

Water Right Number 2271-3

1. Considered MAY 21, 19 75
2. Name of Applicant GILLIS HAGEMAN
3. Post Office Address HOVEN
4. Amount of Water claimed 4.3
5. Source of Water supply GROUND WATER 2 40' WELLS
6. Water to be used for IRRIGATION
Acres to be irrigated 302
7. Water to be diverted and used in POTTER County
about 35 miles of HOVEN
8. Proof of Publication Received 5-20-75
Not Received _____
9. Application Approved _____
Subject to _____
Not Approved _____
Action Deferred _____
10. Remarks:

No. 2271-3 MAY 1 1975
 Map No. 16602-3 Water Division No. 3 MISSOURI RIVER District 1-3
 (To be Filled by the Engineer for the W. R. C.)
 STATE WATER RIGHTS COM.
 PIERRE, SOUTH DAKOTA

APPLICATION FOR PERMIT

To Appropriate Water within the State of South Dakota

(NOTE - Draw a line through items not applicable)

1. Name of Applicant Gillis Hageman
 Post-office address Hansen State S. DAK.
 If a corporation show date and place of incorporation _____
 2. Method of accomplishing work (contract, employment of others, or by direct labor) Direct labor
 3. Name of diversion work Hageman Home
 4. Amount of water claimed (cubic feet per second) 4.3
 5. Source of water supply well
 6. Location of point of diversion #1 - 28 RODS, S 80° E FROM THE NW CORNER,
#2 - 14.5 RODS, S 88° E FROM THE W⁴ CORNER, SECTION 28,
T120N, R74W County POTTER
 7. Annual period or periods during which water is to be used April to Sept.
 8. Use to be made of water, (irrigation, industrial, municipal, commercial, recreation, etc.) irrigation
 9. For irrigation, Total number of acres to be irrigated 302

List below each forty acre subdivision, or lot, or fraction thereof and show number of acres to be irrigated in each.

Land Description	No. Acres Irr.	Land Description	No. Acres Irr.
<u>NW 1/4</u>	<u>16.9</u>		
<u>SW 1/4</u>	<u>15.3</u>		
<u>ALL IN SECTION 28, T120N, R74W</u>			

Attach sheet if more space is needed

10. Time required to complete construction of water supply system 3 years. Additional time required to complete application of water to the proposed beneficial use 3 years.
 11. Choice of newspaper for Notice of Intent to Appropriate Water publication Hansen Review
 12. Principal Features of the Proposed Water Supply System.

A. Works proposed to divert water from its natural source. wellB. Works proposed to transport water to place of use. pipeC. Works proposed to apply water to beneficial use. sprinklerEstimated Total Cost \$ 30,000.

Attachments: Attach Form 2A if diversion from a well or dugout, or if storage of water, is proposed. Attach map.
 (See instructions concerning preparation.)

STATE OF SOUTH DAKOTA

County of Dugess

I, Gillis Hageman the applicant, certify that I have read the foregoing application and have examined the attached map and that the matters therein stated are true and that I intend, and am able to complete the necessary construction.

Signed Gillis HagemanSubscribed and sworn to before me this 1st day of May 1975

Justin A. Zicknick
 Notary Public (or other qualified officer,
 My Commission Expires 3/27/83

WATER RIGHT APPLICATION APPROVAL

The Water Rights Commission hereby approves Water Right Application No. 2271-3
GILLIS HAGEMAN HOVEN
 (Applicant) (Post Office Address)
SOUTH DAKOTA 57450 With the following modifications.
 (State)

The irrigation wells approved under this Permit will be located near domestic wells and other irrigation wells which may obtain water from the same aquifer. The irrigation well owner, under this Permit, shall control his irrigation withdrawals so there is not a reduction of needed water supplies in existing domestic wells or in irrigation wells having prior water rights.

Date of first receipt of application MAY 1 19 75
 Date of return to applicant for correction, amendments or changes required — 19 —
 Date of receipt of corrected application — 19 —
 Approved MAY 22 19 75 Recorded in Book 13 Page 309

WATER RIGHT PERMIT NO. 2271-3

The Water Rights Commission hereby grants and issues this Water Right Permit No. 2271-3 authorizing the construction of the water use system and the putting of water to beneficial use as stated in the Application and as modified in the Water Right Application approval, subject, however, to the following limitations and conditions:

1. The date from which applicant may claim right is MAY 1 19 75
2. The equivalent of at least one-fifth of the work above specified is to be completed on or before NOVEMBER 23 19 76
3. The whole of said work is to be completed on or before MAY 22 19 78
4. The limit of time from proof of beneficial use of water appropriated in accordance herewith is MAY 22 19 81
5. The water appropriated shall be used for the purpose of IRRIGATION

6. The prior right of all persons who, by compliance with the laws of the State of South Dakota, have acquired a right to the use of water must not be injuriously affected by this appropriation.

7. The amount of the appropriation herein granted shall not exceed 4.3 cubic feet per second; neither shall it exceed the capacity of the above described water supply system, nor shall it exceed the amount of water needed for beneficial uses served, and if for the irrigation purposes said appropriation must be limited to not more than 3 acre feet per acre per year and be limited to not more than one-seventieth (1/70) of one cubic foot of water per second of time for each acre of land to which water is actually and beneficially applied for irrigation on or before MAY 22 19 81; said water to be used during the following described annual period: APRIL THRU SEPTEMBER

Witness my hand this 29TH day of MAY 19 75

WATER RIGHTS COMMISSION

Herb W. Bunker
 Acting Chief Engineer, Executive Officer

Certificate of Construction Issued — 19 —

Water License Issued — 19 —

GOPY

NOTICE OF WELL CONSTRUCTION

(1) WELL CONSTRUCTION

Location of well: _____ 1/4 _____ 1/4 _____ Section _____ Township _____ Range _____
 Well owner: C. I. Hanson (Name) Hanson (Address) So. Dak.
 Date well drilling completed: 3/75 Purpose of well: drill (domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer
0-10	Gravel
10-15	Gravel
15-20	Gravel
20-25	Gravel
25-30	Gravel
30-35	Gravel
35-40	Gravel
40-45	Gravel
45-50	Gravel
50-55	Gravel
55-60	Gravel
60-65	Gravel
65-70	Gravel
70-75	Gravel
75-80	Gravel
80-85	Gravel
85-90	Gravel
90-95	Gravel
95-100	Gravel

Depth to top of water producing aquifer _____ ft.
 Depth to static water level _____ ft.
 Name of producing aquifer (if known) _____
 Total depth of drill hole _____ ft.
 Depth to bottom of casing _____ ft.

Casing information: In the space below show kind, size, weight, lengths per diameter, etc., for production casing and surface casing, if used.

Screen information: In the space below show length of screen below bottom of casing, diameter and kind of screen or casing perforations.

If a flowing well, flow of completed well _____ G.P.M.

Attach sheet if more space is needed

Name of Drilling Contractor

(2) PUMP INSTALLATION

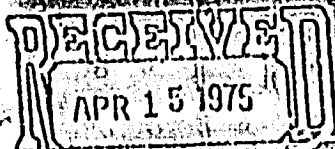
Company name and size of pump _____ HP
 Type of pump _____ Capacity of installed pump _____ G.P.M.
 Depth of pump placement _____ ft., Date of pump installation _____

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required: See Section 46.40B of Chapter 46.4, MINIMUM WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed _____ ft., tube diameter _____, tube material _____

Name of Pump Installation Contractor



STATE WATER RIGHTS COMM.
 PIERRE, SOUTH DAKOTA

12. Principal Features of the Proposed Water Supply System (continued.)

D. Well Information or Estimates

(1) Drill Hole, Diameter 18 in, Depth 40(2) Casing, Type steel, Diameter _____ Thickness _____
(wood, concrete, steel, etc)

(3) Perforated Screen.

Type _____, Diameter _____, Length _____

(4) Gravel Pack, Thickness _____, Length of gravel pack _____

E. Dugout Information or Estimates.

(1) Surface dimensions _____, Depth _____

F. Fill out for Either a Well or a Dugout.

(1) Water Bearing Materials. (Please attach a copy to test well log if available.)

Character of Water bearing materials _____

Depth to top of water bearing material 17Depth to bottom of water bearing material 110Thickness of water bearing material 21Depth to water (ground surface to water level) 19

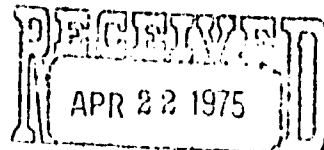
(2) Distance to nearest existing household or livestock watering wells.

On same owner's property _____ rds. On property owned by others _____ rds.

G. Water Storage Dams.

If the proposed water use system contains one or more water storage dams, please show in the space below, the height, maximum water depth, surface area and storage capacity of each storage dam. The location of each water storage dam should be shown on the water right map.

John J. Korman
Signature of Applicant



STATE WATER RIGHTS COMM
PIERRE, SOUTH DAKOTA

April 16, 1975

Mr. Gillis Hageman
Hoven
South Dakota 57450

Dear Mr. Hageman:

Enclosed please find the original copy of the report of analysis for the water sample submitted here about a week ago. This copy is yours to keep. Also enclosed you will find a copy of Extension Circular 654 with the approximate quality of this water for irrigation purposes designated by an encircled red cross on the outside back cover. You will note that this is in the medium salinity bracket for total salt and in the low sodium bracket for sodium or alkali hazard. This means that there should be no difficulty with either salt accumulation or sodium-caused dispersion of soil clays in the irrigation of your soils.

A copy of this letter and of the water analysis and your WI-1 form are being sent to the State Conservation Commission.

Sincerely yours,

L. O. Fine
Water Quality Lab

LOP:MB

Enclosures

cc: 4 State Conservation Commission
Lawrence Madsen, Potter County Extension Agent
Darrel Pahl



Conservation
Commission
Form WL #1

STATE CONSERVATION COMMISSION
SUPPORTING INFORMATION
FOR APPROPRIATION OF GROUND WATER IN ACCORDANCE
WITH SDCL 46-6-3 AS AMENDED
(This Form Required for Proposed Well Irrigation Only)

FOR COMMISSION USE OF

Irrigation System: _____

Water Quality: _____

Soils Capability: _____

Approved: W. S. Galt
9/2/75

Disapproved: _____

NAME: Gillis, Hagerman

ADDRESS: Hagerman So. 99th

COUNTY: Potter

LEGAL DESCRIPTION

1. WELL LOCATION: center
2. AREA TO BE IRRIGATED: on N. 1/4 - 21-120-74 S. N. 1/4 - 21-120-74

TYPE OF IRRIGATION

3. GRAVITY SPRINKLER (Indicate Type): sprinkler
4. CROPS TO BE IRRIGATED: corn

LAND CAPABILITY FOR IRRIGATION

5. PERCENTAGE OF SLOPE: 2 to 3 percent
6. PHYSICAL SOILS CLASSIFICATION FOR IRRIGATION: silty loam

WATER QUALITY (TO BE COMPLETED BY COMMISSION)

7. SAMPLE NO.: 75-2759
8. SALINITY: EC = 604 micromhos/cm (medium)
9. SODIUM: SAR = 1.39 (low)

I do hereby certify that a chemical analysis of the ground water to be acquired for irrigation from South Dakota State University and: the land capability for irrigation information has been acquired from

and:

that the legal description for the location of the well and land to be irrigated is true and correct.

Gill's Hogeman

Subscribed and sworn before me this

14 day of April 1975.

Herb W. Fox

HERB W. FOX
Notary Public, POTTER COUNTY, S. DAK.
My Commission Expires MAY 4, 1980

(Title)

RECEIVED
APR 22 1975
STATE WATER RIGHTS COMM
PIERRE, SOUTH DAKOTA



REPORT OF ANALYSIS
Water Quality Laboratory
Water Resources Research Institute
South Dakota State University
Brookings, South Dakota 57006

Submitted by: Bill Hageman

Date Rec'd April 7, 1975

Address Hoven, SD 57450

Sample No. 75-234

Identification _____

WATER ANALYSIS

Calcium (Ca)	63	ppm*	3.15	me/l**
Magnesium (Mg)	24	ppm	1.97	me/l
Sodium (Na)	51	ppm	2.22	me/l
Potassium (K)	7	ppm	0.13	me/l
Sulfate (SO ₄)	80	ppm	1.66	me/l
Nitrate (as N)		ppm		me/l
Chloride (Cl)	10	ppm	0.27	me/l
Bicarbonate (HCO ₃)	271	ppm	4.44	me/l
Carbonate (CO ₃)		ppm		me/l
Iron (Fe)		ppm		me/l
Fluoride (F)		ppm		me/l
Hardness (EDTA as CaCO ₃)		ppm		g.p.g.***
Alkalinity (Methyl Orange)	222	ppm (as CaCO ₃)		
Alkalinity (Penolphthalein)	0	ppm (as CaCO ₃)		
Electrical Conductivity	604	micromhos per cm at 25° C.		
Sodium Adsorption Ratio	1.39			
Sodium	29.52	% of cations		
Residual sodium carbonate	0.00	me/l		
pH	7.65			
Others:				

*ppm=parts per million

***g.p.g.=grains per gallon

**me/l=milliequivalents per liter

COMMENTS: Total cations 7.52 me/l
 Total anions 6.37 me/l

Please fill in the enclosed questionnaire and return with your payment.

By: Shirley Mitten

Service Performed

Amount Due

Irrigation analysis

6.00

Make checks payable to: Water Quality Laboratory

Cut along dotted line and return the lower portion with payment

Sample No. 75-234

Amount Enclosed \$ _____

Signed _____

A 2271-3Publish first publication, on or before May 8, 19 75NOTICE
INTENT TO APPROPRIATE WATER

Pierre, South Dakota 57501

May 2, 19 75Notice is hereby given that Gillis Hagemanwhose post office address is Hoven, South Dakota, has made an application in accordance with the provisions of the water laws of South Dakota for a permit to appropriate for beneficial use4.3 cubic feet of water per second of time from the ground water through the XXXHageman Bl, the point of diversion of which is are to be located in the _____NW $\frac{1}{4}$, NE $\frac{1}{4}$ and NW $\frac{1}{4}$, SW $\frac{1}{4}$ of Section 21, Twp. 120N, Range 74W. Said water to be used for the purpose of providing irrigation on the following described land:W $\frac{1}{2}$ Section 21, T120N, R74W

This application No. 2271-3 will be considered by the Water Resources Commission at their office at Pierre upon the 21st day of May, 19 75, at 2:30 P. M. All interested persons may appear and be heard.

WATER RESOURCES COMMISSION

By:

BUREN F. JONES
Water Rights Specialist

BFJ/bw

cc: Gillis Hageman, Hoven, S.D. 57450

No. 2271-3

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County Potter) ss.

I, Dan Holmquist hereby

certify that the annexed printed copy of Notice of Intent to Appropriate
Water was taken from the Hoven Review

A newspaper which during the whole time of publication of said notice
herein after stated, has been and is printed and published in the

City of Hoven

County of Potter and State of South Dakota;
that the said notice was published in said newspaper on the following
two dates:

May 8
" 15

Dan Holmquist
(Signature)

Publisher
(Title)

May 19, 1975
(Date Signed)



NOTICE
INTENT TO APPROPRIATE
WATER

Pierre, South Dakota 57501
May 2, 1975

Notice is hereby given that
Gillis Hageman whose post of-
fice address is Hoven, South Da-
kota, has made an application in
accordance with the provisions
of the water laws of South Da-
kota for a permit to appropriate
for beneficial use 2.3 cubic
feet of water per second of time
from ground water through the
Hageman No. 1, the points diver-
sion of which are to be located
in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ and NW $\frac{1}{4}$
SW $\frac{1}{4}$ of Section 21, Twp. 120N,
Range 74W. Said water to be us-
ed for the purpose of providing
irrigation on the following des-
cribed land:

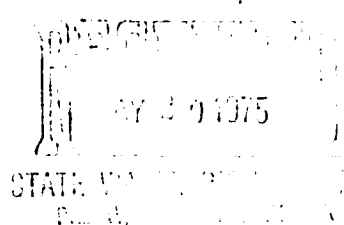
W $\frac{1}{2}$ Section 21, T120N, R74W
This application No. 2271-3
will be considered by the Water
Resources Commission at their
office at Pierre upon the 21st
day of May, 1975 at 2:30 P.M.
All interested persons may ap-

pear and be heard.

Water Resources Commission
By: Burton F. Jones
Water Rights Specialist

No. 2271-3

(May 8-15)



SOUTH



No. 2271-3

Department of Natural Resource Development

WATER RIGHTS COMMISSION

Office Building Number 2, Pierre, South Dakota 57501

Phone 605/224-3151

May 30, 1975

Gillis Hageman
Hoven
South Dakota 57450

Dear Mr. Hageman:

Enclosed herewith is your Water Right Permit No. 2271-3 as approved by the Water Rights Commission, authorizing you to construct your water diversion system and apply the water to beneficial use, not exceeding the limits as specified in said Water Right Permit No. 2271-3.

Also enclosed is Form 10, Notice of Completion of Works and Application of Water to Beneficial Use, which you are to complete and submit to the Water Rights Commission when you have completed the system and/or have put the water to beneficial use. The Commission can then schedule an inspection so that your Certificate of Construction and/or your Water License may be issued to you, thus completing your acquisition of a water right.

Respectfully,

WATER RIGHTS COMMISSION

VERN BUTLER
Acting Chief Engineer

VB/BFJ/bw
Encl: As stated



2271-3

Department of Natural Resource Development

WATER RIGHTS COMMISSION

Joe Foss Building, Pierre, South Dakota 57501

Phone 605/224-3151

August 9, 1977

Mr. Gillis Hageman
Hoven, SD 57450

Dear Mr. Hageman:

This letter will confirm the telephone call from Jim Winterton of the Water Rights Commission Staff ordering the cessation of pumping of your irrigation system as of 6:00 pm on August 9, 1977, until further notice.

Under the decision by the Commission, when water levels in Observation well SW-4 reads below 9 feet from the top of the pipe, the systems with later priorities shall be restricted to the extent necessary to prevent annual withdrawals in excess of the estimated average annual recharge. The August 8th reading on well #SW-4 was 9.7' below the top of the pipe.

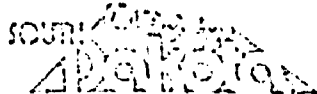
The Commission Staff will be monitoring the water levels as closely as we can, and subsequent action on the restriction will be based upon recovery of water levels in the observation wells.

If you have questions, feel free to contact this office.

Sincerely,

Vern W. Butler
Secretary

VWB:plh



No. 2719-3

Department of Natural Resource Development

WATER RIGHTS COMMISSION

Joe Foss Building, Pierre, South Dakota 57501

Phone 605/224-3151

March 16, 1977

ElRoy Kaiser
Hoven
South Dakota 57450

Dear Mr. Kaiser:

Existing Water Rights, Deferred Applications, and Advertised Applications in the Hoven Area will be discussed and deferred or advertised applications will be considered by the Water Rights Commission during their March 23-24, 1977 meeting, at 9:00 A.M., March 24, 1977. Any comments concerning the attached Hoven Area Report or the applications can be presented at this hearing.

The Commission will be meeting in the South Dakota Education Association Auditorium, 411 E. Capitol, Pierre, S.D.

Please advise if you have any questions concerning the hearing.

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Commission

JH/bw

SOUTH DAKOTA
APR 10 1977

1622-3, 1623-3
1704-3, (2271) 2598-3

Department of Natural Resource Development

WATER RIGHTS COMMISSION

Joe Foss Building, Pierre, South Dakota 57501

Phone 605/224-3151

April 6, 1977

Rory King, Attorney
415 South Main
Aberdeen, S.D. 57401

Ron Wheeler, Attorney
201 Farmers & Merchants Bank Bldg.
Huron, South Dakota 57350

Gentlemen:

The Water Rights Commission will not at this time, meet to reconsider their action taken March 24, 1977 concerning ground water Water Rights held by Messrs. Zweber, Frost, Turner and Hageman. Commission Members have been contacted and all are willing to hold a special meeting; however, they do not believe a meeting should be scheduled, unless new information can be presented.

The Commission Staff is to continue to monitor ground water levels in the Hoven area. If water levels show noticeable recovery, the Chief Engineer could authorize pumping by Messrs. Frost, Turner and Hageman on a restricted or full-time basis following contact with and agreement by Commission Members.

The Staff also intends to make final inspections for licensing of Water Rights held by Messrs. Zweber, Turner, Frost and Hageman. Since their permits are new, Messrs. Frost and Hageman are authorized up to five years to complete their projects. However, unless their projects are not complete, we would expect to make final inspections at this time. The permit holders are authorized, but not entitled to, a specified number of cubic feet per second (cfs) based upon the number of acres authorized. The amount of water licensed on each permit is based upon well capacity, providing the cfs is the same or less than the authorized cfs. We would expect that Mr. Zweber (No. 1622-3) will be licensed for four wells based upon his statements at the March 24, 1977 meeting, that Mr. Turner will be licensed for one well, Mr. Hageman for three wells and Mr. Frost for three wells. Any Additional wells would have to be either replacement wells for older abandoned wells or a new water right permit would be required before new wells could be pumped.

Mr. Rory King, Attorney
Mr. Ron Wheeler, Attorney
April 5, 1977

Page 2.

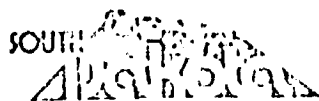
We also intend to recommend to the Commission that measurement devices be required for all irrigation projects in the Hoven South Aquifer to allow well production to be monitored. This would be done in accordance with SDCL 46-2-9 and 46-2-11.

Attached is a copy of the Excerpts from the March 23-24, 1977 Water Rights Commission meeting which pertain to the Willard Zweber matter. The Excerpts have not been approved by the Commission and are submitted for your information only.

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Commission
Department of Natural Resource
Development
Foss Building
Pierre, South Dakota 57501

JH/bw
Encl: As stated
cc: Water Rights Commission
Willard Zweber
Allen Turner
Gillis Hageman
Clarence Frost



No. 2271-3

Department of Natural Resource Development

WATER RIGHTS COMMISSION

Joe Foss Building, Pierre, South Dakota 57501

Phone 605/224-3151

March 16, 1977

Gillis Hageman
Hoven, South Dakota 57450

Dear Mr. Hageman:

Existing Water Rights, Deferred Applications, and Advertised Applications in the Hoven Area will be discussed and deferred or advertised applications will be considered by the Water Rights Commission during their March 23-24, 1977 meeting, at 9:00 A.M., March 24, 1977. Any comments concerning the attached Hoven Area Report or the applications can be presented at this hearing.

The Commission will be meeting in the South Dakota Education Association Auditorium, 411 E. Capitol, Pierre, S.D.

Please advise if you have any questions concerning the hearing.

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Commission

JH/bw

August 12, 1977

Mr. Gillic Hageman
Hoven,
South Dakota 57450

Dear Mr. Hageman:

The Water Rights Commission ordered that all permit holders in the "Hoven South" aquifer must install flow meters on their systems. This order was issued at the May 10, 1977 Special Meeting.

During a field investigation on July 14, 1977 you indicated that a flow meter had not been installed.

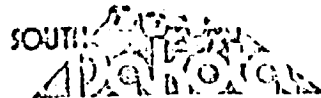
The flow meters must be installed before you will be allowed to operate your system again.

If you have any questions please contact our office.

Very truly yours,

VERN W. BUTLER
Secretary
Department of Natural Resource Development

VB/GS/bw



Department of Natural Resource Development

WATER RIGHTS COMMISSION

Joe Foss Building, Pierre, South Dakota 57501
Phone 605/773-3151

August 18, 1978

WATER RIGHTS COMMISSION

Gentlemen:

August 16, 1978, Marvin Knecht of this office was in the Hoven area and measured water levels in the Zweber, Hageman, Frost, and Turner irrigation wells. We had somebody in the area August 7; however, the electric reader wire became entangled in one of Mr. Zweber's wells and the bottom portion of lead wire was broken off. Since our other electric readers had been used in the Carl Estabrook pump test and then for a pump test being supervised by the State Geological Survey, the broken reader was the only reader available. We were unable to get the electric reader repaired until August 11. The other electric readers have since been returned; however, in the meantime, Mr. Zweber contacted several Commission members.

Mr. Zweber had reported that Turner and Hageman were pumping air. Mr. Hageman, Mr. Turner, and Mr. Frost each reported they have had mechanical problems, not water shortage problems.

Measurements taken during 1978 have been as follows:

Zweber 1622-3 (Home place)							
<u>date</u>	<u>gpm</u>	<u>Well #1</u> <u>59' deep</u>	<u>Well #2</u> <u>64' deep</u>	<u>Well #3</u> <u>68' deep</u>	<u>Main</u> <u>Well #4</u>	<u>Well</u> <u>#5</u>	<u>Meter reading</u> <u>(gallons)</u>
5-24		45.8'	47.1'	51.9'	55.3'	50.1'	not installed
not pumping		(47.5' 10-25-76)	(53.8' 10-25-76)				(zero)
6-20	600 ⁺	53.86'	53.51'	60.12'	65.16'	61.96'	2,624,900
pumping							
7-6	600	55.5'	54.2'	60.08'	65.3'	61.37'	4,492,500
pumping							
8-7	600	57.32'	55.86'		wire caught		9,874,800
pumping					in well		
8-16	600	55.2'	61.01'	62.39'	69.1'	65.1'	11,766,100
pumping		(pumping			(after		
		restricted			gpm		
		because well			reduced to		
		pumping air)			580 gpm)		

Zweber 1623-3 (north permit)				
<u>date</u>	<u>gpm</u>	<u>main well</u> <u>30' deep</u>	<u>east</u> <u>well</u>	<u>meter reading</u> <u>(gallons)</u>
5-24		4.10'	4.25'	not installed
not pumping				(zero)
6-20		4.87'	6.58'	229,900
not pumping				
7-6		3.91'	5.7'	499,000
not pumping				

Zweber 1623-3 (north permit) cont.

date	gpm	main well 30' deep	east well	meter reading (gallons)
8-7 (pumping)	450			3,833,400
8-16(not pumping)		7.43'	8.28'	4,982,900

Hageman 2271-3

date	gpm	main well	SE of main well	NW of main well	South (infield)	meter readings (gallons)	observation wells near main well used for pump test	
							South' (closest)	North
5-24		15.3'	18.4'	15.7'	18.4'	not installed	15.6	15.1'
not pumping								
6-20	600	31.95'	25.26'	33.44'	25.49'	11,666,500	21.54'	20.1'
pumping						15,970,500		
7-6								
not pumping						32,182,800		
8-7	600							
pumping		19.2'	21.9'	19.23'		36,591,100	19.25'	18.81'
8-16								
not pumping								

Frost 2598-3

date	gpm	#1 north well	#3 1st well SE pivot	#4 2nd well SE of pivot	#2 NW of pivot	#5 SE of pivot	meter readings (gallons)
5-24		48.6'	50.2'	53.0'	40.2'	50.8'	not installed
not pumping							
6-20	600	56.77'	wire hangup-	60.0'	50.0'	63.83'	41,158,300
pumping			no reading				47,834,300
7-6	600						70,671,600
pumping							
8-7	500		pump motor defective				
pumping			well out of service				
8-16		52.01'	54.51'	56.15'	44.7'		74,771,700
not pumping							

Turner 1704-3

date	gpm	well	meter reading (gallons)
5-24		28.4'	not installed
not pumping			(zero)
6-20		26.63'	4,027,400
pump pulled (acidizing well)			4,567,300
7-6 (not pumping)			13,984,400
8-7	400		
pumping		28.25'	17,277,500
8-16(not pumping)			

Observation Well Measurements

PT 76H located corner of Zweber's home place between Zweber's and Hageman's land.

1-9	29.8'
3-22	no reading
4-11	29.5'
6-12	29.2'
6-20	29.5'
7-6	29.6'
8-7	29.8'
8-16	29.5'

PT 76B located about $\frac{1}{2}$ mile west of PT 76H and Northeast from Hageman's wells (this well is within the Hageman irrigation wells cone of influence)

1-9	18.8'
3-22	no reading
4-11	18.2'
6-1	18.3'
6-12	18.1'
6-8	18.6'
6-12	18.1'
6-20	19.0'
6-28	19.3'
7-6	19.2'
7-10	18.9'
7-25	19.5'
8-7	20.0'
8-16	20.2'

SW 6A located on corner west of Hageman's (Hageman, Turner, & Frost to be shut off if water level drops to 21.5')

1-9	20.3'
3-22	18.7'
4-11	19.4'
6-12	19.4'
6-20	19.5'
7-6	19.5'
8-7	19.8'
8-16	19.7'

SW 4 (Hageman, Turner & Frost to be shut off if waterlevel drops to 9.0')
located west of SW-6A

1-9	7.8'
3-22	7.2'
4-11	5.3'
6-12	6.4'
6-20	7.0'
7-6	6.2'
8-7	7.1'
8-16	7.3'

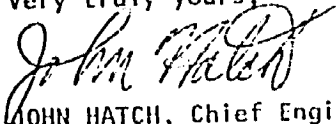
August 18, 1973
James River Irrigators
page 4

Information thus far indicates that Mr. Zweber's water shortage problems at the home place are within his own well field. If other irrigation pumping was affecting Mr. Zweber's pumping, then observation well PT 76H should be dropping also. In order to maintain the 600 gpm he needs for his center pivot, the water levels in his wells have continued to drop even though the water level in PT 76H has not dropped.

At this time, even if Frost, Hageman and Turner were shut off, Mr. Zweber would still experience the same water shortage conditions. During those years when ground water levels are high, the water levels in Mr. Zweber's wells will still drop and if he were to pump enough water we would still expect him to experience water shortage problems even though PT-76H would still reflect the higher water levels.

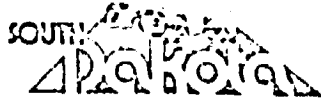
The primary problem is that the sand and gravel materials in the Zweber well field are not the type that high capacity wells can be developed in to provide the amount of water necessary for sustained pumping at the continuous rate necessary for irrigation with a center pivot.

Very truly yours,



JOHN HATCH, Chief Engineer
Water Rights Commission

JH/gy



Department of Natural Resource Development

WATER RIGHTS COMMISSION

Joe Foss Building, Pierre, South Dakota 57501

Phone 605/224-3151

January 31, 1978

Mr. Gillis Hagemen
Hoven,
South Dakota 57450

RE: 2271-3

Dear Mr. Hagemen:

January 26, 1978, the Water Rights Commission passed a motion to prohibit any irrigation pumping by irrigators in the Hoven South Aquifer until the May 1978 water levels in each irrigation well and initial meter readings have been recorded by the Staff.

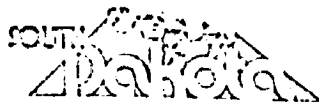
Therefore, before you begin operation of your system in 1978, you must notify the Staff so the above measurements and meter readings can be made.

If you have any questions, please contact our office.

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Commission

JH:GNS:plh



1622-3, 1704-3
2271-3, 2528-3

Department of Natural Resource Development

WATER RIGHTS COMMISSION

Joe Foss Building, Pierre, South Dakota 57501
Phone 605/224-3151

March 22, 1978

Mr. & Mrs. Willard Zweber
Hoven, SD 57450

Dear Mr. & Mrs. Zweber:

This will confirm the conversation in this office, Monday, March 20, 1978 and your request for a rehearing of the action taken by the Water Rights Commission at the January 25 - 26, 1978 Commission meeting. We have placed you on the Agenda for the next Commission meeting to discuss your request with the Commission.

You are on the agenda at 1:00 p.m. March 28, 1978. The meeting will be held in The Guest House, 101 North Broadway, Watertown, South Dakota. This meeting March 28, will not be a hearing.

Very truly yours,

A handwritten signature in cursive script, reading "John Hatch".

JOHN HATCH, Chief Engineer
Water Rights Commission

JH/gy

cc: Clarence Frost, Hoven
Gillis Hageman, Hoven
Allen Turner, Hoven



Department of Natural Resource Development

WATER RIGHTS COMMISSION

Joe Foss Building, Pierre, South Dakota 57501

Phone 605/224-3151

May 9, 1979

TO: Permit Holders in the Hoven South Aquifer

FROM: John Hatch, Chief Engineer, Water Rights Commission

Willard Zweber has indicated that he does not think the Commission Staff has monitored pumping and water levels in the Hoven South Aquifer as thoroughly as it should be, and has requested time to discuss this with the Commission.

The Water Rights Commission will discuss water rights in the Hoven South Aquifer at 10:45 a.m., May 25, 1979 at the Lincoln Room, Howard Johnson Hotel, 2211 LaCrosse, Rapid City, South Dakota.

This hearing will be conducted in accordance with the provisions of SDCL 46-1-1 thru 46-1-9; 46-1-14; 46-2-9 thru 46-2-11; 46-2-13; 46-5-1 thru 46-5-8; 46-5-10 thru 46-5-22; 46-5-41; 46-6-3; 46-6-5; 46-6-6.1; 46-6-10; 46-6-3.1; 46-6-14 and Commission Rules ARSD 52:01:01:01 thru 52:01:01:13.

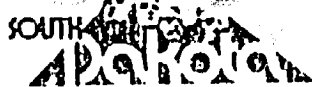
After consideration of the testimony the Commission can alter, conditionally alter, or continue the operating procedure adopted at a previous hearing.

This hearing is an adversary proceeding. Any person has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised at the hearing. Decisions of the Commission may be appealed to the Courts as provided by law.

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Commission

JH:kjw



Department of Natural Resource Development

WATER RIGHTS COMMISSION

Joe Foss Building, Pierre, South Dakota 57501

Phone 605/773-8151 3352

June 19, 1979

TO: Water Right Permit Owners, Hoven South Aquifer, No. 1622-3 & 1623-3, Willard Zweber, No. 1704-3 & 2270-3, Allen Turner, No. 2271-3, Gillis Hageman, No. 2598-3, Clarence Frost

FROM: John Hatch, Chief Engineer, Water Rights Commission

SUBJECT: Consideration and Adoption of Final Decision to Include Findings of Fact and Conclusions of Law in Matter of Hoven South Aquifer

The Chairman of the South Dakota Water Rights Commission, Mr. Stanley Jensen has called a Special Meeting of the Water Rights Commission in accordance with § 46-2-2 to consider and adopt a Final Decision including Findings of Fact and Conclusions of Law in the matter of the Hoven South Aquifer. The meeting will be at 1:00 p.m., June 27, 1979 in Room 468, State Capitol Building, Pierre, South Dakota.

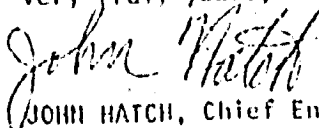
This hearing will be conducted in accordance with the provisions of § 46-1-1 thru 46-1-9; 46-1-14; 46-2-9 thru 46-2-11; 46-2-13; 46-5-1 thru 46-5-8; 46-5-10 thru 46-5-22; 46-5-41; 46-6-3; 46-6-5; 46-6-6.1; 46-6-10; 46-6-3.1; 46-6-14 and Commission Rules ARSD 52:01:01:01 thru 52:01:01:13.

The Water Rights Commission at its meeting May 25, 1979 following a public hearing ordered that the 9.0 foot shut off level established May 10, 1977 for observation well SW-4 be raised to 7.0 feet. When the water level drops to 7.0 feet or below, irrigation pumping authorized by Water Right Permits No. 1704-3 & 2270-3, Allen Turner; No. 2271-3, Gillis Hageman and No. 2598-3, Clarence Frost is to be shut off. Adoption of a Final Decision, including Findings of Fact and Conclusions of Law will modify the 9.0 foot shut off order issued May 19, 1977. All parties may submit or mail proposed Decisions, Findings and Conclusions to the Commission members (mailing addresses enclosed) prior to consideration by the Commission, if they wish.

Following consideration of proposed Decision, Findings and Conclusions, the Commission can adopt a Decision, make Findings and Conclusions to implement the 7.0 foot level, change the shut off level or rehear the entire matter.

This hearing is an adversary proceeding. Any person has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised at the hearing. Decisions of the Commission may be appealed to the Courts as provided by law.

Very truly yours,


JOHN HATCH, Chief Engineer
Water Rights Commission

JH:kjw

STATE OF SOUTH DAKOTA
WATER RIGHTS COMMISSION

IN THE MATTER OF THE
COMPLAINT OF WILLARD ZWEBER

)
)

FINAL DECISION

This matter was brought on for hearing before the commission on May 25, 1979, on the complaint of Willard Zweber. Notice of the hearing was sent to the complainant, Willard Zweber, and to respondents Clarence Frost, Allen Turner, and Gillis Hageman on May 9, 1979. The complainant, Willard Zweber, and the respondents Clarence Frost, Allen Turner, and Gillis Hageman appeared in person, and the Department of Natural Resource Development appeared through the chief engineer of the water rights commission, John Hatch. Having heard and considered the evidence presented by the parties at such hearing, the commission hereby makes its final decision consisting of the following:

FINDINGS OF FACT

1. Willard Zweber, Allen Turner, Gillis Hageman, and Clarence Frost are all farmers in the Hoven, South Dakota area, and all have been issued permits to appropriate water for the purpose of irrigation from the Hoven South Aquifer as follows:

<u>NAME</u>	<u>WATER RIGHT NO.</u>	<u>PRIORITY DATE</u>	<u>C.F.S.</u>
Willard Zweber	1622-3	10/07/68	3.42
Willard Zweber	1623-3	10/07/68	0.85
Allen Turner	1704-3	11/18/69	1.38
Allen Turner	2270-3	5/01/75	4.50
Gillis Hageman	2271-3	5/01/75	4.30
Clarence Frost	2598-3	2/17/76	3.50

Over the last two years, all of the above have in fact diverted water for irrigation from the Hoven South Aquifer from high capacity wells.

2. Following a hearing held on May 10, 1977, on a previous complaint of Willard Zweber, the commission issued a decision requiring Allen Turner, Gillis Hageman, and Clarence Frost to restrict pumping from their high capacity irrigation wells when

either the water level in observation well #SW4 reaches a level of 9 feet below the pipe top or the water level in observation well #SW6A reaches a level of 21.5 feet below the pipe top. The decision further required all four individuals to equip their wells with flow meters.

3. Willard Zweber appeared before the commission on March 29, 1979, and complained that pumping from the Hoven South Aquifer by irrigators junior in right to himself had caused a decline in the water level in the aquifer in his area and had seriously impaired his rights and that the staff had not been diligent in monitoring the water levels in wells #SW4 and #SW6A and the pumping rates of the irrigators in the aquifer pursuant to the commission's decision of May 25, 1977.

4. On May 9, 1979, notice was served on Gillis Hageman, Clarence Frost, Allen Turner and Willard Zweber that a hearing would be held on May 25, 1979, at the Howard Johnson Hotel in Rapid City to address Mr. Zweber's complaints. Willard Zweber, Clarence Frost, Allen Turner, and Gillis Hageman appeared in person at that May 25, 1979 hearing.

5. In the period from 1968 to spring of 1973, the static water level in the Hoven South Aquifer was higher than at any other time in recorded history. By August of 1977, the aquifer had declined to an all time low; in the vicinity of complainant's wells, the aquifer experienced a decline of about six feet. Since September of 1977, water levels in all observation wells in the Hoven South Aquifer except in the area of complainant's wells, have slightly recovered.

6. The drop in the overall water level in the Hoven South Aquifer corresponds with a period of low precipitation experienced over the last several years in that area. The principal reason for the failure of the water levels in complainant's area to recover at the same rate as other areas is the slope of the aquifer from east to west. Since complainant is located in the east margin

of the aquifer, recharge to his area must come from a limited area on the eastern fringe of the aquifer.

7. The pumping of high capacity irrigation wells in the Hoven South Aquifer has significantly contributed to the decline in static water level observed in the aquifer. Although an aquifer test conducted by the commission's staff in January, 1977, indicated that the cones of depression of respondent's high capacity wells should not directly interfere with complainant's well, respondents' pumping, at least in years of below average precipitation, can cause a decline or significantly exaggerate a naturally occurring decline in the static water level over the entire Hoven South Aquifer.

8. A decline in the water level of a water table well reduces the amount of water that the well will yield. Under the water levels established for the Hoven South Aquifer by the commission's decision of May 25, 1977, complainant has been unable to obtain the quantity of water to which he has rights pursuant to his Permits Nos. 1622-3 and 1623-3.

9. Raising the cut-off levels in observation well #SW4 to 7 feet below the pipe top and in observation well #SW6A to ^{20.0}~~19.5~~ feet below the pipe top should eventually result in an increase in the water level in the area of complainant's wells which should in turn allow complainant to obtain the quantity of water to which his permits entitle him.

WHEREFORE, the commission makes the following:

CONCLUSIONS OF LAW

I.

All notices required by law in this matter have been duly given.

II.

The parties to this action are Willard Zweber, complainant, and Allen Turner, Gillis Hageman, and Clarence Frost, respondents.

III.

The Water Rights Commission has jurisdiction over the parties to this action and over the subject matter of this action pursuant to ARSD 52:01:05:03.

IV.

Complainant's rights under Permits Nos. 1622-3 and 1623-3 are senior to respondents' rights under their respective permits.

V.

Complainant Willard Zweber's rights under Permits Nos. 1622-3 and 1623-3 have been impaired by respondents' diversions under the limits established in the commission's Decision of May 25, 1977.

VI.

The commission hereby ORDERS that pumping by the respondents Allen Turner, Gillis Hageman and Clarence Frost shall cease when either the water level in observation well #SW4 declines to a level of 7 feet below the pipe top or the water level in observation well #SW6A declines to a level of ^{20.0}~~19.5~~ feet below the pipe top, in order to prevent the water level in the Hoven South Aquifer in the area of complainant's wells from declining to the point where his rights under Permits Nos. 1622-3 and 1623-3 are impaired.

VII.

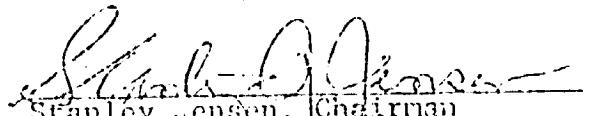
The commission FURTHER ORDERS that it shall be the responsibility of the commission staff to monitor observation wells #SW4 and #SW6A to insure that the levels fixed in paragraph VI are not exceeded. The chief engineer of the Water Rights Commission shall cause observation wells #SW4 and #SW6A to be measured with sufficient frequency to insure that the aforementioned levels are

not exceeded. If the chief engineer, from such measurements, shall determine that the levels set in paragraph VI. for either observation well #SW4 or observation well #SW6A has reached the level set in paragraph VI., he shall immediately order the respondents to cease pumping until such time as they shall receive a further order from the chief engineer. When the chief engineer shall determine that respondents may resume pumping at the levels fixed in their permits or at such lesser level to be fixed by the chief engineer, the chief engineer shall issue an order permitting pumping by the respondents at a rate, up to the rates specified in their permits, that the chief engineer determines can safely be maintained without reaching the limits fixed in paragraph VI.

VIII.

The commission FURTHER ORDERS that the commission staff shall conduct a continuing study of the Hoven South Aquifer in conjunction with the South Dakota Geological Survey and make a full report to the commission prior to April 1, 1980.

Dated this 27th day of June, 1979.


Stanley Jensen, Chairman
Water Rights Commission
State of South Dakota



Department of Water & Natural Resources

Joe Foss Building
Pierre, South Dakota 57501

Division of Water Rights
605 773-3351

2271-3

*Not a report
in WR # 1023-3*

January 12, 1980

TO: People Interested in Hoven Area Water Supplies & Deferred Applications
FROM: John Hatch, Chief Engineer, Water Rights Division
SUBJECT: Review of Water Status and Recommendation of Deferred Applications

The Water Management Board will reconsider deferred water permit applications in the Hoven Area in Potter & Walworth Counties at 8:30 am on January 29, 1981 at Meeting Room #1, Kneip Building, Church & Illinois, Pierre SD.

This reconsideration hearing will be conducted in accordance with the provisions of SDCL 46-1-1 thru 46-1-9; 46-1-14; 46-2-9 thru 46-2-11; 46-2-13; 46-5-1 thru 46-5-8; 46-5-10 thru 46-5-22; 46-5-41; 46-6-3; 46-6-5; 46-6-6.1; 46-6-10; 46-6-3.1; 46-6-14 and Board Rules ARSD 52:01:01:01 thru 52:01:01:13.

These applications were previously deferred by the Board pending staff investigation. A report on the deferred applications has been prepared by the Water Rights Staff and is enclosed.

After reconsideration of the deferred applications the Board can approve, conditionally approve, defer, or deny all or part of the Applications.

This hearing is an adversary proceeding. Any person has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised at the hearing. Decisions of the Board may be appealed to the Courts as provided by law.

You are also notified that SDCL 1-26 provides any interested party the opportunity to meet informally with the Water Rights Division Staff to discuss proposed recommendations by the staff to the Board prior to the scheduled hearing. If we do not hear from you, we will assume that the opportunity for an informal meeting is being waived and you wish to proceed directly to the hearing on the applications before the Board.

Any handicapped person wishing to attend this hearing can contact the Water Rights Division, DWNR, Joe Foss Building, Pierre SD, prior to the hearing date for assistance to assure access to the hearing.

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Division

kw

enclosure

Equal Opportunity Employer

STATE OF SOUTH DAKOTA
WATER MANAGEMENT BOARD

IN THE MATTER OF REQUEST FOR)
ADDITIONAL POINTS OF DIVERSION)
ON WATER PERMIT NO. 2271-3)

FINDINGS OF FACT
CONCLUSIONS OF LAW
FINAL DECISION

Having heard and considered all the evidence presented before the Board in the above-entitled matter on January 29, 1981 at the Richard B. Kneip Building, Pierre, South Dakota, the Board hereby makes the following:

FINDINGS OF FACT

1. On May 1, 1975 Water Permit Application No. 2271-3 was submitted to the Water Rights Commission by Gillis Hageman.
2. That the application was complete and had been duly advertised by the time the Commission considered and approved it on May 22, 1975.
3. That the construction period on Permit No. 2271-3 has terminated.
4. That the Board has never received a request for an extension in the construction period under this permit.
5. That Hageman orally requested that the Board approve two additional diversion points under Permit No. 2271-3 after the termination of the construction period.

CONCLUSIONS OF LAW

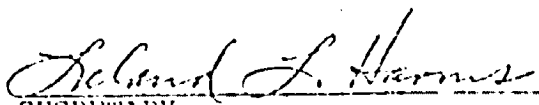
1. That the Board has no jurisdiction to consider granting additional points of diversion beyond the original or amended construction periods.

FINAL DECISION

That the request of Gillis Hageman for two additional diversion points under Water Permit No. 2271-3 is hereby denied.

Dated this 26th day of March, 1981.


CHAIRMAN


SECRETARY



2271-3

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

November 25, 1992

Gillis Hageman
RRT
Hoven SD 57450

Dear Mr. Hageman:

A well driller's report filed by Dakota Boring Co. indicates you have a replacement well used for irrigation. Construction of the replacement well does not require obtaining another water permit for irrigation if:

- 1) the replacement well is located within 660 feet of the existing well and does not increase the potential for interference with other diversions;
- 2) the replacement well is completed into the same water source with no increase in the developed diversion rate of the original well; and
- 3) the original well is no longer used for irrigation.

As a new well owner, you need to be aware of some of your responsibilities. Enclosed is a copy of "Well Owner Responsibilities". Please review these responsibilities to ensure you are complying with all of the requirements. The original well also needs to be plugged according to the SD Well Construction Standards if the well is abandoned.

Please use the enclosed postage free envelope or contact Barry McLaury (605-773-3352) by December 31, 1992 to inform us whether or not you believe you need a water permit for the replacement well.

Very truly yours,

RON DUVAL, Natural Resources Engineer
for JOHN HATCH, Chief Engineer
Water Rights Division

enclosure

*This is a replacement well and we
do not need a permit*

Gillis Hageman

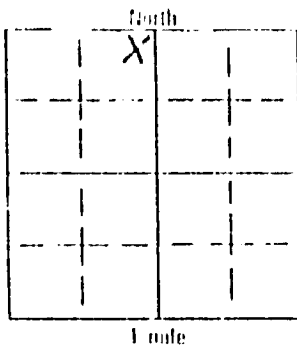
SOUTH DAKOTA WATER WELL COMPLETION REPORT

2271-3

10 85

Location NE 1/4 Sec. 21 Twp 120 Rg 74County Petter

Please mark well location with an 'X'

Well Completion Date May 20, 1992

PROPOSED USE

☐ Domestic ☐ Municipal ☐ Test Holes
☒ Irrigation ☐ Industrial ☐ Stock
Replacement Well

Method of Drilling

Bored

CASING DATA

☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>200</u> LB/FT	<u>16</u> IN	<u>0</u> FT	<u>20</u> FT	<u>26</u> IN
<u>200</u> LB/FT	<u>16</u> IN	<u>34</u> FT	<u>37</u> FT	<u>26</u> IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUT

Was the well grouted? ☒ YES ☐ NOTo what depth? 13 FEETWhat is grouting material? CementIf cement, number of sacks? 33 sacksDescribe grouting procedure Pumped in through 1" pipe.

What was grout weight? _____ LB/GAL

SCREEN ☒ Perforated pipe ☒ ManufacturedDiameter 16 IN Length 14 FEETMaterial PVC - 6 ft Stainless Steel 8 ft1/8" Holes Set From 20 Feet To 26 FeetSlot Size 100 Set From 26 Feet To 34 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 ☐ NOExplain H.T.H.Bacteriological analysis ☐ YES ☐ NOLaboratory sent to Pierre

The well owner is sending in a sample.

Well Owner

Name Gillis HayemanAddress Rt 1 Haven S. Dak.

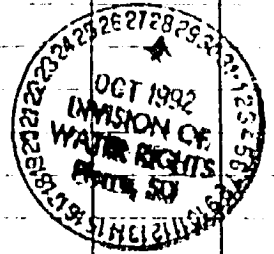
Well Log

Depth

Formation

Top SoilYellow ClaySandBlue Clay

From	To
<u>0</u>	<u>1</u>
<u>1</u>	<u>6</u>
<u>6</u>	<u>34</u>
<u>34</u>	<u>37</u>

STATIC WATER LEVEL 15 Feet

If flowing, closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

If other, specify _____

Can well be completely shut in? _____

WELL TEST DATA

☒ Pumped☐ Bailed Describe _____☐ Other _____

Pumping Level Below Land Surface

_____ ft After _____ hrs pumped _____ GPM

_____ ft After _____ hrs pumped _____ GPM

_____ ft After _____ hrs pumped _____ GPM

REMARKS

This well was drilled under license # 231

And this report is true and accurate

Drilling firm Dakota Boring Co.

Signature of License Representative

Vergil H. Watson

Signature of Well Owner

Gillis Hayeman

Date _____

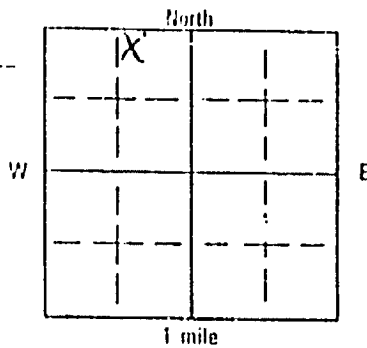
SOUTH DAKOTA WATER WELL COMPLETION REPORT

2271-3

10-85

Location NE 1/4 NW 1/4 Sec. 21 Twp. 120 Rg. 74County Butler

Please mark well location with an "X"

Well Completion Date July 23, 1991

PROPOSED USE:

☐ Domestic ☐ Municipal ☐ Test Holes
☒ Irrigation ☐ Industrial ☐ Stock

Method of Drilling

Band

CASING DATA

☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT <u>16</u>	IN <u>16</u>	FT <u>0</u>	FT <u>19</u>	IN <u>26</u>
LB/FT <u>16</u>	IN <u>16</u>	FT <u>36</u>	FT <u>40</u>	IN <u>26</u>
LB/FT _____	IN _____	FT _____	FT _____	IN _____
LB/FT _____	IN _____	FT _____	FT _____	IN _____

GROUT:

Was the well grouted? ☒ YES ☐ NOTo what depth? 13 FEETWhat is grouting material? CementIf cement, number of sacks? 27Describe grouting procedure Pumped in through trimmer pipe.

What was grout weight? _____ LB/GAL

SCREEN ☐ Perforated pipe ☒ ManufacturedDiameter 14 IN Length 17 FEETMaterial PVC 10 ft Stainless Steel 7 ftSlot Size 100 Set From 19 Feet To 29 FeetSlot Size 100 Set From 29 Feet To 36 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 ☐ NOExplain 14-74Bacteriological analysis ☐ YES ☐ NO

Laboratory sent to _____

Well Owner:

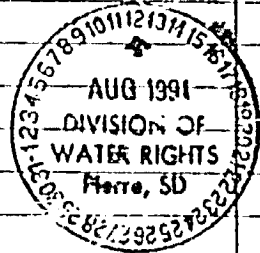
Name Lillian HagananAddress 1017 Hoven, S. Dak. 57046

Well Log

Depth

Formation

Formation	From	To
<u>Top Soil</u>	<u>0</u>	<u>1</u>
<u>Yellow Clay</u>	<u>1</u>	<u>9</u>
<u>Sand - Gravel</u>	<u>9</u>	<u>36</u>
<u>Blue Clay</u>	<u>36</u>	<u>40</u>

STATIC WATER LEVEL 14 Feet

If flowing, closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

If other, specify _____

Can well be completely shut in? _____

WELL TEST DATA

☒ Pumped☐ BailedDescribe: Turbine☐ Other

Pumping Level Below Land Surface

_____ ft After _____ Hrs. pumped 400 GPM

_____ ft After _____ Hrs. pumped _____ GPM

_____ ft After _____ Hrs. pumped _____ GPM

REMARKS:

This well was drilled under license # 234

And this report is true and accurate.

Drilling firm Dakota Drilling Co.

Signature of License Representative:

Herbert Haganan

Signature of Well Owner:

Date _____

WELL LOG REPORT

SALUTATION: MR.
FIRST NAME: GILLIS
BUSINESS:
ADDRESS: RRT
CITY: HOVEN

NO. OF WELL(S): 1
LAST NAME: HAGEMAN
LET'R TYPE: 1

WATER TYPE: IR
LEGAL : NE1/4 NW1/4 SEC 21 T120N R74W
COMPLETED: 7/23/91

STATE: SD ZIP CODE: 57450
WELL DEPTH: 40'

WELL D'RLL: DAKOTA BORING

CONTACT 1: August 28, 1991

RESPOND BY: October 1, 1991

COMMENTS: WELLOG-400 GPM. 9/03/91-Mr Hageman called and said the was a replacement for an existing well. NR02 has diversion points as NW1/4 NW1/4 & NW1/4 SW1/4---also said he had 3 wells--advised Eric G--He or Lynn Beck (cont)

CONTACT 2:

RESPOND BY 2:

COMMENTS: will inspect--will probably need another permit for the 3rd diversion point. DF

SATISFACTORY:

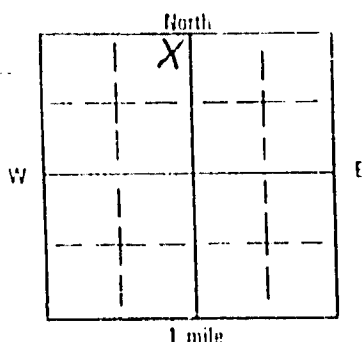
DATE APP'L REC'D:

SOUTH DAKOTA WATER WELL COMPLETION REPORT

10-85

Location NE 1/4, Sec. 21 Twp. 120 Rg. 74County Potter

Please mark well location with an "X"

Well Completion Date May 20, 1972

PROPOSED USE:

☐ Domestic ☐ Municipal ☐ Test Holes
☒ Irrigation ☐ Industrial ☐ Stock
Displacement Well

Method of Drilling

Bored

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>6.00</u> LB/FT	<u>1 1/2</u> IN	<u>0</u> FT	<u>20</u> FT	<u>26</u> IN
<u>2.00</u> LB/FT	<u>1 1/2</u> IN	<u>34</u> FT	<u>37</u> FT	<u>26</u> IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUT

Was the well grouted? ☒ YES ☐ NOTo what depth? 13 FEETWhat is grouting material? CementIf cement, number of sacks? 33 sacksDescribe grouting procedure Pumped in through 1 pipe.

What was grout weight? _____ LB/GAL

SCREEN: ☒ Perforated pipe ☒ ManufacturedDiameter 1 1/2 IN Length 14 FEETMaterial PVC - 6 ft Stainless Steel - 8 ftSlot Size 1/2 Hole Set From 20 Feet To 26 FeetSlot Size 100 Set From 26 Feet To 34 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 ☐ NOExplain HTHBacteriological analysis ☐ YES ☐ NOLaboratory sent to PierreThe well owner is sending in a sample.

Well Owner

Name Gillis HagensonAddress RRT Haven S. Dak.

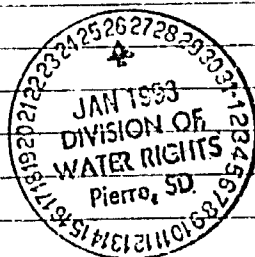
Well Log

Depth

Formation

From

To

Top soil01Yellow Clay16Sand624Blue Clay3437STATIC WATER LEVEL 15 Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

If other, specify _____

Can well be completely shut in? _____

WELL TEST DATA:

☒ Pumped☐ Bailed

Describe: _____

☐ Other

Pumping Level Below Land Surface

_____ ft. After _____ Hrs. pumped _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

REMARKS:

This well was drilled under license # 234

And this report is true and accurate

Drilling firm Dakota Boring Co.

Signature of License Representative

Virgil H. Hagenson

Signature of Well Owner

X

Date _____

Conversation or File Documentation

NAME OF PERSON OR FILE: Billis Hageman
ADDRESS: RR Hagen SD 57450 COUNTY Potter
DATE: September 3, 1991 TELEPHONE _____
RE: Telephone call

COMMENTS:

Mr. Hageman called in response to a letter I had sent him concerning a new well he had drilled for him by Dakota Boring. Mr. Hageman said that no permit should be required because it was a replacement well. I asked him which of his two wells it was replacing, and he said ~~to~~ he had three wells, not two. I told Mr. Hageman ^{would} check on it. I talked to Eric Brumland and he said permit 2271-3 was due for inspection and that either he or Lynn Beck would do the inspection.

File in Permit or other file as necessary. Use to document conversations and what the other party was told; why action or decision was made.

NAME: Don Faye



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

September 14, 1992

Vergil Worm
Dakota Boring Co.
RR, Box 301
Tolstoy, SD 5757475

Dear Mr. Worm:

Please find enclosed several maps and well information sheets for Clarence Frost, Gillis Hageman and Morris Simon. If you could provide any of the information listed under No. 2 Well Information, it would be greatly appreciated.

Several of these wells have submersible pumps and motors without plates attached. I could not get the information I needed to complete the inspection reports and issue the licenses. Your time and effort in this matter is greatly appreciated.

If you have any questions, please feel free to contact me.

Sincerely,

Lynn Beck
Natural Resources Engineer
Water Rights Division
(605) 773-3352

encl

File No. 2271-3

Water Rights Division -DENR

Conversation or File Documentation

NAME OF PERSON OR FILE: Gillis Hageman

ADDRESS: RR 1, Box 96, Hoven, SD 57450 COUNTY: Potter

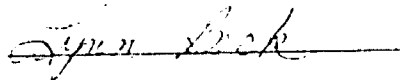
DATE: 2-22-93 TELEPHONE: (605) 948-2186

RE: Application for corrections to Permit No. 2271-3.

COMMENTS:

The application for the change in two diversion points and the addition of two diversion points is required under ARSD 74:02:01:14.01, Page 11 and 12 General Rules.

File in Permit or other file as necessary. Use to document conversations and what the other party was told; why action or decision was made.



Lynn Beck

Natural Resources Engineer III
DENR, Water Rights Division



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

February 23, 1993

Gillis Hageman
RR 1, Box 96
Hoven, SD 57450

Dear Mr. Hageman:

Please find enclosed a partially completed application form and instruction sheet for changes in location for two wells under Permit No. 2271-3, and the addition of two wells under Permit No. 2271-3. The change in location for the two wells under Permit No. 2271-3 is from the NW1/4 NW1/4 and the SW1/4 NW1/4 Sec. 21, T120N, R74W to the NE1/4 NW1/4 Sec. 21, T120N, R74W. The two additional wells are located in the NE1/4 NW1/4 Sec. 21, T120N, R74W. Also, enclosed a map of your irrigation system. If there are corrections or missing information, please note it and let me know. Complete form 2A sheet for all four wells, to the best of your knowledge.

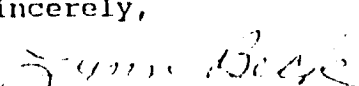
The advertisement for Permit No. 2271-3 called for the points of diversion to be located in the NW1/4 NW1/4 and the SW1/4 NW1/4 of Sec. 21, T120N, R74W. The actual location is in the NE1/4 NW1/4 Sec. 21, T120N, R74W; therefore, a change in location is needed for two wells. The original permit was for two points of diversion. The other two wells are replacement wells for wells drilled within the construction period on Permit No. 2271-3. These wells may be considered additional points of diversion instead of new wells. The two additional wells are also located in the NE1/4 NW1/4 Sec. 21, T120N, R74W.

The priority date (May 1, 1975) may be retained, if it is determined that the wells do not interfere with existing permitted irrigation wells or adequate domestic wells. If a new priority date is required on any of the wells, the date that your application is received by this office will be the priority date. The fee for this application is \$50.00.

After the application and fee are received and approved, the permit will be licensed, as per No. 9 on the instruction sheet.

If you have any questions, please feel free to contact me.

Sincerely,


Lynn Beck
Natural Resources Engineer
Water Rights Division
(605) 773-3352

encls



2271-3

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

AUG 19 1994

2271A-3

Gillis Hageman
RR 1, Box 96
Hoven, SD 57450

Dear Mr. Hageman:

Enclosed is Water License No. 2271A-3. This is the final water right document completing your process of obtaining a Water Right. Enclosed is Receipt No. 413924 in the amount of \$50.00 which you paid for the inspection and issuance of the Water License.

For your information SDCI 46-6-27 requires that if the owner of an existing well, such as the well authorized by Water Right No. 2271A-3, 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.

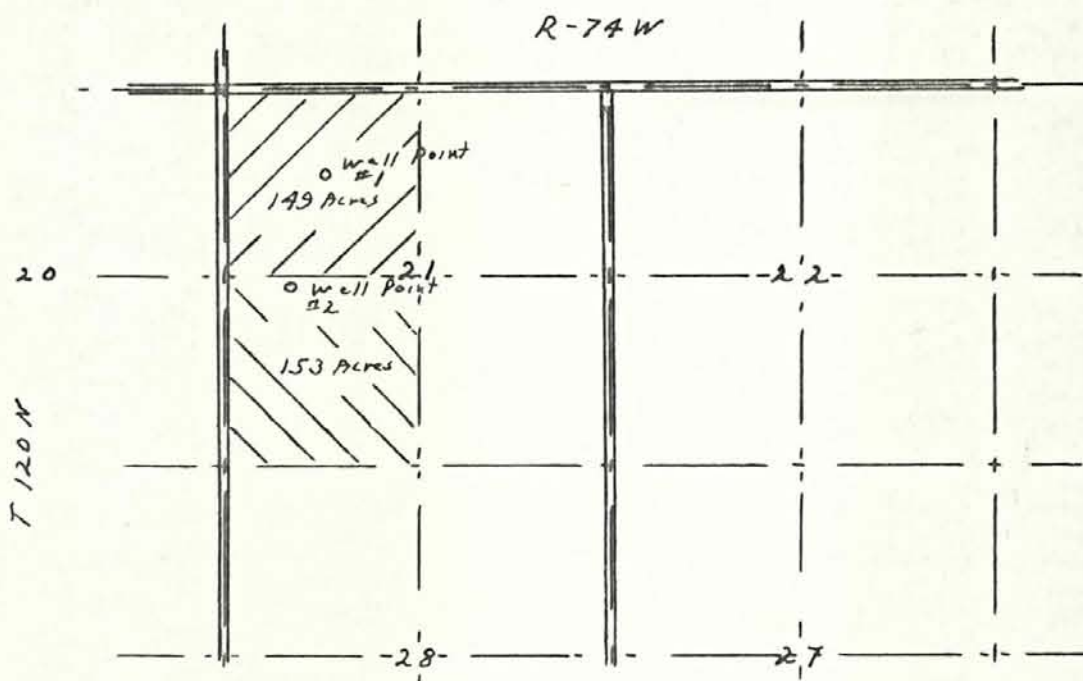
Very truly yours,


JOHN HATCH, Chief Engineer
Water Rights Division
(605) 773-3352

rd
enclosures

NOTE: The applicable portions of Water Permit No. 2271-3 have been incorporated into this Water License No. 2271A-3.

GILLIS HAGEMAN IRRIGATION PROJECT NO. 1
POTTER COUNTY, SOUTH DAKOTA



Land Owned by Gillis Hageman, to be Irrigated

Location	Acres
NW $\frac{1}{4}$ Section 21 - T120N - R74W	149
SW $\frac{1}{4}$ Section 21 - T120N - R74W	153
Total	302

Well Point #1, 28 Rods, S. 50° E from N.W. Corner Section 21

Well Point #2, 14 $\frac{1}{2}$ Rods, S. 88° E from W. $\frac{1}{4}$ Corner Section 21



Scale = 2 inches = 1 mile

SURVEYOR'S CERTIFICATE

I, R.V. Summerside, Registered Land Surveyor, State of South Dakota, do hereby certify that, at the direction of Gillis Hageman I have surveyed the tract of land as shown, and that the above drawn plat is a reasonably accurate description of the land of the proposed irrigation project. In witness whereof I have set my hand and seal this 1st day of May, 1975, I.D.

R.V. Summerside
Registered Land Surveyor

MAP NO 1662-3 (APP. NO 2271-3)