

Considered: _____

WATER PERMIT NO. 5538-3

Phone: 624-4535

Name of Applicant: Nels Sorensen

Post Office Address: RR 3, Box 23, Vermillion SD 57069

Amount of Water Claimed: no add'l (3.3⁶⁰) Total Acres: 276 (9 add'l)

Source of Water Supply: groundwater

Water to be used for: irrigation County: Clay

About 1 miles SW of Vermillion

PROOF OF PUBLICATION: Received _____ Not Received _____

APPLICATION: Approved _____ Subject to _____

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

PRIORITY Date Received: 3-14-91 Fee: \$150.00 Remarks Add'l acreage

on Water Permit No. 4983-3

Corrected Application Received _____ Period of Annual Use April 1 - Oct 31

WATER QUALITY APPROVAL RECEIVED 4/22/91 APPROVED/CONDITIONAL (Circle one)

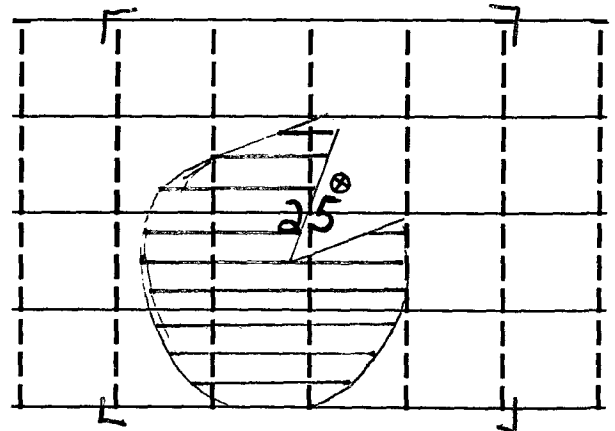
WI-1 Description same as Application YES _____ NO _____ REMARKS _____

Diversion Point: SW 1/4 NE 1/4 Sec 25-T92N-R52W

Land to be Irrigated: SE 1/4, SW 1/4, S 1/2 NW 1/4

NE 1/4 NW 1/4, SW 1/4 NE 1/4, NW 1/4 NE 1/4

Sec 25-T92N-R52W



Well Log: Driller: Wetmore Drilling Licensed YES X NO _____

Depth of Well: 110' REMARKS _____

Type of Map: aerial PREPARED BY: David Brown Reviewed and the Number

Assigned on 4-18-91 By Karen Schlaak

(See instructions)

No. 5538-3 Hydrologic Unit 10170101
Basin Missouri River
Newspaper Vermillion Plain Talk, Box 256 (Thurs)

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 _____

1. Name of Applicant Nels Sorensen Phone No. 624-4535
Post Office Address RR 3, Box 23, Vermillion State SD 57069
(Street, RR or Box) (City) Zip Code

2. Amount of water claimed (c.f.s) No additional Total acres irrigated 276 (267 under 4983-3, 9 addit.)

3. Source of Water supply existing well (under water permit no. 4983-3)

4. Location of point of diversion _____ at a point 200 feet north and 180 feet east of the center
of Section 25, T92N R52W (SW $\frac{1}{4}$ NE $\frac{1}{4}$)

_____ County Clay

5. Counties where water will be used Clay

6. Annual period during which water is to be used April 1 - October 31

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.
See attached sheet	

Land Description	No. Acres Irr.

Attach sheet if more space is needed

8. Type of Irrigation: Gravity: _____ Towline: _____ Center Pivot: X Gun: _____ Other: _____ (Specify) _____

9. Crops to be Irrigated: _____

10. Give a description of proposed project. (Attach sheet if more space is needed)

A field inspection of Water Permit No. 4983-3 found that 276 acres of land were being irrigated while only 267 acres of land are permitted under Water Permit No. 4983-3. This permit application is to include the additional 9 acres of land under a Water Permit.

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

STATE OF SOUTH DAKOTA)
County of Clay) ss

I, Nels Sorensen, 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.

JOYCE C. HANSON

Signed

Nels Sorensen
14 day of Jan 1991

Joyce C. Hanson
Notary Public



My Commission Expires 4-11-94

**SOUTH DAKOTA
WATER PERMIT No. 5538-3 FOR IRRIGATION**

Date of first receipt of application March 14, 1991.

Date Soil/Water Compatibility Permit received April 22, 1991.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 5538-3 to Nels Sorensen, RR 3, Box 23, 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. 5538-3 authorizes irrigation of 9 additional acres. Water Permit No. 4983-3 appropriates 3.60 cubic feet of water per second from one well 110 feet deep (Missouri Elk Point Aquifer) located in the SW 1/4 NE 1/4 Section 25 to irrigate 267 acres located in the SE 1/4, SW 1/4, S 1/2 NW 1/4 Section 25; all in T92N-R52W. This permit is to irrigate 9 additional acres located in the NE 1/4 NW 1/4, SW 1/4 NE 1/4, NW 1/4 NE 1/4 Section 25-T92N-R52W. This permit does not authorize any increase in the diversion rate.
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: April 1 - October 31.
3. The date from which applicant may claim right is March 14, 1991.
4. The date of approval of Permit No. 5538-3 is July 24, 1991.
5. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

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

SEP 27 1991
date

Nels Sorensen
RR 3, Box 23
Vermillion, SD 57069

Attachment Sheet

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

All in T92N R52W, Section 25

Land Description	No. of Acres
NE1/4 NW1/4	2
NW1/4 NE1/4	1
NE1/4 SE1/4	13
NW1/4 SW1/4	33
SW1/4 SW1/4	16
SE1/4 NW1/4	39
SW1/4 NE1/4	8
SE1/4 SE1/4	3
NE1/4 SW1/4	38
SW1/4 NW1/4	19
NW1/4 SE1/4	31
SW1/4 SE1/4	34
SE1/4 SW1/4	39
Total =	<u>276</u>



Supplemental Information

(type or print in ink)



1. Well Information - Proposed construction

- a) Drill Hole Diameter unknown Depth 112
- b) Casing Type PVC (82') Diameter 16" Thickness _____
- c) Screen Type PVC 100 slot (28') Diameter 16" Thickness _____
- d) Gravel Pack Thickness _____ Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material 8
- f) Depth to Water (ground surface to water level) 16
- g) Distance to nearest existing domestic well:
- On applicants property _____ On property owned by others _____

~~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 _____

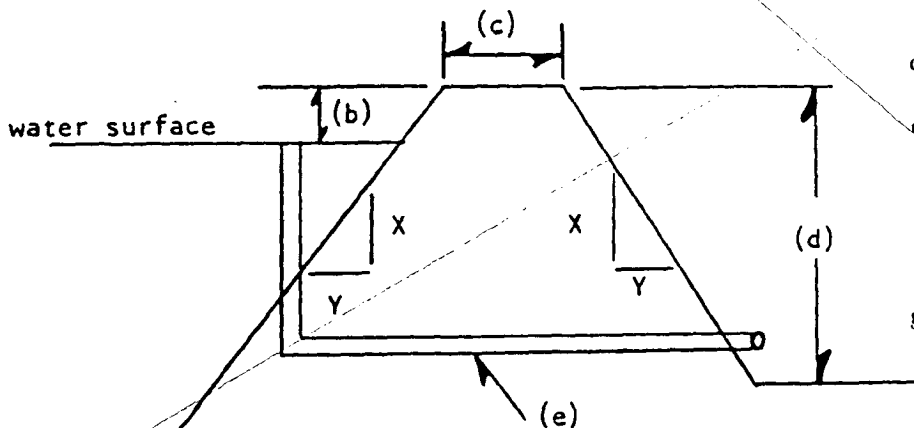
g) X & Y Slope
 Upstream _____

Downstream _____

Surface Area of Impoundment _____

Storage _____ acre feet

Drainage area above dam _____



Signature of Applicant

Soils

301	-	Haynie silt Loam
100	-	Onawa silty clay
402	-	Riverwash
401	-	Sarpy Loamy Fine Sand
400	-	Sarpy Fine Sandy Loam

See attached descriptions for Soils



Bottomland soils developed in fine-textured alluvium

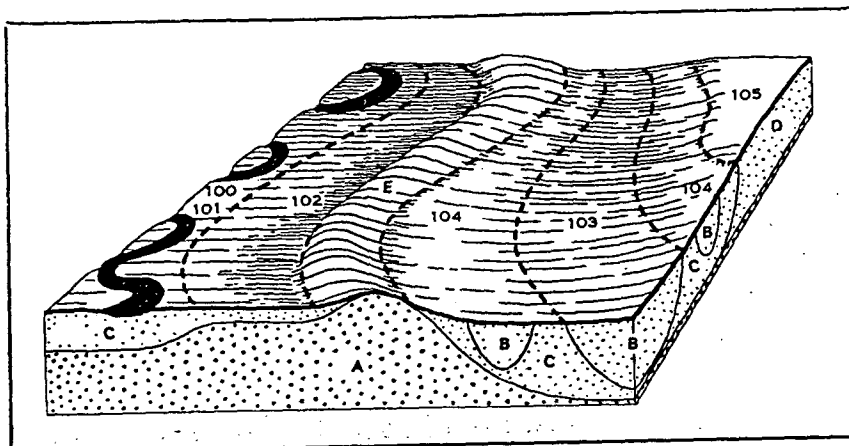


Fig. 26. A—Coarse-textured (sandy), alluvial (water deposited) sediments. B—Fine-textured (clay and silty clay) alluvial sediments. C—Fine-textured, calcareous (limy), alluvial sediments. D—Fine-textured, alluvial sediments highly saline (high in sulfates and chlorides of calcium, magnesium and sodium), and alkali (only sodium salts). E—Natural stream levee

100 Onawa silty clay, level (0-1% slopes)
 101 Onawa clay, level (0-1% slopes)
 102 Onawa silty clay, very shallow to sand,
 level (0-1% slopes)
 103 Luton clay, level (0-1% slopes)
 104 Luton-Solomon silty clays, level (0-

1% slopes). The Luton soils in this association occur where the fine-textured sediments are not calcareous. The Solomon soils in the association occur where the fine-textured sediments are calcareous.
 105 Napa complex, level (0-1% slopes)

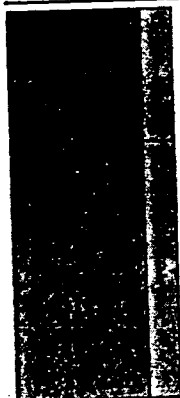
(100) Onawa Silty Clay, Level (0-1% Slopes)

Onawa silty clay, level, has developed in light-colored, calcareous (limy), fine-textured (clay and silty clay), recent slack water sediments that have been deposited over deep, older, moderately coarse-textured (sandy loam) sediments. The Onawa soils occur on level first bottoms (the lowest land level along streams or rivers) of the Missouri River. The natural surface drainage of this unit is usually poor; however, the internal drainage is moderate. This unit differs from Onawa clay, level (101), in having a silty clay surface texture and from Onawa silty clay, very shallow over sand, level (102), which is much more shallow over the older, coarse-textured substratum. This unit differs from Luton clay, level (103), which has developed in generally noncalcareous, fine-textured sediments, and from Solo-



mon silty clay, level, which has developed in calcareous, fine-textured sediments (Fig. 26).

Fig. 27. Profile description. Onawa silty clay



1 (0-20") Pale olive, massive, calcareous silty clay

2 (20"+) Pale olive, calcareous very fine sandy loam

Use and management. The amount of this soil under cultivation and the yields obtained change annually depending somewhat on the extent of spring flooding and the height of the fluctuating water table. Areas with slow surface drainage are best used for pasture, while areas with adequate surface drainage are best used for cropland. Tile drainage may be needed on some areas for maximum production. Favorable soil tilth is easily destroyed if this soil is cultivated when wet. The productivity level of this soil is not high; however, it can be increased greatly through the addition of organic matter, such as crop residues and barnyard manure, the application of a high-nitrogen fertilizer, and the consistent use of a legume in the rotation.

(101) Onawa Clay, Level (0-1% Slopes)

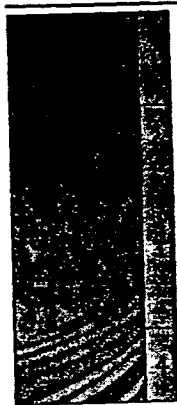
Onawa clay, level, has developed in light-colored, calcareous (limy), fine-textured (clays and silty clays), recent slack water sediments that have been deposited over deep, older, moderately coarse to coarse-textured (sandy loams) sediments. The Onawa soils occur on level first bottoms (the lowest land level along streams and rivers) of the Missouri River. The natural surface drainage of this unit is usually poor; however, the internal drainage is moderate. The unit differs from Onawa silty clay, level (100), in having a clay surface texture, and from Onawa silty clay, very shallow over sand, level (102), which is much more shallow over the older, coarse-textured substratum. This soil also differs from Luton clay, level (103), which

(300) Volin Silt Loam, Level (0-1% Slopes)

Volin silt loam, level, has developed in medium-textured (loams and silt loams), calcareous (limy), alluvial sediments. These sediments occur over stratified (layered), calcareous, alluvial sediments. These stratified materials are medium, moderately coarse (sandy loams), and coarse-textured (sands). The Volin soils occur on comparatively high, level Missouri River bottomland and are moderately well-drained. They differ from the Haynie soils, which are shallow to very shallow over the stratified substrata, and from the Wann and Leshara soils, which are poorly drained (Fig. 35).

Use and management. Practically all of the areas of this soil are in cultivation, and good yields are obtained. High productivity levels are easily maintained by additions of organic matter, such as barnyard or green manure, regular applications of needed fertilizer (see Table 4), and the use of legumes in the rotation.

Fig. 36. Profile description. Volin silt loam



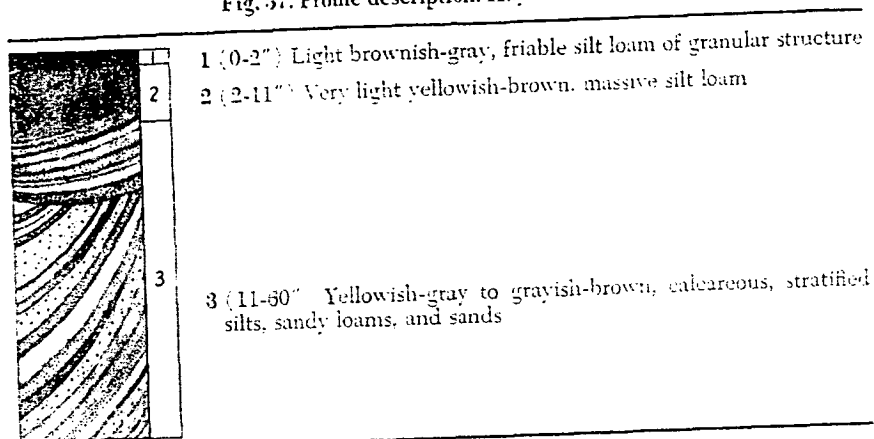
- 1 (0-14") Very dark grayish-brown, friable silt loam of granular structure
- 2 (14-24") Dark grayish-brown, friable, massive silt loam
- 3 (24-48") Yellowish-gray mottled with light and dark colors, friable, massive, highly calcareous silt loam grading into fine sandy loam
- 4 (48-60") Grayish-brown to yellowish-gray, calcareous, stratified silts, sandy loams, and sands

(301) Haynie Silt Loam, Nearly Level (0-3% Slopes)

Haynie silt loam, nearly level, has developed in shallow to very shallow, medium-textured (loams and silt loams), calcareous (limy), alluvial sediments. These sediments occur over stratified (layered), calcareous, alluvial sediments. These stratified materials are medium, moderately coarse (sandy loams), and coarse-textured (sands). This unit occurs on nearly level Missouri River bottomland and is moderately well-drained. It differs from the Haynie silt loam, sloping (302), with which it is associated,

in occurring on more level slopes. The Haynie soils in general differ from the Volin soils, which are deep over the stratified substrata and from the Wann and Leshara soils, which are poorly drained (Fig. 35).

Fig. 37. Profile description. Haynie silt loam



Use and management. Much of the area of this soil is under cultivation; however, yields are only fair. The best use of this soil is as limited cropland. Protection from wind erosion should be provided for areas of this unit under intensive cultivation. Strip cropping and stubble-mulch tillage are recommended practices. Productivity levels can be increased by regular additions of organic matter, such as barnyard or green manure, applications of a complete fertilizer that is high in nitrogen, and the continuous use of legumes in the rotation.

(302) Haynie Silt Loam, Sloping (8-13% Slopes)

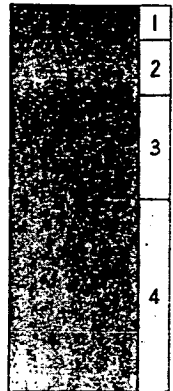
Haynie silt loam, sloping, has developed in shallow to very shallow, medium-textured (loams and silt loams), calcareous (limy), alluvial sediments. These sediments occur over stratified (layered), calcareous, alluvial sediments. These stratified materials are medium, moderately coarse (sandy loams), and coarse-textured (sands). This unit occurs on areas of sloping, channeled alluvium on the Missouri River bottomland and is moderately well-drained. It differs from Haynie silt loam, nearly level (301), with which it is associated, in occurring on stronger slopes. The Haynie soils in general differ from the Volin soils, which are deep over the stratified substrata, and from the Wann and Leshara soils, which are poorly drained (Fig. 35).

Profile description. See Haynie silt loam, Fig. 37.

(400) Sarpy Fine Sandy Loam, Nearly Level (0-3% Slopes)

Sarpy fine sandy loam, nearly level, has developed in moderately coarse (sandy loam) to coarse-textured (sands), calcareous (limy), alluvial sediments. The Sarpy soils occur on nearly level Missouri River floodplains and are moderately well-drained. This unit differs from Sarpy loamy fine sand, nearly level (401), which has a coarser textured surface horizon (Fig. 40).

Fig. 41. Profile description. Sarpy fine sandy loam

	1	1 (0-5") Dark brown fine sandy loam, slightly acid in reaction
	2	2 (5-14") Pale brown fine sandy loam or loamy fine sand, neutral in reaction
	3	3 (14-30") Brown, slightly calcareous loamy fine sand or fine sand, neutral to slightly alkaline in reaction
	4	4 (30"+) Brown mottled (spotted) with dark colors, calcareous fine sand

Use and management. This soil unit generally occurs in relatively small areas. When this is the case, the use and management of this soil is usually the same as that of the soils with which it occurs. When this unit occurs in areas that constitute the major part of any one field, its best use is probably as permanent pasture.

(401) Sarpy Loamy Fine Sand, Nearly Level (0-3% Slopes)

Sarpy loamy fine sand, nearly level, has developed in coarse (sands) and moderately coarse-textured (sandy loams), calcareous (limy), alluvial sediments. The Sarpy soils occur on nearly level Missouri River floodplains, and are moderately well-drained. This unit differs from Sarpy fine sandy loam, nearly level (400), in having a coarser textured surface horizon (Fig. 40).

Profile description. See profile description Sarpy fine sandy loam, Fig. 41.

Use and management. The same use and management is recommended for this unit as that for Sarpy fine sandy loam, nearly level (400).

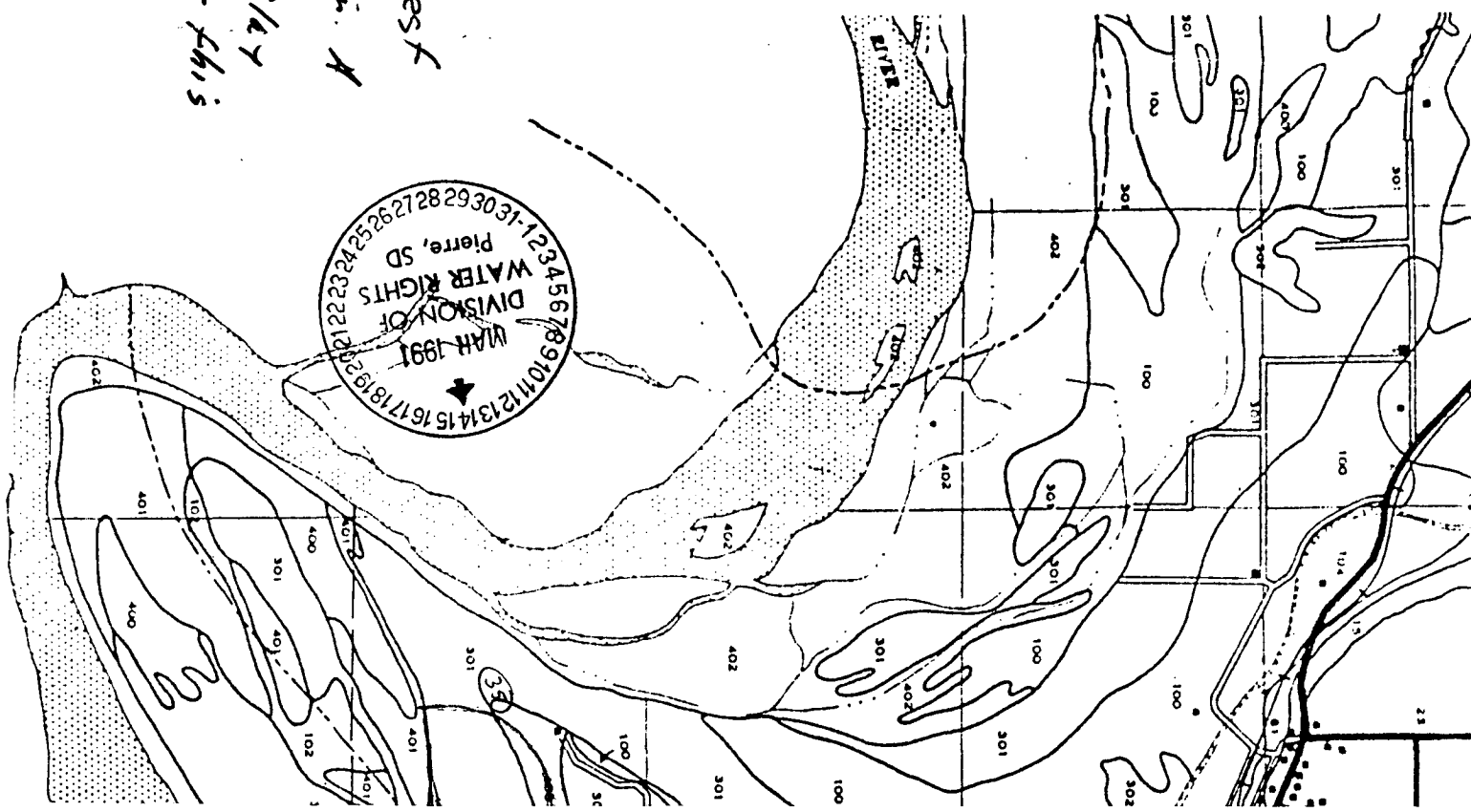
(402) Riverwash

Riverwash consists of raw, unstabilized, recently deposited, mainly coarse-textured, alluvial sediments. It occurs in or along the higher portions of the Missouri River bed proper.

Table 1. Estimated Acreage and Proportionate Extent of Mapping Units in Clay County, South Dakota

Number of Mapping Unit	Name of Mapping Unit	Acres in County	Percent of County
60.	Alcester-Judson silt loams, nearly level (0-3% slopes)	1,198	0.464
61.	Alcester-Judson silt loams, gently sloping (3-8% slopes)	2,421	0.939
62.	Alcester-Judson silt loams, eroded, sloping (8-13% slopes)	190	0.074
63.	Alcester-Lamoure silt loams, nearly level (0-3% slopes)	2,848	1.104
22.	Alsen silty clay loam, level (0-1% slopes)	2,062	0.799
10.	Barnes loam, nearly level (0-3% slopes)	409	0.159
11.	Barnes loam, undulating (3-8% slopes)	2,608	1.011
12.	Barnes loam, eroded, undulating (3-8% slopes)	2,969	1.151
13.	Barnes loam, rolling (8-13% slopes)	342	0.133
14.	Barnes loam, eroded, rolling (8-13% slopes)	2,726	1.057
200.	Blencoe silty clay loam, level (0-1% slopes)	12,112	4.696
201.	Blencoe-Gayville silty clay loams, level (0-1% slopes)	97	0.038
202.	Blencoe-Lamoure silty clay loams, slightly saline, level (0-1% slopes)	518	0.201
15.	Buse loam, steep (13-40% slopes)	7,028	2.725
16.	Buse loam, eroded, steep (13-40% slopes)	1,606	0.623
53.	Flandreau silt loam, terrace phase, nearly level (0-3% slopes)	1,543	0.598
50.	Fordville loam, nearly level (0-3% slopes)	86	0.033
51.	Fordville loam, gently sloping (3-8% slopes)	365	0.142
52.	Fordville loam, coarse sand substratum, nearly level (0-3% slopes)	1,629	0.632
301.	Haynie silt loam, nearly level (0-3% slopes)	8,403	3.258
302.	Haynie silt loam, sloping (5-13% slopes)	59	0.023
30.	Kranzburg silty clay loam-Barnes loam, undulating (3-8% slopes)	9,691	3.757
31.	Kranzburg silty clay loam-Barnes loam, eroded, undulating (3-8% slopes)	899	0.349
203.	Lamoure silty clay loam, level (0-1% slopes)	8,482	3.259
103.	Luton clay, level (0-1% slopes)	14,774	5.728
104.	Luton-Solomon silty clays, level (0-1% slopes)	20,016	7.761
64.	McPaul silt loam, nearly level (0-3% slopes)	295	0.114
40.	Maddock fine sandy loam and loamy fine sand, nearly level (0-3% slopes)	572	0.222
41.	Maddock fine sandy loam and loamy fine sand, undulating (3-8% slopes)	315	0.122
20.	Moody silt loam, undulating (3-8% slopes)	202	0.078
105.	Napa complex, level (0-1% slopes)	3,493	1.354
100.	Onawa silty clay, level (0-1% slopes)	6,078	2.357
101.	Onawa clay, level (0-1% slopes)	157	0.061

1.65 miles
= 1 mile
This is our best
Soils information. A
New Survey for Clay
County will start this
Spring.



NOTICE OF WELL CONSTRUCTION

Clay

(1) WELL CONSTRUCTION

Location of well NE 1/4 1/4 Section 25 Township 24-92N Range 51-52
 Well owner M. L. Sorenson RA3 Vermillion
 Date well drilling completed 12-28-83 Purpose of well Domestic

WELL LOG

Interval, feet	Description of well	Depth to top of water producing aquifer	Depth to static water level	Name of producing aquifer (if known)	Total depth of drill hole	Depth to bottom of casing
0 - 1	top soil	81	15		112	110
1 - 8	clay					
8 - 81	fine sand					
81 - 110	coarse sand					
110 - 112	shale					

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

82' x 16" PVC

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

16" x 28' x 100 slot Stainless Steel Screen

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

James Hinton

Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump Western-Land Bulb 14C HP 10.0
 Type of pump Vertical Capacity of installed pump 3 stages 1500 G.P.M.
 Depth of pump placement 60 ft., Date of pump installation 1-10-84

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required. See Section 48.408 of Chapter 48.4, MINNESOTA WELL CONSTRUCTION STANDARDS.

Show exact vertical length of water surface measuring tube, when installed 60 ft., tube diameter 1/2
 tube material PVC

James Hinton

Name of Water Measuring Tube Installer



6-7-84

RECEIPT

Division of Water Rights

South Dakota Department of Water and Natural Resources

412589

Pierre, March 14, 19 91

RECEIVED OF Nels J. Sorensen, RR 3 Box 23, Vermillion, SD 57069

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

Fee for Application for Permit No. <u>5538-3</u> to Appropriate Water, to construct works and to put water to beneficial use _____	150	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	150 00

By *John H. H. H. H.*
Chief Engineer

5538-3

Department of Agriculture
WI#1
5/87

SOIL/WATER COMPATIBILITY PERMIT
Division of Conservation

Office Use Only

4584

WR#



OWNERS NAME: SORENSEN, NELS J. OWNERS ADDRESS: RR 3, BOX 23
VERMILLION, SD 57069

COUNTY LAND LOCATED IN: CLAY PHONE: 624-4535

LEGAL DESCRIPTION: ☒ Well ☐ Surface

1. LOCATION: NE $\frac{1}{4}$ 25-T92N-R52W (200' North & 180' East of the Center)

Depth: _____

Legal Description	Acres	Legal Description	Acres
NE $\frac{1}{4}$ NW $\frac{1}{4}$ 25-T92N-R52W	2	NW $\frac{1}{4}$ NE $\frac{1}{4}$ 25-T92N-R52W	1
NE $\frac{1}{4}$ SE $\frac{1}{4}$ 25-T92N-R52W	13	NW $\frac{1}{4}$ SW $\frac{1}{4}$ 25-T92N-R52W	33
SW $\frac{1}{4}$ SW $\frac{1}{4}$ 25-T92N-R52W	16	SE $\frac{1}{4}$ NW $\frac{1}{4}$ 25-T92N-R52W	39
SW $\frac{1}{4}$ NE $\frac{1}{4}$ 25-T92N-R52W	8	SE $\frac{1}{4}$ SE $\frac{1}{4}$ 25-T92N-R52W	3
NE $\frac{1}{4}$ SW $\frac{1}{4}$ 25-T92N-R52W	38	SW $\frac{1}{4}$ NW $\frac{1}{4}$ 25-T92N-R52W	19
NW $\frac{1}{4}$ SE $\frac{1}{4}$ 25-T92N-R52W	31	SW $\frac{1}{4}$ SE $\frac{1}{4}$ 25-T92N-R52W	34
SE $\frac{1}{4}$ SW $\frac{1}{4}$ 25-T92N-R52W	39		

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

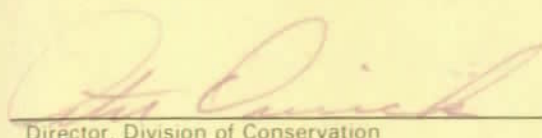
3. CROPS TO BE IRRIGATED: XXXXXXXXXXXXXXXXXXXXX ALFALFA, CORN, SOYBEANS

WATER QUALITY:

4. WATER SAMPLE NUMBER: 83-0556 7. ADJUSTED (SAR): 3.48
5. SALINITY (EC X 10⁶): 1500 8. PERCENT SODIUM: 20.09
6. SODIUM (SAR): 1.23

Requirements:

The areas mapped as Onawa silty clay is subject to flooding and a fluctuating water table. These areas will have cropping and trafficability problem due to excess wetness. This area shall remain in grass and/or alfalfa.


Director, Division of Conservation

APRIL 18, 1991
Date

XXX APPROVED XXX REQUIREMENTS
____ DISAPPROVED
____ WAIVER

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



Department of Water & Natural Resources

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

December 3, 1990

Nels Sorensen
RR 3, Box 23
Vermillion, SD 57069

Dear Mr. Sorensen:

On September 27, 1990, I conducted a routine field inspection of your irrigation systems while you were picking beans approximately 1/2 mile northwest of your farmstead. The Water Permits that I inspected in September were as follows: 4983-3, 5041-3, 5042-3, 5199-3, and 5412-3.

The purpose of the Water Permit field inspection was to determine if the "as built" irrigation system was constructed within the allowable limits of the Water Permit. Your irrigation system under Water Permit No. 5412-3 is constructed within the allowable limits of the Water Permit. Upon receipt of the irrigation well log from the well driller (James Wetmore, Elk Point, SD) and receipt of a \$50 licensing fee, a Water License will be issued to you for Water Permit No. 5412-3.

Water Permit Nos. 4983-3, 5041-3, 5042-3, and 5199-3 are not constructed within the allowable limits of each individual Water Permit. Discrepancies exist between the allowable limits of the Water Permits and the "as built" total irrigated acreage and land legal descriptions.

It is unfortunate that the irrigation systems were not constructed within the allowable limits of the Water Permits. In order to correct the discrepancies, South Dakota Codified Law requires that you obtain four new permits for the additional total irrigated acreage. I have enclosed the partially completed application forms for your review and completion.

Please fill out the enclosed application forms and submit them to this office. A \$150 application fee is required for each of the four new Water Permit applications. If you have any questions concerning your Water Permits, please feel free to contact me.

Very truly yours,

A handwritten signature in cursive script that reads "David S. Brown".

David S. Brown
Natural Resources Engineer II
DWNR, Water Rights Division
(605) 773-3352
enclosures

cc: Jim Stukel, Dept. of Agriculture, Anderson Bldg, Pierre, SD

REPORT ON APPLICATION NOS. 5538-3, 5539-3, 5540-3 AND 5541-3
for Nels J. Sorenson
June 11, 1991

Application No. 5538-3 proposes to irrigate 9 additional acres. Water Permit No. 4983-3 appropriates 3.60 cfs from one well approximately 108 feet deep located in the SW 1/4 NE 1/4 of section 25 to irrigate 267 acres located in the SE 1/4, SW 1/4, S 1/2 NW 1/4, of section 25; all in T92N R52W in Clay County. This application is to irrigate 9 additional acres located in the NE 1/4 NW 1/4, SW 1/4 NE 1/4, NW 1/4 NE 1/4 of section 25 from a well 110 feet deep located in the SW 1/4 NE 1/4 all in section 25, T92N R52W. This application does not authorize any increase in the diversion rate.

Application No. 5539-3 is to irrigate 17 additional acres. Water Permit No. 5041-3 appropriates 1.80 cfs from one well approximately 100 feet deep located in the NW 1/4 SE 1/4 of section 36 to irrigate 131 acres located in the SE 1/4, E 1/2 SW 1/4, S 1/2 NE 1/4 and SE 1/4 NW 1/4 of section 36; all in T92N R52W. This application is to irrigate 17 additional acres located within the previously described acreage from the existing well. This application, if approved, does not authorize any increase in the developed diversion rate.

Application No. 5040-3 is to irrigate 17 additional acres. Water Permit No. 5042-3 appropriates 1.80 cfs from one well 106 feet deep located in the NW 1/4 NE 1/4 of section 1, T91N R52W to irrigate 131 acres located in the NE 1/4, E 1/2 NW 1/4 of section 1, T91N R52W, and SE 1/4 SW 1/4, SW 1/4 SE 1/4 of section 36, T92N R52W. This application is to irrigate 17 additional acres within the previously described acreage from the existing well. This application, if approved, does not authorize any increase in the developed diversion rate.

Application No. 5541-3 appropriates an additional 0.55 cfs to irrigate 37 additional acres. Water Permit No. 5199-3 appropriates 3.05 cfs from two wells 118 feet and 123 feet deep located in the SW 1/4 NE 1/4 of section 36; and the NE 1/4 SW 1/4 of section 35 to irrigate 214 acres located in the W 1/2 NE 1/4, NW 1/4 SW 1/4, S 1/2 NW 1/4, NE 1/4 NW 1/4 of section 36; S 1/2 NE 1/4, N1/2 SE 1/4 of section 35; all in T92N R52W. This application proposes to appropriate an additional 0.55 cfs from the existing wells and to irrigate an additional 37 acres located in the NW 1/4 NW 1/4, NE 1/4 SW 1/4 of section 36, T92N R52W and in the previously described area. The combined diversions of Permit No. 5199-3 and this application, if approved, may not exceed 3.57 cfs for irrigation of 251 acres.

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 Missouri Elk Point aquifer underlies 74,500 acres and contains an estimated 1.12 million acre feet of recoverable water in Clay County (Hedges, 1982). The Missouri Elk Point aquifer is hydraulically connected to the Lower Vermillion Missouri aquifer in Clay County, the Missouri Elk Point

aquifer in Yankton and Union Counties and to the Missouri River which acts as a potential discharge/recharge zone for the aquifer.

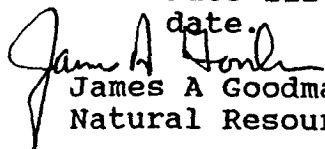
The Division of Water Rights monitors an observation well CL-80C which is located in the immediate area of these applications. Water levels for this well show good response to climatic conditions, that is, rising during wet years (recharge) and gradually declining during dry years. Overall the effects of pumping are not obvious from looking at the hydrograph and the record indicates that water is available from the Missouri Elk Point aquifer (Water Rights, 1991).

REVIEW OF EXISTING WATER PERMITS/RIGHTS

There is one other existing Water Permit No. 5471-3 in this area. Interference will not be a concern. The aquifer is highly productive and the spacing between wells is adequate to minimize any potential effects of drawdown. The observation well record indicates that significant drawdown due to pumping is not occurring.

CONCLUSIONS

1. Water is available from the Missouri Elk Point aquifer.
2. The aquifer is under water table conditions, wells completed into the aquifer have a high specific capacity and drawdown caused by pumping are not significant.
3. These are all existing wells and have been in use. These four permit applications are the result of an inspection of the systems which found that additional acres were being irrigated. These applications, if approved, can be licensed to reflect the actual as built system. The priority date for the original permits can be retained because no other water rights/permits will be adversely impaired. However, the additional diversion rate listed under Water Permit No. 5541-3 will get a new priority date.


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 DENR, SDGS, Vermillion, SD, 57069.

Water Rights, 1991, Observation Well Records for the Missouri Elk Point Aquifer in Clay County, SD DENR, Division of Water Rights, Pierre, SD, 57501.

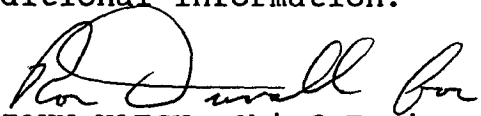
RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 5538-3, Nels J. Sorenson

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Environment and Natural Resources concerning Water Permit Application No. 5538-3, Nels J. Sorenson, RR 3, Box 23, Vermillion, SD 57069.

The Chief Engineer is recommending APPROVAL of Application No. 5538-3 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 wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.


JOHN HATCH, Chief Engineer
June 10, 1991

South Dakota



GREAT FACES. GREAT PLACES.

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

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

June 19, 1991

Nels Sorensen
RR 3, Box 23
Vermillion, SD 57069

Dear Mr. Sorensen:

Water Permit Application Nos. 5538-3, 5539-3, 5540-3 and 5541-3 for irrigation use have 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, the recommendation of the Chief Engineer and a report on the applications are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

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

Sincerely,

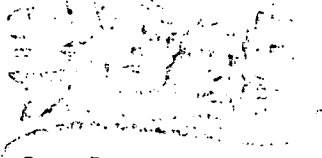
Eric Gronlund

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

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

South Dakota



GREAT FACES. GREAT PLACES.

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

June 19, 1991

Vermillion Plain Talk
Box 256
Vermillion, SD 57069

ATTENTION: Legal Department

Enclosed is a Notice of Hearing on Application Nos. 5538-3, 5539-3, 5540-3 and 5541-3 to be published twice. Please publish the first notice on June 27, 1991 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 Nels Sorensen, RR 3, Box 23, Vermillion, SD 57069.

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. No action may be taken on the permit application until proof of publication has been received.

Sincerely,

Eric Gronlund

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 _____

Instruction to Newspaper - Publish first Notice on June 27, 1991 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF HEARINGS on Application Nos. 5538-3 5539-3, 5540-3, 5541-3 to Appropriate Water

Notice is given that Nels Sorensen, RR 3, Box 23, Vermillion, SD 57069 has filed applications for water permits. Application No. 5538-3 is to irrigate 9 additional acres. Water Permit No. 4983-3 appropriates 3.60 cubic feet of water per second from one well 110 feet deep (Missouri Elk Point Aquifer) located in the SW 1/4 NE 1/4 Section 25 to irrigate 267 acres located in the SE 1/4, SW 1/4 S 1/2 NW 1/4, Section 25; all in T92N-R52W. This application is to irrigate 9 additional acres located in the NE 1/4 NW 1/4, SW 1/4 NE 1/4, NW 1/4 NE 1/4 Section 25-T92N-R52W. This application, if approved, does not authorize any increase in the diversion rate.

Application No. 5539-3 is to irrigate 17 additional acres. Water Permit No. 5041-3 appropriates 1.80 cubic feet of water per second from one well 100 feet deep (Missouri Elk Point Aquifer) located in the NW 1/4 SE 1/4 Section 36 to irrigate 131 acres located in the SE 1/4, E 1/2 SW 1/4, S 1/2 NE 1/4, SE 1/4 NW 1/4, Section 36; all in T92N-R52W. This application is to irrigate 17 additional acres located in the above described locations from the existing well. This application, if approved, does not authorize any increase in the developed diversion rate.

Application No. 5540-3 is to irrigate 17 additional acres. Water Permit No. 5042-3 appropriates 1.80 cubic feet of water per second from one well 106 feet deep (Missouri Elk Point Aquifer) located in the NW 1/4 NE 1/4 Section 1, T91N, R52W to irrigate 131 acres located in the NE 1/4, E 1/2 NW 1/4 Section 1, T91N, R52W; SE 1/4 SW 1/4, SW 1/4 SE 1/4 Section 36-T92N-R52W. This application is to irrigate 17 additional acres in the above described locations from the existing well. This application, if approved, does not authorize any increase in the developed diversion rate.

Application No. 5541-3 is to appropriate an additional 0.55 cfs and to irrigate 37 additional acres. Water Permit No. 5199-3 appropriates 3.05 cfs from two wells (Missouri Elk Point Aquifer) 118 feet and 123 feet deep located in the SW 1/4 NE 1/4 Section 36; and the NE 1/4 SW 1/4 Section 35 to irrigate 214 acres located in the W 1/2 NE 1/4, NW 1/4 SW 1/4, S 1/2 NW 1/4, NE 1/4 NW 1/4 Section 36; S 1/2 NE 1/4, N 1/2 SE 1/4 Section 35; all in T92N-R52W. This application is to appropriate an additional 0.55 cfs to irrigate an additional 37 acres in the NW 1/4 NW 1/4, NE 1/4 SW 1/4 Section 36, T92N, R52W and the above described locations from the two existing wells. The combined diversions of Permit No. 5199-3 and this application, if approved, may not exceed 3.57 cfs for irrigation of 251 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 5538-3, 5539-3, 5540-3 and 5541-3 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. Unless a petition is filed opposing the applications or the applicant files a petition contesting the chief engineer's recommendation, the Water Management Board will NOT CONDUCT a HEARING to consider these applications and the chief engineer will issue the permits as recommended. Petitions filed in support of the application will NOT require the Board to hear the applications.

Any person interested in opposing or supporting these applications must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by July 15, 1991. The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

For purposes of publishing 1) the notice of hearing on Application Nos. 5538-3, 5539-3, 5540-3 and 5541-3 and 2) the chief engineer's recommendation, a Board meeting is

scheduled for July 24, 1991, at 10:00 am in Kneip Room, Governors Inn, 700 W. Sioux Ave., Pierre SD. If these applications are opposed or the recommendations contested, the July 24, 1991 hearing date may be rescheduled for another Board meeting. If the hearing is rescheduled, notice of the time and place will be given by First Class Mail to the applicant and persons filing petitions. Anyone not filing a petition, but interested in attending the hearing, may contact the Division of Water Rights to confirm a hearing date and location. The July 24, 1991 hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the applications. The request for an automatic delay must be filed by July 15, 1991.

If a hearing is held, the Chief Engineer's recommendations are not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny the applications based on the facts presented at the public hearing. Any hearing will be an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer and may present evidence or cross-examine witnesses according to SDCL 1-26. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. Contact the Water Rights Division to request copies of information pertaining to the applications or to assure access to the hearing by the handicapped.

These applications are made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-26; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15.

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County Clay) ss.I, Kristin Cowniecertify that the attached printed Notice was taken
from the Plain TalkA 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 VermillionCounty of Clay and State of South Dakota;
that the said notice was published in said newspaper on the
following two dates:6-28-917-04-91Kristin Cownie
(Signature)Secretary
(Title)7-4-91

(Date Signed)

Cost of Printing: \$81.50

NOTICE OF HEARINGS

on Application Nos. 5538-3, 5539-3, 5540-3, 5541-3 to Appropriate Water Notice is given that Nels Sorensen, RR 3, Box 23, Vermillion, SD 57069 has filed applications for water permits. Application No. 5538-3 is to irrigate 9 additional acres. Water Permit No. 4983-3 appropriates 3.60 cubic feet of water per second from one well 110 feet deep (Missouri Elk Point Aquifer) located in the SW 1/4 NE 1/4 Section 25 to irrigate 267 acres located in the SE 1/4, SW 1/4, S 1/2 NW 1/4, Section 25; all in T92N-R52W. This application is to irrigate 9 additional acres located in the NE 1/4 NW 1/4, SW 1/4 NE 1/4, NW 1/4 NE 1/4 Section 25-T92N-R52W. This application, if approved, does not authorize any increase in the diversion rate.

Application No. 5539-3 is to irrigate 17 additional acres. Water Permit No. 5041-3 appropriates 1.80 cubic feet of water per second from one well 100 feet deep (Missouri Elk Point Aquifer) located in the NW 1/4 SE 1/4 Section 36 to irrigate 131 acres located in the SE 1/4, E 1/2 SW 1/4, S 1/2 NE 1/4, SE 1/4 NW 1/4, Section 36; all in T92N-R52W. This application is to irrigate 17 additional acres located in the above described locations from the existing well. This application, if approved, does not authorize any increase in the developed diversion rate.

Application No. 5540-3 is to irrigate 17 additional acres. Water Permit No. 5042-3 appropriates 1.80 cubic feet of water per second from one well 106 feet deep (Missouri Elk Point Aquifer) located in the NW 1/4 NE 1/4 Section 1, T91N, R52W to irrigate 131 acres located in the NE 1/4, E 1/2 NW 1/4 Section 1, T91N, R52W; SE 1/4 SW 1/4, SW 1/4 SE 1/4 Section 36-T92N-R52W. This application is to irrigate 17 additional acres in the above described locations from the existing well. This application, if approved, does not authorize any increase in the developed diversion rate.

Application No. 5541-3 is to appropriate an additional 0.55 cfs and to irrigate 37 additional acres. Water Permit No. 5199-3 appropriates 3.05 cfs from two wells (Missouri Elk Point Aquifer) 118 feet and 123 feet deep located in the SW 1/4 NE 1/4 Section 36; and the NE 1/4 SW 1/4 Section 35 to irrigate 214 acres located in the W 1/2 NE 1/4, NW 1/4 SW 1/4, S 1/2 NW 1/4, NE 1/4 NW 1/4 Section 36; S 1/2 NE 1/4, N 1/2 SE 1/4 Section 35; all in T92N-R52W. This application is to appropriate an additional 0.55 cfs to irrigate an additional 37 acres in the NW 1/4 NW 1/4, NE 1/4 SW 1/4 Section 36, T92N, R52W and the above described locations from the two existing wells. The combined diversions of Permit No. 5199-3 and this application, if approved, may not exceed 3.57 cfs for irrigation of 251 acres.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 5538-3, 5539-3, 5540-3 and 5541-3 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. Unless a petition is filed opposing the applications or the applicant files a petition contesting the chief engineer's recommendation, the Water Management Board will NOT CONDUCT a HEARING to consider these applications and the chief engineer will issue the permits as recommended. Petitions filed in support of the applications will NOT require the Board to hear the applications.

Any person interested in opposing or supporting these applications must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E. Capitol, Pierre, SD 57501 (605-773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by July 15, 1991. The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

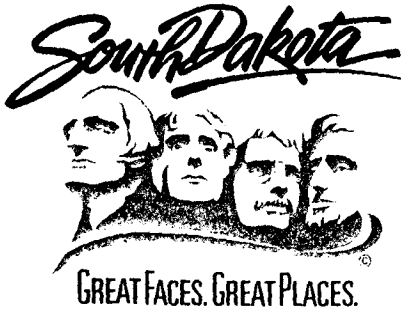
For purposes of publishing 1) the notice of hearing on Application Nos. 5538-3, 5539-3, 5540-3 and 5541-3 and 2) the chief engineer's recommendation, a Board meeting is scheduled for July 24, 1991, at 10:00 a.m. in Knelp Room, Governors Inn, 700 W. Sioux Ave., Pierre, SD. If these applications are opposed or the recommendation contested, the July 24, 1991 hearing date may be rescheduled for another Board meeting. If the hearing is rescheduled, notice of the time and place

will be given by First Class Mail to the applicant and persons filing petitions. Anyone not filing a petition, but interested in attending the hearing, may contact the Division of Water Rights to confirm a hearing date and location. The July 24, 1991 hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the applications. The request for an automatic delay must be filed by July 15, 1991.

If a hearing is held, 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 the applications based on the facts presented at the public hearing. Any hearing will be an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer and may present evidence or cross-examine witnesses according to SDCL 1-26. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. Contact the Water Rights Division to request copies of information pertaining to these applications or to assure access to the hearing by the handicapped.

These applications are made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-26; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15.

Publish: June 27 & July 4, 1991



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

SEP 27 1991

Nels Sorensen
RR 3 Box 23
Vermillion, SD 57069

Dear Mr. Sorensen:

Enclosed are Water Permit Nos. 5538-3, 5539-3, 5540-3, and 5541-3 authorizing your water diversion systems and the application of water beneficial use, not exceeding the limits as specified in the Water Permits.

The final inspection has been completed on these Permits, and we are ready to issue the Water Licenses. Statutes require we charge \$200 for the inspection and issuance of the final papers. Upon receipt of this amount the Water Licenses will be sent to you.

Very truly yours,

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

enclosures

*Need permit Appl
Add. Lands*

Vermillion River Water District**Report Of Examination Of Works And/Or Application of Water To Beneficial Use**

TO: Chief Engineer, Division of Water Rights, DWRN, Foss Bldg., Pierre, SD 57501

I have this day made a thorough examination of the water use system constructed by Nels Sorensen of Rt 3, Box 23, Vermillion, SD 57069 holder of Permit No. 4983-3, bearing the priority of October 26, 1983 authorizing the diversion of 3.60 cu. ft. per second of the waters of ground water for irrigation purposes, in Clay County.

I have to report on the conditions of the same as follows:

A. Works used to divert the water:

Western Land Roller pump, model 14C bowl, Serial No. 83121187, Head No. 10MWL-16, 3 stages, 100 HP, 1500 GPM

General Electric motor - 5K6257XM500D, 100 HP, Serial No. BXJ208283, Type K
one well - 110 feet total depth, 82 feet of 16 inch PVC casing, 28 feet of 16 inch 100 slot stainless steel screen

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

950 feet of 12 inch PVC pipe

C. Works used to apply water to beneficial use:

TEFC custom made (H Irrigation) Center Pivot, 14 towers with end gun, Hydraulically driven, Serial No. 4741

The system is in the following condition good. The point of diversion is located 200 feet north and 180 feet east of the center of Section 25, T92N R52W. The works are capable of diverting and conveying to the place of use 3.34 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 Section 25, T92N R52W

<u>2 acres in the NE1/4 NW1/4</u>	<u>39 acres in the SE1/4 NW1/4</u>	<u>19 acres in the SW1/4 NW1/4</u>
<u>1 acres in the NW1/4 NE1/4</u>	<u>8 acres in the SW1/4 NE1/4</u>	<u>31 acres in the NW1/4 SE1/4</u>
<u>13 acres in the NE1/4 SE1/4</u>	<u>3 acres in the SE1/4 SE1/4</u>	<u>34 acres in the SW1/4 SE1/4</u>
<u>33 acres in the NW1/4 SW1/4</u>	<u>38 acres in the NE1/4 SW1/4</u>	<u>39 acres in the SE1/4 SW1/4</u>
<u>16 acres in the SW1/4 SW1/4</u>		

Note: All legal descriptions in this report assume that Section 25, T92N R52W exists, the area in question needs to be replatted by the South Dakota-Nebraska boundary commission.

comprising a total of 276 acres of land and the license should be issued for 3.34 cfs.

Application permit qualifications have been complied with Yes X No

Exceptions to compliance are: irrigating additional lands Date September 27, 1990

*Permit No. 5538-3 was obtained
to cover additional acreage.
Jm*

David S. Brown
David S. Brown
Natural Resources Engineer II
DWRN, Water Rights Division

LICENSE FOR PERMIT NUMBER 4983-3

1. Legal location of wells: at a point 200 feet north and 180 feet east of the center of Section 25, T92N R52W

Dams and Structures none

2. Well Information: Well Drilling Firm Wetmore Drilling, Elk Point, SD

Completion Report? Yes X No No. of Wells 1 Depth(s) 110 feet

Casing a) diameter 16 inches Screen a) type stainless steel

b) length 82 feet b) length 28 feet

c) type PVC Static Water Level 16 feet

Pump a) make Western Land Roller Motor a) make General Electric

b) model 14C bowl b) model no. 5K6257XM500D

c) size c) horsepower rating 100

d) capacity 1500 GPM d) serial no. BXJ208283, Type K

e) turbine pump - no. of stages 3

f) operating PSI
Serial No. 83121187, Head No. 10MWL-16

3. Distribution lines or canals

a) size 12 inches

b) type PVC

c) length 950 feet

4. Dam Information: NA

a) height to crest feet

m) Outlet tubes:

b) height to primary spillway feet 1) diameter inches

c) height to secondary spillway feet 2) type

d) crest width feet 3) valved (Y/N)

e) crest length feet 4) valve type

f) spillway length feet 5) location on structure

g) spillway width feet

h) approx. storage AC-FT n) Category of Dam

i) approx. storage to crest AC-FT

j) date constructed

k) inspection sheet completed? (Y/N)

l) name of contractor

5. System Type
- a) sideroll:
- 1) length feet
 - 2) diameter of pipe inches
 - 3) make, model & number of sprinklers
 - 4) spacing of sprinklers feet
 - 5) nozzle size
- c) gun:
- 1) make
 - 2) nozzle size
 - 3) capacity (GPM)
 - 4) hose size inches
 - 5) hose length feet
- e) gated pipe:
- 1) length feet
 - 2) diameter inches
 - 3) spacing of gates inches
- f) portable boom:
- 1) make
 - 2) nozzle size
 - 3) capacity (GPM)
- b) towline:
- 1) length feet
 - 2) make, model & number of sprinklers
 - 3) spacing of sprinklers
 - 4) nozzle size
- d) center pivot: custom made
- 1) make TEFC, H irrigation
 - 2) number of towers 14
 - 3) distance between towers
 - 4) overall length feet
 - 5) end gun (Y/N) yes
 - 6) high or low pressure low
 - 7) make and size of nozzles
 - 8) capacity 1500 (GPM)
- Hydraulically driven
- Serial No. 4741
- g) siphons:
- 1) size inches
 - 2) number

NOTE: For Permits with additional wells or changes in well locations, record the following for each well: pumping capacity, date constructed, well driller and if a well log is available.

Indicate any other permit(s) which are associated with project 5412-3, overlap areas

Yes	No	Check Items
<u> </u>	<u> X </u>	1. Soil and water permit lands agree with lands being irrigated and lands listed on permit?
<u> X </u>	<u> </u>	2. Special qualifications to permit being abided by?
<u> X </u>	<u> </u>	3. All structures, wells and lands on map?
<u> X </u>	<u> </u>	4. Irrigation Questionnaires checked to determine if permit owner started irrigation by end of construction period?
<u> </u>	<u> X </u>	5. Is chemigation used?
<u> NA </u>	<u> </u>	6. If yes, does equipment comply with chemigation rules?

REMARKS: A new permit is needed for additional lands being irrigated prior to issuing license.

App. No 5538-3

* Assume center of Section 25, T92N R52W is located Correctly

NOT TO SCALE

Billap prepared by
David Brown
Natural Resources Engineer II
Water Rights Division, DWR
Pierre, SD 57501
11/5/90

Water Permit
No. 4983-3

202R

T-1820
(1226)

T-1883

(1273)

20.9

T-1883

(1273)

6.9

T-1883

(1273)

9.6

T-1898 39 acres

(1717)

302.0

IRR

Sec. 26, T92N R52W

E 1/4 Corner

Inspected
9/27/90

T-1898

(1717)

65.0

28 acres

33 acres

38 acres

31 acres

13 acres

16 acres

39 acres

34 acres

3 acres

92-52

18.6

(1717)

T-1898

T-1884

(1273)

50.0

202R

Scale

1" = 760 Feet

SE Corner
Section 26
T92N R52W



5538-3

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 5538-3

(1) Nels Sorensen of RR 3, Box 23, Vermillion, SD 57069 made Application No. 5538-3, March 14, 1991 for a water permit to appropriate no additional cubic feet of water per second from groundwater (one existing well), Clay County, South Dakota for irrigation purposes. Permit No. 5538-3 with a priority date of March 14, 1991 was approved July 24, 1991 and issued to applicant(s) for diversion of water with construction of the described water supply system completed and the application to beneficial use of said water completed.

Water Permit No. 5538-3 authorizes irrigation of 9 acres developed, but not covered, under Water Permit No. 4983-3. Permit No. 5538-3 did not authorize an increase in the diversion rate.

The applicable portions of Water Permit No. 4983-3 are incorporated into this Water License No. 5538-3. Priority dates, as they pertain to the acres irrigated, are described in (3) of this License.

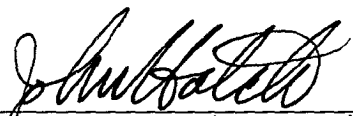
(2) It is certified that the applicant has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 3.34 cubic feet of water per second for beneficial use. The location of the diversion point is: 200'N and 180'E of the center of Section 25, T92N, R52W (SW 1/4 NE 1/4).

(3) The applicant has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use to irrigate the following land:

T92N, R52W Section 25	NE 1/4 NW 1/4	2 Acres
	SE 1/4 NW 1/4	39 Acres
	SW 1/4 NW 1/4	19 Acres
	NW 1/4 NE 1/4	1 Acre
	SW 1/4 NE 1/4	8 Acres
	NW 1/4 SE 1/4	31 Acres
	NE 1/4 SE 1/4	13 Acres
	SE 1/4 SE 1/4	3 Acres
	SW 1/4 SE 1/4	34 Acres
	NW 1/4 SW 1/4	33 Acres
	NE 1/4 SW 1/4	38 Acres
	SE 1/4 SW 1/4	39 Acres
	SW 1/4 SW 1/4	16 Acres
	Total-----	276 Acres

NOTE: Nine acres within the NE 1/4 NW 1/4, SW 1/4 NE 1/4 and NW 1/4 NE 1/4 Section 25 carry a priority date of March 14, 1991 (established under No. 5538-3). The remaining acreage carries a priority date of October 26, 1983 (established by No. 4983-3).

(4) Pursuant to Section 46-5-30.1 Nels Sorensen of RR 3, Box 23, Vermillion, SD 57069 the holder(s) and/or owner(s) of Incorporated Water Permit No. 5538-3 is issued a license to appropriate water, the right to use 3.34 cubic feet of water per second from groundwater (one well) with priority dates of October 26, 1983 and March 14, 1991 from the location specified in (2) of this license. The water is to be conducted to and upon lands specified in (3) of this license for the purpose of irrigation. This license is subject to any limitations or qualifications listed in Incorporated Water Permit No. 5538-3 and subject to South Dakota State Law.

 **NOV 30 1992**
JOHN HATCH, Chief Engineer
Water Rights Division
Department of Environment and
Natural Resources



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

June 16, 1992

SECOND NOTICE

Permit No. 5538-3
5539-3
5540-3
5541-3

NOTICE OF WATER LICENSE INSPECTION FEE REQUIREMENT

Nels Sorensen
RR 3, Box 23
Vermillion, SD 57069

Dear Mr. Sorensen:

On September 27, 1991, you were notified that the four final inspection fees of \$50.00 for each permit for a total of \$200.00 are due before Water License Nos. 5538-3, 5539-3, 5540-3, and 5541-3 can be issued. As of this date, the fees have not been received.

The fee is a final step in the legal process of obtaining and perfecting a water right and is required by SDCL 46-2-13(3). Upon receipt of the \$200.00, your Water Licenses will be sent to you. These are the final documents for the perfection of your Water Rights. A perfected water right is similar to a property right and once a water right is perfected, it cannot be lost as long as the water is used.

South Dakota Water Law 46-5-30.1 requires that a permit holder may not divert water until the License fee has been paid. Please submit the required fees immediately to avoid jeopardizing your water permits.

Very truly yours,

John Hatch, Chief Engineer
Water Rights Division
Phone: (605) 773-3352

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☐ Show to whom delivered, date, and addressee's address. (Extra charge) 2. ☐ Restricted Delivery (Extra charge)

3. Article Addressed to: Nels Sorensen RR 3, Box 23 Vermillion, SD 57069	4. Article Number P 757 566 246 Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail ☐ Return Receipt for Merchandise
5. Signature - Addressee X	Always obtain signature of addressee or agent and DATE DELIVERED.
6. Signature - Agent X	8. Addressee's Address (ONLY if requested and fee paid)
7. Date of Delivery 6-18-92	

PS Form 3811, Apr. 1989 CF - 5538-41-3 DOMESTIC RETURN RECEIPT

RECEIPT

Division of Water Rights

South Dakota Department of Water and Natural Resources

413333

Pierre, July 23, 1992

RECEIVED OF Nels/Linda Sorensen, RR #3 Box 23, 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 works 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>5538-3</u>	50	00
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	50	00

By

John Hatch

Chief Engineer

JOHN HATCH

(gn)



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

NOV 3 0 1992

5538-3
5539-3
5540-3
5541-3

Nels Sorensen
RR 3, Box 23
Vermillion, SD 57069

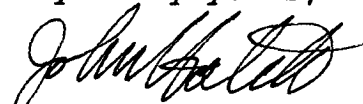
Dear Mr. Sorensen:

Enclosed are Water License Nos. 5538-3, 5539-3, 5540-3 and 5541-3. They are the final water right documents completing your process of obtaining Water Rights. Enclosed are Receipt Nos. 413333, 413334, 413335 and 413336 in the amount of \$50.00 each which you paid for the inspection and issuance of the Water Licenses.

For your information SDCL 46-6-27 requires that if the owner of existing wells, such as the wells authorized by Water Right Nos. 5538-3, 5539-3, 5540-3 and 5541-3, constructs replacement wells and does not plan to use the old wells, the old wells are 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 Licenses, 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

enclosures

NOTE: The applicable portions of Water Permit No. 4983-3 have been incorporated into Water License No. 5538-3; the applicable portions of Water Permit No. 5041-3 have been incorporated into Water License No. 5539-3; the applicable portions of Water Permit No. 5042-3 have been incorporated into Water License No. 5540-3; and the applicable portions of Water Permit No. 5199-3 have been incorporated into Water License No. 5541-3.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

October 26, 2009

Nels J Sorensen
15 Muirfield Ct
Vermillion SD 57069-7077

RE: Irrigation Questionnaires for Water Permit or Right Nos. 5200-3, 5412-3, 5538-3, 5539-3, 5540-3, 5541-3, 5579-3, 6310-3 & 6985-3

Dear Mr. Sorensen:

Enclosed is a "Notice" dated October 16, 2009 concerning the 2009 irrigation questionnaires.

The notice was originally mailed to 2903 Sorensen Ave, Vermillion SD. The post office notified us that your address has changed and I will update our records accordingly.

If you have any questions, please contact me.

Sincerely,

A handwritten signature in cursive script that reads "Genny McMath".

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

enclosures

5538-3



DENR
SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

November 2, 2020

Nels J Sorensen
200 Mickelson Ave
Vermillion SD 57069

RE: Water Right Nos. 5200-3, 5412-3, 5538-3, 5539-3, 5540-3, 5541-3, 5579-3, 6310-3 & 6985-3

Dear Mr. Sorensen:

Enclosed are the irrigation questionnaires originally sent to 15 Muirfield Court in Vermillion.

I will make the changes to your address in our files. If you have any questions, please let me know.

Sincerely,

A handwritten signature in cursive script, appearing to read "Genny McMath".

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