

Well Registration or Area Permit

Fee Paid: \$110.00 HHSS Fee: \$70.00
 DNR Cash Fund: \$18.50 WWDF: 21.50
 Billing ID: 48078

Source: <u>Nebraska On Line</u>	Import Status: <u>Accepted</u>	Use: <u>Irrigation</u>	Owner ID: <u>31299</u>
Import ID: <u>140856176925286</u>	Status: <u>Suspense (Replacement well, original well not yet abandoned)</u>	Decommission Date: <u>—</u>	Registration Number: <u>G-136706</u>
Well ID: <u>232791</u>	NRD: <u>Lower Loup</u>		Registration Date: <u>9/18/2014</u>
Last Change User: <u>hspark</u>	Call Up Code: <u>—</u>	Call Up Date: <u>—</u>	Last Change Date: <u>9/18/2014</u>

Owner:

Contact ID	Type	SeqNum	Begin Date	End Date	Name
Display 31299	Owner 1		9/18/2014		BACE Farms LLC,

Contractor:

Certificate ID	FirstName	LastName
3907002	Dick D.	Grosch

Drilling Firm:

EmployerID	Employer
159101	Grosch Irrigation Company, Inc - Albion

- A. Well Location: SW1/4NW1/4 of Section 21
 Township 18 North, Range 8 (West E/W), Boone County
- B. Natural Resource District: Lower Loup
- Well GPS Coordinates: Latitude 41° 31' 03.10" Longitude -098° 15' 04.20"
 Lat/Long DD 41.51753 -98.25117 **GPS Required**
- C. The well is: 2310 feet from the N Section line and 571 feet from the W section line.
- D. Street address or block, lot and subdivision: Addr/Sub Div — Block No — Lot —
- E. Location of water use, if applicable (give legal description): N 1/2 S21 T18 R8W
- G. Well reference letter(s) if applicable: —

Well In A Series

Well Part of a Series with Site Plan: No

Series	# of Wells	Reg Total	# Wells	Acres	Acres	Cert	NRD	Appr	StartDate	EndDate	Comment	Series	Reg Num	(External Source)	Code	Description	Wells in the Series												
233409			290	No	No		No		6/25/2014			PRO	Single Project				<table border="1"> <thead> <tr> <th>WellID</th> <th>RegCD</th> <th>StartDate</th> <th>EndDate</th> </tr> </thead> <tbody> <tr> <td>232791</td> <td>G-</td> <td>6/25/2014</td> <td></td> </tr> <tr> <td>136706</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	WellID	RegCD	StartDate	EndDate	232791	G-	6/25/2014		136706			
WellID	RegCD	StartDate	EndDate																										
232791	G-	6/25/2014																											
136706																													

Permits

Area Permit	LL-	72298	5/21/2014	SWater App Code	Aprvd Date(s)
GeoPermit	—	—	—	Industrial	— — —
MWF	—	—	—	Transfer	— — —
WSP	—	—	—	Swater Conduct Code	— — —
HHSS	—	—	—	Other	— —
HHSS PWS ID	—	—	—	ITN	— —
NDEQ	—	—	—		

5. Purpose of Well Irrigation

Other Use —
 Notes —

7. Replacement well information.

Well Considered a replacement by NRD(WellID, RegCD)

- A. Is this well a Replacement well? Yes Repl No 1 NRD Approval Date — Well Replacement Reg CD
- B. Registration number of abandoned well: G-136706 If not registered, date abandoned well was constructed —
- C. Abandoned well last operated 9/15/2013 D. Replacement well is 2500 feet from abandoned well.
- E. Original well pump column size: — inches.
- F. Original water well decommissioned —
 I hereby certify that the original water well will be decommissioned within 180 days after such construction of the replacement water well.
 I hereby certify that the original water well will be modified and equipped to pump 50 gallons per minute or less within 180 days after such construction of the replacement water well.
- Livestock
 Monitoring
 Observation
 Nonconsumptive or de minimus use approved by the applicable natural resources district. —

[] Decommission/Modification certification form is submitted by landowner (Must be submitted before registering well)

G. Location of water use of original well: sw 1/4 21-18-8W

Decommission Information

Decommission Date: ___ By

8. Pump Information.

A. Is Pump installed at this time? Yes Pump present but Well Inactive: No
 Free Flowing Well: No Well active, no pump installed: No

B. License No.

CertificateID	FirstName	LastName	Employer
3907002	Dick D.	Grosch	Grosch Irrigation Company, Inc - Albion

C. Pumping Rate 750 gallons per minute. D. Pumping water level 165 feet.
 E. Drop pipe diameter 8 inches. F. Length of pipe 260 in feet.
 G. Pump equipment installed: 7/16/2014 H. Pump Brand/Type Flow Serve
 I. Will this well be used to pump 50 gpm or less? No

9. Well Construction Information

A. Total well depth: 320 feet. B. Static water level 96 feet.
 C. Well Construction began: 6/24/2014 D. Well Construction Completed: 6/25/2014
 E. Bore hole diameter in inches. Top 28 Bottom 28
 F. Casing and Screen Joints are: Glued Other Joints description: ___
 H. Total Estimate Capacity of Well 1110 gallons per minute. I. Pumping water level at capacity: 195 feet.

10. Well Construction (Casing & Screen) - c, d, e & f measurements should be in inches to three decimal places
 Record Count = 2

WellID	FromDepth*	ToDepth*	Case/Screen	InsideDiam	OutsideDiam	CaseThickness	ScrnSlotSize	Material	ScreenName
232791 0	140	140	casing	14.77	16	0.616		PVC	CERTAINTTEED
232791 140	320	320	screen	14.77	16	0.616	0.051	PVC	CERTAINTTEED

* are in Feet, all else is in inches

11. Grout and Gravel Pack

Record Count = 3

WellID	FromDepth	ToDepth	Grout/Gravel Material	Description ¹	Quantity	Gravel ² Volume & Type	Grout ³
232791 0	8	8	gravel	B-PACK	.0853	Cubic Yards	
232791 8	10	10	grout	BENTONITE CHIPS		10 BAGS	
232791 10	320	320	gravel	B-PACK	34.133	Cubic Yards	

* are in Feet, all else is in inches

¹Description of gravel pack, i.e. engineered gravel pack, or gravel pit description (1/4 down) or brand name (best sand) natural formation, drilling cuttings, soil backfill

²Quantity #cubic yards, #Tons, #Sacks - (for drilling cuttings and soil backfill estimate quantity) Calculation assistance available on web

³Volume & Type: #gallons of a slurry, #Barrels of a slurry, #sacks used in the slurry, #Bags of non-slurry bentonite (chip-pellet-granular)

12. Well Geologic Materials Logged

WellID	FromDepth*	ToDepth*	Type	Hardness	Color	Other/Drilling Action
232791 0	3	3	Top Soil	Soft	Black	
232791 3	32	32	Clay	Soft	Tan	
232791 32	46	46	Clay	Hard	Brown	
232791 46	68	68	Clay	Soft	Tan	
232791 68	85	85	Sandy Clay	Soft	Gray	
232791 85	98	98	Limestone	Hard	White	
232791 98	127	127	Sand med-coarse	Soft	Pepper	
232791 127	163	163	Sand med-coarse	Soft	Pepper	
232791 163	209	209	Sandstone	Hard	White	
232791 209	220	220	Sandy Clay	Hard	Gray	
232791 220	250	250	Sandy Clay	Hard	Gray	
232791 250	301	301	Sandstone	Hard	Tan	
232791 301	320	320	Limestone	Very Hard	White	
232791 320	335	335	Sandy Clay	Hard	White	
232791 335	345	345	Sandy Clay	Hard	Tan	
232791 345	377	377	Ochre (weathered shale)	Hard	Orange	

* are in Feet.