

WATER PERMIT NO. 6257-3

Name of Applicant: Thunderbird Colony

Address: 15185 346th Ave, Faulkton SD 57438

Phone: 605 598-4229

Amount of Water Claimed: 0.2 cfs (90 gpm)

Total Acres: NA

Source of Water Supply: groundwater (6 wells)

Water to be used for: domestic

County: Faulk

Type of Waste Disposal System:

Location: 12 miles northwest of Faulkton

PRIORITY . Date Received: 4-5-2001

Fee: \$225

Corrected Application Received::

Period of Annual Use: January 1 – December 31

Remarks:

Diversion Point: SE ¼ SE ¼ Sec 21;

S ½ SW ¼ Sec 22 and NW ¼ NW ¼

Sec 27; all in T120N-R70W

Land to be Irrigated: NA

Depth of Well: between 1450 & 1900 feet deep

	20		21		22
				⊗⊗⊗⊗	
				⊗	
	29		28		27

Well Driller: :

Remarks:

Type of Map: aerial

Prepared by: Jeanette Deigel

Reviewed and the Number Assigned on: 4-5-2001

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

SOUTH DAKOTA
WATER PERMIT NO. 6257-3

Date of first receipt of application April 5, 2001.

The Water Management Board approved Water Permit Application No. 6257-3 on July 11, 2001 for Thunderbird Colony, 15185 346th Ave, Faulkton SD 57438 authorizing the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 6257-3 to appropriate 0.2 cubic feet of water per second (90 gallons per minute) from six wells (Dakota Formation & Inyan Kara Formation) between 1450 feet and 1940 feet deep located in the SE ¼ SE ¼ Section 21; S ½ SW ¼ Section 22 and NW ¼ NW ¼ Section 27; all in T120N-R70W.
2. The water appropriated shall be used for the purpose of supplying water for domestic and livestock 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: January 1 – December 31.
4. The date from which applicant may claim right is April 5, 2001.
5. 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 wells 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 wells approved under this Permit shall be valved and the flow reduced to the amount needed or to a minimum when not being used. If this well is abandoned or the Permit cancelled, the wells must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.

WATER MANAGEMENT BOARD

By: Garland Erbele

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

JUL 26 2001

date



Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	(office use only)	
	No. <u>6257-3</u>	Hydrologic Unit
	Basin <u>James River</u>	
	Newspaper <u>Faulkton Co. Record, Faulkton</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 Thunderbird Colony Phone 605-598-4229
 Mailing Address 15185 346th Ave Faulkton State SD 57438
 (check one) ☒ Owner ☐ Tenant/lessee
 (Street, RR. or Box) (Zip Code)
- Amount of water claimed 0.2 *CFS or 90 **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 Ground Water
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) 2 wells in SE1/4 SE1/4
section 21 T120 Range 70 3 wells in SW1/4 SW1/4 section 22
T120 Range 70 - 1 well in NW1/4 NW1/4 S27 County Faulk
- County or counties where water will be used Faulk T120 Range 70
- Annual period during which water is to be used Jan 1 to Dec 31

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)

No 1 = Well already in existence ~~2~~ wells in formation
 sheets attached on all other wells
 Do not know specifics on well No 1 -

STATE OF SOUTH DAKOTA)
 County of Faulk) 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, Paul Walker, 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.

Signed Marta G. Neuman

Subscribed and sworn to before me this 28th day of March 19 2001

Marta G. Neuman
 Notary Public

My Commission Expires _____

Well number 1

Hard Water Well

About 1700 to 1900 Deep

~~Free~~ Flowing Well

Well already existed before we moved to this location. Do not know specifics of this well.

Supplemental Information

well number 2

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 12"-9" Depth 1450'
- b) Casing Type PVC-Copper- Diameter 5" 3"-2 1/2" Thickness 250 lbs.
- c) Screen Type Stainless Steel Diameter 2 1/2"-100' Long Thickness Type "K" Stainless No. 316
- d) Gravel Pack 3" Annulus Length of Gravel Pack 140'
- e) Depth to Top of Water Bearing Material 1250'
- f) Depth to Water (ground surface to water level) 135'
- g) Distance to nearest existing domestic well:
- On applicants property 500' On property owned by others NA

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 _____

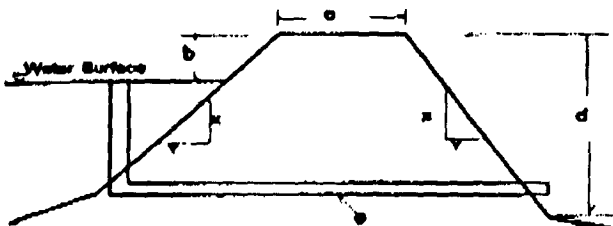
3. Dugout Information

- 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 _____
Upstream _____
Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 8" - 2" Depth 1940
- b) Casing Type copper Diameter 2" Thickness "K"
- c) Screen Type Perforation Diameter 2" Thickness "K"
- d) Gravel Pack none Length of Gravel Pack none
- e) Depth to Top of Water Bearing Material 1700'
- f) Depth to Water (ground surface to water level) flowing well
- g) Distance to nearest existing domestic well:
- On applicants property 600 On property owned by others N/A

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 _____

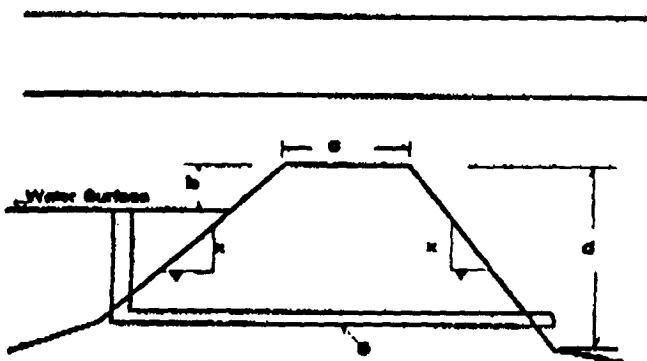
3. Dugout Information

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

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- 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

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 8" Depth 1480'
- b) Casing Type PVC Diameter 5" - 2 1/2" Thickness 25 - #80
- c) Screen Type PVC Diameter 2 1/2" Thickness #80
- d) Gravel Pack 2 1/2" Annulus Length of Gravel Pack 160
- e) Depth to Top of Water Bearing Material 1305
- f) Depth to Water (ground surface to water level) 94
- g) Distance to nearest existing domestic well:

On applicants property 550On property owned by others N/A**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 _____

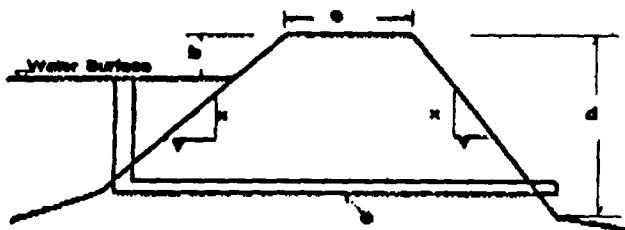
3. Dugout Information

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

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- 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

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 8" Depth 1500
- b) Casing Type PVC Diameter 5" - 2 1/2" Thickness 250 - #80
- c) Screen Type PVC Diameter 2 1/2" Thickness #80
- d) Gravel Pack 2 1/2" Annulus Length of Gravel Pack 140'
- e) Depth to Top of Water Bearing Material 1355'
- f) Depth to Water (ground surface to water level) 96
- g) Distance to nearest existing domestic well:
- On applicants property 400 On property owned by others N/A

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 _____

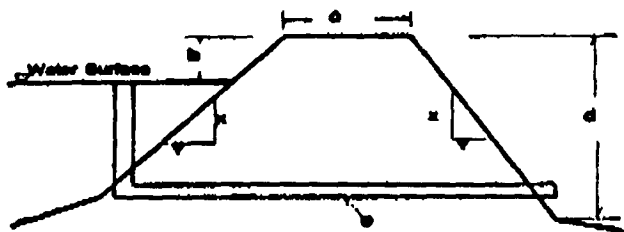
3. Dugout Information

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

4. Water Storage Dams

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- 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

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 8" Depth 1470'
- b) Casing Type PVC Diameter 5" Thickness SDR17.22
- c) Screen Type PVC Diameter 2" Thickness SDR8
- d) Gravel Pack 2" Pvc 1300'-1470' Length of Gravel Pack 170 ft
- e) Depth to Top of Water Bearing Material 1300'
- f) Depth to Water (ground surface to water level) 105'
- g) Distance to nearest existing domestic well:
- On applicants property 2500 On property owned by others NA

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 _____

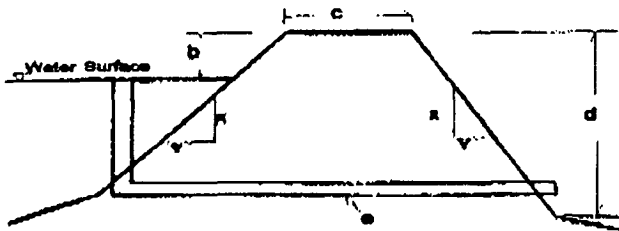
3. Dugout Information

- 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 _____
Upstream _____
Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres

10-85

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10-85

Location S.E. Sec 21 Twp. 120 Rg. 70

County Faulk

Please mark well location with an "X"

Well Completion Date April 21, 1986

PROPOSED USE
☒ Domestic ☐ Municipal ☐ Test Water
☐ Irrigation ☐ Industrial ☐ Stock

Method of Drilling Rodriguez

CASING DATA
☐ Steel ☒ Plastic ☐ Other
If other describe Supra

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>0.125 LB/FT</u>	<u>5 IN</u>	<u>0 FT</u>	<u>360 FT</u>	<u>12 1/4 IN</u>
<u>3 1/2 LB/FT</u>	<u>4 IN</u>	<u>360 FT</u>	<u>1350 FT</u>	<u>9 IN</u>
<u>2 1/2 LB/FT</u>	<u>3 1/2 IN</u>	<u>1350 FT</u>	<u>1450 FT</u>	<u>9 IN</u>
<u>SS Screen</u>	<u>LB/FT</u>	<u>IN</u>	<u>FT</u>	<u>IN</u>

GROUT:
Was the well grouted? ☒ YES ☐ NO
To what depth? 1300 ft to Surface FEET
What is grouting material? Bentonite
If cement, number of sacks?
Describe grouting procedure
Pumped in through casing pipe
What was grout weight? _____ LB/GAL

SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 2 1/2 IN Length 100 FEET
Material 304 Stainless Steel
Slot Size .25 Set From 1350 Feet To 1450 Feet
Slot Size _____ Set From _____ Feet To _____ Feet
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?

Was well disinfected upon completion? ☒ YES ☐ NO
Explain _____
Bacteriological analysis ☐ YES ☒ NO
Laboratory sent to _____

Well Owner _____
Name T.H. Anderson & Son Inc.
Address Wichita, S. Dak.
Well log _____
Formation _____

	From	To
<u>Yellow Clay</u>	<u>0</u>	<u>20</u>
<u>Blue Clay</u>	<u>20</u>	<u>145</u>
<u>Sand Gravel</u>	<u>145</u>	<u>210</u>
<u>Shale</u>	<u>210</u>	<u>920</u>
<u>Limestone</u>	<u>920</u>	<u>955</u>
<u>Shale</u>	<u>955</u>	<u>1250</u>
<u>Dakota Sandstone</u>	<u>1250</u>	<u>1450</u>

STATIC WATER LEVEL 135 Feet
If flowing closed in pressure _____ PSI
GPM flow 35 through 3 inch pipe
Controlled by ☐ Valve ☐ Reducers ☐ Other
If other, specify Pump Well
Can well be completely shut in? Yes

WELL TEST DATA
☒ Surged Compressed Air
☐ Bailed
☐ Other
Pumping Level Below Land Surface
170 ft After 48 Hrs pumped 35 GPM
_____ ft After _____ Hrs pumped _____ GPM
_____ ft After _____ Hrs pumped _____ GPM

REMARKS
3" K' Casing Open at 1300 ft
Gravel packed well
With one 1/2 inch gravel
Pack to match 3/4 inch
SS well screen - 5" dia
on top for placement of pump

This well was drilled under license # 44
And this report is true and accurate.
Drilling firm Cheyenne Drilling Inc.
Signature of licensee Representative _____
Signature of Well Owner _____
Date _____

SOUTH DAKOTA WATER WELL COMPLETION REPORT

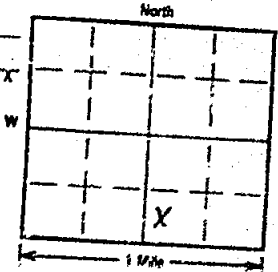
07-92

Location SE 1/4 SW 1/4 Sec 22 Twp 12N Rg 70

County FAULK

Well Owner: Henderson Bird Colony
Business Name: WECOTA, S. D. 57438
Address: Att. Samuel G. Wolman

Please mark well location with an "X"



Well Completion Date 11-24-93

LOCATION:

Distance from nearest potential pollution source (agricultural, oil, well, feed lot, etc.): 400 ft. from Septic (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary

CASING DATA:

- ☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
250 LB/FT	5" IN	2 FT	130 FT	7 7/8" IN
180 LB/FT	3 1/2" IN	130 FT	150 FT	4 1/4" IN
150 LB/FT	3" IN			

GROUTING DATA

Cement Type Portland No. of Sacks 100 Gross Weight 100 lb / sack From 0 To 130 ft
Describe grouting procedure: Pressure Plug

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 2 1/2 IN Length 150 FEET

Material PVC

Slot Size 25 Set From 130 Feet to 150 Feet

Other information

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top Soil	0	5
Yellow Clay	5	20
Blue Clay	20	35
Sandy Blue Clay	35	50
Gravelly	50	250
Siltstone	250	760
Calculation	760	775
Siltstone	775	1355
Dakota Sandstone	1355	1500

STATIC WATER LEVEL

96 Feet

If flowing: closed in pressure

GPM flow PSI

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate GPM

Can well be completely closed?

WELL TEST DATA:

☒ Pumped Describe: Compressor, Air

☐ Sealed

☐ Other

Pumping Level Below Land Surface

130 ft. After 30 Mins. pumped 40 GPM

ft. After Mins. pumped GPM

If pump installed, pump rate GPM

REMARKS



This well was drilled under license # 94

And this report is true and accurate.

Drilling Firm: Edgar Drilling Inc

Signature of License Representative:

[Signature]

Signature of Well Owner or Equitable Property Holder:

[Signature]

Date: 11-3-93

WAS A PACKER OR SEAL USED ☒ YES ☐ NO

If so, what material? Kalasa

Describe packer(s) and location? Above Pump

DISINFECTION:

Was well disinfected upon completion? ☒ YES, How: HTH

 NO, Why Not?

Laboratory sent to for water quality analysis: Peace S. D. K.

STATE OF SOUTH DAKOTA
THIS IS TO CERTIFY THAT THE MICROGRAPHIC IMAGE APPEARING ON THIS SIDE OF MICROFILM IS AN ACCURATE REPRODUCTION OF THE ORIGINAL RECORD AND WAS MICROFILMED IN THE REGULAR COURSE OF BUSINESS ACCORDING TO THE PROVISIONS OF SECTION 1-27.4 OF THE SOUTH DAKOTA CODED LAWS. IT IS FURTHER CERTIFIED THAT THE PHOTOGRAPHIC PROCESS USED FOR MICROFILMING OF THE ABOVE RECORDS WAS IN A MANNER AND ON MICROFILM WHICH MEET THE RECOMMENDED REQUIREMENTS OF ADMINISTRATIVE RULES OF SOUTH DAKOTA 100401 AND 100402 FOR MICROGRAPHIC REPRODUCTIONS.
25-1
RECORDS MAINTAINED
DATE MICROFILMED
3-18-94
DATE
MICROFILM CERTIFICATE OF AUTHENTICITY
OFFICIAL SIGNATURE

SOUTH DAKOTA WATER WELL COMPLETION REPORT

10-85

#3

Location *St. George, SD*Well *1-11K*Well Completion Date *July 18, 1990*
☒ Drilled
☐ Reamed
☐ Other
Method of Drilling *Rotary*
☒ Final
☐ Other

☐ Other

☒ Final
☐ Other

☒ Final
☐ Other

☐ Other

PIPEWEIGHT	DIAMETER	FEET	WELL DEPTH
15	5	0-30	44
18	4	0-10	44
11	2	0-10	44
16	4	0-10	44

☒ Final
☐ Other

☒ Final
☐ Other

☒ Final
☐ Other

☒ Final
☐ Other

☒ Final
☐ Other

☒ Final
☐ Other

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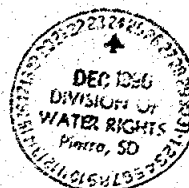
☒ Final
☐ Other

Th. ...
RP 42 502 99
1-11K, A.D. 502 58
1-11K, A.D. 502 58
1-11K, A.D. 502 58
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1-11K, A.D. 502 58

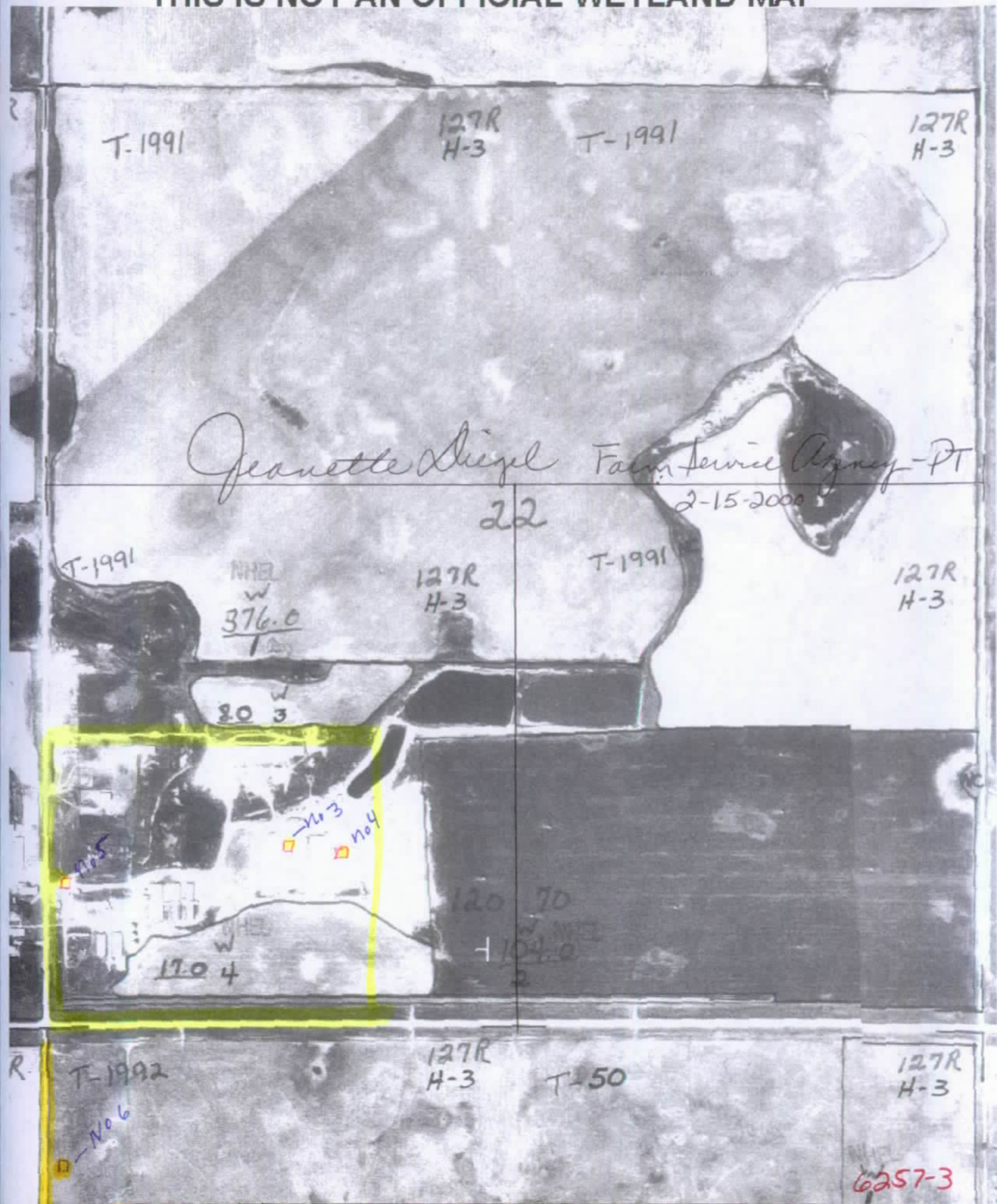
STATE OF SOUTH DAKOTA - BUREAU OF ADMINISTRATION - OFFICE OF RECORDS MANAGEMENT - CERTIFICATE OF AUTHENTICITY

THIS IS TO CERTIFY THAT THE MICROPHOTGRAPHIC IMAGE APPEARING ON THIS SLIDE OF MICROFILM IS AN ACCURATE REPRODUCTION OF THE ORIGINAL RECORD AND WAS MICROFILMED IN THE REGULAR COURSE OF BUSINESS ACCORDING TO THE PROVISIONS OF SOUTH DAKOTA COMPILLED LAW 1-27-4. IT IS FURTHER CERTIFIED THAT THE PHOTOGRAPHIC PROCESS USED FOR MICROFILMING OF THE ABOVE RECORDS WAS IN A MANNER AND ON MICROFILM WHICH MEET THE RECOMMENDED REQUIREMENTS OF THE NATIONAL BUREAU OF STANDARDS FOR PERMANENT MICROPHOTGRAPHIC REPRODUCTIONS.

REDUCTION *2.5:1* ROLL NO. *U-1* DATE MICROFILMED *7-18-90* OPERATOR *...*


94
...
...
...
...
...
...
...
...

MAP NOT TO SCALE
THIS IS NOT AN OFFICIAL WETLAND MAP



MAP NOT TO SCALE
THIS IS NOT AN OFFICIAL WETLAND MAP

T-1980

127R
H-3

T-1990

127R
H-3

NHFL

W

136.0

1

*Seattle Diesel
Farm Service Agency PT*

2-15-2000

21

T-1990

127R
H-3

T-1990

NHFL
W
86.0
2

NHFL
W
50
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6257-3

RECEIPT

Water Rights Program

South Dakota Department of Environment and Natural Resources

416817

Pierre, APRIL 5, 20 01

RECEIVED OF Thunderbird HE, Inc., 15185 346th Ave, Faulkton SD 57438
the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use _____	225	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. _____	50	00
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		

(Any Other Work Provided by Law)	Total	275 00

By

Chief Engineer

Douglas E. Erbe

gms

REPORT ON WATER PERMIT APPLICATION NO. 6257-3
for Thunderbird Colony
April 23, 2001

Application No. 6257-3 proposes to appropriate 0.2 cfs (90 gpm) from six wells ranging in depth from approximately 1450 feet to 1940 feet and located in the SE 1/4 SE 1/4 of section 21, S 1/2 SW 1/4 of section 22 and NW 1/4 NW 1/4 of section 27; all in T120N R70W in Faulk County. The water is for domestic use and livestock watering.

AQUIFER - DAKOTA (DKOT) and INYAN KARA (INKR)

In Faulk County, the Dakota Formation is composed of many beds of fine-grained, poorly consolidated sandstone that can have a total thickness of as much as 240 feet (Hamilton, 1982). The aquifer is confined and under artesian conditions at this site. The aquifer underlies 1018 square miles and contains an estimated 14.7 million acre feet of recoverable water in storage in Faulk County (Hedges, 1982). Well Nos. 2, 4, 5 and 6 are all completed into the Dakota Formation. All four of these wells are pumped wells with static water levels ranging from 135 feet to 94 feet below land surface.

The Inyan Kara Group (Fall River Formation in the Hamilton report) is composed of sandstone and shale and ranges in thickness from 40 feet to 360 feet for the study area of the Hamilton report. The aquifer is confined and under artesian conditions at this site. The aquifer underlies 882 square miles and contains an estimated 3.2 million acre feet of water in storage in Faulk County (Hedges, 1982). Well Nos. 1 and 3 are completed into the Inyan Kara aquifer. Both of these wells free flow at the land surface and information for well No. 3 indicates that this well is capable of flowing 100 gpm through a two inch pipe and has a closed in pressure of about 230 psi.

Well completion reports for three of the six wells are filed with the application. Production rates for these three wells range from free flowing at 100 gpm to development pumped rates of 35 to 40 gpm. The combination of diversions from these three wells alone would easily exceed the requested rate of 90 gpm.

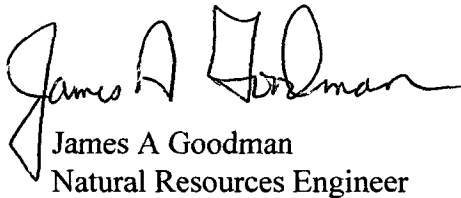
The Water Rights Program does monitor two observation wells ED-85A and ED-85B completed into the Dakota and Inyan Kara aquifer respectively and located about 30 miles northeast of this application. Water levels for these wells (hydrographs) are included with this report (Water Rights, 2001).

REVIEW OF EXISTING WATER PERMITS/RIGHTS

There are no other existing water permits/rights in this area which obtain water from either the Dakota or Inyan Kara aquifers. These formations are widely used for domestic water supplies in this area of the state. Interference is not considered to be a concern. These wells have been used for these purposes for many years with no apparent problems.

CONCLUSIONS

1. Water is available from either the Dakota or Inyan Kara aquifers.
2. Both aquifers are confined and under artesian conditions. Interference is not expected to be a concern. The flowing wells must be valved and controlled to prevent the waste of water.
3. There is not sufficient information available to determine if these wells have all been constructed in accordance with SD Well Construction Standards.
4. The rates of diversions for each well should be established and the sources of water should be separated on this application.



James A Goodman
Natural Resources Engineer

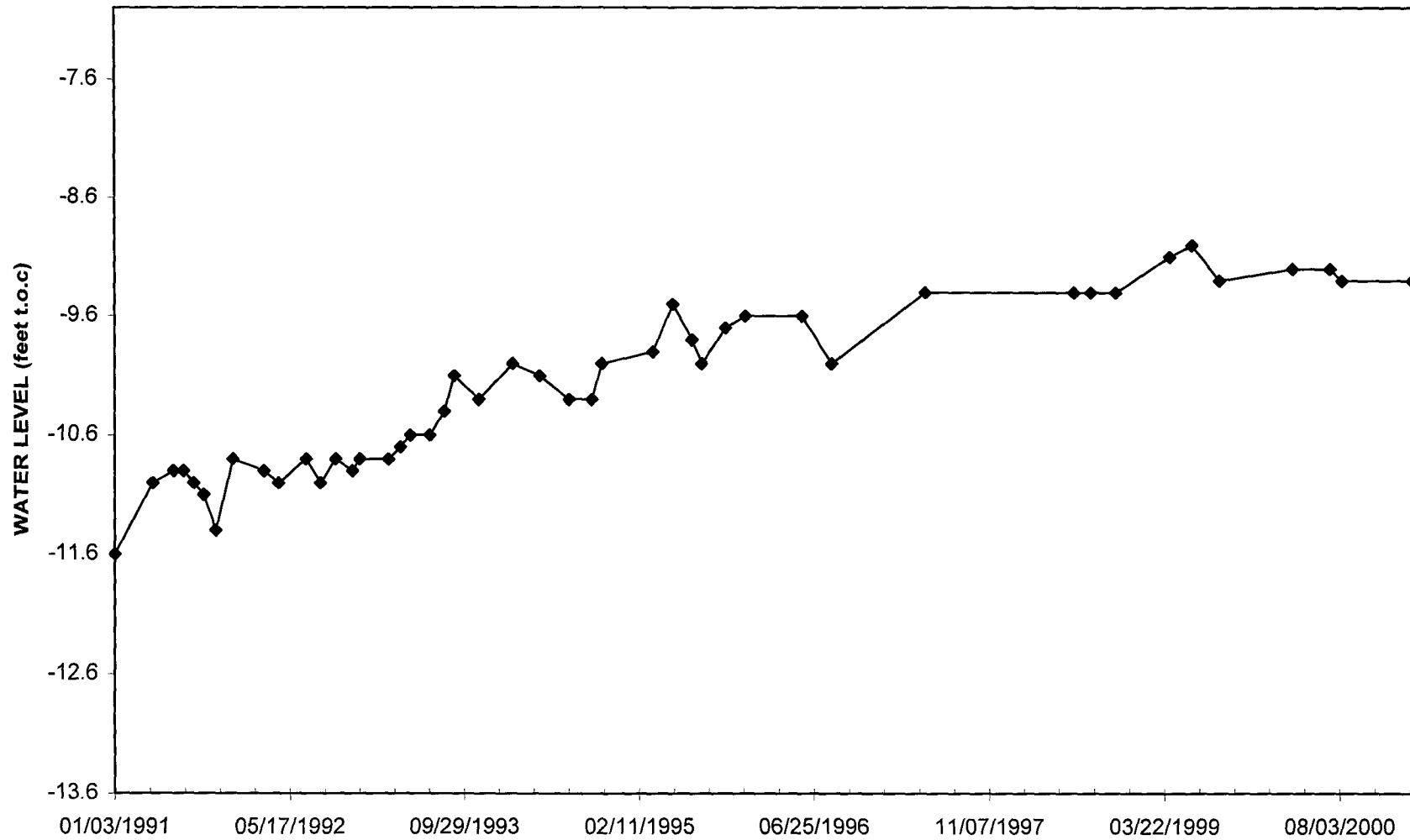
BIBLIOGRAPHY

Hamilton, L.J., 1982, Geology and Water Resources of McPherson, Edmunds, and Faulk Counties, South Dakota, Part II : Water Resources, Bulletin 26, SD DENR, SDGS, Vermillion, SD, 57069.

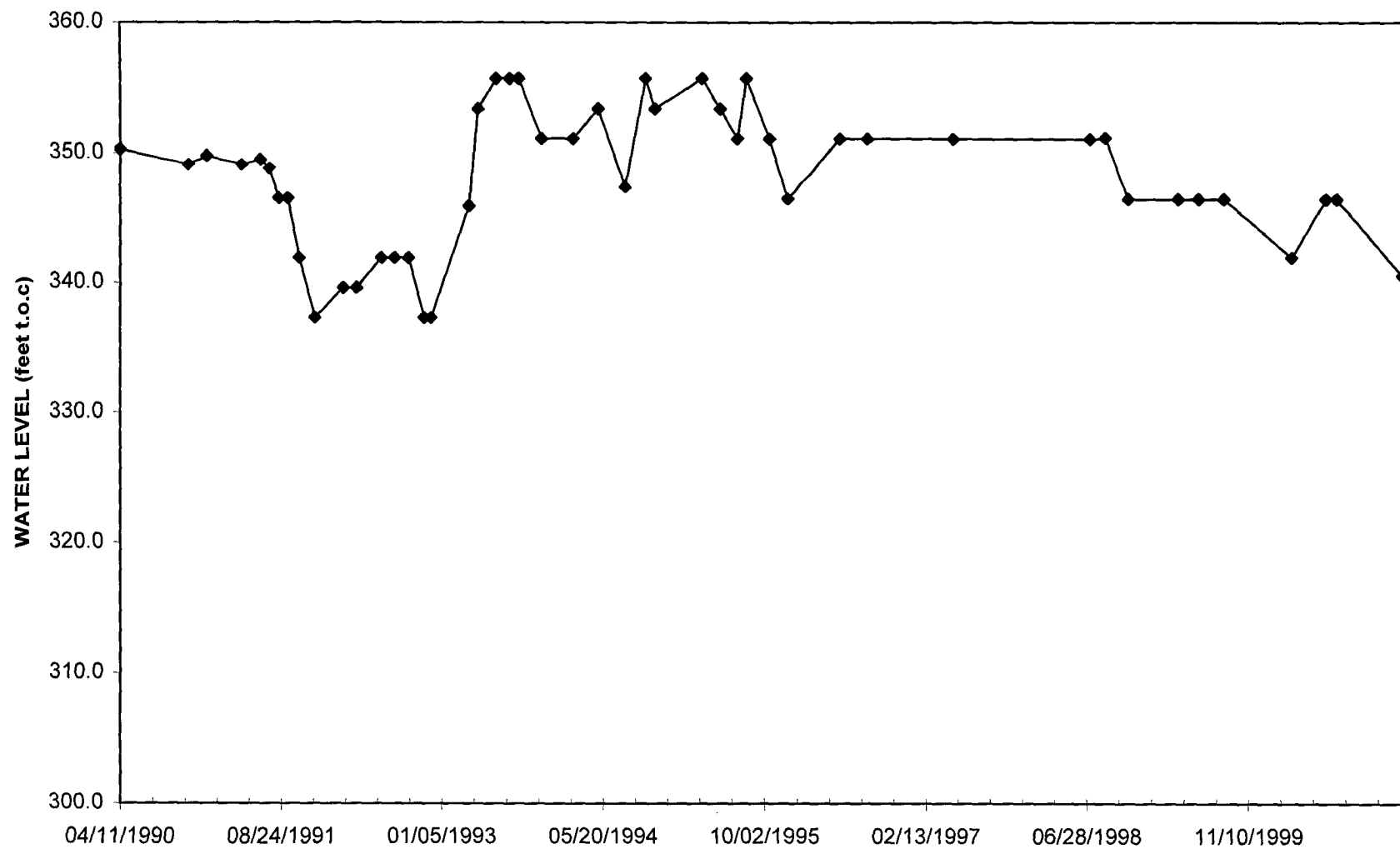
Hedges, L.S., etal, 1982, Evaluation of Ground-Water Resources Eastern SD and Upper Big Sioux River, SD and Iowa, for US Army Corps of Engineers, SD DENR, SDGS, Vermillion, SD, 57069.

Water Rights, 2001, Unpublished Observation Well Data for the Dakota and Inyan Kara aquifers, SD DENR, DES, Water Rights Program, Pierre, SD, 57501.

**WATER RIGHTS' OBSERVATION WELL
ED-85A**



**WATER RIGHTS' OBSERVATION WELL
ED-85B**





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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. 6257-3, Thunderbird Colony**

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. 6257-3, Thunderbird Colony, Paul Waldner, 15185 346th Avenue, Faulkton SD 57438.

The Chief Engineer is recommending APPROVAL of Application No. 6257-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The wells 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 wells approved under this Permit shall be valved and the flow reduced to the amount needed or to a minimum when not being used. If this well is abandoned or the Permit cancelled, the well must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.

See report on application for additional information.

Garland Erbele, Chief Engineer
May 9, 2001



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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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 9, 2001

Paul Waldner
Thunderbird Colony
15185 346th Ave
Faulkton, SD 57438

Dear Mr. Waldner:

Water Permit Application No. 6257-3 for domestic use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice of hearing has been sent to the Publisher of the Faulkton Co. Record printed at Faulkton, SD (Ph # 605-598-6525). 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 of Hearing and to arrange for payment. Early contact with the paper can eliminate delays. The publisher has been instructed to publish your notice once each week for two consecutive weeks with the last publication to occur twenty days before the board meeting. The newspaper has been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

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



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

May 9, 2001

Faulkton Co Record
Box 68
Faulkton, SD 57438

ATTENTION: Legal Public Notice

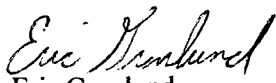
Enclosed is a Notice of Hearing on Application No. 6257-3 to Appropriate Water to be published twice. Please publish the first notice on May 16, 2001 with the second publication 7 days later.

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 Paul Waldner, Thunderbird Colony, 15185 346th Ave., Faulkton, SD 57438 (Ph # 605-598-4229).

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. 6257-3

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

Date _____

We are in receipt of your letter of May 9, 2001 enclosing Notice of Hearing to Appropriate Water by Application No. 6257-3 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper

Instruction to Newspaper - Publish first Notice on May 16, 2001 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 6257-3 to Appropriate Water

Notice is given that Thunderbird Colony, c/o Paul Waldner, 15185 346th Ave, Faulkton SD 57438 has filed an application for a water permit to appropriate 0.2 cubic feet of water per second (90 gallons per minute) from six wells (Dakota Formation & Inyan Kara Formation) between 1450 feet and 1940 feet deep located in the SE ¼ SE ¼ Section 21; S ½ SW ¼ Section 22 and NW ¼ NW ¼ Section 27; all in T120N-R70W. The water is for domestic use and livestock watering

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6257-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest.

Any person interested in opposing or supporting this application must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to 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 July 2, 2001. 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.

The Water Management Board will consider this application at The Matthews Training Center, Foss Building, 523 E. Capitol, Pierre, SD at 10:00 A.M. July 11, 2001. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny this application based on the facts presented at the public hearing. The July 11, 2001 hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the application. The request for an automatic delay must be filed by July 2, 2001.

Any hearing will be an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer and may present evidence or cross-examine witnesses according to SDCL 1-26. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. Contact Eric Gronlund by July 2, 2001, at the above Water Rights Program address to request copies of information pertaining to this application, to assure access to the hearing by the handicapped or to obtain an interpreter for the hearing impaired.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15, 46-2A-20, 46-2A-21; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-26; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) SS
 County of Faulk)

I, James B. Moritz

certify that the attached printed Notice was taken

from the

Faulk County Record

printed and published in Faulkton

County of Faulk and

state of South Dakota. The notice was published

in the newspaper on the following two dates:

Wednesday, May 16, 2001

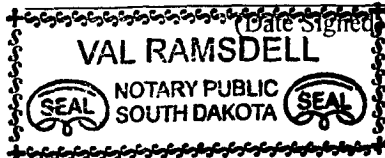
Wednesday, May 23, 2001

Cost of Printing \$57.85

James B. Moritz
 (Signature)

Publisher
 (Title)

5-23-2001



My Commission Expires
 Jan. 17, 2005

Val Ramsdell

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

ommendation. 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 July 2, 2001. 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.

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No. 128, May 16 & 23, 2001
NOTICE OF APPLICATION
NO. 6257-3 to Appropriate Water
 Notice is given that Thunderbird Colony, c/o Paul Waldner, 15185 346th Ave., Faulkton, SD 57438 has filed an application for a water permit to appropriate 0.2 cubic feet of water per second (90 gallons per minute) from six wells (Dakota Formation & Inyan Kara Formation) between 1450 feet and 1940 feet deep located in the SE 1/4 SE 1/4 Section 21; S 1/2 SW 1/4 Section 22 and NW 1/4 NW 1/4 Section 27; all in T 120N-R70W. The water is for domestic use and livestock watering.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 62573 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.

Any person interested in opposing or supporting this application must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's rec-





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

JUL 26 2001

Paul Waldner
Thunderbird Colony
15185 346th Ave
Faulkton, SD 57438

Dear Sir:

Enclosed is Water Permit No. 6257-3 authorizing your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

We will schedule an inspection so that the Water License may be issued to you, thus completing your acquisition of a Water Right.

Sincerely,

A handwritten signature in black ink, reading "Garland Erbele".

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

enclosures