

WATER PERMIT NO. 6474-3

Name of Applicant: Frank Zweber

Address: 32043 SD Hwy 20, Hoven SD 57450

Phone: 605 948-2488

Amount of Water Claimed: 1.88

Total Acres: 132

Source of Water Supply: groundwater

Water to be used for: irrigation

County: Potter

Type of Waste Disposal System:

Location: 9 miles east of Hoven

PRIORITY

Date Received: 3-9-04

Application/License Fee: \$300

Corrected Application Received:

Period of Annual Use: April 1 – October 31

Remarks:

Diversion Point: NE ¼ NW ¼ Sec 10-T120N-
R73W

Land to be Irrigated: NW ¼ Sec 10-T120N-R73W

Depth of Well: approximately 45 feet deep

Well Driller: : Manikowski Well Drilling

Remarks:

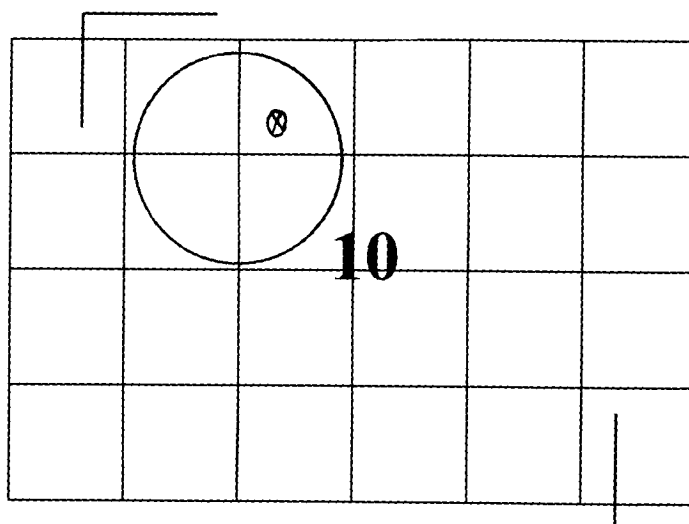
Type of Map: aerial

Prepared by: Eric Gronlund

Reviewed and the Number Assigned on: 3-9-04

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



FORM 2: Application for irrigation in South Dakota
(type or print)

RECEIVED

MAR 09 2004

WATER RIGHTS
PROGRAM

Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	No. <u>6474-3</u> (office use only)	Hydrologic Unit <u>10130105</u>
	Basin <u>Missouri River</u>	
	Newspaper <u>Hoven Review, Hoven</u>	

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 of Applicant Frank Zweber Phone (605) 948-2488
(check one) ☐ Owner ☐ Tenant/lessee
- Mailing Address 32043 SD Hwy 20 Hoven State SD 57450
(Street, RR, or Box and City) (Zip Code)
2. Amount of water claimed 1.880 *CFS or 850 **GPM ***AF Total Acreage 132
(*Cubic Feet per Second) (**Gallons per Minute) (***Acre Feet - storage capacity of dam/dugout or annual use if applicable)
3. Source of water supply Ground water
4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Potter
NE 1/4 NW 1/4 Section 10, T120N, R73W
5. County or counties where water will be used Potter
6. Annual period during which water is to be used April 1 - October 31
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 NW 1/4 Section 10 T120N, R73W	33		
NE 1/4 NW 1/4	33		
SW 1/4 NW 1/4	33		
SE 1/4 NW 1/4	33		

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

Plan to install a center pivot

STATE OF SOUTH DAKOTA) SS
County of Hughes)

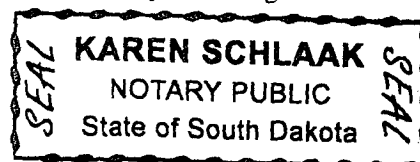
Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Attach map and any other technical information. (see instructions)

I, Frank Zweber, 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.

Applicant's signature Frank ZweberSubscribed and sworn to before me this 9th day of March 20 04Karen Schlaak

Notary Public signature

My Commission Expires
April 1, 2007



SOUTH DAKOTA
WATER PERMIT NO. 6474-3

Date of first receipt of application March 9, 2004.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 6474-3 to Frank Zweber, 32043 SD Hwy 20, Hoven SD 57450 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. 6474-3 appropriates 1.88 cubic feet of water per second from one well (Bowdle – Edmunds Aquifer) approximately 45 feet deep located in the NE ¼ NW ¼ Section 10 to irrigate 132 acres located in the NW ¼ Section 10; all in T120N-R73W.
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 – October 31.
3. The date from which applicant may claim right is March 9, 2004.
4. The date of approval of Permit No. 6474-3 is April 19, 2004.
5. One-fifth of the construction is to be completed on or before October 19, 2006.
6. All construction is to be completed on or before April 19, 2009.
7. Water is to be put to beneficial use on or before April 19, 2013.
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. 6474-3 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: Garland Erbele
Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

APR 30 2004

date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter _____ Depth approx. 45
- b) Casing Type PVC Diameter 12 inch Thickness _____
- c) Screen Type stainless steel Diameter 12 Thickness _____
- d) Gravel Pack _____ Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material _____
- f) Depth to Water (ground surface to water level) _____
- g) Distance to nearest existing domestic well:

On applicants property _____ On property owned by others 1/4 mile

2. Wastewater Disposal System Information

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

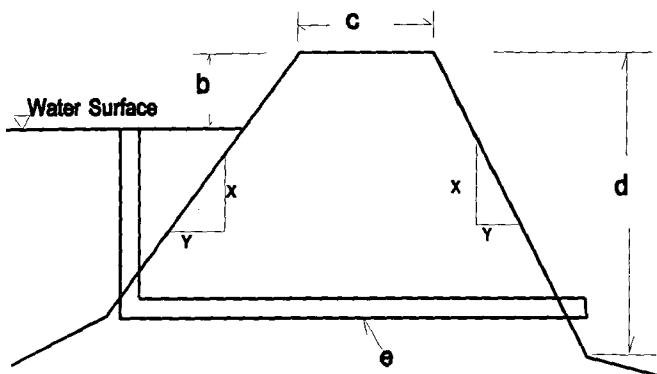
3. Dugout Information

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

4. Water Storage Dams

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

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



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

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date March 9, 20 04

RECEIVED OF Frank Zweber Inc., 32043 SD Hwy 20, Hoven SD 57450

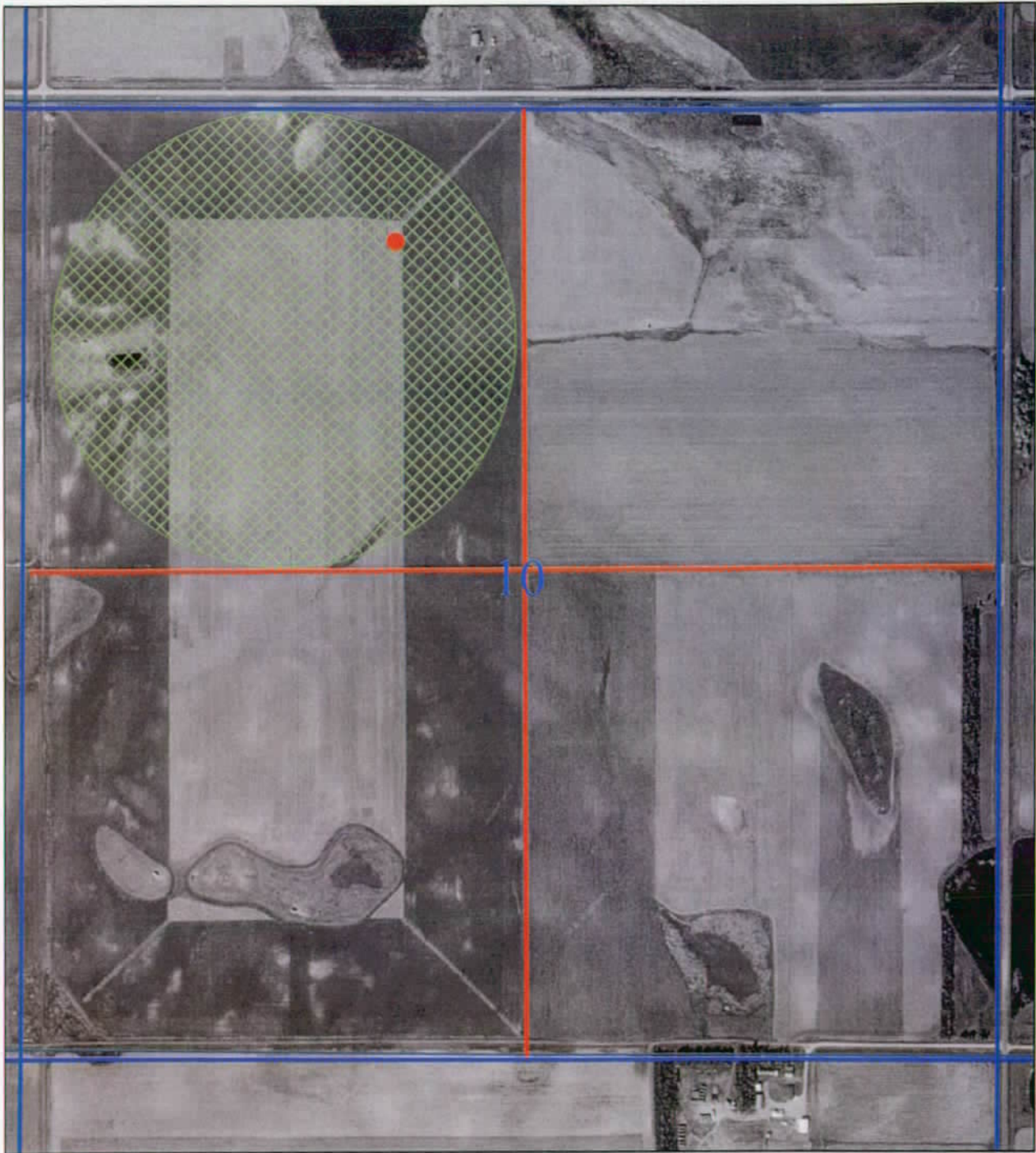
The following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. <u>6474-3</u> to Appropriate Water, to construct and to put water to beneficial use	250	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>6474-3</u>	50	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	300.00

No. 001223

By Darlene Erbe
Chief Engineer *gm*

Frank Zweber Water Permit Application



1,400 700 0 1,400 Feet



Well located in the NE 1/4 NW 1/4 Section 10, T120N, R73W

Eric Gronlund

Eric Gronlund
Water Rights Program, DENR
March 9, 2004

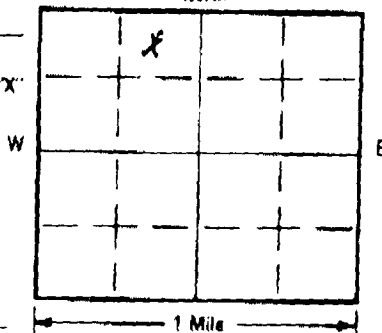
60474-3

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location NE 1/4 NW 1/4 Sec 10 Twp 41N Rg 73W
County Potter

Please mark well location with an "X"



Well Completion Date

3-5-04

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.) 1000 ft. from abandoned well (identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

Forward RotaryCASING DATA: ☐ Steel ☐ Plastic ☐ Otherif other describe None installed

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
____	____	____ lb./gal	____ ft	____ ft
____	____	____ lb./gal	____ ft	____ ft

Describe grouting procedure _____

SCREEN: ☐ Perforated pipe ☐ Manufactured

Diameter _____ IN Length _____ FEET

Material _____

Slot Size _____ Set From _____ Feet to _____ 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: _____

____ NO, Why Not? _____

Laboratory sent to for water quality analysis _____

Well Owner: Frank Zwaben

Business Name: _____

Address: 32093 50 Hwy 20
Hoven, SD 57450

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top Soil	0	1
Yellow clay	1	13
oxidical fine to coarse sand & gravel	13	20
Coarse Gravel	20	21
Medium Gravel & Sand	21	23
Coarse Gravel	23	29
Coarse Sand & Gravel	29	35
Coarse pebbles sized Gravel	35	39
Blue clay silty	39	45

STATIC WATER LEVEL _____ Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ Pumped Describe: _____☐ Bailed _____☐ Other _____

Pumping Level Below Land Surface

____ ft. After _____ Hrs. pumped _____ GPM

____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

Test hole cemented with L
next cement with tremie lineThis well was drilled under license # 285

And this report is true and accurate.

Drilling firm Manikowski Well Drilling

Signature of License Representative:

Raymond Manikowski

Signature of Well Owner or Equitable Property Holder.

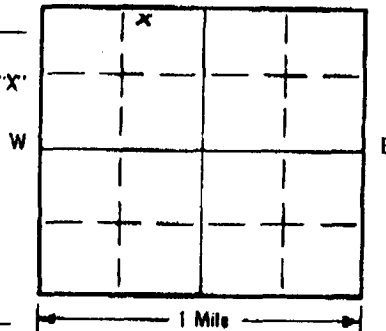
Date: _____

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location NE 1/4 NW 1/4 Sec 10 Twp 120 N Rg 73 W
County Potter

Please mark well location with an "X"



Well Completion Date

3-5-04Well Owner: Frank zweber

Business Name:

Address: 32043 SD Hwy 20
Hoven, SD 57950

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>Top Soil</u>	<u>0</u>	<u>2</u>
<u>yellow clay</u>	<u>2</u>	<u>6</u>
<u>oxidized Gravel</u>	<u>6</u>	<u>19</u>
<u>light yellow clay</u>	<u>19</u>	<u>20</u>
<u>oxidized Gravel</u>	<u>20</u>	<u>23</u>
<u>Blue clay</u>	<u>23</u>	<u>36</u>

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 600 ft. from abandoned well (identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

Forward RotaryCASING DATA: ☐ Steel ☐ Plastic ☐ OtherIf other describe None installed

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
____	____	____ lb./gal	____ ft	____ ft
____	____	____ lb./gal	____ ft	____ ft

Describe grouting procedure _____

SCREEN: ☐ Perforated pipe ☐ Manufactured

Diameter _____ IN Length _____ FEET

Material _____

Slot Size _____ Set From _____ Feet to _____ 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: _____

____ NO, Why Not? _____

Laboratory sent to for water
quality analysis _____

STATIC WATER LEVEL _____ Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ Pumped Describe: _____☐ Bailed _____☐ Other _____

Pumping Level Below Land Surface

____ ft. After _____ Hrs. pumped _____ GPM

____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

Test hole cemented with
Neat cement with tremic lineThis well was drilled under license # 285

And this report is true and accurate.

Drilling firm Manikowski Well Drilling

Signature of License Representative: _____

Byron Manikowski

Signature of Well Owner or Equitable Property Holder: _____

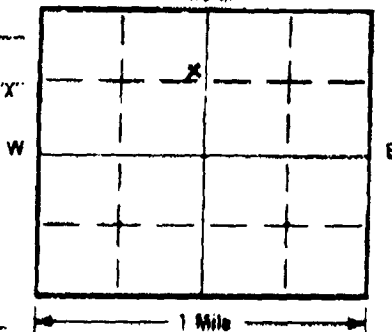
Date: _____

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-02

Location NE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec 10 Twp 122N Rg 73WCounty Potter

Please mark well location with an "X"



Well Completion Date

3-5-04

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 1400 ft from Abandoned well (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Forward Rotary

CASING DATA:

☐ Steel ☐ Plastic ☐ Other

If other describe

None installed

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
____	____	____ lb./gal	____ ft	____ ft
____	____	____ lb./gal	____ ft	____ ft

Describe grouting procedure

SCREEN: ☐ Perforated pipe ☐ Manufactured

Diameter _____ IN Length _____ FEET

Material _____

Slot Size _____ Set From _____ Feet to _____ 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: _____

____ NO, Why Not? _____

Laboratory sent to for water quality analysis _____

Well Owner: Frank Zweber

Business Name: _____

Address: 32043 SD Hwy 20Heaven, SD 57450

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>Top Soil</u>	<u>0</u>	<u>1</u>
<u>yellow clay</u>	<u>1</u>	<u>15</u>
<u>Oxidized Sand & Gravel</u>	<u>15</u>	<u>28</u>
<u>Silty layer</u>	<u>28</u>	<u>29</u>
<u>Coarse light Blue Color Gravel</u>	<u>29</u>	<u>42</u>

STATIC WATER LEVEL _____ Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ Pumped Describe: _____☐ Sealed _____☐ Other _____

umping Level Below Land Surface

____ ft After _____ Hrs. pumped _____ GPM

____ ft After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

Test hole cemented with
Neat cement Grout
pumped in with tremie line

This well was drilled under license # 285

And this report is true and accurate.

Drilling firm Manikowski Well Drilling

Signature of License Representative:

Dynor Mamm

Signature of Well Owner or Equitable Property Holder:

Date: _____

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

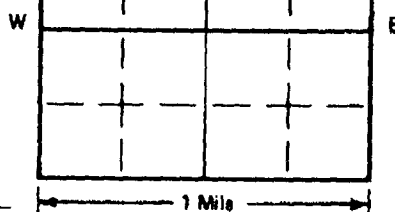
Location N1E 1/4 NW 1/4 Sec 10 Twp 43N Rg 73W

County

Potter

North

Please mark well location with an "X"



Well Completion Date

3-5-04

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 1900 ft. from abandoned well (identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Forward Rate-yCASING DATA: ☐ Steel ☐ Plastic ☐ OtherIf other describe none installed

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN
____ LB/FT	____ IN	____ FT	____ FT	____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
____	____	____ lb./gal	____ ft	____ ft
____	____	____ lb./gal	____ ft	____ ft

Describe grouting procedure _____

SCREEN: ☐ Perforated pipe ☐ Manufactured

Diameter _____ IN Length _____ FEET

Material _____

Slot Size _____ Set From _____ Feet to _____ 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: _____

____ NO. Why Not? _____

Laboratory sent to for water quality analysis _____

Well Owner: Frank Zweber

Business Name: _____

Address: 32043 SD Hwy 20
Poehn, SD 57450

WELL LOG:

DEPTH

FORMATION	FROM	TO
Top Soil	0	1
Yellow clay	1	14
oxidized fine to medium sand	14	19
oxidized coarse gravel (clay)	19	23
oxidized medium to coarse sand	23	30
Blue silty clay	30	36

STATIC WATER LEVEL _____ Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

- ☐ Pumped Describe: _____
☐ Bailed _____
☐ Other _____

Pumping Level Below Land Surface

____ ft. After _____ Hrs. pumped _____ GPM

____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

Test hole cemented with
Heat Cement Grout with tremie lin.

This well was drilled under license # 285

And this report is true and accurate.

Drilling firm Manikowski Well Drilling

Signature of License Representative:

Byron Manikowski

Signature of Well Owner or Equitable Property Holder:

Date: _____

REPORT ON WATER PERMIT APPLICATION NO. 6474-3
For Frank Zweber
March 19, 2004

Application No. 6474-3 proposes to appropriate 1.88 cfs (846 gpm) from one well approximately 45 feet deep located in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ of section 10 to irrigate 132 acres located in the NW $\frac{1}{4}$ of section 10; all in T120N R73W in Potter County.

AQUIFER – BOWDLE-EDMUNDS (B-E)

The Bowdle Edmunds is a surficial outwash (sand and gravel) that is under water table conditions in this area. The aquifer underlies 46,900 acres in Walworth, Edmunds, Potter and Faulk Counties and contains an estimated 135,000 acre feet of recoverable water in storage (Hedges, 1982). As mapped there is only a small portion of the aquifer in the very northeastern part of Potter County.

Four test holes were drilled by the applicant in the NW $\frac{1}{4}$ of section 10. The best test of the four indicates sand and gravel from 15 to 28 feet and coarse gravel from 29 to 42 feet below land surface. This test was located near the center of the north $\frac{1}{2}$ of section 10. There isn't any pumping well data available for this site.

The Water Rights Program does monitor an observation well PT-81B that is located immediately to the north of this application. Water levels from this well show good response to climatic conditions that is rising water levels during wet years (recharge) and gradually declining water levels during dry years. The water level record indicates that the aquifer is capable of sustaining additional withdrawals (Water Rights, 2004). A hydrograph for this observation well is included with this report.

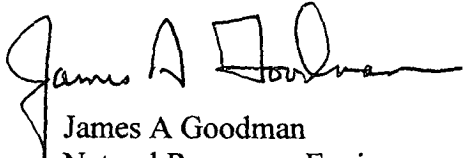
REVIEW OF EXISTING WATER PERMITS/RIGHTS

There are three existing irrigation wells within one-mile of this application. The irrigation well for Water Right No. 4415-3 is located about $\frac{1}{2}$ mile east of the site proposed by this application. The two wells for Water Right No. 5725-3 are located about 1,110 feet northeast and about 1,460 feet northwest of the proposed well for this application. This distance should be sufficient to minimize potential effects. Interference is not expected to be a concern. Drawdown created by pumping in this type of aquifer typically does not extend very far from the individual production well. Every effort should be made to maintain about 1,320 feet spacing from other existing irrigation wells if at all possible. One other irrigation water right No. 5360-3 is located about one and one-half miles northwest of this application. The irrigation questionnaire results indicate that this right has not been used since at least 1996 and would be subject to cancellation.

CONCLUSIONS

1. Water is available from the Bowdle-Edmunds aquifer.

2. The aquifer is under water table conditions and drawdown created by pumping is not expected to be significant. Interference is not a concern.
3. This well must be constructed in accordance with SD Well Construction Standards. Every effort should be made to maintain a 1,320 feet spacing between the new irrigation well and an existing irrigation well.
4. Annual water use data indicates that Water Right No. 4415-3 may be partially abandoned. The reports indicate no water use in 2000 and 2001 with minimal use in 2002. It appears that another area water right No. 5360-3 may also be abandoned.



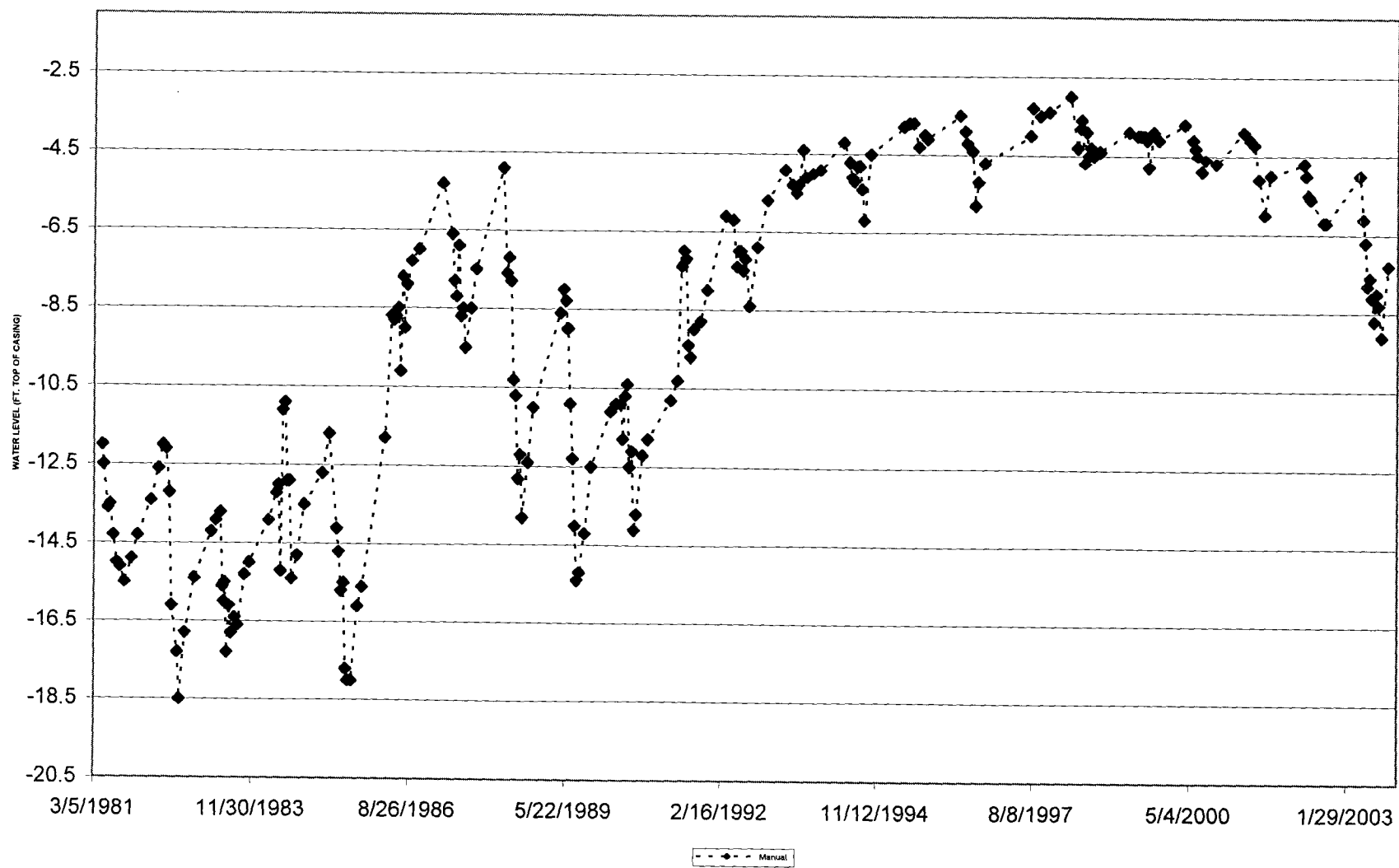
James A Goodman
Natural Resources Engineer

BIBLIOGRAPHY

Hedges, L.S., and others, 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, for US Army Corps of Engineers, SD DENR, SDGS, Vermillion, SD, 57069.

Water Rights, 2004, Unpublished Observation Well Data for the Bowdle-Edmunds aquifer, SD DENR, DES, Water Rights Program, Pierre, SD, 57501.

**WATER RIGHTS' OBSERVATION WELL
PT-81B**





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 6474-3, Frank Zweber**

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. 6474-3, Frank Zweber, 32043 SD Hwy 20, Hoven SD 57450.

The Chief Engineer is recommending APPROVAL of Application No. 6474-3 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. 6474-3 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.

Garland Erbele, Chief Engineer
March 25, 2004

PUBLIC NOTICE

Notice of Application No. 6474-3 to Appropriate Water

Notice is given that Frank Zweber, 32043 SD Hwy 20, Hoven, SD has filed an application for a water permit to appropriate 1.88 cubic feet of water per second from one well (Bowdle-Edmunds Aquifer) approximately 45 feet deep located in the NE 1/4 NW 1/4 Section 10 to irrigate 132 acres located in the NW 1/4 Section 10; all in T120N-R73W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6474-3 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 the 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 the 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 the 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 below. A petition filed by either an interested person or the applicant must be filed by April 19, 2004.

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 is obtained. 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 in The Hoven Review
April 1 and 8, 2004.)

AFFIDAVIT OF PUBLICATION STATE OF SOUTH DAKOTA COUNTY OF POTTER

TWILA GRIESE, OF SAID COUNTY BEING FIRST DULY SWORN, ON OATH SAYS THAT SHE IS A REPRESENTATIVE OF *THE HOVEN REVIEW*, A WEEKLY NEWSPAPER PRINTED AND PUBLISHED IN HOVEN IN SAID COUNTY OF POTTER AND HAS FULL AND PERSONAL KNOWLEDGE OF ALL THE FACTS HEREIN STATED: THAT SAID NEWSPAPER IS A LEGAL NEWSPAPER AND HAS A BONIFIDE CIRCULATION OF AT LEAST TWO HUNDRED COPIES WEEKLY, AND HAS BEEN PUBLISHED WITHIN SAID COUNTY FOR FIFTY-TWO SUCCESSIVE WEEKS PRIOR TO THE PUBLICATION NOTICE HEREIN MENTIONED, AND WAS AND IS PRINTED WHOLLY OR IN PART IN AN OFFICE MAINTAINED AT SAID PLACE OF PUBLICATION: that the

*Department of Environment and
Natural Resources*

A printed copy of which, taken from the paper in which same was published, is attached to this sheet, and is made in part of this Affidavit, was published in said newspaper at least one week, on the day of each week on which the newspaper was regularly published, to-wit:

2 weeks

128 lines x 0.30044 =

That the full amount of the fee for the publication of the annex notice is

\$38.46

Twila Griese

Subscribed and sworn to for me this
7 day of *April*, 2004

Connie C. Farney

Notary Public

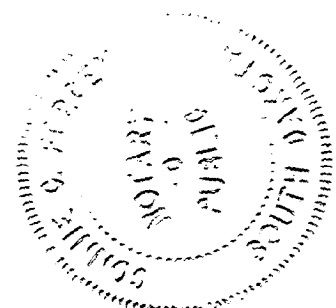
Potter County, South Dakota

My commission expires My Commission Expires 01 - 10 - 2010

RECEIVED

APR 08 2004

WATER RIGHTS
PROGRAM





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

March 26, 2004

Hoven Review
PO Box 37
Hoven SD 57450

ATTENTION: Legal Public Notice

Enclosed is a Notice of Hearing on Application No. 6474-3 to Appropriate Water to be published twice. Please publish the first notice on April 1, 2004 with the second publication 7 days later. 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, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Frank Zweber, 32043 SD Hwy 20, Hoven SD (Ph # 605-948-2488).

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at (605) 773-4068. Publication errors can invalidate the public notice.

After the second publication, **please send us an affidavit or use the enclosed Proof of Publication form.** 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

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

No. 6474-3

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

Date _____

We are in receipt of your letter of March 26, 2004 enclosing Notice of Hearing to Appropriate Water by Application No. 6474-3 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

www.state.sd.us/denr

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

March 26, 2004

Frank Zweber
32043 SD Hwy 20
Hoven SD 57450

Dear Mr. Zweber:

Water Permit Application No. 6474-3 for irrigation 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 Hoven Review printed at Hoven, SD (Ph # 605-948-2110). You will need to contact the newspaper and authorize publication of this notice. 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. Upon receiving authorization, 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 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

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 first Notice on April 1, 2004 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 6474-3 to Appropriate Water

Notice is given that Frank Zweber, 32043 SD Hwy 20, Hoven SD 57450 has filed an application for a water permit to appropriate 1.88 cubic feet of water per second from one well (Bowdle – Edmunds Aquifer) approximately 45 feet deep located in the NE ¼ NW ¼ Section 10 to irrigate 132 acres located in the NW ¼ Section 10; all in T120N-R73W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6474-3 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 the 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 the 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 April 19, 2004.

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. 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.



APR 30 2004

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

Frank Zweber
32043 SD Hwy 20
Hoven SD 57450

Dear Mr. Zweber:

Enclosed is Water Permit No. 6474-3 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,

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

enclosures

Water Permit No. 6474-3
Missouri 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, **November 23, 2015**, made a thorough examination of the water use system constructed by **Frank Zweber** of **32043 SD Hwy 20, Hoven, SD 57450** holder of Permit No. **6474-3**, bearing the priority of **March 9, 2004** authorizing the diversion of **1.88** cu. ft. per second (cfs) of the **Bowdle-Edmunds Aquifer** for **Irrigation use** purposes, in **Potter** County.

Inspection contact & relationship to permit holder, if applicable: **Frank Zweber (605-948-2488)**

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: **Manikowski Well Drilling**
- 2) No. of Wells **1**
- 3) Depth(s) **40** feet
- 4) Well log is available **Y**
- 5) Comment:

Casing:

- 1) Diameter **12** inches
- 2) Length **24** feet
- 3) Type **Plastic**

Screen:

- 1) Type **Stainless Steel**
- 2) Length **14** feet
- 3) Static water level **11** feet

Pump:

- 1) Make **Grundfos**
- 2) Model **800S-500-2A**
- 3) Size **50 hp**
- 4) Capacity **800** GPM

B. Works used to apply water to beneficial use:

Center pivot:

- 1) Make Valley
- 2) Number of towers 7
- 3) End gun Y
- 4) High or low pressure Low

Chemigation Equipment:

- 1) Does chemigate N

C. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Y
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Y
- 3) Exceptions to compliance are: None

The system is in Good condition with the point(s) of diversion located as follows:

Well: Approximately 195 feet south and 2,155 east of the NW corner of Section 10-T120N-R73W

(N 45.23029, W -99.62654) (NE ¼ NW ¼)

The works are capable of diverting and conveying to the place of use 1.88 cu. ft. per second of water which is to be used for Irrigation use. Water has been put to beneficial use to the maximum extent as follows:

Section 10-T120N-R73W

NW ¼ NW ¼ - 33 acres

NE ¼ NW ¼ - 33 acres

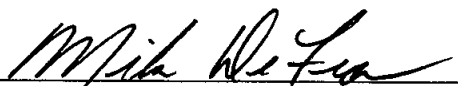
SW ¼ NW ¼ - 33 acres

SE ¼ NW ¼ - 33 acres

comprising a total of 132 acres of land and the license should be issued for 1.88 cfs.

All structures, wells and lands on map Y

Comments or other permit(s) associated with the project:



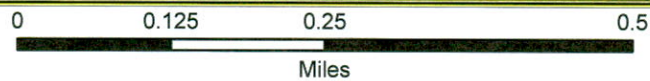
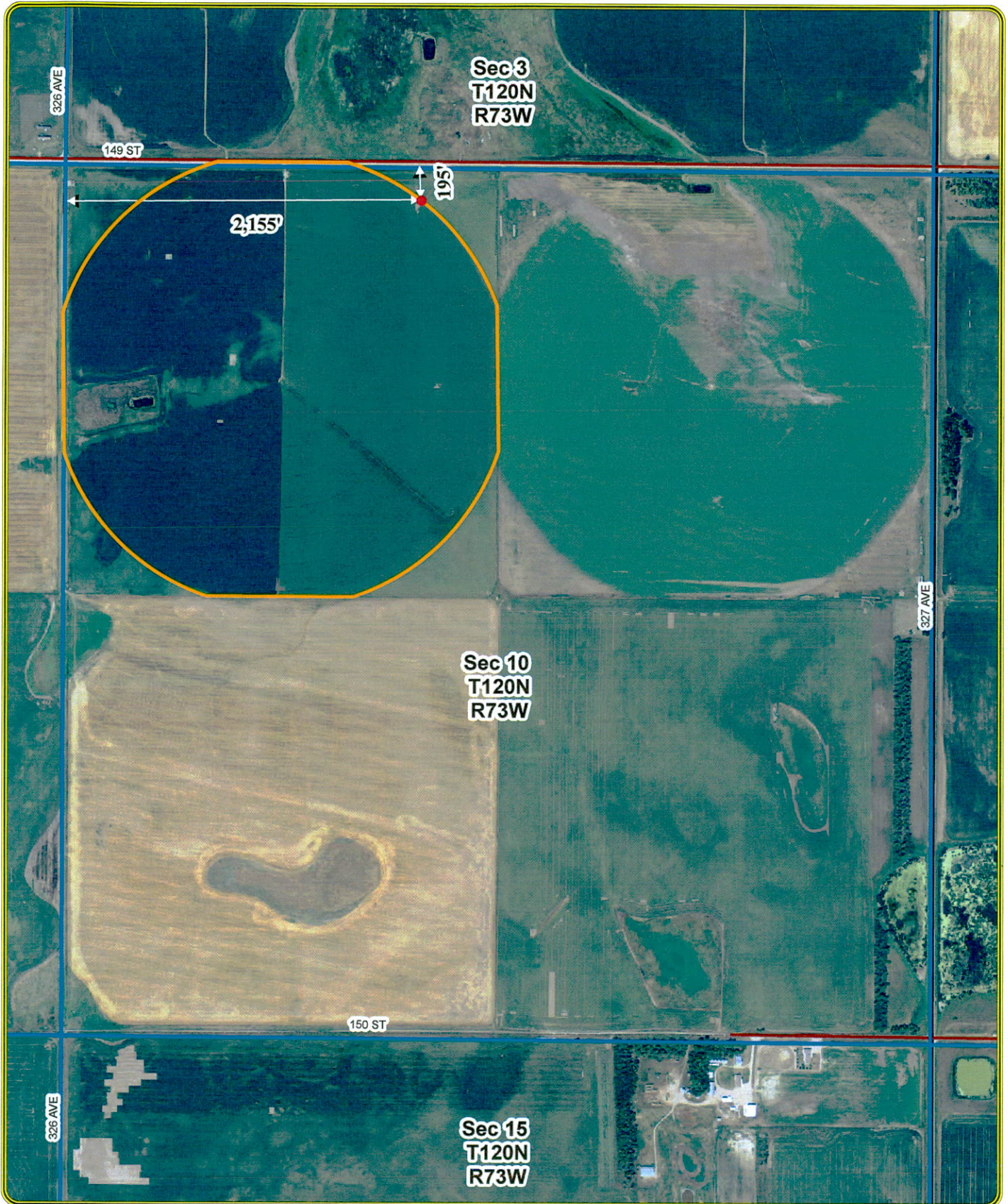
Mike DeFea

Natural Resources Engineer II

DENR, Water Rights Program

Date report completed: January 15, 2016

Frank Zweber
Water Permit No. 6474-3



Mike DeFea
Mike DeFea
Natural Resources Engineer
DENR, Water Rights Program
December 17, 2015

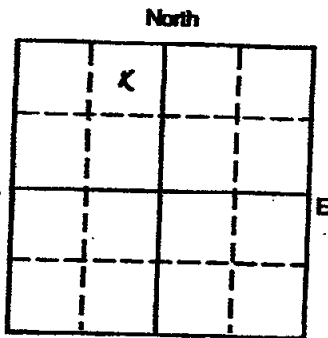


SOUTH DAKOTA WATER WELL COMPLETION REPORT

6474-3
11-02

Location NE 1/4 NW 1/4 Sec 10 Twp 120N Rg 13W

County Potter



Please mark well location with an "X"

Well completion Date
4-5-04

Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)
21000 ft. from Abandoned Well (Identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

Forward Rotary

CASING DATA:

- ☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>SDR21 LB/FT</u>	<u>12 IN</u>	<u>1 FT</u>	<u>24 FT</u>	<u>17 1/2 IN</u>
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Portland Cement</u>	<u>5</u>	<u>10.1 Lb/sack</u>	<u>0 FT</u>	<u>13 FT</u>
		Lb/sack	FT	FT

Describe grouting procedure From 13' To Surface

SCREEN:

- ☐ Perforated pipe ☒ Manufactured
 Diameter 12 Inches Length 14 Feet

Material stainless steel

Slot Size 0.80 Set From 24 Feet to 38 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

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

Well Owner: Frank Zuber

Business Name: _____

Address1: _____

Address2: _____

City, State, Zip: _____

Hoven, SD 57450

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>Top Soil</u>	<u>0</u>	<u>1</u>
<u>yellow clay</u>	<u>1</u>	<u>13</u>
<u>oxidized iron to coarse sand</u>	<u>13</u>	<u>20</u>
<u>Coarse Gravel</u>	<u>20</u>	<u>21</u>
<u>Medium to coarse sand</u>	<u>21</u>	<u>23</u>
<u>Coarse Gravel</u>	<u>23</u>	<u>29</u>
<u>Coarse sand & gravel</u>	<u>29</u>	<u>35</u>
<u>Coarse pebbly Gravel</u>	<u>35</u>	<u>38</u>
<u>Clay</u>	<u>38</u>	<u>46</u>

STATIC WATER LEVEL

11 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: Submersible
☐ Bailed
☐ Other

Pumping Level Below Land Surface

21 Ft. After _____

4 Hrs. pumped

800 GPM

Ft. After _____

Hrs. pumped _____

GPM

If pump installed, pump rate: _____

GPM

REMARKS

RECEIVED

JAN - 7 2016

WATER RIGHTS PROGRAM

This well was drilled under license # 283

And this report is true and accurate.

Drilling firm: Markowski Drilling

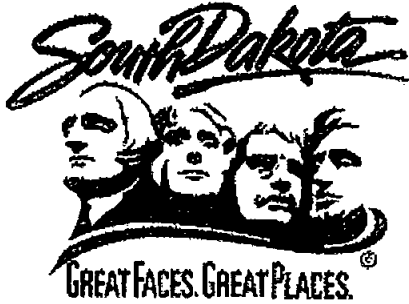
Signature of License Representative: _____

Signature of Well Owner or Equitable Property Holder: _____

Date: _____

Please return White Copy to DENR Water Rights

523 E. Capitol Ave., Pierre SD 57501



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

FEB 23 2016

6474-3

Frank Zweber
32043 SD Hwy 20
Hoven SD 57450

Dear Mr. Zweber:

Enclosed is Water License No. 6474-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the well authorized by Water Right No. 6474-3, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

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

Sincerely,

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

enclosures

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 6474-3**

(1) Frank Zweber, 32043 SD Hwy 20, Hoven SD 57450 made Application No. 6474-3, March 9, 2004 for a water permit to divert 1.88 cubic feet of water per second from ground water, one well (Bowdle Edmunds Aquifer), Potter County, South Dakota for irrigation purposes. Permit No. 6474-3, with a priority date of March 9, 2004 was approved April 19, 2004 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before April 19, 2009 and for the application to beneficial use of said water on or before April 19, 2013.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 1.88 cubic feet of water per second for beneficial use. The location of the diversion point is approximately 195 feet south and 2,155 feet east of the NW corner of Section 10, T120N, R73W (NE ¼ NW ¼).

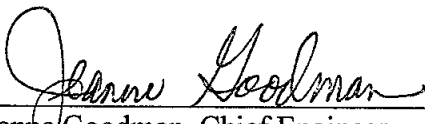
(3) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use to irrigate the following land:

T120N, R73W Section 10	NW ¼ NW ¼	33 acres
	NE ¼ NW ¼	33 acres
	SW ¼ NW ¼	33 acres
	SE ¼ NW ¼	33 acres
	Total	132 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 Frank Zweber, 32043 SD Hwy 20, Hoven SD 57450 the holder and/or owner of Water Right No. 6474-3 is issued a license to appropriate water, the right to use 1.88 cubic feet of water per second from ground water, one well (Bowdle Edmunds Aquifer) with a priority date of March 9, 2004 from the location specified in (2) of this license for irrigation purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 6474-3 and subject to the following qualifications:

- 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.
- The well authorized by Permit No. 6474-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with the 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. ***Well drilled in April, 2004, by Manikowski Well Drilling. A copy of the well log is on file with the Water Rights Program.***
- This Permit is approved subject to the irrigation water use questionnaire being submitted each year.



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

FEB 23 2016
date

