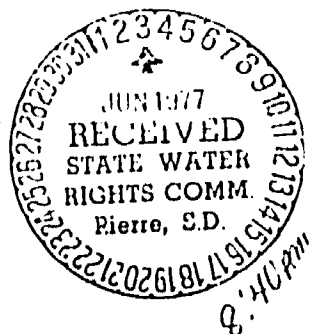


No. 4111-3Map No. 3345-3 Water Division No. 3 JAMES RIVER District
(Blanks to be filled by the Engineer for the W. R. C.)

APPLICATION FOR PERMIT

To Appropriate Water within the State of South Dakota

(NOTE--Draw a line through items not applicable)

1. Name of Applicant James Toews
 Postoffice address Yale State S. D. 57486
 If a corporation show date and place of incorporation _____
 2. Method of accomplishing work (contract, employment of others, or by direct labor) Contract & direct labor
 3. Name of diversion work TOWNS #1
 4. Amount of water claimed (cubic feet per second) 2.2
 5. Source of water supply Ground water
 6. Location of point of diversion CENTER E2 SW4 Section 30, 112N-59W
 _____ County Beadle
 7. Annual period or periods during which water is to be used April to November
 8. Use to be made of water, (irrigation, industrial, municipal, commercial, recreation, etc.) Irrigation
 9. For irrigation use 200 Total number of acres to be irrigated

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 SW 1/4 Sec 30, 112N-59W	20	NW 1/4 SE 1/4 Sec 30, 112N-59W	35
SW 1/4 SW 1/4 Sec 30, 112N-59W	20	SW 1/4 SE 1/4 Sec 30, 112N-59W	35
SE 1/4 SW 1/4 Sec 30, 112N-59W	40	SE 1/4 SE 1/4 Sec 30, 112N-59W	----
NE 1/4 SW 1/4 Sec 30, 112N-59W	20	NE 1/4 SE 1/4 Sec 30, 112N-59W	30

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 2 years.
 11. Choice of newspaper for Notice of Intent to Appropriate Water publication Daily Plainsman
 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.

Gated pipe and towline

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 Beadle)I, James Toews, 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 James ToewsSubscribed and sworn to before me this 2nd day of June 19 77Thomas J. Sawyer
Notary Public (or other qualified officer)

WATER RIGHT APPLICATION APPROVAL

The Water Rights Commission hereby approves Water Right Application No. 4111-3JAMES TOEWS

(Applicant)

YALE

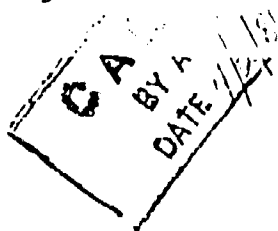
(Post Office Address)

SOUTH DAKOTA 57386

(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 adequate domestic wells or in irrigation wells having prior water rights.

See also
4487-3Date of first receipt of application JUNE 3, 1977

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

Date of receipt of corrected application SEPTEMBER 2, 1977Approved OCTOBER 6, 1977 Recorded in Book 19 Page 139WATER RIGHT PERMIT NO. 4111-3

The Water Rights Commission hereby grants and issues this Water Right Permit No. 4111-3 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 SEPTEMBER 2, 1977
2. The equivalent of at least one-fifth of the work above specified is to be completed on or before APRIL 6, 1980
3. The whole of said work is to be completed on or before OCTOBER 6, 1982
4. The limit of time from proof of beneficial use of water appropriated in accordance herewith is OCTOBER 6, 1984
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 2.2 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 OCTOBER 6, 1984; said water to be used during the following described annual period: APRIL TO NOVEMBER

Witness my hand this 3RD day of NOVEMBER, 1977

WATER RIGHTS COMMISSION

By:

Chief Engineer, Executive Officer

Certificate of Construction Issued _____, 19____

Water License Issued _____, 19____

Form 2A - Wells, Dugouts or Water Storage Dams (Supplement to form 2)

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.

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

Character of Water bearing materials 0 - 10 Clay

10 - 45 Gravel & rock

45 too rocky to drill further

Depth to top of water bearing material 17

Depth to bottom of water bearing material 45 +

Thickness of water bearing material 18 +

Depth to water (ground surface to water level) _____

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

On same owner's property 160 rds. On property owned by others 100 rds.

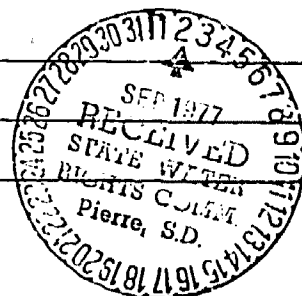
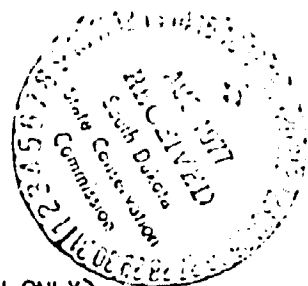
G. Water Storage Dams.

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.

James Lewis
Signature of Applicant

ATION
ION
1 #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)



E James Toews
DRESS Yule, South Dakota 57386
ANTY Headle

LEGAL DESCRIPTION

1. WELL LOCATION SW $\frac{1}{4}$ Section 30, 112N-59W
2. LOCATION OF AREA TO BE IRRIGATED SW $\frac{1}{4}$ Section 30, 112-59

TYPE OF IRRIGATION

3. GRAVITY X TOWLINE X CENTER PIVOT _____ GUN _____
4. CROPS TO BE IRRIGATED Alfalfa (primary) and corn

WATER QUALITY

5. SAMPLE NUMBER 77-336
6. SALINITY (EC X 10⁶) 13.93 High
7. SODIUM (SAR) 0.78 (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 Headle 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.

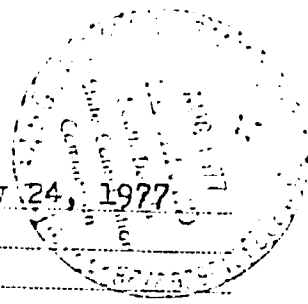
James Toews
APPLICANT'S SIGNATURE

SUBSCRIBED AND SWORN BEFORE ME THIS
26 DAY OF August 19 77.

Headle
(TITLE OR SEAL)

Approved
APPROVED/DISAPPROVED

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



Submitted by: JAMES TOEWS
 Address: Yale, SD 57386

Date Rec'd February 24, 1977
 Sample No. 77-336
 Identification _____

WATER ANALYSIS

Calcium (Ca)	175	ppm*	8.15	me/l**
Magnesium (Mg)	39	ppm	3.20	me/l
Sodium (Na)	44	ppm	1.91	me/l
Potassium (K)	28	ppm	0.73	me/l
Sulfate (SO ₄)	220	ppm	4.58	me/l
Nitrate (as N)	33.00	ppm	2.36	me/l
Chloride (Cl)	88	ppm	2.44	me/l
Bicarbonate (HCO ₃)	359	ppm	5.88	me/l
Carbonate (CO ₃)		ppm		me/l
Iron (Fe)		ppm		me/l
Fluoride (F)		ppm		me/l
Hardness (EDTA as CaCO ₃)	598	ppm	35	g.p.g.***
Alkalinity (Methyl Orange)	294	ppm (as CaCO ₃)		
Alkalinity (Phenolphthalein)	0	ppm (as CaCO ₃)		
Electrical Conductivity	1393	micromhos per cm at 25° C.		
Sodium Adsorption Ratio	0.78			
Sodium	13.09	% of cations		
Residual sodium carbonate	0.00	me/l		
pH	7.72			

*ppm=parts per million

**me/l=millequivalents per liter

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

COMMENTS: Total cations 14.59 me/l
 Total anions 15.26 me/l

By: Shirley Mitten

Service Performed

Amount Due

Irrigation plus nitrate

\$18.00

Make checks payable to: Water Quality Laboratory

Cut along dotted line and return the lower portion with payment

Sample No. 77-336

Amount Enclosed \$ _____

Signed _____

(RECOMMENDED MANAGEMENT)

NAME OF APPLICANT

1. Water should not be applied more than 1, 2, 3, 4, 5, times during the irrigation season.
2. Each uninterrupted application (one rotation of center pivot) should be of at least 1, 2, 3, 4, inches of water.
3. (☒) Yes (☐) No Surface drainage suggested
4. (☐) Yes (☐) No Subsurface drainage suggested
5. (☒) Yes (☐) No Specific land areas that need special consideration.

Dudley Strenway (21A) area could probably be improved with surface drainage. $\frac{1}{4}$ in depression areas are smaller in size, but will require sloping or drainage considerations.

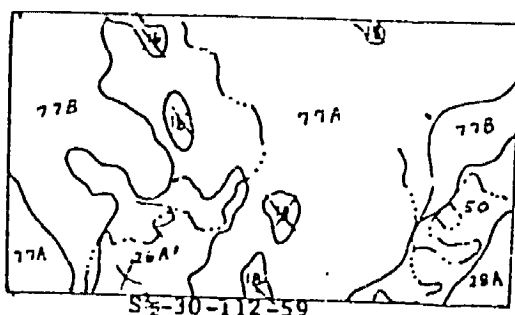
6. (✓) Deep tillage (For the purpose of aiding movement of water through dense subsoils)
7. (✓) Heavy fall application of irrigation water

Compatibility is satisfactory except for depression 16 & 18 and the Dudley-Stickney.

Deep chisel-type tillage after crops have been harvested followed by irrigation will permit nature's freeze-thaw action to work for you.

Copy to Applicant - 1
Copies to Water Rights - 2
Copy to File - 1

SOILS MAP



SOIL LEGEND

- 16 Hoven silt loam
This unit consists of poorly drained soils in enclosed depressions. Permeability is very slow, and surface drainage is lacking. Dense compact subsoils with a high level of salts and ponding generally limit these soils for irrigation.
- 18 Tetonka-Hoven silt loams
This unit consists of poorly drained soils in enclosed depressions. Permeability is very slow, and surface drainage is lacking. Dense compact subsoils and ponding generally limit these soils for irrigation. Drainage of these soils is desirable under irrigation.
- 26A Dudley-Stickney silt loams, 0 to 3 percent slopes
This unit consists of moderately well drained soils with 4 to 10 inches of friable loamy surfaces over dense claypan subsoils. These soils have slow permeability and salts in the subsoil. Included within these units are small areas of enclosed depressions.
- 28A Lane silt loam, 0 to 2 percent slopes
This unit consists of deep, well and moderately well drained loamy soils with silty substratums. They have moderately slow permeability. The calcareous silty substratum occurs at depths of 20 to 30 inches below the surface. The physical characteristics of these soils make them well suited for irrigation.
- 50 Bon silt loam, channelled
This unit consists of deep moderately well and well drained loamy soils on nearly level surfaces. These soils are occasionally flooded. The physical properties of these soils make them generally well suited for irrigation.

James Toews Unit

(TITLE OR SEAL)

APPROVED/DISAPPROVED

(SOILS INFORMATION ON REVERSE SIDE)

77A Beadle loam, 0 to 2 percent slopes

This unit consists of well and moderately well drained soils with loamy surface layers and clayey subsoils. The clayey subsoils - containing 35-40% clay - somewhat limit water intake and moisture release to plants. These soils have moderately slow permeability. Depth to the calcareous clay loam ranges from 18 to 30 inches. Included within this unit are small enclosed depressions and small areas of soil with claypan subsoils which contain salts. This soil has a fair potential for irrigation because of slow intake and percolation rates.

77B Beadle loam, 2 to 6 percent slopes

This unit consists of soils like 77A, but the slope is 2 to 6 percent. This soil has a fair potential for irrigation because of slow intake rates, slow percolation rates and slope.

James Toews Unit

Soil Conservation Service
Beadle County

Publish first publication, on or before September 15, 1977

NOTICE OF HEARING ON
APPLICATION TO APPROPRIATE WATER

Pierre, South Dakota 57501

September 8, 1977

Notice is hereby given that James Toews whose post office

address is Yale, South Dakota, has made an application in accordance with the provisions of SDCL 46-1-1 thru 46-1-8; 46-2-9 thru 46-2-11, 46-2-13; 46-5-1 thru 46-5-8, 46-5-10 thru 46-5-22, 46-5-41, 46-6-3, 46-6-5, 46-6-6.1, 46-6-10, 46-6-14 and Commission Rules ARSD 52:01:01:01 thru 52:01:01:13, for a permit to appropriate for beneficial use 2.2 cubic feet of water per second of time from ground water

through the Toews #1, the point of diversion of which is to be located in the center of the E $\frac{1}{2}$ SW $\frac{1}{4}$

of Section 30, Twp. 112N Range 59W. Said water to be used for the purpose of providing irrigation on portions of the following described land:

SW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, SW $\frac{1}{2}$ SE $\frac{1}{4}$, Section 30, T112N, R59W.

This Application No. 4111-3 will be considered by the Water Rights Commission at the Holiday Inn, Spearfish, SD upon the 6 day of October, 1977 at 10 A.M. The Commission is authorized to make a determination on this application at the hearing. All interested persons may appear and be heard. Any person who may be affected by a Commission decision who desires to present evidence or cross-examine witnesses according to SDCL 1-26 may notify the Commission in writing prior to the hearing or orally at the hearing.

WATER RIGHTS COMMISSION

JAMES WINTERTON
Water Rights Specialist

cc: James Toews, Yale, SD

NOTE: Final Proof of Publication must be received by hearing date for the Commission to take action.

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

No. _____

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) ss.
County _____)

I, Brenda Haskett 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 _____ of Huron

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

9-15-77

9-22-77

Brenda Haskett
(Signature)

Bookkeeper
(Title)

9-22-77
(Date Signed)

F.P. 91577-22-77 P. 9-22-77
NOTICE OF HEARING
ON APPLICATION TO
APPROPRIATE WATER
Pierre South Dakota 57501
September 8, 1977

Notice is hereby given that
James Toews whose post office
address is Yale, South Dakota, has
made an application in accordance
with the provisions of SDCL 46-1-1
thru 46-1-8; 46-2-9 thru 46-2-11, 46-2-
13; 46-5-1 thru 46-5-8, 46-5-10 thru
46-5-22, 46-5-41, 46-6-3, 46-6-5, 46-6-
6, 46-6-10, 46-6-14 and Commission
Rules ARSD 52:01:01 thru
52:01:13, for a permit to ap-
propriate for beneficial use 2.2
cubic feet of water per second of
time from ground water through
the Toews No. 1, the point of
diversion of which is to be located
in the center of the E1/4 SW1/4 of
Section 30, Twp. 112N Range 59W.
Said water to be used for the
purpose of providing irrigation on
portions of the following described
land: SW1/4, N1/4SE1/4, SW1/4, SE1/4,
Section 30, T112N, R59W.

This Application No. 4111-3 will
be considered by the Water Rights
Commission at the Holiday Inn,
Spearfish, SD upon the 6 day or
October, 1977 at 10 A.M. The
Commission is authorized to make
a determination on this application
at the hearing. All interested
persons may appear and be heard.
Any person who may be affected
by a Commission decision who
desires to present evidence or
cross-examine witnesses ac-
cording to SDCL 1-24 may notify
the Commission in writing prior to
the hearing or, orally at the
hearing.

WATER RIGHTS COMMISSION
JAMES WINTERTON
Water Rights Specialist
No. 574 (adv.)



ews
Gale, S. D.

Prepared by
Dick Rodgers
Beadle Co.
Extension Agent

N

S $\frac{1}{2}$

30

112 N-59 W

Beadle Co.

correction
line

Native
pasture
(out)

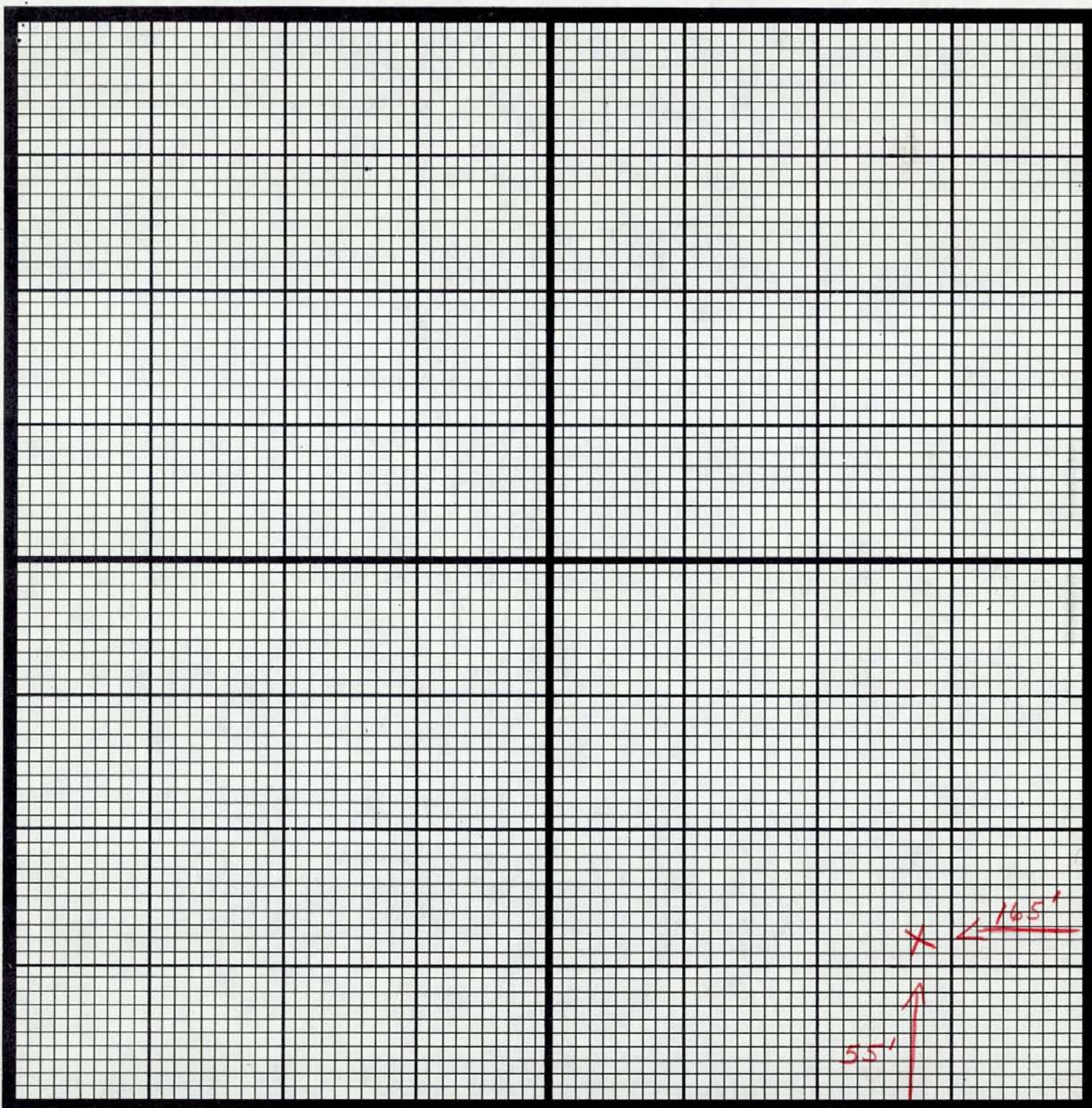
X

Farmstead

Pasture
(out)

HURON DRILLING INC.
WELL LOCATION MAP

NAME James Toews DATE February 28 19 80
WELL NO. 1 SE QUARTER, SECTION 30
TWP. 112 RANGE 59 IN Beadle COUNTY



X — PROPOSED LOCATION

Prepared By Dick Fadgen
Beadle County Extension Agent
Dick Fadgen