

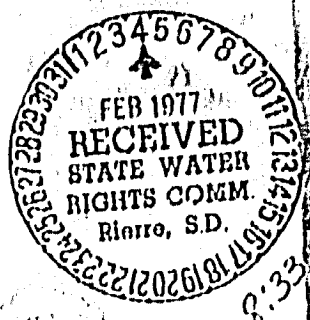
Water Right Number 3566-3

1. Considered 2-23, 19 77
2. Name of Applicant James N. Cole
3. Post Office Address Hudson
4. Amount of Water claimed 3.0
5. Source of Water supply 50' well
6. Water to be used for irrigation
- Acres to be irrigated 2.13
7. Water to be diverted and used in Lincoln County
about 2.0 miles of Hudson
8. Proof of Publication Received 121 5-4-77
Not Received _____
9. Application Approved _____
Subject to _____
Not Approved _____
Action Deferred _____

10. Remarks:

Handwritten signature and initials

Map No. 2845-3 Water Division No. 3 RIO SIOUX RIVER District
(Blanks to be filled by the Engineer for the W. H. 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 Cole
Postoffice address Hudson State South Dakota
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 James Cole Irrigation Project #1
4. Amount of water claimed (cubic feet per second) 2.1 in old permit plus 0.9 for new land
5. Source of water supply well
6. Location of point of diversion 1520' N 191° E of NW corner
Sec 25 96-48
- County Lincoln
7. Annual period or periods during which water is to be used April through October
8. Use to be made of water, (irrigation, industrial, municipal, commercial, recreation, etc.) irrigation
9. For irrigation use, Total number of acres to be irrigated 150 + 63 = 213

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 of SW 1/4 Sec 13-96-48	36	NW 1/4 + NW 1/4 Sec 25-96-48	35
NE 1/4 " " " "	40	NE 1/4 " " " "	8
SW 1/4 " " " "	38	SE 1/4 " " " "	2.0
SE 1/4 " " " "	36		

Attach sheet if more space is needed

10. Time required to complete construction of water supply system 1 1/2 years. Additional time required to complete application of water to the proposed beneficial use 4 1/2 years.
11. Choice of newspaper for Notice of Intent to Appropriate Water publication SiouX Valley News
Clanton
12. Principal Features of the Proposed Water Supply System.

A. Works proposed to divert water from its natural source. well in NW 1/4 of Sec 25-96-48 with
to be used - water will be piped to SW 1/4 Sec 13-96-48 which
is under old permit # 2254-3

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

C. Works proposed to apply water to beneficial use. center pivot irrigation machine
and hose pull big gun

Estimated Total Cost \$50,000

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 BrookingsI, James Cole

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 H. ColeSubscribed and sworn to before me this 19 day of Jan 1977

Notary Public (or other qualified officer)

Note! This is a request to change point of diversion for permit # 2254-3 and also adds 63 acres of New land in NW 1/4 of Sec 25-96-48

WATER RIGHT APPLICATION APPROVAL

The Water Rights Commission hereby approves Water Right Application No. 3566-3
JAMES H. COLE HUDSON
 (Applicant) (Post Office Address)
SOUTH DAKOTA 57036 With the following modifications.
 (State)

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.

Land covered under this Permit is also covered under Permit No. 2254-3. Combinations of diversions under the two permits shall not exceed the Statutory limit of 1 c.f.s. for each 70 acres of land to be irrigated

Date of first receipt of application FEBRUARY 4, 1977
 Date of return to applicant for correction, amendments or changes required _____, 19____
 Date of receipt of corrected application _____, 19____
 Approved MARCH 23, 1977, Recorded in Book 20 Page 66

WATER RIGHT PERMIT NO. 3566-3

The Water Rights Commission hereby grants and issues this Water Right Permit No. 3566-3 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 4, 1977
2. The equivalent of at least one-fifth of the work above specified is to be completed on or before SEPTEMBER 23, 1979
3. The whole of said work is to be completed on or before MARCH 23, 1982
4. The limit of time from proof of beneficial use of water appropriated in accordance herewith is MARCH 23, 1985
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 3.0 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 23, 1985; said water to be used during the following described annual period: APRIL THRU OCTOBER

Witness my hand this 17th day of AUGUST, 1978

WATER RIGHTS COMMISSION

By:

John Hatch
 Chief Engineer, Executive Officer

Certificate of Construction Issued _____, 19____

Water License Issued _____, 19____

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

D. Well Information or Estimates

(1) Drill Hole, Diameter 20", Depth 50'

(2) Casing, Type steel (wood, concrete, steel, etc) Diameter 14" Thickness 1/2"

(3) Perforated Screen.

Type Johnson Wire Ray, Diameter 14", Length 15'

(4) Gravel Pack, Thickness 3", Length of gravel pack 20'

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 medium to coarse gravel.

Depth to top of water bearing material 20'

Depth to bottom of water bearing material 49'

Thickness of water bearing material 29'

Depth to water (ground surface to water level) 20'

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

On same owner's property 210 rds. On property owned by others 120 rds.

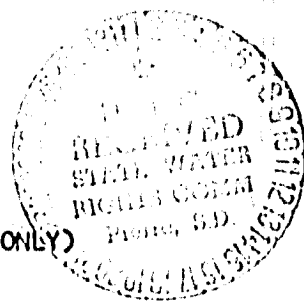
G. Water Storage Dams.

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 H. Cole
Signature of Applicant

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 James H. Cole
ADDRESS Hudson South Dakota
COUNTY Lincoln

LEGAL DESCRIPTION

1. WELL LOCATION NE 1/4 NW 1/4 Sec 25 - 96-48
2. LOCATION OF AREA TO BE IRRIGATED Part of NW 1/4 NW 1/4 Sec 25 - 96-48 & SW 1/4 NW 1/4 Sec 13 - 96-48

TYPE OF IRRIGATION

3. GRAVITY _____ TOWLINE _____ CENTER PIVOT ☒ GUN _____
4. CROPS TO BE IRRIGATED Corn & Alfalfa

WATER QUALITY

5. SAMPLE NUMBER 75-199
6. SALINITY (EC X 10⁶) 447 (medium)
7. SODIUM (SAR) 0.13 (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.

James H. Cole
APPLICANT'S SIGNATURE

SUBSCRIBED AND SWORN BEFORE ME THIS
17 DAY OF June 19 77

John P. [Signature]
(TITLE OR SEAL)

[Signature]
APPROVED/DISAPPROVED

(SOILS INFORMATION ON REVERSE SIDE)

This is an analysis of the water he is
going to use on
land and for
REPORT OF ANALYSIS
Water Quality Laboratory
Water Resources Research Institute
South Dakota State University
Brookings, South Dakota 57006

Submitted by: Tolpa Tolo
Address: Hanson, SD 57034

Date Rec'd: March 26, 1975
Sample No.: 75-199
Identification: 6011-
Net, 300.00, T 96H, R 48

WATER ANALYSIS

Calcium (Ca)	74	ppm*	3.70	me/l**
Magnesium (Mg)	29	ppm	2.38	me/l
Sodium (Na)	6	ppm	0.23	me/l
Potassium (K)	3	ppm	0.09	me/l
Sulfate (SO ₄)	90	ppm	1.87	me/l
Nitrate (as N)		ppm		me/l
Chloride (Cl)	12	ppm	0.34	me/l
Bicarbonate (HCO ₃)	281	ppm	4.60	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)	230	ppm (as CaCO ₃)		
Alkalinity (Phenolphthalein)	0	ppm (as CaCO ₃)		
Electrical Conductivity	447	micromhos per cm at 25° C.		
Sodium Adsorption Ratio	0.13			
Sodium	3.59	% of cations		
Residual sodium carbonate	0.00	me/l		
pH	7.68			
Others:				

*ppm=parts per million

**me/l=milliequivalents per liter

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

COMMENTS: Total cations 6.40 me/l
Total anions 6.81 me/l

By: Shirley Kitten

Service Performed

Amount Due

Irrigation Analysis

16.00

Water Quality Laboratory

*Copy of letter sent in regard to acquisition
permitted*

April 4, 1975

Mr. James H. Cole
Hudson
South Dakota 57034

Dear Mr. Cole:

Enclosed please find a copy of the report of analysis of your sample #75-201, submitted here March 26. This original copy is yours to keep.

You will also find enclosed a copy of Extension Circular 654 with the quality of this water for irrigation purposes approximately designated by the encircled red cross on the outside back cover. You will note that it is quite good water from its low to medium total salt content and very low sodium proportion.

We have received your WI-1 form and a copy of this letter, plus the WI-1 form plus a copy of the water analysis are being forwarded to the State Conservation Commission. You should have no difficulty irrigating with this water, but if there is any problem, please get in touch with someone in the Water Resources section or the Plant Science Department.

Sincerely yours,

L. O. Fine
Water Quality Lab

LOF:MRB

Enclosures

cc: State Conservation Commission
Larry Tiedemann, Lincoln County Agent
Darrel Pahl

This is analysis of water when original permit was sent in. He did not get enough water from this creek.

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

Submitted by: JAMES H. COLO

Date Rec'd: March 26, 1975

Address: SUTTON, SD 57034

Sample No. 71-211

Identification: 111-

111, 180. 11, 1.76M, 1.48W

WATER ANALYSIS

Calcium (Ca)	30	ppm*	4.00	me/l**
Magnesium (Mg)	24	ppm	1.97	me/l
Sodium (Na)	10	ppm	0.42	me/l
Potassium (K)	2	ppm	0.06	me/l
Sulfate (SO ₄)	36	ppm	0.76	me/l
Nitrate (as N)		ppm		me/l
Chloride (Cl)	14	ppm	0.39	me/l
Bicarbonate (HCO ₃)	256	ppm	4.20	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)	210	ppm (as CaCO ₃)		
Alkalinity (Phenolphthalein)	0	ppm (as CaCO ₃)		
Electrical Conductivity	541	micromhos per cm at 25° C.		
Sodium Adsorption Ratio	0.24			
Sodium	6.51	% of cations		
Residual sodium carbonate	0.00	me/l		
pH	7.63			
Others:				

*ppm=parts per million

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

**me/l=milliequivalents per liter

COMMENTS: Tot. 1 cations 6.45 me/l
Tot. 1 anions 5.35 me/l

By: Shirley Hittner

Service Performed

Amount Due

Irrigation analysis

66.00



January 24, 1977

Mr. James H. Cole
Hudson, SD 57034

Dear Mr. Cole:

Your water sample (Lab. No. 75-199) has been analyzed and the results are reported on the accompanying sheet, which is your copy to keep.

Your water, as indicated by this analysis, is satisfactory for use on the soils you indicate will be irrigated. If a salt problem or a water table problem should develop, contact extension personnel for assistance.

The WI-1, soils information, and a copy of the water analysis are being forwarded to the State Conservation Commission for their action.

Sincerely yours,

L. O. Fine

L. O. Fine
Water Quality Lab

LOF:ckb
Enclosures
cc: State Conservation Commission

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

No. _____

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County Lincoln) ss.

I, Marie Beitzel hereby

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

Water was taken from the Sioux Valley News

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 _____ Canton _____

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

February 10, 1977

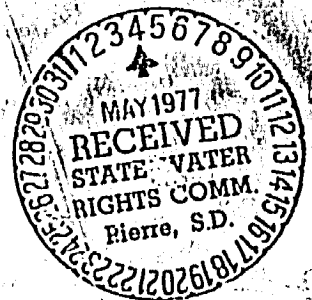
February 17, 1977

Marie Beitzel
(Signature)

Bookkeeper
(Title)

May 2, 1977
(Date Signed)

NOTICE
INTENT TO
APPROPRIATE WATER
Pierre, South Dakota 57501
February 4, 1977
Notice is hereby given that
James H. Cole whose post office
address is Hudson, 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 and to change the
point of diversion, a total of 3.0
cubic feet of water per second of
time from ground water, through
the James Cole #1, the point of
diversion of which is to be located
in the NE 1/4 NW 1/4 of Section 25,
Twp. 96N, Range 48W. Said water
to be used for the purpose of
providing irrigation on portions
of the following described land:
SW 1/4, Section 13; W 1/2 NW 1/4,
Section 25; T96N, R48W.
This application No. 3566-3
will be considered by the Water
Rights Commission at their office
at Pierre upon the 23rd day of
February, 1977, at 10:00 A.M. All
interested persons may appear
and be heard.
WATER RIGHTS COMMISSION
Burton F. Jones
Water Rights Specialist



No. 3566-3

Publish first publication, on or before February 10, 19 77

**NOTICE
INTENT TO APPROPRIATE WATER**

Pierre, South Dakota 57501

February 4, 19 77

Notice is hereby given that James H. Cole
whose post office address is Hudson, 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
to change the point of diversion, and
a total of 3.0 cubic feet of water per second of time from the ground water through the
James Cole # 1, the point of diversion of which is to be located in the _____

NE 1/4 NW 1/4

of Section 25, Twp. 56N, Range 46W. Said water to be used for the purpose
of providing irrigation on portions of the following described land:

SW 1/4, Section 13; W 1/4 NW 1/4, Section 25, T56N, R46W

This application No. 3566-3 will be considered by the Water Rights Commission at their office at
Pierre upon the 23rd day of February, 19 77, at 10:00 A.M. All interested
persons may appear and be heard.

WATER RIGHTS COMMISSION

By:

BURTON F. JONES
Water Rights Specialist

BFJ/bw

cc: James H. Cole, Hudson, SD 57034

2254-3
2256-3
9566-3

 **Department of
Water & Natural Resources**

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

February 17, 1989

James Cole
RR 1, Box 227
Hudson, SD 57034

Dear Mr. Cole:

On October 6, 1988, the Water Management Board adopted rules to implement a 1988 law for application of chemicals through irrigation systems. The rules establish equipment standards, performance standards and installation requirements for irrigation systems that apply chemicals (fertilizers, insecticides, or herbicides) with irrigation water.

You have indicated on your 1988 Water Management Board Irrigation Questionnaire that you do apply chemicals with irrigation water. A copy of the new rules for chemigation are enclosed for your information.

The new standards include:

- * a check valve between the irrigation pump and the point of chemical injection;
- * a vacuum relief valve on top of the pipeline between the irrigation pump and the irrigation pipeline check valve;
- * a low-pressure drain on the bottom of the pipeline between the irrigation pump and the irrigation pipeline check valve;
- * a chemical injection line check valve between the chemical injection pump and the point at which the chemical is injected into the irrigation line; a second check valve is required if the chemical injection pump is not a positive displacement pump;
- * an interlock system which ensures that the chemical injection pump will stop whenever the irrigation pump stops;
- * an inspection port between the irrigation pump and the check valve on the irrigation line;

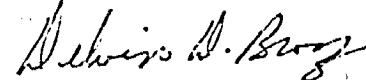


Each of these equipment requirements are discussed more thoroughly in Sections 74:02:09:05 through 74:02:09:10 of the enclosed rules. Appendix A contains diagrams of the arrangements of these anti-pollution devices.

The equipment must be installed according to the manufacturer's specifications, calibrated, and maintained in good working condition. All chemical product labels must be followed and warning signs must be posted. These rules also require reporting of all spills, accidents, and system malfunctions. A 24-hour telephone number is provided.

The chemigation rules contain notification and record keeping requirements. Prior to using chemigation, notification must be given to the Chief Engineer on the enclosed Form 1C. Information that must be provided in this notification includes the water permit or right number, the name, address, and telephone number of the water permit or right holder and of the system operator, and the legal description of the lands on which the system is located. A record of the name, quantity, dates and hours of each chemical applied must be provided to the Chief Engineer on Form 2C. A copy of this form is also enclosed for your information. It will be mailed with the annual irrigation questionnaire and must be returned with the questionnaire by the date specified. If you have any questions regarding these rules or need additional copies of the forms, please contact Susan Bowar, Water Rights Engineer (605-773-3352).

Very truly yours,



for JOHN HATCH, Chief Engineer
Water Rights Division

Permit No. 3566-3
Big Sioux River - Water District

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

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

I have this day, September 12, 1997 made a thorough examination of the water use system constructed by ^{James} ~~John~~ Cole of 29509 488th Ave., Hudson SD 57034 holder of Permit No. 3566-3 and 2254-3 bearing the priority of February 4, 1977 for 0.9 cfs and April 11, 1975 for 2.1 cfs authorizing the diversion of a combined 3.0 cu. ft. per second of the waters of Big Sioux Aquifer for irrigation purposes, in Lincoln County.

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

A. Works used to divert the water:

53' deep well with 38' of 8" steel casing and 15' of Johnson stainless steel screen; Western Land Roller pump 900 gpm capacity and a General Electric motor model no. 5K6238XH501B rated at 50 hp.

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

6,336' of 8" aluminum pipe above ground, 1680' of 8" galvanized steel, and 1650' of 8" PVC.

C. Works used to apply water to beneficial use:

Zimmatic center pivot 1320' long with 8 towers and an end gun, 900 gpm capacity.

Hygromatic water drive center pivot 1120' long with 5 towers and an end gun, 800 gpm capacity.

The system is in the following condition good, except the Hygromatic center pivot needs some repair. The point of diversion is located 1503' E and 396' S of the NW corner Section 25-T96N-R48W. The works are capable of diverting and conveying to the place of use 2.0 cu. ft. per second of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:

Section 13-T96N-R48W:

NE $\frac{1}{4}$ SW $\frac{1}{4}$ 34 acres

NW $\frac{1}{4}$ SW $\frac{1}{4}$ 34 acres

SW $\frac{1}{4}$ SW $\frac{1}{4}$ 34 acres

SE $\frac{1}{4}$ SW $\frac{1}{4}$ 34 acres

Section 25-T96N-R48W:

NW $\frac{1}{4}$ NW $\frac{1}{4}$ 30 acres

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

comprising a total of 181 acres of land and the license should be issued for 2.0 cfs.

Applicable permit qualifications have been complied with: yes

Exceptions to compliance are: none

COMMENTS: The 45 acres in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ and SW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 25-T96N-R48W have a priority date of February 4, 1977. The remaining acres are covered under Permit 2254-3 with an April 11, 1975 priority date. Applicable portions of 2254-3 should be incorporated into 3566-3.

Lynn Beck
 Lynn Beck
 Natural Resources Engineer
 DENR, Water Rights Program

9-26-97
 Date

REPORT ON INSPECTION OF PERMIT NO. 3566-3

DATE OF INSPECTION: 9-12-97

Other permit(s) associated with the project: 2254-3

NAME & ADDRESS OF INSPECTION CONTACT: Judy Cole, 29509 483th Ave., Hudson SD 57034

RELATIONSHIP TO PERMIT HOLDER, IF APPLICABLE: Spouse

NAME & ADDRESS OF PERMIT HOLDER: ^{James}
John Cole, 29509 488th Ave., Hudson SD 57034

DIVERSION POINT LEGAL LOCATION: 1503' E and 396' S of the NW corner Section 25-T96N-R48W in the NE $\frac{1}{4}$ NW $\frac{1}{4}$.

WELL INFORMATION:

- 1) Well Drilling Firm: Lacey Well Drilling
- 2) No. of Wells 1
- 3) Depth(s) 53 feet
- 4) Well log is available yes

Casing:

- 1) Diameter 1.1 inches
- 2) Length 38 feet
- 3) Type steel

Screen:

- 1) Type Johnson stainless steel
- 2) Length 15 feet
- 3) Static water level 20 feet

Pump:

- 1) Make Western Land Roller
- 2) Model #
- 3) Size #
- 4) Capacity 900 GPM

Motor:

- 1) Make General Electric
- 2) Model No. 5K6238XH501B
- 3) Horsepower rating 50 hp

DISTRIBUTION LINES OR CANALS:

- 1) Type aluminum 2) Size 8" 3) Length 6,336 feet
- 1) Type galv. steel 2) Size 8 3) Length 1680 feet
- 1) Type PVC 2) Size 8 3) Length 1650 feet

SYSTEM TYPE:

Center Pivot: SW $\frac{1}{4}$ Section 13-T96N-R48W

- 1) Make Zinmatic
- 2) Overall length 1320
- 3) Number of towers 8
- 4) End gun yes
- 5) High or low pressure #
- 6) Capacity 900 GPM

Center Pivot: W $\frac{1}{2}$ NW $\frac{1}{4}$ Section 25-T96N-R48W

- 1) Make Hygromatic water drive
- 2) Overall length 1120
- 3) Number of towers 5
- 4) End gun yes
- 5) High or low pressure #
- 6) Capacity 800 GPM

CHEMIGATION EQUIPMENT:

- 1) Does chemigate NO

PERMIT QUALIFICATIONS AND REGULATIONS:

- 1) Special qualifications to permit being abided by YES
- 2) All structures, wells and lands on map YES
- 3) Irrigation questionnaires checked to determine if permit owner started irrigation by the end of construction period YES



October 9, 1997

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

Permit No. 3566-3

James Cole
29509 488th Ave.
Hudson, SD 57034

Dear Mr. Cole:

The investigation of your water use system, including the extent of application of water to beneficial use, as developed under Water Permit Nos. 2254-3 and 3566-3, has been completed. Your final water right document, the Water License, can now be issued. Upon licensing, the applicable portions of Water Permit No. 2254-3 will be incorporated into 3566-3.

Statutes require that we charge a \$50.00 fee for the investigation and issuance of the Water License. Upon receipt of the \$50.00 fee from you, we will begin processing your Water License.

Please remit fee to:
Department of Environment & Natural Resources
Water Rights Program
523 E. Capitol
Pierre, SD 57501-3181

South Dakota Water Law 46-5-30.1 requires that a permit holder may not divert water until the \$50.00 license fee has been paid. Please contact us if you have any questions.

Sincerely,

Cheryl F. Frost
Secretary
Water Rights Program
(605) 773-3352

NOTE: On check or money order, please specify your permit number. This will insure proper handling of the fee.

RECEIPT

415520

Division of Water Rights

South Dakota Department of Environment and Natural Resources

Pierre, _____ November 5, 19 97

RECEIVED OF James H. Cole, 29509 - 488th Ave., Hudson, SD 57034

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

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use _____		
Fee for Application for Permit No. _____ to Appropriate Water, for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>3566-3</u>	50	00
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		

(Any Other Work Provided by Law)	Total	50 00

By John Hatch (9)
Chief Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

JAN 07 1998

2256-3

3566-3

James Cole
29509 488th Ave.
Hudson, SD 57034

Dear Mr. Cole:

Enclosed are Water License Nos. 2256-3 and 3566-3. These are the final water right documents completing your process of obtaining a Water Right. Enclosed are Receipt Nos. 415519 and 415520 in the amount of \$50.00 each which you paid for the investigation and issuance of the Water Licenses.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the wells authorized by Water Right Nos. 2256-3 and 3566-3, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

As long as you use the water beneficially, as stated in the Water Licenses, the State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Program
(605) 773-3352

ks
enclosures

NOTE: The applicable portions of Water Permit No. 2254-3 are incorporated into Water Permit No. 3566-3.

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 3566-3

(1) James Cole, 29509 488th Ave. Hudson SD 57034 made Application No. 3566-3, February 4, 1977 for a water permit to divert 3.0 cubic feet of water per second from groundwater (one well), Lincoln County, South Dakota for irrigation purposes. Permit No. 3566-3, with a priority date of February 4, 1977 was approved March 23, 1977 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before March 23, 1982 and for the application to beneficial use of said water on or before March 23, 1985.

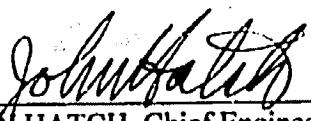
Water Permit No. 2254-3 authorized irrigation of the SW 1/4 Section 13-T96N-R48W with a April 11, 1975 priority date. Water Permit No. 3566-3 changed the location of the diversion point and authorized irrigation of additional land located in Section 25. The applicable portions of Water Permit No. 2254-3 are incorporated into Water Permit No. 3566-3.

(2) It is certified that the applicant has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 2.0 cubic feet of water per second for beneficial use. The location of the diversion point is 1,503 feet east and 396 feet south of the northwest corner of Section 25-T96N-R48W (NE 1/4 NW 1/4).

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

Section 13-T96N-R48W (April 11, 1975 - priority date)	NE 1/4 SW 1/4	34 acres
	NW 1/4 SW 1/4	34 acres
	SW 1/4 SW 1/4	34 acres
	SE 1/4 S'W 1/4	34 acres
Section 25-T96N-R48W (February 4, 1977 - priority date)	NW 1/4 NW 1/4	30 acres
	SW 1/4 NW 1/4	15 acres
Total		181 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 James Cole, 29509 488th Ave. Hudson SD 57034 the holder and/or owner of Incorporated Water Permit No. 3566-3 is issued a license to appropriate water, the right to use 2.0 cubic feet of water per second from groundwater (one well) with priority dates of April 11, 1975 and February 4, 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 Incorporated Water Permit No. 3566-3 and subject to South Dakota State Law.


JOHN HATCH, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

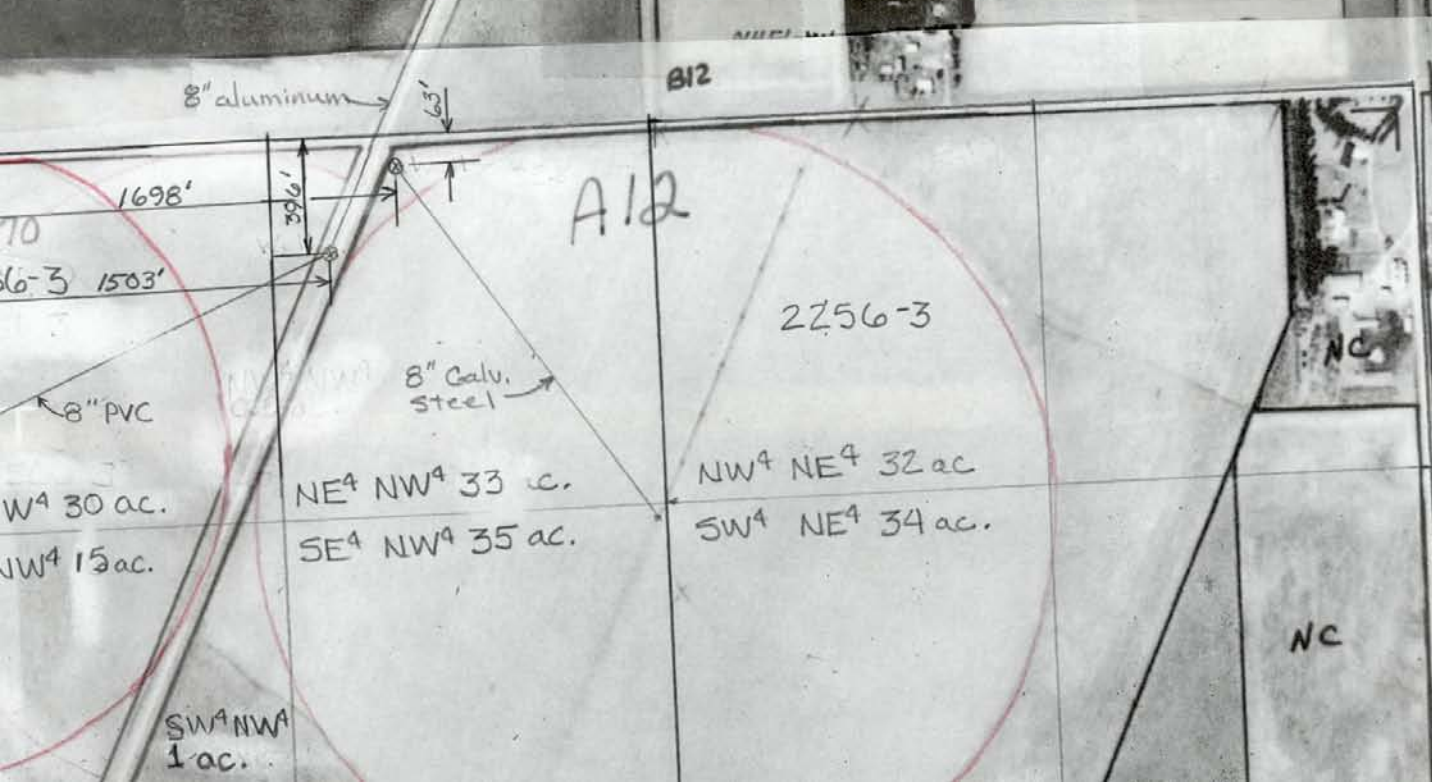
JAN 07 1998

date



NOT TO SCALE





L-NW
3.0

25

NHEL-NW
3 10.0

AW-W

NHEL-NW
2 209.3

T565
MT 3125

NC
W

NHEL-NW
4 80.8

96-48

T2950
MT 3125 A12

NHEL
1 144.0

Administered
by Sioux
County

NC

NC

3566-3

3566-3

SW⁴ sec 13 - 96 - 48
Under permit #
2254 - 3

This request is to change
point of diversion to
1520' N 19 10° E at NW corner
section 25 - 96 - 48

Acres Irrigated 150
Permit for 2.1 cfs

MAP NO. 2254-3 APP. NO. 3566-3

1 Mile
Not to scale

Pipeline

JAMES COLE

Irrigation Project
Hudson South Dakota
Lincoln co

Part of NW⁴ of sec 25 - 96 - 48
To be added to permit

NW⁴ of NW⁴ sec 25
- 96 - 48
35 acres

8 acres

8" = 1 Mile

20 A

Railroad

2-1-77

Certified Correct
John Williams

File No. 3566-3

Approval of Change and Addition of Diversion Points

NAME: James Cole

ADDRESS: 29509 488th Ave, Hudson, SD 57034

DATE: September 27, 2013

COUNTY: Lincoln

TELEPHONE: (605) 984-2045

BACKGROUND:

Water License No. 3566-3 appropriates 2.0 cubic feet per second (cfs) from one well completed into the Big Sioux: South aquifer (approximately 50 feet deep) in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Sec 25, T96N-R48W in order to irrigate 30 acres in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Sec 25, 15 acres in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Sec 25, and 34 acres each in the NW $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Sec 13 (for a total of 181 irrigated acres); all in T96N-R48W in Lincoln County. The license has priority dates of April 11, 1975 (formerly Water Permit No. 2254-3) for the acres in section 13 and February 4, 1977 for the acres in section 25. The license is conditioned with well interference, well construction, and irrigation questionnaire qualifications. Currently, water is pumped from one existing well in section 25 and pumped through an underground network to irrigation works in sections 25 and 13.

Jim Cole has requested permission to irrigate the SW $\frac{1}{4}$ of Sec 13 from two existing wells (located near the middle of the SW $\frac{1}{4}$ of Sec 13) and an additional well in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Sec 13. The basis for this request is a desire to discontinue piping from section 25 to section 13. Although the two existing wells in section 13 will need to be refurbished, they are already in place and were completed to depths of 47 and 49 feet.

AUTHORITY:

Pursuant to SDCL 46-5-13.1, the location of a diversion point may be changed or additional points may be licensed provided the following conditions are met and the potential for interference with other existing diversion is not increased.

- **Developed water source is the same as permitted source and no additional water is appropriated.**

The water source authorized by Water Permit No. 3566-3 is the Big Sioux: South aquifer. The two existing wells were completed to depths of 47 and 49 feet with static water levels at depths of 29 and 30 feet, respectively. The new well is expected to be completed to a similar depth with a similar static water level and to access the same aquifer as the existing wells.

No additional appropriation of water is authorized. Water Permit No. 3566-3 appropriates 2.0 cfs and no additional diversion rate authority is being requested. After a conversation on September 23, 2013, Mr. Cole understands that diverting any additional water beyond the licensed 2.0 cfs will require additional permitting.

Review of Existing Diversion

The well completion report and water rights databases were reviewed for the nearest domestic wells and water rights on file. The nearest registered domestic well is located approximately 1,900 feet to the northwest of the two existing wells. At this distance, interference is not expected to be a concern. The nearest water right (6551-3) is located approximately 500 feet to the southwest of the proposed new well site. The well completion report indicates gravel from 3 to 36 feet with a static water level of 14 feet. Calculations show a maximum of 6 feet of drawdown in the nearest well associated with Water Right No. 6551-3 as a result of pumping 2.0 cfs from the new well for 15 consecutive days, which would not cause unlawful impairment of the existing right. This rate and duration is highly conservative and unlikely to occur in normal pumping conditions.

Observation Well Data

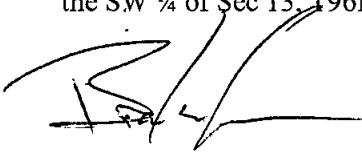
The Water Rights Program monitors several observation wells located in the Big Sioux aquifer. The closest observation well (LN-57D) is approximately one mile to the south of the proposed new well site. This well has been in place since 1957 and shows static water level fluctuations from 11 to 23 feet below land surface. Historic water levels in observation well LN-57D show that the aquifer level is controlled by climatic conditions, but seasonal effects of pumping can be observed. Pumping has not prevented a full annual recovery of the water level within the aquifer.

CONCLUSION

- The additional well locations do not propose to appropriate additional water.
- The new well is to be completed into the same formation as the existing well, the Big Sioux aquifer.
- Unlawful impairment of existing water rights is not expected to occur.

RECOMMENDED ACTION:

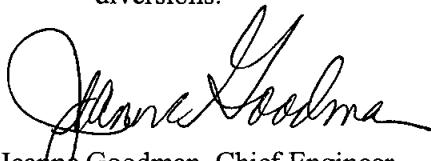
Based on the above criteria, it is recommended that the request for an additional new diversion point in the SE ¼ SE ¼ of Sec 13, T96N-R48W and the restoration of two existing wells located near the center of the SW ¼ of Sec 13, T96N-R48W be approved.



Bracken Capen
Natural Resources Engineer

The Chief Engineer makes a finding pursuant to SDCL 46-5-13.1 and ARSD 74:02:01:14:01 that:

These additional diversion points do not increase the potential for adverse effects to existing diversions.



Jeanne Goodman, Chief Engineer
Water Rights Program



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

September 27, 2013

3566-3

Jim Cole
29509 488th Ave
Hudson, SD 57034

Dear Mr. Cole:

Water Right No. 3566-3 appropriates 2.0 cubic feet per second (cfs) from one well completed into the Big Sioux: South aquifer (50 feet deep) located in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Sec 25, T96N-R48W for the irrigation of 30 acres in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Sec 25, 15 acres in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Sec 25 and 34 acres each in the NW $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Sec 13 (for a total of 181 irrigated acres); all in T96N-R48W in Lincoln County.

Currently, water is pumped through a pipe between sections 25 and 13 in order to irrigate the acreage in section 13 from the well located in section 25. You requested authorization for additional diversion points from two existing wells located near the center of the SW $\frac{1}{4}$ of Sec 13 and constructing a new well in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Sec 13. Calculations done by Bracken Capen, Staff Engineer show that unlawful impairment of an existing well associated with Water Right No. 6551-3 located 500 feet to the southwest of the proposed new well site is not expected to occur. However, the Water Rights Program encourages you to move the proposed well construction site as far north as possible to minimize potential interference with the closest well associated with 6551-3.

Upon review of the request and pursuant to SDCL 46-5-13.1, the addition of well locations is authorized without application or publication of a notice of hearing pursuant to SDCL 45-2A-4. No increase in the authorized diversion rate of 2.0 cfs (900 gallons per minute) or the number of acres irrigated (181 acres) from the Big Sioux: South aquifer is authorized. Consistent with the conversation on September 23, 2013, if the total diversion rate or the number of acres irrigated increases, a new water right permit will need to be obtained.

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

Sincerely,

A handwritten signature in black ink that reads "Jeanne Goodman". The signature is written in a cursive, flowing style.

Jeanne Goodman
Chief Engineer
Water Rights Program

10-17-12

RECEIVED

OCT 19 2012

WATER RIGHTS
PROGRAM

From: James H. Cole

To: Eric Grunlund

S.D. Water Rights Commission

Dear Sir,

As per our phone conversation on 10-15, consider this my request to change the point of diversion of water for the 136 acres in Section 13-96-48 on Permit No. 3566-3 back to Section thirteen, refurbishing the two old existing wells and adding a third well. Thank you very much for your assistance.

Sincerely,

James H. Cole

James H. Cole



United States Department of Agriculture
Farm Service Agency

J.H.C.
6-25-12

December 14, 2010



Lincoln County, SD

PLSS: 13_96N_48W
Farm: 5192

Common Land Units

1:7,847

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

RECEIVED

OCT 19 2012

**WATER RIGHTS
PROGRAM**

Wetland Determination Identifiers

- Restricted Use
- ▽ Limited Restrictions
- Exempt from Conservation Compliance Provisions

2010 Ortho-Photography - Not to Scale

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 24" Depth 45'
- b) Casing Type PVC Diameter 16" Thickness 1/2"
- c) Screen Type PVC Diameter 16" Thickness 1/2"
- d) Gravel Pack 1/8 to 3/8" pea rock Length of Gravel Pack 20'
- e) Depth to Top of Water Bearing Material 20'
- f) Depth to Water (ground surface to water level) 25'
- g) Distance to nearest existing domestic well:
On applicants property 300' On property owned by others _____

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) _____
- b) System Capacity (gallons) _____ Year Constructed _____
- c) Connected to the City of _____ Sanitary System

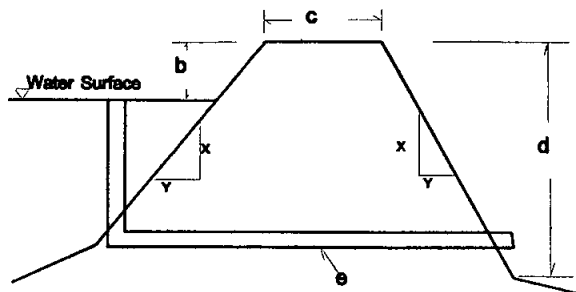
3. Dugout Information

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

4. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

- a) If a private engineering firm or government agency was involved in the design of this dam, please give their name and address:



- b) Freeboard _____
- c) Crest Width _____
Crest Length _____
- d) Height _____
- e) Primary Outlet Capacity _____
If pipe, diameter _____
- f) Secondary Spillway Capacity _____
Spillway Width _____
- g) X & Y Slope _____
Upstream _____
Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres

2011 Water Management Board Irrigation Questionnaire

Please fill out and return before **December 2, 2011**

EMBER! Return of this questionnaire is required **whether or not you irrigated this year.**
Return the completed form(s) to the Water Rights Program at 523 E Capitol, Pierre, SD 57501 3181 ph. (605) 773 3352
and your form(s) electronically over the internet at <http://denr.sd.gov/iq.aspx>

Permit No. 3566-3

JAMES H COLE
9509 488TH AVE
HUDSON SD 57034 6602

Any address/ownership corrections?

Email _____

Phone _____

1. Did you irrigate in 2011? *yes ☐ **no ☐
*If yes, 181 acres were irrigated out of
the 181 acres covered by Permit No. 3566-3

2. If your answer to question No. 1 is "no," you are done!
If you answered "yes," please complete Nos. 3, 4 & 5.

3. Did you apply chemicals or fertilizer through the
system in 2011? yes ☒ no ☐

4. If more than one water source is listed below, circle
each source used. A. GROUNDWATER

**If no, check reason(s) for not irrigating:
sufficient moisture ☐ no water available ☐
system not constructed ☐ use abandoned ☐
enrolled in CRP ☐ through what year? _____
other ☐ please explain in the Comment Box:

5. Provide your water use on the back of this form.

Comment Box



NW1/4	NE1/4	NW1/4	NE1/4
NW	NE		
SW1/4	SE1/4	SW1/4	SE1/4
SW	SE		
SW1/4	SE1/4	SW1/4	SE1/4
SW	SE		

1 square mile

Office use only

Acreage permitted for irrigation under No. 3566-3

(see above section map for help reading legal descriptions)

sec 13-T096N-R48W, NW1/4SW1/4 - 34.00 acres
sec 13-T096N-R48W, NE1/4SW1/4 - 34.00 acres
sec 13-T096N-R48W, SW1/4SW1/4 - 34.00 acres
sec 13-T096N-R48W, SE1/4SW1/4 - 34.00 acres
sec 25-T096N-R48W, NW1/4NW1/4 - 30.00 acres
sec 25-T096N-R48W, SW1/4NW1/4 - 15.00 acres

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OCT 19 2012

WATER RIGHTS
PROGRAM

3566-3

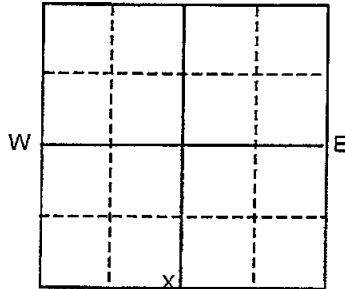
SD EForm - 1621LD V1

11-02

SOUTH DAKOTA WATER WELL COMPLETION REPORT

Location SE ¼ SW ¼ Sec 13 Twp 96N Rg 48WWell Owner: James ColeCounty Lincoln

North

Please mark well
location with an "X"

Business Name:

Address: 29509 488th AveCity, State, Zip: Hudson SD 57034

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top Soil	0	2
Sand	2	20
Gravel - Big Rocks	20	39

Well Completion Date

November 1, 2013

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
1,750.0 ft. from Septic Tank (identify source)

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test holes
☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

Bucket Method

STATIC WATER LEVEL 16.0 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	16.00 IN	0.0 FT	19.0 FT	30.00 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Bentonite	17	9.5 Lb/gal	0.0 Ft	19.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
Tremie Method

SCREEN:

☐ Perforated pipe ☒ ManufacturedDiameter 16.00 InchesLength 20.0 FeetMaterial PVCSlot Size .085 Set From 19.0 Feet to 39.0 Feet

Other information _____

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material? _____

Describe packer(s) and location _____

DISINFECTION: Was well disinfected upon completion?

☐ Yes, How? _____Lab to which water ☒ No, Why Not? Not Required
quality sample sent for analysis _____

WELL TEST DATA:

☒ Pumped Describe: _____☐ Bailed☐ Other _____

Pumping Level Below Land Surface

22.0 Ft. After 3.0 Hrs. pumped 150.0 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

RECEIVED

JAN 21 2014

WATER RIGHTS
PROGRAMThis well was drilled under license # 666
report is true and accurate.Drilling firm: Hammond-Wetmore Drilling, LLC

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: 1-15-2014