

WATER PERMIT NO. 7262-3

Name of Applicant: Lazy TV Ranch c/o Vaughn Thorstenson

Address: 30530 130th St, Selby SD 57472 Phone: 605 649-6262

Amount of Water Claimed: 2 cfs Total Acres: 268 acres

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation County: Campbell

Type of Waste Disposal System: na

Location: 2 miles northeast of Mound City

PRIORITY Date Received: 7-26-2011

Application/License Fee: \$1,250

Corrected Application Received: 7-28-2011

Period of Annual Use: June 1 – August 31

Remarks:

Diversion Point: approximate center of SE ¼ Sec
4-T126N-R76W

Land to be Irrigated: SE ¼ Sec 4 and SW ¼ Sec 3;
all in T126N-R76W

Depth of Well: 280 feet

Well Driller: Manikowski Well Drilling Inc.

Remarks:

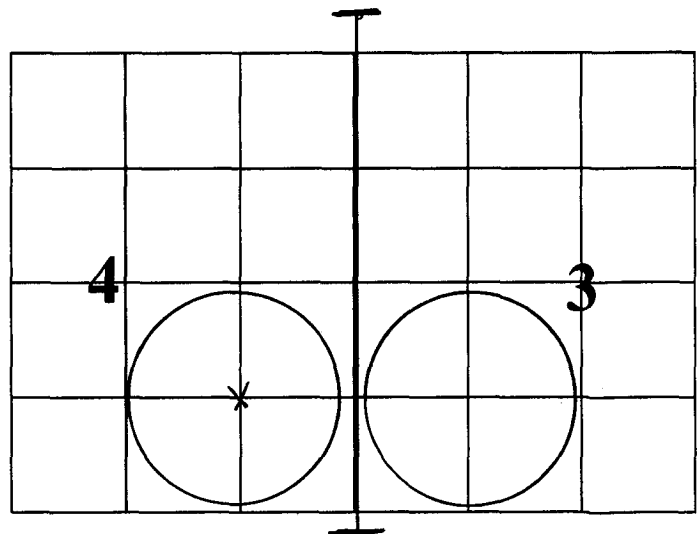
Type of Map: aerial

Prepared by: dennis Bachman, NRCS

Reviewed and the Number Assigned on: 7-28-2011

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>7262-3</u> (office use only) Hydrologic Unit <u>10130106</u>
	Basin <u>Missouri River</u>
	Newspaper <u>Prairie Pioneer, PO Box 218</u>
	<u>605-889-2320</u> <u>Pollock 57648</u>

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JUL 26 2011
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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.) _____

- Name of Applicant Lutz TV Ranch Brian Green Vaughn Thorstenson Phone 605-649-6262
 (check one) Owner Tenant/lessee
 Mailing Address 30530 130th St. Selby, State SD 57472
 (Street, RR, or Box and City) (Zip Code)
- Amount of water claimed 2.0 *CFS or 900 **GPM ***AF Total Acreage 268
 (*Cubic Feet per Second) (**Gallons per Minute) (***Acre Feet - storage capacity of dam/dugout or annual use if applicable)
- Source of water supply Ground
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) 1 Well - SE 1/4 Sec 4-126-76W
 _____ County Campbell
- County or counties where water will be used Campbell
- Annual period during which water is to be used June - August 31
- 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 of SE 1/4 Section 4 126-76	34	NW 1/4 of SW 1/4 Sec 3 126-76	33
NE 1/4 of SE 1/4 Section 4 126-76	33	NE 1/4 of SW 1/4 Section 3 126-76	34
SW 1/4 of SE 1/4 Section 4 126-76	34	SW 1/4 of SW 1/4 Section 3 126-76	33
SE 1/4 of SE 1/4 Section 4 126-76	33	SE 1/4 of SW 1/4 Section 3 126-76	33

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

One Well in Section 4 and Irrigate both Section 3 & 4 from single well & underground pipe.

STATE OF SOUTH DAKOTA) SS
 County of Wakarusa

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, Vaughn Thorstenson, 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 _____

Subscribed and sworn to before me this 25 day of July 20 11

R. G. Thorstenson

Notary Public signature R. G. Thorstenson
 My Commission Expires July 31, 2015

**SOUTH DAKOTA
WATER PERMIT NO. 7262-3**

Date of first receipt of application July 26, 2011.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7262-3 to Lazy TV Ranch, 30530 130th St, Selby SD 57472 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. 7262-3 appropriates 2.0 cubic feet of water per second from one well to be completed into the Grand Aquifer (280 feet deep) located in approximate center of the SE 1/4 Section 4 for irrigation of 268 acres located in the SE 1/4 Section 4 and SW 1/4 Section 3; all in T126N-R76W.
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: June 1 – August 31.
3. The date from which applicant may claim right is July 26, 2011.
4. The date of approval of Permit No. 7262-3 is October 3, 2011.
5. One-fifth of the construction is to be completed on or before April 3, 2014.
6. All construction is to be completed on or before October 3, 2016.
7. Water is to be put to beneficial use on or before October 3, 2020.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

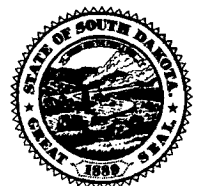
1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 7262-3 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

JAN 10 2012
date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 1 7 1/2" Depth 268'
- b) Casing Type PVC STR 2' Diameter 12" Thickness 1/2"
- c) Screen Type Stainless Steel Diameter 12" Thickness 1/4"
- d) Gravel Pack 60' Length of Gravel Pack 40'
- e) Depth to Top of Water Bearing Material 215'
- f) Depth to Water (ground surface to water level) 39'
- g) Distance to nearest existing domestic well:
- On applicants property 1/2 mile On property owned by others 3/4 mile

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 _____

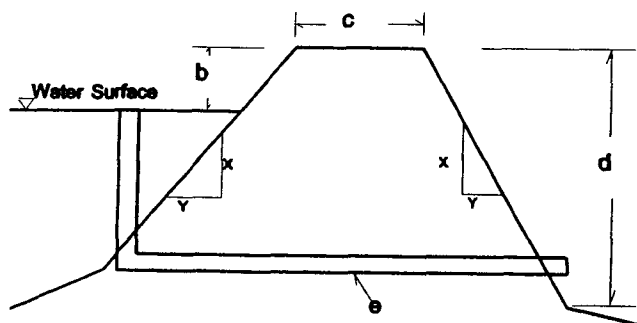
3. Dugout Information

- 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

Jeffers House



USDA - Farm Service Agency

Campbell, South Dakota

3-126N-76W

1:8,461

June 04, 2008

JUL 28 2011

WATER RIGHTS PROGRAM

Legend

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

Wetland Determination Identifiers

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



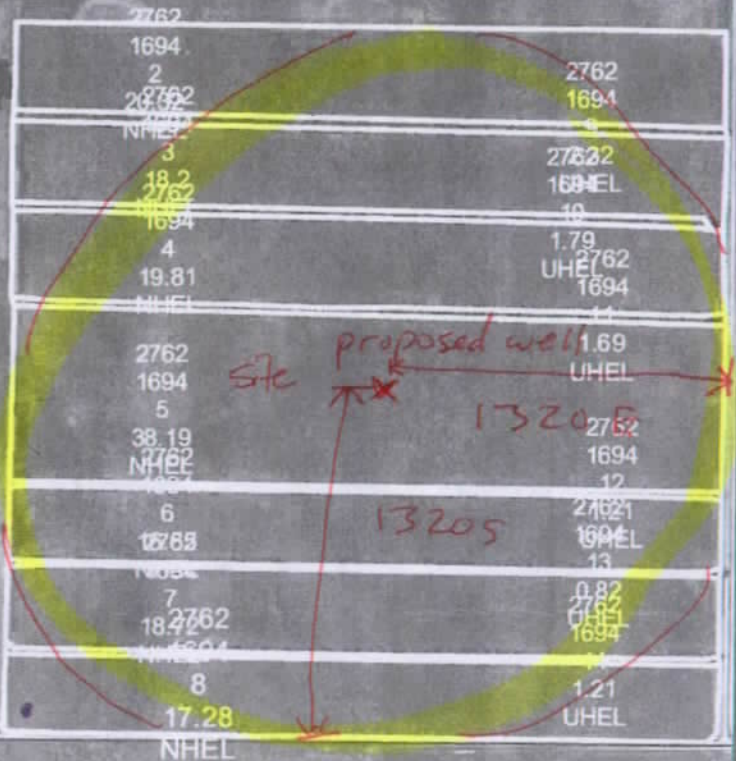
USDA FSA maps are for FSA Program administration only. There is no guarantee or representation to the user as to the accuracy, currency, suitability or reliability. FSA MAPS DO NOT REPRESENT A LEGAL SURVEY. The user accepts the data 'as is' and assumes all risks associated with its use. Wetland points reflect records available with NRCS and may or may not constitute a full inventory of the property.

USDA Farm Service Agency assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data. Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-025 and NRCS) for exact wetland boundaries and determinations, or contact NRCS.

S-T-R: 33-127N-76W

S-T-R: 4-126N-76W

*Dawn Badger
District Conservationist
NRCS Selby Co*



S-T-R: 9-126N-76W



United States Department of Agriculture
Farm Service Agency

PLSS: 4_126N_76W
Farm: 2762

Campbell County

1:8,118



June 06, 2011

Wetland Determination Identifiers

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

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, or contact NRCS.

2010 Ortho-Photography - Not to Scale

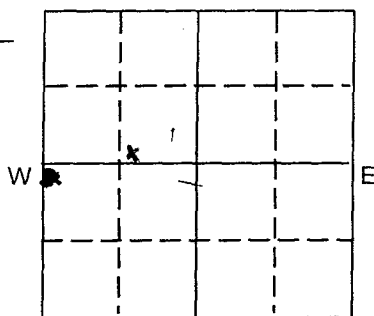
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Common Land Units
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SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 SE 1/4 Sec 4 Twp 126N Rg 76County Cambell North

Please mark well location with an "X"



Well completion Date

6-22-11

1 Mile

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

? 3,000 ft. from Septic tank (identify source)

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
<u>50R21 LB/FT</u>	<u>4 IN</u>	<u>11 FT</u>	<u>242 FT</u>	<u>7 IN</u>
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Bentonite Grout</u>	<u>9</u>	<u>9.5 Lb/gal</u>	<u>0 Ft</u>	<u>215 Ft</u>
		Lb/gal	Ft	Ft

Describe grouting procedure Grout Line Bottom To Top

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 4 Inches Length 20 FeetMaterial PVCSlot Size .030 Set From 242 Feet to 262 FeetOther information Red flt # 50 pack

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?

Lab sample sent to for water quality analysis

Well Owner: Vaughn Thorstenson

Business Name:

Address1: 12980 Cedar Rd

Address2:

City, State, Zip: Selby, SD 57472

WELL LOG:

DEPTH

FORMATION	FROM	TO
Top Soil	0	2
yellow sandy silt	2	6
yellow clay	6	25
Silty Blue clay	25	95
Soft Blue clay	95	215
Fine To Medium sand	215	235
Coarse sand	235	263
Coarse sand layered with silt	263	280

STATIC WATER LEVEL

39 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:

submersible pump
☐ Bailed

☐ Other

Pumping Level Below Land Surface

45 Ft. After2 Hrs. pumped90 GPM

Ft. After

Hrs. pumped

GPM

If pump installed, pump rate:

GPM

REMARKS

RECEIVED**JUN 29 2011****WATER RIGHTS PROGRAM**This well was drilled under license # 285

And this report is true and accurate.

Drilling firm: Manikowsky Well Drilling, Inc.

Signature of License Representative:

Byron Manikowsky

Signature of Well Owner or Equitable Property Holder:

Date:

Please return **WHITE COPY** to: DENR Water Rights, 523 E. Capitol Ave., Pierre SD 57501

RECEIPT
WATER RIGHTS PROGRAM
South Dakota Department of Environment and Natural Resources

Date 7/28, 2011

RECEIVED OF Lazy TV Ranch 12980 Cedar Rd Selby SD 57472

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

Fee for Application for Permit No. <u>7262-3</u> to Appropriate Water, to construct and to put water to beneficial use	1050	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>7262-3</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	1250 00

No. **05008**

By *Shirley Erdell*
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

July 26, 2011

Lazy TV Ranch
c/o Vaughn Thorstenson
30530 130th St
Selby SD 57472

Dear Mr. Thorstenson:

Thank you for submitting the *Application for a Permit to Appropriate Water* for irrigation. In order to complete the application the following is required.

- A map (aerial photo) showing the proposed location of the well in relation to a government section corner or quarter corner by direction and distance is required. Please outline the acres to be irrigated Sections 3 and 4.
- The map must be signed by one of the following: Registered Land Surveyor, Registered Professional Engineer or by any other government employee who normally prepares maps as a part of his assigned duties (i.e. local NRCS office).
- The application/license filing fee to irrigate 268 acres will be \$1,250.00.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
605 773-3352
karen.schlaak@state.sd.us



ANGUS



Ken & Jo Thorstenson
(605) 649-7304
Vaughn & Wendy Thorstenson
(605) 649-6262
Brian & DeDee Begeman
(605) 649-9927



GELBVIEH

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JUL 28 2011

WATER RIGHTS
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Karan

Enclosed please find aerial maps of the two fields we are considering for irrigation. They have been signed by Denis Bachman, NRCS employee who normally prepares maps.

Also enclosed please find check #1287 in the amount of \$1250⁰⁰

Also, please note that our proposed well site is directly in the center of section 4, 1320 feet from the East and West side of the field. However, if the well in the center does not produce enough water, we will propose that the test well located in the SW corner of the SE 1/4 of 126N

→ about 75 feet from edges, marked with a •

76W sec 4 would default to the well location. Our driller has not fully tested the well in the center, but we are hopeful and fairly confident that the center site will work. I hope this will not cause issues, as I think our intentions are clear.

Thank You

Brian Begeman for Lazy T Ranch



**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. 7262-3, Lazy TV Ranch**

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. 7262-3, Lazy TV Ranch, c/o Vaughn Thorstenson, 30530 130th Street, Selby SD 57472.

The Chief Engineer is recommending APPROVAL of Application No. 7262-3 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. 7262-3 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
September 2, 2011

NOTE: I encourage you to have a soil water compatibility analysis performed to insure the water is suitable for irrigation since the Grand Aquifer can have high salinity. The Water Resources Institute at SDSU or other qualified soil scientist will be able to assist you in making a soil water compatibility determination and recommend if there are water management techniques to implement to optimize crop production and protect the soil structure.

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 7262-3
LAZY TV RANCH
AUGUST 4, 2011

Water Permit Application No. 7262-3 proposes to appropriate 2.0 cubic feet of water per second from one well to be completed into the Grand aquifer (approximately 280 feet deep), located in the approximate center of the SE¼ of Section 4, T126N-R76W. The water will be used to irrigate 268 acres located in the SE¼ of Section 4, T126N-R76W and the SW¼ of Section 3, T126N-R76W.

AQUIFER: Grand aquifer

Aquifer Characteristics:

The Grand aquifer consists mainly of glacial outwash and alluvium from the ancient Grand River deposited in the channel of the preglacial Grand River (Koch, 1970). The aquifer is fairly extensive, underlying parts of Campbell, Edmunds, Faulk, Hand, McPherson and Walworth Counties (see figure 1).

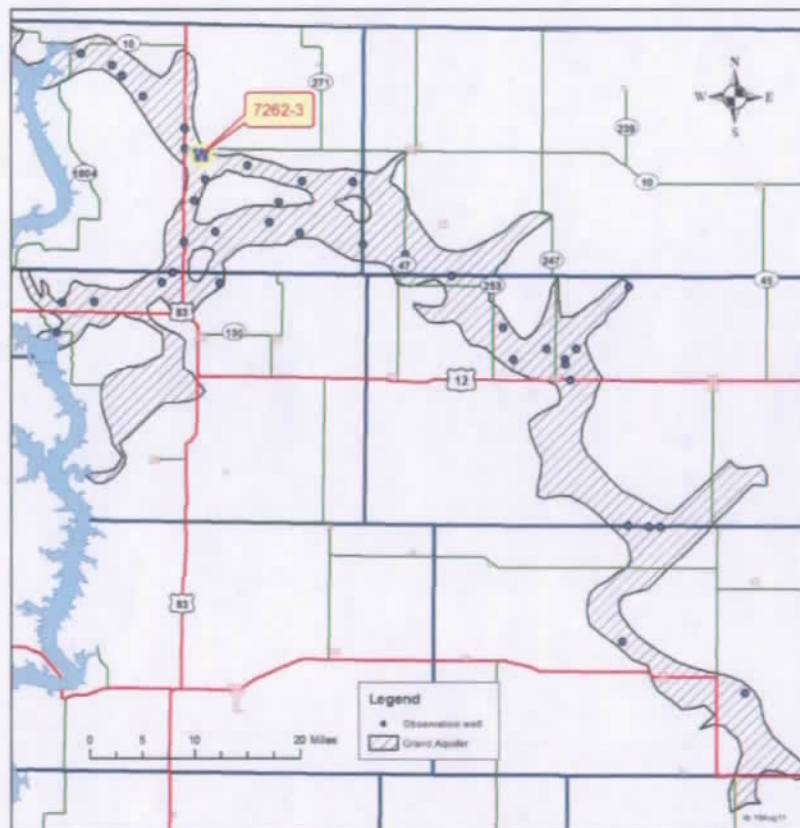


Figure 1. Approximate areal extent of the Grand aquifer (modified from Hedges and others, 1982), location of diversion point proposed by Application No. 7262-3 and DENR Water Rights' observation wells completed into the Grand aquifer.

About 24% of the areal extent of the aquifer (97,900 acres) and 40% of recoverable water in transient storage (1,469,000 acre-feet) is in Campbell County (Hedges and others, 1982). In Campbell County, the depth to the top of the aquifer ranges from 150 feet below land surface to 300 feet below land surface, and the average thickness of the aquifer is estimated to be 100 feet (Koch, 1970). The transmissivity of the Grand aquifer may vary considerably in Campbell County and is estimated to be between 50,000 and 100,000 gallons per day per foot in this area (Koch, 1970). Groundwater in the Grand aquifer is under confined (artesian conditions) with a gradient indicating movement from east to west. The Grand aquifer is hydrologically connected to Oahe reservoir and water levels of the aquifer fluctuate with reservoir levels (Koch, 1970) and (Goodman, 2007). The water in the Grand aquifer is predominantly a sodium bicarbonate and sodium sulfate type. In most locations the water has a medium sodium hazard and a high salinity hazard so special management practices may be necessary to control salinity (Koch, 1970).

The test well completion report submitted with this application indicates the aquifer lies from 215 feet below grade to 280 feet below grade and the potentiometric surface is reported to be at 39 feet below grade.

SDCL 46-2A-9

Pursuant to SDCL 46-2A-9, 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 water availability and existing rights issues.

WATER AVAILABILITY:

The probability of unappropriated water available for appropriation can be evaluated by considering SDCL 46-6-3.1 which requires that:

“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.”

Recharge:

The Grand aquifer in Campbell County is recharged through infiltration of water where permeable layers overlie the aquifer and from subsurface inflow from adjacent areas (Koch, 1970). Average annual recharge to the Grand aquifer has not been quantified. Koch (1970) did however estimate recharge to the aquifer in Campbell County in 1966 by calculating subsurface outflow from county using estimates of the aquifer transmissivity, hydraulic gradient and cross-sectional area. Since water-level data showed more water in storage in the Grand aquifer in Campbell County 1967 than in 1965 (Koch, 1970), recharge over the time period had to have exceeded the groundwater outflow from the County, which was estimated to be 4.5 million gallons per day (approximately 5,040 ac-ft/yr). This is not suggesting that the average annual recharge to the Grand aquifer in Campbell County is 5,040 ac-ft/yr, but Koch's analysis does provide insight to the order of magnitude of recharge to the County.

Discharge:

Discharge from the Grand aquifer in Campbell County occurs through natural discharge and pumping. Natural discharge is primarily in the form of subsurface outflow westward toward the Missouri river near the Pollock and south into Walworth County (Koch, 1970). Pumping from the Grand aquifer comes from domestic use wells and wells that require water rights/permits. There are a total of 37 appropriations from the Grand aquifer (see Table 1).

Type	Number
Municipal	10
Commercial	5
Industrial	1
Irrigation	21

Table 1. Water Permits/Rights appropriating water from the Grand aquifer

The municipalities of Pollock, Faulkton, Hosmer, Herreid, Roscoe, Onaka, Glenham, and Mound City are all currently served by rural water systems so municipal use from the Grand aquifer can be considered minimal. Commercial and industrial use (primarily CAFOs and dairies) are expected to use less than 300 ac-ft/year. Irrigation use from the Grand aquifer is shown in table 2.

Year	Number of permits	Appropriation (ac-ft/yr)	Pumpage (ac-ft/yr)
1979	22	18382	1339
1980	21	17902	2334
1981	28	20782	2204
1982	22	16223.6	2956.4
1983	22	17681.6	3067.58
1984	25	19401.6	3407
1985	23	18441.6	3082
1986	22	18121.6	2333
1987	22	18121.6	2272
1988	20	16645.6	2845.9
1989	20	16645.6	2042.1
1990	20	16645.6	2335
1991	20	16645.6	1853
1992	19	15632.6	1205
1993	18	13760.6	727
1994	17	13370.6	1695.41
1995	16	12890.6	1092.56
1996	15	11394.6	1172.04
1997	15	11394.6	1422
1998	15	11394.6	1245.11
1999	15	11394.6	1162.69
2000	16	10797.6	1317.81
2001	16	10797.6	1220.14
2002	17	11061.6	2645.99
2003	17	11061.6	1784.86
2004	17	11061.6	1621.84
2005	18	11701.6	1842.92
2006	18	11653.6	3892.62
2007	19	12163.4	2352.04
2008	19	12163.4	2660.37
2009	19	12163.4	2334.89
2010	19	12163.4	2903.84
<i>Min</i>	<i>15</i>	<i>10797.6</i>	<i>727</i>
<i>Max</i>	<i>28</i>	<i>20782</i>	<i>3892.62</i>
<i>Ave.</i>	<i>19.1</i>	<i>14364.4</i>	<i>2074.1</i>

Table 2. Irrigation from the Grand aquifer

The average annual combined pumping from the Grand aquifer is estimated to average less than 3,000 ac-ft/yr. It is probable that this average annual withdrawal rate is less than the average annual recharge for the Grand aquifer.

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 to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge to the aquifer”.

The DENR-Water Rights Program monitors 37 observation wells completed into the Grand aquifer, with 17 located in Campbell County (see figure 1). There are five Grand aquifer observation wells within about a 4.5 mile radius of the well site proposed by Water Permit Application No.7262-3. Hydrographs for the observation wells are shown in figures 2-6.

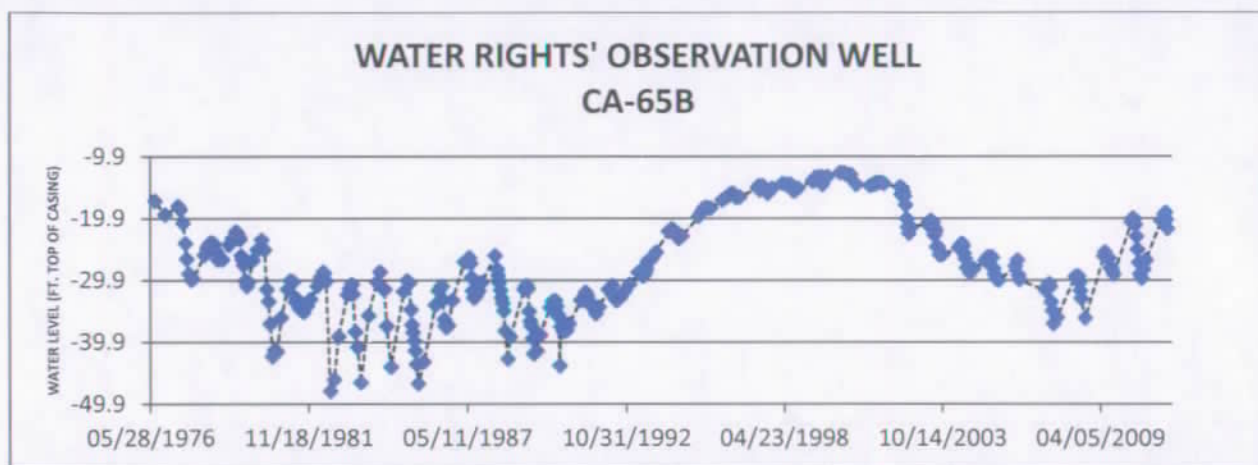


Figure 2. Hydrograph for Grand aquifer observation well located 3.25 miles northwest of the well site proposed by application No. 7262-3

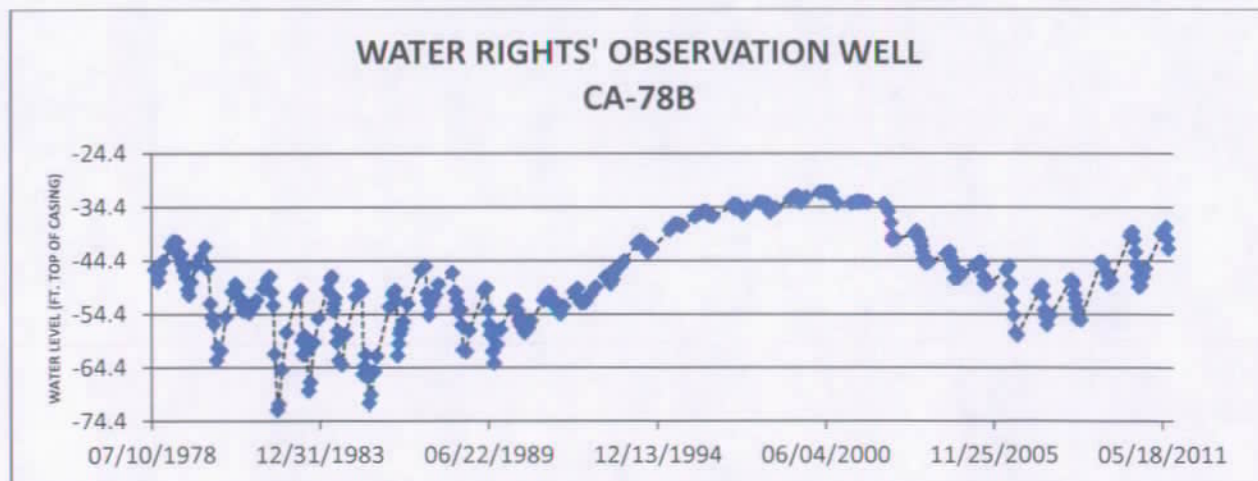


Figure 3. Hydrograph for Grand aquifer observation well located 1.75 miles northwest of the well site proposed by application No. 7262-3

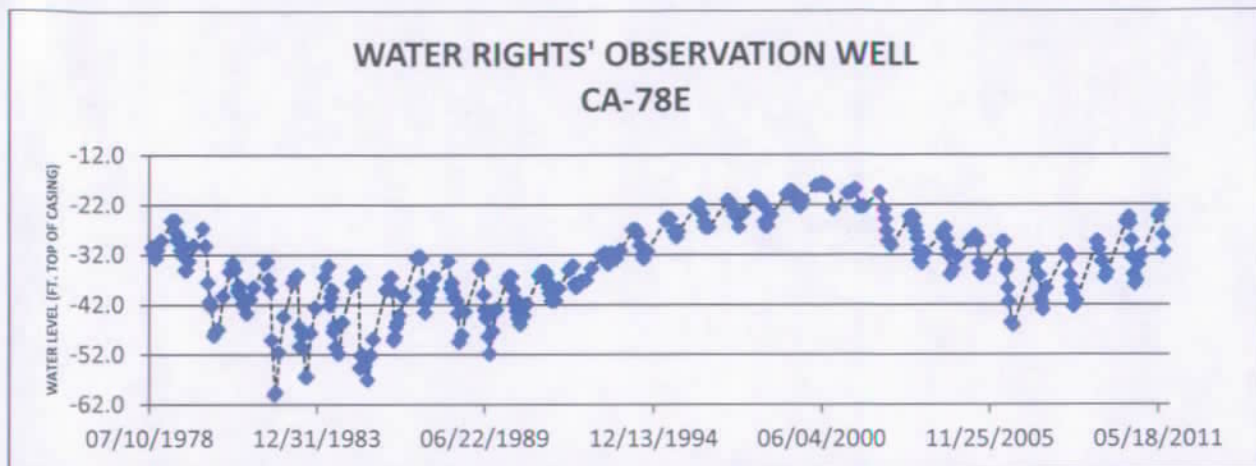


Figure 4. Hydrograph for Grand aquifer observation well located 4.3 miles southwest of the well site proposed by application No. 7262-3

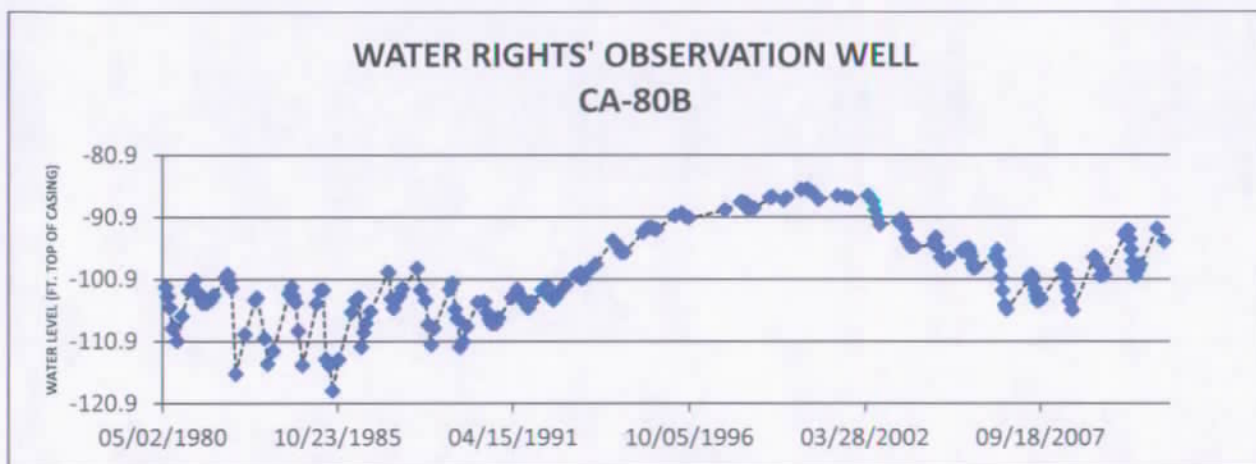


Figure 5. Hydrograph for Grand aquifer observation well located 4.3 miles east-southeast of the well site proposed by application No. 7262-3

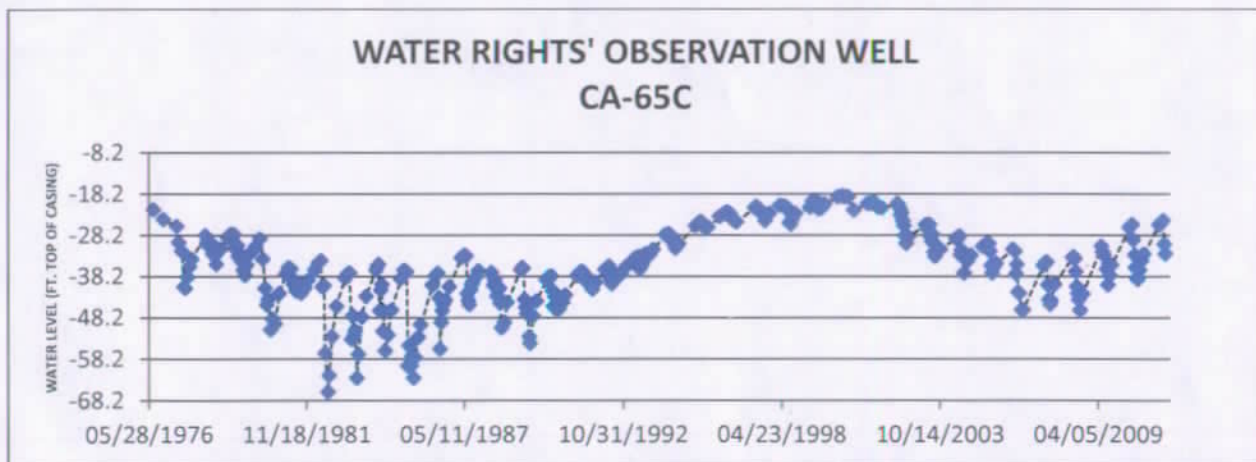


Figure 6. Hydrograph for Grand aquifer observation well located 2.25 miles south-southeast of the well site proposed by application No. 7262-3

The observation well data documents that the present withdrawal rate from the Grand aquifer does not cause a decline of the potentiometric surface of the aquifer beyond seasonal or climatic variations.

EXISTING WATER RIGHTS:

As stated earlier, there are a total of 37 Water Rights/Permits appropriating water from the Grand aquifer. There are only four Water Rights/Permits within approximately five miles of the well site proposed by this application. The Water Rights/Permits in the vicinity of the well site proposed by this application are shown in figure 7.

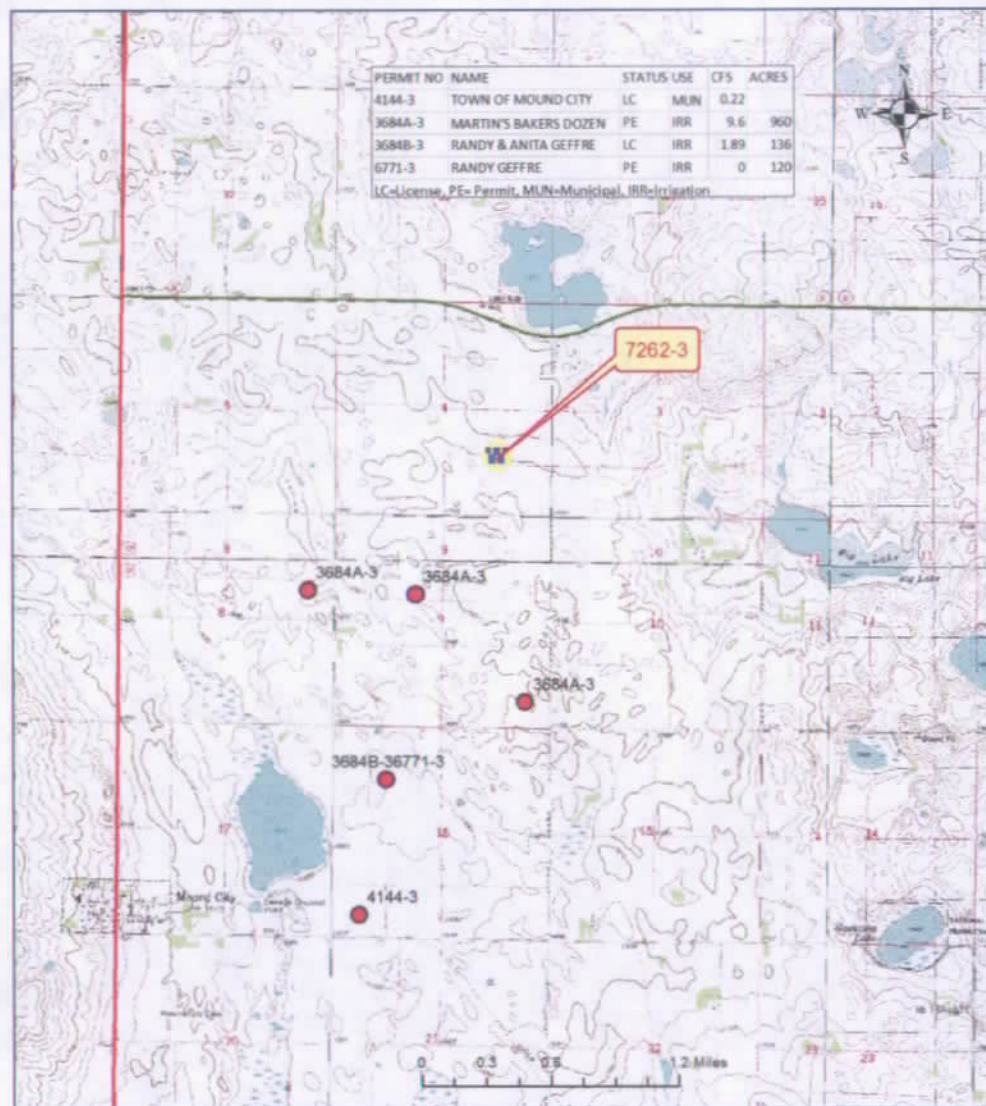


Figure 7. Water Rights/Permits in the vicinity of the well site proposed by Application No. 7262-3

Since the Grand aquifer is under confined conditions, drawdown in a well may be significant. The test well completion report submitted with this application identifies a specific capacity for

the well of approximately 15 gallons per minute per foot of drawdown(gpm/ft) at 90 gallons per minute. This test well's specific capacity is comparable to that of one irrigation well used to supply Water Permit No. 3684A-3 which calculates to around 10 gpm/ft. Based on specific capacities, drawdown in the irrigation well proposed by this application can be expected to be in the order of 60-90 feet. Given the distance between this proposed site and existing wells, interference can be expected to occur (i.e. there will likely be overlapping drawdown cones from pumping).

The transmissivity for the aquifer estimated from the well's specific capacity is 30,000 gal/day/ft ("Transmissivity From Specific Capacity"). Using the Jacob's straight line method of representing drawdown at distance from a well, a plot of a Distance-Drawdown Curve for this appropriation shown in figure 8.

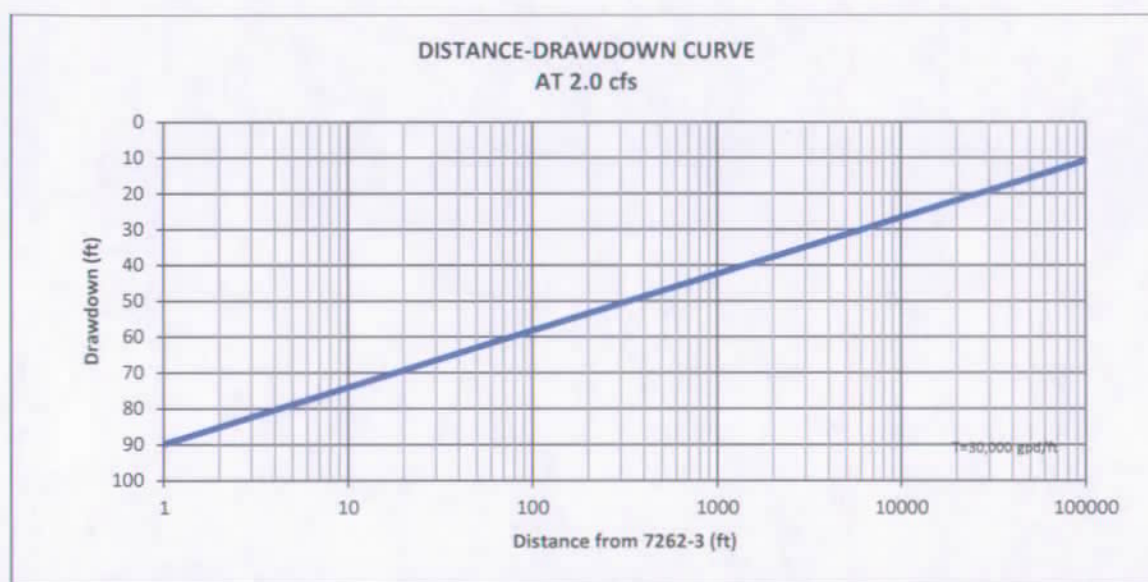


Figure 8. Distance-drawdown plot for well proposed by 7262-3

The plot is only an approximation but illustrates that at the distances involved to existing Grand aquifer wells, well interference should not be significant. This is especially the case when considering the Grand aquifer is under artesian conditions with around 175 feet of head pressure at this well site and further recognizing that there is 20-30 feet of natural fluctuation in this area (see figures 2-6). Therefore, well interference is not expected to adversely or unlawfully impair existing rights.

CONCLUSIONS:

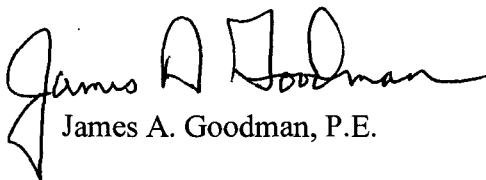
1. Application No. 7262-3 proposes to appropriate a maximum 536 acre-feet of water annually from the Grand aquifer to irrigate 268 acres.
2. There is reasonable probability that unappropriated water is available for the applicant's proposed use.
3. Application No. 7262-3 proposes to divert water at a maximum rate of 2.0 cfs.
4. The Grand aquifer is under confined conditions and the drawdown resulting from approval of this application could be 60 to 90 feet at the production well.

5. Although well interference may occur if this application is approved, existing rights (appropriative and domestic) should not be adversely impacted.
6. Special management practices may be necessary to for irrigation due to the water quality of the Grand aquifer.



Ken Buhler
SD DENR-Water Rights Program

Approved by



James A. Goodman, P.E.

SD DENR-Water Rights Program

REFERENCES:

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; Task1: 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

Goodman, J.A., 2007, Report on Water Permit No. 6859-3 for M & M Farms, Inc.: Unpublished Report in Water Permit No. 6859-3, SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD 57501

"Transmissivity from Specific Capacity." Aquifer Test Forum sponsored by HydroSOLVE, Inc.
11 April 2011< <http://www.aqtesolv.com/forum/transcap.asp>

Water Rights, 2011a, Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.

Water Rights, 2011b, Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.

Water Rights, 2011c, Water Well Completion Report Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.

RECEIVED

SEP 26 2011

WATER RIGHTS
PROGRAM

**NOTICE OF
APPLICATION
NO. 7262-3 to
Appropriate
Water**

Notice is given that Lazy TV Ranch, c/o Vaughn Thorstenson, 30530 130th St, Selby SD 57472 has filed an application for a water permit to appropriate 2.0 cubic feet of water per second from one well to be completed into the Grand Aquifer (280 feet deep) located in approximate center of the SE 1/4 Section 4 for irrigation of 268 acres located in the SE 1/4 Section 4 and SW 1/4 Section 3; all in T126N-R76W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7262-3 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 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, 223 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 October 3, 2011.

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**

Published twice at the total
approximate cost of \$41.85.
37-38

Affidavit of Publication

STATE OF SOUTH DAKOTA

COUNTY OF CAMPBELL

ss:

I, Leah Burke, being first duly sworn under oath say: the **Prairie Pioneer** is a legal weekly newspaper of general circulation as required by South Dakota Codified Laws, and any acts amendatory thereto, published to Allan and Leah Burke in said county and state, and has been such legal newspaper during the time hereinafter mentioned; that during all of said time as an employee or officer of said newspaper, I have had personal knowledge of the facts stated in this affidavit; that the advertisement headed:

*Notice of Application
No. 7262-3 to Appropriate
Water*

A printed copy of which is hereto attached, was printed and published in said newspaper for..... successive weeks upon the following dates, to wit:

..... 9/15, 20 11 20
..... 9/22, 20 11 20
....., 20 20
....., 20 20
....., 20 20

That the full amount of the fees charged for publishing the same

to wit: the sum of 841.85

inures solely to the benefit of the publishers of said newspaper; that no agreement or understanding for any division of this sum has been made with any other person; and that no part of said sum has been agreed to be paid to any person whomsoever.

Leah Burke

subscribed and sworn to before me this

22 day of September, 20 11

Lisa Ptacek

LISA PTACEK
Notary Public
State of North Dakota
My Commission Expires Oct 28, 2014



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

September 6, 2011

Prairie Pioneer
PO Box 218
Pollock SD 57648

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7262-3 to Appropriate Water to be published twice. Please publish the first notice on September 15, 2011 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 Lazy TV Ranch, c/o Vaughn Thorstenson, 30530 130th St., Selby SD 57472 (Ph # 605-649-6262).

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. 7262-3

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

Date _____

We are in receipt of your letter of September 6, 2011 enclosing Notice to Appropriate Water by Application No. 7262-3 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.

September 6, 2011

Lazy TV Ranch
Vaughn Thorstenson
30530 130th St
Selby SD 57472

Dear Mr. Thorstenson:

Water Permit Application No. 7262-3 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 Prairie Pioneer printed at Pollock SD (Ph # 605-889-2320). 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
eric.gronlund@state.sd.us

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 September 15, 2011 with the second publication 7 days later. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

NOTICE OF APPLICATION NO. 7262-3 to Appropriate Water

Notice is given that Lazy TV Ranch, c/o Vaughn Thorstenson, 30530 130th St, Selby SD 57472 has filed an application for a water permit to appropriate 2.0 cubic feet of water per second from one well to be completed into the Grand Aquifer (280 feet deep) located in approximate center of the SE ¼ Section 4 for irrigation of 268 acres located in the SE ¼ Section 4 and SW ¼ Section 3; all in T126N-R76W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7262-3 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 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 October 3, 2011.

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.

Published twice at the total approximate cost of_____.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

JAN 10 2012

Lazy TV Ranch
Vaughn Thorstenson
30530 130th St
Selby SD 57472

Dear Mr. Thorstenson:

Enclosed is Water Permit No. 7262-3 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

7262-3



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

April 25, 2012

Vaughn Thorstenson
Lazy TV Ranch
12980 Cedar Rd
Selby SD 57472

Dear Mr. Thorstenson:

I am writing in regard to a well driller's report filed by Manikowski Well Drilling Inc. The report shows a new well was completed for you on March 20, 2012.

A review of our files indicates Water Permit No. 7262-3 was issued for 900 gallons per minute (gpm) from one well, approximately 280 feet deep located in the center of the SE ¼ Section 4-T126N-R76W for irrigation of 268 acres.

Mr. Thorstenson, is this a replacement well or an additional well which does not increase the total appropriation of 900 gpm? If the authorized diversion rate is to be increased a new water permit will need to be obtained. Once we know this information, we can determine what additional action, if any, needs to be taken to ensure your water right accurately reflects your irrigation system.

Please contact Eric Gronlund or me regarding the status of this well or if you have any questions.

Sincerely,

Karen Schlaak
Water Rights Program
605 773-3352
karen.schlaak@state.sd.us

enclosures

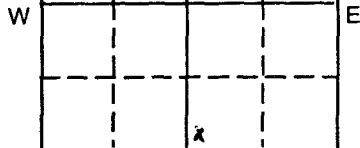
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 SE 1/4 Sec 4 Twp T126 Rg 76NCounty Cambell

North

Please mark well location with an "X"



Well completion Date

3-20-12

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

3000 ft. from Septic Tank (identify source)

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
<u>5.21 LB/FT</u>	<u>12 IN</u>	<u>2 FT</u>	<u>237 FT</u>	<u>17.5 IN</u>
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Portland Cement</u>	<u>60</u>	<u>9.5 Lb/gal</u>	<u>0 Ft</u>	<u>217 Ft</u>
		Lb/gal	Ft	Ft

Describe grouting procedure Zone Line Bottom To Top

SCREEN:

- ☐ Perforated pipe ☒ Manufactured

Diameter 12 Inches Length 30 FeetMaterial PVCSlot Size 1051 Set From 237 Feet to 267 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

Lab sample sent to for water quality analysis ☐ No, Why Not?Well Owner: Vaughn ThorstensonBusiness Name: Lazy TV RanchAddress1: 12980 Cedar Rd

Address2:

City, State, Zip: Selby, SD 57472

WELL LOG:

DEPTH

FORMATION	FROM	TO
<u>Top Soil</u>	<u>2</u>	<u>2</u>
<u>yellow sandy silt</u>	<u>2</u>	<u>6</u>
<u>yellow clay</u>	<u>6</u>	<u>20</u>
<u>Fine Grey Sand</u>	<u>20</u>	<u>41</u>
<u>Fine silty sand</u>	<u>41</u>	<u>95</u>
<u>Blue clay</u>	<u>95</u>	<u>217</u>
<u>Fine sand</u>	<u>217</u>	<u>235</u>
<u>Coarse sand</u>	<u>235</u>	<u>270</u>
<u>Fine sand</u>	<u>270</u>	<u>275</u>

STATIC WATER LEVEL

37 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: submersible pump

☐ Bailed☐ Other

Pumping Level Below Land Surface

6.3 Ft. After3 Hrs. pumped950 GPM

Ft. After

Hrs. pumped

GPM

If pump installed, pump rate:

GPM

REMARKS

RECEIVED

MAR 30 2012

WATER RIGHTS PROGRAM

This well was drilled under license # 285

And this report is true and accurate.

Drilling firm: Manikowski Well Drilling, Inc.

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

Please return White Copy to DENR Water Rights

523 E. Capitol Ave., Pierre SD 57501

4/15/12

Water Rights Program - File Documentation

NAME: Vaughn Thorstenson

ADDRESS: Selby

DATE: 4-26-12 **COUNTY:** Campbell **TELEPHONE:**

RE: well drillers report

COMMENTS:

Mr. Thorstenson talked with Eric Gronlund regarding my letter and stated this was the well for his irrigation permit.



Karen Schlaak
Environmental Scientist

APR 16 2013

WATER RIGHTS
PROGRAM

**NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE**

Date March 31, 2013

TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

FROM: Lazy TV Ranch ^{partners} Mr. Vaughn Thorstenson 649-6262
(name)
30580 130th St
(address)
Selby SD 57472 605 649 9927
(city, state, zip) (phone)

I have completed the construction of the water use system and I have put the water to beneficial use to the maximum extent it is going to be used.

Water Permit No. 7262-3 states that the water use system is to be constructed by

on Oct 3, 2016 ~~April 3, 2014~~, and water is to be put to beneficial use by Oct 3, 2020.
(date) (date)

The water use system was completed on June 10, 2012.
(date)

Applying the water to beneficial use was completed on July 10, 2012.
(date)

You may schedule an investigation so that the water license may be issued.

Brian K. Begeman
(signature)





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

April 16, 2013

7262-3

Brian K Begeman
Lazy TV Ranch
30530 130th St
Selby SD 57472

Dear Mr. Begeman:

I am writing to acknowledge receipt of the "Notice of Completion of Works" form that you sent in to let us know the project authorized under Water Permit No. 7262-3 has been completed.

The system is now ready for inspection. Inspections are done on a county-by-county basis as staff time permits. You have done everything you need to do and the intervening time between the completion of the project and the staff inspection has no bearing on the water permit.

Someone from our office will contact you prior to the inspection to set up a time that is convenient for you. If you have any questions, please contact me.

Sincerely,

Genny McMath
Water Rights Program
(605) 773-3352
email: genny.mcmath@state.sd.us

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

7262-3

Location SW 1/4 SE 1/4 Sec 4 Twp T126 Rg 76N

County Cambell

Please mark well location with an "X"

Well completion Date 3-20-12

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)
3000 ft. from septic tank (identify source)

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
DR21 LB/FT	12 IN	4.2 FT	237 FT	14.5 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:
 Grout Type Portland Cement No. of Sacks 60 Grout Weight 9.5 Lb/gal From 0 Ft To 217 Ft
 Describe grouting procedure Tremie line Bottom To Top

SCREEN: ☐ Perforated pipe ☒ Manufactured
 Diameter 12 Inches Length 30 Feet
 Material PVC
 Slot Size 1051 Set From 237 Feet to 267 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? _____
 Lab sample sent to for water quality analysis _____

Well Owner: Vaughn Thorsen
 Business Name: Levy TV Ranch
 Address1: 12980 Cedar Rd
 Address2: _____
 City, State, Zip: Selby SD 57472

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>Top Soil</u>	<u>2</u>	<u>2</u>
<u>yellow sandy silt</u>	<u>2</u>	<u>6</u>
<u>yellow clay</u>	<u>6</u>	<u>20</u>
<u>Fine over sand</u>	<u>20</u>	<u>41</u>
<u>Fine silty sand</u>	<u>41</u>	<u>95</u>
<u>Blue clay</u>	<u>95</u>	<u>217</u>
<u>Fine sand</u>	<u>217</u>	<u>235</u>
<u>Coarse sand</u>	<u>235</u>	<u>240</u>
<u>Fine sand</u>	<u>240</u>	<u>245</u>

STATIC WATER LEVEL 37 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: Submersible Pump
☐ Bailed
☐ Other _____

Pumping Level Below Land Surface
63 Ft. After 3 Hrs. pumped 950 GPM
 _____ Ft. After _____ Hrs. pumped _____ GPM
 If pump installed, pump rate: _____ GPM

REMARKS

RECEIVED
APR 15 2013
 WATER RIGHTS PROGRAM

This well was drilled under license # 285
 And this report is true and accurate.
 Drilling firm: Manikowski Well Drilling, Inc.
 Signature of License Representative: _____
 Signature of Well Owner or Equitable Property Holder: _____
 Date: _____

Please return White Copy to DENR Water Rights

523 E. Capitol Ave., Pierre SD 57501