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

1. File Number:	2. Status Change Date:	3. Change Num:	4. Field Office:	5. GMD:
6562	4-28-2021	**C2**	**04**	**03**

6. Status: ☒ Approved ☐ Denied by DWR/GMD ☐ Dismiss by Request/Failure to Return

7. Filing Date of Change: **1/11/2021**

8a. LANDOWNER, Person ID **61284**
New to system ☐ Add Seq# _____

REBECCA GRAHAM
1457 RD 140
LAKIN, KS 67860-6300

8c. LANDOWNER, correspondent Person ID _____
New to system ☐ Add Seq# _____

8b. Landowner(s), Person ID _____
New to system ☐ Add Seq# _____

8d. correspondent, Person ID **61234**
New to system ☐ Add Seq# _____

TRIPLE G FARMS
2156 ROAD 220
DEERFIELD, KS 67838-3821

9. Documents and Enclosure(s): ☒ DWR Meter(s) Date to Comply: **12/31/2021** ☒ N & P Date to Comply: **3/1/2022**

☐ Anti-Reverse Meter ☐ Meter Seal ☒ Check Valve ☒ N & P Form ☒ Water Tube ☒ Driller Copy ☐ H & E Letter

☐ Conservation Plan Date Required: _____ Date Approved: _____ Date to Comply: _____

10. Use Made of Water From: _____ To: _____

Date Prepared: **2/18/2021** By: **MAM**
Date Entered: By:

File No. **6562**	11. County: **FI**	Basin: **ARKANSAS RIVER**	Stream:	Formation Code: **211**	Special Use:

12. Points of Diversion

CHK MOD DEL ENT	PDIV	Qualifier	S	T	R	ID	'N	'W	Comment (AKA Line)	Rate and Quantity Authorized Rate gpm	Authorized Quantity af	Additional Rate gpm	Additional Quantity af	Overlap PD Files
DEL 63550														
ENT		**SESWSE**	**12**	**23**	**34W**		**524**	**1160**		**665**	**320**	**0**	**320**	**2393**
									***NOTE REDUCTION IN DIVERSION RATE**					

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

14. Limitation: _____ af/yr at **665** gpm (**1.48** cfs) when combined with file number(s) **2393**

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 NE ¼	NE¼ NW ¼	NE¼ SW ¼	NE¼ SE ¼	NW¼ NE ¼	NW¼ NW ¼	NW¼ SW ¼	NW¼ SE ¼	SW¼ NE ¼	SW¼ NW ¼	SW¼ SW ¼	SW¼ SE ¼	SE¼ NE ¼	SE¼ NW ¼	SE¼ SW ¼	SE¼ SE ¼	Total	Owner Chg?	Overlap Files
CHK 23742																								

Base Acres: Year: Minimum Reasonable Quantity:

Comments: **reduced rate and reduced ammended limitation on rate**

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

Kansas
Department of Agriculture
Division of Water Resources

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

Mike Beam, Secretary

Laura Kelly, Governor

April 28, 2021

REBECCA GRAHAM
1457 RD 140
LAKIN, KS 67860-6300

RE: Water Right, File No. 2393, 5191, 6562, 19401

Dear Madam:

Enclosed are orders executed by the designee of the Chief Engineer, Division of Water Resources, Kansas Department of Agriculture, approving the applications for change under the above referenced file numbers.

Your attention is directed to the enclosures and to the terms, conditions, and limitations specified in the approval for change. Conditions of these approvals are that an acceptable water flow meter must be installed on the diversion works authorized under the referenced file numbers 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 also note the additional conditions attached to the orders.

Since the orders modify the original documents referred to above, they 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,

Michael A. Meyer
Water Commissioner

MAM
enclosures
pc: TRIPLE G FARMS
GMD3

CERTIFICATE OF SERVICE

On this 28th day of April 2021, I hereby certify that the foregoing Approval of Application for Change in Point of Diversion, Water Right, File Nos. 2393, 5191, 6562, 19401dated 28th day of April 2021 was mailed postage prepaid, first class, US mail to the following:

REBECCA GRAHAM
1457 RD 140
LAKIN, KS 67860-6300

Pc:

TRIPLE G FARMS
2156 ROAD 220
DEERFIELD, KS 67838-3821

GROUNDWATER MANAGEMENT DISTRICT NO. 3

Julie Jones

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
JAN 11 2021
12:13 pm
Garden City Field Office
Division of Water Resources

File No. 6562

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: TRIPLE G FARMS
2156 ROAD 220, DEERFIELD, KS 67838-3821
Phone Number: ( ) Email address:
Name and address of Water Use Correspondent: Same
Phone Number: ( ) Email address:

3. The presently authorized place of use is:
Owner of Land ---- NAME: REBECCA GRAHAM
ADDRESS: 1457 RD 140, LAKIN, KS 67860-6300
(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* 1-11-21 *Check #* 8613

updated attachment

AGREE to Reduce Authorized Diversion Rate of 665 GPM x Robin Culver 4/27/21
OWNER date

5. **Presently authorized point of diversion:**
One in the SW Quarter of the SW Quarter of the NE Quarter
of Section 12, Township 23 South, Range 34 (W),
in FI County, Kansas, 2679 feet North 2343 feet West of Southeast corner of section.
Authorized Rate Nochange Authorized Quantity No change Depth of well _____ (feet)
(DWR use only: Computer ID No. 7 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 SE Quarter of the ~~SW~~ NW Quarter of the SE Quarter
of Section 12, Township 23 South, Range 34 (W),
in FI County, Kansas, 524 feet North 1160 feet West of Southeast corner of section.
Proposed Rate 665 GPM Proposed Quantity No change Proposed well depth (feet) 330.
This point is: ☐ Additional Well ☐ Geo Center List other water rights that will use this point 2393.

6. **Presently authorized point of diversion:**
One in the _____ Quarter of the _____ Quarter of the _____ Quarter
of Section _____, Township _____ South, Range _____ (E/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 _____ (E/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) _____

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

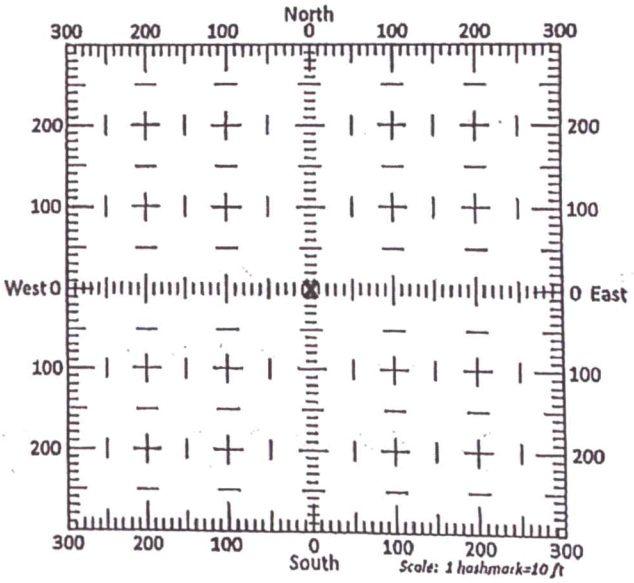
9. The change(s) (was)(will be) completed by?
_____

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

11. Groundwater Management District recommendation attached?
☐ Yes ☐ No

12. Assisted by mf/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 300 feet of the existing point of diversion, indicate its location on the diagram shown above in relation to the existing point of diversion. (PLEASE NOTE: The "X" in center of diagram above represents the presently authorized point of diversion.)

RECEIVED
APR 27 2021
Garden City Field Office
Division of Water Resources

AGREE to Reduce Authorized Diversion Rate of 665 GPM X _____ owner _____ date

5. **Presently authorized point of diversion:**
One in the SW Quarter of the SW Quarter of the NE Quarter of Section 12, Township 23 South, Range 34 (W), in FI County, Kansas, 2679 feet North 2343 feet West of Southeast corner of section.
Authorized Rate Nochange Authorized Quantity No change Depth of well _____ (feet)
(DWR use only: Computer ID No. 7 GPS _____ feet North _____ feet West)
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Proposed point of diversion: (Complete only if change is requested or if existing point is better described by GPS)
One in the SE Quarter of the ~~SW~~ NW Quarter of the SE Quarter of Section 12, Township 23 South, Range 34 (W), in FI County, Kansas, 524 feet North 1160 feet West of Southeast corner of section.
Proposed Rate 665 GPM Proposed Quantity No change Proposed well depth (feet) 330.
This point is: ☐ Additional Well ☐ Geo Center List other water rights that will use this point 2393.

6. **Presently authorized point of diversion:**
One in the _____ Quarter of the _____ Quarter of the _____ Quarter of Section _____, Township _____ South, Range _____ (E/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 _____ (E/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) _____

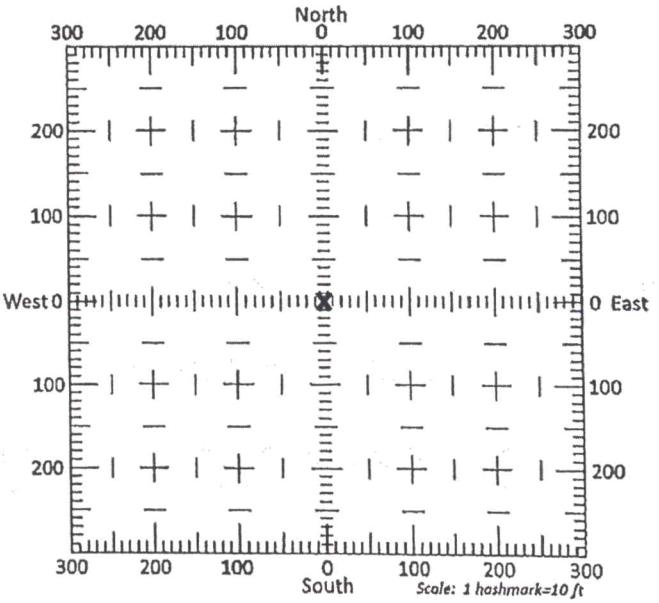
8. If a well, is the test hole log attached? ☒ Yes ☐ No

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

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

11. Groundwater Management District recommendation attached?
☐ Yes ☐ No

12. Assisted by mf/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 300 feet of the existing point of diversion, indicate its location on the diagram shown above in relation to the existing point of diversion. **(PLEASE NOTE: The "X" in center of diagram above represents the presently authorized point of diversion.)**

14. If the proposed groundwater point of diversion is 300 or fewer feet from the existing point of diversion, complete the following:

(a) Does the undersigned represent all owners of the currently authorized place(s) of use identified in this application?
☒ Yes ☐ No (If no, all owners must sign this application.)

(b) Will the ownership interest of any owner of the currently authorized place(s) of use identified in this application be adversely affected if this application is approved as requested?
☒ Yes ☐ No (If yes, all owners must sign this application.)

(c) If this application is not approved expeditiously, will there be substantial damage to property, public health or safety?
☒ Yes ☐ No (If no, all owners must sign this application.)

If the application proposes a surface water change in point of diversion, a groundwater change in point of diversion greater than 300 feet, or a change in place of use, the application must be signed by all owners of the currently authorized place of use, or their duly authorized agent (attach notarized statement authorizing representation).

I hereby verify, being first duly sworn upon my oath or affirmation and under penalty of perjury, that I am of lawful age and the owner, the spouse of the owner, or a duly authorized agent of the owner(s) to make this application on their behalf, in regards to the water right(s) to which this application pertains. I further verify that the statements contained in this application are true, correct and complete.

Dated at _____, Kansas, this _____ day of January 8, 2021.

Rebecca D Graham	
(Owner)	(Spouse)
Rebecca D Graham	
(Please Print)	(Please Print)
(Owner)	(Spouse)
(Please Print)	(Please Print)
(Owner)	(Spouse)
(Please Print)	(Please Print)

State of ~~Kansas~~ Colorado)
) SS
County of Chaffee)

I hereby certify that the foregoing application was signed in my presence and sworn to before me this 8th day of January, 2021.

Jacqueline Castillo
Notary Public
State of Colorado
Notary ID # 20174034799
My Commission Expires 8/18/21

Jacqueline Castillo
Notary Public

My Commission Expires 8-18-21

ONLY COMPLETE APPLICATIONS WILL BE PROCESSED. To be complete, all of the applicable portions of the application form must be completed with accurate information; maps, if necessary, must be included; signatures of all the appropriate owners' must be affixed to the application and notarized; and the appropriate fee must be paid.

FEE SCHEDULE

Each application to change the place of use or the point of diversion under this section shall be accompanied by the application fee set forth in the schedule below: Make checks payable to: **Kansas Department of Agriculture**

(1) Application to change a point of diversion 300 feet or less $100
(2) Application to change a point of diversion more than 300 feet $200
(3) Application to change the place of use $200

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. 6562.

1. A change application was received on January 11, 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 2640 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, 20 21**, 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, 20 21**, or within any authorized extension of time. By March 1, 20 22 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: _____
Duly Authorized Designee of the Chief Engineer

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

Date of Issuance: April 28, 2021

State of Kansas)
) SS
County of Finney)

Acknowledged before me on April 28, 2021
by Michael A. Meyer.

Signature: Julie Jones
Notary Public

My commission expires: JULIE JONES My Appointment Expires December 15, 2022 (Notary Seal)

JULIE JONES
My Appointment Expires
December 15, 2022

ADDITIONAL CONDITIONS TO
SUMMARY ORDER APPROVING APPLICATION FOR CHANGE
AND IMPOSING CONDITIONS,
Water Right, File No. 6,562

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 665 gallons per minute (1.48 c.f.s.) from the authorized point of diversion described herein.

The rate of diversion is further limited to that which when combine with the water right set forth in the Certificate of Appropriation issued pursuant to Water Right, File no. 2,393 will provide a maximum diversion rate not in excess of 665 gallons per minute (1.48 c.f.s.) for irrigation use.

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: April 28, 2021

State of Kansas)
) SS
County of Finney)

Acknowledged before me on the 28th day of May 2021

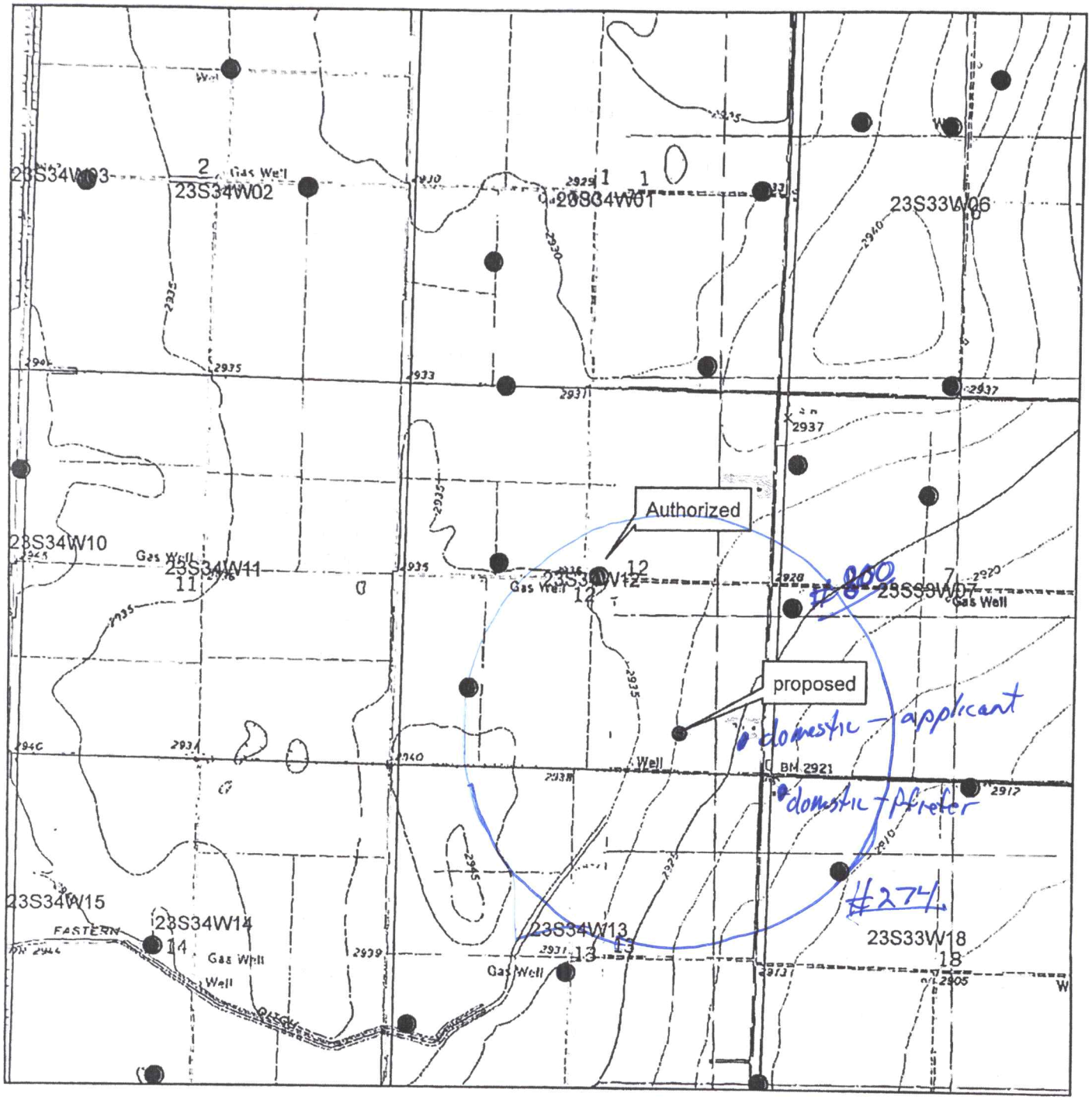
By Michael A. Meyer

Signature Julie Jones
Notary Public

My Commission expires: (Notary Seal)

STATE OF KANSAS NOTARY PUBLIC
JULIE JONES
My Appointment Expires
December 15, 2022

Change in point of diversion application for water right 6562



● Authorized point of diversion

● Proposed point of diversion

All wells within 1/2 mile are on this map.

X_____

MIDWEST WELL & PUMP

PO BOX 692, Garden City, Kansas 67846

(620)275-1920

Submit for Redrill

Owner-Name:	Graham Farms	Date: 3/20
Address:	2150 Rd. 220	Test Hole: 4-19
City, St. Zip:	Deerfield, KS 67838	Driller: Soukup
GPS:	N.38.06317 W.100.99704	
Contact #:	Cory 620-272-3074	Dig Safe#20097133
Location:	SE ¼ 12-23-34 Finney County	Static Water Level About:180'
From Old Well:	About 2800' South East	Total Depth: 330' Black Shale

FROM:	TO:	STRATA:
0	2	Top Soil
2	31	Soft Brown Clay
31	35	Brown Clay With Gypsum
35	40	Medium To Coarse Sand Small Gravel
40	72	Brown Clay
82	96	Medium To Coarse Sand Small Gravel With Brown Clay Streaks
96	104	Brown Clay With Medium To Coarse Sand Streaks
104	105	Medium Sand
105	112	Blue Sticky Clay
112	114	Coarse Sand Small Gravel
114	120	Brown Clay Few Small Coarse Sand Small Gravel Streaks
120	126	Medium To Coarse Sand Small Gravel
126	130	Brown Clay
130	146	Medium To Coarse Sand Small Gravel Few Very Small Cemented Sand Streaks
146	152	Medium With Brown Clay Streaks
152	166	Medium Sand Some Small Gravel
166	197	Brown Clay Few Small Medium Sand Streaks 90/10
197	200	Fine To Medium Sand With Brown Clay And Cemented Sand Streaks
200	206	Medium To Coarse Sand Small Gravel
206	218	Brown Clay Few Small Medium Sand Streaks
218	219	Medium Sand
219	221	Brown Clay
221	226	Medium Sand With Brown Clay Streaks
226	234	Soft Sticky Blue Clay
234	240	Brown Sticky Clay
240	256	Light Brown Sticky Clay With Gypsum and cemented Sand Streaks
256	264	Very Fine To Fine Sand Few Very Small Brown Clay Streaks
264	284	Medium To Coarse Sand Small Gravel Few Very Small Brown Clay Streaks
284	308	Medium To Coarse Sand Small Gravel With Brown Clay Streaks 60/40
308	320	Medium To Coarse Sand Small Gravel White Broken Rock

D. Engelhaupt
4/26/2021

Theis analysis of change in points of diversion, File Nos. 2,393; 5,191; 6,562; 19,401

A Theis analysis was used to evaluate the potential impacts of a set of change in point of diversions. The applications propose moving of File No. 2,393 and 6,562 to a new point of diversion located approximately 2400 feet southeast of the current location; moving File No. 19,401 to the point currently authorized by File Nos. 2,393 and 6,562; and moving File No. 5,191 to the point currently authorized by File No. 19,401.

An aquifer test was conducted by John Munson by measuring the drawdown at File 5,191 while pumping Files 2,393; 19,401; 7,334; and 1,662. Using the Theis solution the transmissivity was determined to be 24,540 ft^2/day and the storage coefficient to be 0.0002843. The saturated thickness prior to beginning pumping was 119 feet. The current (17,334 ft^2/day) and projected 2068 (6,881 ft^2/day) transmissivities were estimated using five stratigraphic logs near the location of the pump test, the GMD No. 3 groundwater model projected future saturated thickness, and the calibrated hydraulic conductivities from the model. The transmissivity from the aquifer test was multiplied by the ratio of the estimated future transmissivity to the estimated current (40%) to adjust it to future conditions (9,741 ft^2/day).

Pumping the proposed rate and quantity at the new location was compared to pumping the ten-year average use of 5,191 (65 acre-feet) at the last reported rate (90 gallons per minute). Drawdowns were evaluated at the point of diversion authorized by File No. 800. With these assumptions, the drawdown at File No. 800 increases by 11.9 feet, or 24.4% of the projected future saturated thickness (Table 1). If the proposed rate is limited to 664 gallons per minute, the net drawdown is 9.8 feet, or 20.0% of the projected future saturated thickness (Table 2).

Table 1: Theis analysis of drawdown at File No. 800; T = 9,741 ft^2/day; S = 0.0002843

Scenario	Distance (Feet)	Quantity (Acre-Feet)	Rate (GPM)	Drawdown (Feet)	Drawdown (%ST)
Proposed	2,337	640	860	13.1	26.9%
Current	4,658	65.1	90	1.2	2.4%
			Net:	11.9	24.4%

Table 2: Theis analysis of drawdown at File No. 800; T = 9,741 ft^2/day; S = 0.0002843

Scenario	Distance (Feet)	Quantity (Acre-Feet)	Rate (GPM)	Drawdown (Feet)	Drawdown (%ST)
Proposed	2,337	640	664	10.9	22.4%
Current	4,658	65.1	90	1.2	2.4%
			Net:	9.8	20.0%

Meyer, Mike [KDA]

From: Meyer, Mike [KDA]
Sent: Monday, April 26, 2021 3:18 PM
To: 'Cory Weatherred'
Subject: change application
Attachments: 20210426150512362.pdf

cory, the pump test provided a much higher transmissivity at your point of diversion that what the GMD3 model calculated. transmissivity is the ability of the aquifer to transmit groundwater throughout its entire saturated thickness. therefore, after our calculations, it appears there will be no reduction in annual quantity, but only a reduction in maximum diversion rate of 665 GPM.
if you agree, we would need Ms. Graham to agree to legally reduce Water Right, File Nos. 2393 and 6562 to a total of 665 GPM from 860 GPM total.
Attached are 2 forms that she can sign and date, with a confirmation email back saying agree to legally reduce the water rights to 665 GPM and send the attached back.

let me know if you have questions

Michael A. Meyer, PG
Kansas Department of Agriculture
Division of Water Resources
Garden City Field Office
4532 W Jones Ave, Suite B
Garden City KS 67846
Lat 37.98820, Lon -100.944470
(620)-276-2901
mike.meyer@ks.gov

Meyer, Mike [KDA]

From: Munson, John [KDA]
Sent: Tuesday, April 20, 2021 4:15 PM
To: Meyer, Mike [KDA]
Cc: Engelhaupt, David [KDA]; Beightel, Chris [KDA]
Subject: Graham aquifer test Section 12-23-34 west Finney County
Attachments: pump7334&1662&2393&19401for9day.pdf

Hi Mike,

Attached is a PDF file of the AQTESOLV report of the Graham aquifer test in Section 12-23-34 west in Finney County.

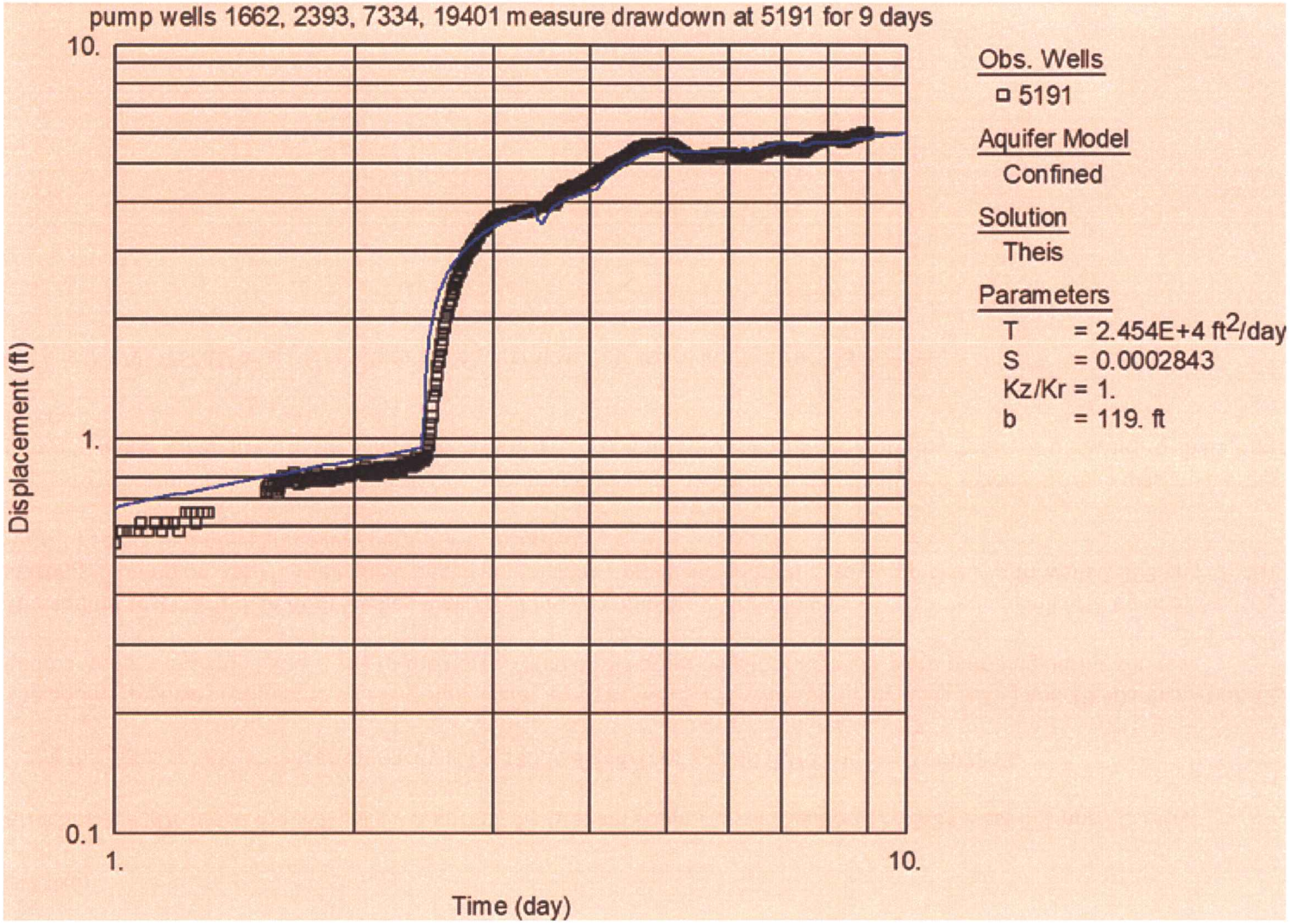
Using the Theis solution the transmissivity is **T = 183,559 gpd/ft** or 24,540 ft2/d and **S = 0.0002843**.

The aquifer test was conducted by measuring water levels at well 5,191 while pumping wells 2,393 and 19,401 in Section 12, Township 23 South, Range 34 West and pumping wells 1,662 and 7,334 to the north. None of the other neighboring wells were pumping during the test.

The aquifer test started on April 5 when well 7,334 began pumping as drawdown was observed at well 5,191 and at wells 2,393 and 19,401 prior to those wells starting to pump on April 7. Well 1,662 began pumping on April 9 and continued to pump along with wells 2,393 and 19,401 when the test was concluded on April 14 so no water level recovery period was recorded.

The saturated thickness of 119 feet used to compute the average hydraulic conductivity and specific storage was an average of the saturated thicknesses of the depth to water taken prior to the test at wells 2,393, 5,191, and 19,401 subtracted from the depth of the wells to shale from the well logs and includes clay layers.

Here is the AQTESOLV analysis result of the aquifer test. Details are in the attached PDF file.



John Munson
Groundwater Impairment Investigator
Technical Services
Water Management Services
Kansas Department of Agriculture
Division of Water Resources
1320 Research Park Drive

Manhattan, Kansas 66502

Office:785-564-6675
Field Cell: 785-256-1069

Time (day)	Displacement (ft)	Time (day)	Displacement (ft)
2.483	0.995	6.403	5.2
2.49	1.032	6.41	5.202
2.497	1.09	6.417	5.176
2.504	1.136	6.424	5.202
2.511	1.2	6.431	5.193
2.518	1.278	6.438	5.208
2.525	1.318	6.444	5.201
2.532	1.368	6.451	5.229
2.539	1.445	6.458	5.213
2.546	1.517	6.465	5.228
2.553	1.568	6.472	5.232
2.56	1.613	6.479	5.233
2.567	1.668	6.486	5.24
2.574	1.72	6.493	5.257
2.581	1.782	6.5	5.266
2.587	1.855	6.507	5.263
2.594	1.902	6.514	5.277
2.601	1.955	6.521	5.286
2.608	2.027	6.528	5.299
2.615	2.072	6.535	5.286
2.622	2.106	6.542	5.314
2.629	2.171	6.549	5.307
2.636	2.199	6.556	5.33
2.643	2.245	6.563	5.327
2.65	2.296	6.569	5.351
2.657	2.34	6.576	5.361
2.664	2.4	6.583	5.338
2.671	2.413	6.59	5.37
2.678	2.48	6.597	5.358
2.685	2.503	6.604	5.375
2.692	2.529	6.611	5.374
2.699	2.563	6.618	5.349
2.706	2.617	6.625	5.374
2.712	2.617	6.632	5.357
2.719	2.665	6.639	5.384
2.726	2.688	6.646	5.354
2.733	2.739	6.653	5.382
2.74	2.767	6.66	5.377
2.747	2.797	6.667	5.378
2.754	2.832	6.674	5.367
2.761	2.85	6.681	5.364
2.768	2.881	6.688	5.372
2.775	2.93	6.694	5.404
2.782	2.959	6.701	5.4
2.789	2.974	6.708	5.417
2.796	2.994	6.715	5.379
2.803	3.02	6.722	5.405
2.81	3.036	6.729	5.423
2.817	3.074	6.736	5.425
2.824	3.097	6.743	5.421
2.831	3.112	6.75	5.44
2.837	3.113	6.757	5.421
2.844	3.163	6.764	5.421
2.851	3.208	6.771	5.405
2.858	3.196	6.778	5.423
2.865	3.233	6.785	5.417
2.872	3.277	6.792	5.437
2.879	3.282	6.799	5.437
2.886	3.303	6.806	5.416
2.893	3.36	6.813	5.43
2.9	3.36	6.819	5.417
2.907	3.389	6.826	5.417
2.914	3.388	6.833	5.442
2.921	3.42	6.84	5.433
2.928	3.433	6.847	5.437
2.935	3.46	6.854	5.431
2.942	3.492	6.861	5.454
2.949	3.484	6.868	5.434
2.956	3.513	6.875	5.444
2.962	3.526	6.882	5.453
2.969	3.544	6.889	5.443
2.976	3.562	6.896	5.457

Time (day)	Displacement (ft)	Time (day)	Displacement (ft)
1.983	0.807	5.903	5.281
1.99	0.813	5.91	5.276
1.997	0.818	5.917	5.257
2.004	0.813	5.924	5.297
2.011	0.818	5.931	5.289
2.018	0.824	5.938	5.283
2.025	0.818	5.944	5.269
2.032	0.813	5.951	5.279
2.039	0.813	5.958	5.284
2.046	0.829	5.965	5.29
2.053	0.824	5.972	5.279
2.06	0.846	5.979	5.283
2.067	0.818	5.986	5.286
2.074	0.807	5.993	5.281
2.081	0.807	6.	5.298
2.087	0.824	6.007	5.259
2.094	0.813	6.014	5.276
2.101	0.818	6.021	5.253
2.108	0.824	6.028	5.246
2.115	0.829	6.035	5.272
2.122	0.807	6.042	5.245
2.129	0.824	6.049	5.245
2.136	0.807	6.056	5.209
2.143	0.841	6.063	5.218
2.15	0.818	6.069	5.226
2.157	0.835	6.076	5.218
2.164	0.824	6.083	5.205
2.171	0.841	6.09	5.215
2.178	0.835	6.097	5.195
2.185	0.835	6.104	5.215
2.192	0.824	6.111	5.196
2.199	0.835	6.118	5.192
2.206	0.824	6.125	5.205
2.212	0.846	6.132	5.188
2.219	0.829	6.139	5.187
2.226	0.835	6.146	5.209
2.233	0.818	6.153	5.21
2.24	0.846	6.16	5.218
2.247	0.824	6.167	5.208
2.254	0.846	6.174	5.239
2.261	0.846	6.181	5.211
2.268	0.846	6.188	5.231
2.275	0.841	6.194	5.227
2.282	0.835	6.201	5.207
2.289	0.829	6.208	5.21
2.296	0.852	6.215	5.217
2.303	0.858	6.222	5.193
2.31	0.846	6.229	5.228
2.317	0.852	6.236	5.21
2.324	0.846	6.243	5.208
2.331	0.858	6.25	5.212
2.337	0.846	6.257	5.2
2.344	0.869	6.264	5.203
2.351	0.852	6.271	5.191
2.358	0.846	6.278	5.197
2.365	0.858	6.285	5.187
2.372	0.863	6.292	5.18
2.379	0.858	6.299	5.18
2.386	0.874	6.306	5.198
2.393	0.874	6.313	5.191
2.4	0.891	6.319	5.186
2.407	0.863	6.326	5.196
2.414	0.874	6.333	5.183
2.421	0.88	6.34	5.186
2.428	0.886	6.347	5.192
2.435	0.88	6.354	5.197
2.442	0.874	6.361	5.184
2.449	0.886	6.368	5.202
2.456	0.895	6.375	5.207
2.462	0.913	6.382	5.179
2.469	0.931	6.389	5.2
2.476	0.952	6.396	5.175

Time (day)	Displacement (ft)	Time (day)	Displacement (ft)
1.146	0.58	5.403	5.137
1.167	0.61	5.41	5.155
1.188	0.61	5.417	5.13
1.208	0.58	5.424	5.148
1.229	0.65	5.431	5.158
1.25	0.65	5.438	5.141
1.271	0.61	5.444	5.122
1.292	0.65	5.451	5.115
1.313	0.65	5.458	5.134
1.546	0.728	5.465	5.139
1.553	0.739	5.472	5.141
1.56	0.751	5.479	5.117
1.567	0.767	5.486	5.152
1.574	0.734	5.493	5.169
1.581	0.756	5.5	5.137
1.587	0.767	5.507	5.175
1.594	0.734	5.514	5.176
1.601	0.722	5.521	5.177
1.608	0.756	5.528	5.18
1.615	0.751	5.535	5.166
1.622	0.773	5.542	5.179
1.629	0.801	5.549	5.204
1.636	0.784	5.556	5.211
1.643	0.773	5.563	5.193
1.65	0.779	5.569	5.201
1.657	0.79	5.576	5.187
1.664	0.796	5.583	5.201
1.671	0.79	5.59	5.209
1.678	0.818	5.597	5.23
1.685	0.801	5.604	5.221
1.692	0.79	5.611	5.221
1.699	0.773	5.618	5.214
1.706	0.767	5.625	5.221
1.712	0.79	5.632	5.227
1.719	0.79	5.639	5.239
1.726	0.773	5.646	5.227
1.733	0.779	5.653	5.214
1.74	0.79	5.66	5.242
1.747	0.779	5.667	5.218
1.754	0.784	5.674	5.249
1.761	0.779	5.681	5.241
1.768	0.801	5.688	5.252
1.775	0.79	5.694	5.237
1.782	0.796	5.701	5.237
1.789	0.796	5.708	5.228
1.796	0.813	5.715	5.254
1.803	0.79	5.722	5.256
1.81	0.801	5.729	5.259
1.817	0.79	5.736	5.263
1.824	0.796	5.743	5.249
1.831	0.784	5.75	5.253
1.837	0.79	5.757	5.272
1.844	0.807	5.764	5.259
1.851	0.807	5.771	5.249
1.858	0.79	5.778	5.264
1.865	0.784	5.785	5.253
1.872	0.796	5.792	5.246
1.879	0.801	5.799	5.242
1.886	0.801	5.806	5.267
1.893	0.801	5.813	5.252
1.9	0.796	5.819	5.277
1.907	0.796	5.826	5.248
1.914	0.79	5.833	5.274
1.921	0.801	5.84	5.277
1.928	0.813	5.847	5.274
1.935	0.807	5.854	5.286
1.942	0.796	5.861	5.247
1.949	0.813	5.868	5.29
1.956	0.807	5.875	5.27
1.962	0.807	5.882	5.264
1.969	0.801	5.889	5.262
1.976	0.807	5.896	5.236

Pumping Period Data

Time (day)	Rate (gal/min)	Time (day)	Rate (gal/min)
4.042	437.3	7.124	414.5
4.125	538.5	8.337	478.6

OBSERVATION WELL DATA

No. of observation wells: 1

Observation Well No. 1: 5191

X Location: 0. ft
Y Location: 0. ft

Radial distance from 2393: 2443.634456 ft
Radial distance from 19401: 1789.723762 ft
Radial distance from 7334: 5223.711561 ft
Radial distance from 1662: 4280.709842 ft

Fully Penetrating Well

No. of Observations: 1127

Observation Data

Time (day)	Displacement (ft)	Time (day)	Displacement (ft)
0.1458	0.04	5.069	5.533
0.1667	0.08	5.076	5.541
0.1875	0.08	5.083	5.539
0.2083	0.11	5.09	5.549
0.2292	0.08	5.097	5.539
0.25	0.15	5.104	5.539
0.2708	0.15	5.111	5.519
0.2917	0.15	5.118	5.523
0.3125	0.22	5.125	5.506
0.3333	0.22	5.132	5.504
0.3542	0.18	5.139	5.481
0.375	0.22	5.146	5.461
0.3958	0.22	5.153	5.454
0.4167	0.26	5.16	5.424
0.4375	0.29	5.167	5.423
0.4583	0.29	5.174	5.392
0.4792	0.26	5.181	5.398
0.5	0.29	5.188	5.398
0.5208	0.33	5.194	5.381
0.5417	0.33	5.201	5.361
0.5625	0.33	5.208	5.348
0.5833	0.37	5.215	5.362
0.6042	0.37	5.222	5.353
0.625	0.37	5.229	5.342
0.6458	0.4	5.236	5.335
0.6667	0.4	5.243	5.332
0.6875	0.4	5.25	5.317
0.7083	0.4	5.257	5.295
0.7292	0.44	5.264	5.287
0.75	0.48	5.271	5.281
0.7708	0.44	5.278	5.281
0.7917	0.48	5.285	5.257
0.8125	0.48	5.292	5.253
0.8333	0.48	5.299	5.233
0.8542	0.48	5.306	5.243
0.875	0.51	5.313	5.214
0.8958	0.54	5.319	5.237
0.9167	0.51	5.326	5.211
0.9375	0.54	5.333	5.189
0.9583	0.54	5.34	5.181
0.9792	0.54	5.347	5.196
1.	0.54	5.354	5.192
1.021	0.58	5.361	5.179
1.042	0.58	5.368	5.166
1.063	0.58	5.375	5.162
1.083	0.61	5.382	5.138
1.104	0.58	5.389	5.135
1.125	0.61	5.396	5.157

Time (day)	Rate (gal/min)	Time (day)	Rate (gal/min)
5.424	606.4	8.701	624.8
5.431	606.3	8.708	624.1
5.438	607.4	8.715	621.6
5.444	607.9	8.722	622.2
5.451	608.4	8.729	622.6
5.458	608.9	8.736	618.4
5.465	610.1	8.743	615.2
5.472	610.2	8.75	621.2
5.479	611.	8.757	614.3
5.486	611.3	8.764	620.1
5.493	611.5	8.771	620.5
5.5	612.	8.778	622.1
5.507	612.6	8.785	620.6
5.514	613.7	8.792	623.9
5.521	613.4	8.799	629.3
5.528	614.	8.806	628.5
5.535	614.6	8.813	620.3
5.542	614.6	8.819	628.5
5.549	615.3	8.826	630.9
5.556	615.5	8.833	631.
5.563	615.	8.84	631.
5.569	615.1	8.847	631.3
5.576	614.9	8.854	630.9
5.583	615.6	8.861	630.3
5.59	616.2	8.868	629.2
5.597	616.2	8.875	628.1
5.604	616.3	8.882	628.9
5.611	615.4	8.889	628.
5.618	615.1	8.896	623.8
5.625	615.5	8.903	610.2
5.632	616.6	8.91	609.4
5.639	616.5	8.917	609.
5.646	616.1	8.924	610.5
5.653	615.7	8.931	612.9
5.66	615.5	8.938	616.1
5.667	615.2	8.944	617.4
5.674	614.8	8.951	619.7
5.681	614.4	8.958	619.7
5.688	614.7	8.965	617.5
5.694	615.2	8.972	616.
5.701	615.		

Pumping Well No. 3: 7334

X Location: 3146.2872 ft
Y Location: 4169.8968 ft

Casing Radius: 1. ft
Well Radius: 1. ft

Fully Penetrating Well

No. of pumping periods: 6

Pumping Period Data

Time (day)	Rate (gal/min)	Time (day)	Rate (gal/min)
0.	550.7	3.109	517.
0.189	521.	4.132	503.1
2.138	534.3	5.	0.

Pumping Well No. 4: 1662

X Location: 147.636 ft
Y Location: 4278.1632 ft

Casing Radius: 1. ft
Well Radius: 1. ft

Fully Penetrating Well

No. of pumping periods: 4

Time (day)	Rate (gal/min)	Time (day)	Rate (gal/min)
4.924	636.1	8.201	620.6
4.931	636.	8.208	619.7
4.938	635.6	8.215	618.8
4.944	636.3	8.222	618.8
4.951	637.	8.229	619.1
4.958	635.	8.236	615.1
4.965	634.7	8.243	618.8
4.972	634.9	8.25	619.7
4.979	633.5	8.257	617.8
4.986	634.	8.264	617.9
4.993	633.6	8.271	618.4
5.	632.3	8.278	618.7
5.007	630.5	8.285	617.8
5.014	630.4	8.292	619.
5.021	630.	8.299	616.1
5.028	629.	8.306	618.2
5.035	629.7	8.313	618.5
5.042	628.4	8.319	617.5
5.049	628.	8.326	617.2
5.056	628.1	8.333	616.5
5.063	627.1	8.34	617.7
5.069	642.1	8.347	617.6
5.076	691.9	8.354	617.5
5.083	292.1	8.361	617.8
5.09	373.4	8.368	617.9
5.097	614.8	8.375	617.6
5.104	614.3	8.382	617.4
5.111	613.2	8.389	617.6
5.118	611.5	8.396	617.9
5.125	612.	8.403	618.6
5.132	613.	8.41	618.
5.139	612.8	8.417	618.3
5.146	612.4	8.424	618.3
5.153	609.6	8.431	618.7
5.16	607.8	8.438	618.7
5.167	609.8	8.444	618.5
5.174	610.4	8.451	618.2
5.181	611.1	8.458	618.8
5.188	609.6	8.465	619.4
5.194	607.8	8.472	619.9
5.201	608.9	8.479	620.2
5.208	607.4	8.486	620.5
5.215	608.9	8.493	621.1
5.222	608.5	8.5	620.9
5.229	608.8	8.507	621.2
5.236	610.2	8.514	621.6
5.243	610.2	8.521	621.1
5.25	609.	8.528	621.2
5.257	608.7	8.535	620.9
5.264	609.9	8.542	620.6
5.271	608.4	8.549	620.3
5.278	609.3	8.556	620.5
5.285	608.3	8.563	621.3
5.292	608.5	8.569	622.9
5.299	608.5	8.576	623.5
5.306	608.2	8.583	623.6
5.313	607.	8.59	623.6
5.319	607.6	8.597	622.6
5.326	607.7	8.604	622.8
5.333	607.4	8.611	622.
5.34	606.5	8.618	622.4
5.347	606.9	8.625	622.5
5.354	607.2	8.632	622.7
5.361	606.9	8.639	623.6
5.368	607.5	8.646	623.6
5.375	606.6	8.653	623.6
5.382	607.3	8.66	623.6
5.389	605.6	8.667	624.
5.396	606.8	8.674	624.3
5.403	606.9	8.681	625.1
5.41	606.6	8.688	624.8
5.417	606.8	8.694	624.6

Time (day)	Rate (gal/min)	Time (day)	Rate (gal/min)
4.424	615.6	7.701	629.4
4.431	616.9	7.708	619.9
4.438	617.6	7.715	626.6
4.444	615.3	7.722	618.6
4.451	612.	7.729	621.8
4.458	615.4	7.736	630.
4.465	619.2	7.743	629.9
4.472	620.6	7.75	631.6
4.479	621.3	7.757	630.7
4.486	620.9	7.764	630.4
4.493	624.1	7.771	630.9
4.5	626.	7.778	631.8
4.507	633.2	7.785	632.
4.514	633.2	7.792	632.1
4.521	633.6	7.799	631.8
4.528	631.5	7.806	631.6
4.535	634.3	7.813	630.6
4.542	635.5	7.819	630.9
4.549	635.6	7.826	630.7
4.556	636.6	7.833	630.1
4.563	638.	7.84	629.5
4.569	638.6	7.847	628.5
4.576	639.3	7.854	628.1
4.583	638.3	7.861	624.8
4.59	637.8	7.868	620.5
4.597	637.	7.875	627.1
4.604	637.9	7.882	627.6
4.611	637.8	7.889	620.5
4.618	636.2	7.896	617.8
4.625	637.3	7.903	615.8
4.632	638.3	7.91	618.3
4.639	638.6	7.917	625.6
4.646	638.5	7.924	626.9
4.653	639.	7.931	629.3
4.66	638.6	7.938	629.6
4.667	638.2	7.944	628.8
4.674	637.5	7.951	630.3
4.681	636.5	7.958	629.9
4.688	637.5	7.965	626.2
4.694	640.5	7.972	628.2
4.701	640.1	7.979	621.3
4.708	638.6	7.986	614.6
4.715	635.	7.993	613.1
4.722	638.7	8.	617.7
4.729	638.9	8.007	617.2
4.736	638.7	8.014	618.9
4.743	640.5	8.021	622.5
4.75	640.2	8.028	626.7
4.757	638.9	8.035	625.2
4.764	638.5	8.042	624.
4.771	638.8	8.049	625.1
4.778	638.2	8.056	621.
4.785	638.6	8.063	620.6
4.792	639.5	8.069	620.8
4.799	638.6	8.076	625.4
4.806	637.7	8.083	625.4
4.813	638.	8.09	623.9
4.819	637.3	8.097	625.9
4.826	636.9	8.104	624.4
4.833	637.	8.111	623.2
4.84	636.1	8.118	617.9
4.847	632.4	8.125	620.6
4.854	634.4	8.132	621.3
4.861	635.9	8.139	618.7
4.868	638.	8.146	623.
4.875	637.6	8.153	621.9
4.882	638.3	8.16	621.5
4.889	637.	8.167	619.6
4.896	637.1	8.174	622.5
4.903	636.4	8.181	618.9
4.91	635.7	8.188	622.1
4.917	635.9	8.194	623.5

Time (day)	Rate (gal/min)	Time (day)	Rate (gal/min)
3.924	627.2	7.201	610.3
3.931	627.7	7.208	611.6
3.938	625.6	7.215	610.6
3.944	624.2	7.222	611.2
3.951	627.5	7.229	610.2
3.958	625.2	7.236	615.2
3.965	624.8	7.243	611.1
3.972	624.	7.25	612.9
3.979	626.4	7.257	611.6
3.986	627.5	7.264	609.8
3.993	626.3	7.271	610.9
4.	626.4	7.278	611.
4.007	627.6	7.285	609.7
4.014	625.	7.292	610.7
4.021	622.6	7.299	611.6
4.028	622.1	7.306	610.1
4.035	623.1	7.313	614.6
4.042	621.6	7.319	619.4
4.049	623.6	7.326	615.
4.056	622.8	7.333	615.8
4.063	623.3	7.34	615.3
4.069	626.4	7.347	611.3
4.076	626.8	7.354	607.9
4.083	627.4	7.361	609.6
4.09	626.5	7.368	609.4
4.097	628.9	7.375	608.
4.104	629.2	7.382	617.9
4.111	627.8	7.389	616.3
4.118	626.2	7.396	616.6
4.125	627.5	7.403	612.5
4.132	624.5	7.41	603.5
4.139	625.3	7.417	604.8
4.146	625.9	7.424	604.6
4.153	621.4	7.431	605.7
4.16	621.3	7.438	604.9
4.167	621.8	7.444	603.9
4.174	624.7	7.451	609.5
4.181	624.1	7.458	621.4
4.188	621.1	7.465	623.4
4.194	625.5	7.472	621.6
4.201	623.3	7.479	624.5
4.208	623.1	7.486	625.4
4.215	623.4	7.493	618.3
4.222	624.4	7.5	616.7
4.229	625.	7.507	612.3
4.236	624.8	7.514	617.4
4.243	621.8	7.521	626.7
4.25	619.4	7.528	624.2
4.257	624.4	7.535	625.5
4.264	621.9	7.542	626.3
4.271	620.5	7.549	622.9
4.278	620.1	7.556	627.9
4.285	624.	7.563	627.6
4.292	621.6	7.569	628.6
4.299	619.8	7.576	628.8
4.306	619.6	7.583	629.1
4.313	622.2	7.59	626.4
4.319	618.2	7.597	629.9
4.326	620.5	7.604	630.2
4.333	621.4	7.611	629.3
4.34	617.8	7.618	628.5
4.347	619.6	7.625	627.7
4.354	618.	7.632	628.5
4.361	618.3	7.639	627.8
4.368	617.7	7.646	628.8
4.375	615.6	7.653	628.5
4.382	616.7	7.66	628.1
4.389	620.8	7.667	628.5
4.396	617.7	7.674	627.
4.403	620.5	7.681	628.1
4.41	620.1	7.688	624.6
4.417	617.1	7.694	621.7

Time (day)	Rate (gal/min)	Time (day)	Rate (gal/min)
3.424	690.3	6.701	613.7
3.431	690.6	6.708	615.8
3.438	691.5	6.715	622.
3.444	692.3	6.722	623.6
3.451	692.9	6.729	622.2
3.458	691.4	6.736	625.
3.465	652.	6.743	622.6
3.472	630.2	6.75	609.1
3.479	629.2	6.757	614.2
3.486	631.7	6.764	615.5
3.493	632.2	6.771	610.3
3.5	634.4	6.778	611.2
3.507	634.7	6.785	609.9
3.514	635.3	6.792	612.3
3.521	635.1	6.799	615.1
3.528	634.6	6.806	618.9
3.535	634.	6.813	623.
3.542	634.4	6.819	626.5
3.549	631.3	6.826	629.9
3.556	634.9	6.833	631.5
3.563	636.	6.84	631.3
3.569	635.5	6.847	630.9
3.576	633.2	6.854	629.4
3.583	633.9	6.861	631.3
3.59	633.3	6.868	632.2
3.597	630.5	6.875	631.5
3.604	626.2	6.882	631.9
3.611	632.8	6.889	632.5
3.618	633.9	6.896	632.
3.625	634.5	6.903	630.9
3.632	631.7	6.91	627.2
3.639	632.8	6.917	628.8
3.646	631.	6.924	630.2
3.653	633.5	6.931	632.6
3.66	634.6	6.938	633.
3.667	633.	6.944	632.
3.674	633.5	6.951	631.7
3.681	633.	6.958	630.5
3.688	631.4	6.965	629.1
3.694	626.	6.972	622.8
3.701	629.9	6.979	614.2
3.708	622.7	6.986	609.9
3.715	628.	6.993	610.
3.722	626.6	7.	611.
3.729	625.4	7.007	615.
3.736	625.4	7.014	616.1
3.743	624.9	7.021	615.9
3.75	629.8	7.028	616.2
3.757	628.8	7.035	616.5
3.764	628.2	7.042	617.7
3.771	627.3	7.049	615.9
3.778	627.9	7.056	614.9
3.785	627.5	7.063	615.5
3.792	626.9	7.069	613.9
3.799	627.7	7.076	614.6
3.806	626.6	7.083	614.4
3.813	628.1	7.09	613.7
3.819	629.1	7.097	613.4
3.826	629.9	7.104	612.4
3.833	629.	7.111	616.7
3.84	628.5	7.118	612.6
3.847	621.5	7.125	615.6
3.854	623.5	7.132	614.
3.861	619.8	7.139	615.
3.868	619.8	7.146	617.5
3.875	628.8	7.153	613.
3.882	624.2	7.16	613.3
3.889	621.8	7.167	612.2
3.896	621.8	7.174	610.5
3.903	625.9	7.181	612.2
3.91	627.3	7.188	614.5
3.917	626.8	7.194	616.7

Time (day)	Rate (gal/min)	Time (day)	Rate (gal/min)
2.924	625.5	6.201	595.6
2.931	625.1	6.208	596.6
2.938	624.7	6.215	594.4
2.944	621.8	6.222	594.1
2.951	619.	6.229	595.
2.958	613.9	6.236	595.5
2.965	620.3	6.243	595.6
2.972	621.	6.25	595.3
2.979	620.1	6.257	595.6
2.986	619.3	6.264	597.8
2.993	619.3	6.271	596.
3.	619.7	6.278	598.3
3.007	618.6	6.285	597.1
3.014	618.3	6.292	596.9
3.021	616.5	6.299	599.1
3.028	617.4	6.306	620.2
3.035	617.2	6.313	637.9
3.042	616.3	6.319	608.3
3.049	615.5	6.326	603.
3.056	614.2	6.333	601.
3.063	614.	6.34	602.5
3.069	614.3	6.347	602.3
3.076	612.2	6.354	602.4
3.083	612.3	6.361	605.1
3.09	611.9	6.368	604.7
3.097	612.7	6.375	607.
3.104	610.5	6.382	607.2
3.111	611.1	6.389	604.1
3.118	611.2	6.396	605.5
3.125	611.	6.403	605.6
3.132	611.8	6.41	606.6
3.139	611.	6.417	606.8
3.146	610.8	6.424	608.9
3.153	610.9	6.431	607.4
3.16	611.6	6.438	607.
3.167	611.1	6.444	607.8
3.174	610.7	6.451	607.9
3.181	611.2	6.458	605.3
3.188	610.4	6.465	606.1
3.194	610.8	6.472	604.9
3.201	610.4	6.479	604.1
3.208	611.3	6.486	603.9
3.215	612.8	6.493	604.1
3.222	612.8	6.5	602.1
3.229	612.3	6.507	601.
3.236	614.	6.514	608.2
3.243	612.9	6.521	610.2
3.25	612.5	6.528	608.8
3.257	612.5	6.535	613.4
3.264	611.8	6.542	608.
3.271	612.2	6.549	606.9
3.278	612.3	6.556	604.6
3.285	611.5	6.563	602.6
3.292	611.9	6.569	604.8
3.299	611.5	6.576	603.9
3.306	612.	6.583	604.3
3.313	611.6	6.59	606.
3.319	612.3	6.597	606.4
3.326	611.5	6.604	604.9
3.333	611.4	6.611	605.
3.34	610.9	6.618	604.7
3.347	611.5	6.625	608.1
3.354	610.6	6.632	606.9
3.361	658.	6.639	605.9
3.368	685.8	6.646	607.6
3.375	685.	6.653	608.4
3.382	685.	6.66	610.9
3.389	686.2	6.667	616.7
3.396	686.8	6.674	616.4
3.403	686.5	6.681	617.9
3.41	688.3	6.688	613.8
3.417	689.3	6.694	615.2

Pumping Period Data

Time (day)	Rate (gal/min)	Time (day)	Rate (gal/min)
2.431	339.9	5.708	614.7
2.438	643.9	5.715	614.6
2.444	622.	5.722	614.9
2.451	617.9	5.729	615.5
2.458	623.3	5.736	615.4
2.465	629.1	5.743	615.7
2.472	628.4	5.75	615.9
2.479	628.6	5.757	616.8
2.486	630.	5.764	616.4
2.493	628.4	5.771	615.7
2.5	618.8	5.778	615.8
2.507	618.3	5.785	616.5
2.514	620.5	5.792	617.1
2.521	611.9	5.799	617.9
2.528	609.4	5.806	617.
2.535	612.6	5.813	608.4
2.542	619.2	5.819	608.4
2.549	626.7	5.826	604.4
2.556	627.7	5.833	600.9
2.563	628.1	5.84	609.1
2.569	628.3	5.847	615.6
2.576	628.2	5.854	616.
2.583	628.2	5.861	611.8
2.59	627.7	5.868	613.7
2.597	627.2	5.875	618.2
2.604	627.	5.882	619.3
2.611	627.6	5.889	620.5
2.618	627.8	5.896	620.5
2.625	627.4	5.903	620.2
2.632	627.5	5.91	620.
2.639	628.	5.917	619.9
2.646	628.2	5.924	619.6
2.653	627.6	5.931	620.
2.66	627.8	5.938	620.2
2.667	628.1	5.944	619.4
2.674	627.9	5.951	617.7
2.681	627.5	5.958	616.7
2.688	627.6	5.965	615.7
2.694	627.9	5.972	615.1
2.701	627.1	5.979	614.2
2.708	626.9	5.986	613.2
2.715	626.8	5.993	612.3
2.722	627.7	6.	610.8
2.729	627.5	6.007	607.
2.736	626.2	6.014	606.6
2.743	625.2	6.021	605.8
2.75	625.3	6.028	597.6
2.757	626.1	6.035	591.1
2.764	626.	6.042	590.
2.771	626.5	6.049	590.8
2.778	625.3	6.056	592.7
2.785	625.3	6.063	595.3
2.792	625.6	6.069	595.7
2.799	626.	6.076	595.5
2.806	626.7	6.083	595.7
2.813	627.4	6.09	595.7
2.819	627.5	6.097	592.6
2.826	625.4	6.104	594.3
2.833	624.6	6.111	596.1
2.84	623.8	6.118	594.4
2.847	624.7	6.125	595.2
2.854	625.7	6.132	595.6
2.861	626.1	6.139	595.2
2.868	625.6	6.146	598.4
2.875	625.4	6.153	597.1
2.882	624.9	6.16	599.1
2.889	624.9	6.167	597.3
2.896	625.8	6.174	596.5
2.903	626.3	6.181	595.4
2.91	625.7	6.188	596.2
2.917	625.5	6.194	596.

Time (day)	Rate (gal/min)	Time (day)	Rate (gal/min)
5.299	591.1	8.576	614.7
5.306	591.5	8.583	618.
5.313	589.8	8.59	619.7
5.319	588.8	8.597	619.9
5.326	592.1	8.604	618.6
5.333	591.9	8.611	618.1
5.34	592.	8.618	617.8
5.347	590.	8.625	617.9
5.354	591.7	8.632	618.7
5.361	592.8	8.639	618.9
5.368	591.6	8.646	618.8
5.375	593.2	8.653	618.5
5.382	591.	8.66	618.6
5.389	591.4	8.667	615.8
5.396	594.4	8.674	612.7
5.403	594.2	8.681	610.1
5.41	593.6	8.688	615.4
5.417	594.9	8.694	619.
5.424	594.4	8.701	619.
5.431	595.2	8.708	617.9
5.438	592.2	8.715	614.4
5.444	595.3	8.722	595.7
5.451	595.1	8.729	606.1
5.458	597.9	8.736	605.
5.465	602.1	8.743	596.2
5.472	601.5	8.75	605.8
5.479	602.	8.757	614.3
5.486	603.3	8.764	614.3
5.493	603.	8.771	606.8
5.5	601.	8.778	607.8
5.507	599.2	8.785	613.9
5.514	603.5	8.792	611.
5.521	599.9	8.799	613.6
5.528	592.9	8.806	618.1
5.535	596.1	8.813	612.8
5.542	600.1	8.819	618.
5.549	596.4	8.826	608.4
5.556	597.4	8.833	604.8
5.563	601.2	8.84	604.3
5.569	597.3	8.847	603.6
5.576	597.1	8.854	612.3
5.583	595.2	8.861	614.9
5.59	592.5	8.868	610.2
5.597	593.8	8.875	616.1
5.604	596.5	8.882	617.1
5.611	602.2	8.889	620.
5.618	602.6	8.896	624.1
5.625	603.	8.903	631.8
5.632	597.	8.91	631.3
5.639	596.3	8.917	630.8
5.646	601.1	8.924	630.2
5.653	604.6	8.931	629.2
5.66	601.8	8.938	628.8
5.667	603.8	8.944	628.7
5.674	605.1	8.951	627.7
5.681	603.	8.958	627.4
5.688	599.9	8.965	627.7
5.694	604.7	8.972	627.4
5.701	605.3		

Pumping Well No. 2: 19401

X Location: 410.1 ft
Y Location: 1742.1048 ft

Casing Radius: 1. ft
Well Radius: 1. ft

Fully Penetrating Well

No. of pumping periods: 943

Time (day)	Rate (gal/min)	Time (day)	Rate (gal/min)
4.799	574.4	8.076	617.6
4.806	578.8	8.083	619.3
4.813	578.6	8.09	618.4
4.819	579.3	8.097	616.3
4.826	578.7	8.104	614.6
4.833	578.2	8.111	614.9
4.84	579.7	8.118	615.2
4.847	581.4	8.125	614.2
4.854	579.8	8.132	613.5
4.861	576.3	8.139	611.3
4.868	575.2	8.146	613.1
4.875	574.7	8.153	610.5
4.882	575.2	8.16	611.5
4.889	577.2	8.167	609.2
4.896	576.2	8.174	602.2
4.903	579.4	8.181	610.5
4.91	580.7	8.188	607.9
4.917	579.4	8.194	607.1
4.924	581.	8.201	614.1
4.931	580.9	8.208	607.6
4.938	580.9	8.215	603.7
4.944	578.1	8.222	609.5
4.951	576.	8.229	608.6
4.958	579.1	8.236	608.
4.965	578.6	8.243	607.4
4.972	574.7	8.25	607.3
4.979	576.8	8.257	603.6
4.986	574.4	8.264	602.4
4.993	576.	8.271	610.6
5.	576.5	8.278	603.3
5.007	578.	8.285	609.8
5.014	578.	8.292	606.7
5.021	579.	8.299	606.8
5.028	579.8	8.306	609.
5.035	578.5	8.313	610.
5.042	578.8	8.319	606.6
5.049	578.7	8.326	609.
5.056	578.4	8.333	607.7
5.063	581.	8.34	611.7
5.069	386.2	8.347	610.2
5.076	4.127	8.354	610.
5.083	643.3	8.361	611.3
5.09	669.3	8.368	611.
5.097	614.6	8.375	612.1
5.104	611.2	8.382	612.5
5.111	609.8	8.389	613.3
5.118	606.8	8.396	613.
5.125	609.6	8.403	614.
5.132	606.4	8.41	614.9
5.139	605.8	8.417	613.8
5.146	605.5	8.424	614.6
5.153	605.4	8.431	613.
5.16	607.1	8.438	612.5
5.167	606.1	8.444	612.7
5.174	604.5	8.451	612.6
5.181	602.9	8.458	613.1
5.188	602.7	8.465	611.2
5.194	597.7	8.472	611.6
5.201	597.9	8.479	613.
5.208	599.5	8.486	612.7
5.215	597.7	8.493	609.3
5.222	596.4	8.5	611.4
5.229	595.9	8.507	610.5
5.236	593.4	8.514	610.8
5.243	594.5	8.521	612.4
5.25	591.3	8.528	614.2
5.257	589.8	8.535	615.
5.264	592.4	8.542	616.8
5.271	590.9	8.549	616.6
5.278	590.2	8.556	616.7
5.285	588.7	8.563	616.
5.292	591.3	8.569	616.8

Time (day)	Rate (gal/min)	Time (day)	Rate (gal/min)
4.299	591.	7.576	621.4
4.306	591.3	7.583	625.3
4.313	590.8	7.59	626.3
4.319	591.5	7.597	622.8
4.326	590.4	7.604	622.2
4.333	590.7	7.611	624.1
4.34	591.3	7.618	622.2
4.347	591.1	7.625	623.6
4.354	590.6	7.632	624.
4.361	590.6	7.639	624.5
4.368	590.6	7.646	623.9
4.375	591.2	7.653	623.1
4.382	591.3	7.66	625.2
4.389	590.2	7.667	625.9
4.396	590.3	7.674	626.6
4.403	589.8	7.681	625.3
4.41	591.1	7.688	624.
4.417	592.	7.694	625.5
4.424	592.5	7.701	621.5
4.431	592.	7.708	619.3
4.438	591.3	7.715	619.1
4.444	592.7	7.722	620.5
4.451	594.1	7.729	617.2
4.458	593.9	7.736	621.5
4.465	591.9	7.743	621.1
4.472	591.7	7.75	619.2
4.479	592.	7.757	621.8
4.486	591.2	7.764	623.9
4.493	589.8	7.771	623.7
4.5	590.4	7.778	623.9
4.507	588.6	7.785	622.9
4.514	588.6	7.792	624.2
4.521	587.3	7.799	624.1
4.528	586.5	7.806	620.6
4.535	585.2	7.813	624.9
4.542	581.5	7.819	626.
4.549	585.7	7.826	625.1
4.556	586.2	7.833	626.6
4.563	581.	7.84	627.
4.569	580.	7.847	629.
4.576	580.8	7.854	631.5
4.583	585.3	7.861	628.1
4.59	585.1	7.868	628.5
4.597	585.6	7.875	624.8
4.604	584.6	7.882	623.4
4.611	585.2	7.889	633.5
4.618	585.7	7.896	633.1
4.625	584.9	7.903	635.4
4.632	583.1	7.91	634.2
4.639	580.5	7.917	622.4
4.646	579.1	7.924	616.1
4.653	577.5	7.931	613.9
4.66	577.5	7.938	611.4
4.667	577.1	7.944	616.3
4.674	579.4	7.951	625.3
4.681	580.9	7.958	625.3
4.688	575.6	7.965	617.2
4.694	572.4	7.972	622.9
4.701	574.8	7.979	626.7
4.708	571.	7.986	630.
4.715	574.8	7.993	632.3
4.722	575.8	8.	630.3
4.729	577.4	8.007	627.
4.736	578.1	8.014	623.7
4.743	574.	8.021	620.6
4.75	574.3	8.028	621.6
4.757	579.4	8.035	620.1
4.764	579.6	8.042	619.7
4.771	578.3	8.049	616.8
4.778	578.4	8.056	617.8
4.785	576.9	8.063	618.
4.792	574.5	8.069	619.4

Time (day)	Rate (gal/min)	Time (day)	Rate (gal/min)
3.799	575.	7.076	629.1
3.806	580.3	7.083	628.5
3.813	583.3	7.09	628.1
3.819	590.2	7.097	628.6
3.826	589.	7.104	627.7
3.833	592.4	7.111	628.9
3.84	588.8	7.118	628.7
3.847	597.	7.125	627.5
3.854	590.6	7.132	626.8
3.861	596.4	7.139	624.9
3.868	596.7	7.146	624.
3.875	594.5	7.153	624.1
3.882	593.3	7.16	623.2
3.889	589.5	7.167	625.4
3.896	591.7	7.174	624.1
3.903	590.6	7.181	625.2
3.91	589.8	7.188	623.9
3.917	592.5	7.194	621.5
3.924	593.7	7.201	626.6
3.931	594.9	7.208	625.4
3.938	596.	7.215	625.4
3.944	597.5	7.222	625.9
3.951	596.6	7.229	625.2
3.958	596.7	7.236	623.5
3.965	595.5	7.243	623.9
3.972	595.3	7.25	623.5
3.979	593.9	7.257	623.2
3.986	593.3	7.264	622.9
3.993	592.2	7.271	622.
4.	592.4	7.278	622.2
4.007	592.3	7.285	623.2
4.014	591.6	7.292	625.3
4.021	592.7	7.299	622.9
4.028	592.8	7.306	625.
4.035	592.7	7.313	618.1
4.042	592.8	7.319	616.6
4.049	592.5	7.326	618.8
4.056	592.4	7.333	617.8
4.063	591.1	7.34	619.3
4.069	590.8	7.347	619.7
4.076	591.9	7.354	624.9
4.083	592.4	7.361	626.1
4.09	593.3	7.368	623.7
4.097	592.4	7.375	624.5
4.104	591.9	7.382	617.2
4.111	592.3	7.389	621.6
4.118	592.8	7.396	619.3
4.125	591.5	7.403	625.7
4.132	590.6	7.41	629.
4.139	590.6	7.417	628.1
4.146	590.	7.424	627.8
4.153	592.1	7.431	629.
4.16	592.3	7.438	628.8
4.167	590.7	7.444	627.2
4.174	589.2	7.451	623.7
4.181	590.	7.458	608.
4.188	591.5	7.465	605.3
4.194	588.2	7.472	608.9
4.201	588.7	7.479	608.
4.208	588.2	7.486	612.8
4.215	588.3	7.493	619.
4.222	586.9	7.5	613.6
4.229	587.1	7.507	622.
4.236	586.6	7.514	615.3
4.243	586.3	7.521	601.7
4.25	587.7	7.528	606.5
4.257	587.	7.535	604.7
4.264	587.5	7.542	597.8
4.271	588.6	7.549	607.7
4.278	589.8	7.556	612.5
4.285	588.8	7.563	622.5
4.292	589.4	7.569	623.1

Time (day)	Rate (gal/min)	Time (day)	Rate (gal/min)
3.299	565.5	6.576	627.5
3.306	564.8	6.583	628.4
3.313	565.5	6.59	628.1
3.319	564.9	6.597	628.4
3.326	565.7	6.604	629.5
3.333	566.1	6.611	629.5
3.34	567.1	6.618	630.
3.347	568.	6.625	629.
3.354	570.8	6.632	628.6
3.361	129.5	6.639	630.5
3.368	0.76	6.646	630.1
3.375	0.652	6.653	629.7
3.382	0.652	6.66	629.
3.389	0.652	6.667	627.2
3.396	0.652	6.674	627.7
3.403	0.652	6.681	628.1
3.41	0.652	6.688	628.5
3.417	0.652	6.694	628.2
3.424	0.652	6.701	628.7
3.431	0.652	6.708	627.3
3.438	0.652	6.715	626.
3.444	0.652	6.722	625.7
3.451	0.652	6.729	626.4
3.458	79.4	6.736	626.6
3.465	645.8	6.743	627.4
3.472	615.6	6.75	632.3
3.479	596.	6.757	630.6
3.486	593.	6.764	628.2
3.493	594.8	6.771	631.7
3.5	593.2	6.778	631.3
3.507	594.4	6.785	631.6
3.514	595.9	6.792	630.6
3.521	603.	6.799	629.1
3.528	601.5	6.806	623.9
3.535	597.1	6.813	622.3
3.542	595.2	6.819	623.5
3.549	607.2	6.826	621.8
3.556	598.5	6.833	620.
3.563	593.7	6.84	621.1
3.569	592.3	6.847	622.9
3.576	603.4	6.854	624.1
3.583	604.	6.861	620.5
3.59	601.1	6.868	620.6
3.597	604.8	6.875	621.8
3.604	605.9	6.882	620.6
3.611	597.5	6.889	620.9
3.618	595.4	6.896	620.
3.625	595.4	6.903	621.
3.632	599.6	6.91	621.2
3.639	595.7	6.917	622.6
3.646	599.2	6.924	622.9
3.653	594.4	6.931	621.4
3.66	591.7	6.938	619.3
3.667	598.3	6.944	619.7
3.674	592.9	6.951	619.7
3.681	592.1	6.958	620.2
3.688	597.8	6.965	623.2
3.694	598.	6.972	625.3
3.701	595.	6.979	628.5
3.708	585.9	6.986	631.
3.715	587.4	6.993	630.8
3.722	592.1	7.	631.8
3.729	578.6	7.007	630.2
3.736	588.1	7.014	630.
3.743	591.5	7.021	630.3
3.75	582.5	7.028	631.1
3.757	578.2	7.035	630.8
3.764	579.1	7.042	629.5
3.771	582.2	7.049	628.9
3.778	576.1	7.056	629.4
3.785	580.5	7.063	629.8
3.792	584.1	7.069	630.

Time (day)	Rate (gal/min)	Time (day)	Rate (gal/min)
2.799	563.6	6.076	613.3
2.806	562.7	6.083	612.8
2.813	562.1	6.09	612.9
2.819	562.9	6.097	611.8
2.826	564.4	6.104	610.
2.833	564.5	6.111	611.8
2.84	565.	6.118	614.4
2.847	563.1	6.125	614.4
2.854	561.9	6.132	615.8
2.861	561.9	6.139	616.3
2.868	562.4	6.146	613.4
2.875	563.3	6.153	615.2
2.882	566.5	6.16	616.7
2.889	566.	6.167	616.4
2.896	562.6	6.174	617.2
2.903	562.4	6.181	616.5
2.91	564.3	6.188	617.4
2.917	563.2	6.194	617.5
2.924	563.8	6.201	617.3
2.931	561.8	6.208	614.3
2.938	561.1	6.215	616.9
2.944	557.	6.222	616.9
2.951	562.9	6.229	616.5
2.958	566.1	6.236	615.4
2.965	566.2	6.243	614.7
2.972	564.8	6.25	614.
2.979	562.2	6.257	614.1
2.986	562.7	6.264	614.2
2.993	562.2	6.271	614.3
3.	561.3	6.278	614.8
3.007	561.1	6.285	613.5
3.014	560.6	6.292	612.4
3.021	559.8	6.299	615.8
3.028	560.6	6.306	187.5
3.035	560.	6.313	82.33
3.042	559.1	6.319	618.7
3.049	555.9	6.326	607.5
3.056	555.6	6.333	609.
3.063	556.4	6.34	608.7
3.069	554.8	6.347	608.5
3.076	557.5	6.354	610.
3.083	556.7	6.361	610.3
3.09	555.7	6.368	611.
3.097	554.6	6.375	611.3
3.104	556.2	6.382	611.7
3.111	557.	6.389	613.
3.118	556.9	6.396	612.9
3.125	556.9	6.403	614.
3.132	556.6	6.41	614.4
3.139	556.4	6.417	615.1
3.146	557.2	6.424	616.2
3.153	556.7	6.431	616.7
3.16	555.7	6.438	617.9
3.167	555.7	6.444	618.7
3.174	555.7	6.451	618.5
3.181	554.2	6.458	619.7
3.188	555.1	6.465	620.1
3.194	554.3	6.472	620.9
3.201	555.8	6.479	621.9
3.208	553.8	6.486	622.4
3.215	562.9	6.493	622.9
3.222	563.7	6.5	623.
3.229	565.8	6.507	622.7
3.236	563.4	6.514	620.9
3.243	563.6	6.521	619.9
3.25	565.2	6.528	622.3
3.257	564.	6.535	620.7
3.264	566.9	6.542	623.
3.271	564.8	6.549	624.
3.278	565.6	6.556	626.3
3.285	565.4	6.563	627.
3.292	565.5	6.569	627.2

PUMPING WELL DATA

No. of pumping wells: 4

Pumping Well No. 1: 2393

X Location: 1893.0216 ft
Y Location: 1545.2568 ft

Casing Radius: 1. ft
Well Radius: 1. ft

Fully Penetrating Well

No. of pumping periods: 943

Pumping Period Data

Time (day)	Rate (gal/min)	Time (day)	Rate (gal/min)
2.431	557.4	5.708	604.5
2.438	662.5	5.715	606.7
2.444	613.5	5.722	606.5
2.451	604.9	5.729	606.
2.458	599.9	5.736	607.2
2.465	593.6	5.743	607.3
2.472	591.2	5.75	604.2
2.479	588.2	5.757	602.5
2.486	585.3	5.764	602.2
2.493	583.5	5.771	604.3
2.5	585.8	5.778	608.
2.507	584.4	5.785	596.6
2.514	582.7	5.792	600.8
2.521	585.	5.799	600.5
2.528	585.3	5.806	597.1
2.535	582.3	5.813	610.5
2.542	576.3	5.819	611.7
2.549	564.7	5.826	616.2
2.556	566.1	5.833	615.2
2.563	564.5	5.84	607.5
2.569	565.2	5.847	601.2
2.576	566.7	5.854	598.5
2.583	566.7	5.861	597.5
2.59	567.2	5.868	601.3
2.597	566.	5.875	608.6
2.604	566.4	5.882	603.7
2.611	566.2	5.889	607.3
2.618	565.1	5.896	607.6
2.625	563.2	5.903	607.4
2.632	564.5	5.91	606.7
2.639	564.8	5.917	607.
2.646	566.4	5.924	607.5
2.653	565.	5.931	605.2
2.66	563.3	5.938	603.
2.667	563.9	5.944	607.
2.674	564.7	5.951	610.6
2.681	563.7	5.958	607.7
2.688	562.6	5.965	610.3
2.694	563.	5.972	613.4
2.701	563.5	5.979	615.2
2.708	562.7	5.986	616.5
2.715	562.7	5.993	617.3
2.722	560.5	6.	615.1
2.729	560.5	6.007	616.6
2.736	561.6	6.014	615.4
2.743	562.2	6.021	613.5
2.75	561.9	6.028	613.9
2.757	561.1	6.035	613.9
2.764	561.4	6.042	615.
2.771	559.9	6.049	614.1
2.778	560.7	6.056	613.4
2.785	561.8	6.063	613.4
2.792	563.3	6.069	613.6

D. Engelhaupt
3/22/2021

Theis analysis of change in points of diversion, File Nos. 2,393; 5,191; 6,562; 19,401

A Theis analysis was used to evaluate the potential impacts of a set of change in point of diversions. The applications propose moving of File No. 2,393 and 6,562 to a new point of diversion located approximately 2400 feet southeast of the current location; moving File No. 19,401 to the point currently authorized by File Nos. 2,393 and 6,562; and moving File No. 5,191 to the point currently authorized by File No. 19,401. The 2068 projected saturated thickness (49 feet) and transmissivity (1,693 ft^2/day) from the GMD No. 3 groundwater model were used. The specific storage was assumed to be 10^{-5}, which results in a storage coefficient of 0.0005. Pumping the proposed rate and quantity at the new location was compared to pumping the ten-year average use of 5,191 (65 acre-feet) at the last reported rate (90 gallons per minute). Drawdowns were evaluated at the point of diversion authorized by File No. 800. With these assumptions, the drawdown at File No. 800 increases by 52.8 feet, or 107.9% of the projected future saturated thickness.

Table 2: Theis analysis of drawdown at File No. 800; T = 1,693 ft^2/day; S = 0.0005

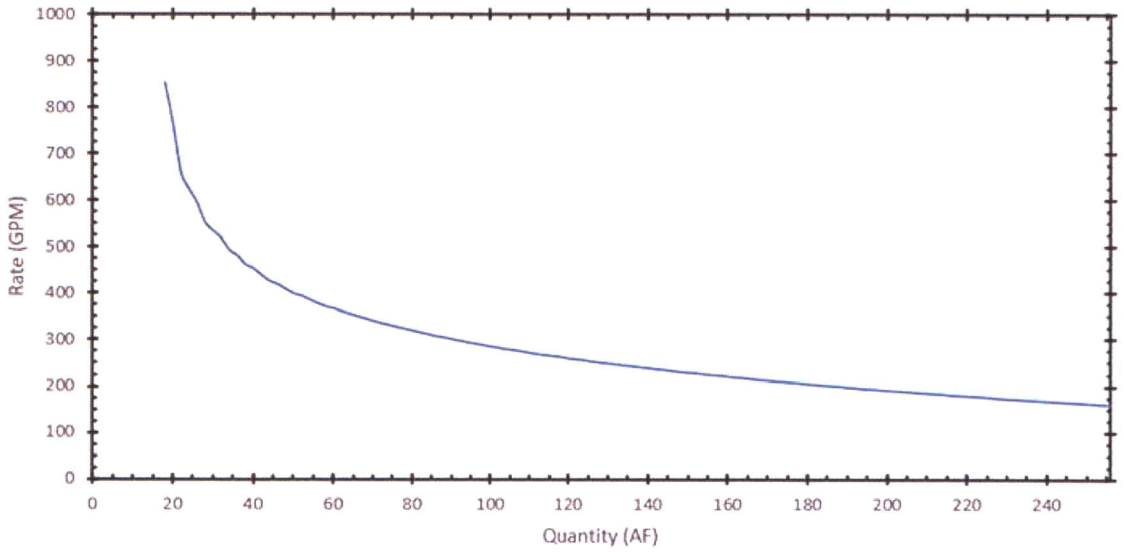
Scenario	Distance (Feet)	Quantity (Acre-Feet)	Rate (GPM)	Drawdown (Feet)	Drawdown (%ST)
Proposed	2,337	640.0	860	57.6	117.8%
Current	4,658	65.1	90	4.8	9.9%
			Net:	52.8	107.9%

Meyer, Mike [KDA]

From: Engelhaupt, David [KDA]
Sent: Monday, March 22, 2021 3:01 PM
To: McColloch, Austin [KDA]; Meyer, Mike [KDA]
Subject: RE: Theis - Graham Files
Attachments: Theis_2393.pdf; Theis2393.xlsb

Mike and Austin,

Report is attached. Since I know the next question will be "what will pass?", I've found that answer too. The graph below plots the rate that it would pass at for a given authorized quantity. I've also attached the supporting excel file so you can get the rate accurately without having to read it off the graph. Enter a quantity in F2 and the allowable rate is calculated in K2.



Regards,

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

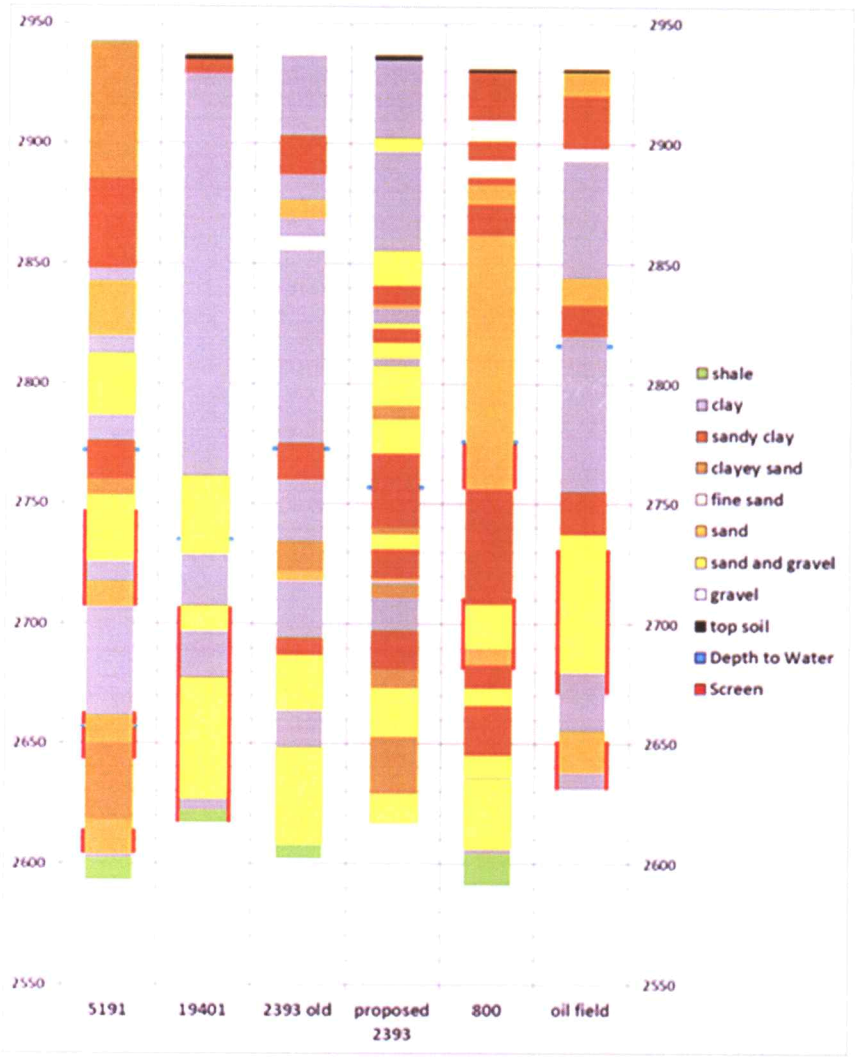
From: McColloch, Austin [KDA] <Austin.McColloch@ks.gov>
Sent: Monday, March 15, 2021 3:47 PM
To: Engelhaupt, David [KDA] <David.Engelhaupt@ks.gov>
Cc: Meyer, Mike [KDA] <Mike.Meyer@ks.gov>
Subject: Theis - Graham Files

David,

Can we get a theis run on this proposed change. Attached are the applications, along with GMD3 analysis pulled from the web. We have not received an official recommendation back from them yet.

Thanks,

Austin McColloch
Ph: (620) 276-2901


2950
2900
2850
2800
2750
2700
2650
2600
2550
shale
clay
sandy clay
clayey sand
fine sand
sand
sand and gravel
gravel
top soil
Depth to Water
Screen
5191
19401
2393 old
proposed 2393
800
oil field

WATER MANAGEMENT
FOR SOUTHWEST
KANSAS
GMD3

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

March 17, 2021

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

RE: Applications for Change in Point of Diversion
Water Right, File Nos. 2393, 5191, 6562 & 19401

Dear Mike:

We have completed a review of the applications for the above referenced water rights. The proposed changes in points of diversion are 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 again 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 (2.5 ft in cases where saturated thickness is between 100-125 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 multiple neighboring wells exceeded the net effect above the maximum allowable threshold and required further evaluations. The main effects would be from the new proposed well under water rights 2393 & 6562. The analysis shows that if that well was limited to a quantity of 267AF and a rate of 500gpm, the neighboring wells would no longer be considered critical. The highest effects appear to be on the domestic well in the NW corner of 18-23-33. Our office did not receive any responses from the neighbor notices that were sent out. Therefore, GMD3 sees this move as reasonable and therefore recommend that the application be approved with the limitation on the new well. 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
MAR 18 2021
Garden City Field Office
Division of Water Resources

GMD3 Change Review

File No(s).: 2393, 5191, 6562 & 19401 . DWR office: GC.
App filed to change: PDs .
Is Landowner(s) correct in WRIS: Rebecca Graham .
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) __ being changed.

	ft. North	ft. West	
Authorized PD			
Proposed PD			
Difference	0	0	
a2 + b2 = c2	0	0	0

GPS for proposed PD: Lat: 38.06317 Long: -100.99704.
Is proposed PD stacking on existing WRs? No change in current stacking. 2393 & 6562 moving together and 5191 & 19401 remain separate but moving to new (current) wells.
Is Proposed PU overlapping existing WRs? No change .
Neighboring certified well(s) notified: __.
Name Paul A Pfeifer (274, 18700 & domestic).
Address 6090 W 6 Mile RD.
Zip Holcomb, KS 67851.
Email: grandmaster.mike@yahoo.com. Phone: 620-640-2772.

Name Fred D Cormack Jr (599).
Address PO Box 1006.
Zip Holcomb, KS 67851.
Email: poorfarmer@wsbnet.org. Phone: 620-290-0307.

Name Russell Komlofske (800).
Address 4500 N IBP RD.
Zip Holcomb, KS 67851.
Email: rkomlofske65@gmail.com. Phone: 620-272-5087.

Name The Garden City Co (7193DE, 35059).
Address PO Box 597.
Zip Garden City, KS 67846.
Email: troy.dumler@sbcglobal.net. Phone: 620-276-3246.

Domestic well(s) notified: __.
Name Franz Weibe (NE NE 12-23-34).

GMD3 Change Review

Address 8405 N Big Lowe RD.
Zip Holcomb, KS 67851.

Name Paula A Pfeifer Trust (NW NW 18-23-33).
Address 6090 W 6 Mile RD.
Zip Holcomb, KS 67851.

Base Acres: __.
Perfected Acres: __.
Irr. Return-Flow ___%

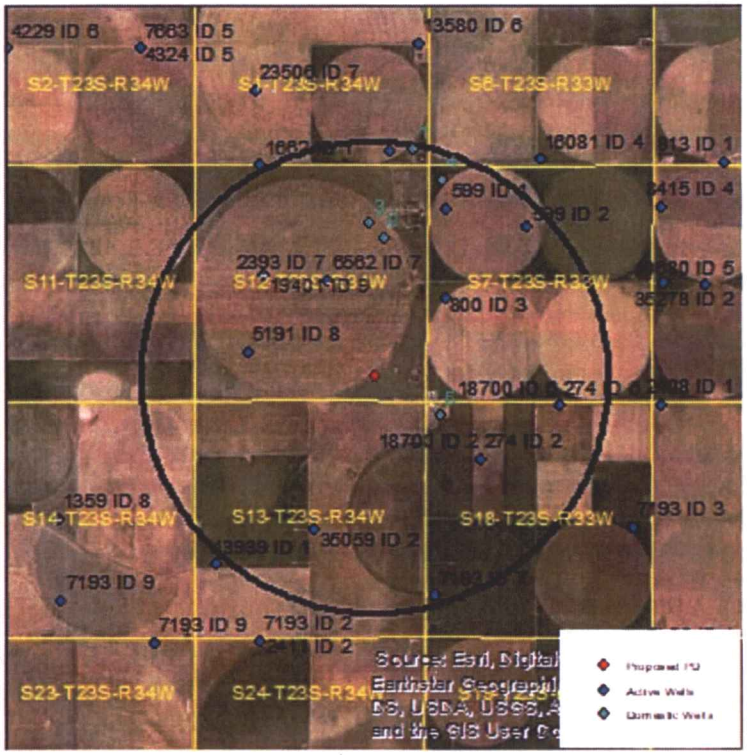
2393 & 6562 moving to a new well. Authorized a combined 640AF.
Current well: Ten year average reported use (2010-2019): 247.826AF, 650gpm reported in 2018. GMD3 inspection in 2020 calculated flow at 526gpm.
5191, authorized 218AF @ 700gpm, moving to the well location vacated by 19401.
Current well: Ten year average reported use: 75.169AF, 90gpm reperted in 2018. GMD3 inspection in 2020 calculated flow at 44gpm. THIS WELL WILL BE ABANDONED.
19401, 294AF @ 950gpm, moving to well location vacated by 2393 & 6562.
Current well: Ten year average reported use: 199.9AF, 575gpm reported in 2018. GMD3 inspection in 2016 calculated flow at 562gpm.

Is a waiver needed: All proposed moves less than half mile and appears to meet spacing to neighboring wells. Analysis shows the proposed new well would have effects above our guidelines and would need to be limited to mitigate the effects in the area. The biggest effect was to a domestic well in the NW corner of 18-23-33. We did not receive any comments from neighbors.

Recommendation: Appears current area rules are met, however the proposed move as proposed would have possible adverse effects to other wells in area and be considered critical. By limiting the new well to 267AF @ 500gpm would mitigate the effects.

Evaluation of proposed move for Water Right Nos 2393, 5191, 6562, and 19401

Proposed: Move water right nos. 2393 & 6562 to a new well location a distance of 2,392 ft to the southeast. Move water right no. 19401 to the well location currently authorized by water right nos. 2393 & 6562. Move water right no. 5191 to the well location currently authorized by water right no. 19401.



Wells within 1 mile: 7334, 800, 599 ID 1, 599 ID 2, 274 & 18700 ID2, 274 & 18700 ID 6, 7193, 35059, and 5 domestic wells, numbered on the above map.

The saturated thickness at the proposed well location is estimated to be 106 ft, based upon the driller's log and an observation well in section 7-23-33. For saturated thickness between 100 ft and 125 ft, the drawdown allowance is 2.5 ft.

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

S = 0.259, T = 4387.6 ft^2/day, $tp_{current}$ = 170 days, $Q_{current}$ = 100 gpm, $tp_{proposed}$ = 168 days, $Q_{proposed}$ = 860 gpm (Note that this evaluation is treated as if the well shutting off, 5191, is moving to the new well location.)

Theis drawdowns were calculated as follows:

7334: Drawdown from current location = 0.52 ft

Drawdown from proposed location = 4.62 ft

Net drawdown = **4.1 ft**

800:	Drawdown from current location = 0.58 ft
	Drawdown from proposed location = 7.18 ft
	Net drawdown = **6.6 ft**
599 ID 1:	Drawdown from current location = 0.52 ft
	Drawdown from proposed location = 5.29 ft
	Net drawdown = **4.8 ft**
599 ID 2:	Drawdown from current location = 0.44 ft
	Drawdown from proposed location = 4.77 ft
	Net drawdown = **4.3 ft**
274 & 18700 ID 2:	Drawdown from current location = 0.50 ft
	Drawdown from proposed location = 6.29 ft
	Net drawdown = **5.8 ft**
274 & 18700 ID 6:	Drawdown from current location = 0.43 ft
	Drawdown from proposed location = 5.19 ft
	Net drawdown = **4.8 ft**
7193:	Drawdown from current location = 0.44 ft
	Drawdown from proposed location = 4.62 ft
	Net drawdown = **4.2 ft**
35059:	Drawdown from current location = 0.61 ft
	Drawdown from proposed location = 5.64 ft
	Net drawdown = **5.0 ft**
Domestic 1:	Drawdown from current location = 0.50 ft
	Drawdown from proposed location = 4.58 ft
	Net drawdown = **4.1 ft**
Domestic 2:	Drawdown from current location = 0.63 ft
	Drawdown from proposed location = 6.20 ft
	Net drawdown = **5.6 ft**

Domestic 3:	Drawdown from current location = 0.63 ft
	Drawdown from proposed location = 5.84 ft
	Net drawdown = **5.2 ft**
Domestic 4:	Drawdown from current location = 0.50 ft
	Drawdown from proposed location = 4.87 ft
	Net drawdown = **4.4 ft**
Domestic 5:	Drawdown from current location = 0.58 ft
	Drawdown from proposed location = 8.75 ft
	Net drawdown = **8.2 ft**

Net drawdown exceeds the drawdown allowance of 2.5 ft for all wells within 1 mile of the proposed location. Critical well analysis is necessary on those wells.

Critical Well Evaluation:

7334:

Water Column = 106 ft

DP = 4.1 ft (Net drawdown from the proposal indicated above)

DE = 41.3 ft (Water level decline from 2021 through 2046 based upon GMD3 model)

DD = 11.3 ft (S = 0.2197, T = 75,760 gpd/ft, Q = 472 gpm, tp = 72 days, efficiency = 70%)

DT = 61.5 ft

Economic Drawdown Constraint (EDC) = 0.4 * 106 ft = 42.4 ft

Physical Drawdown Constraint (PDC) = 106 ft – 60 ft = 46 ft

Total drawdown of 61.5 ft is greater than the EDC and PDC, so this well **is critical.**

800:

Water Column = 117 ft

DP = 6.6 ft (Net drawdown from the proposal indicated above

DE = 32.4 ft (Water level decline from 2021 through 2046 based upon GMD3 model)

DD = 37.9 ft (S = 0.1696, T = 29,654 gpd/ft, Q = 444 gpm, tp = 100 days, efficiency = 70%)

DT = 76.9 ft

Economic Drawdown Constraint (EDC) = 0.4 * 117 ft = 46.8 ft

Physical Drawdown Constraint (PDC) = 117 ft – 60 ft = 57 ft

Total drawdown of 76.9 ft exceeds both the EDC and PDC, so this well **is critical.**

599 ID 1:

Water Column = 117 ft

DP = 4.8 ft (Net drawdown from the proposal indicated above)

DE = 32.4 ft (Water level decline from 2021 through 2046 based upon GMD3 model)

DD = 0 ft (Well has not reported use in over 10 years)

DT = 37.2 ft

Economic Drawdown Constraint (EDC) = 0.4 * 117 ft = 46.8 ft

Physical Drawdown Constraint (PDC) = 117 ft – 60 ft = 57 ft

Total drawdown of 37.2 ft is less than both the EDC and PDC, so this well **is not critical.**

599 ID 2:

Water Column = 117 ft

DP = 4.3 ft (Net drawdown from the proposal indicated above)

DE = 32.4 ft (Water level decline from 2021 through 2046 based upon GMD3 model)

DD = 47.0 ft (S = 0.1696, T = 29,654 gpd/ft, Q = 552 gpm, tp = 96 days, efficiency = 70%)

DT = 83.7 ft

Economic Drawdown Constraint (EDC) = 0.4 * 117 ft = 46.8 ft

Physical Drawdown Constraint (PDC) = 117 ft – 60 ft = 57 ft

Total drawdown of 83.7 ft exceeds both the EDC and PDC, so this well **is critical.**

274 & 18700 ID 2:

Water Column = 111 ft

DP = 5.8 ft (Net drawdown from the proposal indicated above)

DE = 39.8 ft (Water level decline from 2021 through 2046 based upon GMD3 model)

DD = 18.1 ft (S = 0.2651, T = 62,525 gpd/ft, Q = 457 gpm, tp = 55 days, efficiency = 70%)

DT = 63.7 ft

Economic Drawdown Constraint (EDC) = 0.4 * 111 ft = 44.4 ft

Physical Drawdown Constraint (PDC) = 111 ft – 60 ft = 51 ft

Total drawdown of 63.7 ft is greater than both the EDC and PDC, so this well **is critical.**

274 & 18700 ID 6:

Water Column = 132 ft

DP = 4.8 ft (Net drawdown from the proposal indicated above)

DE = 39.8 ft (Water level decline from 2021 through 2046 based upon GMD3 model)

DD = 20.3 ft (S = 0.2651, T = 62,525 gpd/ft, Q = 507 gpm, tp = 58 days, efficiency = 70%)

DT = 64.9 ft

Economic Drawdown Constraint (EDC) = 0.4 * 132 ft = 52.8 ft

Physical Drawdown Constraint (PDC) = 132 ft – 60 ft = 72 ft

Total drawdown of 64.9 ft is greater than the EDC, so this well **is critical.**

7193:

Water Column = 117 ft

DP = 4.2 ft (Net drawdown from the proposal indicated above)

DE = 39.8 ft (Water level decline from 2021 through 2046 based upon GMD3 model)

DD = 20.1 ft (S = 0.2651, T = 62,525 gpd/ft, Q = 496 gpm, tp = 75 days, efficiency = 70%)

DT = 64.1 ft

Economic Drawdown Constraint (EDC) = 0.4 * 117 ft = 46.8 ft

Physical Drawdown Constraint (PDC) = 117 ft – 60 ft = 57 ft

Total drawdown of 64.1 ft is greater than both the EDC and PDC, so this well **is critical.**

Domestic 1:

Water Column = 126 ft

DP = 4.1 ft

DE = 41.3 ft

DT = 45.4 ft

Economic Drawdown Constraint (EDC) = 0.4 * 126 ft = 50.4 ft

Physical Drawdown Constraint (PDC) = 126 ft – 20 ft = 106 ft

Total drawdown of 45.4 ft is less than both the EDC and the PDC, so this well **is not critical.**

Domestic 2:

Water Column = 122 ft

DP = 5.6 ft

DE = 37.8 ft

DT = 43.4 ft

Economic Drawdown Constraint (EDC) = 0.4 * 122 ft = 48.8 ft

Physical Drawdown Constraint (PDC) = 122 ft – 20 ft = 102 ft

Total drawdown of 43.4 ft is less than both the EDC and the PDC, so this well **is not critical.**

Domestic 3:

Water Column = 122 ft (note: Driller's log shows a water column of 61 ft. This well was drilled in 1976 and does not appear to be drilled to the bottom of local aquifer formation, so the water column on nearby domestic 2 was used for evaluation.)

DP = 5.2 ft

DE = 37.8 ft

DT = 43.0 ft

Economic Drawdown Constraint (EDC) = 0.4 * 122 ft = 48.8 ft

Physical Drawdown Constraint (PDC) = 122 ft – 20 ft – 102 ft

Total drawdown of 43.0 ft is less than both the EDC and the PDC, so this well **is not critical.**

Domestic 4:

Water Column = 130 ft

DP = 4.4 ft

DE = 32.4 ft

DT = 36.8 ft

Economic Drawdown Constraint (EDC) = 0.4*130 ft = 52.0 ft

Physical Drawdown Constraint (PDC) = 130 ft – 20 ft = 110 ft

Total drawdown of 36.8 ft is less than both the EDC and PDC, so this well **is not critical.**

Domestic 5:

Water Column = 111 ft

DP = 8.2 ft

DE = 39.8 ft

DT = 48.0 ft

Economic Drawdown Constraint (EDC) = 0.4 * 111 ft = 44.4 ft

Physical Drawdown Constraint (PDC) = 111 ft – 20 ft = 91 ft

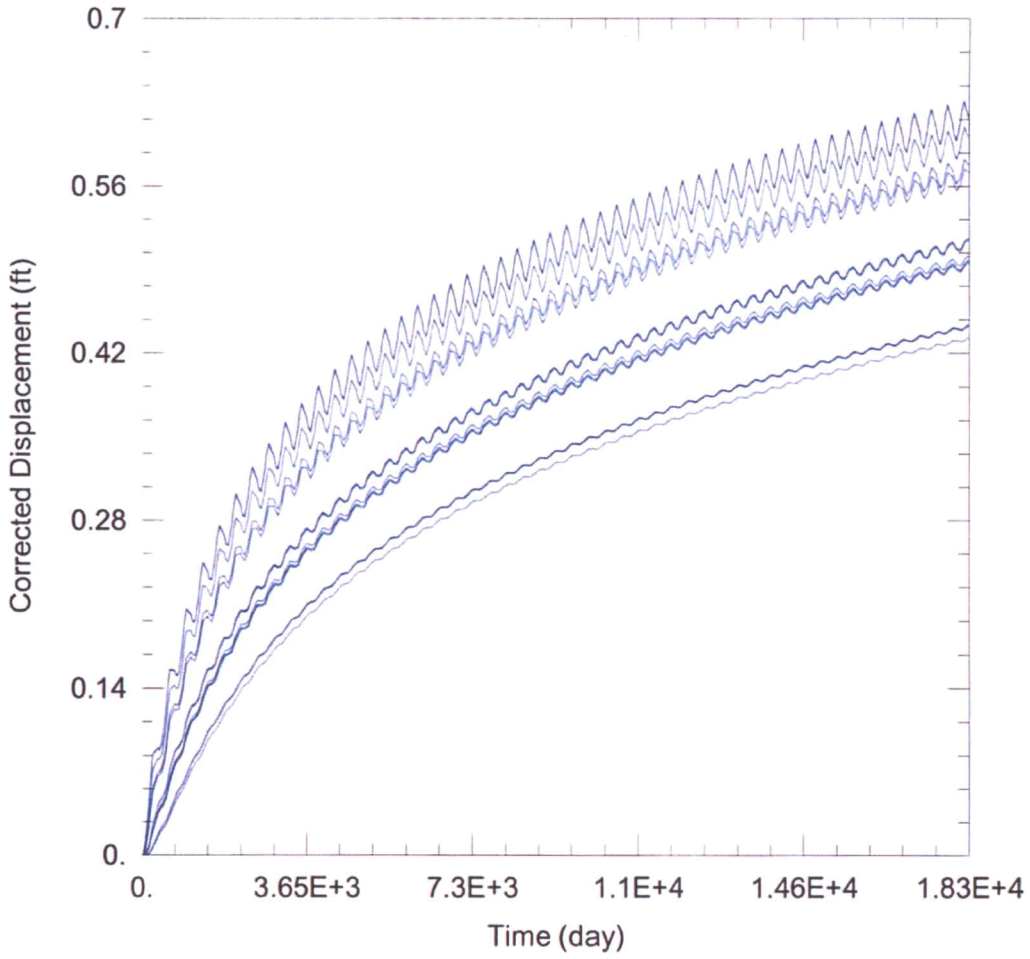
Total drawdown of 48.0 ft is greater than the EDC, so this well **is critical.**

Conclusion:

The proposed moves are located in an area with rapidly depleting aquifer and if the new well is operated at the proposed rate and quantity, it is likely to create noticeable effects on neighboring critical wells. GMD3 staff recommends a rate limitation of 500 gpm and a quantity limitation of 267 AF at the proposed new well location. This rate and quantity would produce the following net effects on neighboring critical wells:

7334:	Net Drawdown = **1.4 ft**
800:	Net Drawdown = **2.5 ft**
599 ID 2:	Net Drawdown = **1.6 ft**
274 & 18700 ID 2:	Net Drawdown = **2.2 ft**
274 & 18700 ID 6:	Net Drawdown = **1.8 ft**
7193:	Net Drawdown = **1.5 ft**
Domestic 5:	Net Drawdown = **3.3 ft**

Note that while this effect on Domestic 5 would exceed the 2.5 ft drawdown allowance, the well would not be considered critical with a 3.3 ft drawdown effect.



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021_Moves\2393_5191_6562_19401\2393 Current.aqt
Date: 02/25/21 Time: 15:10:57

PROJECT INFORMATION

Company: GMD 3
Project: 2393+
Location: Finney County
Test Well: 2393+

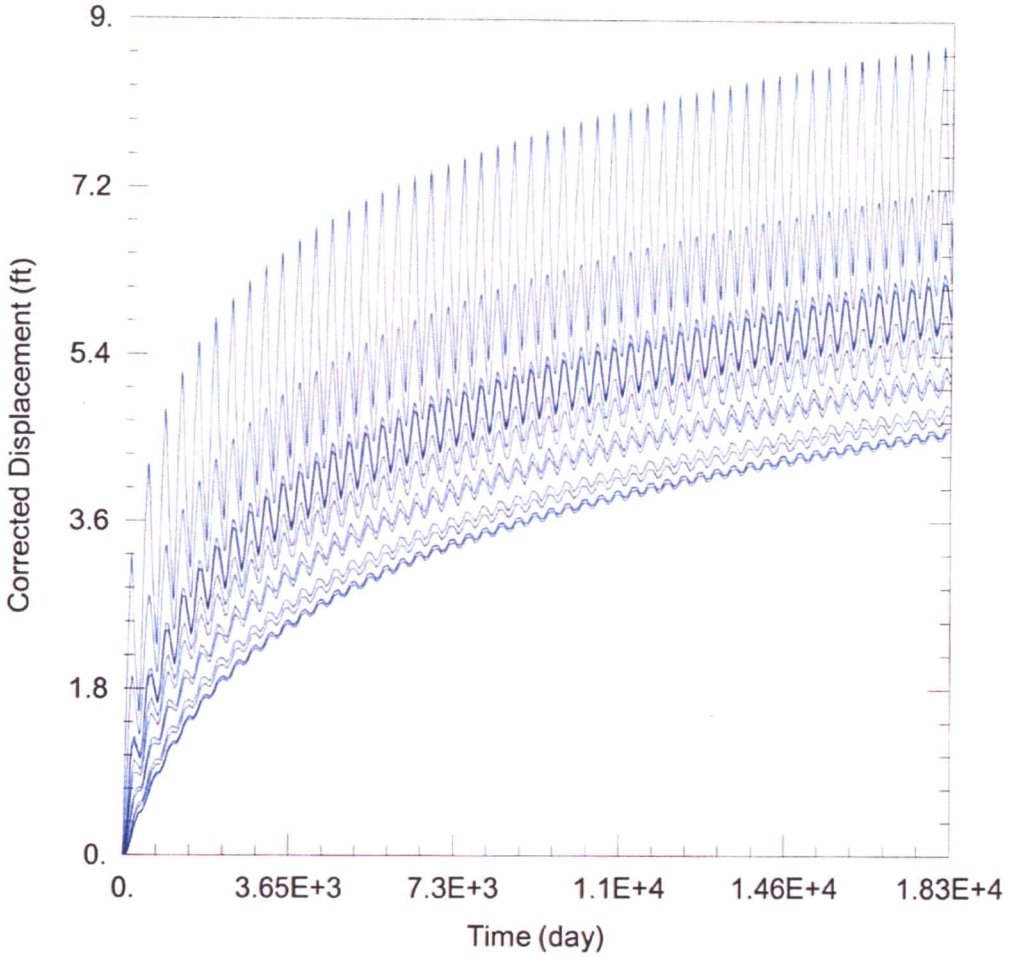
WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
5191	-59750	433252

Observation Wells

Well Name	X (ft)	Y (ft)
▫	-59750	433252
▫ 7334	-56527	437773
▫ 800	-55262	434474
▫ 599 ID1	-55243	436453
▫ 599 ID2	-53433	436065
▫ 274 & 18700 ID2	-54490	430852
▫ 274 & 18700 ID6	-52717	432055
▫ 7193	-55520	427802
▫ 35059	-58242	429300
▫ Domestic 1	-56002	437781
▫ Domestic 2	-56672	435802
▫ Domestic 3	-56994	436132
▫ Domestic 4	-55363	437120



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021_Moves\2393_5191_6562_19401\2393 Proposed.aqt
Date: 02/04/21 Time: 14:37:32

PROJECT INFORMATION

Company: GMD 3
Project: 2393+
Location: Finney County
Test Well: 2393+

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
5191	-56892	432703

Observation Wells

Well Name	X (ft)	Y (ft)
▫	-56892	432703
▫ 7334	-56527	437773
▫ 800	-55262	434474
▫ 599 ID1	-55243	436453
▫ 599 ID2	-53433	436065
▫ 274 & 18700 ID2	-54490	430852
▫ 274 & 18700 ID6	-52717	432055
▫ 7193	-55520	427802
▫ 35059	-58242	429300
▫ Domestic 1	-56002	437781
▫ Domestic 2	-56672	435802
▫ Domestic 3	-56994	436132
▫ Domestic 4	-55363	437120

Meyer, Mike [KDA]

From: Meyer, Mike [KDA]
Sent: Wednesday, February 24, 2021 7:19 AM
To: Jason Norquest
Subject: RE: graham

good morning
I will extend the deadline to March 8th to provide a recommendation for this pending application. I am sure we will hear from the owner or driller soon asking about the approval.

thank you

Mike

From: Jason Norquest <norquest@gmd3.org>
Sent: Wednesday, February 24, 2021 7:15 AM
To: Meyer, Mike [KDA] <Mike.Meyer@ks.gov>
Subject: RE: graham

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.

Got caught up with other things. I think it would be best if I could get another week or week and half for Graham, please.

Jason Norquest
Assistant Manager, GMD3
Cell: 620-271-1289
Office: 620-275-7147
www.gmd3.org

From: Meyer, Mike [KDA] <Mike.Meyer@ks.gov>
Sent: Tuesday, February 23, 2021 9:24 AM

To: Jason Norquest <norquest@gmd3.org>
Subject: RE: graham

no we didn't as all meets spacing and received no objections. if you need an extension let me know today.

Mike

From: Jason Norquest <norquest@gmd3.org>
Sent: Tuesday, February 23, 2021 9:22 AM
To: Meyer, Mike [KDA] <Mike.Meyer@ks.gov>
Subject: RE: graham

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.

Did you run any Theis on neighboring well? Possible concerns with a domestic well to SE and other wells. Would be looking at recommending limit. I still can't get a response from them but will keep trying.

Jason Norquest
Assistant Manager, GMD3
Cell: 620-271-1289
Office: 620-275-7147
www.gmd3.org

From: Meyer, Mike [KDA] <Mike.Meyer@ks.gov>
Sent: Tuesday, February 23, 2021 9:06 AM
To: Jason Norquest <norquest@gmd3.org>
Subject: graham

let me know what you are doing with these apps (extension or not) or I am moving on.... 😊

Mike

Meyer, Mike [KDA]

From: Meyer, Mike [KDA]
Sent: Friday, January 29, 2021 8:08 AM
To: 'Norquest, Jason (Norquest@gmd3.org)'
Subject: Request for recommendation, File Nos. 2393, 5191, 6562, 19401
Attachments: 20210129075442368.pdf

good morning sir
attached are 4 applications from Rebecca Graham requesting to change the point of diversion. these are a sequence of moves. there will be one new well drilled, and the other 3 wells are hopscotching. I was not involved in the drafting of these, so don't know why for sure the sequence.
Please review and provide a recommendation within 15 days. there has been no comments from owners except Roger Unruh phone call to make sure he understands the proposal and that authority is moving away and meets current rules. roger has a pending application north of these proposals also that is out for comment from neighbors.

thank you and have a good day

Mike

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

Kansas
Department of Agriculture
Division of Water Resources

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

Mike Beam, Secretary

Laura Kelly, Governor

January 29, 2021

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

Re: Water Right, File Nos. 2393, 5191, 6562, 19401

Dear Mr. Norquest:

This is to advise you that Rebecca Graham, has filed applications 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

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

Kansas
Department of Agriculture
Division of Water Resources

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

Mike Beam, Secretary

Laura Kelly, Governor

January 15, 2021

TRACIE ADAMS
8355 BIG LOWE RD
HOLCOMB KS 67851-9003

RE: Water Right, File No. 2393, 5191, 6562, 19401

Dear Madam:

This is to advise you that Rebecca Graham has filed an application for approval of the Chief Engineer, Division of Water Resources, Kansas Department of Agriculture, to point of diversion under the above referenced application. An irrigation well is proposed to be relocated.

You can find the complete application posted by water right file number as referenced above at www.agriculture.ks.gov/divisions-programs/dwr/water-appropriation/notices

You are notified on this proposed point of diversion (well) so that you may furnish this office with any comments or other information you may want to submit. Such comments or other information must be received in this office within 15 days from the date of this letter.

Should you have any questions, please feel free to call this office. If you would prefer, an appointment could be arranged for additional assistance. Please refer to the file number when you contact us if you wish to discuss a specific file.

Sincerely,

Michael A. Meyer
Water Commissioner

MAM
Pc:
Groundwater Management District No. 3

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

Kansas
Department of Agriculture
Division of Water Resources

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

Mike Beam, Secretary

Laura Kelly, Governor

January 15, 2021

SCOTT LEE CORMACK
1205 S PENNSYLVANIA AVE
CHEROKEE, OK 73728-4024

RE: Water Right, File No. 2393, 5191, 6562, 19401

Dear Sir:

This is to advise you that Rebecca Graham has filed an application for approval of the Chief Engineer, Division of Water Resources, Kansas Department of Agriculture, to point of diversion under the above referenced application. An irrigation well is proposed to be relocated.

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Sincerely,

Michael A. Meyer
Water Commissioner

MAM
Pc:
Groundwater Management District No. 3

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

Kansas
Department of Agriculture
Division of Water Resources

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

Mike Beam, Secretary

Laura Kelly, Governor

January 15, 2021

RUSSELL KOMLOFSKE
4500 N IBP RD
HOLCOMB, KS 67851-9023

RE: Water Right, File No. 2393, 5191, 6562, 19401

Dear Sir:

This is to advise you that Rebecca Graham has filed an application for approval of the Chief Engineer, Division of Water Resources, Kansas Department of Agriculture, to point of diversion under the above referenced application. An irrigation well is proposed to be relocated.

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Sincerely,

Michael A. Meyer
Water Commissioner

MAM
Pc:
Groundwater Management District No. 3

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

Kansas
Department of Agriculture
Division of Water Resources

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

Mike Beam, Secretary

Laura Kelly, Governor

January 15, 2021

PFEIFER DIVERSIFIED INVESTMENT LP
Attn: PAUL PFEIFER
6090 W 6 MILE RD
HOLCOMB, KS 67851-9077

RE: Water Right, File No. 2393, 5191, 6562, 19401

Dear Sir:

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You can find the complete application posted by water right file number as referenced above at www.agriculture.ks.gov/divisions-programs/dwr/water-appropriation/notices

You are notified on this proposed point of diversion (well) so that you may furnish this office with any comments or other information you may want to submit. Such comments or other information must be received in this office within 15 days from the date of this letter.

Should you have any questions, please feel free to call this office. If you would prefer, an appointment could be arranged for additional assistance. Please refer to the file number when you contact us if you wish to discuss a specific file.

Sincerely,

Michael A. Meyer
Water Commissioner

MAM
Pc:
Groundwater Management District No. 3

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

Kansas
Department of Agriculture
Division of Water Resources

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

Mike Beam, Secretary

Laura Kelly, Governor

January 15, 2021

ROGER G & RANDALL UNRUH
625 S COWGILL DR
GARDEN CITY, KS 67846-8911

RE: Water Right, File No. 2393, 5191, 6562, 19401

Dear Sir:

This is to advise you that Rebecca Graham has filed an application for approval of the Chief Engineer, Division of Water Resources, Kansas Department of Agriculture, to point of diversion under the above referenced application. An irrigation well is proposed to be relocated.

You can find the complete application posted by water right file number as referenced above at www.agriculture.ks.gov/divisions-programs/dwr/water-appropriation/notices

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FRANZ WIEBE
8405 N. BIG LOWE RD
HOLCOMB, KS 67851-9004

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