

WATER PERMIT NO. 8057-3

Name of Applicant: Schoenfelder Family Trust

Address: 30632 437th Ave, Yankton SD 57078 Phone: 605 660-1375

Amount of Water Claimed: 2.67 cfs Total Acres: 360 acres

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation County: Yankton

Type of Waste Disposal System:

Location: 4 miles northwest of Yankton

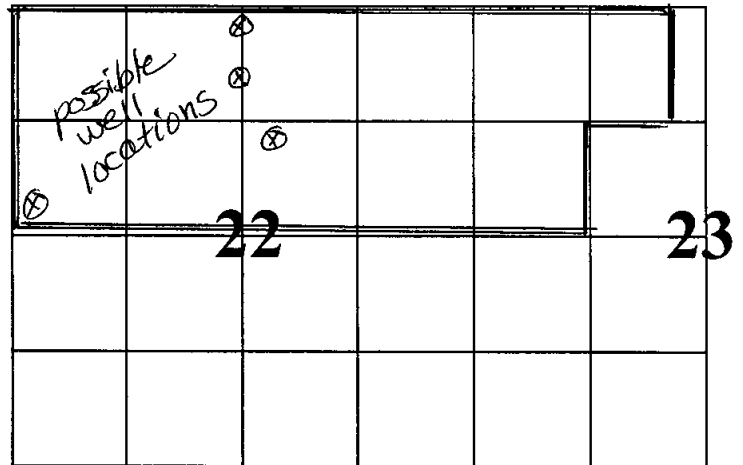
PRIORITY Date Received: 10-6-14 Application/License Fee: \$ 1350.00

Corrected Application Received: Period of Annual Use: April 1 – September 30

Remarks:

Diversion Point: N 1/2 Sec 22-T94N-R56W

Land to be Irrigated: N 1/2 Sec 22 and NW 1/4 Sec 23; all in T94N-R56W



Depth of Well: 300 feet deep

Well Driller:

Remarks:

Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 10-6-14

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

FORM 2: Application for irrigation in South Dakota

(type or print)

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8057-3</u> (office use only)	Hydrologic Unit <u>10160011</u>
	Basin <u>James River</u>	
	Newspaper <u>Press & Dakotian</u>	
	<u>319 Walnut Yankton 57078</u> <u>605-665-7811</u>	

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Application For Permit To Appropriate Water For Irrigation

Type of Application: ☒ New ☐ Vested Right ☐ Amendment/Correction to Permit No. _____

(Use predates Mar 2, 1955)

Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.)

1. Name to Appear on Irrigation Permit Robert A. Schoenfelder & Patricia A. Schoenfelder Schoenfelder Family Trust
(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent 3

(name and complete address if different than above name)

Mailing Address 30632 437th AVE Yankton S.D. 57078
(Address) (City) (State) (Zip Code)

Home Phone 605-665-9774 Cell 605-660-1375 Email bpschoen@hotmail.com

2. Amount of water claimed 2.67*CFS or 1200 **GPM ***AF Total Acreage 360
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply lower James riv

4. Location of point of diversion 1 well in NW 1/4 section 22-94-56
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)

Spots on map are location that well met be County Yankton

5. County or counties where water will be used Yankton

6. Annual period during which water is to be used Apr 1 - Sept 30

7. List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
NW 1/4 sec 22-94-56	142		
NE 1/4 sec 22-94-56	142		
NW 1/4 sec 23-94-56	76		

8. Give a description of the project. (Attach sheet if more space is needed)

Put in two 7 to span pivots in sec 22 plus adding a 2 or 3 span to cover gaps that ~~are~~ drawn in on map.
in sec 23 putting two pivots in met move the 6 span to E more to set more acres see maps

I, Robert G. Schoenfelder, the applicant, certify that I have read this application, have examined the attached map, and that the matters stated are true.

SOUTH DAKOTA
WATER PERMIT NO. 8057-3

Date of first receipt of application October 6, 2014.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8057-3 to Schoenfelder Family Trust, c/o Robert A and Patricia A Schoenfelder, 30632 437th Ave, Yankton SD 57078 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. 8057-3 appropriates 2.67 cubic feet of water per second from one well to be completed into the Lower James:Missouri Aquifer (300 feet deep) located in the N 1/2 Section 22 for irrigation of 360 acres located in the N 1/2 Section 22 and the NW 1/4 Section 23; all in T94N-R56W.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: April 1 – September 30.
3. The date from which applicant may claim right is October 6, 2014.
4. The date of approval of Permit No. 8057-3 is December 29, 2014.
5. One-fifth of the construction is to be completed on or before July 29, 2017.
6. All construction is to be completed on or before December 29, 2019.
7. Water is to be put to beneficial use on or before December 29, 2023.
8. 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 well 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 well authorized by Permit No. 8057-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

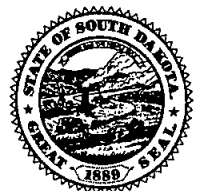
WATER MANAGEMENT BOARD

By: 

Jeanne Goodman, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

JAN 22 2015

date



Supplemental Information

(type or print)

1. Well Information (check one or both as applicable) ☒ Drilling new well(s) ☐ Using existing well(s)

a) If new wells, how many ____ Have test holes been drilled ☐ Yes ☒ No Drilled by _____
(if yes, please provide copies of logs)

b) If existing wells, how many 2 Provide copy of log(s), if available. Drilled by Geological Survey - G. Johnson

c) Well Depth 300 Depth to Top of Water Bearing Material 192 Depth to Water from Surface 154 J. Goodman

d) Distance to nearest existing domestic well:

On applicant's property 2500 feet

On property owned by others None

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 (e.g. 3 to 1 is a typical slope)

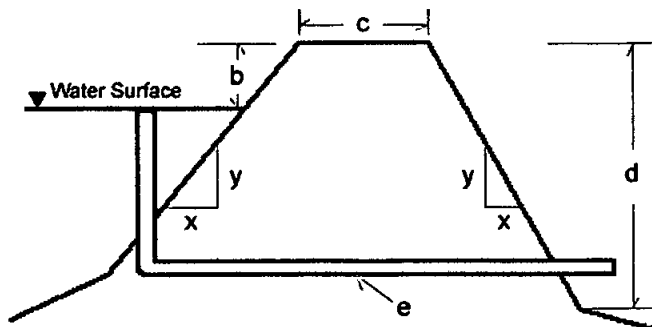
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



Petersen Ag Systems Inc.



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402-254-9557 office

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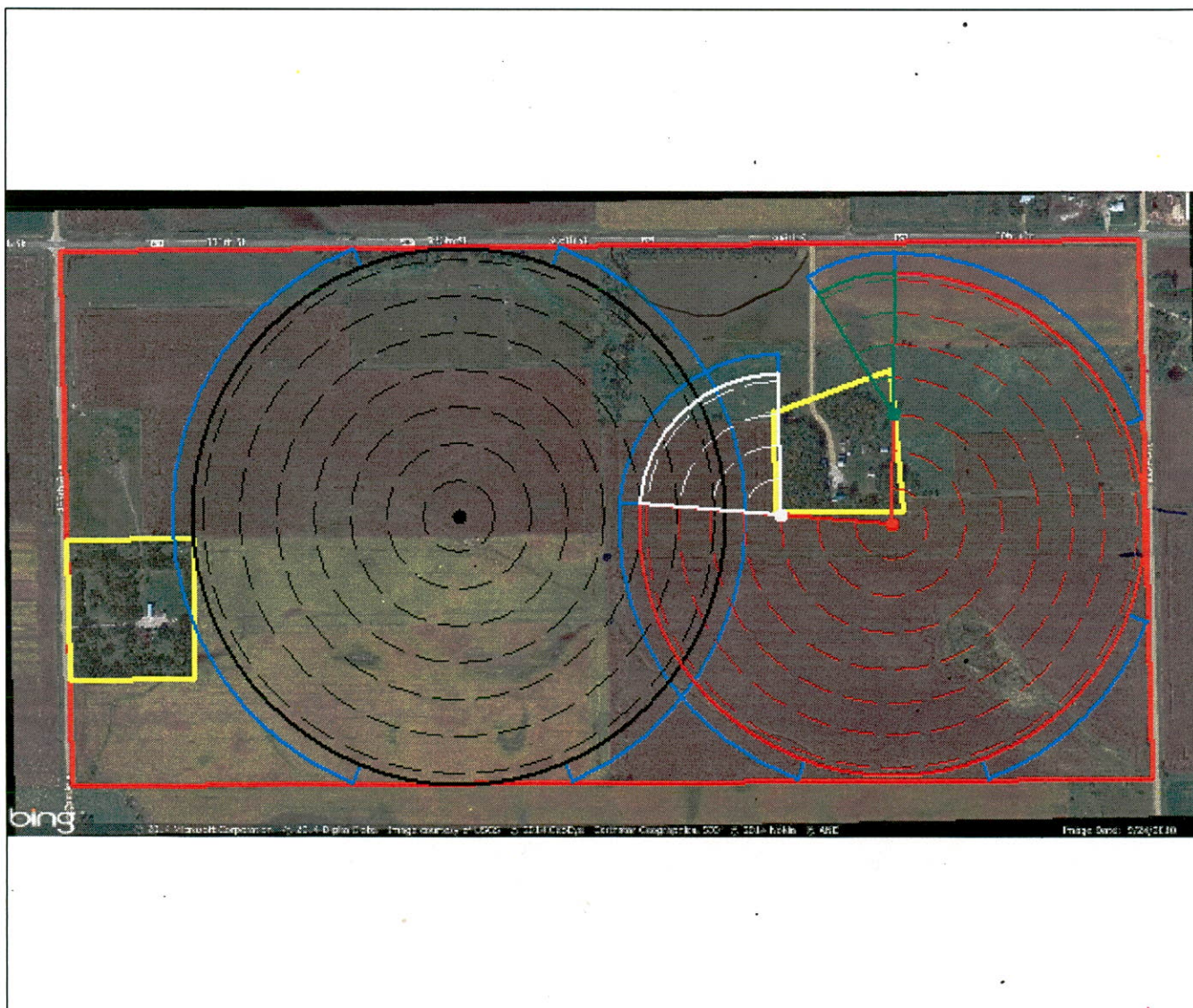
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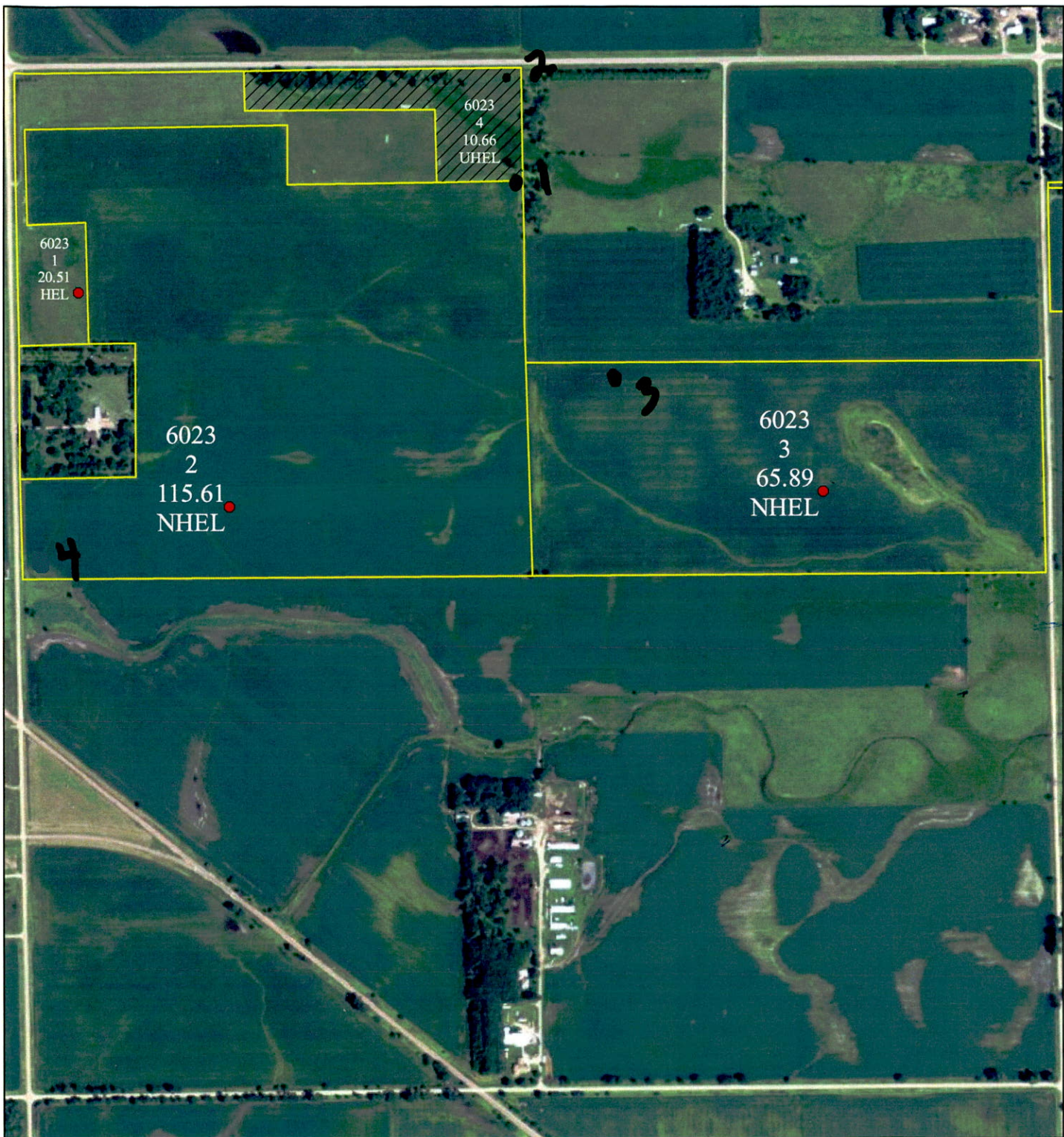
Farm: Robert and Karen Farm

Grower: Robert Schoenfelder

9/12/2014

Systems:	Length	Spans	Total area including endgun
Pivot 1	1303.67 ft	7 spans + 44 ft o.h.	137.34 acres
● Pivot 2	1224.17 ft	7 spans + 33.0 ft o.h.	91.78 acres
● Pivot 3	690.42 ft	4 spans + 33 ft o.h.	4.08 acres
○ Pivot 4	690.42 ft	4 spans + 33 ft o.h.	10.59 acres





United States Department of Agriculture
Farm Service Agency

PLSS: 22_94_56
Farm: 5898

Yankton County, SD
1:10,298



February 11, 2011

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

Wetland Determination Identifiers
 ● Restricted Use
 ▼ Limited Restrictions
 ■ Exempt from Conservation Compliance Provisions

Common Land Units

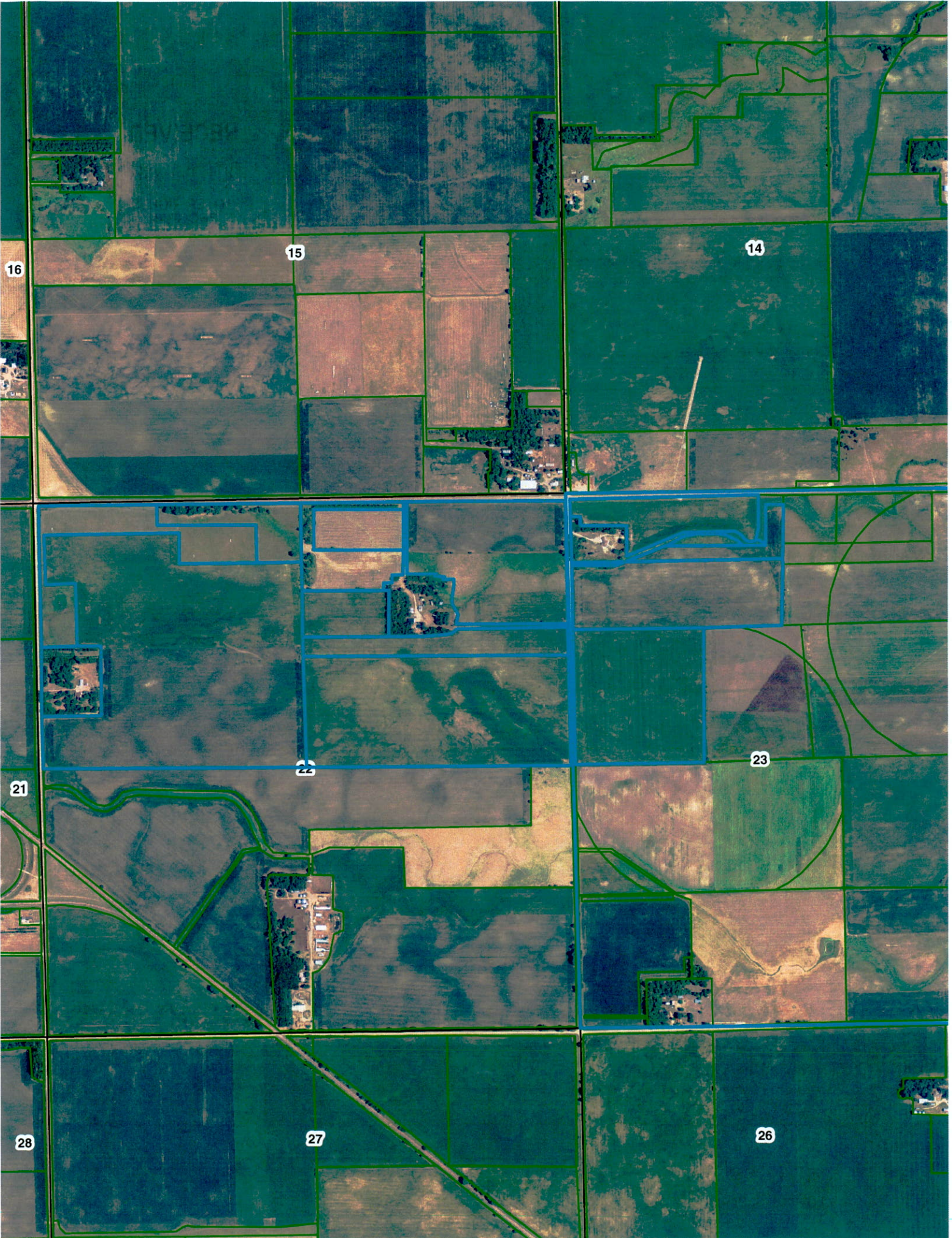
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2010 Ortho-Photography - Not to Scale

NRCS - A. Anderson / SET 9/25/14



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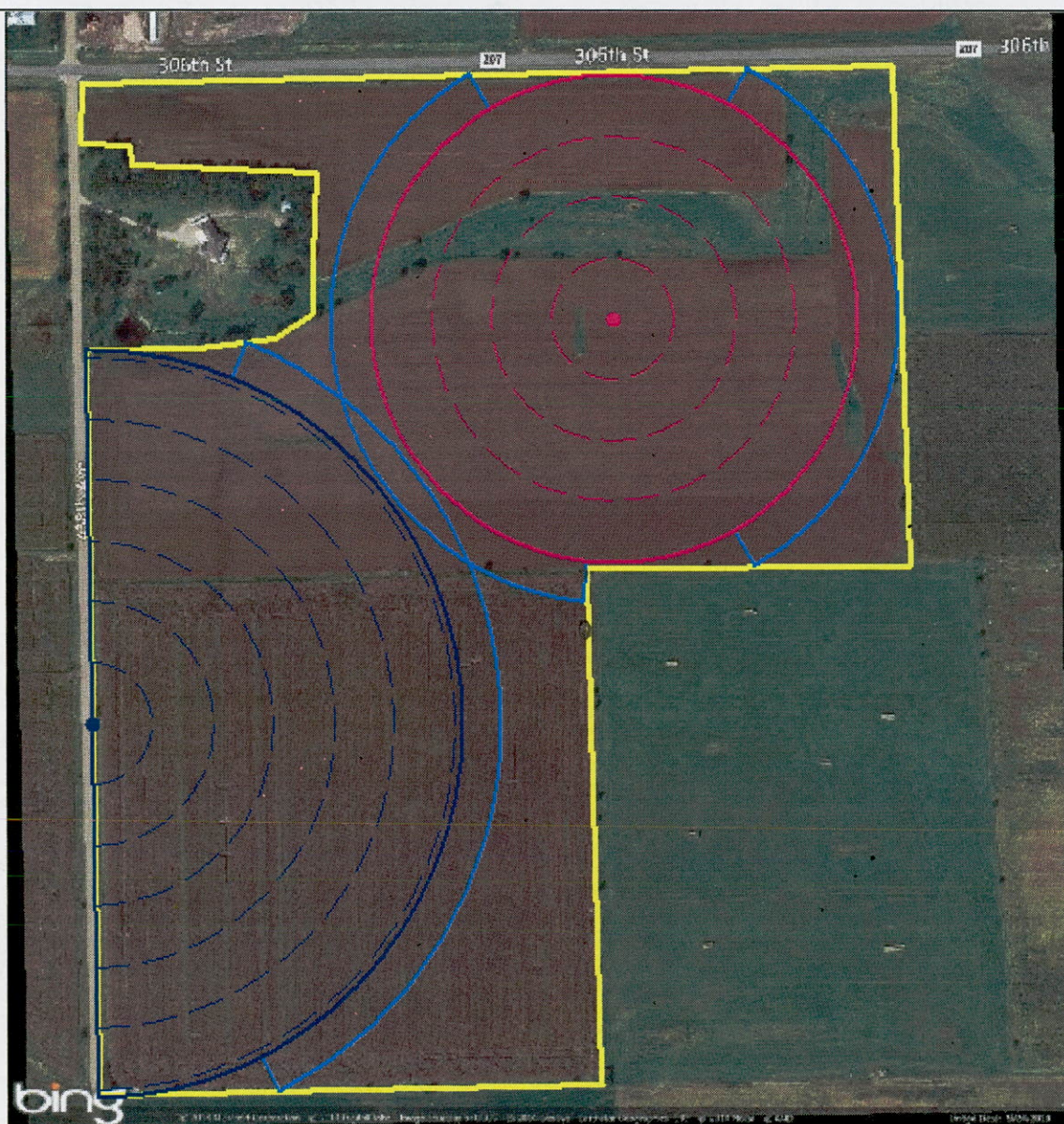
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Farm: Dads and Karens

Grower: Frank Kralicek

9/12/2014

Systems:	Length	Spans	Total area including endgun
● Pivot 1	960.50 ft	6 spans + 11 ft o.h.	38.57 acres
● Pivot 2	632.33 ft	4 spans + No overhang	36.11 acres



Pivot 1

Pivot Area: **33.27** acres
 Endgun Area: **5.30** acres
 Total Area: **38.57** acres

System Length: **960.50** ft
 # of Spans: **6 + overhang**
 Deg. of Sweep: **180.0°**
 Endgun Throw: **100.0** ft

Color on map:



Spans

# of Spans: 6	Span 1 (158.1)	Span 2 (315.2)	Span 3 (472.2)	Span 4 (629.3)	Span 5 (786.4)	Span 6 (943.5)	Overhang (960.5)
Length:	157	157	157	157	157	157	11 ft
Pipe Size:	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	5 - 9/16"

Endgun Areas

Endgun 1: (Throw = 100.0 ft)

# of Areas: 1	Start / Stop Angle (Deg. from North)	Start / Stop Angle (Deg. from Pivot Start)	Start / Stop Location (Lat/Long)		Area (acres)
Area 1	23.2° / 154.0°	23.0° / 153.8°	42° 57' 0.374" -97° 26' 8.251"	42° 56' 43.122" -97° 26' 7.680"	5.30

Pivot 2

Pivot Area: **28.84** acres
 Endgun Area: **7.27** acres
 Total Area: **36.11** acres

System Length: **632.33** ft
 # of Spans: **4**
 Deg. of Sweep: **360.0°**
 Endgun Throw: **100.0** ft

Color on map:



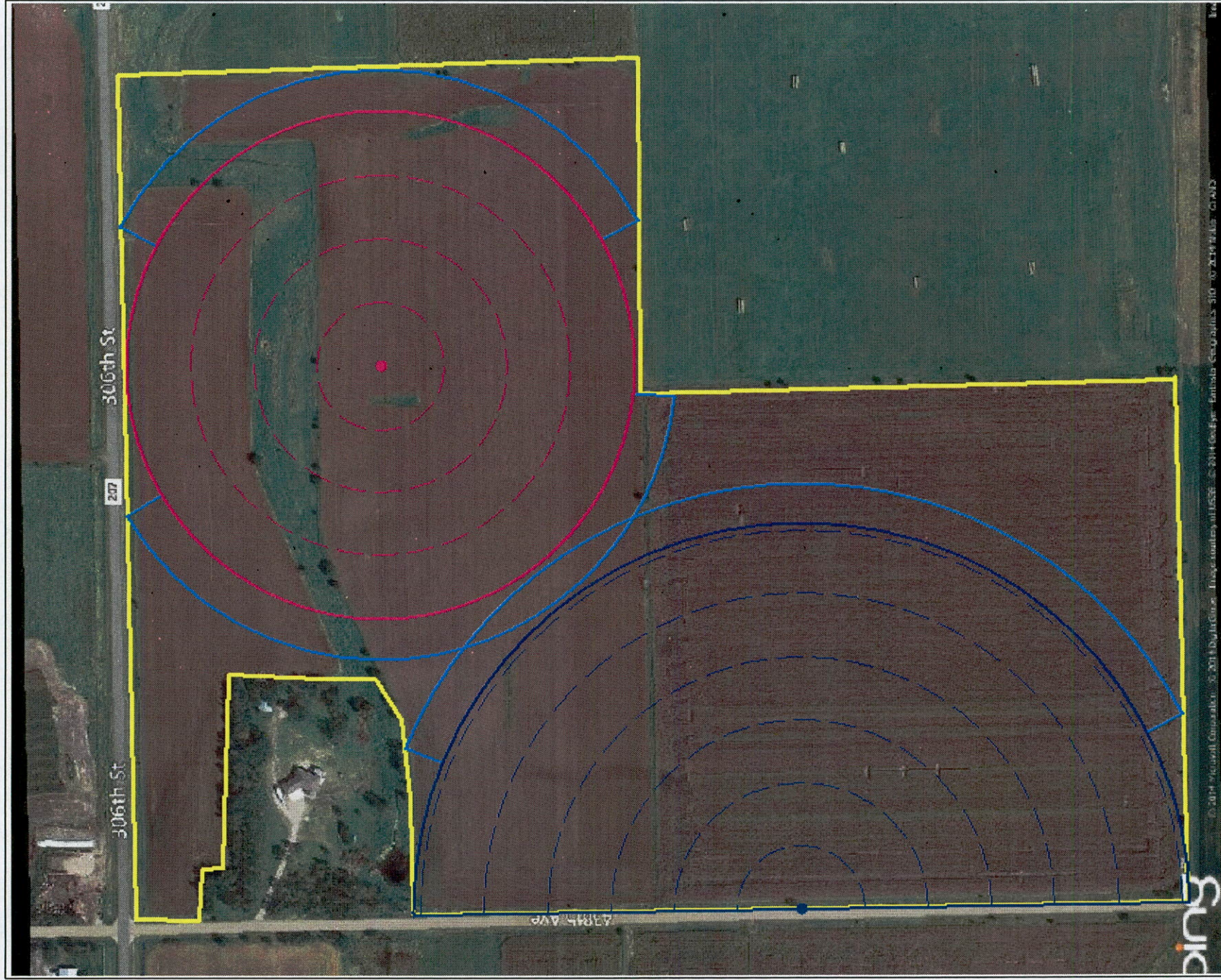
Spans

# of Spans: 4	Span 1 (158.1)	Span 2 (315.2)	Span 3 (472.2)	Span 4 (632.3)
Length:	157	157	157	157
Pipe Size:	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"

Endgun Areas

Endgun 1: (Throw = 100.0 ft)

# of Areas: 2	Start / Stop Angle (Deg. from North)	Start / Stop Angle (Deg. from Pivot Start)	Start / Stop Location (Lat/Long)		Area (acres)
Area 1	28.9° / 151.5°	- NA - / - NA -	42° 57' 7.149" -97° 25' 50.825"	42° 56' 56.193" -97° 25' 50.879"	3.35
Area 2	187.0° / 330.5°	- NA - / - NA -	42° 56' 55.482" -97° 25' 55.979"	42° 57' 7.117" -97° 25' 59.132"	3.92





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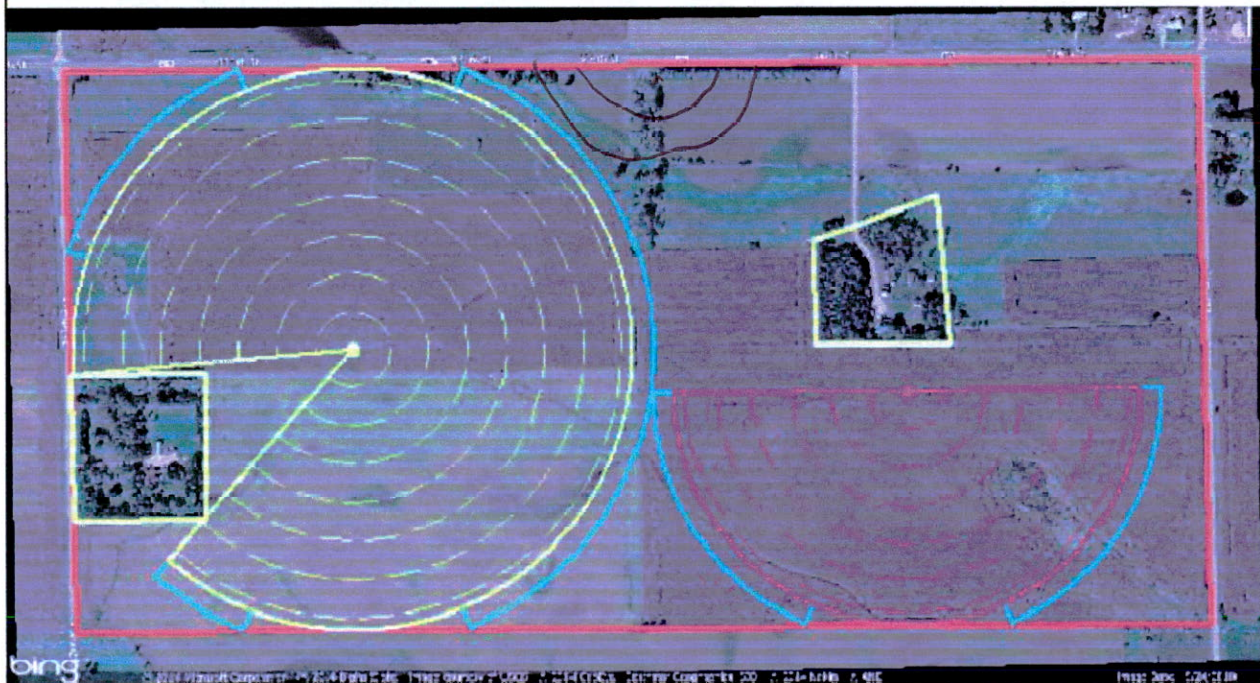
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Farm: Robert and Karen Farm

Grower: Robert Schoenfelder

9/17/2014

Systems:	Length	Spans	Total area including endgun
 Pivot 5	1303.67 ft	7 spans + 44 ft o.h.	118.87 acres
 Pivot 6	1081.08 ft	6 spans + 44 ft o.h.	48.35 acres

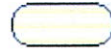


Pivot 5

Pivot Area: **107.81** acres
 Endgun Area: **11.06** acres
 Total Area: **118.87** acres

System Length: **1303.67** ft
 # of Spans: **7 + overhang**
 Deg. of Sweep: **316.6°**
 Endgun Throw: **100.0** ft

Color on map:



Spans

# of Spans: 7	Span 1 (180.2)	Span 2 (359.1)	Span 3 (538.0)	Span 4 (716.9)	Span 5 (895.8)	Span 6 (1074.8)	Span 7 (1253.7)	Overhang (1303.7)
Length:	179	179	179	179	179	179	179	44 ft
Pipe Size:	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	5 - 9/16"

Endgun Areas

Endgun 1: (Throw = 100.0 ft)

# of Areas: 3	Start / Stop Angle (Deg. from North)	Start / Stop Angle (Deg. from Pivot Start)	Start / Stop Location (Lat/Long)		Area (acres)
Area 1	290.0° / 338.4°	24.2° / 72.7°	42° 56' 59.839" -97° 27' 23.191"	42° 57' 7.413" -97° 27' 13.159"	2.63
Area 2	22.3° / 158.4°	116.6° / 252.6°	42° 57' 7.349" -97° 27' 0.054"	42° 56' 43.461" -97° 27' 0.260"	7.38
Area 3	203.0° / 222.4°	297.2° / 316.6°	42° 56' 43.577" -97° 27' 13.557"	42° 56' 45.925" -97° 27' 18.538"	1.05

Pivot 6

Pivot Area: **42.33** acres
 Endgun Area: **6.02** acres
 Total Area: **48.35** acres

System Length: **1081.08** ft
 # of Spans: **6 + overhang**
 Deg. of Sweep: **180.8°**
 Endgun Throw: **100.0** ft

Color on map:



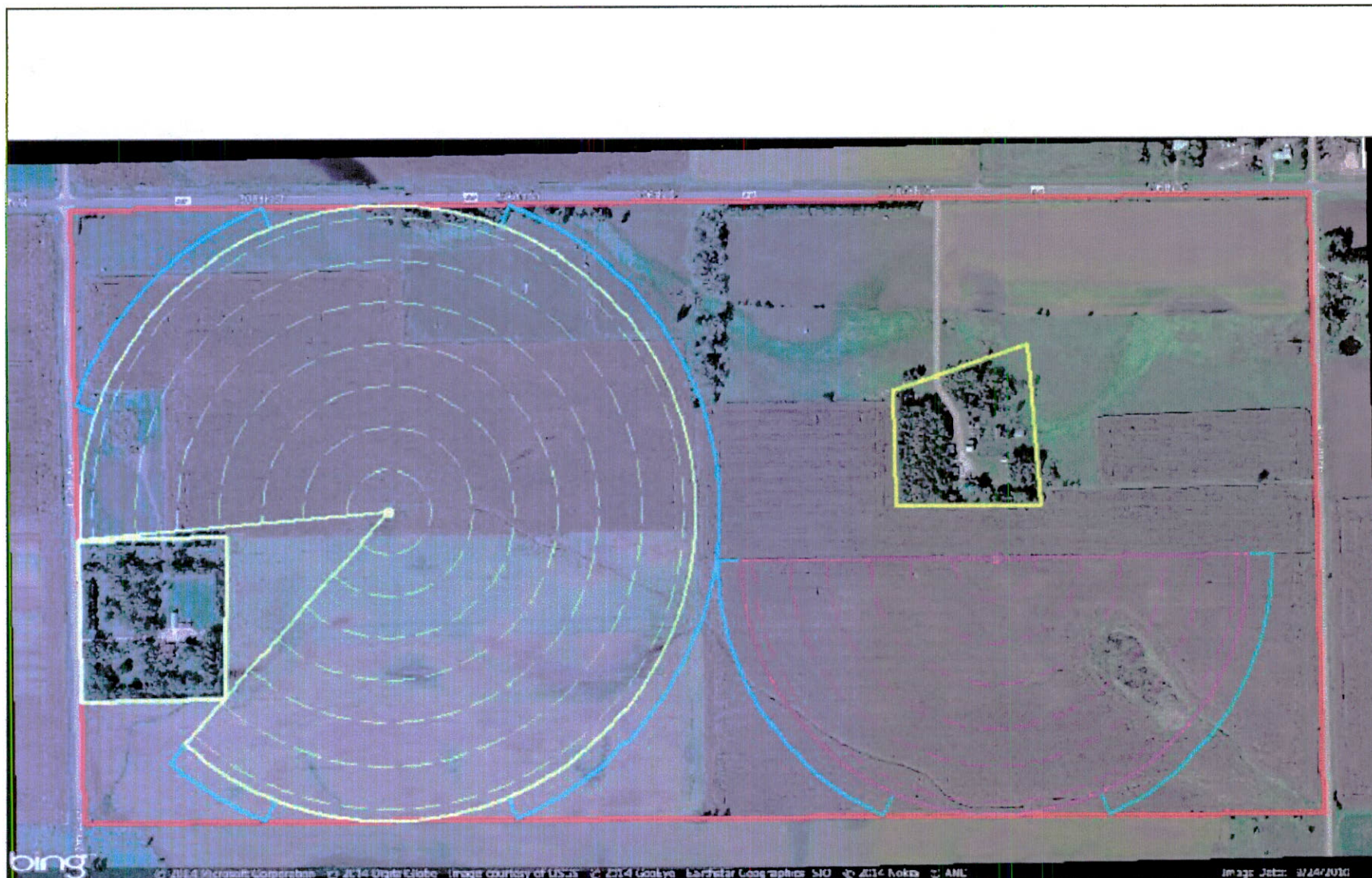
Spans

# of Spans: 6	Span 1 (180.2)	Span 2 (359.1)	Span 3 (538.0)	Span 4 (716.9)	Span 5 (874.0)	Span 6 (1031.1)	Overhang (1081.1)
Length:	179	179	179	179	157	157	44 ft
Pipe Size:	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	5 - 9/16"

Endgun Areas

Endgun 1: (Throw = 100.0 ft)

# of Areas: 2	Start / Stop Angle (Deg. from North)	Start / Stop Angle (Deg. from Pivot Start)	Start / Stop Location (Lat/Long)		Area (acres)
Area 1	89.9° / 156.7°	0.0° / 66.8°	42° 56` 52.981" -97° 26` 17.731"	42° 56` 43.152" -97° 26` 26.517"	3.03
Area 2	204.7° / 270.7°	114.8° / 180.8°	42° 56` 43.257" -97° 26` 38.340"	42° 56` 53.092" -97° 26` 46.807"	2.99



Petersen Ag Systems Inc. Designed by Judd D. Keiser Cell 605-661-6941

Sam Heine Well Company, LLC

214 Capital Street
Yankton, SD 57078**Estimate**

Date	Estimate #
9/9/2014	34

Name / Address
Frank Kralick 30612 438th Ave Yankton, Sd 57078

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			Project
Description	Qty	Cost	Total
300' irrigation well; 16" cased, 28" borehole, well seal, test pumped, registered	300	115.00	34,500.00
Sales Tax		2.041%	0.00
Total			\$34,500.00

Customer Signature _____

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South Dakota
Department of Environment
& Natural Resources
Geological Survey

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Lithologic Logs DatabaseLithologic Logs Search for: *lithhead.location like 094N56W23BBBB*

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[Next](#)**Record 1 of 1****Location Information**

Legal Location: NW NW NW NW SEC. 23, T. 094 N., R. 56 W.
County: YANKTON Location: 094N56W23BBBB
Latitude: 42.9521820293
Hydrologic Unit Code: 10160011 Longitude: -97.4361880293
Land Owner: Ground Surface Elev. (ft.): 1353 T

Test Hole Information

Project: WATER RIGHTS
Drill Date: 05/22/1978 Geologist: J. GOODMAN
Company: SDGS Geologist's Log: X
Drilling Method: ROTARY Driller: J. MARIN
Test Hole Number: YA-78-1 Driller's Log:
Geophysical NO Total Drill Hole Depth (ft.): 260.0
Log:

Well Information

SDGS Well Name: YA-78G
Water Rights Well: [Water Level Data](#) Aquifer: LOWER-JAMES-MISSOURI
Management Unit:
Other Well Name: Casing Top Elev. (ft.):
Casing Type: PVC Casing Diameter (in.): 2.0
Screen Type: PVC, MFG. AND HM. Screen Length (ft.): 30.0
Total Casing: 241.7 Casing Stick-up (ft.): 0.00

and Screen
(ft.):

Notes

CASING SLOTTED 25 FEET ABOVE A 5-FOOT SANDPOINT.

Lithologic Information

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1353.0 - 1348.0	0.0 - 5.0	TOPSOIL, BLACK
1348.0 - 1323.0	5.0 - 30.0	CLAY, BROWN, SILTY, SANDY (TILL)
1323.0 - 1226.0	30.0 - 127.0	CLAY, GRAY, SILTY, PEBBLY (TILL)
1226.0 - 1218.0	127.0 - 135.0	GRAVEL, COARSE; WITH CLAY
1218.0 - 1171.0	135.0 - 182.0	CLAY, GRAY, SILTY; WITH GRAVEL
1171.0 - 1093.0	182.0 - 260.0	GRAVEL, MEDIUM TO COARSE, SANDY; CLEAN

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Geological Survey

Lithologic Logs Database

Lithologic Logs Search for: lithhead.location like 094N56W15DDCC 2

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Record 1 of 1

Location Information

Legal Location: SW SW SE SE SEC. 15, T. 094 N., R. 56 W.
County: YANKTON Location: 094N56W15DDCC 2
Latitude: 42.9525484472
Hydrologic Unit Code: 10160011 Longitude: -97.4410582168
Land Owner: Ground Surface Elev. (ft.): 1356 T

Test Hole Information

Project: YANKTON COUNTY STUDY
Drill Date: 07/05/1983 Geologist: G. JOHNSON
Company: SDGS Geologist's Log: X
Drilling Method: ROTARY Driller: R. GRAVHOLT/D. IVERSON
Test Hole Number: R1-83-65 Driller's Log:
Geophysical YES Total Drill Hole Depth (ft.): 440.0
Log: [View Geophysical Log](#)

Notes

REDRILL (40 FEET TO THE EAST) OF R1-83-28.

Lithologic Information

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1356.0 - 1327.0	0.0 - 29.0	CLAY, LIGHT-BROWN, SILTY; CALCAREOUS, OXIDIZED (TILL)
1327.0 - 1303.0	29.0 - 53.0	CLAY, GRAY, SILTY; CALCAREOUS (TILL)
1303.0 - 1288.0	53.0 - 68.0	CLAY, GRAY, SILTY; CALCAREOUS, MIXED WITH MUCH COARSE SAND AND FINE GRAVEL (TILL)
1288.0 - 1143.0	68.0 - 213.0	CLAY, GRAY, SILTY, SANDY; CALCAREOUS (TILL)

1143.0 - 1128.0	213.0 - 228.0	CLAY, GRAY, SILTY; CALCAREOUS, WITH THIN STRINGERS OF SAND AND GRAVEL (TILL)
1128.0 - 1064.0	228.0 - 292.0	SAND AND GRAVEL, COARSE SAND CHANGING TO FINE GRAVEL AND FINALLY TO COBBLES WITH DEPTH
1064.0 - 1006.0	292.0 - 350.0	CLAY, LIGHT-GRAY TO GRAY; NONCALCAREOUS WITH GREASY LUSTER; MUCH PYRITE AT ABOUT 310 TO 320 FEET (CARLILE SHALE)
1006.0 - 936.0	350.0 - 420.0	CLAY, GRAY; NONCALCAREOUS, WITH GREASY LUSTER PLUS LIGHT-GRAY TO WHITE CHIPS OF SHALE THAT ARE CALCAREOUS (CARLILE SHALE)
936.0 - 916.0	420.0 - 440.0	CLAY, LIGHT-GRAY TO WHITE; CALCAREOUS (GREENHORN LIMESTONE)

UPPER 4 TO 5 FEET OF CARLILE SHALE MAY BE CODELL MEMBER; BLUE HILL MEMBER DOWN TO 350 FEET; FAIRPORT MEMBER TO 420 FEET; DIVISIONS BASED ON E-LOG. BEDROCK AT 100 FEET IN R1-83-28. SEE R1-83-28 LITHOLOGIC LOG FOR SAND STRINGERS.

Pivot 1

Pivot Area: **122.57** acres
 Endgun Area: **14.77** acres
 Total Area: **137.34** acres

System Length: **1303.67** ft
 # of Spans: **7 + overhang**
 Deg. of Sweep: **360.0°**
 Endgun Throw: **100.0** ft

Color on map:



Spans

# of Spans: 7	Span 1 (180.2)	Span 2 (359.1)	Span 3 (538.0)	Span 4 (716.9)	Span 5 (895.8)	Span 6 (1074.8)	Span 7 (1253.7)	Overhang (1303.7)
Length:	179	179	179	179	179	179	179	44 ft
Pipe Size:	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	5 - 9/16"

Endgun Areas

Endgun 1: (Throw = 100.0 ft)

# of Areas: 2	Start / Stop Angle (Deg. from North)	Start / Stop Angle (Deg. from Pivot Start)	Start / Stop Location (Lat/Long)		Area (acres)
Area 1	21.5° / 157.9°	- NA - / - NA -	42° 57' 7.304" -97° 26' 52.060"	42° 56' 43.385" -97° 26' 51.906"	7.40
Area 2	203.4° / 339.3°	- NA - / - NA -	42° 56' 43.503" -97° 27' 5.456"	42° 57' 7.366" -97° 27' 4.696"	7.37

Pivot 2

Pivot Area: **82.17** acres
 Endgun Area: **9.61** acres
 Total Area: **91.78** acres

System Length: **1224.17** ft
 # of Spans: **7 + overhang**
 Deg. of Sweep: **273.7°**
 Endgun Throw: **100.0** ft

Color on map:



Spans

# of Spans: 7	Span 1 (180.2)	Span 2 (359.1)	Span 3 (538.0)	Span 4 (716.9)	Span 5 (874.0)	Span 6 (1031.1)	Span 7 (1188.2)	Overhang (1224.2)
Length:	179	179	179	179	157	157	157	33.0 ft
Pipe Size:	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	5 - 9/16"

Endgun Areas

Endgun 1: (Throw = 100.0 ft)

# of Areas: 3	Start / Stop Angle (Deg. from North)	Start / Stop Angle (Deg. from Pivot Start)	Start / Stop Location (Lat/Long)		Area (acres)
Area 1	2.1° / 67.7°	0.0° / 65.6°	42° 57' 6.619" -97° 26' 29.727"	42° 56' 59.123" -97° 26' 15.111"	3.35
Area 2	112.0° / 160.1°	109.9° / 158.0°	42° 56' 49.996" -97° 26' 15.083"	42° 56' 43.159" -97° 26' 24.750"	2.46
Area 3	201.2° / 275.8°	199.1° / 273.7°	42° 56' 43.261" -97° 26' 36.306"	42° 56' 55.761" -97° 26' 46.721"	3.81

Pivot 3

Pivot Area: **3.12** acres
 Endgun Area: **0.97** acres
 Total Area: **4.08** acres

System Length: **690.42** ft
 # of Spans: **4 + overhang**
 Deg. of Sweep: **32.6°**
 Endgun Throw: **100.0** ft

Color on map:



Spans

# of Spans: 4	Span 1 (180.2)	Span 2 (337.3)	Span 3 (494.3)	Span 4 (651.4)	Overhang (690.4)
Length:	179	157	157	157	33 ft
Pipe Size:	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	5 - 9/16"

Endgun Areas

Endgun 1: (Throw = 100.0 ft)

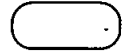
# of Areas: 1	Start / Stop Angle (Deg. from North)	Start / Stop Angle (Deg. from Pivot Start)	Start / Stop Location (Lat/Long)		Area (acres)
Area 1	329.5° / 2.1°	0.0° / 32.6°	42° 57' 5.723" -97° 26' 34.782"	42° 57' 6.661" -97° 26' 29.725"	0.97

Pivot 4

Pivot Area: **8.08** acres
 Endgun Area: **2.51** acres
 Total Area: **10.59** acres

System Length: **690.42** ft
 # of Spans: **4 + overhang**
 Deg. of Sweep: **84.6°**
 Endgun Throw: **100.0** ft

Color on map:



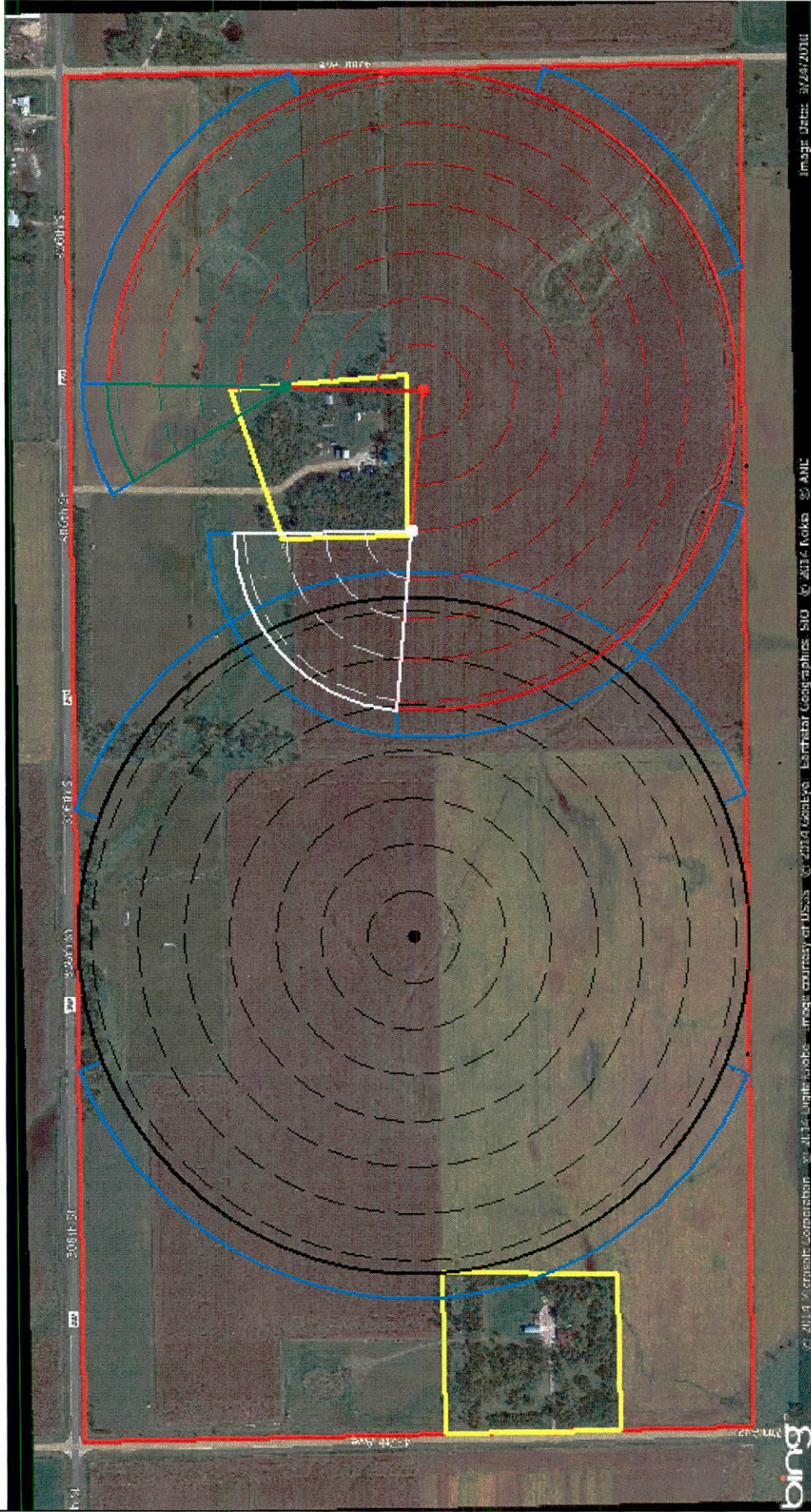
Spans

# of Spans: 4	Span 1 (180.2)	Span 2 (337.3)	Span 3 (494.3)	Span 4 (651.4)	Overhang (690.4)
Length:	179	157	157	157	33 ft
Pipe Size:	6 - 5/8"	6 - 5/8"	6 - 5/8"	6 - 5/8"	5 - 9/16"

Endgun Areas

Endgun 1: (Throw = 100.0 ft)

# of Areas: 1	Start / Stop Angle (Deg. from North)	Start / Stop Angle (Deg. from Pivot Start)	Start / Stop Location (Lat/Long)		Area (acres)
Area 1	275.8° / 0.4°	0.0° / 84.6°	42° 56' 55.765" -97° 26' 46.778"	42° 57' 1.894" -97° 26' 37.476"	2.51



RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 10/6, 20 14

RECEIVED OF Schoenfelder Family Trust 30632 437th Ave Yankton SD 57078

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

Fee for Application for Permit No. <u>8057-3</u> to Appropriate Water, to construct and to put water to beneficial use	1150	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>8057-3</u>	200	00
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	1350 00

No. **06964**

By

James Goodman
Chief Engineer

PM B 2020
DENR-water Rights
523 E Capitol Ave.
Pierre, SD 57501-3182

RECEIVED

OCT 06 2014

WATER RIGHTS
PROGRAM

Dear Sirs or Madams,

My name is Frank Kralicek Jr.
& I am the grant of the Schoentfelders's
ground. Attached is an application for
permit to appropriate water for Irrigation.
I personally filed out the application,
therefore if you have any questions
feel free to contact me or Bob Schoentfelder.

~ Thanks,

Frank D. Kralicek Jr.

43792 306th St. Yankton, SD 57078

email: frank.kralicekjr@hotmail.com

cell: (605) 660-0846 home: (605) 660-0846



**DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES**

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



**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8057-3, Schoenfelder Family Trust**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 8057-3, Schoenfelder Family Trust, c/o Robert A and Patricia A Schoenfelder, 30632 437th Avenue, Yankton SD 57078.

The Chief Engineer is recommending APPROVAL of Application No. 8057-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The well 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 well authorized by Permit No. 8057-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Jeanne Goodman, Chief Engineer
December 8, 2014

**REPORT TO THE CHIEF ENGINEER
WATER PERMIT APPLICATION NO. 8057-3
Schoenfelder Family Trust
December 6, 2014**

Water Permit Application No. 8057-3 proposes to appropriate groundwater at a maximum diversion rate of 2.67 cubic feet of water per second (cfs) from one well to be completed into the Lower James Missouri aquifer. The well is expected to be approximately 260 feet deep and located in the N ½ of Section 22, T94N-R56W. Although the applicant only proposes to construct a single well, four potential well sites were listed in the application. All four potential well sites are located in the N ½ of Section 22, T94N-R56W. Water from this well will be used to irrigate 360 acres located in the N ½ of Section 22 and the NW ¼ of Section 23, T94N-R56W in Yankton County.

AQUIFER: Lower James Missouri aquifer (LJM)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Lower James Missouri and the Missouri: Elk Point aquifers are a contiguous groundwater bearing unit that has been separated into management units geographically at the bluff created by the Missouri River trench (Hedges and others, 1982). The Missouri: Elk Point aquifer, which is on the floodplain, is typically surficial and predominately under unconfined conditions. The Lower James Missouri aquifer, which is above the floodplain, is typically buried and predominately under confined conditions. The aquifer is located above the flood plain at this location. Test hole and observation well data (SDGS, 2014; Water Rights, 2014a) shows the outwash is buried and the aquifer is under confined conditions.

The Lower James Missouri aquifer is a glacial outwash consisting of fine sand to cobble sized gravel. The aquifer is hydraulically connected to the Choteau, Lower James Missouri: Scotland, Missouri: Elk Point, and Niobrara aquifers, as well as the James and Missouri Rivers. Water in the aquifer moves south and locally toward the James River (Bugliosi, 1986; Hansen, 1983; Lindgren and Hansen, 1990).

Bugliosi (1986) mapped a glacial aquifer in Yankton County and named the portion covered by till the Lower James Missouri aquifer. Lindgren and Hansen (1990) mapped a glacial aquifer in Hutchinson County and also named it the Lower James Missouri aquifer. Hedges and others (1982) and Bugliosi (1983) delineated the boundaries of the Lower James Missouri aquifer in Yankton County as shown in Figure 1 and Figure 2, respectively. Although the applicant proposes to construct wells on the edge of the aquifer boundary as defined by Hedges and others (1982), it is likely the aquifer extends to at least one of the proposed well sites. The Lower James Missouri aquifer underlies approximately 286,000 acres of Yankton, Hutchinson, Hanson, Clay, and McCook Counties. Assuming an expected specific yield of 0.20 for the aquifer, it follows that the Lower James Missouri contains approximately 5.3 million acre feet (ac-ft) of water in storage.

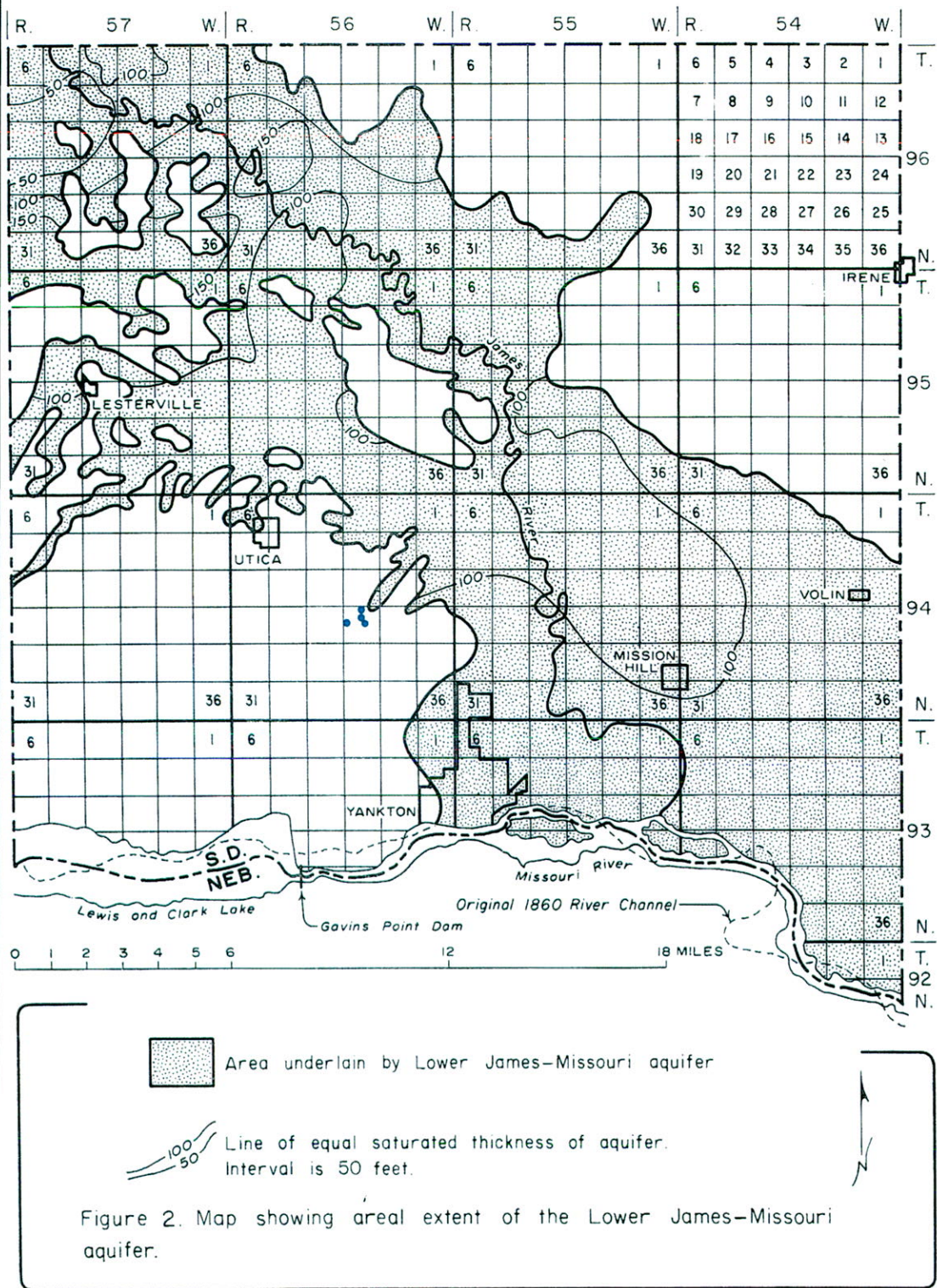


Figure 2: Aerial extent of Lower James Missouri aquifer as delineated by Bugliosi (1983). Proposed sites for well are shown in blue.

Lithological records submitted with this application indicate a water bearing formation at 228-292 feet below ground surface in the SE ¼ SE ¼ of Section 15 and at 182-260 feet below ground surface in the NW ¼ NW ¼ of Section 23, both in T94N-R56W. Both of these records were collected by the South Dakota Geological Survey in 1983 and 1978, respectively. The latter was cased and is still maintained by the Water Rights Program as an observation well under the denotation YA-78G with water levels ranging from 169 to 176 feet below the top of the casing and a potentiometric surface of 1,184 to 1,177 feet above mean sea level.

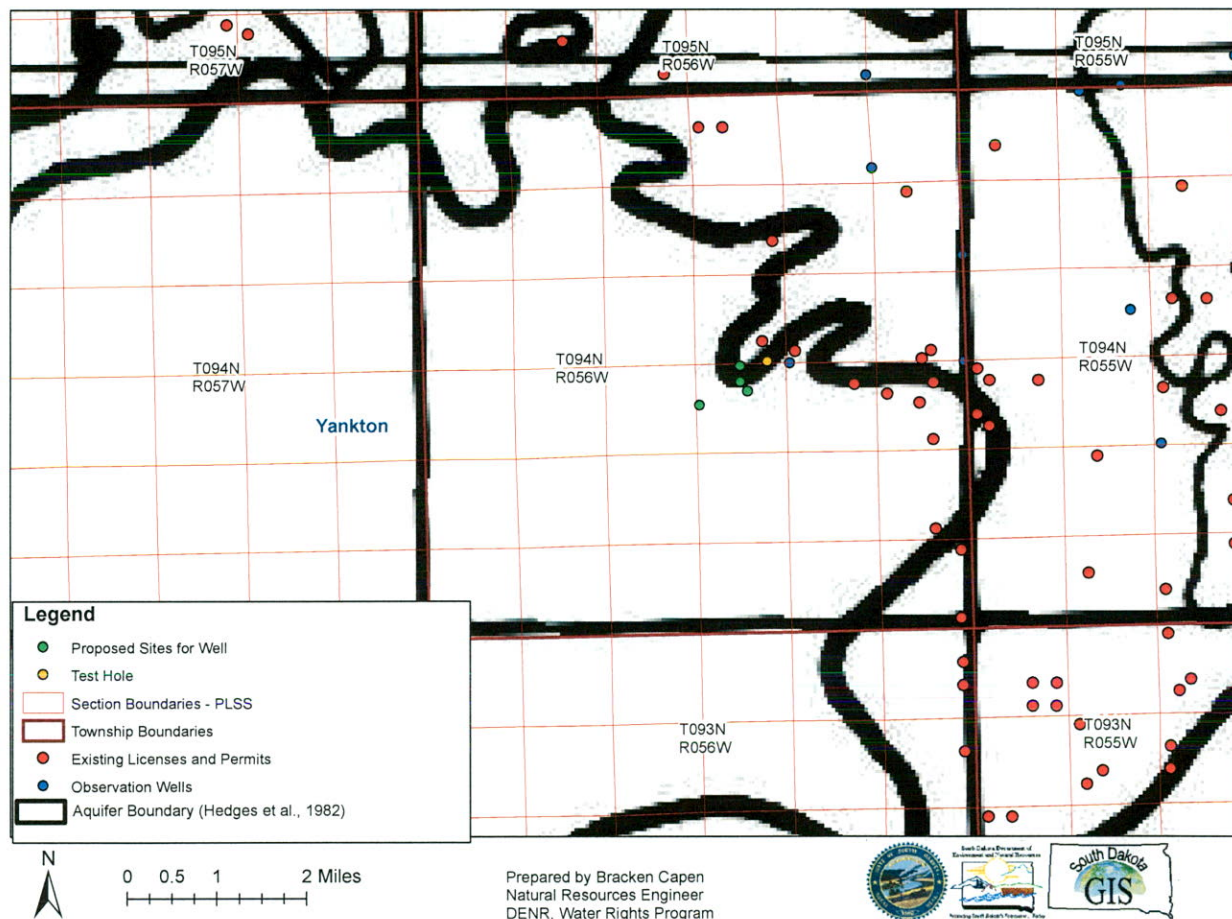


Figure 1: Aerial extent of Lower James Missouri aquifer as delineated by Hedges and others (1982).

SDCL 46-2A-9

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for the applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest. This report will address the availability of unappropriated water from the aquifer and the potential for impairment of existing rights.

WATER AVAILABILITY:

The probability of unappropriated water available from an aquifer can be evaluated by considering SDCL 46-6-3.1, which requires that no application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge. If the source of the groundwater is older or lower than the Greenhorn formation and will be used for a public water system, recharge and withdrawal does not need to be considered. Here, a public water system is not involved and the aquifer is above the Greenhorn formation. So, recharge and withdrawal must be considered.

Recharge:

Recharge to the Lower James Missouri aquifer occurs through infiltration of precipitation where the aquifer is at or near land surface in the James River flood plain, upward leakage from the bedrock aquifers, inflow from surface water, and inflow from the surrounding glacial aquifers (Bugliosi, 1986; Hansen, 1983; Lindgren and Hansen, 1990).

The recharge rate to unconfined portions of the aquifer was estimated to be 3.9 inches per year (in/yr) from observation well analysis (Hedges and others, 1985). Stonesifer (2013) delineated the unconfined portion of the aquifer and determined the area to be 82,200 acres.

Hedges and others (1985) estimated recharge rate of the Lower James Missouri aquifer through regional flow-net analysis to be 1.5 inches per year (in/yr). In applying this total recharge rate estimate to the total area of the aquifer, recharge is estimated to be 35,800 ac-ft/yr. However, Hedges and others (1985) explain that the flow-net analysis is only intended to help assist in evaluation of natural recharge rates determined by other methods.

Alternatively, Hedges and others (1985) suggest a recharge rate range of 0.15 to 0.60 in/yr to confined glacial aquifers in eastern South Dakota. If the entire area of the aquifer is assumed to be confined, recharge is then estimated to be 3,580 to 14,300 ac-ft/yr. Given the conservative values in this range and the uncertainty of the flow net analysis, this range in recharge rates will be used in this report in considering water availability from the Lower James Missouri aquifer.

Discharge:

Discharge from the Lower James Missouri aquifer occurs through evapotranspiration in areas where the aquifer is at or near land surface, seepage to surface waters, and well withdrawals (Bugliosi, 1986; Hansen, 1983; Lindgren and Hansen, 1990). Currently there are 152 water rights/permits appropriating water from the Lower James Missouri aquifer (Water Rights, 2014b).

While there are many domestic wells on file, many are no longer used as primary water sources since rural water systems have been introduced in the area. Considering this, and the relatively small withdrawal of a domestic well, the annual quantity of water withdrawn by domestic wells is not expected to be significant to the hydrologic budget of the aquifer (Water Rights, 2014c).

The amount of water that can be expected to be withdrawn by non-irrigation water rights/permits at the current appropriation amount, which are all limited by diversion rate, can be estimated by assuming these water rights/permits pump at the maximum authorized diversion rate 60 percent of the time. This amounts to 1,323 ac-ft/yr (Water Rights, 2014b).

The historic irrigation water use from water rights/permits authorized from the Lower James Missouri aquifer is shown in Table 1. The average irrigation pumpage over the period of record from Lower James Missouri aquifer water rights/permits is 2,680 ac-ft/yr. However, the number of water permits authorized to pump water from the Lower James Missouri aquifer and the total amount of water appropriated under these permits has increased dramatically in the last six years. The average amount withdrawn over this time period is 5,281 ac-ft/yr (6,604 ac-ft/yr including non-irrigation water permits/rights) and is likely a more accurate estimate of expected use.

Hydrologic Budget:

The average total withdrawal from the Lower James Missouri aquifer is estimated to be 4,003 ac-ft/yr. However, given the recent increase in water permits/rights mentioned in the previous paragraph, 6,604 ac-ft/yr is expected to be more accurate. Hedges and others' (1982) flow net analysis determined a recharge estimate of 35,800 ac-ft/yr. Applying Hedges and others (1982) unconfined recharge rate to the determined unconfined area yields a recharge estimate of 26,700 ac-ft/yr. Applying Hedges and others' (1982) suggested confined recharge range and conservatively assuming the aquifer is fully confined yields a range from 3,580 to 14,300 ac-ft/yr. With the exception of the lowest recharge rate estimated using Hedges and others' (1982) recharge range, these recharge estimates are much greater than withdrawals. It is expected that recharge far exceeds this lowest estimate. Therefore, there is a reasonable probability that unappropriated water is available from the Lower James Missouri aquifer to support the proposed appropriation.

Year	Number of Permits	Appropriation (ac-ft/yr)	Pumpage Reported (ac-ft/yr)
1979	22	11265.0	588
1980	23	11561	1299
1981	27	13053	1835
1982	23	9440.1	1301.25
1983	27	9883.1	1306.54
1984	28	12283.1	1360
1985	27	10033.1	1483
1986	30	11613.5	989.6
1987	30	11613.5	1041.6
1988	31	11769.5	2744.9
1989	31	10909.1	2144.8
1990	35	12673.1	2928.1
1991	42	15497.9	2599
1992	45	16791.9	1159
1993	45	16241.9	230.44
1994	45	17094.1	1918.17
1995	41	15088.1	1483.32
1996	49	17240.1	2102.99
1997	50	17072.1	2320
1998	53	16915.1	2787.03
1999	50	15992.1	2102.15
2000	51	17048.1	3751.08
2001	53	17208.1	2940.09
2002	53	17108.1	4061.52
2003	53	17373.1	2843.15
2004	47	14525.1	2886.65
2005	48	14749.1	2866.63
2006	50	15627.1	3630.92
2007	56	17477.7	3425.91
2008	79	23891.7	4494.03
2009	84	25451.1	1463.27
2010	85	25731.1	665.37
2011	89	27367.1	4147.47
2012	93	28626.7	13058.45
2013	118	33664.1	7855.75
Max	118	33664.1	13058.45
Min	22	9440.1	230.44
Average	49	16568	2680

Table 1: Historic irrigation water use from the Lower James Missouri aquifer (Water Rights, 1980-2014)

Observation Well Data:

Administrative Rule of South Dakota (ARSD) 74:02:05:07 states the Board will rely on the record of observation well measurements to determine that the annual withdrawals from the aquifer do not exceed the estimated average annual recharge.

The Water Rights Program monitors 31 observation wells completed into the Lower James Missouri aquifer. Currently hydrographs for 13 of the observation wells have a declining trend line across the period of record (Water Rights, 2014a). Stonesifer (2014) contends that declining trendlines are the result of local pumping and not of overall depletion of the aquifer. This claim is supported by observation wells in the area which show full annual recovery in water levels but deeper depressions of water levels in the summer as a result of pumping (see Figure 3).

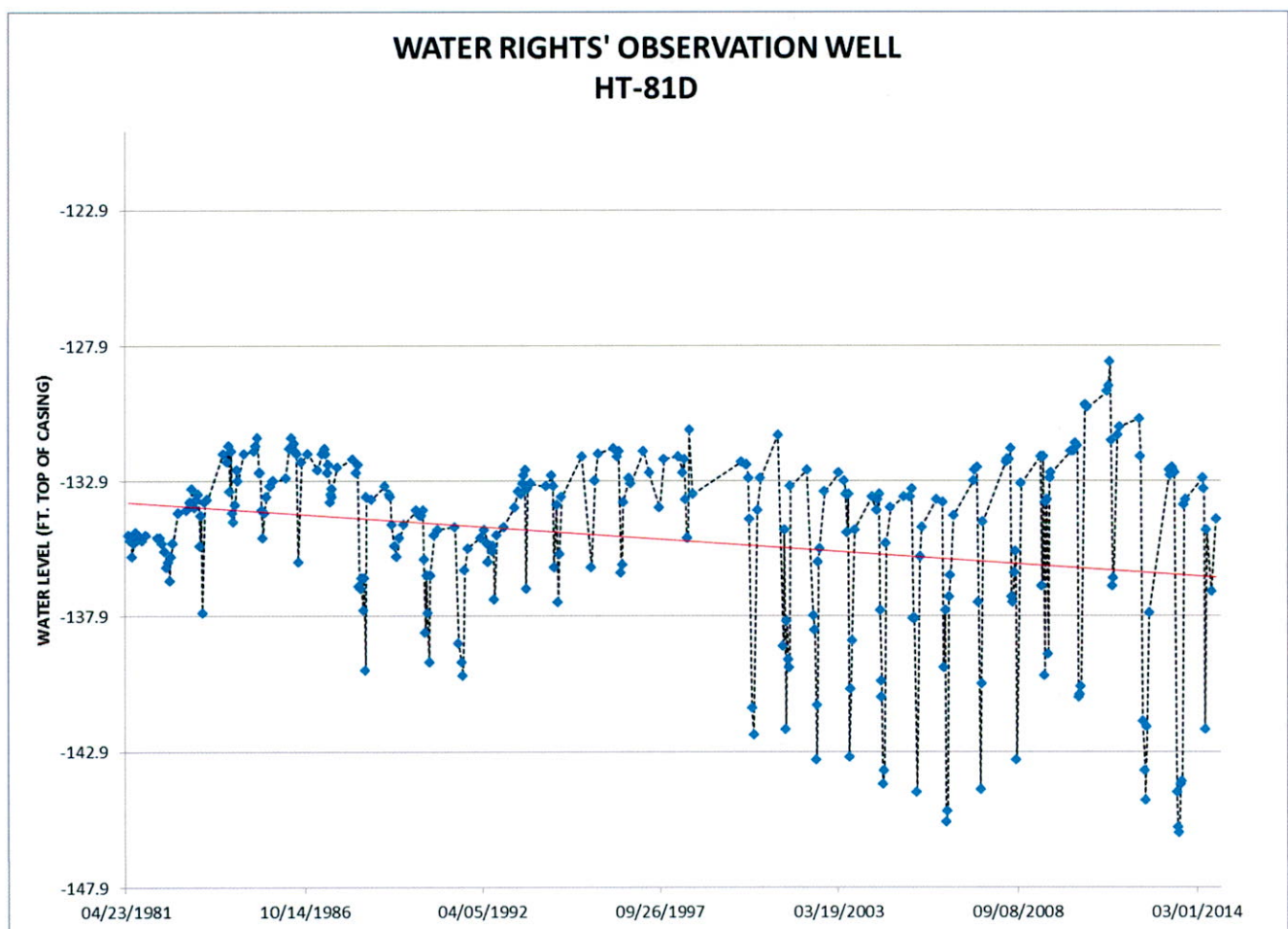


Figure 3: Historic water levels in Observation Well HT-81D, located approximately 30 miles northwest of the proposed well site (Water Rights, 2014a)

The nearest observation well to the site in question which is completed into the Lower James Missouri aquifer (YA-78G) is located approximately 0.5 miles to one mile east of the proposed well sites. The hydrograph for this observation well is shown in Figure 4. This hydrograph is typical of many observation wells recording water levels in the Lower James Missouri aquifer. Observation well data from YA-78G documents water levels that are climatically controlled with

no visible effects of annual pumping until the 2013 irrigation season. Most Lower James Missouri aquifer observation wells record increasing trending water levels, indicating that withdrawals have not exceeded recharge. Therefore, unappropriated water is available from the Lower James Missouri aquifer for the proposed appropriation.

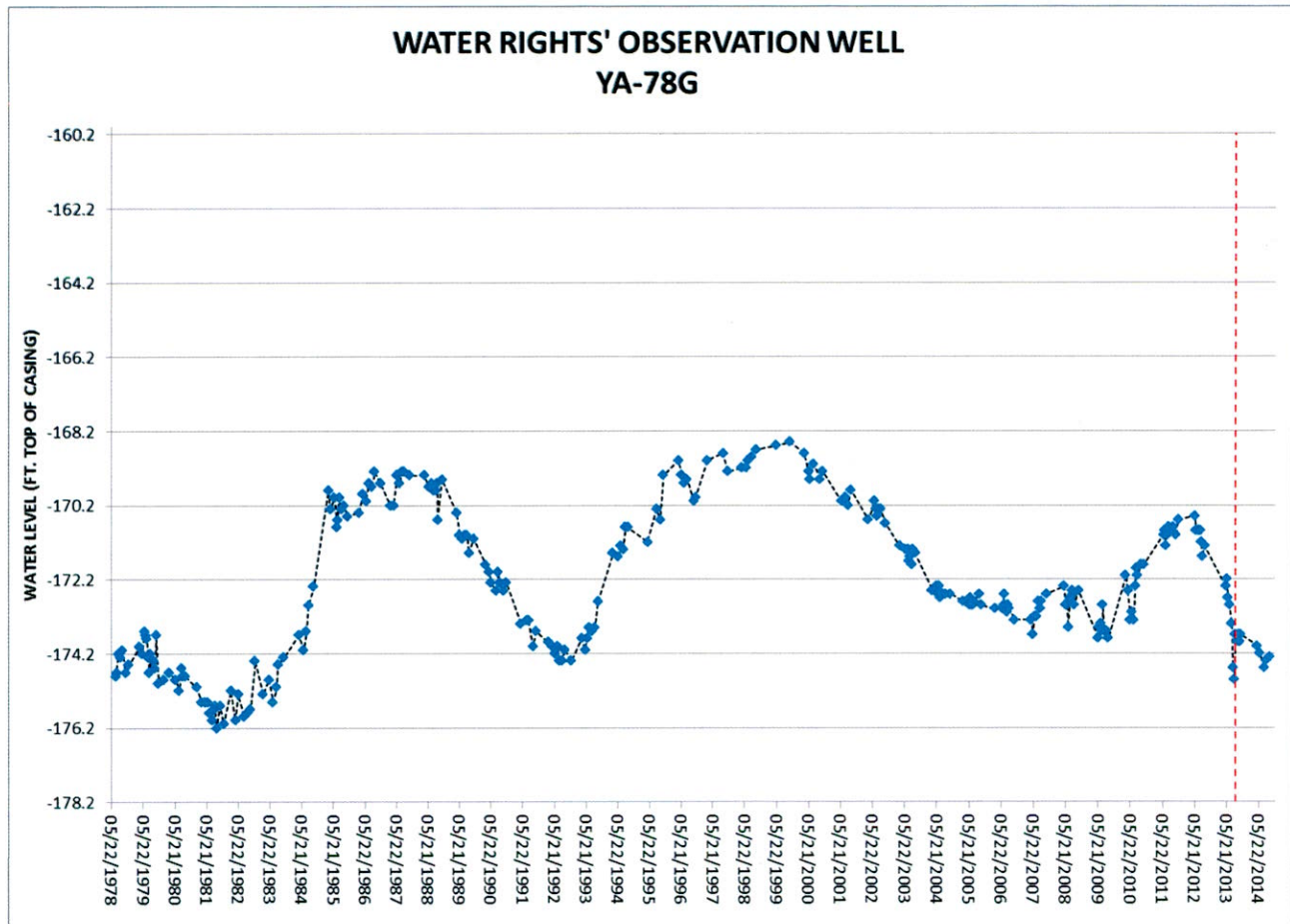


Figure 4: Historic water levels in Observation Well YA-78G (Water Rights, 2014a).

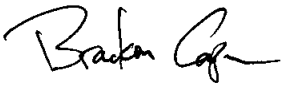
EXISTING WATER RIGHTS:

In evaluating this application, the water rights database was reviewed for the nearest water rights/permits and domestic wells on file. The nearest water rights/permit to the proposed diversion site (7398-3) is located approximately 0.5 miles to the northwest of the nearest proposed well site submitted with this application (Water Rights, 2014b). The nearby well associated with this water permit has been completed 65 feet into the water bearing formation (Water Rights, 2014c). Water levels in Observation Well YA-78G range between approximately 15 to 20 feet above the top of the screen in the well associated with Water Permit No. 7398-3 and 75 to 80 feet above the bottom of the water bearing formation which the screen extends to. Both Water Permit Nos. 7398-3 and 7397-3 are within 0.4 miles of Observation Well YA-78G and have a combined diversion rate of 3.12 cfs. Irrigation questionnaires submitted for these water permits show that these systems are complete and that irrigation occurred in 2013 (Water Rights, 2014). Observation Well YA-78G shows that the resultant drawdown from pumping was negligible, if visible, in the 2013 irrigation season (shown as a red dashed line in Figure 4).

Given the close proximity of these wells to the observation well and the negligible effect, if any, that pumping had on water levels in YA-78G, the distance between Water Permit No. 7398-3 and the proposed well sites in this application is expected to be sufficient to avoid impairment of the existing well. Therefore, unlawful interference as a result of the proposed diversion rate is not expected to occur.

CONCLUSIONS:

1. Water Permit Application No. 8057-3 proposes to appropriate groundwater at a maximum diversion rate of 2.67 cfs from one well to be completed into the Lower James Missouri aquifer for the irrigation of 360 acres.
2. There is a reasonable probability that unappropriated water is available from the Lower James Missouri aquifer to supply the proposed appropriation.
3. The proposed diversion is not expected to adversely impact existing nearby adequate wells.



Bracken Capen
SD DENR-Water Rights Program

Approved by



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Bugliosi, E.F. 1983. Major Aquifers in Yankton County, South Dakota. Information Pamphlet No. 28. S.D. Geological Survey, Vermillion, South Dakota.
- Bugliosi, E.F. 1986. Water Resources of Yankton County, South Dakota. Water Resources Investigations Report 84-4241. U.S. Geological Survey, Huron, South Dakota.
- Hansen, D.S. 1983. Major Aquifers in Hansen and Davison Counties, South Dakota. Information Pamphlet No. 26. S.D. Geological Survey, Vermillion, South Dakota.
- Hedges, L.S., Burch, S.L., Iles, D.L., Barari, R.A., and Schoon, R.A. 1982. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report. U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Hedges, L.S., Allen, J., and Holly, D.E. 1985. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa. Task 7: Ground Water Recharge. U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.
- Lindgren, R.J. and D.S. Hansen. 1990. Water Resources of Hutchinson and Turner Counties, South Dakota. Water-Resources Investigations Report 90-4093. U.S. Geological Survey, Huron, South Dakota.
- SD Geological Survey. 2014. Lithologic Logs Database, South Dakota Department of Environment & Natural Resources Geological Survey, Vermillion, South Dakota.
- Stonesifer, J.R. 2013. Report on Water Permit Application No. 7886-3, Wolf Creek Hutterian Brethren. SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, South Dakota.
- Stonesifer, J.R. 2014. Report on Water Permit Application No. 7999-3, Karl Schenk. SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, South Dakota.
- Water Rights, 1980-2014. "Irrigation Report Summaries." SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2014a. Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2014b. Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2014c. Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

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DEC 22 2014

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

Department of Environment and Natural Resources
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3182

STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

KELLY HERTZ BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT HE IS THE MANAGING EDITOR OF, YANKTON
MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER
PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUNTY
AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SAID
COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED
Notice on Application No. 8057-3

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 17th DAY OF December 2014
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$27.64 ENSURES TO THE
BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
AGREEMENT AND UNDERSTANDING FOR THE DIVISION THEREOF HAS
BEEN MADE WITH ANY OTHER PERSON, AND THAT NO PART THEREOF
HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 12/17/2014

FILED ON: 12/17/2014

SUBSCRIBED AND SWORN TO BEFORE ME THIS 17th DAY OF December

2014

NOTARY PUBLIC, SOUTH DAKOTA

MY COMMISSION EXPIRES

8/19/2015

12-17
NOTICE OF APPLICATION NO.
8057-3 to Appropriate Water

Notice is given that Schoenfelder Family Trust, c/o Robert A and Patricia A Schoenfelder, 30632 437th Ave. Yankton SD 57078 have filed an application for a water permit to appropriate 2.67 cubic feet of water per second from one well to be completed into the Lower James:Missouri Aquifer (300 feet deep) located in the N 1/2 Section 22 for irrigation of 360 acres located in the N 1/2 Section 22 and the NW 1/4 Section 23; all in T94N-R56W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8057-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's

address is "Water Rights Program, 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 December 29, 2014.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Information concerning this application is available at <http://denr.sd.gov/public>. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pimer, Secretary, Department of Environment and Natural Resources.

Published once at the total approximate cost of \$27.64.



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

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



December 8, 2014

Press & Dakotan
319 Walnut
Yankton SD 57078

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 8057-3 to Appropriate Water. Please publish the notice once on December 17, 2014. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Schoenfelder Family Trust, c/o Robert A and Patricia A Schoenfelder, 30632 437th Ave, Yankton SD 57078 (Ph # 605-665-9774).

Please send the Water Rights Program an affidavit or the enclosed Proof of Publication form immediately.

The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

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



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

December 8, 2014

Schoenfelder Family Trust
Robert A and Patricia A Schoenfelder
30632 437th Ave
Yankton SD 57078

Dear Sir or Madam:

Water Permit Application No. 8057-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Press & Dakotan printed at Yankton SD (Ph # 605-665-7811). You will need to contact the newspaper(s) and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and 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(s) to authorize publication of your Notice and to arrange for payment. Early contact with the paper(s) can eliminate delays. Upon receiving authorization from you, the publisher has been instructed to publish your notice. The newspaper has also 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

cc: Frank B Kralicek Jr, 43792 306th St, Yankton SD 57078.

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.

Instruction to Newspaper - Publish the Notice on December 17, 2014. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

NOTICE OF APPLICATION NO. 8057-3 to Appropriate Water

Notice is given that Schoenfelder Family Trust, c/o Robert A and Patricia A Schoenfelder, 30632 437th Ave, Yankton SD 57078 have filed an application for a water permit to appropriate 2.67 cubic feet of water per second from one well to be completed into the Lower James:Missouri Aquifer (300 feet deep) located in the N 1/2 Section 22 for irrigation of 360 acres located in the N 1/2 Section 22 and the NW 1/4 Section 23; all in T94N-R56W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8057-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, 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 December 29, 2014.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Information concerning this application is available at <http://denr.sd.gov/public>. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Published once at the total approximate cost of _____.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

JAN 22 2015

Schoenfelder Family Trust
Robert A & Patricia A Schoenfelder
30632 437th Ave
Yankton SD 57078

Dear Sir:

Enclosed is Water Permit No. 8057-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Form 10, *Notice of Completion of Works and Application of Water to Beneficial Use*, is enclosed. Please return this completed form after you have finished the system and have put the water to beneficial use. An investigation can then be scheduled so the water license may be issued, thus completing the acquisition of a water right.

An informational sheet *Common Water Right Questions?* is also enclosed. This sheet is intended to answer some of the questions associated with obtaining and keeping a water right.

Sincerely,

Jeanne Goodman, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

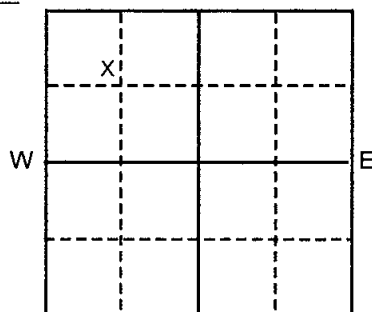
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 23 Twp 94N Rg 56W

County YANKTON

North

Please mark well
location with an "X"

Well Completion Date

4-8-2015

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?

983.0 ft. from SEPTIC TANK

(identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

REVERSE ROTARY

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
160.0 LB/FT	16.00 IN	0.0 FT	140.0 FT	28.00 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	60	9.5 Lb/gal	0.0 Ft	140.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure

TREMIE PIPE AND GROUT PUMP

SCREEN:

☐ Perforated pipe ☒ Manufactured

Diameter 16.00 Inches Length 120.0 Feet

Material PVC

Slot Size .085 Set From 140.0 Feet to 260.0 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? CHLORINE TABLETS

☐ No, Why Not?
Lab to which water
quality sample sent for analysis

Well Owner: BOB SCHOENFELDER

Business Name:

Address: 30632 437TH AVE

City, State, Zip: YANKTON SD 57078

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
TOP SOIL	0	10
CLAY	10	143
SAND/ GRAVEL	143	260

STATIC WATER LEVEL 135.0 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?

WELL TEST DATA:

☒ Pumped Describe: TURBINE PUMP AND MOTOR

☐ Bailed

☐ Other

Pumping Level Below Land Surface

185.0 Ft. After 2.0 Hrs. pumped 1,000.0 GPM

200.0 Ft. After 2.0 Hrs. pumped 1,800.0 GPM

If pump installed, pump rate: GPM

REMARKS

RECEIVED

JUN 15 2015

WATER RIGHTS
PROGRAM

This well was drilled under license # 805 and this report is true and accurate.

Drilling firm: SAM HEINE WELL CO.,LLC

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: 4-8-15



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

November 2, 2017

8057-3

Robert & Patricia Schoenfelder
Schoenfelder Family Trust
2500 Burleigh St
Yankton SD 57078

Dear Mr. & Mrs. Schoenfelder:

Enclosed is a "Notice" dated October 20, 2017 concerning the 2017 irrigation questionnaire.

The notice was originally mailed to 30632 437th Ave, Yankton SD. The post office notified us that your address has changed and I will update our records accordingly.

If you have any questions, please contact me.

Sincerely,

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

enclosures