

Considered: _____

WATER PERMIT NO. 5612-3

Phone: 605 339-7025

Name of Applicant: City of Sioux Falls

Post Office Address: 224 West 9th St, Sioux Falls SD 57102

Amount of Water Claimed: 4.12 (1275 ac-ft) Total Acres: NA

Source of Water Supply: groundwater (4 wells)

Water to be used for: municipal use County: Minnehaha & Lincoln

About _____ miles NW of Sioux Falls

PROOF OF PUBLICATION: Received _____ Not Received _____

APPLICATION: Approved _____ Subject to _____

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

PRIORITY Date Received: 1-29-92 Fee: _____ Remarks Construction

to use water from Future Use Permit No. 5522-3

Corrected Application Received _____ Period of Annual Use January 1 - Dec 31

WATER QUALITY APPROVAL RECEIVED NA APPROVED/CONDITIONAL (Circle one)

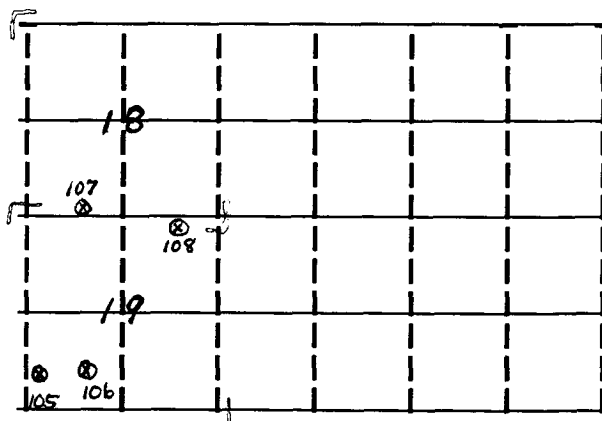
WI-1 Description same as Application YES _____ NO _____ REMARKS _____

Diversion Point: SW 1/4 SW 1/4, SE 1/4 SW 1/4,

NE 1/4 NE 1/4 Sec 19; SE 1/4 SW 1/4 Sec 18;

all in T103N-R50W

Land to be Irrigated: _____



Well Log: Driller: Layne Geosciences, Inc. Licensed YES _____ NO _____

Depth of Well: 30', 32', 35', 28' REMARKS _____

Type of Map: plat PREPARED BY: Lyle D Johnson Reviewed and the Number

Assigned on 1-30-92 By Karen Schlaak

SOUTH DAKOTA
WATER PERMIT No. 5612-3

Date of first receipt of application January 29, 1992.

Date of return to applicant for corrections, amendments or changes
January 30, 1992.

Date of receipt of corrected application February 26, 1992.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 5612-3 to the City of Sioux Falls, 224 West Ninth St., Sioux Falls SD 57102 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 5612-3 will construct and place to beneficial use 4.12 cubic feet of water per second (1,275 acre-feet annually) from four wells 28 to 35 feet deep located in the SW 1/4 SW 1/4, SE 1/4 SW 1/4, NE 1/4 NE 1/4 Section 19; SE 1/4 SW 1/4 Section 18; all in T103N-R50W. This water was appropriated and reserved by Future Use Permit No. 5522-3.
2. The water appropriated shall be used for the purpose of supplying water to the City of Sioux Falls and may not exceed the amount of water needed for beneficial use for municipal purposes.
3. The water is to be used during the following described annual period: January 1 - December 31.
4. The date of approval of Permit No. 5612-3 is April 29, 1992.
5. The date from which applicant may claim right is August 22, 1991.
6. One-fifth of the construction is to be completed on or before October 29, 1994.
7. All construction is to be completed on or before April 29, 1997.
8. Water is to be put to beneficial use on or before April 29, 2001.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

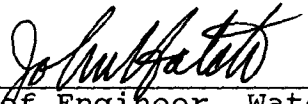
QUALIFICATIONS

1. The 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. The wells authorized pursuant to this permit shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04.

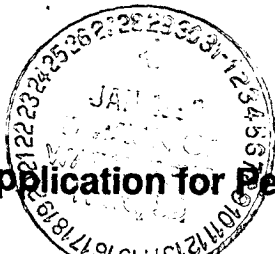
(continued)

3. Approval of Permit No. 5612-3 authorizes a total annual diversion of 1,275 acre-feet of water annually.
4. The City of Sioux Falls shall report to the Chief Engineer annually the amount of water withdrawn each year from the Big Sioux:Middle Skunk Creek Aquifer.
5. If development and pumping of Middle Skunk Creek Aquifer water authorized by Water Permit No. 5612-3 results in adverse impairment of adequate domestic wells or adequate wells having prior water rights, reduction of withdrawals or mitigation may be necessary. SDCL 46-1-5(1), in giving preference to domestic use over appropriative rights does so without regard to 1) whether lowered groundwater levels are due to drought, 2) the location of domestic wells in the aquifer, or 3) the thickness of the water bearing sands and gravel; subject to compliance with minimum requirements for adequate wells as defined by Board Well Construction Standards, Chapter 74:02:04.

WATER MANAGEMENT BOARD

By: 
Chief Engineer, Water Rights Division
Department of Environment and Natural Resources

JUL 1 1992
date



No. 5612-3 Hydrologic Unit 10170203
 Map No. _____ Basin Big Sioux River
 Newspaper Angus Leader & Lennox Independent

Mail to: Water Rights Div.
 523 East Capitol
 Pierre, SD 57501
 (605) 773-3352

Application for Permit to Appropriate Water Within the State of South Dakota

Check use of water: Industrial ☐ Commercial ☐ Municipal ☒ Other Common Distribution System ☐
 Rural Water System ☐ Suburban Housing ☐ Geothermal Heat ☐ Institutional ☐ Recreational ☐
 Domestic ☐ (above 18gpm) Other ☐

Type of Application: Check one or more of the following

New ☒ Vested Right ☐ Future Use ☐ Change Use ☐

☐ Amend Permit No. _____ with old priority date retained

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

☐ Application to: Change diversion point(s) ☐ Add diversion point(s) ☐ on Permit No. _____

☒ Construction to use water reserved by Future Use Permit No. 5522-3

Agreement No. 136-92

P.O. No. 35695

Dollar Amt. \$1,879.00

Dept. No. 73

Attorney _____

Finance _____

1. Name of Applicant City of Sioux Falls Phone No. (605) 339-7025

Post Office Address 224 West Ninth Street, Sioux Falls State SD 57102

2. Amount of water claimed (c.f.s) 4.12 cfs from 4 wells; 1275 acre-feet annually

3. Source of water supply 4 wells in Middle Skunk Creek Aquifer

4. Location of point of diversion T103N, R50W, Section 19: Well 105 @ SW 1/4 of SW 1/4; Well 106 @ SE 1/4 of SW 1/4; Well 108 @ NE 1/4 of NE 1/4. T103N, R50W, Section 18: Well 107 @ SE 1/4 of SW 1/4 County Minnehaha

5. Counties where water will be used Minnehaha and Lincoln

6. Annual period during which water is to be used January 1 - December 31

7. 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.)
See Attached Engineering Report

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 Minnehaha) SS

I, Jack White, Mayor, City of Sioux Falls the applicant, certify that I have read this application, have examined the attached map and that the matters stated are true and that I intend, and am able to complete the necessary construction.

Signed Jack White
 MAYOR

Subscribed and sworn to before me this _____ day of JAN 2 1 1992 19 _____

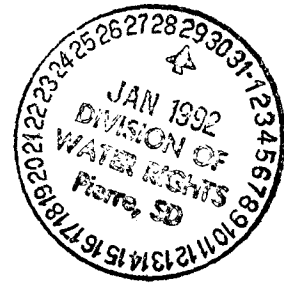
Dianne Mett

DIANNE METT, Notary Public
 My Commission Expires Dec. 3, 1992

Supplemental Information

Well 105

(type or print in ink)



1. Well Information - Proposed construction

- a) Drill Hole Diameter 48 inches Depth 30 feet
- b) Casing Type Mild Steel Diameter 36 inches Thickness 0.5 inches
- c) Screen Type Stainless Steel Diameter 36 inches Thickness 0.5 inches
- d) Gravel Pack Thickness 6 inches Length of Gravel Pack 15 feet
- e) Depth to Top of Water Bearing Material 5 feet
- f) Depth to Water (ground surface to water level) 7 feet
- g) Distance to nearest existing domestic well:
- On applicant's property _____ On property owned by others Estimated 1400 ft.

2. Dugout Information Estimates

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

3. Water Storage Dams

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

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

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____
If pipe, diameter _____

f) Secondary Spillway Capacity _____
Spillway width _____

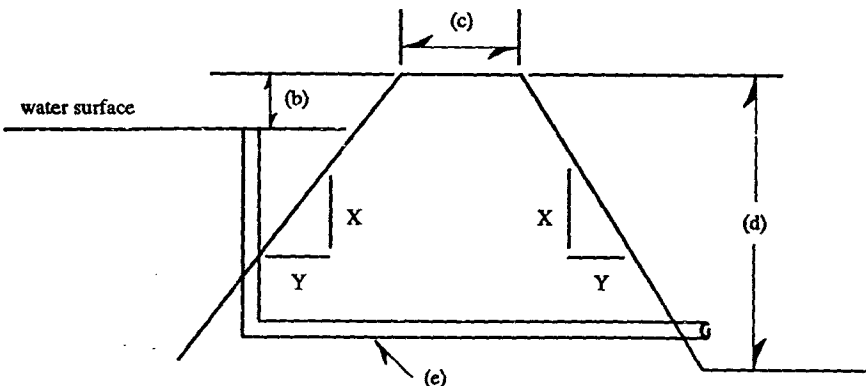
g) X & Y Slope
Upstream _____

Downstream _____

Surface Area of Impoundment _____

Storage _____ acre feet

Drainage area above dam _____



[Signature]
Signature of Applicant

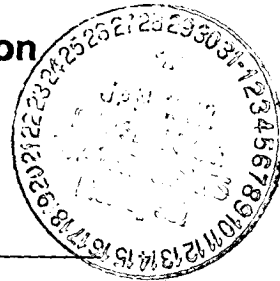
DTP/G37505 PM4

3B75-022/WP/075/03/3B75

Supplemental Information

Well 106

(type or print in ink)



1. Well Information - Proposed construction

- a) Drill Hole Diameter 54 inches Depth 32 feet
- b) Casing Type Mild Steel Diameter 30 inches Thickness 0.5 inches
- c) Screen Type Stainless Steel Diameter 30 inches Thickness 0.5 inches
- d) Gravel Pack Thickness 12 inches Length of Gravel Pack 15 feet
- e) Depth to Top of Water Bearing Material 6 feet
- f) Depth to Water (ground surface to water level) 4 feet
- g) Distance to nearest existing domestic well:
- On applicant's property _____ On property owned by others Estimated 1500 ft.

2. Dugout Information Estimates

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

3. Water Storage Dams

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

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

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____
If pipe, diameter _____

f) Secondary Spillway Capacity _____
Spillway width _____

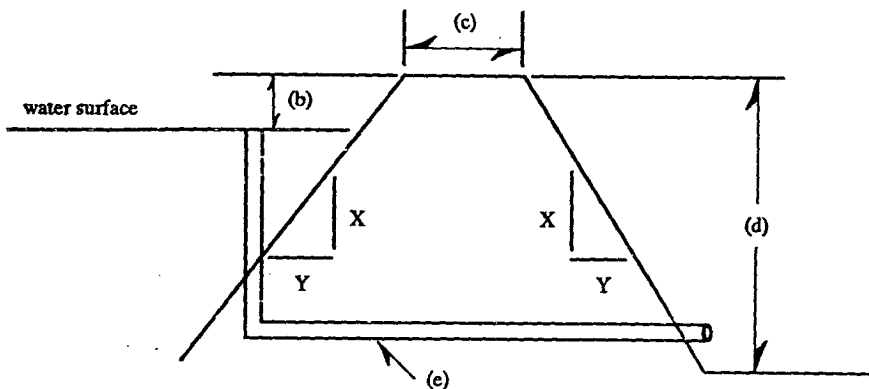
g) X & Y Slope
Upstream _____

Downstream _____

Surface Area of Impoundment _____

Storage _____ acre feet

Drainage area above dam _____



[Signature]
Signature of Applicant

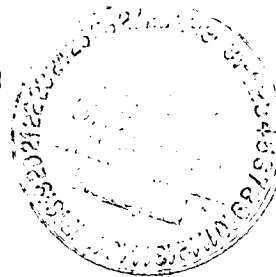
DTP/G37505.PM4

3B75-022/WP/075/03/3B75

Supplemental Information

Well 107

(type or print in ink)



1. Well Information - Proposed construction

- a) Drill Hole Diameter 54 inches Depth 35 feet
- b) Casing Type Mild Steel Diameter 36 inches Thickness 0.5 inches
- c) Screen Type Stainless Steel Diameter 36 inches Thickness 0.5 inches
- d) Gravel Pack Thickness 9 inches Length of Gravel Pack 20 feet
- e) Depth to Top of Water Bearing Material 7 feet
- f) Depth to Water (ground surface to water level) 5 feet
- g) Distance to nearest existing domestic well:
- On applicant's property _____ On property owned by others Estimated 900 ft.

2. Dugout Information Estimates

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

3. Water Storage Dams

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

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

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____
If pipe, diameter _____

f) Secondary Spillway Capacity _____
Spillway width _____

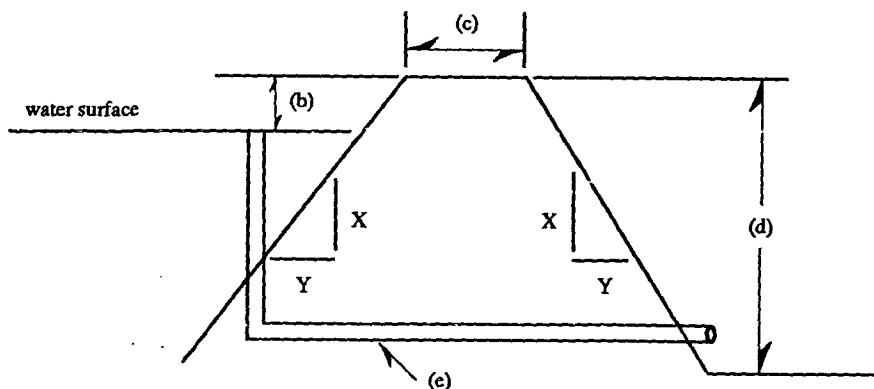
g) X & Y Slope
Upstream _____

Downstream _____

Surface Area of Impoundment _____

Storage _____ acre feet

Drainage area above dam _____



DTP/G37505.FM4

Signature of Applicant

3B75-022/WP/075/03/3B75

Supplemental Information

Well 108

(type or print in ink)



1. Well Information - Proposed construction

- a) Drill Hole Diameter 54 inches Depth 28 feet
- b) Casing Type Mild Steel Diameter 36 inches Thickness 0.5 inches
- c) Screen Type Stainless Steel Diameter 36 inches Thickness 0.5 inches
- d) Gravel Pack Thickness 9 inches Length of Gravel Pack 15 feet
- e) Depth to Top of Water Bearing Material 5 feet
- f) Depth to Water (ground surface to water level) 5 feet
- g) Distance to nearest existing domestic well:

On applicant's property _____ On property owned by others Estimated 2400 ft.

2. Dugout Information Estimates

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

3. Water Storage Dams

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

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

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____
If pipe, diameter _____

f) Secondary Spillway Capacity _____
Spillway width _____

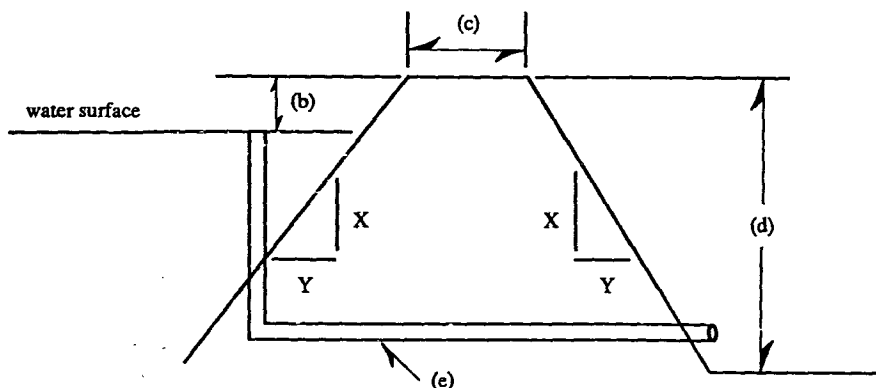
g) X & Y Slope
Upstream _____

Downstream _____

Surface Area of Impoundment _____

Storage _____ acre feet

Drainage area above dam _____

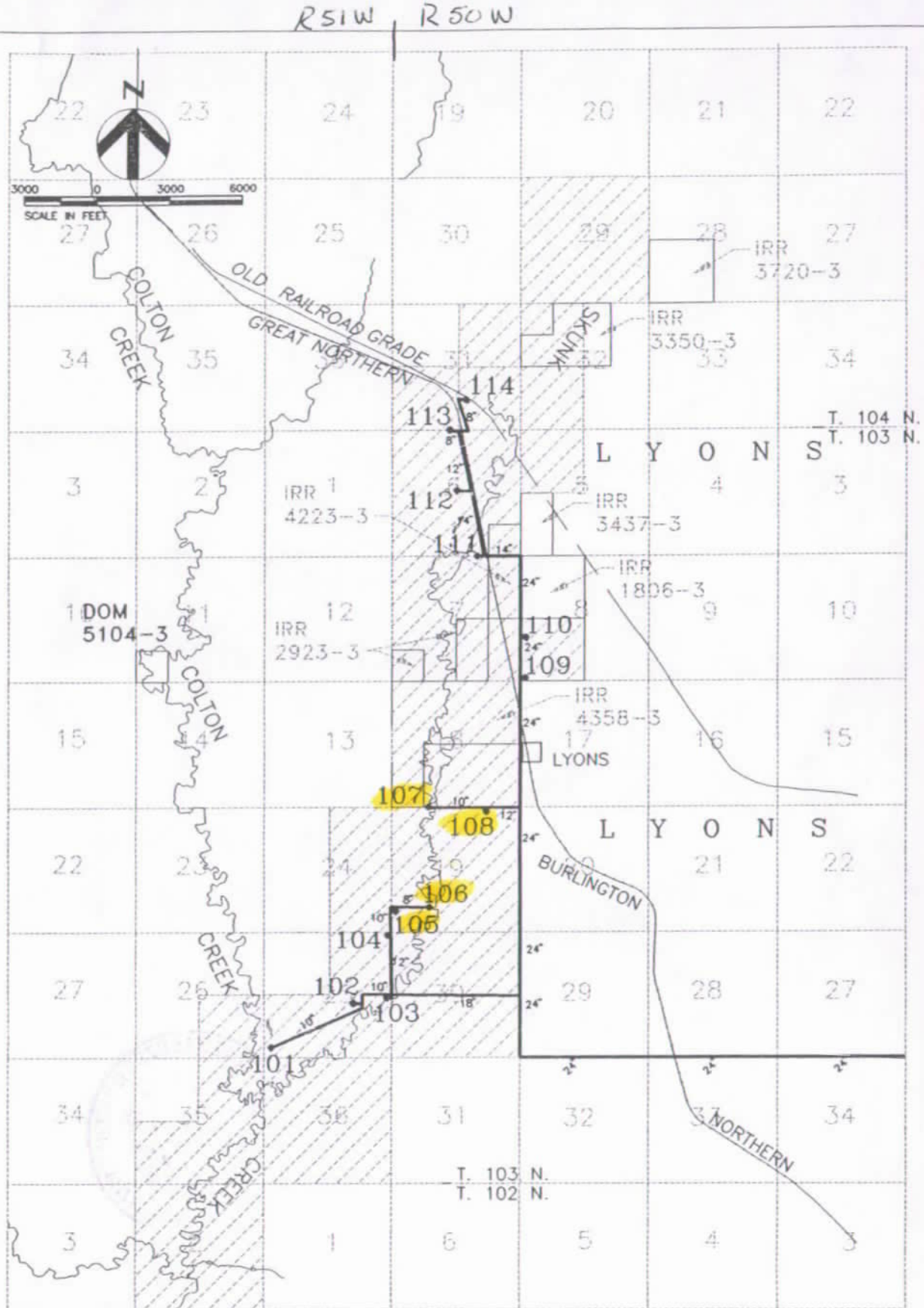


[Signature]

Signature of Applicant

DTR/G37505/PM4

3B75-022/WP/075/03/3B75



HDR

**MIDDLE SKUNK CREEK
WELL FIELD PLAN**

HDR Engineering, Inc.

Eng. D. Johnson, PE # 3861

Date
NOV 91

Figure

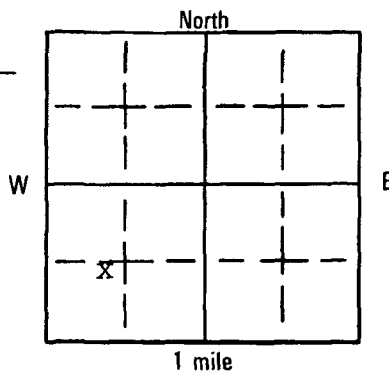
1

SOUTH DAKOTA WATER WELL COMPLETION REPORT

10-85

Location 1/4 SW 1/4 Sec 19 Twp 103N Rg 50W

County

MinnehahaPlease mark well
location with
an "X"Well Completion Date 10/13/93

PROPOSED USE:

☐ Domestic ☒ Municipal ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Stock

Method of Drilling:

Reverse Circulation Rotary

CASING DATA:

☒ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>142</u> LB/FT	<u>36</u> IN	<u>15.4</u> FT	<u>GL</u> FT	<u>48</u> IN
<u>166</u> LB/FT	<u>42</u> IN	<u>12</u> FT	<u>GL</u> FT	<u>48</u> IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUT:

Was the well grouted? ☒ YES ☐ NOTo what depth? 7' to 2' FEETWhat is grouting material? SlurryIf cement, number of sacks? 23 bags p/ cu ydDescribe grouting procedure Hopper and tremmie pipe
from bottom upWhat was grout weight? 15.4 LB/GALSCREEN: ☐ Perforated pipe ☒ ManufacturedDiameter 36 IN Length 10.4 FEETMaterial Stainless SteelSlot Size .080 Set From 25.8 Feet To 15.4 Feet

Slot Size _____ Set From _____ Feet To _____ Feet

Well Owner:

Name City of Sioux Falls1400 No. MinnesotaAddress Sioux Falls, SD

Well Log:

Depth

Formation

From

To

See Attached LogWell No. 105STATIC WATER LEVEL 1.2 Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch p

Controlled by ☐ Valve ☐ Reducers ☐ Other

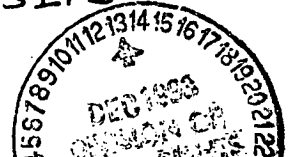
If other, specify _____

Can well be completely shut in? _____

WELL TEST DATA:

☒ Pumped 16 hr & 24 hr constant☐ Bailed Describe: _____☐ Other _____

Pumping Level Below Land Surface

13.24 ft. After 4 Hrs. pumped 300 G13.50 ft. After 12 Hrs. pumped 300 G13.62 ft. After 24 Hrs. pumped 300 GREMARKS: ALSO 2 MONITORING
WELLS ON SITE

Layne-Western Company, Inc.

Well Information

Omaha, Nebraska

1. Contract Rice Lake Contracting Date 10/12/93

2. City and State City of Sioux Falls, SD. Driller Dave Deaver

3. Well No. 105 at test hole No. 105 Well location (attach map)

So. 1/2 lot 2 SW 1/4 Sec 19 Twp 103N R50W

4. Work completed No of man hours as charged to job on time sheet

5. MATERIAL:	LENGTH	DIA.	GAUGE OR WALL THICKNESS	MATERIAL	TYPE	NO. OF OPENINGS
6. Screen	<u>10.4'</u>	<u>36"</u>	<u>.375</u>	<u>SS</u>	<u>WR</u>	<u>.080</u>
7. Inner Casing	<u>15.4'</u>	<u>36"</u>	<u>.375</u>	<u>Black</u>	<u>Blank</u>	
8. Outer Casing	<u>19.5'</u>	<u>42"</u>	<u>.375</u>	<u>Black</u>	<u>Blank</u>	

9. 10 tons of gravel used in the well. Size No. 3 Northern Gravel Company

10. Test of well. Did you use test or permanent pump? Size of Bowl Stages

11. Size of orifice inch by inch. Orifice tube reading inches.

12. Pumping test -- measurements from ground level:

TIME	G.P.M.	STATIC	DRAWDOWN	PUMPING LEVEL

13. Recovery in 5 minutes in 30 minutes

14. Did you seal bottom of well? Yes Thickness .375 inches, material Black Plate

15. Well underreamed? No From feet to feet to feet to feet

16. If all screen was not placed at bottom, state how it was spaced.

From 25.8 feet to 15.4 feet; from feet to feet; from feet to feet

17. Depth of well from ground level to top of plug 29' Size of drilled hole 48"

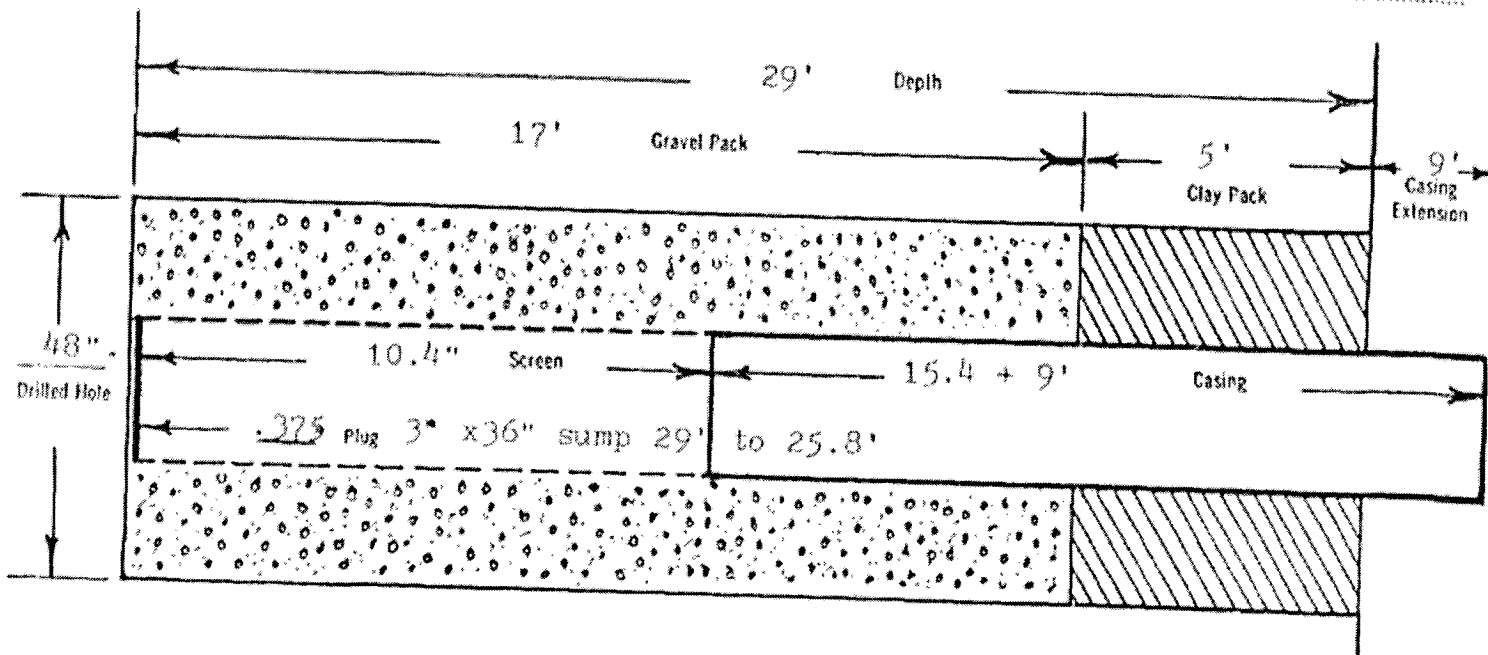
18. Was cement placed around or between any of the casings? Yes

19. If so, state where, how much and method used. 2' to 2' 1 yard tremmied

CONTRACT Rice Lake Contracting - City of Sioux Falls, SD Well No. 105

Log of well from ground level:

Feet	Feet	Formation
0	to 5	Topsoil and clay
5	to 15	Sand and gravel
15	to 20	Sand and Large gravel
20	to 28	Sand and gravel
28	to 33	Sandy green clay
	to	
	to	
	to	
	to	
	to	
	to	
	to	
	to	
	to	
	to	
	to	



Contract 4 - Sioux Falls, South Dakota
HDR Project No.: 01450-077-135

Construction of Well No. 105

Method used: Reverse

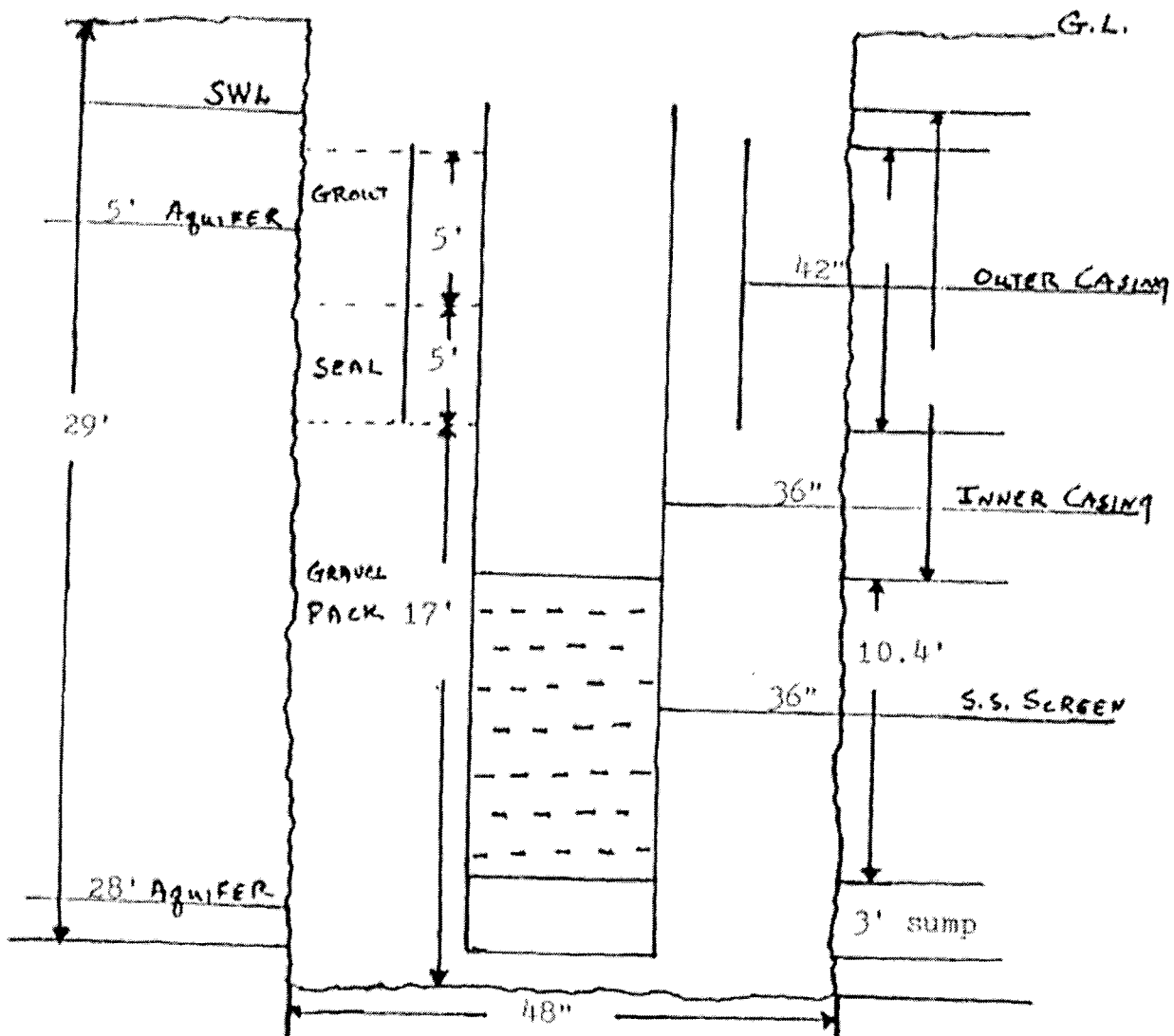
Date Started: 10/9/93

Drilling date(s): 10/10/93 10/11/92 10/12/93

Date casing and screen installed: 10/12/93

Date cement grouted: 10/13/93 No. cu. yards: one (1)
(Cement slurry - 23 bags per cubic yard with 6 gallons H₂O
weighing 15.6 # per gallons)
(Method - Hopper with tremie pipe)

Construction completion date: 10/13/93



10-85

5878910111213141516171819202122

1. Contract Rice Lake Contracting Date 10/15/93
 2. City and State Sioux Falls, SD Driller Dave Deaver/Harold Sta
 3. Well No. 106 at test hole No. 106 Well location (attach map)
E 1/2 SW 1/4 SEC 19 TWP 103N R50W

4. Work completed..... No of man hours as charged to job on time sheet.....

5. MATERIAL:	LENGTH	DIA.	GAUGE OR WALL THICKNESS	MATERIAL	TYPE	NO. OF OPENINGS
6. Screen	<u>15.4'</u>	<u>30"</u>	<u>.375</u>	<u>SS</u>	<u>WR</u>	<u>100</u>
7. Inner Casing	<u>17.1'</u>	<u>30"</u>	<u>.375</u>	<u>Black</u>	<u>Blank</u>	
8. Outer Casing	<u>22.3'</u>	<u>36"</u>	<u>.375</u>	<u>Black</u>	<u>Blank</u>	

9. 1.3 tons of gravel used in the well. Size 3/16 x 6 x 8 x 10 Northern Gravel Company

10. Test of well. Did you use test or permanent pump?

11. Size of orifice.....inch by.....inch. Orifice tube reading.....inches.
 Size of Bowl Stages

12. Pumping test - measurements from ground level:

TIME	G.P.M.	STATIC	DRAWDOWN	PUMPING LEVEL
.....				
.....				
.....				
.....				
.....				
.....				
.....				
.....				

13. Recovery in 5 minutes....., in 30 minutes.....

14. Did you seal bottom of well? Yes. Thickness .375 inches, material Black Plate

15. Well underreamed? No. From.....feet to.....feet,.....feet to.....feet.

16. If all screen was not placed at bottom, state how it was spaced.

From 32.5' feet to 17.1' feet; from.....feet to.....feet; from.....feet to.....feet.

17. Depth of well from ground level to top of plug 35.5' Size of drilled hole 54"

18. Was cement placed around or between any of the casings? Yes

19. If so, state where, how much and method used. 9' to 5' 2 cu. yds. tremmied

Log of well from ground level:

Diagram illustrating the cross-section of a well casing and pack system. The diagram shows a central casing pipe with a screen section. The casing is surrounded by a gravel pack and a clay pack. The total depth is 35.5'. The gravel pack is 21.5' thick. The clay pack is 5' thick. The casing is 9' long. The screen section is 15.4' long. The casing is 17.1' + 9' long. The casing is 3' x 30" sump. The casing is 54" drilled hole. The casing is 375 Plug.

Contract 4 - Sioux Falls, South Dakota
HDR Project No.: 01450-077-135

Construction of Well No. 106

Method used: Reverse

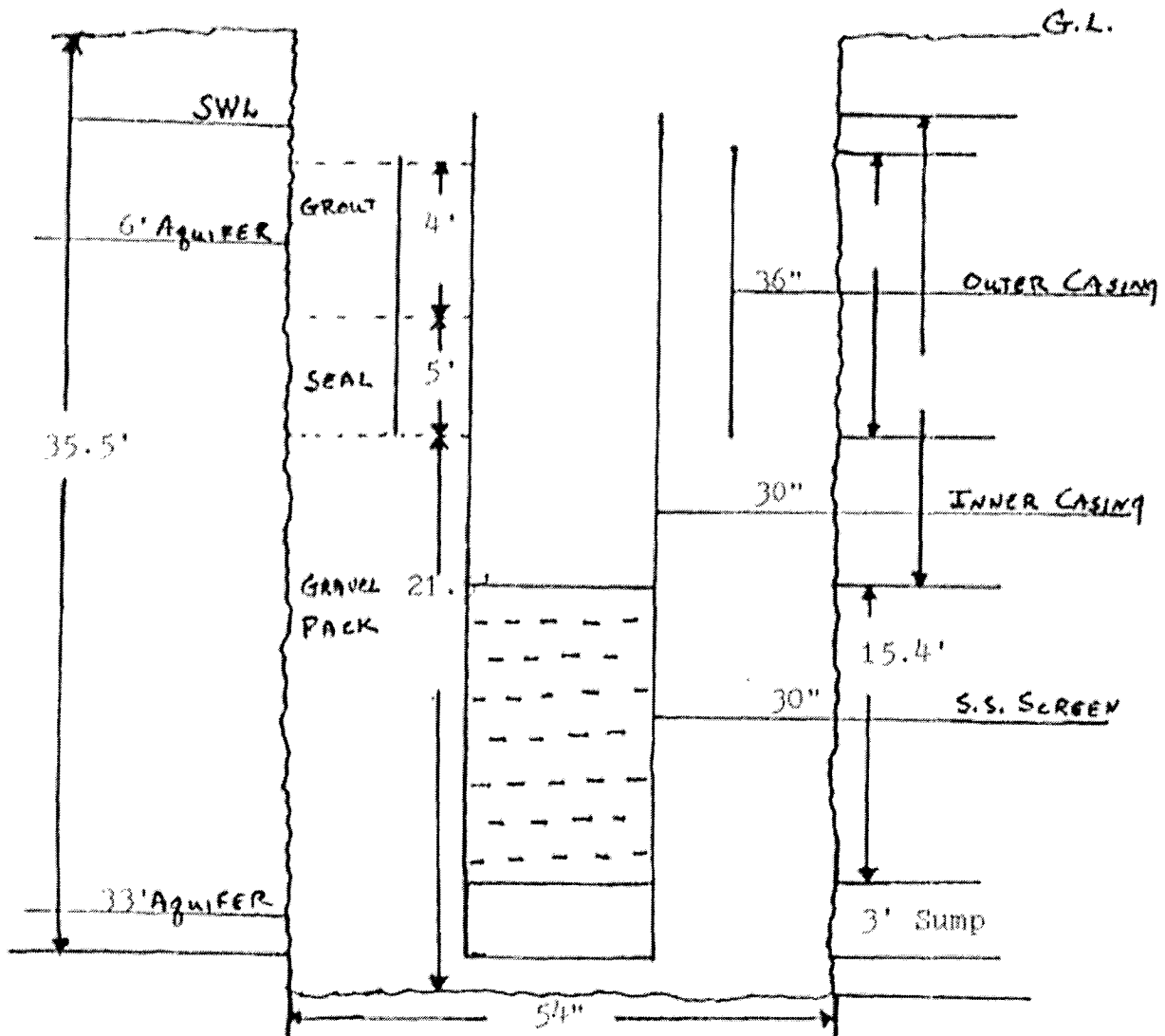
Date Started: 10/13/93

Drilling date(s): 10/14/93 10/15/93 10/16/93

Date casing and screen installed: 10/15/93

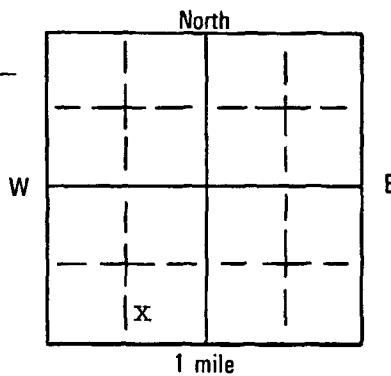
Date cement grouted: 10/16/93 No. cu. yards: 2
(Cement slurry - 23 bags per cubic yard with 6 gallons H₂O
weighing 15.6 # per gallons)
(Method - Hopper with tremie pipe)

Construction completion date: 10/16/93



SOUTH DAKOTA WATER WELL COMPLETION REPORT

10-85

Location E 1/2 SW 1/4 Sec 18 Twp 103N Rg 50WCounty
MinnehahaPlease mark well
location with
an "X"Well Completion Date 11/3/93

PROPOSED USE:

☐ Domestic ☒ Municipal ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Stock

Method of Drilling:

Reverse Circulation Rotary

CASING DATA:

☒ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>142</u> LB/FT	<u>36"</u> IN	<u>17.5</u> FT	<u>GL</u> FT	<u>54</u> IN
<u>166</u> LB/FT	<u>42</u> IN	<u>12</u> FT	<u>GL</u> FT	<u>54</u> IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUT:

Was the well grouted? ☒ YES ☐ NOTo what depth? 6' to 2' 1.5 cu yds FEETWhat is grouting material? SlurryIf cement, number of sacks? 23 bags p/ cu ydDescribe grouting procedure Hopper and tremmie pipe
from bottom up.What was grout weight? 15.4 LB/GALSCREEN: ☐ Perforated pipe ☒ ManufacturedDiameter 36 IN Length 15.4 FEETMaterial Stainless SteelSlot Size .090 Set From 32.9 Feet To 17.5 Feet

Slot Size _____ Set From _____ Feet To _____ Feet

Well Owner:

Name City of Sioux Falls
1400 No. Minnesota
 Address Sioux Falls, SD

Well Log:

Depth

Formation

From

To

See Attached LogWell No. 107STATIC WATER LEVEL 1.92 Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch p

Controlled by ☐ Valve ☐ Reducers ☐ Other

If other; specify _____

Can well be completely shut in? _____

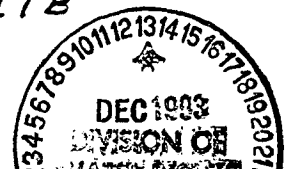
WELL TEST DATA:

☒ Pumped 16 hr step and 24 hr co☐ Bailed

Describe: _____

☐ Other _____

Pumping Level Below Land Surface

14.43 ft. After 4 Hrs. pumped 528 G14.67 ft. After 12 Hrs. pumped 528 G14.94 ft. After 24 Hrs. pumped 528 GREMARKS: ALSO 2 MONITORING
WELLS ON SITE

1. Contract Rice Lake Contracting Date 11/2/93
 2. City and State Sioux Falls, SD. Driller Dave Deaver
 3. Well No. 107 at test hole No. 107 Well location (attach map)
E 1/2 of SW 1/4 SEC 18 TWP 103N RG 50W
 4. Work completed..... No of man hours as charged to job on time sheet.....
 5. MATERIAL:
- | | LENGTH | DIA. | GAUGE OR WALL THICKNESS | MATERIAL | TYPE | NO. OF OPENINGS |
|-----------------|-------------|------------|-------------------------|--------------|--------------|-----------------|
| 6. Screen | <u>15.4</u> | <u>36"</u> | <u>.375</u> | <u>SS</u> | <u>WR</u> | <u>.090</u> |
| 7. Inner Casing | <u>17.5</u> | <u>36"</u> | <u>.375</u> | <u>Black</u> | <u>Blank</u> | |
| 8. Outer Casing | <u>20.1</u> | <u>42"</u> | <u>.375</u> | <u>Black</u> | <u>Blank</u> | |
9. 1.5 tons of gravel used in the well. Size 1/4 x 10 Northern Gravel company
 10. Test of well. Did you use test or permanent pump?.....
Size of Bowl..... Stages.....
 11. Size of orifice..... inch by..... inch. Orifice tube reading..... inches.
 12. Pumping test — measurements from ground level:

TIME	G.P.M.	STATIC	DRAWDOWN	PUMPING LEVEL
.....				
.....				
.....				
.....				
.....				
.....				
.....				

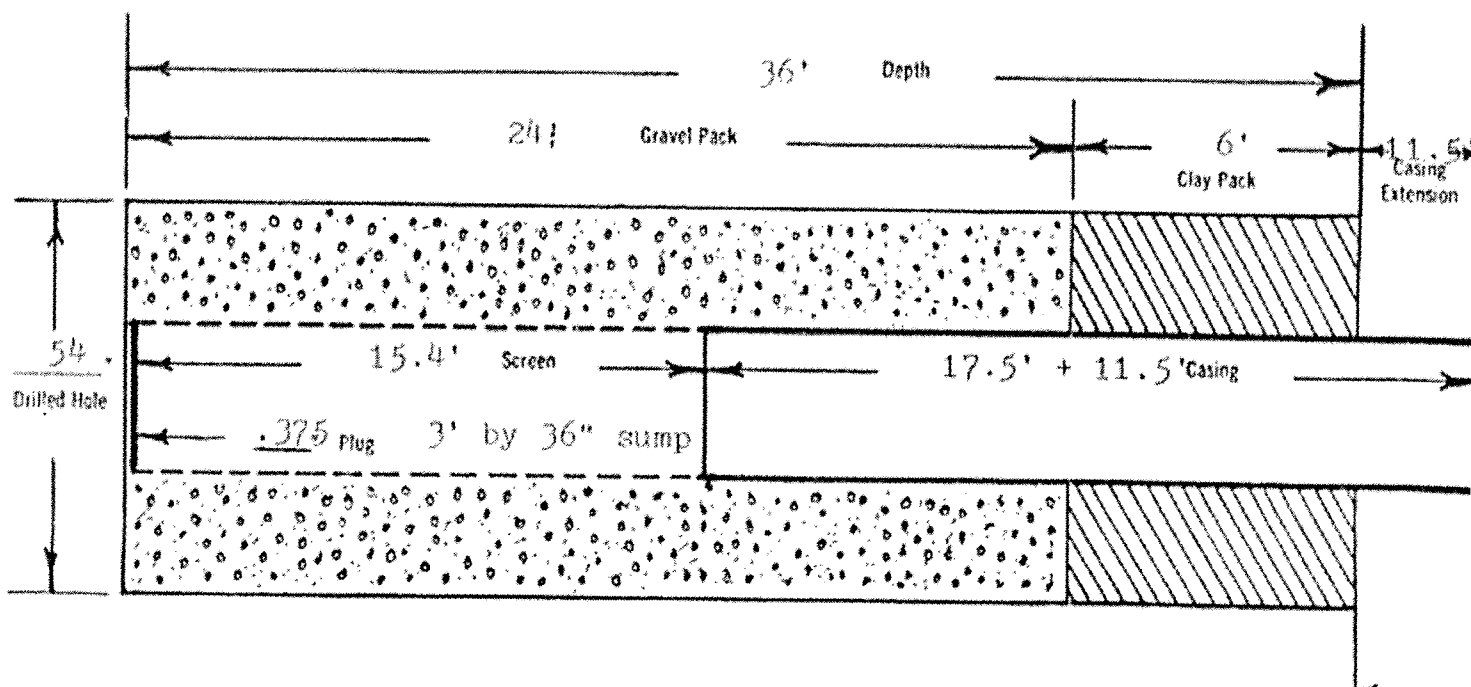
13. Recovery in 5 minutes..... in 30 minutes.....
14. Did you seal bottom of well? Yes Thickness .375 inches, material Black
15. Well underreamed? No From..... feet to..... feet,..... feet to..... feet.
16. If all screen was not placed at bottom, state how it was spaced.
From 32.2 feet to 17.5 feet; from..... feet to..... feet; from..... feet to..... feet.
17. Depth of well from ground level to top of plug 16' Size of drilled hole 5 1/2"
18. Was cement placed around or between any of the casings? Yes
19. If so, state where, how much and method used. 6' to 2' 1.5 cu yds Tremmied

CONTRACT Rice Lake Contracting

Well No. 107

Log of well from ground level:

Feet	Feet	Formation
0	to 4	Topsoil and clay
4	to 13	Sand and gravel
13	to 15	Sand and Large gravel
15	to 20	Sand and gravel
20	to 31	Sand and large gravel
31	to 33	sand and cobbles
33	to 36	Sandy green clay and cobbles
	to	
	to	
	to	
	to	
	to	
	to	
	to	
	to	
	to	



Contract 4 - Sioux Falls, South Dakota
HDR Project No.: 01450-077-135

Construction of Well No. 107

Method used: Reverse

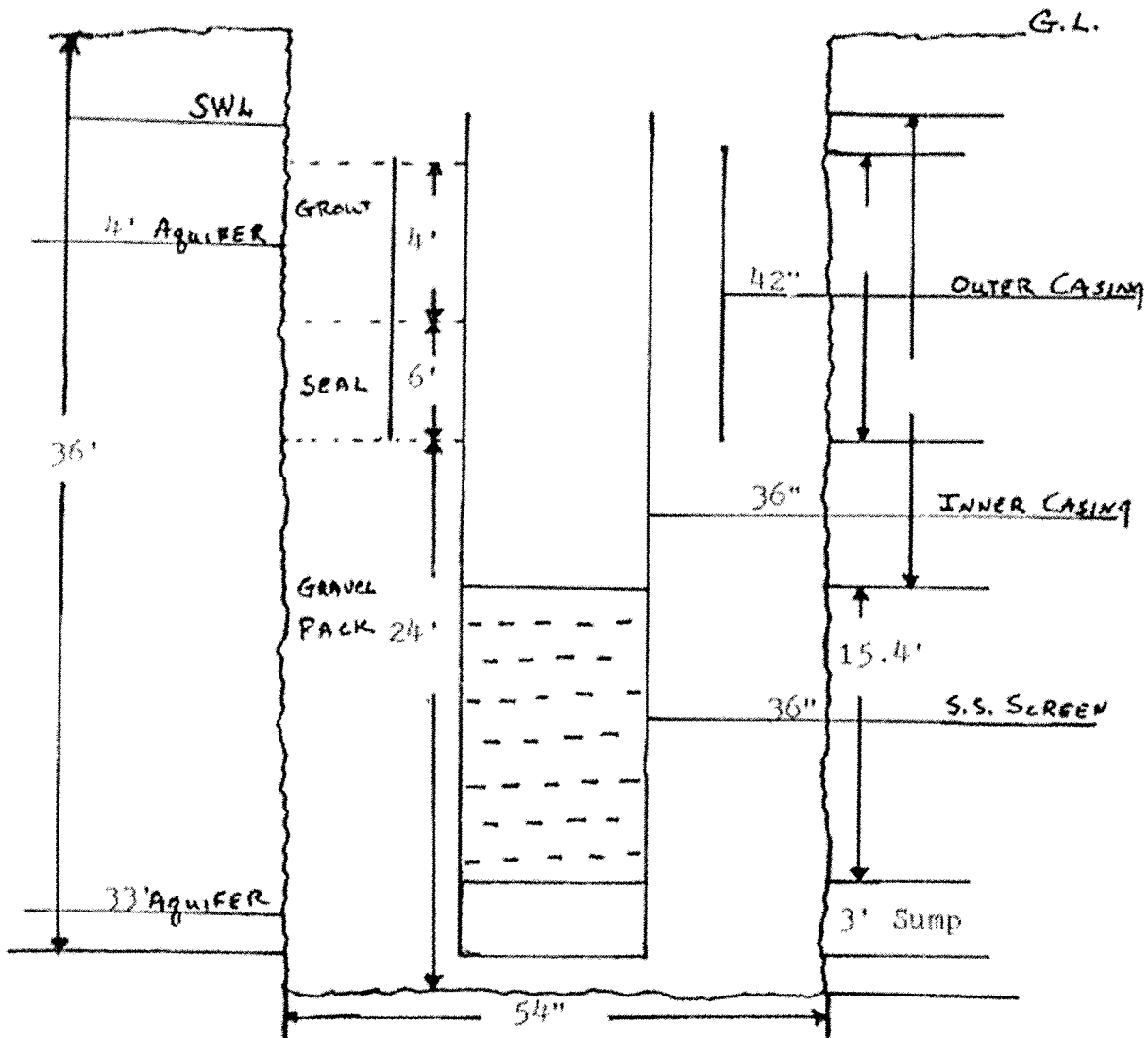
Date Started: 10/29/93

Drilling date(s): 10/30/93 10/31/93 11/1/93 11/2/93

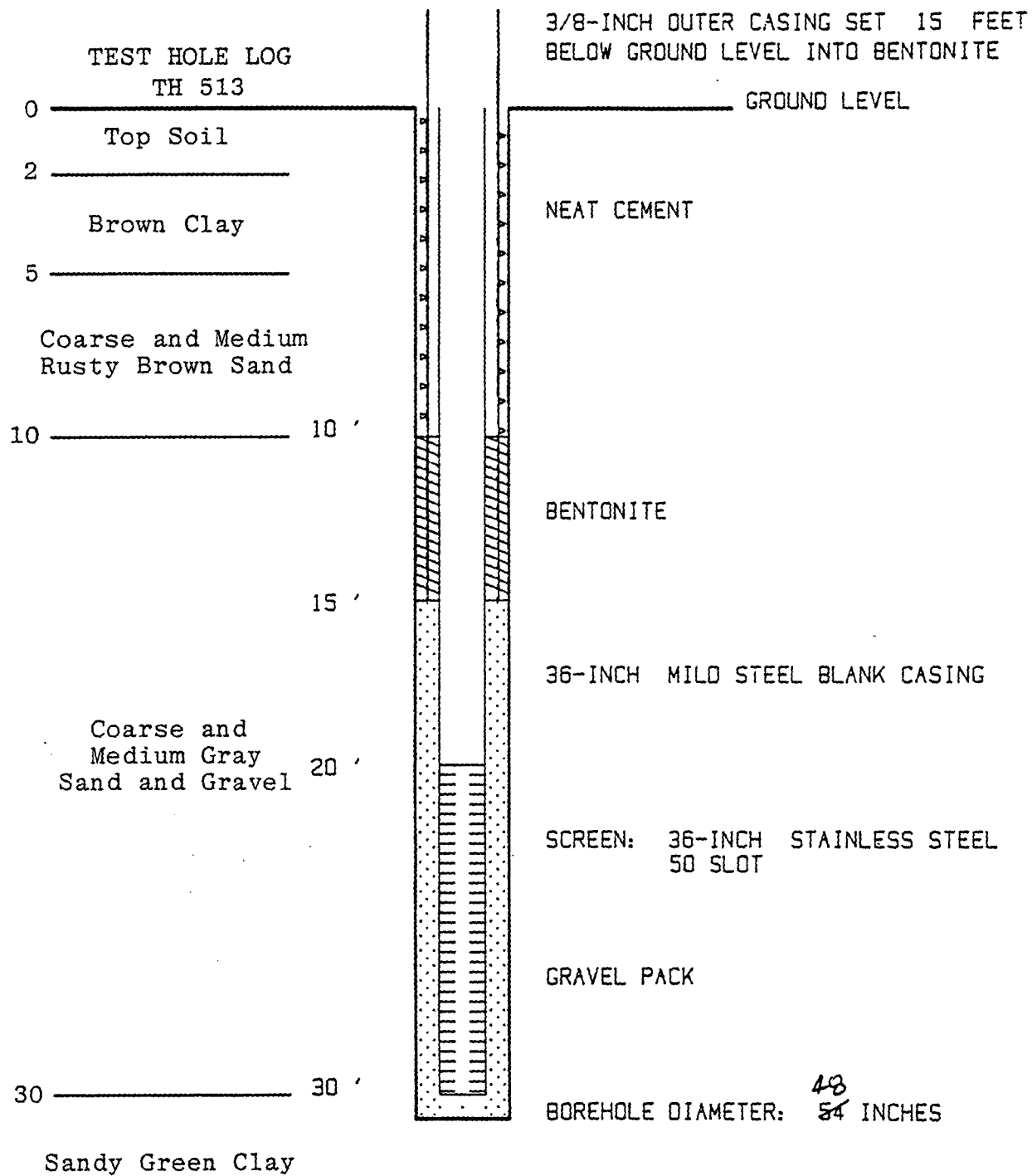
Date casing and screen installed: 11/2/93

Date cement grouted: 11/3/93 No. cu. yards: 1.5
(Cement slurry - 23 bags per cubic yard with 6 gallons H₂O
weighing 15.6 # per gallons)
(Method - Hopper with tremie pipe)

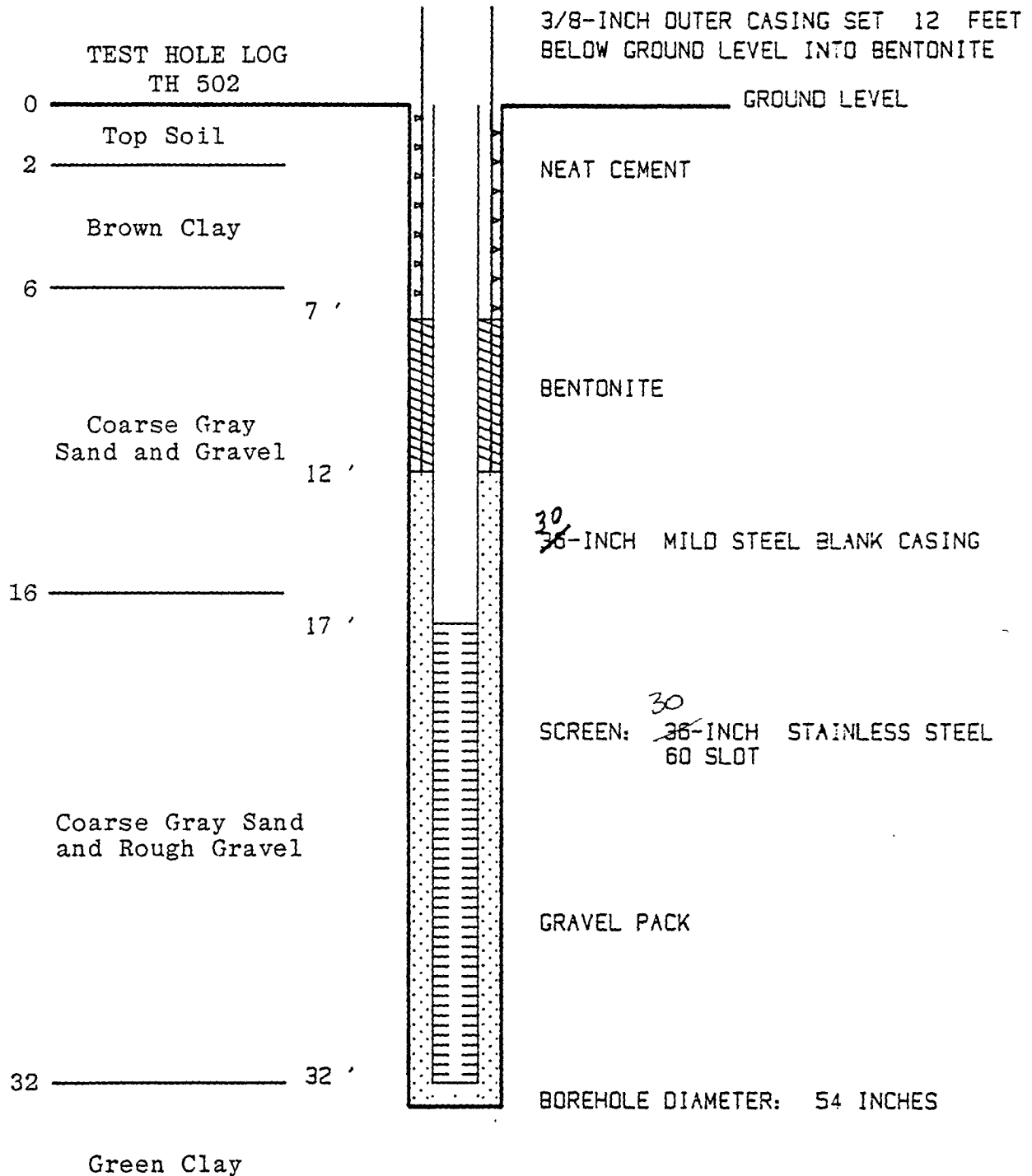
Construction completion date: 11/3/93



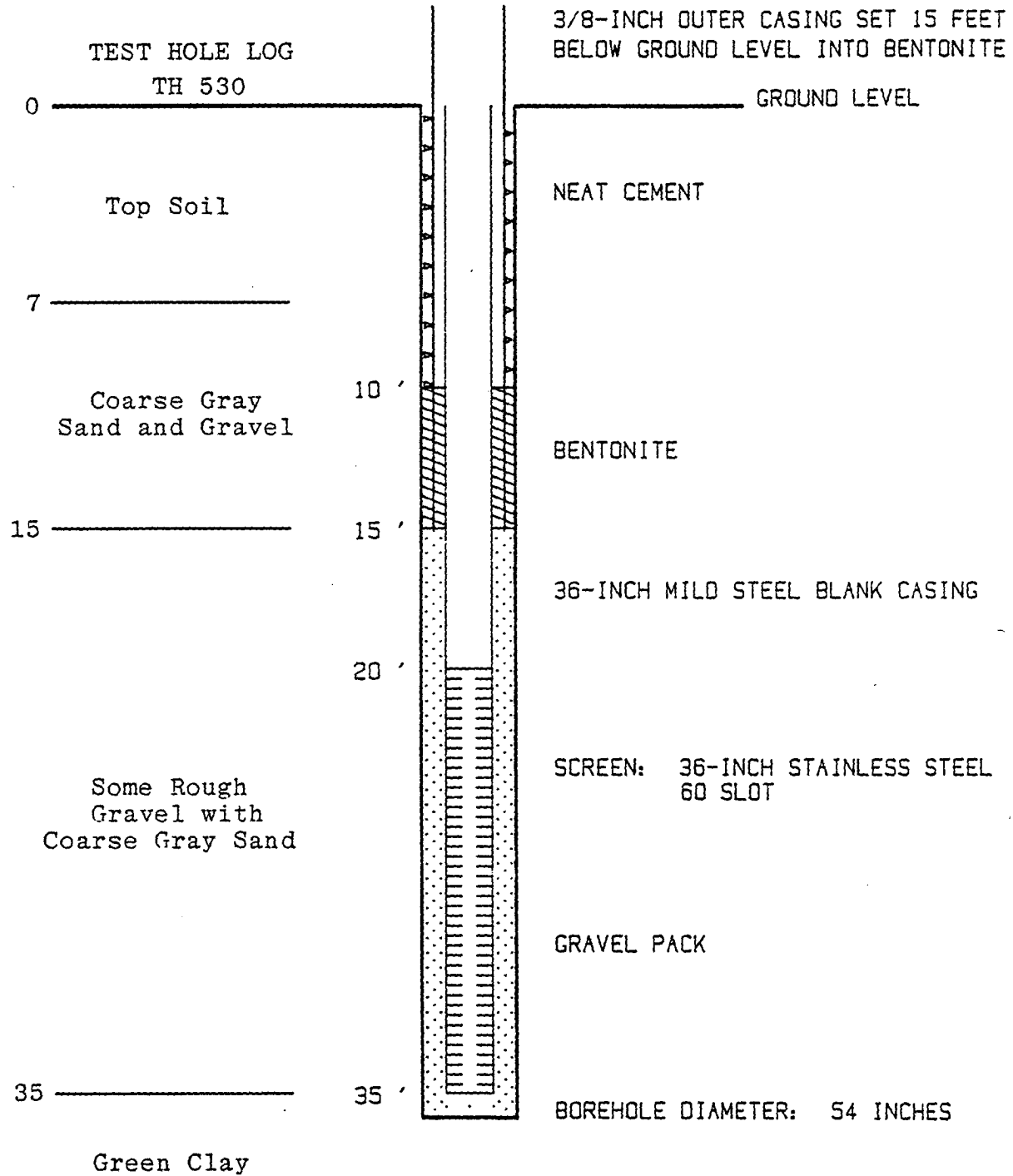
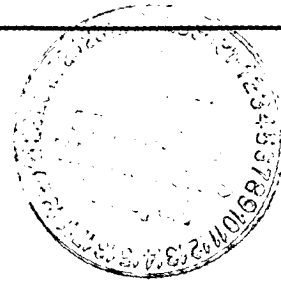
WELL NO: 105



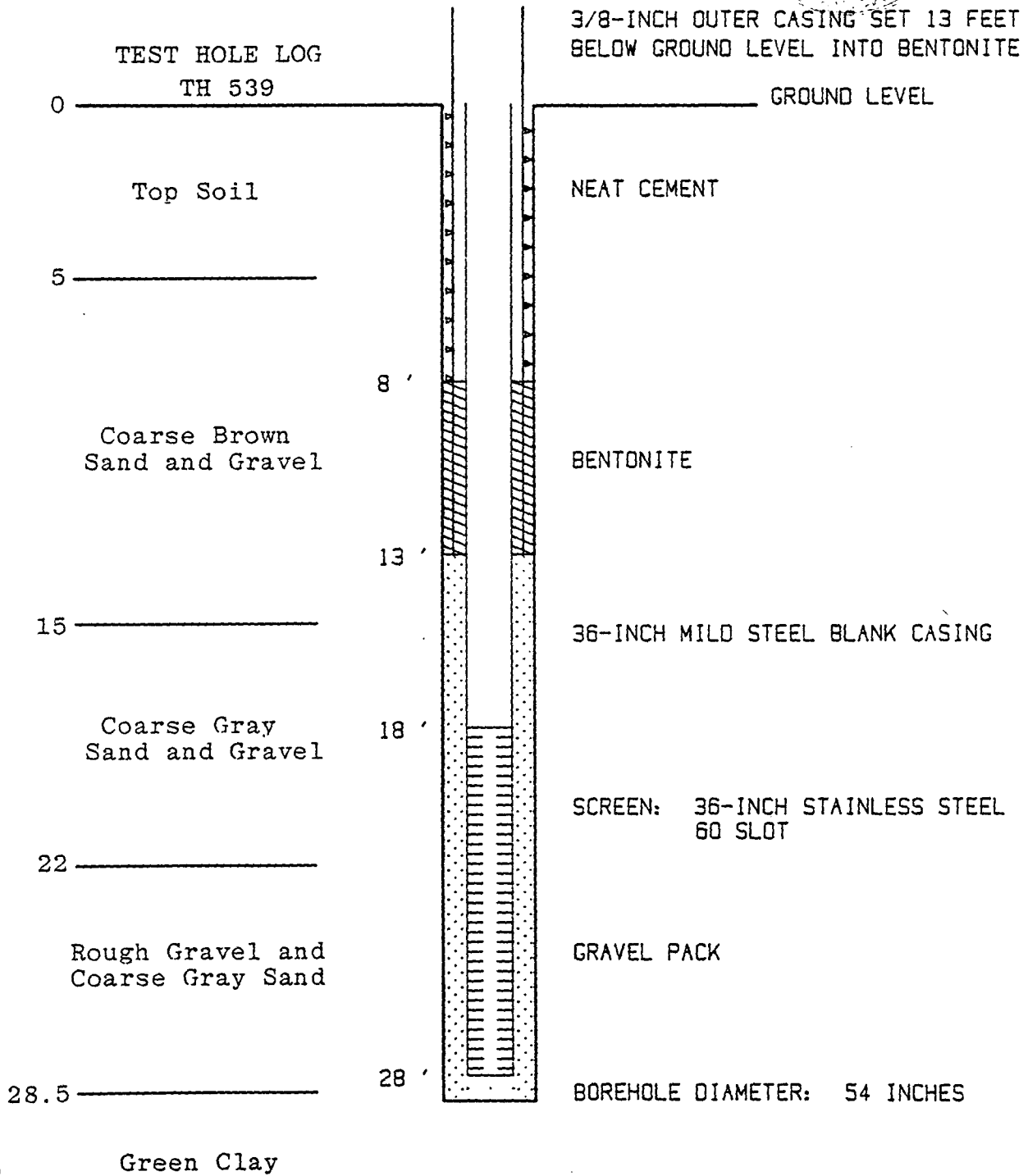
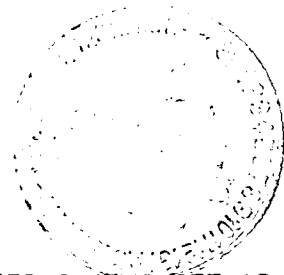
WELL NO: 106



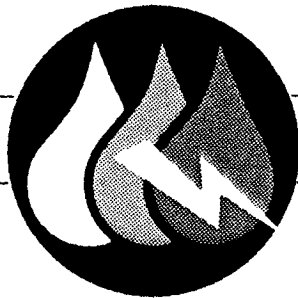
WELL NO: 107



WELL NO: 108



Sioux Falls UTILITIES



WATER • (605) 339-7031
WASTEWATER • (605) 339-7088

LIGHTS • (605) 339-7150
STORM DRAINAGE • (605) 339-7023

January 28, 1992



Mr. John Hatch
SD DENR
Water Rights Division
523 East Capitol
Pierre, SD 57501

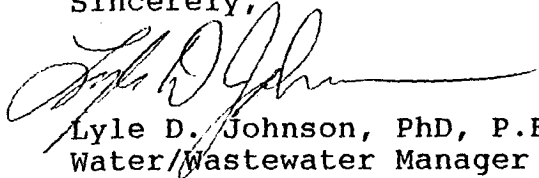
Re: Well Permits for Middle Skunk Creek Aquifer

Dear Sir:

Enclosed, please find five (5) permit applications, supporting documentation, and a purchase order copy in the amount of \$1879.00 for 14 wells in the Middle Skunk Creek Aquifer. We request that an annual reporting requirement on withdrawals from the Middle Skunk Creek Aquifer by the City of Sioux Falls be made a specific condition of the permits. We hope that this condition will help alleviate concerns by residents in the area.

If you have any questions, please contact me.

Sincerely,



Lyle D. Johnson, PhD, P.E.
Water/Wastewater Manager

Enclosures

cc Commissioner Gary Hanson
Keith DeJong

LDJ:seh

South Dakota

GREAT FACES. GREAT PLACES.

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

January 30, 1992

Lyle D. Johnson
City of Sioux Falls
224 West 9th St
Sioux Falls SD 57102

Dear Mr. Johnson:

We have received the five Applications for Permit to Appropriate Water. Enclosed is an invoice. Our calculation of the fees differ from those listed on your purchase order no. 35695. The filing fees are as follows:

Wells 101, 102, 103 & 104	500.00
Wells 105, 106, 107 & 108	450.00
Wells 109 & 110	300.00
Wells 111 & 112	300.00
Wells 113 & 114	375.00
Total	\$1,925.00

If you have any questions, please contact this office.

Sincerely,

Karen Schlaak

Karen Schlaak
Natural Resources Analyst
605 733-3352

enclosure

South Dakota

Joe Foss

GREAT FACES. GREAT PLACES.

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

* I N V O I C E *

Invoice No. 20411 1-30

City of Sioux Falls
224 West 9th St
Sioux Falls SD 57102

Your Purchase Order #: 35695

Application for Permits to Appropriate Water
Within the State of South Dakota

Wells 101, 102, 103 & 104	500.00
Wells 105, 106, 107 & 108	450.00
Wells 109 & 110	300.00
Wells 111 & 112	300.00
Wells 113 & 114	375.00

Please pay this amount:

\$1,925.00

Karen Schlaak

KAREN SCHLAACK
Natural Resources Analyst
Water Rights Division
605 773-3352

RECEIPT

Division of Water Rights

South Dakota Department of Water and Natural Resources

Pierre, February 26, 1992

RECEIVED OF City of Sioux Falls, 224 W. 9th St., Sioux Falls, SD 57102

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

Fee for Application for Permit No. <u>5612-3</u> to Appropriate Water, to construct works and to put water to beneficial use _____	450	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	450 00

By [Signature]
Chief Engineer

WATER PERMIT APPLICATIONS NO. 5611-3, NO. 5612-3
NO. 5613-3, NO. 5614-3 & NO. 5615-3
CITY OF SIOUX FALLS
MARCH 12, 1992

Water Permit Application No's. 5611-3, 5612-3, 5613-3, 5614-3 and 5615-3 propose to construct works and place to beneficial use water from the Middle Skunk Creek Aquifer which was reserved by Future Use Permit No. 5522-3.

Application No. 5611-3 proposes to construct works and place to beneficial use 4.23 cubic feet of water per second (cfs), (1,460 acre-feet/year) from four wells 29 to 32 feet deep. The wells are to be located in the SW 1/4 SW 1/4, NW 1/4 SE 1/4, NE 1/4 SE 1/4, and the NE 1/4 NE 1/4 Sec.25, T103N-R51W.

Application No. 5612-3 proposes to construct works and place to beneficial use 4.12 cfs, (1,275 acre-feet/year), from four wells 28 to 35 feet deep. The wells are to be located in the SW 1/4 SW 1/4, SE 1/4 SW 1/4, and the NE 1/4 NE 1/4 of Sec.19; and the SE 1/4 SW 1/4 of Sec.18; all in T103N-R50W.

Application No. 5613-3 proposes to construct works and place to beneficial use 2.40 cfs, (605 acre-feet/year), from two wells 28 and 36 feet deep. The wells are to be located in the SW 1/4 SW 1/4, and the NW 1/4 SW 1/4 of Sec. 8, T103N-R50W.

Application No. 5614-3 proposes to construct works and place to beneficial use 2.14 cfs, (570 acre-feet/year), from two wells 26 and 34 feet deep. The wells are to be located in the NW 1/4 NE 1/4 of Sec. 7; and the SW 1/4 NE 1/4 of Sec. 6; all in T103N-R50W.

Application No. 5615-3 proposes to construct works and place to beneficial use 3.34 cfs, (907 acre-feet/year), from two wells 45 and 41 feet deep. The wells are to be located in the SE 1/4 SW 1/4, and the SW 1/4 SE 1/4 of Sec.31, T104N-R50W.

The water was appropriated and reserved by Future Use Permit No. 5522-3. The water will be used by the City of Sioux Falls for municipal purposes.

AQUIFER: Big Sioux: Middle Skunk Creek

AQUIFER CHARACTERISTICS:

General:

The Middle Skunk Creek Management Unit of the Big Sioux Aquifer is an alluvium mantled, glacial outwash deposit, restricted to approximately 18,300 acres along the Skunk Creek Alluvial Valley. The management unit is bound at the north by the Northern Skunk Creek Aquifer, and the southern boundary of the management unit is an outcrop of Sioux Quartzite. The sand and gravel is approximately 1 mile wide in most places and has a maximum thickness of approximately 60 feet. The

average saturated thickness of the Middle Skunk Creek Aquifer is estimated to be 30 feet (HDR, 1991). The saturated thickness of the aquifer is 20 feet or less over an area of approximately 4,000 acres, or 22% of the areal extent of the aquifer. The aquifer is under unconfined conditions and the average specific yield of the Middle Skunk Creek Management Unit is assumed to be 0.20 (Ohland, 1990). The recoverable water in storage in the Middle Skunk Creek Aquifer is estimated to be 41,180 acre-feet (Hedges, 1982). Estimates for hydraulic conductivity of the aquifer range from 80 - 1980 ft/day with the average hydraulic conductivity estimated to be 400 ft/day (HDR, 1991). Information submitted with these applications identify hydraulic conductivities of test wells in the vicinity of the wells proposed by these applications, of 442 ft/day to 452 ft/day.

The Division of Water Rights monitors 7 observation wells completed into the Middle Skunk Creek Aquifer. Water level measurements indicate fluctuations in response to seasonal and climatic variations. The highest annual water level occurs around April, and the lowest annual water level occurs around August. The decline of water levels during the summer months is due to increased evapotranspiration and pumpage. Water levels rise during the late winter and spring due to recharge, if available.

Recharge:

Recharge to the Middle Skunk Creek Aquifer occurs primarily through direct infiltration of precipitation. It is estimated that 24% of the precipitation which falls on the surface of the Middle Skunk Creek Aquifer recharges the aquifer (Ohland, 1987). Recharge due to precipitation is therefore estimated to average 6 inches per year, or a total of 9,150 acre-feet per year (ac-ft/yr). Although a groundwater obstruction or constriction has been identified between management units, groundwater inflow from the Northern Skunk Creek Management Unit also provides a minor amount of recharge to the Middle Skunk Creek Aquifer. Ohland, (1987) estimates that recharge from this inflow averages 14 acre-feet/year. The Middle Skunk Creek Aquifer is hydraulically connected to Skunk Creek and the West Branch of Skunk Creek, resulting in gaining and losing stream conditions. The aquifer discharges to the streams when the hydraulic gradient is toward the streams and the streams recharge the aquifer when water levels in the aquifer are below stream stage. High stage levels in Skunk Creek and the West Branch of Skunk Creek follow precipitation and/or snowmelt runoff, which coincide with high water levels in the aquifer due to direct infiltration of precipitation. In general, gaining stream conditions prevail between the Middle Skunk Aquifer and area streams.

Withdrawals:

Natural discharge from the Middle Skunk Creek Aquifer occurs primarily through evapotranspiration. The maximum evapotranspiration rate from the aquifer has been estimated to be 32 inches per year (in/yr), and the evapotranspiration extinction depth is assumed to be 5 feet (Ohland, 1990). Natural discharge from the aquifer also occurs to

Skunk Creek and the West Branch tributary, and minor amounts of leakage may occur to the underlying Sioux Quartzite.

Withdrawals from the aquifer also occur through pumpage from domestic wells and wells supplying appropriative rights. Appropriative rights from the Middle Skunk Creek Aquifer represent a total combined diversion rate of 17.26 cubic feet per second. Irrigation permits or rights authorize the irrigation of 1,114 acres. Although the total annual pumping for irrigation from the Middle Skunk Creek Aquifer could be up to 3,810 ac-ft, the use of this amount of water each year is unlikely. Maximum reported irrigation use since 1979 has been 724 ac-ft in 1988.

Reported pumpage for irrigation from the Middle Skunk Creek for irrigation is shown below.

YEAR	PUMPAGE REPORTED (AC-FT)
1990	4
1989	494.1
1988	724
1987	260
1986	117
1985	497
1984	176
1983	372.57
1982	131.15
1981	620
1980	221
1979	91

The only non-irrigation permit from the Middle Skunk Creek Aquifer is Permit No. 5104-3, Tri-Valley School District, for 0.10 cfs. Correspondence on file (Water Rights Division, 1991), indicates that the school discontinued use of the well prior to 1988 due to unacceptable water quality. The School is currently supplied water by the Minnehaha Rural Water System. Unless the well is maintained for standby purposes, this permit may be subject to cancellation.

Although authorized annual withdrawals total more than 4,000 ac-ft/yr, the actual annual withdrawals under existing Water Rights/Permits from the Middle Skunk Creek should not exceed 1,000 ac-ft/yr.

DISCUSSION:

The applications discussed in this report propose to place to beneficial use water appropriated and reserved for future use by Permit No. 5522-3. The date of the Final Decision by the Water Management Board to approve Future Use Permit No. 5522-3 was March 4, 1992. Permit No. 5522-3 reserves 5,000 acre-feet annually from the Middle Skunk Creek Management Unit of the Big Sioux Aquifer for municipal use by the City of Sioux Falls.

Water Availability:

Water availability is not an issue for these permit applications. Approval of Future Use Permit No. 5522-3 appropriated 5,000 acre-feet of water from the Middle Skunk Creek Aquifer for future use with a 1991 priority date.

Affects on Existing Rights:

Unlawful impairment of groundwater rights may be due to "well interference" which is the overlapping of drawdown cones of depression of two or more wells; or by "cumulative pumping affects" which is the lowering of the water level throughout the entire aquifer, as the result of an extended interim between withdrawal and recharge causing a large "overdraft" from storage.

Well Interference:

The Division of Water Rights has records for 23 domestic wells completed into the Middle Skunk Creek Aquifer, and 9 Water Permits/Rights appropriating water from the aquifer. Permits/rights appropriating water from the Middle Skunk Creek Aquifer include:

Permit No.	Owner	Location	CFS
1806-3	R. Thompson	103N50W08	1.80
2918-3	R. Dressen	104N50W16	6.52
2923-3	M. Tellinghuisen	103N50W07	1.70
3350-3	J.P. Burggraaf	104N50W32	1.22
3437-3	R. Thompson	103N50W05	1.10
4223-3	D.J. Fladmark	103N50W06	1.11
4358-3	McCrossan	103N50W18	3.71
	Foundation Inc.		
5104-3	Tri-Valley School	103N51W11	0.10
5522-3	City of Sioux Falls	5,000 ac-ft/yr Future Use	

Drawdown caused by individual well pumping is not be expected to be significant except in the immediate vicinity of a production well due to the nature of unconfined aquifers.

The four wells proposed by Application No. 5611-3, are located at least 1.5 miles from an irrigation well (Permit No. 4358-3). Division of Water Rights' Observation Well MA-78E is located approximately .25 miles from the wells proposed by Application No. 5611-3, and is between the diversion points proposed by this application and No. 4358-3 irrigation wells.

The wells proposed by Application No. 5612-3 are approximately 0.5 miles from the nearest irrigation well (Permit No. 4358-3). Division of Water Rights' Observation Well MA-78E is within .5 miles of the wells proposed by this application.

A well proposed by Application No. 5613-3, (No. 109), is to be located approximately 1750 feet from two irrigation wells (Permit No. 4358-3),

and approximately 1700 feet from an irrigation well authorized by Water Right No. 2923-3. Division of Water Rights' Observation Well MA-78D is across the road from one well proposed by this application and within .25 miles of the other well proposed by this application.

A well proposed by Application No. 5614-3 (No. 111) is approximately 600 feet from an irrigation well (Water Right No. 4223-3), approximately 1850 feet from an irrigation well authorized by Water Right No. 3437-3, and approximately 2000 feet from an irrigation well authorized by Water Right No. 1806-3. The Division of Water Rights monitors an observation well (MA -78C), approximately .5 miles north of well No. 112, and an observation well (MA-78D), approximately 1 mile south of well No. 111.

Application No. 5615-3 proposes to locate a well, (No. 113), approximately .75 miles from an irrigation well (Water Right No. 3437-3), and approximately 1 mile from an irrigation well authorized by Water Right No. 4223-3. The application also proposes to locate a well, (No. 114), approximately 1 mile from an irrigation well authorized by Water Right No. 3350-3. The Division of Water Rights monitors an observation well (MA-78C) within approximately .25 miles of either well proposed by this application.

Cumulative Affects:

As with any aquifer, recharge to the Middle Skunk Creek Aquifer is not instantaneous to withdrawal from the aquifer. Water must be withdrawn from storage during the interim between withdrawal and recharge. Fluctuations observed in Division of Water Rights observation wells, identify historic changes in storage of the aquifer ranging from 21% to 44% of the total storage capacity of the aquifer. Current pumpage from the Middle Skunk Creek Aquifer is relatively small in comparison to the amount of estimated water in storage in the aquifer (less than 1,000 ac-ft/yr maximum reported or 2.4 % of the water in storage). Increased pumpage from the aquifer may lead to greater depletions from storage. A significant lowering of the water levels of the Middle Skunk Creek Aquifer could affect the water supplies to some existing wells.

As stated previously, the saturated thickness of the Middle Skunk Creek Aquifer is estimated to be 20 feet or less over a fairly large portion of this aquifer. Completion reports on file with the Division of Water Rights for this area indicate that 7 of the 23 domestic wells penetrate less than 20 feet of saturated thickness, and in one case the log indicates only 9 feet of saturated thickness penetrated. If the thickness of the aquifer is less than 20 feet and the inlet of the pump can be placed as near the bottom of the aquifer as is practical, the wells would be adequate. If the aquifer thickness is greater than the thickness penetrated by the particular well, the wells may not be adequate. It is not clear from the completion reports, if the aquifer thickness is less than 20 feet at these locations. If the water level is lowered even a minor amount in an adequate well completed where the aquifer is thin, the water supply to that well may be reduced, and therefore, unlawfully impaired.

The amount of water in storage in an aquifer may be reduced to less than "normal" as the result of below normal recharge, and/or above normal pumping in relation to recharge. It is impossible to forecast when water levels will be below "normal" or identify a single contributing factor for why water levels are low. The Water Management Board recognized the potential difficulties this may pose when considering Future Use Permit No. 5522-3 and placed the following qualification on the future use permit:

"If development and pumping of Middle Skunk Creek Aquifer water reserved by Future Use Permit No. 5522-3 results in adverse impairment of adequate domestic wells or adequate wells having prior rights, reduction of withdrawals or mitigation may be necessary. SDCL 46-1-5(1), in giving preference to domestic use over appropriative rights does so without regard to 1) whether lowered groundwater levels are due to drought, 2) the location of the domestic wells in the aquifer, or 3) the thickness of the water bearing sands and gravel; subject to compliance with minimum requirements for adequate wells as defined by Board Well Construction Standards, Chapter 74:02:04."

The total development of these permits (4,817 acre-feet per year), may lead to increased losses from Skunk Creek to the aquifer and to decreased discharge from the aquifer to Skunk Creek. Skunk Creek supports domestic users and one appropriative right downstream of this area. Permit No. 5148-3 authorizes diversion of 1.11 cfs with an annual appropriation of 1.6 ac-ft/yr. The frequency or duration of low or no flow in Skunk Creek is not expected to be increased significantly by the withdrawals proposed by these applications.

CONCLUSIONS:

1. Water Permit Application No's. 5611-3, 5612-3, 5613-3, 5614-3 and 5615-3 propose to construct 14 wells and place to beneficial use up to 4,817 acre-feet annually from the Middle Skunk Creek Aquifer of water which was appropriated and reserved by Future Use Permit No. 5522-3.
2. Future Use Permit No. 5522-3 reserves 5,000 ac-ft/yr from the Middle Skunk Creek Aquifer for municipal use by the City of Sioux Falls.
3. Approval of these permits will not impact the amount of unappropriated water available in the Middle Skunk Creek Aquifer.
4. A total of 183 ac-ft/yr will remain reserved by Future Use Permit No. 5522-3 if these permits are approved.
5. Drawdown caused by individual well pumping is not expected to cause adverse interference between wells in the Middle Skunk Creek Aquifer.
6. The Water Management Board has recognized the potential for problems due to cumulative pumping affects by placing a

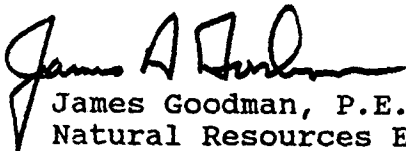
qualification on the future use permit which would also apply to the permits discussed in this report.

7. Since the quantity of water appropriated by these permits is less than the quantity of water which could be pumped at the authorized diversion rate. Water use reporting will be necessary for aquifer management.
8. The Division of Water Rights monitors 7 observation wells which are strategically located in relation to the diversion points proposed by these applications. Information obtained from these observation wells could be used to curtail impairment of existing rights or resolve conflicts which may arise.



Ken Buhler
Natural Resources Engineer

approved by:



James Goodman, P.E.
Natural Resources Engineer

REFERENCES:

Burr, M.J., R. Bensen, D. Hansen, 1990, Water Resources Data, South Dakota Water Year 1989, U.S. Geological Survey Water-Data Report SD-89-1, Huron, SD, 57350

Division of Water Rights, 1980-1990, "Irrigation Summary by Aquifer", DENR-Division of Water Rights, Joe Foss Building, Pierre, SD, 57501

Division of Water Rights, 1991, "Observation Well Files", SD DENR-Division of Water Rights, Joe Foss Building, Pierre, SD, 57501

Division of Water Rights, 1991, "Water Permit Files", SD DENR-Division of Water Rights, Joe Foss Building, Pierre, SD, 57501

HDR Engineering, Inc., 1991, Middle Skunk Creek Aquifer Study, prepared for City of Sioux Falls South Dakota

Hedges, L.S., S.Burch, D.Iles, R.Barari, R.Schoon, 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux

River, South Dakota and Iowa, U.S. Army Corps of Engineers
Contract DACW 45-80-C-0185, SD Dept. of Water and Natural
Resources, Office of Geological Survey, Vermillion, SD 57069

Ohland, G.L., 1990, Appraisal of the Water Resources of the Skunk
Creek Aquifer in Minnehaha County, South Dakota, U.S.G.S. Water
Resources Investigations Report 87-4156

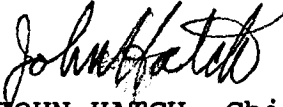
RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 5612-3, City of Sioux Falls

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Environment and Natural Resources concerning Water Permit Application No. 5612-3, City of Sioux Falls, 224 West 9th St, Sioux Falls, SD 57102.

The Chief Engineer is recommending APPROVAL of Application No. 5612-3 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. The wells authorized pursuant to this permit shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04.
3. Approval of Permit No. 5612-3 authorizes a total annual diversion of 1,275 acre-feet of water annually.
4. The City of Sioux Falls shall report to the Chief Engineer annually the amount of water withdrawn each year from the Big Sioux:Middle Skunk Creek aquifer.
5. If development and pumping of Middle Skunk Creek aquifer water authorized by Water Permit No. 5612-3 results in adverse impairment of adequate domestic wells or adequate wells having prior rights, reduction of withdrawals or mitigation may be necessary. SDCL 46-1-5(1), in giving preference to domestic use over appropriative rights does so without regard to 1) whether lowered groundwater levels are due to drought, 2) the location of the domestic wells in the aquifer, or 3) the thickness of the water bearing sands and gravel; subject to compliance with minimum requirements for adequate wells as defined by Board Well Construction Standards, Chapter 74:02:04.

See report on application for additional information.


JOHN HATCH, Chief Engineer
March 26, 1992



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

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

March 27, 1992

Lyle Johnson, WS
City of Sioux Falls
224 W 9th St
Sioux Falls, SD 57102

Dear Mr. White:

Water Permit Application Nos. 5611-3, 5612-3, 5613-3, 5614-3 and 5615-3 for municipal use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice of hearing has been sent to the Publisher of the Argus Leader printed at Sioux Falls, SD (Ph # 331-2200) and the Lennox Independent printed at Lennox, SD (Ph # 647-2467). For your information, a copy of the notice, the recommendation of the Chief Engineer and a report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

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

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

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



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

March 27, 1992

Argus Leader
PO Box 5034
Sioux Falls, SD 57117-5034

ATTENTION: Legal Department

Enclosed is a Notice of Hearing on Application Nos. 5611-3, 5612-3, 5613-3, 5614-3 and 5615-3 to be published twice. Please publish the first notice on April 2, 1992, with the second publication 7 days later.

The APPLICANT MUST VERIFY TO YOU THAT THE NOTICE IS TO BE PUBLISHED, before you make the first publication. Please BILL the APPLICANT for the cost of publication. The APPLICANT is the City of Sioux Falls, 224 West 9th St, Sioux Falls, SD 57102 (Ph # 339-7025).

A copy of BOTH publications must be SENT to the WATER RIGHTS DIVISION. IMMEDIATELY return the FIRST publication with the FIRST Transmittal form on the bottom of this page. The first copy is needed to check the publication for errors so any corrections can be made in the second publication. Publication errors can invalidate the public notice and cause the applicant costly delays.

Please be sure the SECOND publication is returned IMMEDIATELY with the enclosed Proof of Publication form. DO NOT WAIT until the end of the month or the billing cycle. No action may be taken on the permit application until proof of publication has been received.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----

FIRST TRANSMITTAL NOTICE

TO: Eric Gronlund
Water Rights Division
Joe Foss Building
Pierre SD 57501-3181

No. _____

Date _____

We are in receipt of your letter of _____ enclosing Notice of Hearing to
Appropriate Water by Application No. _____ which was first published in our issue
of _____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

Name

Newspaper



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

March 27, 1992

Lennox Independent
Box 76
Lennox, SD 57039

ATTENTION: Legal Department

Enclosed is a Notice of Hearing on Application Nos. 5611-3, 5612-3, 5613-3, 5614-3 and 5615-3 to be published twice. Please publish the first notice on April 2, 1992, with the second publication 7 days later.

The APPLICANT MUST VERIFY TO YOU THAT THE NOTICE IS TO BE PUBLISHED, before you make the first publication. Please BILL the APPLICANT for the cost of publication. The APPLICANT is the City of Sioux Falls, 224 West 9th St, Sioux Falls, SD 57102 (Ph # 339-7025).

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Sincerely,

Eric Gronlund
Natural Resources Engineer
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enclosures

-----CUT HERE-----

FIRST TRANSMITTAL NOTICE

TO: Eric Gronlund
Water Rights Division
Joe Foss Building
Pierre SD 57501-3181

No. _____

Date _____

We are in receipt of your letter of _____ enclosing Notice of Hearing to
Appropriate Water by Application No. _____ which was first published in our issue
of _____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

Name _____

Newspaper _____

Instruction to Newspaper - Publish first Notice on April 2, 1992, with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF HEARING on Application Nos. 5611-3, 5612-3, 5613-3, 5614-3 and 5615-3
to Appropriate Water

Notice is given that the City of Sioux Falls, 224 West 9th Street, Sioux Falls, SD 57102 has filed applications for water permits to construct and place to beneficial use water reserved by Future Use Permit No. 5522-3 from the Big Sioux:Middle Skunk Creek aquifer.

Water Permit Application No. 5611-3 proposes to construct and place to beneficial use 4.23 cubic feet of water per second (cfs) (1,460 acre-feet annually) from four wells 29 to 32 feet deep located in the SW 1/4 SW 1/4, NW 1/4 SE 1/4, NE 1/4 SE 1/4, NE 1/4 NE 1/4 Section 25-T103N-R51W.

Water Permit Application No. 5612-3 proposes to construct and place to beneficial use 4.12 cfs (1,275 acre-feet annually) from four wells 28 to 35 feet deep located in the SW 1/4 SW 1/4, SE 1/4 SW 1/4, NE 1/4 NE 1/4 Section 19; SE 1/4 SW 1/4 Section 18; all in T103N-R50W.

Water Permit Application No. 5613-3 proposes to construct and place to beneficial use 2.40 cfs (605 acre-feet annually) from two wells 28 and 36 feet deep located in the SW 1/4 SW 1/4, NW 1/4 SW 1/4 Section 8-T103N-R50W.

Water Permit Application No. 5614-3 proposes to construct and place to beneficial use 2.14 cfs (570 acre-feet annually) from two wells 26 and 34 feet deep located in the NW 1/4 NE 1/4 Section 7; SW 1/4 NE 1/4 Section 6; all in T103N-R50W.

Water Permit Application No. 5615-3 proposes to construct and place to beneficial use 3.34 cfs (907 acre-feet annually) from two wells 45 and 41 feet deep located in the SE 1/4 SW 1/4, SW 1/4 SE 1/4 Section 31-T104N-R50W.

This water was appropriated and reserved by Future Use Permit No. 5522-3. The water will be used by the City of Sioux Falls for municipal purposes.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 5611-3, 5612-3, 5613-3, 5614-3 and 5615-3 because 1) existing rights will not be unlawfully impaired, 2) it is a beneficial use of water, and 3) it is in the public interest. Unless a petition is filed opposing the applications or the applicant files a petition contesting the chief engineer's recommendations, the Water Management Board will NOT CONDUCT a HEARING to consider these applications and the chief engineer will issue the permits as recommended. Petitions filed in support of the applications will NOT require the Board to hear the applications.

Any person interested in opposing or supporting these applications must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendations. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by April 20, 1992. The petition may be informal, but must include a statement describing the petitioner's interest in the applications, the petitioner's reasons for opposing or supporting the applications, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

For purposes of publishing 1) the notice of hearing on Application Nos. 5611-3, 5612-3, 5613-3, 5614-3 and 5615-3, and 2) the chief engineer's recommendations, a meeting at the Division of Water Rights office to hear these applications is scheduled for April 29, 1992, at 9:00 am in Room 413, Joe Foss Building, 523 E Capitol, Pierre SD. If these applications are opposed or the recommendations are contested, the April 29, 1992, hearing date will be rescheduled for a regularly scheduled Board meeting. Notice of the time and

place of the rescheduled hearing before the Board will be given by First Class Mail to the applicant and persons filing petitions. Anyone not filing a petition, but interested in attending the hearing, may contact the Division of Water Rights to confirm a hearing date and location. The April 29, 1992, hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the applications. The request for an automatic delay must be filed by April 20, 1992.

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

These applications are made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-26; 46-5-38 thru 46-5-40; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15; 74:02:01:24 thru 74:02:01:25.

AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA
COUNTY OF LINCOLN

88.

being first duly sworn, disposes and says: That (he) _____
dent of the County of Lincoln and State of South Dakota
LENNOX INDEPENDENT is a weekly legal newspaper
circulation, printed and published in Lennox, in said
State, and is now, and has been such newspaper continually
all the times hereinafter mentioned; that the affiant is
said newspaper as employer or employee and has personal
of all the facts stated in this affidavit, and the notice
ment headed Notice of Hearing on

App. 5611-3, 5612-3, 5613-3, 5614-3 and 5615-3 to Appropriate

a printed copy of which is hereunto attached and made
was printed and published in the said newspaper _____
issues. That the first publication of said notice in said newspaper
said was on Thursday, the 2nd day of April
and that the succeeding publication was severally
on Thursday the 9th day of April
on Thursday the _____ day of _____
on Thursday the _____ day of _____
on Thursday the _____ day of _____
on Thursday the _____ day of _____
on Thursday the _____ day of _____
that the fees charged for the printing and publication
and advertisement in said newspaper as aforesaid were
Dollars 20 Cents, and that said fees for the
publishing of said notice and advertisement, and for the
aforesaid, have been fully paid; that the full amount of the
for the publishing of the said attached and annexed notice
tisement inures to the benefit of the publishers of the
Independent, that no agreement or understanding for
thereof has been made with any other person, and that no
has been agreed to be paid to any person, whomsoever.

NOTICE OF HEARING on Application Nos. 5611-3, 5612-3, 5613-3, 5614-3 and 5615-3

to Appropriate Water

Notice is given that the City of Sioux Falls, 224 West 9th Street, Sioux Falls, SD 57102 has filed applications for water permits to construct and place to beneficial use water reserved by Future Use Permit No. 5522-3 from the Big Sioux-Middle Skunk Creek aquifer.

Water Permit Application No. 5611-3 proposes to construct and place to beneficial use 4.23 cubic feet of water per second (cfs) (1,460 acre-feet annually) from four wells 29 to 32 feet deep located in the SW 1/4 SW 1/4, NW 1/4 SE 1/4, NE 1/4 SE 1/4, NE 1/4 NE 1/4 Section 25-T103N-R51W.

Water Permit Application No. 5612-3 proposes to construct and place to beneficial use 4.12 cfs (1,275 acre-feet annually) from four wells 28 to 35 feet deep located in the SW 1/4 SW 1/4, SE 1/4 SW 1/4, NE 1/4 NE 1/4 Section 19; SE 1/4 SW 1/4 Section 18; all in T103N-R50W.

Water Permit Application No. 5613-3 proposes to construct and place to beneficial use 2.40 cfs (605 acre-feet annually) from two wells 28 and 36 feet deep located in the SW 1/4 SW 1/4; NW 1/4 SW 1/4 Section 8-T103N-R50W.

Water Permit Application No. 5614-3 proposes to construct and place to beneficial use 2.14 cfs (570 acre-feet annually) from two wells 26 and 34 feet deep located in the NW 1/4 NE 1/4 Section 7; SW 1/4 NE 1/4 Section 6; all in T103N-R50W.

Water Permit Application No. 5615-3 proposes to construct and place to beneficial use 3.34 cfs (907 acre-feet annually) from two wells 45 and 41 feet deep located in the SE 1/4 SW 1/4, SW 1/4 SE 1/4 Section 31-T104N-R50W.

This water was appropriated and reserved by Future Use Permit No. 5522-3. The water will be used by the City of Sioux Falls for municipal purposes.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 5611-3, 5612-3, 5613-3, 5614-3 and 5615-3 because 1) existing rights will not be unlawfully impaired, 2) it is a beneficial use of water, and 3) it is in the public interest. Unless a petition is filed opposing the applications or the applicant files a petition contesting the chief engineer's recommendations, the Water Management Board will NOT CONDUCT a HEARING to consider these applications and the chief engineer will issue the permits as recommended. Petitions filed in support of the applications will NOT require the Board to hear the applications.

Any person interested in opposing or supporting these applications must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's

recommendations. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by April 20, 1992. The petition may be informal, but must include a statement describing the petitioner's interest in the applications, the petitioner's reasons for opposing or supporting the applications, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

For purposes of publishing 1) the notice of hearing on Application Nos. 5611-3, 5612-3, 5613-3, 5614-3 and 5615-3, and 2) the chief engineer's recommendations, a meeting at the Division of Water Rights office to hear these applications is scheduled for April 29, 1992, at 9:00 am in Room 413, Joe Foss Building, 523 E Capitol, Pierre SD. If these applications are opposed or the recommendations are contested, the April 29, 1992, hearing date will be rescheduled for a regularly scheduled Board meeting. Notice of the time and place of the rescheduled hearing before the Board will be given by First Class Mail to the applicant and persons filing petitions. Anyone not filing a petition, but interested in attending the hearing, may contact the Division of Water Rights to confirm a hearing date and location. The April 29, 1992, hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the applications. The request for an automatic delay must be filed by April 20, 1992.

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

These applications are made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-26 46-5-38 thru 46-5-40; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15; 74:02:01:24 thru 74:02:01:25.

L139w14-15c

Subscribed and sworn to before me this 16th day of

July, 1992

Notary Public.

Lincoln County, South Dakota.

My Commission expires SEPTEMBER 18, 1997



PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) ss.
 County Minnehaha)



I, M. DEVISH
 certify that the attached printed Notice was taken
 from the Argus Leader

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 Sioux Falls

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

Thursday, April 2, 1992
Thursday, April 9, 1992

 (Signature)

 (Title)

 (Date Signed)

Cost of Printing: \$139.22

5-88

NOTICE OF HEARINGS
 on Application Nos. 5611-3, 5612-3,
 5613-3, 5614-3 and 5615-3 to
 Appropriate Water
 Notice is given that the City of
 Sioux Falls, 224 West 9th Street,
 Sioux Falls, SD 57102 has filed
 applications for water permits to
 construct and place to beneficial
 use water reserved by Future Use
 Permit No. 5522-3 from the Big
 Sioux Middle Stunk Creek aquifer.
 Water Permit Application No.
 5611-3 proposes to construct and
 place to beneficial use 4.23 cubic
 feet of water per second (cfs) (1,460
 acre-feet annually) from four wells
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 SW 1/4 SW 1/4, NW 1/4 SE 1/4, NE
 1/4 SE 1/4, NE 1/4 NE 1/4 Section
 25-T103N-R5W.
 Water Permit Application No.
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 (1,275 acre-feet annually) from four
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 This water was appropriated and
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 5522-3. The water will be used by
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 purposes.
 Pursuant to SDCL 46-2A-2, the
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 DUCT a HEARING to consider
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 Any person interested in op-
 posing or supporting these applica-
 tions must file a written petition with
 BOTH the applicant and Chief
 Engineer. The applicant must also
 file a petition if opposed to the
 Chief Engineer's recommendations.
 The Chief Engineer's address is
 "Water Rights Division, Foss
 Building, 523 E Capitol, Pierre SD
 57501 (505 773-3352)" and the
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 petition may be informal, but must
 include a statement describing the
 petitioner's interest in the applica-
 tions, the petitioner's reasons for
 opposing or supporting the applica-
 tions, and the signature and mailing
 address of the petitioner or the
 petitioner's legal counsel, if legal
 counsel is obtained.
 For purposes of publishing 1) the
 notice of hearing on Application
 Nos. 5611-3, 5612-3, 5613-3,
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 engineer's recommendations, a
 meeting at the Division of Water
 Rights office to hear these applica-
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 The request for an automatic delay,
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 If a hearing is held, the Chief
 Engineer's recommendations are
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 The Board is authorized to 1)
 approve, 2) approve with qualifica-
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 forfeited if not exercised. Decisions
 of the Board may be appealed to
 the Circuit Court and State Su-
 preme Court as provided by law.
 Contact the Water Rights Division
 to request copies of information
 pertaining to this application or to
 assure access to the hearing by the
 handicapped.
 These applications are made pur-
 suant to SDCL 46-1-1 thru 46-1-6,
 46-1-12 thru 46-1-16; 46-2-3.1,
 46-2-9, 46-2-11, 46-2-13, 46-2-17,
 46-2A-1 thru 46-2A-10; 46-2A-12;
 46-2A-14, 46-2A-15; 46-6-1 thru
 46-6-17; 46-6-19 thru 46-6-15,
 46-6-24; 46-6-25; 46-6-30.2, 46-6-
 20.4, 46-6-31; 46-6-3; 46-6-3.1; 46-
 6-4, 46-6-10, 46-6-13, 46-6-14,
 46-6-26; 46-6-38 thru 46-6-40; and
 Board Rules ARSD 74-02-01:01
 thru 74-02-01:15; 74-02-01:24 thru



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

JUL 1 1992

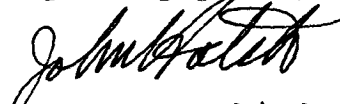
Lyle Johnson, WS
City of Sioux Falls
224 West Ninth Street
Sioux Falls, SD 57102

Dear Mr. Johnson:

Enclosed are Water Permit Nos. 5611-3, 5612-3, 5613-3, 5614-3, and 5615-3 authorizing construction of your water diversion systems and beneficial use of the water, not exceeding the limits as specified in the Water Permits.

Also enclosed is Form 10, Notice of Completion of Works and Application of Water to Beneficial Use, which you are to complete and submit to the Chief Engineer when you have completed the systems and/or have put the water to beneficial use. An inspection can then be scheduled so that the Water Licenses may be issued, thus completing your acquisition of a Water Right.

Very truly yours,


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

enclosures

PLEASE NOTE: Certain changes can be made in your permits within the five year construction period, usually without affecting the priority dates provided applications to amend your permits are made within the five year period - i.e. changes in location or number of diversion points (wells) or location of land to be irrigated. Well locations for wells into the same aquifer can be moved up to 660 feet without application.

Applications to amend the permits after the five year construction period will be assigned new priority dates. Applications to change water sources, to add lands or increase original diversion rates, if approved will usually receive the date of the new application as a priority date regardless of the five year construction period.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

City of Sioux Falls
Public Works Adm.
224 W 9th St
Sioux Falls SD 57102

Attn: Darla

On July 24, 2002, Lynn Beck, a staff engineer accompanied by Randy Janssen conducted investigations of several of the City of Sioux Falls water permits, including the extent of application of water to beneficial use, as developed under the permits. The final water right documents, the water license, can now be issued.

State law requires that we charge a \$50.00 fee for each investigation and issuance of the water license. Enclosed is an invoice for a total of \$400.00. The check or money order for the fee should be made payable to the "Water Rights Program".

The licensed water right will be similar to a property right that can not be lost as long as the water use continues and the city abides by the permit requirements.

If you have any questions regarding the water permits, investigation of the water use systems or payment of the fee, please contact me.

Sincerely,

Karen Schlaak
Water Rights Program
(605) 773-3352



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

* INVOICE *

Invoice No. 20411-110602

City of Sioux Falls
Public Works Adm.
224 W 9th St
Sioux Falls SD 57102

Fee for investigation of the following water permits:

No. 5213-3	50.00
No. 5214-3	50.00
No. 5431-3	50.00
No. 5611-3	50.00
No. 5612-3	50.00
No. 5614-3	50.00
No. 5615-3	50.00
No. 5726-3	50.00

PLEASE PAY THIS AMOUNT:

\$400.00

Karen Schlaak
Karen Schlaak
Environmental Scientist
Water Rights Program
(605) 773-3352

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date November 19, 20 02

RECEIVED OF City of Sioux Falls, 224 West Ninth St., Sioux Falls SD 57104-6407

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	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. <u>5612-3</u>		
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	50.00

No.

000055

By

Darland Ebele

Chief Engineer

cm

Permit No. 5612-2
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, **July 24, 2002**, made a thorough examination of the water use system constructed by **City of Sioux Falls** of **224 West 9th St., Sioux Falls SD 57102** holder of Permit No. **5612-3**, bearing the priority of **August 22, 1991** authorizing the diversion of **4.12** cu. ft. per second and/or **1,275** acre-feet annually of the waters of **Big Sioux: Middle Skunk Creek Aquifer** for **municipal use** purposes, in **Minnehaha** County.

Inspection contact & relationship to permit holder, if applicable: **Randy Janssen, Water Superintendent for the City of Sioux Falls.**

A. Works used to divert the water:

Well Information: City Well #105 in SW¹/₄ SW¹/₄ Sec. 19-T103N-R50W. 1) Well Drilling Firm: <u>Layne Western Co.</u> 2) Depth(s) <u>29.5</u> feet 3) Well log is available <u>yes</u> 4) Comment: _____ Casing: 1) Diameter <u>36</u> inches 2) Length <u>15</u> feet 3) Type <u>steel</u> Screen: 1) Type <u>stainless steel</u> 2) Length <u>10.4</u> feet 3) Static water level <u>3</u> feet Pump: 1) Make <u>Layne & Bowler</u> 2) Model <u>Verti-Line</u> 3) Size <u>6"</u> 4) Capacity <u>300</u> GPM Motor: 1) Make <u>U.S. Electric</u> 2) Model No. _____ 3) Horsepower rating <u>40</u> hp	Well Information: City Well #106 in SE¹/₄ SW¹/₄ Sec. 19-T103N-R50W. 1) Well Drilling Firm: <u>Layne Western Co.</u> 2) Depth(s) <u>35.9</u> feet 3) Well log is available <u>yes</u> 4) Comment: _____ Casing: 1) Diameter <u>30</u> inches 2) Length <u>17.9</u> feet 3) Type <u>steel</u> Screen: 1) Type <u>stainless steel</u> 2) Length <u>15.4</u> feet 3) Static water level <u>2.7</u> feet Pump: 5) Make <u>Layne & Bowler</u> 6) Model <u>Verti-Line</u> 7) Size <u>8"</u> 8) Capacity <u>600</u> GPM Motor: 4) Make <u>U.S. Electric</u> 5) Model No. _____ 6) Horsepower rating <u>50</u> hp
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**Well Information: City Well #107 in SE¼ SW¼
Sec. 18-T103N-R50W.**

- 1) Well Drilling Firm: Layne Western Co.
- 2) Depth(s) 34.8 feet
- 3) Well log is available yes
- 4) Comment: _____

Casing:

- 1) Diameter 36 inches
- 2) Length 17.5 feet
- 3) Type steel

Screen:

- 1) Type stainless steel
- 2) Length 15.4 feet
- 3) Static water level 2 feet

Pump:

- 1) Make Layne & Bowler
- 2) Model Verti-Line
- 3) Size 6"
- 4) Capacity 450 GPM

Motor:

- 1) Make U.S. Electric
- 2) Model No. _____
- 3) Horsepower rating 40 hp

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

- 1) Type ductile iron
- 2) Size 8 inches
- 3) Length 4,170 feet
- 1) Type unknown
- 2) Size 10 inches
- 3) Length 1,415 feet

C. Works used to apply water to beneficial use: Water treatment plant and storage that provides a municipal water supply for the City of Sioux Falls.

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by yes

The system is in good condition with the point(s) of diversion located as follows: well #105 is located 1,250' N and 110' E; well #106 is located 1,200' N and 1,575' E both of the SW corner Section 19; well #107 is located 100' N and 2,380' E of the SW corner Section 18 all in T103N-R50W. The works are capable of diverting and conveying to the place of use 3.0 cu. ft. per second of water and/or 1,275 acre-feet of water annually which is to be used for municipal purposes. Water has been put to beneficial use to the maximum extent as follows:

Municipal water supply for the City of Sioux Falls.

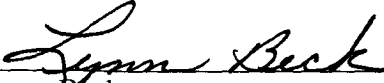
Report of Examination of Works

Permit No. 5612-3

The license should be issued for 3.0 cfs and/or 1,275 acre-feet annually.

All structures, wells and lands on map yes

Comments or other permit(s) associated with the project: Permit No. 5612-3 places to beneficial use 1,275 acre-feet annually from Future Use Permit No. 5522-3.



Lynn Beck

Natural Resources Engineer Specialist
DENR, Water Rights Program

Date report completed: **October 17, 2002**

WATER RIGHT NOs. 5612-3

City of Sioux Falls

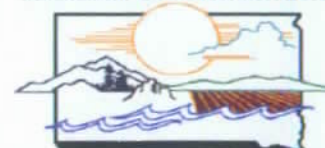


Lynn Beck

Lynn Beck
Natural Resources Engineer Specialist
DENR, Water Rights Program
October 17, 2002



South Dakota Department of
Environment and Natural Resources



Protecting South Dakota's Tomorrow ... Today

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 5612-3

(1) The City of Sioux Falls, 224 W 9th St, Sioux Falls SD 57102 made Application No. 5612-3, January 29, 1992 for a water permit to divert 4.12 cubic feet of water per second (1,275 acre-feet annually) from groundwater (four wells), Minnehaha County, South Dakota for municipal purposes. Permit No. 5612-3, with a priority date of August 22, 1991 (established by Future Use No. 5522-3) was approved April 29, 1992 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before April 29, 1997 and for the application to beneficial use of water on or before April 29, 2001.

(2) The water supply system has been completed and water applied to beneficial use in accordance with South Dakota State Law. Pursuant to South Dakota Codified Law 46-5-30.1, the holder and/or owner of Water Right No. 5612-3 is issued a license, bearing a priority date of August 22, 1991 to appropriate 3.00 cubic feet of water per second (1,275 acre-feet annually) from groundwater (three wells) for municipal purposes.

The diversion points are located as follows: all in **T103N-R50W**

Well # 105 – 1,250 feet north and 110 feet east of the southwest corner Section 19 (SW $\frac{1}{4}$ SW $\frac{1}{4}$);
Well # 106 – 1,200 feet north and 1,575 feet east of the southwest corner Section 19 (SE $\frac{1}{4}$ SW $\frac{1}{4}$);
Well # 107 – 100 feet north and 2,380 feet east of the southwest corner Section 18 (SE $\frac{1}{4}$ SW $\frac{1}{4}$).

(3) This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Permit No. 5612-3 including the following qualifications:

- 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.
- The wells authorized by this permit shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04.
- Approval of Permit No. 5612-3 authorizes a total annual diversion of 1,275 acre-feet of water annually.
- The City of Sioux Falls shall report to the Chief Engineer annually the amount of water withdrawn each year from the Big Sioux:Middle Skunk Creek Aquifer.
- If development and pumping of Middle Skunk Creek Aquifer water authorized by Permit No. 5612-3 results in adverse impairment of adequate domestic wells or adequate wells having prior water rights, reduction of withdrawals or mitigation may be necessary. SDCL 46-1-5(1), in giving preference to domestic use over appropriative rights does so without regard to 1) whether lowered groundwater levels are due to drought, 2) the location of domestic wells in the aquifer, or 3) the thickness of the water bearing sands and gravel; subject to compliance with minimum requirements for adequate wells as defined by Board Well Construction Standards, Chapter 74:02:04.

Garland Erbele

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

JUN 20 2003

date





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

JUN 20 2003

Randy Jenssen
Sioux Falls Water Superintendent
2100 N Minnesota Ave
Sioux Falls SD 57104

Dear Mr. Jenssen:

Enclosed are Water License Nos. 5213-3, 5214-3, 5431-3, 5611-3, 5612-3, 5614-3, 5615-3, 5726-3, 6210-3, 6214-3 and 6215-3 for the City of Sioux Falls. A map prepared by Lynn Beck is also included for each permit as well as receipts for payment of the license fees.

These are the final water right documents completing the city's process of obtaining Water Rights.

As long as the city uses the water beneficially, as stated in the Water Licenses, State Water Laws provide a continuing right to use the water.

Sincerely,

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

NOTE: The applicable portions of No. 5334-3 are incorporated into Water License No. 6210-3.
The applicable portions of Nos. 2923-3 and 5613-3 are incorporated into Water License No. 5726-3.

enclosures