

SOUTH DAKOTA
WATER PERMIT NO. 2811-2

Date of first receipt of application December 9, 2019.

Date of return to applicant for corrections, amendments or changes December 9, 2019.

Date of receipt of corrected application March 19, 2020.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 2811-1 to Wayne Lindsey, c/o Rob Livingston, 23851 Hwy 385, Hill City SD 57745 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. 2811-2 appropriates up to 1.0 acre-foot of water annually at a maximum pump rate of 0.02 cubic feet of water per second from one well completed into the Crystalline Rock Aquifer (120 feet deep) located in the SW 1/4 SW 1/4 Section 27-T2N-R5E for commercial use at a RV Park. This site is located approximately 10 miles west of Rapid City along Hwy 44.
2. The water appropriated shall be used for the purpose of commercial use and may not exceed the amount of water needed for beneficial use.
3. The water is to be used during the following described annual period: April 1 – November 30.
4. The date of approval of Permit No. 2811-2 is June 8, 2020.
5. The date from which applicant may claim right is March 19, 2020.
6. One-fifth of the construction is to be completed on or before December 8, 2022.
7. All construction is to be completed on or before June 8, 2025.
8. Water is to be put to beneficial use on or before June 8, 2029.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Crystalline Rock aquifer.
3. Water Permit No. 2811-2 authorizes a total annual diversion of up to 1.0 acre feet of water.

WATER MANAGEMENT BOARD

By: Eric Gronlund
Eric Gronlund, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

JUN 10 2020

date



RECEIVED

DEC 09 2019

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>2811-2</u>	(office use only) Hydrologic Unit <u>10120110</u>
	Basin <u>Upper Cheyenne</u>	
	Newspaper <u>Rapid City Journal</u>	

Application For Permit To Appropriate Water Within The State Of South Dakota

Check use(s) of water:

☐ Municipal	☐ Water Distribution System	☒ Recreational	☐ Institutional
☐ Rural Water System	☒ Commercial	☐ Fish & Wildlife	☐ Geothermal
☐ Domestic (over 18 gpm)	☐ Industrial	☐ Other _____	

Type of Application:
(check one)

☒ New	☐ Vested Right (Use predates Mar 2, 1955)	☐ Future Use Reservation
☐ Place to Beneficial Use Water Reserved by Future Use Permit No. _____		
☐ Amendment/Correction to Permit No. _____		

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

Rob Livingston address:23851 Hwy 385, Hill City SD 57702

1. Name to Appear on Water Permit Wayne Lindsey
 Location 116001 W. Hwy 44 Rapid City SD 57702
 Mailing Address (Address) (City) (State) (Zip Code)
 Phone 605-574-9550 Mobile 605-209-4747 Email rl@rlconstruction.com

2. Amount of water claimed 0.02 *CFS or 10 **GPM and 1 ***AF or _____ Gallons
 Flow rate and volume are both required. (*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use)

3. Source of water supply Well

4. Location of point of diversion 1 well SW 1/4 SW 1/4 sec 27 T2N R5E County Pennington
 (example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)

If not a public water supply (e.g. municipal), will water be used outside of the area described above? ☐ Yes ☒ No

If "Yes," where will water be used? _____

(example - NW 1/4 section 12-T104N-R53W)

5. County or counties where water will be used Pennington6. Annual period during which water is to be used April - November

7. Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

RV Park

I, RL AGENT, 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)

SEE attached well Completion Report

1. Well Information (check one or both as applicable) ☐ Drilling new well(s) ☐ Using existing well(s)

a) If new wells, how many ____ Have test holes been drilled ☐ Yes ☐ No Drilled by ____
(if yes, please provide copies of logs)

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

For either Existing or Proposed Wells:

c) Well Depth (required) ____ Depth to Top of Water Bearing Material ____ Depth to Water from Surface ____

d) Distance to nearest domestic well on applicant's property ____ Property owned by others ____

2. Wastewater Disposal System Information

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

b) System Capacity (gallons) ____ Year Constructed ____

c) Connected to the City of ____ Sanitary System

3. Dugout Information

a) Surface Dimensions ____ Depth ____

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

4. Water Storage Dams

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

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

b) Freeboard ____

c) Crest Width ____

Crest Length ____

d) Height ____

e) Primary Outlet Capacity ____

If pipe, diameter ____

f) Secondary Spillway Capacity ____

Spillway Width ____

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

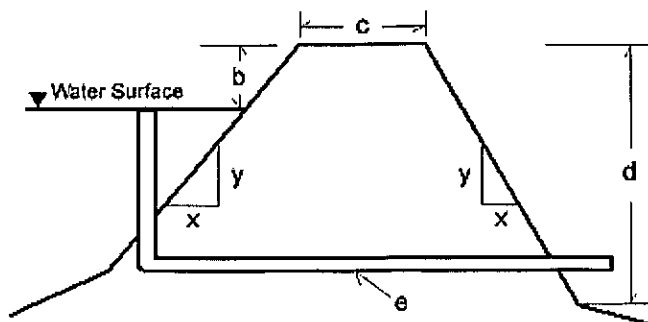
Upstream ____

Downstream ____

h) Surface Area of Impoundment ____

i) Storage ____ Acre Feet

j) Drainage Area Above Dam ____ Acres





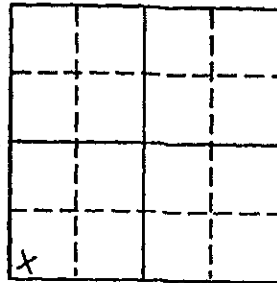
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 SW 1/4 Sec 27 Twp 2N Rg 5E

County
Pennington

North



Please mark well location with an "X"

Well Completion Date

7/10/07

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

1500 ft. from Septic (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary Downhole Hammer

CASING DATA:

☒ Steel ☐ Plastic ☐ Other
 If other describe 29" of Steel 6"

PIPEWEIGHT DIAMETER FROM TO HOLE DIAMETER

LB/FT IN 0 FT 27 FT 8 3/4 IN

LB/FT IN 27 FT 120 FT 6 IN

LB/FT IN FT FT IN

GROUTING DATA:

Grout Type No. of Sacks Grout Weight From To

Portland II 3 Lb/gal 27 Ft 3 Ft

Describe grouting procedure

3" thru 1 1/2" from pipe

SCREEN:

☐ Perforated pipe ☐ Manufactured

Diameter None Inches Length _____ Feet

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other information

open hole

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?

10% chlorine solution

☐ No, Why Not?

Lab sample sent to for water quality analysis

Well Owner:

Wayne Lindsey

Business Name:

Kickstand Corner

Address:

16001 W Hwy 44

City, State, Zip:

Rapid City SD 57702

WELL LOG:

DEPTH

FORMATION	FROM	TO
Drift Gravel	0	21
Hd grey schist	21	46
grey schist frac. 10 gpm	46	65
Hd grey schist	65	78
Hd grey schist	78	80
Hd grey schist	80	92
Hd schist frac. 50 gpm	92	94
Hd grey schist	94	98
grey schist frac. 70 gpm	98	100
Hd grey schist	100	120

STATIC WATER LEVEL

6

FEET

If flowing: closed in pressure

PSI

GPM flow 70+ through

Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate

GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped

Describe:

w/air.

☐ Bailed

☐ Other

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate:

GPM

REMARKS

RECEIVED

AUG 22 2007

WATER RIGHTS PROGRAM

This well was drilled under license #

324

And this report is true and accurate.

Drilling firm:

Kickstand Building Co

Signature of License Representative:

Sam Sewell

Signature of Well Owner or Equitable Property Holder:

Wayne Lindsey LLC

Date:

8-20-07

KENNETH WAYNE LINDSAY
7110 COUNTY ROAD 657 WEST
BUSHNELL, FL 33513
(352) 567-7775

12-23-2019

ATTN: Water Permit Department

RE: State Water Permit for property having the following address: 16001 Hwy 44 Rapid City, SD

To Whom it May Concern:

The owner of the property described above, K. Wayne Lindsay, also known as Kenneth Wayne Lindsay, hereby by his signature below, authorizes Robert Livingston, to act as his agent, in order to apply for and obtain the proper State Water Permit for the property.

Sincerely,


K. WAYNE LINDSAY
7110 COUNTY ROAD 657 WEST
BUSHNELL, FLORIDA 33513

cc: Robert Livingston
23851 Hwy 385, Hill City, SD 57745
(605) 209-4727

RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Environment and Natural Resources

Date March 19, 2020

RECEIVED OF Wayne Lindsey 9159 Fox Fire Way Highlands Ranch CO 80129

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

Fee for Application for Permit No. <u>2811-2</u> to Appropriate Water, to construct and to put water to beneficial use	\$100.00
Fee for Application for Permit No. _____ to Appropriate Water for Future use	\$
Fee to retain Future Use Permit No. _____ after period of seven years.	\$
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>2811-2</u>	\$200.00
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	\$300.00

By Eric Gronlund
Chief Engineer

gm

Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, January 27, 2020 3:12 PM
To: rl@rlconstruction.com
Subject: Water Permit Application for Wayne Lindsey

Rob Livingston,

In December you emailed us an Application for Permit to Appropriate Water for Wayne Lindsey. At that time, Ron Duvall with our office indicated to you that the application needed to be signed by Mr. Lindsey or a statement from him authorizing your signature on the application. The application/license fee of \$300.00 is also required.

We have not received anything since that time regarding the application. Once the above is received, we will continue to process the application.

If you have any questions, please contact me.

Karen Schlaak

SD DENR, Water Rights Program
(605) 773-3352





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

February 21, 2020

Rob Livingston
RL Construction & Design Inc
23851 Hwy 385
Hill City SD 57745

Dear Mr. Livingston:

On December 9, 2019, you emailed an *Application for Permit to Appropriate Water Within the State of South Dakota* on behalf of Wayne Lindsey for commercial use at a RV park. A copy is enclosed. At that time, you were notified that the following was required to complete the application.

- The application needs to be signed by Wayne Lindsey or a statement of authority that the person signing the application has the authority to act on behalf of Mr. Lindsey on all matters involving the water permit application.
- The application/license filing fee will be \$300.00.

If you want more information regarding the permitting process, please go to our web site at <http://denr.sd.gov/des/wr/wr.aspx>

If you have any questions, please contact me.

Sincerely,

A handwritten signature in black ink that reads 'Karen Schlaak'.

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

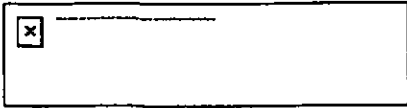
enclosures

Schlaak, Karen

From: Rob Livingston <rl@rlconstruction.com>
Sent: Friday, March 6, 2020 4:17 PM
To: Schlaak, Karen
Subject: Re: [EXT] Water Permit Application for Wayne Lindsey
Attachments: Wanye Lindsey authorization water Permit 001.jpg

Karen- will this work for you I will have the 300\$ sent in on Monday Please let me know.

Thank you



RL Construction& Design Inc.
23851 Hwy 385
Hill City SD 57745

Office 605-574-9550
Fax 605-574-9529

www.rlconstruction.com



On Mon, Jan 27, 2020 at 2:11 PM Schlaak, Karen <Karen.Schlaak@state.sd.us> wrote:

Rob Livingston,

In December you emailed us an Application for Permit to Appropriate Water for Wayne Lindsey. At that time, Ron Duvall with our office indicated to you that the application needed to be signed by Mr. Lindsey or a statement from him authorizing your signature on the application. The application/license fee of \$300.00 is also required.

We have not received anything since that time regarding the application. Once the above is received, we will continue to process the application.

If you have any questions, please contact me.

Karen Schlaak

SD DENR, Water Rights Program

(605) 773-3352



No. 2811-2

Water Rights Program - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: Wayne Lindsey

ADDRESS: COUNTY: Pennington County

DATE: May 15, 2020 TELEPHONE: w: (605)574-9550; c: (605)209-4727

RE: Commercial or Recreational Use designation for Permit 2811-2

Water Permit Application Number 2811-2 seeks to appropriate water from the Crystalline Aquifer from the Black Hills for use in a RV Park. Location is 13 miles west of Rapid City, at the intersection of US 385 with SD 44. The RV Park will be supplied by one well located in the SW 1/4 SW 1/4 Section 27-T2N-R5E. The issue is with the Use designation. Mr. Lindsey checked the Recreational Box on the application but, the water will be used in a commercial endeavor.

Called on 5/15/2020, to talk with Mr. Lindsey but, got ahold of Robert Livingston. Mr. Livingston is authorized to act as an Agent in matters regarding this Permit and stated he was the one who filled out and submitted the application for this permit. We discussed changing the Use designation from Recreational to Commercial because the RV Park is a business that will provide the water. He said it was fine if we called this Use Commercial rather than Recreational.

NAME: Blaise Hansen



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2811-2, Wayne Lindsey**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 2811-2, Wayne Lindsey, 16001 W Hwy 44, Rapid City SD 57702.

The Chief Engineer is recommending APPROVAL of Application No. 2811-2 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Crystalline Rock aquifer.
3. Water Permit No. 2811-2 authorizes a total annual diversion of up to 1.0 acre feet of water.

See report on application for additional information.

Eric Gronlund
Eric Gronlund, Chief Engineer
May 18, 2020

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 2811-2
WAYNE LINDSEY
APRIL 30, 2020

Water Permit Application No. 2811-2 proposes to appropriate less than 1 acre-foot of water annually at a maximum rate of 0.02 cubic feet per second (cfs), 10 gallons per minute (gpm), of water from one well completed 120 feet into the Crystalline Rock aquifer for commercial use. The well is in Pennington County, in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 27-T2N-R5E, at a RV Park located at the intersection of US 385 with SD 44, approximately 13 miles west of Rapid City.

AQUIFER: Crystalline Rock (CRSL)

The Crystalline Rock aquifer for this application is located within the central core area of the Black Hills and is bounded by the Paleozoic aged sedimentary rock units (Figure 1). It is composed primarily of Precambrian igneous and metamorphic rocks, but also includes Tertiary igneous rocks, erosional remnants of various sedimentary rocks, and minor, unconsolidated sedimentary deposits (Driscoll and Carter, 2001). Driscoll and Carter (2001) do not consider this a regional aquifer because, as noted by Rahn (1979), wells completed into the Precambrian aged crystalline rock elsewhere in Western South Dakota have not encountered measurable amounts of groundwater. The crystalline core of the Black Hills consists of numerous, localized aquifers where extensive fractures or weathering zones allow for the transmission of water (Driscoll and Carter, 2001). Crystalline rock has a very low primary porosity so water movement in the aquifer is controlled by the secondary porosity developed along fractures, joints, and faults (Rahn, 1979). The interconnected nature of secondary porosity is highly variable and unpredictable. Therefore, localized groundwater areas possess site specific aquifer characteristics. Using an estimated exposed area for the entire crystalline core of 574,000 acres, water bearing material to a depth of 500 feet, and an effective porosity of one percent, Rahn (1979) estimated the amount of recoverable water in storage in the Crystalline Rock aquifer to be 2,900,000 acre-feet. It should be noted that Rahn (1979) only considered the igneous and metamorphic rocks in his calculations. Driscoll et al. (2002) utilized similar values as Rahn (1979) but also included the aforementioned sedimentary deposits to determine a storage value of 2,600,000 acre-feet of water for this aquifer.

The crystalline rock in the area of this application consists of Precambrian Age slate, phyllite, quartzose schist and metabasalt (Redden et al., 2005). The rock is exposed at surface except where covered by poorly consolidated to unconsolidated Quaternary Age alluvium deposits in drainages and flood plains (Redden et al., 2005).

The well completion report for the well the applicant intends to use indicates "Drift Gravel" from 0 to 2 feet below ground surface (bgs) and "grey schist" from 2 to 120 feet bgs. Fractures are noted in the schist between 46 to 48 feet bgs with 10 gpm, 65 to 67 feet bgs with 20 gpm, 78 to 80 feet bgs with 40 gpm, 92 to 94 feet bgs with 50 gpm, and 98 to 100 feet bgs with 70 gpm. The static water level at the time of completion in July 2007, was 6 feet bgs.

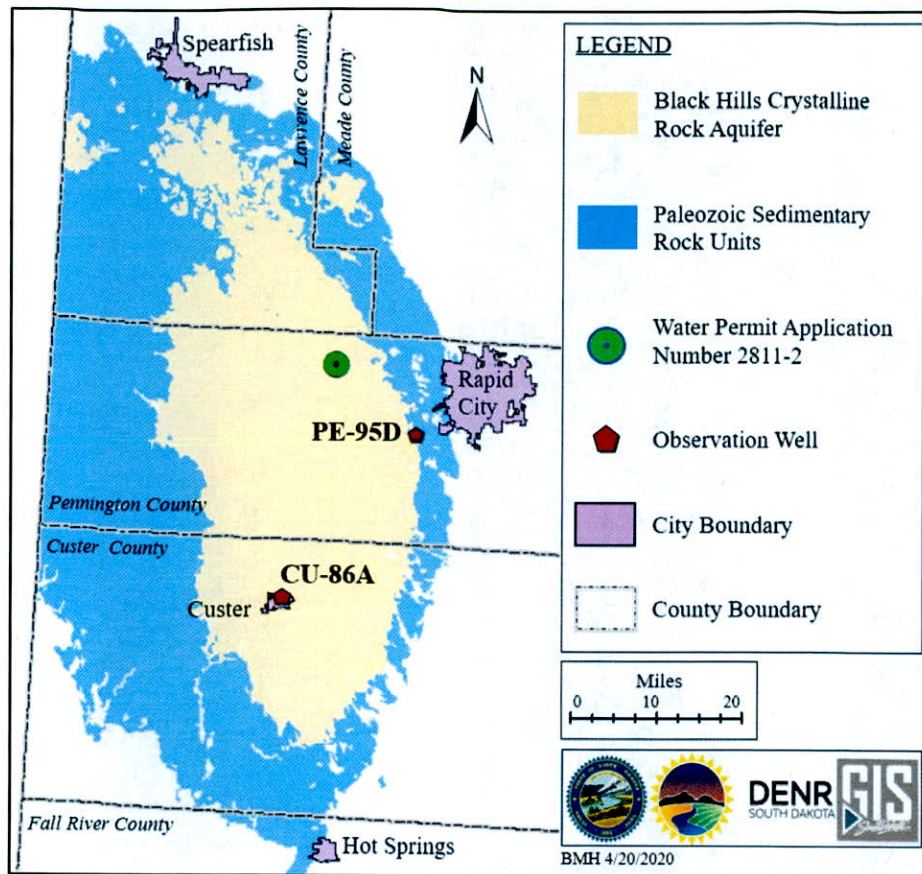


Figure 1. Image of the Crystalline Rock aquifer in the Black Hills with Water Permit Application Number 2811-2 shown in relation to observation wells (Water Rights, 2020a, modified from Redden et al., 2005, and Driscoll and Carter, 2001).

SOUTH DAKOTA CODIFIED LAW (SDCL) 46-2A-9

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for this applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest. This report will address the availability of unappropriated water and effects on existing rights from the aquifer that are pertinent to this application.

WATER AVAILABILITY

This application proposes to appropriate water from the Crystalline Rock aquifer. The probability of unappropriated water available from the aquifer can be evaluated by considering SDCL 46-6-3.1, which requires:

"No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source. An application may be approved, however, for withdrawals of groundwater from any groundwater formation older than or stratigraphically lower than the greenhorn

formation in excess of the average estimated annual recharge for use by water distribution systems.”

The Crystalline Rock aquifer is both stratigraphically lower and older than the Greenhorn Formation. However, the proposed use is not for a water distribution system as defined in SDCL 46-1-6(17). Therefore, the withdrawal/recharge issue must be considered for the Crystalline Rock aquifer.

Observation Wells

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

The Water Rights Program monitors two observation wells completed into the Crystalline Rock aquifer in the Black Hills (Figure 1). Neither are located within the immediate vicinity of the well for Application No. 2811-2. Additionally, due to the localized nature of the Crystalline Rock aquifer, these observation wells do not describe site specific characteristics of the aquifer at the proposed application site. However, they can provide information regarding general aquifer characteristics.

Observation Well PE-95D is located approximately 10.2 miles to the southeast and had been considered completed into the crystalline rock aquifer (Water Rights, 2020a). However, Kilts (2018) noted that the well construction information for PE-95D indicates that it was likely completed into both the Deadwood Formation and Crystalline Rock. Kilts (2018) determined that both the Deadwood Formation and Crystalline Rock can act as aquifers in the vicinity of PE-95D, the measured water levels appear to be more representative of the Deadwood aquifer, and that the well log for PE-95D does not note if secondary porosity features were encountered in the crystalline rock. Due to the uncertainty of how representative PE-95D is of either the Deadwood aquifer or Crystalline Rock aquifer, only observation well CU-86A will be considered in this report.

Observation well CU-86A is located approximately 22.7 miles to the south of the proposed well site. The hydrograph for this observation well is shown in Figure 2. The hydrograph shows water levels respond to climatic conditions by rising during wet periods and decreasing during drier periods. Illustrating that natural recharge to and natural discharge from the aquifer govern water levels in the aquifer. The effects of pumping on the water level of the aquifer are not shown to exceed climatic conditions because, despite continued development of the aquifer near CU-86A (Water Rights, 2020b; 2020c), the water level has increased 40 feet over the period of record. This indicates that the aquifer does receive recharge. Regarding this application, the small pump rate is unlikely to cause a change in water level in the aquifer that is greater than changes in water level as a response to the climatic cycle. Therefore, there is reasonable probability water is available for this application without withdrawals exceeding recharge.

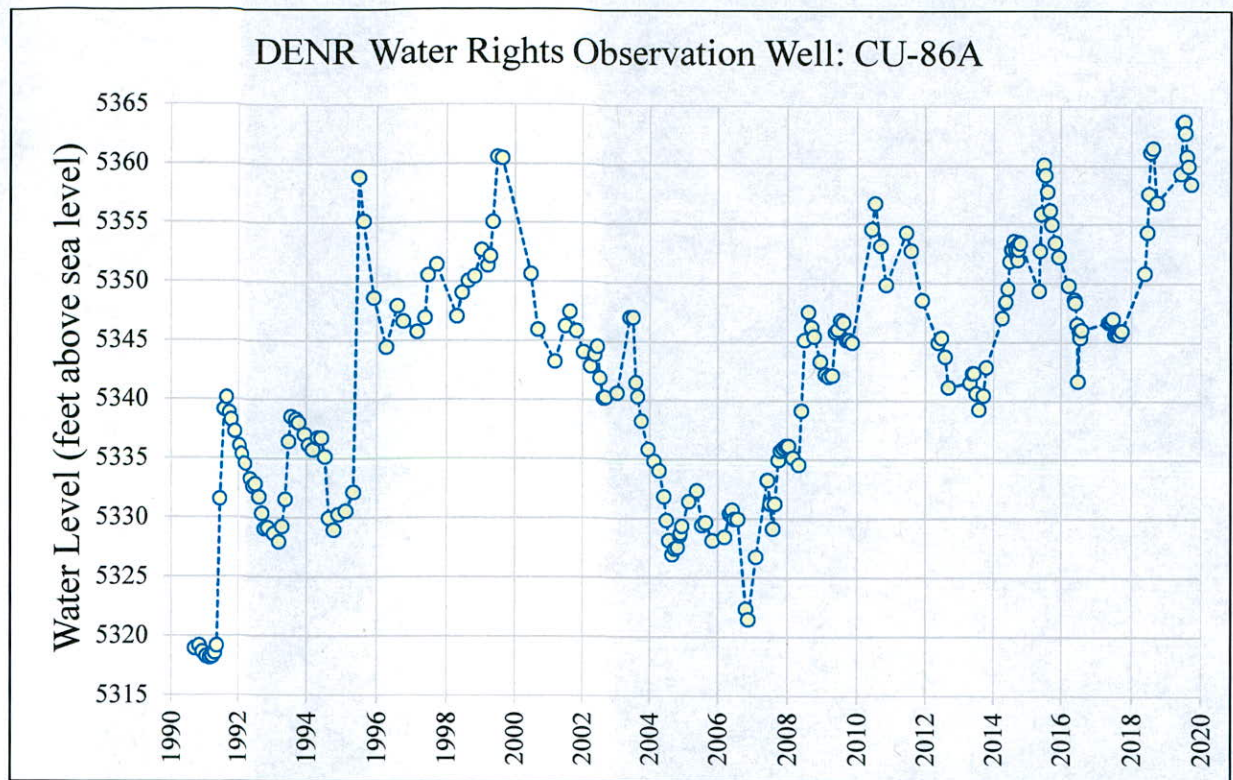


Figure 2. Hydrograph of Crystalline Rock aquifer observation well CU-86A (Water Rights, 2020a)

Hydrologic Budget

Recharge

The Crystalline Rock aquifer is recharged through the infiltration of precipitation and streamflow losses (Driscoll and Carter, 2001). Driscoll and Carter (2001) estimated recharge for the entirety of the Crystalline Rock aquifer to be equal to withdrawals, at 3,600 acre-feet per year (ac-ft/yr). However, Driscoll and Carter (2001) postulated that the recharge is likely greater to account for the groundwater discharge from the Crystalline Rock contributing to the base flow of many streams. This is supported by the hydrograph for observation well CU-86A, which shows the water level has risen approximately 40 feet over its period of record. Driscoll and Carter (2001) stated, "Recharge conditions are highly transient and have large spatial variability" and data is not available to attempt delineation of localized groundwater areas within Crystalline Rock aquifer. Therefore, there is no site specific average annual recharge estimate available in the area proposed for water withdrawals by the applicant.

Discharge

Discharge from the Crystalline Rock aquifer is through pumping of wells (Water Rights, 2020b and 2020c) and seepage to streams (Driscoll and Carter, 2001). Figure 3 shows the location of existing water rights and domestic wells on file with the DENR-Water Rights Program completed into the Crystalline Rock aquifer within approximately three miles of the well location for this application.

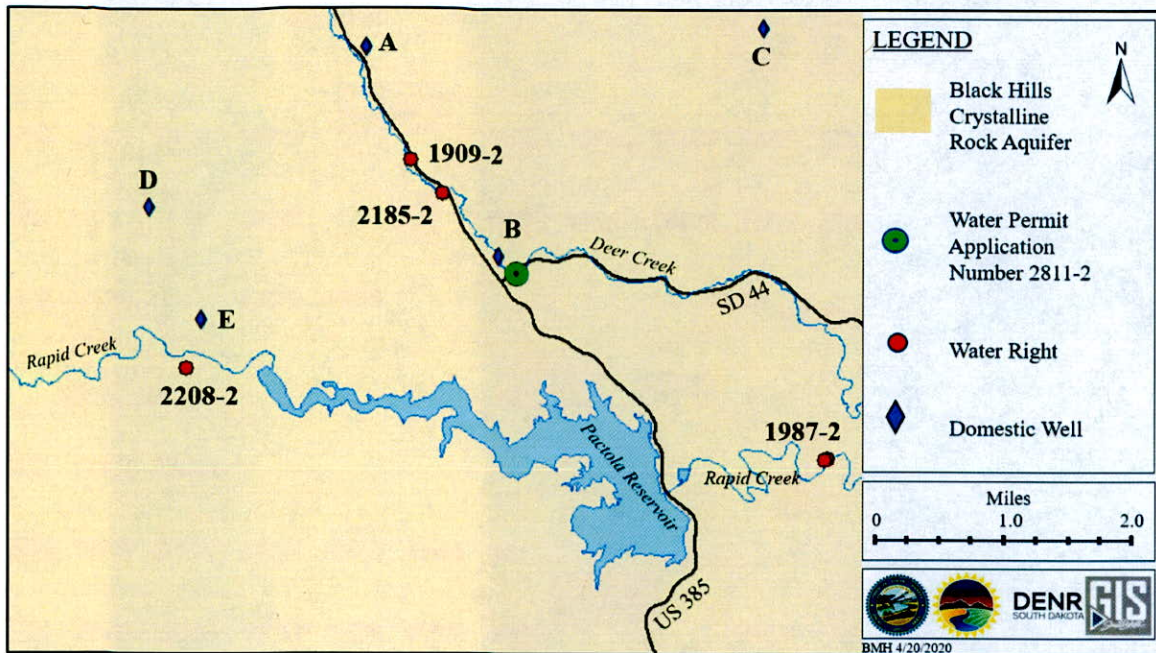


Figure 3. Water rights and well completion reports on file with the DENR-Water Rights program within approximately 3.0 miles of the well location for Water Permit Application Number 2811-2 (Water Rights, 2020b and Water Rights, 2020c)

Table 1 contains three commercial (COM) water rights and one institutional (INS) water right, within approximately three miles of the well location for this application (Figure 3). The values in the Estimated Use column are estimated average annual withdrawal by each water right determined based on the designation in the Use column. For non-irrigation water rights/permits (e.g. COM and INS) limited by diversion rate, the estimated use volume is calculated assuming pumping 60 percent of the time at their authorized diversion rate. If the water right/permit is limited by an annual volume, the estimated use value assumes pumping of the full permitted appropriation. The water rights in Table 1 are all limited by their authorized diversion rate. The estimated discharge by current water rights/permits from Table 1 is 64.76 ac-ft/yr and this application seeks to divert less than 1 ac-ft/yr. There is no estimate of recharge within the area shown in Figure 3 of the Crystalline Rock aquifer. With this comparatively small proposed diversion of water, there is reasonable probability this application can be developed without impacting existing appropriative users of the Crystalline Rock aquifer.

Table 1- Water rights/permits shown in Figure 3 (Water Rights, 2020b).

Permit Number	Name	Priority Date	Status ^a	Use ^a	Diversion Rate (cfs)	Estimated Use (ac-ft/yr)
2208-2	SILVER MOUNTAIN LODGE	01/01/1945	LC	COM	0.022	9.56
1909-2	RED SKY ENTERPRISES LLC	10/09/1984	LC	COM	0.03	13.04
1987-2	PLACERVILLE CAMP	07/11/1986	LC	INS	0.067	29.12
2185-2	CIRCLE B RANCH	05/08/1991	LC	COM	0.03	13.04
Total						64.76

a- LC: License; COM: Commercial; INS: Institutional

POTENTIAL FOR UNLAWFUL IMPAIRMENT OF EXISTING WATER RIGHTS

Table 2 contains the domestic well locations, on file with the DENR-Water Rights Program, completed into the Crystalline Rock aquifer within approximately three miles of the well that the applicant intends to use (Figure 3). It is likely that there are domestic wells in the area of the application not on record with the DENR-Water Rights Program.

Table 2- Well completion reports shown in Figure 3 (Water Rights, 2020c)

Location	Name	Well Completion Date	Well Type ^a	Depth (ft)	Aquifer
A	RAY & KATHY RESTOW	05/05/2016	DOM	345	CRYSTALLINE ROCK - Schist with fractures
B	JAMIE KIENZLE	05/26/2016		240	
C	RON PROKOP	06/09/2016		300	
D	AARON OLSON	04/26/2017		115	
E	MARK RUDE	10/17/2017		140	
a - DOM: Domestic					

The Water Management Board has defined an adequate well in Administrative Rule of South Dakota (ARSD) 74:02:4:20(6) as:

“a well constructed or rehabilitated to allow various withdrawal methods to be used, to allow the inlet to the pump to be placed not less than 20 feet into the saturated aquifer or formation material when the well is constructed, or to allow the pump to be placed as near to the bottom of the aquifer as is practical if the aquifer thickness is less than 20 feet”.

In the past the Water Management Board has recognized that to place water to maximum beneficial use, a certain amount of drawdown may occur. To protect domestic users, the Water Management Board defined an “adversely impacted domestic well” in ARSD 74:02:04:20(7) as:

“a well in which the pump intake was set at least 20 feet below the top of the aquifer at the time of construction or, if the aquifer is less than 20 feet thick, is as near to the bottom of the aquifer as is practical and the water level of the aquifer has declined to a level that the pump will no longer deliver sufficient water for the well owner’s needs”.

For most aquifers, the placement of the pump intake 20 feet below the top of the aquifer is sufficient for domestic wells. However, for wells completed into the Crystalline Rock aquifer, 20 feet below the top of the aquifer may not be sufficient depth for a well to be a dependable water supply. This is due to the low porosity of the crystalline rock and the unpredictable interconnectedness of secondary porosity. Thus, wells that meet the definition of an adequate well might not yield enough water for a well owner’s needs. The precise drawdown effects caused by pumping a well cannot be determined without conducting an aquifer pumping test. Water levels in the Crystalline Rock aquifer are known to vary greater than 40 feet as a result of climatic conditions as shown in Figure 2. There has not been a history of well interference complaints for wells

completed into the Crystalline Rock aquifer in the immediate vicinity of the proposed well location (Water Rights, 2020d). At a diversion rate of 10 gpm, this application seeks to appropriate less water than the maximum diversion rate allowed for reasonable domestic use (18 gpm). However, if this application is approved, a qualification requiring the applicant to control their withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells that have prior water rights should be included. When considering the above factors and that South Dakota water law protects domestic use from adequate wells, there is a reasonable probability this proposed diversion can be developed without unlawfully impairing existing domestic and appropriative users of the Crystalline Rock aquifer.

CONCLUSIONS:

1. Water Permit Application Number 2811-2 proposes to appropriate less than 1 acre-foot of water annually at a maximum rate of 0.02 cubic feet of water per second (cfs) from one well completed 120 feet into the Crystalline Rock aquifer for commercial use.
2. The Crystalline Rock aquifer is both stratigraphically lower and older than the Greenhorn Formation. However, the proposed use is not for a water distribution system as defined in SDCL 46-1-6(17). Therefore, the withdrawal/recharge issue must be considered for the Crystalline Rock aquifer.
3. There is a reasonable probability that unappropriated water is available for this application because the small appropriation proposed by this application is not expected to cause the average annual withdrawals from the aquifer to exceed the average annual recharge to the aquifer.
4. There is a reasonable probability this proposed diversion can be made without unlawfully impairing existing adequate wells for both appropriative and domestic users.



Blaise Hansen

SD DENR – Water Rights Program



Adam Mathiowetz, PE

SD DENR-Water Rights Program

REFERENCES:

REFERENCES:

- Driscoll, D.G. and Carter, J.M. 2001. Hydrologic Conditions and Budgets for the Black Hills of South Dakota, Through Water Year 1998. Water-Resources Investigations Report 01-4226. U.S. Geological Survey. Rapid City, South Dakota.
- Driscoll, D.G., Carter, J.M., Williamson, J.E., Putnam, L.D., 2002. Hydrology of the Black Hills Area, South Dakota. Water-Resources Investigations Report 02-4094. U.S. Geological Survey. Rapid City, South Dakota.
- Kilts, W.K. 2018. Report to the Chief Engineer Water Permit No. 2789-2 Rushmore Cave. May 20, 2018. SD DENR-Water Rights Program Permit Files. Pierre, South Dakota.
- Rahn, P. H., 1979, Ground Water Resources of Western South Dakota. South Dakota School of Mines and Technology Project #2533. Rapid City, South Dakota.
- Redden, J. A., Alexander, D., and Nonnast, D., 2005, Geologic Map of the Silver City Quadrangle, South Dakota, 7.5 Minute Series Geologic Quadrangle Map 6, 1:24,000 scale. SD DENR-Geological Survey. Vermillion, South Dakota.
- Water Rights. 2020a. Observation Well Files. SD DENR-Water Rights Program, Joe Foss Building, Pierre, South Dakota.
- Water Rights. 2020b. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Building, Pierre, South Dakota.
- Water Rights. 2020c. Well Completion Reports. SD DENR-Water Rights Program, Joe Foss Building, Pierre, South Dakota.
- Water Rights. 2020d. Pennington County Complaint/Investigation File. SD DENR-Water Rights Program, Joe Foss Building, Pierre, South Dakota.

Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, May 18, 2020 10:46 AM
To: Rob Livingston
Subject: Application No. 2811-2
Attachments: Application No. 2811-2.pdf

Rob,
Attached is the report, recommendation and information regarding the public notice for Water Permit Application No. 2811-2. As stated in the letter, it is important that you or Mr. Lindsey contact the paper to authorize publication and arrange for payment ASAP in order for the notice to be published next week on May 27th. This same information is being mailed to Mr. Lindsey today.

Karen Schlaak

SD DENR, Water Rights Program
(605) 773-3352



Affidavit of Publication

STATE OF SOUTH DAKOTA

County of Pennington

SS:

RECEIVED

JUN 04 2020

WATER RIGHTS
PROGRAM

May 27 L11998

NOTICE OF APPLICATION
NO. 2811-2 to Appropriate Water
Notice is given that Wayne Lindsey, 16001 W Hwy 44, Rapid City SD 57702 has filed an application for a water permit to appropriate up to 1.0 acre-foot of water annually at a maximum pump rate of 0.02 cubic feet of water per second from one well to be completed into the Crystalline Rock Aquifer (120 feet deep) located in the SW 1/4 SW 1/4 Section 27-T2N-R5E for commercial use at a RV Park. This site is located approximately 10 miles west of Rapid City along Hwy 44.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2811-2 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by June 8, 2020.

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

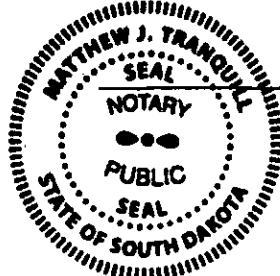
If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. If a petition opposing the application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

(Published once at the approximate cost of \$46.84)

Sheri Sponder being first duly sworn, upon his/her oath says: That he/she is now and was at all time hereinafter mentioned, an employee of the RAPID CITY JOURNAL, a corporation of Rapid City, South Dakota, the owner and publisher of the RAPID CITY JOURNAL, a legal and daily newspaper printed and published in Rapid City, in said County of Pennington, and has full and personal knowledge of all the facts herein stated as follows: that said newspaper is and at all of the times herein mentioned has been a legal and daily newspaper with a bonafide paid circulation of at least Two Hundred copies daily, and has been printed and published in the English language, at and within an office maintained by the owner and publisher thereof, at Rapid City, in said Pennington County, and has been admitted to the United States mail under the second class mailing privilege for at least one year prior to the publication herein mentioned; that the advertisement, a printed copy of which, taken from said Rapid City Journal, the paper in which the same was published, is attached to this sheet and made a part of this affidavit, was published in said paper once each day for one successive day, the first publication there of being on the 27th day of May 2020 that the fees charged for the publication there of are 46 dollars and 84 cents.

Sheri Sponder

Subscribed and sworn to before me this 2nd day of June, 2020.



Matthew J. Tranquill

Notary public

December 5, 2025

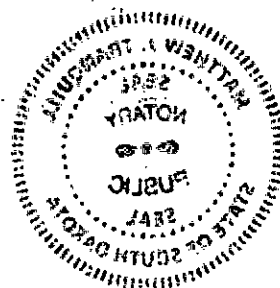
My commission expires

IN THE _____ COURT
COUNTY OF PENNINGTON

**Publisher's and Attorney's
Affidavit**

Filed in the office of _____ on
the _____ day of _____
20 _____

Attorney for _____



Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, May 18, 2020 10:40 AM
To: Rapid City Journal (legals@rapidcityjournal.com)
Subject: 2811-2, Wayne Lindsey
Attachments: 2811-2public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on May 27, 2020.

Wayne Lindsey, 16001 W Hwy 44, Rapid City SD 57702 (605 574-9550) or (605 209-4727) has been notified to contact you to authorize publication and arrange for payment.

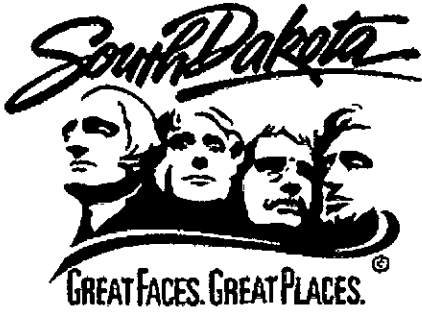
Please send the affidavit or return the attached Proof of Publication form ASAP to the Water Rights Program, 523 E Capitol, Pierre SD 57501.

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

Karen Schlaak

SD DENR, Water Rights Program
(605) 773-3352





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

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

May 18, 2020

Wayne Lindsey
16001 W Hwy 44
Rapid City SD 57702

Dear Mr. Lindsey:

Water Permit Application No. 2811-2 for commercial use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Rapid City Journal (Ph # 605 394-8335). You will need to contact the newspaper and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

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

Sincerely,

Karen Schlaak

Karen Schlaak
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. 2811-2 to Appropriate Water

Notice is given that Wayne Lindsey, 16001 W Hwy 44, Rapid City SD 57702 has filed an application for a water permit to appropriate up to 1.0 acre-foot of water annually at a maximum pump rate of 0.02 cubic feet of water per second from one well to be completed into the Crystalline Rock Aquifer (120 feet deep) located in the SW 1/4 SW 1/4 Section 27-T2N-R5E for commercial use at a RV Park. This site is located approximately 10 miles west of Rapid City along Hwy 44.

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Published once at the total approximate cost of_____.



DENR
SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

JUN 10 2020

Wayne Lindsey
c/o Rob Livingston
23851 Hwy 385
Hill City SD 57745

Dear Sir:

Enclosed is Water Permit No. 2811-2 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
Eric Gronlund, Chief Engineer
Water Rights Program
(605) 773-3352

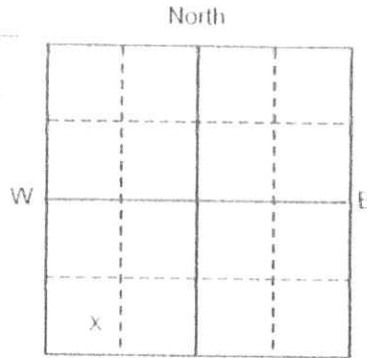
enclosures

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW ¼ SW ¼ Sec 27 Twp 2N Rg 5E

County Pennington

Please mark well
location with an "X"

Well Completion Date

March 2, 2023

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

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary downhole hammer

CASING DATA:

☐ Steel ☒ Plastic ☐ Other
 If other describe Set 30' of 6" 160 psi PVC

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	0.0 FT	28.0 FT	8.75 IN
LB/FT	IN	28.0 FT	160.0 FT	6.00 IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Portland II	4	Lb/gal	28.0 Ft	0.0 Ft
w/2% bent		Lb/gal	Ft	Ft

Describe grouting procedure
through trimmie pipe

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? w/chlorine solution

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

Well Owner No Bad Days Campground

Business Name _____

Address 23851 Hwy 385, Suite 3

City, State, Zip Hill City SD 57745

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Broken Schist	0	13
Schist, hard	13	50
Schist fracture 3 gpm	50	52
Schist hard	52	115
Quartz fracture 50+ gpm	115	119
Hard Schist	119	140

STATIC WATER LEVEL 4.0 FEET

If flowing: closed in pressure _____ PSI

GPM flow 50.0 through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ Pumped Describe w/air

☐ Bailed

☐ Other

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

This well was drilled under license # 324 and this report is true and accurate.

Drilling firm: Alexander Drilling Inc.

Signature of License Representative

Signature of Well Owner or Equitable Property Holder

RECEIVED

Date: 3/24/23

MAR 30 2023

OFFICE OF
WATER