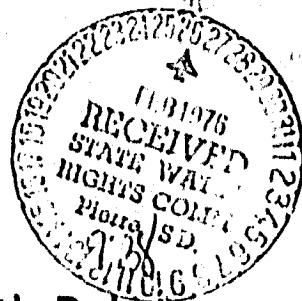


Water Right Number 2592-3

March 17 1976

1. Considered _____, 19____
2. Name of Applicant Clayton H. Kloss
3. Post Office Address Tulare, S.D.
4. Amount of water claimed 2.0
5. Source of water supply ground water (68' WELL)
6. Water to be used for irrigation
Acres to be irrigated 140
7. Water to be diverted and used in Spink County
about 15.3E Miles 1 of TULARE
8. Proof of Publication Received 1st 3.24.76
Not received _____
9. Application Approved _____
Subject to _____
Not approved _____
Action deferred _____

10. Remarks:

No. 2592-3Map No. 1960-3 Water Division No. 3 JAMES RIVER District
(Blanks to be Filled by the Engineer for the W. R. C.)

APPLICATION FOR PERMIT

To Appropriately Water within the State of South Dakota

(NOTE - Draw a line through items not applicable)

1. Name of Applicant Clayton H. Klass
 Postoffice address Tulane, State South Dakota 57426
 If a corporation show date and place of incorporation _____

2. Method of accomplishing work (contract, employment of others, or by direct labor) Direct labor3. Name of diversion work Clayton H. Klass, Unit No. 14. Amount of water claimed (cubic feet per second) 2.05. Source of water supply ground water6. Location of point of diversion A POINT IN THE SE¹ NE⁴ SECTION 31, T15N, R13W7. Annual period or periods during which water is to be used April - October County Spink8. Use to be made of water, (irrigation, industrial, municipal, commercial, recreation, etc.) Irrigation9. For irrigation use, Total number of acres to be irrigated 140

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

Land Description	No. Acres Irr.	Land Description	No. Acres Irr.
NW 1/4 31-11.5-63	4		
SW 1/4 31-11.5-63	28		
NE 1/4 31-11.5-63	16		
SE 1/4 31-11.5-63	92		

Attach sheet if more space is needed

10. Time required to complete construction of water supply system 5 years. Additional time required to complete application of water to the proposed beneficial use 211. Choice of newspaper for Notice of Intent to Appropriately Water publication Daily Plain Dealer, Huron, SD. 57350

12. Principal Features of the Proposed Water Supply System.

A. Works proposed to divert water from its natural source.

Bowl Pump

B. Works proposed to transport water to place of use.

Main line

C. Works proposed to apply water to beneficial use.

Center Pivot

Estimated Total Cost \$ _____

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

STATE OF SOUTH DAKOTA

County of SpinkI, Clayton H. Klass the applicant, certify that I have read the foregoing application and have examined the attached map and that the matters therein stated are true and that I intend, and am able to complete the necessary construction.Signed Clayton H. KlassSubscribed and sworn to before me this 4 day of December, 19 76

Notary Public (or other qualified officer)

Corrine J. Jorgensen 11-1-76

WATER RIGHT APPLICATION APPROVAL

The Water Rights Commission hereby approves Water Right Application No. 2592-3CLAYTON H. KLOSS

(Applicant)

TULARE

(Post Office Address)

SOUTH DAKOTA 57476

(State)

With the following modifications:

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

Date of first receipt of application FEBRUARY 26, 1976Date of return to applicant for correction, amendments or changes required —, 19—Date of receipt of corrected application FEBRUARY 27, 1976Approved MARCH 18, 1976, Recorded in Book 15 Page 17WATER RIGHT PERMIT NO. 2592-3

The Water Rights Commission hereby grants and issues this Water Right Permit No. 2592-3 authorizing the construction of the water use system and the putting of water to beneficial use as stated in the Application and as modified in the Water Right Application approval, subject, however, to the following limitations and conditions:

1. The date from which applicant may claim right is FEBRUARY 26, 1976
2. The equivalent of at least one-fifth of the work above specified is to be completed on or before SEPTEMBER 18, 1978
3. The whole of said work is to be completed on or before MARCH 18, 1981
4. The limit of time from proof of beneficial use of water appropriated in accordance herewith is MARCH 18, 1983
5. The water appropriated shall be used for the purpose of IRRIGATION

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

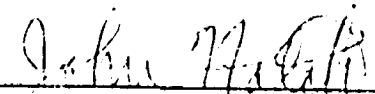
7. The amount of the appropriation herein granted shall not exceed 2.0 cubic feet per second; neither shall it exceed the capacity of the above described water supply system, nor shall it exceed the amount of water needed for beneficial uses served, and if for the irrigation purposes said appropriation must be limited to not more than 3 acre feet per acre per year and be limited to not more than one-seventieth (1/70) of one cubic foot of water per second of time for each acre of land to which water is

actually and beneficially applied for irrigation on or before MARCH 18, 1978; said water to be used during the following described annual period: APRIL THRU OCTOBER

Witness my hand this 24TH day of MARCH, 1976

WATER RIGHTS COMMISSION

By:


 Chief Engineer, Executive Officer
Certificate of Construction Issued —, 19—Water License Issued —, 19—

HURON DRILLING INC. DRILLERS LOG

PAGE NO.

Jt No.		DEPTH	TIME	Unit # 1	REMARKS	DESCRIPTION
1		20		0-20 Yellow Clay		
2		35		20-31 Yellow Clay		
3		50	Cased to	31-35 Med. Sand		
4		65	63	35-50 Coarse Sand w/coal		
				50-60 Coarse Sand		
				60-65 Blue Clay		
				65-68 Sandy Blue Clay		
				68-80 Shale		
				30 ft. Slotted 4" PVC		
				33 ft. Blank 4" PVC		
				Pumped 15 GPM		
				Waterhead 30 ft.		
				1500 lbs. Concrete Sand		
				1 used 5" Drag Bit		
				1 used 7-7/8" Roller Bit		

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

D. Well Information or Estimates

- (1) Drill Hole, Diameter _____, Depth _____
- (2) Casing, Type _____, Diameter _____, Thickness _____
(wood, concrete, steel, etc)
- (3) Perforated Screen.
Type _____, Diameter _____, Length _____
- (4) Gravel Pack, Thickness _____, Length of gravel pack _____

E. Dugout Information or Estimates

- (1) Surface dimensions _____, Depth _____

F. Fill out for Either a Well or a Dugout. *Log will be furnished by driller.*

- (1) Water Bearing Materials. (Please attach a copy to test well log if available.)
Character of Water bearing materials _____

Depth to top of water bearing material _____
Depth to bottom of water bearing material _____
Thickness of water bearing material _____
Depth to water (ground surface to water level) _____
- (2) Distance to nearest existing household or livestock watering wells.
On same owner's property 63 rds. On property owned by others 350 rds.

G. Water Storage Dams.

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

X. [Signature]
Signature of Applicant

Dear Mr. Kloss:

I am also enclosing a copy of AES publication #13 showing the approximate quality of this water on the outside back cover in the quality chart. The red cross indicates that it is in the high salinity, low sodium category.

This quality of water has practically no sodium hazard, that is, no possibility of causing soil structural deterioration and loss of its desirable physical properties. However, there is a considerable hazard in the salt content of this water, that is, that it may cause a gradual build-up of salinity in the surface soil and finally be detrimental to crop growth. This may take 6 years or 16 years, or even longer. It will depend on your management of the water. If you irrigate with frequent, light applications, it will definitely hasten the occurrence of this salt problem. I would recommend that you irrigate these soils with a minimum of 3 inches at any one time and that you use this water no more often than 3 times in any growing season. You also may need to irrigate very late in the fall, just before freeze-up, to encourage the leaching of salts, through winter and spring precipitation.

Perhaps some of the information in the publication I am sending you will help you in your management of this water.

I am sending the application materials, and a copy of the water analysis, plus a copy of this letter, to the State Conservation Commission for their action.

You are aware that there are several areas of Tetonka and Tetonka poorly drained phase in this land you propose to irrigate. They will experience a water table rise after some irrigation and when that occurs, salt would be brought to the surface. You would benefit, perhaps before you start out, by finding a way to drain these Tetonka areas or else grade the land so the depressions are pretty well filled with soil from other areas.

Sincerely yours,

L. C. Fine
Water Quality Lab
Enclosures

cc: State Conservation Commission, D. Pahl, Robert Sampson, Huron Drilling Co.
LOF:cko

CONSERVATION
COMMISSION
FORM W1 #1

STATE CONSERVATION COMMISSION
SUPPORTING INFORMATION
FOR APPROPRIATION OF GROUND WATER IN ACCORDANCE
WITH SDCL 46-6-3 AS AMENDED
(THIS FORM REQUIRED FOR PROPOSED GROUND WATER IRRIGATION ONLY)

NAME Clayton H. Kloss
ADDRESS Tulare, S. Dak. 57426
COUNTY Spink

LEGAL DESCRIPTION

1. WELL LOCATION: NE $\frac{1}{4}$ of NE $\frac{1}{4}$ -31-115-63
2. LOCATION OF AREA TO BE IRRIGATED: NE $\frac{1}{4}$, NE $\frac{1}{4}$, SW $\frac{1}{4}$, SE $\frac{1}{4}$ S-31-115-63

TYPE OF IRRIGATION

3. GRAVITY _____ TOWLINE _____ CENTER PIVOT ☒ GUN _____
4. CROPS TO BE IRRIGATED alfalfa, corn, small grain

WATER QUALITY

5. SAMPLE NUMBER 76-116
6. SALINITY (EC X 10⁶) 1771 (high)
7. SODIUM (SAR) 1.81 (low)
8. RESIDUAL SODIUM CARBONATE (meq/l.) 0

I do hereby certify that a chemical analysis of the ground water representative of that used to irrigate shall be acquired from South Dakota State University and:
the soils information has been acquired from _____ Conservation District,
County Extension office or Soil Conservation Service.
and:
that the legal description for the location of the well and land to be irrigated is true
and correct.

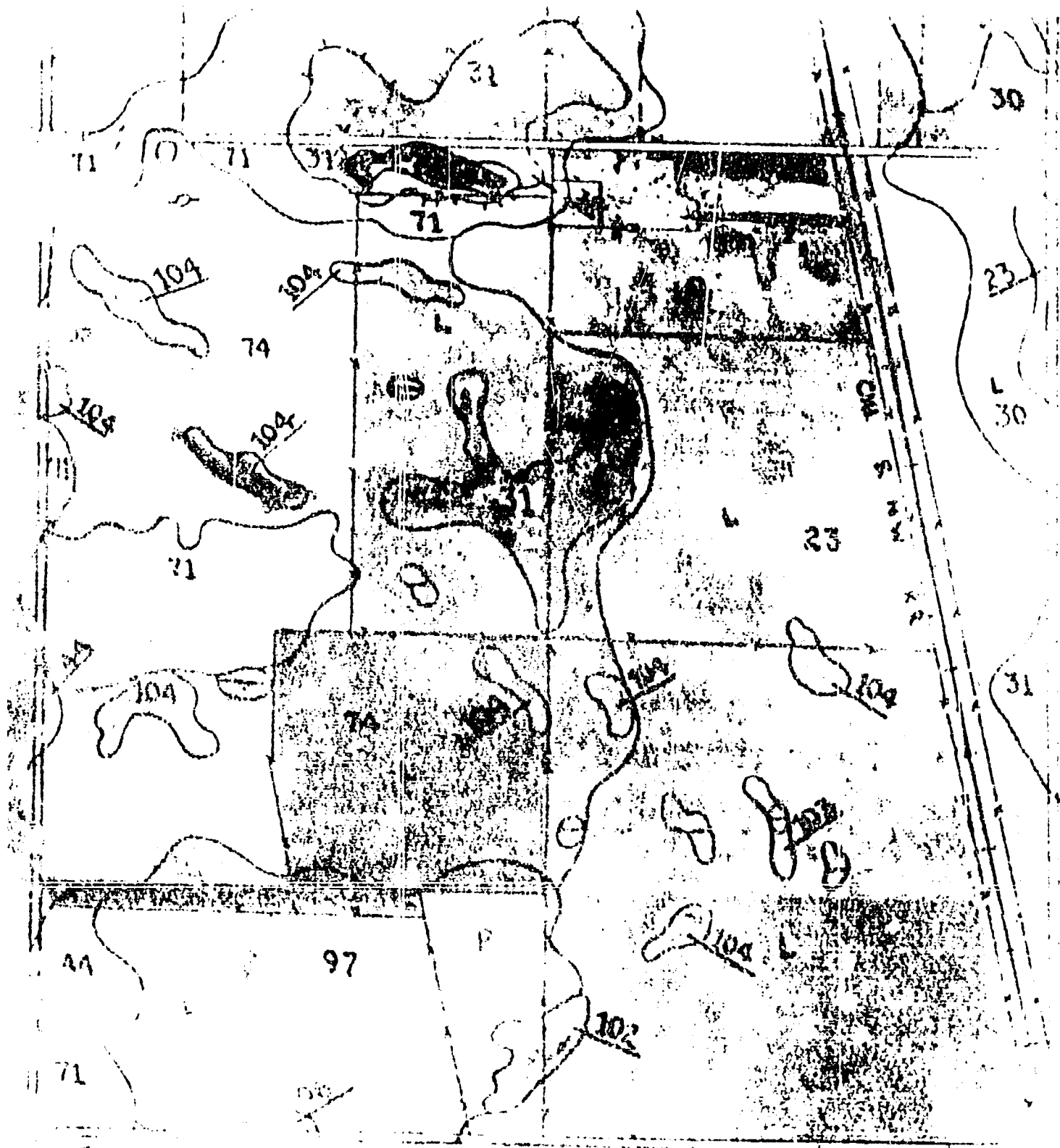
Clayton H. Kloss
APPLICANT'S SIGNATURE

SUBSCRIBED AND SWORN BEFORE ME THIS
14 DAY OF January 1976.

Donna A. Olsky
(TITLE OR SEAL)

Albert J. J. J.
APPROVED BY _____

Donna A. Olsky
(SOILS INFORMATION ON REVERSE SIDE)



CR 1000

T115N

R63W

S31

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Redfield, South Dakota 57469

February 12, 1976

Huron Drilling
Box 1422
Huron, South Dakota 57350

Dear Sirs:

These are soils descriptions for Clayton Kloss land as
requested for soils No. 23 and 74.

23 - II c3 - Bonilla-Houdek loams

Deep, loamy, well to moderately well drained soils in
upland swales that receive beneficial moisture.
However, moisture is still inadequate in most years.

74 - III c6 - Houdek-Bonilla fine sandy loams.

Deep and moderately deep, moderately sandy soils on
gently undulating (2 to 6%) uplands and eroded phases
of these soils on nearly level (0 to 2%) uplands.
They have a severe wind erosion hazard.



1720

119.9

63.0

42.4

135.6

60.0

11.0
Bike
172

115.63

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

Submitted by: Clyton Kloss
 Address: Tulsa, SD 57476
Huron Drilling, Inc.
P.O. Box 1422
Huron, SD 57350

Date Rec'd February 18, 1976
 Sample No. 76-116
 Identification 1 Well
NE 1/4, Sec. 31, T 115N, R 63W

WATER ANALYSIS

Calcium (Ca)	290	ppm*	14.50	me/l**
Magnesium (Mg)	79	ppm	6.48	me/l
Sodium (Na)	135	ppm	5.87	me/l
Potassium (K)	9	ppm	0.23	me/l
Sulfate (SO ₄)	875	ppm	18.20	me/l
Nitrate (as N)		ppm		me/l
Chloride (Cl)	36	ppm	1.02	me/l
Bicarbonate (HCO ₃)	268	ppm	6.40	me/l
Carbonate (CO ₃)		ppm		me/l
Iron (Fe)		ppm		me/l
Fluoride (F)		ppm		me/l
Hardness (EDTA as CaCO ₃)		ppm		g.p.g.***
Alkalinity (Methyl Orange)	220	ppm (as CaCO ₃)		
Alkalinity (Phenolphthalein)	0	ppm (as CaCO ₃)		
Electrical Conductivity	1771	micromhos per cm at 25° C.		
Sodium Adsorption Ratio	1.81			
Sodium	21.67	% of cations		
Residual sodium carbonate	0.00	me/l		
pH	6.80			

Others:

*ppm=parts per million

**me/l=millequivalents per liter

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

COMMENTS: Total cations 27.08 me/l
 Total anions 23.62 me/l

By: Shirley Mitten

Service Performed

Amount Due

Irrigation analysis

\$8.00 PAID

Make checks payable to: Water Quality Laboratory

Cut along dotted line and return the lower portion with payment

Sample No. 76-116

Amount Enclosed \$

Signed

Form 6 - Notice of Intent to Appropriate Water

No. 2492-3

Publish first publication, on or before March 5, 19 76

NOTICE
INTENT TO APPROPRIATE WATER

Pierre, South Dakota 57501

March 1, 19 76

Notice is hereby given that Clayton H. Kloss
whose post office address is Tulare, South Dakota, has made an application in accordance
with the provisions of the water laws of South Dakota for a permit to appropriate for beneficial use
2.0 cubic feet of water per second of time from the ground water through the
Kloss Project #1, the point of diversion of which is to be located in the _____

SE 1/4 NE 1/4

of Section 31, Twp. 118N, Range R63W. Said water to be used for the purpose
of providing irrigation on ^{portions of} the following described land:

a 140 acre circle near the center of Section 31, T118N, R63W

This application No. 2492-3 will be considered by the Water Rights Commission at their office at
Pierre upon the 17th day of March, 19 76, at 1:00 P. M. All interested
persons may appear and be heard.

WATER RESOURCES COMMISSION

By:

BURTON F. JONES
Water Rights Specialist

BFJ/hw
cc:

Clayton H. Kloss, Tulare, S.D. 57476

Form 8 - Proof of Publication - Notice of
Intent to Appropriate Water

No. 102 2592-3

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County Beadle) ss.

I, Dorothy Murphy hereby

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

Water was taken from the Huron Daily Plainsman

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 Huron of _____

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

March 11, 1976

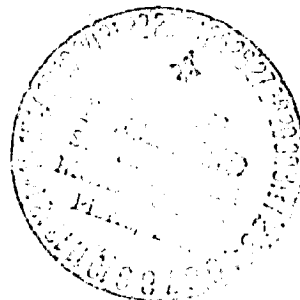
March 20, 1976

Dorothy Murphy
(Signature)

Dorothy Murphy
(Title)

March 11, 1976
(Date Signed)

F.P. 3476 L.P. 31176
NOTICE INTENT TO
APPROPRIATE WATER
Pierre, South Dakota 57501
March 11, 1976
Notice is hereby given that
Clayton H. Kloss, whose post office
address is Tulsa, South Dakota, has
made an application in accordance
with the provisions of the water laws
of South Dakota for a permit to
appropriate for beneficial use 2.0
cubic feet of water per second of
time from ground water through the
Kloss Project No. 1, the point of
diversion of which is to be located in
the SE 1/4 NE 1/4 of Section 31, T4N,
R63W, Range 63W. Said water to be
used for the purpose of providing
irrigation on portions of the
following described land: a 140 acre
circle near the center of Section 31,
T4N, R63W.
This application No. 2492-3 will be
considered by the Water Rights
Commission at their office at Pierre
upon the 17th day of March, 1976, at
1:00 p.m. All interested persons may
appear and be heard.
WATER RESOURCES
COMMISSION
By: BURTON F. JONES
Water Rights Specialist
No. 102 (adv.)



Form 10.

No.

2592-3

NOTICE OF COMPLETION OF WORKS AND/OR APPLICATION OF WATER TO BENEFICIAL USE
DEPARTMENT OF NATURAL RESOURCE DEVELOPMENT
DIVISION OF WATER RIGHTS
JOE FOSS BUILDING
PIERRE, SOUTH DAKOTA 57501

Post Office

Tulsa, S.D.

Date

Feb 18, 1977

TO: Water Resources Commission
State Office Building No. 2
Pierre, South Dakota 57501

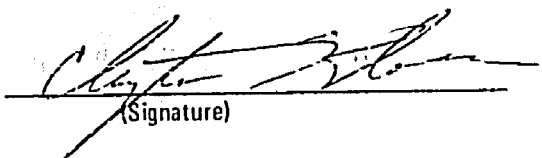
Dear Sirs:

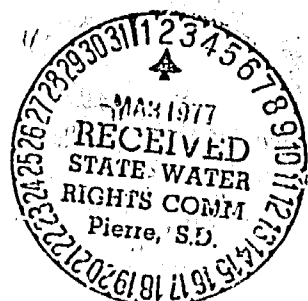
This is to inform you that I have completed the construction of the water diversion system and/or that I have put the water to beneficial use to the maximum extent it is going to be used, not exceeding the amounts as specified in Water Right Permit No. 2592-3.

Water Right Permit No. 2592-3 states that the diversion system is to be constructed by March 18, 1981 and that the water is to be put to beneficial use by March 18, 1983.

The diversion system was completed on July, 1976. Applying the water to beneficial use was completed on July 17, 1976.

You may schedule an inspection so that the Certificate of Construction and/or the Water License may be issued, thus completing my acquisition of a water right.


(Signature)



State of South Dakota
Water License No. 2592A-3

(1) Clayton H Kloss
of RR 1, Box 9, Tulare SD
made Application No. 2592A-3, February 14, 1955 for a water permit to appropriate
no add'l cubic feet per second of water from groundwater (3 wells)
Spink County, South Dakota for irrigation purposes.
Permit No. 2592A-3, with a priority date of February 26, 1976
was approved May 15, 1935 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 _____.

Water Permit No. 2592A-3 was approved to amend Permit No. 2592-3 to relocate
a diversion point and to add three wells.

The applicable portions of Water Permit No. 2592-3 have been incorporated
into this Water License No. 2592A-3. A priority date of February 26, 1976
(Permit No. 2592-3) will be retained.

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 1.00 cubic feet per second of water
for beneficial use. The location of the diversion point(s) is are #1 - 1122'W and 170'S;
#2 - 450'W and 165'S; #3 - 200'W and 130'S; #4 - 240'W and 70'S;
all from the NE corner of Section 31, T115N, R63W

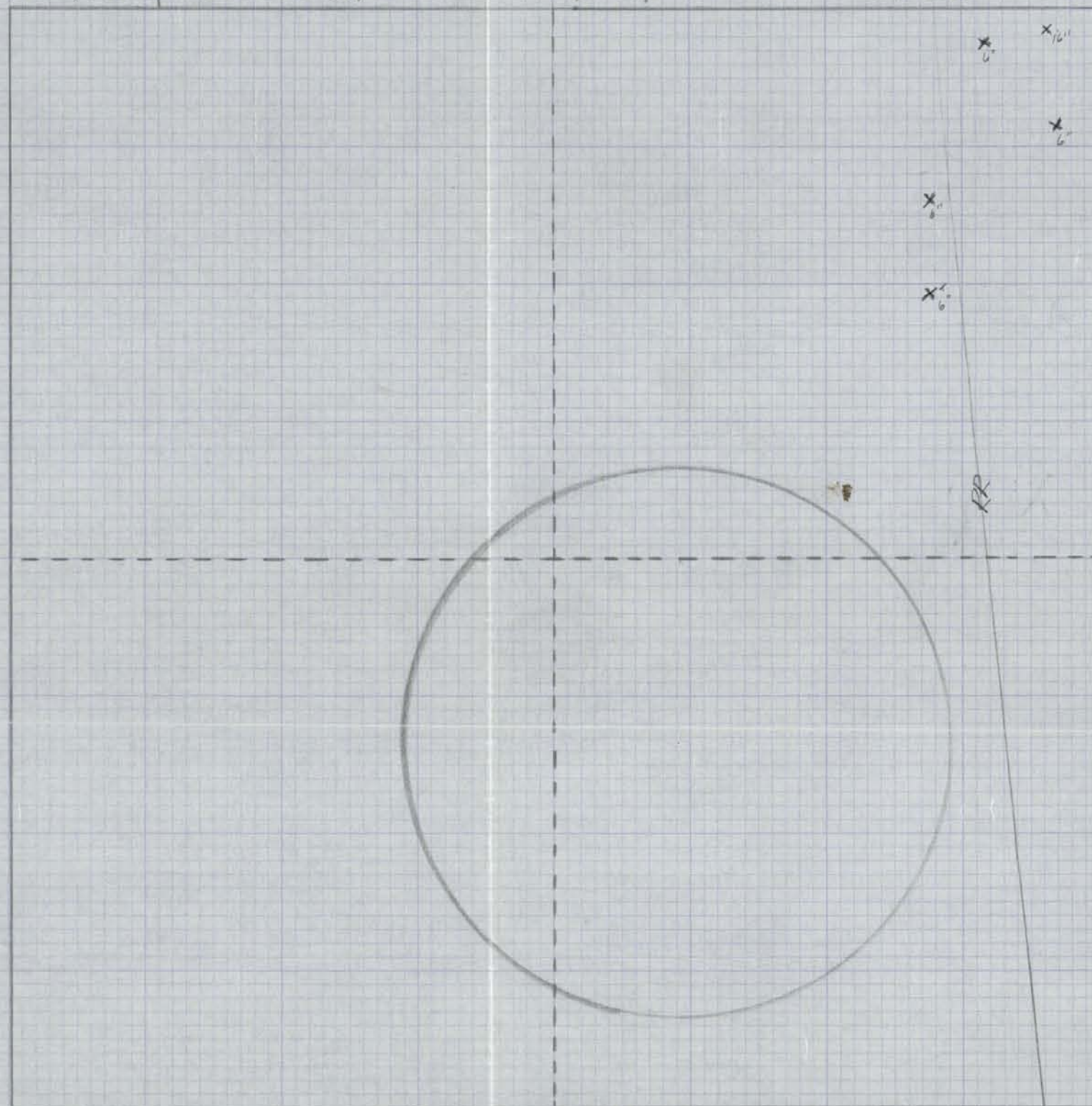
Prepared by Dick Fadgen, Beadle Co. Extension Agent

Clayton H. Kloss, Unit No. 1.

Dick Fadgen
N.E. $\frac{1}{4}$ Section 31

T-31

R-63



X-Proposed Well
Location