

WATER PERMIT NO. 1839-1

Name of Applicant: **Farrar Companies, Inc.**

Address: **5251 Carriage Hills Dr, Rapid City SD 57702**

Phone: **605 341-7001**

Amount of Water Claimed: **0.033 cfs (15 gpm)**

Total Acres: **NA**

Source of Water Supply: **groundwater (one well)**

Water to be used for: **geothermal heating & cooling**

County: **Lawrence**

Type of Waste Disposal System:

Location: **main street in Spearfish**

PRIORITY

Date Received: **3-15-05**

Application/License Fee: **\$100**

Corrected Application Received:

Period of Annual Use: **January 1 – December 31**

Remarks:

Diversion Point: **SW ¼ SE ¼ Sec 10-T6N-R2E**

Land to be Irrigated: **NA**

Depth of Well: **100 feet deep**

Well Driller: : **Dennis V Johnson**

Remarks:

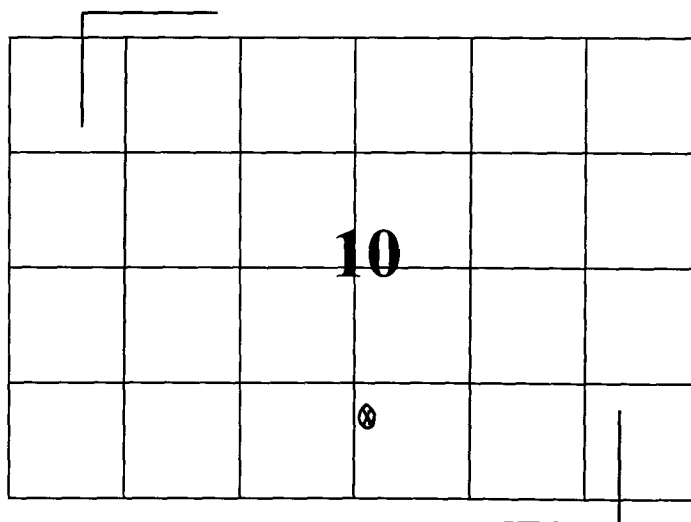
Type of Map: **topo**

Prepared by: **Dennis Van Johnson**

Reviewed and the Number Assigned on: **3-15-05**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



MAR 15 2005

WATER RIGHTS
PROGRAM

Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	No. <u>1839-1</u> (office use only) Hydrologic Unit <u>10120203</u>
	Basin <u>Belle Fourche River</u>
	Newspaper <u>Black Hills Pioneer, Spearfish</u>

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

Check use(s) of water:

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

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

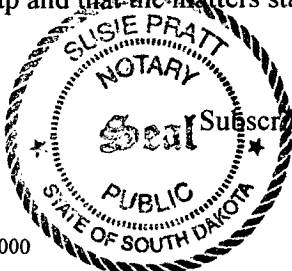
Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.) _____

- Name of Applicant Farrar Companies, Inc. Phone 605-341-7001
Mailing Address 5251 Carriage Hills Dr., Rapid City State SD 57702
(check one) Owner Tenant/lessee
(Street, RR, or Box and City) (Zip Code)
- Amount of water claimed 0.033 *CFS or 15 **GPM ***AF
(*Cubic Feet per Second) (**Gallons per Minute) (**Acre Feet - storage capacity of dam/dugout or annual use if applicable)
- Source of water supply Water source well
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) 1 well located in the
SW SE of section 10 T6N R2E
County Lawrence
- County or counties where water will be used Lawrence
- Annual period during which water is to be used All year (intermittantly) Jan 1-Dec 31
- 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)
Diversion of 13-15 gpm from source well to operate
ground source heating & cooling equipment for commercial building at
810 Main St. in Spearfish, SD. Water returned to shallow aquifer.
No net usage of water.

STATE OF SOUTH DAKOTA)
County of Lawrence SS

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

I, Fredrick Chris Farrar, the applicant, certify that I have read this application, have examined the attached map and that the matters stated are true and that I intend, and am able to complete the necessary construction.



Applicant's signature F. C. Farrar

Subscribed and sworn to before me this 4th day of March 20 05

My Commission Expires
August 9, 2010

[Signature]
Notary Public signature

**SOUTH DAKOTA
WATER PERMIT NO. 1839-1**

Date of first receipt of application March 15, 2005.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 1839-1 to Farrar Companies, Inc., 5251 Carriage Hills Dr., Rapid City SD 57702 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. 1839-1 appropriates 0.033 cubic feet of water per second (15 gallons per minute) from one well to be completed into the Quaternary Alluvium (approximately 100 feet deep) located in the SW ¼ SE ¼ Section 10-T6N-R2E.
2. The water appropriated shall be used for the purpose of geothermal heating and cooling purposes 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: January 1 – December 31.
4. The date of approval of Permit No. 1839-1 is June 20, 2005.
5. The date from which applicant may claim right is March 15, 2005.
6. One-fifth of the construction is to be completed on or before December 20, 2007.
7. All construction is to be completed on or before June 20, 2010.
8. Water is to be put to beneficial use on or before June 20, 2014.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATION

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.

WATER MANAGEMENT BOARD

By: Garland Erbele
Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

JUL 29 2005
date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 6 1/4 Depth 100'
- b) Casing Type PVC Diameter 4 1/2" ID Thickness sch 40
- c) Screen Type Perf. casing Diameter 4 1/2" Thickness sch 40
- d) Gravel Pack None Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material 75'
- f) Depth to Water (ground surface to water level) 76'
- g) Distance to nearest existing domestic well:
- On applicants property None On property owned by others unknown

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 Spearfish Sanitary System _____

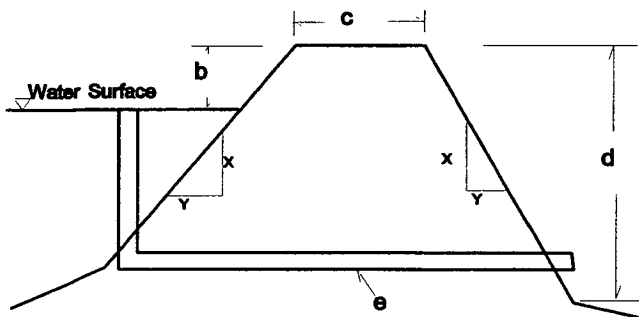
3. Dugout Information

- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

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

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



- b) Freeboard _____
- c) Crest Width _____
Crest Length _____
- d) Height _____
- e) Primary Outlet Capacity _____
If pipe, diameter _____
- f) Secondary Spillway Capacity _____
Spillway Width _____
- g) X & Y Slope _____
Upstream _____
Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date March 15, 20 05

RECEIVED OF Charles Farrar, 5251 Carriage Hills Dr, Rapid City SD 57702

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

Fee for Application for Permit No. <u>1289-1</u> to Appropriate Water, to construct and to put water to beneficial use	50	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>1289-1</u>	50	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	100.00

No.

001788

By

Darland Elbert

Chief Engineer

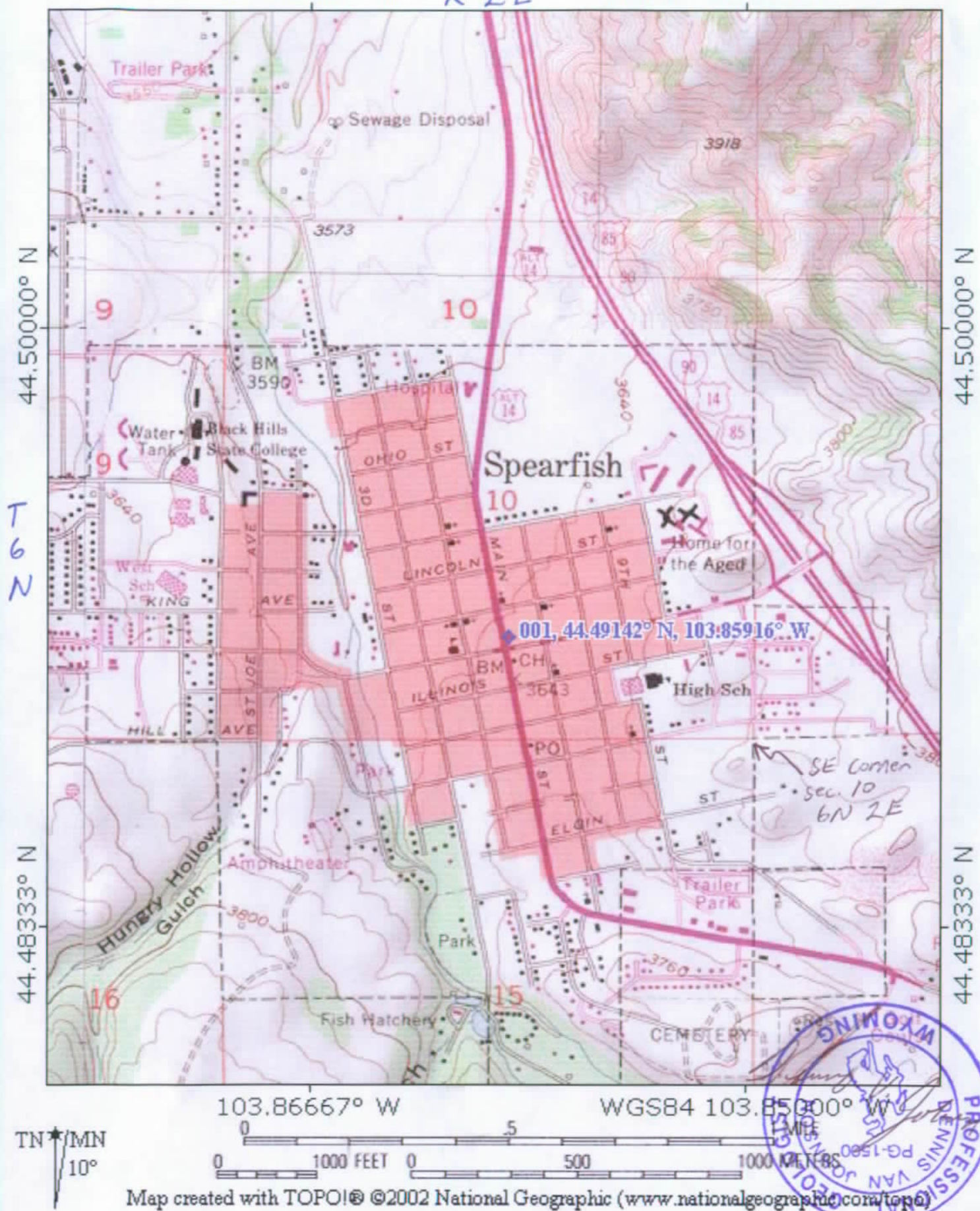
gr

TOPO! map printed on 02/23/05 from "South Dakota.tpo" and "Untitled.tpg"

103.86667° W

R 2 E

WGS84 103.85000° W



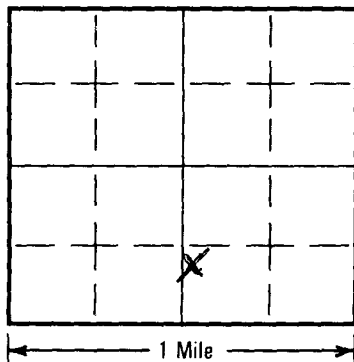
1839-1

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location SW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec 10 Twp 6N Rg 2E
County Lawrence North

Please mark well location with an "X"

GPS #1 44.49142 N
Loc: 103.85906 W W#2 44.49142 N
103.85916 W
Well Completion Date1-24-05

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? _____ ft. from NA (identify source).PROPOSED USE: ☒ Ground Source Heat
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

Air 2 mud rotary
2 HolesCASING DATA: ☒ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
#1 LB/FT	5" IN	0 FT	20 FT	6 1/4 IN
LB/FT	IN	FT	FT	IN
#2 LB/FT	4 1/2 IN	0 FT	88 FT	6 1/4 IN
LB/FT	IN	FT	FT	IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
#1	4 bags 2 sacks	lb./gal	0 ft	20 ft
#2	2 bags 2 sacks	lb./gal	ft	ft

Describe grouting procedure _____

Press. groutedSCREEN: ☐ Perforated pipe ☐ ManufacturedDiameter #2 4 1/2 IN Length 18 FEET

Material _____

Slot Size 1/16 #2 Set From 70 Feet to 88 Feet

Other information #1 open hole to 45' Jan 25'

#2 source well

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? _____

Laboratory sent to for water quality analysis

NAWell Owner: Farrar Companies

Business Name: _____

Address: 810 Main St.
Spearfish, SD 57783

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
#1 & #2 clay & silt, rd	0	20'
gravel & cobbles	20'	75'
water - gravel	75	95
gravel & clay	95	100'
"Tertiary gravel"		

STATIC WATER LEVEL 76' Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ PumpedDescribe: Air Pumped☐ Bailed☐ Other

Pumping Level Below Land Surface

90 ft. After 1/4 Hrs. pumped 15-20 GPM

____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate 14 GPM

REMARKS

Ground source heating & cooling system - no new water usage. (Water right applied for)This well was drilled under license # 511

And this report is true and accurate.

Drilling firm Dennis V. Johnson

Signature of License Representative:

Dennis V. Johnson

Signature of Well Owner or Equitable Property Holder:

X Farrar ownerDate: 3/4/05

WATER PERMIT APPLICATION NO. 1839-1
FARRAR COMPANIES, INC.
MAY 5, 2005

Water Right Application No. 1839-1 proposes to appropriate 0.033 cubic feet of water per second (15 gallons per minute) from one well completed into the Alluvium aquifer, (approximately 100 feet deep) located in the SW¼ SE¼ Sec. 10, T6N-R2E, Lawrence County. The water will be used for geothermal heating and cooling purposes. This project proposes pumping water from one existing well through a heat exchanger and injecting the water back into the same aquifer via a second existing well.

AQUIFER: Quaternary Alluvium (ALQ)

GEOLOGY AND AQUIFER CHARACTERISTICS:

Geologically, this area consists of the Spearfish Formation covered with alluvium (sand and gravel) along Spearfish Creek (Strobel and others, 1999). The alluvium in this area has been mapped (Strobel and others, 1999), however, the saturated thickness of the alluvium has not been delineated. Where the alluvium is saturated, groundwater occurs under unconfined conditions. The alluvium is restricted to the Spearfish Creek floodplain. The aquifer's water table slopes toward the creek and downstream. Spearfish Creek is in hydraulic connection to the alluvium and is a gaining stream.

Recharge to the Spearfish Creek Alluvium occurs primarily through precipitation and irrigation losses. Estimates of the amount of water in storage or for recharge to the aquifer are not available.

The Water Rights Program monitors two observation wells completed into the Spearfish Creek Alluvium. The nearest of these wells, LA-98B, is located approximately two miles from this well site. The hydrograph for the well is shown in figure 1.

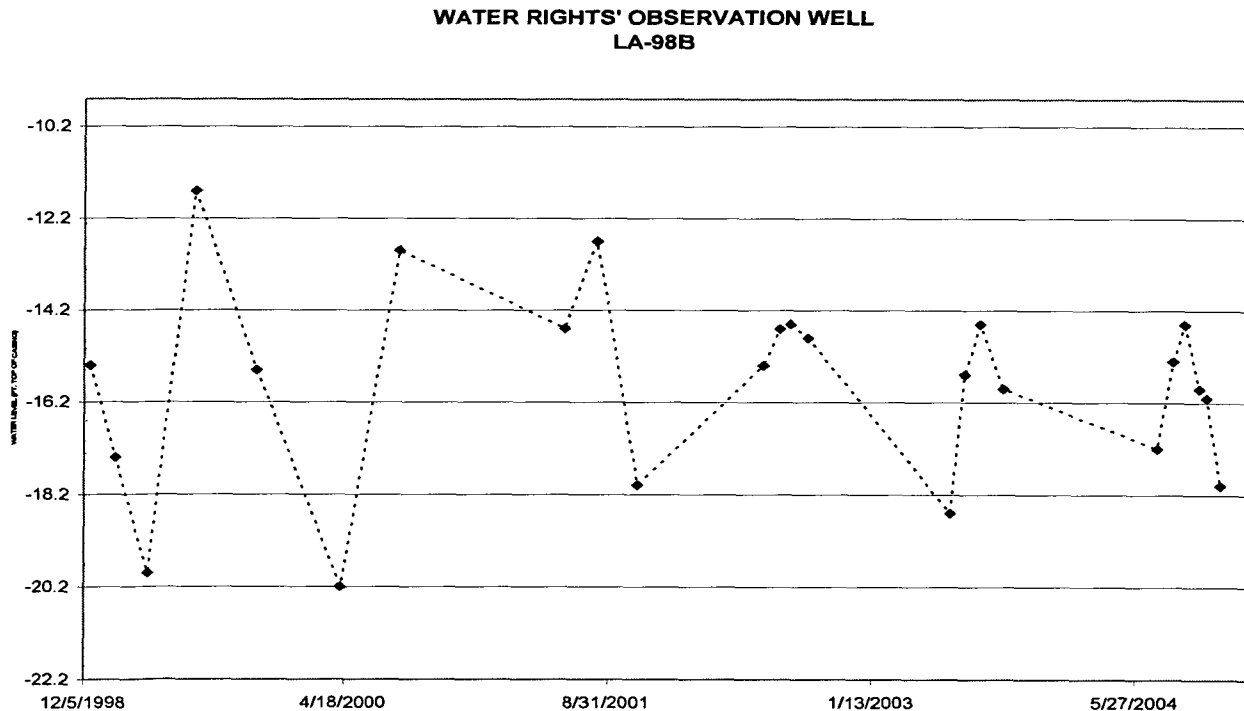


Figure 1. Hydrograph of Water Rights' Observation Well LA-98B, located approximately two miles north of 1839-1

The hydrograph shows the aquifer is recharged and that water is available for this appropriation.

Effects on Existing Water Rights:

There are a number of domestic wells completed into the Spearfish Creek Alluvium. There are 12 Water Rights/Permits appropriating water from the Spearfish Creek Alluvium. They are shown in Table 1.

PERMIT NO	NAME	STATUS	USE	CFS
1141-1	ROBERT R SCHNEIDER	LC	COM	0.07
1356-1	STANLEY D AINSWORTH	LC	COM	0.02
1377-1	GARY OR DOROTHY HUNT	LC	COM	0.05
1539-1	STEVE SHARP	LC	COM	0.16
967-1	US BUREAU SPORT/FISHERIES	LC	FWP	1.11
1537-1	B & C WAGNER, INC	LC	INS	0.03
645-1	CITY OF BELLE FOURCHE	LC	MUN	4.64
1227-1	LOURIE LANE HOMEOWNERS	LC	SHD	0.22
1253-1	THOMPSON ABERNATHY DEV #1	LC	SHD	0.05
1430-1	APPLE VALLEY HOMEOWNERS	LC	SHD	0.07
1665-1	W B ABERNATHY	LC	SHD	0.07
1668-1	APPLE VALLEY HOMEOWNERS	PE	SHD	0.10

Table 1. Water Rights/Permits appropriating water from the Spearfish Creek Alluvium

In addition to the Water Rights/Permits appropriating water from the aquifer, Future Use Permit No. 369-1 reserves 1,238 acre-feet annually from the alluvium for the City of Belle Fourche.

Well interference is not expected to be adverse due to the low pump rate requested by this application, distance to other users, and the essentially non-consumptive water use proposed.

CONCLUSIONS:

1. The alluvium along Spearfish Creek is a viable aquifer at this well site.
2. There is a reasonable probability unappropriated water is available for this application.
3. The applicant should contact the U.S. EPA regarding possible UIC regulatory concerns.
4. The map submitted with this application may not meet the requirements of ARSD

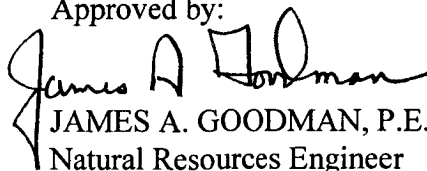
74-02:01:07.



KEN BUHLER

Natural Resource Engineer

Approved by:



JAMES A. GOODMAN, P.E.
Natural Resources Engineer

REFERENCES:

Strobel, M.L., Jarrell, G.J., Sawyer, J.F., Schleicher, J.R., and Fahrenbach, M.D., 1999, Distribution of Hydrogeologic Units in the Black Hills Area, South Dakota: U.S. Geological Survey Hydrologic Investigations Atlas HA-743, 3 sheets, scale 1:100,000

Water Rights, 2005a, Domestic Well Logs, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Water Rights, 2005b, Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Water Rights, 2005c, Water Permit/Right Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 1839-1, Farrar Companies, Inc.**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 1839-1, Farrar Companies, Inc., Fredrich Chris Farrar, 5251 Carriage Hills Drive, Rapid City SD 57702.

The Chief Engineer is recommending APPROVAL of Application No. 1839-1 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 qualification:

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.

See report on application for additional information.

Garland Erbele, Chief Engineer
May 25, 2005

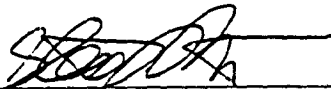
Affidavit of Publication

STATE OF SOUTH DAKOTA COUNTY OF LAWRENCE

Stewart Huntington of said County and State being first duly sworn, on his oath says: That the BLACK HILLS PIONEER is a legal daily newspaper of general circulation, printed and published in the City of Spearfish, in said County and State by Stewart Huntington, and has been such a newspaper during the times hereinafter mentioned; and that said newspaper has a bonafide circulation of at least 200 copies weekly, and has been published within said County in the English language for at least one year prior to the first publication of the notice herein mentioned, and is printed in whole or in part in an office maintained at the place of publication; and that I, Stewart Huntington, the undersigned, am the Publisher of said newspaper and have personal knowledge of all the facts stated in this affidavit; and that the advertisement headed:

Notice of Application
No. 1839-1

a printed copy of which is hereto attached, was printed and published in said newspaper for 2 successive and consecutive weeks, the first publication being made on the 2nd day of June, 2005, and the last publication on the 9th day of June, 2005 that the full amount of fees charged for publishing same, to-wit: The sum of \$ 38.41, insures solely to the benefit of the publisher of the BLACK HILLS PIONEER, that no agreement or understanding for a division thereof has been made with any person and that no part thereof has been agreed to be paid to any other person whomsoever.

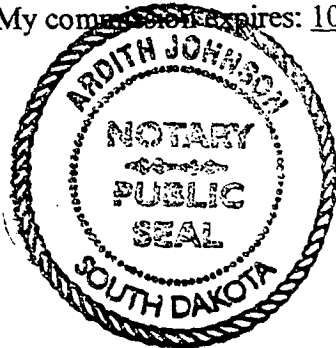


Subscribed and sworn to before me this 9th day of June, 2005



Notary Public, Lawrence County, South Dakota

My commission expires: 10-24-2010



NOTICE OF APPLICATION NO. 1839-1 to Appropriate Water

Notice is given that Farrar Companies, Inc., c/o Fredrich Chris Farrar, 5251 Carriage Hills Dr, Rapid City, SD 57702 has filed an application for a water permit to appropriate 0.033 cubic feet of water per second (15 minutes) from a well to be completed into the Quaternary Alluvium (approximately 100 feet deep) located in the SW 1/4 SE 1/4 Section 10-T6N-R2E. The water is for geothermal heating and cooling purposes.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of application No. 1839-1 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on the application, as recommended, unless a petition if filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider the application. Notice of the hearing will be given to the applicant and any person filing a petition.

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

tion. 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 20, 2005.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application.

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

#976
June 2, 9

RECEIVED
JUN 23 2005
WATER RIGHTS
PROGRAM



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

May 26, 2005

Black Hills Pioneer
PO Box 7
Spearfish SD 57783-0007

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 1839-1 to Appropriate Water to be published twice. Please publish the first notice on June 2, 2005 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Farrar Companies Inc., % Fredrich Chris Farrar, 5251 Carriage Hills Dr., Rapid City SD (Ph # 605-341-7001).

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at (605) 773-4068. Publication errors can invalidate the public notice.

After the second publication, **please send us an affidavit or use the enclosed Proof of Publication form.** The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,


Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----

No. 1839-1

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

Date _____

We are in receipt of your letter of May 26, 2005 enclosing Notice to Appropriate Water by Application No. 1839-1 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

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

May 26, 2005

Farrar Companies Inc
% Fredrich Chris Farrar
5251 Carriage Hills Dr
Rapid City SD 57702

Dear Mr. Farrar:

Water Permit Application No. 1839-1 for geothermal heating & cooling use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Publisher of the Black Hills Pioneer printed at Spearfish, SD (Ph # 605-642-2761). 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 a report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

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

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

c: Dennis Johnson, Box 405, Rapid City SD 57709-0405

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

Instruction to Newspaper - Publish first Notice on June 2, 2005 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 1839-1 to Appropriate Water

Notice is given that Farrar Companies, Inc., c/o Fredrich Chris Farrar, 5251 Carriage Hills Dr, Rapid City SD 57702 has filed an application for a water permit to appropriate 0.033 cubic feet of water per second (15 gallons per minute) from one well to be completed into the Quaternary Alluvium (approximately 100 feet deep) located in the SW ¼ SE ¼ Section 10-T6N-R2E. The water is for geothermal heating and cooling purposes.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 1839-1 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on the application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider the application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by June 20, 2005.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.



JUL 29 2005

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

Farrar Companies Inc
% Fredrich Chris Farrar
5251 Carriage Hills Dr
Rapid City SD 57702

Dear Mr. Farrar:

Enclosed is Water Permit No. 1839-1 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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

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

Sincerely,

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

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

Date 8/18/05

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

FROM: Farmer Co. INC & Farmer Properties LLC
(name)
5251 Cemetery Hills Drive
(address)
Rapid City, SD 57702 605-341-1001
(city, state, zip) (phone)

^{we}
~~X~~ have completed the construction of the water use system and ^{we} have put the water to beneficial use
to the maximum extent it is going to be used.

Water Permit No. 1839-1 states that the water use system is to be constructed by
6/20/10, and water is to be put to beneficial use by 6/20/14.
(date) (date)

The water use system was completed on 8/1/05.
(date)

Applying the water to beneficial use was completed on 8/1/05.
(date)

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

J. L. Jarrow
(signature)



Permit No. 1839-1
Belle Fourche River - Water District

Report of Examination of Works and/or Application of Water to Beneficial Use

TO: Chief Engineer, Water Rights Program, DENR, Foss Bldg., Pierre, SD 57501

I have this day, **28 August 2007**, made a thorough examination of the water use system constructed by **Farrar Companies Inc.** of **5251 Carriage Hills Dr. Rapid City, SD. 57702** holder of Permit No. **1839-1**, bearing the priority of **15 March 2005** authorizing the diversion of **0.033** cu. ft. per second of the waters of **the Quaternary Alluvium** for **geothermal heating and cooling** purposes, in **Lawrence** County.

Inspection contact & relationship
to permit holder, if applicable:

Christopher Farrar
810 Main St.
Spearfish, SD.57783
605-390-2324

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: **Dennis Johnson**
- 2) No. of Wells **1**
- 3) Depth(s) **100** feet
- 4) Well log is available **Y**

Casing:

- 1) Diameter **5 / 4.5** inches
- 2) Length **20 / 88** feet
- 3) Type **steel / plastic**

Screen:

- 1) Type **unknown**
- 2) Length **18** feet
- 3) Static water level **76** feet

Pump:

- 1) Make **Goulds**
- 2) Capacity **13** GPM

Motor:

- 1) Horsepower rating **½** hp

B. Works used to apply water to beneficial use:

4^{ca} Hydron Geothermal Heating and Cooling units, Model No. HC 18

Chemigation Equipment:

1) Does chemigate N

C. Compliance with Permit Requirements:

1) Permit qualifications being abided by Y

2) Exceptions to compliance are: none

The system is in good condition with the point of diversion located as follows: SW ¼ SE ¼ Sec 10-T6N-R2E, approximately 2334 feet west and 1020 feet north of the southeast corner of Sec 10-T6N-R2E, N 44.49139 Latitude and W -103.85890 Longitude. The works are capable of diverting and conveying to the place of use 0.029 cu. ft. per second of water which is to be used for geothermal heating and cooling purposes.

The license should be issued for 0.029 cfs.

All structures, wells and lands on map Y



Mark Costello
Natural Resources Engineer
DENR, Water Rights Program

Date report completed: 14 September 2007

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

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 1839-1

(1) Farrar Companies Inc., 5251 Carriage Hills Drive, Rapid City SD 57702 made Application No. 1839-1, March 15, 2005 for a water permit to divert 0.033 cubic feet of water per second (15 gallons per minute) from ground water (one well – Quaternary Alluvium), Lawrence County, South Dakota for geothermal heating and cooling purposes. Permit No. 1839-1, with a priority date of March 15, 2005 was approved June 20, 2005 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before June 20, 2010 and for the application to beneficial use of said water on or before June 20, 2014.

The Permit holder submitted a "*Notice of Completion of Works and Application of Water to Beneficial Use*" on August 22, 2005. The "*Notice*" stated the water use system was completed and the water placed to beneficial use on August 1, 2005.

(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 0.029 cubic feet of water per second (13 gallons per minute) for beneficial use.

The location of the diversion point is 2,334 feet west and 1,020 feet north of the SE corner of Section 10, T6N, R2E (SW ¼ SE ¼).

(3) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use. The water is used for geothermal heating and cooling of a commercial building located at 810 Main Street in Spearfish SD.

(4) Pursuant to South Dakota Water Law 46-5-30.1 Farrar Companies Inc., 5251 Carriage Hills Dr., Rapid City SD 57702 the holder and/or owner of Water Right No. 1839-1 is issued a license to appropriate water, the right to use 0.029 cubic feet of water per second from ground water (one well – Quaternary Alluvium) with a priority date of March 15, 2005 from the location specified in (2) of this license for geothermal heating and cooling purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 1839-1 and subject to the following qualification:

- 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.



Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

OCT 19 2007

date





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

OCT 19 2007

1839-1

Farrar Companies Inc
5251 Carriage Hills Dr
Rapid City SD 57702

Dear Sirs:

Enclosed is Water License No. 1839-1. This is the final water right document completing your process of obtaining a Water Right. Also included is a map prepared by the staff engineer who conducted the field investigation.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the well authorized by Water Right No. 1839-1, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

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

Sincerely,

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures