

Kansas Department of Agriculture
 Division of Water Resources
CHANGE: P/D WORKSHEET

1. File Number: 10841-D1	2. Status Change Date: 8-25-2001	3. Change Num: C1	4. Field Office: 4	5. GMD: 3
6. Status: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied by DWR/GMD <input type="checkbox"/> Dismiss by Request/Failure to Return				7. Filing Date of Change: 7/19/2021
8a. Landowner, applicant New to system <input type="checkbox"/> CAROL HILDEBRAND 1077 RACE ST #904 DENVER, CO 80206		Person ID 65864 Add Seq# _____		
8b. Landowner(s), correspondent New to system <input type="checkbox"/>		Person ID _____ Add Seq# _____		
		8c. Landowner(s) New to system <input type="checkbox"/> DUKE & MADONNA MARRS 7088 21 RD FOWLER, KS 67844-9135		
		8d. WUC New to system <input type="checkbox"/> DUKE & MADONNA MARRS 7088 21 RD FOWLER, KS 67844-9135		
9. Documents and Enclosure(s): <input checked="" type="checkbox"/> DWR Meter(s) Date to Comply: 12/31/2021 <input checked="" type="checkbox"/> N & P Date to Comply: 3/1/2022				
<input type="checkbox"/> Anti-Reverse Meter <input type="checkbox"/> Meter Seal <input checked="" type="checkbox"/> Check Valve <input checked="" type="checkbox"/> N & P Form <input checked="" type="checkbox"/> Water Tube <input checked="" type="checkbox"/> Driller Copy <input checked="" type="checkbox"/> H & E Letter <input type="checkbox"/> Conservation Plan Date Required: _____ Date Approved: _____ Date to Comply: _____				
10. Use Made of Water From: _____ To: _____				
<div style="display: flex; justify-content: space-between;"> See attached deed Date Prepared: 8/23/2021 By: MAM </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> Date Entered: _____ By: _____ </div>				

File No. **10841-D1** 11. County: ME Basin: CROOKED CREEK Stream: Formation Code: 211 Special Use:

12. Points of Diversion
 CHK
 MOD
 DEL PDIV
 ENT

Rate and Quantity

Authorized Additional

Qualifier S T R ID 'N 'W Comment (AKA Line) Rate gpm Quantity af Rate gpm Quantity af Overlap PD Files

DEL 35931

ENT NWNWNE 9 31S 27W 4833 2332 770 532 770 532 NONE

*NOTE DIVERSION RATE REDUCTION REQUESTED BY OWNER

13. Storage: Rate _____ NF Quantity _____ ac/ft Additional Rate _____ NF Additional Quantity _____ ac/ft

14. Limitation: _____ af/yr at _____ gpm (_____ cfs) when combined with file number(s) _____
 Limitation: _____ af/yr at _____ gpm (_____ cfs) when combined with file number(s) _____

15. 5YR Allocation: Allocation Type _____ Start Year _____ 5 YR Amount _____ Amount Unit _____ Base Acres _____ Comment _____

16. Place of Use CHK MOD DEL ENT	PUSE	S	T	R	ID	NE¼				NW¼				SW¼				SE¼				Total	Owner	Chg?	Overlap Files
						NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼				
CHK 39600																									

Base Acres: Year: Minimum Reasonable Quantity:

Comments:

Garden City Field Office
4532 W. Jones, Suite B
Garden City, KS 67846



Phone: 620-276-2901
Fax: 620-276-9315
www.agriculture.ks.gov

Mike Beam, Secretary

Laura Kelly, Governor

August 25, 2021

CAROL HILDEBRAND
1077 RACE ST #904
DENVER, CO 80206

RE: Water Right, File No. 10841-D2

Dear Madam:

Enclosed is an order executed by the designee of the Chief Engineer, Division of Water Resources, Kansas Department of Agriculture, approving the application for change under the above referenced file number.

Your attention is directed to the enclosures and to the terms, conditions, and limitations specified in the approval for change. Conditions of these approval are that an acceptable water flow meter must be installed on the diversion works authorized under the referenced file number and meet current specifications. Please return the required notification of completion of the diversion works and installation of the required meter as soon as these actions are completed. Please note the additional conditions attached to the order.

Since the order modifies the original document referred to above, it should be recorded with the Register of Deeds as other instruments affecting real estate.

The abandoned well must be plugged in accordance with the requirements of Article 30 of the Rules and Regulations as adopted by the Kansas Department of Health and Environment

Should you have any questions, please feel free contact this office. If you would prefer, you could arrange an appointment for additional assistance.

Sincerely,

A handwritten signature in blue ink that reads "Michael A. Meyer".

Michael A. Meyer
Water Commissioner

MAM
enclosures
pc: Duke Marrs
GMD3

CERTIFICATE OF SERVICE

On this 25th day of August 2021, I hereby certify that the foregoing Approval of Application for Change in Point of Diversion, Water Right, File No. 10,841-D2 dated 25th day of August 2021 was mailed postage prepaid, first class, US mail to the following:

CAROL HILDEBRAND
1077 RACE ST #904
DENVER, CO 80206
Pc:

DUKE & MADONNA MARRS
7088 21 RD
FOWLER, KS 67844-9135

GROUNDWATER MANAGEMENT DISTRICT NO. 3



Division of Water Resources Staff

Submit completed application to:
 Kansas Department of Agriculture
 Division of Water Resources
 Field Office for your area.

Call for address:
 Topeka -- (785) 296-5733
 Stafford -- (620) 234-5311
 Stockton -- (785) 425-6787
 Garden City -- (620) 276-2901
<http://agriculture.ks.gov/dwr>

DWR FIELD OFFICE APPLICATION FOR APPROVAL TO CHANGE THE PLACE OF USE AND/OR THE POINT OF DIVERSION



STATE OF KANSAS

Filing Fee Must Accompany the Application, K.S.A. 82a-708b(b), as amended.
 Fee Schedule is on the third page of this application form.

Paragraph Nos. 1, 2, 3 & 5 must be completed. Complete all other applicable portions. If change in point of diversion is greater than 100 feet, or if place of use will be changed, include a topographic map or detailed plat showing the authorized and proposed point(s) of diversion and/or place of use.

RECEIVED
 3:30 PM
 JUL 19 2021

File No. 10841-D1

Garden City Field Office
 Division of Water Resources

1. Application is hereby made for approval of the Chief Engineer to change the (check one or both):

Place of Use Point of Diversion

under the water right which is the subject of this application in accordance with the conditions described below.

The source of supply is: Groundwater Surface water

2. Name and address of Applicant: CAROL HILDEBRAND

1077 RACE ST #904 DENVER CO 80206

Phone Number: (303) 355-9559 (home) Email address: _____

Name and address of Water Use Correspondent: DUKE & MADONNA MARRS

7088 21 RD FOWLER KS 67844-9135

Phone Number: (620) 646-5792 Email address: _____

3. The presently authorized place of use is:

Owner of Land ---- NAME: NO CHANGE

ADDRESS: _____

(If there is more than one landowner, attach supplemental sheets as necessary.)

Sec.	Twp.	Range	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES		
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼			

4. If this application is for a change in place of use, it is proposed that the place of use be changed to:

Owner of Land ---- NAME: _____

ADDRESS: _____

(If there is more than one landowner, attach supplemental sheets as necessary.)

Sec.	Twp.	Range	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES			
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼				

For Office Use Only: Code _____ Fee \$ 200.00 TR # _____ Receipt Date 7-19-21 Check # 20425

5. **Presently authorized point of diversion:**
 One in the _____ Quarter of the _____ NC _____ Quarter of the _____ NE _____ Quarter
 of Section _____ 9 _____, Township _____ 31 _____ South, Range _____ 27 _____ (W),
 in MEADE County, Kansas, 3960 feet North 1320 feet West of Southeast corner of section.
 Authorized Rate 920 GPM Authorized Quantity 532 AF Depth of well _____ (feet)
(DWR use only: Computer ID No. 01 GPS _____ feet North _____ feet West)
 This point will not be changed This point will be changed as follows: No change, point better described with GPS as follows:
Proposed point of diversion: (Complete only if change is requested or if existing point is better described by GPS)
 One in the _____ NW _____ Quarter of the _____ NW _____ Quarter of the _____ NE _____ Quarter
 of Section _____ 9 _____, Township _____ 31 _____ South, Range _____ 27 _____ (W),
 in MEADE County, Kansas, 4833 feet North 2332 feet West of Southeast corner of section.
 Proposed Rate 4770 GPM Proposed Quantity 532 AF Proposed well depth (feet) 380'
 This point is: Additional Well Geo Center List other water rights that will use this point _____

+ SEE EMAIL 8-6-2021 FROM CAROL HILDEBRAND

6. **Presently authorized point of diversion:**
 One in the _____ Quarter of the _____ Quarter of the _____ Quarter
 of Section _____, Township _____ South, Range _____ (W),
 in _____ County, Kansas, _____ feet North _____ feet West of Southeast corner of section.
 Authorized Rate _____ Authorized Quantity _____ Depth of well _____ (feet)
(DWR use only: Computer ID No. _____ GPS _____ feet North _____ feet West)
 This point will not be changed This point will be changed as follows: No change, point better described with GPS as follows:
Proposed point of diversion: (Complete only if change is requested or if existing point is better described by GPS)
 One in the _____ Quarter of the _____ Quarter of the _____ Quarter
 of Section _____, Township _____ South, Range _____ (W),
 in _____ County, Kansas, _____ feet North _____ feet West of Southeast corner of section.
 Proposed Rate _____ Proposed Quantity _____ Proposed well depth (feet) _____
 This point is: Additional Well Geo Center List other water rights that will use this point _____

7. The changes herein are desired for the following reasons?
 (please be specific) LOSS OF PRODUCTION

8. If a well, is the test hole log attached? Yes No

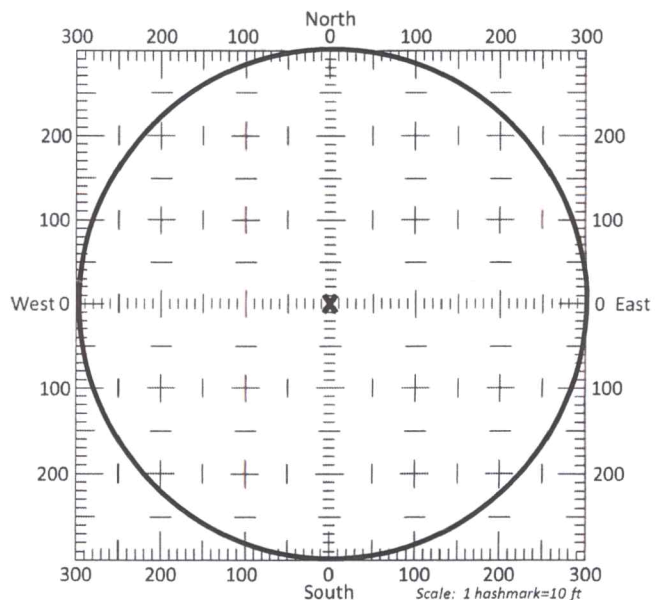
9. The change(s) (was)(will be) completed by?
UPON APPROVAL

10. If the point of diversion is a well:
 (a) What are you going to do with the old well?
PLUG / CAP
 (b) When will this be done? UPON COMPLETION

11. Groundwater Management District recommendation attached?
 Yes No

12. Assisted by AM / GCFO

13a. If the proposed point of diversion will be relocated more than 300 feet but within 2,640 feet of the existing point of diversion, attach a topographic map or aerial photograph. For groundwater sources, show all wells (including domestic) within one-half mile of the proposed point of diversion and the names and mailing addresses of the owners. For surface water sources, show the names and addresses of the landowner(s) one-half mile downstream and one-half mile upstream from your property lines



13b. If the proposed point of diversion will be relocated within a 300 foot radius of the existing point of diversion, indicate its location on the diagram shown above in relation to the existing point of diversion. The proposed point of diversion must be located within the circle shown above. **(PLEASE NOTE: The "X" in center of diagram above represents the presently authorized point of diversion.)**

SUMMARY ORDER APPROVING APPLICATION FOR CHANGE AND IMPOSING CONDITIONS

This Summary Order is issued under authority of K.S.A. 82a-708b, as amended, and K.A.R. 5-5-1, *et seq.* and other applicable provisions of the *Kansas Water Appropriation Law*, K.S.A. 82a-701 *et seq.*, and rules and regulations promulgated thereunder. With the exception of those conditions expressly contained herein, this Summary Order does not change the terms, conditions and limitations of File No. 10841-D1.

1. A change application was received on July 19, 2021 requesting that the place of use and / or point of diversion authorized under the above-referenced file number be changed as described in the application.
2. On and after the effective date of this summary order, the authorized place(s) of use shall be located substantially as shown on the topographic map accompanying the application to change the place of use. Applicable Not Applicable
3. The change in point of diversion shall not impair existing rights and shall be limited to the same source or sources of water as previously authorized. The point of diversion authorized by this summary order shall be located within a 300 foot radius of the authorized point(s) of diversion. Applicable Not Applicable
4. The point(s) of diversion described herein is administratively corrected to be more accurately described using the Global Positioning System (GPS), as described in the application. Applicable Not Applicable
5. The point(s) of diversion authorized herein shall not actually be located more than _____ feet from the previously authorized point(s) of diversion. Applicable Not Applicable
6. As required by K.A.R. 5-3-5d, if the works for diversion is a well with a diversion rate of 100 gallons per minute or more, a tube or other device suitable for making water level measurements shall be installed, operated and maintained in accordance with K.A.R. 5-6-13. Applicable Not Applicable
7. **The owner of the authorized place(s) of use shall properly install an acceptable water flow meter on or before December 31, 2021, or before the first use of water, whichever occurs first.** The water flow meter shall be installed, operated and maintained in accordance with K.A.R. 5-1-4 through 5-1-12. As required by K.S.A. 82a-732, as amended, and K.A.R. 5-3-5e, the owner shall maintain records and report the reading of the water flow meter and the total quantity of water diverted annually to the Chief Engineer by March 1 following the end of each calendar year. Applicable Not Applicable
8. **Installation of the works for diversion of water shall be completed on or before December 31, 2021, or within any authorized extension of time.** By March 1, 2022 the applicant shall notify the Chief Engineer that construction of the works for diversion has been completed, on the form provided by the Chief Engineer, as required by K.A.R. 5-8-4e. Applicable Not Applicable
9. **The completed well log shall be submitted with the required notice.** Applicable Not Applicable
10. All diversion works into which any type of chemical or other foreign substance will be injected into the water shall be equipped with an in-line, automatic, quick-closing check valve capable of preventing pollution of the source of the water supply. The check valve(s) shall be installed, operated and maintained in accordance with K.A.R. 5-3-5c. Applicable Not Applicable
11. Additional Conditions are attached. Yes No
12. In accordance with K.S.A. 82a-708a, as amended, and K.A.R. 5-5-14, all of the owners of the authorized place(s) of use of water appropriated under the above-referenced file number are responsible for compliance with its terms, conditions and limitations, as amended and/or supplemented by this Summary Order, and with applicable provisions of the *Kansas Water Appropriation Law* and the *Rules and Regulations* promulgated thereunder. Failure to comply with these provisions may result in civil penalties pursuant to K.S.A. 82a-737, as amended, and/or the suspension or revocation and dismissal of the water or appropriation right or any other enforcement actions authorized by law.

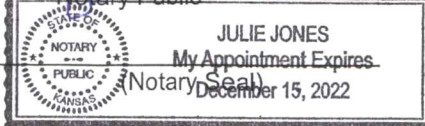
Administrative Appeal and Effective Date of Order

If you are aggrieved by this order, pursuant to K.S.A. 82a-1901, you may request an evidentiary hearing before the Chief Engineer or request administrative review by the Secretary of Agriculture. A request for hearing by the Chief Engineer must be filed within **15 days** of service of this Order and a request for administrative review by the Secretary must be filed within **30 days** pursuant to K.S.A. 77-531. Any request for administrative review must state a basis for review pursuant to K.S.A. 77-527. File any request with **Kansas Department of Agriculture, Legal Division, 1320 Research Park Drive, Manhattan, KS 66502**. Failure to timely request a hearing or review may preclude review under the Kansas Judicial Review Act.

For Use by Register of Deeds

FOR OFFICE USE ONLY
**APPLICATION APPROVED AND
SUMMARY ORDER ISSUED**

By: Michael A. Meyer
Duly Authorized Designee of the Chief Engineer
(Print Name): MICHAEL A. MEYER
Division of Water Resources - Kansas Department of Agriculture
Date of Issuance: August 25, 2021
State of Kansas)
County of Stinson) SS
Acknowledged before me on August 25, 2021
by Michael A. Meyer
Signature: Julie Jones
Notary Public

My commission expires: _____


ADDITIONAL CONDITIONS TO
SUMMARY ORDER APPROVING APPLICATION FOR CHANGE
AND IMPOSING CONDITIONS,
Water Right, File Nos. 10,841-D1

The effective date of the change shall be the date this order is executed by the Chief Engineer, after which the following condition is included as a condition of the approval of this application for change in point of diversion.

This order effectively reduces the authorized maximum rate of diversion to a rate not to exceed 770 gallons per minute (1.71 c.f.s.) from the authorized point of diversion described herein.

By: *Michael A. Meyer*
(Duly Authorized Designee of the Chief Engineer)

(Print Name): Michael A. Meyer
Division of Water Resources Kansas Department of Agriculture

Dated of Issuance: August 25, 2021

State of Kansas)

County of Finney) SS

County of Finney)

Acknowledged before me on the 25th day of August 2021

By *Michael A. Meyer*

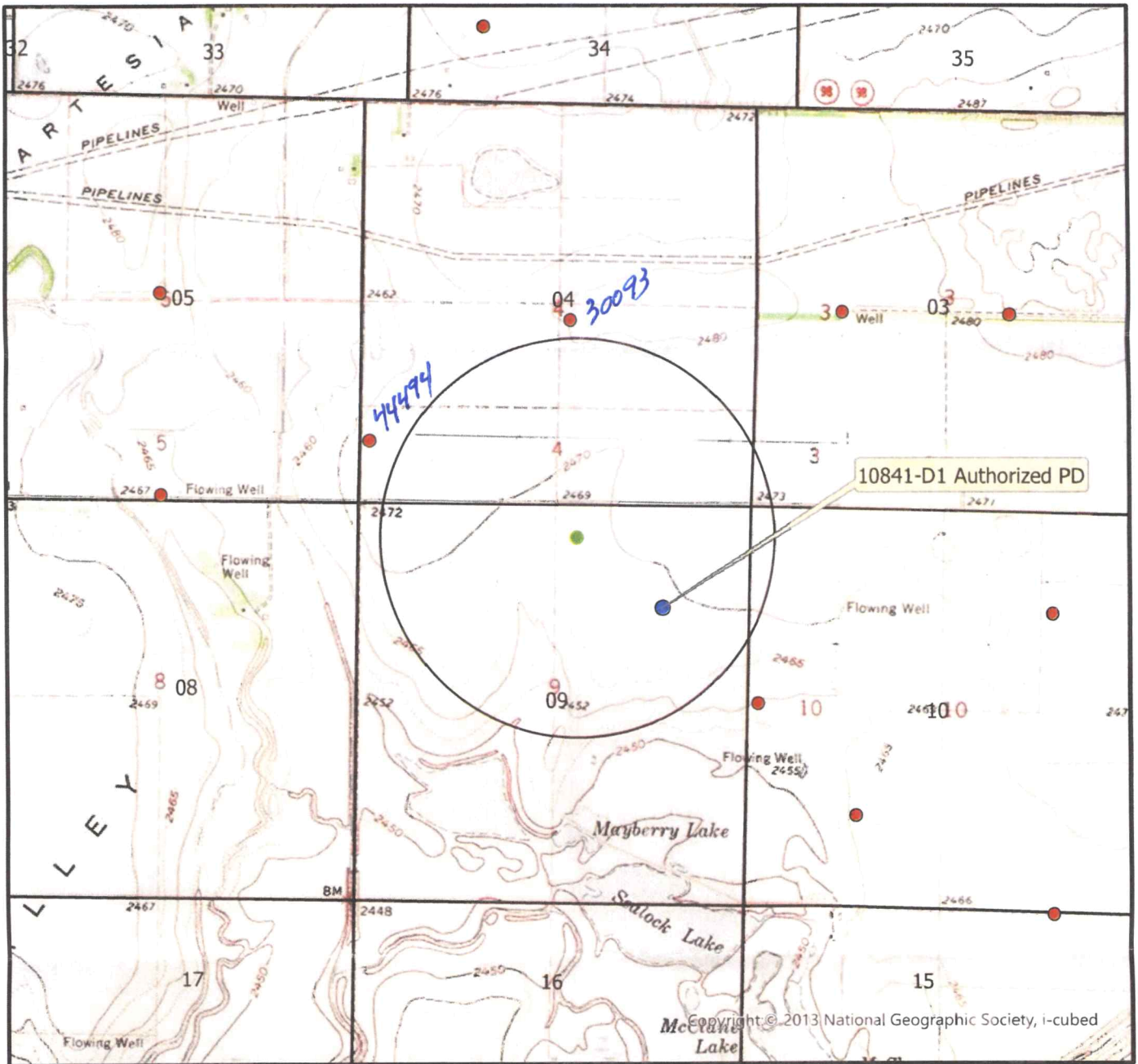
Signature *Julie Jones*
Notary Public

My Commission expires:



CHANGE IN PD WATER RIGHT, FILE NO. 10841-D1

NE1/4 of Section 9 Township 31 South Range 27 West Meade County



- Authorized Point of Diversion
- Proposed Point of Diversion
- Permitted Water Right
- ★ Domestic Well within 1/2 mile
- 1/2 mile buffer



By signing below I agree that all wells, including domestic, and owners names and addresses within 1/2 mile of the proposed point of diversion have been shown on the map

Carl Hildebrand 7/12/21

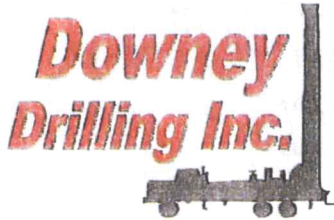
(Signature)

Date

Date AM/GCFO
1:24,000 Scale

WELL LOG

DATE: 6/22/2021



CUSTOMER NAME: CAROL HILDEBRAND TH#1

LEGAL: NE 9-31S-27W

COUNTY: MEADE CO. KS

GPS: 37.371375

100.26249

LOGGER:

DRILLER: DIEGO VALLE

WO: 20-1322

TW	FROM	TO	TYPE	HARDNESS	COLOR	SPEED	PULL DOWN	OTHER / DRILLING ACTION
	0	3	TOPSOIL	SOFT	DARK BROWN	FAST		SMOOTH
	3	19	BROWN CLAY	SOFT	BROWN	FAST		SMOOTH
	19	29	YELLOWISH CLAY	SOFT	YELLOW	FAST		SMOOTH
	29	99	GREEN CLAY	SOFT	GREEN	FAST		SMOOTH
	99	122	BLUE CLAY	STICKY	BLUE	FAST		SMOOTH
	122	141	GREEN CLAY	SOFT	GREEN	FAST		SMOOTH
	141	160	BLUE CLAY	STICKY	BLUE	FAST		SMOOTH
	160	185	LIMEROCK W/ FINE SAND & YELLOWISH GREEN CLAY		WHT, YELLOW, GREEN	FAST		CHOPPY & SMOOTH
	185	195	MED-COARSE SAND W/ LIMEROCK	SEMI LOOSE	TAN	FAST		FAST CHATTER
	195	203	YELLOW & GREEN CLAY	SOFT	YELLOW & GREEN	FAST		SMOOTH
	203	207	SANDY CLAY	SOFT	TAN	FAST		SMOOTH
	207	225	COARSE SAND W/ FINE GRAVEL	LOOSE		FAST		CHATTER
	225	237	SANDY CLAY	SOFT	TAN	FAST		SMOOTH
	237	250	MED-COARSE SAND TR FINE GRAVEL	SEMI LOOSE	TAN	FAST		FAST CHATTER
	250	264	MED-COARSE SAND TR SANDY CLAY LENSES	SEMI LOOSE	TAN	FAST		CHOPPY & SMOOTH
	264	293	MED-COARSE SAND FINE GRAVEL (268 HARD SPOT)	SEMI LOOSE	TAN	FAST		FAST CHATTER
	293	298	LIMEROCK W/ SANDY CLAY	SEMI FIRM	WHITE, TAN	FAST		CHOPPY & SMOOTH
	298	307	MED SAND W/CEMENTED SAND STRINGERS	SEMI FIRM	TAN / WHITE	NOT AS FAST		CHATTER
	307	315	MED-COARSE SAND W/CEMENTED SAND LENSES	SEMI LOOSE	TAN	FAST		FAST CHATTER
	315	329	MED-COARSE SAND	LOOSE	TAN	FAST		FAST CHATTER
	329	335	CLAY	STICKY	BROWN	SLOWER		SMOOTH
	335	341	FINE TR MED SAND	SEMI LOOSE	TAN	FAST		LT CHATTER
	341	358	CLAY	STIFF	BROWN, TR. GRAY	SLOWER		SMOOTH
	358	380	BLUE SHALE	SOFT	BLUE	SLOW		SMOOTH
			QUIKGEL - 2					
			WATER LOADS - 1					
			SODA ASH - 1/4					
			HOLE PLUG - 2					
			CASING SEAL - 1					

mike

CAROL HILDEBRAND

NE 9-31S-27W MEADE CO.

Legend

HRd

TH #1 ELEV=2470' TH #1 ELEV=2470'

WR #10481-D1 ELEV=2469'

TH #2 ELEV=2471'

Google Earth

© 2021 Google

1000 ft



Meyer, Mike [KDA]

From: Carol Hildebrand <mcjel02@msn.com>
Sent: Friday, August 6, 2021 10:01 AM
To: Meyer, Mike [KDA]
Subject: Carol Hildebrand / Meade County Reduction to 770 Gallons Per Minute

EXTERNAL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Mike: This is to confirm my agreement, after talking with Duke Marrs who farms the land, to reduce the gallons per minute on the 9-31-27 NE/4 from 920 gallons per minute to 770 gallons per minute.

This relates to my Application for Approval to Change the Point of Diversion which I signed on July 12, 2021 and mailed to your office.

Thank you. Do call me if needed. My work number is 303-299-8106; home is 303-355-9559. –Carol Hildebrand
Sent from [Mail](#) for Windows 10

D. Engelhaupt
7/28/2021

This analysis of change in point of diversion, File No. 10,841-D1

A This analysis was used to evaluate the potential impact of a change in point of diversion. The application proposes moving the point of diversion authorized by File No. 10,841-D1 approximately 1,500 feet northwest. The transmissivity (960.8 ft²/day) and storativity (0.0009 ft/ft) were assumed to be equal to the values determined by an in-season pump test conducted by KDA-DWR in 2009. Drawdown resulting from pumping at the proposed rate and quantity at the new was evaluated at the point of diversion authorized by File No. 44,494, and compared to the drawdown from pumping the ten-year average use (182.4 acre-feet) at the last reported rate (500 gpm) at the currently authorized location. With these assumptions, the drawdown at File No. 28,025 increases by 47.4 feet, or 23.1% of the projected future saturated thickness (Table 1). If the proposed rate is reduced to 769 gallons per minute the drawdown is 41.0 feet, or 20.0% of the projected saturated thickness (Table 2).

Table 1: This analysis of drawdown at File No. 44,494; T = 960.8 ft²/day; S = 0.0009

Scenario	Distance (Feet)	Quantity (Acre-Feet)	Rate (GPM)	Drawdown (Feet)	Drawdown (%ST)
Proposed	3,079	532.0	920	73.7	35.9%
Baseline	4,521	182.4	500	26.2	12.8%
Net Drawdown:				47.4	23.1%

Table 2: This analysis of drawdown at File No. 44,494; T = 960.8 ft²/day; S = 0.0009

Scenario	Distance (Feet)	Quantity (Acre-Feet)	Rate (GPM)	Drawdown (Feet)	Drawdown (%ST)
Proposed	3,079	532.0	769	67.2	32.8%
Baseline	4,521	182.4	500	26.2	12.8%
Net Drawdown:				41.0	20.0%

Meyer, Mike [KDA]

From: Engelhaupt, David [KDA]
Sent: Wednesday, July 28, 2021 3:33 PM
To: Meyer, Mike [KDA]
Subject: RE: this request, file no. 10841-D1

At 920 GPM it's 47.4 feet (23.1%); at 776 GPM it's 41.0 feet (20.0%). It's just a coincidence that 920 GPM is where the net drawdown at both 44494 and 30093 is the same.

David Engelhaupt, P.E.
Technical Services Section Supervisor
Kansas Department of Agriculture
Division of Water Resources
(785) 564-6680

-----Original Message-----

From: Meyer, Mike [KDA] <Mike.Meyer@ks.gov>
Sent: Wednesday, July 28, 2021 3:23 PM
To: Engelhaupt, David [KDA] <David.Engelhaupt@ks.gov>
Subject: RE: this request, file no. 10841-D1

thanks, that is what I need to know, just need to know that value for discussion. what was the drawdowns to 30093 with each calc?

Mike

-----Original Message-----

From: Engelhaupt, David [KDA] <David.Engelhaupt@ks.gov>
Sent: Wednesday, July 28, 2021 3:21 PM
To: Meyer, Mike [KDA] <Mike.Meyer@ks.gov>
Subject: RE: this request, file no. 10841-D1

I did run it to 30093, but 44494 was the more restrictive one. If the rate is reduced so it passes at 44494 I will also pass at 30093. The rate to pass at 30093 is 776 GPM.

David Engelhaupt, P.E.

Technical Services Section Supervisor
Kansas Department of Agriculture
Division of Water Resources
(785) 564-6680

-----Original Message-----

From: Meyer, Mike [KDA] <Mike.Meyer@ks.gov>
Sent: Wednesday, July 28, 2021 2:51 PM
To: Engelhaupt, David [KDA] <David.Engelhaupt@ks.gov>
Subject: RE: theis request, file no. 10841-D1

can you run agains 30093, as that is where the concern would come form if there is one. thank you.
thank you for running to 44494 also, which is the same tenant fortunately.

Mike

-----Original Message-----

From: Engelhaupt, David [KDA] <David.Engelhaupt@ks.gov>
Sent: Wednesday, July 28, 2021 1:58 PM
To: Meyer, Mike [KDA] <Mike.Meyer@ks.gov>
Subject: RE: theis request, file no. 10841-D1

Mike,

This report is attached. Fails at the proposed rate, passes if rate is reduced to 769 GPM. I ran to 44494, which although 30093 is closer, the move is more directly towards 44494 so the impact is greater.

David Engelhaupt, P.E.
Technical Services Section Supervisor
Kansas Department of Agriculture
Division of Water Resources
(785) 564-6680

-----Original Message-----

From: Meyer, Mike [KDA] <Mike.Meyer@ks.gov>
Sent: Tuesday, July 27, 2021 11:11 AM
To: Engelhaupt, David [KDA] <David.Engelhaupt@ks.gov>
Subject: RE: theis request, file no. 10841-D1

Mike

-----Original Message-----

From: Engelhaupt, David [KDA] <David.Engelhaupt@ks.gov>
Sent: Tuesday, July 27, 2021 11:02 AM
To: Meyer, Mike [KDA] <Mike.Meyer@ks.gov>
Subject: RE: this request, file no. 10841-D1

Mike,

Do you have a copy of the pump test? I didn't see it in the file. If you don't have it I will see if John does.

David Engelhaupt, P.E.
Technical Services Section Supervisor
Kansas Department of Agriculture
Division of Water Resources
(785) 564-6680

-----Original Message-----

From: Meyer, Mike [KDA] <Mike.Meyer@ks.gov>
Sent: Wednesday, July 21, 2021 4:56 PM
To: Engelhaupt, David [KDA] <David.Engelhaupt@ks.gov>
Subject: this request, file no. 10841-D1

David, can you run thies on the neighboring well, File No. 30093 we should have a pump test on that well due to a past impairment complaint.
thank you

Mike

-----Original Message-----

From: kda.fax@ks.gov <kda.fax@ks.gov>
Sent: Wednesday, July 21, 2021 4:41 PM
To: Meyer, Mike [KDA] <Mike.Meyer@ks.gov>
Subject: Message from "GardenCity-Savin-Color"

This E-mail was sent from "GardenCity-Savin-Color" (MP C3004ex).

Scan Date: 07.21.2021 16:41:08 (-0500)

Queries to: kda.fax@ks.gov

This E-Mail was sent from the Kansas Department of Agriculture.

1077 Ralo St. #904
Denver, CO 80206

July 13, 2021

Ks. Dept of Water Resources
4532 West Jones Ave., Ste. B
Garden City, KS 67846

Dear Sir or Madam,

Enclosed is the Application for Approval
to change ~~Placer~~ Point of Diversion in
Meade County for 9-31-27, NE/4.

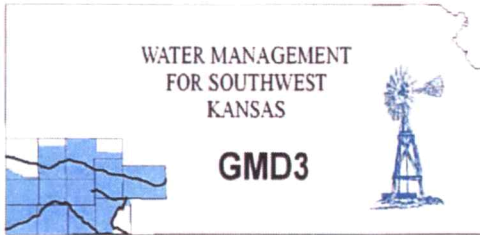
Documentation prepared by Dorothy Drilling Inc.
which did two test holes after the existing
well served its water production.

Call me if needed. My work/day
phone number is 303-299-8106. Home
number is 303-355-9559.

Thank you for needed processing.

Sincerely,

Carl Hildbrand



Southwest Kansas
Groundwater Management District No. 3
2009 E. Spruce Street
Garden City, Kansas 67846
(620) 275-7147 phone (620) 275-1431 fax
www.gmd3.org

August 25, 2021

Michael A. Meyer
Division of Water Resources
4532 W Jones Ave., Suite B
Garden City, Kansas 67846

RE: Application for Change in Point of Diversion
Water Right, File No. 10841 D1

Dear Mike:

We have completed a review of the application for the above referenced water right. The proposed change in point of diversion is in accordance with current area rules, K.A.R. 5-23-3, as it pertains to distance moved and minimum spacing to neighboring wells.

Well evaluations were conducted to estimate possible effects of the proposal on the supply of other wells with water rights prior to the proposal per K.S.A. 82a-708b, and the draft revised management program. Under K.S.A. 82a-708b, an applicant requesting a change in point of diversion must demonstrate to the chief engineer that any proposed change is reasonable and will not impair. The enclosed report is an analysis performed by the GMD on behalf of our membership. Under this analysis, the proposed change is considered to be reasonable and unlikely to impair if either the net in-season well-to-well effect of the proposed change is less than a strict maximum allowable threshold (4.0 ft in cases where saturated thickness is greater than 200 ft), or if no well with a net well-to-well effect exceeding the threshold is identified as critical. Critical wells are identified as wells that are expected to either lose or greatly diminish water supply over the next 25 years. The attached review information is based on a Theis analysis using inputs from the GMD3 aquifer model, which is considered to be the best information on well and aquifer data readily and easily available to the public. If either the applicant or the neighbors believe they have better data that might change the result of the analysis, they should contact GMD3. Conclusions of the well analysis may change if better information on well and aquifer data can be made available.

Every neighboring well within 1 mile of the proposed move was evaluated. Evaluations showed that the neighboring wells exceeded the net effect above the maximum allowable threshold. Further analysis showed that the application would need to have limitations implemented to minimize area effects, which the applicant has agreed to with the State. Our office received no comments of concern from neighboring well owners. Therefore, GMD3 sees this move as reasonable and therefore recommend that the application be approved with limitations to the authority to minimize area effects. If aquifer conditions change or there is a change to the water right in the future, we would be happy to evaluate the effects at that time.

Thank you for the opportunity to review the applications and to provide a recommendation. If you have any questions, please don't hesitate to contact us.

Sincerely,

Jason L. Norquest
Assistant Manager

RECEIVED

AUG 25 2021

GMD3 Change Review

File No(s): 10841 D1.

DWR office: GC.

App filed to change: PD.

Is Landowner(s) correct in WRIS: Carol Hildebrand.

If NO, is documentation included?

Is Water Use Correspondent correct in WRIS? .

If NO, is documentation included?

Regulation(s) Reviewed: KAR 5-23-3

Point of diversion ID No(s) 01 being changed.

	ft. North	ft. West	
Authorized PD	3960	1320	Sect 9-31-27
Proposed PD	4833	2332	
Difference	-873 n	-1012 w	
$a^2 + b^2 = c^2$	762129	1024144	1336.515 foot move NW

GPS for proposed PD: Lat: 37.371375 Long: -100.26249.

Is proposed PD stacking on existing WRs? No.

Is Proposed PU overlapping existing WRs? No Change.

Neighboring certified well(s) notified: .

Name Frank Devine (10841D2 30093, 42316).

Address PO Box 489.

Zip Meade, KS 67864.

Email: frank.devine@sbcglobal.net Phone: 620-873-2765.

Name Bryce McClaren (13386).

Address 23404 JJ RD.

Zip Fowler, KS 67844.

Email: brycemclaren@hotmail.com Phone: 620-635-5983.

Domestic well(s) notified: Domestic well in area owned by one of above mentioned.

Name .

Address .

Zip .

Base Acres: .

Perfected Acres: .

Irr. Return-Flow %

Currently Authorized: 532AF @ 920gpm (Meade)

Proposed: 532AF @ 770gpm. Based on DWR review/analysis.

The was a impairment complaint several years ago that prompted the analysis by DWR. The applicant did agree to a reduction in rate.

Average use (2011-202): 182.427AF/year reported.

GMD3 Change Review

2020 WUR had 500gpm

Is a waiver needed: Move is less than half mile. Minimum spacing is met to neighboring wells. Analysis shows the area is not the best formations, it would have to be limited in order to reduce effects to neighboring wells, which the applicant has agreed to with DWR.

Recommendation: After review of all available information, it appears current area rules are met. Since this appears to be a poor formation area, we highly recommend that limitations be enforced in order to limit effects.



RECEIVED

AUG 25 2021

Garden City Field Office
Division of Water Resources

Evaluation of proposed move for Water Right No. 10841 D1

Proposed: Move water right no. 10841 D1 to a new well location 1,471 ft to the northwest.



Wells within 1 mile: 44494, 30093, 13386, 42316, 10841 D2, and a domestic well in section 10-31-27.

The saturated thickness at the proposed well location is estimated to be 273 ft, based upon the GMD3 model. For saturated thickness greater than 200 ft, the drawdown allowance is 4.0 ft.

50 year Theis Analysis: The following values were used to run the analysis:

$S = 0.0009$, $T = 960.8 \text{ ft}^2/\text{day}$, $tp_{\text{current}} = 82.5 \text{ days}$, $Q_{\text{current}} = 500 \text{ gpm}$, $tp_{\text{proposed}} = 156.3 \text{ days}$,
 $Q_{\text{proposed}} = 770 \text{ gpm}$ (Note that S and T values were taken from a nearby aquifer test.)

Theis drawdowns were calculated as follows:

- | | |
|--------|---|
| 44494: | Drawdown from current location = 26.3 ft |
| | Drawdown from proposed location = 67.3 ft |
| | Net drawdown = 41.0 ft |
| 30093: | Drawdown from current location = 28.1 ft |
| | Drawdown from proposed location = 68.7 ft |
| | Net drawdown = 40.7 ft |

13386: Drawdown from current location = 25.9 ft
Drawdown from proposed location = 57.2 ft
Net drawdown = **31.3 ft**

42316: Drawdown from current location = 40.6 ft
Drawdown from proposed location = 65.8 ft
Net drawdown = **25.2 ft**

10841 D2: Drawdown from current location = 29.0 ft
Drawdown from proposed location = 54.5 ft
Net drawdown = **25.5 ft**

Domestic 10-31-27: Drawdown from current location = 28.5 ft
Drawdown from proposed location = 54.5 ft
Net drawdown = **26.0 ft**

Net drawdown exceeds the drawdown allowance of 4.0 ft for all wells within 1 mile of the proposed location. Critical well analysis is necessary on those wells.

Critical Well Evaluation:

44494:

Water Column = 269 ft

DP = 41.0 ft (Net drawdown from the proposal indicated above)

DE = 39.7 ft (Water level decline from 2021 through 2046 based upon GMD3 model)

DD = 214.3 ft (S = 0.0009, T = 7187.3 gpd/ft, Q = 500 gpm, tp = 62 days, efficiency = 70%)

DT = 295 ft

Total drawdown of 295 ft is greater than the remaining saturated thickness, so this well is **critical**.

RECEIVED
AUG 25 2021
Garden City Field Office
Division of Water Resources

30093:

Water Column = 269 ft

DP = 40.7 ft (Net drawdown from the proposal indicated above)

DE = 39.7 ft (Water level decline from 2021 through 2046 based upon GMD3 model)

DD = 171.1 ft (S = 0.0009, T = 7187.3 gpd/ft, Q = 400 gpm, tp = 60 days, efficiency = 70%)

DT = 251.5 ft

Economic Drawdown Constraint (EDC) = $0.4 * 269 \text{ ft} = 107.6 \text{ ft}$

Physical Drawdown Constraint (PDC) = $269 \text{ ft} - 60 \text{ ft} = 209 \text{ ft}$

Total drawdown of 251.5 ft is greater than the EDC and PDC, so this well is **critical**.

13386:

Water Column = 263 ft

DP = 31.3 ft (Net drawdown from the proposal indicated above)

DE = 29.9 ft (Water level decline from 2021 through 2046 based upon GMD3 model)

DD = 111.1 ft (S = 0.0009, T = 7187.3 gpd/ft, Q = 250 gpm, tp = 124 days, efficiency = 70%)

DT = 172.3 ft

Economic Drawdown Constraint (EDC) = $0.4 * 263 \text{ ft} = 105.2 \text{ ft}$

Physical Drawdown Constraint (PDC) = $263 \text{ ft} - 60 \text{ ft} = 203 \text{ ft}$

Total drawdown of 172.3 ft is greater than the EDC, so this well is **critical**.

42316:

Water Column = 243 ft

DP = 25.2 ft (Net drawdown from the proposal indicated above)

DE = 33.3 ft (Water level decline from 2021 through 2046 based upon GMD3 model)

DD = 212 ft (S = 0.0009, T = 7187.3 gpd/ft, Q = 500 gpm, tp = 51 days, efficiency = 70%)

DT = 270.5 ft

Total drawdown of 270.5 ft exceeds the remaining saturated thickness, so this well is **critical**.

10841 D2:

Water Column = 243 ft

DP = 25.5 ft (Net drawdown from the proposal indicated above)

DE = 33.3 ft (Water level decline from 2021 through 2046 based upon GMD3 model)

DD = 211.9 ft (S = 0.0009, T = 7187.3 gpd/ft, Q = 500 gpm, tp = 50 days, efficiency = 70%)

DT = 270.7 ft

Total drawdown of 270.7 ft is greater than the remaining saturated thickness, so this well is **critical**.

Domestic 10-31-27:

Water Column = 243 ft

DP = 26.0 ft (Net drawdown from the proposal indicated above)

DE = 33.3 ft (Water level decline from 2021 through 2046 based upon GMD3 model)

DT = 59.3 ft

Economic Drawdown Constraint (EDC) = $0.4 * 243 \text{ ft} = 97.2 \text{ ft}$

Physical Drawdown Constraint (PDC) = $243 \text{ ft} - 20 \text{ ft} = 223 \text{ ft}$

Total drawdown of 59.3 ft is less than the EDC and PDC, so this well is **not critical**.

Conclusion:

The proposed change is located near an area with a prior impairment investigation. During this investigation, a pumping test was conducted in 2009, and the specific yield (S) and transmissivity (T) values used to determine well-to-well drawdown effects were drawn from the results of that pumping test. These values are considerably lower than much of the high plains aquifer, and as a result, the calculated well-to-well drawdown effects are very large, and dynamic drawdown requirements (the depth a local well draws into the aquifer to access the water it is currently using) are also very high.

All wells with certified water rights in the area were found to be critical, meaning they are likely to be impaired. In some cases, the total drawdown effects over the next 25 years, when aquifer decline and dynamic drawdown requirements are considered, are estimated to exceed the remaining saturated thickness. These large declines are not actually possible. Instead, the proposed well will likely be incapable of pumping its full annual rate and quantity, and neighboring wells will experience drastic declines in well productivity due to the inability to draw as deep into the aquifer to access a water supply.

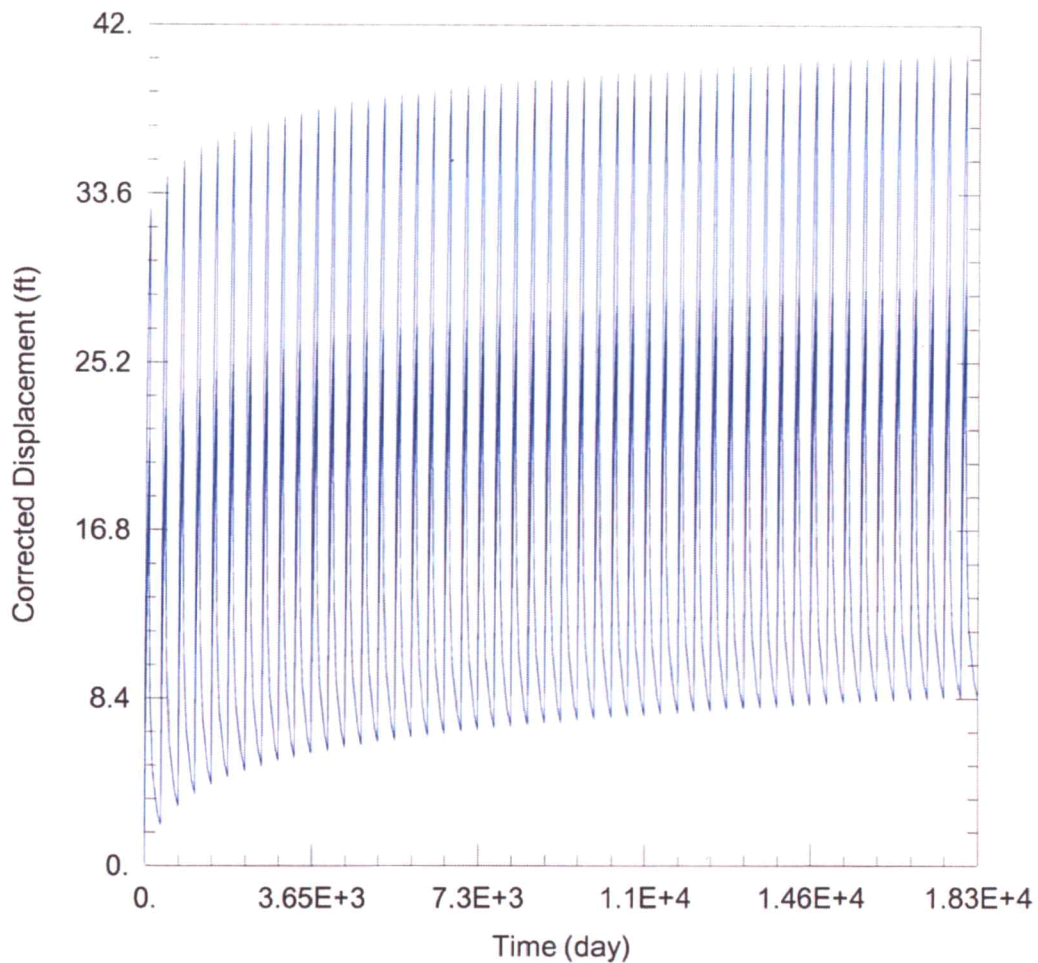
Given the information available, it is difficult for GMD3 staff to recommend approval of the application. It is possible that a local aquifer test may prove this area to be different than the location tested in 2009. Better data may provide different results and recommendation. It is also possible that the applicant may agree to a limitation of rate and quantity so that neighboring wells are not flagged as critical through this review process, though those reductions would need to be significant if the aquifer values used are

RECEIVED

AUG 25 2021

Garden City Field Office
Division of Water Resources

accurate. Neighbors with questions or concerns should contact GMD3 at (620) 275-7147 or the Division of Water Resources Garden City Field Office at (620) 276-2901 to put concerns on record. Otherwise, the application may be approved as is.



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021_Moves\10841D1\10841 Current.aqt
 Date: 08/09/21 Time: 14:30:45

PROJECT INFORMATION

Company: GMD 3
 Project: 10841 D1
 Location: Meade County

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
10841 Sec 9	157205	180277

Observation Wells

Well Name	X (ft)	Y (ft)
□	157205	180277
□ 44494	153212	182399
□ 30093	155876	184071
□ 13386	159536	184274
□ 42316	158520	179043
□ 10841 Sec 10	159866	177591
□ Domestic 10-31-27	158728	176687

SOLUTION

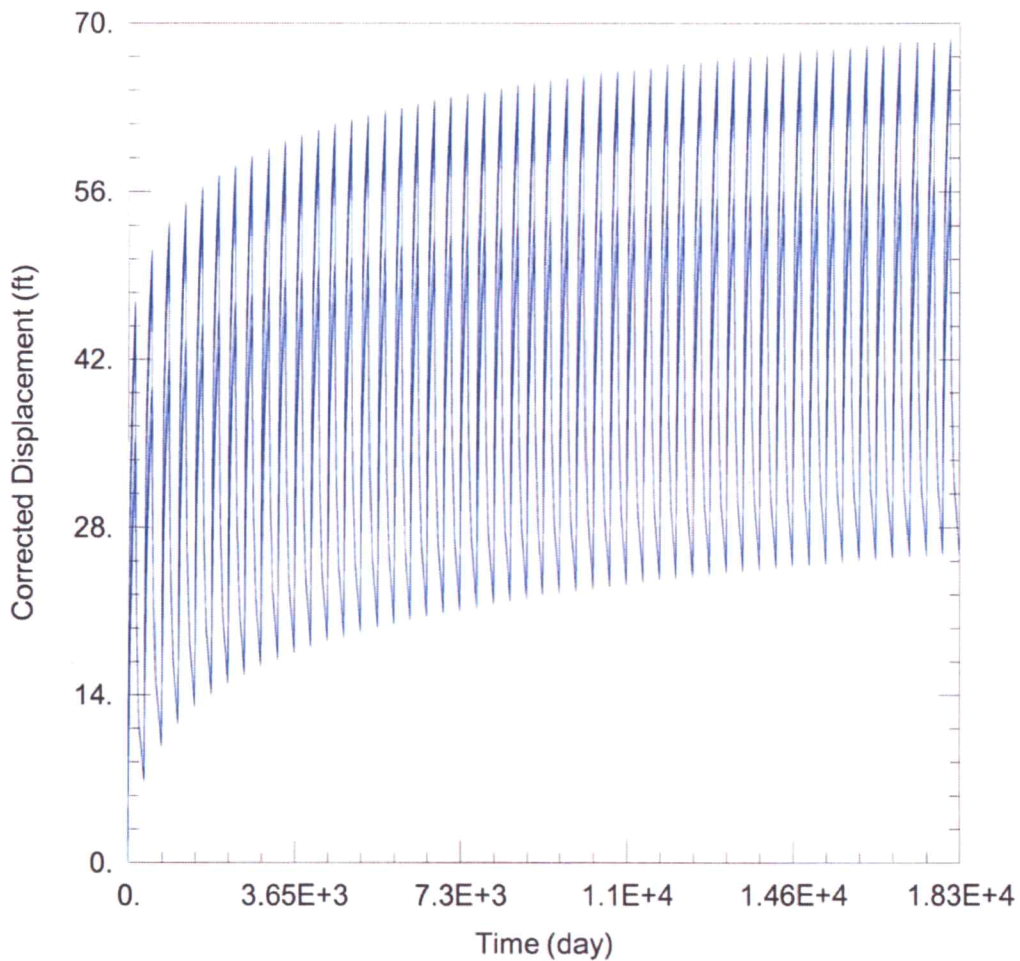
Aquifer Model: Unconfined
 T = 960.8 ft²/day
 Kz/Kr = 1.

Solution Method: Theis
 S = 0.0009
 b = 273. ft

RECEIVED

AUG 25 2021

Garden City Field Office
 Division of Water Resources



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021_Moves\10841D1\10841 Proposed.aqt
 Date: 08/09/21 Time: 14:30:37

PROJECT INFORMATION

Company: GMD 3
 Project: 10841 D1
 Location: Meade County

WELL DATA

Pumping Wells			Observation Wells		
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)
10841 Sec 9	156041	181175	□	156041	181175
			□ 44494	153212	182399
			□ 30093	155876	184071
			□ 13386	159536	184274
			□ 42316	158520	179043
			□ 10841 Sec 10	159866	177591
			□ Domestic 10-31-27	158728	176687

SOLUTION

Aquifer Model: Unconfined
 T = 960.8 ft²/day
 Kz/Kr = 1.

Solution Method: Theis
 S = 0.0009
 b = 273. ft

Water Rights and Points of Diversion Within 1 mile of point defined as:

4833 Feet N and 2332 Feet W of the Southeast Corner of Section 9 Twp 31S Rng 27W
 Located at: 100.262489 West Longitude and 37.371375 North Latitude
 Both SURFACE WATER and GROUNDWATER

2300' on A11

File Number	Use	ST	SR	Dist (ft)	Q4	Q3	Q2	Q1	FeetN	FeetW	Sec	Twp	Rng	ID	Batt	Auth_Quan	Add_Quan	
A__ AF	10841	D1	IRR	NK G*	↔1335	--	--	NC	NE	3960	1320	9	31	27W	1	532.00	532.00	
A__ AF	10841	D2	IRR	NK G	5242	--	--	NC	SW	1260	3790	10	31	27W	1	386.00	386.00	
A__ AF	13386	00	IRR	NK G	4780	--	--	NC	W2	2665	3980	3	31	27W	1	312.00	312.00	
A__ AF	30093	00	IRR	NK G	2900	--	--	NW	NW	SE	2427	2494	4	31	27W	4	320.00	320.00
A__ AF	42316	00	IRR	NK G	3270	--	--	SW	SW	NW	2720	5120	10	31	27W	4	202.00	202.00
A__ AF	44494	00	IRR	NK G	3081	--	--	NW	SW	SW	770	5180	4	31	27W	2	234.00	234.00
P__ AF	20210158	00	DEW	GY G	5214	--	--	NW	NW	NE	4700	2380	10	31	27W	6	4.60	4.60

Total Net Quantities Authorized:	Direct	Storage
Total Requested Amount (AF) =	.00	.00
Total Permitted Amount (AF) =	4.60	.00
Total Inspected Amount (AF) =	.00	.00
Total Pro_Cert Amount (AF) =	.00	.00
Total Certified Amount (AF) =	1986.00	.00
Total Vested Amount (AF) =	.00	.00
TOTAL AMOUNT (AF) =	1990.60	.00

Spacing Appears MET.

An * after the source of supply indicates a pending application for change under the file number.
 An * after the ID indicates a 15 AF exemption was granted under the file number.
 A "G" in the Batt column indicates the GEO CTR of a battery. A "B" indicates a well in the battery.
 The number in the Batt column is the number of wells in the battery.

Water Rights and Points of Diversion Within 1 mile of point defined as:

4833 Feet North and 2332 Feet West of the Southeast Corner of Section 9 Twp 31S Rng 27W
 Located at: 100.262489 West Longitude and 37.371375 North Latitude
 Both SURFACE WATER and GROUNDWATER
 WATER USE CORRESPONDENTS:

File Number Use ST SR

> DUKE & MADONNA MARRS

>

> 7088 21 RD

> FOWLER KS 67844

10841 21

> FRANK P DEVINE

>

> PO BOX 489

> MEADE KS 67864

10841 22

> BRYCE MCCLAREN

>

> 23404 JJ RD

> FOWLER KS 67844

13386

> FRANK P DEVINE

>

> PO BOX 489

> MEADE KS 67864

30093

RECEIVED

AUG 25 2021

Garden City Field Office
 Division of Water Resources

> FRANK P DEVINE

>

> PO BOX 489

42316

> MEADE KS 67864

>-----

> DUKE & MADONNA MARRS

>

> 7088 21 RD

44494

> FOWLER KS 67844

>-----

> NORTHERN NATURAL GAS CO

>

> 801 S FILLMORE SUITE 210

> AMARILLO TX 79101

>-----

=====

Garden City Field Office
4532 W. Jones, Suite B
Garden City, KS 67846



Phone: 620-276-2901
Fax: 620-276-9315
www.agriculture.ks.gov

Mike Beam, Secretary

Laura Kelly, Governor

August 6, 2021

SOUTHWEST KANSAS GROUNDWATER
MANAGEMENT DISTRICT NO. 3
2009 E SPRUCE ST
GARDEN CITY KS 67846

Re: Water Right, File No. 10841-D1

Dear Mr. Norquest:

This is to advise you that Carol Hildebrand, has filed an application for approval of the Chief Engineer, Division of Water Resources, Kansas Department of Agriculture, to change the point of diversion.

We are delaying action on the change applications to allow you time to review and provide a recommendation. Please submit a recommendation within 15 days from the date of this letter.

Thank you and as always feel free to contact this office at any time.

Sincerely,



Michael A. Meyer
Water Commissioner

MAM
Enclosures