License Representative:

[Signature]

Signature of Well Owner or Equitable Property Holder:

[Signature]

Date:

5/22/17

523 E. Capitol Ave., Pierre SD 57501

Please return White Copy to DENR Water Rights

4 0617

2017

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 NE 1/4 Sec 25 Twp 122 N Rg 53 E
617117 AM
 County Day North

Please mark well location with an "X"

Well completion Date 4/8/17

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)
 ? 100 ft from in Field (Identify source)

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☒ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:
Rotary

CASING DATA: ☐ Steel ☐ Plastic ☐ Other
 If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN

GROUTING DATA:
 Grout Type Wapo-Ben No. of Sacks 3 Grout Weight 1.0 Lb/gal From 0 Ft To 139 Ft
 Describe grouting procedure grout line to 134

SCREEN: ☐ Perforated pipe ☐ Manufactured
 Diameter _____ Inches Length _____ Feet
 Material _____
 Slot Size _____ Set From X Feet to _____ Feet
 Other information _____

WAS A PACKER OR SEAL USED? ☐ Yes ☐ No
 If so, what material? X
 Describe packer(s) and location _____

DISINFECTION: Was well disinfected upon completion?
☒ Yes, How? chlorine in water
☐ No, Why Not? truck
 Lab sample sent to for water quality analysis _____

Well Owner: Arnie Biesch
 Business Name: _____
 Address1: 44877 - 143 st
 Address2: _____
 City, State, Zip: Waubay, SD 57273

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
top soil	0	2
yellow clay	2	40
Blue clay	40	70
yellow sand	70	134

STATIC WATER LEVEL _____ FEET
 If flowing: closed in pressure _____ PSI
 GPM flow _____ through _____ inch pipe
 Controlled by ☐ Valve ☐ Reducers ☐ Other _____
 Reduced flow rate _____ GPM
 Can well be completely shut in? _____

WELL TEST DATA:
☐ Pumped Describe: _____
☐ Bailed _____
☐ Other _____
 Pumping Level Below Land Surface _____
 _____ Ft. After _____ Hrs. pumped _____ GPM
 _____ Ft. After _____ Hrs. pumped _____ GPM
 If pump installed, pump rate: _____ GPM

REMARKS
2017 test hole #4

This well was drilled under license # 480
 And this report is true and accurate.
 Drilling firm: Wieber Well Drilling
 Signature of License Representative: [Signature]
 Signature of Well Owner or Equitable Property Holder: [Signature]
 Date: 4-8-17

RECEIVED
 JUN - 7 2017
 WATER RIGHTS PROGRAM

Please return White Copy to DENR Water Rights

523 E. Capitol Ave., Pierre SD 57501

5 of 17

2017

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 NE 1/4 Sec 25 Twp 24-122 Rg 53-54
6/17/17 AM

County Day

North

Please mark well location with an "X"

Well completion Date 5/25/17

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)
 ? ft. from 100 Field (Identify source)

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☒ Test Holes
☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:
ROTARY

CASING DATA: ☐ Steel ☒ Plastic ☐ Other
 If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
200 LB/FT	8" IN	0 FT	117 FT	12 1/2 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:
 Grout Type Wyo-Bon No. of Sacks 9 Grout Weight 10 Lb/gal From 0 Ft To 107 Ft
 Lb/gal Ft Ft

Describe grouting procedure Full hole grouting
to cement line to 107

SCREEN: ☐ Perforated pipe ☐ Manufactured
 Diameter 8" Inches Length 20 Feet
 Material PVC Ever-Flo
 Slot Size .030 Set From 117 Feet to 137 Feet
 Other information _____

WAS A PACKER OR SEAL USED? ☐ Yes ☒ No
 If so, what material? _____
 Describe packer(s) and location _____

DISINFECTION: Was well disinfected upon completion?
☒ Yes, How? chlorine in water
☐ No, Why Not? Leak

Lab sample sent to for water quality analysis _____

Well Owner: Arnie Beisch
 Business Name: _____
 Address1: 44877 143 st.
 Address2: _____
 City, State, Zip: Waubay, S.D 57273

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Black top soil	0	2
yellow clay	2	20
Blue clay	20	35
Sand	35	43
clay	43	81
SAND	81	137
clay	137	140

STATIC WATER LEVEL _____ FEET
 If flowing: closed in pressure _____ PSI
 GPM flow _____ through _____ inch pipe
 Controlled by ☐ Valve ☐ Reducers ☐ Other _____
 Reduced flow rate _____ GPM
 Can well be completely shut in? yes

WELL TEST DATA:
☒ Pumped Describe: _____
☐ Bailed _____
☐ Other _____

Pumping Level Below Land Surface
75' Ft. After 1 Hrs. pumped 150 GPM
 _____ Ft. After _____ Hrs. pumped _____ GPM
 If pump installed, pump rate: _____ GPM

REMARKS
8" test well
#5

This well was drilled under license # 480
 And this report is true and accurate.
 Drilling firm: Wieber Well Drilling
 Signature of License Representative: Jerry Wieber
 Signature of Well Owner or Equitable Property Holder: _____
 Date: 5-25-17

Please return White Copy to DENR Water Rights

523 E. Capitol Ave., Pierre SD 57501

6/6/17

2016

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 NE 1/4 Sec 25 Twp 122 R953-54
6/17/17 AM

County Day

North

Please mark well location with an "X"

Well completion Date 2016

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)
1/2 ft. from 1st Field (Identify source)

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☒ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:
ROTARY

CASING DATA: ☐ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
200 LB/FT	5 IN	0 FT	33 FT	8 1/8 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Wyo-Ben	4	10 Lb/gal	0 FT	26 FT
		Lb/gal	FT	FT

Describe grouting procedure Full hole grouting
Screen line to 26'

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 5 Inches Length 10 Feet

Material DWL Ever-Flo

Slot Size .040 Set From 33 Feet to 43 Feet

Other information _____

WAS A PACKER OR SEAL USED? ☐ Yes ☒ No

If so, what material? _____

Describe packer(s) and location _____

DISINFECTION: Was well disinfected upon completion?
☒ Yes, How? _____
☐ No, Why Not? _____

Lab sample sent to for water quality analysis chlorine in water
low

Well Owner: ARNIE Beisch

Business Name: _____

Address1: 44877 143 st.

Address2: _____

City, State, Zip: Waubay, SD 57273

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
top soil	0	2
yellow clay	2	15
Blue clay	15	35
coarse sand	35	43

STATIC WATER LEVEL 48" FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in? yes

WELL TEST DATA:

☐ Pumped Describe: Air

☐ Bailed

☐ Other

Pumping Level Below Land Surface

	Ft. After	Hrs. pumped	GPM
	30	1	50

If pump installed, pump rate: _____ GPM

REMARKS

2016 test hole
5" test well #6

This well was drilled under license # 480

And this report is true and accurate.

Drilling firm: Wieber Well Drilling

Signature of License Representative: [Signature]

Signature of Well Owner or Equitable Property Holder: [Signature]

Date: 2016

Please return White Copy to DENR Water Rights

523 E. Capitol Ave., Pierre SD 57501

70617

SOUTH DAKOTA WATER WELL COMPLETION REPORT

2016

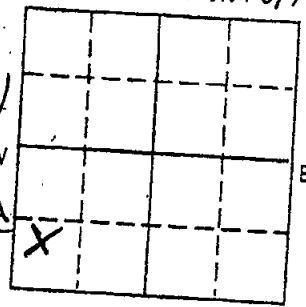
Phone 605-881-4128

11-02

Location SW 1/4 SW 1/4 Sec 25 Twp 121 Rg 53
County DAY North AM 6/7/17

Well Owner: ARNIE Beisch
Business Name: FARM
Address 1: 44877 143rd ST
Address 2: WAUBAY, S. DAK 57273
City, State, Zip: WAUBAY, S. DAK 57273

Hole # 44
Please mark well location with an "X"
MAD ATTACHED
Well completion Date 8-20-2016



WELL LOG:

FORMATION	DEPTH	
	FROM	TO
BLACK Top Soil	0	2
CLAYS	2	50
CLAYS	50	90
Good WATER BEARING SAND .015-.020	90	140

SAMP MAP 4 TEST NOTES
Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)
? ft. from IN Field CROPS ONLY (Identify source)

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:
ROTARY

STATIC WATER LEVEL 13 FEET
If flowing: closed in pressure _____ PSI
GPM flow _____ through _____ Inch pipe
Controlled by ☐ Valve ☐ Reducers ☐ Other
Reduced flow rate _____ GPM
Can well be completely shut in? _____

CASING DATA: ☐ Steel ☒ Plastic ☐ Other
If other describe _____
PIPEWEIGHT DIAMETER FROM TO HOLE DIAMETER
200 LB/FT 5" IN 120 FT 140 FT 8 3/4 IN
____ LB/FT ____ IN ____ FT ____ FT ____ IN
____ LB/FT ____ IN ____ FT ____ FT ____ IN

GROUTING DATA:
Grout Type 8-Wyo No. of Sacks _____ Grout Weight _____ From _____ To _____
____ LB/gal _____ LB/gal _____ Ft _____ Ft

Describe grouting procedure
Tremie line to SAND PACK FULL HOPE GROUT TOP

SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 5" inches Length 20' Feet
Material DVC
Slot Size 0.040 Set From 120 Feet to 140 Feet
Other Information _____

WELL TEST DATA:
☐ Pumped Describe: AIR
☐ Bailed
☐ Other
Pumping Level Below Land Surface
60' Ft. After 1 Hrs. pumped 50 GPM
____ Ft. After ____ Hrs. pumped ____ GPM
If pump installed, pump rate: _____ GPM

REMARKS
#7

WAS A PACKER OR SEAL USED? ☐ Yes ☒ No
If so, what material? _____
Describe packer(s) and location _____

DISINFECTION: Was well disinfected upon completion?
☒ Yes, How? chlorine IN WATER TRUCK
☐ No, Why Not? _____
Lab sample sent to for water quality analysis _____

This well was drilled under license # 480
And this report is true and accurate.
Drilling firm: Weber Well Drilling
Signature of License Representative: Jerry Weber
Signature of Well Owner or Equitable Property Holder: _____

Date: 8-20-2016
523 E. Capitol Ave., Pierre SD 57501

Please return White Copy to DENR Water Rights

RECEIVED

JUN - 7 2017

WATER RIGHTS PROGRAM

80617

2016
SOUTH DAKOTA WATER WELL COMPLETION REPORT

Phone 605-881-4128

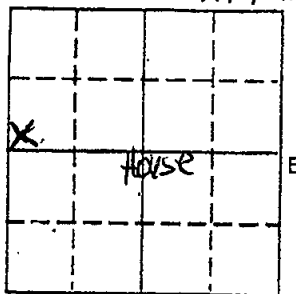
11-02

Location SW 1/4 NW Sec 25 Twp 122 Rg 53

County DAY

North 6/7/17 AM

#2 of 4



Please mark well location with an "X"

MAP ATTACHED

Well completion Date

8-20-2016

SAMP MAP 4 TEST HOLE

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)
? ft. from IN Field CROPS ONLY (Identify source)

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

ROTARY

CASING DATA:

☐ Steel ☒ Plastic 4 3/4" TEST HOLE ☐ Other

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
		Lb/gal	FT	FT
<u>4 Wyo BEN</u>		Lb/gal	<u>0</u> FT	<u>90</u> FT

Describe grouting procedure

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 3" Inches Length 150 Feet
Material PIPE
Slot Size 1/4" Set From 150 Feet to 150 Feet
Other information

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? chlorine IN WATER TRUCK
☐ No, Why Not?

Lab sample sent to for water quality analysis

Well Owner:

Business Name:

Address1:

Address2:

City, State, Zip:

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>BLACK TOPSOIL</u>	<u>0</u>	<u>2</u>
<u>CLAYS</u>	<u>2</u>	<u>60</u>
<u>BD CLAYS</u>	<u>60</u>	<u>113</u>
<u>GOOD WATER BEARING SAND .015-.020</u>	<u>113</u>	<u>153</u>

STATIC WATER LEVEL

If flowing: closed in pressure

GPM flow through 1 inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped Describe: AIR

☐ Balled

☐ Other

Pumping Level Below Land Surface

60 Ft. After 1 Hrs. pumped 100 GPM

60 Ft. After 1 Hrs. pumped 100 GPM

If pump installed, pump rate: 100 GPM

REMARKS

8

This well was drilled under license # 480

And this report is true and accurate.

Drilling firm: Weber Well Drilling

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: 8-20-2016

523 E. Capitol Ave., Pierre SD 57501

Please return White Copy to DENR Water Rights

906 17

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 NE 1/4 Sec 25 Twp 122 N R95 E
617117 AM
 County Day
 North
 Please mark well location with an "X"
 Well completion Date 6/5/17
 1 Mile

Well Owner: Arnie Beisch
 Business Name: _____
 Address1: 44877 143 st.
 Address2: _____
 City, State, Zip: Waubay, SD 57273

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
top soil	0	2
clays	2	152
coarse gravel	152	164
clay	164	171
coarse gravel	171	190

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)
 ? ft. from in field (Identify source)

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☒ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:
Rotary

CASING DATA: ☐ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
		Lb/gal	FT	FT

Describe grouting procedure _____

SCREEN: ☐ Perforated pipe ☐ Manufactured

Diameter _____ Inches Length _____ Feet

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other information _____

WAS A PACKER OR SEAL USED? ☒ Yes ☐ No

If so, what material? _____

Describe packer(s) and location _____

DISINFECTION: Was well disinfected upon completion?
☐ Yes, How? _____
☐ No, Why Not? _____

Lab sample sent to for water quality analysis _____

STATIC WATER LEVEL _____ FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ Pumped Describe: _____

☐ Bailed _____

☐ Other _____

RECEIVED
JUN - 7 2017
WATER RIGHTS PROGRAM

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM
_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS
#9 450' East of Road
in line with center pivot

This well was drilled under license # 480

And this report is true and accurate.

Drilling firm: Wieber Well Drilling

Signature of License Representative: _____

Signature of Well Owner or Equitable Property Holder: _____

Date: 6-5-17

Please return White Copy to DENR Water Rights

523 E. Capitol Ave., Pierre SD 57501

1006 17

2016

SOUTH DAKOTA WATER WELL COMPLETION REPORT

Phone 605-881-4128

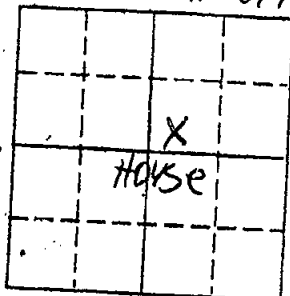
11-02

Location SW 1/4 NE 1/4 Sec 25 Twp 132 N Rg 53

County

DAY

North AM 6/7/17



Please mark well location with an "X"

MAP ATTACHED

Well completion Date

8-20-2016

SAMPLE MAP & TEST TUBES

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)
? ft. from IN Field (CROPS ONLY) (Identify source)

PROPOSED USE:

- ☐ Domestic/Stock
☒ Irrigation
☐ Municipal
☐ Industrial
☐ Business
☐ Institutional
☐ Test Holes
☐ Monitoring well

METHOD OF DRILLING:

ROTARY

CASING DATA:

- ☐ Steel
☒ Plastic
☐ Other

If other describe

44 Test Hole

PIPEWEIGHT

DIAMETER

FROM

TO

HOLE DIAMETER

LB/FT

IN

FT

FT

IN

LB/FT

IN

FT

FT

IN

GROUTING DATA:

Grout Type

No. of Sacks

Grout Weight

From

To

7 X Wyo Ben

Lb/gal

0 Ft

120 Ft

Describe grouting procedure

Tremie line to 120

SCREEN:

- ☐ Perforated pipe
☒ Manufactured

Diameter

Inches

Length

Feet

Material

Slot Size

Set From

Feet to

Feet

Other information

WAS A PACKER OR SEAL USED?

- ☐ Yes
☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

- ☒ Yes, How?

chlorine in

- ☐ No, Why Not?

WATER TRUCK

Lab sample sent to for water quality analysis

Well Owner:

ARNIE

Beisch

Business Name:

FARM

Address1:

44877 143rd ST

Address2:

City, State, Zip:

WAUBAY, S.DAK 57273

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
TOP SOIL	0	2
CLAYS	2	163
WATER BEARING SAND 0.015-0.020 (MIXED) JW	163	173

STATIC WATER LEVEL

If flowing: closed in pressure

FEET ?

GPM flow

through

PSI

Controlled by

- ☐ Valve
☐ Reducers
☐ Other

Inch pipe

Reduced flow rate

GPM

Can well be completely shut in?

WELL TEST DATA:

- ☐ Pumped Describe:

- ☐ Bailed
☐ Other

Pumping Level Below Land Surface

Fl After

Hrs. pumped

GPM

Fl After

Hrs. pumped

GPM

If pump installed, pump rate:

GPM

REMARKS

#10

This well was drilled under license #

And this report is true and accurate.

Drilling firm:

Weber Well Drilling

Signature of License Representative:

Jerry Weber

Signature of Well Owner or Equitable Property Holder:

Date:

8-20-2016

523 E. Capitol Ave., Pierre SD 57501

Please return Well Copy to DENR Water Rights

JUN - 7 2017

WATER RIGHTS PROGRAM

11/6/17

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

2017

Location SW 1/4 NE 1/4 Sec 25 Twp 122 N Rg 53 W
6/7/17 AM

County Day

Please mark well location with an "X"

Well completion Date 5/31/17

1 Mile

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)
 ? ft. from in field (identify source)

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☒ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:
ROTARY

CASING DATA: ☐ Steel ☐ Plastic ☐ Other
 If other describes

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN

GROUTING DATA:
 Grout Type Wyo-Ben No. of Sacks 4 Grout Weight 10 Lb/gal From 0 Ft To 157 Ft
 Describe grouting procedure

SCREEN: ☐ Perforated pipe ☐ Manufactured
 Diameter _____ Inches Length _____ Feet
 Material _____
 Slot Size _____ Set From _____ Feet to _____ Feet
 Other information _____

WAS A PACKER OR SEAL USED? ☐ Yes ☐ No
 If so, what material? _____
 Describe packer(s) and location _____

DISINFECTION: Was well disinfected upon completion?
☒ Yes, How? chlorine in tank
☐ No, Why Not? _____
 Lab sample sent to for water quality analysis _____

Please return White Copy to DENR Water Rights

Well Owner: ARNIE Beisch
 Business Name: _____
 Address1: 44877 143 st.
 Address2: _____
 City, State, Zip: Waubay, SD 57273

FORMATION	DEPTH	
	FROM	TO
top soil	0	2
clay	2	40
clay	40	125
good sand	125	157

STATIC WATER LEVEL _____ FEET
 If flowing, closed in pressure _____ PSI
 GPM flow _____ through _____ inch pipe
 Controlled by ☐ Valve ☐ Reducers ☐ Other _____
 Reduced flow rate _____ GPM
 Can well be completely shut in? _____

RECEIVED

JUN - 7 2017

WATER RIGHTS PROGRAM

WELL TEST DATA:
☐ Pumped Describe: _____
☐ Bailed _____
☐ Other _____
 Pumping Level Below Land Surface
 _____ Ft. After _____ Hrs. pumped _____ GPM
 _____ Ft. After _____ Hrs. pumped _____ GPM
 If pump installed, pump rate: _____ GPM

REMARKS
2017 test hole #11

This well was drilled under license # 480
 And this report is true and accurate.
 Drilling firm: Wieber Well Drilling
 Signature of License Representative: Jerry Wieber
 Signature of Well Owner or Equitable Property Holder: _____
 Date: 5-31-17

523 E. Capitol Ave., Pierre SD 57501

12 of 17

SOUTH DAKOTA WATER WELL COMPLETION REPORT

2016

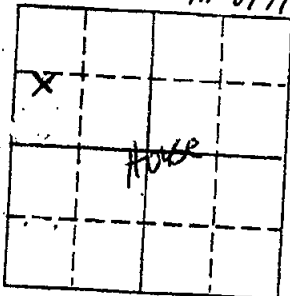
Phone 605-881-4128

11-02

Location SW 1/4 NW 1/4 Sec 25 Twp 124 Rg 53

County DAY

North AM 617/17



Please mark well location with an "X"

MAP ATTACHED

Well completion Date

8-20-2016

SAMP MAP 4 TEST HOLES

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)
? ft. from IN Field CROPS ONLY (Identify source)

PROPOSED USE:

☒ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

ROTARY

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe 4 3/4" TEST HOLE

PIPEWEIGHT

DIAMETER

FROM

TO

HOLE DIAMETER

LB/FT

IN

FT

FT

IN

LB/FT

IN

FT

FT

IN

GROUTING DATA:

Grout Type

No. of Sacks

Grout Weight

From

To

FL

W40-

7

Lb/gal

0 FL

120 FL

FL

Describe grouting procedure

1-W40-15TER

FULL HOLE GROUT

TOP

SCREEN:

☐ Perforated pipe

☒ Manufactured

Diameter

Inches

Length

Feet

Material

Slot Size

Set From

Feet to

Feet

Other information

NO PIPE SET

WAS A PACKER OR SEAL USED?

☐ Yes

☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How?

CHLORINE IN

☐ No, Why Not?

WATER TRUCK

Lab sample sent to for water quality analysis

Please return White Copy to DENR Water Rights

Well Owner:

ARNIE

Beisch

Business Name:

FARM

Address1:

44877 143RD ST

Address2:

City, State, Zip:

WAUBAY, S.DAK 57273

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>BLACK TOP SOIL</u>	<u>0</u>	<u>2</u>
<u>CLAYS</u>	<u>2</u>	<u>40</u>
<u>CLAYS</u>	<u>40</u>	<u>120</u>
<u>GRAY CLAYS</u>	<u>120</u>	<u>150</u>
<u>(POOR)</u>		
<u>NOT GOOD SAND</u>	<u>150</u>	<u>160</u>

STATIC WATER LEVEL

If flowing: closed in pressure

FEET ?

PSI

GPM flow

through

Inch pipe

Controlled by

☐ Valve

☐ Reducers

☐ Other

Reduced flow rate

GPM

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped

Describe:

☐ Bailed

☐ Other

RECEIVED

JUN - 7 2017

WATER RIGHTS PROGRAM

Pumping Level Below Land Surface

Feet After

Hrs. pumped

GPM

Feet After

Hrs. pumped

GPM

If pump installed, pump rate:

GPM

REMARKS

12

This well was drilled under license #

480

And this report is true and accurate.

Drilling firm:

Wheeler Well Drilling

Signature of License Representative:

Jerry Wheeler

Signature of Well Owner or Equitable Property Holder:

Date:

8-20-2016

523 E. Capitol Ave., Pierre SD 57501

13017

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 NE 1/4 Sec 25 Twp 122 N Rgs 53 E
AM 677/17
 County Day North

Please mark well location with an "X"

Well completion Date 2016

Well Owner: Arnie Beisch
 Business Name: _____
 Address1: 44877 143 st.
 Address2: _____
 City, State, Zip: Waubay, SD 57273

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Black top soil	0	2
yellow clay	2	15
Blue Clay	15	35
coarse sand	35	43
clay	45	60

STATIC WATER LEVEL _____ FEET
 If flowing: closed in pressure _____ PSI
 GPM flow _____ through _____ inch pipe
 Controlled by ☐ Valve ☒ Reducers ☐ Other _____
 Reduced flow rate _____ GPM
 Can well be completely shut in? _____

WELL TEST DATA:
☐ Pumped Describe: _____
☐ Bailed _____
☐ Other _____
 Pumping Level Below Land Surface
 _____ Ft. After _____ Hrs. pumped _____ GPM
 _____ Ft. After _____ Hrs. pumped _____ GPM
 If pump installed, pump rate: _____ GPM

REMARKS
2016 test hole
shallow - #13
200' from 8" north

This well was drilled under license # 480
 And this report is true and accurate.
 Drilling firm: Wieber Well Drilling
 Signature of License Representative: Jerry Wieber
 Signature of Well Owner or Equitable Property Holder: Arnie Beisch
 Date: 2016

PROPOSED USE:
☐ Domestic/Stock ☐ Municipal ☐ Business ☒ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:
Rotary

CASING DATA: ☐ Steel ☐ Plastic ☐ Other
 If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:
 Grout Type 440-Ben No. of Sacks 2 Grout Weight 10 Lb/gal From 0 Ft To 60 Ft
 Describe grouting procedure grout line to 60'

SCREEN: ☐ Perforated pipe ☐ Manufactured
 Diameter _____ Inches Length _____ Feet
 Material _____
 Slot Size _____ Set From _____ Feet to _____ Feet
 Other information _____

WAS A PACKER OR SEAL USED? ☒ Yes ☐ No
 If so, what material? _____
 Describe packer(s) and location: _____

DISINFECTION: Was well disinfected upon completion?
☒ Yes, How? _____
☐ No, Why Not? _____
 Lab sample sent to for water quality analysis Cherokee NW tank

Please return White Copy to DENR Water Rights

523 E. Capitol Ave., Pierre SD 57501

RECEIVED
 JUN - 7 2017
 WATER RIGHTS
 PROGRAM

140617

JUN - 7 2017

FIELD PUMPING TEST WATER LEVEL MEASUREMENTS

WELL NO. 5" 43' well by 8" WATER LEVEL

LOCATION _____

NAME: Archie Biesch

DATE: 5/30/17 6/2/17

TESTER(S) ACrb

[illegible]

15th 17

JUN - 7 2017

**WATER RIGHTS
PROGRAM**

FIELD PUMPING TEST WATER LEVEL MEASUREMENTS

LOCATION _____

DATE: 5/30/17 - 6/2/17

Well #7
MPING

15'.5

TEST PUMPING

RECOVERY

[illegible]

M-9

16th 17

PROGRAM

MEASUREMENTS
LOCATION Aennie Biesch Field

DATE: 5/30/17 - 6/2/17

TESTER(S) Neib

6/30/15

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-1

1/4 NE 1/4 Sec 25 Twp 121-122 Rg 5554

North

21" N
18" W

mark well on with an "X"

W E

1 Mile

st potential pollution source (Septic tank, abandoned well, feed lot, etc.)

om 1st Field (identify source)

☐ Municipal
☐ Industrial
☐ Business
☐ Institutional
☒ Test Holes
☐ Monitoring well

ILLING:

Rotary

☐ Steel
☐ Plastic
☐ Other

AMETER	FROM	TO	HOLE DIAMETER
IN	FT	FT	IN
IN	FT	FT	IN
IN	FT	FT	IN

A:

of Sacks	Grout Weight	From	To
3	20 Lb/gal	0 Ft	190 Ft
	Lb/gal	Ft	Ft

cedure Full hole grout

☐ Perforated pipe
☐ Manufactured
 Inches Length Feet

Set From Feet to Feet

Well Owner: ARNIE Beisch

Business Name:

Address1: 44577 143th

Address2:

City, State, Zip: Waukegan, SD 57273

WELL LOG:

FORMATION	DEPTH	
	FROM	
top soil	0	2
yellow clay	2	
clay Blue	18	1
clay	100	1
clay	150	1
Sand gravel	172	1

STATIC WATER LEVEL FEET

If flowing: closed in pressure PSI

GPM flow through X Inc

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate GPM

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped Describe:

☐ Bailed

☐ Other

Pumping Level Below Land Surface

Ft. After Hrs. pumped GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate: GPM

REMARKS

RECEIVED

JUN 28 2017

WATER RIGHTS PROGRAM

SOUTH DAKOTA WATER WELL COMPLETION REPORT

114

1/4 NE 1/4 Sec 25 Twp 121-122 Rg 53 S4

Well Owner: Archie Beisch

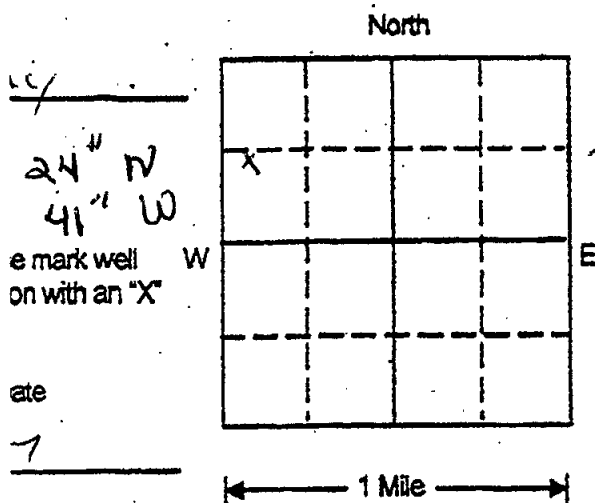
Business Name: _____

Address1: 44877 143 st

Address2: _____

City, State, Zip: Wahpet, SD 57273

WELL LOG: _____



mark well on with an "X"

ate

7

st potential pollution source (Septic tank, abandoned well, feed lot, etc.)

in Field (Identify source)

☐ Municipal ☐ Business ☒ Test Holes
☐ Industrial ☐ Institutional ☐ Monitoring well

ILLING:

2012

☐ Steel ☐ Plastic ☐ Other

AMETER	FROM	TO	HOLE DIAMETER
IN	FT	FT	IN
IN	FT	FT	IN
IN	FT	FT	IN

A: _____
of Sacks Grout Weight From To
3 10 Lb/gal 0 Ft 190 Ft
Lb/gal Ft Ft

cedure Full hole grouting

☐ Perforated pipe ☐ Manufactured
Inches Length Feet

Set From Feet to Feet

STATIC WATER LEVEL _____ FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Incl

Controlled by ☐ Valve ☒ Reducers ☐ Other

Reduced flow rate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ Pumped Describe: _____
☐ Bailed _____
☐ Other _____

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

RECEIVED

JUN 28 2017

WATER RIGHTS PROGRAM



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR
WATER PERMIT NO. 8236-3, Arnie Beisch**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit No. 8236-3, Arnie Beisch, 44877 142nd Street, Waubay SD 57273.

Water Permit No. 8236-3 was originally filed in August 2016 for wells intended to be approximately 140 feet deep. At that time information was not available to determine if there was a reasonable probability that there is unappropriated water available or if the proposed diversion could be developed without unlawful impairment of existing rights. Therefore, the Chief Engineer planned to recommend deferral of the application. Mr. Beisch requested the application be put on hold as he investigated options. The applicant amended the application for wells approximately 50 feet deep. Water Permit No. 8236-3 was issued March 6, 2017, for the wells to be completed into the Coteau Lakes aquifer (approximately 50 feet deep). Upon receiving the permit, Mr. Beisch in consultation with his well driller determined the deeper water source was more likely to provide the production needed. This required re-evaluation of the permit based on new test hole information and readvertisement of the permit.

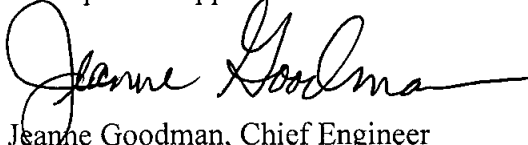
The Chief Engineer is recommending APPROVAL of Water Permit No. 8236-3 to be from the Prairie Coteau aquifer because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The wells authorized by Permit No. 8236-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.

(continued)

3. The wells shall be completed into the Prairie Coteau aquifer at a depth between approximately 150 – 200 feet.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

A handwritten signature in black ink, appearing to read "Jeanne Goodman", with a long horizontal flourish extending to the right.

Jeanne Goodman, Chief Engineer
October 31, 2017

SUPPLEMENTAL REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT NO. 8236-3
ARNIE BEISCH
OCTOBER 30, 2017

Mr. Beisch proposes to modify Water Permit No. 8236-3 to specify the water source as the Prairie Coteau aquifer instead of the Coteau Lakes aquifer. Water Permit No. 8236-3 authorizes the irrigation of 180 acres at a maximum instantaneous diversion rate of 2.2 cubic feet of water per second (cfs) from up to three wells completed into the Coteau Lakes aquifer (approximately 50 feet deep). The land authorized for irrigation is located in the NW $\frac{1}{4}$, W $\frac{1}{2}$ NE $\frac{1}{4}$ Sec. 25 and the wells are located in the S $\frac{1}{2}$ NW $\frac{1}{4}$ Sec. 25-T122N-R53W within the former boundaries of the Sisseton Wahpeton Indian Reservation in Day County.

HISTORY

The application for Water Permit No. 8236-3 was received by the Water Rights Program on August 24, 2016. The application was for three wells approximately 140 feet deep in the same location in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 25-T122N-R53W for the irrigation of the same 180 acres mentioned above. On September 14, 2016, Buhler (2016a) wrote a report to the Chief Engineer stating the outwash deposit the application proposed to withdraw water from was of unknown size with variable thickness and altitude within short distances and an unknown source and quantity of recharge. The Chief Engineer intended to recommend deferral of the application and Mr. Beisch was informed of that decision and was provided a copy of Buhler's (2016a) report and the proposed recommendation of the Chief Engineer. On December 8, 2016, the Water Rights Program received a letter from Mr. Beisch indicating he would like to amend his application to use shallower wells, approximately 50 feet deep. On December 30, 2016, Buhler completed a new report on the application at the shallower well depth (Buhler, 2016b). The aquifer Mr. Beisch proposed to use the Coteau Lakes aquifer. The Chief Engineer recommended approval of the amended application following Buhler's (2016b) report. The application was approved and became Water Permit No. 8236-3 on March 6, 2017.

By June 2017, Mr. Beisch had a SD Licensed Well Driller, Wieber Well Drilling, drill several test holes and test wells. Mr. Beisch and his well driller had discussions regarding water availability at the approved well depth, approximately 50 feet, and at Mr. Beisch's original intended depth, approximately 150 feet. After submittal of the completion reports for these test holes and test wells, Mr. Beisch contacted the Water Rights Program and inquired about changing Water Permit No. 8236-3 to a deeper water source per his original plans and if the new test hole and test well information would change the recommendation of the Chief Engineer. This report is a supplement to both of Buhler's reports (2016a and 2016b).

AQUIFER: Prairie Coteau (PCO)

Aquifer Characteristics:

Hedges and others (1982) named relatively small intermediate aquifers, that is to say buried but not in contact with bedrock, that occur on the Prairie des Coteau collectively the Prairie Coteau aquifer if they had not been previously named. The Water Rights Program has also followed that

naming convention but manages the hydraulically separated deposits of the Prairie Coteau aquifer independent from each other. The elevation range of the aquifer materials Mr. Beisch intends to withdraw water from is 1,670 to 1,750 feet above mean sea level (fmsl). Mr. Beisch intends to drill wells between 150 and 200 feet deep and with ground surface elevations in the proposed well locations of 1,850 to 1,900 fmsl. The aquifer Mr. Beisch intends to withdraw water from would be called the Prairie Coteau aquifer based upon the previously mentioned naming convention.

There have been a total of 13 test holes and test wells drilled for this irrigation project within the W ½ Sec. 25-T122N-R53W to determine the presence of aquifer materials and the potential availability of water. The test hole logs and well completion reports submitted to the DENR-Water Rights Program indicate there are several layers of sand and gravel at the proposed well sites, and there is a large amount of variability both vertically (thickness) and horizontally (areal extent) of the aquifer materials within a short distance. As Buhler (2016a) had previously pointed out, Thompson (2001) mapped the area of proposed well sites near the edge of a portion of the Prairie Coteau aquifer. Nine of the 13 test holes and test wells drilled for this irrigation project have been completed since the completion of Buhler's (2016a) report as well as one lithologic boring completed by the SD DENR-Geological Survey (SDGS, 2017). A review of the geologic data previously used by Buhler (2016a) and the new data indicates it is likely there is a viable aquifer at the proposed depth that is capable of supporting this irrigation project.

Based on the best available information including test hole and test well completion reports submitted by Mr. Beisch, and existing geologic and hydrologic reports by Hansen (1994; 1990), Leap (1988; 1972) and Thompson (2001), well completion reports on file with the DENR-Water Rights Program (Water Rights, 2017c), and lithologic logs on file with the DENR-Geological Survey (SDGS, 2017), the estimated minimum areal extent of the portion of the Prairie Coteau Mr. Beisch proposes to withdraw water from is approximately 5,200 acres. This portion of the Prairie Coteau aquifer may be larger than the estimated minimum extent. This portion of the Prairie Coteau aquifer may also be in hydraulic connection with the Coteau Lakes aquifer underlying and surrounding Blue Dog and Bitter Lakes (SDGS, 2017; Water Rights, 2017a, 2017b, and 2017c). Hedges and others (1982) estimated the combined areal extent of the Prairie Coteau aquifers in Day County to be 500,000 acres with more than an estimated 675,000 ac-ft of recoverable water in storage. Due to the discontinuous nature of the Prairie Coteau aquifer deposits not all of that water is available at any one well. The test well completion reports for this irrigation project indicate this portion of the Prairie Coteau aquifer is under confined conditions. Figure 1 shows a map of the estimated minimum areal extent of the portion of the Prairie Coteau aquifer Mr. Beisch proposes to use. Table 1 lists the water rights/permits shown in Figure 1.

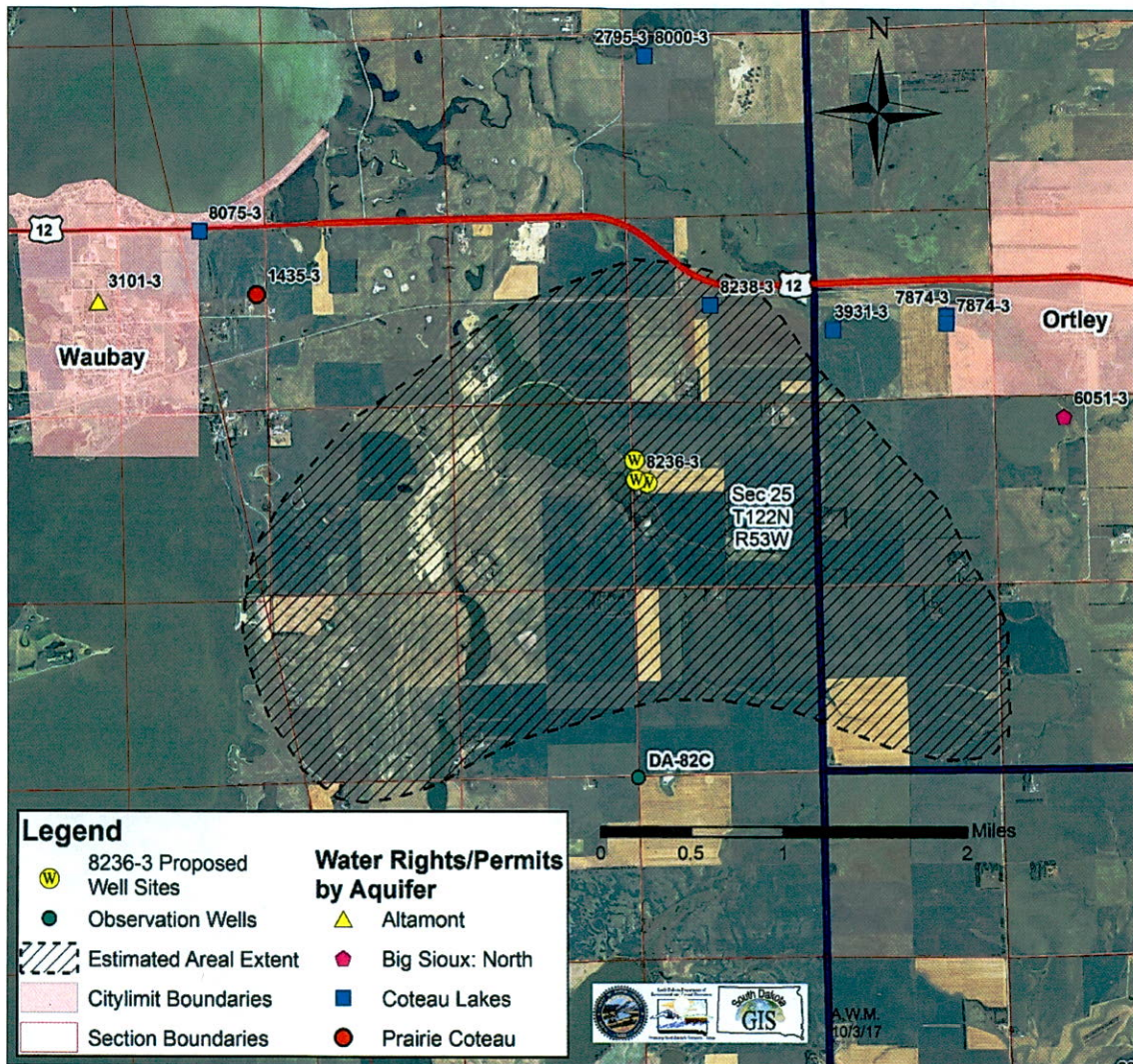


Figure 1- Map of approximate aquifer areal extent and proposed well locations along with nearby water rights/permits (Water Rights, 2017b) and Prairie Coteau aquifer observation well (Water Rights, 2017a)

Table 1- List of Water Rights/Permits Shown in Figure 1

Permit No.	Name	County	Status	Aquifer	Use	CFS	Acres
1435-3	City of Waubay	DA	LC	PCO	MUN	0.46	N/A
2795-3	Earl Althoff	DA	LC	COL	IRR	1.33	193
3101-3	City of Waubay	DA	LC	A	MUN	0.56	N/A
3931-3	Maurice S Dorsett	RB	LC	COL	IRR	1.89	132
6051-3	Jerry & David Wieber	RB	PE	BS: N	IRR	4	320
7874-3	Arnie Beisch	RB	LC	COL	IRR	0.89	48
8000-3	Earl Althoff	DA	PE	COL	IRR	1.22	75
8075-3	Labolt Farmers Grain Co	DA	PE	COL	COM	0.022	N/A
8236-3	Arnie Beisch	DA	PE	COL	IRR	2.2	180
8238-3	Neil Holscher	DA	PE	COL	IRR	1.67	120

LC= Water Rights, PE= Water Permit, DA= Day, RB= Roberts, PCO= Prairie Coteau, COL= Coteau Lakes, A= Altamont, BS: N= Big Sioux: North, MUN= Municipal, IRR= Irrigation, COM= Commercial

SOUTH DAKOTA CODIFIED LAW (SDCL) 46-2A-9

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for Mr. Beisch's proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest. However, this is not a new application, but a clarification of an existing water permit. This report will address the availability of unappropriated water and effects on existing rights from the aquifer that are pertinent to this proposed clarification of an existing water permit, because Mr. Beisch proposes to specify the water source as the Prairie Coteau aquifer instead of the Coteau Lakes aquifer.

WATER AVAILABILITY:

This application proposes to appropriate water from the Prairie Coteau aquifer. The probability of unappropriated water available from the aquifer can be evaluated by considering SDCL 46-6-3.1, which requires "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source." If the source of the water is older or lower than the Greenhorn Formation and a water distribution system has applied for a permit, the Board need not consider the recharge/withdrawal issue. In this case, the aquifer is not stratigraphically lower than the Greenhorn Formation and the applicant is not a water distribution system.

Observation Well Data:

Administrative Rule of South Dakota Section 74:02:05:07 requires that the Water Management Board shall rely upon the record of observation well measurements in addition to other data to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge of the aquifer.

The DENR-Water Rights Program monitors 57 observation wells completed into the various portions of the Prairie Coteau aquifer (Water Rights, 2017a). There are no observation wells that appear to be completed into this portion of the Prairie Coteau aquifer. Observation well DA-82C is located approximately 1.5 miles south of the proposed well locations and completed into a portion of the Prairie Coteau aquifer that is stratigraphically above the desired portion of the aquifer by approximately 30 feet. There may be some hydraulic connection to the portion of the Prairie Coteau aquifer Mr. Beisch proposes to withdraw water from and the portion DA-82C is completed into, but it is unlikely. The hydrograph for DA-82C is shown in Figure 2.

There does not appear to be any development by appropriative users for the portion of the Prairie Coteau aquifer that DA-82C is completed into. Thus, it is representative of relatively static conditions within that particular portion of the Prairie Coteau aquifer. The observation well is under confined conditions. The hydrograph shows there is more water in storage now than in the past and the water level recovers each spring. Climatic conditions dominate the overall changes in water level of the observation well. This means the portion of the Prairie Coteau aquifer DA-82C is completed into is not being stressed by any domestic use pumping. Thus, the water level rise shown on the hydrograph for each spring shows there is recharge to the portion of the Prairie Coteau aquifer DA-82C is completed into. The recharge of that portion of the Prairie Coteau

means it is likely the portion of the Prairie Coteau aquifer Mr. Beisch proposes to use also receives recharge.

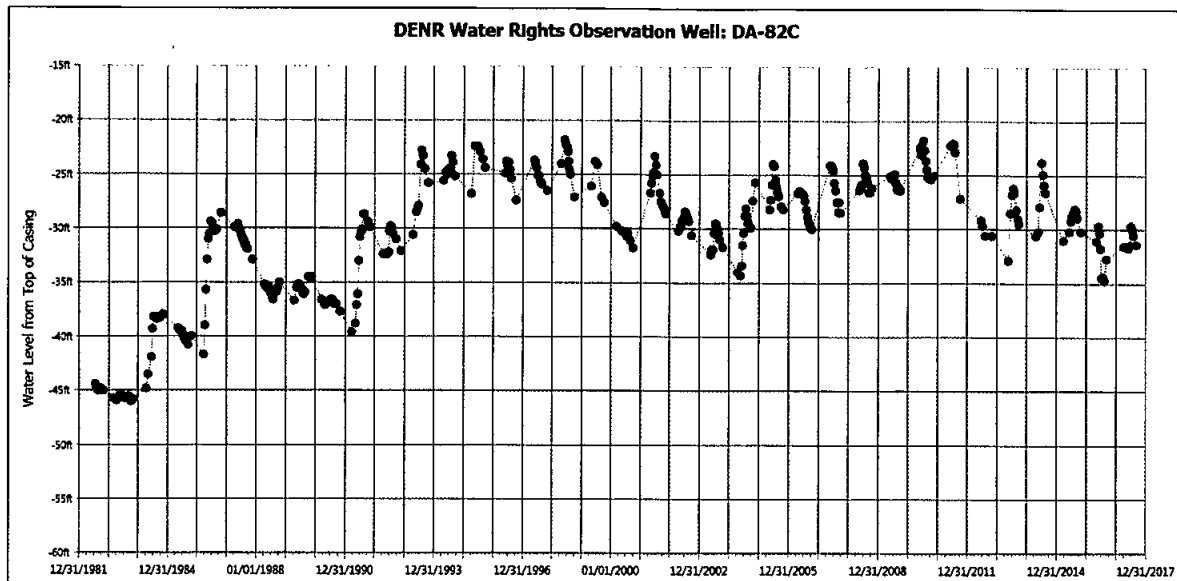


Figure 2- Hydrograph for DENR-Water Rights Program observation well DA-82C located approximately 1.5 miles south of the proposed well sites (Water Rights, 2017a)

Hydrologic Budget:

Discharge from the Prairie Coteau aquifer primarily occurs through outflow and leakage to hydraulically connected aquifers with lower potentiometric surfaces and well withdrawals. The well withdrawals can be for appropriative purposes or domestic use (Water Rights, 2017b and 2017c). There does not appear to be any appropriative users withdrawing water from the same portion of the Prairie Coteau aquifer this application proposes to use. Buhler (2016a) estimated an average annual irrigation application rate for groundwater sourced irrigation systems within approximately 15 miles of the well sites proposed by this application. Buhler (2016a) determined the average annual irrigation application rate from 2006 through 2015 to be 6.61 inches per permitted acre per year. Using that application rate, the irrigation of 180 acres proposed by this application would be expected to use approximately 99 ac-ft/yr. In general, the irrigation application rates in the eastern half of South Dakota are less than 10 inches per irrigated acre per year. That means the upper end of the range of expected irrigation pumpage for 180 acres is 150 ac-ft/yr.

The potential domestic use from this portion of the Prairie Coteau aquifer is likely less than 4.6 ac-ft/yr. This estimate is based on water use values from Carter and Neitzert (2008) for livestock in Day County and a weighted average per capita use for the counties listed in the report, because there is no estimate for Day County. This assumes all of the livestock water use and domestic use within the approximate boundary of this portion of the Prairie Coteau aquifer (see Figure 1) is from the portion of the Prairie Coteau aquifer this application proposes to use. It is more likely that there are multiple aquifers being used in this area and some rural housing units are connected to rural water, which would reduce the domestic water use in this area.

Recharge to the Prairie Coteau aquifer is generally through direct infiltration of precipitation where the aquifer is near ground surface and leakage from adjacent aquifers and till. This particular portion of the Prairie Coteau aquifer likely receives some recharge from the Coteau Lakes aquifer that underlies Blue Dog and Bitter Lakes. Data is not available to determine the exact recharge rate to this portion of the Prairie Coteau aquifer. However, Hedges and others (1985) concluded "...for management and development programs the minimum recharge rate to confined aquifers is estimated to be 0.15 inches per year and the maximum rate is 0.60 inches per year."

Using Hedges and others (1985) suggested recharge rate range of 0.15 to 0.6 in/yr. and the approximate minimum areal extent of 5,200 acres, the estimated range of recharge rates to this portion of the Prairie Coteau aquifer is 65 to 260 ac-ft/yr. The estimated average annual use under this application plus domestic use is within the range of estimated average annual recharge. When comparing estimated average annual recharge to the expected average annual withdrawal, there is a reasonable probability unappropriated water is available.

EXISTING WATER RIGHTS:

There are no water rights/permits authorized to withdraw water from the portion of the Prairie Coteau aquifer (Water Rights, 2017b). Vested Right No. 1435-3 for the City of Waubay appears to have wells that are completed into a different portion of the Prairie Coteau aquifer that is at an elevation lower than the wells proposed by this application (see Figure 1). All of the other nearby appropriative users of water have wells completed into different aquifers such as the Altamont, Coteau Lakes, and the Big Sioux: North (Water Rights, 2017b). There are nine well completion reports on file with the SD DENR-Water Rights Program for domestic wells that appear to be completed into the portion of the Prairie Coteau aquifer this application proposes to use (Water Rights, 2017c). That is not to say these are the only domestic wells completed into this portion of the Prairie Coteau aquifer nor that all of these wells are still in use, just that there are records available for these particular wells. Figure 3 is a map showing the approximate location of the nine domestic wells based on the location provided on the well completion reports as well as plat books for Day and Robert's counties used for verification of land ownership and occupation of rural dwellings.

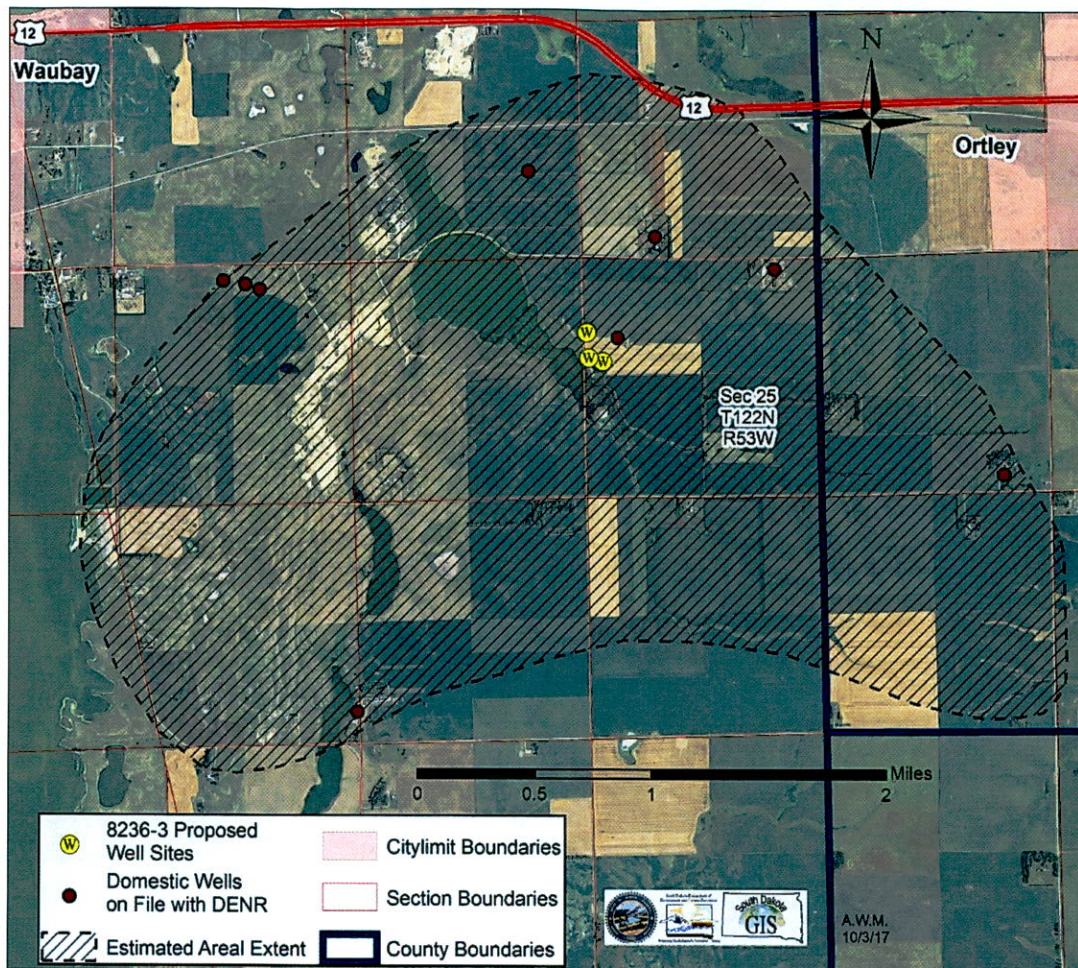


Figure 3- Domestic wells on file with the DENR-Water Rights Program that appear to be completed into the portion of the Prairie Coteau aquifer this application proposes to use (Water Rights, 2017c)

The domestic well nearest to the proposed wells is at the farmsite of Mr. Beisch's son, approximately 0.1 miles away, based on a map provided by Mr. Beisch. The other domestic wells on file with the DENR-Water Rights Program are approximately 0.5 or more miles away. There is no history of well interference issues within approximately 20 miles of the proposed well sites. At the proposed well sites and domestic wells located within approximately one mile, there is between 40 and 80 feet of artesian head pressure above the top of the aquifer (Water Rights, 2017a and 2017b).

Drawdown from pumping this proposed diversion will likely be evident in nearby domestic wells, especially those within approximately one mile. However, the drawdown from pumping this proposed diversion is likely to be managed as to prevent unlawful impairment of the domestic well at Mr. Beisch's son's farmsite. This would mean wells even further away are not likely to be unlawfully impaired by pumping this proposed diversion. Considering, the lack of history of any well interference complaints, the amount of artesian head pressure, and the proximity of a domestic well owned by someone with significant personal ties to Mr. Beisch in

the immediate vicinity of the proposed well sites, there is a reasonable probability pumping this proposed diversion will not create unlawful impacts to existing adequate wells.

The Water Management Board has previously considered the effects of pumping on artesian head pressure and has promulgated rules to place water to maximum beneficial use. The Water Management Board has defined an “adversely impacted domestic well” in ARSD 74:02:04:20(7) as:

“a well in which the pump intake was set at least 20 feet below the top of the aquifer at the time of construction or, if the aquifer is less than 20 feet thick, is as near to the bottom of the aquifer as is practical and the water level of the aquifer has declined to a level that the pump will no longer deliver sufficient water for the well owner’s needs”.

In the past, the Water Management Board has recognized to place water to maximum beneficial use, a certain amount of drawdown may occur. Since the aquifer is under confined conditions at the well site, drawdown due to pumping may extend some distance from the well sites even though it is not expected to do so. The Water Management Board considered the delivery of water by artesian head pressure versus maximum beneficial use of water issued for Water Right No. 2313-2 for Coca-Cola Bottling Company of the Black Hills. The Water Management Board adopted Findings of Facts and Conclusions of Law that noted reservation of artesian head pressure for delivery of water would be inconsistent with SDCL 46-1-4 which states, “general welfare requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable...” (Water Rights, 1995). Furthermore, the Water Management Board found if increased cost or decreased production as a result of impacts on artesian head pressure by legitimate users is to be considered an adverse impact it would also be in conflict with SDCL 46-1-4 (Water Rights, 1995). With that in mind, some existing well owners may need to lower their pumps to accommodate for deeper water levels depending on the specific characteristics of this portion of the Prairie Coteau aquifer at their well site. However when considering the statute (SDCL 46-6-6.1), rule (ARSD 74:02:04:20(7)), the artesian head pressure, and the lack of history of well interference issues, well interference from this proposed diversion is not expected to cause an adverse impact. Therefore, there is a reasonable probability that any interference created by pumping for this proposed appropriation will not be adverse.

CONCLUSIONS:

1. Water Permit No. 8236-3 appropriates water for the irrigation of 180 acres at a maximum instantaneous diversion rate of 2.2 cfs from up to three wells to be completed into the Coteau Lakes aquifer in Day County.
2. Water Permit No. 8236-3 was originally proposed to withdraw from the Prairie Coteau aquifer. It was deferred pending more geologic and/or hydrologic data. Mr. Beisch requested the water source be changed to the shallower Coteau Lakes aquifer. The application was subsequently approved for withdrawal from the Coteau Lakes aquifer.
3. After approval of Water Permit No. 8236-3, Mr. Beisch had a well driller drill several test holes and test wells including deeper holes and wells to find adequate supply for his

irrigation project. Mr. Beisch and the well driller believed there to be adequate water supply in the deeper and originally applied for Prairie Coteau aquifer.

4. The logs for the deeper test holes and test wells were submitted to the Water Rights Program with a request to modify Water Permit No. 8236-3 to the deeper Prairie Coteau aquifer.
5. After consideration of the new data from Mr. Beisch as well as new lithologic data from the DENR-Geological Survey, it was determined a portion of the Prairie Coteau aquifer is a viable aquifer at the well sites proposed by Mr. Beisch.
6. Based on an estimated hydrologic budget and aquifer extent, there is a reasonable probability unappropriated water is available for this proposed appropriation.
7. There is a reasonable probability the diversion proposed by this application can be made without adversely impacting existing appropriative or domestic users.



Adam Mathiowetz, PE
SD DENR-Water Rights Program

REFERENCES:

- Buhler, K. 2016a. Report to the Chief Engineer on Water Permit Application No. 8236-3 Arnie Beisch September 14, 2016. SD DENR-Water Rights Program. Pierre, South Dakota.
- Buhler, K. 2016b. Report to the Chief Engineer on Water Permit Application No. 8236-3 Arnie Beisch December 30, 2016. SD DENR-Water Rights Program. Pierre, South Dakota.
- Carter, J.M. and K.M. Neitzert. 2008. Estimated Use of Water in South Dakota, 2005: U.S. Geological Survey Scientific Investigations Report 2008-5216. 30 p.
- Hansen, D.S. 1994. Major Aquifers in Codington and Grant Counties South Dakota. Information Pamphlet No. 47. SD DENR-Geological Survey. Vermillion, South Dakota.
- Hansen, D.S. 1990. Water Resources of Codington and Grant Counties South Dakota. Water-Resources Investigations Report 96-4056. U.S. Geological Survey. 68p.
- Hedges, L.S., Allen, J. and Holly, D.E. 1985. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River South Dakota and Iowa. Task 7: Ground Water Recharge. U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Hedges, L.S., S.L. Burch, D.L. Iles, R.A. Barari, and R.A. Schoon. 1982. Evaluation of Ground-water Resources in Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa. Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.

- Leap, D.I. 1988. Geology and Hydrology of Day County, South Dakota. Bulletin 24. SD DENR-Geological Survey. Vermillion, South Dakota.
- Leap, D.I. 1972. Major Aquifers and Sand and Gravel Resources in Day County, South Dakota. Information Pamphlet No. 3. SD DENR-Geological Survey. Vermillion, South Dakota.
- SDGS, 2017. Lithologic Logs Database. <<http://cf.sddenr.net/lithdb/>>. SD DENR-Geological Survey. Vermillion, South Dakota.
- Thompson, R.F. 2001. Water Resources of Lake Traverse Reservation, South and North Dakota, and Robers County, South Dakota. Water-Resources Investigations Report 01-4219. U.S. Geological Survey. 105p.
- Water Rights. 2017a. Observation Well Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2017b. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2017c. Well Completion Reports. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 1995. Findings of Fact, Conclusions of Law, and Final Decision in the Matter of Water Permit Application No. 2313-2, Coca-Cola Bottling Company of the Black Hills. DENR-Water Rights Program file for Water Right No. 2313-2. Pierre, South Dakota.

Schlaak, Karen

From: Schlaak, Karen
Sent: Tuesday, October 31, 2017 9:20 AM
To: legals@thepublicopinion.com
Subject: 8236-3, Arnie Beisch
Attachments: 8236-3.public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on November 6, 2017.

Arnie Beisch, 44877 142nd St, Waubay SD 57273 (605 881-4128) has been notified to contact you to authorize publication and arrange for payment.

Please send the affidavit or return the attached Proof of Publication form ASAP to the Water Rights Program, 523 E Capitol, Pierre SD 57501.

Let me know if you have questions. Please acknowledge receipt of this email.

Karen Schlaak
SD DENR, Water Rights Program
(605) 773-3352



Schlaak, Karen

From: Schlaak, Karen
Sent: Tuesday, October 31, 2017 9:20 AM
To: news@reporterandfarmer.com
Subject: 8236-3, Arnie Beisch
Attachments: 8236-3.public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on November 6, 2017.

Arnie Beisch, 44877 142nd St, Waubay SD 57273 (605 881-4128) has been notified to contact you to authorize publication and arrange for payment.

Please send the affidavit or return the attached Proof of Publication form ASAP to the Water Rights Program, 523 E Capitol, Pierre SD 57501.

Let me know if you have questions. Please acknowledge receipt of this email.

Karen Schlaak

SD DENR, Water Rights Program
(605) 773-3352



Instruction to Newspaper – Publish the Notice on November 6, 2017. The applicant is responsible for payment.

NOTICE OF WATER PERMIT NO. 8236-3 to Appropriate Water

Notice is given that Arnie Beisch, 44877 142nd Street, Waubay SD 57273 proposes to modify Water Permit No. 8236-3 to specify the water source as the Prairie Coteau aquifer instead of the Coteau Lakes aquifer. Water Permit No. 8236-3 appropriates 2.2 cubic feet of water per second from up to three wells located in the S 1/2 NW 1/4 Section 25 to irrigate 180 acres in the NW 1/4 and W 1/2 NE 1/4 Section 25; all in T122N-53W.

Water Permit No. 8236-3 was initially approved in February 2017 for wells (approximately 50 feet deep) identified to be completed in the Coteau Lakes aquifer. The permit holder seeks to specify the wells to be approximately 150 – 200 feet deep which has been identified as the Prairie Coteau aquifer. This necessitates this public notice to identify the water source as the Prairie Coteau aquifer.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Permit No. 8236-3 to be from the Prairie Coteau aquifer with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the water permit, and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this permit or recommendation must file a written petition with BOTH the permit holder and Chief Engineer. The permit holder must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the permit holder's mailing address is given above. A petition filed by either an interested person or the permit holder must be filed by November 16, 2017.

The petition may be informal, but must include a statement describing the petitioner's interest in the water permit, the petitioner's reasons for opposing or supporting issuance of the water permit, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

If the permit holder does not contest the recommendation of the Chief Engineer and no petition to oppose issuance of the permit is received, the Chief Engineer shall act to issue the permit for the Prairie Coteau aquifer pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing issuance of the permit or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider approval of the permit from the Prairie Coteau aquifer. Notice of the hearing will be given to the permit holder and any person filing a petition.

Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once at the total approximate cost of _____.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

**NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATES, CONTACT
THE NEWSPAPERS RIGHT AWAY.**

October 31, 2017

Arnie Beisch
44877 142nd St
Waubay SD 57273

Dear Mr. Beisch:

Water Permit No. 8236-3 to specify the water source as the Prairie Coteau aquifer instead of the Coteau Lakes aquifer has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Reporter and Farmer printed at Webster SD (Ph # 605-345-3356) and the Public Opinion printed at Watertown SD (Ph # 605-886-6901). You will need to contact the newspapers and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the permit are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspapers to authorize publication of your Notice and to arrange for payment. Early contact with the paper can eliminate delays. Upon receiving authorization from you, the publisher has been instructed to publish your notice. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the application.

**DEPARTMENT
OF
ENVIRONMENT
AND NATURAL
RESOURCES**

RECEIVED

NOV 20 2017

WATER RIGHTS
PROGRAM

**NOTICE OF WATER PERMIT
NO. 8236-3 to Appropriate
Water**

Notice is given that Arnie Belsch, 44877 142nd Street, Waubay SD 57273 proposes to modify Water Permit No. 8236-3 to specify the water source as the Prairie Coteau aquifer instead of the Coteau Lakes aquifer. Water Permit No. 8236-3 appropriates 2.2 cubic feet of water per second from up to three wells located in the S 1/2 NW 1/4 Section 25 to irrigate 180 acres in the NW 1/4 and W 1/2 NE 1/4 Section 25; all in T122N-53W.

Water Permit No. 8236-3 was initially approved in February 2017 for wells (approximately 50 feet deep) identified to be completed in the Coteau Lakes aquifer. The permit holder seeks to specify the wells to be approximately 150 - 200 feet deep which has been identified as the Prairie Coteau aquifer. This necessitates this public notice to identify the water source as the Prairie Coteau aquifer.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Permit No. 8236-3 to be from the Prairie Coteau aquifer with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the water permit, and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this permit or recommendation must file a written petition with BOTH the permit holder and Chief Engineer. The permit holder must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the permit holder's mailing address is given above. A petition filed by either an interested person or the permit holder must be filed by November 16, 2017.

The petition may be informal, but must include a statement describing the petitioner's interest in the water permit, the petitioner's reasons for opposing or supporting issuance of the water permit, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

If the permit holder does not contest the recommendation of the Chief Engineer and no petition to oppose issuance of the permit is received, the Chief Engineer shall act to issue the permit for the Prairie Coteau aquifer pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing issuance of the permit or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider approval of the permit from the Prairie Coteau aquifer. Notice of the hearing will be given to the permit holder and any person filing a petition.

Steven M. Pimer, Secretary,
Department of Environment and
Natural Resources.

Published once at an approximate cost of \$57.82
(November 6, 2017)

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Codington) SS

I, Jackie Wettstad

certify that the attached printed Notice was taken

from the Public Opinion

printed and published in Watertown

County of Codington and

state of South Dakota. The notice was published

in the newspaper on the following date:

November 6, 2017

Cost of Printing \$58.37

Jackie Wettstad
(Signature)

Accounting Clerk
(Title)

11-17-17
(Date Signed)

AFFIDAVIT OF PUBLICATION

County of Day
State of South Dakota,

ss.

John Suhr, of said county and state being duly
oath, says: That the Reporter & Farmer is a legal week
per of general circulation, and an official newspaper as
Session Laws of 1893, printed and published in Webs
county and state, by the Day County Printing Compar
been such newspaper during the time hereinafter mentio
John Suhr, the undersigned, am publisher of said news
have personal knowledge of all facts stated in this affida
the advertisement headed, Water Rights Program - Arni
printed copy of which is hereunto attached, was printed
lished in the said newspaper one successive and com
as follows:

First Publication

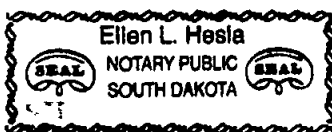
Third Publication

Fourth Publication

Fifth Publication

That the full amount of fees for publication of th
notice is \$36.98 and inures solely to the Reporter & Fa
lished by The Day County Printing Company, that no ar
or understanding for a division thereof has been mad
other person, and that no part thereof has been agreed
any person whomsoever.

Subscribed and sworn to before me this
November, 2017.



My Commission Expires
April 14, 2023

Notary Public, Day County, South Dakota

Water permit notice given

NOTICE OF WATER PERMIT NO. 8236-3 TO APPROPRIATE WATER

Notice is given that Arnie
Beisch, 44877 142nd Street,
Waubay SD 57273 proposes to
modify Water Permit No. 8236-
3 to specify the water source
as the Prairie Coteau aquifer
instead of the Coteau Lakes
aquifer. Water Permit No. 8236-
3 appropriates 2.2 cubic feet
of water per second from up
to three wells located in the
S 1/2 NW 1/4 Section 25 to
irrigate 180 acres in the NW
1/4 and W 1/2 NE 1/4 Section
25; all in T122N-53W.

Water Permit No. 8236-
3 was initially approved
in February 2017 for wells
(approximately 50 feet deep)
identified to be completed in
the Coteau Lakes aquifer. The
permit holder seeks to specify
the wells to be approximately
150 - 200 feet deep which has
been identified as the Prairie
Coteau aquifer. This neces-
sitates this public notice to
identify the water source as
the Prairie Coteau aquifer.

Pursuant to SDCL 46-2A-2,
the Chief Engineer recom-
mends APPROVAL of Permit
No. 8236-3 to be from the
Prairie Coteau aquifer with
qualifications because 1) unap-
propriated water is available,
2) existing rights will not be
unlawfully impaired, 3) it is
a beneficial use of water, and
4) it is in the public interest.
The Chief Engineer's recom-
mendation with qualifications,
the water permit, and staff
report are available at <http://denr.sd.gov/public> or contact
Eric Gronlund for this infor-
mation, or other information,
at the Water Rights Program
address provided below.

Any person interested in
opposing or supporting this
permit or recommendation
must file a written petition

with BOTH the permit holder
and Chief Engineer. The per-
mit holder must file a petition
if contesting the Chief Engi-
neer's recommendation. The
Chief Engineer's address is
"Water Rights Program, Foss
Building, 523 E Capitol, Pierre
SD 57501 (605 773-3352)" and
the permit holder's mailing
address is given above. A
petition filed by either an
interested person or the per-
mit holder must be filed by
November 16, 2017.

The petition may be
informal, but must include
a statement describing the
petitioner's interest in the
water permit, the petitioner's
reasons for opposing or sup-
porting issuance of the water
permit, and the signature
and mailing address of the
petitioner or the petitioner's
legal counsel, if legal counsel
is obtained.

If the permit holder does
not contest the recommenda-
tion of the Chief Engineer and
no petition to oppose issuance
of the permit is received, the
Chief Engineer shall act to
issue the permit for the Prai-
rie Coteau aquifer pursuant
to the recommendation with
no hearing held before the
Water Management Board. If a
petition opposing issuance
of the permit or contesting the
recommendation is filed, then
a hearing will be scheduled
and the Water Management
Board will consider approval
of the permit from the Prairie
Coteau aquifer. Notice of the
hearing will be given to the
permit holder and any person
filing a petition.

Steven M. Pirner,
Secretary, Department of
Environment and
Natural Resources.

Published once at the total
approximate cost of \$36.98.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

DEC 19 2017

Arnie Beisch
44877 142nd St
Waubay SD 57273

Dear Mr. Beisch:

Enclosed is Reissued Water Permit No. 8236-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit. The permit was readvertised to identify the correct water source as the Prairie Coteau Aquifer.

A Form 10, *Notice of Completion of Works and Application of Water to Beneficial Use*, is enclosed. Please return this completed form after you have finished the system and have put the water to beneficial use. An investigation can then be scheduled so the water license may be issued, thus completing the acquisition of a water right.

An information sheet *?Common Water Right Questions?* is also enclosed. This sheet is intended to answer some of the questions associated with obtaining and keeping a water right.

Sincerely,

Jeanne Goodman, Chief Engineer
Water Rights Program
605 773-3352

enclosures



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

7874-3
8236-3

June 16, 2023

Arnie Beisch
44877 142nd Street
Waubay SD 57273

Dear Mr. Beisch:

The irrigation season is in full swing. This has led to the Department of Agriculture and Natural Resources (DANR) fielding inquiries regarding end gun overspray on to roads. This is a reminder that a water right holder is not allowed to operate an irrigation system in violation of state water law, which includes end gun overspray upon land not authorized by the water right.

DANR received an inquiry alleging the irrigation system located in the E 1/2 SE 1/4 Section 19 -T122N-R52W had irrigation water from the end gun hitting the road on 142nd Street. And irrigation system in the N 1/2 Section 25 -T122N-R53W had irrigation water from the end gun hitting the road on 142nd Street. The water rights for these systems are held in your name under Water License No. 7874-3 and Water Permit No. 8236-3.

Please take steps to ensure end gun stops are functioning properly so there is not direct overspray on to the road. If you don't believe your irrigation system is causing the overspray, or if you have any questions, please contact me at (605) 773-3352 or by email at ron.duvall@state.sd.us

Thank you for your cooperation,

Ron Duvall
Water Rights Program, DANR

Nos. 8238-3, 7874-3,
8236-3

Water Rights Program - File Documentation

NAME: Trevor Holscher – nephew of Neil Holscher

ADDRESS: 44834 142nd Street, Waubay SD 57273

DATE: June 21, 2023

RE: Overspray for Water Permit No. 8238-3

COMMENTS:

Trevor Holscher, the nephew of Neil Holscher called today to say that the overspray issue has been addressed for Water Permit No. 8238-3. He also went on to say that he spoke with Arnie Beisch whom has also taken care of his overspray issue; Water Right No. 7874-3 and Permit No. 8236-3.

Rachel Rodriguez

Rachel Rodriguez
Water Rights Program

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 8236-3

I have this day, November 13, 2023, made a thorough examination of the water use system constructed by Arnie Beisch, 44877 142nd St, Waubay, SD 57273 of Permit No. 8236-3, bearing the priority of August 24, 2016 authorizing the diversion of 2.2 cu. ft. per second of the waters of the Coteau Lakes Aquifer for irrigation purposes, in Day County.

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Wieber Well Drilling
- 2) No. of Wells 4
- 3) Depth(s) 137-200 feet
- 4) Well log is available Y If no, explain in comments

Casing:

- 1) Diameter 8+ inches
- 2) Length 117 feet
- 3) Type Plastic

Screen:

- 1) Type PVC
- 2) Length 20 feet
- 3) Static water level Unknown feet

Pump:

- 1) Make Submersible
- 2) Model Submersible
- 3) Size Unknown
- 4) Capacity 600 (4 wells total) GPM

Motor:

- 1) Make Unknown
- 2) Model No. Unknown
- 3) Horsepower rating Unknown hp

B. Works used to transport water to place of use:

- 1) Type Buried PVC
- 2) Size 8 inches
- 3) Length 1700 feet

Comments: There are 4 & 6 inch pipe above & below ground too

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make 2 - Valley
- 2) Overall length 1330 & 1050 (part circle) feet
- 3) Number of towers 8 & 5
- 4) End gun Y
- 5) Capacity 600 (total) GPM

Chemigation Equipment: Does chemigate Y Comments: Uses commercially available injection equipment

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Y
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Y
- 3) Exceptions to compliance are: None

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows: **WELL LOCATIONS**

Well #1: 2,450 ft S & 55 ft E of the NW corner of Section 25, T122N, R53W (SW ¼ NW ¼)

Latitude 45.3195 & Longitude -97.24673

Well #2: 1,820 ft S & 100 ft E of the NW corner of Section 25, T122N, R53W (SW ¼ NW ¼)

Latitude 45.32126 & Longitude -97.24665

Well #3: 1,215 ft S & 570 ft E of the NW corner of Section 25, T122N, R53W (NW ¼ NW ¼)

Latitude 43.32319 & Longitude -97.24471

Well #4: 1,340 ft S & 1,235 ft E of the NW corner of Section 25, T122N, R53W (SW ¼ NW ¼)

Latitude 45.32281 & Longitude -97.24211

2. The works are capable of diverting and conveying to the place of use 1.34 cu. ft. per second of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:

<u>legal description/acreage</u>	<u>SECTION 25 T122N R53W</u>
NW NW – 34 acres	SW NE – 18 acres
NE NW – 40 acres	SE NW – 37 acres
NW NE – 19 acres	SW NW – 27 acres

comprising a total of 175 acres of land and the license should be issued for 1.34 cfs

3. All structures, wells, and lands on map Y

F. Comments or other permit(s) associated with the project:

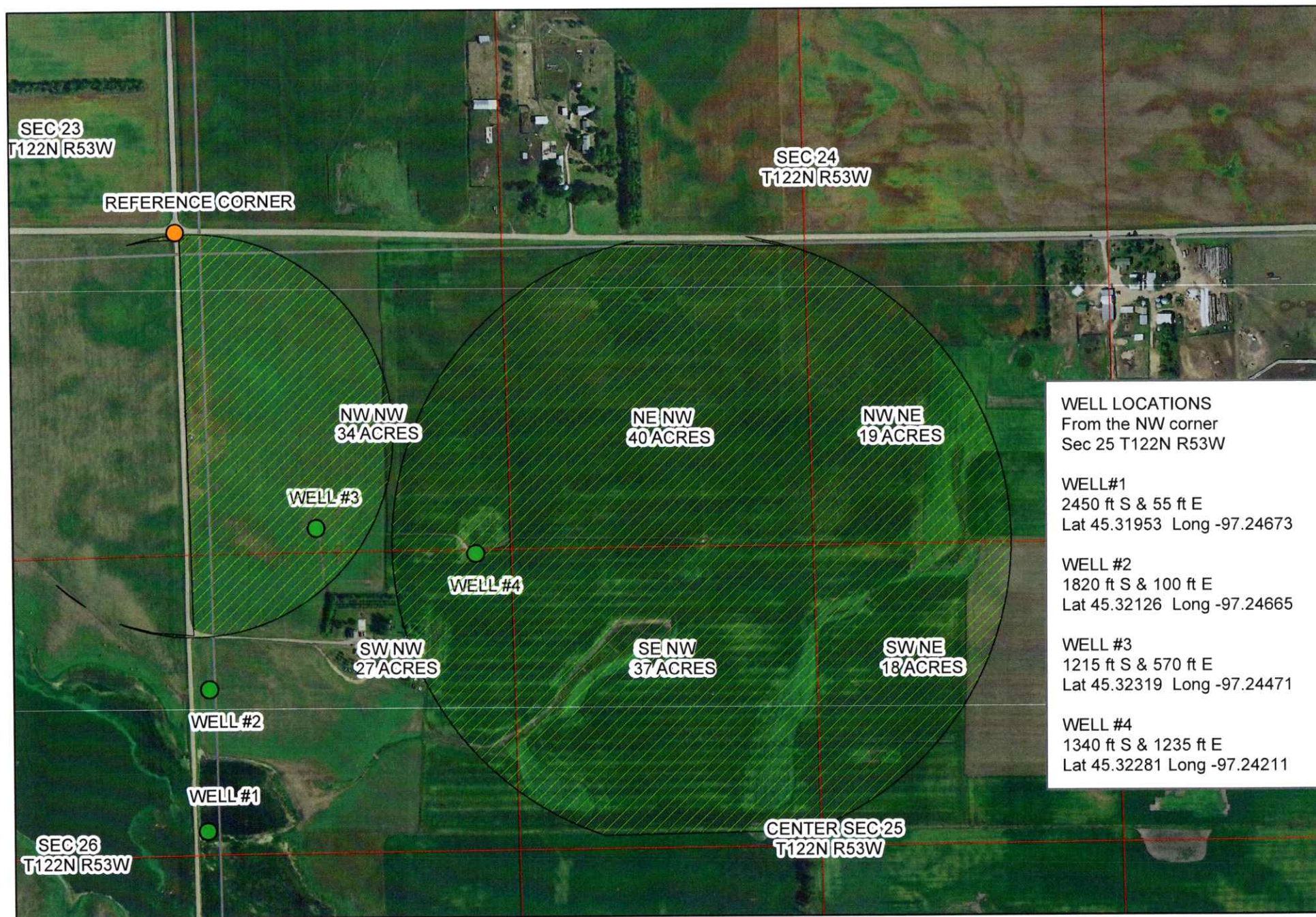
Well #1 has an 8-inch casing, Well #2 has a 6-inch casing, Wells #3 & #4 have 4-inch casings. The irrigated acreage was estimated with the aid of FSA imagery and ArcMAPS software. The pump rate reported in a recent Irrigation Questionnaire was used to establish the system flow capacity. The mailing address and the telephone number in the permit materials are current. I talked to Mr. Beisch on the phone during a previous field inspection visit.



Darrell W DeBoer
Water Rights Inspector
DANR, Water Rights Program

Date report completed: November 20, 2023

** Amanda Dewell spoke w/ Arnie on the phone 1/4/2024.
Arnie confirmed that the diversion rate from all four wells totaled 600 GPM.



0 0.075 0.15 0.3 0.45 0.6 Miles



Darrell DeBoer
Water Right Inspector
DANR-Water Rights Program

Approval of Location Change and/or Additional Diversion Point(s)

NAME: Arnie Beisch

ADDRESS: 44877 142nd St, Waubay SD 57273

DATE: January 8, 2024

COUNTY: Day

GENERAL DESCRIPTION OF AUTHORIZED PROJECT:

The permit holder is authorized to construct three wells into the Prairie Coteau Aquifer in the S1/2 NW1/4 of Section 25 T122N-R53W for irrigation of 180 acres in the NW1/4, W1/2 NE1/4 of Section 25 T122N-R53W within the former boundaries of the Sisseton Wahpeton Indian Reservation. The authorized combined diversion rate for all of the wells is 2.2 cubic feet of water per second.

AUTHORITY:

Pursuant to SDCL 46-5-13.1, the location of a diversion point may be changed or additional diversion points may be licensed provided the following conditions are met and the potential for interference with other existing diversions is not increased:

- **Developed water source same as permitted source and no additional water appropriated**

The permit holder constructed a 4th well into the Prairie Coteau Aquifer in the NW1/4 NW1/4 of Section 25 T122N-R53W. The combined diversion rate for all four of the wells is 1.34 cubic feet of water per second.

- **If irrigation, no new land is irrigated**

The permit holder is developed 175 of the 180 acres in the NW1/4, W1/2 NE1/4 of Section 25 T122N-R53W(Res).

- **Review of Existing Diversions**

There are two existing water permits/rights approximately 2 miles of where the this well was developed. All were existing permits/rights when this permit was issued, it was determined that there was reasonable probability any well interference due to pumping of this well would not adversely or unlawfully impair existing rights. The same would be expected for the well constructed in the new location.

RECOMMENDED ACTION

Based on the above criteria, it is recommended that the diversion point(s) be licensed as developed.



Mark D. Rath, Natural Resources Engineer
Water Rights Program

The Chief Engineer makes a finding pursuant SDCL 46-5-13.1 and ARSD 74:02:01:14.01 that:

This change in location and/or additional diversion point(s) does not increase the potential for adverse effects to existing diversions.



Eric Gronlund, Chief Engineer
Water Rights Program

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 8236-3**

(1) Arnie Beisch; 44877 142nd St, Waubay SD 57273, made Application No. 8236-3, August 24, 2016, for a water permit to divert 2.2 cubic feet of water per second from groundwater, three wells (Coteau Lakes Aquifer), Day County, South Dakota for irrigation purposes. Permit No. 8236-3, with a priority date of August 24, 2016, was approved February 13, 2017, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before February 13, 2022, and for the application to beneficial use of water on or before February 13, 2026.

Permit No. 8236-3 was readvertised and reissued to identify the correct water source (Prairie Coteau Aquifer). Reissued Permit No. 8236-3, with a new priority date of June 28, 2017, was approved November 16, 2017, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before November 16, 2022, and for the application to beneficial use of water on or before November 16, 2026.

An investigation conducted for licensing purposes found an additional diversion point developed outside of the permitted area. Pursuant to SDCL 46-5-13.1 and ARSD 74:02:01:14.01, the Chief Engineer made a finding that the change in the diversion point count and location did not increase the potential for adverse effects to existing diversions.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 1.34 cubic feet of water per second for beneficial use. The locations of the diversion points are: *(within the former boundaries of the Sisseton Wahpeton Indian Reservation)*

- Well #1: 2,450 ft S & 55 ft E of the NW corner of Section 25, T122N, R53W (SW ¼ NW ¼)
(Latitude 45.3195 & Longitude -97.24673)
- Well #2: 1,820 ft S & 100 ft E of the NW corner of Section 25, T122N, R53W (SW ¼ NW ¼)
(Latitude 45.32126 & Longitude -97.24665)
- Well #3: 1,215 ft S & 570 ft E of the NW corner of Section 25, T122N, R53W (NW ¼ NW ¼)
(Latitude 43.32319 & Longitude -97.24471)
- Well #4: 1,340 ft S & 1,235 ft E of the NW corner of Section 25, T122N, R53W (SW ¼ NW ¼)
(Latitude 45.32281 & Longitude -97.24211)

(3) The amount of appropriation may not exceed 2 acre-feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: May 1 – October 31.

(4) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use to irrigate to following land: *(within the former boundaries of the Sisseton Wahpeton Indian Reservation)*

continued

Section 25, T122N, R53W

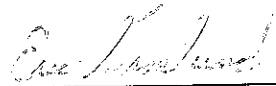
NW ¼ NE ¼	19 acres	NW ¼ NW ¼	34 acres
SW ¼ NE ¼	18 acres	SW ¼ NW ¼	27 acres
NE ¼ NW ¼	40 acres	SE ¼ NW ¼	37 acres

TOTAL: 175 acres

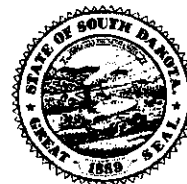
(5) Pursuant to South Dakota Water Law 46-5-30.1 Arnie Beisch, the holder and/or owner of Water Right No. 8236-3 is issued a license to appropriate water, the right to use 1.34 cubic feet of water per second from groundwater, four wells (Prairie Coteau Aquifer), with a priority date of June 28, 2017, from the locations specified in (2) of this license for irrigation purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 8236-3 and subject to the following qualifications:

1. The wells approved under this Water Right will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Water Right shall control their withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The wells authorized under Water Right No. 8236-3 shall be constructed by a licensed well driller and construction of the wells and installation of the pumps shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28. *(The wells were completed in 2016 & 2017 by Wieber Well Drilling. Copies of the well completion reports are on file with the Water Rights Program.)*
3. The wells shall be completed into the Prairie Coteau Aquifer at a depth between approximately 150-200 feet.
4. This Water Right is approved subject to the irrigation water use questionnaire being submitted each year.


Eric Gronlund, Chief Engineer
Water Rights Program
Department of Agriculture and Natural Resources

JAN 08 2024
date





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

JAN 08 2024

8236-3

Arnie Beisch
44877 142nd St
Waubay SD 57273

Dear Mr. Beisch:

Enclosed is Water License No. 8236-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

For your information SDCL 46-6-27 requires that if in the future, the owner of an existing well, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

So long as you use the water beneficially, as stated in the Water License, State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

Eric Gronlund, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures