

WATER PERMIT NO. 8742-3

Name of Applicant: **Larry Schmidt**

Address: **44819 277th Street, Parker SD 57053** Phone: **605-351-4955**

Amount of Water Claimed: **1.78 cfs** Total Acres: **160**

Source of Water Supply: **Parker Centerville**

Water to be used for: **Irrigation** County: **Turner**

Type of Waste Disposal System:

Location: **2 miles west of Parker SD**

PRIORITY Date Received: **3-9-2023**

Application/License Fee: **\$1,050.00**

Corrected Application Received: **3-29-2023**

Period of Annual Use: **April 1 – October 31**

Remarks: **Drilling an additional well to supplement existing pivot irrigation system.**

Diversion Point: **SW1/4, SW1/4 Sec 13 -T99N-R54W**

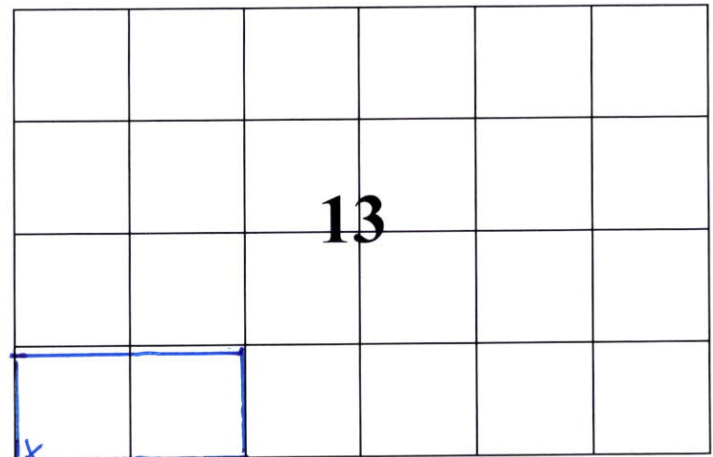
Land to be Irrigated: **SW1/2 Sec 13 -T99N-R54W**

Depth of Well: **71**

Well Driller: **Thein Well Co.**

Remarks:

Type of Map: **aerial**



Reviewed and the Number Assigned on: **3-29-2023**

By: **Rachel Rodriguez**

Notice of Hearing - date to intervene: _____

**SOUTH DAKOTA
WATER PERMIT NO. 8742-3**

Date of first receipt of application March 29, 2023.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8742-3 to Larry Schmidt, 44819 277th Street, Parker SD 57053 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. 8742-3 appropriates 1.78 cubic feet of water per second (cfs) from one well to be completed into the Parker Centerville Aquifer (approximately 71 feet deep) located in the SW 1/4 SW 1/4 Section 13 for irrigation of 160 acres located in the SW 1/4 Section 13; all in T99N-R54W also authorized for irrigation by Water Permit No. 7457-3. This site is located approximately 2 miles west of Parker SD.
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 29, 2023.
4. The date of approval of Permit No. 8742-3 is August 14, 2023.
5. One-fifth of the construction is to be completed on or before February 14, 2026.
6. All construction is to be completed on or before August 14, 2028.
7. Water is to be put to beneficial use on or before August 14, 2032.
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 Water Permit No. 8742-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled 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. 8742-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. The combination of diversions under Water Right No. 7457-3 and Water Permit No. 8742-3 may not exceed one cubic feet of water per second per 70 acres irrigated with an annual volume applied 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: *Eric Gronlund*
Eric Gronlund, Chief Engineer
Water Rights Program
Department of Agriculture and Natural Resources

AUG 31 2023
date



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

Mail to: SD DANR, Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8742-3</u> Hydrologic Unit <u>10170102</u> Basin <u>Vermillion River</u> Newspaper <u>Turner Co New Era</u> <u>Sioux Falls Argus Leader</u> (office use only)
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PAID
MAR 29 2023
Ck# 10421
Rec't# _____

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.)
Adding an additional well.

1. Name to Appear on Irrigation Permit Larry Schmidt

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

Mailing Address 44819 277th St Parker SD 57053
(Address) (City) (State) (Zip Code)

Phone 605 642-3966 Mobile 605-351-4955 Email larryschmidt@gmail.com

2. Amount of water claimed 1.78 *CFS or 600 **GPM ***AF Total Acreage 160
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Groundwater Aquifer Parker Centerville

4. Location of point of diversion 1 well in SW 1/4 SW 1/4 Sec. 13-T99N-R54W
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)

County _____

5. County or counties where water will be used Turner

6. Annual period during which water is to be used April 1 - Oct. 31

7. List below each forty-acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
<u>SW 1/4 SW 1/4 Sec. 13-T99N-R54W</u>	<u>160</u>		

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

Drilling an additional well to supplement existing pivot irrigation system.

I, Larry Schmidt, the applicant, certify under 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.

2021-08

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

RECEIVED

MAR 29 2023

OFFICE OF
WATER

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

Mail to: SD DANR, Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8742-3</u> Hydrologic Unit <u>10170102</u> Basin <u>Vermillion River</u> Newspaper <u>Turner Co New Era</u> <u>Sioux Falls Argus Leader</u> (office use only)
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RECEIVED
MAR 09 2023
OFFICE OF
WATER

Application for Permit to Appropriate Water for Irrigation

Type of Application: ☐ New ☐ Vested Right ☒ Amendment/Correction to Permit No. 7457-3
(Use predates Mar 2, 1955)

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

Adding an additional well.

1. Name to Appear on Irrigation Permit Leber Bros / Richard Leber, operator *for Larry Schmidt*

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

Mailing Address 27677 452nd Ave Parker SD 57053
(Address) (City) (State) (Zip Code)

Phone (605) 941-4983 Mobile _____ Email leberbros@gmail.com

2. Amount of water claimed _____ *CFS or _____ **GPM _____ ***AF Total Acreage 160
(*Cubic Feet per Second) (**Gallons per Minute) (**Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Groundwater Aquifer

4. Location of point of diversion 1 well in SW 1/4 SW 1/4 Sec. 13 - T99N - R54W
(example - 3 wells in SW 1/4 NE 1/4 section 12 - T104N - R53W)

County _____

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<u>SW 1/4 SW 1/4 Sec. 13 - T99N - R54W</u>	<u>160</u>		

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

Drilling an additional well to supplement existing pivot irrigation system.

I, Richard Leber, 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.

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 Thein well Co
(if yes, please provide copies of logs)

b) If existing wells, how many _____ Provide copy of log(s), if available. Drilled by _____

For either existing or proposed wells:

c) Well Depth (required) 71 Depth to Top of Water Bearing Material 52 Depth to Water from Surface _____

d) Distance to nearest domestic well on applicant's property _____ Property owned by others 4,500 FT.

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

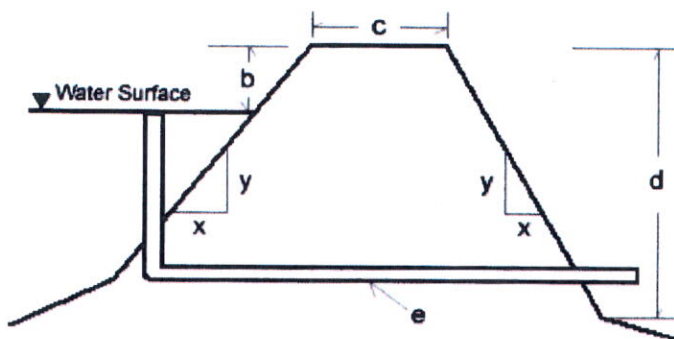
a) Surface Dimensions _____ Depth _____

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)

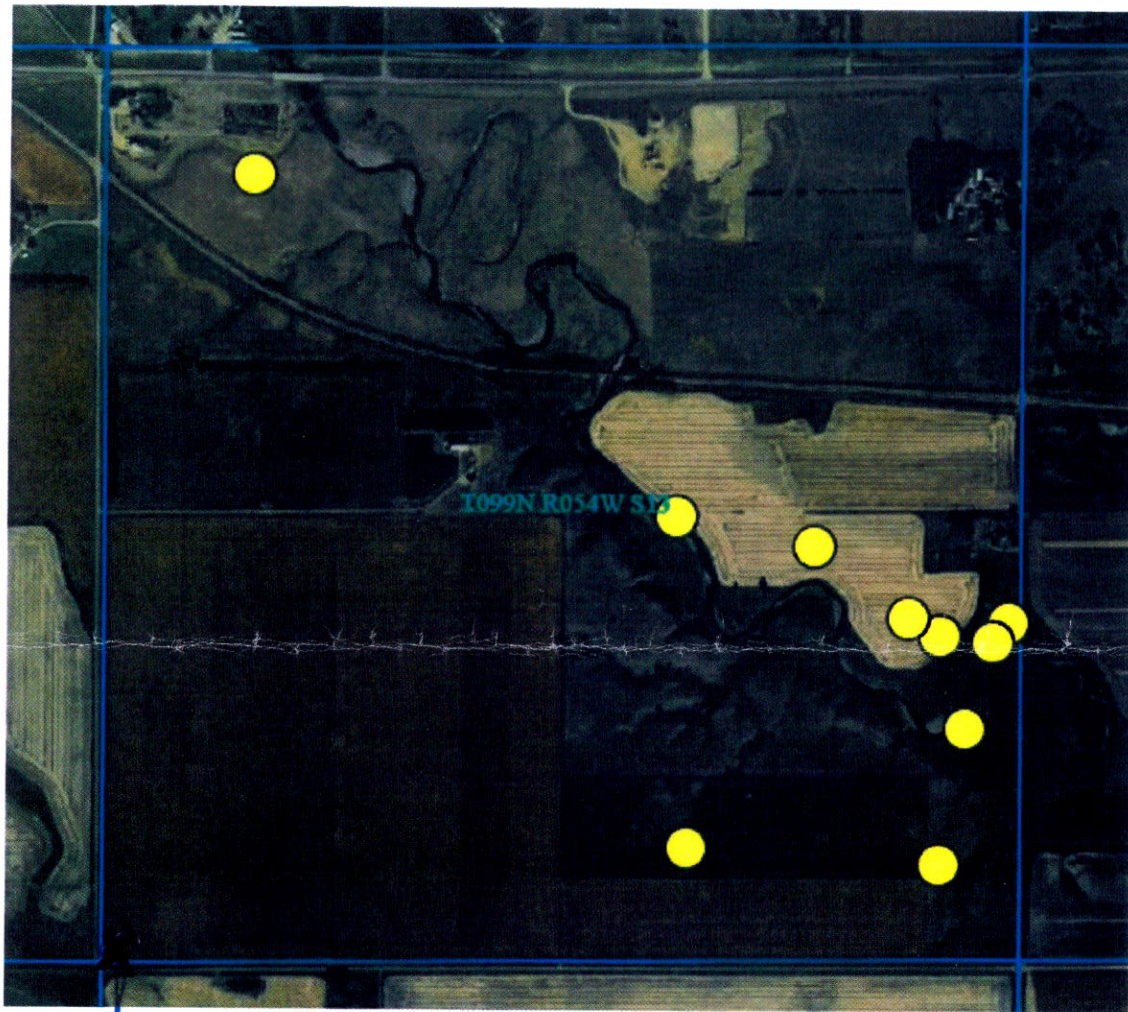
Upstream _____

Downstream _____

h) Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



proposed well

7457-3



United States Department of Agriculture
Farm Service Agency

March 21, 2012

PLSS: 13_99N_54W
Farm: 7132

Turner County, SD

1:8,792

RECEIVED

OCT - 9 2012



Wetland Determination Identifiers

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

Common Land Units

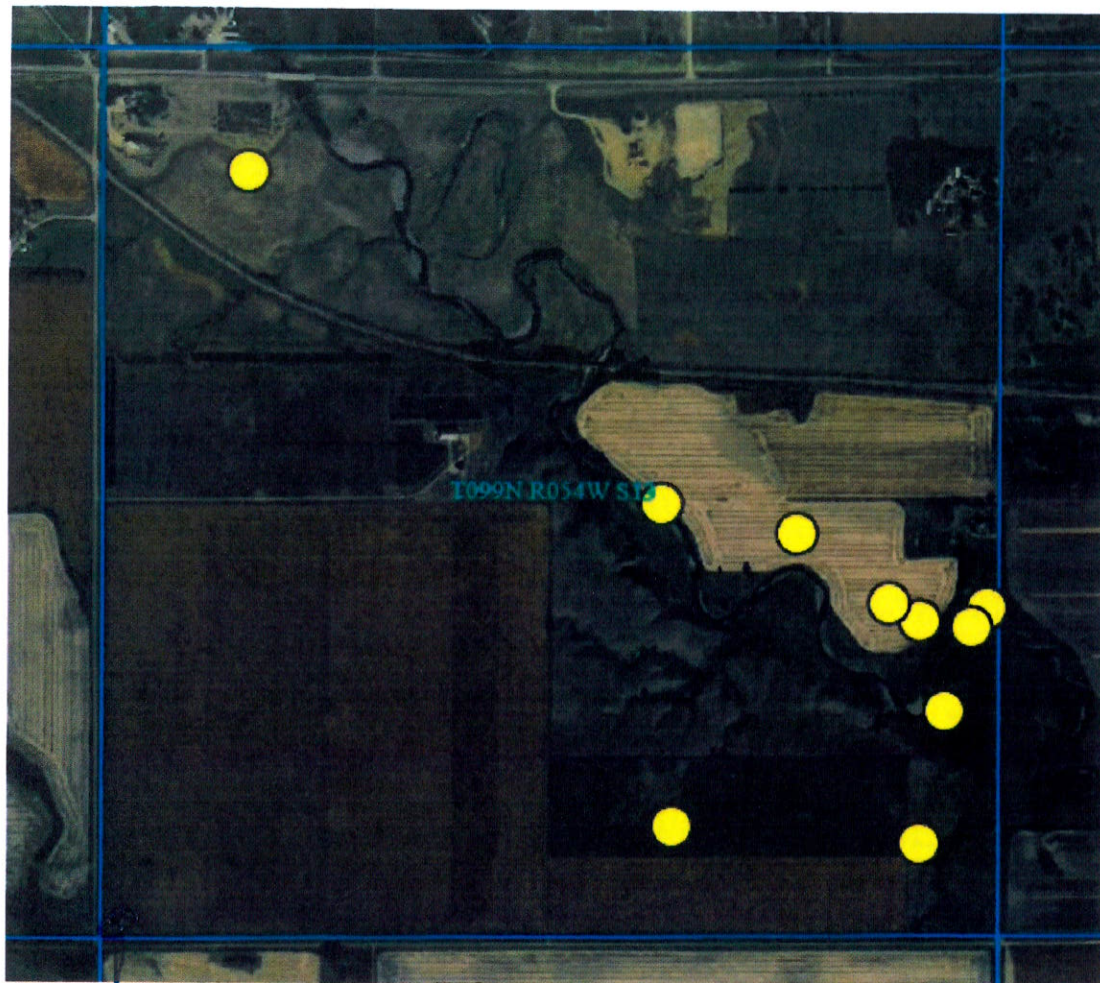
Non Cropland

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination boundaries and determinations, or contact NRCS.
Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

WATER RIGHTS

2008 Ortho-Photography - Not to Scale

Boony Senouk
Turner County FSA



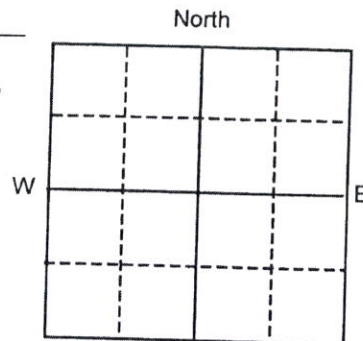
proposed well

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW ¼ SW ¼ Sec 13 Twp 99 Rg 54

County TURNER

Please mark well
location with an "X"

Well Completion Date

NOV 11, 2022

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:

MUD ROTARY

CASING DATA:

☐ Steel ☐ Plastic ☐ Other

If other describe _____

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

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
BENTONITE	11	Lb/gal	0.0 Ft	140.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
TREMIE PIPED

SCREEN:

☐ Perforated pipe ☐ Manufactured

Diameter _____ Inches Length _____ Feet

Material _____
Slot Size _____ Set From _____ Feet to _____ Feet

Other information _____

WAS A PACKER OR SEAL USED?

☐ Yes ☐ No

If so, what material? _____

Describe packer(s) and location _____

DISINFECTION: Was well disinfected upon completion?

☐ Yes, How?

☒ No, Why Not?
Lab to which water
quality sample sent for analysis

TEST HOLE ONLY

Well Owner: RICHARD LEBER

Business Name: LEBER BROS LLC

Address: 27677 452ND AVE

City, State, Zip: PARKER SD 57053

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
TOP SOIL	0	3
CLAY BROWN	3	29
CLAY BLUE	29	52
GRAVEL	52	71
CLAY BLUE	71	118
CHALK GRAY	118	140

STATIC WATER LEVEL

_____ FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped Describe: _____
☐ Bailed
☐ Other

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

TH # 4 GPS N 43 23.2220 W 97 10.8770

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

Drilling firm: THEIN WELL COMPANY, INCORPORATED

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: _____

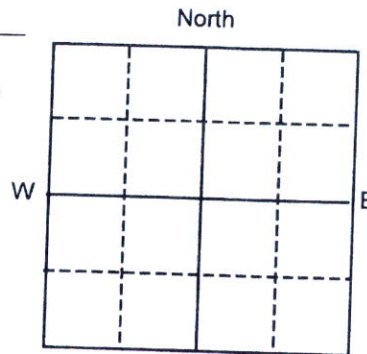
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11- 02

Location SW ¼ SW ¼ Sec 13 Twp 99 Rg 54

County TURNER

Please mark well location with an "X"



Well Completion Date

NOV 11, 2022

1 Mile

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:

MUD ROTARY

CASING DATA:

If other describe ☐ Steel ☐ Plastic ☐ Other

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN
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Describe grouting procedure

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SCREEN:

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

WAS A PACKER OR SEAL USED?

☐ Yes ☐ No

If so, what material?

Describe packer(s) and location

DISINFECTION:

Was well disinfected upon completion?

☐ Yes, How?Lab to which water ☒ No, Why Not? quality sample sent for analysis

TEST HOLE ONLY

Well Owner: RICHARD LEBER

Business Name: LEBER BROS LLC

Address: 27677 452ND AVE

City, State, Zip: PARKER SD 57053

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 PSI
 GPM flow _____ through _____ Inch pipe
Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate _____ GPM

Can well be completely shut in?

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☐ Pumped Describe:☐ Bailed☐ Other

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

Drilling firm: THEIN WELL COMPANY, INCORPORATED

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

Supplemental Information

(type or print)

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Using existing well(s)

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(if yes, please provide copies of logs)
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For either existing or proposed wells:

- c) Well Depth (required) 71 Depth to Top of Water Bearing Material 52 Depth to Water from Surface _____
- d) Distance to nearest domestic well on applicant's property _____ Property owned by others 4,500 FT.

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- b) System Capacity (gallons) _____ Year Constructed _____
- c) Connected to the City of _____ Sanitary System

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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)

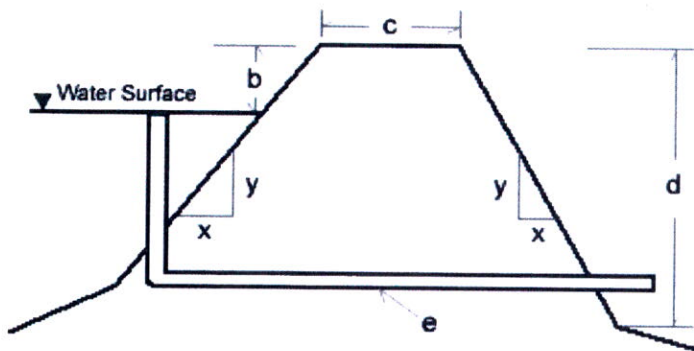
Upstream _____

Downstream _____

h) Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date March 29, 2023

RECEIVED OF Larry/Jan Schmidt 44819 277th Parker SD 57053

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

Fee for Application for Permit No. <u>8742-3</u> to Appropriate Water, to construct and to put water to beneficial use	\$ <u>850.00</u>
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>8742-3</u>	\$ <u>200.00</u>
Fee for Filing Transfer Form _____	\$ _____
Fee for _____	\$ _____
Fee for Issuing New Well Driller's License No. _____	\$ _____
Fee for Renewal of Well Driller's License No. _____	\$ _____
Fee for Issuing Well Pump Installer's License No. _____	\$ _____
Fee for Renewal of Well Pump Installer's License No. _____	\$ _____
(Any Other Work Provided by Law) TOTAL	\$ <u>1050.00</u>

By Eric Gronlund
Chief Engineer
EM



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

June 26, 2023

Larry Schmidt
44819 277th St.
Parker, SD 57053

Dear Mr. Schmidt:

As requested by phone on June 26, 2023, by Richard Leber (operator) pursuant to South Dakota Well Construction Standard 74:02:04:21, you are authorized to have Thein Well Company construct a test well to a maximum approximate depth of 125 feet prior to approval of a water permit. The test well is to be located in SW ¼ Sec 13-T99N-R54W in Turner County. All test wells must be constructed in accordance with the SD Well Construction Standards. Any test holes or test wells that are abandoned must be plugged pursuant to the SD Well Construction Standards.

Authorization must be obtained before water from the well can be used in excess of domestic use as defined by South Dakota Codified Law 46-1-6(7) or for uses other than domestic use. All test or permanent wells to be constructed under this test well permission must be constructed using the methods described in Administrative Rule of South Dakota (ARSD) 74:02:04:28. Approval of this test well does not assure issuance of a water permit. Following review of a Water Permit Application and assessing the availability of water, the potential impacts to existing users, the beneficial use, and the public interest of a permit, the Chief Engineer will make a recommendation to the Water Management Board regarding the application. The recommendation to approve, deny, or defer the application will be publicly noticed and an opportunity afforded for the public to intervene. A public hearing may be required to consider the water permit. If you have questions regarding permitting, please call Ron Duvall at (605) 773-3352.

Sincerely,

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

CC: Richard Leber
Thein Well Company

Rodriguez, Rachel

From: Kilts, Whitney (DENR)
Sent: Thursday, May 25, 2023 11:53 AM
To: Mathiowetz, Adam (DENR)
Cc: Duvall, Ron; Schlaak, Karen; Rodriguez, Rachel
Subject: FW: app no 8742-3

Eric and I called Mr. Leber this morning. The app no 8742-3 is on hold for further study. I am targeting mid-June to get down there for some additional field work with the observation wells down there to figure out aquifer.



Whitney Kilts
Water Rights Program
Department of Agriculture and Natural Resources
523 E. Capitol Ave. Pierre SD, 57501
605.773.3352
danr.sd.gov

From: Mathiowetz, Adam (DENR) <Adam.Mathiowetz@state.sd.us>
Sent: Thursday, May 11, 2023 12:52 PM
To: Gronlund, Eric <Eric.Gronlund@state.sd.us>
Cc: Kilts, Whitney (DENR) <Whitney.Kilts@state.sd.us>
Subject: app no 8742-3

Rich Leber called about the status of the Larry Schmidt app 8742-3. The driller is looking to see if they can get a well in the ground. Rich also wanted to know when we had to have a recommendation out. I did inform him that it could be deferred since we are all very busy and this is a unique deposit that we don't have a great deal of information on. I explained the issue with the areal extent and thus the recharge. I did inform him the driller could ask permission to drill a test well, but that with the above mentioned concern, he may invest in a well and not be able to use.



Adam Mathiowetz, PE
Engineer, Water Rights Program
Department of Agriculture and Natural Resources
523 E. Capitol Ave. Pierre SD, 57501
605.773.3352
danr.sd.gov

**Water Rights Program
Dam File Documentation**

NAME OF PERSON OR FILE: Water Permit Application No. 8742-3

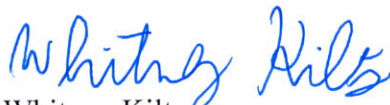
DATE: May 25, 2023

RE: Water Permit Application No. 8742-3-call to Rich Leber

COMMENTS:

Chief Engineer Eric Gronlund and staff engineer Whitney Kilts called Rich Leber on Water Permit Application No. 8742-3. Water Rights staff indicated that the recommendation on the application was for deferral for further study to determine the connection between the target glacial outwash (sand and gravel) for the well and either the Pleistocene Series: Unknown aquifer to the south, the Parker Centerville aquifer to the east, or an isolated small outwash deposit. The step Water Rights staff would like to take for further study would be for a staff member to survey several Water Rights and Geological Survey Wells in the area and take water levels to attempt to determine aquifer for the proposed well.

Chief Engineer Gronlund indicated that the deferral recommendation could either proceed to public notice or Mr. Leber could ask that the application be put on hold to give Water Rights staff an opportunity to do a site visit to survey wells and take water levels. Mr. Leber indicated the application should be put on hold. Ms. Kilts indicated that mid-June was the target for getting down there to survey the water and take water levels.



Whitney Kilts
Natural Resources Engineer

Gronlund, Eric

From: Gronlund, Eric
Sent: Friday, March 17, 2023 2:53 PM
To: leberbros@gmail.com
Subject: additional well for land authorized for irrigation by Water Permit No. 7457-3
Attachments: Leber map.docx; DOC031723-03172023144724.pdf

Mr. Leber:

As we spoke over the phone, the Water Rights Program has determined that the additional well to Water Right No. 7457-3, Larry Schmidt is into a different water source than the Vermillion West Fork aquifer. As such, we can not process this as a request for an additional diversion point to Water Right No. 7457-3. Instead this is a new application subject to a review of the criteria for issuance of a water permit and public notice. Attached is the request for additional diversion point you filed on behalf of Mr. Schmidt.

Attached is a map showing the current well locations authorized by No. 7457-3 and the proposed additional well location referenced to the SD Geological Survey's first occurrence map. The yellow represents the aerial mapped extent of the Vermillion West Fork. The green is the deeper Niobrara (Herlyn's water right is for the Niobrara). And the cross hatched area is the arm of the Parker Centerville that Rand and your water rights are developed into. However, it is evident the test hole you had completed in the SW corner of Section 13 encountered gravel between 52 and 71 feet. After consultation with the SD Geological Survey the additional well is likely to be classified as a part of the Parker Centerville aquifer (cross hatched arm of the main body of the aquifer shown on the map. The recharge to the arm of the arm has to be considered separate from the main body of the Parker Centerville.

To complete the filing the following is needed:

1. Application needs be in the name of Larry Schmidt as the owner of the land.
2. Item No. 2 complete amount of water claimed in gallons per minute requested.
3. Application filing fee for 160 acres is \$1050. Check payable to "Water Rights Program:

You also inquired about having the well completed prior to obtaining a permit if the well driller becomes available. You can request to drill a test well prior to a permit being obtained. A test well is a cased well that will become the production well once a permit is obtained. However, Water Rights granting of a test well is not a guarantee that the permit will be issued. To complete a test well is a financial commitment on your part without knowing if the permit will be approved. Until a full review of the application is conducted and a recommendation made, I can not speculate if unappropriated water is available from this portion of the Parker the gravel encountered in the test hole.

Please let me know if you have questions.



Eric Gronlund, PE
Chief Engineer, Water Rights Program
Department of Agriculture and Natural Resources
523 E. Capitol Ave. Pierre SD, 57501
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**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8742-3, Larry Schmidt.**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Agriculture and Natural Resources concerning Water Permit Application No. 8742-3, Larry Schmidt, 44819 277th Street, Parker SD 57053.

The Chief Engineer is recommending DEFERRAL of Application No. 8742-3 for further study.

Eric Gronlund, Chief Engineer
May 25, 2023



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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**REVISED RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8742-3, Larry Schmidt**

Pursuant to SDCL 46-2A-2, the following is the revised recommendation of the Chief Engineer, Water Rights Program, Department of Agriculture and Natural Resources concerning Water Permit Application No. 8742-3, Larry Schmidt, 44819 277th Street, Parker SD 57053.

The Chief Engineer is recommending APPROVAL of Application No. 8742-3 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 domestic water uses and water rights, 3) the proposed use is a beneficial use and 4) it is in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board with the following qualifications:

1. The well approved under Water Permit No. 8742-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled 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. 8742-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. The combination of diversions under Water Right No. 7457-3 and Water Permit No. 8742-3 may not exceed one cubic feet of water per second per 70 acres irrigated with an annual volume applied 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.

Eric Gronlund, Chief Engineer
July 21, 2023

Report to the Chief Engineer
Water Permit Application No. 8742-3
Larry Schmidt

Water Permit Application No. 8742-3 proposes to irrigate 160 acres located in the SW ¼ Section 13 at a maximum diversion rate of 1.78 cubic feet per second (cfs) from one well to be completed into the Parker Centerville aquifer (approximately 71 feet deep) located in the SW ¼ SW ¼ Section 13; all in T99N-R54W. The proposed well site is located approximately two miles west of Parker, SD in Turner County.

This well is to supplement the diversion rate of an existing irrigation system. Based on communication with the applicant's operator the full diversion rate of 1.78 cfs is unlikely to be developed solely from this well. The acres for irrigation are also authorized for irrigation by Water Permit No. 7457-3. Water Permit No. 7457-3 appropriates water from two wells located in NE ¼ SE ¼ Section 13 completed into the Vermillion West Fork aquifer for the irrigation of 207 acres SW ¼, S ½ SE ¼ Section 13; all in T99N-R54W at a maximum diversion rate of 2.22 cfs.

Aquifer: Parker Centerville (PAC)

Hydrogeology

A well completion report for a test hole was submitted with this permit application and is summarized in Table 1. Based on the provided information the target aquifer is the gravel from elevation 1321.41 to 1340.41 ft NAVD 88 (ground surface elevation was obtained from the state's 1 meter resolution bare earth digital elevation model).

Table 1: Test hole report submitted with Application No. 8742-3				
Description	From (ft)	To (ft)	From (ft NAVD 88)	To (ft NAVD 88)
top soil	0	3	1392.41	1389.41
clay brown	3	29	1389.41	1363.41
clay blue	29	52	1363.41	1340.41
gravel	52	71	1340.41	1321.41
clay blue	71	118	1321.41	1274.41
chalk grey	118	140	1274.41	1252.41

Hydrologic Investigations in Turner County (Lindgren and Hansen, 1990; Jensen, 2015; Holmes and Filipovic, 2015) did not identify a glacial outwash deposit of sufficient size to map at the location of the proposed well site. Figure 1 shows the location of the proposed well for this application and the first occurrence of aquifer materials for the area from Jensen (2015). A first occurrence of aquifer materials map is typically not a map that identifies individual glacial aquifers. Rather, it is a map of the approximate depth to geologic materials of a mappable extent that have the potential to produce water. In the case of the Parker Centerville aquifer, the first occurrence mapping for Turner County is useful for understanding the aquifer extent, because when present, the Parker Centerville is the first aquifer material encountered (Holmes and Filipovic, 2015). Based on the available data at the time of the work by Jensen (2015), the

uppermost likely water producing geologic material was believed to be the Niobrara Formation (locally referred to by drillers as “chalk rock”). Active water rights/permits and observation wells monitored by the Water Rights Program in the vicinity of the wellsite for this application are also shown in Figure 1. These features are summarized in Table 2, which includes the initially assigned aquifer identification of the water right/permits. Also shown in Figure 1 is the delineation of the Parker Centerville aquifer by Holmes and Filipovic (2015), labeled in Figure 1 as Parker Centerville UR-93 (2015). Figure 2 is showing essentially the same information as Figure 1, but includes the Town of Parker to provide a location reference.

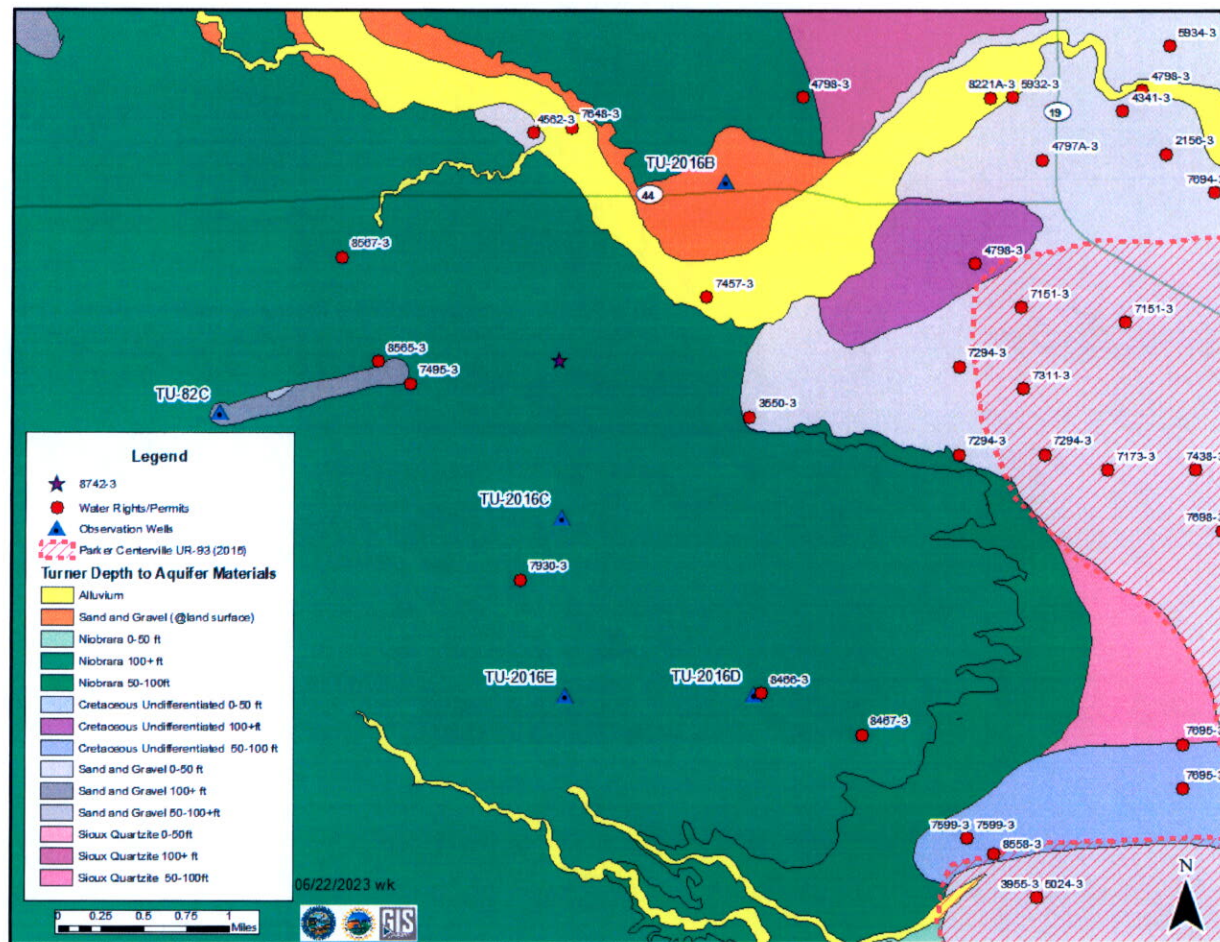


Figure 1: Depth to first occurrence of aquifer materials in the area of the application (Water Rights, 2023B and 2023c; modified from Jensen, 2015; and Holmes and Filipovic, 2015)

Report on Application No. 8742-3

Table 2: Summary of Water Rights/Permits Shown in Figure 1

Permit No.	Last Name	First Name	Priority Date	Status	Aquifer	Use	Rate (cfs)	Acres
2156-3	IHNEN	ROGER	12/02/1974	LC	VWF	IRR	1.28	90
3550-3	SCHMIDT	LARRY L	01/11/1977	LC	VWF	IRR	1.87	132
3955-3	WIRT	BONNIE L	04/19/1977	LC	PAC	IRR	0.87	61
4341-3	WEEG FAMILY FARMS LLP		11/27/1978	LC	VWF	IRR	0.89	62
4562-3	STRAWBRIDGE LIVING TRUST	LAWRENCE R	09/12/1980	LC	VWF	IRR	0.89	74
4797A-3	CITY OF PARKER		06/26/1962	PE	VWF	IRR	0.27	30
4798-3	CITY OF PARKER		08/26/1981	FU	PAC	MUN	0	n/a
5024-3	WIRT	RANDY	07/13/1984	LC	PAC	IRR	0.87	61
5932-3	JO'S FAMILY FARMS LLC		05/02/1996	LC	VWF	IRR	0.7	49
5934-3	VAN DEROSTYNE	JAMES P	05/02/1996	LC	VWF	IRR	1.67	120
7151-3	MERRILL	ALLEN	06/15/2009	PE	VWF	IRR	1.78	320
7173-3	BALLACOSTAIN LLP		12/02/2009	PE	VWF	IRR	1.45	140
7294-3	SCHMIDT	LARRY L	12/19/2011	PE	VWF	IRR	4	456
7311-3	MERRILL	ROBERT	11/28/2011	PE	VWF	IRR	1.33	145
7438-3	DAVIS	JAMES J	09/17/2012	PE	VWF	IRR	1.56	160
7457-3	SCHMIDT	LARRY L	10/09/2012	PE	VWF	IRR	2.22	207
7495-3	HERLYN	DENNIS	11/01/2012	PE	NBR	IRR	1.11	160
7599-3	RAND	JAMES M	12/28/2012	PE	PAC	IRR	2.22	155
7648-3	PAR MAR VALLEY CNTY CLB		01/17/2013	PE	VWF	IRR	0.89	50
7694-3	PLUCKER	JOSEPH	01/25/2013	PE	VWF	IRR	1.56	33
7695-3	THREE J FARM PARTNERSHIP		02/07/2013	PE	PAC	IRR	1.78	198
7698-3	MERRILL	ALLEN	02/08/2013	PE	PAC	IRR	1.11	145
7930-3	RAND	JAMES M	12/02/2013	PE	PS:U	IRR	1.89	162
8221A-3	SONSTEGARD FOOD COMPANY		08/01/2016	PE	VWF	COM/LCO	0	n/a
8466-3	LEBER BROS LLC		12/23/2020	PE	PAC	IRR	1.78	120
8467-3	LEBER BROS LLC		12/23/2020	PE	PAC	IRR	1.78	140
8558-3	ALLTHATISLEFT LLC		11/04/2021	PE	PAC	IRR	1.78	140
8565-3	HAASE	DUSTIN	12/02/2021	PE	PS:U	IRR	1.11	124
8567-3	HAASE	DUSTIN	12/02/2021	PE	PS:U	IRR	2.22	226

LC-license, PE-permit, FU-future use, VWF-Vermillion West Fork, PAC-Parker Centerville, PS:U-Pleistocene Series: Unknown, IRR-irrigation, MUN-municipal, COM-commercial, LCO-livestock confinement operation

Observation Wells Shown in Figure 1

Observation Well Name	Aquifer	Depth (ft)	Comments
TU-2016B	VWF	22	
TU-2016C	PS:U	155	
TU-2016D	PS:U	163	
TU-2016E	PS:U	155	
TU-82C	PS:U	200	

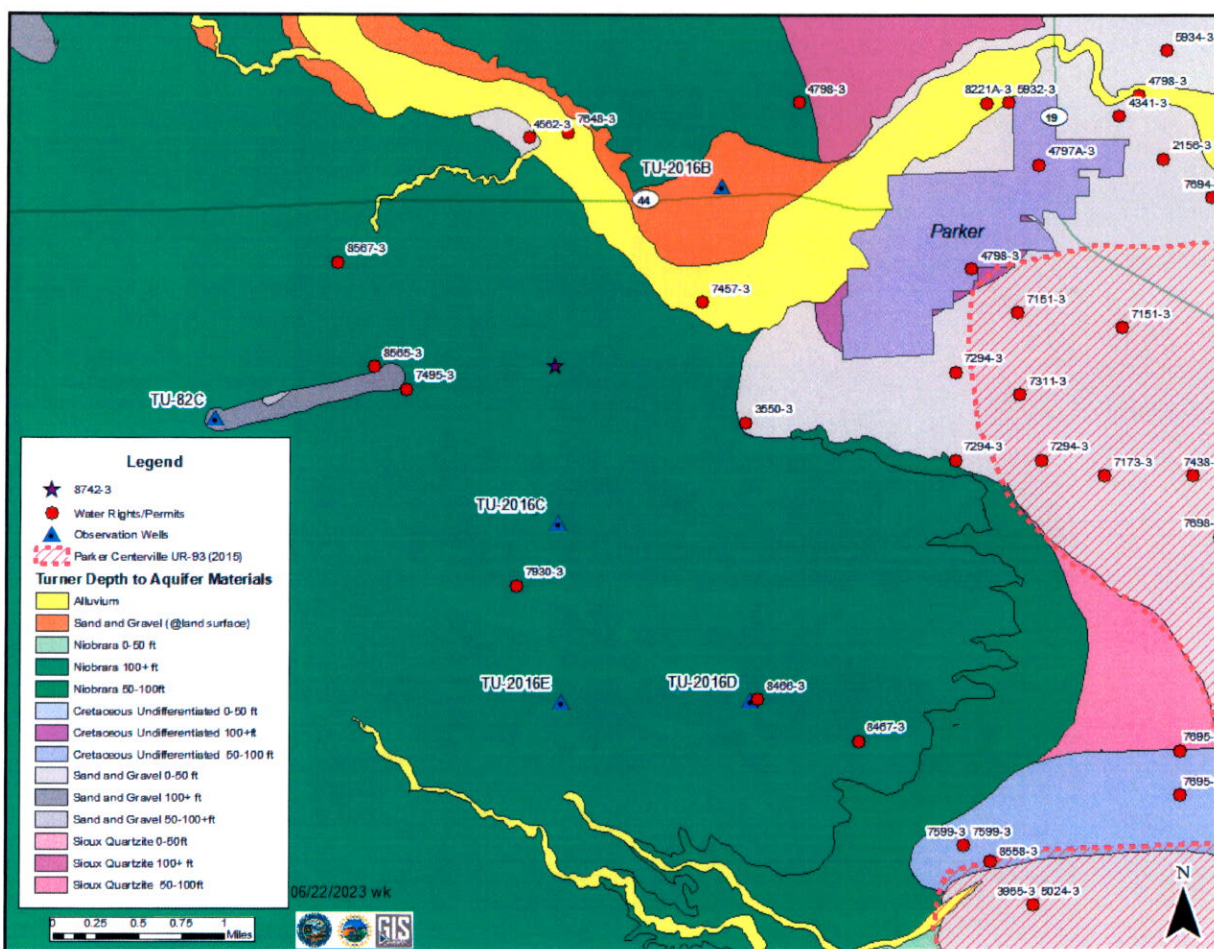


Figure 2: Depth to first occurrence of aquifer materials in the area of the application in relation to Parker, SD (Water Rights, 2023B and 2023c; modified from Jensen, 2015; and Holmes and Filipovic, 2015)

Variations exist between the several historical delineations and interpretations of the aquifers in the Parker area (Water Rights, 2023b; Lindgren, and Hansen, 1990; Hedges et al, 1982; Holly et al, 1993; and Tipton, 1957). The delineation of the Parker Centerville aquifer by Holmes and Filipovic (2015) included an additional area south of Parker that had historically been attributed as either the Vermillion West Fork aquifer or the Parker Centerville aquifer depending on the delineation of the aquifer at the time of the application and the Water Rights staff member reviewing the application (Water Rights, 2023b). This mix of interpretation appears to be due to being in the vicinity of the transition area between the two aquifers (just to the east of Parker, SD) which is an area where the aquifers are in significant hydrologic connection (Holmes and Filipovic, 2015 and Jensen, 2015). Jensen (2015) maps an area southwest of Parker where the first occurrence of aquifer material is sand and gravel at a depth of 0 to 50 feet below land surface west of and adjacent to the northwestern extent (south of Parker) of the Holmes and Filipovic (2015) Parker Centerville aquifer delineation. In reviewing the elevations of the sand and gravel at a depth of 0 to 50 feet below land surface west of and adjacent to the northwestern extent of the Holmes and Filipovic (2015) Parker Centerville aquifer delineation, the elevations of the sand and gravel are

similar. In the area just west of Parker, the elevation change associated with the west bank of the West Fork of the Vermillion River stream valley provides a southern boundary of the alluvium and sand/gravel of the Vermillion West Fork aquifer. This is also consistent with the mapping of the Vermillion West Fork aquifer by the South Dakota Geological Survey (SDGS, 2023b). So, the Jensen (2015) sand and gravel at a depth of 0 to 50 feet area southwest of Parker and adjacent to Holmes and Filipovic (2015) Parker Centerville aquifer delineation will be interpreted as part of the Parker Centerville aquifer. To reflect this, the active water rights/permits that have historically been interpreted as belonging to the Vermillion West Fork aquifer in or adjacent to this area (Nos. 3550-3, 7151-3, 7173-3, 7294-3, 7311-3, and 7438-3) will be interpreted as part of the Parker Centerville aquifer in this report.

Since the work of Jensen (2015) and Holmes and Filipovic (2015), significant additional drilling (both private and state) has occurred in the general vicinity of the well site for this application (especially to the south and west of the well site for this application). This additional drilling has led to information indicating the presence of a more significant deposit of water bearing sand and gravel to the southwest of Parker where Jensen (2015) mapped the Niobrara as the uppermost aquifer material. As additional drilling data has become available in the area and additional water permitting has occurred, the delineation and interpretation of this aquifer has evolved. The two main interpretations for this deposit are Farmer (2021) and Steen (2022). Farmer (2021) mapped a portion of this deposit as an additional area for the Parker Centerville aquifer ranging from approximately two miles south of Parker, SD to 2.5 miles west of Parker. Steen (2022) mapped a portion of this area as a unit of the Pleistocene: Series Unknown (PS:U) aquifer that overlapped with the additional Parker Centerville aquifer area proposed by Farmer (2021). These areas are shown in Figure 3.

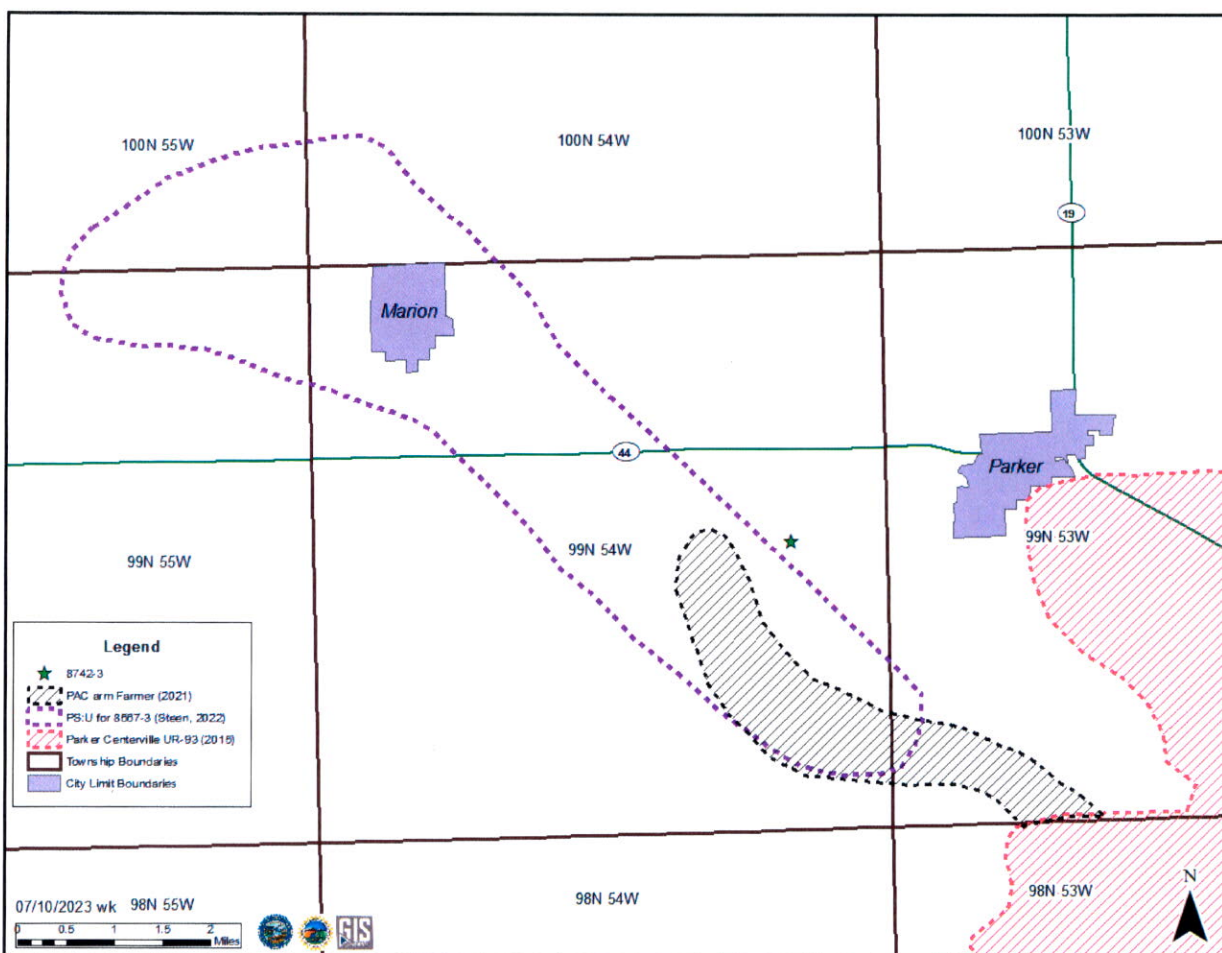


Figure 3: Parker Centerville aquifer delineation of Holmes and Filipovic (2015) (Parker Centerville UR-93 (2023)), Steen's (2022) Pleistocene: Series Unknown aquifer, and Farmer's (2021) arm of the Parker Centerville aquifer

Kilts and Mathiowetz (2023) reviewed the geologic and hydrogeologic information in the area of the overlap using the current and best reasonably available information and resolved the overlap area to be a buried arm of the Parker Centerville aquifer extending northwest from the main body of the aquifer mapped by Holmes and Filipovic (2015). Kilts and Mathiowetz (2023) determined that based-on hydrogeologic properties, such as confined vs unconfined conditions and the amount of overlay glacial till, that only a small portion of the arm mapped by Farmer (2021) should actually be considered as a part of the main body of the Parker Centerville aquifer. The methodology of Kilts and Mathiowetz (2023) is consistent with that used by Hedges et al. (1982) for determining aquifer and management unit boundaries. This area is shown in Figure 4. Given the hydrogeologic properties of the remaining aquifer area, water availability in the remaining area of the aquifer from Farmer (2021) and Steen (2022) will need to be reviewed separately from the main body of the Parker Centerville aquifer (Kilts and Mathiowetz, 2023). Based on Steen (2022) this separate aquifer area is likely nearing full appropriation.

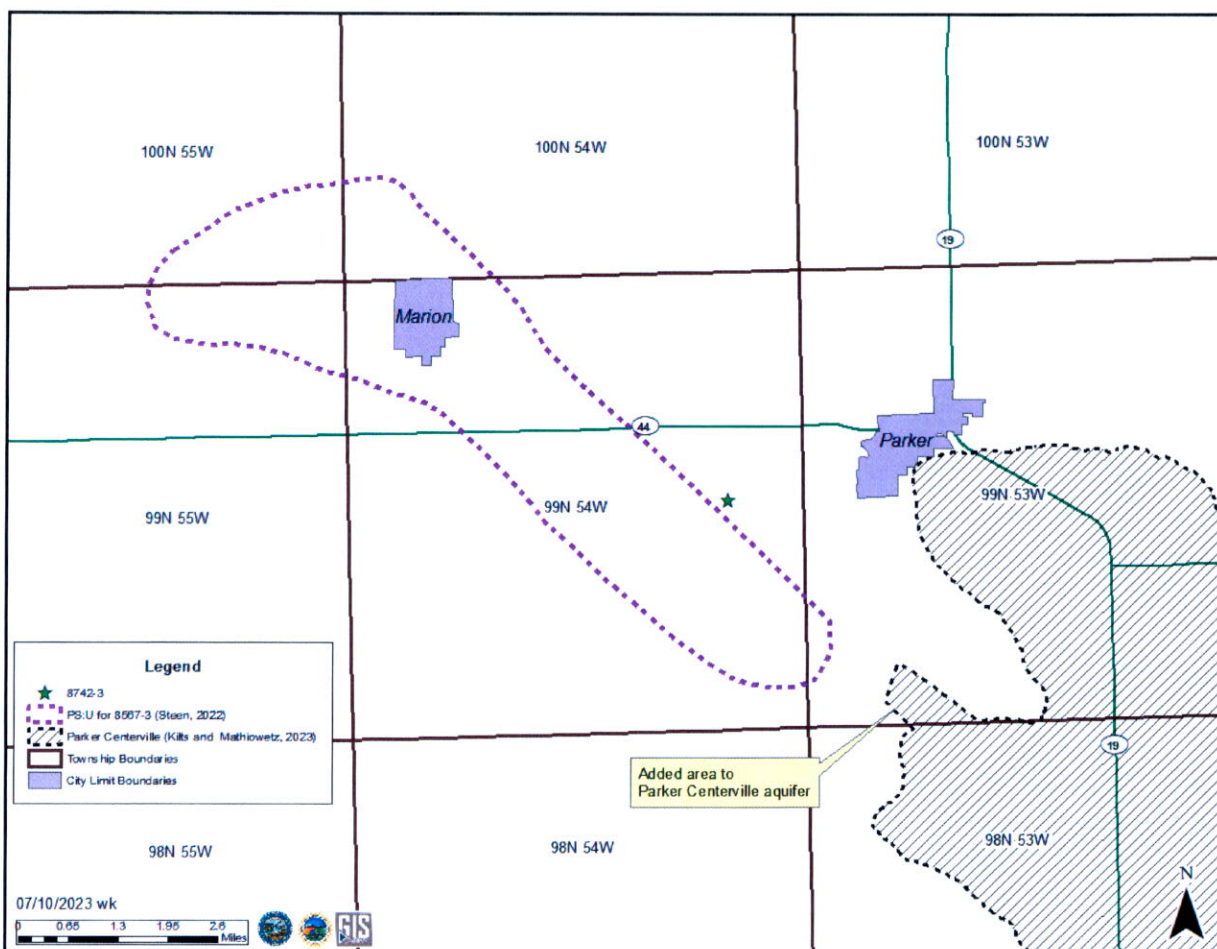


Figure 4: Steen's (2022) Pleistocene: Series Unknown aquifer and Kilts and Mathiowetz's (2023) Parker Centerville aquifer delineation

On June 21, 2023, a site visit was made to the area to survey the casing tops (measuring points) and collect water levels for several wells in the area to gain additional insight into the target aquifer for this application, and if this target aquifer is a westward extension of the main body of the Parker Centerville aquifer or a northeastern extension of Steen (2022). The wells surveyed are shown in Figure 5 and summarized in Table 3. South Dakota Geological Survey (SDGS) well M51-2021-10 is located approximately 0.29 miles south of the well site for this application and is expected to be completed into the same aquifer that this application proposes to utilize. The well for Water Right No. 3550-3 is located approximately 1.13 miles to the east of the SDGS Well M51-2021-10. Based on the water level and elevation of the aquifer materials, there is a high probability that these wells (M51-2021-10, Water Right No. 3550-3, and proposed for this application) are completed into the same aquifer. This information is indicative of the target aquifer for the well site being a westward extension of the main body of the Parker Centerville aquifer.

Report on Application No. 8742-3

Table 3: Data from June 10, 2023, Field Visit					
Well	Aquifer	Top of casing (ft)	Depth to water (ft)*	Water elevation (ft)	Vertical Datum
M51-2021-10	PAC	1415.7	-68.63	1347.07	NAVD88
Well WR No. 3550-3	PAC	1368.77	-34.91	1333.86	NAVD88
TU-2016C	PS:U?	1425.2	-81.29	1343.91	NAVD88
TU-2016E	PS:U	1395.8	-109.49	1286.31	NAVD88
TU-2016D	PS:U	1389.83	-102.65	1287.18	NAVD88
TU-82C	PS:U	1473.27	-25.41	1447.86	NAVD88
M51-2021-09	PS:U?	1447.86	-19.8	1428.06	NAVD88
Additional Data					
Well	Aquifer	Depth top of aquifer (ft)	Top of Aquifer (ft)	Bottom of Well or Aquifer (ft)	Vertical Datum
M51-2021-10	PAC	89	1324.66	1313.66	NAVD88
Well WR No. 3550-3	PAC	50	1318.77	1307.77	NAVD88
TU-2016C	PS:U?	116	1307.23	1291.23	NAVD88
TU-2016E	PS:U	123	1271.79	1239.79	NAVD88
TU-2016D	PS:U	93	1296.02	1227.02	NAVD88
TU-82C	PS:U	121	1378.29	1337.29	NAVD88
M51-2021-09	PS:U?	82	1363.97	1349.97	NAVD88

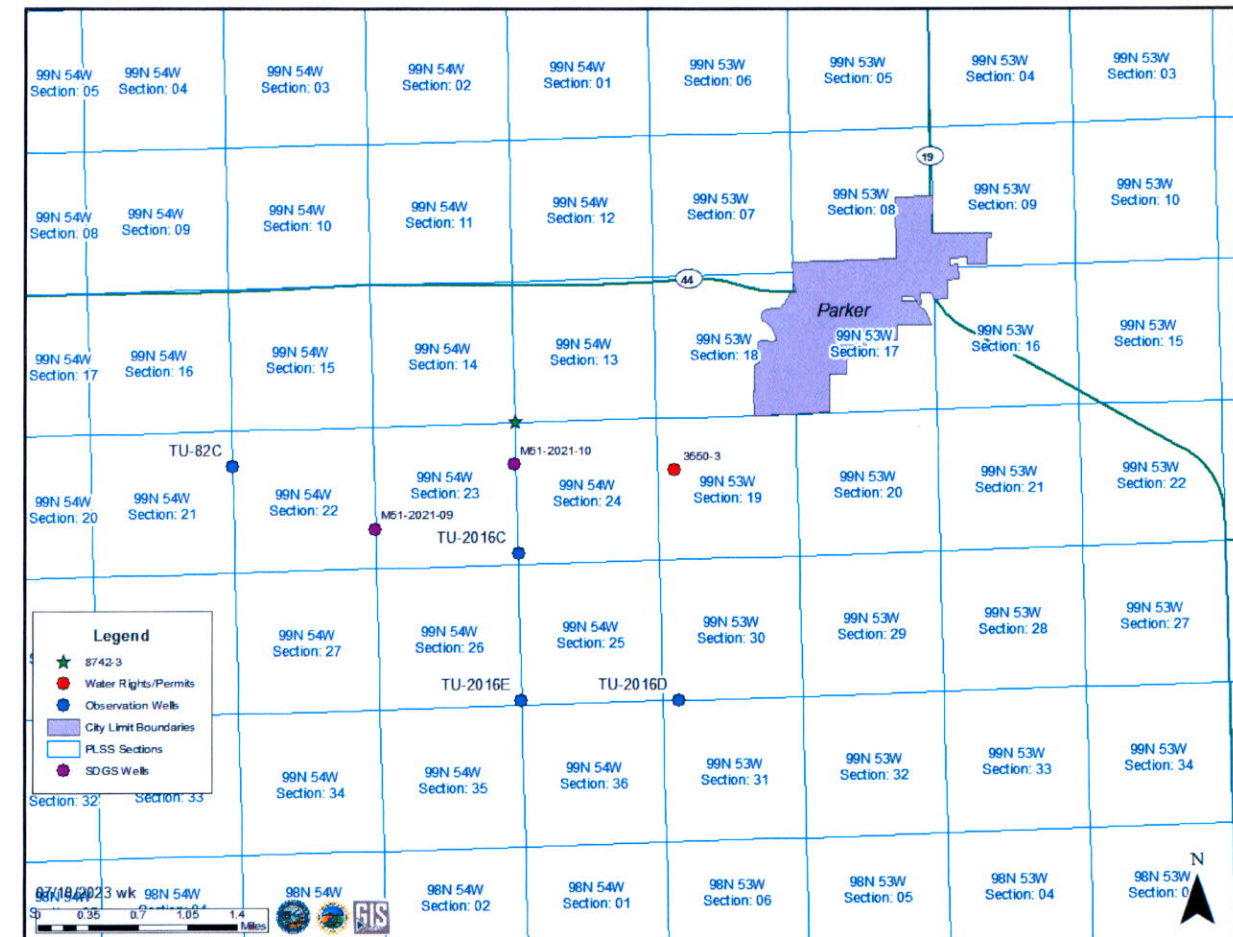


Figure 5: Wells visited for the June 21, 2023, site visit (Water Rights, 2023b and 2023c; SDGS, 2023a)

Several of the Pleistocene: Series Unknown aquifer wells to the south were also examined to determine if the target aquifer for this application should be considered a northeastern extension of Steen (2022). This was in part due to looking at the elevations, the aquifer materials have a slight downward slope going south of the well site for this application. The downward trend was

examined since even with the initial water permit application (No. 7930-3 for James Rand) for the Pleistocene: Series Unknown aquifer; this aquifer was linked in part to a slight valley in the Niobrara bedrock (elevation 1250 feet and lower) mapped by Holmes and Filipovic (2015) (Mathiowetz, 2014). Production wells drilled for water rights/permits in the area of Steen's (2022) Pleistocene: Series Unknown aquifer since Mathiowetz (2014), generally match up with this bedrock valley shown in Figure 6. TU-2016D drilled after the work of Holmes and Filipovic (2015), suggests that the bedrock valley likely extends to the vicinity of TU-2016D (Water Rights, 2023c). The hydrographs of observation wells TU-2016C, TU-2016D, and TU-2016E were also reviewed as shown in Figure 7. Additionally, elevations of aquifer materials and water levels from select production wells completed into Steen's (2022) Pleistocene: Series Unknown aquifer with ground surface elevation were estimated from the state's one meter resolution bare earth digital elevation model as shown in Table 4.

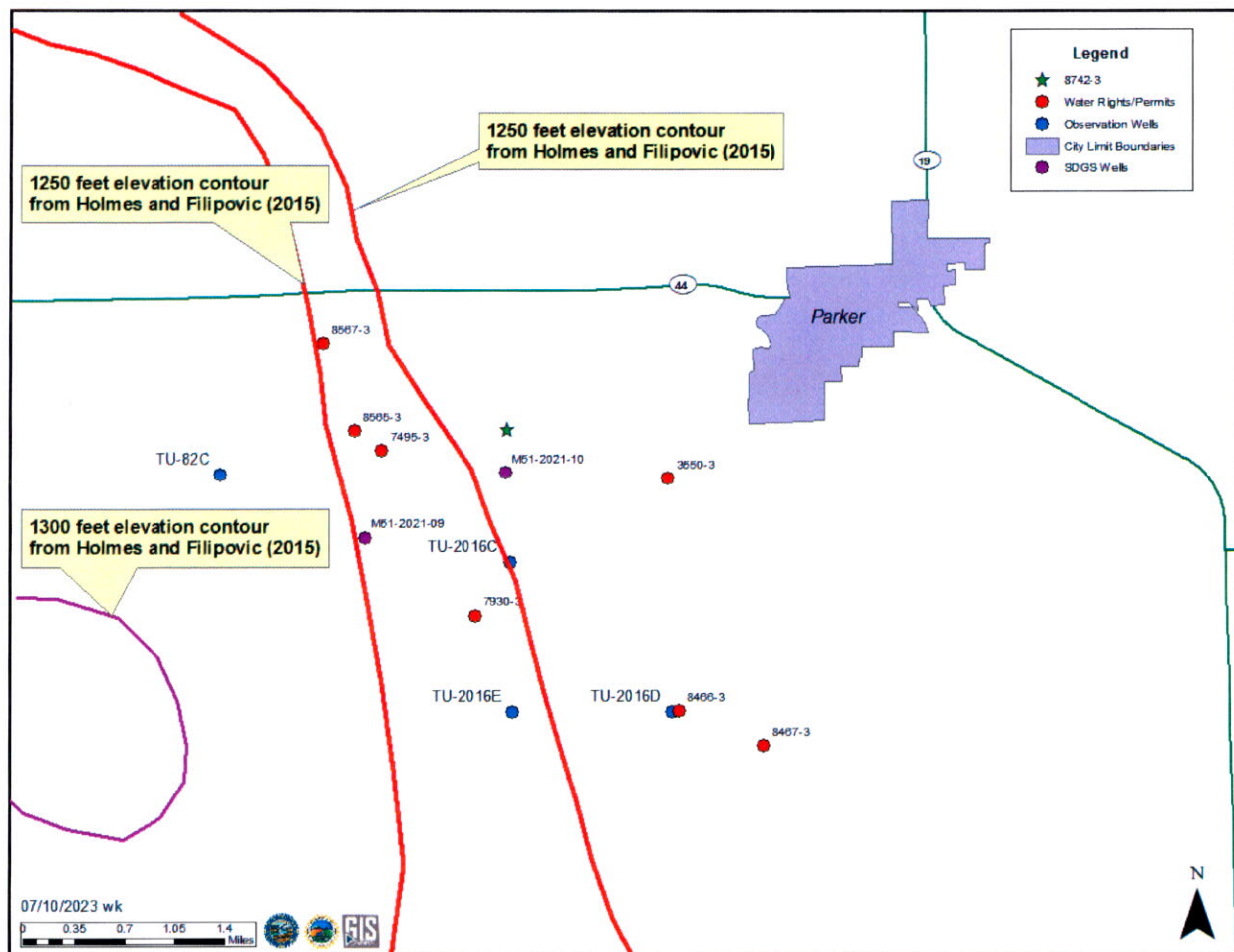


Figure 6: Location of bedrock valley (bounded by the 1250 ft elevation contours) in relation to select observation wells and water rights/permits (Water Rights, 2023b and 2023c, SDGS, 2023a and modified from Holmes and Filipovic, 2015)

Report on Application No. 8742-3

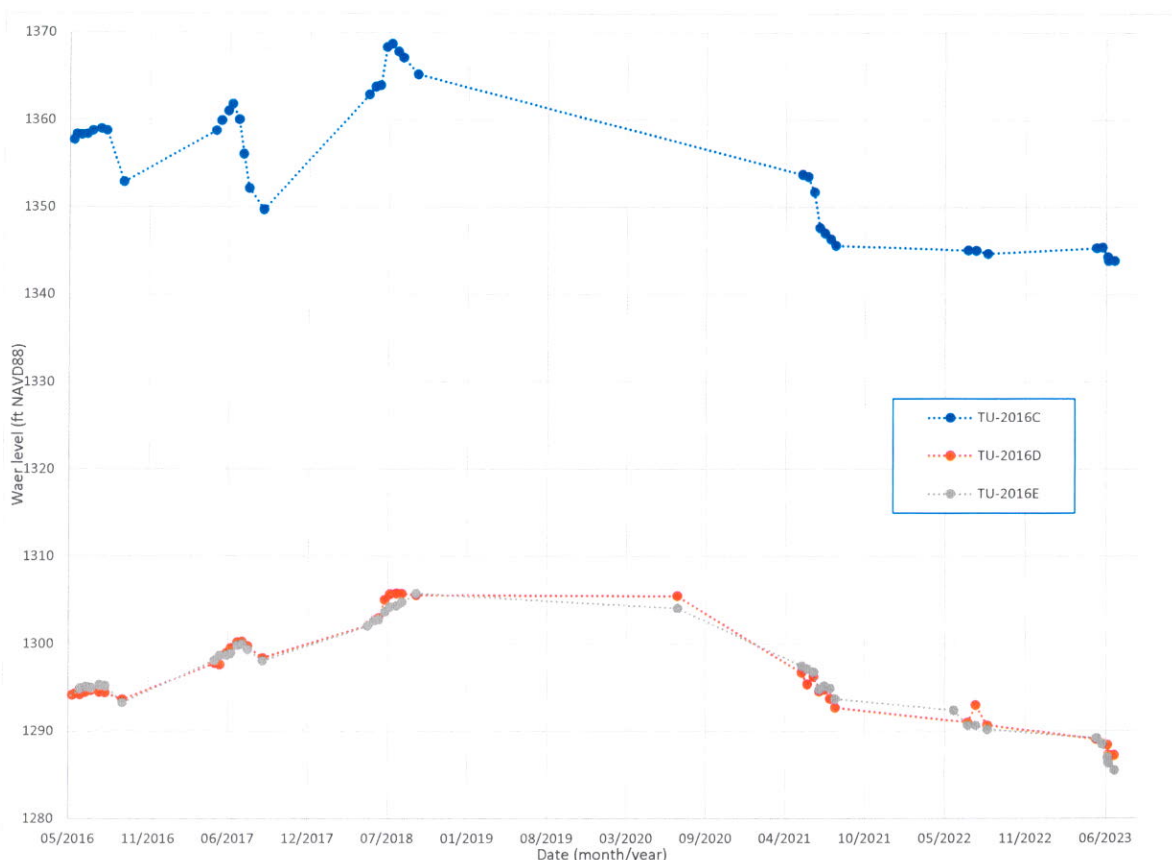


Figure 7: Hydrographs for TU-2016C, TU-2016D, and TU-2016E (Water Rights, 2023c)

Well	Ground elevation (ft)	depth to top of aquifer (ft)	top of aquifer (ft)	depth to bottom of aquifer or well (ft)	bottom of aquifer or well (ft)	Depth to water (ft)	Date	Water level (ft)
7495-3	1449.4	180	1269.4	202	1247.4	150	08/13/2013	1299.4
7599-3	1325.0	33	1292.0	106	1219.0	30	04/26/2013	1295.0
7695-3	1314.3	18	1296.3	47	1267.3	25	07/09/2013	1289.3
7930-3 (pw-2)	1408.5	145	1263.5	168	1240.5	112	11/18/2013	1296.5
7930-3 (ow-1)	1410.9	130	1280.9	193	1217.9	112	05/03/2014	1298.9
8466-3	1386.5	75	1311.5	160	1226.5	not provided	06/15/2021	
8467-3	1364.7	70	1213.7	150	1156.7	not provided	06/16/2021	
8558-3	1313.7	33	1280.7	122	1191.7	27	05/25/2012	1286.7
8565-3	1427.0	174	1253.0	198	1229.0	152	03/29/2022	1275.0
8567-3	1425.7	189	1236.7	208	1217.7	135	03/31/2022	1290.7

All elevations in reference to NAVD88

Wells M51-2021-10 and TU-2016C are located approximately 0.63 miles apart. The elevation of the aquifer materials in M51-2021-10 (1,313.66-1,324.66 ft NAVD88) and TU-2016C (1,291.23-1,307.23 ft NAVD88) and their water levels (Table 3) are relatively close. This suggests that there might be some degree of connection (either direct or separated by a relatively thin amount of till) between the aquifer for this application and Steen's (2022) Pleistocene: Series Unknown aquifer. Additionally, based on the water levels in Table 3, it is likely that discharge via seepage is occurring from the target aquifer for this application to Steen's (2022) Pleistocene: Series Unknown aquifer. Water Permit No. 7930-3 is located approximately 0.44 miles south of observation well TU-2016C and observation well TU-2016E is located approximately one mile south of observation well TU-2016C. Based on Table 3 and Table 4, the water levels at Water Permit No. 7930-3 and observation well TU-2016E are similar, but between observation well TU-

2016C and observation well TU-2016E, there is a difference in elevation of 57.6 feet over a distance of one mile. A gradient like this typically indicates the wells are unlikely to be in the same aquifer. Hedges et al. (1982) has used large drops in the potentiometric surface over short distances as a dividing line between areas for water management between outwash aquifer bodies in contact with each other, for example the Choteau: Tyndall and the Lower James Missouri: Scotland aquifers. Based on the available information (especially water level differences) even if the target aquifer for this application is in contact with the Steen's (2022) Pleistocene: Series Unknown aquifer, there should be a boundary for the purposes of water management in the vicinity of observation well TU-2016C. This is in general agreement with the data from the aquifer performance test done as a part of the review for Water Permit No. 7930-3 which indicated a negative aquifer boundary approximately 3,500 feet from the pumping well for the test (Peschong, 2014). Observation well TU-2016C is approximately 2,600 feet from the well for Water Permit No. 7930-3. Therefore, based on the currently best available information the interpretation of the target aquifer for this application is that it is part of the Parker Centerville aquifer.

Beyond the previously discussed westward extension in the area of Parker, the only additional modification to the Holmes and Filipovic (2015) delineation of the Parker Centerville used in this report is from Mathiowetz (2018). Mathiowetz (2018) extended the mapping of the Parker Centerville aquifer by Holmes and Filipovic (2015) to approximately four miles south of Centerville, SD. This southern extension included a portion of the area mapped as Parker Centerville by Hedges et al. (1982), which contains appropriate and observation wells completed into surficial alluvial and outwash deposits along the Vermillion River (Water Rights, 2023b and 2023c; Jensen, 2003 and 2015). The Holmes and Filipovic (2015) delineation of the main body of the Parker Centerville aquifer with the modifications discussed in this report is shown in Figure 8. For the remainder of this report the term Parker Centerville will refer to the main body of the Parker Centerville aquifer as shown in Figure 8. The areal extent of the main body of the Parker Centerville aquifer as shown in Figure 8 is 44,300 acres.

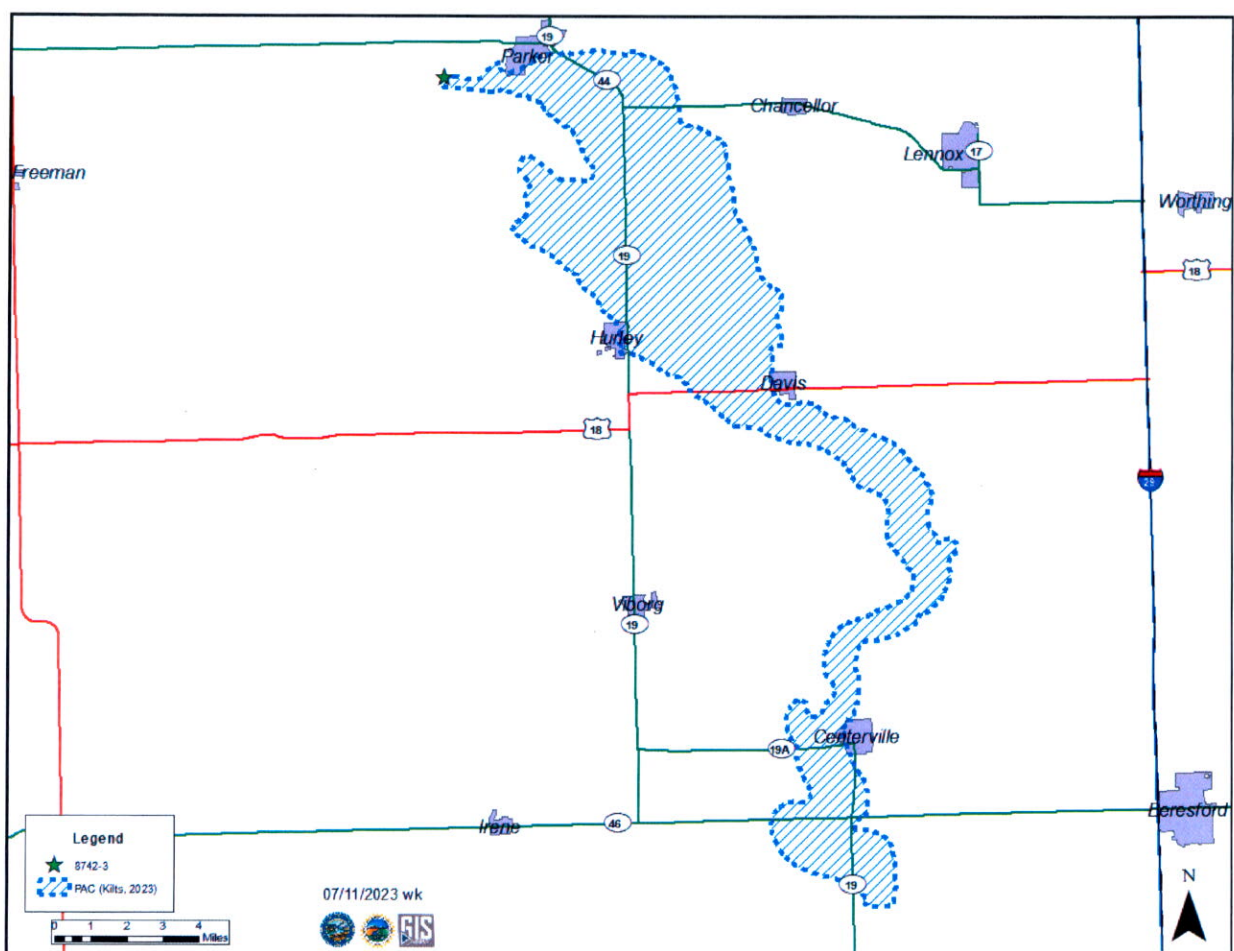


Figure 8: Updated approximate areal extent of the Parker Centerville aquifer for this report (modified from Kilts and Mathiowetz, 2023; Holmes and Filipovic, 2015; Mathiowetz, 2018; Farmer, 2021; Jensen, 2015)

The Parker Centerville aquifer is a predominantly unconfined glacial outwash aquifer, composed of unconsolidated sand and gravel (Holmes and Filipovic, 2015). The north end of the Parker Centerville aquifer is a seven-mile-wide flat depression that narrows down into a mile wide valley train between Davis and Centerville (Tipton, 1957). Holmes and Filipovic (2015) delineated several areas where the Parker Centerville aquifer is hydrologically connected to the Upper Vermillion Missouri aquifer, elsewhere the aquifer can be separated from the underlying Upper and Lower Vermillion Missouri aquifers by a layer of till ranging from 7 to 97 feet thick (Lindgren and Hansen, 1990). The Parker Centerville aquifer is also hydraulically connected to the Vermillion River, Vermillion East Fork aquifer, and Vermillion West Fork aquifer (Lindgren and Hansen, 1990; Holmes and Filipovic, 2015). The thickness of the target aquifer material in the test hole for this application is 19 feet (Table 1), indicating that the saturated thickness of the aquifer in the vicinity of the well site for this application is likely relatively thin. Based on the information for the well for Water Right No. 3550-3 and M51-2021-10 (Table 3) at the well site for this application, the Parker Centerville is locally under confined conditions and may switch to buried unconfined conditions at lower water levels.

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 the applicant’s proposed use, that the diversion point can be developed without unlawful impairment of existing domestic water uses and water rights, and that the proposed use is a beneficial use and in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board as defined by SDCL 46-2-9 and 46-2-11.” This report will address the availability of unappropriated water and the potential for unlawful impairment of existing domestic water uses and water rights within the Parker Centerville aquifer.

Water Availability

Water Permit Application No. 8742-3 proposes to appropriate water from the Parker Centerville aquifer for irrigation use. The probability of unappropriated water being available from an 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 the application is for a water distribution system defined in SDCL 46-1-6 (17), the Board need not consider the recharge/withdrawal issue. The Parker Centerville aquifer is neither older or stratigraphically lower than the Greenhorn Formation and this application is not for a water distribution system as defined in SDCL 46-1-6 (17); therefore, the withdrawal/recharge issue must be considered.

Observation Well Data

In determining the availability of unappropriated water for a permit application, Administrative Rule 74:02:05:07 requires the Water Management Board to rely on 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 annual recharge.

The DANR Water Rights monitors 22 observation wells completed into the Parker Centerville aquifer, one (TU-56F) of which measurements have been suspended due to the upcoming planned decommissioning of the well (Water Rights, 2023c). The nearest Water Rights’ monitored observation wells in the Parker Centerville aquifer to the well site for this application is observation well TU-79A located approximately 4.4 miles to the southeast of the well site for this application and observation well TU-79C located approximately 4.6 miles to the south-southeast of the well site for this application (Water Rights, 2023c). The hydrographs for these observation wells are shown in Figure 9 and Figure 10, these hydrographs are generally representative of the behavior of the hydrographs of other observation wells in the Parker Centerville.

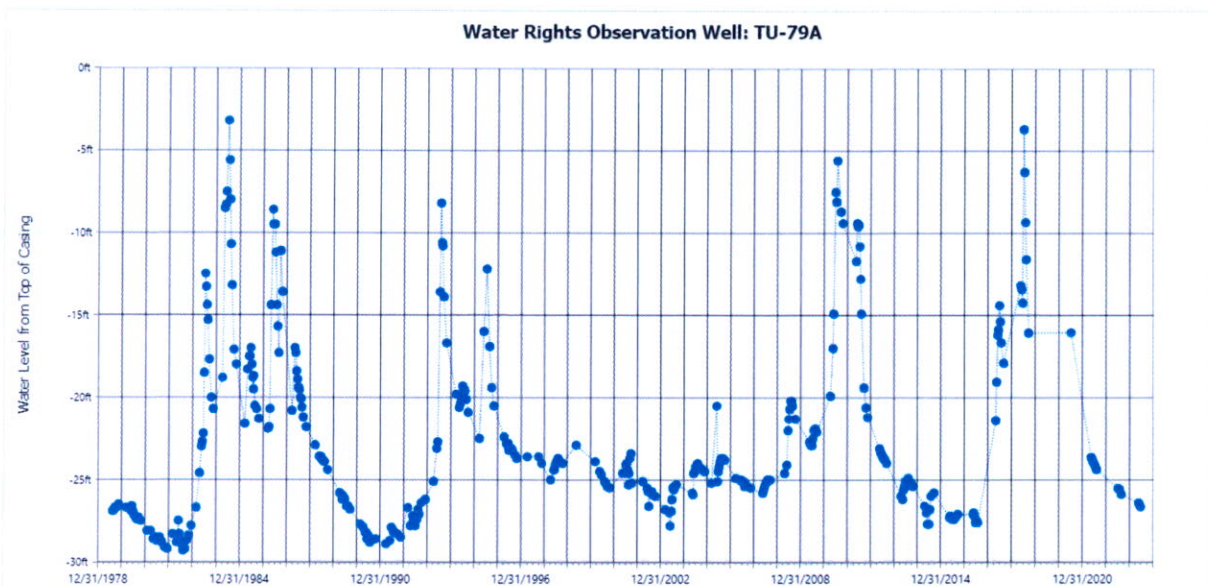


Figure 9: Hydrograph of observation well TU-79A (Water Rights, 2023c)

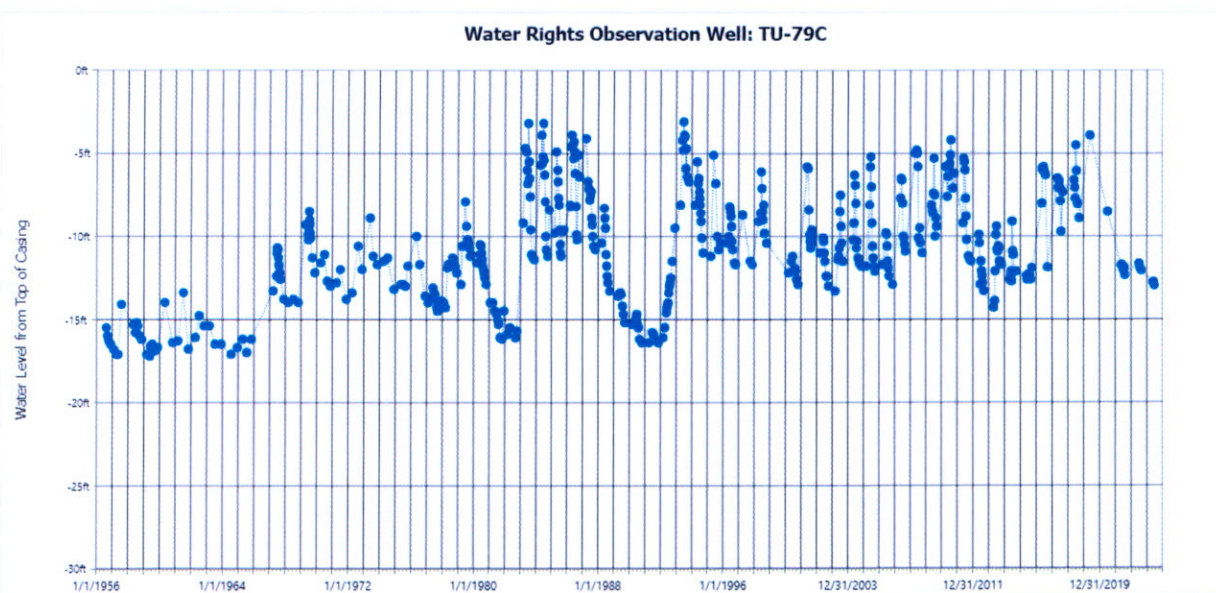


Figure 10: Hydrograph of observation well TU-79C (Water Rights, 2023c)

The majority of the observation wells in the Parker Centerville aquifer have generally stable water levels over their periods of record, with a few observation wells showing a slight decline in recent years (Water Rights, 2023b). The hydrographs for the Parker Centerville aquifer indicate that the aquifer responds well to climatic conditions because water levels are rising during wetter periods (early spring snowmelt and precipitation) and declining to a stable water level during drier periods. The water levels in the observation wells display that the amount of recharge to and natural discharge from the aquifer exceed pumping with the aquifer returning to pre-pumping conditions between irrigation seasons. Aquifer recovery indicates that climatic conditions and therefore, the effects of recharge to and natural discharges from the aquifer govern the long-term fluctuations of waters levels in the aquifer rather than the impacts of pumping from

the Parker Centerville aquifer. By recognizing that both recharge to and natural discharge from an aquifer can be captured for pumping, the observation well hydrographs demonstrate unappropriated water is available for the proposed appropriation.

Hydrologic Budget

Recharge

Recharge to the main body of the Parker Centerville aquifer is received primarily through direct infiltration of precipitation where the aquifer is at or near the ground surface, inflow from the Vermillion East Fork and Vermillion West Fork aquifers, and seepage from the Vermillion River when the water level in the river is higher than the water level in the aquifer (Lindgren and Hansen, 1990). Hedges et al (1985) estimated a recharge rate of 4.9 inches per year for the Parker Centerville aquifer treating the aquifer as an unconfined surficial (non-buried) aquifer. Since the additional area added in Figure 8 southwest of Parker is generally under generally confined to buried unconfined conditions (suggesting that this portion of the aquifer will likely receive a lower average rate of recharge compared to the rest of the aquifer), the Parker Centerville aquifer delineation of Kilts and Mathiowetz (2023) is the best available estimate of the unconfined area of the Parker Centerville aquifer (43,500 acres). Therefore, an area of 43,500 acres and a rate of 4.9 inches per year for the unconfined, non-buried portion of the aquifer will be used to estimate recharge to the Parker Centerville aquifer. This yields an estimated average annual recharge rate of approximately 17,763 acre-feet per year.

Discharge

Discharge from the Parker Centerville aquifer primarily occurs through well withdrawals, outflow to the Vermillion River, leakage to the Upper Vermillion Missouri aquifer, and evapotranspiration in areas where the aquifer is at or near land surface (Lindgren and Hansen, 1990; Holmes and Filipovic, 2015). Near the well site for this application there is likely leakage to the Pleistocene: Series Unknown aquifer of Steen (2022). The majority of water rights/permits for this aquifer are for irrigation use. Due to the relatively low diversion rate of domestic wells and the development of rural water systems over a large portion of the area where the Parker Centerville aquifer is the uppermost aquifer available, withdrawals from domestic wells are assumed to be a negligible portion of the hydrologic budget.

The City of Parker holds Future Use Permit No. 4798-3, which reserves 340 acre-feet of groundwater (less than 100 ft deep) in Sections 7, 8, 9, 15, 16, 17, and 18: all in T99N-R53W (Water Rights, 2023b). Depending on where the well or wells for this permit are eventually developed, groundwater less than 100 ft deep could refer to either the Parker Centerville aquifer, the Vermillion West Fork aquifer, or the Vermillion East Fork aquifer. For the purposes of this hydrologic budget, it is assumed that this future use permit will be fully developed from the Parker Centerville aquifer.

Jensen (2023) in a report dated April 3, 2023, reviewed average annual appropriative use to this aquifer. The best available information indicates there have been no significant changes to estimated average annual appropriative use since this review. Average annual water use by non-irrigation appropriations from the aquifer were estimated at 1,018 acre-feet per year (Jensen, 2023). Jensen (2023), to reflect the current development of irrigation water rights/permits more

accurately, used the average annual reported water use on irrigation questionnaires for irrigation water rights/permits from the Parker Centerville aquifer from 2012 to 2021 (approximately 10,772 acre-feet per year) and estimated one foot of water per acre per year of use for recently issued irrigation water permits that have not yet reported water use (1,113 acre-feet per year). For Water Right/Permit Nos. 3550-3, 7151-3, 7173-3, 7294-3, 7311-3, and 7438-3, Jensen (2023) estimates average water use based on reported use from 2012 to 2021 at 485 acre-feet per year. This results in a total estimated average annual withdrawal rate for the irrigation appropriations of 12,370 acre-feet per year (Jensen, 2023 and Water Rights, 2023e). Using the same rate of one foot of water per acre per year of use, water use associated with this application for irrigation is conservatively estimated at 160 acre-feet per year.

Summary

Estimated average annual recharge to the Parker Centerville aquifer is approximately 17,763 acre-feet per year. The estimated average appropriative withdrawal rate from the Parker Centerville aquifer totals to approximately 13,888 acre-feet/year; (non-irrigation: 1,018 acre-feet per year; future use: 340 acre-feet/year; irrigation: 12,370 acre-feet per year; and this application: 160 acre-feet per year). Based on the hydrologic budget, there is a reasonable probability unappropriated water is available from the Parker Centerville aquifer for the proposed appropriation, which is supported by the review of observation well data for the aquifer.

Potential for Unlawful Impairment of Existing Water Rights

Water rights/ permits in the vicinity of the well site for this application are shown in Figure 1 and summarized in Table 2. The nearest water right/permit to the well site for this application completed into the same aquifer is Water Right No. 3550-3 located approximately 1.1 miles to the east-southeast held by the applicant, Larry Schmidt, for irrigation (Water Rights, 2023b). The nearest water right/permit to the well site for this application likely completed into the same aquifer not belonging to the applicant is Water Permit No. 7311-3 located approximately 2.7 miles to the east held by Merrill Robert for irrigation (Water Rights, 2023b). There are no domestic wells on file with the Water Rights Program within one mile of the well site for this application completed into the Parker Centerville aquifer based on well locations identified on the report filed by the well driller; However, there are likely closer domestic wells completed into the aquifer not on file with the Water Rights Program. During the site visit, the applicant's operator noted there was a domestic well at an old farm site approximately 0.25 east of the proposed well site for this application (Leber and Schmidt, 2023).

In general, this aquifer is under unconfined conditions, but in the vicinity of the well site for this application, the aquifer can be under locally confined (or artesian) conditions. The Water Management Board has promulgated rules that allow water to be placed to maximum beneficial use without the necessity of maintaining artesian head pressure for domestic use. The Board has defined an adversely impacted domestic well as "a well in which the pump intake was set at least 20 feet below the top of the aquifer at the time of construction or, if the aquifer is less than 20 feet thick, is as near to the bottom of the aquifer as is practical and the water level of the aquifer has declined to a level that the pump will no longer deliver sufficient water for the well owner's needs." In the case of Water Permit Application No. 2313-2 for the Coca-Cola Bottling Company of the Black Hills the Water Management Board adopted findings that noted that if the increased costs

or decreased production as a result of the impacts of legitimate users on artesian head pressure could be considered an adverse impact it would conflict with SDCL 46-1-4 (Water Rights, 1995). SDCL 46-1-4 requires the water resources of the state be put to beneficial use to the maximum extent of which they are capable (Water Rights, 1995). There is not a history of recent substantiated well interference complaints in the Parker Centerville aquifer in Turner County (Water Rights, 2023d).

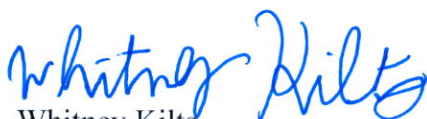
In the area of the proposed location for the well for this application, the Parker Centerville aquifer can be relatively thin with a limited amount of saturated thickness. While long term average annual withdrawals would not exceed average annual recharge to the aquifer, short term conditions may occur when withdrawals exceed recharge. When this occurs, water will be removed from storage, consequently reducing the saturated thickness of the aquifer. If this occurs for an extended period of time such that the saturated thickness is reduced to the extent that the water rights/permits can no longer pump at their developed or “historically established” rates, this may be considered an adverse impact. The greatest potential for this to occur is between the pumping well for this application and the nearby edge of the aquifer. However, there are no domestic wells on file with the Water Rights Program between the proposed well location and the aquifer boundary. If short term conditions occur when withdrawals exceed recharge, the water source would need to be managed to prevent any unlawful impairment. Since the nearest appropriative well in this aquifer belongs to the applicant; it is in the applicant’s best interest to manage his own wells so they do not impact each other, which should in turn limit impacts on other nearby wells in the Parker Centerville aquifer. Given the lack of well interference issues, the need for the applicant to manage their withdrawals so as not to impact their own wells, and the lack of domestic wells competed into the Parker Centerville aquifer on file with the Water Right Program in the area, there is limited potential for unlawful impairment of existing users with adequate wells.

In 2021, the SDGS installed an observation well M51-2021-10 approximately 0.3 miles south of the proposed well site for this application. Observation well M51-2021-10 is completed into the same aquifer that this application proposes to utilize. Out of an abundance of caution it recommended that this observation well be measured as part of the DANR Water Rights Program Observation Well Network for at least the first several years of pumping under this application, if approved.

Conclusions

1. Water Permit Application No. 8742-3 proposes to irrigate 160 acres located in the SW $\frac{1}{4}$ Section 13 at a maximum diversion rate of 1.78 cfs from one well to be completed into the Parker Centerville aquifer (approximately 71 feet deep) located in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 13; all in T99N-R54W.
2. Based on observation well data and the hydrologic budget, there is a reasonable probability that unappropriated water is available from the Parker Centerville aquifer to supply the proposed appropriation.

3. There is a reasonable probability that the diversion by Water Permit Application No. 8742-3 will not unlawfully impair adequate wells for existing water rights/permits or domestic uses.
4. It is recommended that South Dakota Geological Survey Well M51-2021-10 be added to the DANR Water Rights Program Observation Well Network.



Whitney Kilts
Engineer III
SDDANR-Water Rights

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Joe Foss Building, Pierre, South Dakota.



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

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

July 24, 2023

Larry Schmidt
44819 277th Street
Parker SD 57053

Dear Mr. Schmidt:

Water Permit Application No. 8742-3 for irrigation use have been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Turner County New Era printed at Parker SD (Ph # 605 297-4419) and the Argus Leader printed at Sioux Falls SD (see attachment for contact number). You will need to contact the newspapers and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the 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 newspapers to authorize publication of your Notice and to arrange for payment. Early contact with the papers can eliminate delays. Upon receiving authorization from you, the publishers have been instructed to publish your notice. The newspapers have 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,

Rachel Rodriguez

Rachel Rodriguez
Water Rights Program
(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. 8742-3 to Appropriate Water

Notice is given that Larry Schmidt, 44819 277th Street, Parker SD 57053 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 Parker Centerville Aquifer (approximately 71 feet deep) located in the SW 1/4 SW 1/4 Section 13 for irrigation of 160 acres located in the SW 1/4 Section 13; all in T99N-R54W also authorized for irrigation by Water Permit No. 7457-3. This site is located approximately 2 miles west of Parker SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8742-3 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by August 14, 2023.

The petition shall include a statement describing the unique injury upon approval of the application on the petitioner, the petitioner's reasons for opposing the application, and the name and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by August 14, 2023.

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.

Published once at the total approximate cost of _

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Monday, July 24, 2023 8:53 AM
To: newera@ncppub.com
Subject: 8742-3 Larry Schmidt - Public Notice
Attachments: 8742-3 public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on August 3, 2023.

Larry Schmidt, 44819 277th Street, Parker SD 57053, (605 351-4955) has been notified to contact you to authorize publication and arrange for payment.

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

Let me know if you have questions. [Please acknowledge receipt of this email.](#)

Thank you,

Rachel Rodriguez
DANR | Program Assistant
Rachel.Rodriguez@state.sd.us



Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Monday, July 24, 2023 8:55 AM
To: legals@argusleader.com
Subject: 8742-3 Larry Schmidt - Public Notice
Attachments: 8742-3 public.short_final.docx; FORM8.FRM.doc

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Rachel Rodriguez
DANR | Program Assistant
Rachel.Rodriguez@state.sd.us



Argus Leader

P.O. Box 677349, Dallas, TX 75267-7349

Account No.: SFA-0000001230

Ad No.: 0005780584

PO #: 8742-3

Lines : 150

Ad Total: \$48.89

LARRY SCHMIDT
44819 277TH ST
PARKER, SD 57053

This is not an invoice

of Affidavits 1

Account No.: SFA-0000001230

Ad No.: 0005780584

Argus Leader AFFIDAVIT OF PUBLICATION

State of Wisconsin County of Brown

I being duly sworn, says: That The Argus Leader is, and during all the times hereinafter mentioned was, a daily legal newspaper 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 issue(s) :

Thursday, August 3, 2023

Sworn to and subscribed before me this 3 day of August, 2023.

Legal Clerk

Notary Public, State of Wisconsin, County of Brown

My Commission expires

KATHLEEN ALLEN
Notary Public
State of Wisconsin

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APPLICATION NO. 8742-3
to Appropriate Water

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Published Aug 3, 2023 at the total approximate cost of \$48.89 and may be viewed free of charge at www.sdpubicnotices.com.

Affidavit of Publication

STATE OF SOUTH DAKOTA
COUNTY OF TURNER

I, Jessica Kleinsasser, of the City of Parker, County of Turner, State of South Dakota being first duly sworn on oath, deposes and says: The New Era is a weekly legal newspaper of general circulation, printed and published in the City of Parker, in said County of Turner, by The New Era, New Century Press, publishers, and has been such legal newspaper during the times here in after mentioned: that the said newspaper has been in existence as such legal newspaper for more than one year prior to the publication of the notice here unto attached, and has during all of said publication of the notice hereunto attached, and has during all of said time had, and now has, more than 200 bona fide subscribers; that the undersigned, the affiant, is the Office Assistant of the said newspaper, in charge of the advertisement department thereof and has personal knowledge of all the facts stated in this affidavit and the advertisement headed:

N0803-1- Notice of Application 8742-3

once printed copy of hereto attached, is printed and published in the said newspaper for one successive week, one each week and on the same day of the week, on the following dates, to wit:

On Thursday, the 3rd day of August 2023

That \$38.44 being the full amount of the fees for publication of the attached notices insure solely for the benefits of the publishers of the said newspaper, that no arrangement or understanding for a division thereof has been made with any other person and that no part thereof has been agreed to be paid to any other person whomsoever.

Jessica Kleinsasser

Subscribed and sworn to before me this *10th*

Day of *Aug. 2023*

Amalia Zick
Notary Public, Turner County, South Dakota

My Commission Expires: *8/3/2028*



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8742-3 to Appropriate Water**

Notice is given that Larry Schmidt, 44819 277th Street, Parker S.D. 57053 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 Parker Centerville Aquifer (approximately 71 feet deep) located in the SW 1/4 SW 1/4 Section 13 for irrigation of 160 acres located in the SW 1/4 Section 13; all in T99N-R54W also authorized for irrigation by Water Permit No. 7457-3. This site is located approximately 2 miles west of Parker S.D.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8742-3 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired; 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer.

The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by August 14, 2023.

The petition shall include a statement describing the unique injury upon approval of the application on the petitioner, the petitioner's reasons for opposing the application, and the name and mailing address of the petitioner

or the petitioner's legal counsel, if legal counsel is obtained.

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by August 14, 2023.

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.

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(N0803-1)

Publication Fee \$38.44
Notary Fees \$
Total \$38.44

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Monday, July 24, 2023 2:22 PM
To: leberbros@gmail.com
Subject: Public Notice near you in Parker SD
Attachments: 8742-3 public.short_final.pdf

Good afternoon,

As a courtesy, we are notifying you of a public notice for irrigation in Parker SD near you which will be published in the Turner County New Era and Argus Leader newspapers, see attachment. A copy of the public notice is also being mailed to you today.

Thank you,

Rachel Rodriguez
DANR | Program Assistant
Rachel.Rodriguez@state.sd.us



Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Monday, July 24, 2023 2:10 PM
To: larryleeschmidt@gmail.com
Subject: 8742-3 Larry Schmidt - Public Notice
Attachments: 8742-3_Rec.pdf; Letter.pdf; PublicNotice.pdf; ArgusLeaderInfo.pdf

Attached is a copy of the report, chief engineer recommendation and information regarding the public notice for your water permit application. As stated in the letter, **please contact the newspapers as soon as possible to authorize publication and arrange for payment.** Please note that the Argus Leader requires prepayment, see attached for information (Office:844-254-5287). This information is also being mailed to you today.

Thank you,

Rachel Rodriguez
DANR | Program Assistant
Rachel.Rodriguez@state.sd.us





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

AUG 31 2023

Larry Schmidt
44819 277th Street
Parker SD 57053

Dear Mr. Schmidt:

Enclosed is Water Permit No. 8742-3 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,

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

enclosures



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

**Affidavit of Public Notice
Posting on DANR Website**

Pursuant to SDCL § 46-2A-4, public notice of the following application was posted on the DANR web site at <https://danr.sd.gov/public>. The posted public notice is the same notice as published in the pertinent newspaper(s) and a copy of the public notice is maintained in the application file. If the application is contested, the posting is moved to the DANR contested case website at <https://danr.sd.gov/public/ContestedCase.aspx> until final action is taken on the application pursuant to SDCL § 46-2A-4.

Application No.: 8742-3

Name of Applicant: Larry Schmidt

Date of Posting: 7/31/2023

Date of Removal: 8/31/2023

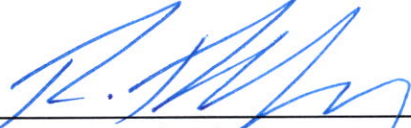


Ron Duvall, Engineer III

8/31/2023

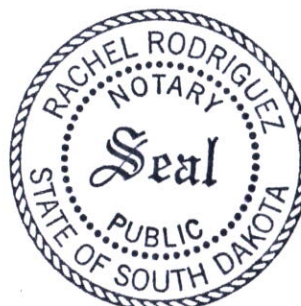
Date

Subscribed and sworn to before me, a notary public, this 31 day of August, 2023.



Notary Public - South Dakota
My commission expires: **Rachel Rodriguez**
My Commission Expires
May 16, 2029

(SEAL)



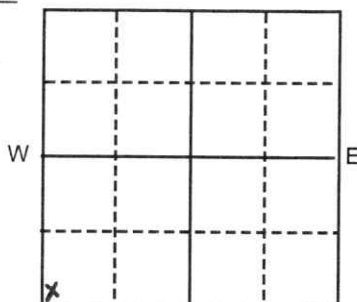
8742-3

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 SW 1/4 Sec 13 Twp 99 Rg 54County Turner

North

Please mark well
location with an "X"

Well Completion Date

August 18, 2023

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

PROPOSED USE:

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

METHOD OF DRILLING:

Mud rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	12 IN	0 FT	51 FT	17.5 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Bentonite	14	Lb/gal	0 Ft	47 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure

Tremie piped

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 12 inches Length 20 FeetMaterial Stainless steelSlot Size .080 Set From 51 Feet to 71 Feet

Other information

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☐ Yes, How?

☒ No, Why Not?
Lab to which water
quality sample sent for analysis

Irrigation well

Well Owner: Richard LeberBusiness Name: Leber Bros LLCAddress: 27677 452nd AveCity, State, Zip: Parker ☒ SD ☒ 57053

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top soil	0	3
Clay-brown	3	29
Clay-blue	29	52
Gravel	52	71
Clay-blue	71	81

STATIC WATER LEVEL 31 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

62.17 Ft. After 5 Hrs. pumped 400 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

GPS: N43 23.2220 W97 10.8770

This well was drilled under license # 475 and this report is true and accurate.Drilling firm: THEIN WELL COMPANY, INCORPORATED

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

RECEIVED

NOV 06 2023

OFFICE OF
WATER

Richard Leber

Parker SD
71' Irrigation well

Legend

 12" Irrigation well

n43 23.2220 w97 10.8870  12" Irrigation well

276th St

451st Ave

Google Earth



1000 ft



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**
JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

January 14, 2025

NOTICE

TO: LARRY SCHMIDT, 44819 277TH ST, PARKER, SD 57053

FROM: Ron Duvall, Engineer III
for Eric Gronlund, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2024 Irrigation Questionnaire(s)

Our records indicate your 2024 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 8742-3. The request for the Questionnaire was dated October 23, 2024. The Water Management Board has directed owners of water permits who have not submitted the 2024 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) 8742-3 qualification:

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

The hearing will be held on **Wednesday, March 5, 2025, at 9:30 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) 8742-3 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 5, 2025**, 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 Amanda Dewell at (605) 773-3352 or email at amanda.dewell@state.sd.us. **If you prefer, you can complete the questionnaire online at the following link: <https://danr.sd.gov/iq> using this password: UISGUA**

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 AGRICULTURE
and NATURAL RESOURCES**

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

February 20, 2025

8742-3

Larry Schmidt
44819 277th St
Parker SD 57053

Dear Mr. Schmidt:

I am writing to acknowledge the receipt of your 2024 irrigation questionnaire(s).

You may disregard the January 14, 2025, "Notice" concerning the reporting requirements for Water Permit No(s). 8742-3. The information was received prior to the March 5, 2025, Water Management Board meeting and the above listed permit number(s) have been removed from the agenda.

If you have any questions or concerns, please contact me.

Sincerely,

Amanda Dewell
Permitting Administrator
Water Rights Program
605 773-3352
Amanda.Dewell@state.sd.us

NOTE: Future Irrigation Questionnaire mailing for this permit will be directed to Leber Brothers Inc.

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 8742-3

I have this day, April 16, 2205, made a thorough examination of the water use system constructed by Larry Schmidt, 44819 277th Street, Parker, SD 57053 of Permit No. 8742-3, bearing the priority of March 29, 2023 authorizing the diversion of 1.78 cu. ft. per second of the waters of the Parker Centerville Aquifer for irrigation purposes, in Turner County.

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Thein Well Co, Inc (Well #5)
- 2) No. of Wells 1
- 3)
- 4) Depth(s) 71 feet
- 5) Well log is available Y

Casing:

- 1) Diameter 12 inches
- 2) Length 51 feet
- 3) Type Plastic

Screen:

- 1) Type Stainless steel
- 2) Length 20 feet
- 3) Static water level 31 feet

Pump:

- 1) Make Submersible
- 2) Model Unknown
- 3) Size Unknown
- 4) Capacity 300 GPM

Motor:

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

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

- 1) Type Buried PVC
- 2) Size 8 inches
- 3) Length 1800 feet

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 600 (see comments) GPM

Chemigation Equipment:

- 1) Does chemigate N

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Y See Sec F comments
- 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 new condition with the point(s) of diversion located as follows: From the SW corner Sec 13 T99N R54W WELL #4: 50 ft N & 50 ft E, Lat 43.38698 Long -97.18129 (SW 1/4 SW 1/4).
2. The works are capable of diverting and conveying to the place of use 0.67 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:
legal description/acreage
All land in Sec 13 T99N R54W
NW 1/4 SW 1/4 - 31 acres
NE 1/4 SW 1/4 - 31 acres
SE 1/4 SW 1/4 - 33 acres
SW 1/4 SW 1/4 - 32 acres

comprising a total of 127 acres of land and the license should be issued for 0.67 cfs.

3. All structures, wells and lands on map Y

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

Permit 7457-3 is associated with this permit. There is no irrigation on the SE 1/4 of Sec 13 T99N R54W.

The wells (Well #1, #2, #3) divert water under 7457-3 at a rate of 300 gpm (total). Well #4 is diverting water under 8742-3 at a rate of 300 gpm. The four wells supply a total of 600 gpm to the center pivot.

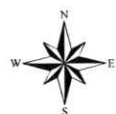
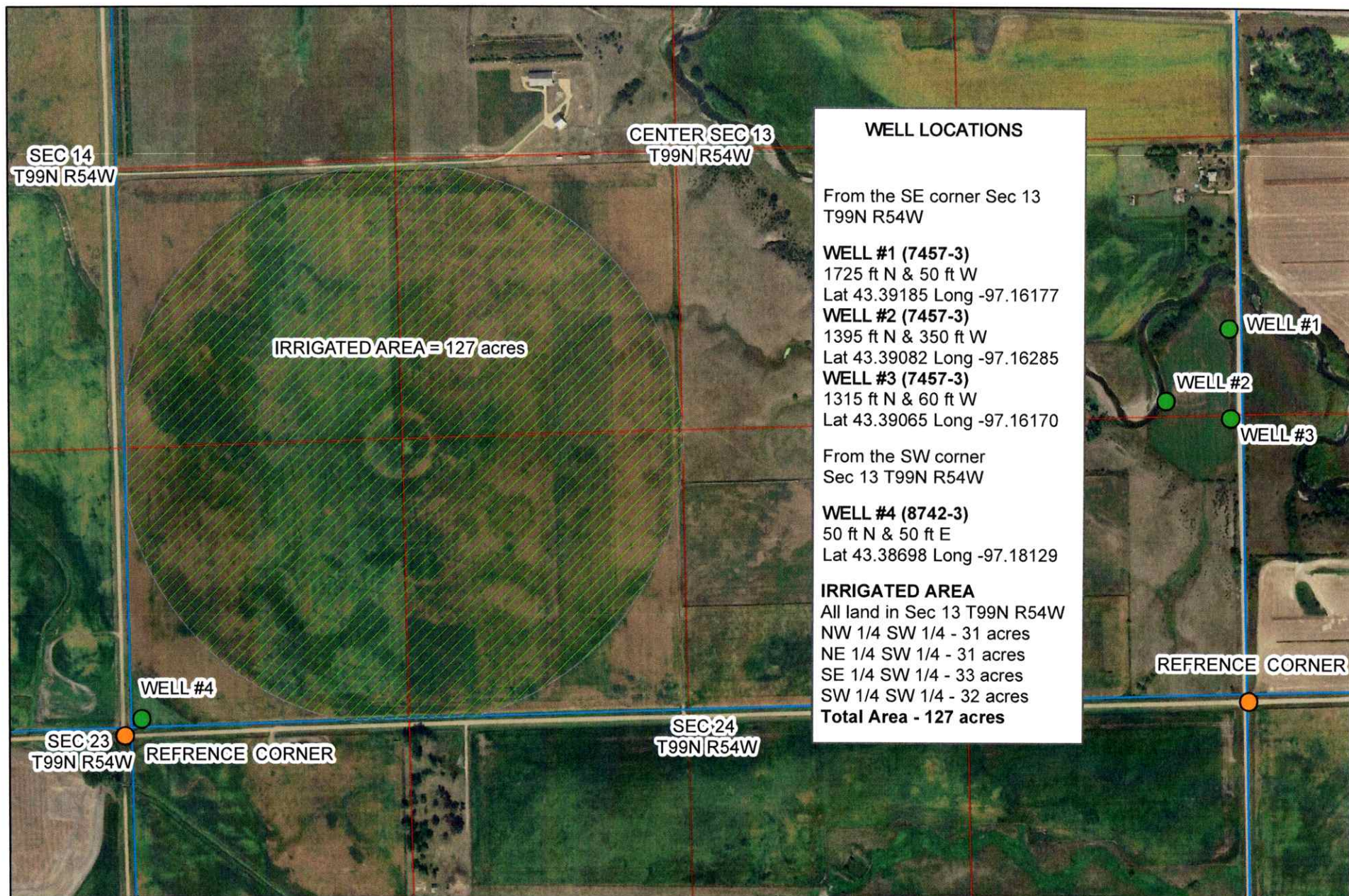
FSA photographs and the ArcGIS software were used to estimate the irrigated acreage.

The mailing address and the telephone number in the permit materials are current.



Darrell DeBoer
Water Rights Inspector
DENR, Water Rights Program

Date report completed: April 18, 2025



0 500 1,000 2,000 3,000 4,000 Feet

RECEIVED

JUL 18 2025

OFFICE OF
WATER**NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE**Date July 1, 2025

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

FROM:

Larry Schmidt
(name)
44819 277th St
(address)
Parker S.D. 57053 605-351-4955
(city, state, zip) (phone)

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

Water Permit No. 8742-3 states that the water use system is to be constructed by
August 14, 2028 , and water is to be put to beneficial use by August 14, 2032 .
(date) (date)

The water use system was completed on Aug 30, 2024
(date)

Applying the water to beneficial use was completed on Aug 31, 2024
(date)

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

Larry Schmidt
(signature)





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

JUL 25 2025

7457-3
8742-3

Larry Schmidt
44819 277th St
Parker SD 57053

Dear Mr. Schmidt:

Enclosed is Water License Nos. 7457-3 & 8742-3. These are the final water right documents completing the process of obtaining Water Rights. Included with your licenses is a map prepared by the staff engineer who conducted the field investigations.

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 Licenses, State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact Amanda Dewell, Permitting Administrator, Water Rights Program (605) 773-3352.

Sincerely,

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

NOTE: Water Right Nos. 7457-3 & 8742-3 authorize irrigation of the same acres, from separate aquifers.

enclosures

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 8742-3**

(1) Larry Schmidt, 44819 277th St, Parker SD 57053, made Application No. 8742-3, March 29, 2023, for a water permit to divert 1.78 cubic feet of water per second from groundwater, one well (Parker Centerville Aquifer), Turner County, South Dakota for irrigation purposes. Permit No. 8742-3, with a priority date of March 29, 2023, was approved August 14, 2023, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before August 14, 2028, and for the application to beneficial use of water on or before August 14, 2032.

The permit holder submitted a Notice of Completion of Works and Application of Water to Beneficial Use form on July 18, 2025. The Notice stated the diversion system was completed on August 30, 2024, and the water was placed to beneficial use on August 31, 2024.

(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 0.67 cubic feet of water per second for beneficial use. The location of the diversion point is:

- Well #4: 50 ft N & 50 ft E of the SW corner Section 13, T99N, R54W (SW $\frac{1}{4}$ SW $\frac{1}{4}$)
(Latitude 43.38698 & Longitude -97.18129)

(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:

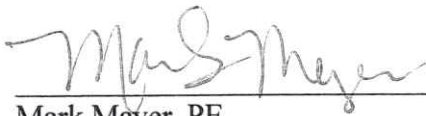
Section 13, T99N, R54W
NE $\frac{1}{4}$ SW $\frac{1}{4}$ - 31 acres
NW $\frac{1}{4}$ SW $\frac{1}{4}$ - 31 acres
SW $\frac{1}{4}$ SW $\frac{1}{4}$ - 32 acres
SE $\frac{1}{4}$ SW $\frac{1}{4}$ - 33 acres
TOTAL: 127 acres

(5) Pursuant to South Dakota Water Law 46-5-30.1 Larry Schmidt, the holder and/or owner of Water Right No. 8742-3 is issued a license to appropriate water, the right to use 0.67 cubic feet of water per second from groundwater, one well (Parker Centerville Aquifer), with a priority date of March 29, 2023, from the location specified in (2) of this license for irrigation purposes.

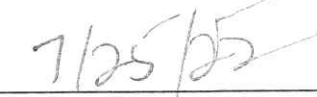
This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 8742-3 and subject to the following qualifications:

1. The well approved under Water Permit No. 8742-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled 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. 8742-3 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 drilled in 2023 by Thein Well Company Inc. A copy of the Well Completion Report is on file with the Water Rights Program.)*
3. The combination of diversions under Water Right No. 7457-3 & Water Permit No. 8742-3 may not exceed one cubic foot of water per second per 70 acres irrigated, with an annual volume applied not to exceed 2 acre-feet of water per acre per year. *(Water Right Nos. 7457-3 & 8742-3 authorize a combined rate of 1.34 cfs for the irrigation of 127 acres.)*
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.



Mark Mayer, PE
Director of Office of Water
Department of Agriculture and Natural Resources


date

