

File No. 51,059	13. County: MS-Marshall Basin: Black Vermillion River Stream:		
Structures File No:	Aquifer Code: 140 Kansan Stage		Special Use Area:

14. Points of Diversion, Rates & Quantities										Qty		Rate		Storage Qty		Storage Rate	
PDIV	Qualifier	S	T	R	ID	'N	'W	Comment (AKA Line)	Auth	Add	Auth	Add	Auth	Add	Auth/Add	Overlaps	
CHK	90412	NW NW SW	28	3S	9E	1	1986	5250	GEO CTR	200	200	800	800				
CHK	90413	SW NW SW	28	3S	9E	2	1686	5250	BATT 1 OF 2 WELLS								
CHK	90414	NW NW SW	28	3S	9E	3	2285	5250	BATT 1 OF 2 WELLS								

15. Limitations	Type:	Quantity:	Rate:	combined with file no(s):
	Type:	Quantity:	Rate:	combined with file no(s):

16. Metering Metering Required Anti-Reverse Required Seal Required Compliance Date: 12/31/2026

17. Place of Use						NE¼				NW¼				SW¼				SE¼				Total	Owner(s)	Chg?	Overlaps	
PUSE ID	S	T	R	ID		NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE					
CHK	71039	20	3S	9E	1														40	40			80	5a.	<input type="checkbox"/>	+
CHK	71040	21	3S	9E	1					40	40	26	40	40	40	31	36					293	5a.	<input type="checkbox"/>	+	
CHK	71041	28	3S	9E	1	40	40	40	40	40	40	40	40	40	40	40	40					480	5a.	<input type="checkbox"/>	+	
																									<input type="checkbox"/>	
																									<input type="checkbox"/>	
																									<input type="checkbox"/>	

18. Point of Diversion and Place of Use Overlaps * + 50878 # ^	** ++ ## ^^
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MEMORANDUM TO FILE

Division of Water Resources, Water Appropriation Program

Date: February 22, 2025

From: Lloyd Hemphill, Environmental Scientist

Re: New Application File No. 51,059

Summary

Charles Gerstner has filed the above referenced application to appropriate 200 acre-feet of groundwater at a rate of 800 gallons per minute from a battery of two wells in the Black Vermillion River basin. The proposed battery of wells is located north of the City of Frankfort in the Southwest Quarter of Section 28 in Township 3 South, Range 9 East, Marshall County, KS. The water will be used to irrigate 853 acres. The place of use and point of diversion are on land owned by the Charles E Gerstner Trust and Margaret F. Gerstner Trust. The place of use overlaps Appropriation of Water, File No. 50,878 which authorizes 127 AF of water to be stored in a pond and re-diverted for irrigation use.

Reasonable Rate and Quantity

The quantity of water requested is 200 acre-feet diverted at a rate of 800 gallons per minute for a proposed place of use of 853 acres. The maximum amount of water reasonable per K.A.R. 5-3-24 to irrigate this place of use at 1.1 AF/ac in Marshall County is 938.3 AF, much larger than the combined quantity proposed by this application and the overlapping permit (327 AF). No limitation in quantity is necessary. The proposed rate of diversion of 800 gpm is the maximum allowed for a battery of wells.

Source of Supply and Safe Yield

The source of supply appears to be the glacial aquifer based on well logs and geologic maps. The water well record submitted with the application describes 42 ft of sandy and silty clay at the surface; underlain by coarse sand and gravel and clay layers to a depth of 73 ft; and very fine clayey sand to shale bedrock at 113 ft. The source of water appears to be the lower portion of the coarse sand layer and the underlying very fine sand layer, based on well completion information. According to the "Saturated Thickness and Specific Yield of Cenozoic Deposits in Kansas" map by Bayne and Ward, 1967 (Map M-5), this well is located near the edge of a significant buried glacial valley which reaches a saturated thickness of more than 350 feet about 15 miles to the southeast of the proposed point of diversion. According to this map, the saturated thickness ranges from 40 to 120 ft within the two-mile circle around the proposed point of diversion. The primary water producing zones of this aquifer are permeable sand and gravel layers interspersed within mixed glacial till layers consisting primarily of clay mixed with sand and gravel. The aquifer is most productive where the sand and gravel layers are interconnected over larger areas but can be limited where the sand and gravel layers are isolated.

Some wells within two miles of the proposed point of diversion are located within the topographic valleys of Snipe Creek and Robidoux Creek, suggesting that Quaternary alluvium may also be a source of water to those wells. Insufficient information is available to determine the degree of connectivity between the alluvial and glacial deposits. For the safe yield analysis discussed below, the alluvial and glacial deposits were considered as one system. Static water level elevations are similar throughout the two-mile circle even though the wells on the western edge are completed to much shallower depths (higher elevations).

The water well record submitted with the application shows the static water level at a depth of 9 ft (above the top of the coarser aquifer material). The aquifer may operate under confined or semi-confined conditions, especially for shorter periods of pumping. No specific method has been defined for evaluation of safe yield in this aquifer, but it appears that safe yield may be determined using the method described by K.A.R. 5-3-11 for unconfined aquifers. Per the K.A.R. 5-3-11, safe yield is determined by the extent of the

aquifer within two miles of the point of diversion (the area of consideration). Small portions of the two-mile circle were omitted where the glacial aquifer is absent. Measurement of the aquifer extent provided an area of consideration of 7,772 acres. With a potential annual recharge of 4.2 inches, and 100% of recharge available for appropriation, safe yield was determined to be 2,720.31 acre-feet. Existing water rights have appropriated 405.79 AF leaving a difference of 2,314.52 acre-feet available for appropriation. The application is requesting 200 AF of water. Even if recharge were significantly restricted by finer sediments near the surface, this appropriation would comply with safe yield.

Nearby Water Rights

Seven prior non-domestic water rights (6 points of diversion) were identified within two miles of the proposed point of diversion. The nearest point of diversion is just over ½ mile away (File Nos. 24,637 & 37,177). No domestic wells were identified within ½ mile of the proposed point of diversion. The proposed point of diversion meets well spacing requirements. Per K.A.R. 5-4-4 for all other aquifers, the minimum well spacing should be one-quarter mile to all other non-domestic wells and 660 feet to domestic wells. A notification letter was sent to one nearby well owner on January 24, 2025. No response was received.

Recommendations

Nathan Westrup, Water Commissioner of the Topeka Field Office recommended approval of this application in an e-mail dated February 21, 2025. The application complies with all regulations concerning reasonable quantity, safe yield, and minimum spacing requirements. Based upon the above discussion, approval of the application is not expected to impair senior water rights nor prejudicially or unreasonably affect the public interest. Therefore, it is recommended that the referenced application be approved.

Lloyd Hemphill
Environmental Scientist
Topeka Field Office

Hemphill, Lloyd [KDA]

From: Westrup, Nathan [KDA]
Sent: Friday, February 21, 2025 4:58 PM
To: Hemphill, Lloyd [KDA]
Subject: RE: Application, File No. 51059: For your recommendation

Lloyd,

I have no objection or concerns with approval of this application.

Thank you,

Nathan Westrup, Water Commissioner

Topeka Field Office

Division of Water Resources

Kansas Department of Agriculture

Phone: 785-296-7064

Mobile: 785-230-2991

Nathan.Westrup@ks.gov

From: Hemphill, Lloyd [KDA] <Lloyd.Hemphill@ks.gov>
Sent: Friday, February 21, 2025 12:01 PM
To: Westrup, Nathan [KDA] <Nathan.Westrup@ks.gov>
Subject: Application, File No. 51059: For your recommendation

Nate,

Will you provide your recommendation on Application, File No. 51,059 (Charles Gerstner)?

This is for irrigation from a battery of wells in the glacial aquifer north of Frankfort. The place of use is also covered by surface water File No. 50,878 (pond). No nearby well owner concerns were raised.

Thanks,
Lloyd

Lloyd Hemphill, Environmental Scientist
Kansas Department of Agriculture
Division of Water Resources, Topeka Field Office
1131 SW Winding Rd, Suite 400
Topeka, KS 66615
Office: (785) 296-5733

Water Rights and Points of Diversion Within 2 miles of point defined as:
 1986 Feet N and 5250 Feet W of the Southeast Corner of Section 28 Twp 3S Rng 9E
 Located at: 96.426709 West Longitude and 39.760396 North Latitude
 GROUNDWATER ONLY

File Number	Use	ST	SR	Dist	(ft)	Q4	Q3	Q2	Q1	FeetN	FeetW	Sec	Twp	Rng	ID	Batt	Auth_Quan	Add_Quan	Unit
A_ 24637	00	MUN	NK	G	2648	--	NE	NW	NE	5200	1550	32	3	9E	6		51.10	51.10	AF
Same					3181	--	NW	NW	NE	5200	2340	32	3	9E	2		52.94	52.94	AF
Same					3559	--	NE	NE	NW	5200	2830	32	3	9E	3		49.41	49.41	AF
A_ 30028	00	IRR	NK	G	9504	--	NE	SW	NW	3720	4089	30	3	9E	1		75.00	75.00	AF
A_ 31148	00	IRR	NK	G	9905	--	--	--	--	3061	4584	30	3	9E	3		32.00	.00	AF
A_ 31859	00	IRR	NK	G	5566	NC	E2	NE	SE	1900	300	30	3	9E	4		73.00	73.00	AF
A_ 37176	00	MUN	NK	G	3181	--	NW	NW	NE	5200	2340	32	3	9E	2		39.90	39.90	AF
A_ 37177	00	MUN	NK	G	2648	--	NE	NW	NE	5200	1550	32	3	9E	6		42.96	31.95	AF
A_ 37178	00	MUN	NK	G	3559	--	NE	NE	NW	5200	2830	32	3	9E	3		38.58	32.50	AF
A_ 51059	00	IRR	AY	G	0	--	NW	NW	SW	1986	5250	28	3	9E	1	G2	200.00	200.00	AF
Same					299	--	NW	NW	SW	2285	5250	28	3	9E	3	B2			
Same					300	--	SW	NW	SW	1686	5250	28	3	9E	2	B2			

Total Net Quantities Authorized:	Direct	Storage
Total Requested Amount (AF) =	200.00	.00
Total Permitted Amount (AF) =	.00	.00
Total Inspected Amount (AF) =	.00	.00
Total Pro_Cert Amount (AF) =	.00	.00
Total Certified Amount (AF) =	405.79	.00
Total Vested Amount (AF) =	.00	.00
TOTAL AMOUNT (AF) =	605.79	.00

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

Water Rights and Points of Diversion Within 2 miles of point defined as:
 1986 Feet North and 5250 Feet West of the Southeast Corner of Section 28 Twp 3S Rng 9E
 Located at: 96.426709 West Longitude and 39.760396 North Latitude
 GROUNDWATER ONLY
 WATER USE CORRESPONDENTS:

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File Number Use ST SR
> MARSHALL RWD 03
>
> 707 MAIN BOX 19
> BEATTIE KS 66406
>-----
> PAT WULLSCHLEGER
>
> 1349 17TH RD
> HOME KS 66438
>-----
> PAT WULLSCHLEGER
>
> 1349 17TH RD
> HOME KS 66438
>-----
> LARID SPOO
>
> 1772 20TH RD
> FRANKFORT KS 66427
>-----
> MARSHALL RWD 03
>
> 707 MAIN BOX 19
> BEATTIE KS 66406
>-----
> MARSHALL RWD 03
>
> 707 MAIN BOX 19
> BEATTIE KS 66406
>-----
> MARSHALL RWD 03
>
> 707 MAIN BOX 19
> BEATTIE KS 66406
>-----
> CHARLES E GERSTNER TRUST
>
> 1737 HWY 99

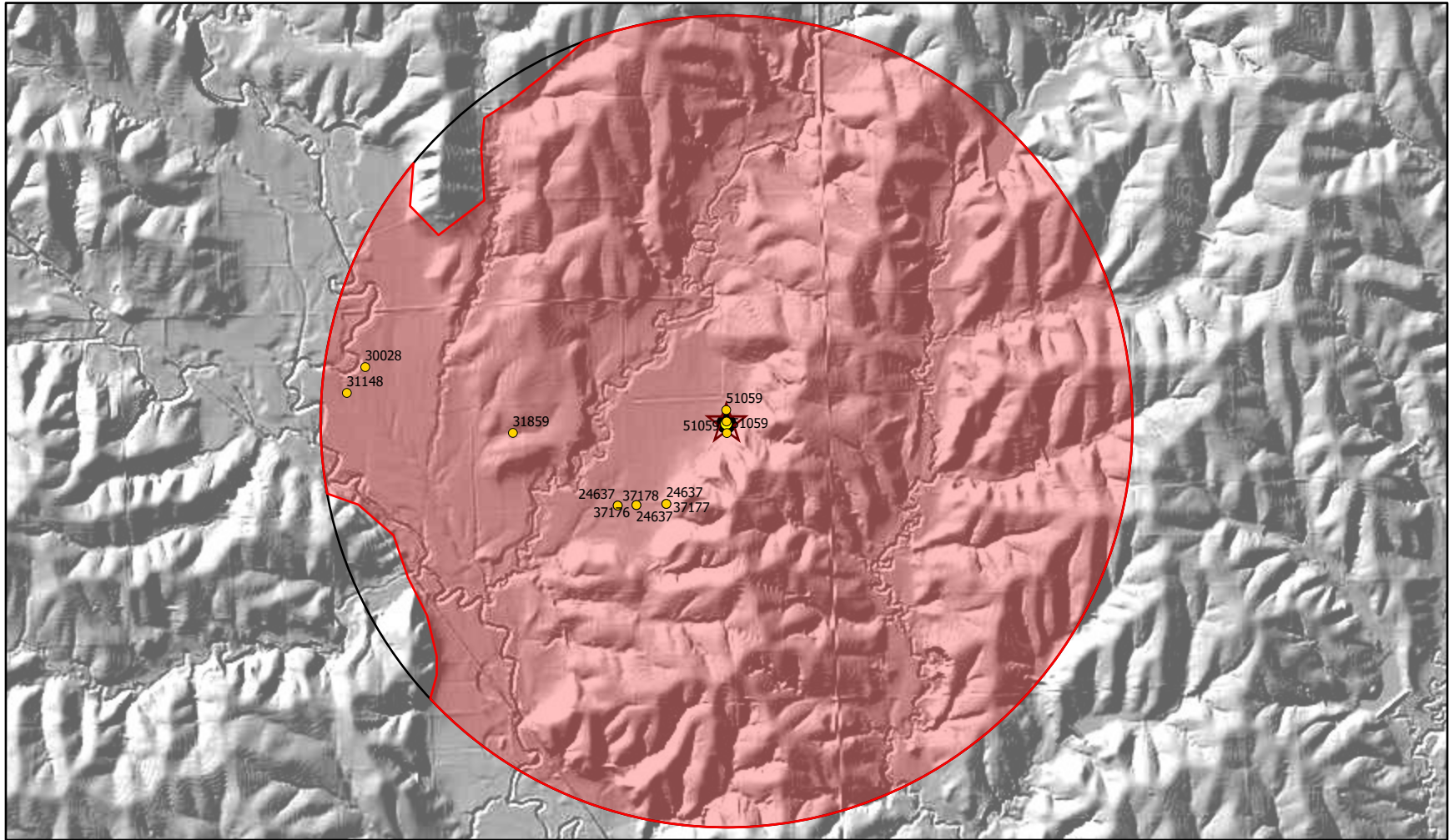
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> FRANKFORT KS 66427

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Safe Yield Report Sheet  
File No. 51059  
Point of Diversion in 28-03S-09E  
Footages from SE corner: 1986 feet North 5250 feet West



0 0.5 1 2 Miles

Kansas Department of Agriculture  
Division of Water Resources  
January 24, 2025



ANALYSIS RESULTS

The selected PD is in an area OPEN to New appropriations  
 The safe yield based on the variables listed below is 2720.31 AF.  
 Total prior appropriations in the circle is 605.79 AF. - 200 AF = 405.79 AF  
 Total quantity of water available for appropriation is 2114.52 AF. + 200 AF = 2314.52 AF

SAFE YIELD VARIABLES

The area used for the analysis is calculated as 7772.0 acres. The radius is set at 2.0 miles.  
 The potential annual recharge at the circle center is estimated to be 4.2 inches.  
 The percent of recharge available for appropriation is 100%.

Authorized Quantity values are as of 2025-01-24 and are based on Appropriated and Vested ground water rights.  
 Domestic, Term and Temporary water rights, and GMD #2 Stream Nodes have been excluded.  
 There are 8 water rights and 9 points of diversion within the circle.

| File Number | Use   | ST  | SR | DIST | Q4   | Q3 | Q2 | Q1 | FtN | FtW  | S    | TP | RN | ID  | Aquifers | QBy | Auth_Qnt | Add_Qnt |        |
|-------------|-------|-----|----|------|------|----|----|----|-----|------|------|----|----|-----|----------|-----|----------|---------|--------|
| A           | 24637 | MUN | NK | G    | 3578 |    | NE | NE | NW  | 5200 | 2830 | 32 | 03 | 09E | 3        |     | PD       | 49.41   | 49.41  |
| A           | 24637 | MUN | NK | G    | 2654 |    | NE | NW | NE  | 5200 | 1550 | 32 | 03 | 09E | 6        | 140 | PD       | 51.10   | 51.10  |
| A           | 24637 | MUN | NK | G    | 3197 |    | NW | NW | NE  | 5200 | 2340 | 32 | 03 | 09E | 2        |     | PD       | 52.94   | 52.94  |
| A           | 30028 | IRR | NK | G    | 9507 |    | NE | SW | NW  | 3720 | 4089 | 30 | 03 | 09E | 1        |     | WR       | 75.00   | 75.00  |
| A           | 31148 | IRR | NK | G    | 9907 |    |    |    |     | 3061 | 4584 | 30 | 03 | 09E | 3        |     | WR       | 32.00   | 0.00   |
| A           | 31859 | IRR | NK | G    | 5568 | NC | E2 | NE | SE  | 1900 | 300  | 30 | 03 | 09E | 4        |     | WR       | 73.00   | 73.00  |
| A           | 37176 | MUN | NK | G    | 3197 |    | NW | NW | NE  | 5200 | 2340 | 32 | 03 | 09E | 2        |     | WR       | 39.90   | 39.90  |
| A           | 37177 | MUN | NK | G    | 2654 |    | NE | NW | NE  | 5200 | 1550 | 32 | 03 | 09E | 6        | 140 | WR       | 42.96   | 31.95  |
| A           | 37178 | MUN | NK | G    | 3578 |    | NE | NE | NW  | 5200 | 2830 | 32 | 03 | 09E | 3        |     | WR       | 38.58   | 32.50  |
| A           | 51059 | IRR | AY | G    | 3    |    | NW | NW | SW  | 1986 | 5250 | 28 | 03 | 09E | 1        |     | WR       | 200.00  | 200.00 |
| A           | 51059 | IRR | AY | G    | 297  |    | SW | NW | SW  | 1686 | 5250 | 28 | 03 | 09E | 2        |     | WR       |         |        |
| A           | 51059 | IRR | AY | G    | 302  |    | NW | NW | SW  | 2285 | 5250 | 28 | 03 | 09E | 3        |     | WR       |         |        |

| File Number | Seq   | Limitations                                                                                                                               |
|-------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------|
| A           | 37176 | 2 300GPM COM/W #24637 ID02 * rate limitation                                                                                              |
| A           | 37177 | 2 290GPM COM/W #24637 ID06 * rate limitation                                                                                              |
| A           | 37177 | 3 73.412MGY COM/W #24637 & 37176 * 73.412 MGY - 16.1 MGY - 16.65 MGY - 17.25 MGY - 13 MGY = 10.412 MGY (31.95 AF) - OK                    |
| A           | 37178 | 2 280GPM COM/W #24637 ID03 * rate limitation                                                                                              |
| A           | 37178 | 3 84.001MGY COM/W #24637; 37176 & 37177 * 84.001 MGY - 16.1 MGY - 16.65 MGY - 17.25 MGY - 13 MGY - 10.412 MGY = 10.589 MGY (32.5 AF) - OK |

THE STATE OF KANSAS



**KANSAS DEPARTMENT OF AGRICULTURE**  
Mike Beam, Secretary of Agriculture

**DIVISION OF WATER RESOURCES**  
Earl D. Lewis Jr., Chief Engineer

**APPROVAL OF APPLICATION  
and  
PERMIT TO PROCEED**

(This Is Not a Certificate of Appropriation)

This is to certify that I have examined Application, **File No. 51,059** of the applicant

**CHARLES E GERSTNER**  
**1737 HWY 99**  
**FRANKFORT, KS 66427**

for a permit to appropriate water for beneficial use, together with the maps, plans and other submitted data, and that the application is hereby approved and the applicant is hereby authorized, subject to vested rights and prior appropriations, to proceed with the construction of the proposed diversion works (except those dams and stream obstructions regulated by K.S.A. 82a-301 through 305a, as amended), and to proceed with all steps necessary for the application of the water to the approved and proposed beneficial use and otherwise perfect the proposed appropriation subject to the following terms, conditions and limitations:

1. That the priority date assigned to such application is **June 20, 2023**.
2. That the water sought to be appropriated shall be used for irrigation use on land described in the application as follows:

| Sec. Twp.<br>Range | NE¼ |     |     |     | NW¼ |     |     |     | SW¼ |     |     |     | SE¼ |     |     |     | TOTAL |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
|                    | NE¼ | NW¼ | SW¼ | SE¼ | NE¼ | NW¼ | SW¼ | SE¼ | NE¼ | NW¼ | SW¼ | SE¼ | NE¼ | NW¼ | SW¼ | SE¼ |       |
| 20 - 3S - 9E       |     |     |     |     |     |     |     |     |     |     |     |     |     | 40  | 40  |     | 80    |
| 21 - 3S - 9E       |     |     |     |     |     |     |     |     | 40  | 40  | 26  | 40  | 40  | 40  | 31  | 36  | 293   |
| 28 - 3S - 9E       | 40  | 40  | 40  | 40  | 40  | 40  | 40  | 40  | 40  | 40  | 40  | 40  |     |     |     |     | 480   |

3. That the authorized source from which the appropriation shall be made is groundwater to be withdrawn by means of a battery of two (2) wells with a geographical center located in the Northwest Quarter of the Northwest Quarter of the Southwest Quarter (NW¼ NW¼ SW¼) of Section 28, more particularly described as being near a point 1,986 feet North and 5,250 feet West of the Southeast corner of said section, in Township 3 South, Range 9 East, Marshall County, Kansas, located substantially as shown on the map accompanying the application.

4. That the appropriation sought shall be limited to a maximum diversion rate not in excess of **800 gallons per minute (1.78 c.f.s.)** and to a quantity not to exceed **200 acre-feet** of water for any calendar year.

5. That installation of works for diversion of water shall be completed on or before **December 31, 2026**, or within any authorized extension thereof. The applicant shall notify the Chief Engineer and pay the statutorily required field inspection fee of \$400.00 when construction of the works has been completed. Failure to timely submit the notice and the fee will result in revocation of the permit. Any request for an extension of time shall be submitted prior to the expiration of the deadline and shall be accompanied by the required statutory fee of \$100.00.

6. That the proposed appropriation shall be perfected by the actual application of water to the proposed beneficial use on or before **December 31, 2030**, or any authorized extension thereof. Any request for an extension of time shall be submitted prior to the expiration of the deadline and shall be accompanied by the required statutory fee of \$100.00.

7. That the applicant shall not be deemed to have acquired a water appropriation for a quantity in excess of the amount approved herein nor in excess of the amount found by the Chief Engineer to have been actually used for the approved purpose during one calendar year subsequent to approval of the application and within the time specified for perfection or any authorized extension thereof.

8. That the use of water herein authorized shall not be made so as to impair any use under existing water rights nor prejudicially and unreasonably affect the public interest.

9. That the right of the appropriator shall relate to a specific quantity of water and such right must allow for a reasonable raising or lowering of the static water level and for the reasonable increase or decrease of the streamflow at the appropriator's point of diversion.

10. That this permit does not constitute authority under K.S.A. 82a-301 through 305a to construct any dam or other obstruction; nor does it grant any right-of-way, or authorize entry upon or injury to, public or private property.

11. That all diversion works constructed under the authority of this permit into which any type of chemical or other foreign substance will be injected into the water pumped from the diversion works shall be equipped with an in-line, automatic quick-closing, check valve capable of preventing pollution of the source of the water supply. The type of valve installed shall meet specifications adopted by the Chief Engineer and shall be maintained in an operating condition satisfactory to the Chief Engineer.

12. That an acceptable water flow meter shall be installed and maintained on the diversion works authorized by this permit in accordance with the Kansas Administrative Regulations 5-1-4 through 5-1-12 adopted by the Chief Engineer. This water flow meter shall be used to provide an accurate quantity of water diverted as required for the annual water use report (including the meter reading at the beginning and end of the report year).

13. That the applicant shall maintain accurate and complete records from which the quantity of water diverted during each calendar year may be readily determined and the applicant shall file an annual water use report with the Chief Engineer by March 1 following the end of each calendar year. Failure to file the annual water use report by the due date shall cause the applicant to be subject to a civil penalty.

14. That no water user shall engage in nor allow the waste of any water diverted under the authority of this permit.

15. That the right to appropriate water under authority of this permit is subject to any minimum desirable streamflow requirements identified and established pursuant to K.S.A. 82a-703c for the source of supply to which this water right applies.

16. That all wells with a diversion rate of 100 gallons per minute or more drilled under the authority of this permit shall have a tube or other device installed in a manner acceptable to, and in accordance with specifications adopted by, the Chief Engineer. This tube or device shall be suitable for making water level measurements and shall be maintained in condition satisfactory to the Chief Engineer.

17. That failure without cause to comply with provisions of the permit and its terms, conditions and limitations will result in the forfeiture of the priority date, revocation of the permit and dismissal of the application.

Ordered this *25* day of *February*, 2025, in Manhattan, Riley County, Kansas.

*Lane P. Letourneau*

Lane P. Letourneau, P.G.  
Water Appropriation Program Manager  
Division of Water Resources  
Kansas Department of Agriculture

State of Kansas        )  
                                  ) SS  
County of Riley        )

The foregoing instrument was acknowledged before me this *25* day of *February*, 2025, by Lane P. Letourneau, P.G., Water Appropriation Program Manager, Division of Water Resources, Kansas Department of Agriculture.

*Vickie L. Belanger*  
Notary Public

