

WATER PERMIT NO. 8205-3

Name of Applicant: **Sam Oltmanns**

Address: **PO Box 462, Lennox SD 57039** Phone: **605 310-9710**

Amount of Water Claimed: **1.78 cfs** Total Acres: **120 acres**

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation County: Turner

Type of Waste Disposal System:

Location: **4 miles southeast of Parker**

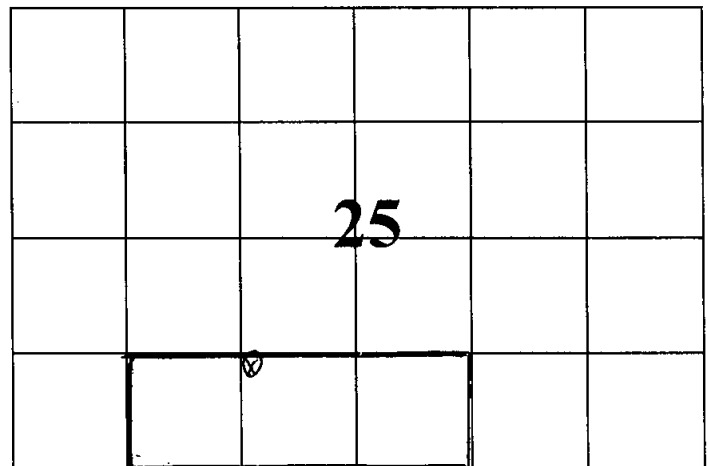
PRIORITY Date Received: **3-4-16** Application/License Fee: **\$ 950**

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

Remarks: Water Permit No. 8074-3 authorizes irrigation of same acreage from a different water source (well didn't produce as anticipated).

Diversion Point: **SE 1/4 SW 1/4 Sec 25-T99N-**
R53W

Land to be Irrigated: S 1/2 SW 1/4, SW 1/4 SE 1/4
Sec 25; T99N-R53W



Depth of Well: 160 feet deep

Well Driller:

Remarks:

Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: **3-4-16**

By: **Karen Schlaak**

Notice of Hearing - date to intervene:

FORM 2: Application for irrigation in South Dakota

(type or print)

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8205-3</u> (office use only)	Hydrologic Unit <u>101 70102</u>
	Basin <u>Vermillion River</u>	
	Newspaper <u>New Era - Parker</u> <u>605-297-4419</u>	
	<u>Argus Leader, S Falls</u> <u>605-331-2200</u>	

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MAR 04 2016

WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water For Irrigation

Type of Application: ☒ New ☐ Vested Right ☐ Amendment/Correction to Permit No. _____

(Use predates Mar 2, 1955)

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

1. Name to Appear on Irrigation Permit Sam Oltmanns

Note: The "Name to Appear on Irrigation Permit" must be the name in which the property to be irrigated is held in.

Mailing Address P.O. Box 462 Lennox SD 57039
(Address) (City) (State) (Zip Code)

Phone _____ Mobile _____ Email _____

2. Amount of water claimed 1.78 *CFS or 800 **GPM _____ ***AF Total Acreage 120
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)3. Source of water supply Irrigation Well4. Location of point of diversion SE 1/4 SW 1/4 Section 25 T99N R53W
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)
County Turner5. County or counties where water will be used Turner6. Annual period during which water is to be used April 1 to October 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
SE 1/4 SW 1/4 Section 25 T99N R53W	40	SW 1/4 SE 1/4 Section 25 T99N R53W	40
SW 1/4 SW 1/4 Section 25 T99N R53W	40		

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

Drilling irrigation well to supply Pivot system, Permitted to the Parker-Centerville Aquifer, ~~well~~ well doesn't produce what was initially anticipated. Asking to drill to upper Vermillion aquifer. Well in Parker centerville will be abandoned after new well is completed. Permit # 8074-3 - Requesting diversion rate greater than statutory limit.

I, Sam Oltmanns owner, the applicant, certify under
Name of Person Title (if applicable)

penalty of perjury that I have read this application, examined the attached map, and that the matters stated are true. I further certify, if acting on behalf of an entity or individual other than myself, that I am authorized to submit this application.

SOUTH DAKOTA
WATER PERMIT NO. 8205-3

Date of first receipt of application March 4, 2016.

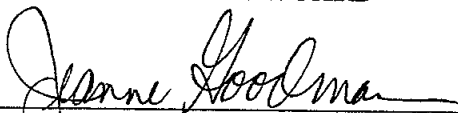
The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8205-3 to Sam Oltmanns, PO Box 462, Lennox SD 57039 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 8205-3 appropriates 1.78 cubic feet of water per second (cfs) from one well to be completed into the Upper Vermillion Missouri:North Aquifer (160 feet deep) located near the center of the SW 1/4 Section 25 for irrigation of 120 acres located in the S 1/2 SW 1/4, SW 1/4 SE 1/4 Section 25; all in T99N-R53W.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: April 1 – October 31.
3. The date from which applicant may claim right is March 4, 2016.
4. The date of approval of Permit No. 8205-3 is May 23, 2016.
5. One-fifth of the construction is to be completed on or before November 23, 2018.
6. All construction is to be completed on or before May 23, 2021.
7. Water is to be put to beneficial use on or before May 23, 2025.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

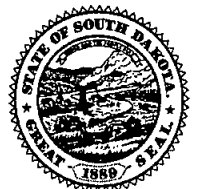
1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 8205-3 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. 8205-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 120 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

JUN 02 2016

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 ____ Have test holes been drilled ☐ Yes ☒ No Drilled by ____
(if yes, please provide copies of logs)b) If existing wells, how many 2 Provide copy of log(s), if available. Drilled by Geo - Energy Drilling & South Dakota DENR
For either Existing or Proposed Wells:c) Well Depth (required) 160 Depth to Top of Water Bearing Material 90 Depth to Water from Surface 35d) Distance to nearest domestic well on applicant's property _____ Property owned by others 1200**2. Wastewater Disposal System Information**

a) Type of System (i.e. septic tank, drain field) _____

b) System Capacity (gallons) _____ Year Constructed _____

c) Connected to the City of _____ Sanitary System

3. Dugout Information

a) Surface Dimensions _____ Depth _____

b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

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

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

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____

If pipe, diameter _____

f) Secondary Spillway Capacity _____

Spillway Width _____

g) X & Y Slope (e.g. 3 to 1 is a typical slope)

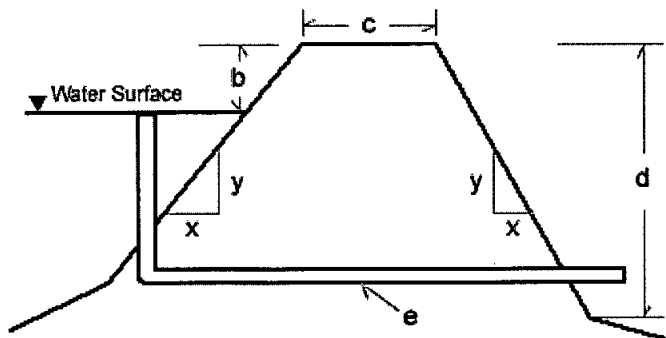
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



Automatic Irrigation Inc.



1111 Railway Street
Centerville, SD 57014
605 - 563 - 2649 office

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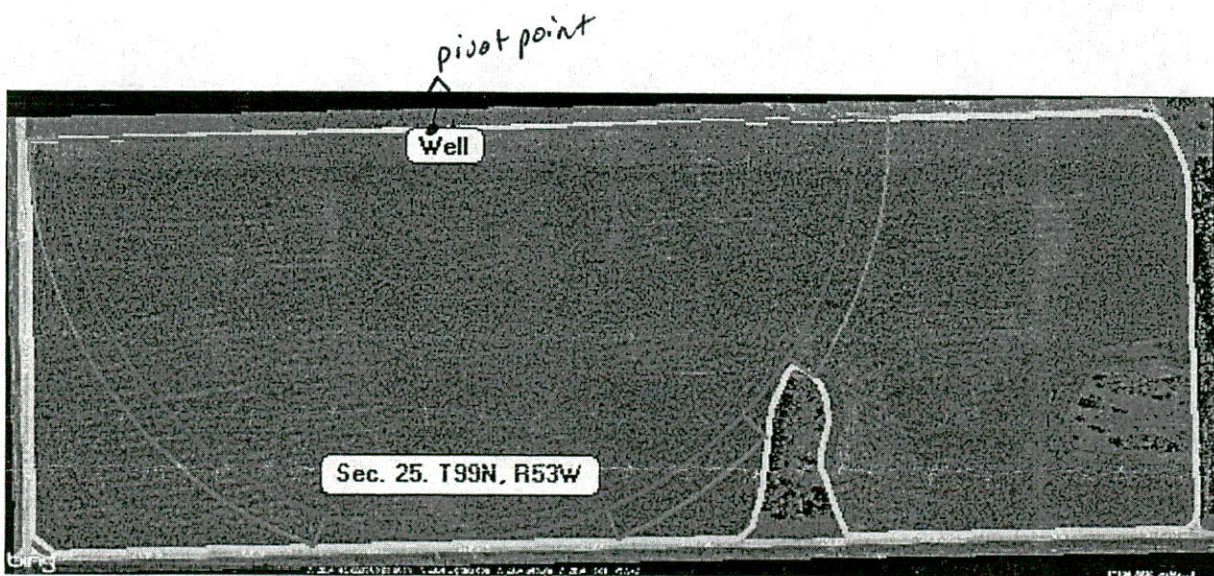
WATER RIGHTS
PROGRAM

Farm: Sec. 25, T99N, R53W

Grower: Sam Oltmanns

1/5/2015

Systems:	Length	Spans	Total area including endgun
● Pivot 1	1292.58 ft	7 spans + 44 ft o.h.	67.65 acres



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Sec 14
T099N
R53W

Sec 13
T099N
R53W

Sec 18
T099N
R52W

Sec 23
T099N
R53W

Sec 24
T099N
R53W

Sec 19
T099N
R52W

Sec 26
T099N
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Sec 25
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Sec 30
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Sec 35
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R53W

Sec 36
T099N
R53W

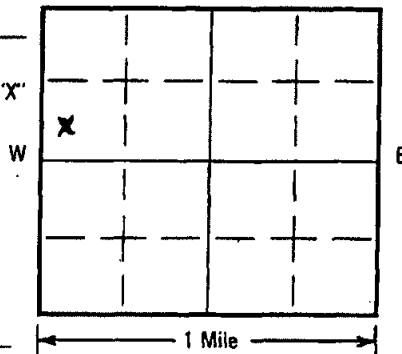
Sec 31
T099N
R52W

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location SW 1/4 NW 1/4 Sec 25 Twp 99N Rg 53W
County Turner

Please mark well location with an "X"



Well Completion Date

Sept 29, 1998

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 80 ft. from Septic Tank (identify source).PROPOSED USE: Closed Loop Heat Pump
☒ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

RotaryCASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
____ LB/FT	<u>3/4</u> IN	<u>170</u> FT	<u>6</u> FT	<u>4.5</u> IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>1. Solid Portland Cement</u>	<u>7</u>	<u>9.4</u> lb./gal	<u>170</u> ft	<u>0</u> ft
____	____	____ lb./gal	____ ft	____ ft

Describe grouting procedure Tremie from TD to 0'SCREEN: ☐ Perforated pipe ☐ ManufacturedDiameter _____ IN Length NA FEET

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other information _____

WAS A PACKER OR SEAL USED? ☐ YES ☐ NOIf so, what material? NA

Describe packer(s) and location? _____

DISINFECTION: Was well disinfected upon completion?

____ YES, How: NA

____ NO, Why Not? _____

Laboratory sent to for water quality analysis _____

Well Owner: Howard Serman

Business Name: _____

Address: 6211 W. Fordale
SIOUX FALLS, SD

WELL LOG:

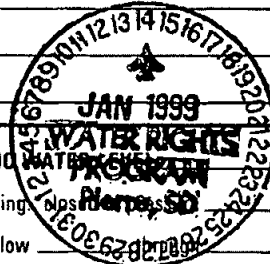
DEPTH

FORMATION

FROM

TO

<u>Gravel, Coarse, Boulders</u>	<u>0</u>	<u>35</u>
<u>Clay, Gray, Pebbly</u>	<u>35</u>	<u>60</u>
<u>Gravel, Coarse</u>	<u>60</u>	<u>70</u>
<u>Clay, Gray, Pebbly (fill)</u>	<u>70</u>	<u>94</u>
<u>Gravel, Coarse to medium</u>	<u>94</u>	<u>134</u>
<u>Clay, Dk Gray</u>	<u>134</u>	<u>170</u>



STATIC WATER LEVEL _____ Feet

If flowing, closed loop _____ PSI

GPM flow _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ PumpedDescribe: pressure tested loops☐ Bailedto 60 ps2; OK☐ Other _____

Pumping Level Below Land Surface

____ ft. After _____ Hrs. pumped _____ GPM

____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS 3100ps drilled, N.W. Corner
of House

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This well was drilled under license # 6666 WATER RIGHTS PROGRAM

And this report is true and accurate.

Drilling firm GEO-ENERGY DrillingSignature of License Representative: R. H. H. H.Signature of Well Owner or Equitable Property Holder: Paul H. H. H.Date: Sept 29, 1998



Lithologic Logs Search for: lithhead.location like 099N53W36AAAA

Page 1 of 1

New Search

Printer Friendly

Download Options

Page: Prev 1

Next

Record 1 of 1

Location Information

Legal Location: NE NE NE NE SEC. 36, T. 099 N., R. 53 W.
County: TURNER Location: 099N53W36AAAA
Latitude: 43.358599
Hydrologic Unit Code: 10170102 Longitude: - 97.042904
Land Owner: Ground Surface Elev. (ft.): 1287.91 I

Test Hole Information

Project: WATER RIGHTS
Drill Date: 04/18/1977 Geologist: J. GOODMAN
Company: SDGS Geologist's Log: X
Drilling Method: ROTARY Driller: L. HELSETH
Test Hole Number: TU-77-12 Driller's Log:
Geophysical Log: NO Total Drill Hole Depth (ft.): 160.0

Well Information

SDGS Well Name: Aquifer: UPPER-VERMILLION-MISSOURI
Water Rights Well: TU-77B Water Level Data Management Unit:
Other Well Name: Casing Top Elev. (ft.): 1290.11 I
Casing Type: PVC Casing Diameter (in.): 2.0
Screen Type: PVC, MFG. Screen Length (ft.): 5.0
Total Casing and Screen (ft.): 145.5 Casing Stick-up (ft.): 2.20

Notes

HURLEY QUADRANGLE.

Lithologic Information

Elevation (ft.)	Depth (ft.)	Description
1287.9 - 1285.9	0.0 - 2.0	TOPSOIL, BLACK
1285.9 - 1282.9	2.0 - 5.0	CLAY, YELLOW, SILTY, SANDY
1282.9 - 1279.9	5.0 - 8.0	CLAY, YELLOW-BROWN, SILTY, PEBBLY (TILL)
1279.9 - 1266.9	8.0 - 21.0	SAND; WITH MEDIUM TO COARSE GRAVEL
1266.9 - 1205.9	21.0 - 82.0	CLAY, GRAY, SILTY, PEBBLY (TILL)
1205.9 - 1169.9	82.0 - 118.0	CLAY, GRAY, SANDY (TILL)
1169.9 - 1129.9	118.0 - 158.0	SAND; WITH GRAVEL
1129.9 - 1127.9	158.0 - 160.0	QUARTZITE, RED

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 3/4, 20 16

RECEIVED OF Sam Heine Well 3111 Shipton's Rd Yankton SD 57078 (Oltmanns)

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

Fee for Application for Permit No. <u>8074-3</u> to Appropriate Water, to construct and to put water to beneficial use	750	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>8074-3</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	950 00

No. **07774**

By Jean Goodman
Chief Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8205-3, Sam Oltmanns**

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. 8205-3, Sam Oltmanns, PO Box 462, Lennox SD 57039.

The Chief Engineer is recommending APPROVAL of Application No. 8205-3 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. 8205-3 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. 8205-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 120 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
May 2, 2016

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 8205-3
SAM OLTMANNS
MAY 2, 2016

Water Permit Application No. 8205-3 proposes to appropriate water from the Upper Vermillion Missouri: North aquifer at a maximum diversion rate of 1.78 cubic feet of water per second (cfs) from one well for the irrigation of up to 120 acres located in the S $\frac{1}{2}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 25-T99N-R53W in Turner County. The well is expected to be approximately 160 feet deep and located near the center of the SW $\frac{1}{4}$ Section 25-T99N-R53W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres. This application seeks approval to irrigate the same land as Water Permit No. 8074-3 using water from the Parker-Centerville aquifer. Approval of this application will cancel Water Permit No. 8074-3.

AQUIFER: Upper Vermillion Missouri: North (UVM: N)

Aquifer Characteristics:

The Upper Vermillion Missouri aquifer is glacial outwash (sand and gravel) deposit. It generally lays in a bedrock valley that trends north to south and underlies portions of Clay, Lincoln, and Turner Counties. The SD DENR-Geological Survey conducted a study of the aquifer in 2013-2014 that defined the Upper Vermillion Missouri aquifer (Holmes and Filipovic, 2015). Geologic and hydrologic conditions allow for the aquifer to be considered as three management units (i.e. North, South, West) (Buhler, 2014).

The well location proposed by this application is in the North management unit of the Upper Vermillion Missouri (UVM: N) aquifer. The areal extent of the UVM: N is approximately 38,110 acres (see Figure 1) (Buhler, 2014). The Upper Vermillion Missouri: North is typically buried and confined but can be found under unconfined conditions in places where the Parker-Centerville aquifer overlies it and is in hydraulic connection with it (Buhler, 2015; Holmes and Filipovic, 2015). These hydraulically connected areas are shown in Figure 1.

Most of the aquifer is overlain by till that can be as much as 160 feet thick (Holmes and Filipovic, 2015). The saturated thickness of the aquifer materials in this area is up to 146 feet (Holmes and Filipovic, 2016). At the proposed well site the depth to the top of the aquifer material likely ranges from 90 to 120 feet with a static water level 40 to 60 feet below ground surface (SDGS, 2016; Water Rights, 2016c).

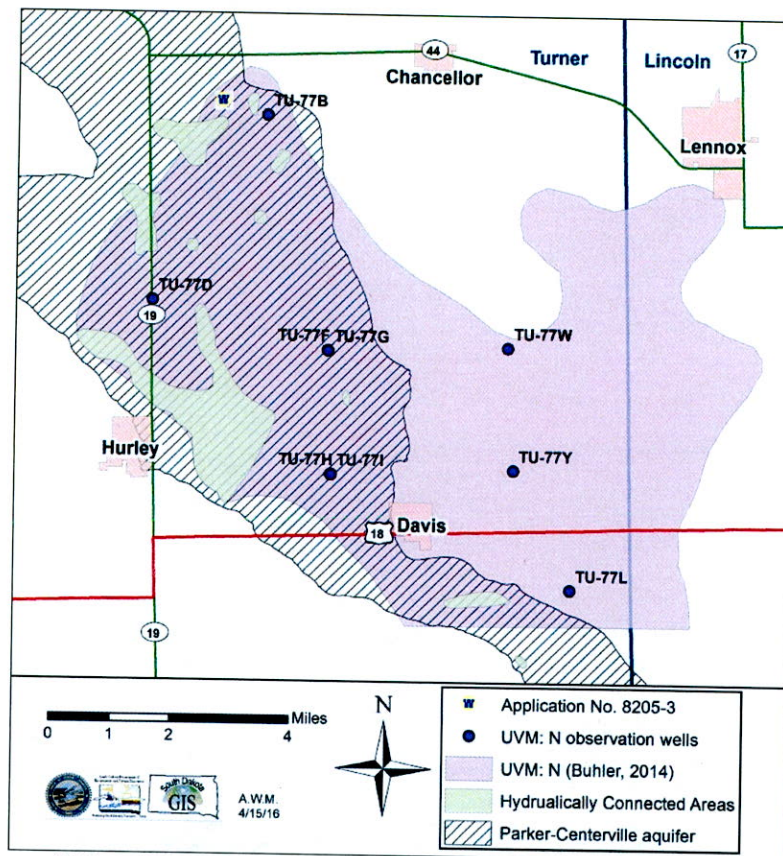


Figure 1- Area map of Upper Vermillion Missouri: North aquifer with observation wells, Parker-Centerville aquifer, and the hydraulically connected areas (modified from: Buhler, 2015; Holmes and Filipovic, 2015)

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

Buhler (2014) indicated that a reliable average annual recharge estimate is not available for the Upper Vermillion Missouri: North aquifer. Therefore, comparison of average annual recharge to average annual withdrawal through a hydrologic budget is not feasible. Currently, there are 51 water rights/permits authorized to withdraw water from the Upper Vermillion Missouri: North aquifer. Figure 2 shows the historic irrigation well withdrawals. Non-irrigation permits and the estimated annual pumpage by Water Right Nos. 525-3 and 5833-3 are shown in Table 1. Table 2 shows the reported annual pumpage from the Upper Vermillion Missouri: North aquifer by South Lincoln Rural Water System as reported to the DENR-Water Rights Program.

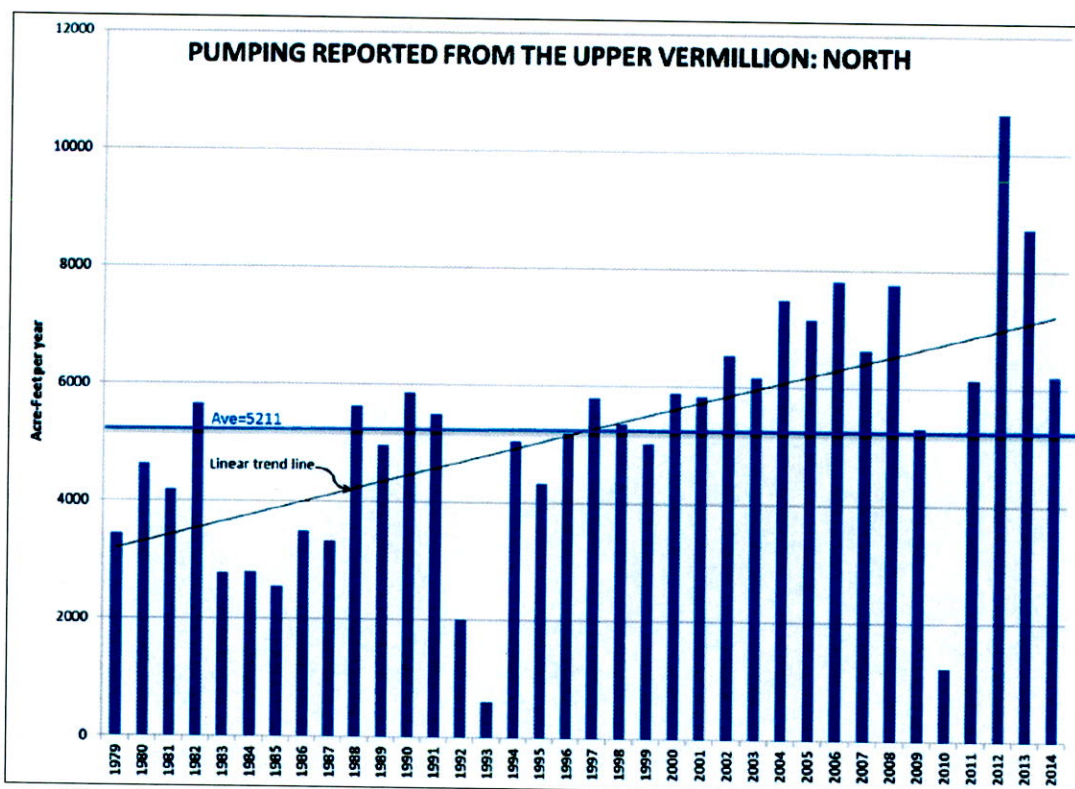


Figure 2- Historic well withdrawals reported by appropriate right holders from the Upper Vermillion Missouri: North aquifer (Buhler 2015)

PERMIT NO.	NAME	COUNTY	STATUS	USE	CFS	PERMITTED VOLUME (AC-FT)	ESTIMATED PUMPAGE (AC-FT)
525-3	TOWN OF DAVIS	TU	LC	MUN	0.45		195.5
5833-3	ADVANCED PRESCRIPTION	TU	LC	COM	0.11		47.8
6435-3	SOUTH LINCOLN RWS	TU	LC	RWS	2.45	900	
6727-3	SOUTH LINCOLN RWS	LN	LC	RWS	1.95	900	

Table 1- Non-irrigation permits in the Upper Vermillion Missouri: North aquifer with estimated annual pumping (Water Rights, 2016b)

WATER RIGHT NOS. 6435-3 AND 6727-3	
YEAR	REPORTED PUMPAGE (AC-FT)
2003	354
2004	583
2005	611
2006	599
2007	607
2008	779
2009	987
2010	1095
2011	1108
2012	673
2013	702
2014	763
AVG.	738.4

Table 2- Annual pumpage from the Upper Vermillion Missouri: North aquifer by South Lincoln Rural Water System as reported to the DENR-Water Rights Program (Water Rights, 2004-2015)

Observation Well Data:

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

The DENR-Water Rights Program monitors nine observation wells completed into the Upper Vermillion Missouri: North aquifer (Water Rights, 2016a). The hydrographs for these observation wells are shown in Figures 3 - 11. The observation well data shows the potentiometric surface of the aquifer can vary significantly on a seasonal basis, yet it readily recovers. All of the hydrographs, with the exception of TU-77L, document a downward trending water level over the period of record.

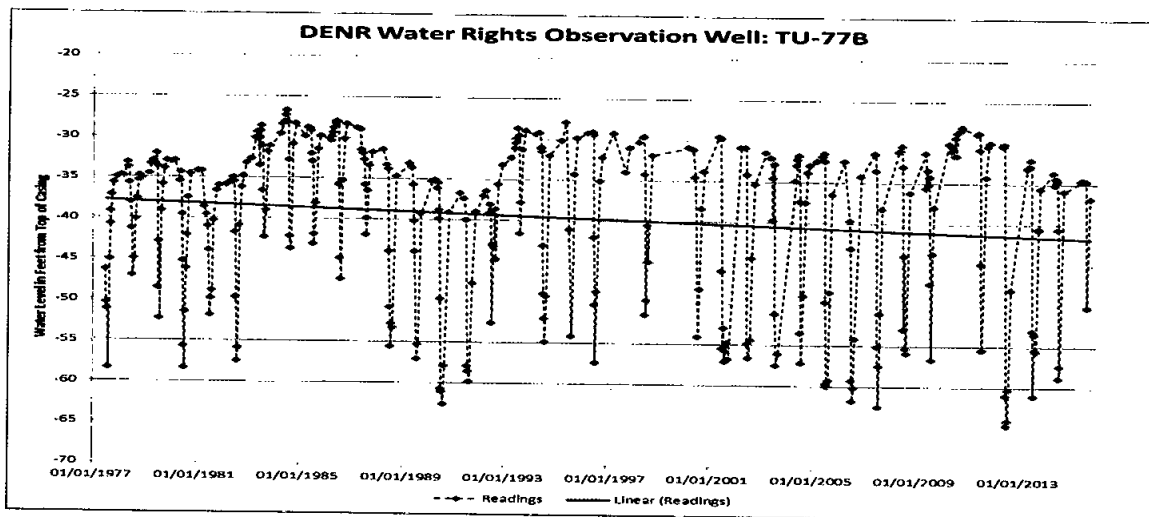


Figure 3- Hydrograph for observation well TU-77B (Water Rights, 2016a)

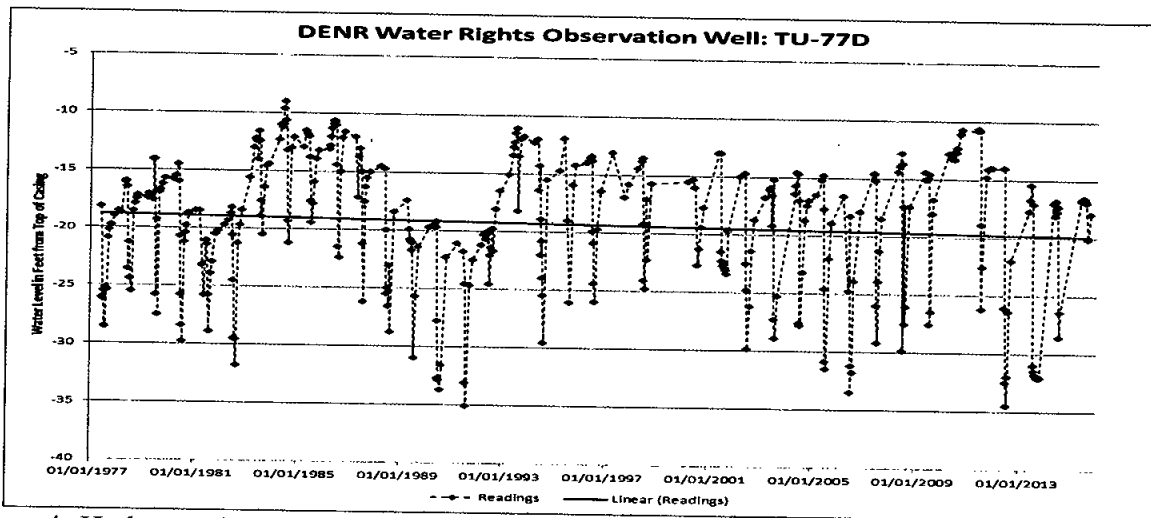


Figure 4- Hydrograph for observation well TU-77D (Water Rights, 2016a)

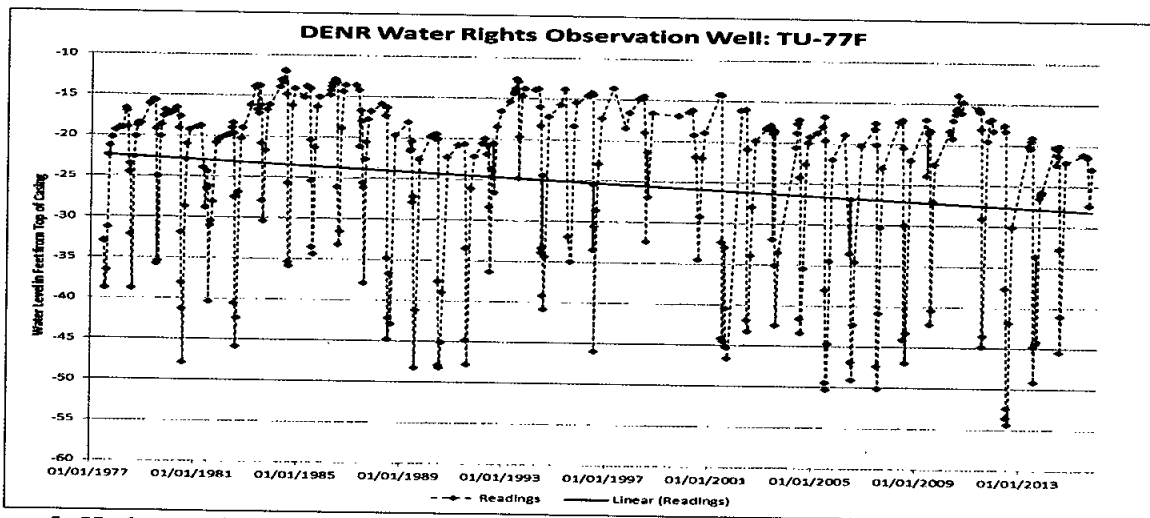


Figure 5- Hydrograph for observation well TU-77F (Water Rights, 2016a)

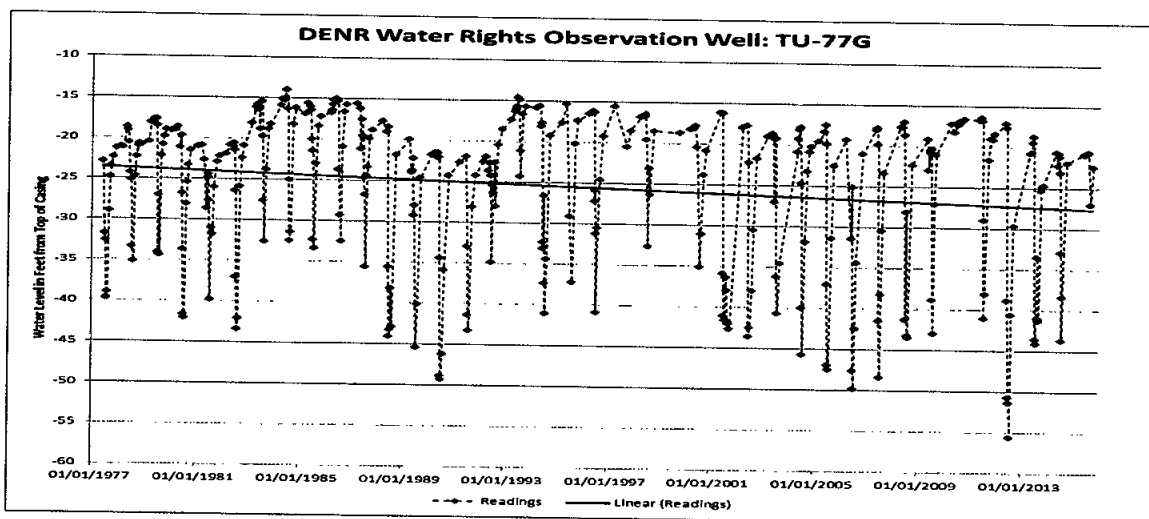


Figure 6- Hydrograph for observation well TU-77G (Water Rights, 2016a)

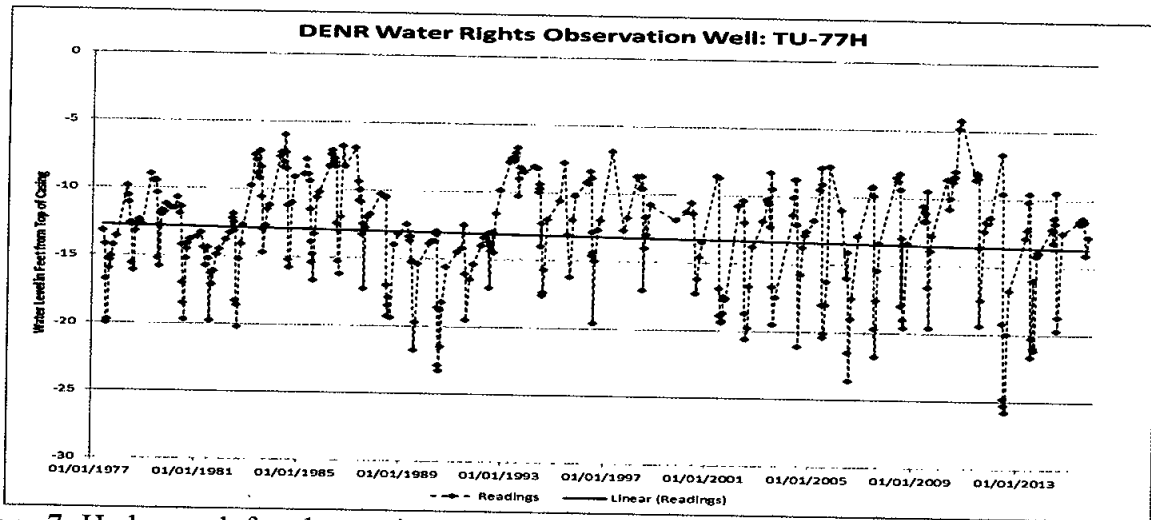


Figure 7- Hydrograph for observation well TU-77H (Water Rights, 2016a)

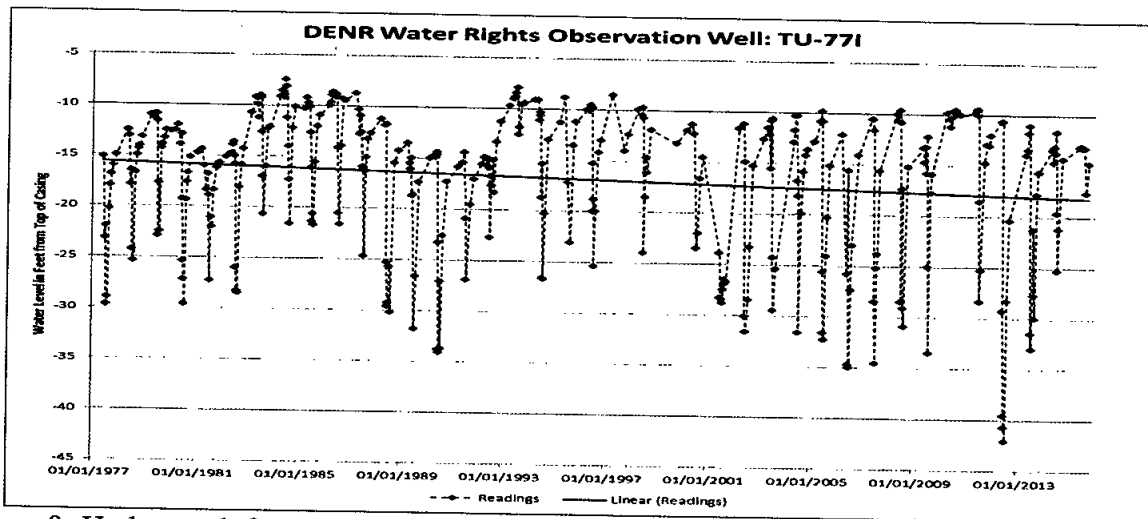


Figure 8- Hydrograph for observation well TU-77I (Water Rights, 2016a)

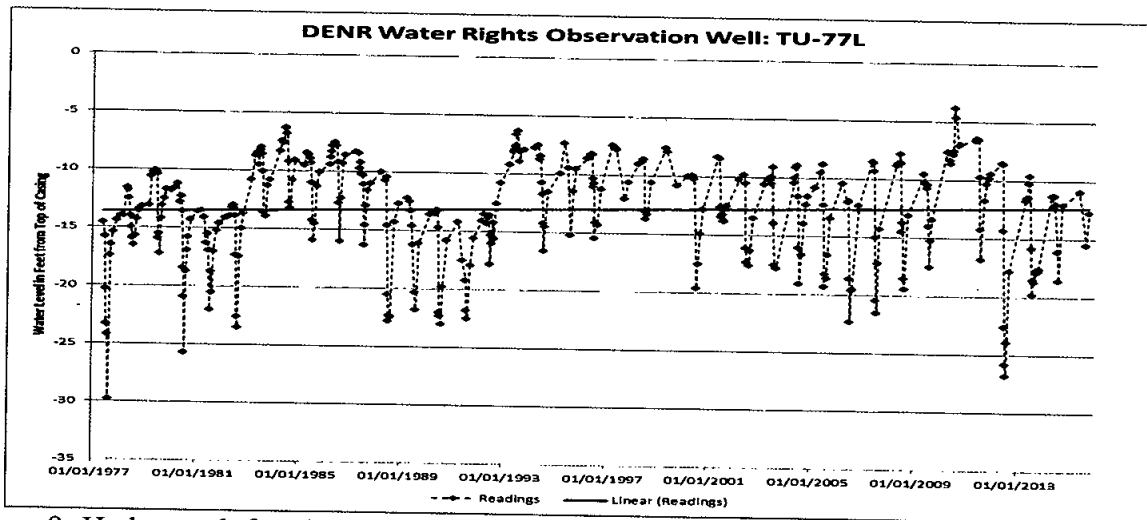


Figure 9- Hydrograph for observation well TU-77L (Water Rights, 2016a)

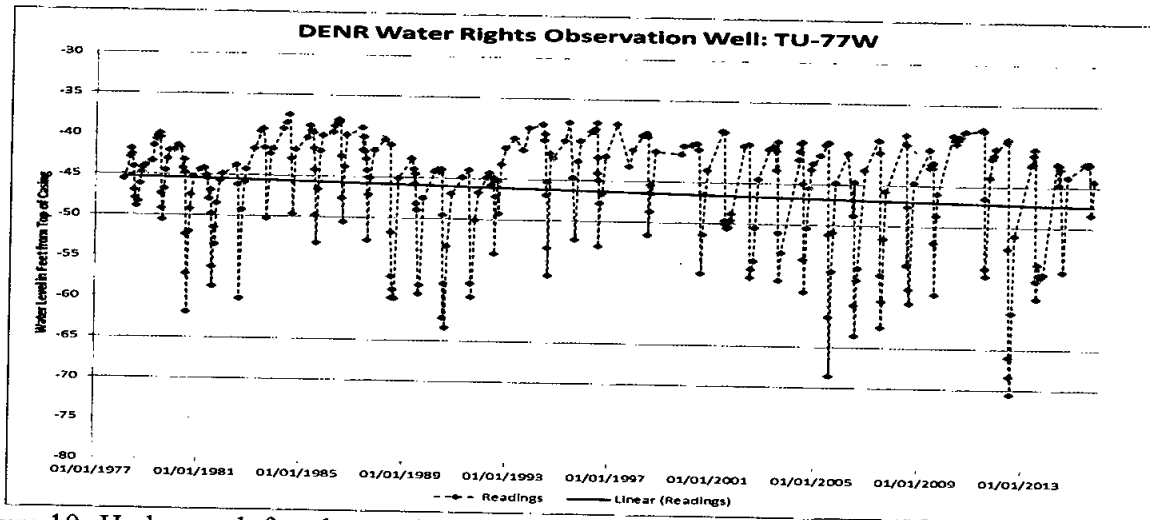


Figure 10- Hydrograph for observation well TU-77W (Water Rights, 2016a)

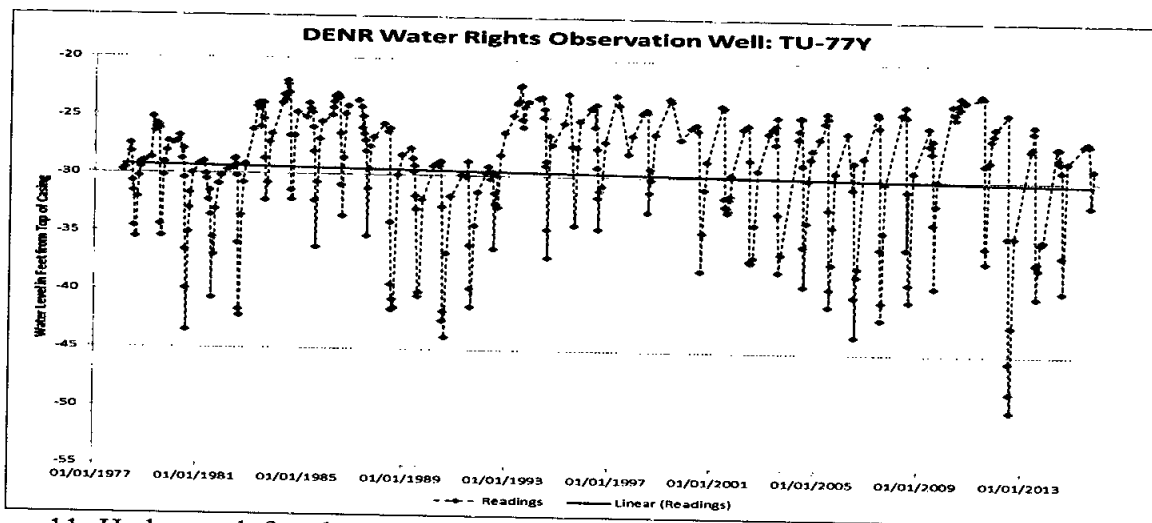


Figure 11- Hydrograph for observation well TU-77Y (Water Rights, 2016a)

Buhler (2015) explained how pumping lowered the artesian head in the observation wells during the irrigation season, especially in areas where there were many high capacity wells near observation wells. Buhler (2015) also explained that most of the observation well readings are taken during the same time irrigation pumping is happening. This leads to the linear trendline on the water level data being biased downward by the lowering of the artesian head pressure later in the irrigation season. However, after irrigation pumping ends for the year, the water level recovers. This means the linear trendline is not fully representative of the “static” conditions of the aquifer but is instead showing the seasonal effects of pumping. This is especially important to note in an extensively developed, confined aquifer like the Upper Vermillion Missouri: North.

Buhler (2015) created hydrographs using the earliest reading taken in May of each year to account for any bias in the hydrograph trendlines being introduced by the preponderance of readings taken when water levels were at the lowest during the irrigation season. Buhler (2015) further postulated since there is generally no irrigation pumpage from November through April, and there is limited recharge to the aquifer during that same time early May readings would be

considered representative of nearly static conditions for the aquifer. Figures 12- 20 show the readings that are most representative of static conditions in the aquifer along with a linear trendline of the data. The earliest May reading was used when possible. If no May reading was available for that year, the reading taken closest to May 1st was used as long as it was within 45 days.

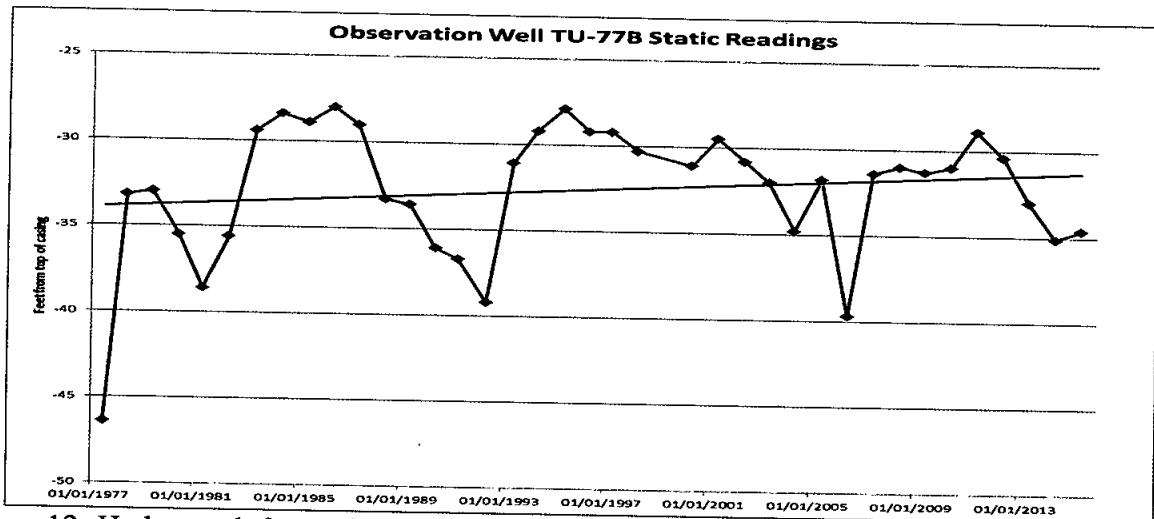


Figure 12- Hydrograph for static water level in observation well TU-77B (Water Rights, 2016a)

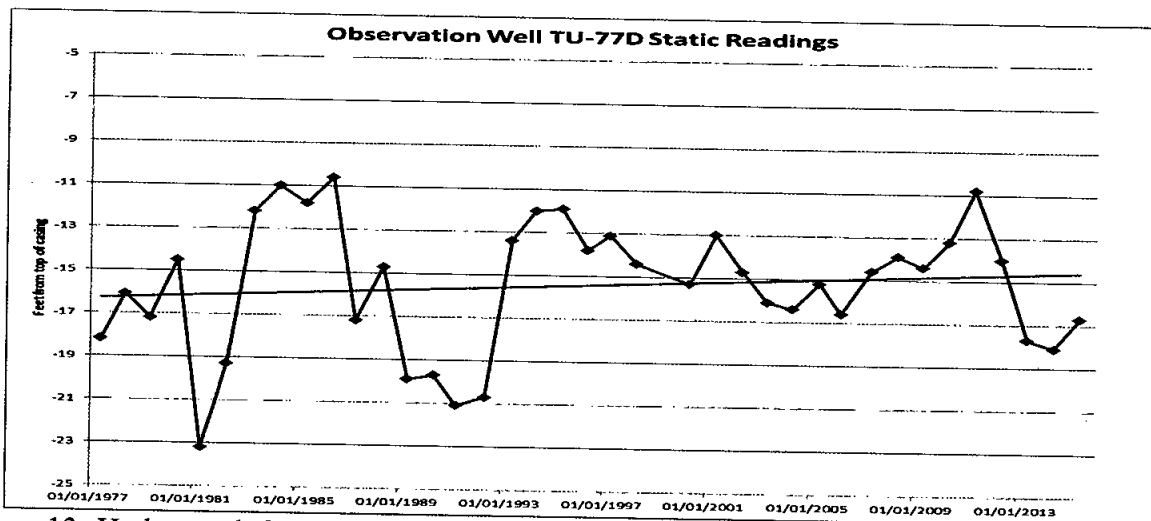


Figure 13- Hydrograph for static water level in observation well TU-77D (Water Rights, 2016a)

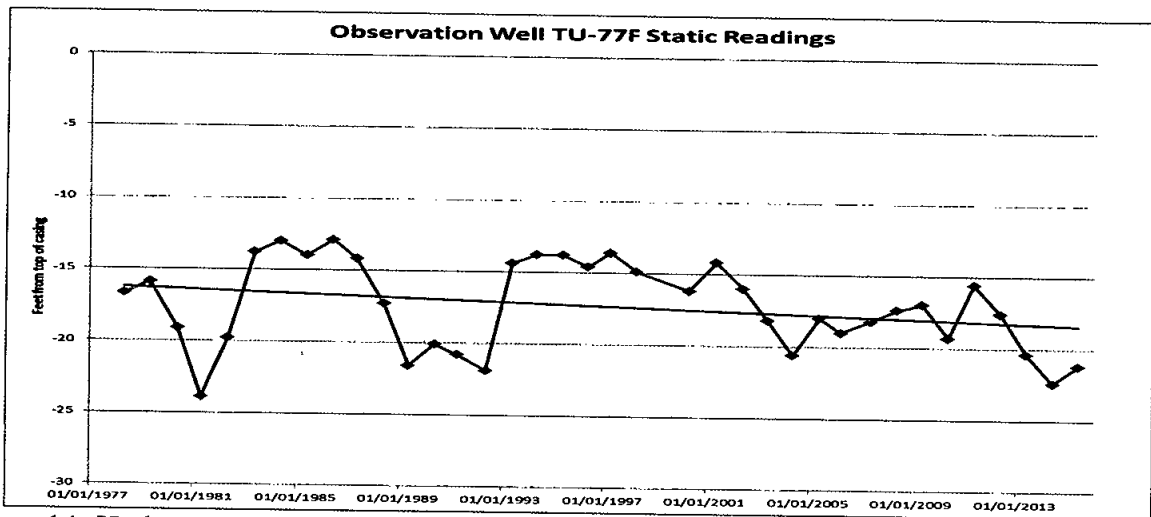


Figure 14- Hydrograph for static water level in observation well TU-77F (Water Rights, 2016a)

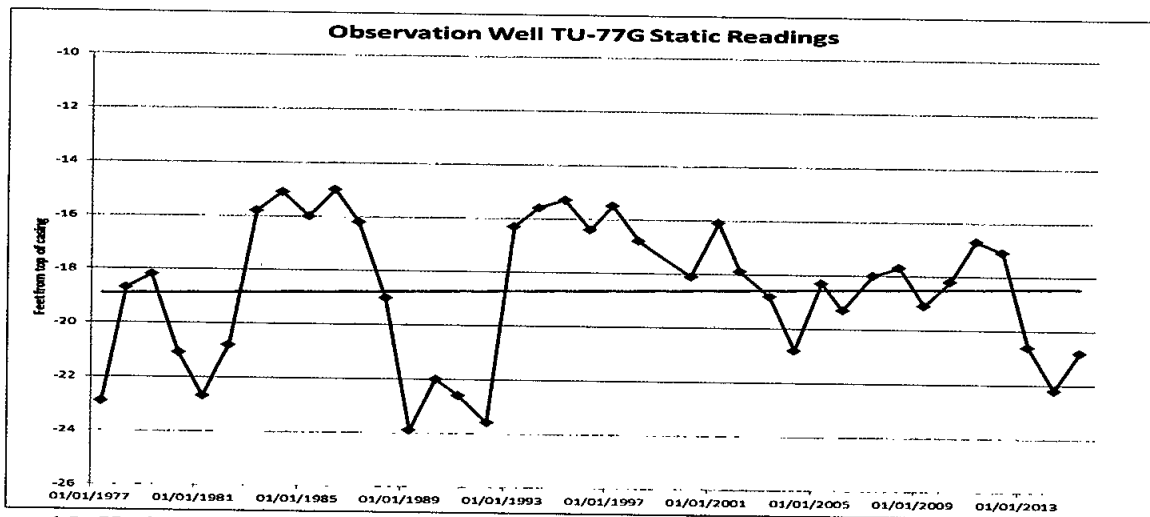


Figure 15- Hydrograph for static water level in observation well TU-77G (Water Rights, 2016a)

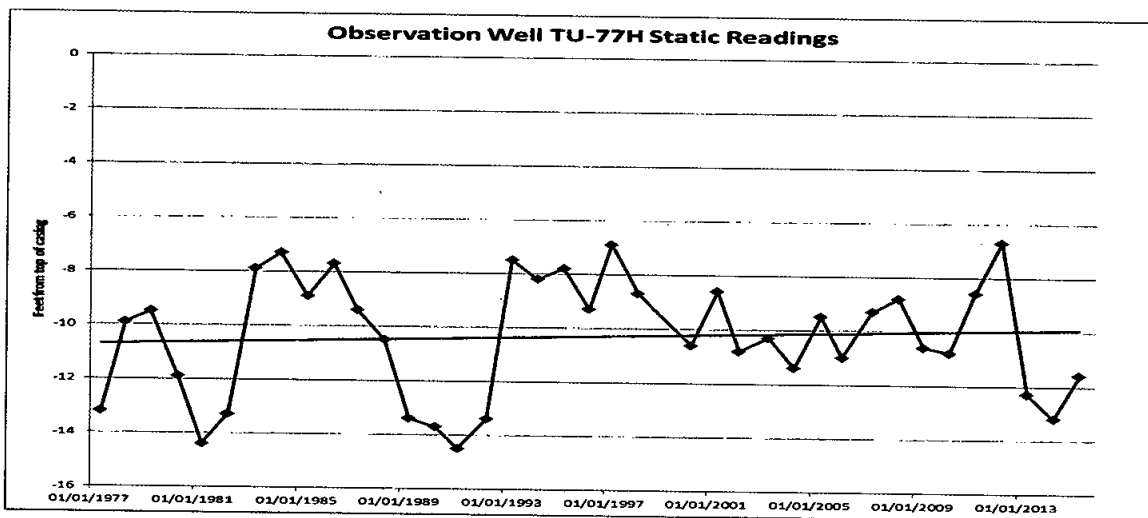


Figure 16- Hydrograph for static water level in observation well TU-77H (Water Rights, 2016a)

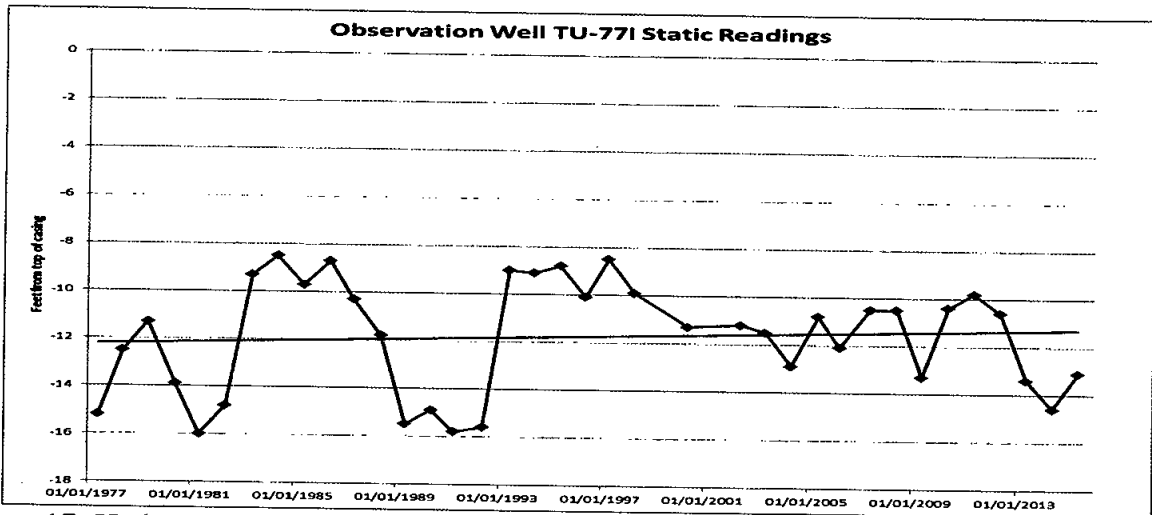


Figure 17- Hydrograph for static water level in observation well TU-77I (Water Rights, 2016a)

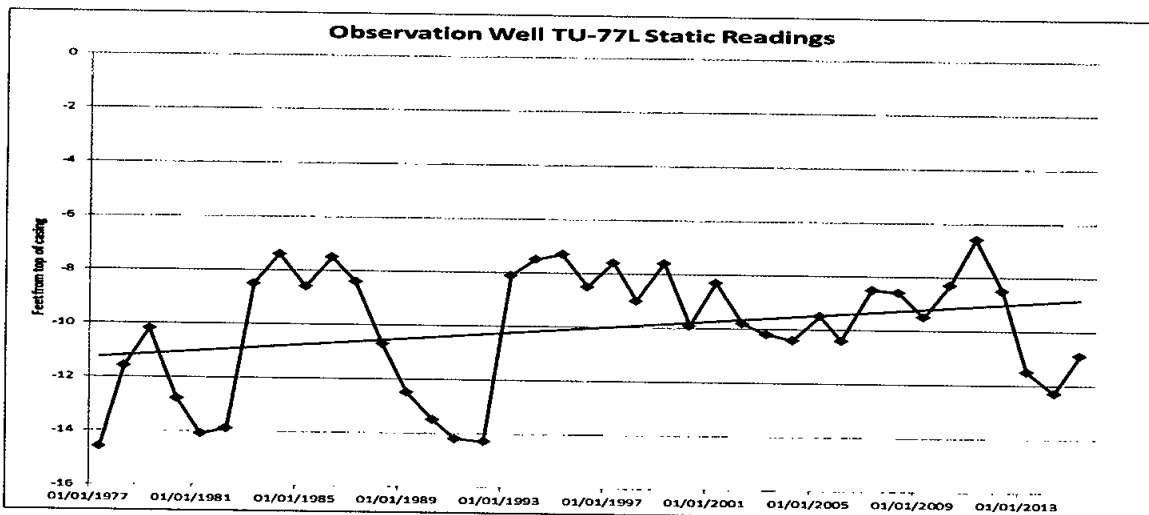


Figure 18- Hydrograph for static water level in observation well TU-77L (Water Rights, 2016a)

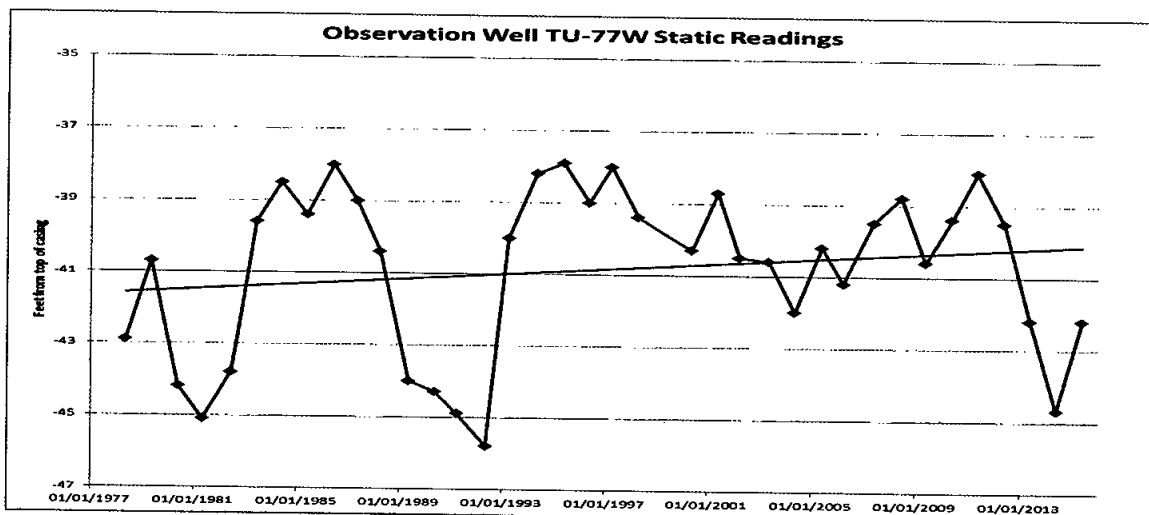


Figure 19- Hydrograph for static water level in observation well TU-77W (Water Rights, 2016a)

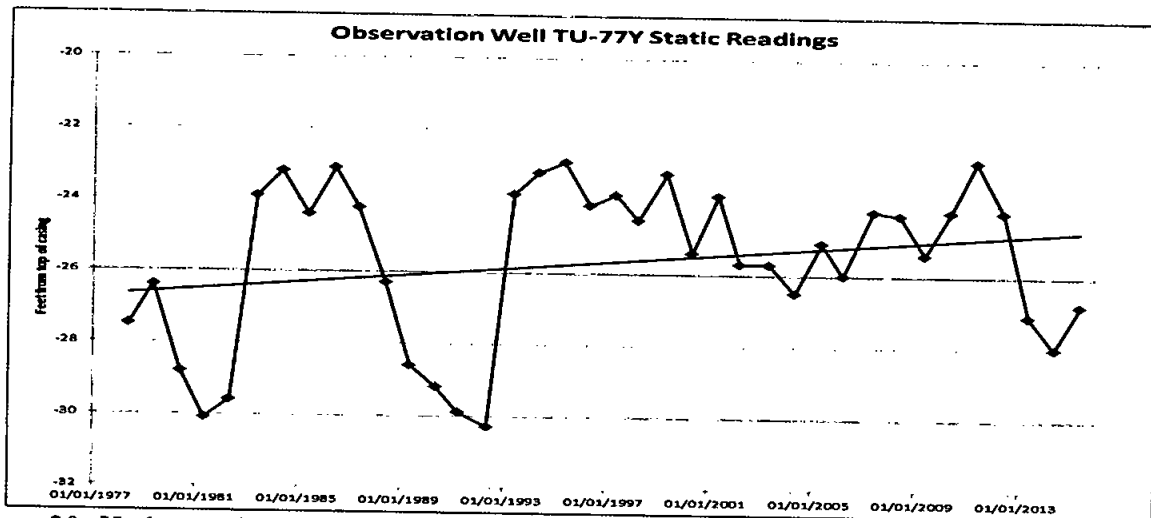


Figure 20- Hydrograph for static water level in observation well TU-77Y (Water Rights, 2016a)

The hydrographs for the “static” condition of the Upper Vermillion Missouri: North aquifer, shown in Figures 12 – 20, all document increasing or stable water levels throughout the period of record, except for the hydrograph for TU-77F (Figure 14). The downward trend shown in the hydrograph of “static” condition readings for observation well TU-77F is likely caused by the observation well not yet reaching equilibrium due to increased development by South Lincoln Rural Water System (see Table 2) (Buhler, 2015). The “static” condition water levels have maintained an upward or stable trend despite increasing well withdrawals for irrigation (see Figure 2). Thus, recharge and natural discharge are still the dominant factor affecting water levels in the aquifer. Natural discharge from the aquifer can be captured for well withdrawals and greater pumping may induce greater recharge. Therefore, the observation well hydrographs show there is a reasonable probability unappropriated water is available for this proposed appropriation.

The Parker-Centerville aquifer overlies and is hydraulically connected with portions of the Upper Vermillion Missouri: North aquifer (Holmes and Filipovic, 2015). The Parker-Centerville is also a likely source of recharge to the Upper Vermillion Missouri: North aquifer (Buhler, 2015). The “static” condition water levels of the Upper Vermillion Missouri: North aquifer have remained stable or increased over the period of record (see Figures 12 – 20) despite the increase in average annual pumping (see Figure 2). Therefore, recharge induced from the Parker-Centerville aquifer has likely increased. The DENR-Water Rights Program monitors 10 observation wells completed into the Parker-Centerville aquifer where it overlies the Upper Vermillion Missouri: North aquifer (Water Rights, 2016a). Linear trendlines on the water level data from those 10 Parker-Centerville aquifer observation wells all show in upward trend, although recharge induced by the Upper Vermillion Missouri: North aquifer has likely increased (Water Rights, 2016a). Therefore, additional recharge can be induced, and additional water is available for appropriation.

EXISTING WATER RIGHTS:

The well site proposed by this application is within approximately two miles of several high capacity wells authorized by water rights/permits to withdraw water from the Upper Vermillion Missouri: North aquifer (see Figure 21) (Water Rights, 2016b). There are also a number of

domestic wells within approximately two miles of the proposed well site (Water Rights, 2016c). Table 3 is a list of the water rights/permits shown in Figure 21.

Figure 3 shows the hydrograph for TU-77B. The hydrograph for TU-77B shows the effects of pumping on water level. Figure 21 shows that TU-77B is within one mile of six high capacity wells completed into the Upper Vermillion Missouri: North aquifer. While the seasonal drawdown in TU-77B can be as much as 30 feet, there was still 53 feet of artesian head pressure remaining during the lowest recorded water level in the observation well TU-77B (Water Rights, 2016a). After the end of the irrigation season, the water level in the observation well recovers. Therefore, there is a reasonable probability that this proposed diversion can be made without adversely impacting existing appropriative or domestic users.

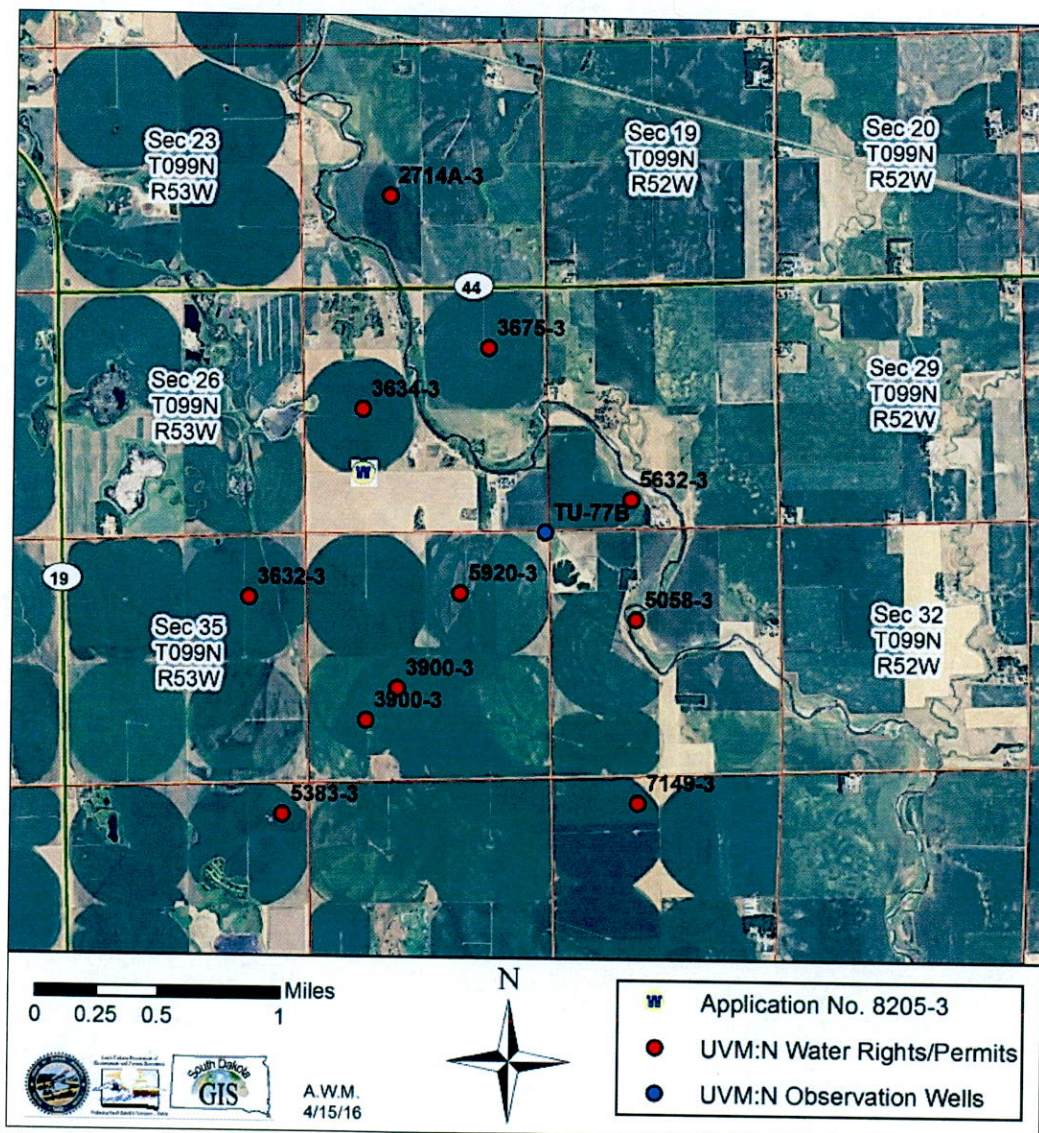


Figure 21- Map of Upper Vermillion Missouri: North aquifer Water Rights/Permits and observation wells within approximately two miles of proposed well site (Water Rights, 2016 and 2016b)

Permit No.	Name	Status	Use	CFS	Acres
2714A-3	Virgil Plucker	LC	IRR	1.89	180
3632-3	Bar K Cattle Co Inc	LC	IRR	1.88	136
3634-3	Darrel Westerman	LC	IRR	1.78	132
3675-3	Dale L Hoogestraat	LC	IRR	1.77	136
3900-3	Roger R Ihnen	LC	IRR	2	140
5058-3	Doyle Christensen	LC	IRR	1.22	101
5383-3	Walter Okeefe Estate	LC	IRR	1.67	132
5632-3	Kent Westerman	LC	IRR	1	70
5920-3	Horner Family LTD Partnership	LC	IRR	1.94	136
7149-3	Darrel Westerman	PE	IRR	1.78	132
LC= Water Right, PE= Water Permit, IRR= Irrigation					

Table 3- List of Water Rights/Permits Shown in Figure 21 (Water Rights, 2016b)

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”

In the past, the Water Management Board has recognized that to place water to maximum beneficial use, a certain amount of drawdown may occur. Since the aquifer is under confined conditions drawdown due to pumping may be significant some distance from the well site. Thus depending on specific characteristics of the Upper Vermillion Missouri: North aquifer at the proposed well site, some existing well owners may need to lower their pumps to accommodate for deeper water levels. When considering the statute (SDCL 46-6-6.1) and the rule (ARSD 74:02:04:20(7)), well interference from this proposed diversion is not likely to cause a significant impact. Therefore, there is a reasonable probability that any interference created by pumping the proposed wells 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. 8205-3 proposes to divert up to 1.78 cfs for the irrigation of 120 acres, or the equivalent of 1.04 cfs per 70 acres. The applicant did not state a reason for the request. However, the map submitted with the application shows the center pivots to be used for this irrigation project will only make partial rotation. In the past, it has been accepted that a center pivot only making a partial rotation often requires a diversion rate in excess of the statutory limit.

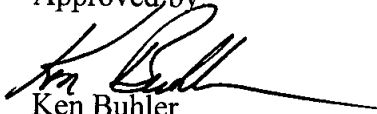
CONCLUSIONS:

1. Application No. 8205-3 proposes to appropriate 1.78 cfs from the Upper Vermillion Missouri: North aquifer for the irrigation of 120 acres in Turner County. The requested diversion rate is in excess of the statutory limit of 1 cfs per 70 acres.
2. Approval of this application will cancel Water Permit No. 8074-3.
3. The observation well hydrographs document there is a reasonable probability that unappropriated water is available for this proposed appropriation.
4. There is a reasonable probability that the diversion proposed by this application can be made without adversely impacting existing appropriative or domestic users.
5. The applicant requested a diversion rate in excess of the statutory limit. The applicant did not state a specific reason. However, the map submitted with the application indicates the center pivot will only make a partial rotation. In the past, the Water Management Board has accepted that as a valid reason for the request.



Adam Mathiowetz, PE
SD DENR-Water Rights Program

Approved by:



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Buhler, K.A. 2015. Report to the Chief Engineer on The North Management Unit of the Upper Vermillion Missouri Aquifer. SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, South Dakota.
- Buhler, K.A. 2014. Report on 21 Water Permit Applications from the Upper Vermillion Missouri Aquifer. SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, South Dakota.
- 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.
- Holmes, S.L. and Filipovic, D. 2015 Hydrogeologic Investigation of the Upper-Vermillion-Missouri Aquifer. Open-File Report 93-UR. SD DENR-Geological Survey. Vermillion, SD.
- SDGS, 2016. Lithologic Logs Database. <<http://cf.sddenr.net/lithdb/>>. SD DENR-Geological Survey. Vermillion, South Dakota.
- Water Rights. 2004-2015. "2003-2014 Non-Irrigation Yearly Reports": SD DENR-Water Rights Program, Joe Foss Building, Pierre, South Dakota.
- Water Rights. 2016a. Observation Well Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2016b. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2016c. Well Completion Reports. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

RECEIVED

MAY 16 2016

Form 8

WATER RIGHTS
PROGRAM

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Turner) SS

I, Dawn Rye

certify that the attached printed Notice was taken
from the New Era

printed and published in Parker

County of Turner and

state of South Dakota. The notice was published
in the newspaper on the following date:

5/12/16

Cost of Printing \$ 34.75


(Signature)

Office Manager
(Title)

5/13/16
(Date Signed)

(Signed
May 13 2016)

Subscribed and sworn
to before me

this 13th

Day of May 2016

Paul R. Harris
Notary Public Turner County
South Dakota

My Commission Expires:
March 20 2018

Notice of application NO.

8205-3 to Appropriate Water

Notice is given that Sam Oltmanns, PO Box 462, Lennox SD 57039 has filed an application for a water permit to appropriate 1.78 cubic feet of water per second (cfs) from one well to be completed into the Upper Vermillion Missouri:North Aquifer (160 feet deep) located near the center of the SW 1/4 Section 25 for irrigation of 120 acres located in the S 1/2 SW 1/4, SW 1/4 SE 1/4 Section 25; all in T99N-R53W. The applicant is requesting a diversion rate greater than the statutory limit of

1 cfs per 70 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends approval of Application No. 8205-3 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with both the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605-773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by Monday, May 23.

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

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

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

Published once at the total approximate cost of \$34.75

(N0512-2)

CUSTOMER NUMBER:	078200	Argus Leader P.O. Box 677349, Dallas, TX 75267-7349
INVOICE NUMBER:	1249896	
	5/12, 2016	\$69.44pd

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MAY 16 2016

WATER RIGHTS PROGRAM

Sam Oltmanns
PO Box 462
Lennox, SD 57039

DETACH THIS STUB AND RETURN WITH PAYMENT

AFFIDAVIT OF PUBLICATION-

Customer Number: 078200
Invoice Number: 1249896

Argus Leader
AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA

COUNTY OF MINNEHAHA } ss

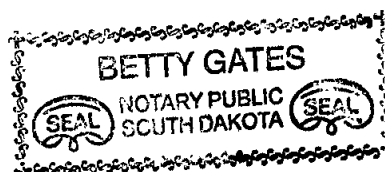
Linda Schulte being duly sworn, says: That The Argus Leader is, and during all the times hereinafter mentioned was, a daily legal newspaper as defined by SDCL 17-2-21, as amended published at Sioux Falls, Minnehaha County, South Dakota; that affiant is and during all of said times, was an employee of the publisher of such newspaper and has personal knowledge of the facts stated in this affidavit; that the notice, order or advertisement, a printed copy of which is hereto attached, was published in said newspaper upon

Thursday	,the	12	day of	May	2016 ,
_____	,the	_____	day of	_____	2016 ,
_____	,the	_____	day of	_____	2016 ,
_____	,the	_____	day of	_____	2016 ,
_____	,the	_____	day of	_____	2016 ,
_____	,the	_____	day of	_____	2016 ,
_____	,the	_____	day of	_____	2016 ,
_____	,the	_____	day of	_____	2016 ,

and that \$69.44pd was charged for publishing the same

Linda Schulte
Subscribed and sworn to before me 5/12/2016

Betty Gates
Notary Public, South Dakota



NOTICE OF APPLICATION NO. 8205-3 to Appropriate Water Notice is given that Sam Oltmanns, PO Box 462, Lennox SD 57039 has filed an application for a water permit to appropriate 1.78 cubic feet of water per second (cfs) from one well to be completed into the Upper Vermillion Missouri North Aquifer (160 feet deep) located near the center of the SW 1/4 Section 25 for irrigation of 120 acres located in the S 1/2 SW 1/4, SW 1/4 SE 1/4 Section 25; all in T99N-R53W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8205-3 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and supporting information are available at <http://dwr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recom-

mendation. 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 May 23, 2016.

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

Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once by the total approximate cost of \$69.44, May 12, 2016

Schlaak, Karen

From: Schlaak, Karen
Sent: Tuesday, May 03, 2016 8:01 AM
To: 'sebeling@ncppub.com'
Subject: 8205-3, Sam Oltmanns
Attachments: 8205-3publicnov2015.short1.docx; FORM8.FRM.doc

Attached is a notice to be published on May 12, 2016.

Sam Oltmanns, PO Box 462, Lennox SD 57039 (605 310-9170) has been notified to contact you to authorize publication and arrange for payment.

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

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

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

Schlaak, Karen

From: Schlaak, Karen
Sent: Tuesday, May 03, 2016 8:01 AM
To: allegals@argusleader.com
Subject: 8205-3, Sam Oltmanns
Attachments: 8205-3publicnov2015.short1.docx; FORM8.FRM.doc

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



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

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

May 2, 2016

Sam Oltmanns
PO Box 462
Lennox SD 57039

Dear Mr. Oltmanns:

Water Permit Application No. 8205-3 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 New Era printed at Parker SD (Ph # 605-297-4419) and the Argus Leader printed at Sioux Falls SD (Ph # 605-331-2200). You will need to contact the newspaper(s) and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

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

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

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

NOTICE OF APPLICATION NO. 8205-3 to Appropriate Water

Notice is given that Sam Oltmanns, PO Box 462, Lennox SD 57039 has filed an application for a water permit to appropriate 1.78 cubic feet of water per second (cfs) from one well to be completed into the Upper Vermillion Missouri:North Aquifer (160 feet deep) located near the center of the SW 1/4 Section 25 for irrigation of 120 acres located in the S 1/2 SW 1/4, SW 1/4 SE 1/4 Section 25; all in T99N-R53W. The applicant is requesting a diversion rate greater than the statutory limit of 1 cfs per 70 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8205-3 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Eric Gronlund for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605-773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by May 23, 2016.

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



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

JUN 02 2016

Sam Oltmanns
PO Box 462
Lennox SD 57039

Dear Mr. Oltmanns:

Enclosed is Water Permit No. 8205-3 authorizing construction of the water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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

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

Sincerely,

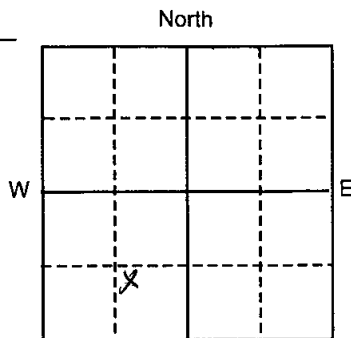
Jeanne Goodman, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

8205-3

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SE 1/4 SW 1/4 Sec 25 Twp 99N Rg 53WCounty TurnerPlease mark well
location with an "X"

Well Completion Date

1-17-17

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?

3000 ft. from septic (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Reverse RotaryCASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	<u>16</u> IN	<u>0</u> FT	<u>80</u> FT	<u>28</u> IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Bent grout</u>	<u>53</u>	<u>9.5</u> Lb/gal	<u>0</u> Ft	<u>75</u> Ft
		Lb/gal	Ft	Ft

Describe grouting procedure

tremieSCREEN: ☒ Perforated pipe ☐ ManufacturedDiameter 16 Inches Length 40 FeetMaterial PVCSlot Size 85 Set From 80 Feet to 120 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? HTH Tablets
☐ No, Why Not?
 Lab to which water
 quality sample sent for analysis
Well Owner: Sam Oltmann

Business Name:

Address: P.O. Box 462City, State, Zip: Lennox, SD 57039

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>Top soil</u>	<u>0</u>	<u>1</u>
<u>sand/gravel</u>	<u>1</u>	<u>35</u>
<u>clay</u>	<u>35</u>	<u>75</u>
<u>gravel</u>	<u>75</u>	<u>115</u>
<u>clay</u>	<u>115</u>	<u>120</u>

STATIC WATER LEVEL

20

FEET

If flowing: closed in pressure

PSI

GPM flow through

Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate

GPM

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped Describe: Air developed☒ Bailed☐ Other

Pumping Level Below Land Surface

Ft. After Hrs. pumped GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate: GPM

REMARKS

Upper Vermillion Missouri: North AMThis well was drilled under license # 805 and this report is true and accurate.Drilling firm: Sam Heine Well Co, LLC

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

RECEIVED

Date:

JAN 24 2018

WATER RIGHTS
PROGRAM

8205-3



DENR
SOUTH DAKOTA

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

October 29, 2020

8074-3
8205-3

Sam Oltmanns
312 W 4th Ave
Lennox SD 57039-2212

Dear Mr. Oltmanns:

Enclosed is a "Notice" dated October 23, 2020 concerning the 2020 irrigation questionnaires.

The notice was originally mailed to PO Box 462, Lennox SD. The post office notified us that your address has changed, and I will update our records accordingly.

If you have any questions, please contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read "Genny McMath".

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

enclosures

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 8205-3

I have this day, October 23, 2024, made a thorough examination of the water use system constructed by Sam Oltmanns, PO Box 462, Lennox, SD 57039 of Permit No. 8205-3, bearing the priority of March 4, 2016 authorizing the diversion of 1.78 cu. ft. per second of the waters of Upper Vermillion Missouri: North Aquifer for irrigation purposes, in Turner County.

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Heine Well Co
- 2) No. of Wells 1
- 3) Depth(s) 120 feet
- 4) Well log is available Y

Casing:

- 1) Diameter 16 inches
- 2) Length 80 feet
- 3) Type Plastic

Screen:

- 1) Type PVC
- 2) Length 40 feet
- 3) Static water level 20 feet

Pump:

- 1) Make Submersible
- 2) Model Unknown
- 3) Size Unknown
- 4) Capacity 1000 GPM

Motor:

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

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

- 1) Type PVC
- 2) Size 8 inches
- 3) Length 660 feet

Comments: **xx**

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make Zimmatic
- 2) Overall length 1300 feet
- 3) Number of towers 7
- 4) End gun Y
- 5) Capacity 1000 GPM

Chemigation Equipment:

- 1) Does chemigate N

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by N

If no, describe: **Pumping 2.22 cfs; authorized 1.78 cfs**

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

E. Condition and Location:

1. The system is in **poor, good, etc** condition with the point(s) of diversion located as follows: **WELL LOCATION From the SW corner Sec 25 T99N R53W 1320 ft N & 650 ft E, Lat 43.36216 Long - 97.06008 (SW ¼ SW ¼).**
2. The works are capable of diverting and conveying to the place of use **2.22** cu. ft. per second of water which is to be used for **irrigation**. Water has been put to beneficial use to the maximum extent as follows:

<u>legal description/acreage</u>	<u>legal description/acreage</u>
All land in Sec 25 T99N R53W	
SE 1/4 SW 1/4 - 35 acres	
SW 1/4 SW 1/4 - 32 acres	

comprising a total of **67** acres of land and the license should be issued for **1.78** cfs
3. All structures, wells and lands on map Y

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

Related to Permit 8074-3 (Requested new water source)

FSA maps and the ArcGIS program were used to construct the attached well location and irrigated area map which was used to estimate irrigated acreage.

The flow rate reported on the 2023 Irrigation Questionnaire was used to establish the system flow capacity.

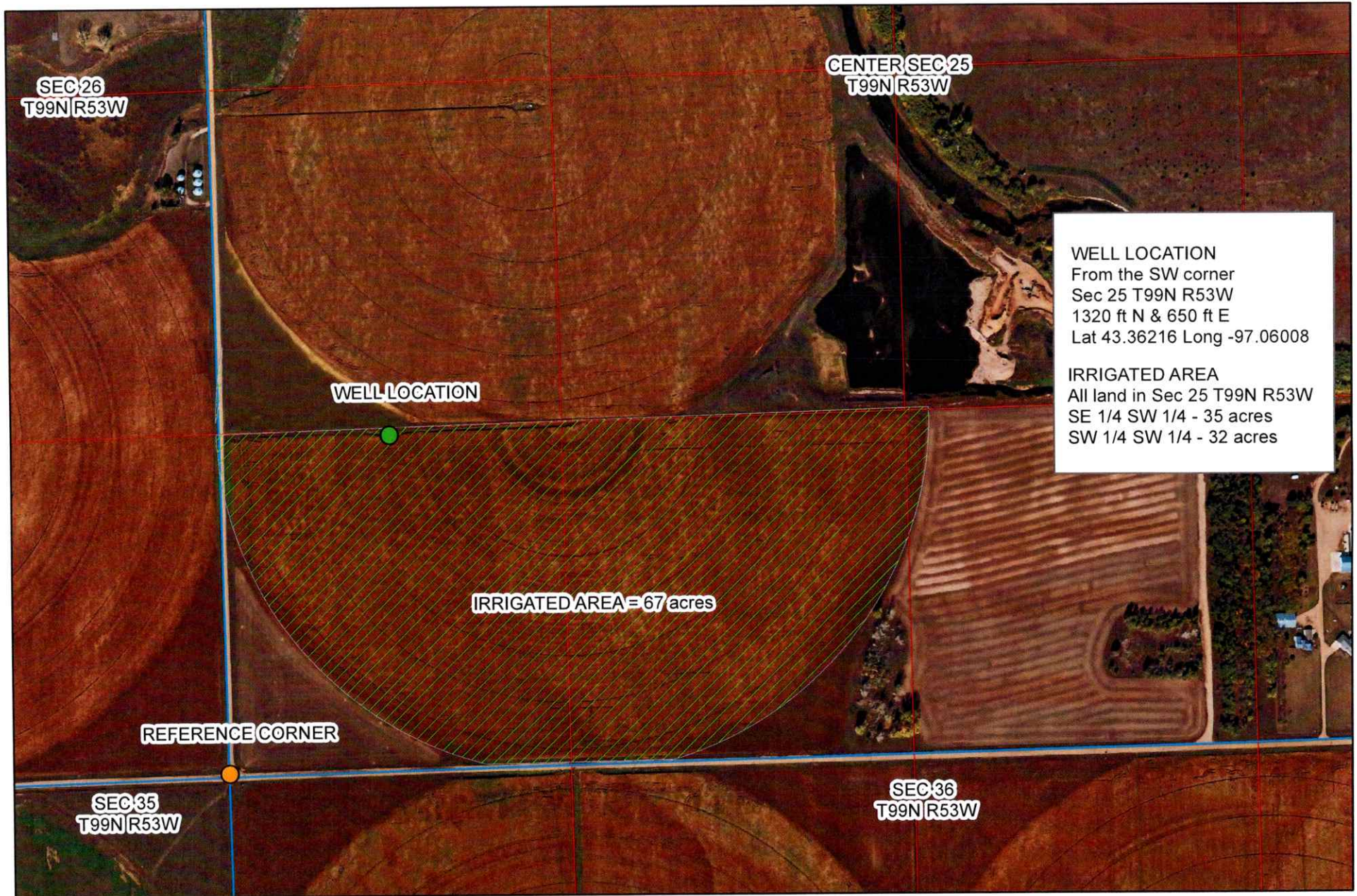
The address in the permit application is current.

I talked to Mr. Sam Oltmanns (605/310-9710) on the phone regarding Permit details.

A handwritten signature in black ink, appearing to read "Darrell DeBoer", written over a horizontal line.

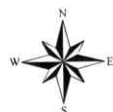
Darrell DeBoer
Water Rights Inspector
DENR, Water Rights Program

Date report completed: October 24, 2024



WELL LOCATION
 From the SW corner
 Sec 25 T99N R53W
 1320 ft N & 650 ft E
 Lat 43.36216 Long -97.06008

IRRIGATED AREA
 All land in Sec 25 T99N R53W
 SE 1/4 SW 1/4 - 35 acres
 SW 1/4 SW 1/4 - 32 acres



0 425 850 1,700 2,550 3,400 Feet

Darrell DeBoer
 Water Right Inspector
 DANR-Water Rights Program



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

JUN 04 2025

Sam Oltmanns
312 W 4th Ave
Lennox, SD 57039

No. 8205-3

Dear Mr. Oltmanns:

Enclosed is Water License No. 8205-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

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

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

Sincerely,

Mark Mayer, PE
Director of Office of Water
(605) 773-3352

Note: The inspection found your system for Water Right No. 8205-3 to be capable of diverting 2.22 cfs (approx. 996 gpm). Diversion of water under this license is limited to 1.78 cfs (approx. 800 gpm).

Note: * Water Permit No. 8074-3 authorizes irrigation of the same acres from a well completed into the Parker Centerville Aquifer.

enclosures

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 8205-3**

(1) Sam Oltmanns, 312 W 4th Ave, Lennox, SD 57039, made Application No. 8205-3, March 4, 2016, for a water permit to divert 1.78 cubic feet of water per second from groundwater, one well (Upper Vermillion Missouri North Aquifer), Turner County, South Dakota for irrigation purposes. Permit No. 8205-3, with a priority date of March 4, 2016, was approved May 23, 2016, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before May 23, 2021, and for the application to beneficial use of water on or before May 23, 2025.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 1.78 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 1,320 feet N and 650 feet E from the SW corner of Section 25, T99N, R53W
(approx. center of the SW $\frac{1}{4}$) (Latitude 43.36216 and Longitude -97.06008)

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

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

Section 25, T99N, R53W
SW $\frac{1}{4}$ SW $\frac{1}{4}$ - 32 acres
SE $\frac{1}{4}$ SW $\frac{1}{4}$ - 35 acres
Total – 67 acres

(5) Pursuant to South Dakota Water Law 46-5-30.1 Sam Oltmanns, the holder and/or owner of Water Right No. 8205-3 is issued a license to appropriate water, the right to use 1.78 cubic feet of water per second from groundwater, one well (Upper Vermillion Missouri North Aquifer), with a priority date of March 4, 2016, 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. 8205-3 and subject to 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. 8205-3 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. *(The well was completed in 2017 by Sam Heine Well Co LLC. A copy of the well completion report is on file with the Water Rights Program.)*

continued

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. 8250-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 120 acres with an annual volume not to exceed 2 acre-feet of water per acre per year. *(The number of acres authorized for irrigation under Water Right 8205-3 was reduced to 67, based on the system as constructed.)*

4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

Mark Mayer

Mark Mayer, PE
Director of Office of Water

6/4/25

date

