

Considered: _____

WATER PERMIT NO. 1949-2

MAP No. Same

Name of Applicant John Markus

Post Office Address HC 78 Box 33 Crookston, NE

Amount of Water Claimed no add'l Total Acres see 1187-2 & 1547-2

Source of Water Supply Groundwater 2 wells

Water to be used for IRR County Todd

About 7 miles S of Ropebud

PROOF OF PUBLICATION: Received 1st 2-3-86 Not Received _____

APPLICATION: Approved 3/5/86 Subject to _____

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

PRIORITY _____ Date Received 9-17-85 Fee \$50.00 Remarks Application is for change in diversion pt. and additional diversion points.

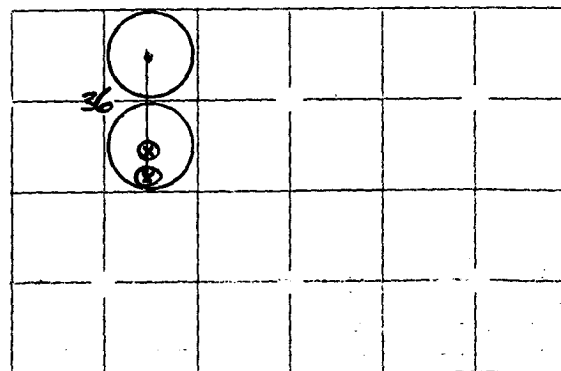
Corrected Application Received _____ Period of Annual Use April to October

WATER QUALITY APPROVAL RECEIVED 11-18-85 APPROVED/CONDITIONAL (Circle one)

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

Diversion Point SE⁴ section 36 T37N-R30W

Land to be Irrigated SE⁴ and NE⁴ sec 36 T37N-R30W



Well Log: Driller Sargent Drig. Licensed YES X NO _____

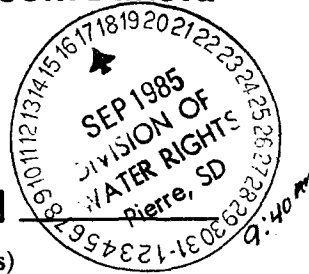
Depth of Well 320 ft. REMARKS _____

Type of Map Aerial Photo PREPARED BY Greg Powell Reviewed and the Number assigned on 11-20-85 By Kevin Larson

No. 1949-2 Hydrologic Unit 10140203
 Map No. Same Basin White River
 Newspaper Todd Co. Tribune Box 229 Mission (Wed)

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

Type of Application: Check one or more of the following;



New ☐ Vested Right ☐ Future Use ☐

☐ Application to amend Permit No. _____ with old priority date retained

☐ Change diversion point(s) ☐ Add diversion point(s) ☐ Change acreage ☐ Other ☐

☒ Application to: ☐ Change use ☒ Change diversion point(s) ☒ Add diversion point(s)

☐ Add Acreage ☐ Increase diversion rate ☐ Other _____ See Permit No. 1187-2, 1547-2

☐ Application to: ☐ Use ☐ Transfer water reserved by Future Use Permit No. _____

1. Name of Applicant John Markus Phone No. (605) 429-3233

Post Office Address Crookston, Nebraska HC 78 Box 33 State 69212
 (Street, R.R. or Box) Zip Code

2. Amount of water claimed (c.f.s.) No Additional Total acres irrigated See permit 1187-2 & 1547-2

3. Source of Water supply groundwater

4. Location of point of diversion Permit No. 1187-2 - Additional Diversion 1320'W and 540'N of SE Corner Section 36, T37N, R30W. Permit No. 1547-2 - Change Diversion 1340'W and 1320'N and Well #2 1320'W and 540'N of SE Corner Sec. 36-T37N-^{R30W} County Todd

5. Counties where water will be used Todd

6. Annual period during which water is to be used Spring thru Fall

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 PERMIT Nos. 1187-2 and	
1547-2	

Land Description	No. Acres Irr.

Attach sheet if more space is needed

8. Give a brief description of proposed project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

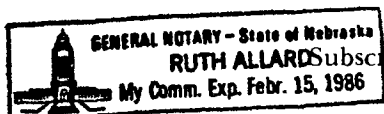
Two wells were developed in the SE $\frac{1}{4}$ of Section 36 T37N R30W. Permit No. 1187-2 and 1547-2 each called for one well in the center of their respective quarters, instead 2 wells were developed in the SE $\frac{1}{4}$ to supply permit No. 1187-2 and 1547-2. No wells were developed in the NE $\frac{1}{4}$ of Section 36 (permit No. 1547-2). Only enough water is supplied from the 2 wells to supply one pivot at a time.

Attachments: Attach Form 2A if diversion from a well or dugout, or if storage of water, is proposed. Attach map (see instruction)

STATE OF SOUTH DAKOTA)
 County of Todd) ss

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

Signed John Markus



Subscribed and sworn to before me this 11 day of Sept 19 85

Ruth Allard
 Notary Public (or other qualified officer)

WATER PERMIT

The Water Management Board hereby approves Water Permit Application No. 1949-2
John Markus HC 78, Box 33, Crookston
(Applicant) (Post Office Address)
Nebraska 69212 With the following qualifications.
(State) (Zip Code)

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.

Date of first receipt of application September 17, 1985.

Date of return to applicant for correction, amendments or changes required _____, 19____.

Date of receipt of corrected application _____, 19____. Approved March 5, 1986.

The Water Management Board hereby approves this Water Permit No. 1949-2 authorizing the construction of the water use system and the placing of water to beneficial use as stated in the Application and as qualified in the Water Permit approval, subject, however, to the following limitations and conditions:

1. The date from which applicant may claim right is June 14, 1974
February 16, 1977.
2. One-fifth of the work is to be completed on or before May 30, 1980.
3. The whole of said work is to be completed on or before November 30, 1982.
4. The time limit for proof of beneficial use of water is November 30, 1982.
5. The water appropriated shall be used for the purpose of irrigation.
6. The prior right of all persons who, by compliance with the laws of the State of South Dakota, have acquired a right to the use of water must not be unlawfully impaired by this appropriation.
7. The amount of the appropriation herein granted shall not exceed no odd 1 cubic feet per second; neither shall it exceed the capacity of the above described water supply system nor shall it exceed the amount of water needed for beneficial uses served. For irrigation purposes said appropriation must be limited to not more than 2 acre feet per acre per year and be limited to not more than one-seventieth (1/70) of one cubic foot of water per second of time for each acre of land to which water is actually and beneficially applied for irrigation on or before November 30, 1982; said water to be used during the following described annual period: Apr 1 - Nov 30.

WATER MANAGEMENT BOARD
 By: John Hatch
Chief Engineer
 Division of Water Rights
 Dept. of Water and Natural Resources
APR 21 1986, 19____

Supplemental Information

(type or print in ink)

1. Well Information - Proposed construction

- a) Drill Hole Diameter 32" Depth 320'
- b) Casing Type steel Diameter 16" Thickness .219
- c) Screen Type steel Diameter 16" Thickness .219
- d) Gravel Pack Thickness _____ Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material 133
- f) Depth of Water (ground surface to water level) 150'
- 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) Outlet Dimensions:

Pipe diameter _____

Spillway width _____

f) X & Y Slope

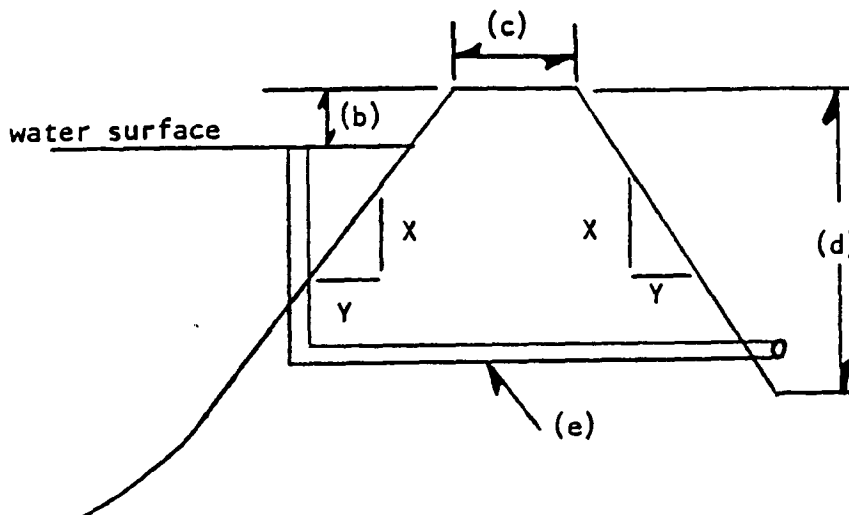
Upstream _____

Downstream _____

Surface Area of Impoundment _____

Storage _____ acre feet

Drainage area above dam _____



John Martin
Signature of Applicant

State of South Dakota
Water License No. 1949-2

(1) John L. Markus
HC 78, Box 33
of Crookston, Nebraska 69212

made Application No. 1949-2, September 17, 1985 for a water permit to appropriate
No. Add'l cubic feet per second of water from groundwater (2 wells),
Todd County, South Dakota for irrigation purposes.

Permit No. 1949-2, with a priority date of June 14, 1974 and February 16, 1977
was approved March 5, 1986 and issued to applicant(s) for diversion of water with construction of the described
water supply system ~~to be completed on or before~~ and for the application to beneficial use of said
water ~~on or before~~ completed.

The applicable portions of Water Permit Nos. 1187-2 and 1547-2 have been incorporated
into this Water License No. 1949-2. A priority date of June 14, 1974 (Permit No. 1187-2)
is retained for a 1.1 cfs diversion rate and a priority date of February 16, 1977
(Permit No. 1547-2) is retained for 1.0 cfs diversion rate.

and

(2) It is certified that the application 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 2.1 cubic feet per second of water
for beneficial use. The location of the diversion point(s) is are Well #1 - 1330'W and 1300'N, Well #2 -
1300'W and 550'N, all of the SE Corner of Section 36, T37N, R30W

and

(3) The applicant has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use to the following extent, to irrigate the following lands all in T37N-R30W

Section 36	NW $\frac{1}{4}$ SE $\frac{1}{4}$	32.2 Acres
	NE $\frac{1}{4}$ SE $\frac{1}{4}$	32.6 Acres
	SW $\frac{1}{4}$ SE $\frac{1}{4}$	33.9 Acres
	SE $\frac{1}{4}$ SE $\frac{1}{4}$	34.0 Acres
	NW $\frac{1}{4}$ NE $\frac{1}{4}$	32.5 Acres
	NE $\frac{1}{4}$ NE $\frac{1}{4}$	31.7 Acres
	SW $\frac{1}{4}$ NE $\frac{1}{4}$	35.8 Acres
	SE $\frac{1}{4}$ NE $\frac{1}{4}$	32.7 Acres
	TOTAL	265.4 ACRES

SE $\frac{1}{4}$ - Priority date of June 14, 1974

NE $\frac{1}{4}$ - Priority date of February 16, 1977

(4) Pursuant to §46-5-30.1 John L. Markus
of HC 78, Box 33, Crookston, Nebraska 69212

the holder(s) and/or owner(s) of Water Permit No. 1949-2 is issued a license to appropriate water, the right to use 2.1 cubic feet per second of water from groundwater (two wells) with a priority date of 1.1 cfs from June 14, 1974 and 1.0 cfs from February 16, 1977 from the location specified in (2) of this license. The water 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 Water Permit No. 1949-2 and subject to South Dakota State Law.


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

JOHN HATCH

JUN 22 1986

Incorporate
Permit No. 1187-2 & 1547-2

1949-2

Water District

Report Of Examination Of Works And/Or Application Of Water To Beneficial Use

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

I have this day made a thorough examination of the water use system constructed by John L. Markus

_____ of Crookston NE holder of

Permit No. 1187-2 & 1547-2, bearing the priority of 6/14/74 2/16/77 19____ authorizing

the diversion of 2.2 & 1.9 cu. ft. per second of the waters of groundwater (Ogallala)

for irrigation purposes, in Todd County.

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

A. Works used to divert the water: Two wells with 16 inch steel casing and a depth of 320 ft. are used. Both wells have Sargent, size 12 EMC pumps. Well #1 produces 500 gpm & well #2 produces 450 gpm. The motors are 75 Hp U.S. Electric.

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

Pipeline - approximately 750 ft of 6" pipe and 2650 ft of 8" pipe.

C. Works used to apply water to beneficial use: Pivot #1 (SE4) is an Electrogator, 8 tower, pivot having 150 foot spacings and Nelson nozzles. Pivot #2 (NE4) is a Valmont water drive having 11 towers with 120 foot spacings and an overall length of 1360 ft.

The system is in the following condition Good

The point of diversion is located well #1 - 1330 ft W & 1300' N and well #2 -
1300 ft W & 550 ft N all of SE corner of sec. 36 T37N R30W

The works are capable of diverting and conveying to the place of use 2.1

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: 2m All in T37N-R30W

NW1/4 SE4 36 - 32.2 Ac NW1/4 NE4 36 - 32.5 Ac

NE1/4 SE4 36 - 32.6 Ac NE1/4 NE4 36 - 31.7 Ac

SW1/4 SE4 36 - 33.9 Ac SW1/4 NE4 36 - 35.8 Ac

SE1/4 SE4 36 - 34.0 Ac SE1/4 NE4 36 - 32.7 Ac

comprising a total of 265.4 2m acres of land and the license should be issued for 2.1 cfs

1.1 cfs - 6/14/74

1.0 cfs - 2/16/77

Applicable permit qualifications have been complied with Yes No

2.1 cfs

Exceptions to compliance are: _____ Date 9-5-85

Only one pivot can be run at a time due to the low production of the 2 wells.

Frank Smith
(signature)

Believed to be inspected in 1982

Inspected by : Frank Smith

LICENSE FOR PERMIT NUMBER 547-2

1. Legal location of wells: 1856' N 45° W of SE corner of 223 36 T27N R30W
well #2 1400' N 68° W of SE corner of 223 36 T27N R30W
dams & structures: _____

2. Well Information: Well Drilling Firm Sargent

No. of wells 2 Depth 250', 300'

Casing a) diameter 16", 16" Screen a) type metal slot
b) length _____ b) length _____
c) type steel Static Water Level _____

Pump a) make Sargent Motor a) make U.S. Electric
b) model #25577 & #25677 b) model no. #R-6326-02-074 R2167072S
c) size 12 FMC c) horsepower rating 75, 75 R2107070S
d) capacity 500, 450 GPM d) motor efficiency rating _____
e) turbine pump
no. of stages 5

3. Distribution lines:
a) size of lines _____
b) type _____
c) length _____

4. Dam information:
a) height to crest _____
b) height to spillway _____
c) crest width _____
d) crest length _____
e) spillway length _____
f) spillway width _____
g) approx. storage _____
h) Distribution lines or canals:
1) size _____
2) type _____
3) length _____

i) Outlet tubes:
1) diameter _____
2) type _____
3) valued (Y/N) _____
4) valve type _____
5) location on structure _____

5. System Type: a) sideroll: b) towline:
1) length _____ feet 1) length _____ feet
2) diameter of pipe _____ 2) make, model & number of sprinklers _____
3) make, model & number of sprinklers _____ 3) spacing of sprinklers _____
4) spacing of sprinklers _____ 4) nozzle size _____
5) nozzle size _____

5. System Type: c) center pivot

- 1) make Valmont - water drive
- 2) number of towers 11
- 3) distance between towers
120'
- 4) overall length 1360'
- 5) End gun (Y/N)
- 6) high or low pressure High
- 7) make & size of nozzles
Nelson
- 8) PSI reading while system is
running 60
- 9) GPM 950

g) Gun

- 1) make
- 2) serial number
- 3) nozzle size
- 4) capacity (GPM)
- 5) PSI
- 6) hose size
- 7) hose length

d) Gate Pipe

- 1) length
- 2) diameter
- 3) spacing of gates

e) Siphons

- 1) number
- 2) size

f) Portable boom

- 1) make
- 2) serial number
- 3) nozzle size
- 4) capacity (GPM)
- 5) PSI

h) Hydromatic

- 1) make
- 2) model
- 3) serial number
- 4) length
- 5) nozzle size
- 6) spacing
- 7) PSI
- 8) capacity (GPM)

YES

NO

Check Items

- | | | |
|----------|---------|---|
| <u>✓</u> | <u></u> | 1. Soil and water permit lands agree with lands being irrigated and lands listed on permit. |
| <u>✓</u> | <u></u> | 2. Special Qualifications to permit being abided by. |
| <u>✓</u> | <u></u> | 3. All Structures, wells and lands on map. |

REMARKS:

LICENSE FOR PERMIT NUMBER 1187-2

1. Legal location of wells: 1856' N 45°W of SE corner of sec 36 T37N R30W
well #2 1400' N 68°W of SE corner of sec 36 T37N R30W

dams & structures: _____

2. Well Information: Well Drilling Firm Sargent

No. of wells 2 Depth 250', 300'

Casing a) diameter 16", 12" Screen a) type slotted
b) length _____ b) length 30'
c) type steel Static Water Level 110', 130'

Pump a) make Sargent Motor a) make LIS Electric
b) model # 25577 ; # 25677 b) model no. R-6326-02-074- R2107072 S
c) size 12 EMC c) horsepower rating 75, 75 R2107070 S
d) capacity 500+450 GPM d) motor efficiency rating _____
e) turbine pump _____
no. of stages 5

3. Distribution lines:

a) size of lines _____
b) type _____
c) length _____

4. Dam information:

a) height to crest _____
b) height to spillway _____
c) crest width _____
d) crest length _____
e) spillway length _____
f) spillway width _____
g) approx. storage _____

- i) Outlet tubes:

1) diameter _____
2) type _____
3) valued (Y/N) _____
4) valve type _____
5) location on structure _____

- h) Distribution lines or canals:

1) size _____
2) type _____
3) length _____

5. System Type: a) sideroll:

1) length _____ feet
2) diameter of pipe _____
3) make, model & number of sprinklers _____
4) spacing of sprinklers _____
5) nozzle size _____

- b) towline:

1) length _____ feet
2) make, model & number of sprinklers _____
3) spacing of sprinklers _____
4) nozzle size _____

5. System Type: c) center pivot

- 1) make Electrojet - CP
- 2) number of towers 8
- 3) distance between towers
150'
- 4) overall length 1200'
- 5) End gun (Y/N) Y
- 6) high or low pressure _____
- 7) make & size of nozzles
Nelson FG
- 8) PSI reading while system is running _____
- 9) GPM 950

g) Gun

- 1) make _____
- 2) serial number _____
- 3) nozzle size _____
- 4) capacity (GPM) _____
- 5) PSI _____
- 6) hose size _____
- 7) hose length _____

d) Gate Pipe

- 1) length _____
- 2) diameter _____
- 3) spacing of gates _____

e) Siphons

- 1) number _____
- 2) size _____

f) Portable boom

- 1) make _____
- 2) serial number _____
- 3) nozzle size _____
- 4) capacity (GPM) _____
- 5) PSI _____

h) Hydromatic

- 1) make _____
- 2) model _____
- 3) serial number _____
- 4) length _____
- 5) nozzle size _____
- 6) spacing _____
- 7) PSI _____
- 8) capacity (GPM) _____

YES

NO

Check Items

✓

1. Soil and water permit lands agree with lands being irrigated and lands listed on permit.

✓

2. Special Qualifications to permit being abided by.

✓

3. All Structures, wells and lands on map.

REMARKS:

LICENSE FOR PERMIT NUMBER 518

1. Legal location of wells: 1650' E & 1360' N of SW corner
of section 31 T37N R29W

dams & structures: _____

2. Well Information: Well Drilling Firm _____

No. of wells 1 Depth 300'

Casing a) diameter 16" Screen a) type metal slot
b) length _____ b) length _____
c) type steel Static Water Level 130'

Pump a) make Sargent Motor a) make U.S. Electric
b) model #32181 b) model no. R-9985-04111 R2145861 M
c) size 11 SA c) horsepower rating 100
d) capacity _____ GPM d) motor efficiency rating
e) turbine pump 93%
no. of stages 5

3. Distribution lines:
a) size of lines _____
b) type _____
c) length _____

4. Dam information:
a) height to crest _____
b) height to spillway _____
c) crest width _____
d) crest length _____
e) spillway length _____
f) spillway width _____
g) approx. storage _____
h) Distribution lines or canals:
1) size _____
2) type _____
3) length _____

i) Outlet tubes:
1) diameter _____
2) type _____
3) valued (Y/N) _____
4) valve type _____
5) location on structure _____

5. System Type: a) sideroll: b) towline:
1) length _____ feet 1) length _____ feet
2) diameter of pipe _____ 2) make, model & number of sprinklers
3) make, model & number of sprinklers _____
4) spacing of sprinklers _____ 3) spacing of sprinklers _____
5) nozzle size _____ 4) nozzle size _____

5. System Type: c) center pivot

- 1) make Valley CP
- 2) number of towers 8
- 3) distance between towers
170'
- 4) overall length 1360
- 5) End gun (Y/N) _____
- 6) high or low pressure _____
- 7) make & size of nozzles _____
- 8) PSI reading while system is running _____
- 9) GPM _____

g) Gun

- 1) make _____
- 2) serial number _____
- 3) nozzle size _____
- 4) capacity (GPM) _____
- 5) PSI _____
- 6) hose size _____
- 7) hose length _____

d) Gate Pipe

- 1) length _____
- 2) diameter _____
- 3) spacing of gates _____

e) Siphons

- 1) number _____
- 2) size _____

f) Portable boom

- 1) make _____
- 2) serial number _____
- 3) nozzle size _____
- 4) capacity (GPM) _____
- 5) PSI _____

h) Hydromatic

- 1) make _____
- 2) model _____
- 3) serial number _____
- 4) length _____
- 5) nozzle size _____
- 6) spacing _____
- 7) PSI _____
- 8) capacity (GPM) _____

YES

NO

Check Items

- | | | |
|-------|-------|---|
| _____ | _____ | 1. Soil and water permit lands agree with lands being irrigated and lands listed on permit. |
| _____ | _____ | 2. Special Qualifications to permit being abided by. |
| _____ | _____ | 3. All Structures, wells and lands on map. |

REMARKS:

Todd

NOTICE OF WELL CONSTRUCTION

36 - 37 - 30

(1) WELL CONSTRUCTION
Location of well: South 1/2 18 1/4 36 Section 17 Township 30 Range S.D.
Well owner: Lawrence Markus Crookston, Nebraska
Date well drilling completed: 4-26-77 Purpose of well: irrigation
(domestic, irrigation, municipal, industrial, other)

WELL LOG	
Length, top to top in feet	Description of layer
0-10	sand
10-19	firm sandstone
19-36	loose sandstone
36-40	firm sandstone
40-55	loose ss & clay
55-57	firm sandstone
57-63	loose sandstone
63-64	hard sandstone
64-73	hard ss & clay streaks
73-113	loose sandstone
113-114	hard ss & clay
114-120	loose sandstone
120-135	loose ss, clay streaks
135-140	hard sandstone

Depth to top of water producing aquifer 151 ft.
Depth to static water level 137 ft.
Name of producing aquifer (if known) _____
Total depth of drill hole 295 ft.
Depth to bottom of casing 295 ft.

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

Casing is 16 inch .219 wall steel casing
144 feet perforated casing and
151 feet plain casing.

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

Perforated casing has 40 mill slots
per foot. Slots are .150 x 3 inches.

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

Sargent Irrigation Company
Name of Drilling Contractor

(2) PUMP INSTALLATION
Company name and size of pump 6" Sargent Pipe HP. 75
Type of pump turbine Capacity of installed pump 450 G.P.M.
Depth of pump placement 250 ft., Date of pump installation 5-13-77

(3) WATER SURFACE MEASURING TUBE
See also units on air-tight water surface measuring tube is required: See Section 48.408 of Chapter 48.4, MINIMUM
WELL CONSTRUCTION STANDARDS.

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

Sargent Irrigation Company
Name of Pump Manufacturer

Lawrence Markus
Crookston, Nebraska

Test Log continued from page 1

140-150	loose sandstone & clay streaks
150-151	hard sandstone
151-155	loose sandstone
155-156	hard sandstone
156-160	loose sandstone
160-180	loose sandstone (good)
180-196	sand & loose sandstone (good)
196-200	hard sandstone & clay streaks
200-221	loose sandstone & clay (poor)
221-229	sandstone & clay
229-240	sand & clay streaks
240-260	firm sandstone & little clay streaks
260-275	firm sandstone (good)
275-276	hard sandstone
276-293	sand & clay
293-300	clay
300-320	red clay & red rock bottom

NOTICE OF WELL CONSTRUCTION

36-37-30

Todd

(1) WELL CONSTRUCTION

Location of well: Center 1/4 S.E. 1/4 36 Section 37 Township 30 Range S.D.

Well owner: Lawrence Markus (Name) Crookston, Nebraska (Address)

Date well drilling completed: 4-21-77 Purpose of well: irrigation (domestic, irrigation, municipal, industrial, other)

WELL LOG

Layers, top to top in feet	Description of layer	Depth to top of water producing aquifer	
0-17	coarse sand	133	ft.
17-20	coarse sand, ss	150	ft.
20-22	sandstone		
22-23	hard sandstone		
23-25	coarse sand		
25-32	hard sandstone		
32-40	sand, ss		
40-50	sand		
50-59	sand, ss		
59-60	hard sandstone		
60-80	sandstone		
80-90	sandstone, hard sand		
90-91	clay streak		
91-100	sandstone (hard)		

Depth to static water level: 150 ft.
Name of producing aquifer (if known):
Total depth of drill hole: 239 ft.
Depth to bottom of casing: 299 ft.

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

Casing is 16 inch .219 wall steel casing
166 feet perforated casing and
133 feet plain casing

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

Perforated casing has 40 mill slots
per foot. Slots are .150 x 3 inches

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

Attach sheet if more space is needed

Sargent Irrigation Company
Name of Drilling Contractor

(2) PUMP INSTALLATION

Company name and size of pump: 6" Sargent Pipe HP 75
Type of pump: turbine Capacity of installed pump: 450 G.P.M.
Depth of pump placement: 260 ft., Date of pump installation: 5-13-77

(3) WATER SURFACE MEASURING TUBE

On some wells an air-tight water surface measuring tube is required: See Section 46.408 of Chapter 46.4, MINIMUM WELL CONSTRUCTION STANDARDS.

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

Sargent Irrigation Company
Name of Pump Installation Contractor

Lawrence Markus
Crookston, Nebraska

Test Log Continued from page 1

100-109	sandstone (hard)
109-111	clay & sand
111-118	sandstone (hard)
118-120	sand & sandstone
120-125	sand & sandstone
125-127	hard sandstone
127-140	sand & sandstone
140-151	sandstone
151-152	hard sandstone
152-159	sandstone
159-171	clay
171-180	hard sandstone & clay
180-200	sandstone
200-215	sandstone & clay streaks
215-236	sandstone & clay streaks
236-240	clay
240-248	clay (sandstone in streaks)
248-249	hard sandstone streaks
249-255	clay
255-256	hard sandstone streaks (good)
256-260	sandstone & clay streaks
260-280	sandstone
280-300	coarse sand
300-320	red clay & sandstone streaks (poor)

SOIL/WATER COMPATIBILITY PERMIT APPLICATION FORM

Division of Conservation

Office Use Only

WR#

OWNERS NAME: John L. Markus OWNERS ADDRESS: HC 78 Box 33
Crookston, Nebraska 69212
 COUNTY LAND LOCATED IN: Todd PHONE: 429-3233
 TENANT'S NAME AND ADDRESS: N/A

LEGAL DESCRIPTION: (Show Legal Description to Nearest 10 Acres)

1. WELL LOCATION Well #1 - 1330 ft W and 1300 ft N and Well #2 - 1300 ft W and 500 ft N
all of SE corner of Section 36 T37N R30W
 Depth 320 ft. The two wells are hooked together and serve one pivot at a time

2. SURFACE WATER SOURCE AND DIVERSION LOCATION: _____
 Diversion Location _____

Legal Description	Acres	Legal Description	Acres
<u>NE 1/4 Sec. 36 T37N R30W</u>	<u>40</u>	<u>NE 1/4 Sec. 36 T37N R30W</u>	<u>40</u>
<u>NE 1/4 " " " "</u>	<u>40</u>	<u>NE 1/4 " " " "</u>	<u>35</u>
<u>SW 1/4 " " " "</u>	<u>40</u>	<u>SW 1/4 " " " "</u>	<u>40</u>
<u>SE 1/4 " " " "</u>	<u>40</u>	<u>SE 1/4 " " " "</u>	<u>40</u>

3. SHOW ANY PORTION OF LAND THAT PRESENTLY HOLDS AN IRRIGATION PERMIT: YEAR OBTAINED 1977

LEGAL DESCRIPTION: SE 1/4 of Section 36 T37N R30W

IN WHAT NAME: John L. Markus

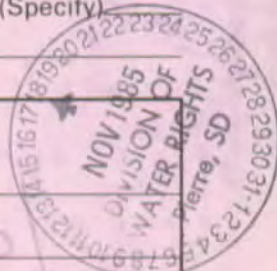
4. LOCATION OF AREA TO BE IRRIGATED NOTE: **SOILS INFORMATION FOR THIS AREA MUST ACCOMPANY THE APPLICATION. (See instruction sheet)**

5. TYPE OF IRRIGATION: GRAVITY: _____ TOWLINE: _____ CENTER PIVOT: X GUN: _____ (Specify) OTHER: _____

6. CROPS TO BE IRRIGATED: corn, alfalfa, forage

WATER QUALITY: (TO BE COMPLETED BY SDSU WATER QUALITY LABORATORY)

7. WATER SAMPLE NUMBER: 77 158 10. ADJUSTED (SAR): _____
 8. SALINITY (EC X 10⁶): 360 11. PERCENT SODIUM: 5.20
 9. SODIUM (SAR): 0.16



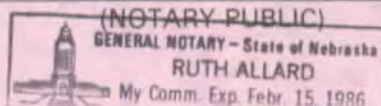
I hereby certify that I personally obtained or that I personally observed that taking of a sample of the water to be used in irrigating the above-described land. I also hereby certify that the required procedures for the taking of the sample (see instruction sheet) were followed, and that the sample was taken at _____ a.m./p.m., on _____, 19____, at the following location: _____
 by (individual who took sample if other than applicant). I also hereby certify that the water sample taken has NOT been adulterated or tampered with in any manner, and is TRULY REPRESENTATIVE of the water which will be used in irrigating the above-described land.

Signature

I understand that the Division of Conservation or agents thereof may obtain water samples from wells and surface bodies to be used for irrigation purposes to validate water samples taken at the time of application. The Department of Agriculture may also gather technical information necessary to protect the land. (46-5-6.4)

SUBSCRIBED AND SWORN BEFORE ME THIS

11 DAY OF April, 1985



IMPORTANT

Action by the Department of Agriculture or the State Conservation Commission is not the final action on any application. In all cases a WATER RIGHT must be obtained from the Board of Water Management, Foss Building, Pierre.

APPLICANT'S SIGNATURE

Director, Division of Conservation

Date

APPROVED

DISAPPROVED

CONDITIONALLY APPROVED

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

SOUTH DAKOTA
Department of
Water & Natural Resources

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

WATER RIGHTS DIVISION
(605) 773-3352

September 5, 1985



John Markus
HC 78 Box 33
Crookston, Nebraska 69212

Dear Mr. Markus:

Enclosed are the applications necessary to correct permits 1187-2 and 1547-2.

There are 3 application forms enclosed.

- 1) Application to Appropriate Water (2 copies)
- 2) Supplemental Information 2A (2 copies)
- 3) Soil/Water Compatibility Permit Application

All of the forms have been filled out. Please check them for accuracy, sign them, and have them notarized. The cost for the Application to Appropriate Water is \$50.00. No water samples are needed for the Soil/Water Application.

Please return all of the forms and, enclose \$50.00 for the application fee to the Division of Water Rights.

If you have any questions, please contact me.

Sincerely,

Greg Powell
Natural Resources Engineer

GP:ms
Enc.

Equal Opportunity Employer

RECEIPT

Division of Water Rights

No 410184

South Dakota Department of Water and Natural Resources

Pierre, September 17, 1985

RECEIVED OF John Markus, HC 78, Box 33, Crookston NE 69212

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 _____	50	00
Fee for Application for Permit No. _____ to Appropriate Water for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
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

Chief Engineer

JOHN HATCH

ks

Straight Approval

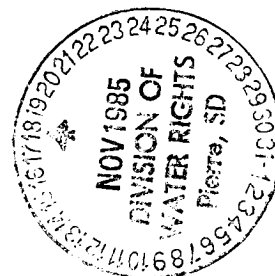
SOUTH DAKOTA DEPARTMENT OF AGRICULTURE
DIVISION OF CONSERVATION

NAME OF APPLICANT: John Markus

LEGAL DESCRIPTION: SE1/4 36 & NE1/4 36-37-40 = 315 acres

SOIL REQUIREMENTS:RECOMMENDED MANAGEMENT:

The soils of this area is dominately sandy in texture and subject to wind erosion and droughtiness. We recommend that as much crop residue be left in the field as possible to improve the water holding capacity of the soil as well as address the soil blowing hazards.



John M. Fyfe
SIGNATURE
11-14-85
DATE

REPORT ON APPLICATION NO. 1949-2

JOHN MARKUS

DECEMBER 6, 1985

Permit No. 1949-2 proposes to change the diversion point of Permit No. 1547-2 from the center of the NE $\frac{1}{4}$ Section 36, T37N, R30W, to a well 1340 feet west and 1320 feet north of the SE corner of Section 36, T37N, R30W. Permit No. 1949-2 also proposes to add a diversion point to Permits No. 1547-2 and 1187-2. The additional diversion point is to be a well located 1320 feet west and 540 feet north of the SE corner of Section 36, T37N, R30W.

Aquifer - High Plains Aquifer

The High Plains Aquifer consists of the hydrologically connected Arikaree Formation, Ogallala Formation, and the Sand Hills Formation. The Arikaree Formation is a massive reddish brown, siltstone and fine to medium grained, poorly cemented, quartz sandstone, which lies unconformably upon the Pierre Shale or White River Group. The Arikaree, known locally as "Red Rock", underlies approximately 738,560 acres of Todd County (Allen, 1984) and is 0-200 feet thick in the area (Rahn, 1979). The Ogallala Formation is a poorly indurated, medium-grained, pure quartz sandstone, which lies unconformably above the Arikaree. Within the Ogallala, zones cemented with calcium carbonate form ledges known as caliche, or mortar beds. The Sand Hills Formation is an unconsolidated windblown sandstone which lies conformably above the Ogallala. This report will consider the Sand Hills as a member of the Ogallala. The Ogallala Formation underlies approximately 412,800 acres of Todd County (Allen, 1984) and is 0-400 feet thick in this area (Rahn, 1979).

The High Plains Aquifer is under water table conditions, contains an estimated 14,599,680 acre feet of recoverable water in storage (Allen, 1984), and has an average saturated thickness of at least 150 feet in this area (Water Rights Division Files, 1985). The static water level for this area is approximately 135 feet below land surface. Rahn and Paul (1975) estimate the average transmissivity of the Ogallala is 36,860 gpd/ft and the average specific yield is 0.0419. They also suggest that any two irrigation wells should have a separation of greater than 7,320 feet, if their radii of influence are not to intersect.

The Division of Water Rights monitors 10 observation wells in Todd County, in the area of principle irrigation. Water level measurements from the observation wells, indicate no areas of significant decline in water levels resulting from irrigation, even where observation wells are located near several high capacity wells.

Review of Existing Permits

The total amount of water appropriated from the High Plains Aquifer, in 1985, from Todd County, was 31,409.50 acre-feet, or 0.22% of the estimated recoverable water in storage. There are 5 permits within three miles of the applicant's wells, they are:

1039-2	Donald Schelhaas	Sec. 2, T36N, R30W
1272A-2	Willis Nelson	Sec. 33, T37N, R29W
1315-2	Lawrence J Markus	Sec. 3, T36N, R30W
1322-2	Charles Rick Johnson, Wally Eklund & David Vroomen	Sec. 28/34, T37N, R30W
1548-2	John L Markus	Sec. 31, T37N, R29W

Conclusions

1. Permit No. 1949-2 proposes to change the diversion point of Permit No. 1547-2 and add an additional diversion point to Permit Nos. 1197-2 and 1547-2. This application does not request any additional water.
2. Permit No. 1547-2 was approved February 16, 1977, and Permit No. 1197-2 water approved July 17, 1974.
3. The applicant's wells have been in existence, and use, for several years with no reported adverse effects.
4. The High Plains Aquifer is a viable source of groundwater, and is not over appropriated.
5. Observation well hydrographs indicate no significant decline of water levels over the aquifer.
6. Observation well hydrographs indicate well spacing is not a critical issue in the High Plains Aquifer in this area.



KENT BUHLER
Natural Resources Engineer

References

- Allen, J.C., Iles, D.L., Peters, A.K., 1984, Analysis of Ground Water and Streamflow Data, Western Dakotas Region of South Dakota: Tasks 3 & 4: Groundwater Resource Inventory: Department of Water and Natural Resources, Division of Geological Survey, Vermillion, South Dakota, 57069; U.S. Army Corp of Engineers Contract No. DAW 45-82-C-0151
- Rahn, P.H., 1979, Ground Water Resources of Western South Dakota, SD School of Mines and Technology, Sponsored by: U.S. Army Corps of Engineers.
- Rahn, P.H., Paul, H.A., 1975, Hydrogeology of a Portion of the Sand Hills and Ogallala Aquifer, South Dakota and Nebraska.
- Division of Water Rights. "Water Permit and Domestic Well Log Files", DWNR, Pierre SD, 1985.

RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT

APPLICATION NO. 1949-2, John Markus

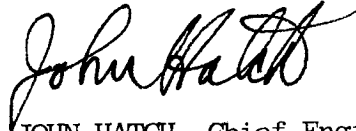
Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Water and Natural Resources concerning Water Permit Application No. 1949-2, John Markus, HC 78, Box 33, Crookston, Nebraska.

The Chief Engineer is recommending APPROVAL of Application No. 1949-2 because 1) the proposed diversions can be developed without unlawful impairment of existing rights, 2) the proposed use is a beneficial use and 3) 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 the attached report for additional information.



JOHN HATCH, Chief Engineer
Water Rights Division
January 13, 1986

Conversation or File Documentation

NAME OF PERSON OR FILE: Water Permit No. 1949-2

ADDRESS: _____ COUNTY _____

DATE: 1-13-86 TELEPHONE _____

RE: _____

COMMENTS:

Application No. 1949-2 retains the priority dates of Permit No. 1187-2 (June 14, 1974) and No. 1547-2 (February 16, 1977). The well driller construction reports for the 2 wells drilled in the $5\frac{1}{2}$ SE⁴ Section 36 and the center of the SE⁴ Section 36, both in T37N-R30W were filed in the Division with no follow up action taken by the Water Rights Division because of the large work load from the large number of applications for water permits being processed. Although the applicant is responsible for making application to change a permit, apparently he did not receive any dissection from the Division and should retain the 1974 priority date. Also the approval of No. 1187-2 ^(SE⁴ Sec. 36) did not limit the number of wells to be constructed.

The ¹⁹⁷⁷ priority for the NE⁴ Section 36 (No. 1547-2) should be retained because Frank Smith, Division Engineer made an inspection of No. 1547-2 in 1982 prior to the end of the 5 year construction period November 30, 1982 and took no follow up action to have the Permit owner submit an application to change the diversion point to the two wells in the SE⁴ Section 36.

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

Application No. 1949-2 is the result of Frank Smith's NAME: John Hatch
4/82 initial inspection in 1982.

No. 1949-2

Instruction to Newspaper - Publish first publication of the following Notice on or before January 22, 1986 with 2nd publication 1 week later. The applicant is responsible for payment.

NOTICE OF HEARING on/^{Water Permit}Application No. 1949-2 to ~~Appropriate Water~~
and/or to Amend Water Permit or Water Right No. _____

Notice is hereby given that John Markus whose mailing address is

~~HC 78, Box 33, Crookston, Nebraska~~, ~~South Dakota~~ has made an application for a permit to change and add diversion points for Water Permits No. 1187-2 and No. 1547-2. No. 1187-2 was approved to irrigate the SE $\frac{1}{4}$ Section 36 from groundwater in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 36, both in T37N-R30W. No. 1547-2 was approved to irrigate the NE $\frac{1}{4}$ Section 36 from a well in the center of the NE $\frac{1}{4}$ Section 36 both in T37N-R30W. This application is to change the diversion point for Permit No. 1187-2 from groundwater in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 36 to two wells 295 and 299 feet deep in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 36 T37N-R30W and to change the diversion point for Permit No. 1547-2 from one well in the center of the NE $\frac{1}{4}$ Section 36 to the above two wells in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 36. The 2.1 cubic feet per second diversion rate is less than the diversion rates authorized by Permits No. 1187-2 and 1547-2. Approval of this application will not appropriate additional water. Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Division recommends

APPROVAL of Application No. 1949-2 because 1) unappropriated water is available, 2) will be no unlawful impairment of existing rights, 3) is beneficial use of water and 4) is in the public interest.

This application will be considered by the Water Management Board at room 216, Joe Foss Building, 523 E. Capitol, Pierre, South Dakota, March 5 1986 at 10:00 am.

The recommendation of the Chief Engineer is not final or binding upon the Board and the Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny this application after it reaches a conclusion based upon facts presented at the public hearing. Any interested person who may be affected by a Board decision and who intends to participate in the hearing before the Board and present evidence or cross-examine witnesses according to SDCL 1-26, must file a written petition with BOTH the applicant and the Chief Engineer by February 21, 1986. The petition may be informal, but it must include a statement describing the petitioners interest in the application, the reasons for the petitioner's opposition to or support of the application, and the signature and mailing address of the petitioner or his legal counsel if legal counsel is obtained. The applicant need not file a petition.

This application is made pursuant to the provisions of 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; ~~(ground)~~ 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14; ~~(future use)~~ 46-5-38 thru 46-5-40; ~~(transfer lands)~~ 46-5-30.4, 46-5-33 thru 46-5-35; ~~(10,000 AFA)~~ 46-5-20.1, 46-5-8.1; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15; ~~(future use)~~ 74:02:01:24 thru 74:02:01:25; ~~(10,000 AFA)~~ 74:02:01:15:02 thru 74:02:01:15:05.

This hearing is an adversary proceeding. The applicant or any person, after filing a petition, 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.

Any person wishing a copy of the Chief Engineer's recommendation, further information on this application or to assure access to the hearing by the handicapped can contact the Water Rights Division, DWNR, Joe Foss Bldg, Pierre SD (605 773-3352) for assistance prior to the hearing date. The time of the hearing will be automatically extended for at least twenty days upon written request of the applicant or any person who has filed a petition to oppose or support the application. The request for extension must be filed with the Chief Engineer by February 21, 1986.

No. 1949-2

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County Todd) ss.

I, Kathy R Klein hereby

certify that the annexed printed copy of Notice of Intent to Appropriate

Water was taken from the Todd County Tribune

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

City of mission

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

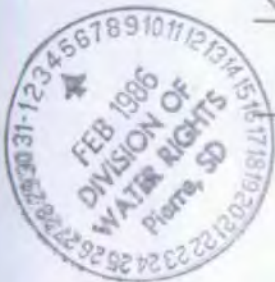
January 22, 1986

January 29, 1986

Kathy R Klein
(Signature)

Bookkeeper
(Title)

1/29/86
(Date Signed)



Cost of Printing: 72 lines @ .365 =

26.28; plus 20% discount for 2nd insertion =

21.02

47.30 total cost

Notice of Hearing

NOTICE OF HEARING ON WATER PERMIT
APPLICATION NO. 1949-2

Notice is hereby given that John Markus whose mailing address is HC 78, Box 33, Crookston, Nebraska, has made an application for a permit to change and add diversion points for Water Permits No. 1187-2 and No. 1547-2. No. 1187-2 was approved to irrigate the SE $\frac{1}{4}$ Section 36 from groundwater in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 36, both in T37N-R30W. No. 1547-2 was approved to irrigate the NE $\frac{1}{4}$ Section 36 from a well in the center of the NE $\frac{1}{4}$ Section 36 both in T37N-R30W. This application is to change the diversion point for Permit No. 1187-2 from groundwater in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 36 to two wells 295 and 299 feet deep in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 36 T37N-R30W and to change the diversion point for Permit No. 1547-2 from one well in the center of the NE $\frac{1}{4}$ Section 36 to the above two wells in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 36. The 2.1 cubic feet per second diversion rate is less than the diversion rates authorized by Permits No. 1187-2 and 1547-2. Approval of this application will not appropriate additional water.

Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Division recommends approval of Application No. 1949-2 because 1) unappropriated water is available, 2) will be no unlawful impairment of existing rights, 3) is beneficial use of water and 4) is in the public interest.

This application will be considered by the Water Management Board at room 216, Joe Foss Building, 523 E. Capitol, Pierre, South Dakota, March 5, 1986 at 10:00 am.

The recommendation of the Chief Engineer is not final or binding upon the Board and the Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny this application after it reaches a conclusion based upon facts presented at the public hearing. Any interested person who may be affected by a Board decision and who intends to participate in the hearing before the Board and present evidence or cross-examine witnesses according to SDCL 1-26, must file a written petition with BOTH the applicant and the Chief Engineer by February 21, 1986. The petition may be informal, but it must include a statement describing the petitioners interest in the application, the reasons for the petitioner's opposition to or support of the application, and the signature and mailing address of the petitioner or his legal counsel if legal counsel is obtained. The applicant need not file a petition.

This application is made pursuant to the provisions of 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.

This hearing is an adversary proceeding. The applicant or any person, after filing a petition, 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.

Any person wishing a copy of the Chief Engineer's recommendation, further information on this application or to assure access to the hearing by the handicapped can



Department of Water & Natural Resources

Joe Foss Building
Pierre, South Dakota 57501

Water Rights Division
605 773-3352

APR 21 1986

John Markus
HC 78, Box 33
Crookston NE 69212

Dear Sir:

Enclosed herewith is your Water Permit No. ~~1949-2~~ as approved by the Water Management Board authorizing your water diversion system and apply the water to beneficial use, not exceeding the limits as specified in said water Right Permit No. ~~1949-2~~.

The final inspection has been completed on this Permit, and we are ready to issue the Water License. Statutes require we charge \$50 for the inspection and issuance of the final papers. Upon receipt of this amount, the final papers will be sent to you.

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Division

JH: ks

enclosure

RECEIPT

Division of Water Rights

South Dakota Department of Water and Natural Resources

410437

Pierre, May 1, 19 86

RECEIVED OF John or Cathy Markus, HC 78, Box 33, Crookston, NE 69212

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>1949-2</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/TMS



Department of Water & Natural Resources

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501

WATER RIGHTS DIVISION
Phone (605) 773-3352

No. 1949-2

1187-2
1547-2

July 23, 1986

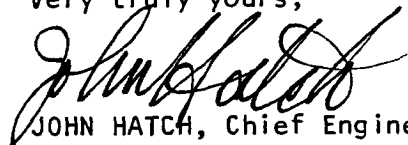
John or Cathy Markus
HC 78, Box 33
Crookston NE 69212

Dear Mr. & Mrs. Markus:

Enclosed herewith is, Water License No. 1949-2. This is the final water right document completing your process of obtaining a water right.

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.

Very truly yours,


JOHN HATCH, Chief Engineer
Water Rights Division

JH:ks

Enclosures

Applicable portions of Water Permits No. 1187-2 and 1547-2 have been incorporated into this Water License No. 1949-2.



January 27, 1992

JOHN L. MARKUS
HC 78 BOX 33
CROOKSTON NE 69212

1949-2

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

NOTICE

**RE: Violation of Water Permit Nos 1548-2, 1949-2 and 1991 Irrigation
Questionnaire Requirements**

Our records indicate that the 1991 Irrigation Questionnaire has not been submitted for Permit Nos 1548-2, 1949-2. The request for the Questionnaires was dated October 18, 1991. The Water Management Board has directed that owners of water permits who have not submitted the 1991 Irrigation Questionnaire be given notice of permit violation and a hearing to be held by the Board. The hearing held by the Board will be to determine if Permit No(s) 1548-2 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) 1949-2 qualification:

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

The hearing will be held at 9:15 am, March 4, 1992, at the 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 SDCL 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:

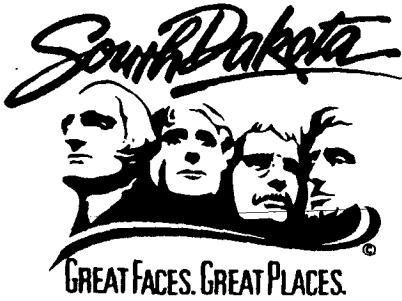
1. Suspend or cancel Permit No(s) 1949-2 in accordance with applicable provisions of SDCL 46-1-12;
2. Amend Permit No(s) 1548-2 to require the Irrigation Water Use Questionnaire to be submitted each year;
3. Postpone any action or take no action.

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 before the March 4th hearing date, you will no longer be in violation of your permit and your name will be deleted from the Board agenda.

Very truly yours,

Ron Duvall, Natural Resources Engineer IV
Water Rights Division
605 773-3352



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

February 12, 1992

1315-2
1548-2
1949-2

John L Markus
HC 78 Box 33
Crookston, NE 69212

Dear Mr. Markus:

I am writing to acknowledge receipt of your 1991 irrigation questionnaires for Water Permit Nos. 1315-2, 1548-2 and 1949-2. You may disregard the January 27, 1992, Notice of failure to submit the 1991 irrigation questionnaire. The questionnaires were received prior to the Water Management Board meeting and your name was deleted from the agenda.

If you have any questions, please contact me at (605) 773-3352.

Sincerely,

Genny McMath
Natural Resources Analyst
Water Rights Division



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

JOHN L. MARKUS - OPERATOR
RR
CROOKSTON NE 69212

NOTICE

Re: Failure to Report Chemical Use under Water Permit No(s) 1315-2; 1548-2; & 1949-2

The first notice to file chemigation report(s) for Permit No(s) 1315-2; 1548-2; & 1949-2 was dated October 18, 1991. Our records indicate that we have not received the 1991 chemigation report for Permits No(s) 1315-2; 1548-2; & 1949-2. The Water Management Board has directed that owners of water permits who have not submitted the 1991 chemigation report(s) be given notice of violation and of hearing before the Board. The hearing held by the Board is to determine what action is to be taken concerning violation of Administrative rule 74:02:09:02(3). This rule requires chemigation users to report the type of chemical applied, the dates, hours and amount of chemical application.

The hearings will be held at 9:15 am, on March 4, 1992, at the Floyd Matthew Training Center, Joe Foss Building, 523 E. Capitol, Pierre SD, and will be conducted pursuant to SDCL 34A-2A through 34A-2A-5; 46-1-12, 46-1-14, 46-2-11, 46-2-17. These are contested case hearings pursuant to SDCL 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 or up to three years for the 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). 1315-2; 1548-2; & 1949-2 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. 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.

Very truly yours,

RON DUVALL, Natural Resources Engineer
for JOHN HATCH, Chief Engineer
Water Rights Division
605 773-3352

NOTE: If the chemigation report(s) is(are) received by this office prior to the March 4, 1992 hearing, you will no longer be in violation and your name will be deleted from the Board agenda.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

February 11, 1992

JOHN L MARKUS - OPERATOR
RR
CROOKSTON NE 69212

Dear Mr. Markus:

I am writing to acknowledge receipt of your 1991 chemigation report for Water Right No(s). 1315-2; 1548-2; & 1949-2. You may disregard the January 27, 1992 Notice of Failure to Report Chemical Use for 1991. With receipt of the chemigation report, your name has been deleted from the March 4, 1992 Water Management Board meeting agenda.

If you have any questions, please contact me at (605) 773-3352.

Sincerely,

A handwritten signature in cursive script, appearing to read "Don Frye".

DON FRYE, Natural Resources Analyst
Water Rights Division



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

January 29, 1993

NOTICE

TO: JOHN L MARKUS - OPERATOR
RR
CROOKSTON, NE 69212

FROM: Ron Duvall, Natural Resources Engineer IV
for JOHN HATCH, Chief Engineer
Water Rights Division

RE: Failure to Report Chemical Use under Water Permit No(s) 1315-2; 1548-2; &
1949-2

The first notice to file chemigation report(s) for Permit No(s) 1315-2; 1548-2; & 1949-2 was dated October 16, 1992. Our records indicate that we have not received the 1992 chemigation report for Permits No(s) 1315-2; 1548-2; & 1949-2. The Water Management Board has directed that owners of water permits who have not submitted the 1992 chemigation report(s) be given notice of violation and of hearing before the Board. The hearing held by the Board is to determine what action is to be taken concerning violation of Administrative rule 74:02:09:02(3). This rule requires chemigation users to report the type of chemical applied, the dates, hours and amount of chemical application.

The hearing will be held at 9:30 A.M. on March 3, 1993, at the Floyd Matthew Training Center, Joe Foss Building, 523 E. Capitol, Pierre, SD and will be conducted pursuant to SDCL 34A-2A through 34A-2A-5; 46-1-12, 46-1-14, 46-2-11, 46-2-17. These are contested case hearings pursuant to SDCL 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 or up to three years for the 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). 1315-2; 1548-2; & 1949-2 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. 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. Prior to February 22, 1993, contact the Water Rights Division, 523 E. Capitol, Pierre, SD 57501-3181 (605 773-3352) to assure access to the meeting room for the handicapped or to obtain an interpreter for the hearing impaired.

NOTE: If the chemigation report(s) is(are) received by this office prior to the March 3, 1993 hearing, you will no longer be in violation and your name will be deleted from the Board agenda.

cc: Lawrence J Markus, HC 78 Box 33, Crookston NE 69212



1949-2

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

January 29, 1993

NOTICE

TO: JOHN L MARKUS
HC 78 BOX 33
CROOKSTON NE 69212

FROM: Ron Duvall, Natural Resources Engineer IV
for JOHN HATCH, Chief Engineer
Water Rights Division

RE: Violation of Water Permit No(s) 1315-2 & 1548-2, 1949-2 and 1992 Irrigation
Questionnaire Requirements

Our records indicate that the 1992 Irrigation Questionnaire has not been submitted for Permit No(s) 1315-2 & 1548-2, 1949-2. The request for the Questionnaires was dated October 16, 1992. The Water Management Board has directed that owners of water permits who have not submitted the 1992 Irrigation Questionnaire be given notice of permit violation and a hearing to be held by the Board. The hearing held by the Board will be to determine if Permit No(s) 1315-2 & 1548-2 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) 1949-2 qualification:

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

The hearing will be held at 9:30 am, March 3, 1993, at the 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 SDCL 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) 1949-2 in accordance with applicable provisions of SDCL 46-1-12;
2. Amend Permit No(s) 1315-2 & 1548-2 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. Prior to February 22, 1993, contact the Water Rights Division, 523 E Capitol, Pierre SD 57501-3181 (605 773-3352) to assure access to the meeting room for the handicapped or to obtain an interpreter for the hearing impaired.

NOTE: If the questionnaires are received in this office before the March 3rd hearing date, you will no longer be in violation of your permit and your name will be deleted from the Board agenda.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

JOHN L MARKUS
HC 78 BOX 33
CROOKSTON NE 69212

4a. Article Number

P906 560 099

4b. Service Type

- | | |
|---|---|
| ☐ Registered | ☐ Insured |
| ☒ Certified | ☐ COD |
| ☐ Express Mail | ☐ Return Receipt for Merchandise |

7. Date of Delivery

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

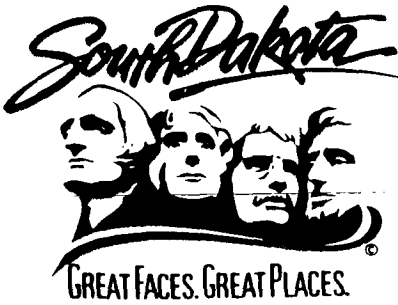
6. Signature (Agent)

John L Markus

PS Form 3811 December 1991 ☆ U.S.G.P.O. : 1992-307-530

DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

February 18, 1993

1315-2
1548-2
1949-2

John L Markus
HC 78 Box 33
Crookston, NE 69212

Dear Mr. Markus:

I am writing to acknowledge receipt of your 1992 irrigation questionnaires. You may disregard the January 29, 1993, **Notice of Violation of Water Permit Nos. 1315-2, 1548-2 and 1949-2.**

The questionnaires were received in our office prior to the Water Management Board meeting, your name has been deleted from the agenda pertaining to the questionnaire violations.

If you have any questions, please contact me.

Sincerely,

Genny McMath
Natural Resources Analyst
Water Rights Division
(605) 773-3352



1949-2

February 4, 1997

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

NOTICE

TO: JOHN L MARKUS, HC 78 BOX 33, CROOKSTON, NE 69212

FROM: Ron Duvall, Natural Resources Engineer
for John Hatch, Chief Engineer
Water Rights Program

SUBJECT: Violation of Water Permit No(s) 1949-2, 1315-2 & 1548-2 and 1996 Irrigation Questionnaire Requirements

Our records indicate that the 1996 Irrigation Questionnaire has not been submitted for Permit No(s) 1949-2, 1315-2 & 1548-2. The request for the Questionnaires was dated October 24, 1996. The Water Management Board has directed that owners of water permits who have not submitted the 1996 Irrigation Questionnaire be given notice of permit violation and a hearing to be held by the Board. The hearing held by the Board will be to determine if Permit No(s) 1315-2 & 1548-2 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) 1949-2 qualification:

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

The hearing will be held at 2:30 pm, March 5, 1997 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) 1949-2 in accordance with applicable provisions of SDCL 46-1-12;
2. Amend Permit No(s) 1315-2 & 1548-2 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, 1997, 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.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

JOHN L MARKUS
HC 78 BOX 33
CROOKSTON NE 69212

4a. Article Number

P 378 081 311

4b. Service Type

- | | |
|---|---|
| ☐ Registered | ☒ Certified |
| ☐ Express Mail | ☐ Insured |
| ☐ Return Receipt for Merchandise | ☐ COD |

7. Date of Delivery

2-7-99

5. Received By: (Print Name)

John Markus

8. Addressee's Address (Only if requested and fee is paid)

6. Signature: (Addressee or Agent)

X Cathy Markus

PS Form 3811, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.

1949-2



February 4, 1997

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

NOTICE

TO: JOHN L MARKUS, HC 78 BOX 33, CROOKSTON, NE 69212

FROM: Ron Duvall, Natural Resources Engineer
for John Hatch, Chief Engineer
Water Rights Program

SUBJECT: Violation of Water Permit No(s) 1949-2, 1315-2 & 1548-2 and 1996 Irrigation Questionnaire Requirements

Our records indicate that the 1996 Irrigation Questionnaire has not been submitted for Permit No(s) 1949-2, 1315-2 & 1548-2. The request for the Questionnaires was dated October 24, 1996. The Water Management Board has directed that owners of water permits who have not submitted the 1996 Irrigation Questionnaire be given notice of permit violation and a hearing to be held by the Board. The hearing held by the Board will be to determine if Permit No(s) 1315-2 & 1548-2 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) 1949-2 qualification:

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

The hearing will be held at 2:30 pm, March 5, 1997 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) 1949-2 in accordance with applicable provisions of SDCL 46-1-12;
2. Amend Permit No(s) 1315-2 & 1548-2 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, 1997, 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.



1949-2

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

February 19, 1997

1315-2

1548-2

1949-2

John L Markus
HC 78 Box 33
Crookston, NE 69212

Dear Mr. Markus:

I am writing to acknowledge receipt of your 1996 irrigation questionnaires and chemical reporting forms. You may disregard the February 4, 1997, **Notices of Violation**.

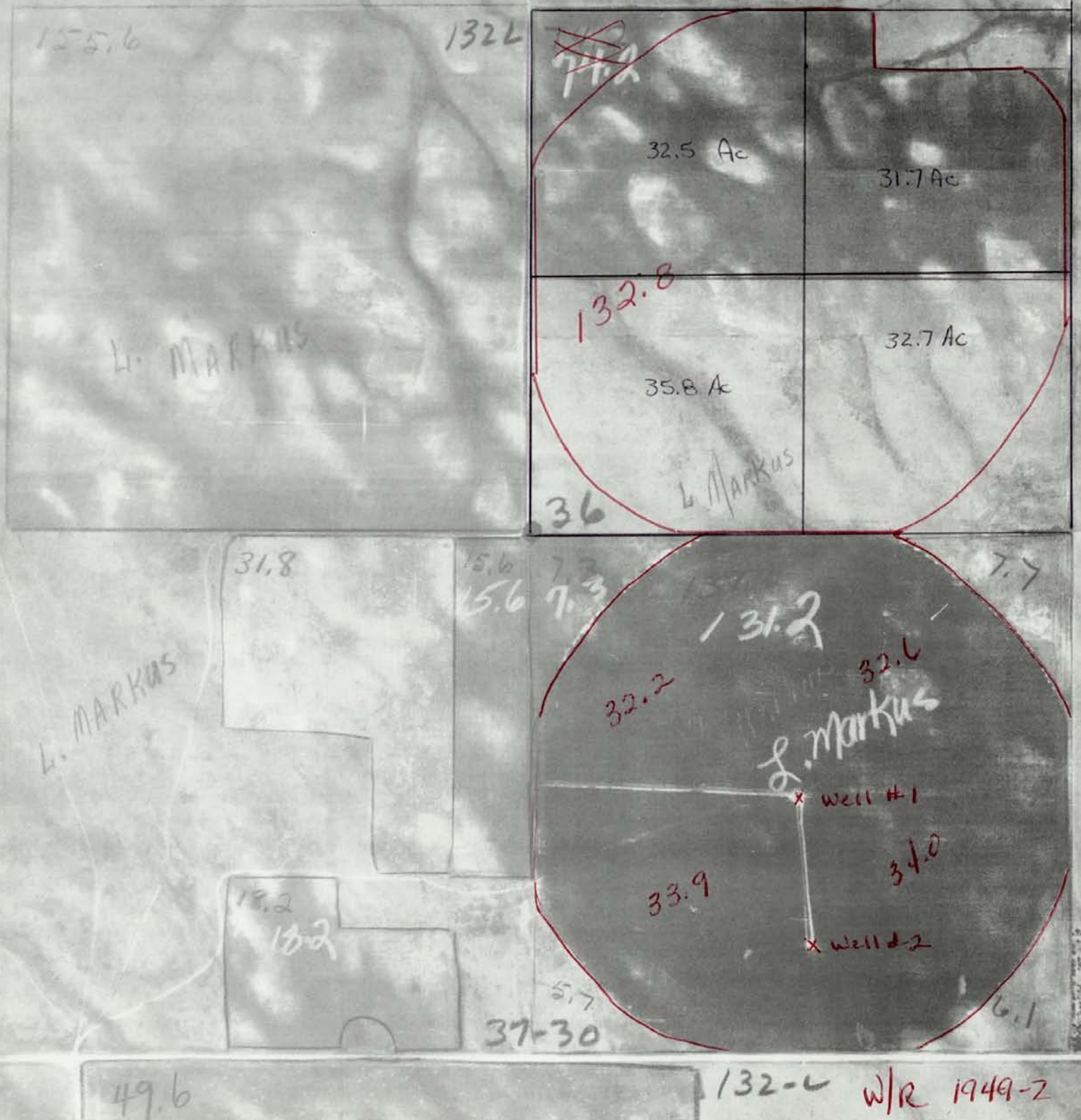
The information was received in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

If you have any questions, please contact me.

Sincerely,

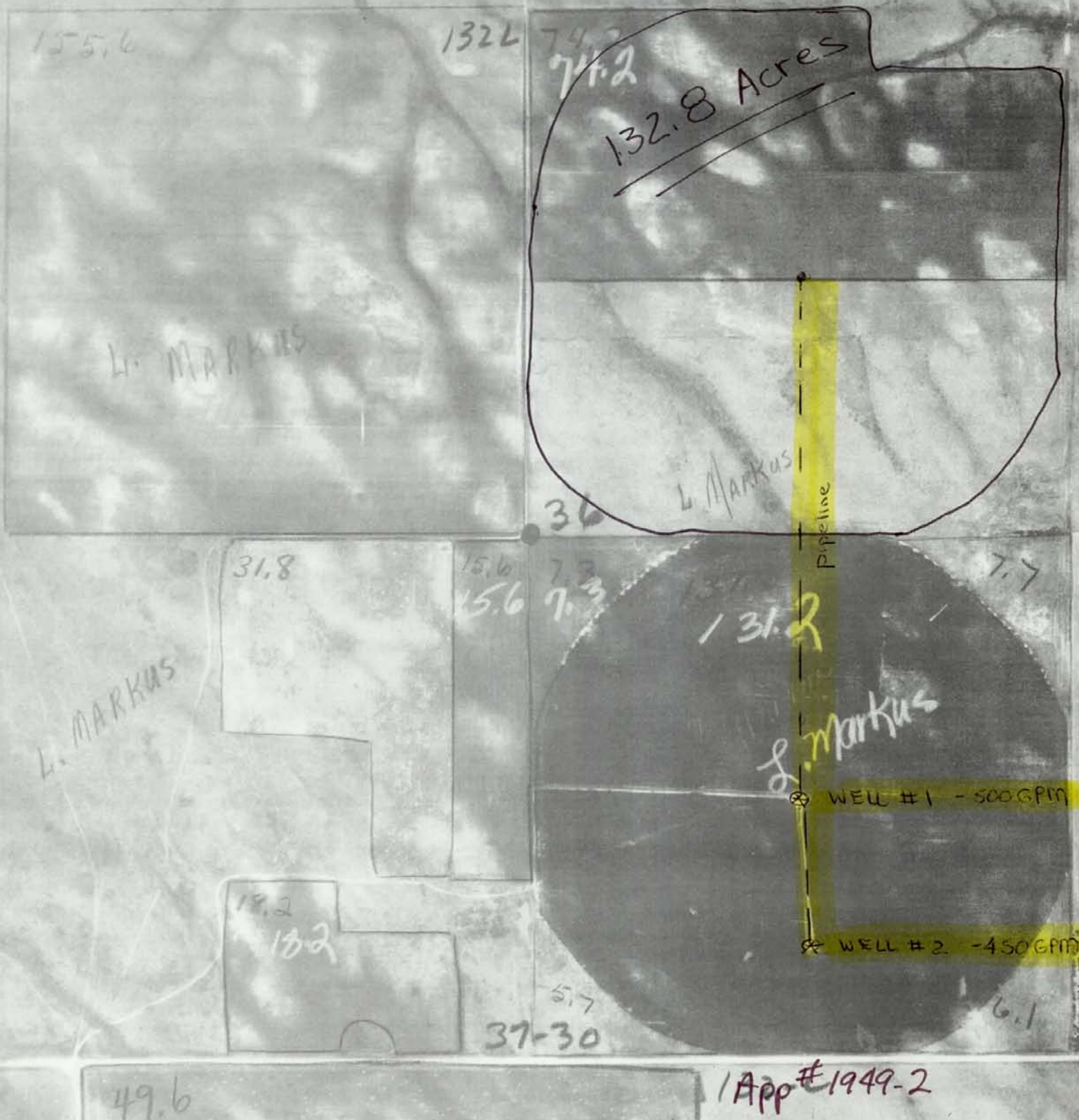
Genny McMath
Environmental Scientist
Water Rights Program
(605) 773-3352

NOT TO SCALE





NOT TO SCALE



STATE OF SOUTH DAKOTA

WATER LICENSE NO. 1949-2

(1) John L Markus, HC 78 Box 33, Crookston NE, 69212 was issued Water License No. 1949-2, June 22, 1986 for a water right to divert 2.10 cubic feet of water per second (cfs) from ground water (two wells – Ogallala Aquifer), Todd County, South Dakota for irrigation purposes. Water License No. 1949-2, with priority dates of June 14, 1974 and February 16, 1977 was issued to the permit holder for diversion of water with construction of the described water supply system and the application to beneficial use of water completed.

Water Right No. 1949-2 originally authorized diversion of water from two wells in the SE ¼ Section 36 to irrigate 265.4 acres in the E ½ Section 36, T37N, R30W. Water Permit No. 2471-2 was later obtained for installation of a well in the NE ¼ Section 36 to irrigate the NE ¼ of the same section. The two quarters are now operated as separate systems. Water License No. 1949-2 is being reissued to remove the NE ¼ of the section (now licensed under No. 2471-2) and will authorize diversion of water from the two wells described below to irrigate the SE ¼.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 1.90 cubic feet of water per second for beneficial use. The location of the diversion points are:

Well #1 – 1,330'W and 1,300'N of the SE corner of Section 36, T37N, R30W (SW ¼ SE ¼);

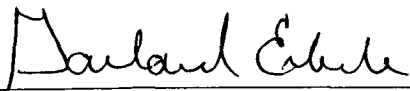
Well #2 – 1,300'W and 550'N of the SE corner of Section 36, T37N, R30W (SE ¼ SE ¼).

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

Section 36, T37N, R30W	NW ¼ SE ¼	32.2 acres
	NE ¼ SE ¼	32.6 acres
	SW ¼ SE ¼	33.9 acres
	SE ¼ SE ¼	34.0 acres
	Total	132.7 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 John L Markus, HC 78 Box 33, Crookston NE 69212 the holder and owner of Water Right No. 1949-2 is issued a license to appropriate water, the right to use 1.90 cubic feet of water per second from ground water (two wells – Ogallala Aquifer) with priority dates of June 14, 1974 (1.1 cfs) and February 16, 1977 (0.8 cfs) from the locations specified in (2) of this license. The water is to be conducted to and upon lands specified in (3) of this license for the irrigation purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 1949-2.



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

APR 20 2007

date





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

APR 20 2007

1949-2
2471-2

John L Markus
HC 78 Box 33
Crookston NE 69212

Dear Mr. Markus:

Enclosed is your Water License No. 2471-2. This is the final water right document completing your process of obtaining a Water Right. Included with the license is a map prepared by the staff engineer who conducted the field investigation.

Also enclosed is Reissued Water License No. 1949-2. The license was reissued to reflect the system as it is now operated.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the well(s) authorized by Nos. 2471-2 and 1949-2, 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



**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 30, 2009

John L Markus
HC 61 Box 10
Merriman NE 69218-9600

RE: Water Right/Permit Nos. 1315-2, 1548-2, 1949-2, 2434-2, 2471-2 and 2559-2

Dear Mr. Marcus:

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

The notice was originally mailed to HC 78 Box 33, Crookston NE. 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,

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

enclosures

1949-2



DENR
SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

January 22, 2021

NOTICE

TO: JOHN L MARKUS, 29861 SD HWY 73, MERRIMAN, NE 69218 6526
FROM: Ron Duvall, Natural Resources Engineer
for Jeanne Goodman, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2020 Irrigation Questionnaires

Our records indicate your 2020 Irrigation Questionnaires have not been submitted. The request for the Questionnaires was dated October 23, 2020. The Water Management Board has directed that owners of water permits who have not submitted the 2020 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) 1315-2, 1548-2 & 2471-2 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) 1949-2 & 2434-2 qualification:

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

The hearing will be held at **Wednesday, March 3, 2021 at 10:00 am (Central Time)** 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) 1949-2 & 2434-2 in accordance with applicable provisions of SDCL 46-1-12;
2. Amend Permit No(s) 1315-2, 1548-2 & 2471-2 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 before the **March 3, 2021** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaires 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: <https://denr.sd.gov/iq> using this password: XJXINK**

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.

1949-2



DENR
SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

February 2, 2021

John L Markus
29861 SD Hwy 73
Merriman NE 69218-6526

RE: Water Right Nos. 1315-2, 1548-2, 1949-2, 2434-2 & 2471-2

Dear Mr. Markus:

I am writing to acknowledge receipt of your 2020 irrigation questionnaires.

You may disregard the January 22, 2021, "Notice" concerning reporting requirements for Water Right Nos. 1315-2, 1548-2, 1949-2, 2434-2 & 2471-2. 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,

A handwritten signature in blue ink that reads "Genny McMath".

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

1949-2



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

January 20, 2022

NOTICE

TO: JOHN L MARKUS, 29861 SD HWY 73, MERRIMAN, NE 69218 6526

FROM: Ron Duvall, Water Rights Permitting Administrator
for Eric Gronlund, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2021 Irrigation Questionnaires

Our records indicate your 2021 Irrigation Questionnaires have not been submitted. The request for the Questionnaires was dated October 22, 2021. The Water Management Board has directed that owners of water permits who have not submitted the 2021 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) 1315-2, 1548-2 & 2471-2 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) 1949-2 & 2434-2 qualification:

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

The hearing will be held at **Wednesday, March 2, 2022 at 9:30 am (Central Time)** 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) 1949-2 & 2434-2 in accordance with applicable provisions of SDCL 46-1-12;
2. Amend Permit No(s) 1315-2, 1548-2 & 2471-2 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 before the **March 2, 2022** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaires 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: <https://danr.sd.gov/iq> using this password: SSNZSH**

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.

1949-2



DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES
JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

February 7, 2022

John L Markus
29861 SD Hwy 73
Merriman NE 69218 6526

RE: Irrigation Questionnaires for Water Right Nos. 1315-2, 1548-2, 1949-2, 2434-2 & 2471-2

Dear Mr. Markus:

I am writing to acknowledge receipt of the information for your 2021 irrigation questionnaires. I completed forms for you based on my conversation with Mrs. Markus.

You may disregard the January 20, 2022, "Notice" concerning reporting requirements for Water Right Nos. 1315-2, 1548-2, 1949-2, 2434-2 & 2471-2. 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
Genny.mcmath@state.sd.us



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

January 19, 2024

NOTICE

TO: JOHN L MARKUS, 29861 SD HWY 73, MERRIMAN, NE 69218 6526

FROM: Ron Duvall, Engineer III
for Eric Gronlund, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2023 Irrigation Questionnaires

Our records indicate your 2023 Irrigation Questionnaires have not been submitted. The request for the Questionnaires was dated October 20, 2023. The Water Management Board has directed owners of water permits who have not submitted the 2023 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) 1315-2, 1548-2 & 2471-2 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) 1949-2 & 2434-2 qualification:

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

The hearing will be held at **Wednesday, March 6, 2024 at 9:30 am (Central Time)** 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) 1949-2 & 2434-2 in accordance with applicable provisions of SDCL 46-1-12;
2. Amend Permit No(s) 1315-2, 1548-2 & 2471-2 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 before the **March 6, 2024** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaires for your use. If you have questions or need assistance, please contact Amanda Dewell at (605) 773-3352 or email at amanda.dewell@state.sd.us. **If you prefer, you can complete the questionnaire online at the following link: <https://danr.sd.gov/iq> using this password: EXCABH**

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 AGRICULTURE
and NATURAL RESOURCES**

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

January 23, 2024

1315-2, 1548-2, 1949-2,
2434-2 & 2471-2

John L Markus
29861 SD HWY 73
Merriman NE 69218

Dear Mr. Markus:

I am writing to acknowledge the receipt of your 2023 irrigation questionnaire(s).

You may disregard the January 19, 2024, "Notice" concerning the reporting requirements for Water Permit No(s). 1315-2, 1548-2, 1949-2, 2434-2 & 2471-2. The information was received prior to the March 6, 2024, Water Management Board meeting and these permit number have been removed from the agenda.

If you have any questions, please contact me.

Sincerely,

Amanda Dewell
Water Rights Program
605 773-3352
Amanda.Dewell@state.sd.us

Cc: Julie Battershaw-Fernau, Western Oil Inc & Western Oil Trans Inc.