

WATER PERMIT NO. 1849-1

Name of Applicant: Grace United Methodist Church

Address: PO Box 265, Piedmont SD 57769

Phone: 605 787-4858

Amount of Water Claimed: 0.1 cfs (45 gpm)

Total Acres: NA

Source of Water Supply: groundwater

Water to be used for: institutional use

County: Meade

Type of Waste Disposal System:

Location:

PRIORITY Date Received: 6-28-05

Application/License Fee: \$100

Corrected Application Received: 7-22-05

Period of Annual Use: Jan 1 – Dec 31

Remarks:

Diversion Point: SW ¼ SW ¼ Sec 10-T3N-R6E

Land to be Irrigated: NA

Depth of Well: 400 feet deep

Well Driller: : Cimarron Drilling Inc.

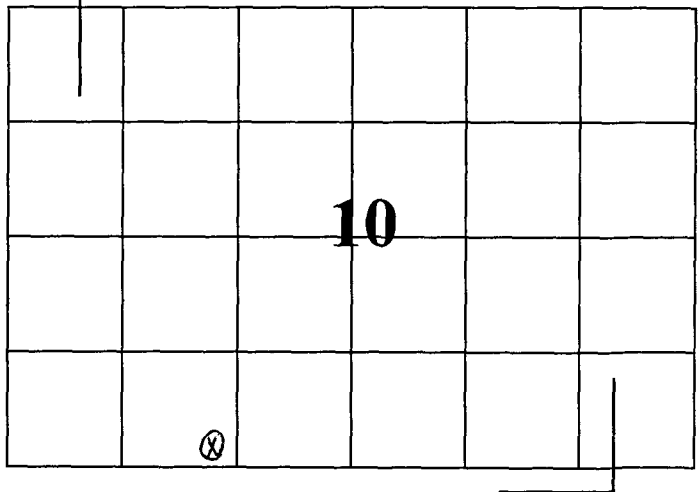
Remarks:

Type of Map: plat

Prepared by: Jerry J Wendland, RLS

Reviewed and the Number Assigned on: 7-25-05

By: Karen Schlaak



Notice of Hearing - date to intervene: _____

FORM 2: Application for uses other than irrigation
(type or print)

Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	No. <u>1849-1</u>	(office use only) Hydrologic Unit <u>10120111</u>
	Basin <u>Upper Cheyenne</u>	
	Newspaper <u>Meade Co. Times Tribune, Sturgis</u>	

RECEIVED

JUN 28 2005

WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water Within The State Of South Dakota

Check use(s) of water:

☐ Municipal	☐ Suburban Housing	☐ Recreational	☐ Institutional
☐ Rural Water System	☐ Commercial	☐ Fish & Wildlife	☐ Geothermal Heat
☐ Domestic (over 18 gpm)	☐ Industrial	☒ Other <u>CHURCH</u>	

Type of Application: ☒ New ☐ Vested Right (Use predates Mar 2, 1955) ☐ Future Use Reservation
(check one)
☐ Place to Beneficial Use Water Reserved by Future Use Permit No. _____
☐ Amendment/Correction to Permit No. _____

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

- Name of Applicant GRACE UNITED METHODIST CHURCH Phone 605-787-9858
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 10060 FOOTHILLS DRIVE RD. BOX 265 Piedmont State S.D. 57769
(Street, RR, or Box and City) (Zip Code)
- Amount of water claimed 0.1 *CFS or 45 **GPM ***AF
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable
- Source of water supply MINNEAPOLIS WELL
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)
1 WELL SW1/4 SECTION 10 T3N R6E BHM
County MEADE
- County or counties where water will be used MEADE
- Annual period during which water is to be used ALL YEAR Jan 1 - Dec 31
- Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

SHARLES WATER TO GRACE UNITED METHODIST CHURCH

STATE OF SOUTH DAKOTA)
County of MEADE SS

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, ROBERT W. POWERS, 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 Robert W. Powers

Subscribed and sworn to before me this 20 day of July 2005

JAIME DROPPERS
My Commission Expires
February 11, 2011

Notary Public signature

**SOUTH DAKOTA
WATER PERMIT NO. 1849-1**

Date of first receipt of application June 28, 2005.

Date of return to applicant for corrections, amendments or changes June 28, 2005.

Date of receipt of corrected application July 22, 2005.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 1849-1 to Grace United Methodist Church, 10060 Foothills Drive, PO Box 265, Piedmont SD 57769 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. 1849-1 appropriates 0.1 cubic feet of water per second from one well completed into the Minnelusa Aquifer (400 feet deep) located in the SW ¼ SW ¼ Section 10-T3N-R6E.
2. The water appropriated shall be used for the purpose of institutional use at the church and may not exceed the amount of water needed for beneficial use.
3. The water is to be used during the following described annual period: January 1 – December 31.
4. The date of approval of Permit No. 1849-1 is October 31, 2005.
5. The date from which applicant may claim right is June 28, 2005.
6. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATION

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.

WATER MANAGEMENT BOARD

By: Garland Erbele

Garland Erbele, Chief Engineer

Water Rights Program

Department of Environment and Natural Resources

DEC 15 2005

date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 8 3/4" Depth 400'
- b) Casing Type PVC-6" Diameter 6" Thickness _____
- c) Screen Type N/A Diameter N/A Thickness _____
- d) Gravel Pack N/A Length of Gravel Pack N/A
- e) Depth to Top of Water Bearing Material 320' ±
- f) Depth to Water (ground surface to water level) STATIC WATER - FLOWING WELL - CAPPED
- g) Distance to nearest existing domestic well:
- On applicants property NONE On property owned by others 600' ±

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) 2500 GAL 720 SQ FT SEPTIC TANK - DRAIN FIELD
- b) System Capacity (gallons) 1400 GAL/DAY Year Constructed 2005
- c) Connected to the City of N/A Sanitary System N/A

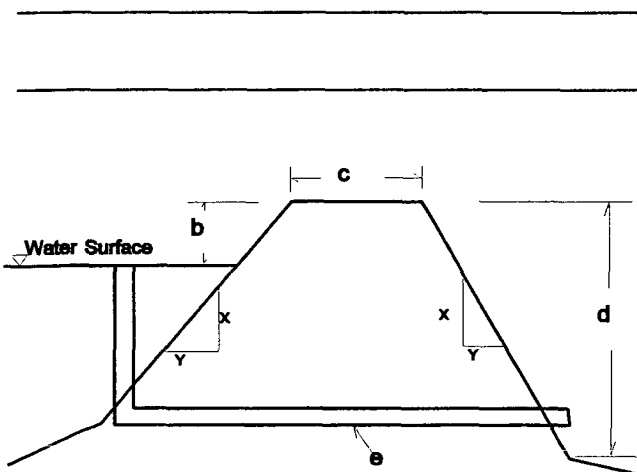
3. Dugout Information

- 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 June 28, 20 05

RECEIVED OF Grace United Methodist Church, PO Box 205, Piedmont SD 57769

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

Fee for Application for Permit No. <u>1849-1</u> to Appropriate Water, to construct and to put water to beneficial use	50	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>1849-1</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	100.00

No. 001007

By

Darlene Ebel
Chief Engineer *gm*

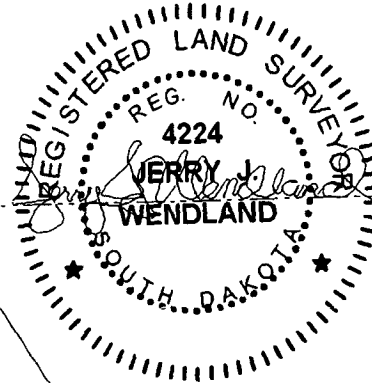
JERRY J. WENDLAND
LAND SURVEYING
6909 Ridgeview Dr.
Black Hawk, SD
57718

Phone: (605) 787-4503 Fax: (605) 787-9454
ANGLE SURVEYS

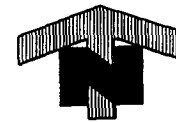


"Well Location Exhibit"

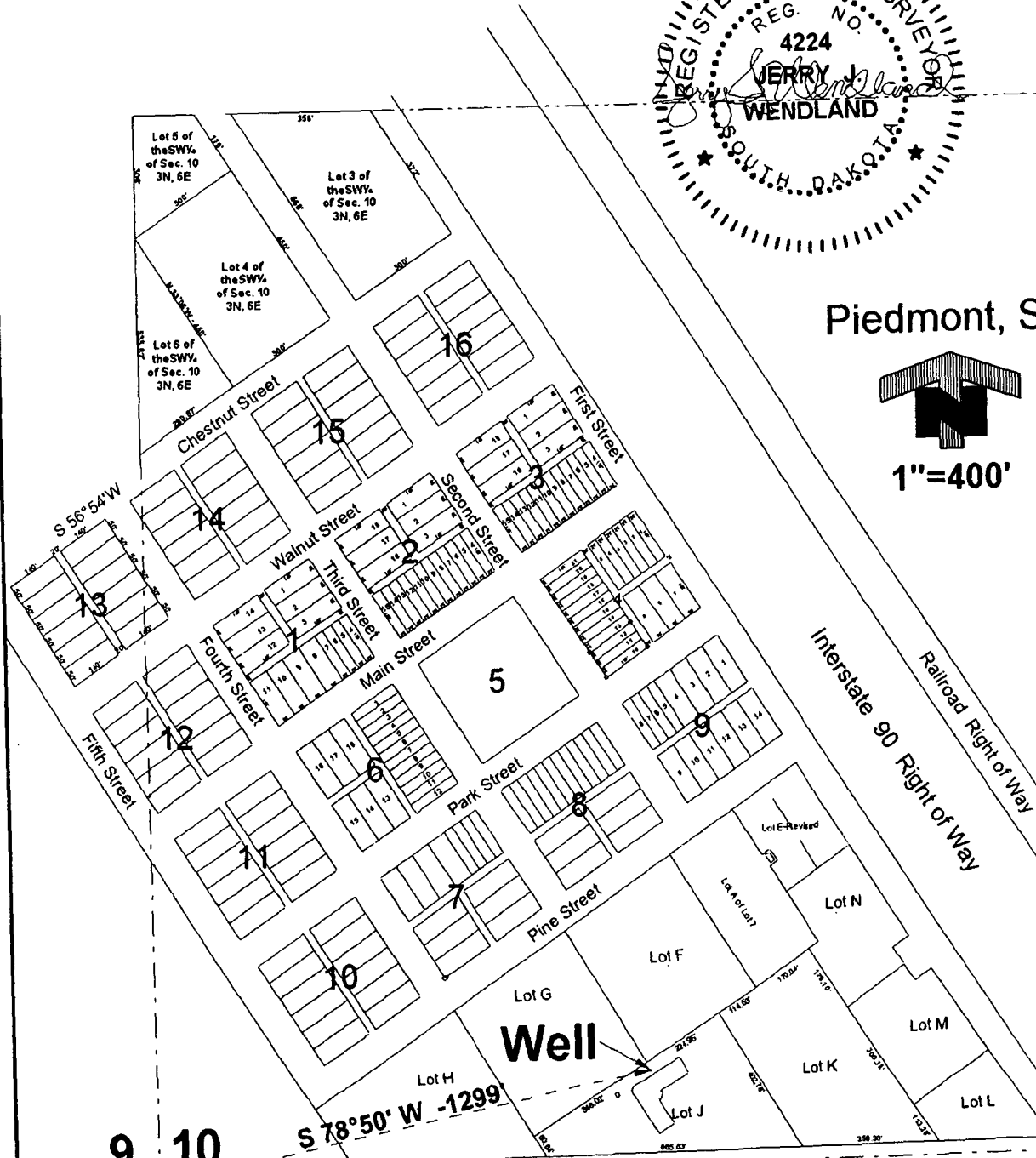
Located in Lot J of B & P Estates Subdivision
in the SW¼ of Section 10, T3N, R6E, BHM,
Meade County, South Dakota



Piedmont, SD



1"=400'



9 10
16 15

SW Corner of Section 10,
T3N, R6E, BHM, Meade
County, South Dakota

1849-1

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

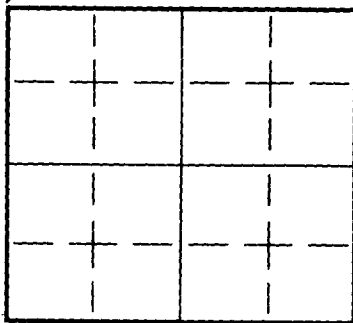
Location 1/4 Sec 10 Twp 3-N Rg 6-E
 County Lot 6 - B+P Estates North Sub
Mende

Please mark well location with an "X"

W

E

Well Completion Date

9-20-04

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 160 ft. from Septic (identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary - Air WaterCASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>200</u> LB/FT	<u>6</u> IN	<u>0</u> FT	<u>315</u> FT	<u>8 3/8</u> IN
_____ 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</u>	<u>50</u>	<u>94/6</u> lb./gal	<u>20</u> ft	<u>315</u> ft
<u>Bentonite</u>	<u>12</u>	_____ lb./gal	<u>6</u> ft	<u>20</u> ft

Describe grouting procedure Pressure grout thru casing
displace with water to surface by mud pump

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: Chlorine☐ NO, Why Not? Pellets

Laboratory sent to for water quality analysis

owner to completeWell Owner Grace United Methodist Church

Business Name: _____

Address: 1060 Foot Hills Drive
Piedmont S.D. 57769

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>Fill Dirt</u>	<u>0'</u>	<u>10'</u>
<u>Gravel</u>	<u>10'</u>	<u>20'</u>
<u>Red Shale (Spangfish)</u>	<u>20'</u>	<u>50'</u>
<u>Buff Limestone (Minnekahta)</u>	<u>50'</u>	<u>100'</u>
<u>Red Shale (Oppehe)</u>	<u>100'</u>	<u>260'</u>
<u>Buff Sand Sandstone</u>	<u>260'</u>	<u>280'</u>
<u>Buff to Yellow Sandstone</u>	<u>280'</u>	<u>400'</u>
<u>(Minnekahta Fm)</u>		

STATIC WATER LEVEL 0 FeetIf flowing: closed in pressure 4 PSIGPM flow 4 through 1 inch pipeControlled by ☒ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ PumpedDescribe: Air-developed☐ Bailed☒ Other _____

Pumping Level Below Land Surface

200 ft. After 2 Hrs. blew 75 GPM60 ft. After 2 Hrs. blew 50+ GPM

If pump installed, pump rate _____ GPM

REMARKS

Permit being handled
by Bob DawkesThis well was drilled under license # 568

And this report is true and accurate.

Drilling firm Cimarron Drilling IncSignature of License Representative Matt Deutch

RECEIVED

Signature of Well Owner or Equitable Property Holder _____

2005

Date _____

RIGHTS
PROGRAM



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

April 12, 2005

Grace United Methodist Church
1060 Foothills Drive
Piedmont SD 57769

Dear Sir:

I am writing in regard to a well driller's report filed by Cimarron Drilling, Inc. The report shows a new well was completed for the church on September 20, 2004. Based on the information in the report, you will need a water permit for this water use.

1. According to state law, a water permit is needed for any water use except for reasonable, private domestic use. Examples of institutional uses that require water permits for private water supplies are: churches, hospitals and nursing homes (any amount of water) and schools that pump more than 18 gallons per minute or use water outside of the school building.
2. Also, as a new well owner, you need to be aware of some of your responsibilities. Enclosed is a copy of "Well Owner Responsibilities". Please review these responsibilities to ensure you are complying with all of the requirements.

Enclosed are application forms and instruction sheet to apply for a water permit. The completed forms with the application fee and map can be returned to: Water Rights Program, 523 E. Capitol, Pierre, SD 57501. **Please respond by June 1, 2005.**

If you believe your water use does not require a water permit, or that you have an existing permit, or if help is needed completing the application forms, please contact Ron Duvall or me at (605) 773-3352. We will be happy to assist you in any way possible.

Sincerely,

Karen Schlaak
Water Rights Program
karen.schlaak@state.sd.us

enclosures



June 28, 2005

Robert W Powles
HC 80 Box 483
Piedmont SD 57769

Dear Mr. Powles:

Thank you for submitting the *Application for a Permit to Appropriate Water* on behalf of the Grace United Methodist Church.

The application is being returned to you because it needs to be signed by a Notary Public.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak
Water Rights Program
605 773-3352
karen.schlaak@state.sd.us

enclosure

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

RECEIVED

JUL 22 2005

WATER RIGHTS
PROGRAM

WATER PERMIT APPLICATION NO. 1849-1
GRACE UNITED METHODIST CHURCH
SEPTEMBER 13, 2005

Water Permit Application No.1849-1 proposes to appropriate 0.10 cubic feet of water per second (45 gallons per minute) from one existing well completed into the Minnelusa aquifer (400 feet deep), located in the SW¼ SW¼ Sec. 10, T3N-R6E, Meade County. The water is for institutional use at the church.

AQUIFER: Minnelusa aquifer (MNLS)

GENERAL:

The Minnelusa Formation consists of alternating beds of sandstone and dolomitic limestone with lesser amounts of shale and chert, approximately 500 feet thick in this area (Carter and Redden, 1999a; Carter and Redden, 1999b). The Minnelusa Formation outcrops about one-half mile south of this site (Strobel and others, 1999) and the SD Water Well Completion Report for the existing well that is to be used for this project reports the top of the formation to be 260 feet below grade. The porous portions of the formation form the Minnelusa aquifer. Well sorted sand lenses have porosity's approaching 25%, but generally the sands have porosity's of 10%. The average porosity of the Minnelusa is estimated to be 10% and the effective porosity is assumed to be 5% (Rahn, 1979). The Minnelusa Formation underlies virtually all of western South Dakota and the Minnelusa aquifer contains over 755 million acre-feet of recoverable water in storage (Allen and others, 1985). The Minnelusa aquifer underlies approximately 2,172,800 acres of Meade County and contains an estimated 81,480,000 acre-feet of recoverable water in storage in the county (Allen and others, 1985). Ground water movement in the aquifer is probably toward the east (Strobel, and others, 2000). The water quality of the aquifer is generally good near the outcrop but deteriorates considerably with distance from the recharge area. Estimates from regional studies of the aquifer indicate the aquifer transmissivity may range from 0.86 to 12,000 ft²/d, and the storage coefficient ranges from 0.003 to 5.0 x10⁻⁹ (Driscoll, and others, 2002). The completion report submitted for this well indicates the well produces 75 gallons per minute when air developed and flows four gallons per minute and had a closed in pressure of four psi. in September 2004.

WATER AVAILABILITY:

The availability of unappropriated water from an aquifer can be evaluated by considering SDCL 46-6-3.1. This statute requires that an application to appropriate groundwater can not be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of average estimated annual recharge.

Recharge to the Minnelusa aquifer is primarily from infiltration of precipitation on the outcrop and stream flow losses. Average annual recharge in the Black Hills area from 1931-1998 is estimated to be approximately 112,000 acre-feet per year (Carter and others, 2001a).

There are a total of 192 appropriations from the Minnelusa aquifer in South Dakota, including one Future Use Reservation (Water Rights, 2005d). The aquifer is used primarily for domestic, commercial, municipal, suburban housing and irrigation uses. There are 66 permits/rights appropriating water from the Minnelusa aquifer in Meade County (Water Rights, 2005c).

Water permits and rights represent appropriations up to 10,287.04 acre-feet annually for irrigation use (Water Rights, 2005) and a combined diversion rate of 32.66 cfs for non-irrigation uses (Water Rights, 2005c). The Future Use Permit (No. 902-2, SD Cement Plant) reserves 1,364 acre-feet annually. Maximum well withdrawals from the Minnelusa aquifer, assuming (1) that permits/rights with an annual withdrawal limitation (ac-ft/yr.) will use the maximum allowable; and (2) permits/rights that are limited by a diversion rate only, will use 60% of the maximum allowable (considered reasonable for water distribution systems); would be approximately 25,000 acre-feet per year. The actual amount of water used from the aquifer is considerably less than this estimate, for example the reported pumpage for irrigation use in 2004 was 2,645.39 ac-ft compared with the 10,287.04 ac-ft/yr appropriation. Withdrawals from wells (domestic and appropriative) completed into the Minnelusa aquifer were estimated to be 8,108 acre-feet annually from 1987-1996 (Carter and others, 2001b).

Comparison of annual recharge estimates and estimated annual well withdrawals show that well withdrawals from the Minnelusa are only a fraction of estimated average annual recharge. Therefore, based on a simple water budget, it is clear that unappropriated water is available for this appropriation.

The best information available to evaluate development as it relates to recharge, is historical records and data from observation wells. The difference between withdrawal from an aquifer and recharge is reflected by the water level of the aquifer. If the water level of an aquifer continues to decline, it may suggest that withdrawals exceed recharge. The Water Rights Program monitors 23 observation wells completed into the Minnelusa aquifer in the Black Hills area (Water Rights, 2005b). Water Rights' Observation Well MD-84A is located approximately one-half mile east of this well site. The hydrograph for the observation well (figure 1), is fairly typical for the Minnelusa aquifer. That is, the water levels reach their peak in the early summer each year and gradually decline until spring. The majority of the recharge to the system occurs between March and July. The hydrograph also shows the magnitude of fluctuation in the water levels in the area (approximately 35' in MD-84A).

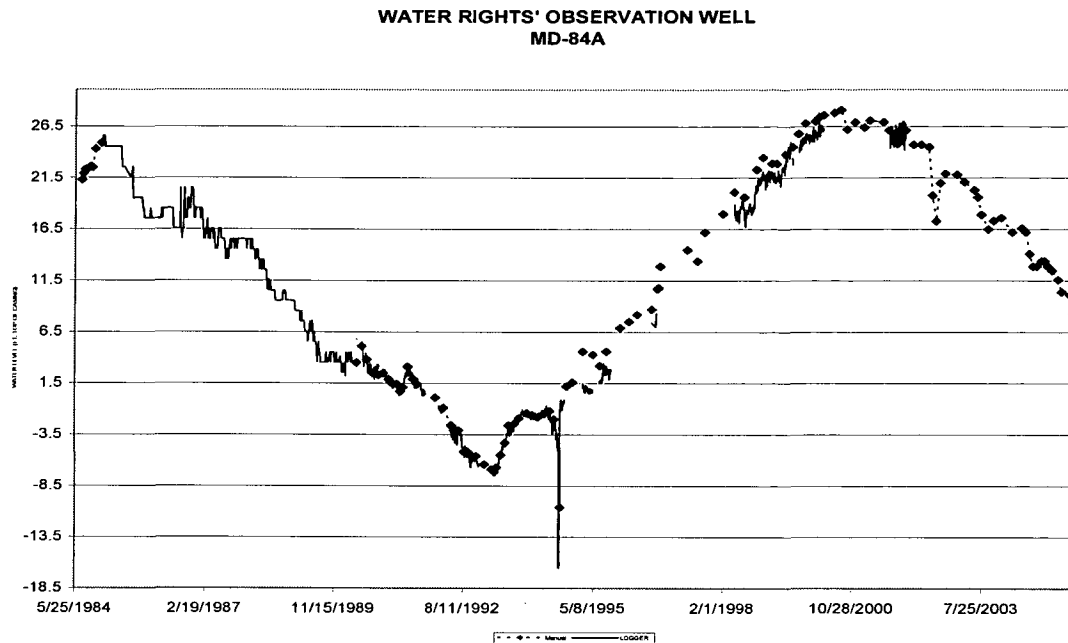


Figure 1. Hydrograph of Water Rights' Minnelusa aquifer Observation Well approximately one-half mile east of 1849-1

It is obvious from the hydrographs of Minnelusa observation wells, that withdrawals have not exceeded recharge for the period of record. The observation well data suggests that the aquifer is capable of sustaining additional withdrawals.

AFFECTS ON EXISTING RIGHTS:

There are 15 Water Rights/Permits appropriating groundwater within approximately one mile of 1849-1, they are shown in table 1.

PERMIT NO	NAME	AQUIFER	USE	CFS
1155-1	DONALD/BETTY WITTINGER	MNLS	COM	0.03
1336-1	PIEDMONT SENIOR CITIZENS CENTER	MNKT	INS	0.10
1507-1	PIEDMONT BAPTIST CHURCH	MNLS	INS	0.02
1512-1	ELK CREEK STEAKHOUSE	MNLS	COM	0.02
1614-1	OPEN SEASON LLC	MNLS	COM	0.08
1640-1	JOHN G BOYLAN	MNLS	COM	0.04
1641-1	LANTIS FIREWORKS	SPRF	COM	0.02
1647-1	WORMAN CORPORATION	MNLS	COM	0.10
1682-1	STANLEY W SCHEURER	MNLS	SHD	0.11
1694-1	DAN C KESSLER	MNLS	COM	0.07
1736-1	STANLEY SCHEURER	MDSN	SHD	1.11
1759-1	PIEDMONT FIRE PROTECTION	MNLS	DOM	0.09
1845-1	MEADE SCHOOL DIST 46-1	MNLS	INS	0.04
1902-2	CAROL'S SLASH J BAR	MNLS	COM	0.01
989-1	ELK CREEK WATER CO., INC	MNLS	SHD	0.22

Table 1. Groundwater appropriations within one mile of 1849-1

Appropriations not supplied by the Minnelusa aquifer should not be affected by withdrawals from this well since the Opeche Shale serves as a confining layer above the Minnelusa, and the thick carbonate sequence in the lower Minnelusa isolates the Minnelusa aquifer from lower aquifers.

There are five existing appropriations from the Minnelusa aquifer within one-half mile of this well; they include Water Right No. 1155-1, Water Permit No. 1845-2 and Water Right No. 1902-2, Water Right No. 842-1, and Water Permit No. 1640-1.

In addition to the wells supplying Water Permits/Rights, there are a number of domestic wells completed into the Minnelusa aquifer on file with the Water Rights Program (Water Rights, 2005a).

Although the impact of approving this application cannot be quantified precisely, it is still possible to address whether this appropriation can be made without adversely affecting water rights, including domestic wells. Water Management Board rules 74:02:04 and 74:02:05, which were promulgated pursuant to SDCL 46-6-6.1, provide protection to prior appropriators only to the degree necessary to maintain an adequate depth of water in wells that have the ability to produce water independent of artesian pressure. Simply put, the pump placement, or artesian flow, in a prior appropriator's well is not necessarily protected. In fact, in past action, the Water Management Board has concluded that if increased cost or decreased production is considered an adverse impact, it could be in conflict with SDCL 46-1-4, which requires South Dakota's water resources to be put to beneficial use to the fullest extent of which they are capable.

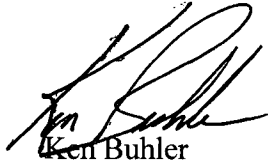
Since the Minnelusa is under artesian conditions in this area and pumping may cause a decline in the potentiometric surface over a fairly widespread area. Considering the Board's past actions, any well interference this proposed use would have on area water rights/permits and domestic wells is not expected to be significant or adverse. It may be necessary to lower pumps in some wells to maintain water use at the present level.

Any interference this proposed use would have on these or other water rights/permits is not expected to be adverse due to the relatively low diversion rate requested by this application, and the distance to existing users. This is an existing well that has presumably been in use since 2004 with no complaints from existing users.

CONCLUSIONS:

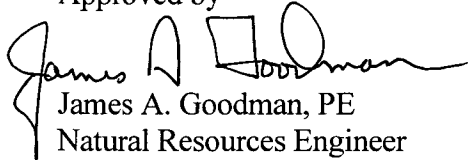
1. The Minnelusa aquifer is a viable aquifer in this area, and water is available for this appropriation.
2. The Minnelusa aquifer is under artesian conditions and drawdown due to this diversion can be expected. This drawdown is not expected to adversely affect adequate wells in the area.

3. The Completion Report submitted with this application indicates the existing well has been constructed in compliance with the SD Well Construction Standards.



Ken Buhler
Natural Resources Engineer

Approved by



James A. Goodman, PE
Natural Resources Engineer

REFERENCES:

- Allen, J.C., Iles, D.L., and Petres, A.K., 1984, Analysis of Groundwater and Streamflow Data Western Dakotas Region of South Dakota, Task 3A. B.C. and 4A. B.: Groundwater Resource Inventory: South Dakota Department of Water and Natural Resources,
- Carter, J.M., and Redden J.A., 1999a, Altitude of the Top of the Minnelusa Formation in the Black Hills Area, South Dakota: U.S. Geological Survey Hydrologic Investigations Atlas HA-744-C, 2 sheets, scale 1:100,000
- Carter, J.M., and Redden J.A., 1999b, Altitude of the Top of the Madison Limestone in the Black Hills Area, South Dakota: U.S. Geological Survey: Hydrologic Investigations Atlas HA-744-D, 2 sheets, scale 1:100,000
- Carter, J.M., Driscoll, D.G., and Hamade, G.R., 2001a, Estimated Recharge to the Madison and Minnelusa Aquifers in the Black Hills Area, South Dakota and Wyoming, Water Years, 1931-98: U.S. Geological Survey Water Resources Investigations Report 00-4278, 66 p.
- Carter, J.M., Driscoll, D.G., Hamade, G.R., and Jarrell, G.J., 2001b, Hydrologic Budgets for the Madison and Minnelusa Aquifers, Black Hills of South Dakota and Wyoming, Water Years 1987-96: U.S. Geological Survey Water-Resources Investigations Report 01-4119, 53 p.
- Driscoll, D.G., Carter, J.M., Williamson, J.E., and Putnam, L.D., 2002, Hydrology of the Black Hills Area, South Dakota: U.S. Geological Survey Water Resources Investigations Report 02-4094, 150 p.

Rahn, P.H., 1979, Ground Water Resources of Western South Dakota, US Army Corps of Engineers, Draft Report-Final

Strobel, M.L., Jarrell, G.J., Sawyer, J.F., Schleicher, J.R., and Fahrenbach, M.D., 1999, Distribution of Hydrogeologic Units in the Black Hills Area, South Dakota: U.S. Geological Survey Hydrologic Investigations Atlas HA-744-C, 3 sheets, scale 1:100,000

Strobel, M.L., Galloway, J.M., Hamade, and G.R., Jarrell, G.J., 2000, Potentiometric Surface of the Minnelusa Aquifer in the Black Hills Area, South Dakota: U.S. Geological Survey Hydrologic Investigations Atlas HA-745-C, 2 sheets, scale 1:100,000

Water Rights Program, 2004, "2003 Irrigation Summary by Aquifer": DENR-Water Rights Program

Water Rights Program, 2005a, "Domestic Well Log Files": DENR-Water Rights Program,

Water Rights Program, 2005b, "Observation Well Files": DENR-Water Rights Program

Water Rights Program, 2005c, "Water Permit Files": DENR-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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 1849-1, Grace United Methodist Church**

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. 1849-1, Grace United Methodist Church, PO Box 265, Piedmont SD 57769.

The Chief Engineer is recommending APPROVAL of Application No. 1849-1 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 qualification:

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.

See report on application for additional information.

Garland Erbele, Chief Engineer
September 29, 2005



AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA
COUNTY OF MEADE

Pam Buhler, being duly sworn, says: That the Meade County Times Tribune/Black Hills Press is, and during all times hereinafter mentioned, is a legal newspaper as defined in SDDCL 17-2-2, as amended published in Sturgis, Meade County, South Dakota, by Lee Enterprises; that affidavit is and during all of said times, was employed as an Accounting Clerk by the publisher of such newspaper and has personal knowledge of the facts stated in the affidavit, that the notice, order or advertisement, a printed copy which is attached, was published in said newspaper for successive issues, bearing the following dates:

<u>Oct 12</u>	<u>200</u>	<u>5</u>	<u>200</u>	<u> </u>
<u>Oct 19</u>	<u>200</u>	<u>5</u>	<u>200</u>	<u> </u>
<u> </u>	<u>200</u>	<u> </u>	<u>200</u>	<u> </u>
<u> </u>	<u>200</u>	<u> </u>	<u>200</u>	<u> </u>
<u> </u>	<u>200</u>	<u> </u>	<u>200</u>	<u> </u>

that the full amount of the fee charged for publishing the same, to-wit, the sum of \$ 38.69, insures solely to the benefit of the publisher of said newspaper: that no agreement or understanding for the division of the fee has been made with any person, and that no part of the fee has been agreed to be paid to any other person.

[Signature]

Subscribed and sworn to before me this

20 day of Oct, 2008
Camela Buehler
Notary Public, South Dakota

RECEIVED
OCT 20 2008
WATER RIGHTS
PROGRAM

Account No. 20035107
Total Amount 38.69

NOTICE OF APPLICATION NO.

1849-1 to Appropriate Water

Notice is given that Grace United Methodist Church, PO Box 265, Piedmont SD 57769 has filed an application for a water permit to appropriate 0.1 cubic feet of water per second from one well completed in to the Minnelusa Aquifer (400 feet deep) located in the SW 1/4 SW 1/4 Section 10-T3N-R6E. The water is for institutional use at the church.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 1849-1 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 Manage-

ment 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 October 31, 2005.

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. Firner, Secretary, Department of Environment and Natural Resources.

Publ. Oct. 12, 19, 2005

Meade County Times-Tribune



**DEPARTMENT of ENVIRONMENT
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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.

October 3, 2005

Grace United Methodist Church
% Robert W Powles
PO Box 265
Piedmont SD 57769

Dear Mr. Powles:

Water Permit Application No. 1849-1 for institutional use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Publisher of the Meade Co Times-Tribune printed at Sturgis, SD (Ph # 605-347-2503). 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 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. 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.



DEPARTMENT of ENVIRONMENT
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www.state.sd.us/denr

October 3, 2005

Meade Co Times-Tribune
PO Box 69
Sturgis SD 57785

ATTENTION: Legal Public Notice

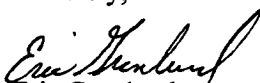
Enclosed is a Notice on Application No. 1849-1 to Appropriate Water to be published twice. Please publish the first notice on October 12, 2005 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

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 Grace United Methodist Church, % Robert W. Powles, PO Box 265, Piedmont (Ph # 605-787-4858).

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. 1849-1

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

Date _____

We are in receipt of your letter of October 3, 2005 enclosing Notice to Appropriate Water by Application No. 1849-1 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper

Instruction to Newspaper - Publish first Notice on October 12, 2005 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 1849-1 to Appropriate Water

Notice is given that Grace United Methodist Church, PO Box 265, Piedmont SD 57769 has filed an application for a water permit to appropriate 0.1 cubic feet of water per second from one well completed into the Minnelusa Aquifer (400 feet deep) located in the SW ¼ SW ¼ Section 10-T3N-R6E. The water is for institutional use at the church.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 1849-1 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 October 31, 2005.

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.



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DEC 15 2005

Grace United Methodist Church
% Robert W Powles
PO Box 265
Piedmont SD 57769

Dear Mr. Powles:

Enclosed is Water Permit No. 1849-1 authorizing your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

We will schedule an inspection so that the Water License may be issued to you, thus completing your acquisition of a Water Right.

Sincerely,

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

enclosures

Permit No. 1849-1
Upper Cheyenne 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, **October 15, 2009**, made a thorough examination of the water use system constructed by **Grace United Methodist Church** of **10060 Foothill Dr., Piedmont, SD 57769** holder of Permit No. **1849-1**, bearing the priority of **June 28, 2005** authorizing the diversion of **0.1** cu. ft. per second of the waters of the **Minnelusa** Aquifer for **Institutional** purposes, in **Meade** County.

Inspection contact & relationship **Bob Powles (787-5261)**
to permit holder, if applicable:

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: **Cimarron Drilling Inc**
- 2) No. of Wells **1**
- 3) Depth(s) **400** feet
- 4) Well log is available **Y**
- 5) Comment:

Casing:

- 1) Diameter **6** inches
- 2) Length **315** feet
- 3) Type **Plastic**

Screen:

- 1) Type **Unknown**
- 2) Length **Unknown** feet
- 3) Static water level **0** feet

Pump:

- 1) Make **Grundfos**
- 2) Model **Unknown**
- 3) Size **1 hp**
- 4) Capacity **45** GPM

B. 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 NA
- 3) Exceptions to compliance are: None

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

Approximately 235 feet north and 1275 feet east of the SW corner of Section 10-T3N-R6E
(N 44.22819, W -103.38784) (SW ¼ SW ¼)

The works are capable of diverting and conveying to the place of use 0.1 cu. ft. per second of water which is to be used for **Institutional use**. Water has been put to beneficial use to the maximum extent as follows:

Water from the well provides water for various purposes at the church.

The license should be issued for 0.1 cfs.

All structures, wells and lands on map Y

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


Mike DeFea

Natural Resources Project Engineer
DENR, Water Rights Program

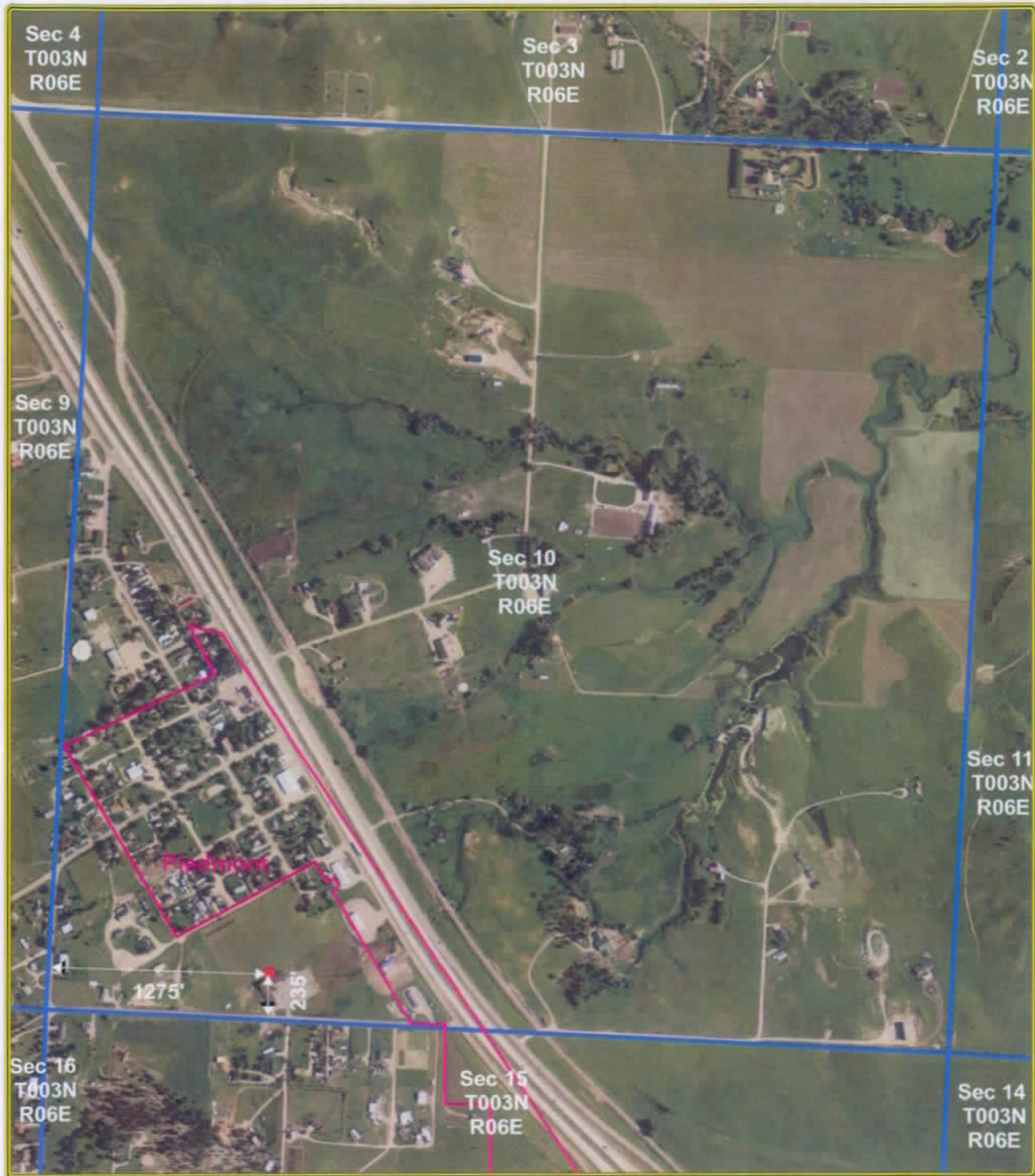
Date report completed: **October 21, 2009**

Water Permit No. 1849-1

Grace United Methodist Church

10060 Foothill Dr.

Piedmont, SD 57769



Mike DeFea

Mike DeFea
Natural Resources Engineer
DENR, Water Rights Program
October 21, 2009



South Dakota
Department of Environment
& Natural Resources
Protecting SD's Tomorrow...Today



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denr.sd.gov

JAN 13 2010

1849-1

Grace United Methodist Church
c/o Bob Powles
10060 Foothills Dr
PO Box 265
Piedmont SD 57769

Dear Mr. Powles

Enclosed is Water License No. 1849-1. This is the final water right document completing your process of obtaining a Water Right. Also, included with your license is a map prepared by the staff engineer who conducted the investigation.

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,

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

enclosures

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 1849-1

(1) Grace United Methodist Church, 10060 Foothills Dr, PO Box 265, Piedmont SD 57769 made Application No. 1849-1, June 28, 2005 for a water permit to divert 0.1 cubic feet of water per second from groundwater (one well), Meade County, South Dakota for institutional purposes. Permit No. 1849-1, with a priority date of June 28, 2005 was approved October 31, 2005 and issued to the applicant for diversion of water with construction of the described water supply system and the application to beneficial use of water completed.

(2) The water supply system has been completed and water applied to beneficial use in accordance with South Dakota State Law. Pursuant to South Dakota Codified Law 46-5-30.1, the holder and/or owner of Water Right No. 1849-1 is issued a license, bearing a priority date of June 28, 2005 to appropriate 0.1 cubic feet of water per second from groundwater (one well) for institutional purposes.

The diversion point is located: approximately 235 feet north and 1,275 feet east of the southwest corner of Section 10-T3N-R6E (SW ¼ SW ¼).

(3) This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Permit No. 1849-1 including the following now applicable qualification:

- 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.

Garland Erbele

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

JAN 13 2010

date

