

HAP No. Ph. 624-2405

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Name of Applicant Francis J. Heine

Post Office Address RR#3 Box 21, Vermillion SD 57069

Amount of Water Claimed 2.28 Total Acres 160

Source of Water Supply groundwater

Source of Water Supply art groundwater
Water to be used for irrigation County Clay

About 3 miles W of Vermillion

PROOF OF PUBLICATION: Received _____ Not Received _____

APPLICATION: Approved _____ Subject to _____

F.F. & C.L. Adopted _____ Not Approved _____ Deferred _____

P.R. & C.E. Adopted _____
 PRIORITY Date Received 4/5/90 Fee \$ 250⁰⁰ Remarks two 80 acre

center pivots

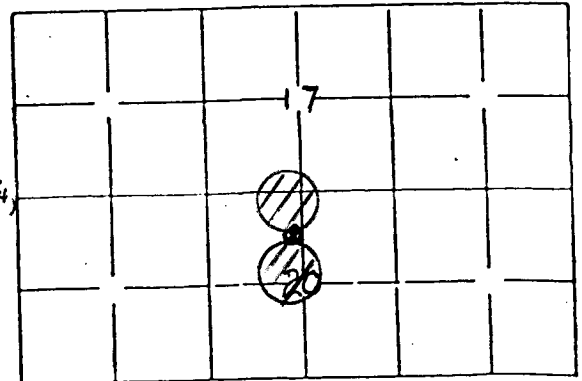
Corrected Application Received _____ Period of Annual Use _____

WATER QUALITY APPROVAL RECEIVED 4-23-90 APPROVED/CONDITIONAL (Circle one)

WI-1 Description same as Application YES NO REMARKS

Diversion Point 1400 North of center point
of Section 20 T92N - R52W

Land to be Irrigated NW¹/₄ SE¹/₄, NE¹/₄ SW¹/₄, SE¹/₄ NW¹/₄,
SW¹/₄ NE¹/₄, NE¹/₄ NW¹/₄, NW¹/₄ NE¹/₄ of Section 20
T92N-R52W SW¹/₄ SE¹/₄, SE¹/₄ SW¹/₄ of
Section 17 - T92N-R52W



Well Log: Driller Wetmore Licensed YES X NO

Depth of Well 106' REMARKS

Type of Map Aerial PREPARED BY Lanny Nelson Reviewed and the Number 200

Type of Map Aerial PREPARED BY Eric S. Hankland
assigned on April 5, 1990 By Eric S. Hankland

SOUTH DAKOTA
WATER PERMIT No. 5435-3 FOR IRRIGATION

Date of first receipt of application March 19, 1990.

Date Soil/Water Compatibility Permit received April 23, 1990.

Date of return to applicant for corrections, amendments or changes March 27, 1990.

Date of receipt of corrected application April 5, 1990.

The Water Management Board approved Water Permit Application No. 5435-3 on July 25, 1990 for Francis J. Heine, RR #3, Box 21, Vermillion, SD 57069 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 5435-3 appropriates 2.28 cubic feet of water from one well (Missouri Elk Point Aquifer) 106 feet deep to irrigate 160 acres. The well is to be located in the NE1/4 NW1/4 of Section 20 T92N-R52W. The land to be irrigated is located NW1/4 SE1/4, NE1/4 SW1/4, SE1/4 NW1/4, SW1/4 NE1/4, NE1/4 NW1/4, NW1/4 NE1/4 of Section 20 and the SW1/4 SE1/4, SE1/4 SW1/4 of Section 17; all in T92N-R52W.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: May 1 - September 30.
3. The date from which applicant may claim right is March 19, 1990.
4. One-fifth of the construction is to be completed on or before January 25, 1993.
5. All construction is to be completed on or before July 25, 1995.
6. Water is to be put to beneficial use on or before July 25, 1999.
7. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well authorized pursuant to this permit shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04.
2. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

(continued)

Water Permit No. 5435-3
Page 2

3. This permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: _____


Chief Engineer, Water Rights Division
Department of Water and Natural Resources

SEP 17 1990

(date)

(See instructions)

No. 5435-3 Hydrologic Unit 10170102
Basin Vermillion River
Newspaper Vermillion Plain Talk Box 256 57069

(TH)

Application For Soil/Water Compatibility Permit and Permit To Appropriate Water

- Type of Application: ☒ New ☐ Vested Right ☐ Amend Permit No. _____
- ☐ Change Acreage ☐ Change diversion point(s) ☐ Add diversion point(s)
- ☐ Add Acreage ☐ Increase diversion rate ☐ Other _____
- Name of Applicant Francis J. Heine Phone No. 624-2405
- Post Office Address RR #3, Box 21, Vermillion State SD 57069
(Street, RR or Box) (City) Zip Code
2. Amount of water claimed (c.f.s) 2.28 Total acres irrigated 160
3. Source of Water supply Irrigation well.
4. Location of point of diversion Approximately 1400 feet north of the center point
of Section 20, T92N R52W (NE $\frac{1}{4}$, NW $\frac{1}{4}$ Section 20, T92N-R52W)
- _____ County Clay
5. Counties where water will be used Clay
6. Annual period during which water is to be used May¹ thru September³⁰
7. 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.
NW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 20 T92N R52W	-20- 5
NE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 20 T92N R52W	-20- 10
SE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 20 T92N R52W	-20- 38
SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 20 T92N R52W	-20- 20

Land Description	No. Acres Irr.
SW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 17 T92N R52W	-15- 10
SE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 17 T92N R52W	-15- 20
NE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 20 T92N R52W	-25- 37
NW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 20 T92N R52W	-25--20

Attach sheet if more space is needed

8. Type of Irrigation: Gravity: _____ Towline: _____ Center Pivot: ☒ Gun: _____ Other: _____
(Specify) _____
9. Crops to be Irrigated: Corn and soybeans.
10. Give a description of proposed project. (Attach sheet if more space is needed)
One irrigation well is to be used, with the well located approximately 1400 feet North of the center point of Section 20. Two irrigation center point systems are to be installed, each covering 80 acres. The water will be piped from the one irrigation well to the two systems.

Attachments: Attach Form 2A if diversion from a well or dugout, or if storage of water, is proposed. Attach maps, soils information and any other technical information.

STATE OF SOUTH DAKOTA)
County of Clay)^{ss}

I, Francis Heine, the applicant, certify that I have read this application and examined the attached maps, that the water sample, if needed, has been taken by the required procedures and has not been adulterated or tampered with and is truly representative of the water to be used, and that the matters stated in this application are true and correct.

Signed Francis Heine

RALPH RAMSEY
Subscribed and sworn to before me this 26th day of February 19 90
SEAL NOTARY PUBLIC SEAL
SOUTH DAKOTA
My Commission Expires 7 - 26 - 92

Ralph Ramsey
Notary Public

Supplemental Information

(type or print in ink)

1. Well Information - Proposed construction

- a) Drill Hole Diameter 22 inches Depth 106 feet
- b) Casing Type PVC Diameter 16 inches Thickness $\frac{1}{2}$ inch
- c) Screen Type PVC Slotted Diameter 16 inches Thickness $\frac{1}{2}$ inch
- d) Gravel Pack Thickness 3 inches Length of Gravel Pack 52 feet
- e) Depth to Top of Water Bearing Material 3 feet
- f) Depth to Water (ground surface to water level) 20 feet
- g) Distance to nearest existing domestic well:
- On applicants property None On property owned by others 2800 feet

2. Dugout Information Estimates

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

3. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below. The locations of each dam should 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 _____

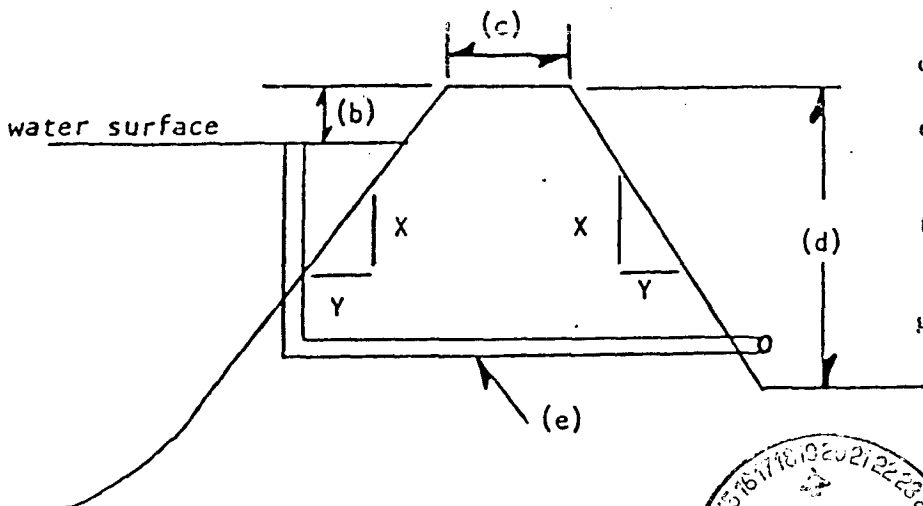
g) X & Y Slope
Upstream _____

Downstream _____

Surface Area of Impoundment _____

Storage _____ acre feet

Drainage area above dam _____



Francis Henne
Signature of Applicant





United States
Department of
Agriculture

Agricultural
Stabilization and
Conservation Service



March 2, 1990

I Certify that the attached map is an ASCS official map that shows the land that is to be irrigated. Land owners names are typed at the top of the map.

Signed

Larry Nelson, Director
Clay County ASCS



(1998) Sec. 17

204.0

226

271.0

218

92-52

(63)

Corn

+ center
pivot

84R

Proposed
Well

271.0

+ center
pivot

20

(11)

T-1905
(1998)

77.4

92-52

Signed

Lanney Nelson

Lanney Nelson

Clay County ASCS

Mar 2, 1990

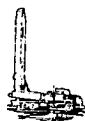
Sec. 20

T-1044
(614)
25.9

T-1044 59

T-1044
(614)
24.3

6.7
(597)



WETMORE DRILLING

P.O. BOX 577 - ELK POINT, SOUTH DAKOTA 57025 - (605) 356-3272



5-18-90

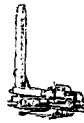
Francis Heine
Rt.3 Box 21
Vermillion SD 57069
Clay County

Sec 20 92N - 52 W SE 1/4 NW 1/4

WELL LOG:

0	-	2	topsoil
2	-	12'	fine sand & clay mixed
12	-	75'	fine sand
75	-	92'	coarse sand & gravel
92	-	95'	shale

James Wetmore
James Wetmore
PO Box 577
Elk Point SD 57025



WETMORE DRILLING

P.O. BOX 577 - ELK POINT, SOUTH DAKOTA 57025 - (605) 356-3272



Bud Heine
Rt.3 Box 21
Vermillion SD 57069

December 28, 1989

TEST HOLE:

0	-	1'	Topsoil
1	-	46'	fine sand
46	-	106'	coarse sand & gravel

James Wetmore
James Wetmore
Wetmore Drilling
PO Box 577
Elk Point, SD 57025

Description of Land:

Accretion below Lot 2 and $W\frac{1}{2}$ of Lot 3 to River, excluding CMR Addition and Lots 1, 2, 3, 4, 5, 6, and 7 of CMR Addition all in Section 20, Township 92 North, Range 52 West; South 35 Acres of Lot 2, and accretion below Lots 2 and 3, and $W\frac{1}{2}$ of Lot 3 lying South of Hiway, all in Section 17, Township 92 North, Range 52 West, Clay County, South Dakota

SOUTH DAKOTA WATER WELL COMPLETION REPORT

10-85

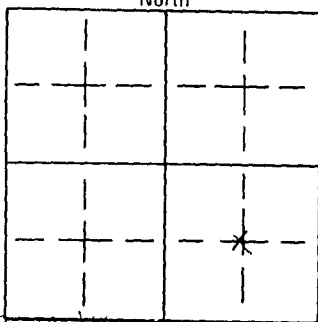
Location 1/4 Sec 20 Twp 44N Rg 53WCounty CLAY

North

Please mark well
location with
an "X"

W

E



NW 1/4 1 mile

Well Completion Date 12-20-89

Well Owner:

Name Francis NoineAddress RT 3 Box 21

Well Log:

Depth

Formation

From

To

Top soil	1	2
clay	2	16
fine sand & clay	16	31
coarse sand	31	78
coarse sand & gravel	78	140

PROPOSED USE:

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

Method of Drilling:

Rotary

CASING DATA:

- ☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>2 1/2</u> LB/FT	<u>16</u> IN	<u>0</u> FT	<u>140</u> FT	<u>22</u> IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

STATIC WATER LEVEL 23 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: pumped☐ Other

Pumping Level Below Land Surface

<u>39</u> ft.	After <u>2</u> Hrs.	pumped <u>1260</u> GPM
_____ ft.	After _____ Hrs.	pumped _____ GPM
_____ ft.	After _____ Hrs.	pumped _____ GPM

REMARKS:

GROUT:

Was the well grouted? ☒ YES ☐ NOTo what depth? 20 FEETWhat is grouting material? cementIf cement, number of sacks? 16 sacksDescribe grouting procedure start to 30'What was grout weight? 10.4 LB/GALSCREEN: ☐ Perforated pipe ☒ ManufacturedDiameter 16 IN Length _____ FEETMaterial PVCSlot Size 100 Set From 80 Feet To 140 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 ☐ NOChlorine 200 ppmLogical analysis ☐ YES ☒ NO

Sent to _____

This well was drilled under license # 341

And this report is true and accurate.

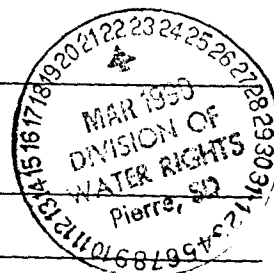
Drilling firm Watson Drilling

Signature of License Representative:

James Watson

Signature of Well Owner:

Date _____



SOUTH DAKOTA WATER WELL COMPLETION REPORT

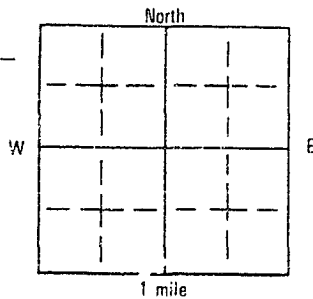
10-85

Location $\frac{1}{4}$ $\frac{1}{4}$ Sec 20 Twp 92N Rg 52W
SEE REMARKS

County

CLAY

Please mark well location with an "X"

Well Completion Date 5-14-70

PROPOSED USE:

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

Method of Drilling:

Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>2 1/2</u> LB/FT	<u>16</u> IN	<u>0</u> FT	<u>92</u> FT	<u>24</u> IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUT:

Was the well grouted? ☒ YES ☐ NOTo what depth? 20 FEETWhat is grouting material? cementIf cement, number of sacks? 21Describe grouting procedure pump & trowelWhat was grout weight? 15.5 LB/GALSCREEN: ☐ Perforated pipe ☒ ManufacturedDiameter 16 IN Length 20 FEETMaterial PVCSlot Size 100 Set From 95 Feet To 95 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 ☐ NOExplain chlorine 200 ppmBacteriological analysis ☐ YES ☒ NO

Laboratory sent to _____

Well Owner:

PHYLLIS SMYTH

Name

JOYCE McMAHON

Address

GERALDINE REMMES

Well Log:

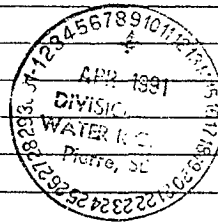
624 CATLIN

Depth

Formation

From

To

top soil02clay & sand241fine sand4170gravel2095STATIC WATER LEVEL 19 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: line shaft☐ Other turbine

Pumping Level Below Land Surface

41 ft. After 2 Hrs. pumped 950 GPM

_____ ft. After _____ Hrs. pumped _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

REMARKS: ACCRECIAN BELOW LOT 2 WEST
 1/2 OF LOT 3 TO RIVER EXCEPT FOR CMR
 ADDITION SEC 20 T 92N R 52W SEC
 35 P LOT 2 SEC 17 T 92R 52 CMR
 LOTS 1-2-3-4-5-6-7 SEC 20 T 92N
 R 52W ACCRECIAN BELOW LOT 2 & 3
 SEC 17 T 92N R 52W W 1/2 OF LOT 3
 30 OF HWY SEC 17 T 92R 52

This well was drilled under license # 341

And this report is true and accurate.

Drilling firm

Watson Drilling

Signature of License Representative:

James Watson

Signature of Well Owner:

Date 11-11-92

DAKOTA COURTESY LAW: IT IS FURTHER CERTIFIED THAT THE INFORMATION CONTAINED HEREIN IS TRUE AND ACCURATE AND IN A MANNER AND ON MICROFILM WHICH MEET THE RECOMMENDED REQUIREMENTS OF ADMINISTRATIVE RULES OF SOUTH DAKOTA 10.04.01 AND 10.04.02 FOR MICROGRAPHIC REPRODUCTIONS.

25:1

REDUCTION RATIO

ROLL NUMBER

DATE MICROFILMED

6-9-92

11-5

ADMINISTRATIVE RULES OF SOUTH DAKOTA 10.04.01

OPERATOR SIGNATURE



Water Rights Division DWR
Joe Foss Building
Pierre, SD 57501

RR #3, Box 21
Vermillion, SD 57069
March 16, 1990

Permit Application for Irrigation Well

Enclosed are the following forms and information in regard to the request for a permit for an irrigation well:

- 2 copies of Form 2
- 2 copies of Form 2A
- 1 map of the area signed by the director of the Clay County ASCS office, with the names of the land owners on the map
- 1 letter from Wetmore Drilling, Elk Point, SD pertaining to the soil from the test hole, along with the legal description of the land.
- 1 letter from the Director of the Clay County ASCS certifying the map of the area to be irrigated.
- 1 map showing land to be irrigated with the soil type along with a letter explaining the various soil types.
- Remittance of \$250.00 for the fees involved.

The Water Quality Laboratory from South Dakota State University, Brookings, SD has sent to your office a letter in regard to the water analysis from the sample that was sent to their laboratory.

If further information is needed, please let me know.

Francis J. Heine



Department of Water & Natural Resources

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

March 27, 1990

Francis J. Heine
RR #3 Box 21
Vermillion, SD 57069

Dear Heine:

This letter is in response to your water permit application received on March 19, 1990. The following information needs to be clarified in order to process your application.

- 1) The number of acres listed for each quarter-quarter under Item No. 7 of the application appears to be in error. The number of acres needs to be quantified as closely as possible in order to process the permit. I have digitized the areas of each quarter-quarter as outlined on the map you submitted. I came up with the following acreages in T92N-R52W:

Land description	No. Acres Irr.	Land Description	No. Acres Irr.
NW1/4SE1/4 Sec.20	5	SW1/4SE1/4 Sec.17	10
NE1/4SW1/4 Sec.20	10	SE1/4SW1/4 Sec.17	20
SE1/4NW1/4 Sec.20	38	NE1/4NW1/4 Sec.20	37
SW1/4NE1/4 Sec.20	20	NW1/4NE1/4 Sec.20	20

I have attached a copy of your application and map. Please review the acreages for each quarter-quarter. I will await your response to this issue before I continue processing your permit.

The water permit application can not be considered by the Water Management Board until the application is complete. Please clarify the two issues mentioned above and your application will be processed.

If you have any questions, please contact me.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enc.



RR #3, Box 21
Vermillion, SD 57069
April 4, 1990

South Dakota Department of Water and Natural Resources
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3181

Re: Water Permit Application
Francis J. Heine

Attn: Eric Gronlund:

Dear Mr. Gronlund:

This letter is in reply to your letter of March 27, 1990 referring to Form 2. The figures for each one-quarter of each quarter section on the Form 2 that I submitted are different than those shown by your digitized computations.

I do concur with the figures that you have established in regard to the number of acres to be irrigated in the various land descriptions indicated in your letter of March 27, 1990.

If further information is needed, please let me know. Thank you for your cooperation.

Sincerely,

Francis J. Heine

Francis J. Heine

P.S. Also enclosed is a copy of the letter I received from the Water Quality Laboratory from South Dakota State University and a copy of their Report of Analysis. The letter states that a copy of the letter and analysis has been sent to the Division of Conservation and I do not know if it has been received by your office.



South Dakota State University
Brookings, South Dakota 57007

Water Resources Research Institute
Telephone 605-688-4910

March 6, 1990

Heine, Francis J.
RFD 3, Box 21
Vermillion, SD 57069

Dear Mr. Heine:

Enclosed is a copy of the analysis of your water sample which you submitted to us for testing. We have identified the source of your water as taken from an unknown source located in the SW 1/4 of Section 17 T092N R52W. We have assigned it lab number 90-0087.

Your water, as represented by this sample, is classified as a "high salinity, low sodium hazard" for irrigation usage. The main ions in this water are calcium (Ca) and bicarbonate (HCO_3). I have plotted your approximate water quality in red on the outside back cover of the enclosed pamphlet (AES 13). The range in the sodium hazard from 1.21 to 3.22 is dependent upon the leaching fraction that may result if irrigation water is applied. The higher sodium hazard is associated with no leaching, and the lower sodium hazard is associated with normal leaching fractions (0.03-0.05). The leaching fraction is defined as the amount of water lost below the root zone annually divided by the total amount received into the soil profile.

This water can be used for irrigation purposes for most normal soils which have adequate internal drainage. This means that if the water table is greater than 10 feet below ground surface the majority of the year and there are no tight impermeable layers within the root zone which may create a perched water table, the salts (ions) that do exist in the water will be able to be leached downward below the root zone where they do little or no harm to growing crops. The probability for soil salinization from this water is low when used on soils with good subsurface drainage.

The boron level for this water (0.20 ppm) poses a low toxicity level for most normal crops in this area. I have enclosed a sheet that tells the boron toxicity levels for major crops.

I am forwarding a copy of this letter and water analysis to the Division of Conservation in Pierre for their information and/or action.

If you have further questions regarding this water analysis, please do not hesitate to call or write.

Sincerely,

John H. Bischoff
John H. Bischoff, Research Engineer
Water Resources Institute

Enclosures
cc: Division of Conservation



REPORT OF ANALYSIS
Water Quality Laboratory
Water Resources Research Institute
South Dakota State University
Brookings, South Dakota 57007

03-05-1990

Clay

Name: Heine, Francis J.
Address: RFD 3, Box 21
Vermillion, SD 57069

Date Rec'd
Sample No.
Source
Legal ID

MAR 02, 1990
90-0087
092N52W17E1

WATER ANALYSIS

Calcium (Ca)	118	ppm*	5.89	me/l**
Magnesium (Mg)	38	ppm	3.13	me/l
Sodium (Na)	59	ppm	2.57	me/l
Potassium (K)	10	ppm	0.26	me/l
Sulfate (SO4)	162	ppm	3.37	me/l
Nitrate (as N)		ppm		me/l
Chloride (Cl)	6	ppm	0.17	me/l
Bicarbonate (HCO3)	545	ppm	8.94	me/l
Carbonate (CO3)	0	ppm	0.00	me/l
Iron (Fe)		ppm		me/l
Flouride (F)		ppm		me/l
Manganese (Mn)		ppm		
Boron (B)	0.20	ppm		
Hardness (EDTA as CaCO3)		ppm		g.p.g.***
Total solids		ppm		
Total Cations			11.83	me/l
Total Anions			12.48	me/l
Alkalinity (Methyl Orange)	447	ppm(as CaCO3)		
Alkalinity (Phenolphthalein)	0	ppm(as CaCO3)		
Electrical Conductivity	1050	micromhos per cm at 25 C		
Sodium Adsorption Ratio	1.21	Adjusted SAR	3.22	
Sodium	21.68	% of Cations		
Residual Sodium Carbonate	0.00	me/l		
pH	7.68			

Others:-----
*ppm=parts per million
**me/l=millequivalents per liter
***g.p.g.=grains per gallon

COMMENTS:

Analysis By: Shirley Mitten

Service Performed:
Irrigation Analysis

Total Cost: \$ 35.00
Amount Received: 0.00
Balance Due: 35.00

Make checks payable to: SDSU Water Quality Lab
Please write lab number on your check!

Lab No. 90-0087



Department of Agriculture
WI#1
5/87

SOIL/WATER COMPATIBILITY PERMIT
Division of Conservation

Office Use Only

4485

WR#

OWNERS NAME: HEINE, FRANCIS J. OWNERS ADDRESS: RR #3, Box 21
Vermillion, SD 57069

COUNTY LAND LOCATED IN: Clay PHONE: 624-2405

LEGAL DESCRIPTION:

☒ Well

☐ Surface

1. LOCATION NE $\frac{1}{4}$ NW $\frac{1}{4}$ 20-T92N-R52W

Depth _____

Legal Description	Acres	Legal Description	Acres
NW $\frac{1}{4}$ SE $\frac{1}{4}$ 20-T92N-R52W	5	SW $\frac{1}{4}$ SE $\frac{1}{4}$ 17-T92N-R52W	10
NE $\frac{1}{4}$ SW $\frac{1}{4}$ 20-T92N-R52W	10	SE $\frac{1}{4}$ SW $\frac{1}{4}$ 17-T92N-R52W	20
SE $\frac{1}{4}$ NW $\frac{1}{4}$ 20-T92N-R52W	38	NE $\frac{1}{4}$ NW $\frac{1}{4}$ 20-T92N-R52W	37
SW $\frac{1}{4}$ NE $\frac{1}{4}$ 20-T92N-R52W	20	NW $\frac{1}{4}$ NE $\frac{1}{4}$ 20-T92N-R52W	20

2. TYPE OF IRRIGATION: GRAVITY: _____ TOWLINE: _____ CENTER PIVOT: XX GUN: _____ OTHER: _____
(Specify)

3. CROPS TO BE IRRIGATED: Corn and Soybeans

WATER QUALITY:

4. WATER SAMPLE NUMBER: 90-0087

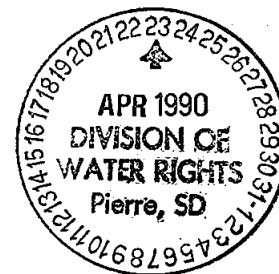
7. ADJUSTED (SAR): 3.22

5. SALINITY (EC X 10⁶): 1050

8. PERCENT SODIUM 21.68

6. SODIUM (SAR): 1.21

Requirements:



John R. Erick
Director, Division of Conservation

April 9, 1990
Date

XXX APPROVED _____ REQUIREMENTS
____ DISAPPROVED
____ WAIVER

Soil/water permits will be recorded by the Department of Agriculture, with the County Register of Deeds.

RECEIPT

Division of Water Rights

South Dakota Department of Water and Natural Resources

412155

Pierre, March 20, 1990

RECEIVED OF FRANCIS HEINE RR #3 Vermillion SD 57069

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

Fee for Application for Permit No. <u>5435-3</u> to Appropriate Water, to construct works and to put water to beneficial use	250	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. _____		
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for Certified Copy of _____		
Fee for Print Copy of Map _____		
Fee for Certifying _____		
Fee for _____		
(Any Other Work Provided by Law)	Total	250 00

By John H. Welch
Chief Engineer

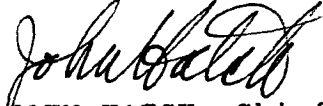
RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 5435-3, Francis Heine

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Water and Natural Resources concerning Water Permit Application No. 5435-3, Francis Heine, RR 3, Box 21, Vermillion SD.

The Chief Engineer is recommending APPROVAL of Application No. 5435-3 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) in the public interest with the following qualifications:

1. The well authorized pursuant to this permit shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04.
2. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
3. This permit is approved subject to the irrigation water use questionnaire being submitted each year.

See the attached report for additional information.


JOHN HATCH, Chief Engineer
May 18, 1990

REPORT ON APPLICATION NO. 5435-3
FOR FRANCIS HEINE
May 16, 1990

This application proposes to appropriate 2.28 cfs from one well approximately 106 feet deep to irrigate 160 acres. The well is to be located in the NE 1/4 NW 1/4 of section 20, T92N R52W. The land to be irrigated is located in the NW 1/4 SE 1/4, NE 1/4 SW 1/4, SE 1/4 NW 1/4, SW 1/4 NE 1/4, NE 1/4 NW 1/4 and NW 1/4 NE 1/4 of section 20 and the SW 1/4 SE 1/4 and SE 1/4 SW 1/4 of section 17; all in T92N R52W in Clay County.

AQUIFER - MISSOURI ELK POINT (M-EP)

The Missouri Elk Point is an alluvium mantled outwash (sand and gravel) under water table conditions in this area. The driller's log submitted with the application indicated sand from 1 to 46 feet below land surface and coarse sand and gravel from 46 to 106 feet below land surface. The M-EP aquifer underlies 74,500 acres and contains 1.12 million acre feet of recoverable water in Clay County (Hedges, 1982). The aquifer is hydraulically connected to the M-EP aquifer in Yankton and Union Counties, the Upper Vermillion Missouri aquifer in Clay County and the Missouri and Vermillion Rivers.

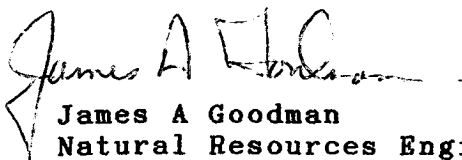
The Division of Water Rights monitors five observation wells completed into the M-EP aquifer in Clay County. Water levels for these wells respond to climatic conditions, that is, rising during wet years and gradually declining during dry years. The water level record indicates that the aquifer is capable of sustaining additional appropriations (Water Rights, 1990).

REVIEW OF EXISTING WATER PERMITS/RIGHTS

~~The nearest existing diversion is Water Right No. 2315-3. One of the wells for this right is approximately 1 mile east of this proposed diversion. Interference is not expected to be a problem. Drawdowns caused by pumping of high capacity wells in formations like the M-EP aquifer do not extend very far from the the production well. There are no other nearby water permits/rights however there are domestic wells in the area.~~

CONCLUSIONS

1. Water is available from the M-EP aquifer.
2. Interference is not expected to be a problem.
3. Any well authorized by this permit if approved must be completed in accordance with SD Well Construction Standards.
4. Submittal of water use data is required.


James A Goodman
Natural Resources Engineer

BIBLIOGRAPHY

Hedges, L.S., 1982, EVALUATION OF GROUND WATER RESOURCES EASTERN SD AND UPPER BIG SIOUX RIVER, SD AND IOWA, for US Army Corps of Engineers, SD DWR, SDGS, Vermillion, SD, 57069.

Water Rights, 1990, OBSERVATION WELL RECORDS FOR M-EP AQUIFER IN CLAY COUNTY, SD DWR, Div. of Water Rights, Pierre, SD, 57501.



Department of Water & Natural Resources

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

June 15, 1990

Vermillion Plain Talk
Box 256
Vermillion, SD 57069-0256

ATTN: Legal Publications:

Enclosed is a Notice of Hearing on Application No. 5435-3 to be published twice. Please publish the first notice on or before June 21, 1990 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 Francis Heine, RR 33 Box 21, Vermillion, SD 57069-9404.

A copy of BOTH publications must be SENT to the WATER RIGHTS DIVISION. IMMEDIATELY return the FIRST publication with the FIRST Transmittal form on the bottom of this page. The first copy is needed to check the publication for errors so any corrections can be made in the second publication. Publication errors can invalidate the public notice and cause the applicant costly delays.

Please be sure the SECOND publication is returned IMMEDIATELY with the enclosed Proof of Publication form. DO NOT WAIT until the end of the month or the billing cycle. The permit application cannot be considered by the Water Management Board until proof of publication has been received.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

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

FIRST TRANSMITTAL NOTICE

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

No. _____

Date _____

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

Name

Newspaper



Department of Water & Natural Resources

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

June 15, 1990

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

Francis Heine
RR #3 Box 21
Vermillion, SD 57069-9404

Dear Mr. Heine:

Water Permit Application No. 5435-3 for irrigation 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 Vermillion Plain Talk printed at Vermillion SD. For your information, a copy of the notice is enclosed. Copies of the report and the Chief Engineer's recommendation are also 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 Intent to Appropriate Water 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. We must receive Proof of Publication before the application can be considered by the Water Management Board.

Sincerely,

A handwritten signature in cursive script that reads "Eric Gronlund".

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

Instruction to Newspaper - Publish first Notice on or before June 21, 1990 with 2nd publication 7 days later. The applicant is responsible for payment.

NOTICE OF HEARING on Application No. 5435-3 to Appropriate Water

Notice is given that Francis Heine, RR #3 Box 21, Vermillion, SD 57069-9404 has filed an application for a water permit to appropriate 2.28 cubic feet of water from one well (Missouri Elk Point Aquifer) 106 feet deep to irrigate 160 acres. The well is to be located in the NE1/4 NW1/4 of Section 20-T92N-R52W. The land to be irrigated is located NW1/4 SE1/4, NE1/4 SW1/4, SE1/4 NW1/4, SW1/4 NE1/4, NE1/4 NW1/4, NW1/4 NE1/4 of Section 20 and the SW1/4 SE1/4, SE1/4 SW1/4 of Section 17; all in T92N-R52W.

Pursuant to SDCL 46-2A-2, the Chief Engineer of the Water Rights Division recommends APPROVAL of Application No. 5435-3 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. This application will be considered by the Water Management Board in Room 216, Joe Foss Bldg., 523 E Capitol, Pierre SD on July 25, 1990 at 10:00 am. 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.

Any interested person that intends to participate in the hearing before the Board by presenting evidence or cross-examining witnesses according to SDCL 1-26, must file a written petition with BOTH the applicant and Chief Engineer by July 13, 1990. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)". 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 legal counsel if legal counsel is obtained. The applicant need not file a petition. Contact the Water Rights Division to request information on this application or to assure access to the hearing by the handicapped.

This hearing is an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer. 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. The time of the hearing will also be automatically delayed for at least twenty days upon written request to the Chief Engineer from the applicant or a petitioner. The request for a delay must be received by July 13, 1990.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-15; 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; 46-5-1 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; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15.

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) ss.
 County Clay)

I, Michele A. Moore
 certify that the attached printed Notice was taken
 from the Plain Talk

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

Plain Talk of Vermillion

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

June 21, 1990

June 28, 1990

Michele A. Moore

(Signature)

Secretary

(Title)

6/28/90

(Date Signed)

Cost of Printing: \$35.57



NOTICE OF HEARING
 on Application No. 5435-3
 to Appropriate Water

Notice is given that Francis Heine, RR #3 Box 21, Vermillion, SD 57069-9404 has filed an application for a water permit to appropriate 2.28 cubic feet of water from one well (Missouri Elk Point Aquifer) 106 feet deep to irrigate 160 acres. The well is to be located in the NE1/4 NW1/4 of Section 20-T92N-R52W. The land to be irrigated is located NW1/4 SE1/4, NE1/4 SW1/4, SE1/4 NW1/4, SW1/4 NE1/4, NE1/4 NW1/4, NW1/4 NE1/4 of Section 20 and the SW1/4 SE1/4, SE1/4 SW1/4 of Section 17; all in T92N-R52W.

Pursuant to SDCL 46-2A-2, the Chief Engineer of the Water Rights Division recommends APPROVAL of Application No. 5435-3 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. This application will be considered by the Water Management Board in Room 216, Joe Foss Bldg., 523 E. Capitol, Pierre, SD, on July 25, 1990 at 10:00 a.m. 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.

Any interested person that intends to participate in the hearing before the Board by presenting evidence or cross-examining witnesses according to SDCL 1-26, must file a written petition with BOTH the applicant and Chief Engineer by July 13, 1990. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E. Capitol, Pierre, SD 57501 (605-773-3352)." 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 legal counsel if legal counsel is obtained. The applicant need not file a petition. Contact the Water Rights Division to request information on this application or to assure access to the hearing by the handicapped.

This hearing is an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer. 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. The time of the hearing will also be automatically delayed for at least twenty days upon written request to the Chief Engineer from the applicant or a petitioner. The request for a delay must be received by July 13, 1990.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-15; 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, 46-5-1 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; and Board Rules ARSD 74:02:01.01 thru 74:02:01.15.

Publish: June 21 & 28, 1990



Department of Water & Natural Resources

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

SEP 17 1990

Francis J. Heine
RR #3 Box 21
Vermillion SD 57069

Dear Mr. Heine:

Enclosed is Water Permit No. 5435-3 as approved by the Water Management Board authorizing you to construct your water diversion system and put the water to beneficial use, not exceeding the limits as specified in the Water Permit.

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 Chief Engineer when you have completed the system and/or have put the water to beneficial use. An inspection can then be scheduled so that the Water License may be issued, thus completing your acquisition of a Water Right.

Very truly yours,

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

enclosures

PLEASE NOTE: Certain changes can be made in your permit within the five year construction period, usually without affecting the priority date provided an application to amend your permit is made within the five year period - i.e. changes in location or number of diversion points (wells) or location of land to be irrigated. Well locations for wells into the same aquifer can be moved up to 660 feet without application.

Applications to amend a permit after the five year construction period will be assigned a new priority date. Applications to change water sources, to add lands or increase original diversion rates, if approved will usually receive the date of the new application as a priority date regardless of the five year construction period.



5435-3
**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181
www.state.sd.us/denr

January 14, 2000

NOTICE

TO: FRANCIS HEINE, 1014 E 320TH, VERMILLION, SD 57069
FROM: Ron Duvall, Natural Resources Engineer
for Garland Erbele, Chief Engineer
Water Rights Program
SUBJECT: Reporting Requirement for 1999 Irrigation Questionnaires

Our records indicate that the 1999 Irrigation Questionnaires have not been submitted for Permit Nos. 5435-3, 5471-3, 5639-3, 6057-3, 6058-3 & 6059-3, 671-3 & 2053-3. The request for the Questionnaires was dated October 7, 1999. The Water Management Board has directed that owners of water permits who have not submitted the 1999 Irrigation Questionnaires be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine if Permit No(s) 671-3 & 2053-3 should be amended to require the Questionnaire to be submitted each year and to determine action to be taken for violation of Water Permit No(s) 5435-3, 5471-3, 5639-3, 6057-3, 6058-3 & 6059-3 qualification:

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

The hearing will be held at 1:30 pm, March 1, 2000 in Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol, Pierre, SD, and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to Chapter 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation, or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

1. Suspend or cancel Permit No(s) 5435-3, 5471-3, 5639-3, 6057-3, 6058-3 & 6059-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Amend Permit No(s) 671-3 & 2053-3 to require the Irrigation Water Use Questionnaire to be submitted each year;
3. Postpone any action or take no action.

The hearing is an adversary proceeding. The permit owner has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

If the questionnaires are received in this office on/or before February 28, 2000, you will no longer be in violation of your permit and your name will be deleted from the Board agenda. If you have questions or need assistance in completion of the irrigation questionnaire(s), please contact Genny McMath (605) 773-3352.

Note: Please contact the Water Rights Program, Joe Foss Building, 523 E Capitol, Pierre, SD (605-773-3352) to assure access to the meeting room for the handicapped or to obtain an interpreter for the hearing impaired.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181
www.state.sd.us/denr

January 20, 2000

Francis (Bud) Heine
1014 E 320th
Vermillion, SD 57069

RE: Water Permit/Right Nos. 671-3, 2053-3, 5435-3, 5471-3, 5639-3, 6057-3, 6058-3 & 6059-3

Dear Mr. Heine:

I am writing to acknowledge receipt of your 1999 irrigation questionnaires. You may disregard the January 14, 2000, "Notice" concerning reporting requirements for Water Permit/Right Nos. 671-3, 2053-3, 5435-3, 5471-3, 5639-3, 6057-3, 6058-3 & 6059-3.

The information was received in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

If you have any questions, please contact me.

Sincerely,

Genny McMath
Environmental Scientist
Water Rights Program
(605) 773-3352

Permit No. 5435-3
Vermillion River - Water District

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

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

I have this day, **September 27, 2007**, made a thorough examination of the water use system constructed by **Francis J. Heine** of **412 Sterling, Vermillion, SD 57501** holder of Permit No. **5435-3**, bearing the priority of **March 19, 1990** authorizing the diversion of **2.28** cu. ft. per second of the waters of **Missouri: Elk Point Aquifer** for **irrigation** purposes, in **Clay** County.

Inspection contact & relationship **Francis Heine - owner**
to permit holder, if applicable:

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: **Wetmore Drilling**
- 2) No. of Wells **1**
- 3) Depth(s) **95** feet
- 4) Well log is available **yes**
- 5) Comment:

Casing:

- 1) Diameter **16** inches
- 2) Length **75** feet
- 3) Type **pvc**

Screen:

- 1) Type **pvc**
- 2) Length **20** feet
- 3) Static water level **19** feet

Pump:

- 1) Make **Western Landroller**
- 2) Model
- 3) Size
- 4) Capacity **900** GPM

Motor:

- 1) Make **US Electric**
- 2) Model No.
- 3) Horsepower rating **50** hp

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

- 1) Type **pvc**
- 2) Size **8** inches
- 3) Length **2030** feet

C. Works used to apply water to beneficial use:

Center pivot: 2 identical center pivots, do not run at the same time.

- 1) Make Zimmatic
- 2) Overall length 925 feet
- 3) Number of towers 5
- 4) End gun yes
- 5) Low pressure
- 6) Capacity 900 GPM

Chemigation Equipment:

- 1) Does chemigate no

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by yes
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period yes
- 3) Exceptions to compliance are: none

The system is in good condition with the point(s) of diversion located as follows: 2270' E and 680' S of the NW corner Section 20-T92N-R52W (42.77718, -97.013979). The works are capable of diverting and conveying to the place of use 2.0 cu. ft. per second of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows: all in T92N-R52W

Section 17:

SE $\frac{1}{4}$ SW $\frac{1}{4}$ 33 acres

SW $\frac{1}{4}$ SE $\frac{1}{4}$ 14 acres

Section 20:

NW $\frac{1}{4}$ NE $\frac{1}{4}$ 11 acres

SW $\frac{1}{4}$ NE $\frac{1}{4}$ 15 acres

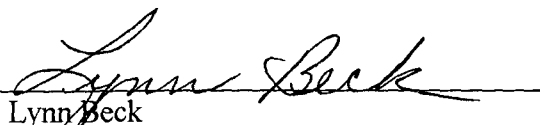
NE $\frac{1}{4}$ NW $\frac{1}{4}$ 32 acres

SE $\frac{1}{4}$ NW $\frac{1}{4}$ 35 acres

comprising a total of 140 acres of land and the license should be issued for 2.0 cfs.

All structures, wells and lands on map yes

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


Lynn Beck

Natural Resources Engineer Specialist
DENR, Water Rights Program

Date report completed: January 29, 2008

WATER RIGHT NO. 5435-3

Francis J. Heine

January 29, 2008



Lynn Beck

Lynn Beck
Natural Resources Engineer Specialist
DENR, Water Rights Program





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

January 30, 2008

5435-3

Francis Heine
412 Sterling
Vermillion SD 57069

Dear Mr. Heine:

On September 27, 2007 the investigation of your water use system, including the extent of application of water to beneficial use, as developed under Water Permit No. 5435-3, was completed by Lynn Beck, a staff engineer with our program. Your final water right document, the water license, can now be issued.

State law requires that we charge a \$50.00 fee for the investigation and issuance of the water license. Upon receipt of the \$50.00 fee from you, we will complete processing your water license. The check or money order for the fee should be made payable to the "Water Rights Program".

Your licensed water right will be similar to a property right that can not be lost as long as the water use continues and you abide by the permit requirements.

If you have any questions regarding the water permit, investigation of your water use system or payment of the fee, please contact Genny McMath with our program at (605) 773-3352.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
(605) 773-3352

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 2/4, 20 08

RECEIVED OF Francis J Heine 412 Sterling St Vermillion SD 57069

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		
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>5435-3</u>	50	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	50 00

No.

03478

By

Isabel E. [Signature]
Chief Clerk



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

APR 08 2008

5435-3

Francis J Heine
412 Sterling
Vermillion SD 57078

Dear Mr. Heine:

Enclosed is Water License No. 5435-3. This is the final water right document completing your process of obtaining a Water Right. Enclosed is Receipt No. 03478 in the amount of \$50.00 which you paid for the investigation and issuance of the Water License. Also, included with your license is a map prepared by the staff engineer who conducted the investigation.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the well authorized by Water Right No. 5435-3, 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.

Sincerely,

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

enclosures

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 5435-3

(1) Francis Heine, 412 Sterling, Vermillion SD 57069 made Application No. 5435-3, March 19, 1990 for a water permit to divert 2.28 cubic feet of water per second from groundwater (one well), Clay County, South Dakota for irrigation purposes. Permit No. 5435-3, with a priority date of March 19, 1990 was approved July 25, 1990 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before July 25, 1995 and for the application to beneficial use of water on or before July 25, 1999.

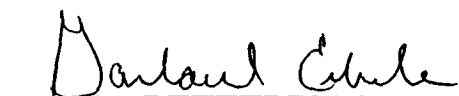
(2) The water supply system has been completed and water applied to beneficial use in accordance with South Dakota State Law. Pursuant to South Dakota Codified Law 46-5-30.1, the holder and/or owner of Water Right No. 5435-3 is issued a license, bearing a priority date of March 19, 1990 to appropriate 2.0 cubic feet of water per second from groundwater (one well) to irrigate 140 acres.

The diversion point is located: 2,270 feet east and 680 feet south of the northwest corner of Section 20-T92N-R52W (NE ¼ NW ¼). The acres authorized for irrigation are as follows:

Section 17-T92N-R52W		Section 20-T92N-R52W	
SE ¼ SW ¼	33 acres	NW ¼ NE ¼	11 acres
SW ¼ SE ¼	14 acres	SW ¼ NE ¼	15 acres
		NE ¼ NW ¼	32 acres
		SE ¼ NW ¼	35 acres
Total 140 acres			

(3) This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Permit No. 5435-3 including the following now applicable qualifications:

- The well authorized by this permit shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04.
- The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
- This Permit is approved subject to the irrigation water use questionnaire being submitted each year.



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

APR 08 2008

date





5435-3
DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

January 16, 2015

NOTICE

TO: FRANCIS HEINE, 412 STERLING, VERMILLION, SD 57069

FROM: Ron Duvall, Natural Resources Engineer
for Garland Erbele, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2014 Irrigation Questionnaires

Our records indicate your 2014 Irrigation Questionnaires have not been submitted. The request for the Questionnaires was dated October 17, 2014. The Water Management Board has directed that owners of water permits who have not submitted the 2014 Irrigation Questionnaires be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine if Permit No(s) 671-3, 977A-3, 977B-3, 1624-3 2053-3 & 2947-3 should be amended to require the Questionnaire to be submitted each year and to determine action to be taken for violation of Water Permit No(s) 5435-3, 5471-3, 5639-3, 6057-3, 6059-3, 6679-3, 6993-3, 6994-3, 7297-3, 7298-3, 7299-3, 7300-3, 7301-3, 7302-3, 7577-3, 7578-3, 7579-3, 7580-3 & 7980-3 qualification:

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

The hearing will be held at **10:00 am, March 4, 2015** in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre, SD, and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to Chapter 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation, or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

1. Suspend or cancel Permit No(s) 5435-3, 5471-3, 5639-3, 6057-3, 6059-3, 6679-3, 6993-3, 6994-3, 7297-3, 7298-3, 7299-3, 7300-3, 7301-3, 7302-3, 7577-3, 7578-3, 7579-3, 7580-3 & 7980-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Amend Permit No(s) 671-3, 977A-3, 977B-3, 1624-3 2053-3 & 2947-3 to require the Irrigation Water Use Questionnaire to be submitted each year;
3. Postpone any action or take no action.

The hearing is an adversary proceeding. The permit owner has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

If the questionnaire(s) is (are) received in this office before the **March 4, 2015** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaire(s) for your use. If you have questions or need assistance, please contact Genny McMath at (605) 773-3352 or email at genny.mcmath@state.sd.us. If you prefer, you can complete the questionnaire online at the following link: <http://denr.sd.gov/iq.aspx>

Note: Please contact the Water Rights Program, Joe Foss Building, 523 E Capitol, Pierre, SD (605-773-3352) to assure access to the meeting room for the handicapped or to obtain an interpreter for the hearing impaired.

5435-3



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182

February 24, 2015

Francis Heine
412 Sterling
Vermillion SD 57069

RE: Water Permit and Water Right Nos. 671-3, 977A-3, 977B-3, 1624-3 2053-3, 2947-3, 5435-3, 5471-3, 5639-3, 6057-3, 6059-3, 6679-3, 6993-3, 6994-3, 7297-3, 7298-3, 7299-3, 7300-3, 7301-3, 7302-3, 7577-3, 7578-3, 7579-3, 7580-3 & 7980-3

Dear Mr. Heine:

I am writing to acknowledge receipt of your 2014 irrigation questionnaires for the above listed water permits and water rights.

You may disregard the January 16, 2015, "Notice" concerning reporting requirements for your water permits and water rights. The information was received in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

If you have any questions, please contact me.

Sincerely,

Genny McMath
Water Rights Program
(605) 773-3352
email: genny.mcmath@state.sd.us

PAID

MAR 27 2023

Ck# 44663

Rec't#

NOTICE OF TRANSFER OF OWNERSHIP

To: Chief Engineer
Water Rights Program, DANR
523 E. Capitol
Pierre, SD 57501-3181

No. 5435-3

Date:

I/We request that Water Right No. 5435-3

formerly owned by: Francis Heine

be transferred to: (name & address) see below

Telephone No.

Title to the following described land(s)/property has been transferred as described above:

140 acres – SE ¼ SW ¼, SW ¼ SE ¼, Section 17; W ½ NE ¼, E ½ NW ¼ Section 20, all in T92N, R52W

I/We understand that the validity of Water Right No. 5435-3 has not been determined by this transfer action. If I/We have any questions on validity, I/We understand that only the Water Management Board has the authority to determine if a water permit/right is valid (see note).

You are requested to file this "Notice of Transfer" in the appropriate file with the Water Rights Program, as evidence of the change of ownership.

A fee of Fifty Dollars (\$50.00) is required to cover the filing fees as required under SDCL 46-2-13. This form must be signed by the new owner.

Todd Heine
1020 E. 320th St.
I/We Vermillion, SD 57069, the new owner, certify that the above information is true and correct.



(Signed by new owner)

NOTE: Water permits may be cancelled for nonconstruction after the five year construction period has expired. Once a water permit is developed and the water used, the permit becomes a right. A water right may be lost for three reasons:

1. Abandonment - no intent to use water and use is abandoned.
2. Forfeiture - no use of water for three year period without legal excuse.
3. For a third violation of a condition of a water permit/right.

RECEIVED

MAR 27 2023

OFFICE OF
WATER

5435-3

RECEIPT**WATER RIGHTS PROGRAM**

South Dakota Department of Agriculture and Natural Resources

Date March 27, 2023RECEIVED OF Francis J Doris/Tim, Todd & Nick Heine 412 Sterling St., Vermillion SD 57069

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	\$ _____
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. _____	\$ _____
Fee for Filing Transfer Form <u>5435-3</u>	<u>\$50.00</u>
Fee for _____	\$ _____
Fee for Issuing New Well Driller's License No. _____	\$ _____
Fee for Renewal of Well Driller's License No. _____	\$ _____
Fee for Issuing Well Pump Installer's License No. _____	\$ _____
Fee for Renewal of Well Pump Installer's License No. _____	\$ _____
(Any Other Work Provided by Law) TOTAL	<u>\$50.00</u>

By Eric Gronlund
Chief Engineer
vm



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

April 14, 2023

Todd Heine
1020 E 320th St
Vermillion SD 57069

Dear Mr. Heine:

I am writing to acknowledge receipt of the transfer forms and filing fees for all water permits and water rights listed under Francis Heine.

The ownership changes have been completed. Water Permit/Right Nos. 671-3, 977A-3, 977B-3, 1006-3, 1034-3, 1624-3, 2053-3, 2947-3, 5435-3, 5471-3, 5639-3, 6057-3, 6059-3, 6679-3, 6993-3, 6994-3, 7297-3, 7298-3, 7299-3, 7300-3, 7301-3, 7302-3, 7577-3, 7578-3, 7579-3, 7580-3 & 7980-3 are now listed in your name.

Enclosed are receipts for the filing fees you paid. If you have any questions, please let me know.

Sincerely,

Genny McMath
Water Rights Program
605 773-3352
Genny.mcmath@state.sd.us

enclosures