

NOTICE

This scan only represents the application as filed. The information contained herein meets the requirements of K.A.R. 5-3-1 or K.A.R. 5-5-1, and has been found acceptable for filing in the office of the Chief Engineer. The application should not be considered to be a complete application as per K.A.R. 5-3-1b or K.A.R. 5-5-2a.

APR 21 2021

1:16

KS DEPT OF AGRICULTURE

Submit To: CHIEF ENGINEER
Division of Water Resources
Kansas Department of Agriculture
1320 Research Park Drive
Manhattan, Kansas 66502
http://agriculture.ks.gov/dwr

**APPLICATION FOR APPROVAL TO
CHANGE THE PLACE OF USE, THE
POINT OF DIVERSION OR THE USE
MADE OF THE WATER UNDER AN
EXISTING WATER RIGHT**



State of Kansas

*Filing Fee Must Accompany the Application
(Please refer to Fee Schedule on signature page of application form.)*

Paragraph Nos. 1, 2, 3, 4 & 8 must be completed. Complete all other applicable portions. A topographic map or detailed plat showing the authorized and proposed points(s) of diversion and /or place of use must accompany this application.

1. Application is hereby made for approval of the Chief Engineer to change the

- Place of Use
- (Check one or more) Point of Diversion
- Use Made of Water

File No. 11405

2. Name of applicant: City of Bushton

Address: PO Box 194 217 S Main

City, State and Zip: Bushton, KS 67427

Phone Number: 620-562-3407 E-mail address: bushtonc@hbc.com.net

What is your relationship to the water right; owner tenant agent other? If other, please explain. _____

Name of water use correspondent: City of Bushton

Address: PO Box 194 217 S Main

City, State and Zip: Bushton, KS 67427

Phone Number: 620-562-3407 E-mail address: bushtonc@hbc.com.net

3. The change(s) proposed herein are desired for the following reasons (please be specific): We are proposing to relocate two wells of our municipal wells due to poor water quality at the current well locations. We will be moving Well #5 and Well #6, our two northern-most municipal wells. We believe we have located an adequate site for the new wells that are ~4500' and ~5000' from the current wells and located to the southwest in adjacent section 3 where the city has access to the land.

The change(s) will be completed by as soon as possible.
(Date)

For Office Use Only:										
F.O. Code	<u>2</u>	GMD	<u>CGT</u>	Meets K.A.R. 5-5-1	<input checked="" type="checkbox"/> YES / <input type="checkbox"/> NO	Use	<u>MUN</u>	Source	<u>G/S</u>	County
Fee \$	<u>200</u>	TR #		Receipt Date	<u>4-21-21</u>	By	<u>RC</u>	Date	<u>4/21/21</u>	Check #
										<u>15815</u>

4/22/2021
L.Moody

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File No. 11405

4. The presently authorized place of use is:

Owner of Land — NAME: City of Bushton

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ADDRESS: PO Box 194 217 S Main, Bushton, KS 67427

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	
2	18S	1W	City of Bushton and Immediate Vicinity-see file																

List any other water rights that cover this place of use. RC-05

Owner of Land — NAME: _____

ADDRESS: _____

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	

List any other water rights that cover this place of use. _____

(If there are more than two landowners, attach additional sheets as necessary.)

5. It is proposed that the place of use be changed to:

Owner of Land — NAME: NO CHANGE DAVID A. WEIHE REVOCABLE TRUST

ADDRESS: NO CHANGE 413 OAKWOOD ST, ROSE HILL, KS 67133

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	

List any other water rights that cover this place of use. _____

Owner of Land — NAME: _____

ADDRESS: _____

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	

List any other water rights that cover this place of use. _____

IF MORE SPACE IS NEEDED, ATTACH ADDITIONAL SHEETS AS NECESSARY

APR 21 2021

File No. 11405

6. The presently authorized point(s) of diversion are 4 wells, 4 pumps, and 4 motors
(Provide description and number of points)

7. The proposed point(s) of diversion are 4 wells, 4 pumps, and 4 motors
(Provide description and number of points)

List all presently authorized point(s) of diversion:

8. **Presently authorized point of diversion: (PDIV ID 49983)**

One in the NE Quarter of the SW Quarter of the NE Quarter of Section 2, Township 18 South, Range 10 (W), in Rice County, Kansas, 3587 feet North 1925 feet West of Southeast corner of section. Authorized Rate 304 (comb & limited) Authorized Quantity 27.5 MGY (comb & limited)
(DWR use only: Computer ID No. 5 GPS -- feet North -- feet West)

This point will not be changed This point will be changed as follows:

Proposed point of diversion: (Complete only if change is requested)

One in the NE Quarter of the SE Quarter of the SE Quarter of Section 3, Township 18 South, Range 10 (W), in Rice County, Kansas, 900 feet North 200 feet West of Southeast corner of section. Proposed Rate no change Proposed Quantity no change
This point is: Additional Well Geo Center List other water rights that will use this point RC-05

9. **Presently authorized point of diversion: (PDIV ID 78683)**

One in the NE Quarter of the SW Quarter of the NE Quarter of Section 2, Township 18 South, Range 10 (W), in Rice County, Kansas, 3636 feet North 1949 feet West of Southeast corner of section. Authorized Rate see above Authorized Quantity see above
(DWR use only: Computer ID No. 6 GPS 3590 feet North 1940 feet West)

This point will not be changed This point will be changed as follows:

Proposed point of diversion: (Complete only if change is requested)

One in the SE Quarter of the SE Quarter of the SE Quarter of Section 3, Township 18 South, Range 10 (W), in Rice County, Kansas, 550 feet North 600 feet West of Southeast corner of section. Proposed Rate no change Proposed Quantity no change
This point is: Additional Well Geo Center List other water rights that will use this point RC-05

10. **Presently authorized point of diversion: (PDIV ID 12032)**

One in the SW Quarter of the NW Quarter of the SE Quarter of Section 2, Township 18 South, Range 10 (W), in Rice County, Kansas, 1450 feet North 2560 feet West of Southeast corner of section. Authorized Rate see above Authorized Quantity see above
(DWR use only: Computer ID No. 3 GPS -- feet North -- feet West)

This point will not be changed This point will be changed as follows:

Proposed point of diversion: (Complete only if change is requested)

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 _____
This point is: Additional Well Geo Center List other water rights that will use this point RC-05

11. Describe the current condition of and future plans for any point(s) of diversion which will no longer be used. The two old wells will be properly plugged as soon as it has been determined the new wells meet the needs of the city.

IF MORE SPACE IS NEEDED, ATTACH ADDITIONAL SHEETS AS NECESSARY

APR 21 2021

APPLICATION FOR APPROVAL TO CHANGE
THE PLACE OF USE AND/OR POINT OF DIVERSION
SUPPLEMENTAL SHEET
FILE NO. 11405

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Presently authorized point of diversion: (PDIV ID 34882)

One in the NW Quarter of the NE Quarter of the SE Quarter
of Section 2, Township 18 South, Range 10 (W),
in Rice County, Kansas, 2500 feet North 1000 feet West of Southeast corner of section.

Authorized Rate see no. 8 Authorized Quantity see no. 8 Depth of well -- (feet)

(DWR use only: Computer ID No. 4 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 RC-05

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 _____

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 _____

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 _____

APR 21 2021

File No. 11405

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12. The presently authorized use of water is for municipal purposes.
It is proposed that the use be changed to no change purposes.
13. If changing the place of use and/or use made of water, describe how the consumptive use will not be increased.
NO CHANGES

(Please show any calculations here.)
14. It is requested that the maximum annual quantity of water be reduced to --- (acre-feet or million gallons).
15. It is requested that the maximum rate of diversion of water be reduced to --- gallons per minute (--- c.f.s.).
16. The application must include either a topographic map or detailed plat. A U.S. Geological Survey Topographic Map, scale 1:24,000, is available through the Kansas Geological Survey, 1930 Constant Avenue, University of Kansas, Lawrence, Kansas 66047-3726 (www.usgs.gov). The map should show the location of the presently authorized point(s) of diversion. Distances North and West of the Southeast corner of the section must be shown. The presently authorized place of use should also be shown. Identify the center of the section, the section lines and the section corners and show the appropriate section, township, and range numbers on the map. In addition the following information must also be shown on the map.
- a. If a change in the location of the point(s) of diversion is proposed, show:
- 1) The location of the proposed point(s) of diversion. Distances North and West of the Southeast corner of the section must be shown. Please be certain that the information shown on the map agrees with the information shown in Paragraph Nos. 9, 10 and 11 of the application.
 - 2) If the source of supply is groundwater, please show the location of existing water wells of any kind, including domestic wells, within ½ mile of the proposed well or wells. Identify each well as to its use and furnish name and mailing address of the property owner or owners. If there are no wells within ½ mile, please indicate so on the map.
 - 3) If the source of supply is surface water, the names and mailing addresses of all landowner(s) ½ mile downstream and ½ mile upstream from your property lines must be shown.
- b. If a change in the place of use is desired, show the proposed place of use by crosshatching on the map. Please be certain that the information shown on the map agrees with the information shown in Paragraph No. 5 of the application.
17. Attach documentation to show the change(s) proposed herein will not impair existing water rights and relates to the same local source of supply as to which the water right relates. This information may include statements, plats, geology reports, well logs, test hole logs, and other information as necessary information to show the above. Additional comments may be made below.
Carl Nuzman will submit nearby well logs to show the same source will be maintained and will include water quality information as well as a KDHE requirements in an effort to aid processing of this proposed change application.

18. If the proposed change(s) does not meet all applicable rules and regulations of the Kansas Water Appropriation Act, please identify the rules and regulations for which you request a waiver. State the reason why a waiver is needed and why the request should be granted. Attach documentation showing that granting the request will not impair existing water rights and will not prejudicially and unreasonably affect the public interest.
HQ app is needed as the proposed wells are located more than ½ mile from the current location. Carl Nuzman is submitting additional information to explain why the city needs to move more than ½ mile from the current location.
A waiver of 5-4-4 may also be needed depending on where nearby same source wells are located-Carl will update map accordingly. I believe the current source to be unconfined Dakota (1/2 mile to permitted rights and 1320' to domestic).

IF MORE SPACE IS NEEDED, ATTACH ADDITIONAL SHEETS AS NECESSARY

Any use of water that is not as authorized by the water right or permit to authorize water before the chief engineer approves this application is a violation of the Kansas Water Appropriation Act for which criminal or civil penalties may be assessed. Such violation is a class C misdemeanor, punishable by a fine not to exceed \$500 and/or a term of confinement not to exceed one month in the county jail. K.S.A. 82a-728(b). Civil penalties shall be not less than \$100 nor more than \$1,000 per violation. In the case of a continuing violation, each day such violation continues may be deemed a separate violation. In addition to these penalties the water right may be modified or suspended. K.S.A. 82a-737, as amended.

The application must be signed by all owners of the place of use authorized under the water right and his or her spouse, if married. Please indicate if there is no spouse. If land is being purchased under contract, the seller must sign as landowner until such time as the contract is completed.

In the event that all applicants cannot appear before one notary public, they may as necessary sign separate copies of the application before any notary public conveniently available to them. All copies signed in this manner shall be considered to be valid parts of the application.

If the request is signed on behalf of any Owner by someone with legal authority to do so (for example, an agent, one who has power of attorney, or an executor, executrix, conservator), it will be necessary to attach proper documents showing such authority.

I declare that I am an owner of the currently authorized place of use as identified herein, or that I represent all such owners and am authorized to make this application on their behalf, and declare further that the statements contained herein are true, correct, and complete. By filing this application I authorize the chief engineer to permanently reduce the quantity of water and/or rate of diversion as specified in sections 14 and 15 of this application.

Dated at BUSHTON, Kansas, this 13TH day of APRIL, 20 21.

<u>[Signature]</u> (Owner)	_____ (Spouse)
<u>GENOVEVO BENAVIDEZ, MAYOR</u> (Please Print)	_____ (Please Print)
_____ (Owner)	_____ (Spouse)
_____ (Please Print)	_____ (Please Print)
_____ (Owner)	_____ (Spouse)
_____ (Please Print)	_____ (Please Print)

State of Kansas }
County of Rice } SS

I hereby certify that the foregoing application was signed in my presence and sworn to before me this 13 day of April, 20 21.

[Signature: Teri L Zink]
Notary Public

My Commission Expires 08/16/2024

TERIL ZINK
Notary Public - State of Kansas
My Appt. Expires 08/16/2024

FEE SCHEDULE

Each application to change the place of use, the point of diversion or the use made of the water under this section shall be accompanied by the application fee set forth in the schedule below:

- (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
- (4) Application to change the use made of the water \$300

Make check payable to Kansas Department of Agriculture.

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**Change in Point of Diversion Map
Water Right, File Nos. 11405 & RC-05
Section 2 & 3-18S-10W in Rice County**



- p/d for 11405 & RC-05 ID#5 (3587'N & 1925'W)
- proposed replacement for ID#5 (900'N & 200'W)
- p/d for 11405 & RC-05 ID#6 (3636'N & 1949'W)
- proposed replacement for ID#6 (550'N & 600'W)
- permitted water rights
- section corners
- 1/4 mile circle around the wells
- 1/2 mile circle around wells

Please mark all wells on the map located inside the 1/2 mile circle and attach a separate sheet of paper showing the owners name and address:



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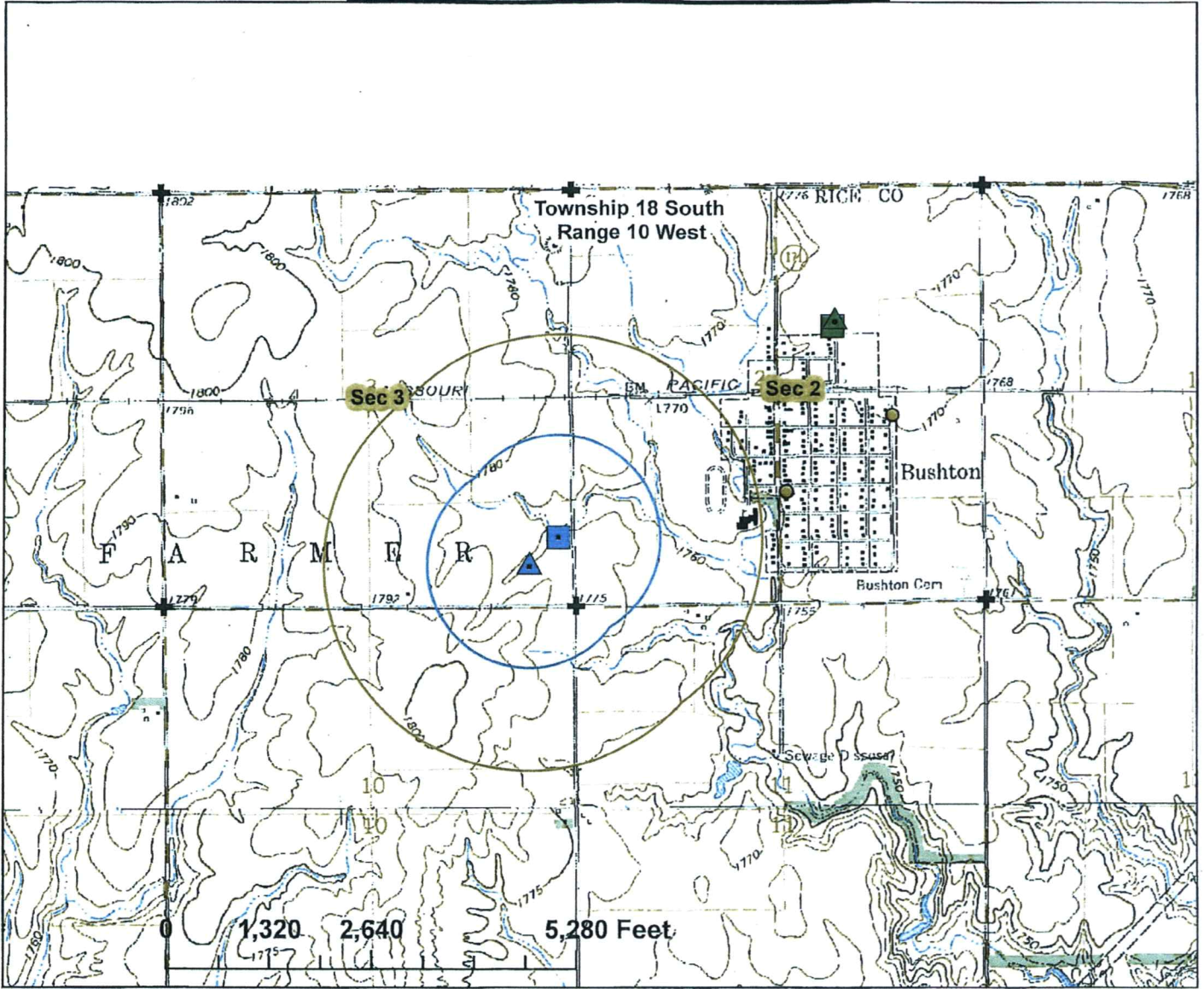
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By signing below I agree that all wells, including domestic, and owners names and addresses within 1/2 mile of the points of diversion have been shown on the map.

1 inch = 1.333 feet

**Change in Point of Diversion Map
Water Right, File Nos. 11405 & RC-05
Section 2 & 3-18S-10W in Rice County**



- p/d for 11405 & RC-05 ID#5 (3587'N & 1925'W)
- proposed replacement for ID#5 (900'N & 200'W)
- p/d for 11405 & RC-05 ID#6 (3636'N & 1949'W)
- proposed replacement for ID#6 (550'N & 600'W)
- permitted water rights
- section corners
- 1/4 mile circle around the wells
- 1/2 mile circle around wells

Please mark all wells on the map located inside the 1/2 mile circle and attach a separate sheet of paper showing the owners name and address:



WATER RESOURCES RECEIVED

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

Support Documentation

For

City of Bushton, Kansas

Change in Points of Diversion

For

Water Rights RC-05 and File No. 11,405

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By

Carl E. Nuzman, P.E., P.Hg.
Consulting Engineer/Hydrogeologist
3314 NW Huxman Road
Silver Lake, KS 66539

cenuzman@gmail.com

iPhone/text 785 224 9929

April 14, 2021

Support Documentation for City of Bushton, KS
Change in Points of Diversion for RC-05 and File No. 11,405

Introduction:

The City of Bushton has had a radium problem in their public water supply for many years. This is shown in the attached email from Douglas A. Goetz of Wilson and Company, dated April 4, 2021. This email document lists Radium Test Results dating back to May 14, 1996. The combined radium 226 and radium 228 was 6.9 picocuries per Liter (pCi/L). The Environmental Protection Agency, maximum contaminant level (MCL) for combined Radium 226 and 228 is 5 pCi/L.

City Wells:

The City of Bushton has had a public water supply from wells since the late 1930's as evidenced by their vested water right RC-05. The City of Bushton is in the northwest corner of Rice County. The City also has water right file No. 11,405 from wells for additional water supply from wells for the City. These wells develop water from the Dakota sandstone aquifer that sub-crops in this area.

Attached is an aerial photo map of the City showing the actual location of each city well. Well No. 3 has been abandoned and the WWC-5 plugging report is attached. This well was reported to be 93 feet total depth at the time it was plugged in March 1991.

City well No. 4, located in the northeast corner of town is used for bulk water sales and is not connected to the public water supply distribution system. It apparently was constructed prior to the required reporting of well logs on the KDHE form WWC-5. This well is to remain in service for the specific purpose of bulk sales. The water quality is satisfactory for that use.

City well No. 5 was drilled in February 1994 as a replacement well for the original vested right well. The drillers log for this well shows 9 feet of sandstone from 54 feet to 63 feet below land surface, but the principal formation of the Dakota sandstone exists from 70 feet to 125 feet depth. This well was completed with PVC casing and PVC mill slot screen from 93 feet to 123 feet total depth.

City well No. 6, located 55 feet north of well No. 5 was drilled in May 2012. The sandstone formation exists in this well site from 53 feet to 123 feet depth, but was drilled deeper into Sand, yellow clay to 135 feet depth then into Dakota clay, yellow to 138 feet total depth. This well was completed with wire-wrapped, stainless steel well screen set from 105 feet to 135 feet total depth and attached to PVC casing. The static water level was reported to be 35 feet depth below land surface on May 22, 2012.

No pumping rate test nor drawdown information on the formation yield characteristics was reported for any of the city wells. A review of the radium test data does not list well No. 6 specifically, but since this well is so close to well No. 5, the water quality is assumed to be the same as that of well No. 5.

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Consent Order and Amendment Agreement:

The consent order and amendment agreement are included in this report to demonstrate the urgency of acting on these two applications to change the points of diversion for the water rights listed. With the City not having sufficient funds to do extensive test hole drilling and water sampling, a plan was devised to evaluate all existing data and information in this vicinity, to locate the best possible site for two wells that will meet the water quality standards for public water supply.

Water Sampling Program:

A water sampling program of existing wells in the area was initiated. Four well were selected; one to the north, a domestic well listed as JoEllen Schroeder just across the road to the north in Ellsworth County, City well No. 4 to the east, Carl Hoelscher domestic well to the south, and the Duane Gish well to the west in Section 3, T-18S. R-10W. The results of this sampling program are given in the table, Bushton, Ks Domestic Water Well Sampling Results. In the table, values that exceed the secondary or primary water quality standards are highlighted.

All wells sampled met the water quality requirement for radium 226 and 228 when combined were less than 5 pCi/L. The Schroeder well exceeded the standard for TDS and nitrates. The Hoelscher well exceeded the primary standard for nitrates. City well No. 4 exceeded secondary standards for TDS and iron. The Gish well slightly exceeded the secondary standard for iron which can be easily sequestered with a poly-phosphate feed.

The Schroeder well exceeded the primary standard for nitrates and the secondary standard for total dissolved solids. This well is 88 feet total depth and had saw cut slots in PVC casing from 28 feet to 88 feet total depth. Static water level was reported to be 38 feet depth on 16 Jul 2012.

The Hoelscher exceeds the primary standard for nitrates. This well reported sand rock from 100 feet to 155 feet with saw cut slots in the casing from 135 feet to 155 feet depth. The static water level was reported to be 60 feet depth from land surface 2 Aug 1985

City well No. 4 exceeds the secondary standards for total dissolved solids and iron. Well construction is unknown. A domestic well to the south of well No. 4 reported sandstone formation from 40 to 103 feet depth.

The Gish well had 0.397 mg/L of iron with the secondary standard of 0.3 mg/L. The Gish well had the best overall water quality. The WWC-5 well log reported soft brown sandstone from 128 to 162 feet depth. This well had mill slots cut into the PVC pipe from 122 to 162 feet total depth. The static water level was reported to be 67 feet below land surface 24 Sep 1985.

Test Well Site:

A potential site for future wells for the City of Bushton lies in the SE ¼ of the SE ¼ of Section 3, twp. 18S, range 10 W to the southwest of the City. This site years ago was a 9-hole golf course with sand greens and natural grass fairways years ago. This parcel of land is in natural grass pasture and not cultivated. Nitrates are expected to be low and other agriculture chemicals are

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expected to be low to absent in this area. Radium 226 and 228 are expected to be at background levels that are below the maximum contaminant levels established.

Two specific well sites have been identified based on fracture trace technology. These fracture zones tend to provide better formation permeability thus improved water yield from wells.

The first location selected is to be located about 900 feet North and 200 feet west of the SE corner of S3-18S-10W. The exact spot is to be determined in the field to adjust for field conditions. The second well location is to be on a secondary fracture zone 600 feet from the primary well about 550 feet north and 600 feet west of the SE corner of S3-18S-10W. This spacing will limit mutual interference between wells in this formation.

Test Well Construction:

The small diameter pilot test hole drilled at the site of the first location will provide a lithologic log of the formation. The total depth of the well is expected to be about 162 feet similar to the Gish domestic well log. The pilot hole is then to be logged with geophysical instruments to determine the specific potential and electrical conductivity of the formation followed by a natural gamma log of the hole. There will be an engineer and/or hydrogeologist on site familiar with geophysical logging at the time of logging the test hole to make any field adjustment to the placement of the well screen in the test well.

Upon completion of the test well, the well shall be pumped for 24 hours continuously to determine the sustained yield of the well and water quality samples shall be taken at the 8th hour for general analysis for TDS and nitrates. The 24th hour of pumping, water samples to be analyzed in accordance with KDHE's requirements for a new public water supply.

Summary:

The City of Bushton present water supply is from two closely spaced wells on the north side of the town from the Dakota sandstone formation that do not meet current drinking water quality standards. The primary water quality issue in the water is the combination of Radium 226 and 228 that exceed the primary maximum contaminant of 5 pCi/L. The cause of this radium in the City wells at this location is unknown.

A site of land has been made available to the City to the southwest for two future wells. Every effort has been made to determine the suitability of this area to ensure the future water supply will meet the needs of the City. Every effort will be made in the construction of the test well to screen only the best quality of water in the formation as best that can be determined by the geophysical logs.

The change in points of diversion for the two water rights involved is a long move. There are no irrigation wells in the area because well yields are limited. There are few other water rights in the area. I strongly urge the Chief Engineer of the Division of Water Resources; Kansas Department of Agriculture approve the two applications for changes in the points of diversion for water rights RC-05 and File No. 11,405 as soon as possible for the City of Bushton to comply with the Consent Order. Approval is required for the City to obtain grant money and financing for the project.

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Respectively submitted.



Carl E. Nuzman, P.E., P.Hg.
Consulting Engineer/Hydrogeologist

WATER RESOURCES
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APR 21 2021

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Goetz, Douglas A. <Douglas.Goetz@wilsonco.com>

Sun, Apr 4, 2021 at 7:20 PM

To: "Redding, Rusty" <Rusty.Redding@gcinc.com>, Carl Nuzman <cenuzman@gmail.com>

Cc: "Stockebrand, Craig M." <Craig.Stockebrand@wilsonco.com>, "Allen, Jacob T." <jacob.allen@wilsonco.com>

Yes we would like to try and keep Well #4. I believe somewhere along the way they (KDHE) might have classified Well #4 as "Emergency" use. As we discussed last week, the City is wanting us to make sure and explore the ability to keep Well #4.

Attached is a City well map for reference/use as needed.

Regarding existing City wells, we have gathered radium testing which was downloaded from KDHE's website (attached). Below is a summary that we created previously to help illustrate past City radium testing:

Radium Test Results				
Date	Radium 226	Radium 228	Combined Radium	Location
	(pci/L)	(pci/L)	(pci/L)	
5/14/1996	1.6	5.3	-	217 City
9/30/1996	1.5	-	-	Well
9/30/1996	0.9	-	-	Well
9/30/1996	2.1	-	-	Well
9/30/1996	1.6	-	-	Well
5/4/1999	0.6	4.0	-	217 City
8/7/2000	1.7	1.6	-	
9/21/2004	1.4	3.6	5.0	Well
9/21/2004	-	5.3	5.3	Well
4/21/2010	1.7	3.3	5.0	Well 5
4/21/2010	2.2	7.2	9.4	Well 3
7/8/2010	1.9	5.8	7.7	Well 3
10/13/2010	2.7	9.7	12.0	Well 3
1/18/2011	2	3.7	5.7	Well 3
1/14/2013	1.7	2.6	4.3	Well 5

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1/6/2016	2.1	3.2	5.3	Well 5
5/18/2016	2.5	4.9	7.4	Well 5
9/13/2016	2.3	5.3	7.6	Well 5
11/7/2016	2.7	4.9	7.6	Well 5
2/13/2017	2.2	3.6	5.8	Well 5
5/8/2017	2.2	3.0	5.2	Well 5
8/9/2017	2.2	6.2	8.4	Well 5
11/6/2017	1.9	3.9	5.8	Well 5
2/13/2018	1.6	3.3	4.9	Well 5
5/8/2018	1.1	4.5	5.6	Well 5
8/13/2018	1.6	3.4	5.0	Well 5
11/5/2018	1.4	4.3	5.7	Well 5
1/7/2019	2.2	5.3	7.5	Well 5
2/11/2019	1.9	4.1	6.0	Well 5
5/6/2019	1	3.4	4.4	Well 5
8/6/2019	1.5	3.4	4.9	Well 5
Average	1.8	4.4	6.3	
Minimum	0.6	1.6	4.3	
Maximum	2.7	9.7	12.0	

Douglas A. Goetz

Operations Manager | Wilson & Company, Inc., Engineers & Architects | 785-820-2617 (direct) | 785-452-2066 (cell)

[Quoted text hidden]

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2 attachments

 **Well Location.pdf**
80K

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1 LOCATION OF WATER WELL: County: Rice	Fraction NE 1/4 SW 1/4 NE 1/4	Section Number 2	Township Number T 18 S	Range Number R 10 W
---	----------------------------------	---------------------	---------------------------	-------------------------------

Distance and direction from nearest town or city street address of well if located within city?
 Approximately 140' north of the dead end of N. 2nd Street, Bushton, KS

2 WATER WELL OWNER: Bushton, City of
 RR#, St. Address, Box #: City Hall
 City, State, ZIP Code: Box 194 Bushton, KS 67427
 Board of Agriculture, Division of Water Resources: Vested
 Application Number: RC 005 Right

3 LOCATE WELL'S LOCATION WITH AN "X" IN SECTION BOX:

4 DEPTH OF COMPLETED WELL: 125 ft. ELEVATION: unknown

Depth(s) Groundwater Encountered 1. ft. 2. ft. 3. ft.

WELL'S STATIC WATER LEVEL 39.45 ft. below land surface measured on mo/day/yr 1-27-94

Pump test data: Well water was not ch'd. ft. after hours pumping gpm

Est. Yield unknown gpm: Well water was ft. after hours pumping gpm

Bore Hole Diameter 20 in. to 123 ft. and in. to ft.

WELL WATER TO BE USED AS: 5 Public water supply 8 Air conditioning 11 Injection well
 1 Domestic 3 Feedlot 6 Oil field water supply 9 Dewatering 12 Other (Specify below)
 2 Irrigation 4 Industrial 7 Lawn and garden only 10 Monitoring well

Was a chemical/bacteriological sample submitted to Department? Yes No X If yes, mo/day/yr sample was submitted

Water Well Disinfected? Yes X No

5 TYPE OF BLANK CASING USED:

1 Steel	3 RMP (SR)	5 Wrought iron	8 Concrete tile	CASING JOINTS: Glued X Clamped
2 PVC	4 ABS	6 Asbestos-Cement	9 Other (specify below)	Welded
		7 Fiberglass		Threaded

Blank casing diameter 8 in. to 93 ft. Dia in. to ft. Dia in. to ft.

Casing height above land surface 24 in. weight 6.86 lbs./ft. Wall thickness or gauge No. 411

TYPE OF SCREEN OR PERFORATION MATERIAL:

1 Steel	3 Stainless steel	5 Fiberglass	7 PVC	10 Asbestos-cement
2 Brass	4 Galvanized steel	6 Concrete tile	8 RMP (SR)	11 Other (specify)
			9 ABS	12 None used (open hole)

SCREEN OR PERFORATION OPENINGS ARE:

1 Continuous slot	3 Mill slot	5 Gauzed wrapped	8 Saw cut	11 None (open hole)
2 Louvered shutter	4 Key punched	6 Wire wrapped	9 Drilled holes	
		7 Torch cut	10 Other (specify)	

SCREEN-PERFORATED INTERVALS: From 93 ft. to 123 ft. From ft. to ft. From ft. to ft.

GRAVEL PACK INTERVALS: From 88 ft. to 123 ft. From ft. to ft. From ft. to ft.

6 GROUT MATERIAL: 1 Neat cement 2 Cement grout 75% Sand and 25% Bentonite 3 Bentonite 4 Other Bentonite Holeplug

Grout Intervals: From 0 ft. to 25 ft. From 25 ft. to 83 ft. From 83 ft. to 88 ft.

What is the nearest source of possible contamination:

1 Septic tank	4 Lateral lines	7 Pit privy	10 Livestock pens	14 Abandoned water well
2 Sewer lines	5 Cess pool	8 Sewage lagoon	11 Fuel storage	15 Oil well/Gas well
3 Watertight sewer lines	6 Seepage pit	9 Feedyard	12 Fertilizer storage	16 Other (specify below)
			13 Insecticide storage	None known

Direction from well? FROM TO LITHOLOGIC LOG FROM TO PLUGGING INTERVALS

FROM	TO	LITHOLOGIC LOG	FROM	TO	PLUGGING INTERVALS
0	4	Topsoil			
4	40	Clay, brown			
40	54	Clay, red and gray			
54	63	Sandstone			
63	70	Clay, red, gray			
70	123	Sandstone			
123		Clay, red			

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7 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION: This water well was (1) constructed, (2) reconstructed, or (3) plugged under my jurisdiction and was completed on (mo/day/year) 1-27-94 and this record is true to the best of my knowledge and belief. Kansas Water Well Contractor's License No. 185 This Water Well Record was completed on (mo/day/yr) 2-22-94 under the business name of Clarke Well & Equipment, Inc. by (signature) *Clarke*

WATER WELL RECORD

Form WWC-5

Division of Water Resources App. No.

RC-5

1 LOCATION OF WATER WELL: County: <u>Rice</u>	Fraction <u>1/4 NE 1/4 SW 1/4 NE 1/4</u>	Section Number <u>2</u>	Township No. <u>T 18 S</u>	Range Number <u>R 10</u> <input type="checkbox"/> E <input checked="" type="checkbox"/> W
Street/Rural Address of Well Location; if unknown, distance & direction from nearest town or intersection: If at owner's address, check here <input type="checkbox"/> <u>From Hwy 4 in Bushton, south ~.4 miles to Ohio Ave. East 2 blocks to 2nd St. and north ~50'.</u>		Global Positioning System (GPS) information: Latitude: <u>38.517103</u> (in decimal degrees) Longitude: <u>-98.394666</u> (in decimal degrees) Elevation: <u>unknown</u> Datum: <input type="checkbox"/> WGS 84, <input checked="" type="checkbox"/> NAD 83, <input type="checkbox"/> NAD 27 Collection Method: <input checked="" type="checkbox"/> GPS unit (Make/Model: <u>WAAS</u>) <input type="checkbox"/> Digital Map/Photo, <input type="checkbox"/> Topographic Map, <input type="checkbox"/> Land Survey Est. Accuracy: <input type="checkbox"/> <3 m, <input checked="" type="checkbox"/> 3-5 m, <input type="checkbox"/> 5-15 m, <input type="checkbox"/> >15 m		
2 WATER WELL OWNER: <u>City of Bushton</u> RR#, Street Address, Box #: <u>P.O. Box 194</u> City, State, ZIP Code : <u>Bushton, KS 67427</u>				

3 LOCATE WELL WITH AN "X" IN SECTION BOX: N W <table border="1" style="display: inline-table; text-align: center; width: 80px; height: 80px;"> <tr><td>--NW--</td><td>--NE--</td></tr> <tr><td style="text-align: center;">x</td><td></td></tr> <tr><td>--SW--</td><td>--SE--</td></tr> </table> E S [----- 1 mile -----]	--NW--	--NE--	x		--SW--	--SE--	4 DEPTH OF COMPLETED WELL <u>137.80</u> ft. Depth(s) Groundwater Encountered (1) _____ ft. (2) _____ ft. (3) _____ ft. WELL'S STATIC WATER LEVEL <u>35</u> ft. below land surface measured on mo/day/yr <u>05/22/12</u> Pump test data: Well water was <u>Not checked</u> ft. after _____ hours pumping _____ gpm EST. YIELD _____ gpm. Well water was _____ ft. after _____ hours pumping _____ gpm Bore Hole Diameter <u>20</u> in. to <u>138</u> ft., and _____ in. to _____ ft. WELL WATER TO BE USED AS: <input checked="" type="checkbox"/> Public water supply <input type="checkbox"/> Geothermal <input type="checkbox"/> Injection well <input type="checkbox"/> Domestic <input type="checkbox"/> Feedlot <input type="checkbox"/> Oil field water supply <input type="checkbox"/> Dewatering <input type="checkbox"/> Other (Specify below) <input type="checkbox"/> Irrigation <input type="checkbox"/> Industrial <input type="checkbox"/> Domestic-lawn & garden <input type="checkbox"/> Monitoring well Was a chemical/bacteriological sample submitted to Department? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, mo/day/yr sample was submitted _____ Water well disinfected? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
--NW--	--NE--						
x							
--SW--	--SE--						

5 TYPE OF CASING USED: Steel PVC Other _____
CASING JOINTS: Glued Clamped Welded Threaded
 Casing diameter 8 in. to 105 ft., Diameter _____ in. to _____ ft., Diameter _____ in. to _____ ft.
 Casing height above land surface 22 in., Weight 5.59 lbs./ft., Wall thickness or gauge No. 332
TYPE OF SCREEN OR PERFORATION MATERIAL:
 Steel Stainless Steel PVC Other (Specify) _____
 Brass Galvanized Steel None used (open hole)
SCREEN OR PERFORATION OPENINGS ARE:
 Continuous slot Mill slot Gauze wrapped Torch cut Drilled holes None (open hole)
 Louvered shutter Key punched Wire wrapped Saw cut Other (specify) _____
SCREEN-PERFORATED INTERVALS: From 105 ft. to 135 ft., From _____ ft. to _____ ft.
 From _____ ft. to _____ ft., From _____ ft. to _____ ft.
GRAVEL PACK INTERVALS: From 95 ft. to 138 ft., From _____ ft. to _____ ft.
 From _____ ft. to _____ ft., From _____ ft. to _____ ft.

6 GROUT MATERIAL: Neat cement Cement grout Bentonite Other _____
 Grout Intervals: From 0 ft. to 22 ft., From 22 ft. to 30 ft., From _____ ft. to _____ ft.
 What is the nearest source of possible contamination:
 Septic tank Lateral lines Pit privy Livestock pens Insecticide storage Other (specify below) _____
 Sewer lines Cesspool Sewage lagoon Fuel storage Abandoned water well None Known _____
 Watertight sewer lines Seepage pit Feedyard Fertilizer storage Oil well/gas well
 Direction from well _____ Distance from well _____

FROM	TO	LITHOLOGIC LOG	FROM	TO	LITHO. LOG (cont.) or PLUGGING INTERVALS
0	2	Topsoil			
2	43	Clay, brown & white, some caliche			
43	46	Dakota clay, red, yellow, gray			
46	53	Dakota clay, yellow, gray			
53	61	Sandstone			
61	65	Sandstone, gray, clay streaks			
65	123	Sandstone			
123	130	Sand, fine, some drift gravel			
130	135	Sand, yellow clay			
135	138	Dakota clay, yellow			

7 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION: This water well was constructed, reconstructed, or plugged under my jurisdiction and was completed on (mo/day/year) 05/22/12 and this record is true to the best of my knowledge and belief.
 Kansas Water Well Contractor's License No. 185 This Water Well Record was completed on (mo/day/year) 05/24/12
 under the business name of Clarke Well & Equipment, Inc. by (signature) [Signature]

INSTRUCTIONS: Use typewriter or ball point pen. PLEASE PRESS FIRMLY and PRINT clearly. Please fill in blanks and check the correct answers. Send three copies (white, blue, pink) to Kansas Department of Health and Environment, Bureau of Water, Geology Section, 1000 SW Jackson St., Suite 420, Topeka, Kansas 66612-1367. Telephone 785-296-5522. Send one copy to WATER WELL OWNER and retain one for your records. Include fee of \$5.00 for each constructed well. Visit us at <http://www.kdheks.gov/waterwell/index.html>.

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**STATE OF KANSAS
DEPARTMENT OF HEALTH AND ENVIRONMENT**

In the Matter of:)
)
City of Bushton)
Genovevo Benavidez, Mayor) Case No. 18-E-09 BOW
217 S Main)
PO Box 194)
Bushton, KS 67427)
)
Federal Water Supply ID No.: KS2015905)
Proceeding Under K.S.A. 65-163, *et seq.*)
Concerning Compliance with)
K.A.R. 28-15a-66)

CONSENT ORDER

Now on this 11th day of January, 2019, the Kansas Department of Health and Environment ("KDHE") and the City of Bushton ("PWS") (collectively, the "Parties"), having agreed that settlement of this matter is in the best interests of the Parties and conducive to protection of public health and the environment, hereby represent and state as follows:

The Parties acknowledge that this Consent Order ("CO"), upon execution by the Secretary of KDHE ("Secretary"), shall be a final agency order. The PWS shall not contest the authority of the Secretary to issue this CO or any action by KDHE to enforce this CO. The PWS voluntarily and knowingly waives the right to an appeal or review of matters leading up to the execution of the CO and execution of the CO under the Kansas Administrative Procedure Act, K.S.A. 77-501, *et seq.* ("KAPA"), and the Kansas Judicial Review Act, K.S.A. 77-601, *et seq.* KAPA authorizes KDHE to enter into an informal settlement of this matter without the necessity of proceeding to a formal hearing. K.S.A. 77-505.

The Secretary and the PWS deems that the Findings of Fact and Conclusions of Law in this CO are true and correct.

Findings of Fact

1. The PWS operates a community public water supply system located in Rice County. The PWS serves a population of 271 individuals and has 138 service connections.

In the Matter of:
City of Bushton
Consent Order
CASE NO. 18-E-09 BOW

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KS DEPT OF AGRICULTURE

2. The PWS utilizes water from Well 05 (Site ID# 00051749) and Well 06 (Site ID# 00209272) as the source of water for the public water supply system. The point of entry to the distribution system is identified as TP002, Site ID# 00195267.
3. Table 1, attached hereto and incorporated by reference, summarizes the quarterly combined radium results and running annual average (“RAA”) results from 1st Quarter 2016 to 1st Quarter 2018.

Conclusions of Law

4. The KDHE is a duly authorized agency of the state of Kansas, created by an act of the legislature. KDHE has general jurisdiction over matters involving public water supply and protection of public health under the authority of K.S.A. 65-163 *et seq.*
5. The PWS operates a public water supply system as defined by K.S.A. 65-162a. A public water supply system is defined as “a system for the provision to the public of piped water for human consumption, which has at least ten (10) service connections or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days out of the year. Such term includes any source, treatment, storage or distribution facilities under control of the operator of the system and used primarily in connection with the system, and any source, treatment, storage or distribution facilities not under such control but which are used in connection with such system.”
6. K.S.A. 65-163 states in part:

“(b)(2) Whenever an investigation of any public water supply system is undertaken by the Secretary, it shall be the duty of the supplier of water under investigation to furnish to the Secretary information to determine the sanitary quality of the water supplied to the public and to determine compliance with applicable state laws and rules and regulations. The Secretary may issue an order requiring changes in the source or sources of the public water supply system or in the manner of storage, purification or treatment utilized by the public water supply system before delivery to consumers, or distribution facilities, collectively or individually, as may in the Secretary’s judgment be necessary to safeguard the sanitary quality of the water and bring about compliance with applicable state law and rules and regulations. The supplier of water shall comply with the order of the Secretary.”
7. K.S.A. 65-171m states in part:

“The Secretary of Health and Environment shall adopt rules and regulations for the implementation of this act. In addition to procedural rules and regulations, the Secretary may adopt rules and regulations providing for but not limited to: (a) primary drinking water standards applicable to all public water supply systems in the state. The primary drinking water standards may (1) identify contaminants which may have an adverse

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APR 21 2021

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effect on the health of persons; (2) specify for each contaminant either a maximum contaminant level that is acceptable in water for human consumption...: (b) establish the requirements for adequate monitoring, maintenance of records and submission of reports, sampling and analysis of water..."

8. The maximum contaminant level ("MCL") for combined radium -226 and -228 ("combined radium") is 5 pCi/L. 40 CFR 141.66, adopted by reference by K.A.R. 28-15a-66.
9. K.S.A. 65-171r prohibits the following acts:

"(e) the failure of a supplier of water to comply with a primary drinking water standard established under K.S.A. 65-171m, and amendments thereto, and rules and regulations adopted pursuant thereto unless a variance or exception has been granted;"
10. K.S.A. 65-171s states in part:

"(a) Any person who violates any provision of K.S.A. 65-171r... shall incur, in addition to any other penalty provided by law, a civil penalty in an amount not more than \$5,000 per day for each day in which such violation occurs or failure to comply continues."
11. The PWS is in violation of K.S.A. 65-171r by violating the provisions of K.A.R. 28-15a-66 for providing drinking water to the public that exceeds the running annual average MCL for combined radium.

ORDER

12. Based upon the above-referenced Findings of Fact and Conclusions of Law and pursuant to the authority granted under K.S.A. 65-163, the Secretary hereby orders and the PWS consents to comply with the following Compliance Schedule.
13. The following required actions are necessary to protect public health during periods of non-compliance and shall be fulfilled as outlined below until full compliance is achieved.
14. The PWS shall continue to monitor the combined radium concentrations at TP002, Site ID# 00195267, at least once every three months (quarterly). The PWS shall increase the sampling frequency to either monthly or weekly if instructed to do so in writing by KDHE. The PWS may use the KDHE laboratory or a private KDHE-certified laboratory for analysis. If a private laboratory is used, results for the previous month shall be submitted to the KDHE, Bureau of Water by the 10th day of the following month.
15. When the monitoring results indicate the combined radium exceed the established MCLs, and/or treatment requirements for are not met, the PWS shall distribute notice of the violation(s) to the public as required by K.A.R. 28-15a-201. Copies of the notice shall be

furnished to all customers; area health care providers including medical doctors, clinics and hospitals; the county health department; and the KDHE. Notice of the violation(s) shall also be included in the annual Consumer Confidence Report ("CCR") as required by K.A.R. 28-15a-153.

16. In order to rectify the violations referenced in this CO, the PWS shall comply with the following compliance schedule:

- A. Within sixty (60) days of the effective date of this CO, the PWS shall engage the services of a professional engineer licensed in the State of Kansas to assist the PWS in fulfilling the terms of this CO.
- B. Within thirty (30) days of the completion of 16.A, the PWS shall contact KDHE to schedule a consultation regarding deliverables required pursuant to this CO. Please contact:

Amelia Springer
(785) 296-5523
amelia.springer@ks.gov

- C. Within ninety (90) days of the completion of 16.B, the PWS shall submit to the KDHE for review and approval documentation for the waste stream summary review and disposal method consensus process.
- D. Within one hundred twenty (120) days of KDHE approval of 16.C, the PWS shall submit to the KDHE an engineering report for review and approval. The engineering report shall include the KDHE-approved consensus outcome of the waste stream review summary and disposal method consensus process.
- E. Within ninety (90) days of the KDHE approval of 16.D, the PWS shall submit to the KDHE a funding plan that includes implementation dates.
- F. Within one hundred twenty (120) days of completion of 16.E, the PWS shall submit to the KDHE project plans, specifications, public water supply permit application, and other information as may be requested for review and approval.
- G. Within thirty (30) days of the KDHE approval of 16.F, the PWS shall advertise for bids to complete improvements to the water system treatment facilities.
- H. Within one hundred twenty (120) days of completion of Paragraph 16.G, the PWS shall accept and award the contract for improvements to the water system treatment facilities.

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APR 21 2021

DEPT OF AGRICULTURE

- I. Within one (1) year of completion of Paragraph 16.H, upgrades and improvements of water system treatment facilities shall be substantially completed.
 - J. By December 31, 2021, the PWS shall produce water that will achieve compliance with the combined uranium MCL established for public drinking water.
17. The PWS shall submit semi-annual status reports to the KDHE by January 1st and July 1st of every year while the PWS is in non-compliance for combined radium. The status reports shall summarize the PWS progress toward achieving compliance and shall include but not be limited to:
- A. Progress on any projects or improvements being made to the water system;
 - B. A summary of efforts being made to develop an annual budget, capital improvement plan, and an operation and maintenance plan;
 - C. Efforts made to comply with this CO; and
 - D. Any changes to the deadline for which the PWS anticipates to achieve full compliance.
18. All documentation required pursuant to this CO shall reference the case number (Case No. 18-E-09 BOW) and be mailed to:

Kansas Department of Health and Environment
Public Water Supply Section
Attn: Amelia Springer
1000 SW Jackson, Suite 420
Topeka, KS 66612-1367

Terms of Settlement

- 19. All actions required to be undertaken pursuant to this CO shall be undertaken in accordance with the requirements of all applicable local, state and federal laws and regulations.
- 20. This CO shall apply to and be binding upon the KDHE and the PWS, its agents, successors and assigns. No change in the ownership or corporate status of the PWS shall alter its responsibilities under this CO.
- 21. The PWS shall provide a copy of this CO to any subsequent owners or successors before ownership rights are transferred. The PWS shall provide a copy of this CO to all contractors, sub-contractors and consultants who are retained to conduct any work performed under this CO, within fourteen (14) days after the effective date of this CO or

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APR 21 2021
DEPARTMENT OF AGRICULTURE

the date of retaining their services. Notwithstanding the terms of any contract, the PWS is responsible for compliance with, and for insuring that its contractors and agents comply with this CO.

22. The activities conducted under this CO are subject to approval by the KDHE, and the PWS shall provide all necessary information consistent with this CO requested by the KDHE.
23. The PWS agrees to meet every term and condition of this CO. Failure to meet the terms of the Compliance Schedule or any term or condition of, or scheduled date of performance in this CO or any report, work plan or other writing prepared pursuant to and incorporated into this CO, shall constitute a violation of this CO and may subject the PWS to further enforcement action including, but not limited to, the assessment of civil penalties not to exceed \$5,000 per day for each day in which such violation occurs or failure to comply continues. KDHE reserves the right to unilaterally withdraw this CO for substantial non-compliance.
24. This CO shall be terminated upon the PWS's receipt of written notice from KDHE that the PWS has demonstrated the terms of this CO to have been satisfactorily completed, including any additional tasks the KDHE has deemed necessary.
25. The PWS shall perform the requirements under this CO within the time limits set forth herein unless the performance is prevented or delayed solely by events which constitute a force majeure.
 - A. For purposes of this CO a force majeure is defined as any event beyond the control of the PWS which could not be overcome by due diligence and which delays or prevents performance by a date required by this CO. Such events do not include increased costs of performance or changed economic circumstances. Any delay caused in whole or in part by action or inaction by federal or state authorities shall be considered a force majeure and shall not be deemed a violation of any obligations required by this CO.
 - B. The PWS shall have the burden of proving all claims of force majeure. Failure to comply by reason of force majeure shall not be construed as a violation of this CO.
 - C. The PWS shall notify the KDHE in writing within seven (7) days after becoming aware of an event which the PWS knew, or should have known, constituted force majeure. Such notice shall estimate the anticipated length of delay, its cause, measures to be taken to minimize the delay, and an estimated timetable for implementation of these measures. Failure to comply with the notice provision of this section shall constitute a waiver of the PWS's right to assert a force majeure claim and shall be grounds for the KDHE to deny the PWS an extension of time for performance.

- D. Within seven (7) days of the receipt of written notice from the PWS of a force majeure event, the KDHE shall notify the PWS of the extent to which modifications to this CO are necessary. In the event the KDHE and the PWS cannot agree that a force majeure event has occurred, or if there is no agreement on the length of the extension, the dispute shall be resolved by the Director of the Division of Environment, KDHE, under the Dispute Resolution Procedure provided herein.
- E. Any modifications to any provision of this CO shall not alter the Schedule of Actions or completion of other tasks required by this CO unless specifically agreed to by the parties in writing and incorporated into this CO.
26. This CO may be amended by mutual agreement of the KDHE and the PWS. Such amendments shall be in writing, shall have as their effective date the date on which they are signed by both parties, and shall be incorporated into this CO.
27. Dispute Resolution Procedure:
- A. The parties recognize that a dispute may arise between them regarding implementation of the action to be taken as herein set forth or other terms or provisions of this CO. If such dispute arises, the parties will endeavor to settle it by informal negotiations between themselves. If the parties cannot resolve the issue informally within a reasonable period of time, either of the parties may notify the other in writing stating specifically:
- i. that informal negotiations have failed,
 - ii. that formal dispute resolution under this paragraph has commenced, and
 - iii. the position with regard to the dispute and the reason therefore.
- B. A party receiving such a notice of dispute will respond in writing within ten (10) working days stating its position. The parties shall have an additional ten (10) working day period to prepare written arguments and evidence for submission to the other party. Any settlement shall be reduced to writing, signed by representatives of each party and incorporated into this CO. If the parties are unable to reach an agreement following this procedure, the matter shall be referred to the Director of the Division of Environment, KDHE, who shall decide the matter and provide a written statement of his decision which shall be incorporated into this CO.
- C. This dispute resolution procedure shall not preclude any party from having direct recourse to court if otherwise available by applicable law.
28. The requirements of this CO represent the best professional judgment of the KDHE at this time based on the available information. If circumstances change significantly so

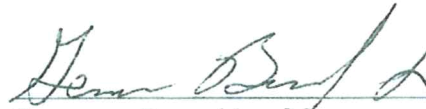
that data indicates an immediate threat of danger to the public health or safety, or the environment, or a significantly different threat other than the alleged deficiencies addressed herein, then the KDHE reserves the right to modify dates or requirements herein as is deemed reasonably necessary and the PWS reserves the right to appeal any such modifications or additional requirements.

29. Nothing contained in this CO shall affect any right, claim, interest, defense or cause of action of any party hereto with respect to any person or entity not a party to this CO. This CO does not constitute a waiver, suspension or modification of the requirements of applicable statutes or regulations which remain in full force and effect.
30. The parties hereto have affixed their signatures on the dates inserted below to acknowledge their agreement to this CO. The signatories to this CO certify that they are authorized to execute and legally bind the parties they represent to this CO.

IT IS SO ORDERED AND AGREED.



Jeff Andersen
Secretary
Kansas Department of Health & Environment



Genovevo Benavidez, Mayor
City of Bushton

Date: 01-11-2019

Date: 12-15-18

**STATE OF KANSAS
BEFORE THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT**

IN THE MATTER OF:

Case No. 18-E-09 BOW

City of Bushton
217 S. Main St.
PO Box 194
Bushton, KS 67427

Federal Water Supply ID No. KS2015905

AMENDMENT OF CONSENT AGREEMENT AND FINAL ORDER

PRELIMINARY STATEMENT

The Kansas Department of Health and Environment (“KDHE”) and the City of Bushton (“SOW”; collectively, the “Parties”) entered into Consent Order 18-E-09 BOW on January 11, 2019 (“Order”), pursuant to KDHE’s general jurisdiction over matters involving public water supply systems and protection of public health under the authority of K.S.A. 65-163 *et seq.*

Therefore, it is agreed by the Parties, pursuant to Paragraph 26 of the Order, the Order is hereby amended (the “Amendment”). The Amendment includes the deletion and replacement of Paragraph 16.F through 16.J in their entirety and the addition of Paragraph 17.

- 16.F. By May 01, 2022, the SOW shall submit to the KDHE project plans, specifications, public water supply permit application, and other information as may be requested for review and approval.
 - 16.G. By September 01, 2022, the SOW shall advertise for bids to complete improvements to the water system treatment facilities.
 - 16.H. By October 01, 2022, the SOW shall accept and award the contract for improvements to the water system treatment facilities.
 - 16.I. By May 01, 2023, upgrades and improvements of water system treatment facilities shall be substantially completed.
 - 16.J. By June 01, 2023, the PWS shall produce water that will achieve compliance with the combined radium MCL established for public drinking water.
17. If the SOW falls out of compliance with this timeline for an amount time of greater than thirty (30) days, the SOW shall provide free of charge, an alternate source of drinking water to customers an alternate source of drinking water that complies with Safe Drinking Water Act regulations until the completion of paragraph 16.J. If bottled water is chosen to meet this requirement, the SOW shall

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obtain a certification from the bottled water supplier that the water meets Safe Drinking Water Act regulations and the appropriate requirements of the Food and Drug Administration. The SOW shall provide notice of water delivery to KDHE no later than the last day of each month that it is being provided to customers.

The Parties have full knowledge of and have consented to this Amendment and represent and warrant that each person who executes this Amendment on its behalf is duly authorized to legally bind the respective Party to the Amendment.

This Amendment is fully incorporated into the CO, and all terms of the CO remain in effect and apply to the PWS and to the Amendment to CO. Except as explicitly provided in the Amendment, all other provisions of the CO shall remain in full force and effect, shall be incorporated herein, and shall be made applicable to all matters contemplated by this Amendment. In the event of a conflict between the CO and the Amendment, the Amendment shall control only as to matters explicitly addressed by the Amendment. Matters addressed by the CO shall continue to be governed by the CO.

This Amendment shall become effective on the date signed by the Secretary of KDHE.

IT IS SO ORDERED AND AGREED.

Lee A. Norman, M.D., Secretary
Kansas Department of Health & Environment

Genovevo Benavidez, Mayor
City of Bushton

Date: _____

Date: _____

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Bushton, KS Domestic Water Well Sampling Results

	Schroeder	Hoelscher	Well #4	Gish		EPA Limits	
Sample ID	60343425_frc	60343426_frc	60343427_frc	60344532_frc			
Specific Conductance	1190	701	1150	549	umhos/cm		umhos/cm
Total Dissolved Solids	649	408	781	319	mg/L	500	mg/L
Total Coliforms	Present	Present	Present	Absent			
Escherichia coli (E. coli)	Absent	Absent	Present	Absent			
Chloride	177	60.8	123	24.7	mg/L	250	mg/L
Fluoride	0.38	0.53	0.28	0.82	mg/L	2.0	mg/L
Sulfate	57.8	25.3	90.3	17.4	mg/L	250	mg/L
pH @ 25C	7.4	7.4	7.4	7.5		6.5-8.5	
Calcium	129000	92100	170000	62600	ug/L		ug/L
Hardness, Magnesium (SM 2340B)	39000	46500	61100	53200	ug/L		ug/L
Iron	ND	ND	1040	397	ug/L	0.3	mg/L
Magnesium	9470	11300	14800	12900	ug/L		ug/L
Manganese	ND	ND	15.4	31.2	ug/L	0.05	mg/L
Sodium	120000	44000	60200	30400	ug/L		ug/L
Sample ID	60343489_frc	60343483_frc	60345107_frc	60345103_frc			
Radium-226	1.63+/- .660	.983+/- .359	1.22+/- .798	.482+/- .548	pCi/L	5 (combined)	pCi/L
Radium-228	1.14+/- .470	1.96+/- .488	.957+/- .518	.866+/- .508	pCi/L		
Total Uranium	6.12+/- .180	3.10+/- .067	4.26+/- .132	3.73+/- .124	pCi/L	30	ug/L
Radon	477+/-53.7	728+/-61.4	138+/-104	406+/-135	pCi/L		pCi/L
Sample ID	60348970_frc	60348970_frc	60348970_frc	60348970_frc			
Nitrate as N	10.6	12.6	1.5	ND	mg/L	10	mg/L

WATER RESOURCES
DIVISION

APR 21 2021

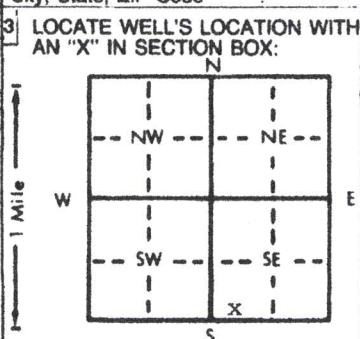
WATER RESOURCES
DIVISION

WATER WELL RECORD Form WWC-5 KSA 82a-1212

1 LOCATION OF WATER WELL: Fraction SW 1/4 SW 1/4 SE 1/4 Section Number 3 Township Number T 18 S Range Number R 10 **W**
 County: Rice Distance and direction from nearest town or city street address of well if located within city?
 Approx. 1/2 mile west of Bushton, KS

2 WATER WELL OWNER: Duane Gish
 RR#, St. Address, Box #: Rural Route
 City, State, ZIP Code: Bushton, KS 67427 Board of Agriculture, Division of Water Resources
 Application Number: not required

3 LOCATE WELL'S LOCATION WITH AN "X" IN SECTION BOX: 4 DEPTH OF COMPLETED WELL: 162 ft. ELEVATION: unknown
 Depth(s) Groundwater Encountered 1. 67 ft. 2. ft. 3. ft.
 WELL'S STATIC WATER LEVEL: 67 ft. below land surface measured on mo/day/yr 9/24/85



Pump test data: Well water was not ck'd ft. after hours pumping gpm
 Est. Yield unknown gpm Well water was ft. after hours pumping gpm
 Bore Hole Diameter: 8 3/4 in. to 162 ft. and in. to ft.
 WELL WATER TO BE USED AS:
 1 Domestic 3 Feedlot 5 Public water supply 8 Air conditioning 11 Injection well
 2 Irrigation 4 Industrial 7 Lawn and garden only 10 Observation well 12 Other (Specify below)
 Was a chemical/bacteriological sample submitted to Department? Yes No **X**; If yes, mo/day/yr sample was submitted
 Water Well Disinfected? Yes **X** No

5 TYPE OF BLANK CASING USED:
 1 Steel 3 RMP (SR) 5 Wrought iron 8 Concrete tile CASING JOINTS: Glued **X** Clamped
 2 PVC 4 ABS 6 Asbestos-Cement 9 Other (specify below) Welded
 7 Fiberglass Threaded

Blank casing diameter . . . 5 . . . in. to . . . 122 . . . ft., Dia . . . in. to . . . ft., Dia . . . in. to . . . ft.
 Casing height above land surface . . . 24 . . . in., weight . . . 2.277 . . . lbs./ft. Wall thickness or gauge No. . . 214

TYPE OF SCREEN OR PERFORATION MATERIAL:
 1 Steel 3 Stainless steel 5 Fiberglass 7 PVC 10 Asbestos-cement
 2 Brass 4 Galvanized steel 6 Concrete tile 8 RMP (SR) 11 Other (specify)
 9 ABS 12 None used (open hole)

SCREEN OR PERFORATION OPENINGS ARE:
 1 Continuous slot 3 Mill slot 5 Gauzed wrapped 8 Saw cut 11 None (open hole)
 2 Louvered shutter 4 Key punched 6 Wire wrapped 9 Drilled holes
 7 Torch cut 10 Other (specify)

SCREEN-PERFORATED INTERVALS: From . . . 122 . . . ft. to . . . 162 . . . ft. From . . . ft. to . . . ft.
 From . . . ft. to . . . ft. From . . . ft. to . . . ft.

GRAVEL PACK INTERVALS: From . . . 110 . . . ft. to . . . 162 . . . ft. From . . . ft. to . . . ft.
 Annular Fill From 10 ft. to 110 ft. From ft. to ft.

6 GROUT MATERIAL: 1 Neat cement 2 Cement grout 3 Bentonite 4 Other
 Grout Intervals: From . . . 0 . . . ft. to 110 . . . ft., From . . . ft. to . . . ft., From . . . ft. to . . . ft.

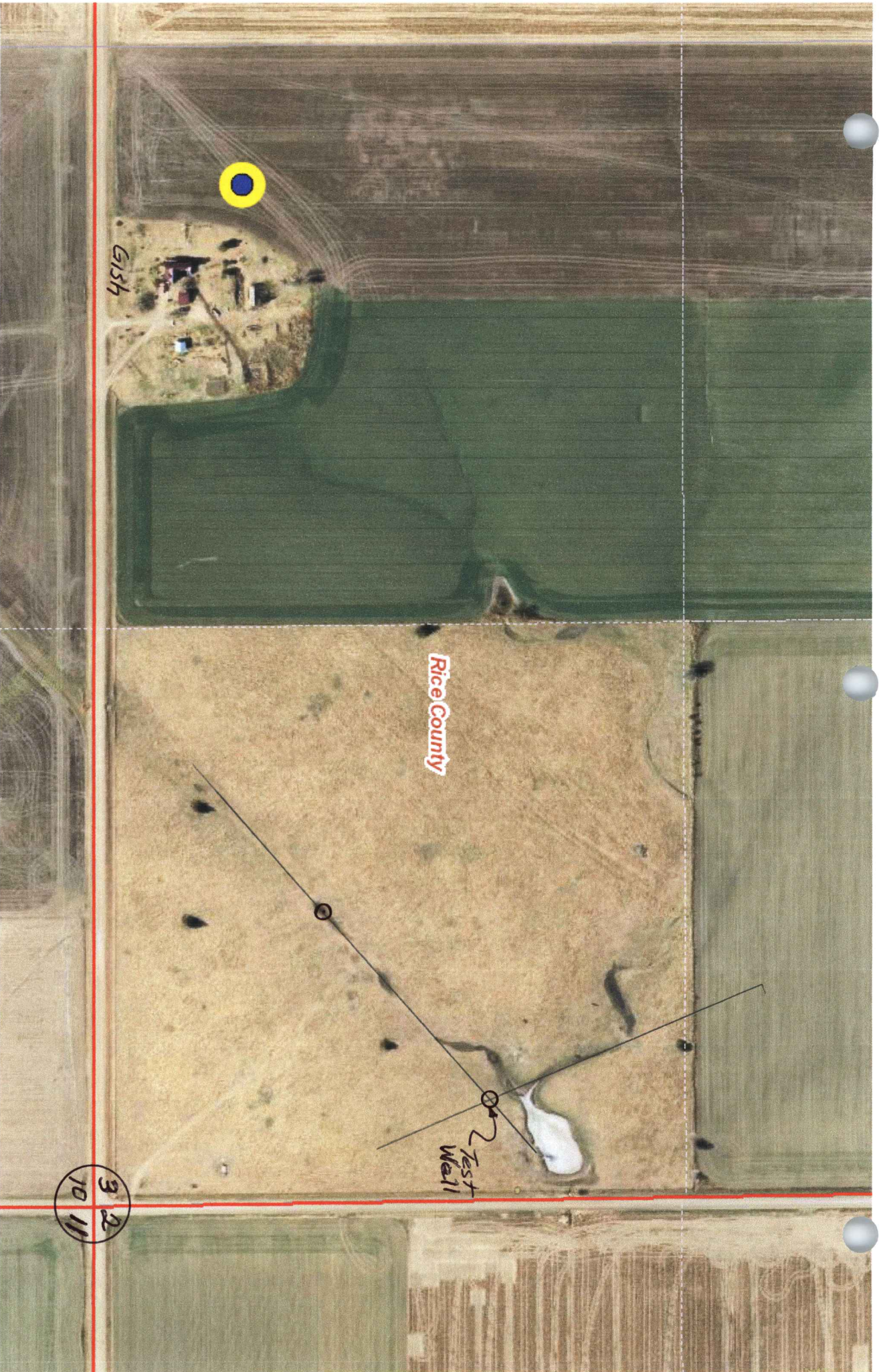
What is the nearest source of possible contamination:
 1 Septic tank 4 Lateral lines 7 Pit privy 10 Livestock pens 14 Abandoned water well
 2 Sewer lines 5 Cess pool 8 Sewage lagoon 11 Fuel storage 15 Oil well/Gas well
 3 Watertight sewer lines 6 Seepage pit 9 Feedyard 12 Fertilizer storage 16 Other (specify below)
 13 Insecticide storage
 Direction from well? northeast How many feet? 200'

FROM	TO	LITHOLOGIC LOG	FROM	TO	LITHOLOGIC LOG
0	10	Topsoil & brown clay			
10	25	Sandstone streaks & yellow & white Dakota clay streaks			
25	90	Gray & red Dakota clay			
90	117	Black shale			
117	128	White & gray Dakota clay			
128	162	Soft brown sandstone			

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7 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION: This water well was (1) constructed, (2) reconstructed, or (3) plugged under my jurisdiction and was completed on (mo/day/year) . . . 9/24/85 . . . and this record is true to the best of my knowledge and belief. Kansas Water Well Contractor's License No. . . . 185 . . . This Water Well Record was completed on (mo/day/yr) . . . 10/8/85 . . . under the business name of Clarke Well & Eq., Inc. by (signature) *Clarke Well & Eq., Inc.*

INSTRUCTIONS: Use typewriter or ball point pen, PLEASE PRESS FIRMLY and PRINT clearly. Please fill in blanks, underline or circle the correct answers. Send top three copies to Kansas Department of Health and Environment, Division of Environment, Environmental Geology Section, Topeka, KS 66620. Send one to WATER WELL OWNER and retain one for your records.



300'

G15h

Rice County

2
Test Wall

3 2
10 11

APR 21 2021

ENTIRE AGRI-CULTURE



10W

S2-T18S-R10W

Rice County

400' / 5200''

32
34
10
11

600'

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1320 Research Park Drive
Manhattan, KS 66502
785-564-6700
www. agriculture.ks.gov



900 SW Jackson, Room 456
Topeka, KS 66612
785-296-3556

Mike Beam, Secretary

Laura Kelly, Governor

April 21, 2021

CITY OF BUSHTON
PO BOX 194 217 S MAIN
BUSTON KS 67427

RE: File No(s). **11405**

Dear Sir or Madam:

The Division of Water Resources (Division) has received your application(s) to change the place of use, point of diversion or use made of water for the file number(s) referenced above. Please be aware that the Division may have a large number of pending applications on hand at times and makes every attempt to process them in the order in which they are received. You will be contacted if additional information is required.

Please note, this letter only acknowledges receipt of your application(s) and does not guarantee approval. In accordance with the provisions of the Kansas Water Appropriation(s) Act, the use of water as proposed prior to approval of the application(s) is unlawful.

Additional information about the process may be found on our website at agriculture.ks.gov/divisions-programs/dwr. If you have any other questions, please contact our office at 785-564-6640 or your local Stafford Field Office at 620-234-5311. If you call, please reference the file number so we can help you more efficiently.

Sincerely,

A handwritten signature in black ink that reads "Kristen Baum". The signature is written in a cursive style.

Kristen Baum
New Applications and Changes Supervisor
Water Appropriation Program