

WATER PERMIT NO. 7932-3

Name of Applicant: Munkvold Land & Cattle Co Inc

Address: 43723 294th St, Menno SD 57045 Phone: 605 660-2545

Amount of Water Claimed: 3.33 cfs Total Acres: 155 acres

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation County: Yankton

Type of Waste Disposal System:

Location: 15 miles north of Yankton

PRIORITY Date Received: 11-22-13 Application/License Fee: \$1050

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

Remarks: Applicant is requesting diversion rate greater than statutory limit

Diversion Point: NW 1/4 NE 1/4 Sec 22-T96N-
R56W

Land to be Irrigated: NE 1/4, E 1/2 NW 1/4 Sec
22-T96N-R56W

Depth of Well: 254 feet deep

Well Driller: Thein Well

Remarks:

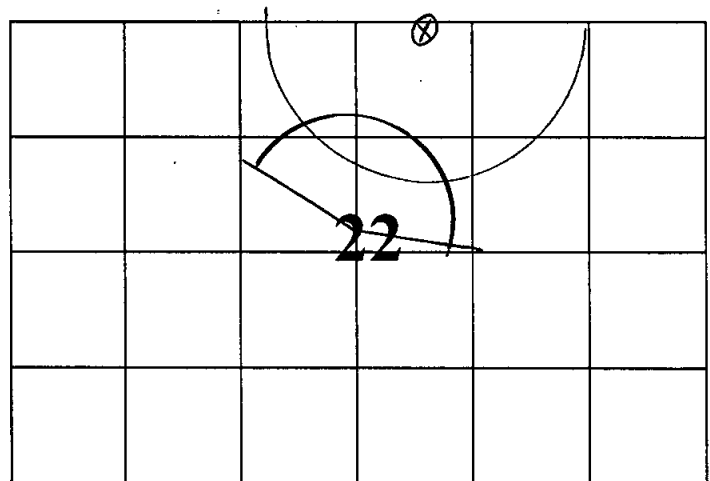
Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 12-4-13

By: Karen Schlaak

Notice of Hearing - date to intervene: _____



FORM 2: Application for irrigation in South Dakota

(type or print)

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	(office use only)	
	No. <u>2932-3</u>	Hydrologic Unit <u>10170102</u>
	Basin <u>Vermillion River</u>	
	Newspaper <u>Daily Press & Dakotan</u> <u>319 Walnut Yankton 57078</u> <u>605-665-7811</u>	

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NOV 22 2013

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 to Appear on Irrigation Permit Munkuld Land & Cattle Co. Inc
(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent _____
(name and complete address if different than above name)Mailing Address 43723 294th st Menard SD 57045
(Address) (City) (State) (Zip Code)Home Phone 605-387-5380 Cell 660-2545 Email MLCCI@SUTV.COM2. Amount of water claimed 3.33 CFS or 1500 **GPM ***AF Total Acreage 155
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)3. Source of water supply ground water4. Location of point of diversion 1 well NW 1/4 NE 1/4 sec 22 96-56
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)County Yankton5. County or counties where water will be used Yankton6. Annual period during which water is to be used May 1 - Oct. 317. 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
<u>Cellin Sec 22-T96N-R-56W</u>		<u>NE 1/4 NE 1/4</u>	<u>35</u>
		<u>NW 1/4 NE 1/4</u>	<u>40</u>
<u>NE 1/4 NW 1/4</u>	<u>20</u>	<u>SW 1/4 NE 1/4</u>	<u>34</u>
<u>SE 1/4 NW 1/4</u>	<u>18</u>	<u>SE 1/4 NE 1/4</u>	<u>8</u>

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

Amount of water claimed needed will be 1500 gal a minute when both pivots are running at the same time. Dependant on weather conditions

I William Pres., the applicant, certify that I have read this application, have examined the attached map, and that the matters stated are true.

SOUTH DAKOTA
WATER PERMIT NO. 7932-3

Date of first receipt of application November 22, 2013.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7932-3 to Munkvold Land and Cattle Company Inc, 43723 294th St, Menno SD 57045 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. 7932-3 appropriates 3.33 cubic feet of water per second (cfs) from one well to be completed into the Lower James:Missouri Aquifer (254 feet deep) located in the NW 1/4 NE 1/4 Section 22 for irrigation of 155 acres located in the NE 1/4, E 1/2 NW 1/4 Section 22; all in T96N-R56W.
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 November 22, 2013.
4. The date of approval of Permit No. 7932-3 is February 17, 2014.
5. One-fifth of the construction is to be completed on or before August 17, 2016.
6. All construction is to be completed on or before February 17, 2019.
7. Water is to be put to beneficial use on or before February 17, 2023.
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. 7932-3 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. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 7932-3 authorizes a maximum diversion rate of 3.33 cfs for the irrigation of 155 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
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

MAR 13 2014

date



Supplemental Information

(type or print)

1. Well Information (check one or both as applicable) ☒ Drilling new well(s) ☐ Using existing well(s)a) If new wells, how many 1 Have test holes been drilled ☒ Yes ☐ No Drilled by Ther Well
(if yes, please provide copies of logs)b) If existing wells, how many Provide copy of log(s), if available. Drilled by c) Well Depth 254 Depth to Top of Water Bearing Material 121 Depth to Water from Surface 128

d) Distance to nearest existing domestic well:

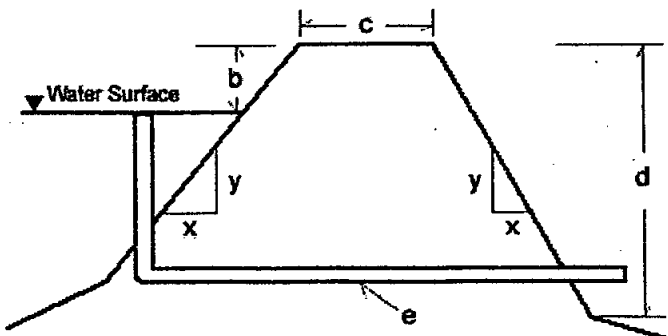
On applicant's property 1/2 mile On property owned by others 1/2 mile**2. Wastewater Disposal System Information**a) Type of System (i.e. septic tank, drain field) b) System Capacity (gallons) Year Constructed c) Connected to the City of Sanitary System **3. Dugout Information**a) Surface Dimensions 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 (e.g. 3 to 1 is a typical slope)

Upstream Downstream h) Surface Area of Impoundment i) Storage Acre Feetj) Drainage Area Above Dam Acres

Erin

320-796-2111

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USDA

United States Department of Agriculture Farm Service Agency

WATER RIGHTS PROGRAM

Irrigated Area

well



South Dakota
Yankton County

Farm Number
5699

Township-Range-Section
96N56W22

Legend

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

USDA FSA maps are for FSA Program administration only. This map does not represent a survey or other official map. This map was prepared by the USDA Farm Service Agency.

Petersen Ag Systems Inc.



301 W South Street
Hartington, NE 68739
402-254-9557 office

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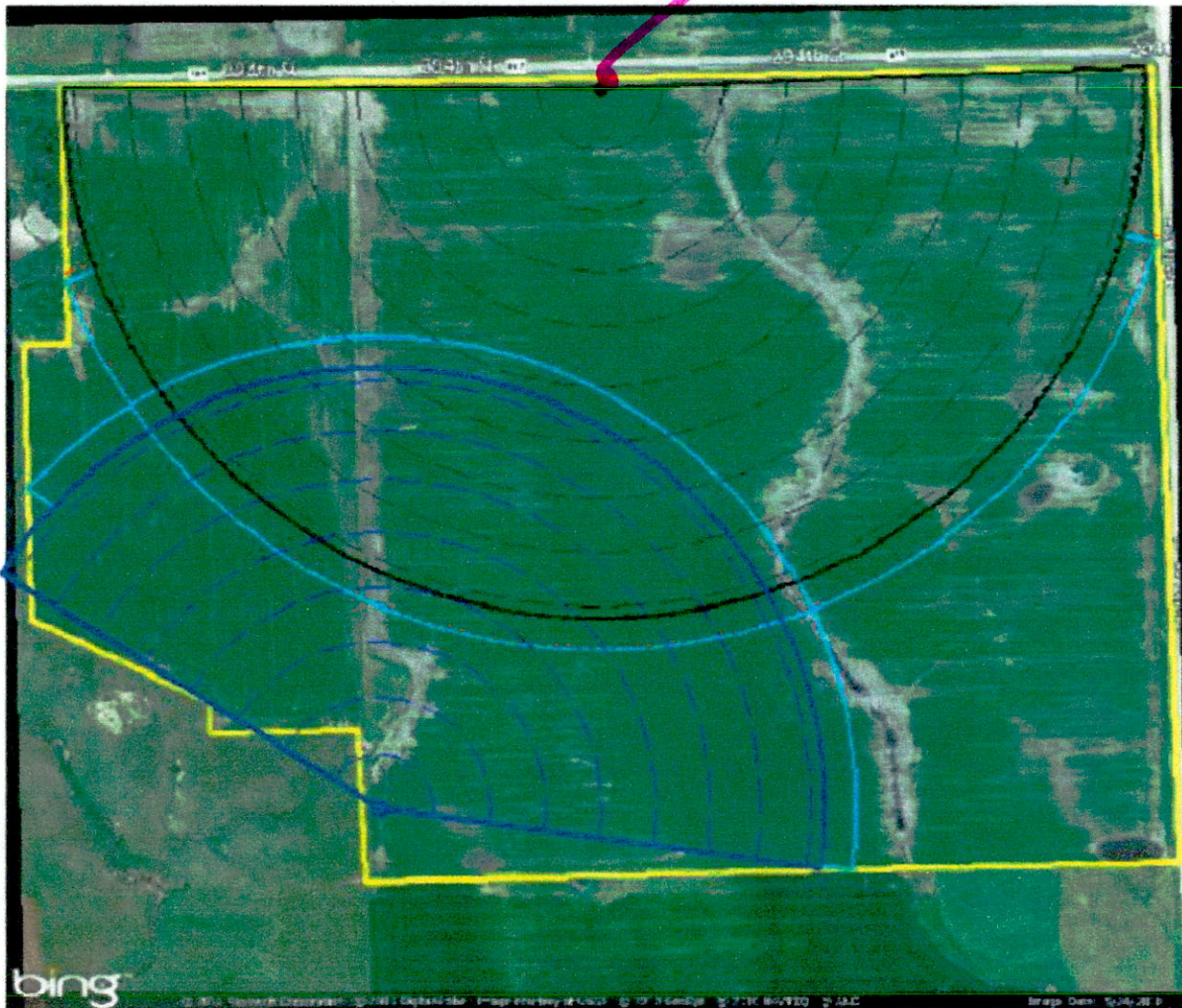
WATER RIGHTS
PROGRAM

Farm: Home Place

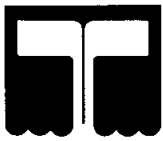
Grower: Orlando Munkvold

10/25/2013

Systems:	Length	Spans	Total area including endgun
● Home Place	1735.33 ft	9 spans + 33 ft o.h.	120.27 acres
● Pivot 2	1438.92 ft	8 spans + 44 ft o.h.	73.29 acres



Will dig underground pipe to supply pivot # 2
from well



THEIN WELL

P.O. BOX 778, 11355 HWY. 71 NE (ACROSS FROM RINGO LAKE)
SPICER, MINNESOTA 56288 • (320) 796-2111
www.theinwell.com • E-mail: theinwell@tds.net

WELLS ~ PUMPS
SALES ~ SERVICE

Since 1893

Well Log for Munkvold Land & Cattle

Date: 06/20/13

Well Size: test hole #1

Casing Length:

Screen Length:

Total Well Depth:

SWL:

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Geological Material	Color	Hardness or Formation	From	To
Top soil			0	1
Clay	Brown		1	6
Clay	Yellow		6	28
Clay	Blue		28	52
Sand		Med-Crs	52	58
Clay	Blue		58	114
Sandy clay	Blue		114	121
Sand		Medium	121	161
Sand		Fine	161	221
Sand		Med-Fine	221	230
Sand		Fine	230	236
Sand		Medium	236	241
Sand		Med-Crs	241	255
Shale	Blue	Hard	255	260

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 11/22, 2013

RECEIVED OF Munkvold Land & Cattle 43723 294th St Menno SD 57045

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

Fee for Application for Permit No. <u>7932-3</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>7932-3</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. **06494**

By James Goodman
Chief Engineer

Schlaak, Karen

From: Schlaak, Karen
Sent: Tuesday, November 26, 2013 2:47 PM
To: 'MLCCI@SVTV.com'
Subject: Application for Permit to Appropriate Water

We have received the Application for Permit to Appropriate Water from Munkvold Land & Cattle Co. Inc. The application states the total number of acres to be irrigated as 155 acres.

Please let us know if you agree with the following breakdown of acres amounts by quarter-quarter:

All in Sec 22-T96N-R56W

NE ¼ NE ¼	35 acres
NW ¼ NE ¼	40 acres
SW ¼ NE ¼	34 acres
SE ¼ NE ¼	8 acres
NE ¼ NW ¼	20 acres
SE ¼ NW ¼	18 acres

Total 155 acres

Also the proposed well location would be the NW ¼ NE ¼ Section 22-T96N-R56W.

If you have questions, please contact me.

Karen Schlaak
Water Rights Program
Phone: 605 773-3352
Fax: 605 773-4068



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

December 4, 2013

Munkvold Land & Cattle Co Inc
43723 294th St
Menno SD 57045

Dear Sir:

Thank you for submitting the *Application for a Permit to Appropriate Water* for irrigation in Yankton County. An email was sent to you November 26, 2013, but I have not received a response.

The application states the total number of acres to be irrigated as 155 acres. Using the map submitted with the application and the aid of a computer program we did a breakdown of acre amounts by quarter-quarter:

All in Section 22-T96N-R56W

NE 1/4 NE 1/4	35 acres	NE 1/4 NW 1/4	20 acres
NW 1/4 NE 1/4	40 acres	SE 1/4 NW 1/4	18 acres
SW 1/4 NE 1/4	34 acres		
SE 1/4 NE 1/4	8 acres	Total	155 acres

The proposed well location would be the NW 1/4 NE 1/4 Section 22-T96N-R56W.

If we do not hear from you, we will assume you are in agreement with the above locations and amounts. If you have any questions, please contact me.

Sincerely,

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



**DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES**

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denr.sd.gov



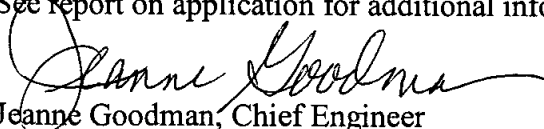
**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 7932-3, Munkvold Land & Cattle Co. Inc.**

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. 7932-3, Munkvold Land and Cattle Co. Inc., 43723 294th Street, Menno SD 57045.

The Chief Engineer is recommending APPROVAL of Application No. 7932-3 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. 7932-3 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. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 7932-3 authorizes a maximum diversion rate of 3.33 cfs for the irrigation of 155 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
4. 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 29, 2014

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 7932-3
MUNKVOLD LAND & CATTLE CO. INC.
JANUARY 29, 2014

Water Permit Application No. 7932-3 proposes to appropriate water at a maximum diversion rate of 3.33 cubic feet of water per second (cfs) from one well to be completed into the Lower James Missouri aquifer. The well is expected to be 254 feet deep and is to be located in the NW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 22 for the irrigation of 155 acres located in the NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$ Section 22; all in T96N-R56W in Yankton County. The applicant is requesting a diversion rate greater than the statutory limit.

AQUIFER: Lower James Missouri aquifer (LJM)

AQUIFER CHARACTERISTICS:

The Lower James Missouri aquifer is composed of glacial outwash consisting of fine sand to cobble gravel and can be found under water table or artesian conditions depending on location (Bugliosi, 1986; Lindgren and Hansen, 1990). The aquifer appears to be under artesian conditions in the area of the proposed well site. The Lower James Missouri aquifer is estimated to underlie 191,700 acres and contains an estimated 2,795,400 acre-feet (ac-ft) of recoverable water in storage (Hedges et. al, 1982). The aquifer extends from Yankton County north into Hutchinson County and southeast into a small portion of Clay County. The aquifer is hydraulically connected to the Choteau, Lower James Missouri: Scotland, and Niobrara aquifers, and the James and Missouri Rivers (Bugliosi, 1986; Lindgren and Hansen, 1990).

The test hole log submitted with this application indicated that the Lower James Missouri aquifer occurred from 121 feet to 255 feet below grade. Based on nearby well completion reports (Water Rights, 2014c) and observation well hydrographs (Water Rights, 2014a), the static water level is approximately 120 feet below grade at the proposed well site.

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 this 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 and effects on existing rights from the aquifer that are pertinent to this application.

WATER AVAILABILITY:

This application proposes to appropriate water from the Lower James Missouri aquifer. Actual water use, if this application is approved, will likely be less than 310 acre-feet annually (ac-ft/yr). 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 public water 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 public water system.

Hydrologic Budget:

Recharge:

Recharge to the Lower James Missouri aquifer occurs due to infiltration of precipitation where the aquifer is at or near land surface, upward leakage from the bedrock aquifers, and inflow from the surrounding glacial aquifers (Bugliosi, 1986). Hedges and others (1985) estimated the recharge rate, based on a regional flow-net analysis of the aquifer, to be 1.5 inches per year. Using this recharge rate and the area of the aquifer, the annual recharge to the Lower James Missouri aquifer is estimated to be 23,963 ac-ft/yr.

Discharge:

Discharge from the Lower James Missouri aquifer occurs due to evapotranspiration in areas where the aquifer is at or near land surface, seepage to the James River, and well withdrawals (Bugliosi, 1986). Currently, there are 127 water rights/permits appropriating water from the Lower James Missouri aquifer (Water Rights, 2014b). There are also many well completion reports on file with the SD DENR-Water Rights Program for domestic wells that appear to be completed in the Lower James Missouri aquifer (Water Rights, 2014c). However, the annual withdrawal of water for domestic use is not significant to the hydrologic budget of the aquifer.

The amount of water that can be expected to be withdrawn through water rights/permits authorizing water use for non-irrigation purposes at the current appropriation level can be estimated by assuming water rights/permits limited only by diversion rate will pump at the maximum permitted diversion rate 60 percent of the time. The expected average annual withdrawal by non-irrigation appropriations from the Lower James Missouri aquifer is estimated to be 1,323 ac-ft/yr (Water Rights, 2014b). Table 1 shows the irrigation withdrawal from the Lower James Missouri aquifer. The average annual irrigation withdrawal from the Lower James Missouri aquifer is 2,528 ac-ft/yr (Water Rights, 1979-2013).

Hydrologic Budget:

Using Hedges and others (1985) recharge estimate there is approximately 20,112 ac-ft/yr of recharge in excess of expected average annual withdrawal from the Lower James Missouri aquifer. It should be noted that there has been a constant build out of water rights/permits over the period of record. However, the maximum report annual use by irrigation appropriations plus expected annual use by non-irrigation appropriations is still much less than the estimated average annual recharge. Therefore, there is a reasonable probability that there is unappropriated water available for this proposed appropriation.

Year	Permits Reporting	Appropriation (ac-ft/yr)	Pumpage Reported (ac-ft/yr)
2012	93	28626.7	13058.45
2011	89	27367.1	4147.47
2010	85	25731.1	665.37
2009	84	25451.1	1463.27
2008	79	23891.7	4494.03
2007	56	17477.7	3425.91
2006	50	15627.1	3630.92
2005	48	14749.1	2866.63
2004	47	14525.1	2886.65
2003	53	17373.1	2843.15
2002	53	17108.1	4061.52
2001	53	17208.1	2940.09
2000	51	17048.1	3751.08
1999	50	15992.1	2102.15
1998	53	16915.1	2787.03
1997	50	17072.1	2320
1996	49	17240.1	2102.99
1995	41	15088.1	1483.32
1994	45	17094.1	1918.17
1993	45	16241.9	230.44
1992	45	16791.9	1159
1991	42	15497.9	2599
1990	35	12673.1	2928.1
1989	31	10909.1	2144.8
1988	31	11769.5	2744.9
1987	30	11613.5	1041.6
1986	30	11613.5	989.6
1985	27	10033.1	1483
1984	28	12283.1	1360
1983	27	9883.1	1306.54
1982	23	9440.1	1301.25
1981	27	13053	1835
1980	23	11561	1299
1979	22	11265.0	588
Max	93	28626.7	13058.5
Min	22	9440.1	230.4
Avg.	46.9	16065.1	2528.2

Table 1- Irrigation water use from the Lower James Missouri aquifer (Water Rights, 1979-2013)

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 of the aquifer.

The DENR-Water Rights Program monitors 33 observation wells completed into the Lower James Missouri aquifer (Water Rights, 2014a). Water levels in the observation wells show response to climatic conditions. The water levels rise (recharge) during wet years and gradually decline during dry years. The hydrographs show the effects of pumping, but it does not appear to be significant over the period of record. The climatic effects on water level mask the temporal impacts of well withdrawal. Therefore, recharge to and natural discharge from the Lower James Missouri aquifer significantly exceeds pumping. Recognizing that natural discharge can be

captured for pumping, there is a reasonable probability that unappropriated water is available for these proposed appropriations.

The nearest of the observation wells to the proposed well site are YA-80X and YA-80Z (Water Rights, 2014a). The observation wells are approximately 1.3 miles southwest and 3.0 miles south-southwest of the proposed well site, and the hydrographs are shown in Figures 1 and 2, respectively. The hydrographs, in general, show similar hydrologic conditions to the other observation wells throughout the aquifer and are representative of the aquifer. It should be noted that YA-80Z shows values greater than zero. This is because the observation well is very close to the James River and during flood events the well could flow.

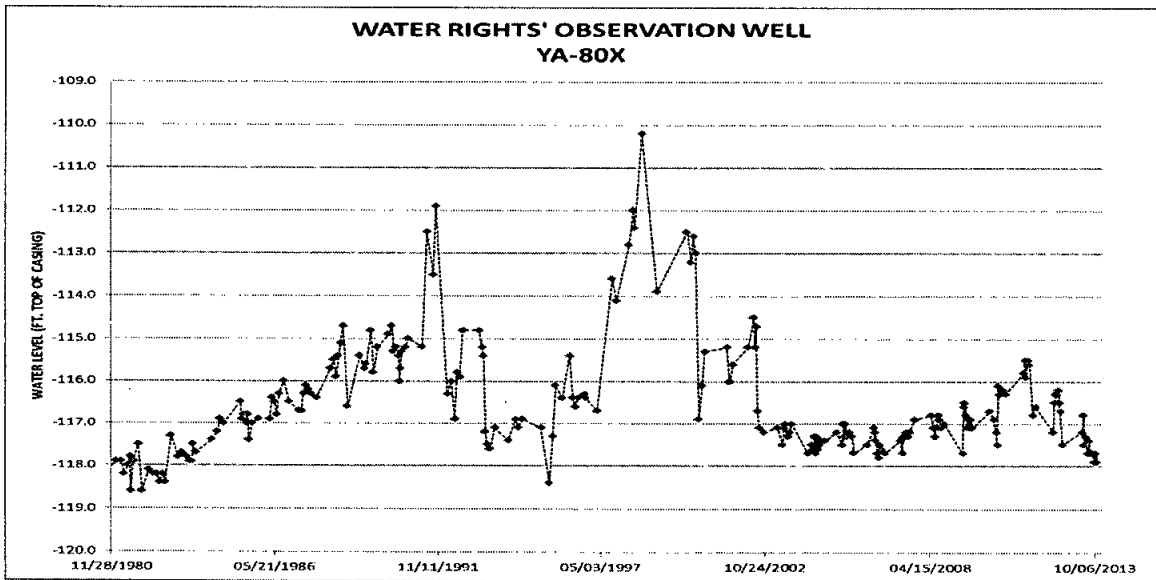


Figure 1- Hydrograph of DENR-Water Rights' observation well YA-80X (Water Rights, 2014a)

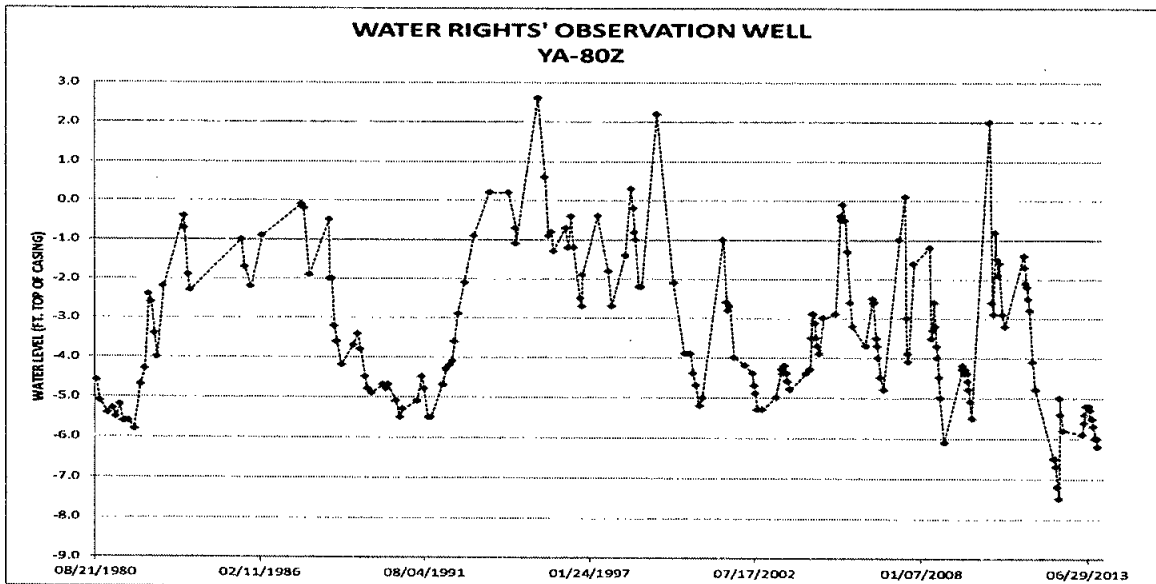


Figure 2- Hydrograph of DENR-Water Rights' observation well YA-80Z (Water Rights, 2014a)

EXISTING WATER RIGHTS:

There are no water rights/permits that authorize wells to be completed into the Lower James Missouri aquifer within approximately 3.5 miles of the proposed well site (Water Rights, 2014b). There are a number of domestic wells on file with the SD DENR-Water Rights Program within approximately 1.5 miles of the proposed well site. The nearest domestic well on file with the SD DENR-Water Rights Program is approximately 0.5 miles west of the proposed well site.

Since the Lower James Missouri is under artesian conditions at the proposed well site, drawdown may extend a distance from the pumped well. It is possible drawdown from this proposed appropriation may be measurable in the nearby domestic and appropriative right wells. However, the impact of drawdown is not expected to be significant due to the distance between wells.

SDCL 46-6-6.1 does not protect artesian head pressure as a means of delivery, and the Water Management Board has consistently recognized that to place water to maximum beneficial use a certain amount of drawdown may occur. To balance interests between irrigation use and delivery of water by artesian pressure, the Water Management Board 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”

Depending on the specific characteristics of the Lower James Missouri aquifer at the well site proposed by this application, some existing well owners may need to lower their pumps to accommodate for deeper water levels. However when considering the statute (SDCL 46-6-6.1) and rule (ARSD 74:02:04:20(7)), well interference from the proposed appropriation is not likely to cause a significant impact. Therefore, there is a reasonable probability that any interference will not be adverse.

SDCL 46-5-6

Pursuant to SDCL 46-5-6, the diversion rate for an irrigation appropriation cannot be in excess of one cfs for every 70 acres, or “the equivalent thereof.” The statute does provide that the Water Management Board may allow a greater diversion rate if the method of irrigation so requires. Water Permit Application No. 7932-3 proposes to divert 3.33 cfs from the Lower James Missouri aquifer for the irrigation of 155 acres, or the equivalent of 1.5 cfs per 70 acres. The applicant stated the diversion rate is needed to operate both center pivots at the same time. Both pivots are a “windshield wipe” center pivot. In the past, it has been accepted that to run a “windshield wipe” center pivot, or multiple pivots at the same time a diversion rate greater than the statutory limit is often required.

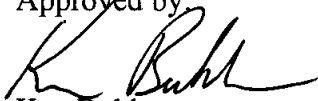
CONCLUSIONS:

1. Water Permit Application No. 7932-3 proposes to appropriate water at a maximum diversion rate of 3.33 cfs from the Lower James Missouri aquifer for the irrigation of 155 acres.
2. There is a reasonable probability that unappropriated water is available for this proposed appropriation.
3. There is a reasonable probability that the diversion rate requested by this application can be made without adversely impacting existing water rights/permits and domestic users.
4. The applicant is requesting a diversion rate greater than the statutory limit. The applicant stated that the diversion rate is required to operate both center pivots at the same time. Both center pivots will make a "windshield wipe" motion. In the past, this has been accepted by the Water Management Board as a valid reason for the request.



Adam Mathiowetz
SD DENR-Water Rights Program

Approved by:



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Bugliosi, E.F. 1986. Water Resources of Yankton County, South Dakota. Water Resources Investigations Report 84-4241. U.S. Geological Survey, Huron, South Dakota.
- 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; 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.
- Lindgren, R.J. and Hansen, D.S. 1990. Water Resources of Hutchinson and Turner Counties, South Dakota. Water-Resources Investigations Report 90-4093. U.S. Geological Survey. Huron, South Dakota.
- Water Rights. 1979-2013. "1979-2012 Irrigation Summaries by Aquifer": SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD.
- Water Rights. 2014a. Observation Well Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2014b. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2014c. Well Completion Reports. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.

RECEIVED

FEB 10 2014

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

Department of Environment and Natural Resources
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3182

STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

KELLY HERTZ BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT HE IS THE MANAGING EDITOR OF, YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER
PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUNTY
AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SAID
COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED
Application No. 7932-3

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 5th DAY OF February 2014
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$26.15 ENSURES TO THE
BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
AGREEMENT AND 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 PERSON WHOMSOEVER.

PUBLISHED ON: 2/5/2014

FILED ON: 2/5/2014

SUBSCRIBED AND SWORN TO BEFORE ME THIS 5th DAY OF February

2014

NOTARY PUBLIC, SOUTH DAKOTA

MY COMMISSION EXPIRES

8/19/2015

Notice is given that Munkvold Land & Cattle Co. Inc., 43723 294th St, Menno SD 57045 has filed an application for a water permit to appropriate 3.33 cubic feet of water per second from one well to be completed into the Lower James:Missouri Aquifer (254 feet deep) located in the NW 1/4 NE 1/4 Section 22 for irrigation of 155 acres located in the NE 1/4, E 1/2 NW 1/4 Section 22; all in T96N-R56W. The applicant is requesting a diversion rate greater than the statutory limit.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7932-3 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 February 17, 2014.

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

Published once at the total approximate cost of \$26.15.



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

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



January 30, 2014

Press & Dakotan
319 Walnut
Yankton SD 57078

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7932-3 to Appropriate Water. Please publish the notice once on February 5, 2014. 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 and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Munkvold Land & Cattle Co. Inc., 43723 294th St, Menno SD 57045 (Ph # 605-387-5380).

Please send the Water Rights Program an affidavit or the enclosed Proof of Publication form immediately.

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



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 30, 2014

Munkvold Land & Cattle Co Inc
43723 294th St
Menno SD 57045

Dear Sir:

Water Permit Application No. 7932-3 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 Press & Dakotan printed at Yankton SD (Ph # 605-665-7811). 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.

Instruction to Newspaper - Publish the Notice on February 5, 2014. 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. 7932-3 to Appropriate Water

Notice is given that Munkvold Land & Cattle Co. Inc., 43723 294th St, Menno SD 57045 has filed an application for a water permit to appropriate 3.33 cubic feet of water per second from one well to be completed into the Lower James:Missouri Aquifer (254 feet deep) located in the NW 1/4 NE 1/4 Section 22 for irrigation of 155 acres located in the NE 1/4, E 1/2 NW 1/4 Section 22; all in T96N-R56W. The applicant is requesting a diversion rate greater than the statutory limit.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7932-3 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 February 17, 2014.

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 once at the total approximate cost of_____.



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

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PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov



MAR 13 2014

Munkvold Land & Cattle Co Inc
43723 294th St
Menno SD 57045

Dear Sir:

Enclosed is Water Permit No. 7932-3 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,

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

enclosures



7932-3
DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

January 26, 2018

NOTICE

TO: MUNKVOLD LAND & CATTLE COMPANY, ORDELL MUNKVOLD, 43723 294TH STREET, MENNO, SD 57045

FROM: Ron Duvall, Natural Resources Engineer
for Jeanne Goodman, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2017 Irrigation Questionnaire(s)

Our records indicate your 2017 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 7932-3 & 8163-3. The request for the Questionnaire was dated October 20, 2017. The Water Management Board has directed that owners of water permits who have not submitted the 2017 Irrigation Questionnaire(s) be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine what action is to be taken for violation of Water Permit No(s) 7932-3 & 8163-3 qualification:

"This permit is approved subject to the Irrigation Water Use Questionnaire being submitted each year."

The hearing will be held at **Wednesday, March 7, 2018 at 10:00 am (Central Time)** in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre, SD and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to Chapter 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation, or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

1. Suspend or cancel Permit No(s) 7932-3 & 8163-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. Take no action.

The hearing is an adversary proceeding. The permit owner has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

If the questionnaire(s) is (are) received in this office before the **March 7, 2018** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaire(s) for your use. If you have questions or need assistance, please contact Genny McMath at (605) 773-3352 or email at genny.mcmath@state.sd.us. If you prefer, you can complete the questionnaire online at the following link: <http://denr.sd.gov/iq.aspx>

NOTE: Please contact the Water Rights Program, Joe Foss Building, 523 E Capitol, Pierre, SD (605-773-3352) to assure access to the meeting room for the handicapped or to obtain an interpreter for the hearing impaired.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

February 7, 2018

7932-3
8163-3

Ordell Munkvold
Munkvold Land & Cattle Co
43723 294th St
Menno SD 57045

Dear Mr. Munkvold:

I am writing to acknowledge receipt of your 2017 irrigation questionnaires.

You may disregard the January 26, 2018, "Notice" concerning reporting requirements for Water Permit Nos. 7932-3 and 8163-3. The information was received in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

If you have any questions, please contact me.

Sincerely,

A handwritten signature in black ink that reads "Genny McMath". The signature is written in a cursive, flowing style.

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

**Report of Examination of Works and/or Application of Water to Beneficial Use
For Permit No. 7932-3**

I have this day, July 22, 2020, made a thorough examination of the water use system constructed by Munkvold Land & Cattle Co., Inc., 43723 294th St., Menno, SD 57045, holder of Permit No 7932-3, bearing the priority of November 22, 2013, authorizing the diversion of 3.33 cu. ft. per second of the waters of groundwater (Lower James Missouri Aquifer) for the irrigation of 155 acres located in Yankton County.

Inspection contact: Ordell Munkvold

A. Works used to divert the water:

Well Information

- 1) Well Drilling Firm: Thein Well Co., Inc.
- 2) No. of Wells: 1
- 3) Depth(s): 254 feet
- 4) Well log is available: Yes

Casing:

- 1) Diameter: 12 inches
- 2) Length: 214 feet
- 3) Type: Steel

Screen:

- 1) Diameter: 16 inches
- 2) Length: 40 feet
- 3) Type: Stainless Steel
- 4) Static water level: 128 feet

Pump:

- 1) Make: Goulds
- 2) Model: 10LHC
- 3) Capacity: 1,350 GPM

Engine:

- 1) Make: Twin Disc
- 2) Model: SP111HP3

Gear Drive

- 1) Make: Amarillo
- 2) Model: S125A
- 3) Horsepower rating: 125 hp

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

<u>Well to North Pivot</u>	1) Type <u>Galvanized</u>	2) Size <u>10</u> inches	3) Length <u>40</u> feet
<u>Well to South Pivot</u>	1) Type <u>PVC</u>	2) Size <u>10</u> inches	3) Length <u>2,520</u> feet

C. Works used to apply water to beneficial use:

North Center Pivot:

- 1) Make: Zimmatic
- 2) Overall length: 1,726 feet
- 3) Number of towers: 10
- 4) End gun: Yes
- 5) Capacity: 1,350 GPM

South Center Pivot:

- 1) Make: Zimmatic
- 2) Overall length: 1,438 feet
- 3) Number of towers: 9
- 4) End gun: Yes
- 5) Capacity: 1,350 GPM

Chemigation Equipment:

- 1) Does chemigate: No

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
- 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:
The well is 60 feet south and 1,740 feet west of the northeast corner of Section 22-T96N-R56W (Latitude 43.12549, Longitude -97.44558 – NW1/4 of the NE1/4).
2. The works are capable of diverting and conveying to the place of use 3.01 cu. ft. per second of water which is to be used for irrigation purposes. Water has been put to beneficial use to the maximum extent as follows, all in Section 22-T96N-R56W:

<u>NE1/4NW1/4</u>	<u>23 acres</u>
<u>SE1/4NW1/4</u>	<u>20 acres</u>

<u>NW1/4NE1/4</u>	<u>38 acres</u>
<u>NE1/4NE1/4</u>	<u>31 acres</u>
<u>SW1/4NE1/4</u>	<u>36 acres</u>
<u>SE1/4NE1/4</u>	<u>7 acres</u>

comprising a total of 155 acres of land and the license should be issued for 3.01 cfs.

3. All structures, wells and lands on map Yes

F. Comments or other permit(s) associated with the project: None.

Keith DeJong

Keith DeJong
Water Rights Inspector
DENR, Water Rights Program

Date report completed: July 28, 2020

Page 1

7932-3

SD EForm - 1621LD V1

SOUTH DAKOTA WATER WELL COMPLETION REPORT

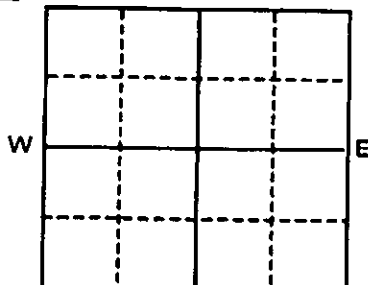
11-02

Location NW ¼ NE ¼ Sec 22 Twp 96N Rg 56W

County Yankton

North

Please mark well location with an "X"



Well Completion Date

09/11/13

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
75.0 ft. from septic (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	12.00 IN	0.0 FT	214.0 FT	18.00 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Neat cement	7 yards	Lb/gal	0.0 Ft	212.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
tremie piped

SCREEN:

☐ Perforated pipe ☒ Manufactured

Diameter 12.00 Inches Length 20' 20' Feet

Material stainless steel

Slot Size .070/.050 Set From 214.0 Feet to 254.0 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? chlorinated

☐ No, Why Not?
Lab to which water
quality sample sent for analysis
owner to obtain

Well Owner: Munkvold Land & Cattle Co., Inc.

Business Name:

Address: 43723 294th St

City, State, Zip: Menno SD 57045

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top soil	0	1
Brown clay	1	6
Yellow clay	6	28
Blue clay	28	52
Sand, medium-coarse	52	58
Blue clay	58	114
Sandy blue clay	114	121
Sand, medium	121	161

continued on next page

STATIC WATER LEVEL 128.0 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

132.7 Ft. After 3.0 Hrs. pumped 550.0 GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate: GPM

REMARKS

GPS: N 43 07.528

W 097 26.737

Site: 4350 292nd St, Menno, SD

RECEIVED

SEP 29 2014

WATER RIGHTS
PROGRAM

This well was drilled under license # 475 and this report is true and accurate.

Drilling firm: Thein Well Co., Inc.

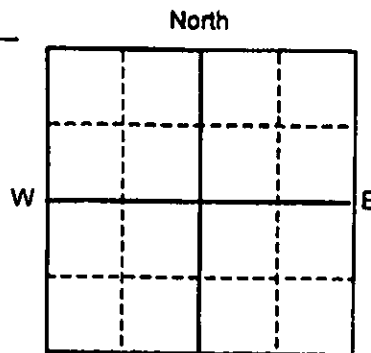
Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location $\frac{1}{4}$ $\frac{1}{4}$ Sec Twp Rg County Please mark well
location with an "X"Well Completion Date Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
ft. from (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

CASING DATA:

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
		Lb/gal	Fi	Fi
		Lb/gal	Fi	Fi

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 ☐ NoIf so, what material? Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☐ Yes, How? ☐ No, Why Not? Lab to which water
quality sample sent for analysis Well Owner: Munkvold Land & Cattle Co., Inc.Business Name: Address: 43723 24th StCity, State, Zip: Menno SD 57045

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Sand, fine	161	221
Sand, medium-fine	221	230
Sand, fine	230	236
Sand, medium	236	241
Sand, medium-coarse	241	255
Blue shale, hard	255	260

STATIC WATER LEVEL FEETIf flowing: closed in pressure PSIGPM flow through Inch pipeControlled by ☐ Valve ☐ Reducers ☐ Other Reduced flow rate GPMCan 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 GPMIf pump installed, pump rate: GPM

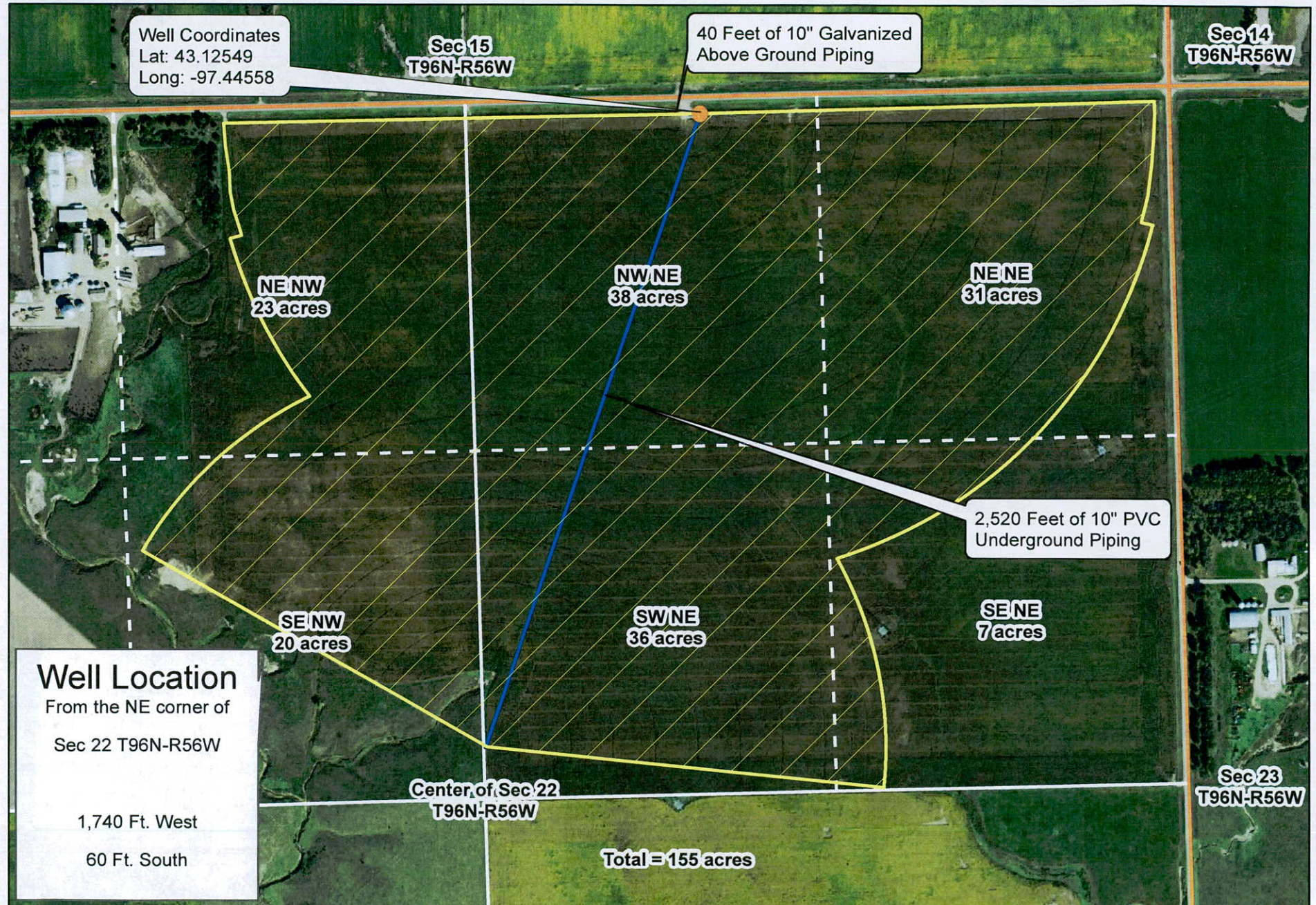
REMARKS

RECEIVED

SEP 29 2014

WATER RIGHTS
PROGRAMThis well was drilled under license # and this
report is true and accurate.Drilling firm: Signature of License Representative: Signature of Well Owner or Equitable Property Holder: Date:

Water Right No. 7932-3



Keith DeJong
Keith DeJong, PE
Staff Engineer
July 28, 2020

7932-3



DENR
SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

AUG 04 2020

7932-3
8163-3

Ordell Munkvold
Munkvold Land & Cattle Co Inc
43723 294th St
Menno SD 57045

Dear Mr. Munkvold:

Enclosed are Water License Nos. 7932-3 and 8163-3. These are the final water right document 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 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.

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,

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

enclosures

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 7932-3**

(1) Munkvold Land & Cattle Company Inc. 43723 294th St. Menno SD 57045 made Application No. 7932-3, November 22, 2013 for a water permit to divert 3.33 cubic feet of water per second from ground water, one well (Lower James Missouri Aquifer), Yankton County, South Dakota for irrigation purposes. Permit No. 7932-3, with a priority date of November 22, 2013 was approved February 17, 2014 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before February 17, 2019 and for the application to beneficial use of water on or before February 17, 2023.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the water supply system and is entitled to divert 3.01 cubic feet of water per second for beneficial use. The diversion point is located:

- 60'S and 1,740'W of the northeast corner of Section 22, T96N, R56W (NW ¼ NE ¼)
Latitude 43.12549, Longitude -97.44558

(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:

Section 22, T96N, R56W

NW ¼ NE ¼	38 acres	NE ¼ NW ¼	23 acres
NE ¼ NE ¼	31 acres	SE ¼ NW ¼	20 acres
SW ¼ NE ¼	36 acres		
SE ¼ NE ¼	7 acres	Total – 155 acres	

(4) Pursuant to South Dakota Water Law 46-5-30.1 Munkvold Land & Cattle Company Inc. 43723 294th St. Menno SD 57045 the holder and/or owner of Water Right No. 7932-3 is issued a license to appropriate water, the right to use 3.01 cubic feet of water per second from ground water, one well (Lower James Missouri Aquifer) with a priority date of November 22, 2013 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. 7932-3 and subject to the following qualifications:

- The well authorized 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 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. 7932-3 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 drilled in September, 2013 by Thien Well Company. A copy of the well completion report is on file with the Water Rights Program.*

continued

- Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, No. 7932-3 authorizes a maximum diversion rate of **3.01 cfs** for the irrigation of 155 acres with an annual volume not to exceed 2 acre feet of water per acre per year. *The diversion rate specified above is the capacity of the system as developed.*
- 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 Environment and Natural Resources

AUG 04 2020
date

