



Douglas J. Law

Associate General Counsel
Douglas.Law@blackhillscorp.com

1731 Windhoek Drive
Lincoln, NE 68512
P: 402.221.2635

May 9, 2022

Ms. Lynn M. Retz, Secretary
Kansas Corporation Commission
1500 S.W. Arrowhead Road
Topeka, KS 66604-4027

Public Version
Via e-filing Express

Re: Black Hills/Kansas Gas Utility Company, LLC d/b/a Black Hills Energy
Application for Gas System Reliability Surcharge

Dear Ms. Retz;

Enclosed is Black Hills' Application for a Gas System Reliability Surcharge. The supporting exhibits contain confidential information. Accordingly, Black Hills is designating such information as confidential and requests that the Commission treat this material as confidential.

If you have any questions concerning the information contained in the Application, please call me at (402) 681-5109 or Ann Stichler in our Council Bluffs, IA office at (402) 221-2148.

Respectfully submitted,

Douglas J. Law

Douglas J. Law #19436
Associate General Counsel

DJL:ce

Attachments

cc: Rob Daniel
Ann Stichler

BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

In the Matter of the Application of Black Hills/Kansas)
Gas Utility Company, LLC, d/b/a Black Hills Energy,)
for Approval of the Commission for a Gas System) Docket No. 22-BHCG- 503 -TAR
Reliability Surcharge per K.S.A. 66-2201 through 66-)
2204

APPLICATION

COMES NOW Black Hills/Kansas Gas Utility Company, LLC, d/b/a Black Hills Energy ("Black Hills" or "Company"), and pursuant to K.S.A. 66-2201, *et seq.*, submits for filing a new tariff schedule, Gas System Reliability Surcharge ("GSRS"), which is designed to allow for the adjustment of Black Hills' rates and charges to provide for the recovery of costs for eligible infrastructure system replacements. In support of its Application, Black Hills states as follows:

1. Black Hills is a limited liability company with its principal place of business in Kansas at 601 N. Iowa Street, Lawrence, Kansas 66044. Black Hills is duly authorized to transact business in the State of Kansas, holds appropriate certificates from this Commission to transact business as a natural gas public utility and is now and has been engaged in the purchase, transmission, sale and distribution of natural gas in the State of Kansas in accordance with the laws of said state and the rules and regulations of this Commission.

2. Black Hills serves approximately 118,000 customers in 66 communities and in 50 surrounding counties in Kansas. Operation centers are located in the major cities and towns served by Black Hills which include Lawrence, Wichita, Garden City, Dodge City, Liberal, and Goodland. Black Hills currently operates 331 miles of transmission lines, 3,004 miles of distribution lines, and 104,703 service lines in Kansas.

3. In 2006, Senate Bill 414, the Gas Safety and Reliability Policy Act, was passed into law. Under this law, a utility "may file a petition and proposed rate schedules with the commission to establish or change GSRS rate schedules that will allow for the adjustment of the natural gas public utility's rates and charges to provide for the recovery of costs for eligible infrastructure system replacements." Each year a utility is required to relocate and replace certain segments of its system. The proposed GSRS tariff included in this Application will allow the utility to recover these expenses between rate cases through a surcharge. In 2018, and effective January 1, 2019, the Gas Safety and Reliability Policy Act was amended to allow recovery of costs relating to additional safety investments and provide an increase to the monthly customer charge limit.

4. K.S.A. 66-2202(d) defines "eligible infrastructure system investments" as:

...natural gas public utility plant projects that: (1) Do not increase revenues by directly connecting the infrastructure investments to new customers; (2) are in service and used and required to be used; and (3) were not included in the natural gas public utility's rate base in its most recent general rate case.

5. Pursuant to K.S.A. 66-2203(b), the Commission shall not approve a GSRS for any natural gas public utility that has not had a general rate proceeding decided or dismissed within the past sixty (60) months, unless the natural gas public utility has filed for or is the subject of a new general rate proceeding. On May 7, 2021, Black Hills filed a general rate proceeding with this Commission with a Final Order issued December 27, 2021.

6. The inclusion criteria for safety-related projects set forth in K.S.A. 66-2202 are as follows:

(1) Mains, meters, valves, service lines, regulator stations, vaults and other pipeline system components installed to replace, upgrade or modernize obsolete facilities, including, but not limited to, installation to comply with state or federal safety requirements replacing existing facilities; (2) main relining projects, service line insertion projects, joint encapsulation projects and other similar projects extending the useful life or enhancing the integrity of pipeline system components

including, but not limited to, projects undertaken to comply with state or federal safety requirements; (3) facility relocations required due to construction or improvement of a highway, road, street, public way or other public work by or on behalf of the United States, this state, a political subdivision of this state or another entity having the power of eminent domain provided that the costs related to such projects have not been reimbursed to the natural gas public utility; (4) system security costs including allocated corporate costs incurred by a natural gas public utility; and (5) investments made in accordance with the utility's safety and risk management programs.

7. Only projects meeting the criteria previously mentioned are being submitted for consideration in this filing.

8. Exhibit ALS-1 is an index of the projects being included in this GSRS proposal. Exhibit ALS-2 is a summary of each project. There are two groups of projects being submitted. The first group includes safety-related system replacements and includes 157 specific projects and blanket work orders. The safety-related projects include replacements, meters and system security as allowed under K.S.A. 66-2202(f)(1) and (2). The second group consists of government mandated road relocation projects which have not been reimbursed to the natural gas utility and includes 19 projects. These replacement projects are eligible for inclusion in a GSRS proposal pursuant to K.S.A. 66-2202(f)(3). Exhibit ALS-1 shows the location, project description, work order number and completion date for each of the projects. The safety-related project list also includes a reference to the compliance section of the state or federal pipeline safety requirements.

9. Exhibit ALS-2 and **CONFIDENTIAL** Exhibit ALS-3 include the supporting documentation for each of those projects. For each of the 157 specific safety-related projects, detailed information including a map or address listing and summary of the project is included. For each of the 19 road relocation projects, detailed information including the request to relocate the facility (from the city, county, or state), a map of the replacement area, and summary of the

project are included.

10. Pursuant to the provisions of K.S.A. 66-2204, Exhibit ALS-4 shows the increase to rate base and the calculation of the GSRS revenue requirement.

11. K.S.A. 66-2203(a) states that "the commission may not approve a GSRS to the extent it would produce total annualized GSRS revenues below the lesser of \$1,000,000 or 1/2 % of the natural gas public utility's base revenue level approved by the commission in the natural gas public utility's most recent general rate proceeding." Based on Black Hills' most recent general rate proceeding, that amount would total \$276,923.

12. Components of the rate base calculation include Gross Plant, which is the original cost of all eligible projects, less any related cost of removal and abandonment of the existing system; Accumulated Depreciation, which has been calculated by project based on the approved depreciation rate for that type of plant; and Accumulated Deferred Income Taxes, which has been calculated by project based on the type of plant. Exhibit ALS-5 details the GSRS net plant calculation and the accumulated deferred income taxes calculation.

13. None of the projects included in the GSRS filing were included in Black Hills' last rate filing. These projects were completed subsequent to the December 31, 2020 test period updated through June 30, 2021 included in Black Hills' last general rate filing. Only projects completed on or after July 1, 2021 are included in the current filing.

14. The Stipulated Settlement Agreement in Black Hills' most recent rate case, Docket No. 21-BHCG-418-RTS ("418 Docket"), sets forth the provisions for the return calculation. It states, " For purposes of calculating Black Hills' GSRS, the carrying charge to be applied to recoverable investments in such filings shall be calculated using a carrying charge of

7.78% gross of tax, which is based on state and federal tax rates in effect as of the date of this Agreement.” The revenue requirement has been prepared using this approved carrying charge.

15. Exhibit ALS-6 shows the allocation of the GSRS revenue by class. The customer class allocation is pursuant to the Stipulated Settlement Agreement in the 418 Docket.

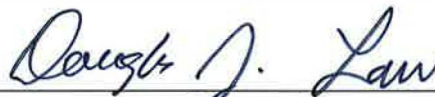
16. K.S.A 66-2204(e)(1) states,

A GSRS shall be charged to customers as a monthly fixed charge and not based on volumetric consumption. Such monthly charge shall not increase more than \$.80 per residential customer over the base rates in effect for the initial filing of a GSRS. Thereafter, each filing shall not increase the monthly charge more than \$.80 per residential customer over the most recent filing of a GSRS.

The proposed GSRS Surcharge increase is \$0.74 per month for a residential customer.

17. Exhibit ALS-7 is the red-line and final tariff sheet for the proposed GSRS surcharge and index.

WHEREFORE, for the reasons set forth herein Black Hills requests that the Commission issue an Order approving this Application and the attached gas system reliability surcharge tariff.



Douglas J. Law, KS #29118
Associate General Counsel
Black Hills Energy
1731 Windhoek Drive
Lincoln, NE 68512
(402) 221-2635
Douglas.law@blackhillscorp.com

Attorney for Black Hills/Kansas Gas Utility
Company, LLC, d/b/a Black Hills Energy

VERIFICATION


STATE OF NEBRASKA)
)ss:
COUNTY OF LANCASTER)

Douglas J. Law, of lawful age, being first duly sworn upon oath, deposes and says that he is attorney of the within named applicant, that he has read the above and foregoing compliance filing and the statements therein are true.



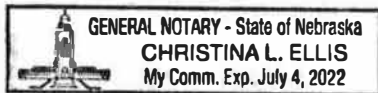
Douglas J. Law

SUBSCRIBED AND SWORN to before me this 9th day of May, 2022.



Notary Public

Appointment/Commission Expires:



In the Matter of the Application of Black Hills/
 Kansas Gas Utility Company, LLC, d/b/a Black
 Hills Energy, For Approval of the Commission
 For a Gas System Reliability Surcharge Per K.S.A.
 66-2201 through 66-2204

)
)
) Docket No. 22-BHCG- -TAR
)
)

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

10 **Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND BUSINESS**
11 **EXPERIENCE.**

12 A. I attended Wayne State College in Wayne, Nebraska from 1979 to 1981 where I earned
13 an Associate Degree. I earned with distinction a bachelor's degree in General Studies
14 with an emphasis in Accounting and Psychology from the University of Nebraska -
15 Omaha in 1992. I continued my education with courses in computer science through

1 Iowa Western Community College in Council Bluffs, Iowa. I have over 38 years of
2 experience in the natural gas industry and have held various positions in billing,
3 measurement and general accounting. From 1989-1992, I held the position of
4 Regulatory Accounting Analyst and was promoted to Senior Regulatory Analyst in
5 1993. I presently hold the title of Senior Regulatory and Financial Analyst.

6 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING?**

7 A. I am testifying on behalf of Black Hills in support of its application, For Approval of
8 the Commission For a Gas System Reliability Surcharge ("GSRS"), pursuant to
9 K.S.A. 66-2201 through 66-2204.

10 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

11 A. The purpose of my testimony is to support the eligibility of infrastructure system
12 replacement projects, infrastructure safety-related projects and cyber-security projects
13 included in Black Hills' proposed GSRS, as well as the calculation of the GSRS
14 revenue and the surcharge amounts by customer class.

15 **Q. ARE YOU SPONSORING ANY EXHIBITS?**

16 A. Yes, I am sponsoring Exhibits ALS-1 through ALS-7. Exhibits ALS-1, ALS-2, and
17 ALS-3 support the eligible projects. Exhibit ALS-1 is an index of the projects being
18 included in this proposal. Exhibit ALS-2 is a more detailed description of the projects.
19 Exhibit ALS-3 is the supporting documentation for the specific projects and has been
20 designated by Black Hills as confidential. Exhibits ALS-4, ALS-5 and ALS-6 show
21 the calculation of the proposed GSRS revenue, detail the plant and deferred taxes, and
22 show the class allocation of the GSRS surcharge. Finally, Exhibit ALS-7 is the tariff
23 sheet for the proposed surcharge and index in red-line and final formats.

1 **Q. WHAT TYPES OF PROJECTS ARE INCLUDED IN BLACK HILLS' GSRS**
2 **PROPOSAL?**

3 A. Only projects meeting the criteria outlined in K.S.A. 66-2202 are being submitted for
4 consideration in this filing. There are two general groups of projects being submitted.
5 The first group is comprised of safety-related system replacement projects, safety-
6 related blanket work orders and cyber-security projects. This group includes projects
7 to replace, upgrade or modernize obsolete facilities. The second group consists of
8 government-mandated road relocation projects which have not been reimbursed to
9 BHE. All of these types of projects are eligible for inclusion in a GSRS proposal
10 according to K.S.A. 66-2202 and as outlined in the application filed as part of this
11 proposal. Exhibit ALS-1 summarizes these projects by group.

12 **Q. CAN YOU EXPLAIN WHAT BLANKET WORK ORDERS WERE**
13 **INCLUDED IN THE FILING?**

14 A. BHE uses blanket work orders for smaller projects. Blanket work orders can include
15 projects for system improvements, new customers, leasehold improvements, and other
16 general plant. However, only system improvement blanket work orders have been
17 included in this filing. System improvement blanket work orders include short
18 distribution main, and service line and yard line replacement projects. These types of
19 projects typically eliminate leaking pipe and normally require immediate replacement.
20 Projects included in these blanket work orders are required to be less than \$10,000 but
21 are normally less than \$5,000. Replacement lengths are typically less than 100 feet per
22 project.

1 **Q. WHAT REGULATIONS WERE REFERENCED IN DETERMINING**
2 **SAFETY-RELATED INFRASTRUCTURE PROJECT INCLUSION?**

3 A. The referenced regulations are contained in 49 CFR Part 192, Transportation of
4 Natural and Other Gas by Pipeline: Minimum Federal Safety Standards. These
5 regulations were promulgated by the Pipeline and Hazardous Materials Safety
6 Administration of the U.S. Department of Transportation and are adopted by reference
7 in K.A.R.82-11-4.

8 **Q. HOW DOES 192.453 PERTAIN TO THE GSRS FILING?**

9 A. Paragraph (c) of the regulation requires operators to replace all unprotected bare steel
10 service and yard lines in a defined area once 25% of the service lines in the area have
11 experienced leaks due to corrosion.

12 **Q. HOW DOES 192.463 PERTAIN TO THE GSRS FILING?**

13 A. Paragraph (a) of the regulation requires operators to provide a level of cathodic
14 protection that complies with one or more of the applicable criteria contained in
15 Appendix D. Depleted ground beds were replaced to maintain compliance with this
16 part.

17 **Q. HOW DOES 192.485 PERTAIN TO THE GSRS FILING?**

18 A. The regulation requires an operator to repair, replace, or reduce the operating pressure
19 of a transmission pipeline if localized pitting is found to a degree where leakage might
20 result. Black Hills replaced those sections of main or transmission line that had
21 localized pitting corrosion or leakage due to localized corrosion.

1 **Q. HOW DOES 192.487 PERTAIN TO THE GSRS FILING?**

2 A. The regulation requires an operator to repair, replace, or reduce the operating pressure
3 of a distribution pipeline if localized pitting is found to a degree where leakage might
4 result. Black Hills replaced those sections of main or distribution line that had
5 localized pitting corrosion, or leakage due to localized corrosion.

6 **Q. HOW DOES 192.605 PERTAIN TO THE GSRS FILING?**

7 A. The regulation requires operators to prepare and follow a manual of written procedures
8 for conducting operations and maintenance activities. Black Hills follows this manual
9 to identify and correct deficiencies within its system. Such deficiencies include
10 pressure drop, gas quality, leak repairs and exposed lines.

11 **Q. HOW DOES 192.613 PERTAIN TO THE GSRS FILING?**

12 A. The regulation requires continuing surveillance of its facilities. Continuing
13 surveillance requires an operator to examine its system on an ongoing basis to
14 determine and take appropriate action concerning changes in unusual operating
15 conditions.

16 **Q. HOW DOES 192.739 PERTAIN TO THE GSRS FILING?**

17 A. The regulation requires operators to inspect and test regulators and relief devices
18 annually to ensure they meet several criteria including that they are in good mechanical
19 condition.

20 **Q. HOW DOES 192.745 PERTAIN TO THE GSRS FILING?**

21 A. Paragraph (b) of the Kansas regulation requires operators to take prompt remedial
22 action to correct any valve found inoperable. The valve was replaced in order to
23 maintain compliance with this part.

1 **Q DOES BLACK HILLS UTILIZE A SYSTEM TO PRIORITIZE WHICH PIPE**
2 **SEGMENTS REQUIRE REMEDIAL ACTIONS?**

3 A. Yes, BHE uses a repair/replacement program for its long-term pipe replacements to
4 rank projects utilizing a points system. An order of priority is given based on such
5 factors including leak history, age of facility, proximity to the public, etc. A
6 Repair/Replacement Worksheet is completed to determine the replacement priority.
7 This program is for long-term pipe replacements and is not used for emergency
8 situations. While BHE continues to use a points system, BHE is also focused on
9 proactive replacement of obsolete bare steel pipe in Class 3, or urban areas, as outlined
10 in its Accelerated Replacement Plan (ARP) as approved by this Commission in
11 April 2018.

12 **Q. HOW DOES BLACK HILLS ENERGY DETERMINE WHETHER THE**
13 **SEGMENT SHOULD BE REPAIRED OR REPLACED?**

14 A. Repairs are generally limited to modern or approved piping materials. Replacement is
15 completed any time obsolete or unapproved piping materials are found. In accordance
16 with its ARP, Black Hills focused on the replacement of bare steel main, bare steel
17 service lines and bare steel yard lines throughout the period included in this
18 application. For pipe segments not falling into the bare steel, Class 3/urban areas, BHE
19 examined several factors to determine whether a segment should be repaired or
20 replaced. In the projects submitted in the Black Hills GSRS filing, pipe segments were
21 replaced due to the existing pipe segment being of unapproved material, vintage of
22 pipe, as is the case of bare steel, and historical leaks.

23 **Q. WHAT IS OBSOLETE OR UNAPPROVED MATERIAL?**

1 A. Obsolete or unapproved material is defined as material no longer manufactured or not
2 tested per a recognized standard in Subpart A of 49 CFR Part 192, not approved for
3 use by a specific section of the code, or not approved by Black Hills material standards.
4 This can include cast iron, some vintage plastics, bare steel and polyvinyl chloride
5 (PVC) pipe.

6 **Q. PLEASE EXPLAIN EXHIBIT ALS-4.**

7 A. Pursuant to the provisions of K.S.A. 66-2204, Exhibit ALS-4 shows the increase to
8 rate base and the calculation of the GSRS revenue requirement. The proposed
9 incremental revenue increase is \$1,373,596.

10 **Q. DOES THE INCREMENTAL REVENUE REQUIREMENT EXCEED THE**
11 **MINIMUM REVENUE REQUIREMENTS SET FORTH IN SENATE BILL**
12 **414?**

13 A. Yes. K.S.A. 66-2203 states that “the commission may not approve a GSRS to the
14 extent it would produce total annualized GSRS revenues below the lesser of
15 \$1,000,000 or 1/2 % of the natural gas public utility’s base revenue level approved by
16 the commission in the natural gas public utility’s most recent general rate proceeding.”
17 Based on Black Hills’ most recent general rate proceeding, that amount would total
18 \$276,923.

19 **Q. PLEASE EXPLAIN THE COMPONENTS OF THE FILED RATE BASE.**

20 A. Components of the rate base calculation include Gross Plant, which is the original cost
21 of all eligible projects, less any related cost of removal and abandonment of the
22 existing system; Accumulated Depreciation, which has been calculated by project
23 based on the approved depreciation rate for that type of plant; and Accumulated

1 Deferred Income Taxes, which has been calculated by project based on the type of
2 plant. Exhibit ALS-5 details the GSRS net plant calculation and the deferred taxes
3 calculation.

4 **Q. WERE ANY OF THE ELIGIBLE PROJECTS BEING CONSIDERED**
5 **INCLUDED IN BLACK HILLS' LAST GENERAL RATE FILING?**

6 A. No. None of the projects included in the GSRS filing were included in Black Hills'
7 last rate filing. These projects were completed subsequent to the December 31, 2020
8 test period included in Black Hills' last general rate filing. Only projects completed on
9 or after July 1, 2021 are included in this filing.

10 **Q. HOW WAS THE RATE OF RETURN CALCULATED?**

11 A. The Stipulated Settlement Agreement in Black Hills' most recent rate case,
12 Docket No. 21-BHCG-418-RTS, establishes the provisions for the return calculation.
13 It states, "For purposes of calculating Black Hills' GSRS, the carrying charges to be
14 applied to recoverable investments in such filings shall be calculated using a carrying
15 charge of 7.78% gross of tax, which is based on state and federal tax rates in effect as
16 of the date of this Agreement."

17 **Q. PLEASE EXPLAIN EXHIBIT ALS-6.**

18 A. Exhibit ALS-6 shows the allocation of the GSRS revenue by class. The customer class
19 allocation is pursuant to the Stipulated Settlement Agreement in Docket No. 21-
20 BHCG-418-RTS.

21 **Q. DOES THE ALLOCATION OF THE PROPOSED GSRS SURCHARGE FALL**
22 **WITHIN THE PARAMETERS AS SET FORTH IN THE STATUTE?**

1 A. Yes. K.S.A 66-2204(e)(1) states, “A GSRS shall be charged to customers as a monthly
2 fixed charge and not based on volumetric consumption. Such monthly charge shall not
3 increase more than \$.80 per residential customer over the base rates in effect for the
4 initial filing of a GSRS. Thereafter, each filing shall not increase the monthly charge
5 more than \$.80 per residential customer over the most recent filing of a GSRS.” The
6 proposed GSRS increase is \$0.74 per month for a residential customer.

7 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

8 A. Yes, it does.

VERIFICATION

STATE OF NEBRASKA)
) ss:
COUNTY OF LANCASTER)

I, ANN L. STICHLER, being first duly sworn on oath, depose and state that I am the witness identified in the foregoing prepared direct testimony, that I have read the testimony and I am familiar with its contents, and that the facts set forth are true to the best of my knowledge, information and belief.



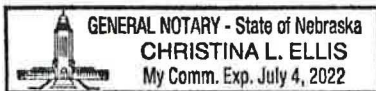
Ann L. Stichler

SUBSCRIBED AND SWORN to before me this 9th day of May, 2022.



Notary Public

Appointment/Commission Expires:



**Black Hills/Kansas Gas Utility Company, LLC
d/b/a Black Hills Energy**

Safety Related Project Index Summary

Project Number	Project Description	Work Order Number	Project Open/Closed	Project Cost	Completion Date	Primary Compliance Reference	Secondary Compliance Reference
1	Meter Routines - Dodge City	60124498	Closed	\$89,731.10	10/12/21	192.739	192.613
2	Main Replacement 11607 Highway 50 - Dodge City	60125544	Closed	(\$27.74)	8/16/21	192.487	192.613
3	Main Replacement 611 Pine - Fowler	60135276	Closed	\$14,181.89	8/9/21	192.487	192.613
4	Main Replacement 3rd & 4th - Cimarron	60136663	Closed	\$24,205.98	8/19/21	192.487	192.613
5	Main Replacement 111 N 5th - Cimarron	60137015	Closed	\$19,684.67	8/19/21	192.487	192.613
6	Main Replacement 2201 Wyatt Earp - Dodge City	60138437	Closed	\$13,898.14	9/29/21	192.487	192.613
7	Main Replacement 101 Hillcrest - Cimarron	60138787	Closed	\$44,349.54	8/19/21	192.487	192.613
8	Main Replacement S 4th/5th - Cimarron	60140609	Closed	\$46,593.88	10/19/21	192.487	192.613
9	Main Replacement Ash & Burch - Cimarron	60140665	Closed	\$6,947.40	9/29/21	192.487	192.613
10	Main Replacement 100 S 1st - Cimarron	60140715	Closed	\$52,812.35	9/27/21	192.487	192.613
11	Blanket Service Replacement - Ford Co	135194057G241	Open	\$1,227,695.61	3/22/22	192.605	192.613
12	Blanket Service Replacement - Hodgeman Co	135194083G241	Open	\$19,394.81	3/22/22	192.605	192.613
13	Blanket Service Replacement - Gray Co	135194069G241	Open	\$74,071.87	3/22/22	192.605	192.613
14	Blanket Service Replacement - Meade Co	135194119G241	Open	\$47,335.83	3/22/22	192.605	192.613
15	District Regulator Station # 4 & Odorizer Rebuild 500 Hudson - Garden City	60104217	Closed	\$6,827.42	9/27/21	192.739	192.613
16	District Regulator Station # 14 & Odorizer Rebuild 1503 Labrador - Garden City	60104412	Closed	\$5,721.97	9/27/21	192.739	192.613
17	Meter Routines - Garden City	60124298	Closed	\$1,188.38	10/4/21	192.739	192.613
18	Service Replacement 716 Howerton - Garden City	60160108	Closed	\$5,539.84	3/12/22	192.605	192.613
19	Service Replacement 3002 Fleming - Garden City	60157179	Closed	\$29,797.32	2/23/22	192.605	192.613
20	Blanket Service Replacement - Finney Co	135195055G241	Open	\$1,638,225.90	3/31/22	192.605	192.613
21	Blanket Service Replacement - Haskell Co	135195081G241	Open	\$12,921.84	3/31/22	192.605	192.613
22	Service Replacement 505 Campbell - Garden City	60161242	Closed	\$21,690.15	4/13/22	192.605	192.613
23	Main Replacement 0 Rd 19 & 69 Rd - Sherman Co	60133118	Closed	\$0.00	4/27/21	192.487	192.613
24	Main Replacement 1 West Drive Dr - Goodland	60133743	Closed	\$10,890.10	5/5/21	192.487	192.613
25	Main Replacement 0 Rd 76 & 2 Rd - Goodland	60137707	Closed	\$4,689.77	6/9/21	192.487	192.613
26	Main Replacement 0 8th & Wyoming St - Goodland	60141625	Closed	\$83,870.24	6/30/21	192.487	192.613
27	Main Replacement 0 5th To 8th St - Goodland	60146856	Closed	\$83,404.44	8/25/21	192.487	192.613
28	Main Replacement 0 CR 77 & 10 Rd - Goodland	60153349	Closed	\$42,974.91	10/21/21	192.487	192.613
29	Main Replacement 1 Rd 3 & 57 Rd - Sherman Co	60157818	Closed	\$48,186.79	12/9/21	192.487	192.613
30	Main Replacement 1 Rd 3 & A Rd - Sherman Co	60158616	Closed	\$38,941.93	12/15/21	192.487	192.613
31	Main Replacement 1 Rd 18 & 78 Rd - Goodland	60158776	Closed	\$62,288.59	12/22/21	192.487	192.613
32	Blanket Service Replacement - Sherman Co	135197181G241	Open	\$362,785.38	3/31/22	192.605	192.613
33	Main Replacement 1151 Monterey Way - Lawrence	60145216	Closed	\$55,187.58	12/3/21	192.487	192.613
34	Main Replacement 1441 Chelsea Pl - Lawrence	60147084	Closed	\$26,213.84	9/29/21	192.487	192.613
35	Main Replacement 1601 Naismith Dr - Lawrence	60127428	Closed	\$449,169.06	7/19/21	192.487	192.613
36	District Regulator Station Replacement #31 1530 Naismith - Lawrence	60132411	Closed	\$18,724.39	7/19/21	192.739	192.613
37	Main Replacement 1783 E 1500 Rd - Lawrence	60151722	Closed	\$122,932.02	11/18/21	192.487	192.613
38	Main Replacement 2700 Harvard Rd - Lawrence	60161624	Closed	\$23,987.64	3/3/22	192.487	192.613
39	Main Replacement 706 E 23rd St - Lawrence	60131269	Closed	\$31,031.28	8/11/21	192.487	192.613
40	Town Border Station Replacement 2521 Via Linda Below - Lawrence	60138063	Closed	\$27,357.07	10/14/21	192.739	192.613

**Black Hills/Kansas Gas Utility Company, LLC
d/b/a Black Hills Energy**

Safety Related Project Index Summary

Project Number	Project Description	Work Order Number	Project Open/Closed	Project Cost	Completion Date	Primary Compliance Reference	Secondary Compliance Reference
41	Town Border Station Replacement 2521 Via Linda Above - Lawrence	60134364	Closed	\$57,021.09	10/14/21	192.739	192.613
42	Blanket Service Replacement - Lawrence	135192045G241	Open	\$356,867.05	3/31/22	192.605	192.613
43	Blanket Main Replacement - Lawrence	135192045G242	Open	(\$12,507.47)	3/31/22	192.605	192.613
44	Meter Routines - Lawrence	60124775	Closed	\$200,231.62	12/28/21	192.739	192.613
45	Main Replacement 1215 Westhaven Dr - Liberal	60106409	Closed	\$28,575.35	10/27/21	192.487	192.613
46	Main Replacement 1035 N Carlton Ave - Liberal	60148388	Closed	\$28,939.80	10/14/21	192.487	192.613
47	Main Replacement 415 Harvard Ave - Liberal	60161411	Closed	\$24,046.69	3/2/22	192.487	192.613
48	Main Replacement 423 Princeton Ave - Liberal	60162576	Closed	\$18,319.79	3/16/22	192.487	192.613
49	Main Replacement 401 Princeton Ave - Liberal	60164192	Closed	\$17,887.17	3/25/22	192.487	192.613
50	Blanket Service Replacement - Meade Co	135196119G241	Open	\$6,126.47	3/31/22	192.605	192.613
51	Blanket Service Replacement - Morton Co	135196129G241	Open	\$16,607.91	3/31/22	192.605	192.613
52	Blanket Service Replacement - Seward Co	135196175G241	Open	\$1,575,103.55	3/31/22	192.605	192.613
53	Blanket Main Replacement - Seward Co	135196175G242	Open	\$34,432.55	3/31/22	192.605	192.613
54	Blanket Service Replacements - Stevens Co	135196189G241	Open	\$70,651.22	3/31/22	192.605	192.613
55	Blanket Main Replacement - Stevens Co	135196189G242	Open	\$757.88	3/31/22	192.605	192.613
56	Main Replacement 722 W 7th St - Liberal	60138272	Closed	\$29,645.79	7/14/21	192.487	192.613
57	Main Replacement 425 Cornell Ave - Liberal	60139116	Closed	\$11,568.80	7/20/21	192.487	192.613
58	Main Replacement 103 S Grant Ave - Liberal	60139557	Closed	\$18,398.14	8/10/21	192.487	192.613
59	Main Replacement 101 S Sherman Ave - Liberal	60139569	Closed	\$12,236.24	7/28/21	192.487	192.613
60	Main Replacement 1311 Maple Blvd - Liberal	60141591	Closed	\$36,387.56	8/17/21	192.487	192.613
61	Main Replacement 806 N Calhoun Ave - Liberal	60143951	Closed	\$40,355.31	8/25/21	192.487	192.613
62	Main Replacement 401 N Western Ave - Liberal	60144449	Closed	\$23,189.05	9/3/21	192.487	192.613
63	Main Replacement 804 N Roosevelt Ave - Liberal	60144690	Closed	\$14,837.87	8/19/21	192.487	192.613
64	Main Replacement 1002 N Roosevelt Ave - Liberal	60144695	Closed	\$13,896.16	8/31/21	192.487	192.613
65	Main Replacement 1304 Elm Blvd - Liberal	60146198	Closed	\$21,242.88	9/15/21	192.487	192.613
66	Main Replacement 203 N Tulane Ave - Liberal	60146262	Closed	\$26,067.18	10/5/21	192.487	192.613
67	Main Replacement 811 N Roosevelt Ave - Liberal	60146278	Closed	\$23,628.85	9/9/21	192.487	192.613
68	Main Replacement 1001 N Roosevelt Ave - Liberal	60146294	Closed	\$14,091.62	9/17/21	192.487	192.613
69	Main Replacement 201 Polk St - Hugoton	60146874	Closed	\$21,801.23	9/10/21	192.487	192.613
70	Main Replacement 138 Morton St - Elkhart	60147061	Closed	\$21,709.22	9/2/21	192.487	192.613
71	Main Replacement 817 W 8th St - Liberal	60148375	Closed	\$9,988.65	9/23/21	192.487	192.613
72	Main Replacement 927 N Carlton Ave - Liberal	60148380	Closed	\$18,133.94	9/28/21	192.487	192.613
73	Main Replacement 413 N Perdue Ave - Liberal	60149350	Closed	\$31,894.17	10/21/21	192.487	192.613
74	Main Replacement 407 N Tulane Ave - Liberal	60149377	Closed	\$16,814.79	11/1/21	192.487	192.613
75	Main Replacement 1118 W 7th St - Liberal	60149384	Closed	(\$40,480.39)	10/7/21	192.487	192.613
76	Main Replacement 910 Harrison St - Hugoton	60149388	Closed	\$8,399.96	9/23/21	192.487	192.613
77	Main Replacement 1311 N Carlton Ave - Liberal	60152021	Closed	\$13,273.58	11/4/21	192.487	192.613
78	Main Replacement 1012 Harrison Cir - Liberal	60152701	Closed	\$32,070.22	11/18/21	192.487	192.613
79	Main Replacement 1417 N Roosevelt Ave - Liberal	60155082	Closed	\$17,288.37	11/18/21	192.487	192.613
80	Main Replacement 1303 N Roosevelt Ave - Liberal	60155085	Closed	\$9,832.59	11/30/21	192.487	192.613

**Black Hills/Kansas Gas Utility Company, LLC
d/b/a Black Hills Energy**

Safety Related Project Index Summary

Project Number	Project Description	Work Order Number	Project Open/Closed	Project Cost	Completion Date	Primary Compliance Reference	Secondary Compliance Reference
81	Main Replacement 912 Maple Blvd - Liberal	60155088	Closed	\$24,029.01	12/13/21	192.487	192.613
82	Main Replacement 1417 N Calhoun Ave - Liberal	60157158	Closed	\$16,176.98	12/21/21	192.487	192.613
83	Large Volume Replacement 203 Van Buren - Rolla	60136456	Closed	\$9,177.48	7/23/21	192.605	192.613
84	District Regulator Station Replacement 100 S Industrial Park Ave - Liberal	60141187	Closed	\$16,194.74	7/21/21	192.739	192.613
85	Transmission Replacement Woods Header Removal - Liberal	10078231	Closed	\$228,196.22	11/22/21	192.485	192.613
86	Meter Routines - Liberal	60123869	Closed	\$2,890.37	7/20/21	192.739	192.613
87	Main Replacement 810 Maple Blvd - Liberal	60157153	Closed	\$6,572.41	2/17/22	192.487	192.613
88	Main Replacement 911 Maple Blvd - Liberal	60157156	Closed	\$9,268.58	3/4/22	192.487	192.613
89	Main Replacement 1225 N Calhoun Ave - Liberal	60157159	Closed	\$12,186.83	3/4/22	192.487	192.613
90	Main Replacement 315 Yale - Liberal	60159984	Closed	\$18,795.75	2/28/22	192.487	192.613
91	Main Replacement 1421 N Tulane Blvd - Liberal	60159978	Closed	\$34,033.79	2/28/22	192.487	192.613
92	Main Replacement 1221 N Tulane Blvd - Liberal	60160401	Closed	\$14,162.95	3/7/22	192.487	192.613
93	Main Replacement 1225 N Cain Ave - Liberal	60162571	Closed	\$16,331.08	3/30/22	192.487	192.613
94	Transmission Replacement T1Z - Andale	10068495	Closed	\$163,769.12	11/10/21	192.605	192.613
95	Transmission Replacement North Feeder - Lyons	10076473	Closed	\$665,123.98	7/20/21	192.485	192.613
96	TBS Replacement North- Lyons	10077302	Closed	\$20,676.18	6/10/21	192.739	192.613
97	KSG Enhanced Security Locks	10077776	Closed	\$22,213.34	12/31/21	192.605	192.613
98	Groundbed Replacement Rectifier #10	10077837	Closed	\$8,617.95	9/14/21	192.463	192.613
99	Groundbed Replacement Rectifier #5	10077841	Closed	\$7,853.33	12/2/21	192.463	192.613
100	Transmission Replacement T1E - Cheney	10078226	Closed	\$331,405.52	12/7/21	192.485	192.613
101	TBS Replacement - Little River	10078596	Closed	\$105,003.42	12/28/21	192.745	192.613
102	Meter Routines - Wichita	60127558	Closed	\$105,062.49	12/20/21	192.739	192.613
103	District Regulator Station Installation 1512 NW 60th - Attica	60128971	Closed	\$629.94	6/9/21	192.739	192.613
104	Main Replacement 1448 Coolidge - Wichita	60129703	Closed	\$14,751.63	8/6/21	192.487	192.613
105	District Regulator Station Tie Over 1240 17th Rd - #2 Lyons	60132467	Closed	\$7,585.86	7/16/21	192.739	192.613
106	Main Replacement 3826 E 2nd St N - Wichita	60133377	Closed	\$155,561.91	9/7/21	192.487	192.613
107	Main Replacement 811 N D Ave - Peck	60136131	Closed	\$35,501.01	5/28/21	192.487	192.613
108	District Regulator Station Replacement #328 2250 N Ridge Rd - Wichita	60137315	Closed	\$21,865.19	12/30/21	192.739	192.613
109	Main Replacement 124 N Roosevelt - Wichita	60138928	Closed	\$67,078.88	8/25/21	192.487	192.613
110	Main Replacement S 6th St & Breese Ave - Colwich	60139083	Closed	\$13,617.56	6/23/21	192.487	192.613
111	Service Replacement 12140 18th Rd - Sterling	60139187	Closed	\$13,620.89	6/24/21	192.605	192.613
112	District Regulator Station Replacement #310 310 Lake - Wichita	60139457	Closed	\$6,737.08	9/3/21	192.745	192.613
113	Main Replacement 531 S Leonine - Wichita	60139527	Closed	\$17,796.06	7/14/21	192.487	192.613
114	Main Replacement 506 W Wichita - Colwich	60140685	Closed	\$34,460.08	7/23/21	192.605	192.613
115	Service Replacement 938 N Argonia Rd - Milton	60141427	Closed	\$10,923.42	10/4/21	192.487	192.613
116	Yardline Replacement 1156 W Rd - Hartford	60142022	Closed	\$9,294.12	7/27/21	192.605	192.613
117	Main Replacement Wichita Ave & 7th St - Colwich	60142026	Closed	\$17,055.78	7/29/21	192.605	192.613
118	Main Replacement 3430 Sleepy Hollow - Wichita	60144908	Closed	\$160,737.34	11/1/21	192.487	192.613
119	Main Replacement 800 Opal Ave - Maize	60147190	Closed	\$9,240.42	9/3/21	192.487	192.613
120	Main Replacement 4421 E 2nd St - Wichita	60147266	Closed	\$210,953.68	12/9/21	192.487	192.613

**Black Hills/Kansas Gas Utility Company, LLC
d/b/a Black Hills Energy**

Safety Related Project Index Summary

Project Number	Project Description	Work Order Number	Project Open/Closed	Project Cost	Completion Date	Primary Compliance Reference	Secondary Compliance Reference
121	Main Replacement 1150 S St Clair - Wichita	60147742	Closed	\$6,983.24	9/24/21	192.605	192.613
122	Main Replacement 2359 N Tee Time - Wichita	60148260	Closed	\$33,880.47	9/28/21	192.745	192.613
123	Service Replacement 9225 W 9th St - Wichita	60148368	Closed	\$8,401.20	9/14/21	192.605	192.613
124	Pumpkin Installation Gow St & 32nd St - Wichita	60149427	Closed	\$6,726.76	9/21/21	192.485	192.613
125	Main Replacement 3620 Country Club Pl - Wichita	60150139	Closed	\$54,031.22	11/4/21	192.487	192.613
126	Main Replacement 151 S Dellrose - Wichita	60150185	Closed	\$72,011.45	12/9/21	192.487	192.613
127	Main Replacement Hwy 160 & Blaine St - Attica	60153485	Closed	\$12,327.42	11/10/21	192.605	192.613
128	Service Replacement 8219 W Irving - Wichita	60154815	Closed	\$6,207.77	11/1/21	192.605	192.613
129	Yardline Replacement 1090 Main St - Little River	60158490	Closed	\$9,419.33	12/21/21	192.487	192.613
130	Transmission Retirement T1A - Wichita	10078959	Closed	\$3,113.37	1/31/22	192.485	192.613
131	Main Replacement 352 N Young St - Wichita	60124140	Closed	\$27,308.84	2/1/22	192.487	192.613
132	Main Replacement 1st & Estelle - Wichita	60160400	Closed	\$50,769.63	2/28/22	192.487	192.613
133	Main Replacement 3229 W 30th - Wichita	60160776	Closed	\$37,289.16	2/16/22	192.605	192.613
134	Blanket Service Replacement - Geary Co	135193061G241	Open	\$11,191.39	3/31/22	192.605	192.613
135	Blanket Service Replacement - Harper Co	135193077G241	Open	\$24,427.39	3/31/22	192.605	192.613
136	Blanket Service Replacement - Harvey Co	135193079G241	Open	\$3,232.79	3/31/22	192.605	192.613
137	Blanket Service Replacement - McPherson Co	135193113G241	Open	\$5,025.55	3/31/22	192.605	192.613
138	Blanket Service Replacement - Osage Co	135193139G241	Open	\$255,307.88	3/31/22	192.605	192.613
139	Blanket Main Replacement - Osage Co	135193139G242	Open	\$5,172.55	3/31/22	192.605	192.613
140	Blanket Service Replacement - Reno Co	135193155G241	Open	\$25,216.75	3/31/22	192.605	192.613
141	Blanket Service Replacement - Rice Co	135193159G241	Open	\$36,669.28	3/31/22	192.605	192.613
142	Blanket Large Volume Meter Replacement - Sedgwick Co	135193173G203	Open	\$2,954.49	3/31/22	192.605	192.613
143	Blanket Service Replacement - Sedgwick Co	135193173G241	Open	\$1,837,444.28	3/31/22	192.605	192.613
144	Blanket Main Replacement - Sedgwick Co	135193173G242	Open	\$195,606.82	3/31/22	192.605	192.613
145	Blanket Service Replacement - Sedgwick Co	135193173G221	Open	\$69,743.38	3/31/22	192.605	192.613
146	Blanket Service Replacement - Rice Co	135193159G221	Open	\$1,524.65	3/31/22	192.605	192.613
147	Pole Replacement Rectifier Cabinet - Wichita	10079261	Closed	\$7,250.53	2/28/2022	192.463	192.613
148	Main Replacement Academy Ave - Maize	60157042	Closed	\$210,485.96	3/21/22	192.487	192.613
149	Main Replacement 2 W Academy Ave- Maize	60157080	Closed	\$160,672.49	3/23/22	192.487	192.613
150	Service Replacement 25% Bare - Wichita	60159860	Closed	\$78,935.58	3/15/22	192.453	192.613
151	Service Replacement 321 S King St - Maize	60164189	Closed	\$5,382.67	2/28/22	192.487	192.613
152	Main Replacement 1001 N Chipper Ln - Wichita	60164822	Closed	\$28,202.88	3/14/22	192.487	192.613
153	Service Replacement 304 W Academy Ave - Maize	60165402	Closed	\$6,527.82	3/15/22	192.487	192.613
154	District Regulator Station Rebuild Regulators	10076757	Closed	\$122,302.64	11/15/21	192.613	192.613
155	Verve Security Software	10069542	Closed	\$476.99	12/28/20		
156	Security Monitoring Software	10076743	Closed	\$9,354.70	12/31/21		
157	NGU Verve Security Software	10076779	Closed	\$81,104.83	11/1/21		

**Black Hills/Kansas Gas Utility Company, LLC
d/b/a Black Hills Energy**

Relocation Project Index Summary

Project No.	Location	Project Description	Work Order Number	Project Open/Closed	Estimated Project Cost	Completion Date	State/Federal or Local project
1	Dodge City	Main Relocation 1880 Highway 50 - Gray Co	60139914	Closed	\$28,294.83	8/19/2021	State
2	Dodge City	Main Relocation 10334 Highway 50 - Ford Co	60149909	Closed	\$129,292.06	12/17/2021	State
3	Dodge City	Main Relocation 10200 Highway 50 - Ford Co	60158192	Closed	\$148,366.41	3/16/2022	State
4	Dodge City	Service Relocation 10566 Highway 50 - Ford Co	60152421	Closed	\$7,397.08	12/29/2021	State
5	Dodge City	Service Relocation 10580 Highway 50 - Ford Co	60152428	Closed	\$6,601.32	12/15/2021	State
6	Dodge City	Service Relocation 10562 Highway 50 - Ford Co	60152443	Closed	\$23,400.77	12/21/2022	State
7	Dodge City	Service Relocation 10520 Highway 50 - Ford Co	60153761	Closed	\$10,008.86	12/30/2021	State
8	Dodge City	DRS Relocation 100 Air Base - Ford Co	60152415	Closed	\$30,477.81	1/31/2022	State
9	Garden City	Service Relocation 210 Farmland - Garden City	60161110	Closed	\$19,088.57	2/10/2022	Local
10	Lawrence	Main Relocation 1220 W 21st St	60154168	Closed	\$61,988.33	1/19/2022	Local
11	Lawrence	District Regulator Station 1220 W 21st St	60152266	Closed	\$21,682.20	1/19/2022	Local
12	Lawrence	Main Relocation 2112 W 25th St, Phase I	60139944	Closed	\$22,968.16	8/2/2021	Local
13	Lawrence	Main Relocation 2112 W 25th St, Phase II	60160740	Closed	\$36,063.82	1/31/2022	Local
14	Lawrence	Main Relocation 2911 Haskell Ave	60154472	Closed	\$7,726.13	11/5/2021	Local
15	Lawrence	Main Relocation 6316 Lakeside Ln	60145406	Closed	\$25,222.32	10/5/2021	State
16	Wichita	Main Relocation Broadway & Cleveland - Sterling	60139967	Closed	\$51,192.05	8/10/2021	Local
17	Wichita	Main Relocation Cleveland & 7th - Sterling	60141468	Closed	\$39,385.08	8/10/2021	Local
18	Wichita	DRS Relocation 56th & Dean Rd - Reno Co	60157644	Closed	\$11,640.33	12/17/2021	State
19	Wichita	Main Relocation Museum Blvd - Wichita	60160348	Closed	\$14,431.30	1/18/2022	Local

SUMMARY OF SAFETY RELATED & RELOCATION PROJECTS

Safety Related Projects

- Project summary includes the primary and, where applicable, a secondary, complimentary regulation requirement (49 CFR Part 192 and Kansas Administrative Regulation (K.A.R.)) that mandated replacement or other action.
- Yard Lines: Black Hills' policy regarding yard line replacement complies with 192.453 General. (K.A.R. 82-11-4(k)). Additionally, upon repair of a leak where the cause was undetermined, it is documented to be corrosion, to be the most conservative in terms of more quickly triggering replacement in an area and as per KCC Pipeline Safety Staff's guidance.
- Transmission & Distribution Replacement Program: Black Hills' policy regarding a repair/replacement program complies with 192.465 External corrosion control: Monitoring (K.A.R. 82-11-4(q)). More specifically, Black Hills' Repair/Replacement Program is prioritized by leak history, segment material, leak potential, and potential hazard that leaks may cause. Systems are divided into segments (over 500 feet but less than 5,280 feet of the same material and age) and evaluated to determine a replacement priority by a point system. The minimum point threshold for main replacements in Kansas is 500 points. Main segments rated below 500 points may be replaced at Black Hills' discretion based on additional safety factors and/or business considerations.

➤ Project Summaries (Safety Related)

SR -1	Meter Routines - Dodge City (WO #60124498)
	This project eliminated obsolete meter sets and installed 650 new meter sets with standard regulators and relief valves.
SR - 2	Main Replacement 11607 Hwy 50 - Dodge City (WO #60125544)
	<p>This replacement project eliminated 335' of 6" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 335' of 6" CWS pipe and tied into CWS pipe.</p> <p>Repair/Replacement Program points for this segment of line were 330.</p>

SR - 3	Main Replacement 611 Pine - Fowler (WO #60135276)
	<p>This replacement project eliminated 1640' of 2" bare steel main that was installed pre-1950 and eliminated 381' of 4" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 1,640' of 2" PE pipe and tied into PE pipe. Also replaced 381' of 4" of 4" PE tied into PE on one end and CWS on the east side. Repair/Replacement Program points for this segment of line were 380.</p>
SR -4	Main Replacement 3rd & 4th - Cimarron (WO #60136663)
	<p>This replacement project eliminated 415' of 2" bare steel main that was installed pre-1950,</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 415' of 2" PE pipe and tied into CWS pipe. Repair/Replacement Program points for this segment of line were 330.</p>
SR -5	Main Replacement 111 N 5th - Cimarron (WO #60137015)
	<p>This replacement project eliminated 385' of 2" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 385' of 2" PE pipe and tied into CWS pipe. Repair/Replacement Program points for this segment of line were 330.</p>
SR -6	Main Replacement 2201 Wyatt Earp - Dodge City (WO #60138437)
	<p>This replacement project eliminated 363' of 2" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 633' of 2" PE pipe and tied into CWS pipe. Repair/Replacement Program points for this segment of line were 330.</p>

SR -7	Main Replacement 101 Hillcrest - Cimarron (WO #60138787)
	<p>This replacement project eliminated 558' of 2" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 558' of 2" PE pipe and tied into PE pipe on one end and CWS on the other. Repair/Replacement Program points for this segment of line were 330.</p>
SR -8	Main Replacement 4th & 5th - Cimarron (WO #60140609)
	<p>This replacement project eliminated 383' of 2" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 383' of 2" PE pipe and tied into CWS pipe. Repair/Replacement Program points for this segment of line were 330.</p>
SR -9	Main Replacement Ash & Burch - Cimarron (WO #60140665)
	<p>This replacement project eliminated 265' of 2" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 265' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 330.</p>
SR -10	Main Replacement 100 S 1st - Cimarron (WO #60140715)
	<p>This replacement project eliminated 380' of 4" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 380' of 2" PE pipe and tied into PE pipe on one end and CWS on the other. Repair/Replacement Program points for this segment of line were 330. We abandon the 4" bare and replaced with 2" on the north side of Avenue E.</p>

SR -11	Blanket Service Replacement - Ford Co (WO #135194057G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 249 replacements included in this filing are from January 1, 2022 through March 28, 2022.
SR -12	Blanket Service Replacement - Hodgeman Co (WO #135194083G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 8 replacements included in this filing are from Jan, 1, 2022 through March 28, 2022. These were done on one WO.
SR -13	Blanket Service Replacement - Gray Co (WO #135194069G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 31 replacements included in this filing are from Jan. 1, 2022 thru March 28, 2022. These were done on one WO.
SR -14	Blanket Service Replacement - Meade Co (WO #135194119G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 6 replacements included in this filing are from January 1, 2022 through March 28, 2022. These were done on one WO.
SR -15	District Reg Station #4 & Odorizer Rebuild/Installation - Garden City (WO #60104217)
	This DRS upgrades eliminated obsolete regulators & reliefs with standard monitor systems. The obsolete regulators had lock up and set point problems and parts are no longer available. DRS #4.
SR -16	District Reg Station #14 & Odorizer Rebuild/Installation - Garden City (WO #60104412)
	This DRS upgrades eliminated obsolete regulators & reliefs with standard monitor systems. The obsolete regulators had lock up and set point problems and parts are no longer available. DRS #14.
SR -17	Meter Routines - Garden City (WO #60124298)
	This project eliminated obsolete meter sets and installed 487 new meter sets with standard regulators and relief valves.
SR -18	Service Replacement 716 Howerton - Garden City (WO #60160108)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 9 replacements included in this filing are from January 1, 2022 thru March 1, 2022. These were done on one WO.
SR -19	Service Replacement 3002 Fleming - Garden City (WO #60157179)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 12 replacements included in this filing are from January 1, 2022 through March 15, 2022. These were done on one WO.
SR -20	Blanket Service Replacement - Finney Co (WO #135195055G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 514 replacements included in this filing are from July 1, 2021 through March 15, 2022.
SR -21	Blanket Service Replacement - Haskell Co (WO #135195081G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 12 replacements included in this filing are from July 1, 2022 through March 15, 2022.

SR -22	Service Replacement 505 Campbell - Garden City (WO #60161242)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 40 replacements included in this filing are from January of 2022 thru March 2022.
SR -23	Main Replacement 0 Rd 19 & 69 Rd - Sherman Co (WO #60133118)
	<p>This 6750' segment of 2" PVC was replaced due to 1 class 3 leak repaired in 5-year history.</p> <p>This replacement project eliminated 6750' of 2" PVC that was installed in the 1970's. This segment of PVC was found to be very shallow with several areas exposed. In addition, this segment of PVC was unable to be located due to lack of installed tracer wire. The project starting point was determined through test holes dug to find PE pipe to attach to. Additional consideration was given to the proximity of existing PE pipe.</p> <p>The line was replaced with 5250' of 2" HDPE pipe. East tie-in point was to existing 2406 PE pipe and capped at West end. In the course of this replacement all PVC service lines and yard lines were replaced. Repair/ Replacement Program points for this segment of the line were 330.</p>
SR -24	Main Replacement 1 West Drive Dr - Goodland (WO #60133743)
	<p>This replacement project eliminated 2070' of 2" pvc main that was unlocatable installed in the 1970's.</p> <p>Leak history indicated 3 class 3 leaks and 1 class 1 leak. This segment of pipe was located in a mobile home park easement. This project eliminated 27 pvc service lines and PVC yard lines.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>Line was replaced with 2070' of 2" PE and tied into steel at start point and capped at end points. Repair/ Replacement Program points for this segment of the line were 400.</p>
SR -25	Main Replacement 0 Rd 76 & 2 Rd - Sherman Co (WO #60137707)
	<p>This 9000' segment of 2" PVC was replaced due to 1 class 1 leak and 4 class 3 leaks repaired in 5-year history.</p> <p>This replacement project eliminated 9000' of 2" PVC that was installed in the 1970's. This segment of PVC was found to be very shallow with several areas exposed. Line had been hit in past 3 months due to shallow depth during road grading.</p> <p>The project starting point was determined through test holes dug to find PE pipe to attach to. Additional consideration was given to the proximity of existing PE pipe.</p> <p>The line was replaced with 9000' of 2" HDPE pipe. West tie-in point was to existing above ground valve and tied into existing 2" MDPE at East end. In the course of this replacement all PVC service lines and yard lines were replaced.</p> <p>Repair/ Replacement Program points for this segment of the line were 410.</p>

SR -26	<p>Main Replacement 0 8th & Wyoming St - Goodland (WO #60141625)</p> <p>This replacement project eliminated 2460' of 2" bare steel main that was installed pre-1950. Records indicate that 2 class 2 leaks and 3 class 3 leaks were repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>In the course of this replacement, all bare steel service lines and yard lines were replaced in this segment</p> <p>The line was replaced with 2460' of 2" HDPE pipe and tied into PE pipe on West end and coated protected pipe and East end. Repair/Replacement Program points for this segment of line were 450.</p>
SR -27	<p>Main Replacement 0 5th To 8th St - Goodland (WO #60146856)</p> <p>This replacement project eliminated 2093' of 2" bare steel main that was installed pre-1950. Records indicate that one class 2 leak and 6 class 3 leaks were repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 2093' of 2" HDPE pipe and tied into PE pipe on the north end of the project and to coated protected steel on the west end. In the course of this replacement project, all bare steel service lines and yard lines were replaced in this segment. Repair/Replacement Program points for this segment of line were 430.</p>
SR -28	<p>Main Replacement 0 CR 77 & 10 Rd - Goodland (WO #60153349)</p> <p>This 5500' segment of 4" PVC was replaced due to 5 class 3 leaks repaired in 5-year history.</p> <p>This replacement project eliminated 5500' of 4" PVC that was installed in the 1970's. This segment of PVC was found to be shallow. In addition, this segment of PVC was unable to be located due to lack of installed tracer wire.</p> <p>The project starting point was determined through test holes dug to find PE pipe to attach to. Additional consideration was given to the proximity of existing PE pipe.</p> <p>The line was replaced with 5500' of 2" HDPE PE pipe. West tie-in point was to replacement valve setting and capped at East end. In the course of this replacement all PVC service lines and yard lines were replaced.</p> <p>Repair/ Replacement Program points for this segment of the line were 390.</p>

SR -29	<p>Main Replacement 1 Rd 3 & 57 Rd - Sherman Co (WO #60157818)</p> <p>This 5500' segment of 2" PVC was replaced due to 8 class 3 leaks repaired in 5-year history.</p> <p>This replacement project eliminated 5500' of 2" PVC that was installed in the 1970's.</p> <p>This segment of 2" PVC suffered from tracer wire degradation causing issues with locating.</p> <p>The project starting point was determined through test holes dug to find PE pipe to attach to. Additional consideration was given to the proximity of existing PE pipe.</p> <p>The line was replaced with 5500' of 2" HDPE pipe. North tie-in point was to existing above ground valve and tied into PVC of suitable depth at South end. In the course of this replacement all PVC service lines and yard lines were replaced.</p> <p>Repair/ Replacement Program points for this segment of the line were 420</p>
SR -30	<p>Main Replacement 1 Rd 3 & A Rd - Sherman Co (WO #60158616)</p> <p>This 5000' segment of 2" PVC was replaced due to 1 class 1 leak and 3 class 3 leaks repaired in 5-year history.</p> <p>This replacement project eliminated 5000' of 2" PVC that was installed in the 1970's. This segment of PVC was found to be very shallow with several areas exposed. Line had been hit in past 3 months due to shallow depth.</p> <p>The project starting point was determined through test holes dug to find PE pipe to attach to. Additional consideration was given to the proximity of existing PE pipe.</p> <p>The line was replaced with 5000' of 2" HDPE pipe. South tie-in point was to existing above ground valve and tied into PVC of suitable depth at North end. In the course of this replacement all PVC service lines and yard lines were replaced.</p> <p>Repair/ Replacement Program points for this segment of the line were 420.</p>
SR -31	<p>Main Replacement 1 Rd 18 & 78 Rd - Goodland (WO #60158776)</p> <p>This 8000' segment of 2" PVC was replaced due to 4 class 3 leak repaired in 5-year history.</p> <p>This replacement project eliminated 8000' of 2" PVC that was installed in the 1970's. This segment of PVC was found to be very shallow with several areas exposed. In addition, this segment of PVC was not installed with tracer wire and could not be located.</p> <p>The project starting point was determined through test holes dug to find PE pipe to attach to. Additional consideration was given to the proximity of existing PE pipe.</p> <p>The line was replaced with 8000' of 2" HDPE pipe. East tie-in point was to existing 2406 PE pipe at the North end and capped at the end. In the course of this replacement all PVC service lines and yard lines were replaced.</p> <p>Repair/ Replacement Program points for this segment of the line were 380.</p>

SR -32	Blanket Service Replacement - Sherman Co (WO #135197181G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 162 replacements included in this filing are from July of 2021 through March of 2022.
SR -33	Main Replacement 1151 Monterey Way - Lawrence (WO #60145216)
	<p>This replacement project eliminated 1397' of 2" Bare Steel main that was installed 1958. Records indicate that two class 2 and one class 3 leaks were repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 1387' of 2" HDPE pipe and tied into C&W Steel pipe and 2" PE. Repair/Replacement Program points for this segment of line were 440.</p>
SR -34	Main Replacement 1441 Chelsea Pl - Lawrence (WO #60147084)
	<p>This replacement project eliminated 1397' of 2" Bare Steel main that was installed 1958. Records indicate that two class 2 and one class 3 leaks were repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 1387' of 2" HDPE pipe and tied into C&W Steel pipe and 2" PE. Repair/Replacement Program points for this segment of line were 440.</p>
SR -35	Main Replacement 1601 Naismith Dr, KU Phase II - Lawrence (WO #60127428)
	<p>This replacement project eliminated 1500' of 8" Bare Steel and 685' of 6" Bare Steel main that was installed 1956. Records indicate that three class 2 and two class 3 leaks were repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 1600' of 8" PE pipe and 860' of 6" PE pipe and tied into C&W Steel pipe. Repair/Replacement Program points for this segment of line were 550.</p>
SR -36	District Regulator Station Replacement #31 1530 Naismith - Lawrence (WO #60132411)
	This DRS upgrade eliminated obsolete regulators & reliefs with standard monitor systems. The obsolete regulators had lock up and set point problems and parts are no longer available.

SR -37	<p>Main Replacement 1783 E 1500 Rd - Lawrence (WO #60151722)</p> <p>This replacement project eliminated 3975' of 2" Bare Steel main that was installed 1963. Records indicate that two class 2 and one class 3 leaks were repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 4030' of 2" HDPE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 440.</p>
SR -38	<p>Main Replacement 2700 Harvard Rd - Lawrence (WO #60161624)</p> <p>This replacement project eliminated 375' of 4" Bare Steel main that was installed 1959. Records indicate that two class 2 and two class 3 leaks were repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 400' of 4" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 430.</p>
SR -39	<p>Main Replacement 706 E 23rd St - Lawrence (WO #60131269)</p> <p>This replacement project eliminated 390' of 2" Bare Steel main that was installed 1952. Records indicate that one class 2 and two class 3 leaks were repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 350' of 2" PE pipe and tied into C&W Steel pipe. Repair/Replacement Program points for this segment of line were 400.</p>
SR -40	<p>Town Border Station Replacement 2521 Via Linda Below - Lawrence (WO #60138063)</p> <p>This TBS upgrade eliminated obsolete regulators & reliefs with standard monitor systems. The obsolete regulators had lock up and set point problems and parts are no longer available.</p>
SR -41	<p>Town Border Station Replacement 2521 Via Linda Above - Lawrence (WO #60134364)</p> <p>This TBS upgrade eliminated obsolete regulators & reliefs with standard monitor systems. The obsolete regulators had lock up and set point problems and parts are no longer available.</p>

SR -42	Blanket Service Replacement - Lawrence (WO #135192045G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 167 replacements included in this filing are from July of 2021 through March of 2021.
SR -43	Blanket Main Replacement - Lawrence (WO #135192045G242)
	This blanket work order is for the replacement of main pipe. These types of projects typically eliminate leaking pipe and require immediate replacement. The 2 replacements included in this filing are from July of 2021 through March of 2022.
SR -44	Meter Routines - Lawrence (WO #60124775)
	This project eliminated obsolete meter sets and installed 1063 new meter sets with standard regulators and relief valves.
SR -45	Main Replacement 1215 Westhaven Dr - Liberal (WO #60106409)
	<p>This replacement project eliminated 1,360' of 4" bare steel main that was installed pre-1950 and 160' of low-pressure PE pipe.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 694' of 2" and 680' of 4" PE pipe and tied into PE. Repair/Replacement Program points for this segment of line were 340.</p>
SR -46	Main Replacement 1035 N Carlton Ave - Liberal (WO #60148388)
	<p>This replacement project eliminated 488 of 3" bare steel main that was installed pre-1950 and 160' of low-pressure PE pipe.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 592' of 2" PE pipe and tied into PE.</p> <p>Repair/Replacement Program points for this segment of line were 340.</p>
SR -47	Main Replacement 415 Harvard Ave - Liberal (WO #60161411)
	<p>This replacement project eliminated 554' of 2" and 399' of 4" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 692' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>

SR -48	Main Replacement 423 Princeton Ave - Liberal (WO #60162576)
	<p>This replacement project eliminated 126' of 2" and 296' of 3 and 343' of 6" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 533' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>
SR -49	Main Replacement 401 Princeton Ave - Liberal (WO #60164192)
	<p>This replacement project eliminated 353' of 2" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 827' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>
SR -50	Blanket Service Replacement - Meade Co (WO #135196119G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically replace bare steel pipe. The 1 GSRS replacements included in this filing are from July 2021 through March 2022.
SR -51	Blanket Service Replacement - Morton Co (WO #135196129G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically replace bare steel pipe. The 4 GSRS replacements included in this filing are from July 2021 through March 2022.
SR -52	Blanket Service Replacement - Seward Co (WO #135196175G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically replace bare steel pipe. The 621 GSRS replacements included in this filing are from July 2021 through March 2022.
SR -53	Blanket Main Replacement - Seward Co (WO #135196175G242)
	This blanket work order covers charges related to the 32 specific main replacements and 4 that directly hit this blanket WO in Liberal. These types of projects typically replace bare steel pipe. Costs include labor for preparing projects, locates and inspection.
SR -54	Blanket Service Replacement - Stevens Co (WO #135196189G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically replace bare steel pipe. The 12 GSRS replacements included in this filing are from July 2021 through March 2022.
SR -55	Blanket Main Replacement - Stevens Co (WO #135196189G242)
	This blanket work order is for the replacement of main pipe. These types of projects typically eliminate leaking pipe and require immediate replacement. The 4 replacements included in this filing are from July of 2021 through March of 2022.

SR -56	Main Replacement 722 W 7th St - Liberal (WO #60138272)
	<p>This replacement project eliminated 425' of 3" and 311' of 2" bare steel main that was installed pre-1950 and 110' of 4" P.E. main.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 812' of 2" P.E. pipe and tied into PE. Repair/Replacement Program points for this segment of line were 340.</p>
SR -57	Main Replacement 425 Cornell Ave - Liberal (WO #60139116)
	<p>This replacement project eliminated 527' of 3" and 393' of 6" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 640' of 2" PE pipe and tied into PE pipe.</p> <p>Repair/Replacement Program points for this segment of line were 340.</p>
SR -58	Main Replacement 103 S Grant Ave - Liberal (WO #60139557)
	<p>This replacement project eliminated 281' of 3" bare steel main that was installed pre-1950 and 476' of 2" low pressure PE pipe.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 415' of 2" PE and tied into PE pipe</p> <p>Repair/Replacement Program points for this segment of line were 340.</p>
SR -59	Main Replacement 101 S Sherman Ave - Liberal (WO #60139569)
	<p>This replacement project eliminated 75' of 2" bare steel main that was installed pre-1950. Also eliminated 499' of 2" low pressure PE</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 554' of 2" PE pipe and tied into PE pipe.</p> <p>Repair/Replacement Program points for this segment of line were 340.</p>

SR -60	Main Replacement 1311 N Maple Blvd - Liberal (WO #60141591)
	<p>This replacement project eliminated 1275' of 2" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 1190' of 2" PE and tied into PE pipe Repair/Replacement Program points for this segment of line were 340</p>
SR -61	Main Replacement 806 N Calhoun Ave - Liberal (WO #60143951)
	<p>This replacement project eliminated 1161' of 4" bare steel main that was installed pre-1950. Also eliminated 9' of 4" low pressure PE</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 1189' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>
SR -62	Main Replacement 401 N Western Ave - Liberal (WO #60144449)
	<p>This replacement project eliminated 916' of 3" and 110' of bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 1104' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>
SR -63	Main Replacement 804 N Roosevelt Ave - Liberal (WO #60144690)
	<p>This replacement project eliminated 1052 of 4" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 737' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>

SR -64	Main Replacement 1002 N Roosevelt - Liberal (WO #60144695)
	<p>This replacement project eliminated 604' of 4" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 584' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>
SR -65	Main Replacement 1304 Elm Blvd - Liberal (WO #60146198)
	<p>This replacement project eliminated 204' of 3" and 385' of 2" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 625' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>
SR -66	Main Replacement 203 N Tulane Ave - Liberal (WO #60146262)
	<p>This replacement project eliminated 407' of 2" and 161' of 3" bare steel main that was installed pre-1950 and 191' of 4" low pressure MDPE</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 800' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>
SR -67	Main Replacement 811 N Roosevelt Ave - Liberal (WO #60146278)
	<p>This replacement project eliminated 521' of 3" and 176' of 4" bare steel main that was installed pre-1950. Also eliminated 84' of 4" low pressure PE</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 927' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340</p>

SR -68	<p>Main Replacement 1001 N Roosevelt Ave - Liberal (WO #60146294)</p> <p>This replacement project eliminated 564' of 3" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 565' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>
SR -69	<p>Main Replacement 201 Polk St - Hugoton (WO #60146874)</p> <p>This replacement project eliminated 181' of 3" bare steel main that was installed pre-1950. Also eliminated 69' of 4" PE and 122' of 3" PE.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 385' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 350</p>
SR -70	<p>Main Replacement 138 Morton St - Elkhart (WO #60147061)</p> <p>This replacement project eliminated 38' of bare steel 4" main that was installed pre-1950 and was leaking.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 36' of 4" PE pipe and tied into bare steel pipe. Repair/Replacement Program points for this segment of line were 350.</p>
SR -71	<p>Main Replacement 817 W 8th St - Liberal (WO #60148375)</p> <p>This replacement project eliminated 125' of 4" bare steel main that was installed pre-1950. And eliminated 298' of 4" low pressure PE.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 442' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>

SR -72	Main Replacement 927 N Carlton Ave - Liberal (WO #60148380)
	<p>This replacement project eliminated 376' of 3" bare steel main that was installed pre-1950. Also eliminated 130' of 4" and 117' of 3" low pressure PE pipe.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 639' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>
SR -73	Main Replacement 413 N Perdue Ave - Liberal (WO #60149350)
	<p>This replacement project eliminated 1150' of 3" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 1178' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>
SR -74	Main Replacement 407 N Tulane Ave - Liberal (WO #60149377)
	<p>This replacement project eliminated 821' of 3" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 462' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>
SR -75	Main Replacement 1118 W 7th St - Liberal (WO #60149384)
	<p>This replacement project eliminated 64' of 3" and 17' of 4" bare steel main that was installed pre-1950. This also retired low pressure DRS # 34</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was retired as it is no longer needed. Repair/Replacement Program points for this segment of line were 340.</p>

SR -76	<p>Main Replacement 910 Harrison St - Hugoton (WO #60149388)</p> <p>This replacement project eliminated 20' of 2" bare steel main that was installed pre-1950 that was leaking.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 20' of 2" PE pipe and tied into PE pipe and bare steel. Repair/Replacement Program points for this segment of line were 350.</p>
SR -77	<p>Main Replacement 1311 N Carlton Ave - Liberal (WO #60152021)</p> <p>This replacement project eliminated 1008' of 4" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 1045' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>
SR -78	<p>Main Replacement 1 012 Harrison Cir - Liberal (WO #60152701)</p> <p>This replacement project eliminated 900' of 2" and 480' of 3" bare steel main that was installed pre-1950 and 309' of 2" low pressure PE.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 1051' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>
SR -79	<p>Main Replacement 1417 N Roosevelt Ave - Liberal (WO #60155082)</p> <p>This replacement project eliminated 1179' of 4" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 538' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>

SR -80	Main Replacement 1303 N Roosevelt Ave - Liberal (WO #60155085)
	<p>This replacement project eliminated 1488' of 4" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 780' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>
SR -81	Main Replacement 912 Maple Blvd - Liberal (WO #60155088)
	<p>This replacement project eliminated 936' of 2" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 907' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>
SR -82	Main Replacement 1417 N Calhoun Ave - Liberal (WO #60157158)
	<p>This replacement project eliminated 643' of 4" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 648' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>
SR -83	Large Volume Meter Replacement 203 Van Buren - Rolla (WO #60136456)
	This replacement project replaced a dead large volume meter. Equipment was replaced due to outdated equipment and updated building load requiring different meter size.
SR -84	DRS replacement 100 S Industrial Park Ave - Liberal (WO #60141187)
	This replacement project eliminated outdated regs at DRS 41.

SR -85	<p>Transmission Replacement Woods Header Removal - Liberal (WO #10078231)</p> <p>Project removed several old valves that were leaking along with a 61' underground 30" header, 351' of 6", 15' of 8" and 93' of 12" pipe that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 15' of 6", 15' of 8" and 80' of 12" epoxy coated steel pipe.</p> <p>Repair/Replacement Program points for this segment of line were 390.</p>
SR -86	<p>Meter Routines - Liberal (WO #60123869)</p> <p>This blanket work order covers the replacement of 414 meters to insure accurate metering. Replacement towns include Liberal, Plains, Moscow, Hugoton, Rolla and Elkhart, Copeland, Satanta, Sublette. Costs for the routines includes all labor and materials such as bypass meter bars, regulators and fittings.</p>
SR -87	<p>Main Replacement 810 Maple - Liberal (WO #60157153)</p> <p>This replacement project eliminated 352' of 3" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 315' of 2" PE pipe and tied into bare steel pipe.</p> <p>Repair/Replacement Program points for this segment of line were 340.</p>
SR -88	<p>Main Replacement 911 Maple Blvd - Liberal (WO #60157156)</p> <p>This replacement project eliminated 860' of 2" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 360' of 2" PE pipe and tied into PE pipe.</p> <p>Repair/Replacement Program points for this segment of line were 340.</p>

SR -89	<p>Main Replacement 1225 N Calhoun Ave - Liberal (WO #60157159)</p> <p>This replacement project eliminated 706' of 4" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 652' of 2" PE into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>
SR -90	<p>Main Replacement 315 Yale - Liberal (WO #60159984)</p> <p>This replacement project eliminated 90' of 4" and 186' of 3" bare steel main that was installed pre-1950. Also eliminated 225' of 4" low pressure PE.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 613' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>
SR -91	<p>Main Replacement 1421 N Tulane Blvd - Liberal (WO #60159978)</p> <p>This replacement project eliminated 662' of 4" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 678' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>
SR -92	<p>Main Replacement 1221 N Tulane Blvd - Liberal (WO #60160401)</p> <p>This replacement project eliminated 696' of 4" bare steel, main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 679' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 340.</p>

SR -93	<p>Main Replacement 1225 N Cain Ave - Liberal (WO #60162571)</p> <p>This replacement project eliminated 734' of 4" and 618' of 3" bare steel main that was installed pre-1950.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 10' of 4" PE and 764' of 2" PE pipe and tied into PE pipe.</p> <p>Repair/Replacement Program points for this segment of line were 340.</p>
SR -94	<p>Transmission Replacement - T1Z Andale Exposure (WO #10068495)</p> <p>This replacement project eliminated 566' of exposed 10" epoxy coated steel main that was installed 1970 – newer. The 10" pipe was replaced with 12" pipe due to availability of inventory.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 582' of 12" epoxy coated steel pipe and tied into epoxy coated steel pipe.</p> <p>Repair/Replacement Program points for this segment of line were 220.</p>
SR -95	<p>Transmission Replacement North Feeder - Lyons (WO #10076473)</p> <p>This replacement project eliminated 9043' of 6" Bare Steel main that was installed pre-1950. Records indicate that one class 2 leak and one class 3 was repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 7278' of 4" Epoxy Coated Steel pipe, 1536' of 6" Epoxy Coated Steel and tied into epoxy coated steel pipe.</p> <p>Repair/Replacement Program points for this segment of line were 550.</p>
SR -96	<p>TBS Replacement North - Lyons (WO #10077302)</p> <p>This TBS upgrade eliminated obsolete regulators & reliefs with standard monitor systems. The obsolete regulators had lock up and set point problems and parts are no longer available.</p>

SR -97	KSG Enhanced Security Locks (WO #10077776)
	All high priority sites across the state have been re-keyed with stronger locks and chains to allow for better security and management of keys to essential facilities. This includes high profile TBS stations.
SR -98	Groundbed Replacement Rectifier #10 (WO #10077837)
	Replaced ground bed due to depletion
SR -99	Groundbed Replacement Rectifier #5 (WO #10077841)
	Replaced ground bed due to depletion
SR -100	Transmission Replacement T1E - Cheney (WO #10078226)
	<p>This replacement project eliminated 3705' of 8" bare steel main that was installed pre-1950. Records indicate that one class 2 leak was repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 3640' of 8" Epoxy Coated Steel pipe and tied into epoxy coated steel pipe. Repair/Replacement Program points for this segment of line were 440.</p>
SR -101	TBS Replacement - Little River (WO #10078596)
	This DRS upgrade eliminated obsolete regulators & reliefs with standard monitor systems. The obsolete regulators had lock up and set point problems and parts are no longer available.
SR -102	Meter Routines - Wichita (WO #60127558)
	This project eliminated obsolete meter sets and installed 362 new meter sets with standard regulators and relief valves.
SR -103	DRS Installation 1512 NW 60th - Attica (WO #60128971)
	The installation of this DRS was in conjunction with a feeder line to provide an adequate gas supply to the city of Attica
SR -104	Main Replacement 1448 Coolidge - Wichita (WO #60129703)
	<p>This replacement project eliminated 400' of 2" bare steel main that was installed 1950-1970. Records indicate that one class 2 leak was repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 450' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 350</p>

SR -105	DRS Tie Over 1240 17th Rd - #2 Lyons (WO #60132467)
	<p>This DRS tie-over was in conjunction with Lyons North Feeder Transmission Replacement and eliminated 20' of 1" epoxy coated steel.</p> <p>The line was replaced with 20' of 1" epoxy coated steel.</p>
SR -106	Main Replacement 3826 E 2nd St N - Wichita (WO #60133377)
	<p>This replacement project eliminated 900' of 2" bare steel, 1023' of 6" bare steel and 900' of 1" bare steel main that was installed 1950-1970. Records indicate that two class 2 leaks were repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 1904' of 2" PE pipe, and 1033' of 4" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 420.</p>
SR -107	Main Replacement 811 N D Ave -Peck (WO #60136131)
	<p>This replacement project eliminated 1200' of 2" bare steel main that was installed 1950-1970. Records indicate that two class 2 leaks were repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 1200' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 360.</p>
SR -108	DRS Replacement #328 2250 N Ridge Rd - Wichita (WO #60137315)
	<p>This DRS upgrade eliminated obsolete regulators & reliefs with standard monitor systems. The obsolete regulators had lock up and set point problems and parts are no longer available.</p>
SR -109	Main Replacement 124 N Roosevelt - Wichita (WO #60138928)
	<p>This replacement project eliminated 2000' of 2" bare steel main that was installed 1950-1970. Records indicate that three class 2 leaks were repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 2116' of 2" PE pipe and tied into PE pipe.</p> <p>Repair/Replacement Program points for this segment of line were 450.</p>

SR -110	Main Replacement S 6th St & Breese Ave - Colwich (WO #60139083)
	<p>This replacement project eliminated 155' of 1.25" epoxy coated steel, 122' of 1" bare steel and 121' of ¾" bare steel main that was installed 1950-1970. Records indicate that one class 2 leak was repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 392' of 2" PE pipe and tied into epoxy coated steel pipe. Repair/Replacement Program points for this segment of line were 350.</p>
SR -111	Service Replacement 2140 18th Rd - Sterling (WO #60139187)
	<p>This replacement project eliminated 2' of 1" coated steel service line that was replaced due to a leak.</p> <p>The line was replaced with 6' of 1" coated steel pipe. The cost was higher than average due to the installation of a barricade, contractor mileage and contractor weld time.</p>
SR -112	DRS Replacement #310 310 Lake - Wichita (WO #60139457)
	<p>This DRS upgrade eliminated obsolete regulators & reliefs with standard monitor systems. The obsolete regulators had lock up and set point problems and parts are no longer available.</p>
SR -113	Main Replacement 531 S Leonine - Wichita (WO #60139527)
	<p>This replacement project eliminated 524' of 2" Bare Steel main that was installed 1950-1970. Records indicate that two class 2 leaks were repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 580' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 380</p>
SR -114	Main Replacement 506 W Wichita - Colwich (WO #60140685)
	<p>This replacement project eliminated 125' of 2" Epoxy Coated Steel and 839' of 2" Bare Steel main that was installed pre-1950-1970. Records indicate that two class 2 leaks were repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 979' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 380.</p>

SR -115	Service Replacement 938 N Argonia Rd - Milton (WO# 60141427)
	<p>This replacement project eliminated 6' of 1.25" coated steel service line that was replaced due to a leak.</p> <p>The line was replaced with 6' of 1" coated steel pipe.</p> <p>The cost was higher than average due to stoppling, contractor mileage and contractor weld time.</p>
SR -116	Yardline Replacement 1156 W Rd - Hartford (WO# 60142022)
	<p>This replacement project eliminated 2' of 1.25" coated steel service line that was replaced due to a leak.</p> <p>The line was replaced with 6' of 1" coated steel pipe.</p> <p>The cost was higher than average due to stoppling, contractor mileage and contractor weld time</p>
SR -117	Main Replacement Wichita Ave & 7th St - Colwich (WO #60142026)
	<p>This replacement project eliminated 311' of 1.25" Epoxy Coated Steel main that was installed 1970-newer. Records indicate that two class 2 leaks were repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 374' of 2" PE pipe and tied into PE pipe.</p> <p>Repair/Replacement Program points for this segment of line were 320.</p>
SR -118	Main Replacement 3430 Sleepy Hollow - Wichita (WO #60144908)
	<p>This replacement project eliminated 1214' of 2" bare steel, 2677' of 4" bare steel, and 198' of 2" PE main that was installed 1950-1970. Records indicate that two class 2 leaks were repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 4611' of 2" PE pipe and tied into PE pipe.</p> <p>Repair/Replacement Program points for this segment of line were 420.</p>

SR -119	Main Replacement 800 Opal Ave - Maize (WO #60147190)
	<p>This replacement project eliminated 136' of 1" epoxy coated steel main and 10' of 1.25" epoxy coated steel that was installed 1970-newer. Records indicate that one class 2 leak was repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 194' of 2" PE pipe and tied into coated steel pipe.</p> <p>Repair/Replacement Program points for this segment of line were 290.</p>
SR -120	Main Replacement 441 E 2nd St - Wichita (WO #60147266)
	<p>This replacement project eliminated 1100' of 6" bare steel, and 3600' of 2" bare steel main that was installed 1950-1970. Records indicate that three class 2 leaks were repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 3626' of 2" PE pipe and tied into PE pipe.</p> <p>Repair/Replacement Program points for this segment of line were 450.</p>
SR -121	Main Replacement 1150 S St Clair - Wichita (WO #60147742)
	<p>This replacement project eliminated 48' of 2" bare steel, and 4' of 2" PE main that was installed pre-1950. Records indicate that one class 2 leak was repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 57' of 2" PE pipe and tied into PE pipe.</p> <p>Repair/Replacement Program points for this segment of line were 370.</p>

SR -122	Main Replacement 2359 N Tee Time - Wichita (WO #60148260)
	<p>This replacement project eliminated 200' of 4" Epoxy coated steel main that was installed 1970-newer. Records indicate that one class 2 leak was repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 200' of 4" PE pipe and tied into coated steel pipe. Repair/Replacement Program points for this segment of line were 290.</p>
SR -123	Service Replacement 9225 W 9th St - Wichita (WO #60148368)
	<p>This replacement project eliminated 14' of 1/2" PE service line that was replaced due to a leak.</p> <p>The line was replaced with 14' of 1/2" PE pipe. The cost was higher than average due to stoppling.</p>
SR -124	Pumpkin Installation Gow St & 32nd St - Wichita (WO #60149427)
	This project installed (3) 2" pumpkins due to leaking repair clamps.
SR -125	Main Replacement 3620 Country Club Pl - Wichita (WO #60150139)
	<p>This replacement project eliminated 108' of 2" PE, 1448' of 3" Bare Steel, and 286' of 2" Epoxy Coated Steel main that was installed 1950-1970. Records indicate that two class 2 leaks were repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 1570' of 2" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 380.</p>
SR -126	Main Replacement 151 S Dellrose - Wichita (WO #60150185)
	<p>This replacement project eliminated 1855' of 2" Bare Steel main that was installed 1950-1970. Records indicate that two class 2 leaks were repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 2061' of 2" PE pipe and tied into PE pipe.</p> <p>Repair/Replacement Program points for this segment of line were 420.</p>

SR -127	Main Replacement Hwy 160 & Blaine St - Attica (WO #60153485)
	<p>This replacement project eliminated 140' of 2" PE main that was installed 1970-newer due to exposure.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 165' of 2" PE pipe and tied into epoxy coated steel and PE pipe.</p> <p>Repair/Replacement Program points for this segment of line were 200.</p>
SR -128	Service Replacement 8219 W Irving - Wichita (WO #60154815)
	<p>This replacement project eliminated 6' of 2" PE service line that was replaced due to a leak.</p> <p>The line was replaced with 149' of 2" PE pipe.</p> <p>The additional footage was required to relocate the meter from the property line to the building.</p>
SR -129	Yardline Replacement 1090 Main St - Little River (WO #60158490)
	<p>This replacement project eliminated 263' of 3" bare steel service line that was replaced was replaced in conjunction with SR - 101: TBS Replacement – Little River (WO #10078596).</p> <p>The line was replaced with 288' of 1" PE pipe and tied into coated steel pipe.</p>
SR -130	Transmission Retirement T1A - Wichita (WO #10078959)
	<p>This replacement project eliminated 5' of 4" epoxy coated steel and a riser that fed an abandoned gathering line. Project was required due to multiple leaking valves.</p>
SR -131	Main Replacement 352 N Young - Wichita (WO# 60124140)
	<p>This replacement project eliminated 604' of 2" bare steel main that was installed 1950-1970. Records indicate that one class 2 leak was repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 604' of 2" PE pipe and tied into PE pipe.</p> <p>Repair/Replacement Program points for this segment of line were 350.</p>

SR -132	Main Replacement 1st & Estelle - Wichita (WO# 60160400)
	<p>This replacement project eliminated 842' of 2" bare steel main that was installed 1950-1970. Records indicate that two class 2 leaks were repaired on this section of pipe over the past five years.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 860' of 2" PE pipe and tied into epoxy coated steel pipe. Repair/Replacement Program points for this segment of line were 420.</p>
SR -133	Main replacement 3629 W 30th - Wichita (WO# 60160776)
	<p>This replacement project eliminated 394' of 2" coated steel main that was installed 1950-1970 due to being too shallow.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 398' of 2" PE pipe and tied into coated steel pipe. Repair/Replacement Program points for this segment of line were 280.</p>
SR -134	Blanket Service Replacement - Geary Co (WO #135193061G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 2 replacements included in this filing are from July of 2021 through March of 2022.
SR -135	Blanket Service Replacement - Harper Co (WO #135193077G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 4 replacements included in this filing are from July of 2021 through March of 2022.
SR -136	Blanket Service Replacement - Harvey Co (WO #135193079G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 1 replacement included in this filing is from July of 2021 through March of 2022.
SR -137	Blanket Service Replacement - McPherson Co (WO #135193113G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 4 replacements included in this filing are from July of 2021 through March of 2022.
SR -138	Blanket Service Replacement - Osage Co (WO #135193139G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 43 replacements included in this filing are from July of 2021 through March of 2022.

SR -139	Blanket Main Replacement - Osage Co (WO #135193139G242)
	This blanket work order is for the replacement of main pipe. These types of projects typically eliminate leaking pipe and require immediate replacement. The 3 replacements included in this filing are from July of 2021 through March of 2022.
SR -140	Blanket Service Replacement - Reno Co (WO #135193155G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 5 replacements included in this filing are from July of 2021 through March of 2022.
SR -141	Blanket Service Replacement - Rice Co (WO #135193159G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 7 replacements included in this filing are from July of 2021 through March of 2022.
SR -142	Blanket Large Volume Meter Replacement - Sedgwick Co (WO #135193173G203)
	This blanket work order is for the replacement of large volume meters. The 1 replacement included in this filing is from July of 2021 through March of 2022.
SR -143	Blanket Service Replacement - Sedgwick Co (WO #135193173G241)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 575 replacements included in this filing are from July of 2021 through March of 2022.
SR -144	Blanket Main Replacement - Sedgwick Co (WO #135193173G242)
	This blanket work order is for the replacement of main pipe. These types of projects typically eliminate leaking pipe and require immediate replacement. The 6 replacements included in this filing are from July of 2021 through March of 2022.
SR -145	Blanket Service Replacement - Sedgwick Co (WO #135193173G221)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 98 replacements included in this filing are from July of 2021 through March of 2022.
SR -146	Blanket Service Replacement - Rice Co (WO #135193159G221)
	This blanket work order is for the replacement of services and yard lines. These types of projects typically eliminate leaking pipe and require immediate replacement. The 1 replacement included in this filing are from July of 2021 through March of 2022.
SR -147	Pole Replacement Rectifier Cabinet - Wichita (WO #10079261)
	This project replaced a rectifier service pole due to pole deterioration.
SR -148	Main Replacement Academy Ave - Maize (WO #60157042)
	<p>This replacement project eliminated 1000' of 2" coated steel main and 1000' of 4" coated steel main that was installed 1950-1970.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 1850' of 4" PE pipe and tied into PE pipe. Repair/Replacement Program points for this segment of line were 220.</p>

SR -149	Main Replacement 2 W Academy Ave- Maize (WO #60157080)
	<p>This replacement project eliminated 3350' of 2" coated steel main that was installed 1950-1970.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 3350' of 2" PE pipe and tied into coated steel pipe. Repair/Replacement Program points for this segment of line were 220.</p>
SR -150	Service Replacement 25% Bare - Wichita (WO #60159860)
	<p>The 30 bare steel yard lines were replaced in 2022. Corrosion leaks were determined to be the cause by visual inspection and evidence when it was exposed. If the leak location was not exposed, the more stringent safety criterion of "corrosion" was used. We continue to work proactively on non-triggered maps as they could take longer than the required 18 months to replace. Map-2737D, Count-345, Leaks-57 (16.5%), Replaced-30</p>
SR -151	Service Replacement 321 S King St - Maize (WO #60164189)
	<p>This service replacement project eliminated 50' of 3/4" steel service line that was replaced in conjunction with SR - 142: Main replacement – 2 W Academy Ave, Maize (WO #60157080).</p> <p>The line was replaced with 102' of 1" PE pipe.</p>
SR -152	Main Replacement 1001 N Chipper Ln - Wichita (WO #60164822)
	<p>This replacement project eliminated 20' of 2" coated steel main that was installed 1950-1970.</p> <p>The project starting point was determined by the location of the first known problem area with additional footage required to find an adequate tie-in point. The same process was utilized for the project ending location, taking into consideration the distance between known problem areas. Additional consideration was given to the proximity of any existing coated steel or PE pipe.</p> <p>The line was replaced with 20' of 2" PE pipe and tied into coated steel pipe. Repair/Replacement Program points for this segment of line were 350.</p>
SR -153	Service Replacement 304 W Academy Ave - Maize (WO #60165402)
	<p>This replacement project eliminated 175' of 2" PE service line that was replaced in conjunction with SR-: Main replacement – 2 W Academy Ave, Maize (WO #60157080).</p> <p>The line was replaced with 240' of 2" PE.</p>
SR -154	District Regulator Station Rebuild Regulators - State (WO #10076757)
	<p>Due to long material lead times, this work order was created for the purchase of regulators and relief valves needed in conjunction with DRS replacements. These projects eliminate obsolete regulators and relief valves with standard monitor systems.</p> <p>This work order included (22) 2" 627 regulators and 2" 150 series Mooney Regulators for Douglas Co (6), Seward Co (2), Sedgwick Co (2), Goodland (2), Lyons/Rice (4), Attica (4), Yoder (2).</p>

SR -155	Verve Security Software
	CT20 NGU 2020 is the implementation of cyber asset inventory and vulnerability management solutions within gas SCADA.
SR -156	Security Monitoring Software
	SIEM 2021 (Security Information and Event Monitoring) system replacement which is dedicated to security monitoring and alerting within industrial control systems environments.
SR -157	NGU Verve Security Software
	CT20 NGU 2021 is the implementation of cyber asset inventory and vulnerability management solutions for field operations.

Relocation Projects:

- Black Hills works closely with and in partnership with all government agencies to ensure timely and effective relocation of gas facilities to allow completion of public works projects. The design decisions are generally a size-for-size rerouting of our facilities done in a way to minimize construction costs; any upgrading or additional replacement work would be an exception and would be noted as such. These projects generally include service line tie over or replacement costs.

➤ Project Summaries (Relocations)

R - 1	Main Relocation 1880 Highway 50 - Gray Co (WO #60139914)
	This main relocation was required by the KDOT due to highway improvements. A total of 233' of 2" PVC was replaced with 394" of 2" PE and tied into 2" PE.
R - 2	Main Relocation 10334 Highway 50 - Ford Co (WO #60149909)
	This main relocation was required by the KDOT due to highway improvements. A total of 4,288' of 2" PVC was replaced with 4,288' of 2" PE and tied into 2" PE.
R - 3	Main Relocation 10200 Highway 50 - Ford Co (WO #60158192)
	This main relocation was required by the KDOT due to highway improvements. A total of 5,844' of 2" PVC was replaced with 5,844' of 2" PE and tied into 2" CWS.
R - 4	Service Relocation 10566 Highway 50 - Ford Co (WO #60152421)
	In conjunction with the main replacement R-15, a service lines and/or yard lines were either replaced or tied over to new main. All bare steel service and/or yard lines were replaced with 1" PE pipe. This service was 542' of 1" PE. These were tied over to the new main we relocated for KDOT.
R - 5	Service Relocation 10580 Highway 50 - Ford Co (WO #60152428)
	In conjunction with the main replacement R-15, a service lines and/or yard lines were either replaced or tied over to new main. All bare steel service and/or yard lines were replaced with 1" PE pipe. This service was 452' of 1" PE. These were tied over to the new main we relocated for KDOT.
R - 6	Service Relocation 10562 Highway 50 - Ford Co (WO #60152443)
	In conjunction with the main replacement R-15, a service lines and/or yard lines were either replaced or tied over to new main. All bare steel service and/or yard lines were replaced with 1" PE pipe. This service was 402' of 1" PE. These were tied over to the new main we relocated for KDOT.
R - 7	Service Relocation 10520 Highway 50 - Ford Co (WO #60153761)
	In conjunction with the main replacement R-15, a service lines and/or yard lines were either replaced or tied over to new main. All bare steel service and/or yard lines were replaced with 1" PE pipe. This service was 1,023' of 1" PE. These were tied over to the new main we relocated for KDOT.
R - 8	DRS Relocation 100 Air Base - Ford Co (WO #60152415)
	This DRS relocation was required by the KDOT due to highway improvements and the main relocation per R-6. We moved the DRS outside the new KDOT ROW.
R - 9	Service Relocation 210 Farmland - Garden City (WO #60161110)
	This service relocation was required by the City of Garden City due to street improvements. A total of 28' of 1" bare steel was replaced with 408' of 1" PE. We had to move the meters to the house. The meters were too close to the street improvements.

R - 10	Main Relocation - Lawrence (WO #60154168)
	This main relocation was required by the City of Lawrence due to street improvements. A total of 120' of 4" C&W steel, 210' of 6" C&W Steel, and 260' of 3" Bare Steel was replaced with 400' of 4" PE and tied into 4" coated steel on one end and 4" PE on the other end.
R - 11	District Regulator Station Relocation - Lawrence (WO #60152266)
	This DRS relocation was required by the City of Lawrence due to street improvements and the main relocation per R-6.
R - 12	Main Relocation 2112 W 25th St, Phase I - Lawrence (WO #60139944)
	This main relocation was required by the City of Lawrence due to street improvements. A total of 441' of 2" Aldyl-A was replaced with 155' of 2" PE and tied into 4" coated steel on one end and 2" PE on the other end.
R - 13	Main Relocation 2112 W 25th St, Phase II - Lawrence (WO #60160740)
	This main relocation was required by the City of Lawrence due to street improvements. A total of 75' of 4" bare steel was replaced with 95' of 4" PE and tied into 4" coated steel on one end and 4" Bare Steel on the other end.
R - 14	Main Relocation 2911 Haskell Ave - Lawrence (WO #60154472)
	This main relocation was required by the City of Lawrence due to street improvements. A total of 60' of 2" C&W Steel, 10' of 2" PE was replaced with 64' of 2" PE and tied into 2" coated steel on one end and 4" PE on the other end.
R - 15	Main Relocation 6316 Lakeside Ln - Lawrence (WO #60145406)
	This main relocation was required by the Kansas Department of Labor due to street improvements. A total of 1058' of 2" was installed and tied into 2" PE on one end and 2" PE on the other end.
R - 16	Main Relocation Broadway & Cleveland - Sterling (WO# 60139967)
	This main relocation was required by the City of Sterling due to street improvements. A total of 450' of 3" coated and wrapped steel, and 75' of 2" coated and wrapped steel was replaced with 713' of 2" PE and tied into 3" coated and wrapped steel on one end and 1.25" coated and wrapped steel on the other end.
R - 17	Main Relocation Cleveland & 7th - Sterling (WO# 60141468)
	This main relocation was required by the City of Sterling due to street improvements. A total of 650' of 1.25" coated and wrapped steel was replaced with 750' of 2" PE and tied into 2" coated steel on one end and 2" PE on the other end.
R - 18	DRS Relocation 56th & Dean Rd - Reno Co (WO #60157644)
	This DRS relocation was required by the State of Kansas due to highway improvements.
R - 19	Main Relocation Museum Blvd - Wichita (WO# 60160348)
	This main relocation was required by the City of Wichita due to installation of a new water line. A total of 149' of 4" PE pipe was replaced with 114' of 6" PE and 11' of 4" PE and tied into 4" PE on one end and 6" PE on the other end.

Black Hills/Kansas Gas Utility Company, LLC
d/b/a Black Hills Energy
Gas System Reliability Surcharge Filing - May 2022

Exhibit ALS-4
5/6/2022

	Exhibit ALS-5
	New
	Investment
	7/1/21-3/31/22
GAS PLANT ORIGINAL COST	\$ 14,178,801
LESS: ACCUMULATED DEPRECIATION	(228,152)
NET GAS PLANT IN SERVICE	\$ 14,406,953
LESS: ACCUMULATED DEFERRED INCOME TAXES	452,965
TOTAL GSRS RATE BASE	\$ 13,953,988
CARRYING CHARGE	7.7800%
PRE-TAX REQUIRED RETURN	\$ 1,085,620
DEPRECIATION EXPENSE	287,976
GSRS REVENUE REQUIREMENT	\$ 1,373,596
TRUE-UP OF RECOVERIES	-
REVISED GSRS REVENUE REQUIREMENT	\$ 1,373,596
PREVIOUSLY AUTHORIZED GSRS	-
INCREMENTAL INCREASE IN GSRS REVENUE	\$ 1,373,596
LESS: STATUTORY LIMIT ADJUSTMENT	-
INCREMENTAL GSRS REVENUE REQUEST	\$ 1,373,596

- (1) Accumulated Depreciation is a debit balance due to accumulated depreciation associated with retirements, and is therefore an increase to net plant; project additions are relatively new and do not have high accumulated depreciation balances yet to offset the balances on the retirements.
- (2) Carrying Charge of 7.78% gross of tax was established in Docket 21-BHCG-418-RTS Stipulation and Agreement.

[illegible]

Black Hills Energy/Kansas Gas Utility Company, LLC, d/b/a Black Hills Energy										03/31/22end of period date																				Exhibit ALS-5									
GSRs Plant Data by Project																																							
Period July 1, 2021 through March 31, 2022																														5/6/22 12:53 PM									
ALS Exh.			Related Retirement		FERC Plant		Eng In Srv	# of Mos in	Original Cost	Associated Retirement Cost	Net Orig Cost Less Retirements	Depr Rate	Annual Depr Expense (L)-(I) X (K)	3/31/2022 Accum Depr	Accum Depr Less Retirement	3/31/2022 Net Plant for Rate	Unit of Prop Adj for Tax	263(A) - Unicap Adj for Tax	Net Plant for Accum Tax Depr	2021 Tax Rate	2021 Tax Depr	2022 Tax Rate	2022 Tax Depr	Accum Tax Depr	Net Tax Basis														
Proj.	S /	Project #	Project #	Project Description	Acct	Plant Description	Date	Srv	Cost	Cost	Retirements	Rate	(L)-(I) X (K)	Calculated	Retirement	Base	for Tax	Adj for Tax	Accum Tax Depr	Rate	Depr	Rate	Depr	Depr	Basis														
No.	R	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)	(Q)	(R)	(S)	(T)	(U)	(V)	(W)	(X)														
Filter	File	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter															
66	S	60146262	60146262	Main Replacement 203 N Tulane Ave - Liberal	37606	Gas Dist - Mains - Other M	Jul-28	1,125	\$	-	\$ (0.01)	\$ (0.01)	1.47%	\$	-	\$	-	\$	-	\$ (0)	\$	-	\$	-	\$														
73	S	60149350	60149350	Main Replacement 413 N Perdue Ave - Liberal	37606	Gas Dist - Mains - Other M	Jul-28	1,125	\$	-	\$ (0.01)	\$ (0.01)	1.47%	\$	-	\$	-	\$	-	\$ (0)	\$	-	\$	-	\$														
74	S	60149377	60149377	Main Replacement 407 N Tulane Ave - Liberal	37606	Gas Dist - Mains - Other M	Jul-28	1,125	\$	-	\$ (0.01)	\$ (0.01)	1.47%	\$	-	\$	-	\$	-	\$ (0)	\$	-	\$	-	\$														
70	S	60147061	60147061	Main Replacement 138 Morton St - Elkhart	37603	Gas Dist - Steel Mains	Jul-29	1,113	\$	-	\$ (20.46)	\$ (20.46)	1.47%	\$	-	\$	-	\$	-	\$ (20)	\$	-	\$	-	\$														
70	S	60147061	60147061	Main Replacement 138 Morton St - Elkhart	37606	Gas Dist - Mains - Other M	Jul-29	1,113	\$	-	\$ (20.46)	\$ (20.46)	1.47%	\$	-	\$	-	\$	-	\$ (20)	\$	-	\$	-	\$														
76	S	60149388	60149388	Main Replacement 910 Harrison St - Hugoton	37606	Gas Dist - Mains - Other M	Jul-31	1,089	\$	-	\$ (0.01)	\$ (0.01)	1.47%	\$	-	\$	-	\$	-	\$ (0)	\$	-	\$	-	\$														
4	S	60136663	60136663	Main Replacement 3rd & 4th - Cimarron	37606	Gas Dist - Mains - Other M	Jul-36	1,029	\$	-	\$ (0.01)	\$ (0.01)	1.47%	\$	-	\$	-	\$	-	\$ (0)	\$	-	\$	-	\$														
5	S	60137015	60137015	Main Replacement 111 N 5th - Cimarron	37606	Gas Dist - Mains - Other M	Jul-36	1,029	\$	-	\$ (0.01)	\$ (0.01)	1.47%	\$	-	\$	-	\$	-	\$ (0)	\$	-	\$	-	\$														
7	S	60138787	60138787	Main Replacement 101 Hillcrest - Cimarron	37606	Gas Dist - Mains - Other M	Jul-36	1,029	\$	-	\$ (0.01)	\$ (0.01)	1.47%	\$	-	\$	-	\$	-	\$ (0)	\$	-	\$	-	\$														
8	S	60140609	60140609	Main Replacement 5 4th/5th - Cimarron	37606	Gas Dist - Mains - Other M	Jul-36	1,029	\$	-	\$ (0.01)	\$ (0.01)	1.47%	\$	-	\$	-	\$	-	\$ (0)	\$	-	\$	-	\$														
86	S	60123869	60123869	Meter Routines - Liberal	38301	Gas Dist-House Regulator	Jul-43	945	\$	-	\$ (248.08)	\$ (248.08)	2.93%	\$ (7)	\$	-	\$	-	\$ (248)	\$	-	\$	-	\$	-														
6	S	60138437	60138437	Main Replacement 2201 Wyatt Earp - Dodge City	37606	Gas Dist - Mains - Other M	Jul-47	897	\$	-	\$ (190.92)	\$ (190.92)	1.47%	\$ (3)	\$	-	\$	-	\$ (191)	\$	-	\$	-	\$	-														
6	S	60138437	60138437	Main Replacement 2201 Wyatt Earp - Dodge City	37603	Gas Dist - Steel Mains	Jul-47	897	\$	-	\$ (190.92)	\$ (190.92)	1.47%	\$ (3)	\$	-	\$	-	\$ (191)	\$	-	\$	-	\$	-														
3	S	60135276	60135276	Main Replacement 611 Pine - Fowler	37603	Gas Dist - Steel Mains	Jul-48	885	\$	-	\$ (889.63)	\$ (889.63)	1.47%	\$ (13)	\$	-	\$	-	\$ (890)	\$	-	\$	-	\$	-														
57	S	60139116	60139116	Main Replacement 425 Cornell Ave - Liberal	37603	Gas Dist - Steel Mains	Jul-48	885	\$	-	\$ (564.44)	\$ (564.44)	1.47%	\$ (8)	\$	-	\$	-	\$ (564)	\$	-	\$	-	\$	-														
58	S	60139557	60139557	Main Replacement 103 S Grant Ave - Liberal	37603	Gas Dist - Steel Mains	Jul-48	885	\$	-	\$ (272.04)	\$ (272.04)	1.47%	\$ (4)	\$	-	\$	-	\$ (272)	\$	-	\$	-	\$	-														
60	S	60141591	60141591	Main Replacement 1311 Maple Blvd - Liberal	37603	Gas Dist - Steel Mains	Jul-48	885	\$	-	\$ (1,365.57)	\$ (1,365.57)	1.47%	\$ (20)	\$	-	\$	-	\$ (1,366)	\$	-	\$	-	\$	-														
62	S	60144449	60144449	Main Replacement 401 N Western Ave - Liberal	37603	Gas Dist - Steel Mains	Jul-48	885	\$	-	\$ (981.06)	\$ (981.06)	1.47%	\$ (14)	\$	-	\$	-	\$ (981)	\$	-	\$	-	\$	-														
3	S	60135276	60135276	Main Replacement 611 Pine - Fowler	37603	Gas Dist - Steel Mains	Jul-49	873	\$	-	\$ (151.98)	\$ (151.98)	1.47%	\$ (2)	\$	-	\$	-	\$ (152)	\$	-	\$	-	\$	-														
3	S	60135276	60135276	Main Replacement 611 Pine - Fowler	37606	Gas Dist - Mains - Other M	Jul-49	873	\$	-	\$ (0.01)	\$ (0.01)	1.47%	\$	-	\$	-	\$	-	\$ (0)	\$	-	\$	-	\$														
58	S	60139557	60139557	Main Replacement 103 S Grant Ave - Liberal	37603	Gas Dist - Steel Mains	Jul-49	873	\$	-	\$ (39.61)	\$ (39.61)	1.47%	\$ (1)	\$	-	\$	-	\$ (40)	\$	-	\$	-	\$	-														
66	S	60146262	60146262	Main Replacement 203 N Tulane Ave - Liberal	37603	Gas Dist - Steel Mains	Jul-49	873	\$	-	\$ (236.16)	\$ (236.16)	1.47%	\$ (3)	\$	-	\$	-	\$ (236)	\$	-	\$	-	\$	-														
46	S	60148388	60148388	Main Replacement 1035 N Carlton Ave - Liberal	37603	Gas Dist - Steel Mains	Jul-49	873	\$	-	\$ (657.15)	\$ (657.15)	1.47%	\$ (10)	\$	-	\$	-	\$ (657)	\$	-	\$	-	\$	-														
74	S	60149377	60149377	Main Replacement 407 N Tulane Ave - Liberal	37603	Gas Dist - Steel Mains	Jul-49	873	\$	-	\$ (638.09)	\$ (638.09)	1.47%	\$ (9)	\$	-	\$	-	\$ (638)	\$	-	\$	-	\$	-														
76	S	60149388	60149388	Main Replacement 910 Harrison St - Hugoton	37603	Gas Dist - Steel Mains	Jul-49	873	\$	-	\$ (16.75)	\$ (16.75)	1.47%	\$	-	\$	-	\$ (17)	\$	-	\$	-	\$	-															
56	S	60138272	60138272	Main Replacement 722 W 7th St - Liberal	37603	Gas Dist - Steel Mains	Jul-50	861	\$	-	\$ (536.49)	\$ (536.49)	1.47%	\$ (8)	\$	-	\$	-	\$ (536)	\$	-	\$	-	\$	-														
56	S	60138272	60138272	Main Replacement 722 W 7th St - Liberal	37606	Gas Dist - Mains - Other M	Jul-50	861	\$	-	\$ (1.00)	\$ (1.00)	1.47%	\$	-	\$	-	\$ (1)	\$	-	\$	-	\$	-	\$														
57	S	60139116	60139116	Main Replacement 425 Cornell Ave - Liberal	37606	Gas Dist - Mains - Other M	Jul-50	861	\$	-	\$ (1.00)	\$ (1.00)	1.47%	\$	-	\$	-	\$ (1)	\$	-	\$	-	\$	-	\$														
58	S	60139557	60139557	Main Replacement 103 S Grant Ave - Liberal	37606	Gas Dist - Mains - Other M	Jul-50	861	\$	-	\$ (1.00)	\$ (1.00)	1.47%	\$	-	\$	-	\$ (1)	\$	-	\$	-	\$	-	\$														
62	S	60144449	60144449	Main Replacement 401 N Western Ave - Liberal	37606	Gas Dist - Mains - Other M	Jul-50	861	\$	-	\$ (1,156.29)	\$ (1,156.29)	1.47%	\$ (17)	\$	-	\$	-	\$ (1,156)	\$	-	\$	-	\$	-														
65	S	60146198	60146198	Main Replacement 1304 Elm Blvd - Liberal	37603	Gas Dist - Steel Mains	Jul-50	861	\$	-	\$ (257.52)	\$ (257.52)	1.47%	\$ (4)	\$	-	\$	-	\$ (258)	\$	-	\$	-	\$	-														
65	S	60146198	60146198	Main Replacement 1304 Elm Blvd - Liberal	37606	Gas Dist - Mains - Other M	Jul-50	861	\$	-	\$ (1.00)	\$ (1.00)	1.47%	\$	-	\$	-	\$ (1)	\$	-	\$	-	\$	-	\$														
67	S	60146278	60146278	Main Replacement 811 N Roosevelt Ave - Liberal	37603	Gas Dist - Steel Mains	Jul-50	861	\$	-	\$ (657.67)	\$ (657.67)	1.47%	\$ (10)	\$	-	\$	-	\$ (658)	\$	-	\$	-	\$	-														
67	S	60146278	60146278	Main Replacement 811 N Roosevelt Ave - Liberal	37606	Gas Dist - Mains - Other M	Jul-50	861	\$	-	\$ (1.00)	\$ (1.00)	1.47%	\$	-	\$	-	\$ (1)	\$	-	\$	-	\$	-	\$														
68	S	60146294	60146294	Main Replacement 1001 N Roosevelt Ave - Liberal	37603	Gas Dist - Steel Mains	Jul-50	861	\$	-	\$ (711.95)	\$ (711.95)	1.47%	\$ (10)	\$	-	\$	-	\$ (712)	\$	-	\$	-	\$	-														
68	S	60146294	60146294	Main Replacement 1001 N Roosevelt Ave - Liberal	37606	Gas Dist - Mains - Other M	Jul-50	861	\$	-	\$ (1.00)	\$ (1.00)	1.47%	\$	-	\$	-	\$ (1)	\$	-	\$	-	\$	-	\$														
71	S	60148375	60148375	Main Replacement 817 W 8th St - Liberal	37606	Gas Dist - Mains - Other M	Jul-50	861	\$	-	\$ (1.00)	\$ (1.00)	1.47%	\$	-	\$	-	\$ (1)	\$	-	\$	-	\$	-	\$														
72	S	60148380	60148380	Main Replacement 927 N Carlton Ave - Liberal	37603	Gas Dist - Steel Mains	Jul-50	861	\$	-	\$ (474.64)	\$ (474.64)	1.47%	\$ (7)	\$	-	\$	-	\$ (475)	\$	-	\$	-	\$	-														
72	S	60148380	60148380	Main Replacement 927 N Carlton Ave - Liberal	37606	Gas Dist - Mains - Other M	Jul-50	861	\$	-	\$ (1.00)	\$ (1.00)	1.47%	\$	-	\$	-	\$ (1)	\$	-	\$	-	\$	-	\$														
74	S	60149377	60149377	Main Replacement 407 N Tulane Ave - Liberal	37603	Gas Dist - Steel Mains	Jul-50	861	\$	-	\$ (487.26)	\$ (487.26)	1.47%	\$ (7)	\$	-	\$	-	\$ (487)	\$	-	\$	-	\$	-														
3	S	60135276	60135276	Main Replacement 611 Pine - Fowler	37603	Gas Dist - Steel Mains	Jul-51	849	\$	-	\$ (384.85)	\$ (384.85)	1.47%	\$ (6)	\$	-	\$	-	\$ (385)	\$	-	\$	-	\$	-														
78	S	60152701	60152701	Main Replacement 1012 Harrison Cir - Liberal	37606	Gas Dist - Mains - Other M	Jul-51	849	\$	-	\$ (529.11)	\$ (529.11)	1.47%	\$ (8)	\$	-	\$	-	\$ (529)	\$	-	\$																	

[illegible]

[illegible]

Black Hills Energy/Kansas Gas Utility Company, LLC, d/b/a Black Hills Energy

GSR Plant Data by Project

Period July 1, 2021 through March 31, 2022

03/31/22

end of period date

Exhibit ALS-5

5/6/22 12:53 PM

ALS Exh.	S / R	Project # (A)	Project # (B)	Project Description (C)	FERC Plant (D)	Plant Description (E)	Eng In Srvc (F)	# of Mos in (G)	Original Cost (H)	Associated Retirement Cost (I)	Net Orig Cost Less (J)	Depr Rate (K)	Annual Depr Expense (L) = (J) X (K)	3/31/2022 Calculated AccumDepr (M)	Accum Depr Less Retirement Costs (N)	3/31/2022 Net Plant for Rate (O)	Unit of Prop Adj for Tax (P)	263(A) - Unicap Adj for Tax (Q)	Net Plant for Accum Tax Depr (R)	2021 Tax Rate (S)	2021 Tax Depr (T)	2022 Tax Rate (U)	2022 Tax Depr (V)	2022 Accum Tax Depr (W)	Net Tax Basis (X)
Filter	File	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
155	S	10069542	10069542	Verve Security Software	39118	Gen Pt-Software	Dec-20	15	\$ 476.99	\$ -	\$ 476.99	10.00%	\$ 48	\$ 60	\$ 60	\$ 417	\$ -	\$ 27	\$ 450	0.333300	\$ 150	0.333300	\$ 150	\$ 300	\$ 150
42	S	135192045G241	135192045G241	Gas Dist-House Regulator	38301	Gas Dist-House Regulator	Jan-21	15	\$ 91,293.59	\$ -	\$ 91,293.59	2.93%	\$ 2,675	\$ 3,344	\$ 3,344	\$ 87,950	\$ -	\$ 5,248	\$ 86,406	0.037500	\$ 3,227	0.075000	\$ 6,453	\$ 9,680	\$ 76,366
42	S	135192045G241	135192045G241	Blanket Service Replacement - Lawrence	38002	Gas Dist-Services - PE	Jan-21	15	\$ 210,738.68	\$ -	\$ 210,738.68	1.99%	\$ 4,194	\$ 5,242	\$ 5,242	\$ 205,497	\$ -	\$ 12,114	\$ 198,624	0.037500	\$ 7,448	0.075000	\$ 14,897	\$ 22,345	\$ 176,279
43	S	135192045G242	135192045G242	Blanket Main Replacement - Lawrence	37602	Gas Dist - PE Mains	Jan-21	15	\$ (53,620.30)	\$ -	\$ (53,620.30)	1.47%	\$ (788)	\$ (985)	\$ (985)	\$ (52,635)	\$ -	\$ (3,082)	\$ -	0.037500	\$ -	0.075000	\$ -	\$ -	\$ (50,538)
135	S	135193077G241	135193077G241	Blanket Service Replacement - Harper Co	38301	Gas Dist-House Regulator	Jan-21	15	\$ 4,811.77	\$ -	\$ 4,811.77	2.93%	\$ 141	\$ 176	\$ 176	\$ 4,636	\$ -	\$ 277	\$ 4,535	0.037500	\$ 170	0.075000	\$ 340	\$ 510	\$ 4,025
135	S	135193077G241	135193077G241	Blanket Service Replacement - Harper Co	38002	Gas Dist-Services - PE	Jan-21	15	\$ 19,615.63	\$ -	\$ 19,615.63	1.99%	\$ 390	\$ 488	\$ 488	\$ 19,128	\$ -	\$ 1,128	\$ 18,488	0.037500	\$ 693	0.075000	\$ 1,387	\$ 2,080	\$ 16,408
141	S	135193159G241	135193159G241	Blanket Service Replacement - Rice Co	38003	Gas Dist-Services - Steel	Jan-21	15	\$ 3,408.69	\$ -	\$ 3,408.69	1.99%	\$ 68	\$ 85	\$ 85	\$ 3,324	\$ -	\$ 196	\$ 3,213	0.037500	\$ 120	0.075000	\$ 241	\$ 361	\$ 2,852
141	S	135193159G241	135193159G241	Blanket Service Replacement - Rice Co	38301	Gas Dist-House Regulator	Jan-21	15	\$ 11,519.07	\$ -	\$ 11,519.07	2.93%	\$ 338	\$ 422	\$ 422	\$ 11,097	\$ -	\$ 662	\$ 10,857	0.037500	\$ 407	0.075000	\$ 814	\$ 1,221	\$ 9,636
141	S	135193159G241	135193159G241	Blanket Service Replacement - Rice Co	38002	Gas Dist-Services - PE	Jan-21	15	\$ 15,796.13	\$ -	\$ 15,796.13	1.99%	\$ 314	\$ 393	\$ 393	\$ 15,403	\$ -	\$ 908	\$ 14,888	0.037500	\$ 558	0.075000	\$ 1,117	\$ 1,675	\$ 13,213
145	S	135193173G221	135193173G221	Blanket Service Replacement - Sedgwick Co	38301	Gas Dist-House Regulator	Jan-21	15	\$ 1,706.48	\$ -	\$ 1,706.48	2.93%	\$ 50	\$ 62	\$ 62	\$ 1,644	\$ -	\$ 98	\$ 1,608	0.037500	\$ 60	0.075000	\$ 121	\$ 181	\$ 1,427
145	S	135193173G221	135193173G221	Blanket Service Replacement - Sedgwick Co	38002	Gas Dist-Services - PE	Jan-21	15	\$ 2,008.33	\$ -	\$ 2,008.33	1.99%	\$ 40	\$ 50	\$ 50	\$ 1,958	\$ -	\$ 115	\$ 1,893	0.037500	\$ 71	0.075000	\$ 142	\$ 213	\$ 1,680
143	S	135193173G241	135193173G241	Blanket Service Replacement - Sedgwick Co	37602	Gas Dist - PE Mains	Jan-21	15	\$ 278.91	\$ -	\$ 278.91	1.47%	\$ 4	\$ 5	\$ 5	\$ 274	\$ -	\$ 16	\$ 263	0.037500	\$ 10	0.075000	\$ 20	\$ 30	\$ 233
143	S	135193173G241	135193173G241	Blanket Service Replacement - Sedgwick Co	38003	Gas Dist-Services - Steel	Jan-21	15	\$ 1,898.83	\$ -	\$ 1,898.83	1.99%	\$ 38	\$ 47	\$ 47	\$ 1,852	\$ -	\$ 109	\$ 1,790	0.037500	\$ 67	0.075000	\$ 134	\$ 201	\$ 1,589
143	S	135193173G241	135193173G241	Blanket Service Replacement - Sedgwick Co	38301	Gas Dist-House Regulator	Jan-21	15	\$ 514,748.18	\$ -	\$ 514,748.18	2.93%	\$ 15,082	\$ 18,853	\$ 18,853	\$ 495,895	\$ -	\$ 29,590	\$ 485,158	0.037500	\$ 18,193	0.075000	\$ 36,387	\$ 54,580	\$ 430,578
143	S	135193173G241	135193173G241	Blanket Service Replacement - Sedgwick Co	38002	Gas Dist-Services - PE	Jan-21	15	\$ 1,063,142.41	\$ -	\$ 1,063,142.41	1.99%	\$ 21,157	\$ 26,446	\$ 26,446	\$ 1,036,696	\$ -	\$ 61,114	\$ 1,002,028	0.037500	\$ 37,576	0.075000	\$ 75,152	\$ 112,728	\$ 889,300
144	S	135193173G242	135193173G242	Blanket Main Replacement - Sedgwick Co	37603	Gas Dist - Steel Mains	Jan-21	15	\$ 10,016.69	\$ -	\$ 10,016.69	1.47%	\$ 147	\$ 184	\$ 184	\$ 9,833	\$ -	\$ 576	\$ 9,441	0.037500	\$ 354	0.075000	\$ 708	\$ 1,062	\$ 8,379
144	S	135193173G242	135193173G242	Blanket Main Replacement - Sedgwick Co	37602	Gas Dist - PE Mains	Jan-21	15	\$ 10,016.69	\$ -	\$ 10,016.69	1.47%	\$ 147	\$ 184	\$ 184	\$ 9,833	\$ -	\$ 576	\$ 9,441	0.037500	\$ 354	0.075000	\$ 708	\$ 1,062	\$ 8,379
144	S	135193173G242	135193173G242	Blanket Main Replacement - Sedgwick Co	38002	Gas Dist-Services - PE	Jan-21	15	\$ 53,464.46	\$ -	\$ 53,464.46	1.99%	\$ 1,064	\$ 1,330	\$ 1,330	\$ 52,134	\$ -	\$ 3,073	\$ 50,391	0.037500	\$ 1,890	0.075000	\$ 3,779	\$ 5,669	\$ 44,722
11	S	135194057G241	135194057G241	Blanket Service Replacement - Ford Co	38001	Gas Dist-House Regulator	Jan-21	15	\$ 222,717.35	\$ -	\$ 222,717.35	2.93%	\$ 6,526	\$ 8,157	\$ 8,157	\$ 214,560	\$ -	\$ 12,803	\$ 209,915	0.037500	\$ 7,872	0.075000	\$ 15,744	\$ 23,616	\$ 186,299
11	S	135194057G241	135194057G241	Blanket Service Replacement - Ford Co	38002	Gas Dist-Services - PE	Jan-21	15	\$ 679,008.01	\$ -	\$ 679,008.01	1.99%	\$ 13,512	\$ 16,890	\$ 16,890	\$ 662,118	\$ -	\$ 39,032	\$ 639,976	0.037500	\$ 23,999	0.075000	\$ 47,998	\$ 71,997	\$ 567,979
14	S	135194119G241	135194119G241	Blanket Service Replacement - Meade Co	38301	Gas Dist-House Regulator	Jan-21	15	\$ 15,166.66	\$ -	\$ 15,166.66	2.93%	\$ 444	\$ 555	\$ 555	\$ 14,612	\$ -	\$ 872	\$ 14,295	0.037500	\$ 536	0.075000	\$ 1,072	\$ 1,608	\$ 12,687
14	S	135194119G241	135194119G241	Blanket Service Replacement - Meade Co	38002	Gas Dist-Services - PE	Jan-21	15	\$ 32,169.17	\$ -	\$ 32,169.17	1.99%	\$ 640	\$ 800	\$ 800	\$ 31,369	\$ -	\$ 1,849	\$ 30,320	0.037500	\$ 1,137	0.075000	\$ 2,274	\$ 3,411	\$ 26,909
20	S	135195055G241	135195055G241	Blanket Service Replacement - Finney Co	38301	Gas Dist-House Regulator	Jan-21	15	\$ (76,880.80)	\$ -	\$ (76,880.80)	2.93%	\$ (2,553)	\$ (2,816)	\$ (2,816)	\$ (74,065)	\$ -	\$ (4,419)	\$ -	0.037500	\$ -	0.075000	\$ -	\$ -	\$ (72,461)
20	S	135195055G241	135195055G241	Blanket Service Replacement - Finney Co	38002	Gas Dist-Services - PE	Jan-21	15	\$ 2,718.45	\$ -	\$ 2,718.45	1.99%	\$ 54	\$ 68	\$ 68	\$ 2,650	\$ -	\$ 156	\$ 2,562	0.037500	\$ 96	0.075000	\$ 192	\$ 288	\$ 2,274
51	S	135196129G241	135196129G241	Blanket Service Replacement - Morton Co	38301	Gas Dist-House Regulator	Jan-21	15	\$ 3,942.52	\$ -	\$ 3,942.52	2.93%	\$ 116	\$ 144	\$ 144	\$ 3,799	\$ -	\$ 227	\$ 3,716	0.037500	\$ 139	0.075000	\$ 279	\$ 418	\$ 3,298
51	S	135196129G241	135196129G241	Blanket Service Replacement - Morton Co	38002	Gas Dist-Services - PE	Jan-21	15	\$ 9,446.08	\$ -	\$ 9,446.08	1.99%	\$ 188	\$ 235	\$ 235	\$ 9,211	\$ -	\$ 543	\$ 8,903	0.037500	\$ 334	0.075000	\$ 668	\$ 1,002	\$ 7,901
52	S	135196175G241	135196175G241	Blanket Service Replacement - Seward Co	37602	Gas Dist - PE Mains	Jan-21	15	\$ 4,444.51	\$ -	\$ 4,444.51	1.47%	\$ 65	\$ 82	\$ 82	\$ 4,363	\$ -	\$ 255	\$ 4,189	0.037500	\$ 157	0.075000	\$ 314	\$ 471	\$ 3,718
52	S	135196175G241	135196175G241	Blanket Service Replacement - Seward Co	38301	Gas Dist-House Regulator	Jan-21	15	\$ 399,479.93	\$ -	\$ 399,479.93	2.93%	\$ 11,705	\$ 14,631	\$ 14,631	\$ 384,849	\$ -	\$ 22,964	\$ 376,516	0.037500	\$ 14,119	0.075000	\$ 28,239	\$ 42,358	\$ 334,158
52	S	135196175G241	135196175G241	Blanket Service Replacement - Seward Co	38002	Gas Dist-Services - PE	Jan-21	15	\$ 799,147.47	\$ -	\$ 799,147.47	1.99%	\$ 15,903	\$ 19,879	\$ 19,879	\$ 779,268	\$ -	\$ 45,939	\$ 753,209	0.037500	\$ 28,245	0.075000	\$ 56,491	\$ 84,736	\$ 668,473
53	S	135196175G242	135196175G242	Blanket Main Replacement - Seward Co	37602	Gas Dist - PE Mains	Jan-21	15	\$ 13,077.57	\$ -	\$ 13,077.57	1.47%	\$ 192	\$ 240	\$ 240	\$ 12,838	\$ -	\$ 752	\$ 12,326	0.037500	\$ 462	0.075000	\$ 924	\$ 1,386	\$ 10,940
54	S	135196189G241	135196189G241	Blanket Service Replacements - Stevens Co	38301	Gas Dist-House Regulator	Jan-21	15	\$ 25,127.69	\$ -	\$ 25,127.69	2.93%	\$ 736	\$ 920	\$ 920	\$ 24,208	\$ -	\$ 1,444	\$ 23,683	0.037500	\$ 888	0.075000	\$ 1,776	\$ 2,664	\$ 21,019
54	S	135196189G241	135196189G241	Blanket Service Replacements - Stevens Co	38002	Gas Dist-Services - PE	Jan-21	15	\$ 84,343.40	\$ -	\$ 84,343.40	1.99%	\$ 1,678	\$ 2,098	\$ 2,098	\$ 82,245	\$ -	\$ 1,488	\$ 79,495	0.037500	\$ 2,981	0.075000	\$ 5,962	\$ 8,943	\$ 70,552
140	S	135193155G241	135193155G241	Blanket Service Replacement - Reno Co	38301	Gas Dist-House Regulator	Feb-21	14	\$ 4,391.78	\$ -	\$ 4,391.78	2.93%	\$ 129	\$ 150	\$ 150	\$ 4,242	\$ -	\$ 252	\$ 4,139	0.037500	\$ 155	0.075000	\$ 310	\$ 465	\$ 3,674
140	S	135193155G241	135193155G241	Blanket Service Replacement - Reno Co	38002	Gas Dist-Services - PE	Feb-21	14	\$ 12,114.98	\$ -	\$ 12,114.98	1.99%	\$ 241	\$ 281	\$ 281	\$ 11,834	\$ -	\$ 696	\$ 11,419	0.037500	\$ 428	0.075000	\$ 856	\$ 1,284	\$ 10,135
146	S	135193159G221	135193159G221	Blanket Service Replacement - Rice Co	38002	Gas Dist-Services - PE	Feb-21	14	\$ (504.68)	\$ -	\$ (504.68)	1.99%	\$ (10)	\$ (12)	\$ (12)	\$ (493)	\$ -	\$ (29)	\$ -	0.037500	\$ -	0.075000	\$ -	\$ -	\$ (119)
146	S	135193159G221	135193159G221	Blanket Service Replacement - Rice Co	38301	Gas Dist-House Regulator	Feb-21	14	\$ (125.87)	\$ -	\$ (125.87)	2.93%	\$ (4)	\$ (4)	\$ (4)	\$ (122)	\$ -	\$ (7)	\$ -	0.037500	\$ -	0.075000	\$ -	\$ -	\$ (47)
12	S	135194083G241	135194083G241	Blanket Service Replacement - Hodgman Co	38301	Gas Dist-House Regulator	Feb-21	14	\$ 4,758.34	\$ -	\$ 4,758.34	2.93%	\$ 139	\$ 163	\$ 163	\$ 4,595	\$ -	\$ 274	\$ 4,485	0.037500	\$ 168	0.075000	\$ 336	\$ 504	\$ 3,981
12	S	135194083G241	135194083G241	Blanket Service Replacement - Hodgman Co	38002	Gas Dist-Services - PE	Feb-21	14	\$ 14,378.07	\$ -	\$ 14,378.07	1.99%	\$ 286	\$ 334	\$ 334	\$ 14,044	\$ -	\$ 827	\$ 13,552	0.037500	\$ 508	0.075000	\$ 1,016	\$ 1,524	\$ 12,028
32	S	135197181G241	135197181G241	Blanket Service Replacement - Sherman Co	38301	Gas Dist-House Regulator	Feb-21	14	\$ 157,154.73	\$ -	\$ 157,154.73	2.93%	\$ 4,605	\$ 5,372	\$ 5,372	\$ 151,783	\$ -	\$ 9,034	\$ 148,121	0.037500	\$ 5,555	0.075000	\$ 11,109	\$ 16,664	\$ 131,457
32	S	135197181G241	135197181G241	Blanket Service Replacement - Sherman Co	38002	Gas Dist-Services - PE	Feb-21	14	\$ 293,971.79	\$ -	\$ 293,971.79	1.99%	\$ 5,850	\$ 6,825	\$ 6,825	\$ 287,147	\$ -	\$ 16,899	\$ 277,073	0.037500	\$ 10,390	0.075000	\$ 20,780	\$ 31,170	\$ 245,903
142	S	135193173G203	135193173G203	Blanket Large Volume Meter Replacement - Sedgwick Co	38201	Gas Dist-Meter Installatn	Mar-21	13	\$ 1,477.21	\$ -	\$ 1,477.21	0.90%	\$ 13	\$ 14	\$ 14	\$ 1,463	\$ -	\$ 85	\$ 1,392	0.037500	\$ 52	0.075000	\$ 104	\$ 156	\$ 1,236
142	S	135193173G203	135193173G203	Blanket Large Volume Meter Replacement - Sedgwick Co	38301	Gas Dist-House Regulator	Mar-21	13	\$ 1,477.28	\$ -	\$ 1,477.28	2.93%	\$ 43	\$ 47	\$ 47	\$ 1,430	\$ -	\$ 85	\$ 1,392	0.037500	\$ 52	0.075000	\$ 104	\$ 156	\$ 1,236
50	S	1351961																							

Black Hills Energy/Kansas Gas Utility Company, LLC, d/b/a Black Hills Energy										03/31/22 end of period date										Exhibit ALS-5									
GSR Plant Data by Project																				5/6/22 12:53 PM									
Period July 1, 2021 through March 31, 2022																													
ALS Exh.	Related Retirement				FERC Plant					Eng In Srvc	# of Mos In	Original	Associated Retirement	Net Orig Cost Less	Depr Rate	Annual Depr Expense (L) = (J) X (K)	3/31/2022 Calculated	Accum Depr Less Retirement Costs (N)	3/31/2022 Net Plant for Rate	Unit of Prop Adj	263(A) - Unicap Adj	Net Plant for Accum	2021 Tax Rate	2021 Tax	2022 Tax Rate	2022 Tax	2022 Accum Tax	Net Tax Basis	
Proj. No.	S / R	Project # (A)	Project # (B)	Project Description (C)	Acct (D)	Plant Description (E)	Filter	Filter	Filter	Filter (F)	Filter (G)	Cost (H)	Cost (I)	Retirements (J)	Rate (K)	Filter (L)	Filter (M)	Filter (N)	Filter (O)	Filter (P)	Filter (Q)	Filter (R)	Filter (S)	Filter (T)	Filter (U)	Filter (V)	Filter (W)	Filter (X)	
Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	
58		60139557	60139557	Main Replacement 103 S Grant Ave - Liberal	37602	Gas Dist - PE Mains				Jun-21	10	\$ 18,398.11	\$ -	\$ -	18,398.11	1.47%	\$ 270	\$ 225	\$ 225	\$ 18,173	\$ -	\$ 1,058	\$ 17,341	0.037500	\$ 650	0.075000	\$ 1,301	\$ 1,951	\$ 15,390
65		60146198	60146198	Main Replacement 1304 Elm Blvd - Liberal	37602	Gas Dist - PE Mains				Jun-21	10	\$ 21,242.88	\$ -	\$ -	21,242.88	1.47%	\$ 312	\$ 260	\$ 260	\$ 20,983	\$ -	\$ 1,221	\$ 20,022	0.037500	\$ 751	0.075000	\$ 1,502	\$ 2,253	\$ 17,769
66		60146262	60146262	Main Replacement 203 N Tulane Ave - Liberal	37602	Gas Dist - PE Mains				Jun-21	10	\$ 26,067.06	\$ -	\$ -	26,067.06	1.47%	\$ 383	\$ 319	\$ 319	\$ 25,748	\$ -	\$ 1,498	\$ 24,569	0.037500	\$ 921	0.075000	\$ 1,843	\$ 2,764	\$ 21,805
67		60146278	60146278	Main Replacement 811 N Roosevelt Ave - Liberal	37602	Gas Dist - PE Mains				Jun-21	10	\$ 23,628.85	\$ -	\$ -	23,628.85	1.47%	\$ 347	\$ 289	\$ 289	\$ 23,340	\$ -	\$ 1,358	\$ 22,271	0.037500	\$ 835	0.075000	\$ 1,670	\$ 2,505	\$ 19,766
68		60146294	60146294	Main Replacement 1001 N Roosevelt Ave - Liberal	37602	Gas Dist - PE Mains				Jun-21	10	\$ 14,091.62	\$ -	\$ -	14,091.62	1.47%	\$ 207	\$ 173	\$ 173	\$ 13,919	\$ -	\$ 810	\$ 13,282	0.037500	\$ 498	0.075000	\$ 996	\$ 1,494	\$ 11,788
71		60148375	60148375	Main Replacement 817 W 8th St - Liberal	37602	Gas Dist - PE Mains				Jun-21	10	\$ 9,988.53	\$ -	\$ -	9,988.53	1.47%	\$ 147	\$ 122	\$ 122	\$ 9,867	\$ -	\$ 574	\$ 9,414	0.037500	\$ 353	0.075000	\$ 706	\$ 1,059	\$ 8,355
72		60148380	60148380	Main Replacement 927 N Carlton Ave - Liberal	37602	Gas Dist - PE Mains				Jun-21	10	\$ 18,133.90	\$ -	\$ -	18,133.90	1.47%	\$ 267	\$ 222	\$ 222	\$ 17,912	\$ -	\$ 1,042	\$ 17,091	0.037500	\$ 641	0.075000	\$ 1,282	\$ 1,923	\$ 15,168
46		60148388	60148388	Main Replacement 1035 N Carlton Ave - Liberal	37602	Gas Dist - PE Mains				Jun-21	10	\$ 28,939.80	\$ -	\$ -	28,939.80	1.47%	\$ 425	\$ 355	\$ 355	\$ 28,585	\$ -	\$ 1,664	\$ 27,276	0.037500	\$ 1,023	0.075000	\$ 2,046	\$ 3,069	\$ 24,207
73		60149350	60149350	Main Replacement 413 N Perdue Ave - Liberal	37602	Gas Dist - PE Mains				Jun-21	10	\$ 31,893.85	\$ -																

Black Hills Energy/Kansas Gas Utility Company, LLC, d/b/a Black Hills Energy																									Exhibit ALS-5													
GSR Plant Data by Project																									5/6/22 12:53 PM													
Period July 1, 2021 through March 31, 2022																																						
ALS Exh.			Related Retirement		FERC Plant		Eng In Srvc	# of Mos In		Associated Retirement		Net Orig Cost Less		Annual Depr Expense		3/31/2022 Accum Depr		3/31/2022 Accum Depr Less		3/31/2022 Net Plant for Rate		Unit of Prop Adj		263(A) - Unicap Adj		Net Plant for Accum		2021 Tax Rate		2021 Tax Rate		2022 Tax Rate		2022 Tax Rate		Accum Tax		Net Tax Basis
Proj. No.	S / R	Project # (A)	Project # (B)	Project Description (C)	Acct (D)	Plant Description (E)	Filter (F)	Srvc (G)	Original Cost (H)	Retirement Cost (I)	Retirements (J)	Rate (K)	(L) = (J) X (K)	Calculated AccumDepr (M)	Retirement Costs (N)	Base (O)	for Tax (P)	for Tax (Q)	for Tax (R)	Tax Rate (S)	Tax Rate (T)	Tax Rate (U)	Tax Rate (V)	Accum Tax (W)	Net Tax Basis (X)													
Filter/No.		Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	
16	S	60104412	60104412	District Regulator Station # 14 & Odorizer Rebuild 1503 Lak	37800	Gas Dist-Gen Mea/Reg Sta	Aug-21	8	\$ 5,906.13	\$ -	\$ 5,906.13	2.10%	\$ 124	\$ 83	\$ 83	\$ 5,823	\$ -	\$ 340	\$ 5,567	0.037500	\$ 209	0.075000	\$ 417	\$ 626	\$ 4,941													
60	S	60141591	60141591	Main Replacement 311 Maple Blvd - Liberal	37606	Gas Dist - Mains - Other M	Aug-21	7	\$ (36,390.41)	\$ -	\$ (36,390.41)	1.47%	\$ (535)	\$ (312)	\$ (312)	\$ (36,078)	\$ -	\$ (2,092)	\$ -	0.037500	\$ -	0.075000	\$ -	\$ -	\$ (34,299)													
58	S	60141591	60141591	Main Replacement 1311 Maple Blvd - Liberal	37602	Gas Dist - PE Mains	Aug-21	7	\$ 36,390.41	\$ -	\$ 36,390.41	1.47%	\$ 535	\$ 312	\$ 312	\$ 36,078	\$ -	\$ 2,092	\$ 34,299	0.037500	\$ 1,286	0.075000	\$ 2,572	\$ 3,858	\$ 30,441													
50	S	60139557	60139557	Main Replacement 103 S Grant Ave - Liberal	37606	Gas Dist - Mains - Other M	Aug-21	7	\$ 0.03	\$ -	\$ 0.03	1.47%	\$ -	\$ -	\$ -	\$ 0	\$ -	\$ 0	\$ 0	0.037500	\$ -	0.075000	\$ -	\$ -	\$ 0													
59	S	60139569	60139569	Main Replacement 101 S Sherman Ave - Liberal	37606	Gas Dist - Mains - Other M	Aug-21	7	\$ 12,236.24	\$ -	\$ 12,236.24	1.47%	\$ 180	\$ 105	\$ 105	\$ 12,131	\$ -	\$ 703	\$ 11,533	0.037500	\$ 432	0.075000	\$ 865	\$ 1,297	\$ 10,236													
60	S	60141591	60141591	Main Replacement 1311 Maple Blvd - Liberal	37606	Gas Dist - Mains - Other M	Aug-21	7	\$ 36,387.56	\$ -	\$ 36,387.56	1.47%	\$ 535	\$ 312	\$ 312	\$ 36,076	\$ -	\$ 2,092	\$ 34,296	0.037500	\$ 1,286	0.075000	\$ 2,572	\$ 3,858	\$ 30,438													
61	S	60143951	60143951	Main Replacement 806 N Calhoun Ave - Liberal	37606	Gas Dist - Mains - Other M	Aug-21	7	\$ 40,355.31	\$ -	\$ 40,355.31	1.47%	\$ 593	\$ 346	\$ 346	\$ 40,009	\$ -	\$ 2,320	\$ 38,036	0.037500	\$ 1,426	0.075000	\$ 2,853	\$ 4,279	\$ 33,757													
62	S	60144449	60144449	Main Replacement 401 N Western Ave - Liberal	37606	Gas Dist - Mains - Other M	Aug-21	7	\$ 23,189.05	\$ -	\$ 23,189.05	1.47%	\$ 341	\$ 199	\$ 199	\$ 22,990	\$ -	\$ 1,333	\$ 21,856	0.037500	\$ 820	0.075000	\$ 1,639	\$ 2,459	\$ 19,937													
63	S	60144690	60144690	Main Replacement 804 N Roosevelt Ave - Liberal	37606	Gas Dist - Mains - Other M	Aug-21	7	\$ (1.95)	\$ -	\$ (1.95)	1.47%	\$ -	\$ -	\$ -	\$ (2)	\$ -	\$ (0)	\$ -	0.037500	\$ -	0.075000	\$ -	\$ -	\$ (2)													
63	S	60144690	60144690	Main Replacement 804 N Roosevelt Ave - Liberal	37602	Gas Dist - PE Mains	Aug-21	7	\$ 14,839.82	\$ -	\$ 14,839.82	1.47%	\$ 218	\$ 127	\$ 127	\$ 14,713	\$ -	\$ 853																				

Black Hills Energy/Kansas Gas Utility Company, LLC, d/b/a Black Hills Energy																											Exhibit ALS-5
GSR Plant Data by Project																											5/6/22 12:53 PM
Period July 1, 2021 through March 31, 2022																											
ALS Exh.	S / R	Project #	Related Retirement	FERC Plant	Plant Description	Eng In Srvc	# of Mos In	Original Cost	Associated Retirement Cost	Net Orig Cost Less Retirements	Depr Rate	Annual Depr Expense (L) = (U) X (K)	3/31/2022 Calculated AccumDep'r	Accum Depr Less Retirement Costs	3/31/2022 Net Plant for Rate Base	Unit of Prop Adj for Tax	263(A)-Unicap Adj for Tax	Net plant for Accum Tax	2021 Tax Rate	2021 Tax	2022 Tax Rate	2022 Tax	2022 Accum Tax	2022 Net Tax Basis			
No.	R	(A)	(B)		(C)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)	(Q)	(R)	(S)	(T)	(U)	(V)	(W)	(X)			
Filter Filter		Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter		
138		135193139G241	135193139G241		Blanket Service Relocation - Osage Co	38301		\$ 42,885.29	\$ -	\$ 42,885.29	2.93%	\$ 1,257	\$ 524	\$ 524	\$ 42,361	\$ -	\$ 2,465	\$ 40,420	0.037500	\$ 1,516	0.075000	\$ 3,032	\$ 4,548	\$ 35,872			
118		60144908	60144908		Main Replacement 3430 Sleepy Hollow - Wichita	37606		\$ (161,923.59)	\$ -	\$ (161,923.59)	1.47%	\$ (2,380)	\$ (992)	\$ (992)	\$ (160,932)	\$ -	\$ (9,308)	\$ -	0.037500	\$ -	0.075000	\$ -	\$ -	\$ -	\$ (152,616)		
118		60144908	60144908		Main Replacement 3430 Sleepy Hollow - Wichita	37602		\$ 161,923.59	\$ -	\$ 161,923.59	1.47%	\$ 2,380	\$ 992	\$ 992	\$ 160,932	\$ -	\$ 9,308	\$ 152,616	0.037500	\$ 5,723	0.075000	\$ 11,446	\$ 17,169	\$ 135,447			
157		10076779	10076779		NGU Verve Software	39118		\$ 81,104.83	\$ -	\$ 81,104.83	10.00%	\$ 8,110	\$ 3,379	\$ 3,379	\$ 77,726	\$ -	\$ 4,662	\$ 76,443	0.037500	\$ 2,867	0.075000	\$ 5,733	\$ 8,600	\$ 67,843			
125		60150139	60150139		Main Replacement 3620 Country Club Pl - Wichita	37606		\$ (398.37)	\$ -	\$ (398.37)	1.47%	\$ (6)	\$ (2)	\$ (2)	\$ (396)	\$ -	\$ (23)	\$ -	0.037500	\$ -	0.075000	\$ -	\$ -	\$ -	\$ (375)		
125		60150139	60150139		Main Replacement 3620 Country Club Pl - Wichita	37602		\$ 54,429.59	\$ -	\$ 54,429.59	1.47%	\$ 800	\$ 333	\$ 333	\$ 54,097	\$ -	\$ 3,129	\$ 51,301	0.037500	\$ 1,924	0.075000	\$ 3,848	\$ 5,772	\$ 45,529			
77		60152021	60152021		Main Replacement 1311 N Carlton Ave - Liberal	37606		\$ (13,274.93)	\$ -	\$ (13,274.93)	1.47%	\$ (195)	\$ (81)	\$ (81)	\$ (13,194)	\$ -	\$ (763)	\$ -	0.037500	\$ -	0.075000	\$ -	\$ -	\$ -	\$ (12,512)		
77		60152021	60152021		Main Replacement 1311 N Carlton Ave - Liberal	37602		\$ 13,274.93	\$ -	\$ 13,274.93	1.47%	\$ 195	\$ 81	\$ 81	\$ 13,194	\$ -	\$ 763	\$ 12,512	0.037500	\$ 469	0.075000	\$ 938	\$ 1,407	\$ 11,105			
5		60152428	60152428		Service Relocation 10580 Highway 50 - Ford Co	37606		\$ (5,044.77)	\$ -	\$ (5,044.77)	1.47%	\$ (74)	\$ (31)	\$ (31)	\$ (5,014)	\$ -	\$ (290)	\$ -	0.037500	\$ -	0.075000	\$ -	\$ -	\$ -	\$ (4,755)		
5		60152428	60152428		Service Relocation 10580 Highway 50 - Ford Co	38009		\$ (1,552.10)	\$ -	\$ (1,552.10)	1.99%	\$ (31)	\$ (13)	\$ (13)	\$ (1,539)	\$ -	\$ (89)	\$ -	0.037500	\$ -	0.075000	\$ -	\$ -	\$ -	\$ (1,463)		
5		60152428	60152428		Service Relocation 10580 Highway 50 - Ford Co	38002		\$ 1,552.10	\$ -																		

[illegible]

Black Hills Energy/Kansas Gas Utility Company, LLC, d/b/a Black Hills Energy

GSR Plant Data by Project

Period July 1, 2021 through March 31, 2022

03/31/22

end of period date

<

THE STATE CORPORATION COMMISSION OF KANSAS

Index No. 2D

BLACK HILLS/KANSAS GAS UTILITY COMPANY, LLCd/b/a BLACK HILLS ENERGYSchedule: SUPERSEDED INDEX, ~~Fifteenth~~ Sixteenth

Revised

(Name of Issuing Utility)

KANSAS SERVICE AREA

(Territory to which schedule is applicable)

Replacing: Index No. 2D, Superseded Index, ~~14th-15th~~ Revised
which was effective ~~4/1/2022~~ 2/1/2022No supplement or separate understanding
shall modify the tariff as shown hereon.

Sheet 3 of 5 Sheets

New				Replaces			Eff.
Index	Sched.	Sheet	Desc./Title	Index	Schedule	Sheet	Date
10	GRR, 4 th Rev	3 of 4	General Rules & Regs	10	GRR, 3 rd Rev	3 of 5	2-20-09
10	GRR, 5 th Rev	4 of 4	General Rules & Regs	10	GRR, 4 th Rev	4 of 5	2-20-09
11	GRR, 2 nd Rev	1 of 4	General Rules & Regs	11	GRR, 1 st Rev	1 of 4	5-4-05
11	GRR, 3 rd Rev	2 of 4	General Rules & Regs.	11	GRR, 2 nd Rev	2 of 4	2-20-09
11	GRR, 2 nd Rev	3 of 4	General Rules & Regs	11	GRR, 1 st Rev	3 of 4	5-4-05
11	GRR, 2 nd Rev	4 of 4	General Rules & Regs.	11	GRR, 1 st Rev	4 of 4	5-4-05
12	GRR, 4 th Rev	1 of 4	General Rules & Regs.	12	GRR, 3 rd Rev	1 of 4	2-20-09
12	GRR, 3 rd Rev	2 of 4	General Rules & Regs.	12	GRR, 2 nd Rev	2 of 4	2-20-09
12	GRR, 3 rd Rev	3 of 4	General Rules & Regs	12	GRR, 2 nd Rev	3 of 4	5-4-05
12	GRR, 3 rd Rev	4 of 4	General Rules & Regs	12	GRR, 2 nd Rev	4 of 4	2-20-09
13	GRR, 2 nd Rev	1 of 10	General Rules & Regs	13	GRR, 1 st Rev	1 of 10	5-4-05
13	GRR, 3 rd Rev	2 of 10	General Rules & Regs	13	GRR, 2 nd Rev	2 of 10	2-20-09
13	GRR, 3 rd Rev	3 of 10	General Rules & Regs	13	GRR, 2 nd Rev	3 of 10	2-20-09
13	GRR, 2 nd Rev	4 of 10	General Rules & Regs.	13	GRR, 1 st Rev	4 of 10	5-4-05
13	GRR, 2 nd Rev	5 of 10	General Rules & Regs	13	GRR, 1 st Rev	5 of 10	5-4-05
13	GRR, 2 nd Rev	6 of 10	General Rules & Regs.	13	GRR, 1 st Rev	6 of 10	5-4-05
13	GRR, 3 rd Rev	7 of 10	General Rules & Regs.	13	GRR, 2 nd Rev	7 of 10	2-20-09
13	GRR, 4 th Rev	8 of 10	General Rules & Regs.	13	GRR, 3 rd Rev	8 of 10	5-16-07
13	GRR, 2 nd Rev	9 of 10	General Rules & Regs.	13	GRR, 1 st Rev	9 of 10	5-4-05
13	GRR, 2 nd Rev	10 of 10	General Rules & Regs.	13	GRR, 1 st Rev	10 of 10	5-4-05
14	RSI, 8 th Rev	1 of 1	Rate Schedule Index	14	RSI, 7 th Rev	1 of 1	1-1-15
15	RS-1, 7 th Rev	1 of 1	Residential Service	15	RS-1, 6 th Rev	1 of 1	1-1-21
16	WNA Rider, 3 rd Rev	1 of 3	Weather Norm Rider	16	WNA Rider, 2 nd Rev	1 of 3	2-20-09
16	WNA Rider, 3 rd Rev	2 of 3	Weather Norm Rider	16	WNA Rider, 2 nd Rev	2 of 3	2-20-09
16	WNA Rider, 5 th Rev	3 of 3	Weather Norm Rider	16	WNA Rider, 4 th Rev	3 of 3	1-1-15
17	APR Rider, 1 st Rev	1 of 1	Accel Pipeline Repl Rider	17	APR Rider	1 of 1	5-4-05
17A	AVTS Rider, 3 rd Rev	1 of 1	Ad Valorem Tax Surcharge	17A	AVTS Rider, 2 nd Rev	1 of 1	1-1-15
17B	GSRS Rider, 15th-16th Rev	1 of 1			Gas System Reliability Surcharge	17B	
	GSRS Rider, 14th-15th Rev	1 of 1			8-1-21 <u>1-1-22</u>		
17C	TA Rider, New Sheet	1 of 1	Tax Adjustment Rider				
17D	FIS Rider, New Sheet	1 of 1	Ford Infrastructure Surcharge				
17E	URI, New Sheet	1 of 2	Storm Uri Gas Charge				
17E	URI, New Sheet	2 of 2	Storm Uri Gas Charge				

Issued January 27, 2022
Month Day Year

Effective February 1, 2022
Month Day Year

By _____
Signature

Robert W. Daniel, Director — Regulatory and Finance

~~21-BHCG-334-GIG~~
~~Approved~~
~~Kansas Corporation Commission~~
~~January 27, 2022~~
~~/s/ Lynn Retz~~

BLACK HILLS/KANSAS GAS UTILITY COMPANY, LLCd/b/a BLACK HILLS ENERGYSchedule GSRS Rider, ~~Fifteenth~~ Sixteenth

Revised

(Name of Issuing Utility)

KANSAS SERVICE AREAReplacing: Index No. 17B, GSRS Rider, ~~14th~~ 15th Revised, Sheet 1 of 1

(Territory to which schedule is applicable)

which was effective ~~8/1/2021~~ 1/1/2022No supplement or separate understanding
shall modify the tariff as shown hereon.

Sheet 1 of 1 Sheet

GAS SYSTEM RELIABILITY SURCHARGE RIDERAPPLICABILITY

This rider is applicable to every bill for service provided under each of the Company's sales and transportation rate schedules except where not permitted under a separately negotiated contract with a customer.

RATE

The Gas System Reliability Surcharge (GSRS) shall be applied to each monthly bill. The surcharge shall be as follows:

RS-1:	\$0.00 <u>\$0.74</u> per meter per month
SC-1, SCTS-A:	\$0.00 <u>\$1.20</u> per meter per month
SVF, SVTS-A:	\$0.00 <u>\$5.24</u> per meter per month
LVF, LVI, LVTS-A, OLVTS-A, LVTS:	\$0.00 <u>\$53.27</u> per meter per month
IR, ITS-A:	\$0.00 <u>\$3.60</u> per meter per month

DEFINITIONS AND CONDITIONS

1. The GSRS is intended to recover charges for natural gas public utility plant projects pursuant to K.S.A. 66-2001 through 66-2204.
2. The monthly GSRS charge shall be allocated among customers in the same manner as approved in Company's most recent rate proceeding.
3. The GSRS shall be charged to customers as a monthly fixed charge and not based on volumetric consumption. Such monthly charge shall not increase more than \$0.80 per residential customer over the base rates in effect for the initial filing of a GSRS. Thereafter, each filing shall not increase the monthly charge for more than \$0.80 per residential customer over the most recent filing of a GSRS.
4. At the end of each twelve-month calendar period the GSRS is in effect, the utility shall reconcile the differences between the revenues resulting from a GSRS and the appropriate pretax revenues as found by the Commission for that period and shall submit the reconciliation and a proposed GSRS adjustment to the Commission for approval to recover or refund the difference through adjustments of the GSRS charge.
5. All provisions of this rider are subject to changes made by order of the Commission.

Issued December 30, 2021
Month Day Year

Effective January 1, 2022
Month Day Year

By _____
Signature

Robert W. Daniel, Director — Regulatory and Finance

21-BHCG-418-RTS
Approved
Kansas Corporation Commission
December 30, 2021
/s/ Lynn Retz

THE STATE CORPORATION COMMISSION OF KANSAS

Index No. 2D

BLACK HILLS/KANSAS GAS UTILITY COMPANY, LLC

d/b/a BLACK HILLS ENERGY

(Name of Issuing Utility)

Schedule: SUPERSEDED INDEX, Sixteenth Revised

KANSAS SERVICE AREA

(Territory to which schedule is applicable)

Replacing: Index No. 2D, Superseded Index, 15th Revised
which was effective 2/1/2022

No supplement or separate understanding
shall modify the tariff as shown hereon.

Sheet 3 of 5 Sheets

New				Replaces			Eff.
Index	Sched.	Sheet	Desc./Title	Index	Schedule	Sheet	Date
10	GRR, 4 th Rev	3 of 4	General Rules & Regs	10	GRR, 3 rd Rev	3 of 5	2-20-09
10	GRR, 5 th Rev	4 of 4	General Rules & Regs	10	GRR, 4 th Rev	4 of 5	2-20-09
11	GRR, 2 nd Rev	1 of 4	General Rules & Regs	11	GRR, 1 st Rev	1 of 4	5-4-05
11	GRR, 3 rd Rev	2 of 4	General Rules & Regs.	11	GRR, 2 nd Rev	2 of 4	2-20-09
11	GRR, 2 nd Rev	3 of 4	General Rules & Regs	11	GRR, 1 st Rev	3 of 4	5-4-05
11	GRR, 2 nd Rev	4 of 4	General Rules & Regs.	11	GRR, 1 st Rev	4 of 4	5-4-05
12	GRR, 4 th Rev	1 of 4	General Rules & Regs.	12	GRR, 3 rd Rev	1 of 4	2-20-09
12	GRR, 3 rd Rev	2 of 4	General Rules & Regs.	12	GRR, 2 nd Rev	2 of 4	2-20-09
12	GRR, 3 rd Rev	3 of 4	General Rules & Regs	12	GRR, 2 nd Rev	3 of 4	5-4-05
12	GRR, 3 rd Rev	4 of 4	General Rules & Regs	12	GRR, 2 nd Rev	4 of 4	2-20-09
13	GRR, 2 nd Rev	1 of 10	General Rules & Regs	13	GRR, 1 st Rev	1 of 10	5-4-05
13	GRR, 3 rd Rev	2 of 10	General Rules & Regs	13	GRR, 2 nd Rev	2 of 10	2-20-09
13	GRR, 3 rd Rev	3 of 10	General Rules & Regs	13	GRR, 2 nd Rev	3 of 10	2-20-09
13	GRR, 2 nd Rev	4 of 10	General Rules & Regs.	13	GRR, 1 st Rev	4 of 10	5-4-05
13	GRR, 2 nd Rev	5 of 10	General Rules & Regs	13	GRR, 1 st Rev	5 of 10	5-4-05
13	GRR, 2 nd Rev	6 of 10	General Rules & Regs.	13	GRR, 1 st Rev	6 of 10	5-4-05
13	GRR, 3 rd Rev	7 of 10	General Rules & Regs.	13	GRR, 2 nd Rev	7 of 10	2-20-09
13	GRR, 4 th Rev	8 of 10	General Rules & Regs.	13	GRR, 3 rd Rev	8 of 10	5-16-07
13	GRR, 2 nd Rev	9 of 10	General Rules & Regs.	13	GRR, 1 st Rev	9 of 10	5-4-05
13	GRR, 2 nd Rev	10 of 10	General Rules & Regs.	13	GRR, 1 st Rev	10 of 10	5-4-05
14	RSI, 8 th Rev	1 of 1	Rate Schedule Index	14	RSI, 7 th Rev	1 of 1	1-1-15
15	RS-1, 7 th Rev	1 of 1	Residential Service	15	RS-1, 6 th Rev	1 of 1	1-1-21
16	WNA Rider, 3 rd Rev	1 of 3	Weather Norm Rider	16	WNA Rider, 2 nd Rev	1 of 3	2-20-09
16	WNA Rider, 3 rd Rev	2 of 3	Weather Norm Rider	16	WNA Rider, 2 nd Rev	2 of 3	2-20-09
16	WNA Rider, 5 th Rev	3 of 3	Weather Norm Rider	16	WNA Rider, 4 th Rev	3 of 3	1-1-15
17	APR Rider, 1 st Rev	1 of 1	Accel Pipeline Repl Rider	17	APR Rider	1 of 1	5-4-05
17A	AVTS Rider, 3 rd Rev	1 of 1	Ad Valorem Tax Surcharge	17A	AVTS Rider, 2 nd Rev	1 of 1	1-1-15
17B	GSRS Rider, 16 th Rev	1 of 1	Gas System Reliability Surcharge	17B	GSRS Rider, 15 th Rev	1 of 1	1-1-22
17C	TA Rider, New Sheet	1 of 1	Tax Adjustment Rider				
17D	FIS Rider, New Sheet	1 of 1	Ford Infrastructure Surcharge				
17E	URI, New Sheet	1 of 2	Storm Uri Gas Charge				
17E	URI, New Sheet	2 of 2	Storm Uri Gas Charge				

Issued _____
Month Day Year

Effective _____
Month Day Year

By _____
Signature

BLACK HILLS/KANSAS GAS UTILITY COMPANY, LLCd/b/a BLACK HILLS ENERGY

(Name of Issuing Utility)

Schedule GSRS Rider, Sixteenth Revised

KANSAS SERVICE AREA

(Territory to which schedule is applicable)

Replacing: Index No. 17B, GSRS Rider, 15th Revised, Sheet 1 of 1
which was effective 1/1/2022No supplement or separate understanding
shall modify the tariff as shown hereon.

Sheet 1 of 1 Sheet

GAS SYSTEM RELIABILITY SURCHARGE RIDERAPPLICABILITY

This rider is applicable to every bill for service provided under each of the Company's sales and transportation rate schedules except where not permitted under a separately negotiated contract with a customer.

RATE

The Gas System Reliability Surcharge (GSRS) shall be applied to each monthly bill. The surcharge shall be as follows:

RS-1:	\$0.74 per meter per month
SC-1, SCTS-A:	\$1.20 per meter per month
SVF, SVTS-A:	\$5.24 per meter per month
LVF, LVI, LVTS-A, OLVTS-A, LVTS:	\$53.27 per meter per month
IR, ITS-A:	\$3.60 per meter per month

DEFINITIONS AND CONDITIONS

6. The GSRS is intended to recover charges for natural gas public utility plant projects pursuant to K.S.A. 66-2001 through 66-2204.
7. The monthly GSRS charge shall be allocated among customers in the same manner as approved in Company's most recent rate proceeding.
8. The GSRS shall be charged to customers as a monthly fixed charge and not based on volumetric consumption. Such monthly charge shall not increase more than \$0.80 per residential customer over the base rates in effect for the initial filing of a GSRS. Thereafter, each filing shall not increase the monthly charge for more than \$0.80 per residential customer over the most recent filing of a GSRS.
9. At the end of each twelve-month calendar period the GSRS is in effect, the utility shall reconcile the differences between the revenues resulting from a GSRS and the appropriate pretax revenues as found by the Commission for that period and shall submit the reconciliation and a proposed GSRS adjustment to the Commission for approval to recover or refund the difference through adjustments of the GSRS charge.
10. All provisions of this rider are subject to changes made by order of the Commission.

Issued _____
Month Day Year

Effective _____
Month Day Year

By _____
Signature