

**WATER PERMIT NO. 7465-3**

Name of Applicant: **D A Olson & Sons**

Address: **31725 455<sup>th</sup> Ave, Meckling SD 57069**

Phone: **605 267-4121**

Amount of Water Claimed: **1.78 cfs**

Total Acres: **138**

Source of Water Supply: **groundwater (one well)**

Water to be used for: **irrigation**

County: **Clay**

Type of Waste Disposal System:

Location: **1/2 mile south of Meckling**

**PRIORITY**

Date Received: **10-17-12**

Application/License Fee: **\$ 950**

Corrected Application Received:

Period of Annual Use: **April 1 – September 30**

Remarks:

Diversion Point: **approximate center of NE 1/4 Sec**  
**35-T93N-R53W**

Land to be Irrigated: **NE 1/4 Sec 35-T93N-R53W**

Depth of Well: **110 feet deep**

Well Driller:

Remarks:

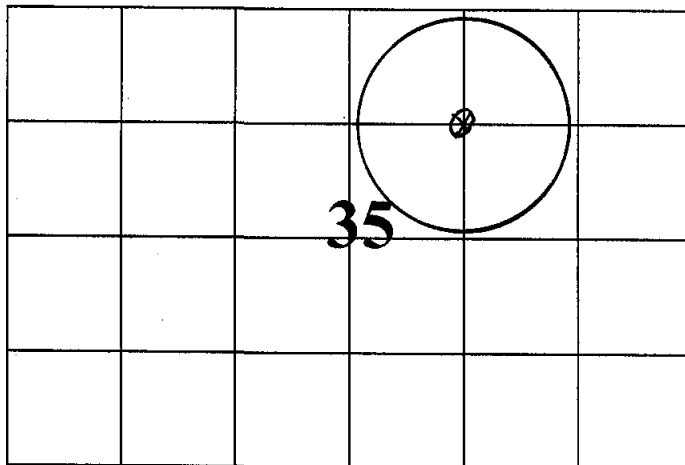
Type of Map: **aerial**

Prepared by: **Sheree Christensen, Clay Co NRCS**

Reviewed and the Number Assigned on: **10-17-12**

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>7465-3</u>                        | (office use only)<br>Hydrologic Unit <u>10170102</u> |
| Basin <u>Vermillion River</u>            |                                                      |
| Newspaper <u>Plain Talk - Vermillion</u> |                                                      |
| <u>Press &amp; Dakotan - Yankton</u>     |                                                      |

**RECEIVED**  
**OCT 17 2012**  
**WATER RIGHTS**  
**PROGRAM**

**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 D.A. Olson & Sons

(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent

(name and complete address if different than above name)

Mailing Address 31725 455 Ave, Meckling SD 57069-4423  
(Address) (City) (State) (Zip Code)

Home Phone 605-267-4121 Cell 605-660-8990 Email \_\_\_\_\_

2. Amount of water claimed 1.78 \*CFS or 800 \*\*GPM \*\*\*AF Total Acreage 138  
(\*Cubic Feet per Second) (\*\*Gallons per Minute) (\*\*Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply 1 well to Lower Missouri Aquifer

4. Location of point of diversion 1 well in sw of ne, section 35, Twp 93n, R 53W (approximate center)  
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)

County Clay

5. County or counties where water will be used Clay

6. Annual period during which water is to be used April 1 - September 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 |
|------------------------------|-------|------------------|-------|
| ne ne section 35, T93N R 53W | 32    |                  |       |
| nw ne section 35, T93N R53W  | 35    |                  |       |
| sw ne section 35, T93N R53W  | 35    |                  |       |
| se ne section 35, T93N R53W  | 36    |                  |       |

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

center pivot irrigation to improve crop production of above listed properties.

I, D.A. Olson & Sons Dale Gene Olson, 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. 7465-3**

Date of first receipt of application October 17, 2012.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7465-3 to D. A. Olson & Sons, 31725 455 Ave, Meckling SD 57069 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. 7465-3 appropriates 1.78 cubic feet of water per second from one well to be completed into the Missouri:Elk Point Aquifer (110 feet deep) located in the approximate center of the NE 1/4 Section 35 to irrigate 138 acres located in the NE 1/4 Section 35; all in T93N-R53W.
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 17, 2012.
4. The date of approval of Permit No. 7465-3 is January 22, 2013.
5. One-fifth of the construction is to be completed on or before July 22, 2015.
6. All construction is to be completed on or before January 22, 2018.
7. Water is to be put to beneficial use on or before January 22, 2022.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

**QUALIFICATIONS**

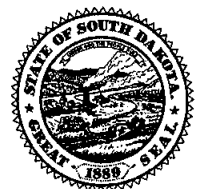
1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 7465-3 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

FEB 19 2013  
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 1 Have test holes been drilled ☐ Yes ☒ No Drilled by \_\_\_\_\_  
(if yes, please provide copies of logs)
- b) If existing wells, how many \_\_\_\_\_ Provide copy of log(s), if available. Drilled by \_\_\_\_\_
- c) Well Depth 110 Depth to Top of Water Bearing Material 60 Depth to Water from Surface 25
- d) Distance to nearest existing domestic well:
- On applicant's property na On property owned by others >3000

**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**

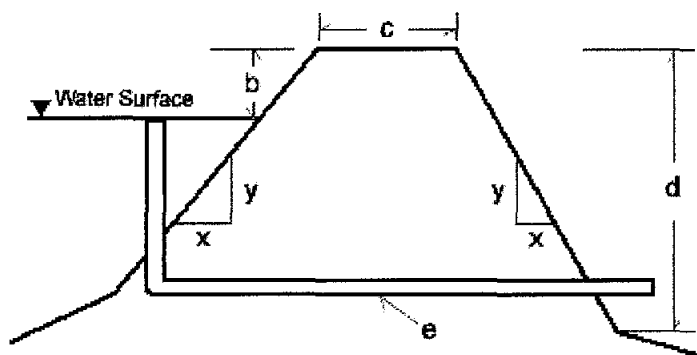
- a) Surface Dimensions \_\_\_\_\_ Depth \_\_\_\_\_
- b) Depth to water (ground surface to water level) \_\_\_\_\_

**4. Water Storage Dams**

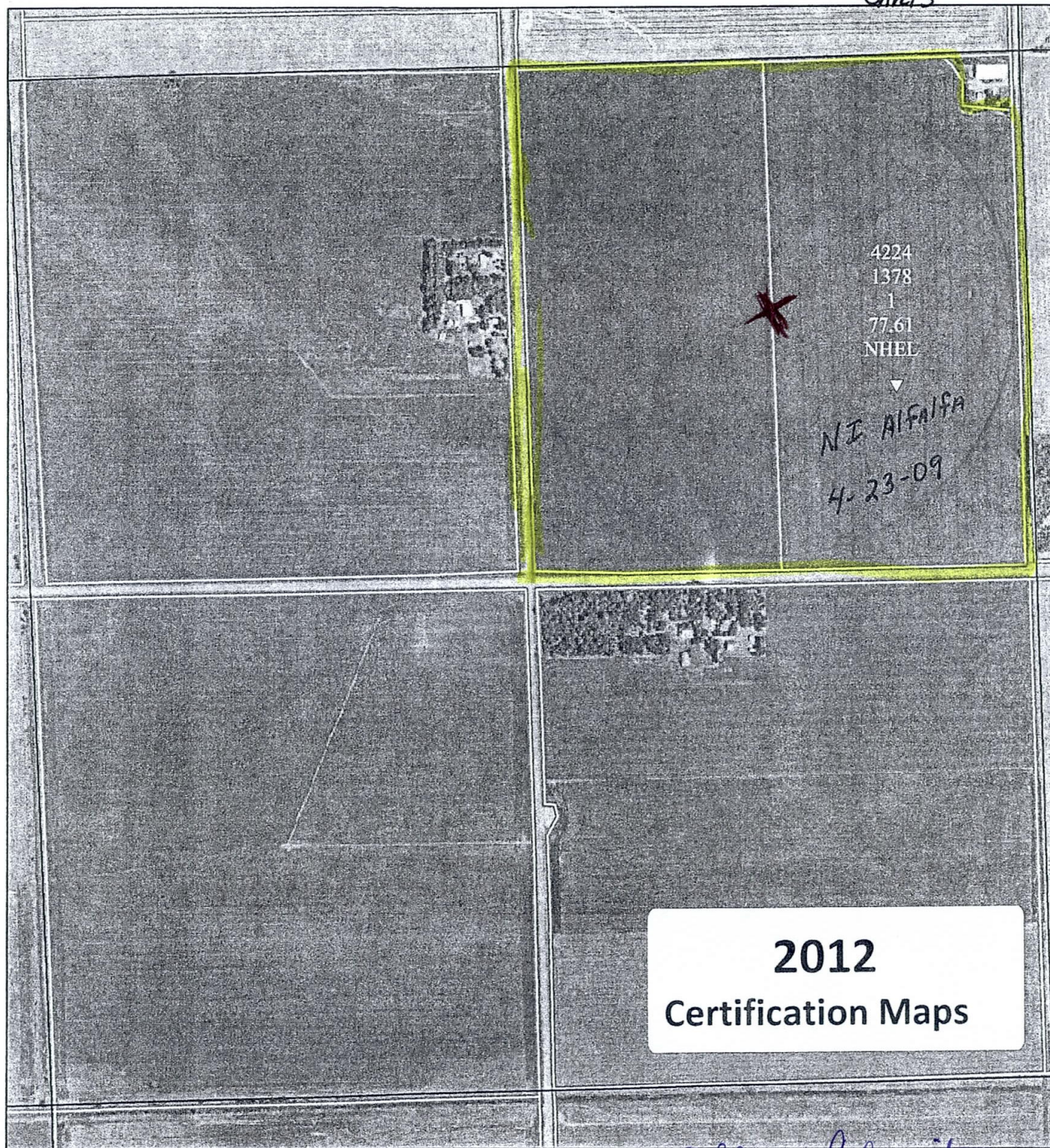
If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

- 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



Chais



4224  
1378  
1  
77.61  
NHSL

N.E. ALFAIFA  
4-23-09

2012  
Certification Maps



United States Department of Agriculture  
Farm Service Agency

PLSS: 35\_93\_53  
Farm: 4224

Clay County, SD  
1:8,558



*Sheree Christensen*  
March 18, 2010  
*Clay Co. PT 9-17-12*

Wetland Determination Identifiers

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

RECEIVED  
Common Land Units

OCT 17 2012

WATER RIGHTS  
PROGRAM

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.

2008 Ortho-Photography - Not to Scale

# RECEIPT

## WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 10/17, 20 12

RECEIVED OF D A Olson Sone LLC 31725 455th Ave Meckling SD 57069

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

|                                                                                                                        |       |         |
|------------------------------------------------------------------------------------------------------------------------|-------|---------|
| Fee for Application for Permit No. <u>7465-3</u> to Appropriate Water, to construct and to put water to beneficial use | 850   | 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>7465-3</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 | 1050 00 |

No. 05624

By

[Signature]  
Chief Engineer



**DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES**

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

denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT  
APPLICATION NO. 7465-3, D A Olson & Sons**

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. 7465-3, D A Olson & Sons, c/o Dale Gene Olson, 31725 455<sup>th</sup> Avenue, Meckling SD 57069.

The Chief Engineer is recommending APPROVAL of Application No. 7465-3 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. 7465-3 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  
December 27, 2012

**REPORT TO THE CHIEF ENGINEER  
ON  
WATER PERMIT APPLICATION NO.7465-3  
D.A. OLSON & SONS  
DECEMBER 18, 2012**

Water Permit Application No. 7465-3 proposes to appropriate up to 276 acre-feet annually at a maximum diversion rate of 1.78 cubic feet of water per second (cfs) from one well to be completed in to the Missouri: Elk Point aquifer. The well is expected to be approximately 110 feet deep and is to be located in the SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  of Section 35, T93N-R53W. This permit application proposes to irrigate 138 acres located in the NE  $\frac{1}{4}$ , Section 35, all in T93N-R53W in Clay County.

**AQUIFER: Elk Point management unit of the Missouri aquifer (M: EP)**

**GEOLOGY AND AQUIFER CHARACTERISTICS:**

The proposed well site is located in south central Clay County, approximately four miles north of the Missouri River.

The Missouri: Elk Point is an alluvium mantled outwash consisting of clay and silt with sand and gravel that appears to be under confined conditions in the area of the proposed well site (Jenson, 2000; Water Rights, 2012c). The Missouri: Elk Point aquifer extends from Clay County east into Union County and West into Yankton County. In total, the Missouri: Elk Point aquifer is estimated to underlie 219,100 acres and contain 3,287,100 acre-feet (ac-ft) of recoverable water in storage. In Clay County alone, the aquifer is estimated to underlie 74,500 acres and contain 1,117,000 ac-ft of recoverable water in storage (Hedges and others, 1982). The aquifer connects to the Lower Vermillion-Missouri aquifer to the northeast, overlies the Dakota aquifer in portions of Clay County, and is hydraulically connected to the Vermillion River to the southeast and Missouri River to the south. Water in the aquifer generally moves from the northwest to the southeast and towards the Missouri River (Stephens, 1967).

A well completion report was not submitted with this application; however, sufficient information is available from area water rights/permits and well completion reports to evaluate the aquifer at the proposed well site. In this area, top of aquifer materials are generally 30 to 80 feet below ground surface and the saturated thickness is estimated to be 45 to 85 feet. The static water level ranges from 11 to 33 feet below ground surface indicating that the aquifer is most likely under confined conditions in this area. (Water Rights, 2012b; Water Rights, 2012c)

**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 and existing rights from the aquifer pertinent to this application.

## **WATER AVAILABILITY:**

This application proposes to appropriate 276 ac-ft/yr from the Missouri: Elk Point aquifer. If this application is approved, the actual water use will likely be less than the appropriation. The probability of unappropriated water available from an aquifer can be evaluated by considering SDCL 46-6-3.1, which requires "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 of water to the groundwater source."

## **HYDROLOGIC BUDGET:**

### *Recharge:*

In Clay County recharge to the Missouri: Elk Point aquifer is due to infiltration of precipitation in areas where the aquifer is at or near land surface, inflow from the Lower Vermillion Missouri aquifer at the Missouri: Elk Point aquifer's northern boundary, inflow from the Missouri and Vermillion Rivers during periods of high flow, inflow from the aquifer in surrounding counties, and leakage from the underlying Dakota aquifer.

Hedges and others (1985) estimated recharge, based on observation well data, of the Missouri: Elk Point aquifer to be 3.8 inches per year. Using this recharge rate and the area of the aquifer, the recharge for the Missouri: Elk Point aquifer in Clay County is estimated to equal 23,600 ac-ft/yr. Also consider that Stephens (1967) indicated that additional discharge by wells would induce additional recharge from the Missouri River.

### *Discharge:*

In Clay County discharge from the Missouri: Elk Point aquifer occurs due to evapotranspiration in areas where the aquifer is near land surface, outflow to the Missouri and Vermillion Rivers during periods of low flow, outflow from the aquifer to surrounding counties, and well withdrawals from domestic use, non-irrigation use, and irrigation. Currently there are a total of 111 water rights/permits appropriating water from the Missouri: Elk Point aquifer in Clay County (Water Rights, 2012b). The distribution of appropriation types are shown in table 1 along with 5 future use appropriations.

| Water Rights/Permits | Number |
|----------------------|--------|
| Commercial           | 1      |
| Irrigation           | 104    |
| Municipal            | 4      |
| Rural Water System   | 2      |
| Future Use Permits   | Number |
| Municipal            | 1      |
| Rural Water System   | 4      |

Table 1 – Water Rights from the Missouri: Elk Point aquifer in Clay County  
(Water Rights, 2012b).

From the Missouri: Elk Point aquifer in Clay County, water rights/permits for non-irrigation use that are limited only by diversion rate currently appropriate a total of 5,242 cfs. Water rights/permits for non-irrigation use that are limited by an annual volume currently appropriate a total of 33,326 ac-ft/yr (Water Rights, 2012b). Future use permits reserve a total of 14,900 ac-ft/yr (Water Rights, 2012b).

Lewis and Clark RWS's expected water use is a significant portion of the annual volume of water anticipated to be used under current appropriations. In Clay County, the Lewis and Clark RWS currently has two permits appropriating a total of 32,165 ac-ft/yr and four future use permits reserving a total of 13,000 ac-ft/yr, all from the Missouri: Elk Point aquifer (Water Rights, 2012b). Recognizing that due to the proximity of the wells to the Missouri River and the design of the wells, most of the water that will be withdrawn from the Lewis and Clark RWS wells will be induced from the Missouri River. Though Lewis and Clark RWS's appropriations are large, only 92 ac-ft of use was reported in 2011.

The amount of water that can be expected to be withdrawn through water rights/permits authorizing water use for non-irrigation purposes at the current appropriation level can be estimated by assuming:

1. Water rights/permits limited by an annual volume will pump the entire volume appropriated.
2. Water rights/permits limited only by diversion rate will pump at the maximum permitted diversion rate 60 percent of the time.
3. Future use permits can be fully developed.

At the current appropriation amount, the total annual withdrawal from the Missouri: Elk Point aquifer in Clay County by non-irrigation use is expected to total less than 50,493 ac-ft/yr (Water Rights, 2012b).

Figure 1 shows the Missouri: Elk Point aquifer's historic irrigation data for Clay County. The development of this aquifer has been steadily increasing over the last decade. The number of permits and the amount of appropriations for irrigation in Clay County has approximately doubled in this time period. The annual withdrawal due to irrigation use fluctuates greatly, which seems to be more dependent on yearly climatic conditions than on the increase in amount of appropriation. The average pumpage reported equals 2,706 ac-ft/yr. The maximum pumpage reported was in 2007 for 7,085 ac-ft/yr (Water Rights, 1979-2012).

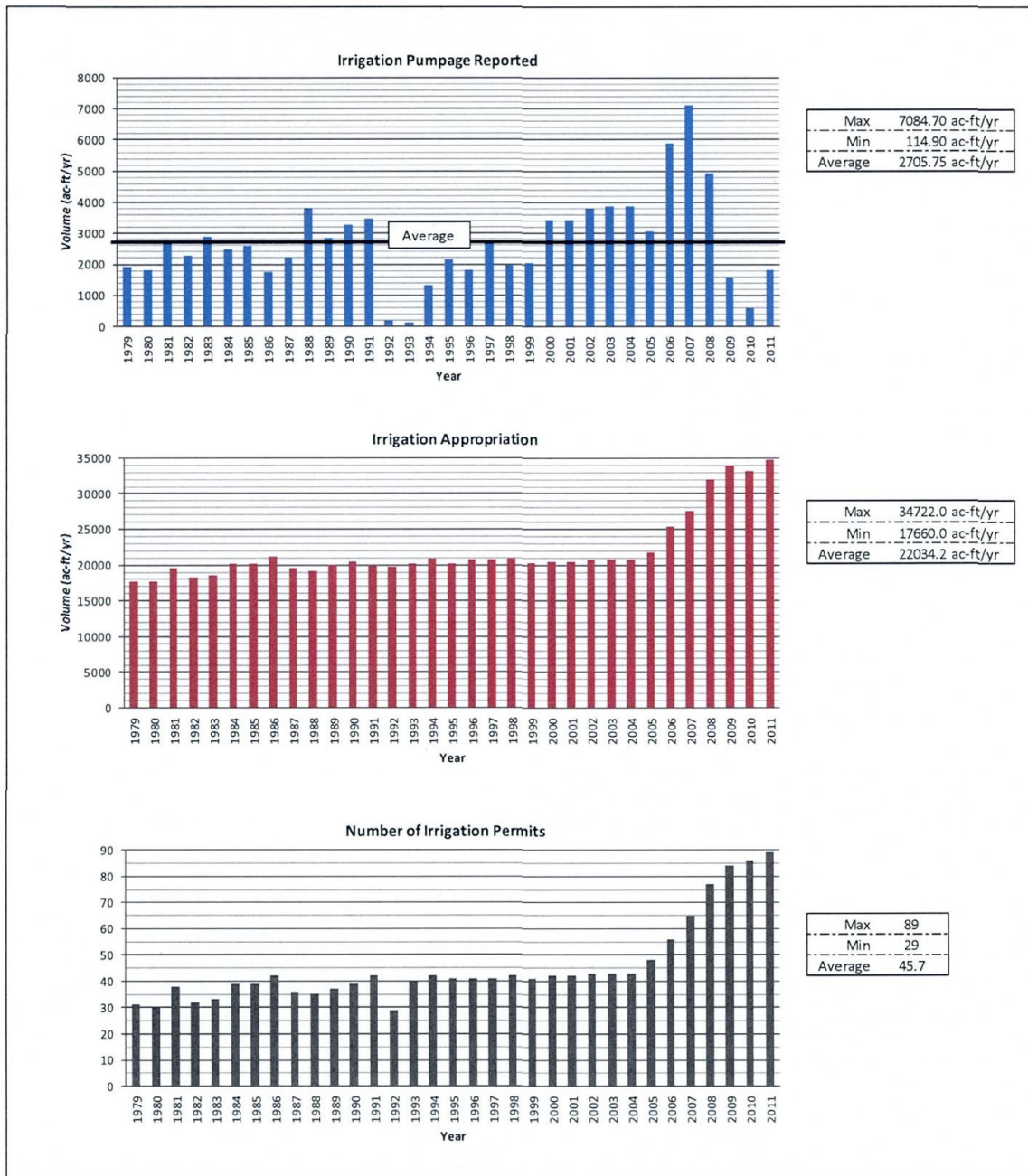


Figure 1: Historic irrigation water use from the Missouri: Elk Point aquifer in Clay County (Water Rights, 1979-2011)

As indicated by Figure 1, historically actual water use has not exceeded the average annual recharge. Since the reporting of the 2011 irrigation questionnaires 13 new irrigation permits have been issued for withdrawals from the Missouri: Elk Point aquifer in Clay County. Combined, these permits appropriate 4409 acre-feet/year at a maximum diversion rate of 20.37 cubic feet per second of water. With the addition of the permits issued in the past year and this application it is still expected that withdrawals will not exceed average annual recharge to the Missouri: Elk Point aquifer in Clay County.

In addition, there are many completion reports on file with the SD DENR-Water Rights Program in Clay County for domestic wells that appear to be completed into the Missouri: Elk Point aquifer (Water Rights, 2012c). The annual withdrawal due to domestic use is not significant to the hydrologic budget of the aquifer.

#### *Hydrologic Budget:*

Recognizing that Lewis and Clark RWS withdraws water from the Missouri: Elk Point aquifer that is induced from the Missouri River and considering the remaining hydrologic budget, there is a reasonable probability that unappropriated groundwater is available from the Missouri: Elk Point aquifer for the proposed appropriation of 276 ac-ft/yr.

#### **OBSERVATION WELL DATA:**

Administrative Rule of South Dakota Section 74:02:05:07 requires that “the Water Management Board shall rely upon the record of observation well measurements to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge of the aquifer.”

The DENR-Water Rights Program monitors five observation wells completed into the Missouri: Elk Point aquifer in Clay County. The nearest of these wells, CL-80A and CL-80B, are located approximately 3.5 miles northeast and 3.3 miles southwest of the proposed well site, respectively. CL-80A is under artesian conditions and CL-80B is under water table conditions (Water Rights, 2012a). The area of the proposed well site will likely be under confined conditions (Water Rights, 2012b; Water Rights, 2012c). Hydrographs of these observation wells are shown in Figures 2 and 3.

The observation well data documents cyclic conditions of water levels, recharging during wet years and declining during dry years. Water levels may also be influenced by the aquifer's connection to the Missouri River. For example, high flows in the Missouri River during the summer of 2011 and the current drought conditions are evident in the hydrograph of observation well CL-80B, which is located approximately one mile from the Missouri River. The hydrographs also show the effects of nearby pumping on the aquifer. Observation well data indicates that temporal well withdrawal is masked by climatic conditions. Therefore, recharge to and natural discharge from the Missouri: Elk Point aquifer greatly exceeds well withdrawal.

The hydrograph of the observation well CL-80B shows a slight decline of the Missouri: Elk Point aquifer's water table, as indicated by the trend line. This gradual decline has been attributed to entrenching of the Missouri River (Goodman, 2007) or controlling the flow of the Missouri River by the Gavins Point Dam, which no longer allows inundation of the floodplain (Stephens, 1967). Regardless of cause, the declining water table levels demonstrate the hydraulic connection between the aquifer and the Missouri River. Pumping from the aquifer will induce recharge supplied by the Missouri River or capture discharge before outflowing to the river (Stephens, 1967).

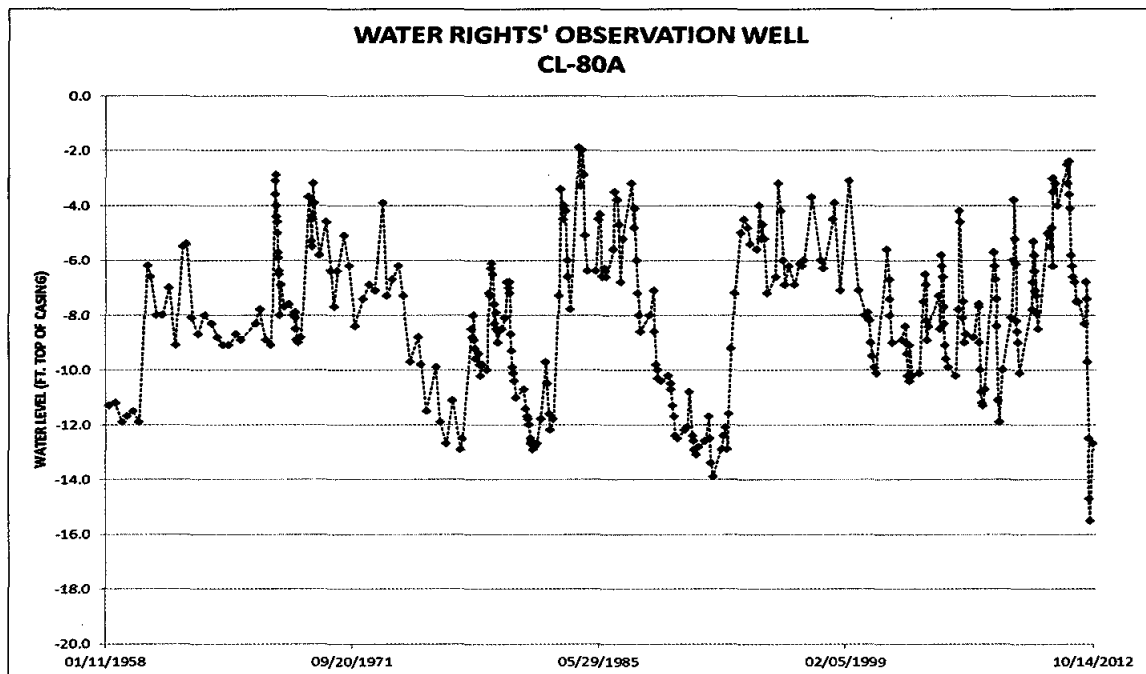


Figure 2: Hydrograph for DENR-Water Rights' observation well CL-80A (Water Rights, 2012a)

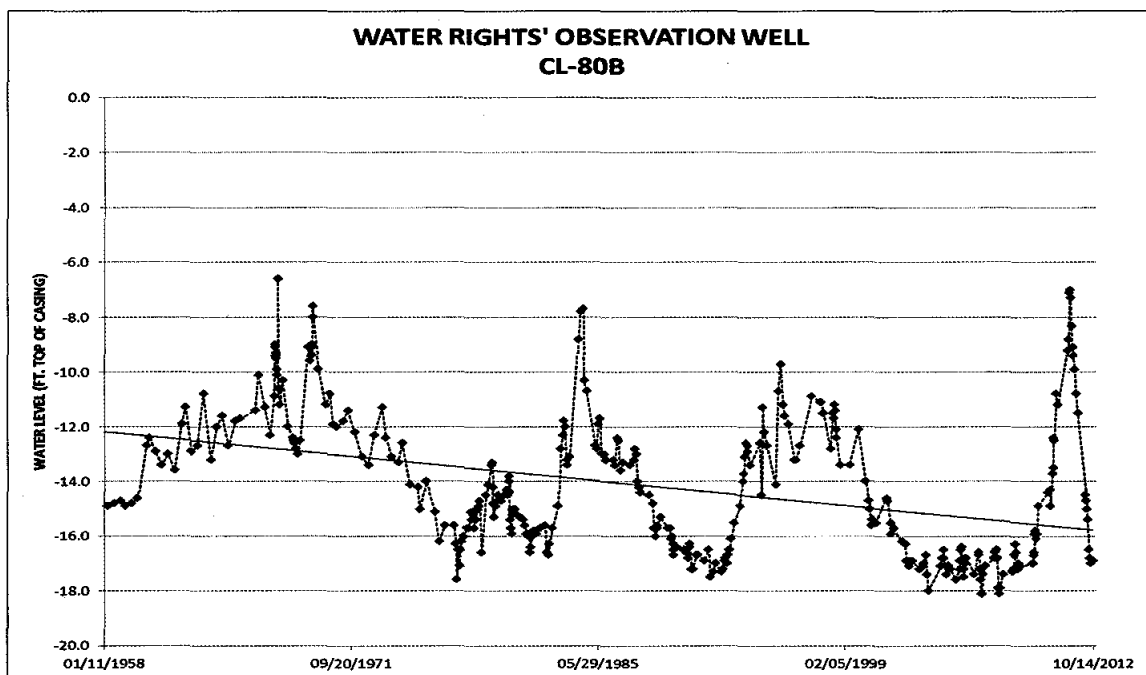


Figure 3: Hydrograph for DENR-Water Rights' observation well CL-80B (Water Rights, 2012a)

### EXISTING WATER RIGHTS:

There are 111 water rights/permits appropriating water from the Missouri: Elk Point aquifer in Clay County. There are 10 water rights/permits authorizing wells within two miles of the proposed well location. The closest wells authorized by these water rights/permits are one mile from the proposed diversion point. The wells are authorized under Water Right/Permit 3475-3

and 5289-3, and are held by this applicant. In addition to the existing rights/permits and this application, the applicant has also submitted Permit Application No. 7464-4 for one well to appropriate 1.0 cfs from the Missouri: Elk Point aquifer to irrigate 87 acres of land. The well under Application 7464-3 is located one mile east of this application. There are two domestic wells on file with DENR-Water Rights Program within two miles of this application, the closest being 1.2 miles. (Water Rights, 2012b; Water Rights, 2012c) Table 2 shows the water rights/permits within two miles of the proposed well location.

| PERMIT NO.                                                            | NAME                   | STATUS | TYPE    | CFS  | ACRES |
|-----------------------------------------------------------------------|------------------------|--------|---------|------|-------|
| 3475-3                                                                | D.A. Olson & Sons      | LC     | IRR     | 1.03 | 72    |
| 5289-3                                                                | D.A. Olson & Sons      | PE     | IRR     | 2.25 | 160   |
| 6783-3                                                                | D.A. Olson & Sons      | PE     | IRR     | 2    | 140   |
| 2584-3                                                                | Gary J. Freeburg       | LC     | IRR     | 3.74 | 262   |
| 6644-3                                                                | Gary J. & Amy Freeburg | LC     | IRR     | 3.22 | 378   |
| 6646-3                                                                | Gary J. & Amy Freeburg | LC     | IRR     | 1.9  | 271.2 |
| 6896-3                                                                | Gary J. & Amy Freeburg | PE     | IRR     | 1.56 | 55    |
| 6772-3                                                                | Wood Acres Inc.        | PE     | IRR     | 2.22 | 72    |
| 6978-3                                                                | Marquardt Farms        | PE     | IRR     | 1.78 | 133.5 |
| 7019-3                                                                | Book Bye               | LC     | IRR     | 1.56 | 132   |
|                                                                       | Sioux Alfalfa Meal Co. |        | IND/DOM |      |       |
|                                                                       | Chester Johnson        |        | DOM     |      |       |
| LC = Water Right, PE = Water Permit, IRR = Irrigation, DOM = Domestic |                        |        |         |      |       |

Table 2 – Water Rights from the Missouri: Elk Point aquifer within 2 miles of the proposed well location (Water Rights, 2012b)

Since the aquifer is most likely under confined conditions in this area, drawdown in a well may be significant, however, well interference has not been a problem with the Missouri: Elk Point aquifer. Area well logs indicate there is 11 to 50 feet of artesian head pressure. In addition, at the distances involved between the proposed well site and wells of existing water rights/permits and domestic users, interference is not expected to be a concern.

When considering drawdown in an area under confined conditions, it is important to consider that SDCL 46-6-6.1 does not necessarily protect artesian head pressure. The Water Management Board has recognized that to place water to maximum beneficial use a certain amount of drawdown may occur. In order to balance interests between irrigation use and delivery of water by artesian pressure the Water Management Board has defined an “adversely impacted domestic well” in ARSD 74:02:04:20(7) as:

“a well in which the pump intake was set at least 20 feet below the top of the aquifer at the time of construction or, if the aquifer is less than 20 feet thick, is as near to the bottom of the aquifer as is practical and the water level of the aquifer has declined to a level that the pump will no longer deliver sufficient water for the well owner’s need”

The assurance of reasonable domestic use provided by SDCL 46-6-6.1 and ARSD 74:02:04:20(7) ensures not only that interference will not be adverse to domestic well users but also in existing appropriative rights. Given the characteristics of the Missouri: Elk Point aquifer near the proposed well site and considering SDCL 46-6-6.1 and ARSD 74:02:04:20(7), well

interference from this proposed increase in diversion rate is not likely to be significant and there is a reasonable probability that any interference will not be adverse.

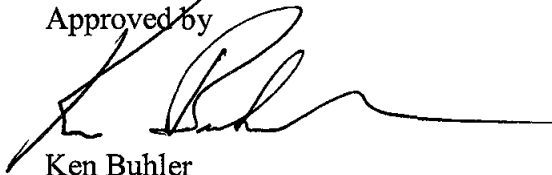
**CONCLUSIONS:**

1. The application proposes to appropriate 276 ac-ft/yr for irrigation.
2. Most of the water that will be withdrawn from the Lewis and Clark RWS wells will be induced from the Missouri River.
3. There is a reasonable probability that unappropriated water is available from the Missouri: Elk Point aquifer to supply the proposed appropriation.
4. There is a reasonable probability that this proposed well will not adversely impact existing nearby wells.



Lynn Beck  
Natural Resources Engineer III  
SD DENR-Water Rights Program

Approved by



Ken Buhler  
SD DENR-Water Rights Program

## REFERENCES:

- Goodman, J.A. 2007. Report on Water Permit Application No. 6869-3 for Lewis and Clark RWS: SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- 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. South Dakota DENR-Geological Survey, Vermillion, SD.
- Jensen, A.R. 2000. Aquifer Materials Map 1. South Dakota DENR-Geological Survey, Vermillion, SD.
- Stephens, J.C. 1967. Geology and Hydrogeology of Clay County, South Dakota, Part II: Water Resources. South Dakota DENR-Geological Survey Bulletin 19, 62 p.
- Water Rights. 1979-2012. "Annual Irrigation Summary by Aquifer": SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2012a. Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2012b. Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Water Rights. 2012c. Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.

JAN 17 2013

WATER RIGHTS  
PROGRAM

## AFFIDAVIT OF PUBLICATION

## PLAIN TALK

DENR  
Division of Environmental Services  
Air Quality Program  
Joe Foss Building, 523 East Capitol  
Pierre, SD 57501

STATE OF SOUTH DAKOTA  
COUNTY OF CLAY

TERA SCHMIDT BEING FIRST DULY SWORN ON OATH DEPOSES  
AND SAYS THAT SHE IS THE CLASSIFIED MANAGER OF YANKTON  
MEDIA INC., A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE  
PLAIN TALK, A LEGAL WEEKLY NEWSPAPER PUBLISHED AND CIRCULATED  
IN THE CITY OF VERMILLION, SAID COUNTY AND STATE, AND ONE OF THE  
OFFICIAL NEWSPAPERS OF THE SAID COUNTY OF FACTS STATED IN THIS  
AFFIDAVIT; THAT THE ANNEXED  
NOTICE OF APPLICATION FOR AIR QUALITY CONSTRUCTION PERMIT

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE  
NEWSPAPER ON THE 11 DAY OF JANUARY 2013  
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION  
OF SAID NOTICE TO WIT \$31.61 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: 1/11/13

FILED ON: 1/11/13

Tera A. Schmidt  
SUBSCRIBED AND SWORN TO BEFORE ME THIS

11<sup>th</sup>

DAY OF

January

[Signature]  
NOTARY PUBLIC, SOUTH DAKOTA

MY COMMISSION EXPIRES

8/19/2015

Notice is given that D. A. Olson  
& Sons, c/o Dale Gene Olson,  
31725 455 Ave, Meckling SD  
57069 have filed the following ap-  
plications for a water permit.

Application No. 7464-3 pro-  
poses to appropriate 1.0 cubic feet  
of water per second (cfs) from one  
well to be completed into the  
Missouri:Elk Point Aquifer (110  
feet deep) located in SW 1/4 NE  
1/4 Section 36 for irrigation of 87  
acres located in the NE 1/4 Section  
36; all in T93N-R53W.

Application No. 7465-3 pro-  
poses to appropriate 1.78 cfs from  
one well to be completed into the  
Missouri:Elk Point Aquifer (110  
feet deep) located in the approxi-  
mate center of the NE 1/4 Section  
35 to irrigate 138 acres located in  
the NE 1/4 Section 35; all in  
T93N-R53W.

Pursuant to SDCL 46-2A-2, the  
Chief Engineer recommends AP-  
PROVAL of Application Nos.  
7464-3 and 7465-3 because 1) un-  
appropriated water is available, 2)  
existing rights will not be unlaw-  
fully 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 Engi-  
neer will act on these applications,  
as recommended, unless a petition  
is filed opposing the applications  
or the applicant files a petition  
contesting the Chief Engineer's  
recommendations. If a petition op-  
posing the applications or contest-  
ing the recommendations is filed,  
then a hearing will be scheduled  
and the Water Management Board  
will consider these applications.  
Notice of the hearing will be  
given to the applicant and any  
person filing a petition.

Any person interested in oppos-  
ing or supporting these applica-  
tions or recommendations must  
file a written petition with BOTH  
the applicant and Chief Engineer.  
The applicant must file a petition  
if contesting the Chief Engineer's  
recommendations. The Chief En-  
gineer'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 inter-  
ested person or the applicant must  
be filed by January 22, 2013.

The petition may be informal,  
but must include a statement de-  
scribing the petitioner's interest in  
the applications, the petitioner's  
reasons for opposing or support-  
ing the applications, and the sig-  
nature and mailing address of the  
petitioner or the petitioner's legal  
counsel, if legal counsel is ob-  
tained. Contact Eric Gronlund at  
the above Water Rights Program  
address to request copies of infor-  
mation pertaining to these appli-  
cations. Steven M. Pirner, Secre-  
tary, Department of Environment

RECEIVED

JAN 14 2013

WATER RIGHTS  
PROGRAM

**AFFIDAVIT OF PUBLICATION**

**YANKTON DAILY PRESS AND DAKOTAN**

Department of Environment and Natural Resources  
PMB 2020

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  
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COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED  
**Notice of Application Nos. 7464-3 & 7465-3**

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE  
NEWSPAPER ON THE 11th DAY OF January 2013  
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION  
OF SAID NOTICE TO WIT \$30.29 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: 1/11/2013

FILED ON: 1/11/2013

SUBSCRIBED AND SWORN TO BEFORE ME THIS 11th DAY OF January

2013

NOTARY PUBLIC, SOUTH DAKOTA

MY COMMISSION EXPIRES

8/19/2015

NOTICE OF APPLICATION  
NOS. 7464-3 and 7465-3 to  
Appropriate Water

Notice is given that D. A. Olson  
& Sons, c/o Dale Gene Olson,  
31725 455 Ave, Meckling SD  
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plications for a water permit.

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petition is filed opposing the ap-  
plications or the applicant files a  
petition contesting the Chief Engi-  
neer's recommendations. If a peti-  
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uled and the Water Management  
Board will consider these applica-  
tions. Notice of the hearing will  
be given to the applicant and any  
person filing a petition.

Any person interested in opposing  
or supporting these applications or  
recommendations must file a writ-  
ten petition with BOTH the appli-  
cant and Chief Engineer. The ap-  
plicant must file a petition if con-  
testing the Chief Engineer's rec-  
ommendations. The Chief Engi-  
neer's address is "Water Rights  
Program, Foss Building, 523 E  
Capitol, Pierre SD 57501 (605  
773-3352)" and the applicant's  
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ested person or the applicant must  
be filed by January 22, 2013.

The petition may be informal, but  
must include a statement describ-  
ing the petitioner's interest in the  
applications, the petitioner's rea-  
sons for opposing or supporting  
the applications, and the signature  
and mailing address of the peti-  
tioner or the petitioner's legal  
counsel, if legal counsel is ob-  
tained. Contact Eric Gronlund at  
the above Water Rights Program



DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES

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

denr.sd.gov

January 3, 2013

Plain Talk  
201 W Cherry St  
Vermillion SD 57069

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application Nos. 7464-3 and 7465-3 to Appropriate Water. Please publish the notice once on January 11, 2013. 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 D.A. Olson & Sons, c/o Dale Gene Olson, 31725 455<sup>th</sup> Ave., Meckling SD 57069 (Ph # 605-267-4121).

**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

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

denr.sd.gov

January 3, 2013

Press & Dakotan  
319 Walnut  
Yankton SD 57078

ATTENTION: Legal Public Notice

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Sincerely,

Eric Gronlund  
Natural Resources Engineer  
605 773-3352

enclosures



DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES

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

[denr.sd.gov](http://denr.sd.gov)

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

January 3, 2013

D A Olson & Sons  
Dale Gene Olson  
31725 455<sup>th</sup> Ave  
Meckling SD 57069

Dear Mr. Olson:

Water Permit Application Nos. 7464-3 and 7465-3 for irrigation use have been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Plain Talk printed at Vermillion SD (Ph # 605-624-2695) and 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 recommendations of the Chief Engineer and reports on the applications 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(s) has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the applications.

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 applications.

Instruction to Newspaper - Publish the Notice on January 11, 2013. 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 NOS. 7464-3 and 7465-3 to Appropriate Water

Notice is given that D. A. Olson & Sons, c/o Dale Gene Olson, 31725 455 Ave, Meckling SD 57069 have filed the following applications for a water permit.

Application No. 7464-3 proposes to appropriate 1.0 cubic feet of water per second (cfs) from one well to be completed into the Missouri:Elk Point Aquifer (110 feet deep) located in SW 1/4 NE 1/4 Section 36 for irrigation of 87 acres located in the NE 1/4 Section 36; all in T93N-R53W.

Application No. 7465-3 proposes to appropriate 1.78 cfs from one well to be completed into the Missouri:Elk Point Aquifer (110 feet deep) located in the approximate center of the NE 1/4 Section 35 to irrigate 138 acres located in the NE 1/4 Section 35; all in T93N-R53W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 7464-3 and 7465-3 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 these applications, as recommended, unless a petition is filed opposing the applications or the applicant files a petition contesting the Chief Engineer's recommendations. If a petition opposing the applications or contesting the recommendations is filed, then a hearing will be scheduled and the Water Management Board will consider these applications. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting these applications or recommendations must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendations. 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 January 22, 2013.

The petition may be informal, but must include a statement describing the petitioner's interest in the applications, the petitioner's reasons for opposing or supporting the applications, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to these applications.

Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Published once at the total approximate cost of \_\_\_\_\_.



DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES

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

FEB 18 2013

D A Olson & Sons  
31725 455<sup>th</sup> Ave  
Meckling SD 57069

Dear Sirs:

Enclosed are Water Permit Nos. 7464-3 and 7465-3 authorizing construction of your water diversion systems and beneficial use of the water, not exceeding the limits as specified in the Water Permits.

Form 10's, *Notice of Completion of Works and Application of Water to Beneficial Use*, are enclosed. Please return the completed forms after you have finished the systems and have put the water to beneficial use. An investigation can then be scheduled so the water licenses 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

## **Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 7465-3**

I have this day, November 6, 2015, made a thorough examination of the water use system constructed by D A Olson & Sons, 31725 455<sup>th</sup> Ave, Meckling, SD 57069 of Permit No. 7465-3, bearing the priority of October 17, 2012 authorizing the diversion of 1.78 cu. ft. per second of the waters of Missouri:Elk Point Aquifer for irrigation purposes, in Clay County.

Inspection contact & relationship to permit holder, if applicable: **Dale Olson-son, D A Olson & Sons-permit holder**

### **A. Works used to divert the water:**

#### **Well Information:**

- 1) Well Drilling Firm: Hammond-Wetmore Drilling, LLC
- 2) No. of Wells 1
- 3) Depth(s) 110 feet
- 4) Well log is available Yes

#### **Casing:**

- 1) Diameter 16 inches
- 2) Length 60 feet
- 3) Type PVC

#### **Screen:**

- 1) Type PVC Manufactured
- 2) Length 50 feet
- 3) Static water level 11 feet

#### **Pump:**

- 1) Make Grundfos Submersible
- 2) Model 800S400-2
- 3) Capacity 800 GPM

#### **Motor:**

- 1) Make Grundfos
- 2) Model No. Submersible
- 3) Horsepower rating 40 hp

**C. Works used to apply water to beneficial use:**

**Center pivot:**

- 1) Make Lindsay
- 2) Overall length 1300 feet
- 3) Number of towers 7
- 4) End gun Yes
- 5) Capacity 800 GPM

**Chemigation Equipment:**

- 1) Does chemigate No

**D. Compliance with Permit Requirements:**

- 1) Permit qualifications being abided by Yes
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Yes, began irrigating in 2013.

List any extended period of nonuse: None

- 3) Exceptions to compliance are: None

**E. Condition and Location:**

1. The system is in good condition with the point(s) of diversion located as follows: West 1320', South 1320' from NE Corner of Sec 35-T93N-R53W; Lat 42.83360/Long -97.06714; approximate center of NE ¼ Sec 35-T93N-R53W.

2. The works are capable of diverting and conveying to the place of use 1.78 cfs or 800 gpm of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:

All land is located in Sec 35-T93N-R53W.

NW ¼ NE ¼ - 33 ac

SW ¼ NE ¼ - 33 ac

NE ¼ NE ¼ - 34 ac

SE ¼ NE ¼ - 33 ac

comprising a total of 133 acres of land and the license should be issued for 1.78 cfs or 800 gpm.

3. All structures, wells and lands on map Yes

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

Permit holder stated that W ½ NE ¼ Sec 35-T93N-R53W was owned by Melvin Larson and they irrigate for him and his renter.

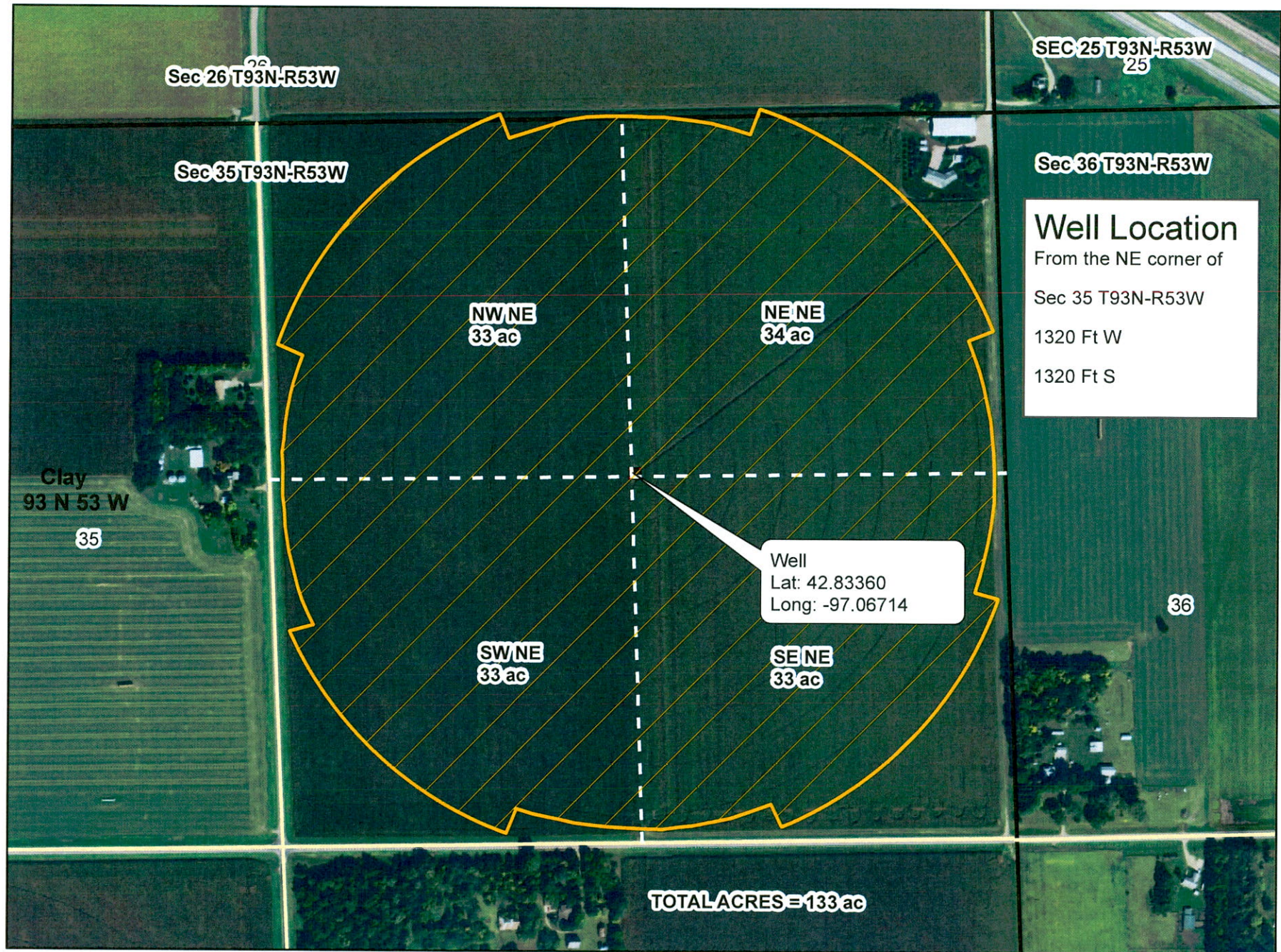
*Harold Holoch*

---

Harold Holoch, PE  
Engineer Water Rights Inspector  
DENR, Water Rights Program

Date report completed: March 14, 2016

7465-3



*Harold Holoch*  
Harold Holoch, PE  
Water Rights Inspector  
January 5, 2016

**NOTICE OF COMPLETION OF WORKS AND  
APPLICATION OF WATER TO BENEFICIAL USE**

---

MAIL TO: PMB 2020

DENR - Water Rights Program  
523 E Capitol Ave  
Pierre, SD 57501-3182

ph. (605) 773-3352

Date

11-6-15

FROM:

DA Olson & Son  
(name)

3125 455th Ave  
(address)

Meckling  
(city)

SD  
(state)

57069  
(zip)

605-660-8990  
(phone)

I have completed the construction of the water use system and I have put the water to beneficial use to the maximum extent it is going to be used.

Water Permit No. 7465-3 states that the water use system is to be constructed by

1-22-2018, and water is to be put to beneficial use by 1-22-2022  
(date) (date)

The water use system was completed on

July - 2013  
(date)

Applying the water to beneficial use was completed on

July - 2013  
(date)

You may schedule an investigation so that the water license may be issued.

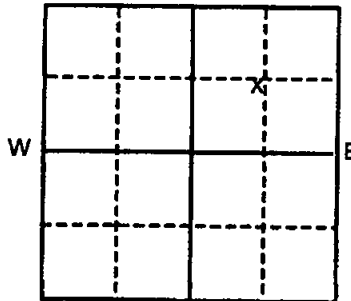


## SOUTH DAKOTA WATER WELL COMPLETION REPORT

Location SW ¼ NE ¼ Sec 35 Twp 93N Rg 53W

County Clay

North

Please mark well  
location with an "X"

Well Completion Date

July 10, 2013

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?  
3,000.0 ft. from Septic Tank (Identify source)

## PROPOSED USE:

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

## METHOD OF DRILLING:

Direct Rotary

## CASING DATA:

If other describe

☐ Steel ☒ Plastic ☐ Other

| PIPEWEIGHT | DIAMETER | FROM   | TO      | HOLE DIAMETER |
|------------|----------|--------|---------|---------------|
| LB/FT      | 16.00 IN | 0.0 FT | 60.0 FT | 22.00 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  | 20           | 9.5 Lb/gal   | 0.0 Ft | 50.0 Ft |
|            |              | Lb/gal       | Ft     | Ft      |

Describe grouting procedure  
Tremie Method

## SCREEN:

☐ Perforated pipe ☒ Manufactured  
Diameter 16.00 Inches Length 50.0 Feet

Material PVC

Slot Size .085 Set From 60.0 Feet to 110.0 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?☒ No, Why Not?Lab to which water  
quality sample sent for analysis

Well Owner: D A Olson &amp; Sons

Business Name:

Address: 31725 455th Ave

City, State, Zip: Meckling SD 57069

## WELL LOG:

| FORMATION       | DEPTH |     |
|-----------------|-------|-----|
|                 | FROM  | TO  |
| Silt Brown Clay | 0     | 18  |
| Fine Brown Sand | 18    | 33  |
| Silty Gray Clay | 33    | 58  |
| Coarse Gravel   | 58    | 80  |
| Rocks           | 80    | 85  |
| Coarse Gravel   | 85    | 90  |
| Rocks           | 90    | 95  |
| Coarse Gravel   | 95    | 110 |

## STATIC WATER LEVEL

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:  
☐ Bailed  
☐ Other

Pumping Level Below Land Surface

Ft. After Hrs. pumped GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate: GPM

## REMARKS

RECEIVED

OCT - 4 2013

WATER RIGHTS  
PROGRAMThis well was drilled under license # 666 and this  
report is true and accurate.

Drilling firm: Hammond-Wetmore Drilling, LLC

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: 9/28/13



DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES

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

MAY 02 2016

7465-3

D A Olson & Sons  
31725 455<sup>th</sup> Ave  
Meckling SD 57069

Dear Sirs:

Enclosed is Water License No. 7465-3. 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. 7465-3, 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. 7465-3**

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(1) D A Olson & Sons, 31725 455<sup>th</sup> Ave., Meckling SD 57069 made Application No. 7465-3, October 17, 2012 for a water permit to divert 1.78 cubic feet of water per second from ground water, one well (Missouri Elk Point Aquifer), Clay County, South Dakota for irrigation purposes. Permit No. 7465-3, with a priority date of October 17, 2012 was approved January 22, 2013 and issued to the applicants for diversion of water with construction of the described water supply system to be completed on or before January 22, 2018 and for the application to beneficial use of said water on or before January 22, 2022.

The Permit holders submitted a "*Notice of Completion of Works and Application of Water to Beneficial Use*" on November 6, 2015. The "*Notice*" stated the water use system was completed and the water placed to beneficial use in July, 2013.

(2) It is certified that the permit holders have complied with the provisions of South Dakota State Law relating to completion of the water supply system and are entitled to divert 1.78 cubic feet of water per second for beneficial use. The location of the diversion point is 1,320 feet west and 1,320 feet south of the NE corner of Section 35, T93N, R53W (approximate center of the NE ¼).

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

|                        |           |                 |
|------------------------|-----------|-----------------|
| Section 35, T93N, R53W | NW ¼ NE ¼ | 33 acres        |
|                        | NE ¼ NE ¼ | 34 acres        |
|                        | SW ¼ NE ¼ | 33 acres        |
|                        | SE ¼ NE ¼ | <u>33 acres</u> |
|                        | Total     | 133 acres       |

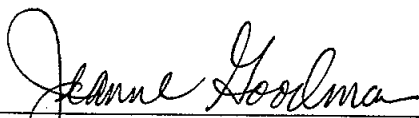
(4) Pursuant to South Dakota Water Law 46-5-30.1 D A Olson & Sons, 31725 455<sup>th</sup> Ave., Meckling SD 57069 the holders and/or owners of Water Right No. 7465-3 are issued a license to appropriate water, the right to use 1.78 cubic feet of water per second from ground water, one well (Missouri Elk Point Aquifer) with a priority date of October 17, 2012 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. 7465-3 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. 7465-3 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. ***The well was completed by Hammond-Wetmore Drilling LLC in July, 2013. A copy of the well completion report is on file with the Water Rights Program.***

continued

- 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

MAY 02 2016

date

