

WATER PERMIT NO. 6966-3

Name of Applicant: Troy Walraven

Address: 45306 313th St, Meckling SD 57069 Phone: 605 624-5431

Amount of Water Claimed: 1.78 cfs Total Acres: 133

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation County: Clay

Type of Waste Disposal System:

Location: 2 miles west of Meckling

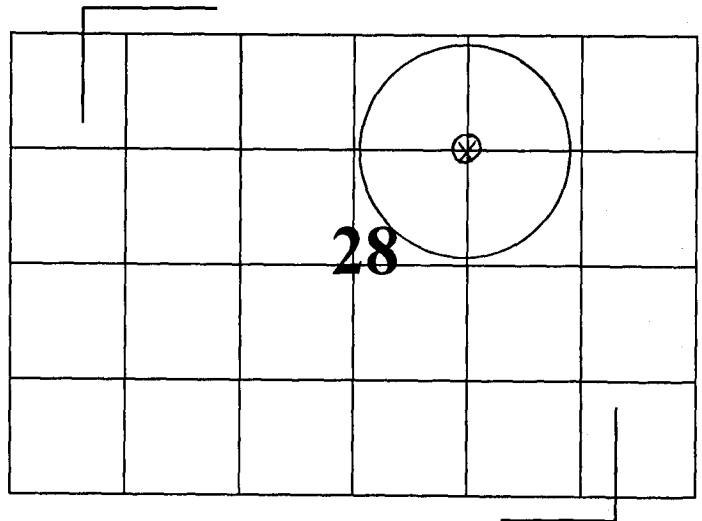
PRIORITY Date Received: 2-13-08 Application/License Fee: \$300

Corrected Application Received: Period of Annual Use: May 1 – September 30

Remarks:

Diversion Point: center of NE ¼ Sec 28-T93N-R53W

Land to be Irrigated: NE ¼ Sec 28-T93N-R53W



Depth of Well: 100 feet

Well Driller:

Remarks:

Type of Map: aerial

Prepared by: Sheree Christensen, Clay Co FSA

Reviewed and the Number Assigned on: XX

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

FORM 2: Application for irrigation in South Dakota
(type or print)

Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	No. <u>6966-3</u> (office use only)	Hydrologic Unit <u>10170102</u>
	Basin <u>Vermillion River</u>	
	Newspaper <u>Plains Talk PO Box 256 Vermillion</u>	
	<u>605-624-2695 (Fax)</u> <u>57069</u>	

RECEIVED
FEB 13 2008

WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water For Irrigation

Type of Application: X 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 TROY Walraven Phone 605-624-5431
(check one) X Owner Tenant/lessee
Mailing Address 45306 313th St Meckling State S.D. 57069
(Street, RR, or Box and City) (Zip Code)
2. Amount of water claimed 1.78*CFS or 800 **GPM ***AF Total Acreage 133
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)
3. Source of water supply Under Ground
4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) 1 well in NE 1/4
Section 28-93N-53W County Clay
5. County or counties where water will be used Clay
6. Annual period during which water is to be used Summer - May 1 - Sept. 30
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
NE 1/4 Sec 28-93N-53W	133 ac.		

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

1 well in the center of NE 1/4 Sec 28-93N-53W
covering 133 ac of land

STATE OF SOUTH DAKOTA) SS
County of

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

I, , 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 Troy Walraven

Subscribed and sworn to before me this 8 day of February 20 08

Lisa W. Papp 01-09-11
Notary Public signature

**SOUTH DAKOTA
WATER PERMIT NO. 6966-3**

Date of first receipt of application February 13, 2008.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 6966-3 to Troy Walraven, 45306 313th St, Meckling SD 57069 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. 6966-3 appropriates 1.78 cubic feet of water per second from one well to be completed into the Missouri:Elk Point Aquifer (approximately 100 feet deep) located in center of the NE 1/4 Section 28 to irrigate 133 acres located in the NE 1/4 Section 28; all in T93N-R53W.
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 – September 30.
3. The date from which applicant may claim right is February 13, 2008.
4. The date of approval of Permit No. 6966-3 is April 14, 2008.
5. One-fifth of the construction is to be completed on or before October 14, 2010.
6. All construction is to be completed on or before April 14, 2013.
7. Water is to be put to beneficial use on or before April 14, 2017.
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 well 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 well authorized by Permit No. 6966-3 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: Garland Erbele

Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

APR 21 2008
date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 28" Depth 100'
- b) Casing Type PVC Diameter 16" Thickness .616
- c) Screen Type PVC Diameter 16" Thickness .616
- d) Gravel Pack road Length of Gravel Pack 20' to 100'
- e) Depth to Top of Water Bearing Material 25'
- f) Depth to Water (ground surface to water level) 25'
- g) Distance to nearest existing domestic well:
- On applicants property — On property owned by others 2 miles

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) —

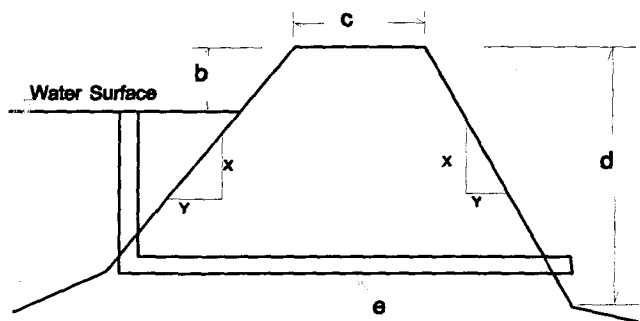
4. Water Storage Dams

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 —
Upstream —
Downstream —
- h) Surface Area of Impoundment —
- i) Storage — Acre Feet
- j) Drainage Area Above Dam — Acres



USDA USDA
Farm Service Agency

South Dakota Clay County 28-93N-53W

May 22, 2007

Legend

- Tract Boundaries
- Section-Township-Range
- Easements
- CRP
- Common Land Units
- Rangeland

Wetland Determination Identifiers

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

USDA FSA maps are for FSA Program administration only. There is no guarantee or representation to the user as to the accuracy, currency, suitability or reliability. FSA MAPS DO NOT REPRESENT A LEGAL SURVEY. The user accepts the data as is, and assumes all risks associated with its use. Wetland points reflect records available with NRCS and may or may not constitute a full inventory of the property. The USDA Farm Service Agency assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data. Disclaimer: 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 wetland boundaries and determinations on contact NRCS.

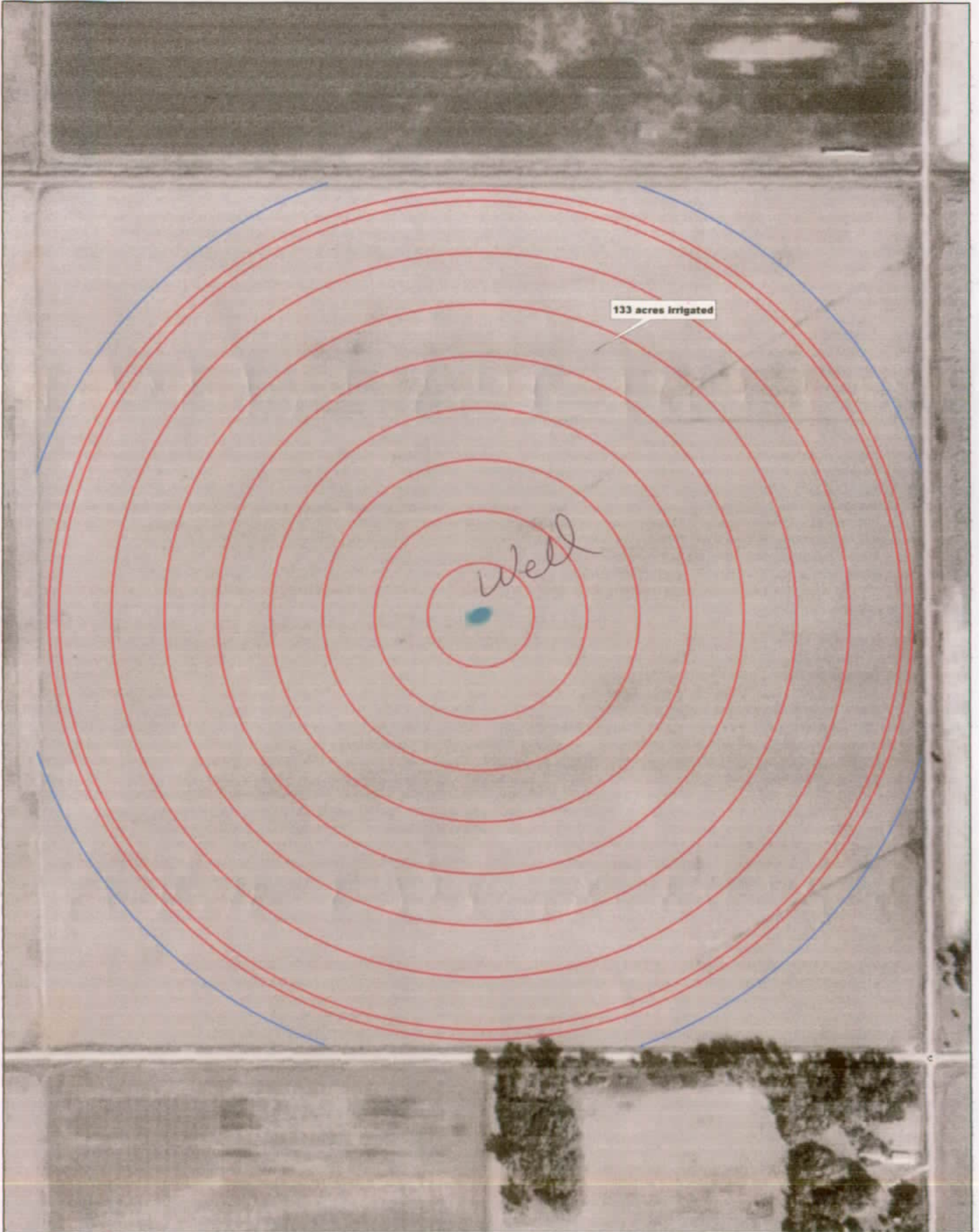
1:8,788

Sheree Christensen, PT 2-8-2008

NE 1/2 - Sec 28 - 93N - 53W

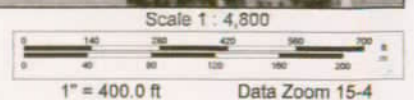
DeLORME

XMap® 4.5



Data use subject to license.
© 2004 DeLorme, XMap® 4.5,
www.delorme.com

TM
MN (4.3"E)
Roy Walraven 2-8-2008



RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 2/13, 20 08

RECEIVED OF Walraven Farms 45306 313th St Meckling SD 57069

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

Fee for Application for Permit No. <u>16966-3</u> to Appropriate Water, to construct and to put water to beneficial use	250	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>16966-3</u>	50	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	300	00

No.

03522

By

Harold Erbe

Chief Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 6966-3, Troy Walraven**

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. 6966-3, Troy Walraven, 45306 313th Street, Meckling SD 57069.

The Chief Engineer is recommending APPROVAL of Application No. 6966-3 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 well 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 well authorized by Permit No. 6966-3 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.

Garland Erbele, Chief Engineer
March 19, 2008

REPORT ON WATER PERMIT APPLICATION NO. 6966-3

For Troy Walraven

February 26, 2008

Application No. 6966-3 proposes to appropriate 1.78 cfs (800 gpm) from one well approximately 100 feet deep located in the center of the NE ¼ of section 28 to irrigate 133 acres located in the NE ¼ of section 28; all in T93N R53W in Clay County.

AQUIFER – MISSOURI ELK POINT (M-EP)

The Missouri Elk Point is an alluvium mantled outwash (sand and gravel) that is under predominantly water table conditions in this area. At this site however the aquifer is probably under artesian conditions. The aquifer underlies 74,500 acres and contains an estimated 1.117 million acre-feet of recoverable water in storage in Clay County (Hedges, 1982). The aquifer extends into Union County to the east, into Yankton County to the west, blends into the Upper Vermillion Missouri aquifer to the north and is hydraulically connected to both the Vermillion and Missouri Rivers. Ground water movement is from northwest to southeast in the area of this application (Christensen, 1967). The hydrogeologic map in the Christensen report indicates the aquifer should be 100 to 125 feet thick in this area. Christensen described the aquifer as follows "On the floodplains of the Missouri and Vermillion Rivers the outwash is overlain by alluvium--- gravel, sand, silt, and clay that was transported by the rivers and deposited at places where the velocity of the water was insufficient to maintain the materials in motion. Much of the floodplain alluvium is permeable and forms a single aquifer with the underlying outwash" (Christensen, 1967).

No test well was drilled for this application. The information available from the county study, area domestic and irrigation wells and the observation wells all indicates the aquifer is present at this site and should be capable of producing the amount of water requested. An irrigation well located about one-half mile to the west of this application indicates brown silt from the surface to 36 feet, medium silty sand from 36 to 71 feet and medium to coarse gravel from 71 to 100 feet all below land surface. This well had a static water level of nine feet below land surface and was capable of producing 52.6 gpm/ft of drawdown.

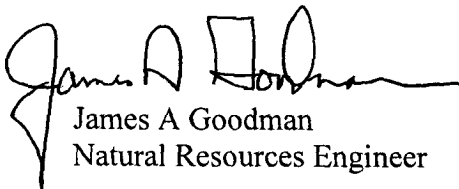
The Water Rights Program monitors an observation well CL-80B that is located about three miles south of this application. Water level records for this observation well go back in time to 1958. Water level records for this well show good response to climatic conditions that is rising water levels during wet periods (recharge) and gradually declining water levels during dry years. The water level record indicates the aquifer is capable of sustaining additional withdrawals (Water Rights, 2008). A hydrograph for this observation well is included with this report. Note the slight decline in water levels for this observation well over time. This is probably due to entrenching of the Missouri River which in turn causes ground water to discharge into the river thus lowering the ground water level especially near to the river. This phenomenon is not obvious a few miles from the river.

REVIEW OF EXISTING WATER PERMITS/RIGHTS

The nearest existing permitted user is Water Permit No. 6554-3. That well is located about one-half mile to the west of the well proposed for this application. Interference is not a concern. Even though the aquifer appears to be under artesian conditions at this site drawdown created by pumping is not expected to be significant at this distance. Certainly this should not cause adverse interference. This is also shown by the observation well record. Also there have never been any reported water availability problems for the Missouri Elk Point aquifer in Clay County.

CONCLUSIONS

1. Water is available from the Missouri Elk Point aquifer.
2. The aquifer appears to behave like it is under water table conditions. Until a test well is drilled it can not be determined if a well would be water table or artesian at this site. It is not anticipated that drawdown created by pumping will be significant nor cause any adverse effect. Interference is not a concern.
3. The well authorized by this application must be constructed in accordance with SD Well Construction Standards.



James A Goodman
Natural Resources Engineer

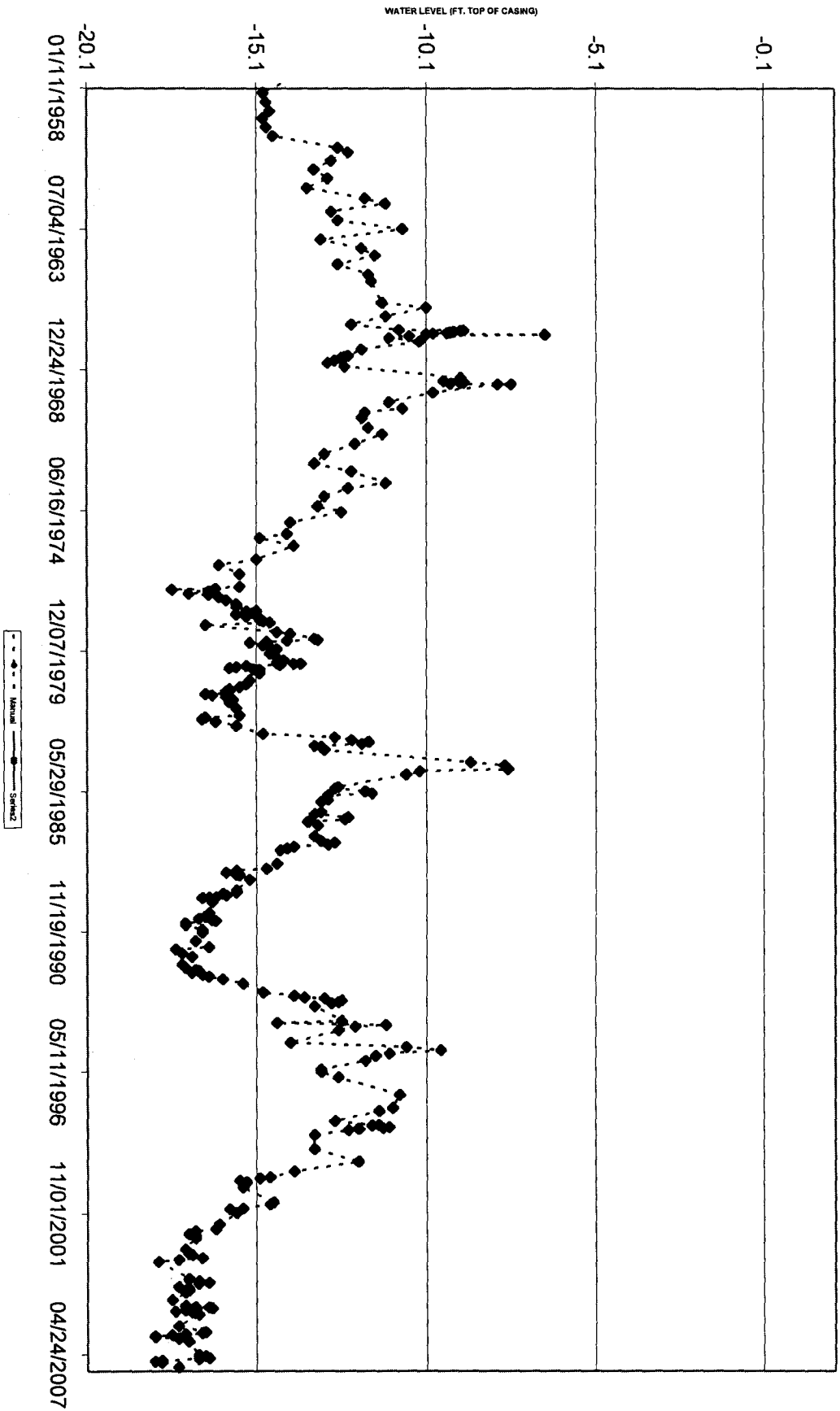
BIBLIOGRAPHY

Christensen, C.M., J.C. Stephens, 1967, Geology and Hydrogeology of Clay County, South Dakota, Part II Water Resources, Bulletin 19, SD DENR, SDGS, Vermillion, SD, 57069.

Hedges, L.S. and others, 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, for US Army Corps of Engineers, SD DENR, SDGS, Vermillion, SD, 57069.

Water Rights, 2008, Unpublished Observation Well Data for Clay County, SD DENR, DES, Water Rights Program, Pierre, SD, 57501.

WATER RIGHTS' OBSERVATION WELL
CL-80B



AFFIDAVIT OF PUBLICATION

State of South Dakota, County of Clay, ss.

Penny Tucker

Being first duly sworn, deposes and says: That he/she is a resident of the County of Clay and State of South Dakota; that

THE PLAIN TALK

is a legal newspaper of general circulation, printed and published in Vermillion, in said County and State, by Broadcaster Press, Inc., and is now and has been such newspaper continuously during all the times hereinafter mentioned; that affiant is and was during all the time hereinafter mentioned in charge of the advertising department thereof, and has personal knowledge of all the facts stated in this affidavit: and that the notice and advertisement headed:

NOTICE OF APPLICATION NO. 6966-3

TO APPROPRIATE WATER

a printed copy of which is hereunto attached and made a part hereof, was printed and published in the said newspaper at least once in each week

for 2 successive weeks; that said newspaper at the time of the first publication of said notice hereinafter stated, had, and still has, a bona fide circulation of over two-hundred paid copies weekly, and had been published in the said county of Clay for more than one year immediately prior to the date of the said publication of said notice, and that said newspaper during said times, was, and is, printed in part in an office maintained at said city of Vermillion, the said place of publication; that the first publication of said notice in said newspaper as aforesaid

was on Friday, the 28th day of March, 20 08, and that the succeeding publications were severally

on Friday, the 4th day of April, 20 08,

on Friday, the _____ day of _____, 20 _____,

on Friday, the _____ day of _____, 20 _____,

on Friday, the _____ day of _____, 20 _____,

that the fees charged for the printing and publication of the said notice and advertisement in said newspaper as aforesaid were

Forty dollars and 52 cents

and that said fees for the printing and publishing of said notice and advertisement have been fully paid; that the full amount of the fee charged for the publishing of the said attached annexed notice and advertisement inures to the benefit of the publisher of the said newspaper, that no agreement or understanding for the division thereof has been made with any other person and that no part thereof has been agreed to be paid to any other person whomsoever.

Penny Tucker

Subscribed and sworn to before me

this 3rd day of April, 20 08

Diane J. Savoie

Exp 9-5-2013

Notary Public

NOTICE OF APPLICATION NO. 6966-3 to Appropriate Water

Notice is given that Troy Walraven, 45306 313rd St., Meckling, SD 57069 has filed an application for a water permit to appropriate 1.78 cubic feet of water per second from one well to be completed into the Missouri/Elk Point Aquifer (approximately 100 feet deep) located in center of the NE 1/4 Section 28 to irrigate 133 acres located in the NE 1/4 Section 28; all in T93N-R53W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6966-3 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. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. 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.

Any person interested in opposing or supporting this application or recommendations 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 April 14, 2008.

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. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Publish: March 28 & April 4, 2008

**WATER RIGHTS
PROGRAM**



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

March 20, 2008

Plain Talk
PO Box 256
Vermillion SD 57069

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 6966-3 to Appropriate Water to be published twice. Please publish the first notice on March 28, 2008 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Troy Walraven, 45306 313th St, Meckling SD 57069 (Ph # 605-624-5431).

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at (605) 773-4068. Publication errors can invalidate the public notice.

After the second publication, **please send us an affidavit or use the enclosed Proof of Publication form.** The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----

No. 6966-3

TO: Eric Gronlund
Water Rights Program
Joe Foss Building
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of March 20, 2008 enclosing Notice to Appropriate Water by Application No. 6966-3 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

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

March 20, 2008

Troy Walraven
45306 313th St
Meckling SD 57069

Dear Mr. Walraven:

Water Permit Application No. 6966-3 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 Publisher of the Plain Talk printed at Vermillion SD (Ph # 605-624-2695). You will need to contact the newspaper 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 to authorize publication of your Notice and to arrange for payment. Early contact with the paper can eliminate delays. Upon receiving authorization, the publisher has been instructed to publish your notice once each week for two consecutive weeks. 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.

Instruction to Newspaper - Publish first Notice on March 28, 2008 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 6966-3 to Appropriate Water

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DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

APR 21 2008

Troy Walraven
45306 313th St
Meckling SD 57069

Dear Mr. Walraven:

Enclosed is Water Permit No. 6966-3 authorizing construction of your 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,

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

SOUTH DAKOTA WATER WELL COMPLETION REPORT

6966-3

07-92

Location NE 1/4 1/4 Sec 28 Twp 93N Rg 53WCounty Clay

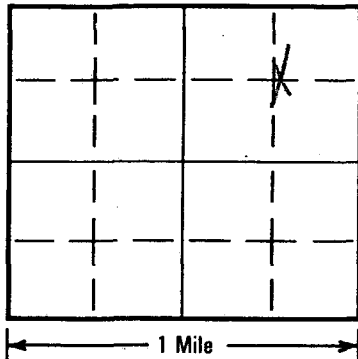
North

Please mark well location with an "X"

W

E

Well-Completion Date

5-19-08Well Owner: Troy Walraven

Business Name:

Address: 45306 313 st
Meridian IA 57044

WELL LOG:

FORMATION

DEPTH

FROM

TO

FORMATION	FROM	TO
top of blue clay	0	70
course green sand	70	90
course green gravel	90	110

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 300 ft. from septic tank (identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

Reverse Rotary

CASING DATA:

- ☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>160</u> LB/FT	<u>16</u> IN	<u>0</u> FT	<u>70</u> FT	<u>28</u> 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>Cement</u>	<u>6</u>	_____ lb./gal	<u>0</u> ft.	<u>12</u> ft.
_____	_____	_____ lb./gal	_____ ft.	_____ ft.

Describe grouting procedure

Pumped cement grout down tremie pipeSCREEN: ☐ Perforated pipe ☒ ManufacturedDiameter 16 IN Length 40 FEETMaterial PVCSlot Size 0.085 Set From 70 Feet to 110 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☐ NO, Why Not? _____

Laboratory sent to for water quality analysis _____

STATIC WATER LEVEL

12'

Feet

If flowing: closed in pressure _____

PSI

GPM flow _____ through _____

inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____

GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ PumpedDescribe: pump well w/☐ Bailed☐ Other

Pumping Level Below Land Surface

21 ft. After 2 Hrs. pumped 700 GPM26 ft. After 2 Hrs. pumped 1000 GPM

If pump installed, pump rate

625

GPM

REMARKS

RECEIVED

AUG - 7 2008

WATER RIGHTS PROGRAM

This well was drilled under license # 444

And this report is true and accurate

Drilling firm Christensen Well + DrillingSignature of License Representative Chris W. Christensen

Signature of Well Owner or Equitable Property Holder: _____

Date: _____

**Report of Examination of Works and/or Application of Water to Beneficial Use
For Permit No. 6966-3**

I have this day, February 1, 2016, made a thorough examination of the water use system constructed by Troy Walraven, 45306 313th St, Meckling SD 57069 of Permit No. 6966-3, bearing the priority of February 13, 2008 authorizing the diversion of 1.78 cu. ft. per second of the waters of Missouri:Elk Point Aquifer for irrigation purposes, in Clay County.

Inspection contact & relationship **Troy Walraven, permit holder**
to permit holder, if applicable:

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Christensen Well & Irrigation
- 2) No. of Wells 1
- 3) Depth(s) 110 feet
- 4) Well log is available Yes

Casing:

- 1) Diameter 16 inches
- 2) Length 70 feet
- 3) Type PVC

Screen:

- 1) Type PVC Manufactured
- 2) Length 40 feet
- 3) Static water level 12 feet

Pump:

- 1) Make Submersible
- 2) Model _____
- 3) Capacity 800 GPM

Motor:

- 1) Make Submersible
- 2) Model No. _____
- 3) Horsepower rating 30 hp

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make T-L Irrigation Systems
- 2) Overall length 1305 feet
- 3) Number of towers 8
- 4) End gun Yes
- 5) Capacity 800 GPM

Comments: T-L Irrigation uses a hydraulic drive system.

Chemigation Equipment:

- 1) Does chemigate Yes
- 2) Main line check valve Yes
- 3) Inspection port/air relief Yes
- 4) Low pressure drain Yes
- 5) Discharge is 20' from source Yes
- 6) Interlock type electrical
- 7) Injection pump type piston
- 8) Injection check valve Yes
- 9) Injection line check valve or positive displacement pump Yes

Comments: Permit holder was not chemigating at time of inspection, but provided the above answers to questions asked. Permit holder indicated he uses chemigation primarily to apply liquid nitrogen to corn crop. A copy of the chemigation rules and Appendix A were reviewed and provided to the permit holder.

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Yes
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Yes, began irrigating in 2008.

List any extended period of nonuse: Did not use in 2010 due to adequate rainfall.

- 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: West 1350', South 1330' from NE Corner of Sec 28-T93N-R53W; Lat 42.84810/Long -97.10637; approximate center of NE ¼ Sec 28-T93N-R53W.
2. The works are capable of diverting and conveying to the place of use 1.78 cfs or 800 gpm of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:

All land is located in Sec 28-T93N-R53W.

NW ¼ NE ¼ - 34 ac

SW ¼ NE ¼ - 33 ac

NE ¼ NE ¼ - 33 ac

SE ¼ NE ¼ - 33 ac

comprising a total of 133 acres of land and the license should be issued for 1.78 cfs or 800 gpm.

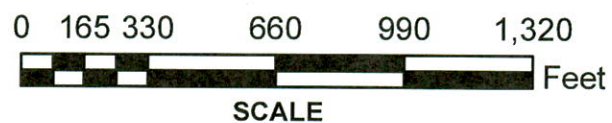
3. All structures, wells and lands on map Yes

Harold Holoch

Harold Holoch, PE
Engineer Water Rights Inspector
DENR, Water Rights Program

Date report completed: March 15, 2016

6966-3



Harold Holoch

Harold Holoch, PE
Water Rights Inspector
February 29, 2016



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

MAR 23 2016

6966-3
7175-3
7627-3

Troy Walraven
45306 313th St
Meckling SD 57069

Dear Mr. Walraven:

Enclosed are Water License Nos. 6966-3, 7175-3 and 7627-3. They are the final water right documents completing your process of obtaining Water Rights. Included with each license is a map prepared by the staff engineer who conducted the field investigation.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the wells authorized by Water Right Nos. 6966-3, 7175-3 and 7627-3, 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.

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

Sincerely,

A handwritten signature in cursive script that reads 'Jeanne Goodman'.

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

enclosures

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 6966-3**

(1) Troy Walraven, 45306 313th St, Meckling SD 57069 made Application No. 6966-3, February 13, 2008 for a water permit to divert 1.78 cubic feet of water per second from ground water, one well (Missouri Elk Point Aquifer), Clay County, South Dakota for irrigation purposes. Permit No. 6966-3, with a priority date of February 13, 2008 was approved April 14, 2008 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before April 14, 2013 and for the application to beneficial use of said water on or before April 14, 2017.

(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 1.78 cubic feet of water per second for beneficial use. The location of the diversion point is 1,350 feet west and 1,330 feet south of the NE corner of Section 28, T93N, R53W (near the center of the NE ¼).

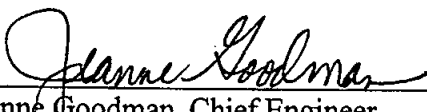
(3) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use to irrigate the following land:

T93N, R53W Section 28	NW ¼ NE ¼	34 acres
	SW ¼ NE ¼	33 acres
	NE ¼ NE ¼	33 acres
	SE ¼ NE ¼	33 acres
	Total	133 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 Troy Walraven, 45306 313th St, Meckling SD 57069 the holder and/or owner of Water Right No. 6966-3 is issued a license to appropriate water, the right to use 1.78 cubic feet of water per second from ground water, one well (Missouri Elk Point Aquifer) with a priority date of February 13, 2008 from the location 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. 6966-3 and subject to the following qualifications:

- The well 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.
- The well authorized by Permit No. 6966-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with the 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 well was completed in May, 2008 by Christensen Well & Irrigation Company. A copy of the well log is on file with the Water Rights Program.*
- This Permit is approved subject to the irrigation water use questionnaire being submitted each year.



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

MAR 23 2016

date

